Numbers and distribution of waterbirds in the Wadden Sea

Results and evaluation of 36 simultaneous counts in the Dutch-German-Danish Wadden Sea 1980-1991

Hans Meltofte, Jan Blew, John Frikke,
Hans-Ulrich Rösner and Cor J. Smit

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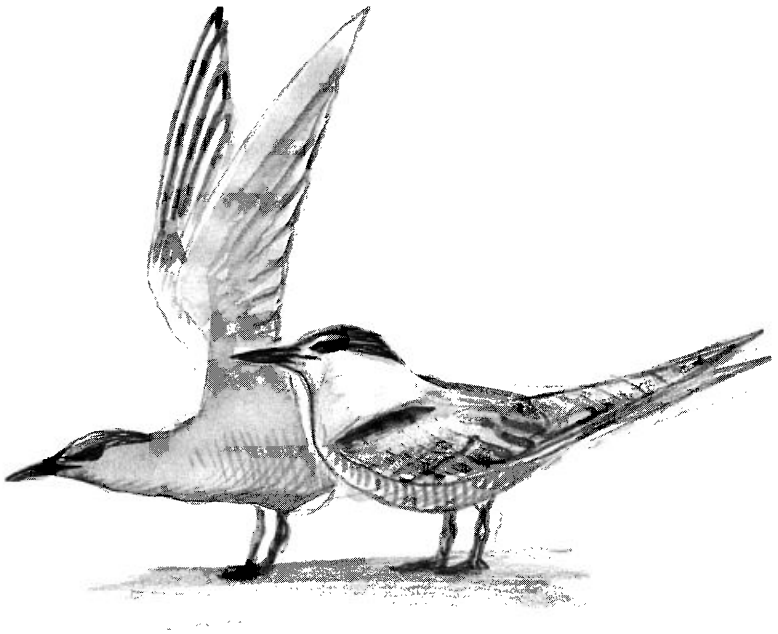

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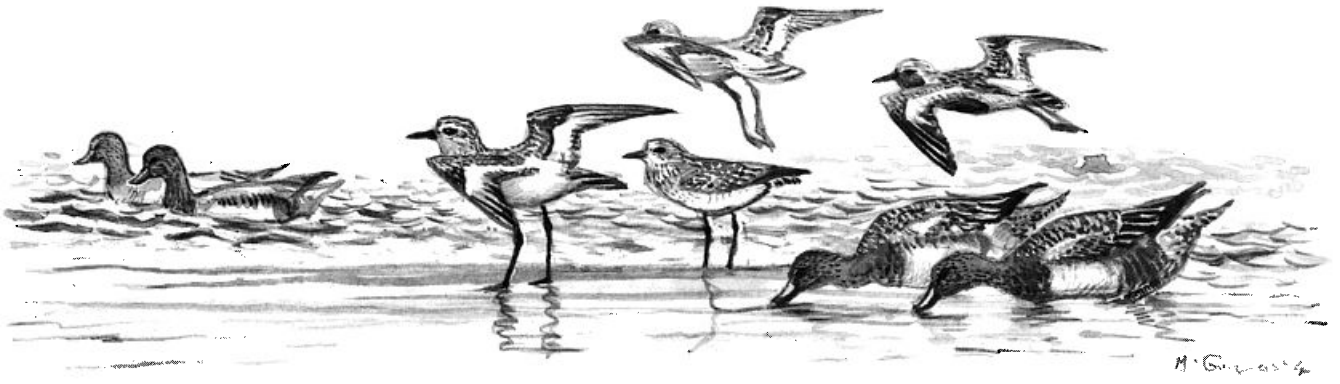


Summary

The Wadden Sea, along the North Sea coasts of the Netherlands, Germany and Denmark, constitutes one of the World's most important wetlands to migratory waterbirds. With 4,500 km^2 of inter-tidal flats, the Wadden Sea is the single most important staging and moulting area for waders on the East Atlantic flyway. Together with adjacent saltmarshes and grassland polders, the Wadden Sea area is also of outstanding international importance as a staging, moulting and wintering area for several populations of waterfowl.

This report presents total numbers and distribution of waterbirds in the Wadden Sea area based upon 36 simultaneous counts during 1980-1991. Some 10-12 million waterbirds are estimated to utilize the area during their annual life cycle. According to the 1% criterion of the Ramsar Convention, the area is of international importance for at least 52 geographically distinct populations of 41 species. In about 18 populations, more than half the individuals utilize the Wadden Sea at some stage of their annual life cycle. In about eight cases, almost the entire population occurs here.

An estimated 2.0-2.5 million ducks and geese visit the Wadden Sea during the year. For 11 populations of waterfowl the area is of international importance. More than half of the total numbers of six populations use the Wadden Sea during the year, as does almost the entire population of "Russian" Barnacle Geese *Branta leucopsis* and Dark-bellied Brent Geese *Branta b. bernicla*. Largest waterfowl numbers occur in late autumn, when more than 1 million are regularly present. Wigeon *Anas penelope*, Shelduck *Tadorna tadorna* and Eider *Somateria mollissima* are most numerous. For the two latter species, the Wadden Sea is the most important moulting area for the north European populations. The majority of the waterfowl remains in the area during mild winters, many moving further west and southwest during severe winters. Most ducks leave the Wadden Sea during early spring, but Dark-bellied Brents stay until May before departing to northern breeding areas.

An estimated 6-7 million waders visit the Wadden Sea each year. For about 30 populations of West Palearctic and Nearctic waders (20 species of coastal as well as inland waders) the area is of international importance, and in 12 of these more than half the population occurs in the Wadden Sea. Almost the entire flyway populations of Grey Plover *Pluvialis squatarola*, Siberian Knot *Calidris c. canutus*, West Palearctic Dunlin *Calidris a. alpina* and Bar-tailed Godwit *Limosa lapponica* visit the area each year.

Wader numbers are generally largest in autumn, when between 2.2 and 2.6 million were recorded, with Dunlin *Calidris alpina* and Oystercatcher *Haematopus ostralegus* as the most numerous species. Many of these stay to moult. About 1 million waders remain in the Wadden Sea during mild winters, when the area is of international importance for 11 populations. Again, Oystercatcher and Dunlin are most numerous. In severe winters, numbers are generally halved, and most are confined to the westernmost Dutch parts. In spring, numbers peak at between 1.8 and 2.2 million in early May. These are mainly arctic breeders, accumulating significant body reserves for onward migration to breeding grounds. In total, the Wadden Sea is of international importance for about 22 populations in spring; Dunlin, Knot and Bar-tailed Godwit are most numerous. The numbers of summering non-breeding waders of at least five species also constitute international importance.

Among gulls and terns, the Wadden Sea is of international importance for at least nine populations. Most of these also breed in internationally important numbers. Perhaps 2.0-2.5 million birds visit the area, but overall numbers are difficult to estimate. Numbers peak in early autumn, when about 600,000 gulls and terns were recorded. Many more may be present, however, as many feed at sea or alternate between feeding inland and in the Wadden Sea. Herring Gull *Larus argentatus* and Black-headed Gull *Larus ridibundus* are most numerous in autumn, while the Common Gull *Larus canus* takes over the position from the Black-headed Gull in winter.

Most waterbirds occur throughout the Wadden Sea, but the distribution of major concentrations and densities differ between species and populations. For example, in severe winters the relatively mild Dutch part holds the highest numbers of most species, whereas a number of arctic waders and geese concentrate in the central Schleswig-Holstein part in spring. The Danish and Schleswig-Holstein parts hold the highest densities of Dunlin in spring and autumn, and the German parts have by far the largest concentrations of moulting Shelduck and Eider in summer and early autumn.

In recent decades, protection status of the Wadden Sea ecosystem has improved considerably. Before that, most adjacent saltmarshes and wetlands had been converted to agriculture, so that almost all lowlands around the Wadden Sea are now embanked by seawalls. During this century even major parts of the silty inter-tidal flats have been embanked. Major immediate threats are now posed by oil spills, eutrophication, excessive mussel and cockle fisheries, oil and natural gas exploration and exploitation, together with increasing recreational activities. A number of recommendations are given for appropriate improvements of the protection and monitoring of the staging waterbird populations in the Wadden Sea.

Samenvatting

De Waddenzee, gelegen langs de kusten van Nederland, Duitsland en Denemarken, is één van de belangrijkste gebieden voor wadvogels ter wereld. Met een oppervlakte van 4500 km^2 droogvallende wadplaten is het veruit het belangrijkste doortrek- en ruigebied voor steltlopers op de Oost Atlantische vliegroute. Samen met de aan de Waddenzee grenzende kwelders en polders is het gebied bovendien van zeer groot belang voor pleisterende, ruiende en overwinterende populaties eenden, ganzen en andere watervogels.

In het voor U liggende rapport wordt een overzicht gegeven van de resultaten van 36 tellingen die werden uitgevoerd tussen 1980 en 1991. Een belangrijk deel wordt ingenomen door de telgegevens zelf, daarnaast worden de aantallen en de verspreiding van de aanwezige vogels nader geëvalueerd. Geschat wordt dat jaarlijks 10-12 miljoen watervogels gedurende korte of langere tijd van het gebied gebruik maken. Het Waddengebied is van internationaal belang (in de betekenis van het overschrijden van 1% criteria volgens de normen van de Ramsar Conventie) voor tenminste 52 verschillende biogeografische populaties, behorende tot 41 soorten. Van 18 populaties maakt meer dan de helft van het totaal aantal individuen van het Waddengebied gebruik, in ongeveer 8 gevallen is vrijwel de gehele populatie gedurende een bepaalde tijd in het gebied aanwezig.

Naar schatting verblijven 2,0-2,5 miljoen eenden en ganzen jaarlijks gedurende enige tijd in het Waddengebied, waarbij het gebied van internationaal belang is voor 11 verschillende populaties. Van 6 populaties maakt meer dan 50% van het totaal aantal vogels gebruik van het Waddengebied, in het geval van de "Russische" Brandgans en de Zwartbuikrotgans is vrijwel de gehele populatie gedurende enige tijd in het gebied aanwezig. De grootste aantallen eenden en ganzen worden geteld in het tweede deel van de herfst. Hun totale aantal kan in deze tijd van het jaar oplopen tot meer dan 1 miljoen exemplaren. De Smient, Bergeend en de Eidereend zijn de meest talrijke soorten. Voor de laatste 2 is het Waddengebied tevens het belangrijkste ruigebied in noordwest Europa. In zachte winters overwintert het grootste deel van deze vogels in het Waddengebied. Bij invallende strenge kou trekt een deel weg naar verder westelijk en zuidwestelijk gelegen overwinteringsgebieden. De meeste eenden verlaten het Waddengebied al in het vroege voorjaar, de Zwartbuikrotganzen vertrekken echter pas in mei.

Naar schatting maken 6-7 miljoen steltlopers jaarlijks gebruik van het Waddengebied. Voor ongeveer 30 verschillende populaties, zowel afkomstig uit het Palearctische als uit het Nearctische gebied, is het Waddengebied van internationaal belang. Deze 30 populaties behoren tot 20 soorten, zowel soorten die alleen langs de kust voorkomen als typische binnenland-steltlopers. Van 12 biogeografische populaties is meer dan de helft van de populatie gedurende enige tijd in het Waddengebied present. In het geval van de Zilverplevier, Siberische Kanoetstrandloper, west palearctische Bonte Strandloper (ondersoort *C. a. alpina*) en Rosse Grutto is vrijwel de gehele vliegroute-populatie gedurende enige tijd in het Waddengebied aanwezig.

Steltlopers zijn het meest talrijk in de herfst. Er zijn dan 2,2 tot 2,6 miljoen van deze vogels aanwezig. De Bonte Strandloper en de Scholekster zijn de meest talrijke soorten. Een groot deel van de aanwezige steltlopers gebruikt het gebied om tenminste een deel van de slagpennen te ruien. In zachte winters zijn ongeveer 1 miljoen steltlopers in het Waddengebied aanwezig, in deze tijd van het jaar is het gebied van internationaal belang voor 11 verschillende populaties steltlopers. Ook's winters zijn de Bonte Strandloper en de Scholekster de meest talrijke soorten. In strenge winters vertrekt ongeveer de helft van het aantal steltlopers, de meeste achterblijvers concentreren zich in het westelijke deel van de Nederlandse Waddenzee. In het voorjaar zijn de grootste aantallen steltlopers aanwezig in begin mei. In deze tijd bedraagt hun aantal 1,8 tot 2,2 miljoen. Dit zijn voornamelijk vogels die in de arctis broeden en die tijdens de trek het Waddengebied gebruiken om eiwit- en vetvoorraden aan te leggen voor de volgende etappe naar de broedgebieden. In het voorjaar is het Waddengebied van internationaal belang voor 22 verschillende populaties. De Bonte Strandloper, Kanoetstrandloper en Rosse Grutto zijn dan het meest talrijk. Voor tenminste 5 soorten is het aantal overzomerende niet-broedende onvolwassen vogels van internationaal belang.

Het Waddengebied is bovendien van internationaal belang voor tenminste 9 verschillende populaties meeuwen en sterns. Van de meeste soorten kunnen ook de aantallen die als broedvogel aanwezig zijn als internationaal belangrijk worden gekwalificeerd. Wellicht 2,0-2,5 miljoen meeuwen en sterns maken van het Waddengebied gebruik, maar het maken van een goede schatting van de aanwezige aantallen is voor deze vogelgroep niet eenvoudig. De grootste aantallen zijn aanwezig in de herfst. In deze tijd kan het totale aantal worden geschat op 600.000 vogels. Dit aantal is waarschijnlijk echter nog hoger. Zo kunnen veel meeuwen en sterns op de Noordzee foerageren (maar soms ook aanwezig zijn in het Waddengebied) terwijl grote aantallen afwisselend foerageren in het Waddengebied en in binnendijks gelegen gebieden. Wanneer ze tijdens een telling in het binnenland aanwezig zijn worden ze uiteraard in het Waddengebied niet geregistreerd. De Zilvermeeuw en Kokmeeuw zijn in het najaar de meest talrijke soorten, de Stormmeeuw neemt in de winter de plaats van de Kokmeeuw over.

De meeste watervogelsoorten verspreiden zich tot op zekere hoogte gelijkmatig over het hele Waddengebied maar bij sommige soorten en populaties kunnen grote verschillen in dichtheden tussen gebieden worden vastgesteld. In strenge winters, bijvoorbeeld, zijn de grootste aantallen aanwezig in het relatief warme westelijke deel van de Nederlandse Waddenzee. In het voorjaar worden de grootste aantallen arctisch broedende steltlopers en ganzen geteld in het centrale deel van de Waddenzee in Schleswig-Holstein. Hier, en in het Deense Waddengebied, zijn in het voor- en najaar ook de hoogste dichtheden Bonte Strandlopers aanwezig. In de Duitse Waddenzee zijn in de zomer en vroege herfst ook de grootste concentraties ruiende Bergeenden en Eidereenden vastgesteld.

Tijdens de laatste 10-20 jaren zijn de beschermingsmaatregelen voor het Waddenzee-ecosysteem aanzienlijk verbeterd. In de loop der tijd zijn echter grote stukken laag gelegen land, grenzend aan het Waddengebied, ingepolderd. In het verleden zijn nog grote stukken Waddenzee en aangrenzende kwelders door inpolderingen verloren gegaan en vaak omgezet in landbouwgebied. Ook in de 20e eeuw zijn nog belangrijke delen van de wadplaten van de Waddenzee ingepolderd. De belangrijkste actuele bedreigingen zijn een olieramp, eutrofiëring, overmatige mossel- en kokkelvisserij, exploratie en exploitatie-boringen ten behoeve van olie en gaswinning en de verstorende effecten van recreatie. In het voor U liggende rapport worden een aantal aanbevelingen gedaan, zowel ten behoeve van een betere bescherming van het gebied als voor de monitoring van de in het Waddengebied verblijvende wad- en watervogels.

Zusammenfassung

Das Wattenmeer entlang der Nordseeküste der Niederlande, Deutschlands und Dänemarks ist eines der bedeutendsten Feuchtgebiete der Welt für rastende Wat- und Wasservögel. Mit 4500 km^2 Wattfläche ist es das wichtigste zusammenhängende Gebiet für rastende und mausernde Watvögel (waders) des Ostatlantischen Flugwegs. Zusammen mit den angrenzenden Salzwiesen und Kögen hat es ebenfalls eine herausragende internationale Bedeutung als Rast-, Mauser- und Überwinterungsgebiet für Gänse und Enten (waterfowl).

Auf der Basis von 36 Synchronzählungen des gesamten Wattenmeers zwischen 1980 und 1991 werden in diesem Bericht die Gesamtzahlen und die räumliche und zeitliche Verteilung der Wat- und Wasservögel des Wattenmeers dargestellt und bewertet. Etwa 10-12 Millionen Wat- und Wasservögel nutzen das Gebiet im Laufe ihres Jahreszyklus. Das Wattenmeer hat internationale Bedeutung im Sinne der Ramsar-Konvention für mindestens 52 geographisch getrennte Populationen von 41 Arten. Von ungefähr 18 Populationen sind es mehr als die Hälfte und in acht Fällen praktisch alle Individuen, die das Gebiet im Laufe ihres Jahreszyklus nutzen.

Etwa 2,0-2,5 Millionen Gänse und Enten kommen während eines Jahres ins Wattenmeer. Für 11 Populationen von diesen ist das Wattenmeer von internationaler Bedeutung. Von sechs Populationen nutzen mehr als die Hälfte der Individuen dieses Gebiet, und praktisch die gesamte Population der russischen und baltischen Nonnengans sowie der dunkelbäuchigen Unterart der Ringelgans treten hier auf. Die höchsten Zahlen werden regelmäßig mit 1 Million Gänse und Enten im Spätherbst erreicht. Am zahlreichsten sind Pfeifenten, Brandgänse und Eiderenten. Für die nordeuropäischen Populationen der beiden letzten Arten ist das Wattenmeer der wichtigste Mauserplatz. Die Mehrzahl der Gänse und Enten verbleibt in milden Wintern im Gebiet; in kalten Wintern dagegen kommt es zu Verlagerungen nach Westen und Südwesten. Während die meisten Enten das Wattenmeer im frühen Frühjahr verlassen, bleiben die Dunkelbäuchigen Ringelgänse bis Mai, bevor sie in die nördlichen Brutgebiete ziehen.

Bei Watvögeln (waders) wird die Gesamtzahl im Laufe eines Jahres im Wattenmeer auf 6-7 Millionen geschätzt. Das Gebiet ist für ungefähr 30 Populationen westpaläarktischer und nearktischer Watvögel von 20 Arten von internationaler Bedeutung. Einige dieser Arten ziehen nicht nur an der Küste, sondern auch im Binnenland in großer Zahl durch. Von 12 Populationen nutzen mehr als die Hälfte der Individuen das Wattenmeer. Fast die gesamten Populationen von Kiebitzregenpfeifer, sibirischem Knutt, westpaläarktischem Alpenstrandläufer und Pfuhlschnepfe suchen das Wattenmeer jährlich auf.

Die höchsten Watvogelzahlen werden mit 2,2 bis 2,6 Millionen im Herbst erreicht, wobei Alpenstrandläufer und Austernfischer die häufigsten Arten darstellen. Viele Watvögel mausern im Wattenmeer. In milden Wintern überwintern ungefähr 1 Million Watvögel und das Gebiet hat immer noch für 11 Populationen internationale Bedeutung. Wiederum sind Alpenstrandläufer und Austernfischer am zahlreichsten. In kalten Wintern allerdings halbieren sich die Zahlen, wobei sich die meisten Watvögel dann im westlichen Teil des niederländischen Wattenmeeres aufhalten. Die Frühjahrszahlen erreichen Anfang Mai mit 1,8 bis 2,2 Millionen Watvögeln ihren Höchststand. Dieses sind meist Brutvögel der Arktis, die in dieser Zeit die entscheidenden Fettreserven für den Weiterzug in ihre Brutgebiete ansammeln. Im Frühjahr erreicht das Wattenmeer internationale Bedeutung für mindestens 22 Populationen. Davon sind Alpenstrandläufer, Knutt und Pfuhlschnepfe am häufigsten. Von mindestens fünf Populationen arktischer Arten kommen auch nichtbrütende Übersommerer noch in international bedeutenden Zahlen vor.

Das Wattenmeer ist weiterhin für mindestens neun Populationen von Möwen und Seeschwalben von internationaler Bedeutung. Von den meisten dieser Populationen erreichen bereits die Brutbestände diesen Stellenwert. Das Gebiet wird wahrscheinlich von 2,0-2,5 Millionen Vögeln dieser Arten aufgesucht, wobei die Gesamtzahl schwer abzuschätzen ist. Die höchsten Zahlen wurden mit rund 600,000 im frühen Herbst festgestellt. Es können aber weit mehr Vögel anwesend gewesen sein, da viele auf offener See fressen, oder zwischen Binnenland und Wattenmeer hin- und herwechseln. Im Herbst sind Silbermöwe und Lachmöwe am häufigsten, im Winter Silbermöwe und Sturmmöwe.

Die meisten der behandelten Arten kommen zwar überall im Wattenmeer vor, aber die Verteilung der wichtigsten Konzentrationen unterscheidet sich für die Arten und Populationen. So werden in kalten Wintern von den meisten Arten Höchstzahlen in dem relativ milden niederländischen Teil des Wattenmeers ermittelt, während sich im Frühjahr viele arktische Watvögel und Gänse im mittleren schleswig-holsteinischen Teil konzentrieren. Die höchsten Dichten von Alpenstrandläufern im Frühjahr und im Herbst werden in dänischen und schleswig-holsteinischen Gebieten erreicht. Mausernde Brandgänse und Eiderenten erlangen die bei weitem höchsten Konzentrationen im deutschen Wattenmeer.

Der Schutzstatus des Wattenmeers wurde in den letzten Jahrzehnten erheblich verbessert. Davor allerdings waren die meisten Salzwiesen und angrenzenden Feuchtgebiete in landwirtschaftliche Nutzung überführt worden, so daß heutzutage fast alle Marschgebiete durch Deiche vom Wattenmeer getrennt sind. Während dieses Jahrhunderts sind sogar größere Teile der eigentlichen Wattflächen eingedeicht worden. Größere unmittelbare Bedrohungen gehen derzeit von Ölunfällen, Eutrophierung, der Übernutzung der Muschelbestände, der Erschließung von Öl- und Gasvorkommen sowie auch von der zunehmenden Nutzung des Wattenmeers durch freizeitsuchende Menschen aus.

Als Konsequenz werden eine Reihe von Empfehlungen für die angemessene Verbesserung von Schutz und Monitoring der Rastvogel-Populationen des Wattenmeers gegeben.

Sammenfatning

Vadehavet langs Nordsøkysten af Holland, Tyskland og Danmark udgør et af Verdens vigtigste vådområder for trækkende vandfugle. Med 4.500 km^2 tidevandsflader er Vadehavet det vigtigste område for rastende og fældende vadefugle på den østatlantiske trækvej. Sammen med de tilstødende forlandsarealer og inddigede marskområder er Vadehavet også af stor international betydning som raste-, fældnings- og overvintringsområde for adskillige bestande af gæs og ænder.

I nærværende rapport præsenteres de totale antal af vandfugle og deres fordeling baseret på 36 samtidige tællinger i hele Vadehavet i årene 1980-91. Det skønnes, at omkring 10-12 mio. vandfugle benytter området i løbet af året. Vadehavet er af international betydning for mindst 52 geografisk adskilte bestande af 41 arter. Mere end halvdelen af individerne af omkring 18 bestande udnytter området en større eller mindre del af året, og for omkring otte af disse forekommer næsten hele bestanden i Vadehavet hvert år.

Skønsvis besøger 2,0-2,5 mio. ænder og gæs Vadehavet i løbet af året, og området er af international betydning for 11 bestande. Af seks bestande optræder mere end halvdelen af individerne i Vadehavet; for "russiske" Bramgæs og Mørkbugede Knortegæs gælder dette næsten hele bestanden. De største antal andefugle forekommer i det sene efterår, hvor mere end 1 mio. regelmæssigt er til stede. Pibeand, Gravand og Ederfugl er de talrigste. For de to sidstnævnte arter er Vadehavet det vigtigste fældningsområde for de nordeuropæiske bestande. Hovedparten af andefuglene forbliver i Vadehavet i milde vintre, mens mange flytter længere mod vest og syd i isvintre. De fleste ænder forlader Vadehavet i det tidlige forår, mens de Mørkbugede Knortegæs bliver til maj, før de trækker til deres arktiske ynglepladser.

Skønsvis besøges Vadehavet hvert år af 6-7 mio. vadefugle, og området er af international betydning for omkring 30 bestande af 20 arter, der yngler i det meste af Vestpalæarktis samt Grønland og Nordcanada. Mere end halvdelen af individerne af 12 bestande udnytter Vadehavet i løbet af året. For Strandhjejle, "sibirisk" Islandsk Ryle, "vestpalearktisk" Almindelig Ryle og Lille Kobbersneppe vedrører dette næsten hele bestanden.

Antallet af vadefugle er generelt højest om efteråret, hvor mellem 2,2 og 2,6 mio. blev registreret. Alm. Ryle og Strandskade er de talrigste, og mange tilbringer længere tid i Vadehavet, mens de fælder. Omkring 1 mio. vadefugle forbliver i Vadehavet i milde vintre, hvor området er af international betydning for 11 bestande. Også da er Strandskade og Alm. Ryle de talrigste. I isvintre halveres antallene, og de fleste vadefugle opholder sig i den hollandske del. Om foråret topper vadefuglene med mellem 1,8 og 2,2 mio. først i maj. Disse er overvejende arktiske ynglefugle, der opbygger næringsreserver til det videre træk. Sammenlagt er Vadehavet om foråret af international betydning for omkring 22 bestande, hvoraf Alm. Ryle, Islandsk Ryle og Lille Kobbersneppe er de talrigste. For mindst fem arter er Vadehavet tillige af interantional betydning som oversomringsområde for ikke-ynglende fugle.

Blandt mågerne og ternerne er Vadehavet af international betydning for mindst ni bestande. De fleste af disse yngler her også i internationalt betydningsfulde antal. Måske besøges området hvert år af omkring 2,0-2,5 mio. måger og terner, men antallet er vanskeligt at vurdere. Der er flest i det tidlige efterår, hvor omkring 600.000 blev registreret. Der kan imidlertid være mange flere til stede, idet mange søger føde på havet eller veksler mellem at opholde sig i Vadehavet og i indlandet. Sølvmåge og Hættemåge er de talrigste om efteråret, mens Stormmågen overtager Hættemågens position om vinteren.

De fleste vandfugle forekommer i alle dele af Vadehavet, men fordelingen af hovedkoncentrationer og tætheder af de enkelte arter og bestande varierer betydeligt. F.eks. er der flest fugle i den forholdsvis milde vestlige del af det hollandske Vadehav i isvintre, mens mange arktiske vadefugle og gæs er koncentreret i det centrale slesvig-holstenske Vadehav om foråret. Der er størst tæthed af Alm. Ryler i de danske og slesvig-holstenske dele om foråret og efteråret, og det tyske Vadehav har langt de største koncentrationer af fældende Gravænder og Ederfugle om sommeren og det tidlige efterår.

Den formelle beskyttelse af Vadehavet er styrket betydeligt gennem de seneste årtier. Men inden da var de fleste marskområder blevet inddiget og delvis opdyrket, således at næsten alle de lavtliggende kyster omkring Vadehavet nu er afgrænset af diger. I dette århundrede er betydelige dele af de mest mudrede og højproduktive vadeflader også blevet inddiget. I dag udgøres de mest akutte trusler af olieforurening, eutrofiering, overfiskning af muslinger, efterforskning og udvinding af naturgas, samt turisme og rekreative aktiviteter. På denne baggrund giver rapporten en række anbefalinger af passende forbedringer af beskyttelsen og overvågningen af de rastende vandfuglebestande i Vadehavet.

Introduction

The Dutch-German-Danish Wadden Sea is considered to be one of the Worlds most important coastal wetlands. The huge flocks of migratory waders, ducks, geese, gulls and terns are amongst the most spectacular phenomena to be witnessed in the Wadden Sea, and they have been focal to the efforts to protect the entire ecosystem. Despite this, only a few simultaneous counts – covering waders only – had been performed in the whole Wadden Sea before 1980.

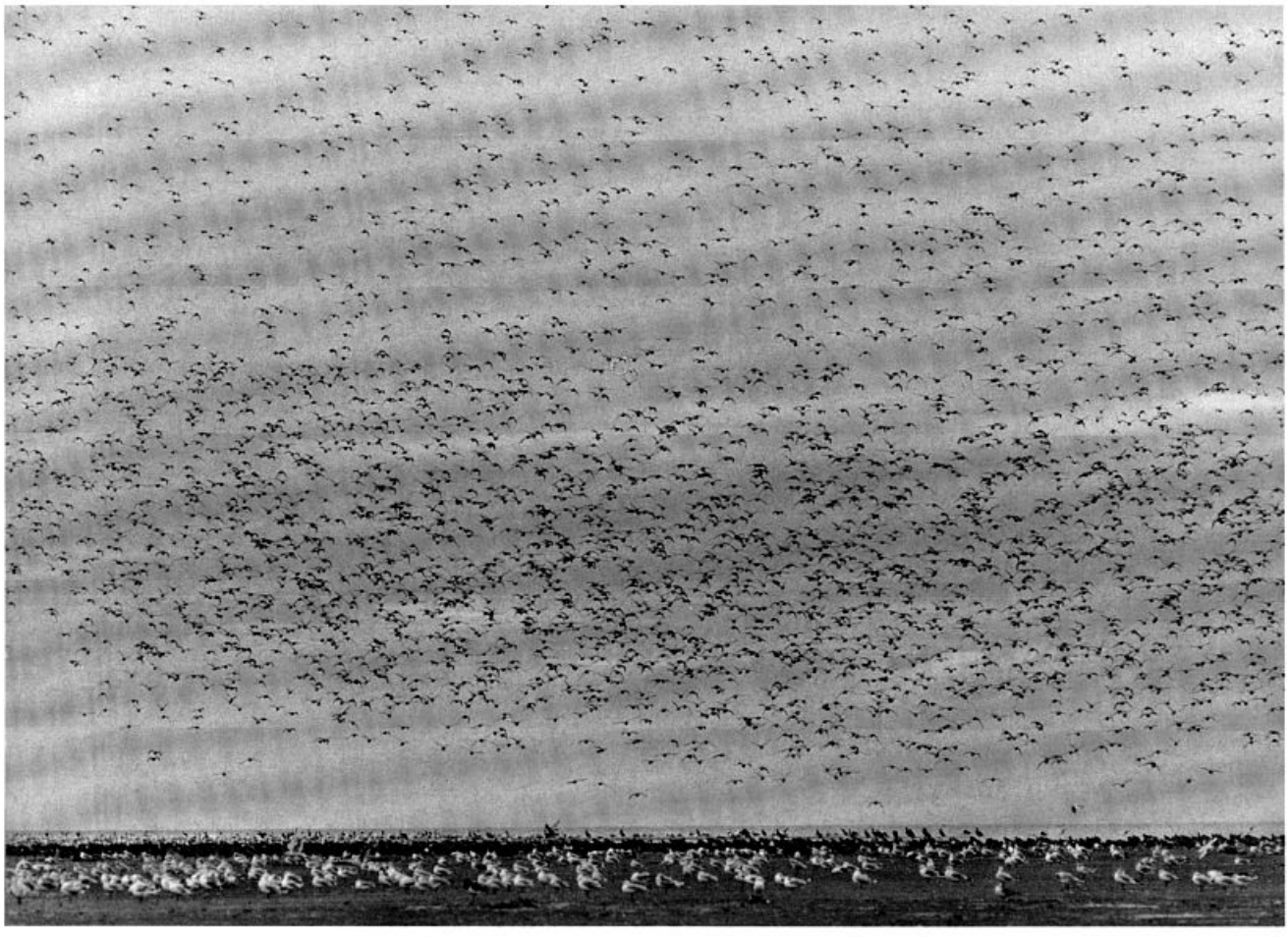
Many studies, including counts at national level had taken place especially during the 2-3 preceding decades. These provided the data set upon which the first summary of existing knowledge was based in "Birds of the Wadden Sea" (Smit & Wolff 1981). This book, being part of the series "Ecology of the Wadden Sea" (Wolff 1983) clearly highlighted the enormous importance of the Wadden Sea for waders and other waterbird species. Its production also played a stimulating role in bringing together scientists as well as governmental and non governmental organisations from the three Wadden Sea countries in early spring 1980 in order to discuss a more comprehensive programme of simultaneous counts. At that time, a series of 3-4 annual counts for a three year period was agreed on.

After encouraging results were obtained during the three initial years, the scheme was continued, and up until 1991 a total of 36 such counts had been carried out: 12 in mid-winter, 12 in spring, one in mid-summer, and 11 in autumn.

This report presents the results of these 36 counts. For the 41 species for which the Wadden Sea is of international importance, the results are assessed in relation to flyway populations, and the importance of the Wadden Sea in the annual cycle of the individual species and populations is evaluated: i.e. as a wintering area, staging and refuelling site for further migration, moulting area, and summering area for non-breeding immatures.

The results are presented in tables and maps showing the distribution of the birds between 29 sub-areas in the entire Wadden Sea at different times of the year. We do not, however, intend to go into a detailed ecological analysis of bird distribution in relation to food resources or habitat requirements of the individual species. Finally the needs for further protection, management and monitoring of the Wadden Sea ecosystem are discussed in relation to the needs of the migratory waterbirds.

Internationally important breeding populations of waterbirds in the Wadden Sea are only briefly referred to. Besides these, the area may be of international importance to a number of other breeding as well as migrant bird populations such as Gull-billed Tern, Shore Lark, Twite and Snow Bunting. Furthermore, the adjacent parts of the North Sea hold internationally important concentrations of divers and Common Scoter.



Material and methods

Simultaneous counts before 1980

Co-ordinated counts of wildfowl (Anatidae) and waders (Charadrii) in the Wadden Sea were initiated within most countries during the 1960s. In the Danish part wildfowl counts in 1965-1973 included a number of complete aerial surveys, and in Germany several counts were supplemented by aerial coverage of inaccessible sandflats etc.

In Schleswig-Holstein, monthly counts at many sites started in 1965. Niedersachsen followed with monthly counts in September to April from 1966, while in the Danish section monthly counts have only been made since the late 1970s. Major works presenting data from the 1960s and 1970s were published by Joensen (1974), Busche (1980), Meltofte (1980), Smit & Wolff (1981), Eber & Niemeyer (1982) and Zegers (1985).

The first attempt to carry out simultaneous waterbird counts throughout the entire Wadden Sea dates back to 1971, but the first successful complete count took place on 1/2 September 1973. Concentrating on waders at high tide roosts, it provided a grand total of almost 2 million individuals. More or less complete counts were made again in January and in late April 1975 when about 716,000 and 847,000 waders, respectively, were recorded (Prater 1974, Smit & Wolff 1981).

The counts 1980-1991

In addition to the international mid-winter waterbird counts in the West Palearctic, count dates for this project were selected to coincide with peak seasons for the most important species of migratory waterbirds in the Wadden Sea. Over the years, the emphasis has shifted to concentrate more on long-term monitoring. Therefore, in each year one count was carried out preferentially in early May and one in September (Table 1), when a number of the most important passage populations peak. The disadvantage of this approach is that there were few early spring counts, when ducks, geese and some waders can be present in large numbers, and only one count has been carried out in early autumn, when adult waders arrive in the Wadden Sea. Thus we only have two counts from early-mid March, two in mid-late April and one in mid August, while May and the period September-October-November have better coverage.

Unfortunately, a few counts were missed totally in some sections. Thus, no counts were made in the Netherlands in October 1982 and in late April 1986. In Niedersachsen, no data are available from counts made in January 1980 nor in June 1991, and in Schleswig-Holstein no count was made in January 1980 (Table 1). Furthermore, breeding species like Oystercatcher, Avocet, Lapwing, Redshank, gulls and terns were not counted in the breeding season in some parts of the Dutch Wadden Sea, and gulls were not counted in the Danish part in January 1980. Other counters may have ignored these species as well, but in many cases it is not possible to determine which species were counted and which were not. This adds to the uncertainty especially of the spring counts of these species.

Nearly all counts took place around high tide, when birds are concentrated at high tide roosts or at least close to the shore, where they can be counted effectively by observers. Whenever possible, weekends were chosen when the entire Wadden Sea could be covered during the same high tide. However, because of the seven hours time lag in high tide between Den Helder in the Netherlands and Esbjerg in Denmark, in mid-winter, when the days are short, it was not always possible to count all parts of the Wadden Sea in the same weekend. Thus the mid-winter counts sometimes had to be split between two weekends (Table 1). When certain areas could not be counted on the exact date (due to inclement weather or other circumstances), counts from within ±8 days were accepted for the analysis – in a few cases ±16 days. Participants were advised to count on the Saturday, so that Sunday was an alternative in case of bad weather.

Ideally, counts should have been performed from both ground and air, but this was only achieved for almost all counts in Denmark and during the first two years in Germany (Table 1). Specific aerial counts for geese, Eiders and moulting Shelducks have been performed in the German Wadden Sea since 1988 and of Eiders and other diving ducks in the Netherlands in most years since 1987.

The lack of aerial coverage in Germany and the Netherlands during the simultaneous counts means that off-shore high tide roosts on sandbanks and islets, together with many diving ducks on the water could often not be covered. This problem is considered further below and in the next two chapters.

Counts from the ground were normally carried out by one or a small group of observers, who covered a particular high tide roost or a section of the coast – either on the mainland or on one of the many Wadden Sea islands. The count units used in the Wadden Sea and the counting methods are presented in reports by Zegers (1985) and Zegers & Kwint (1992) for the Netherlands, Knief (1982), Kempf *et al.* (1989), Hälterlein *et al.* (1991), Rösner *et al.* (in press) and Blew & Heckenroth (in press) for Germany, together with Meltofte (1980) and Laursen *et al.* (in press) for Denmark. Roosting and feeding waterfowl in the polders and wetlands adjacent to the sea-walls were most often included in the counts. The inclusion of such areas were mainly based on an subjective evaluation of the connection (i.e. regular exchange of birds) with the Wadden Sea. Thus, the newly reclaimed Beltringharder Koog in Schleswig-Holstein was included, while Lauwersmeer in the Netherlands was not. The seaward limits to the counting areas were in most cases simply set by the distance birds could be observed from the islands etc. However, during aerial counts, a few kilometres outside islands and sandbanks were normally included.

Due to long distance or poor visibility, flocks of waterbirds could sometimes not be identified to species. In ducks and waders this rarely involved more than a few thousand individuals per site. In general, total numbers of unidentified ducks did not exceed more than about 5,000 birds in each "national" part of the Wadden Sea (Appendix 1). The major exceptions were 31,900 in Schleswig-Holstein in November 1987, 15,400 in Niedersachsen in March 1984 and 10,450 also in Niedersachsen in November 1987. Amongst waders, the major exceptions were 103,300 in Niedersachsen in September 1980 and 75,800 in Schleswig-Holstein in May 1988. Furthermore, between 16,800 and 30,700 unidentified waders were recorded in the German and Dutch parts in November 1980, May and October 1982, October 1984, November 1987, May and September 1988, May 1990 and May 1991. Amongst gulls, large numbers remained unidentified

Table 1. Coverage and counting conditions. NL = the Netherlands, NS = Niedersachsen, SH = Schleswig-Holstein, DK = Denmark. G = ground counts, A = aerial coverage, - = no count. Mist = visibility <10 km, fog = <1 km. Wind force in Beaufort.

Date	Coverage NL	NS	SH	DK	Counting conditions
19.01.80	G	-	-	-/A	Fresh wind (SE 3-5), light frost, poor visibility, some ice in all parts, inland areas frozen (Danish part only counted from plane on 15 January).
19.04.80	G	G	G/A	G/A	Rain or showers with snow and hail, strong to galeforce wind (NW 6-9), otherwise good visibility.
13.09.80	G	G/A	G/A	G/A	Strong to galeforce wind (SW-NW 6-9), showers, overcast, good visibility.
08.11.80	G	G/A	G/A	G/A	Slight to strong wind (NE-SW 2-6), partly overcast, some fog, but otherwise moderate or good visibility, some ice in DK and SH parts.
17.01.81	G	G/A	G/A	G/A	Light to fresh breeze (N-E 1-5), partly overcast, snow showers, otherwise good visibility, light frost, *extensive ice cover in DK part and in sheltered parts in Germany* (NL part counted on 10 January).
07.03.81	G	G/A	G/A	G/A	Strong to galeforce wind (SW 6-9), overcast, rain, and mist/fog.
26.09.81	G	G/A	G/A	G/A	Moderate to strong wind (SE-SW 4-6), overcast, some showers, some mist, otherwise moderate or good visibility.
09.01.82	G	G/A	G/A	G/A	Clear weather, slight to fresh wind (NE-E 2-5), frost, *extensive ice cover in all parts*, snow on land in DK.
08.05.82	G	G	G	G/A	Rain or showers, moderate to strong wind (W 4-6), overcast, otherwise good visibility.
14.08.82	G	G	G	G/A	Fine weather, gentle breeze (W 3).
16.10.82	-	G	G	G/A	Light wind (SW 1), occasional showers, good visibility.
15.01.83	G	G	G	G/A	Fresh to galeforce wind (NW 5-8), occasional hail or sleet showers, otherwise good visibility, no ice.
14.05.83	G	G	G	G/A	Slight to fresh wind (SE-SW 2-5), partly overcast, good visibility.
10.09.83	G	G	G	G/A	Slight to fresh wind (SE-SW 2-5), partly overcast, some rain and mist, otherwise good visibility.
21.01.84	G	G	G	G/A	Clear weather, though moderate visibility in NL, gentle to moderate wind (NE-SE 3-4), light frost, some ice, inland areas frozen.
17.03.84	G	G	G	G/A	Slight to strong wind (NE-SE 2-6), partly overcast, good visibility
13.10.84	G	G	G	G/A	Some light rain, gentle to fresh wind (SW-NW 3-5), partly overcast, moderate or poor visibility.
19.01.85	G	G/A	G	G/A	Calm weather (N-NE 0-1), good visibility (though fog in a few places), frost, *extensive snow and ice cover in all parts* (NS and NL parts counted on 12 January).
18.05.85	G	G	G	G/A	Gentle to moderate wind (NW-E 3-4), overcast, good visibility.
11.01.86	G	G	G	G/A	Clear weather, gentle to fresh wind (SW-W 3-5), *extensive ice and snow cover in DK, SH and NS parts, only little in NL.*
26.04.86	-	G	G	-/A	Clear weather, light wind (E 2-3) (DK part only counted from plane 21 April).
17.01.87	G	G	G	G/A	Slight to gentle wind (E-SE 3), overcast, moderate to good visibility, frost, *extensive ice and snow cover in all parts*, (SH part counted 11 January; strong to galeforce wind (NE 6-7)).
02.05.87	G	G	G	G/A	Gentle to fresh wind (SW-NW 3-5), good visibility.
07.11.87	G	G	G	G/A	Slight to fresh wind (SW-NW 2-5), overcast, some showers or drizzle, some mist and fog, otherwise good visibility.
09.01.88	G	G	G	G/A	Moderate to fresh wind (SE-SW 4-5), overcast, some mist, showers, and drizzle, no ice.
07.05.88	G	G	G	G/A	Clear weather, slight to fresh wind (E-SE 2-5).
10.09.88	G	G	G	G/A	Gentle wind (SW-NW 3), overcast, some rain and mist, otherwise good visibility.
21.01.89	G	G	G	G/A	Moderate to fresh wind (SW 4-5), some mist, no ice.
06.05.89	G	G	G	G/A	Moderate to galeforce wind (NW-N 4-8), good visibility
07.10.89	G	G	G	G/A	Moderate to fresh wind (W-NW 4-5), showers, poor visibility, very bad conditions in SH and NS, good visibility in NL and DK.
13.01.90	G	G	G	G/A	Gentle to fresh wind (SW 3-5), partly overcast, some fog or mist in DK and SH, no ice.
12.05.90	G	G	G	G/A	Slight to gentle wind (E-SW 2-3), light showers or rain, otherwise good visibility.
22.09.90	G	G	G	G/A	Slight to strong wind (SW-W 2-6), overcast, some rain or showers, otherwise good visibility.
19.01.91	G	G	G	G/A	Light to moderate wind (SW-W 1-4), overcast, some rain, mist and fog, some ice especially on sheltered tidal flats in all parts.
04.05.91	G	G	G	G/A	Light to fresh wind (N-E 1-5), overcast, some light rain or showers, otherwise moderate or good visibility.
15.06.91	G	-	G	G/A	Slight to fresh wind (S-NW 2-5), overcast, partly light rain, otherwise good visibility.

especially in the Dutch and German parts (Appendix 1). This problem is further discussed in the Herring Gull chapter. Furthermore, Common and Arctic Terns were not separated in the Schleswig-Holstein part.

Weather conditions were poor during several counts. This especially applies to the counts in April and September 1980, March 1981, January 1983, October 1984 and October 1989 (Table 1).

Most winters 1980-91 were mild, but extensive ice cover occurred at the time of the January counts in 1982, 1985, 1986 and 1987 (Table 1). These four winters are accordingly considered severe winters in the analysis. Furthermore, January 1980, 1981, 1984 and 1991 were somewhat cold with some ice present in parts of the Wadden Sea.

National reports on the present material

The totals from the first two years of the present project, 1980-1981, were published by Smit (1982), and many of the count data collected in the individual countries have already been published in national reports. These include more comprehensive works by Knief (1982), Zegers & Kwint (1992), Meltofte (1993), Ens *et al.* (1993), Laursen *et al.* (in press), Rösner *et al.* (in press) and Blew & Heckenroth (in press). Furthermore data from this project have contributed to estimates of total mid-winter flyway population sizes published by Pirot *et al.* (1989) for wildfowl and by Smit & Piersma (1989) for waders. A number of papers on the occurrence of individual species in the Wadden Sea have also drawn on the present material. These are referred to within the species accounts.

Quality of the figures

Studies on the count accuracy amongst wader flocks have shown that stochastic errors in counts/estimates of individual flocks tend to neutralize each other when many flocks are added up (Rappoldt *et al.* 1985). The stochastic error in counts of widely distributed species of wildfowl and waders occurring in many medium sized flocks is thought only to be about 5-10%. In species occurring in a few large flocks, and in uncommon species the stochastic errors may be much higher.

Systematic errors tend to underestimate flock sizes. Abundant species (including most of the species considered in this report) are relatively well covered. Scarce species, in which the individuals or small flocks are widely spread over the area, are often overlooked (Rappoldt *et al.* 1985). Similarly, Yates & Goss-Custard (1991) found that underestimates caused by flocks missed at high tide roosts are the source of greater error than inaccurate assessment of flock size.

The quality of aerial counts is lower than ground counts in many species. However, in species roosting in large flocks on remote open sandflats etc., aerial counts often provide better coverage than counts from the ground (Meltofte 1980, Laursen *et al.* in press). This is also true for Eiders, whereas flocks of waders roosting in vegetation are often overlooked or underestimated from the air. In synchronous counts of the Danish Wadden Sea, aerial counts provided (added) more than one third of the grand count totals (achieved from combined ground and aerial coverage; see next chapter) on average for species like Brent Goose, Shelduck, Mallard, Pintail, Oystercatcher, Bar-tailed Godwit, Black-headed Gull and Great Black-backed Gull. For Wigeon, Dunlin, Common Gull, Herring Gull and "Commic" Tern *Sterna hirundo/paradisaea* aerial counts provided more than 50%, and for Eider, Sanderling and Knot even two thirds or more of the totals were provided by aerial counts. See Meltofte (1980), Nehls (1991) and Laursen *et al.* (in press) concerning accuracy of aerial counts.

Our overall evaluation suggests that the figures presented in this report are more likely to underestimate total numbers present. This especially applies to the counts performed under unfavourable weather conditions. In severe winters, many waterbirds may roost on remote ice formations during high tide. Hence, numbers from such winters are likely to be underestimated.

Concerning the reliability of species identification, cases of misidentification are mostly considered of little importance, because figures from a single counting site out of several hundred normally do not constitute significantly to grand totals. In species comprising relatively few individuals, and in periods of the year with low numbers of even the numerous species, "odd" figures need to be viewed with caution, however. Such figures may originate from errors in the typing of data as much as from misidentifications in the field, and we have done our best to trace and correct the most obvious errors. Some may remain, however.

Filling gaps of uncovered sites and estimation of totals

Apart from inclement weather conditions hampering a number of counts, our inability to cover all parts of the Wadden Sea simultaneously posed the biggest problem. Not only did inaccessible sandbanks and islets create problems when not covered from the air, but also ordinary counting sites were often missed. Thus, coverage varied a lot between counts and areas. In the Netherlands, more than 75% coverage of the estimated totals of birds present was achieved during most counts, whereas in Niedersachsen and Schleswig-Holstein coverage varied between 60% and 90% in most species and counts (see below and Tables 2 and 4-39). In Denmark total coverage was achieved during all counts, due to combined coverage from ground and air (except in January 1980 and April 1986 when no ground counts were performed). Many species, however, are poorly covered from a plane, so "gaps" exist also here (see further below). In Schleswig-Holstein, some exceedingly poor counts at some sites from the early years were rejected and replaced by more recent and realistic figures, in the same way as for uncovered sites (see below). As numbers of waterbirds have apparently increased in the Schleswig-Holstein Wadden Sea during recent years (Rösner 1994), this may have lead to some bias by filling gaps in counts from early years with higher numbers from more recent and better covering counts.

Missing data from uncounted sites have been filled with data from other counts at the same site. In the Netherlands, monthly means from counts 1980-1991 were used, when five or more counts were available from those years. If only 2-4 counts were available, a mean figure from these counts together with available counts from 1965-76 were used. Only data from the latter period were used, when 0-1 counts from the same month 1980-91 were available. In Niedersachsen medians from counts within ±8 days 1980-92 were used, while in Schleswig-Holstein medians from counts within ±8 days (±16 days if no data available from within ±8 days) 1979-1993 were used.

For the mid-winter (January) counts only data from winters of the same type was used; i.e. only counts from severe winters were used to fill gaps in counts in severe winters, and

Table 2. Average coverage per country given as the percentage of birds actually counted in relation to the totals achieved by adding average figures for uncovered counting sites (weighted means). NL = the Netherlands, NS = Niedersachsen, SH = Schleswig-Holstein, DK = Denmark.

Species/area	NL	NS	SH	DK	Total
Barnacle Goose	94	94	76	100	90
Dark-bellied Brent Goose	95	69	86	94	88
Shelduck	83	78	71	99	79
Wigeon	92	82	74	98	85
Teal	98	93	70	99	89
Mallard	93	82	73	100	85
Pintail	90	91	74	99	89
Shoveler	94	70	81	98	87
Eider	71	45	61	100	73
Oystercatcher	85	60	67	97	75
Avocet	90	90	69	99	88
Ringed Plover	91	80	61	92	75
Kentish Plover	91	81	88	89	87
Golden Plover	95	81	75	96	88
Grey Plover	84	65	63	90	72
Lapwing	90	78	81	99	88
Knot	77	58	57	100	63
Sanderling	63	49	76	96	72
Curlew Sandpiper	98	99	11	97	59
Dunlin	85	66	67	99	79
Ruff	100	81	59	94	79
Bar-tailed Godwit	89	62	73	98	81
Whimbrel	90	70	76	98	81
Curlew	86	66	65	95	75
Spotted Redshank	96	78	52	98	71
Redshank	96	76	68	89	83
Greenshank	93	73	56	97	78
Turnstone	86	72	72	93	70
Black-headed Gull	85	72	70	99	80
Common Gull	80	73	64	98	79
Lesser Black-backed Gull	94	57	74	88	82
Herring Gull	78	72	65	99	76
Great Black-backed Gull	77	65	69	100	75
Sandwich Tern	14	61	76	100	43
Common Tern	56	61	-	99	60
Arctic Tern	16	45	-	98	29

Table 3. Area of inter-tidal flats within each sub-area, as measured from edge of vegetation (or mean high water line on sandbanks etc.) to mean low water line.

DK01	29 km^2	138 km^2	NS15	391 km^2	
DK02	109 km^2		NS16	236 km^2	
DK03	99 km^2	258 km^2	NS17	120 km^2	
DK04	58 km^2		NS18	150 km^2	
DK05	101 km^2		NS19	172 km^2	
			NS20	211 km^2	
SH06	178 km^2		NS21	103 km^2	
SH07	189 km^2		NS22	33 km^2	110 km^2
SH08	180 km^2				
SH09	197 km^2		NL22	77 km^2	
SH10	144 km^2		NL23	238 km^2	
SH11	176 km^2		NL24	98 km^2	
SH12	150 km^2		NL25	276 km^2	
SH13	175 km^2	219 km^2	NL26	141 km^2	
SH14	13 km^2		NL27	148 km^2	
			NL28	230 km^2	
NS14	31 km^2		NL29	81 km^2	

only counts from mild (or "normal") winters were used to fill gaps in counts in mild winters. For Griend (sub-area NL27) in the Dutch part, no such separation was possible due to lack of sufficient data.

In Denmark estimated totals from combined aerial and ground counts were achieved by only using the highest figure from either ground or air as the "true" number from each count unit (see Meltofte 1980). This was done even

when counts were carried out on different days. However, neighbouring areas were always checked for birds that were "missing" in a certain area at one of the counts. Even with this precaution the risk of double-counting remains. However, at least two thirds of the individuals were solely counted either from the ground or the air in the majority of species. Hence, on average only 25% of the individuals of the most numerous species were added from the alternative counts. In a few cases, monthly means from other counts 1980-1991 were used to fill gaps caused by poor or no coverage from land, in species that are difficult to record from a plane.

Data from the few aerial counts in the German Wadden Sea were used in the same way as in Denmark. In Schleswig-Holstein aerial and ground counts were only combined when they took place on the same day. Otherwise, only the count (from either ground or air) on the nearest date to the fixed counting date was used.

Presentation of data in tables and maps

Tables for each of the 41 selected waterbird species were produced with counted as well as estimated numbers for each of 29 sections within the Wadden Sea. These sections are shown on Figure 1, and they are numbered DK- (for Denmark), SH- (for Schleswig-Holstein), NS- (for Niedersachsen & Hamburg) and NL- (for the Netherlands) 1-29. These sub-areas include a varying number of counting sites, for which counting data and filling of gaps were processed individually (see above).

Each of the 29 sub-areas were preferably selected to cover an "ecological unit" for waterbirds feeding on tidal flats, i.e. a section of tidal flats separated by major channels from which the incoming tides force waterbirds together to a number of high tide roosts on the mainland coast and on islands and sandbanks. This separation was chosen to make it possible to relate birds counted on high tide roosts to particular areas of tidal flats. In a study in the Wash, East England, numbers of waterfowl counted at high tide roosts were found generally to be in good accordance with numbers at low water feeding grounds (Yates & Goss-Custard 1991; see also Laursen *et al.* in press). Only Eiders, which feed in the channels cannot be related in the same way to these "ecological units".

The extent of inter-tidal flats in each sub-area is presented in Table 3. Sub-areas 14 and 22 are both shared between two "countries".

For each sub-area, two figures are given in the tables. Those denoted **a** are the actual counted numbers. The figures given under **b** include inferred averages from uncounted sites (see above). Similarly, combined counted and estimated totals are given for each "national" part of the Wadden Sea and for the Wadden Sea as a whole. For a few of the species dealt with in the text, recorded numbers were so low that only the "national" totals are given in Appendix 1, together with "national" totals for other relevant waterbird species and species groups recorded during our counts.

Selected species distributions at different times of the year are shown on maps, using either mean numbers, maximum numbers, or densities per square kilometre in each sub-area. Open circles denote maximum numbers, horizontal hatching denotes mean numbers, vertical hatching denotes maximum numbers per km^2, while cross hatching denotes mean numbers per km^2. Within each set of species maps, the scale of circles is usually kept constant.

To ease presentation, the areas 01 and 02, - 03, 04 and 05, as well as the areas 13 and 14 have been lumped in all maps presenting densities. This brings the minimum area of inter-tidal flat to 81 km^2 for the smallest section, whereas the largest is 391 km^2.

Phenological graphs

In order to evaluate peak numbers of waterbirds in the Wadden Sea in relation to the birds counted, phenological graphs were compiled for sites throughout the Wadden Sea. These graphs gave so much new information on the varying distribution and utilization of different parts of the Wadden Sea throughout the year, that they are all presented in this report.

Unfortunately, long term phenological data are only available from rather few sites. In this study we have tried to compile the best available data from sites representing different types of habitat in the Wadden Sea; i.e. mainland coastal saltmarsh, islands in the outer part of the Wadden Sea, and more sheltered bays and mudflats. The phenological graphs presented derive from (see Figure 1):

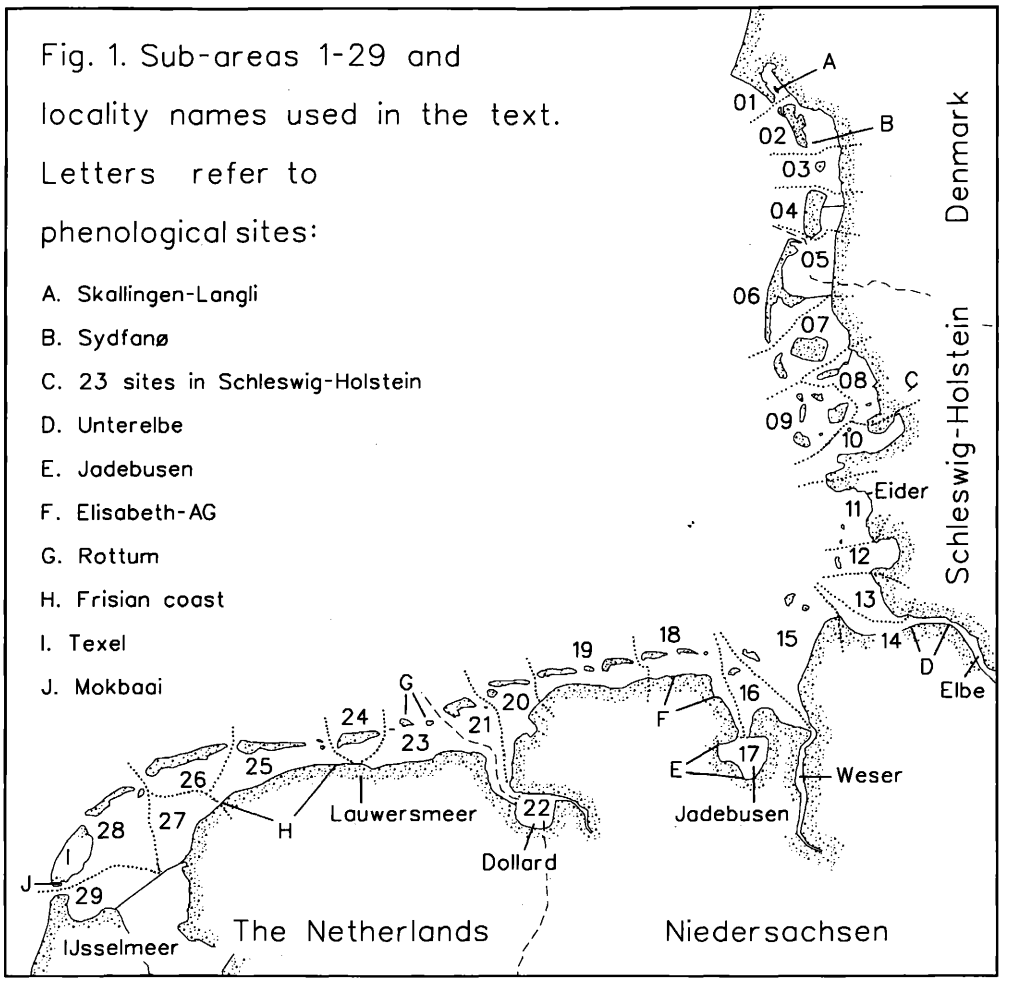
A) **Skallingen-Langli** in the northernmost part of the Danish Wadden Sea is a relatively sheltered area with rich habitats of silty flats, sandflats, sandbanks, musselbeds, and saltmarshes. On both the peninsula of Skallingen and the islands of Langli radio-coordinated counts have been performed during high tide in almost every 5-day-period during 1983-92 by staff from the field stations on Langli, Blåvandshuk and Tipperne (see Pedersen & Christensen 1992).

B) **Sydfanø** is the southernmost part of the island of Fanø in the central outer part of the Danish Wadden Sea. Most birds are counted on the partly vegetated sandbank of Keldsand just inside southern Fanø, where birds from extensive areas of sandflats and musselbeds roost during high tide. A total of about 500 counts were made here by Kim Fischer during 1981-92 – most of them since 1986. The graphs present averages of maximum counts within each 10-day-period (see Meltofte 1993).

C) In **Schleswig-Holstein** spring tide counts have been performed at 23 sites distributed all over the area since 1987 (see Rösner & Prokosch 1992). Most sites are high tide roosts on saltmarshes along the mainland coast and on major islands. The counts were performed mainly by biologists and staff from field stations. Averages from 24-25 spring tide counts per year 1987-1993 for all sites combined are presented in half months periods.

D) **Unterelbe** presents averages per 10-day-period from about 750 counts performed by H. Krethe between 1980 and 1993 in wet grasslands, saltmarshes and tidal flats on the southern bank of the Elbe estuary between the river Oste and Wischhafen. For most species only data from the westernmost part of the area were used, because coverage in the summer months was not as good in the rest of the area. The area is primarily used by geese, ducks and "inland" waders.

E) **Jadebusen** is the biggest bay of the entire Wadden Sea, encompassing 16,000 ha, three quarters of which become dry during low tide. Averages from about 270 high tide counts 1980-1993, coordinated by H. Blindow and performed by the Wissenschaftliche Arbeitsgemeinschaft Natur- und Umweltschutz e.V. on the south and west coast of the bay (between the villages of Cäciliengroden in the north and Varel in the south) are presented per 10-day-period. The area consists of very large silty flats and mainly ungrazed saltmarshes.



F) Data from Elisabeth-Außengroden (**Elisabeth-AG**) include averages per 10-day-period from about 350 high tide counts 1980-1993, performed by the Wissenschaftliche Arbeitsgemeinschaft Natur- und Umweltschutz e.V. and coordinated by H. Blindow. The area considered, stretches along the East Frisian coast from the village of Harlesiel in the West to Hooksiel in the South. Here tidal flats and extensive unmanaged saltmarshes are especially used by ducks and waders, which roost on the saltmarshes during high tide.

G) The graphs marked **Rottum** present combined averages of 184 high tide counts from the uninhabited island of Rottumeroog and 185 from the nearby Rottumerplaat in the easternmost outer part of the Dutch Wadden Sea 1978-89 (van den Brink 1989). The feeding areas around the islands mainly consist of sandflats and muddy sandflats, whereas in the 1980s considerable areas of musselbeds were present. Both islands have sand dunes and salt marshes. During the period when a warden is present on the islands (May to August) 10-15 counts were made in most 10-day-periods. Only 3-8 counts were performed in most of the months September to April.

H) Along the Dutch **Frisian coast** 87 high tide counts were carried out between 1972 and 1990 by Wadvogelwerkgroep F.F.F. The counts covered the mainland coast of the Dutch province of Friesland between Zwarte Haan and the Lauwersmeer, excluding the latter area. The tidal flats along the coast are relatively muddy in many places and bordered by rather intensively grazed saltmarshes.

I) **Texel** is the westernmost island in the Dutch Wadden Sea. Along the eastern shore rich sandflats and musselbeds are present, together with a small saltmarsh area. The latter area and the inland grasslands bordering the Wadden Sea are used as high tide roosts for birds from extensive areas. A total of 50 counts from the whole island was co-ordinated by Cor Smit and carried out by the Vogelwerkgroep Texel since 1980. The graphs present monthly averages of all counts 1980-1991.

J) **Mokbaai** is a sheltered and partly muddy bay on the southern end of Texel. Here, counts were carried out at 4-day intervals in 1982-1983 and 7-day intervals 1983-1990 by people working for the former Research Institute for Nature Management at Texel, co-ordinated by Cor Smit. Both feeding and roosting waterbirds were counted during low tide, yielding a total of about 450 counts. The graphs present averages per 10-day-period of the total number of birds recorded during each count. In the phenological figures Mokbaai is normally combined with the graph from Texel, as the area is a small sub-unit of this island. To make the graphs comparable, the data from Mokbaai have been enlarged to a varying extent, as stated in each graph.

It should be noted, that some monthly averages, especially those from the Frisian coast and Texel, are based on relatively few counts. This means that the picture obtained from these areas may not always reflect the general overall patterns.

Besides these sites, published phenological graphs from a number of other sites in the Wadden Sea were used in the analysis. These are referred to where appropriate under the individual species.

Texts on species

Throughout the species accounts, figures denote estimated totals (b-figures), and not the actually counted ones, unless otherwise stated. Estimated totals are presented as **numbers recorded**, while **a**-figures are mentioned as **numbers actually counted**. Furthermore, most emphasis is placed on the maximum figures recorded in each area or season, as these are considered most representative when dealing with a relatively small number of counts, during which bad weather and other difficulties have hampered several counts (see also Yates & Goss-Custard 1991). In particular, results from the counts in unfavourable weather are given low weight in the analysis. Hence, in general statements on ranges of numbers recorded, results from counts in highly unfavourable weather are excluded when they clearly fall below "normal" figures. The same concerns totals from counts where whole national parts of the Wadden Sea remained uncovered. When statements on numbers recorded exclude such poor counts, they are termed **good counts**.

Each species chapter starts with the **maximum figures** recorded in each season during the project. These are intended to make it easier for the reader to get an immediate impression of the kind of numbers occurring in the Wadden Sea during the year.

For each species a brief introduction to the geographical origin (breeding area) and wintering area of the birds occurring in the Wadden Sea is given together with the estimated size of the total flyway population. This is followed by assessment of the counts during **winter**, **spring**, **summer** and **autumn**, respectively, in relation to the phenology of the populations involved. Spring includes the counts from March to May, summer refers to the June 1991 count, autumn the counts from August to November, and winter includes all the January counts. When appropriate, notes on **breeding**, **moulting**, **distribution**, **habitat**, **feeding**, **fattening** and **body reserves** are given. Finally, a brief statement on the **status** of the Wadden Sea in the annual cycle of the actual species/population in an international (flyway) context is presented. In this respect, the Wadden Sea is here considered as a single entity. This means that the criteria for international importance (= regular occurrence of at least 1% of the flyway population) are applied for the entire Wadden Sea area. If more than 10% of a population is estimated to occur in the Wadden Sea, its status is normally stated as of "great international importance". With more than 50% estimated to occur, the importance is stated as "outstanding". For these evaluations, the most recent population estimates presented by Pirot *et al.* (1989), Smit & Piersma (1989) and Rose & Scott (1994) were used together with other relevant information.

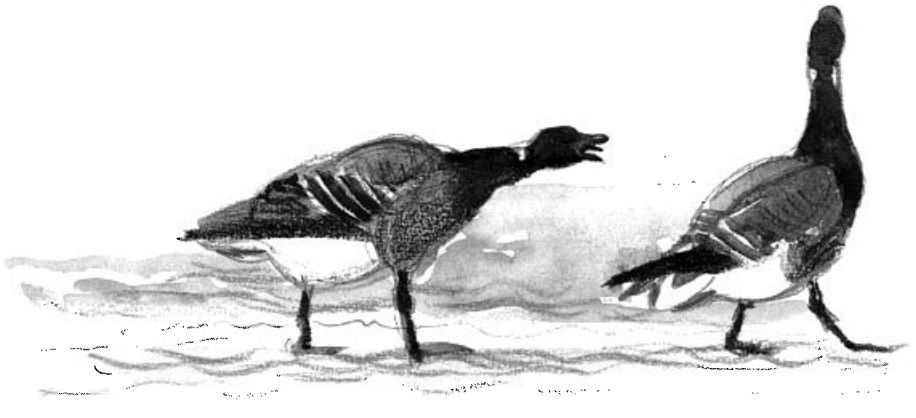
In some cases even total numbers of birds passing through the area are discussed. Such evaluations are based on knowledge of total populations sizes known to pass through the Wadden Sea together with considerations on the kind of use of the area by different species and populations, i.e. as a short-time stop-over area with rapid turn-over or as a long-time staging and moulting area with slower turn-over. As very little data exist on turn-over among staging waterbird populations in the Wadden Sea, such statements are rather tentative.

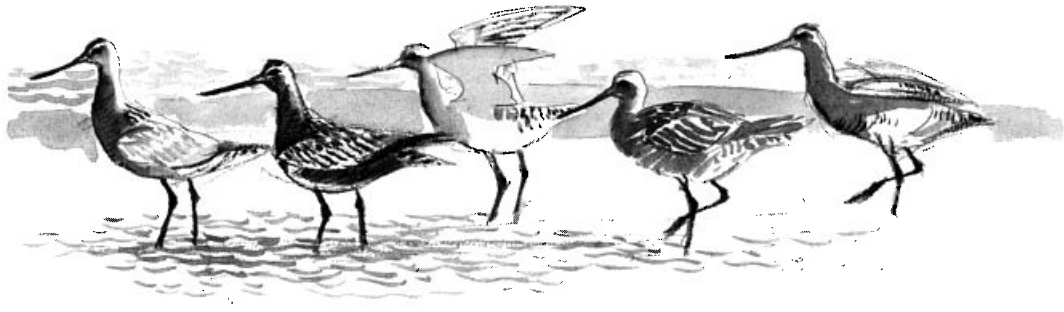
Recent breeding bird numbers in the Wadden Sea are presented by Fleet *et al.* (in press). They refer to breeding pairs on the Wadden Sea islands and the foreland areas, i.e. mainly areas outside the seawalls.

Systematics and nomenclature is according to Cramp & Simmons (1977, 1983 & 1985). In Appendix 2 a list of national bird names is presented for all species mentioned in the text.

Continued simultaneous counts after 1991

In Schleswig-Holstein a system of counts at spring tide intervals (c. 15 days) at a large number of reference sites was initiated in 1987 (Rösner & Prokosch 1992). The aim is improved monitoring of migratory bird populations in the Wadden Sea, and this scheme is now being introduced in the other parts of the Wadden Sea as well (Rösner 1993a). Hence, in Niedersachsen spring tide counts were adopted with minor changes allowing the many amateur counters to join on the closest weekends to the spring tide dates. However, monthly counts similar to those of the period 1980-1990 will continue in all those places where spring tide counts are not feasible. Aerial counts at monthly intervals continue in the entire Danish Wadden Sea, and spring tide counts have been initiated in a few places. In the Dutch Wadden Sea, simultaneous counts will continue in spring and autumn, besides the international mid-winter waterbird counts. Starting in 1994, one spring count will take place in either March, April or May, and one autumn count similarly shifting between August, September and October. In some smaller areas, a spring tide counting scheme has started. (See further in the recommendations for future monitoring.)





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The material for this report was primarily obtained by more than one thousand field ornithologists, most of them acting as volunteers for the organising agencies and NGOs. Many even paid their own travel costs. This enormous effort deserves considerable appreciation, and we hope that the present report proves that it was worth the effort.

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In Niedersachsen the counts were made by U. Appel, H.G. Backhaus, I. Bahr, R. Baier, H. Bargen, R. Baum, E. Becker, P.H. Becker, B. Berg, F.v. Berger, B. Beyer, J. Biller, H. Blindow, D. Bloem, W. Böckelmann, H. Bödecker, B.-R. Boehnke, N. Boolzen, H.G. Boyken, G. Brunow, B. Bunk, G. Buss, G. Cihlars, J. Cramer, DBV-Landesverband NS, G. Dahms, A. Degen, A. Diekmann, P. Dost, M. Eggert, D. Ehlert, G. Eilers, J. Eilers, J. Erlebach, F. Everwien, K.M. Exo, U. Feldmann, M. Fetz, W. Fischer, B.O. Flore, R. Frank, E. Fuhrken, H. Funda, H.G. Gerdes, K. Gerdes, H.v. Göns, T. Gorontzy, G. Großkopf, R. Grossmann, D. Grote, A. Haken, A. Halpap, G. Hamzyk, G. Hardekopf, H.E. Harken, U. Harrjus, H.R. Henneberg, A. Hildebrands, H. Hinrichs, O. Hinrichs, U. Hintelmann, M. Hintze, D. Hoffmann, B. Hofmann, H. Jacobs, W. Jacobs, H. Kaars, P. Kerber, A. Keßler, D. Kirsch, C. Klemp, A. Klesch, H.W. Klose, M. Knake, C. Koepff, M. Korn, H. Krethe, R. Krüger, V. Kullik, H. Kuschert, K. Kuth, R. Kölmel, W. Leder, W. Lemke, J. Lempert, H.J.v. Loh, E. Lübbers, H. Melewski, Mellumrat e.V., W. Menger, W. Menke, T. Mennebäck, G. Meyenburg, E. Meyer, H. Meyer, I. Meyer, U. Meyer, F.O. Müller, U. Müller, R. Nagel, F. Nannen, A. Neyer, N. Niedernostheide, G. Nikolaus, J. Oldenettel, J. Onnen, R. Opree, W. Pappel, E. Peplow, M. Petermann, P. Peters, F. Plaisier, W. Pötter, J. Prins, P. Prokosch, V. Prüter, E. Raddatz, K. Rademacher, G. Ramm, H. Reepmeyer, W. Reitzenstein, K. Rettig, M. Reuter, R. deReuter, J. Richert, A. Richter, H.J. Ropers, B. Rupprecht, H. Sagkop, A. Sanders, H. Schmedes, C. Schmidt, H.D. Schneider, R. Schopf, M. Schrader, U. Schramm, K. Schröder, M. Schulze-Diekhoff, C. Schupetta, H. Schwarze, C. Schwegmann, H. Sonnenburg, M. Sonntag, S. Spalik, S. Stosiek, F. Sudendey, H. Stratmann, H. Tebart, M. Temme, B. Theiner, J. Tiemann, V. Tiemeyer, E. Voss, Verein "Jordsand", R. Wahlhäuser, S. Walentowitz, F.W. Wegener, A. Welz, A. Wiebe, T. Wiegand and M. Williams.

In Schleswig-Holstein the counts were performed by C. Abraham, M. Ahrens, R. Albrecht, T. Alfert, F. Alkemeier, B. Andresen, D. Arendt, T.

Arp, M. Ballhaus, D. Barnekow, B. Baschek, P. Becher, T. Becker, M. Behne, S. Beilke, C. Bermpohl, W. Block, D. Blümel, P. Bohnsack, R. Borcherding, J. Böttger, U. Bradter, S. Bräger, J. Brandt, R. Brauer, A. Brunlich, P. Brockmann, N. Brombach, H. Brunckhorst, H.A. Bruns, H. Bruns, A.v. Bubnoff, F. Buhs, M. Bülow, S. Buntrock, G. Busche, K. Busse, J. Carstensen, T. Christophersen, D. Claussen, T. Clemens, F. Dannenburg, W. Daunicht, C. Dauter, S. David, W. Denker, T. Dernedde, J. Dien, B. Diener, Peter Dierkes, Petra Dierkes, V. Dierschke, J. Dierschke, S. Dietrich, U. Diez, M. Domke, S. Dose, A. Drawert, G. Dreismann, F. Droz, S. Dubberke, H. Dürnberg, F. Düvelshaupt, S. Eggers, R. Eikhorst, R. Ekamp, O. Ekelöf, E. Ekelöf, M. Elbrächter, J. Esser, H. Evers, C. Ewen, H. Feilke, U. Fiedler, U. Filbrandt, E. Fink, T. Finkenrath, K. Finsterk, W. Fischer, D.M. Fleet, K. Fleeth, S. Flothmann, A. Fraenke, B. Frank, D. Fröhlich, A. Funcke, C. Funk, M. Gadow, T. Gall, B. Ganter, S. 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Species accounts

Cormorant *Phalacrocorax carbo*

Winter 84 Spring 1,080
Summer 4,070 Autumn 4,660

By far the majority of the Cormorants occurring in the Wadden Sea belong to the subspecies *P.c. sinensis*, which breeds in large numbers in the Wadden Sea countries (Cramp & Simmons 1977, Hansen 1984). The Danish population has increased from about 2,000 pairs to more than 29,000 pairs during 1980-1991, while that in the Netherlands has increased from about 4,500 to 19,000 pairs over the same period (Gregersen 1992, J. Gregersen & M. van Eerden pers. comm.). In Schleswig-Holstein and Niedersachsen the population has grown from 77 pairs in 1980 to almost 2,000 pairs in 1992 (W. Knief 1994).

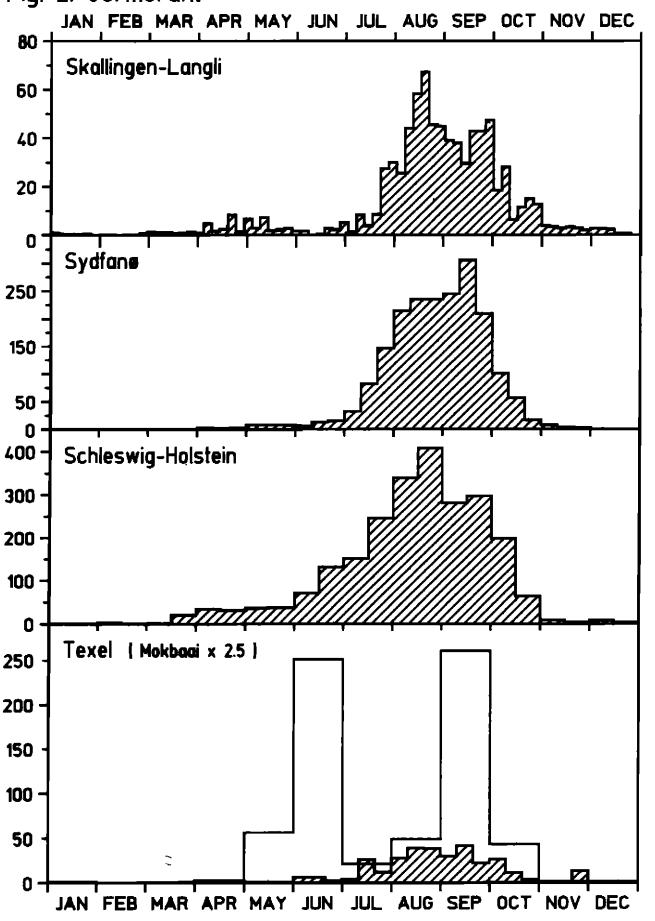
By far the majority of these birds leave the breeding areas for the Mediterranean region and South-west Europe in **winter** (Cramp & Simmons 1977). Hence, mid-winter Wadden Sea numbers never exceeded one hundred (Appendix 1). Larger numbers are found in adjacent waterbodies like the IJsselmeer, and a total of 2,500-4,000 winters in the Netherlands (Beintema *et al.* 1993).

Adults wintering locally may return to the **breeding** colonies as early as January-February, while those wintering further away reappear during March-April (J. Gregersen pers. comm.). As few colonies are situated close to the Wadden Sea, and the area is little used during the breeding season, only a few hundred were recorded here in most **spring**s (Appendix 1). Again much larger numbers are found in e.g. IJsselmeer.

From June-July numbers increase to an **autumn** peak in August-September (Figure 2). Even then, numbers are small compared to national breeding populations (Appendix 1). The counts indicate, however, that rapidly increasing numbers of post-breeding Cormorants stay in the Wadden Sea during the **moulting** period.

The highest numbers were recorded in the Dutch part, where large colonies are found relatively close to the Wadden Sea.

Fig. 2. Cormorant *Phalacrocorax carbo*



Status: relatively small numbers of Cormorants occur in the Wadden Sea, although the area is of international importance for the North European population (regular occurrence exceeding 2,000 individuals). Most are present during the post-breeding moult period. Numbers are increasing in accordance with the dramatic increase in breeding populations of adjacent areas.

Spoonbill *Platalea leucorodia*

Winter 2 Spring 111
Summer 110 Autumn 262

Spoonbills only breed in the Dutch Wadden Sea but may occur in very small numbers in other parts as non-breeders. The East Atlantic flyway population of this species amounts to less than 3,000 birds (Rose & Scott 1994) of which about 500 pairs bred in the Netherlands in 1989 (van der Hut 1992). Due to fox predation in two traditional inland breeding colonies, the population in the Wadden Sea area has increased strongly during the study period. In 1989, Texel (in sub-area NL28) had 125 pairs, Vlieland (also in sub-area NL28) had 28 pairs and Terschelling (in sub-area NL26) had 37 pairs. In 1993, the species also settled on Schiermonnikoog (in sub-area NL24) and in 1994 also on Ameland (sub-area NL25).

Spoonbills **winter** mainly in Senegal and Mauritania (van der Hut 1992), but juvenile birds may try to winter in the Wadden Sea (Appendix 1) and Dutch Delta area (Meininger *et al.* 1994).

In **spring**, Spoonbills return very early to the breeding colonies, the first already being present in late February (Smit & Wolff 1981). During our May and June counts, between 42 and 111 were encountered in most years (Appendix 1). From early May onwards Spoonbills feed on shrimps along small tidal channels and in pools with stagnant water, e.g. between musselbeds during low tide. From June onwards they also feed on sandflats during rising and falling tide (van Wetten & Wintermans 1986).

In **autumn**, they disperse further away from the breeding colonies and may then be found all over the Dutch Wadden Sea (Smit & Wolff 1981). We recorded between 242 and 262 during our counts in August and early September (Appendix 1), but 326 were found in the Dutch part in September 1985 (Zegers & Kwint 1992). Post-breeding moult is initiated in August-September, and most birds leave during September and October (Smit & Wolff l.c.).

Status: about 40% of the North European population of Spoonbills breed in the Dutch Wadden Sea area. This is equivalent to 10-20% of the entire East Atlantic population.

Pink-footed Goose *Anser brachyrhynchus*

Winter 17,600 Spring 9,270
Summer 0 Autumn 364

The Svalbard population of Pink-footed Geese has one of its main haunts in the Danish Wadden Sea in winter and spring (Madsen 1987). During the study period the population has numbered 25,000-30,000 individuals (Madsen 1991).

In mild **winters**, the Pink-footed Geese begin to return from their main Dutch wintering sites from mid December, and more than half the population may be back in Denmark by January (Madsen 1987), when we counted between 10,000 and 17,600 during three mid-winter counts (Appendix 1). During Danish domestic counts, up to 24,100 Pink-footed Geese have been found in late winter in Ballummarsken (in sub-area DK04), and up to a few thousand may stay in Tøndermarsken (in sub-area DK05) just north of the Danish-German border (Jørgensen *et al.* 1994).

During **spring**, most of the Pink-feet move further north in West Jutland (Denmark), so that our totals decreased from 6,800-9,200 in March to none by early May (Appendix 1). At that time the birds begin to leave for their Norwegian spring haunts (Madsen 1987).

Pink-footed Geese are only occasionally found in the Danish Wadden Sea area in **autumn** due to intensive hunting

(Madsen 1987). We recorded up to a few hundred at that time of the year (Appendix 1).

Status: more than half the Svalbard population of Pink-footed Geese may be present in winter and spring in Ballummarsken and Tøndermarsken in the Danish Wadden Sea. Formerly, large numbers were also found in the Schleswig-Holstein and Niedersachsen parts, but these have all been abandoned due to habitat changes and increased human activities (Prokosch 1984a, Madsen 1987).

Barnacle Goose *Branta leucopsis*

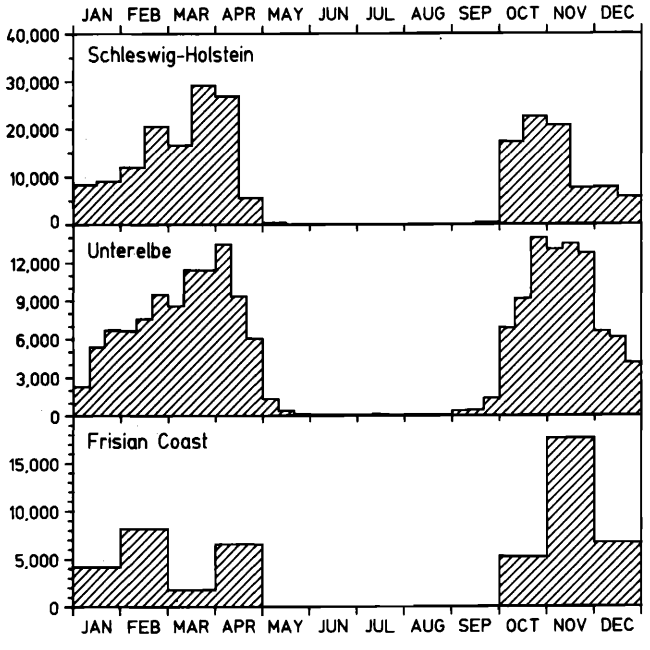
Winter 103,000 Spring 62,600
Summer 22 Autumn 78,600

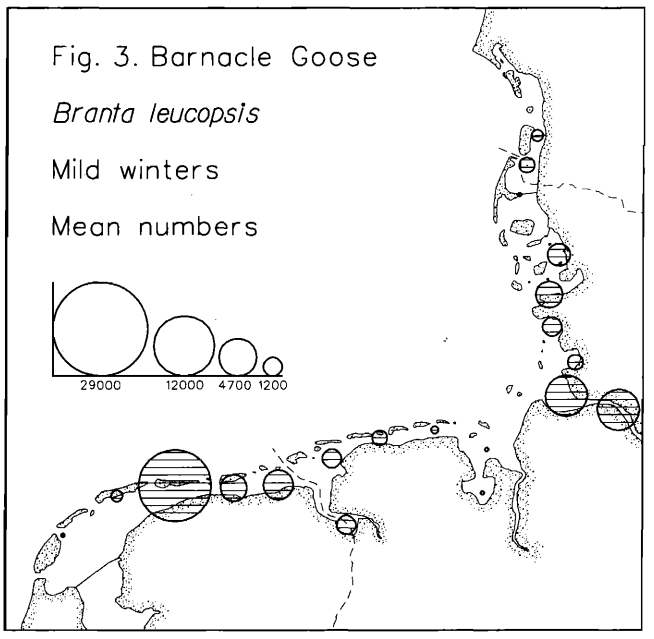
The population of Barnacle Geese that occurs in the Wadden Sea area nests on Novaya Zemlya and Vaygach in north-easternmost Russia, and includes the small, but rapidly increasing population which breeds in the Baltic. Following improved protection from hunting, the population has increased considerably during our review period from about 40,000 birds in 1979/80 to a provisional total of 137,400 in 1992/93 (Ebbinge 1991, Rose & Taylor 1993).

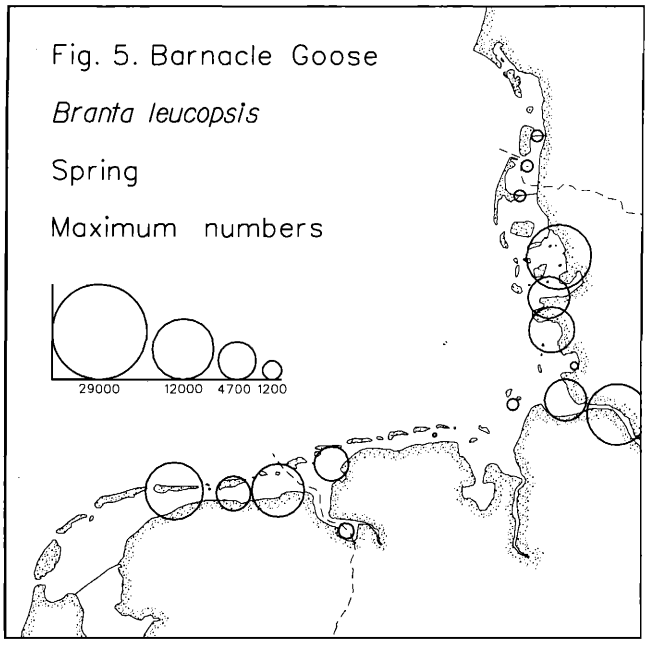
In most years the entire Russian population **winter**s in the Wadden Sea, Dutch lowlands and Delta area, although in extremely cold winters some move further west- and southwestwards (Smit & Wolff 1981). As our counts only include the outermost polders and foreland areas, a highly variable proportion of the winter population is covered. In spite of this, in the mild winter of 1989 the peak count exceeded 100,000 (Table 4). In such mild winters about half the birds counted occurred in the Dutch Wadden Sea (Table 4, Figure 3). This fraction may be even higher in late November and December, since geese may move to the German Wadden Sea in late December and January (Ganter 1992). In cold winters only a few hundred may remain in the Wadden Sea.

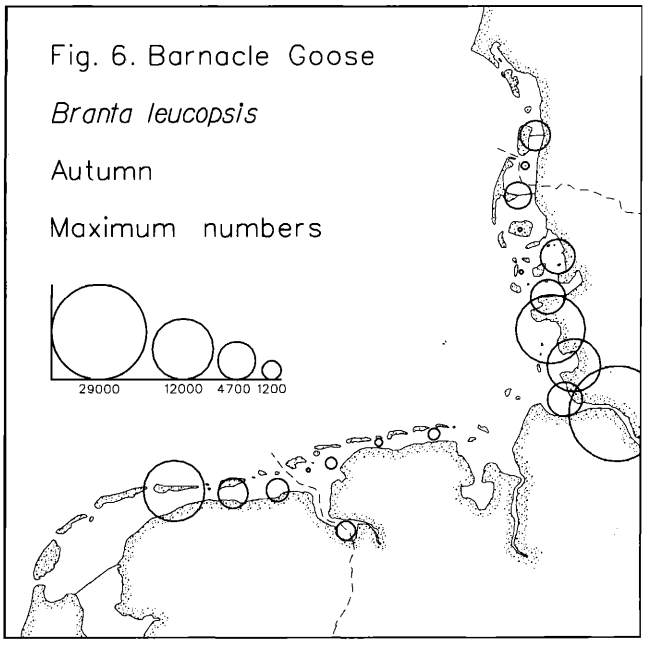
In January to March most of the Barnacle Geese move to **spring** haunts in the north-eastern Wadden Sea (Figure 4). Most occur between the Elbe estuary and the southern part

Fig. 4. Barnacle Goose *Branta leucopsis*









of the Danish Wadden Sea, where 39,800 were recorded in March 1984 (Figure 5, Table 4). Numbers have increased since then, but we have no March counts from later years. During goose surveys up to 60,000-75,000 were recorded in the same area in March and early April 1986-1992 (Prokosch 1991, Ganter 1992, Rösner 1993b). At this time of the year, the rest of the population is concentrated in the Dutch and western Niedersachsen Wadden Sea areas (Figure 5) and a few other places in the Netherlands. The majority of the Barnacle Geese leave the Wadden Sea during April for their Baltic staging sites (Figure 4, Smit & Wolff 1981).

In **autumn** Barnacle Geese reappear in the Wadden Sea during October having spent about a month in the Baltic or further north (Figure 4; Berndt & Busche 1991). Again, most are present in the Schleswig-Holstein and outer Elbe areas, where 61,000 (out of a Wadden Sea total of 78,600) were recorded in early November 1987 (Figure 6, Table 4). In early November 1989 70,000 were counted in Schleswig-Holstein alone (Ganter 1992), and up to 47,700 have been recorded in Niedersachsen at this time (Blew & Heckenroth in press).

In the eastern Wadden Sea, the birds are mainly **distributed** on 6-10 areas of extensive undisturbed mainland saltmarsh and polders during both spring and autumn (Prokosch 1991, Ganter 1992). In the Dutch province of Friesland they utilize similar areas especially around the Lauwersmeer. During the study period, the species has expanded its haunts further north into the Danish Wadden Sea, where up to 9,180 and 4,820 have been recorded in recent years in Tøndermarsken and Ballummarsken, respectively (Jørgensen *et al.* 1994).

Status: almost the entire "Russian" population of Barnacle Geese is present in the Wadden Sea area during late autumn and early spring, and in mild winters most may also winter here. The birds are mainly confined to relatively few areas of saltmarsh and reclaimed polders in the Schleswig-Holstein, outer Elbe and Dutch parts of the Wadden Sea. Here they probably accumulate significant body reserves during spring and autumn.

Brent Goose *Branta bernicla*

Winter 35,200 Spring 220,000
Summer 356 Autumn 117,000

Following improved protection from hunting, the population of **Dark-bellied Brent Geese** *(B.b. bernicla)* has increased manyfold especially since the early 1970s. During the 1980s numbers went up from about 150,000 to 304,000 in 1991-92 (Madsen 1987, IWRB Goose Research Group unpubl.). This population breeds on the Taimyr Peninsula in northernmost Siberia, and winters in North-west Europe. Most occur in South-east England (82,000), on the west coast of France (68,000), and in the Netherlands (21,000). This increase has also been reflected in the numbers present in the Wadden Sea (Smit & Wolff 1981, Madsen 1987).

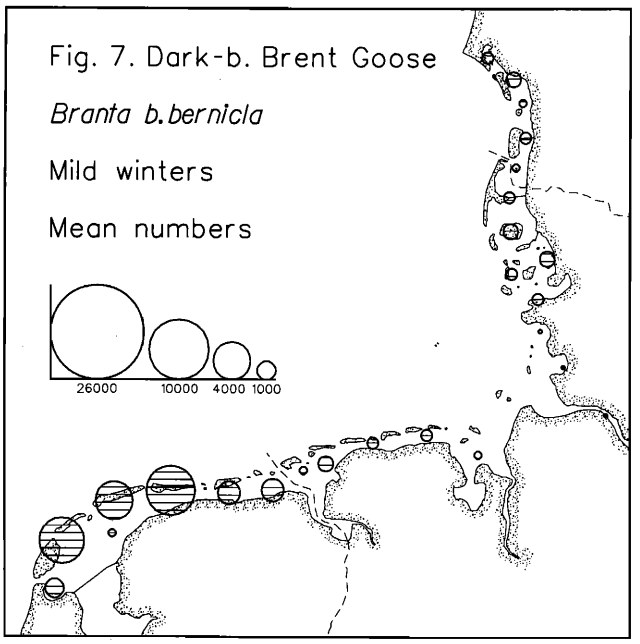
The **Light-bellied Brent Geese** *(B.b. hrota)* breeding on Svalbard also visit the Wadden Sea, but only in autumn and almost entirely in the Danish part. This population has increased during recent decades, but still numbers no more than 4,000-5,000 individuals. These birds winter in Jutland (Denmark) and North-east England (Madsen 1991).

Dark-bellied Brent Goose

During our reasonably good counts in mild **winters** between 20,000 and 35,000 Brents have been recorded, while only 2,900-8,800 were found in severe winters (Table 5). By far the majority stays in the Dutch Wadden Sea, but in mild winters a few thousands may remain in the German and Danish parts (Figures 7 and 8).

In **spring**, the Brents start to move east into the Wadden Sea from about late February (Figure 9; Camphuysen & van Dijk 1983). Heavy immigration takes place during March, and numbers in most areas increase sharply during this month; in Denmark even during April. Peak numbers are reached in most parts of the Wadden Sea in April and May, when the vast majority of the population is gathered here (Madsen 1991). Thus, most of our counts in the first half of May yielded totals of between 166,000 and 220,000 individuals. Numbers in the different sub-areas were also rather consistent from year to year with the largest numbers found in the central part of the Dutch Wadden Sea and in the northern Schleswig-Holstein and Danish parts (Table 5, Figure 10; Smit & Wolff 1981). A record count of 133,000 Brents was made in the Schleswig-Holstein Wadden Sea in early May 1992 (Rösner 1993b). The vast majority of the geese leaves during mid and late May, when they fly more or less straight to North Siberia (Madsen 1987). In mid June a few hundred may still remain (Table 5), but some of these are probably **summering** individuals.

In **autumn**, large numbers of Dark-bellied Brents reappear from late September (Figure 9), having spent one month on staging areas in northernmost Russia (Madsen 1987). Large numbers may also spend several weeks along the coasts of the inner Danish waters. Immigration is very fast, and peak numbers in many areas are reached during October. Numbers in the Wadden Sea vary considerably at



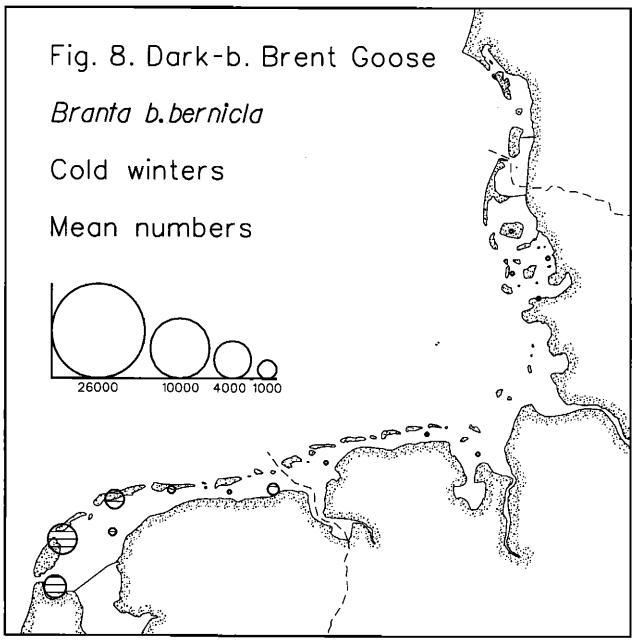
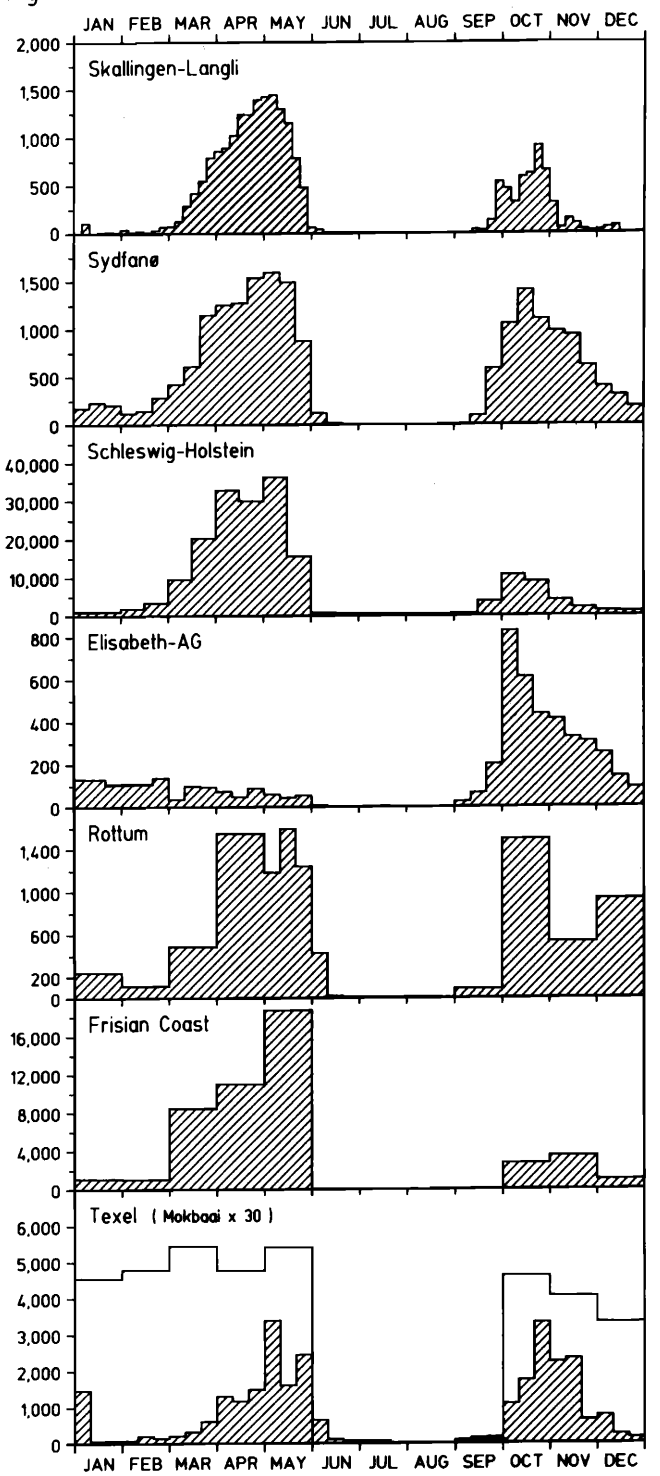
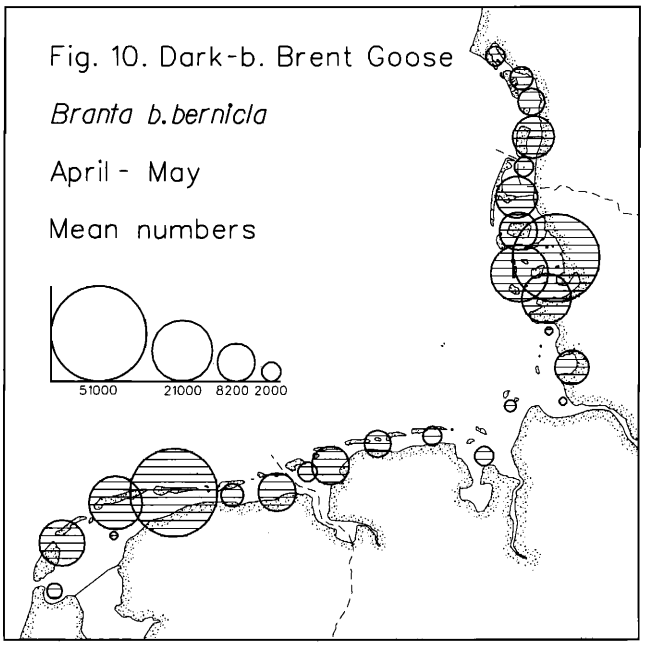
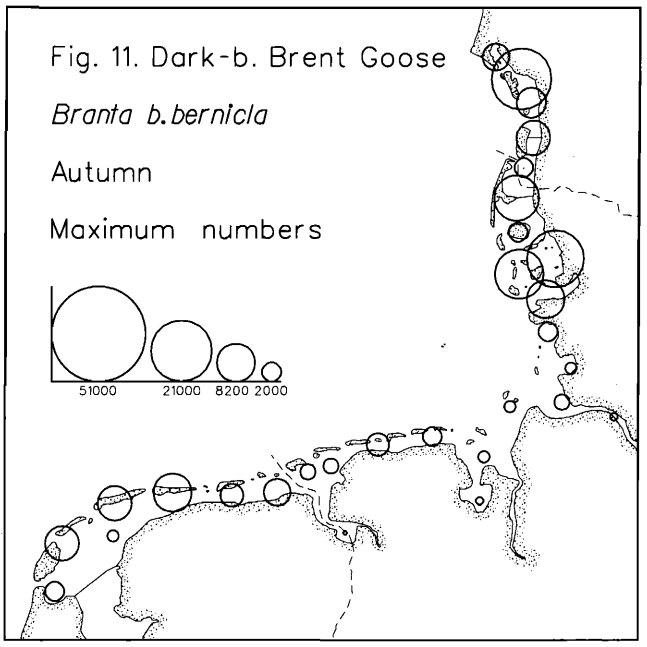


Fig. 9. Dark-bellied Brent Goose *Branta b. bernicla*







this time of the year, and many individuals only stay for short periods (Prokosch 1984b). A maximum of 94,500 was recorded in October 1989 (Table 5), during poor counting conditions. If average figures from the Netherlands are added to the incomplete count in October 1982, in the order of 117,000 Brents may have been present. During domestic counts up to 36,100 have been recorded in the Danish Wadden Sea, 60,000 in Schleswig-Holstein, 9,200 in Niedersachsen and 29,000 in the Netherlands (Madsen l.c., Madsen *et al.* 1990, J. Blew unpubl.). Thus, the largest concentrations are found in the northern Schleswig-Holstein and Danish Wadden Sea at this time of the year (Figure 11; Smit & Wolff 1981). This may be related to the lack of *Zostera* beds in the other parts of the Wadden Sea (see habitat below). During October-November most of the geese move further west to the wintering grounds in the Netherlands, Britain and France (Figure 9; Madsen l.c., a.o.).

During their stay in the Wadden Sea in spring and autumn, the Brents use quite different **habitats**. In autumn, when they build up **body reserves** for the winter, they mainly feed on inter-tidal mudflats with *Zostera* beds, *Enteromorpha* and green algae mats. In spring, when the Brents increase considerably their pre-migratory fat and protein reserves during late April and May, they feed primarily on saltmarshes grazed by cattle and sheep. The geese also feed on grasslands and winter wheat behind the seawalls. When feeding on land, they roost at sea by night. Individual geese are very faithful to their haunts from year to year, and many of the best sites on the Wadden Sea islands and along the mainland coast seem to be saturated (Smit & Wolff 1981, Madsen 1987, 1988, 1989, Prokosch 1984b, 1991, Ebbinge 1992).

Light-bellied Brent Goose

The Light-bellied Brents from Svalbard arrive earlier in the Wadden Sea in **autumn** than any of the other arctic geese, i.e. from late August until late September (Figure 12; Clausen & Fischer 1994). This means that they arrive more or less straight from the breeding grounds. Formerly they used to stay in the northern part of the Danish Wadden Sea until November, but during the 1980s, they changed their habits, so that since 1988 the vast majority has already left by early October. At that time they move to the Mariager Fjord area in North-east Jutland or Lindisfarne in North-east England, to join the rest of the population. The earlier departure is likely to be caused by declining *Zostera* stands (probably due to eutrophication and increased turbidity) in this part of the Wadden Sea (Clausen & Fischer l.c.).

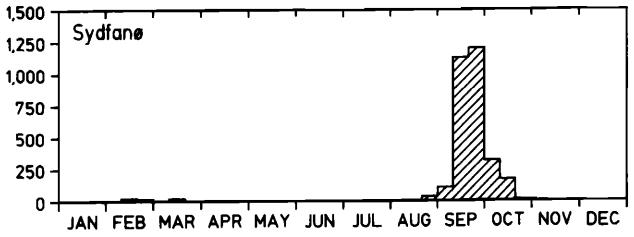
Our counts do not give a reliable picture of the occurrence of this subspecies (Appendix 1). During the years 1986-1992, when a special study was performed, annual peak records ranged between 1,450 and 2,677, up to 61% of the total population (Clausen & Fischer 1994).

During **winter** and **spring** up to 142 individuals have been observed occasionally, mainly between January and March (Appendix 1; Clausen & Fischer 1994).

Status: almost the entire population of **Dark-bellied Brent Geese** uses the Wadden Sea as a staging and fattening area both during spring and autumn. In spring, when almost the whole population may be present in the Wadden Sea at the same time, the birds are heavily dependent on saltmarshes to accumulate pre-migratory body reserves for the migration to Siberia and for maintenance during the first part of their breeding season. In autumn, the geese build up body reserves for wintering further west. Up to 10-15% of the population may stay in the Wadden Sea during mild winters.

Between one and two thirds of the Svalbard population of **Light-bellied Brent Geese** spend one or two months in the northern part of the Danish Wadden Sea during autumn. Hence, this part of the Wadden Sea is of outstanding importance to this highly vulnerable population. The duration of the stay of the geese has been significantly reduced during the last decade apparently due to declining *Zostera* stands, which possibly has been caused by pollution.

Fig. 12. Light-bellied Brent Goose *Branta b. hrota*



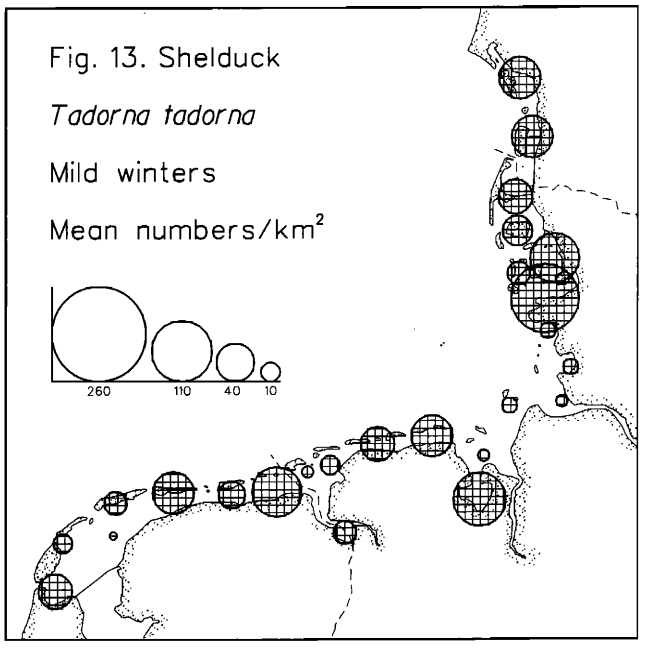
Shelduck *Tadorna tadorna*

Winter 178,000 Spring 86,800
Summer 34,700 Autumn 254,000

The North-west European population of Shelduck was estimated to number 250,000 in mid-winter (Monval & Pirot 1989). This must, however, be a significant underestimate (see Rose & Scott 1994 and below). Most of these birds concentrate in winter along shallow coastal sites in the British Isles (92,000), the Netherlands (63,000), Germany (37,000; but at least 60,000 according to our counts, see below), Denmark (19,000) and northern France (17,000) (Rüger *et al.* 1986). In cold winters large numbers move from the Wadden Sea countries especially to the British Isles, but some may go as far south as the western Mediterranean (Monval & Pirot l.c., Ridgill & Fox 1990). The Shelducks that moult in the Wadden Sea originate from breeding grounds throughout northern and western Europe, whereas those wintering in the Wadden Sea are mainly from southern Scandinavia and the Baltic (Cramp & Simmons 1977, Smit & Wolff 1981, Berndt & Busche 1991). A minimum of 4,700 pairs breed in the Wadden Sea (Fleet *et al.* in press).

Most of our mid-**winter** counts in the Wadden Sea have yielded totals between 123,000 and 178,000 in mild winters, and between 38,000 and 80,000 in severe winters (Table 6). The reductions during severe winters are most pronounced in the Schleswig-Holstein and Danish parts of the Wadden Sea, but even in such winters 10,000-20,000 Shelducks may remain in Schleswig-Holstein (Table 6, Figures 13 and 14; Busche 1980). In January 1994 even 80,500 Shelducks were recorded in the Schleswig-Holstein Wadden Sea (Rösner unpubl.).

Shelduck numbers in the Wadden Sea decrease during **spring**, but local breeding sites and sheltered bays such as the Mokbaai are occupied mainly during March-April (Figure 15; Boekema *et al.* 1983, and others). Accordingly, most of the wintering Shelducks have left by April. This decrease is well illustrated by our counts, which show a marked drop to between 17,000 and 25,000 birds in May (Table



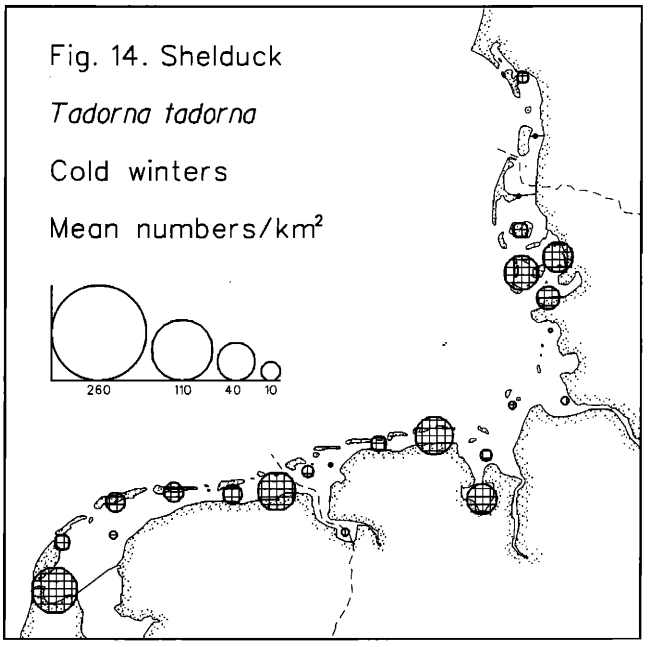
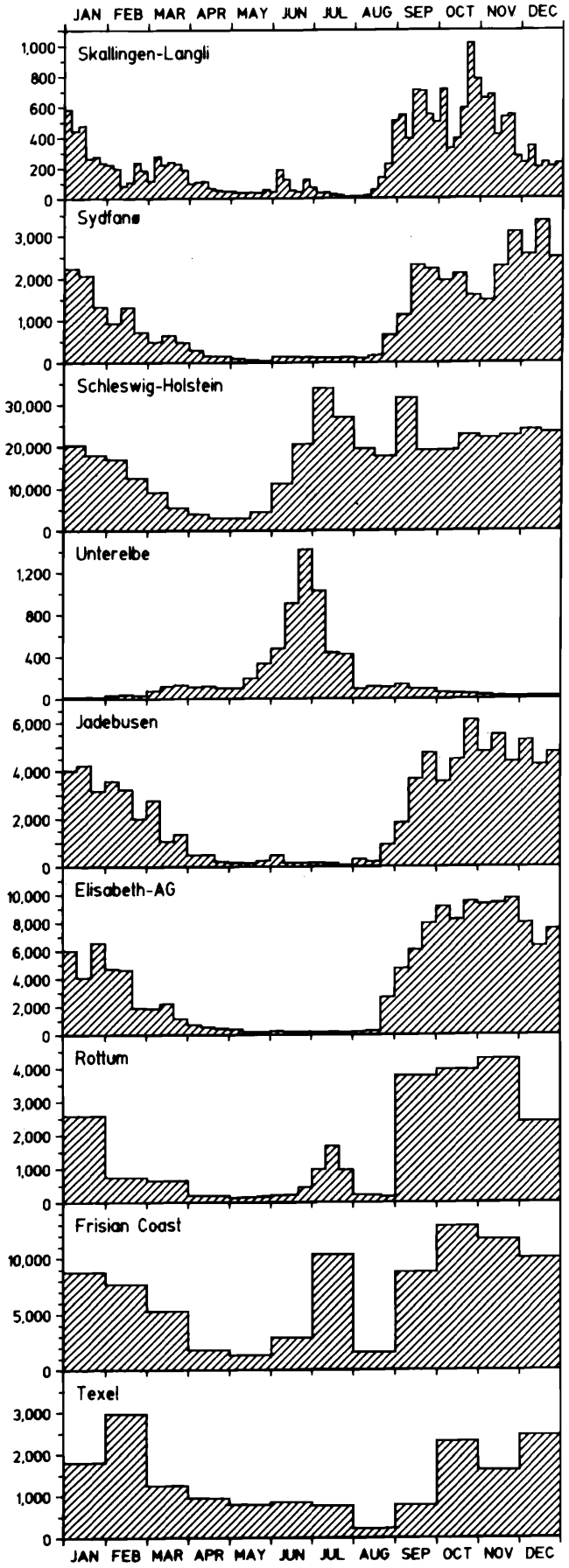


Fig. 15. Shelduck *Tadorna tadorna*



6). These are probably mainly non-breeding immatures, since most of the breeding birds are scattered and escape registration during the breeding season. As in mild winters (and autumn), Shelducks are relatively evenly distributed along the tidal flats of the Wadden Sea during spring (Table 6, Figure 16). The highest densities are found in the sheltered muddy sandflats, where they mainly feed on *Hydrobia* snails, crustaceans and diatoms (Smit & Wolff 1981, Nehls *et al.* 1992).

During June-July a massive **moult migration** of Shelducks converges on the Wadden Sea (Smit & Wolff 1981). Birds from Scandinavia and the Baltic start to arrive from early June, and the immigration peaks from mid June until mid July (Petersen 1974; cf. Schleswig-Holstein and Unterelbe in Figure 15). British birds together with birds from the western continental seaboard apparently do not appear until late June, with peak immigration in the first half of July (Camphuysen & van Dijk 1983; see also Rottum and Frisian coast in Figure 15). The migration is initiated by non-breeding immatures and failed breeders. These are followed by successful breeders who have left their young to the care of crèche adults. Later, in August-September the juveniles move to the Wadden Sea together with their "parents". Body moult is initiated in June in immatures, and the moult of flight feathers in the Wadden Sea begins in early/mid July. Most birds are flightless in August, by which time birds begin to disperse after having completed primary moult. Some adults are still flightless in October, and body moult in juveniles continue until December, when many Shelducks have left the Wadden Sea to winter further west (Cramp & Simmons 1977, Smit & Wolff 1981).

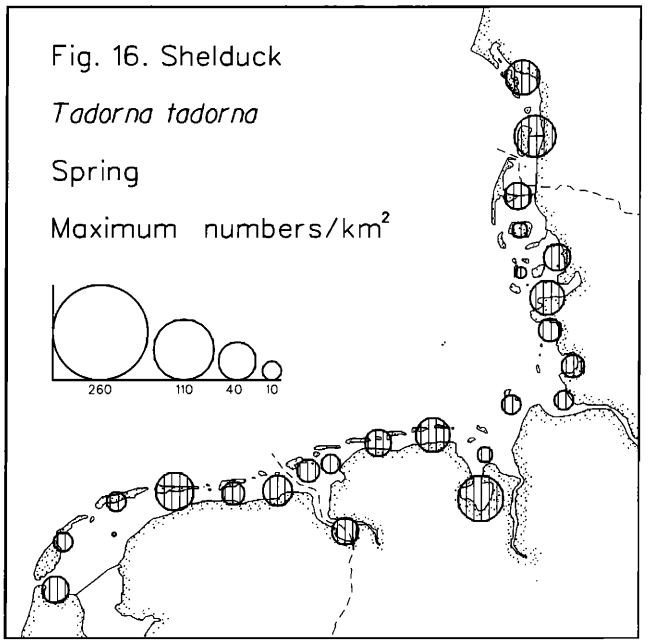
Due to the lack of aerial coverage in Germany (Niedersachsen was not even counted from the ground) and the Netherlands, our count in mid June 1991 only provided 34,700 Shelducks (Table 6). During **primary moult** in July-August the birds concentrate on the high sands outside the Elbe estuary. Here peak records of 147,000-180,000 individuals were counted from airplane in late July and early August 1988-1991, and an estimated total of 200,000 Shelducks moult in the area (Nehls *et al.* 1992). Our ground count in August 1982 found about 100,000 here, but a further 21,000 must be added from the uncounted parts of sub-area SH13 (Table 6). In recent decades Knechtsand has lost much of its former importance to moulting Shelducks, while numbers at Scharhörn (both in sub-area NS15) have increased. The reason for this may be that the island of Knechtsand has almost been eroded away, leaving flightless Shelducks without a safe shelter during severe weather (Nehls *et al.* 1992, Oelke 1993).

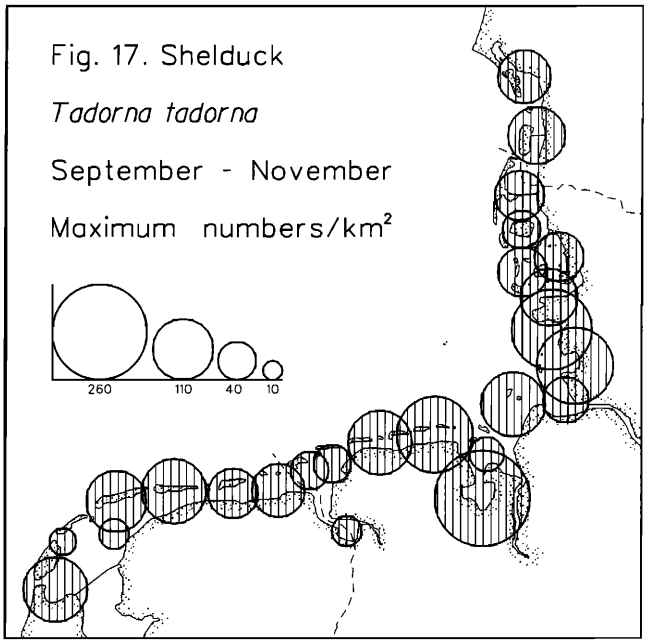
Flightless Shelducks are extremely shy, and they stay in the outermost, least disturbed parts of the Wadden Sea. Here the feeding opportunities are less favourable, and the Shelducks remain for as short a time as possible. At low tide they roost in dense flocks (up to 100,000 recorded) in sheltered tidal deeps or on the edges of the outermost sandbanks. On the rising tide they disperse over the flats, where they feed on bivalves (small *Macoma balthica* and *Cerastoderma edule*) in shallow water. At night they also feed on exposed flats (Nehls *et al.* 1992, Thiel *et al.* 1992).

After primary moult, the Shelducks disperse. During **autumn**, numbers build up in most parts of the Wadden Sea (Figure 15), and many birds leave the area entirely (Smit &

Wolff 1981). Our good counts during September-November gave numbers between 181,000 and 254,000 with a rather even distribution on the four countries (Table 6, Figure 17). The record of 254,000 (of which 228,000 were actually counted) in early November 1980 (with aerial coverage in both Denmark and Germany) was achieved at a time of the year, when many Shelducks are found in other parts of North-west Europe. Thus, at least 50,000-60,000 may then be back in the British Isles (45,000 were counted in Britain in November 1980; Salmon 1981), at least 8,000-15,000 in northern and western France (G. Debout, C. Gérard, T. Rigaux, C. Godin, G. Rocamora, V. Schricke & P. Triplet in litt.) and 4,400 in the Dutch Delta (3,760 were counted in November 1980) (Meininger *et al.* 1985, 1994), besides smaller numbers in other countries. This means that the total North-west European **flyway population** may number more than 320,000 individuals.

Status: the vast majority of Shelducks from the North-west European population visits the Wadden Sea during the year. Provided that the population numbers about 320,000 individuals, 80% may be present at the same time during the post-breeding moult and autumn, and more than half the population may winter in the Wadden Sea. During primary moult in July-August, by far the largest concentrations are found off the Elbe estuary, while the birds are more evenly distributed on soft tidal sandflats during the rest of the year. During late autumn and early spring, the Shelducks probably accumulate body reserves in the Wadden Sea.





Wigeon *Anas penelope*

Winter 138,000 Spring 96,200
Summer 436 Autumn 320,000

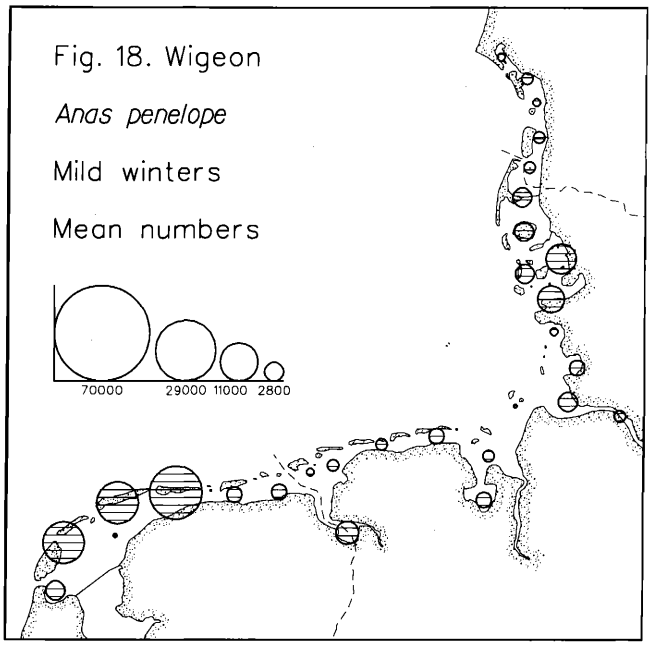
The Wigeon that visit the Wadden Sea on migration and during winter, originate mainly from breeding grounds in northern Russia and north-western Siberia (Perdeck & Clason 1980, Smit & Wolff 1981). These birds are relatively concentrated on coastal sites in North-west Europe, where the present mid-winter population numbers over 1 million individuals (Rose & Taylor 1993). An average of 354,000 stay in the Netherlands together with nearly 300,000 in the British Isles (Rüger *et al.* 1986). During cold winters large numbers of birds move further west, so that the Dutch numbers decrease, and numbers in Britain increase. Similarly, numbers in northern and western France may double during cold winters (Monval & Pirot 1989, Ridgill & Fox 1990).

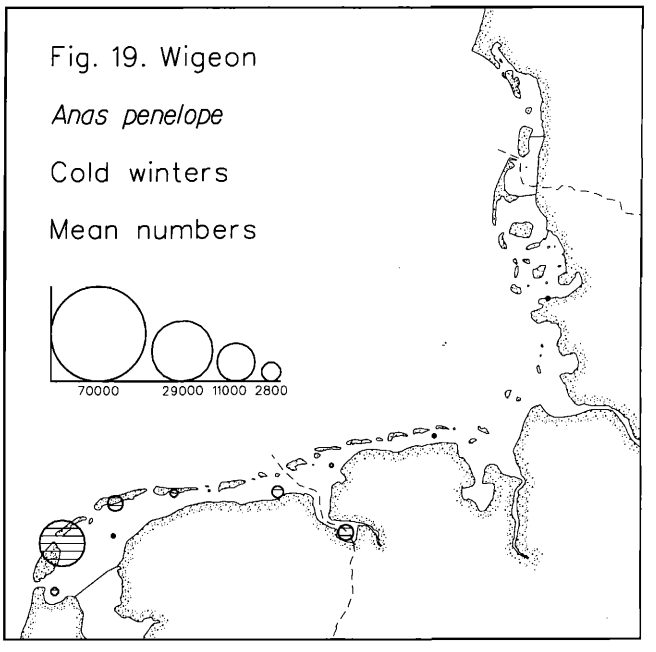
Our mid-**winter** counts have provided totals of between 70,300 and 138,000 in mild winters, while only 2,400-33,400 were counted in severe winters (Table 7). Even in mild winters, the largest numbers are found in the western-most Wadden Sea (Figure 18), but in severe winters the German and Danish parts are almost deserted (Figure 19). Peak numbers in the Dutch Wadden Sea were 111,000 in January 1978, but compared to the mid-winter totals less than one third of the Wigeon in the Netherlands winter in the Wadden Sea area (Smit & Wolff 1981). The pronounced increase in winter numbers in the Schleswig-Holstein Wadden Sea has continued, so that 75,600, 85,600 and 75,000 were recorded in January 1992, 1993 and 1994, respectively (Rösner unpubl.). Similarly, in Niedersachsen 25,400 were recorded in January 1992 and 23,400 in 1993 (Blew unpubl.).

As early as February there is a gradual **spring** movement eastwards and many move inland to feed on grasslands and marshes (Figures 20 and 21; Boekema *et al.* 1983, Gram *et al.* 1990, and others). In such areas spring numbers peak during the second half of March and in early April, when also the spring passage peaks (cf. Unterelbe in Figure 20; Petersen 1974, Camphuysen & van Dijk 1983). Total numbers in the Wadden Sea apparently do not increase, however, and our two counts in March gave very similar numbers to the previous mid-winter records, i.e. 96,200 and 74,900 (Table 7). Weather conditions were very unfavourable, however, especially during the March 1981 count (Table 1). The apparent lack of larger numbers of staging Wigeon in the Wadden Sea during spring passage may be caused by a relatively direct migration across central and northern Europe of most birds moving straight from the wintering grounds (Smit & Wolff 1981). Before they leave western Europe, the Wigeon build up **body reserves** for the migration (cf. Campredon 1982).

Only a few hundred Wigeon may **summer** (Table 7), when males and non-breeding females **moult** into eclipse plumage and renew their primaries (Cramp & Simmons 1977). Most are found in adjacent fresh-water habitats and other sheltered places (Berndt & Busche 1991).

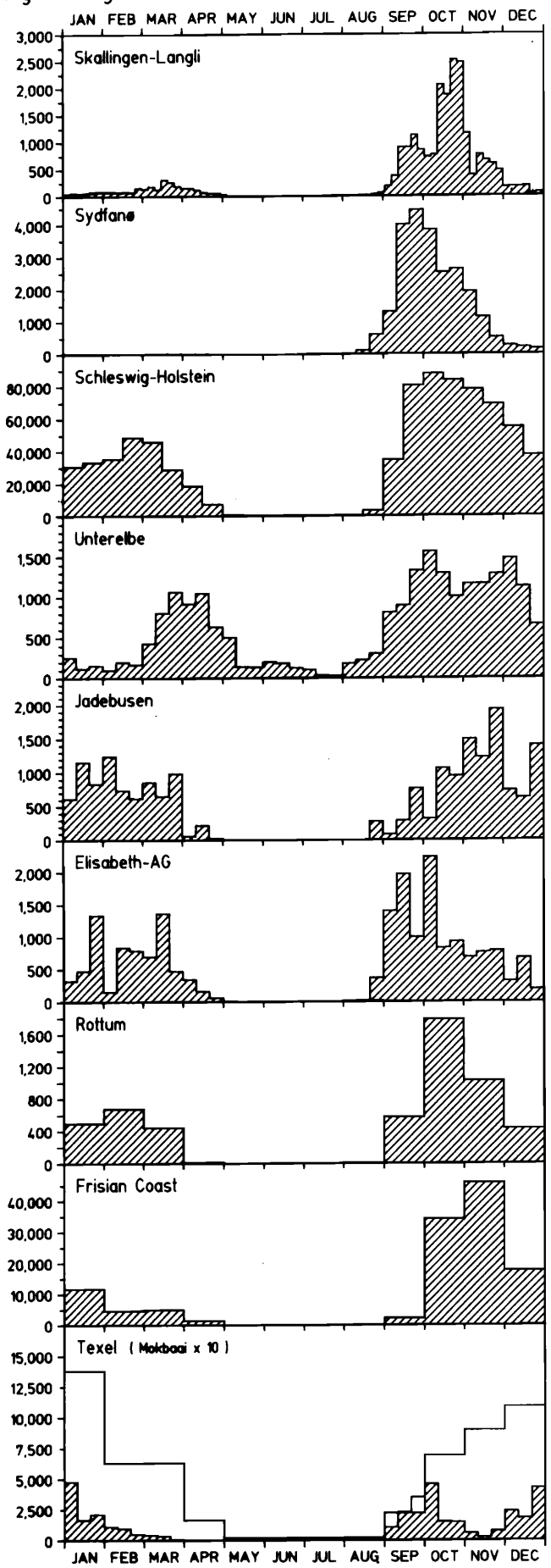
Large numbers start to move in from late August, and in most parts of the Wadden Sea **autumn** numbers peak during October-November (Figure 20). Immigration peaks in the second half of September (Petersen 1974), when relatively many birds are present in the eastern and northern parts (Table 7). This also applies for sheltered habitats in other parts of the Wadden Sea (like the Mokbaai; Figure 20), and may be a result of preference for such sites. After mid September our grand totals varied between 172,000 and 320,000, when most birds are still present in Schleswig-Holstein and Denmark together with the central part of the Frisian coast in the Netherlands (Figure 22). Up to 164,000 Wigeon were counted in November in the Dutch part during the 1970s (Zegers 1985). During their stay in the Wadden Sea they **moult** into nuptial plumage (Cramp & Simmons 1977), and they probably build up **body reserves** for the winter.

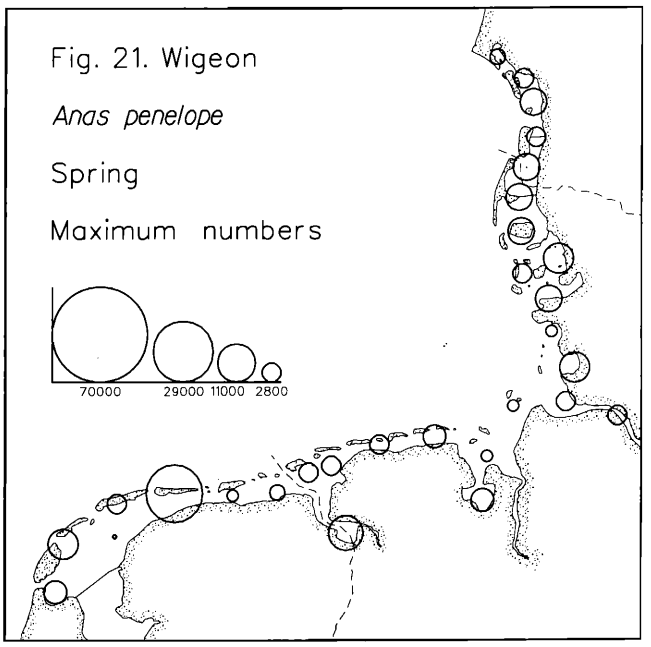


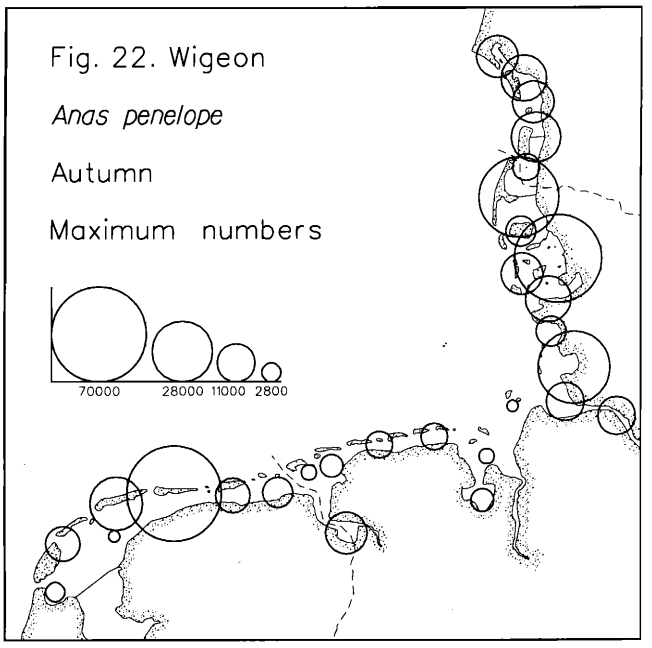


Wigeon are herbivores most of the year. They **feed** on eelgrass *Zostera* beds during low tide (especially in autumn), and on saltmarshes at high tide (Petersen 1982, Madsen 1988, Laursen *et al.* in press). At night, marshes, grasslands and fields behind the seawalls are also heavily utilized, especially when not disturbed. Thus, their **distribution** mainly reflects the availability of such suitable habitat in the Wadden Sea area. The largest numbers were recorded on the

Fig. 20. Wigeon *Anas penelope*







Frisian coast of the Netherlands (max. 65,600; Zegers & Kwint 1992) and in the former Nordstrander Bucht (max. 60,000 in Beltringharder Koog; Hötker & Kölsch 1993) in Schleswig-Holstein together with major vegetated areas outside the seawalls elsewhere.

In parts of the Danish Wadden Sea and in the adjacent polders **hunting** greatly restricts the potential feeding areas for Wigeon (Madsen 1988, Gram *et al.* 1990, Frikke & Laursen 1994a).

Status: probably the major proportion of the North-west European flyway population of Wigeon visit the Wadden Sea area especially during autumn passage, when perhaps over one third of the population may regularly be present at the same time. The Wadden Sea thus constitutes the single most important site for this population. During winter and spring 10-15% of the population may stay in the Wadden Sea area.

Teal *Anas crecca*

Winter 19,000 Spring 8,490
Summer 1,120 Autumn 56,600

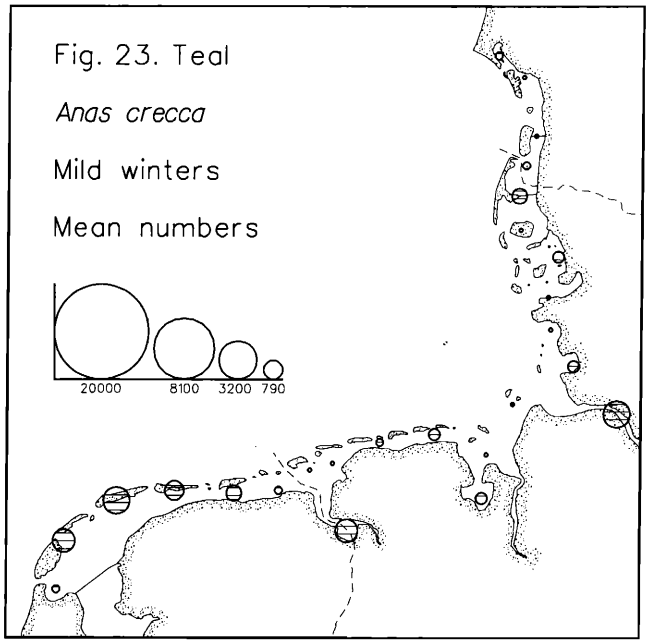
The mid-winter population of Teal in North-west Europe amounts to about 400,000 individuals. These birds primarily breed in Fenno-Scandia, northern Russia and the Baltic states. In winter they are widely distributed on many coastal and inland habitats. The population increased significantly up until 1983, whereupon it has dropped somewhat (Monval & Pirot 1989). The highest mean numbers recorded are 138,000 on the British Isles, 65,000 in northern and western France and 42,000 in the Netherlands, but only 70% of the estimated total are recorded by the counts (Rüger *et al.* 1986). Teal are highly sensitive to cold, and massive numbers move further west and south as far as the Iberian Peninsula during severe winters (Monval & Pirot l.c., Ridgill & Fox 1990).

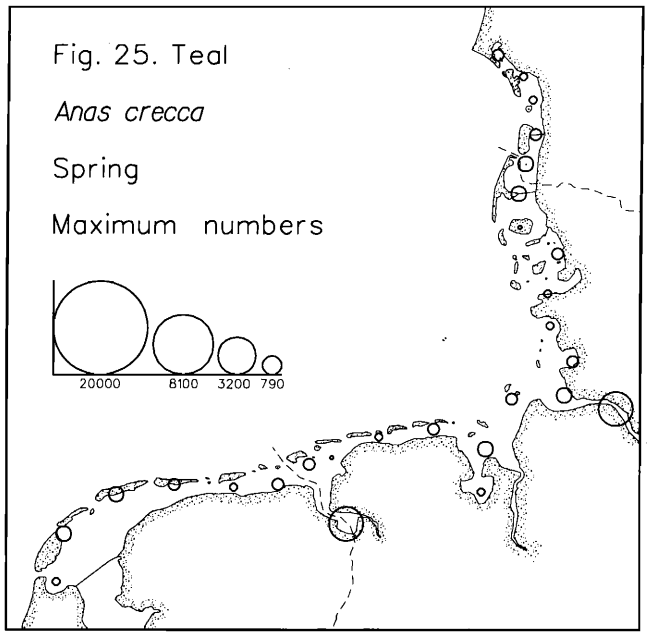
Our mid-**winter** counts in the Wadden Sea have yielded between 6,900 and 19,000 Teal in most of the mild winters, whereas less than 2,000 were recorded during severe winters (Table 8). Although the largest numbers are found in the Dutch Wadden Sea, up to 6,000 may stay in the Schleswig-Holstein and Danish parts during mild winters (Table 8, Figure 23).

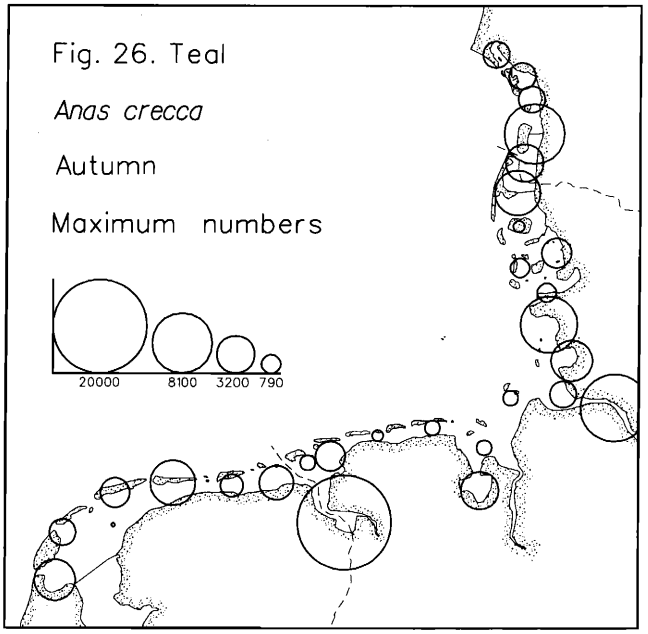
Spring migration starts during March, and the numbers of birds passing the area peak in the first half of April (Petersen 1974, Camphuysen & van Dijk 1983). In the Wadden Sea proper, numbers drop during March, as more birds appear in adjacent marshes behind the seawalls. In such freshwater habitats Teal numbers peak at the same time as the numbers of birds passing the area, i.e. in early April, and most have left by early May (Figure 24; Gram *et al.* 1990, Berndt & Busche 1991). This explains why so few Teal were recorded during our spring counts, when totals never exceeded 10,000 (Table 8). However, as many birds may occur in the Wadden Sea in early spring as during the winter. Most birds were found in the most sheltered areas, such as Dollard and the Elbe estuary at this time of the year (Figure 25).

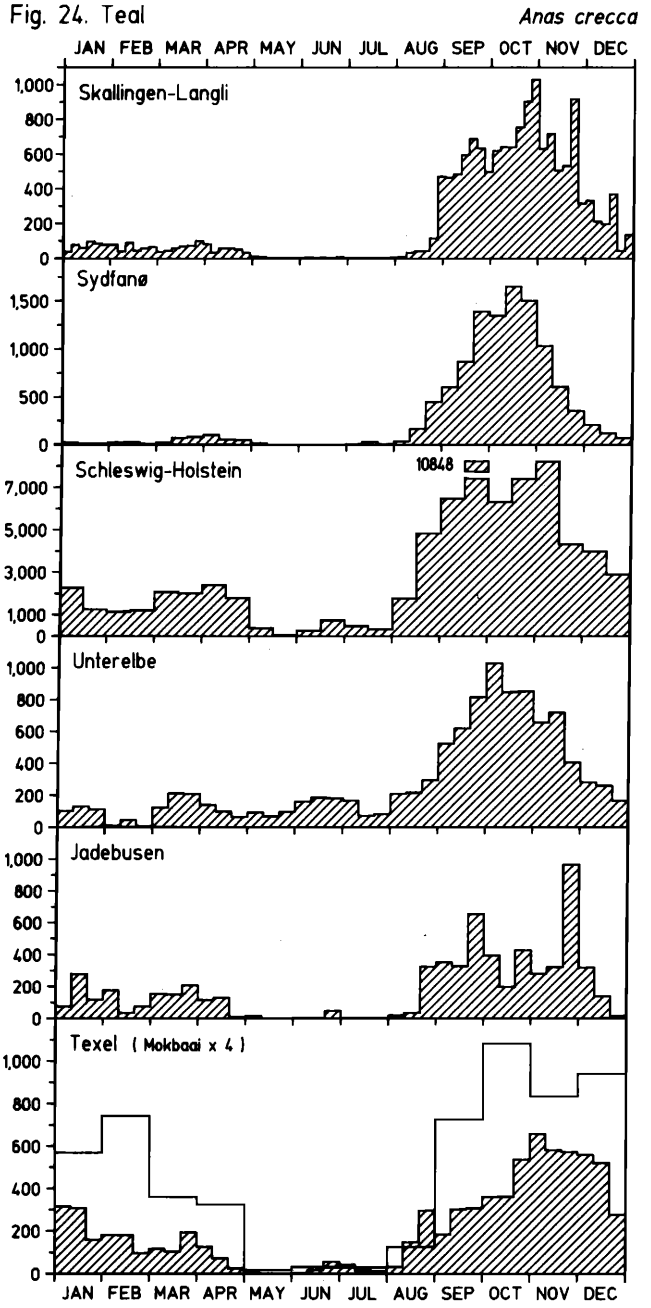
Several hundreds to a few thousand Teal (predominantly males) may **summer** especially in the Schleswig-Holstein Wadden Sea area (Table 8; Berndt & Busche 1991), where they mainly stay in adjacent marshes during their **moult** into eclipse plumage and during the primary moult (Cramp & Simmons 1977, Berndt & Busche l.c.). Between 250 and 350 pairs of Teal breed in the Wadden Sea area (Smit & Wolff 1981).

Large numbers of Teal arrive in the Wadden Sea during August and September; males somewhat in advance of females (Figure 24; Petersen 1974, Smit & Wolff 1981). **Autumn** numbers peak during September-November, when between 30,500 and 56,600 birds were recorded in the entire Wadden Sea (Table 8). The largest concentrations were found in the most sheltered and muddy parts of the Wadden Sea (Figure 26), where the birds mainly feed on seeds and invertebrates during low tide and on seeds in the salt marshes during high tide (Smit & Wolff 1981, Madsen 1988, and others). Many also stay in adjacent marshes at this time of the year, when up to 22,000 have been recorded in Lauwersmeer in the Netherlands and 15,400 in Beltringharder Koog in Schleswig-Holstein (Hötker & Kölsch 1993, N. Beemster pers. comm.). Much of the feeding takes place at night, and the birds roost in undisturbed places during daytime (Fog 1968). Peak records at other counts during the









study period were 16,700 in the Danish Wadden Sea, 14,300 in Niedersachsen and 28,600 in the Dutch part (Zegers & Kwint 1992, Laursen *et al.* in press, Blew & Heckenroth in press). In the 1970s up to 80,800 were counted in the Dutch Wadden Sea, and up to 65,000 were found in the newly reclaimed Lauwersmeer alone (Smit & Wolff 1981). During their autumn stay in the Wadden Sea, the birds **moult** into nuptial plumage (Cramp & Simmons 1977) and probably accumulate body reserves (Fox *et al.* 1992).

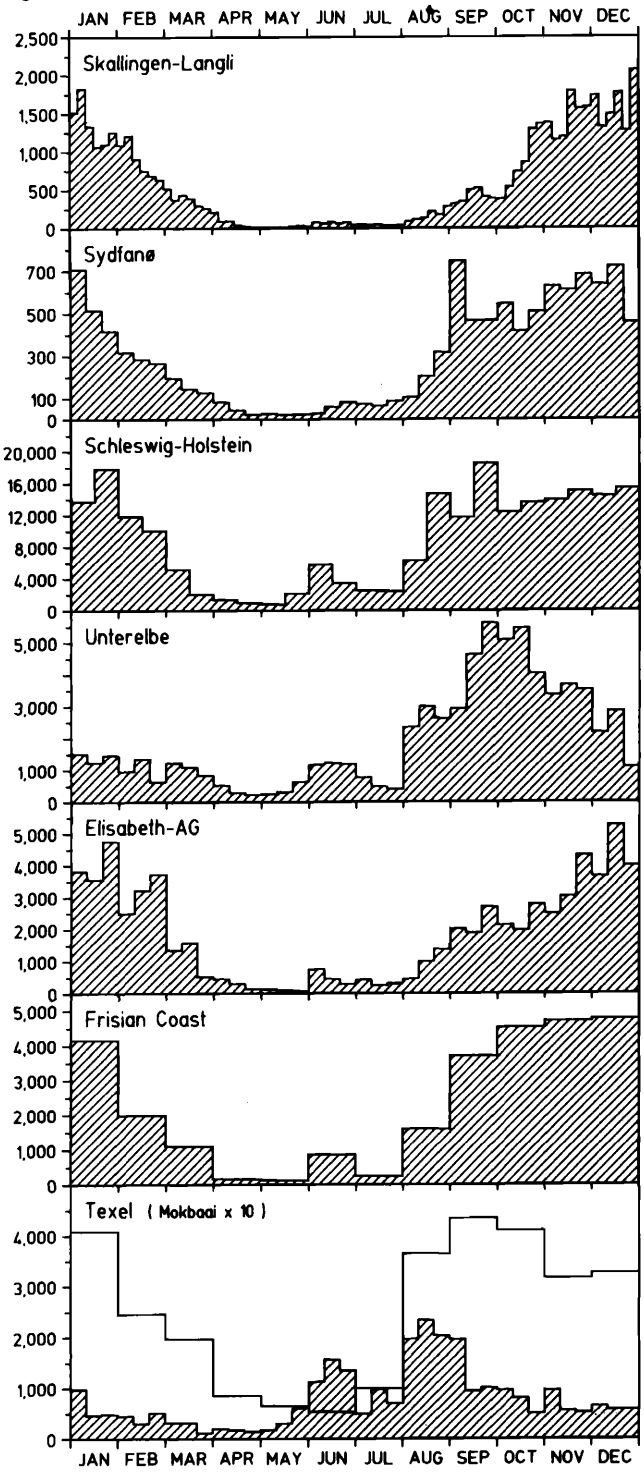
Status: a large part of the North-west European flyway population visit the Wadden Sea area during the non-breeding season, and the area is probably the single most important site for the population. Most are present during autumn and early winter, when they also utilize the Wadden Sea proper most intensively. Probably as much as 20% of the flyway population may be present at the same time in autumn, and at least up to 5% in winter.

Mallard *Anas platyrhynchos*

Winter 165,000 Spring 57,700
Summer 22,900 Autumn 136,000

About 5 million Mallards winter in north-western Europe, where they are highly dispersed across virtually all kinds of wetlands and water bodies (Monval & Pirot 1989). The overall distribution is dependent on the severity of the winter, but Mallards are less susceptible to cold than most other dabbling ducks (Ridgill & Fox 1990). The highest numbers are recorded in Germany (617,000), the Netherlands (586,000) and the British Isles (288,000), but less than half the birds are recorded by the mid-winter counts (Rüger *et al.* 1986). The birds visiting the Wadden Sea come from breeding grounds throughout all of northern Europe including northern Russia (Perdeck & Clason 1980, Smit & Wolff 1981).

Fig. 27. Mallard *Anas platyrhynchos*



In most parts of the Wadden Sea the largest numbers of Mallards are present during late autumn and **winter** (Figure 27). Our good counts have resulted in totals between 113,000 and 165,000 in mild winters, and between 35,100 and 92,300 in severe winters (Table 9). During mild winters large numbers of Mallards are found in virtually all parts of the Wadden Sea, while numbers decrease especially in the German and Danish parts during severe winters (Figures 28 and 29). In cold winters, many birds obviously leave these parts of the Wadden Sea, but most likely others move into the area from the east and north, or from inland sites. Many Mallards probably use the Wadden Sea primarily as a day-time roost, from where they fly on feeding excursions inland at dusk.

During **spring**, Mallard numbers in the Wadden Sea show a continuous decrease from mid-winter until most birds have left by mid April (Figure 27). Accordingly, our spring counts have provided no more than 52,800-57,700 birds in March, decreasing to 5,000-8,400 in May (Table 9). The distribution differs somewhat from the winter patterns with relatively less birds staging in the Dutch Wadden Sea (Figure 30).

The **breeding** population of Mallards on the Wadden Sea islands and mainland saltmarshes amounts to about 3,900-4,600 pairs (Smit & Wolff 1981). Many more breed in adjacent marshes and polders behind the seawalls. Flocks of **summering** Mallards are found in many favourable places along the Wadden Sea coasts and in adjacent marshes. Thus 22,900 Mallards were recorded in June 1991 (Table 9), but the true numbers are probably much higher. During June, they **moult** into eclipse plumage, followed by primary moult mainly in July (Cramp & Simmons 1977). The birds often hide in vegetated areas during primary moult. Therefore, more birds are present in the open Wadden Sea in June, than in July (Figure 27; Berndt & Busche 1991).

During August, **autumn** numbers begin to build up in the Wadden Sea (Figure 27). The high numbers e.g. on Texel as early as August suggest a predominance of local breeders. Males predominate early in the season (Smit & Wolff 1981). Birds continue to move in until the wintering population is at its highest from November to January. Thus, our two November counts have resulted in totals of 129,000 and 136,000 individuals, respectively (Table 9). However, many Mallards may actually pass the Wadden Sea during late autumn on their way to wintering grounds mainly on the British Isles and in France (cf. Perdeck & Clason 1980). Again, large numbers are found in favourable places virtually all over the Wadden Sea, with the largest concentrations in sheltered places along the mainland coast (Figure 31). Such places are mainly used as day-time roosts for birds **feeding** inland and on saltmarshes at night, and for feeding on the mudflats during low tide (Smit & Wolff 1981, Berndt & Busche 1991, Laursen *et al.* in press). During September-October, the Mallards **moult** into nuptial plumage (Cramp & Simmons 1977).

Status: although large numbers of Mallards stay in the Wadden Sea area during most of the non-breeding season, these numbers probably do not exceed 5% of the total flyway population. Thus, the Wadden Sea is certainly of international importance for the North European Mallard population, but merely as one among many sites. Peak numbers are likely to reach about 200,000 individuals. Building up of body reserves probably takes place both during autumn and spring.

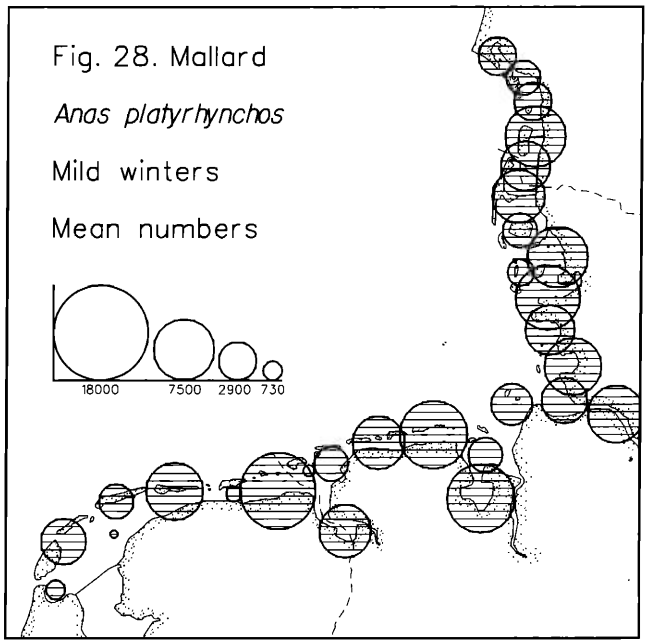


Fig. 28. Mallard
Anas platyrhynchos
Mild winters
Mean numbers
18000 7500 2900 730

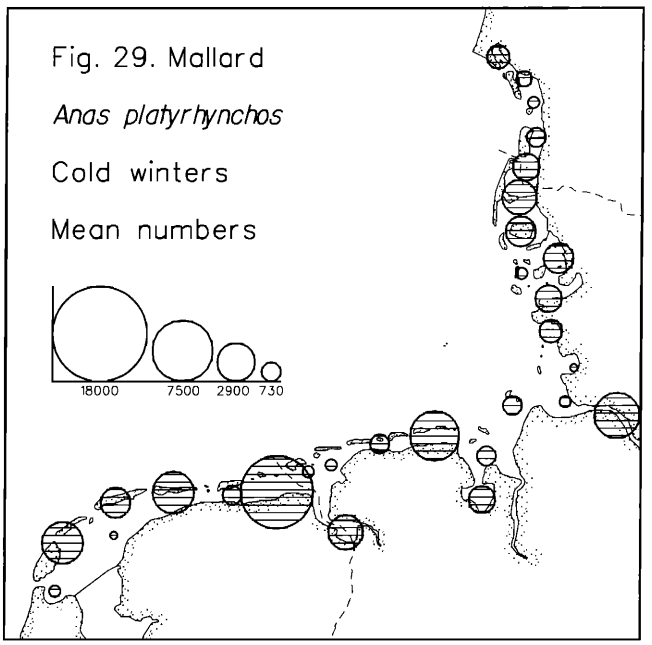


Fig. 29. Mallard
Anas platyrhynchos
Cold winters
Mean numbers
18000 7500 2900 730

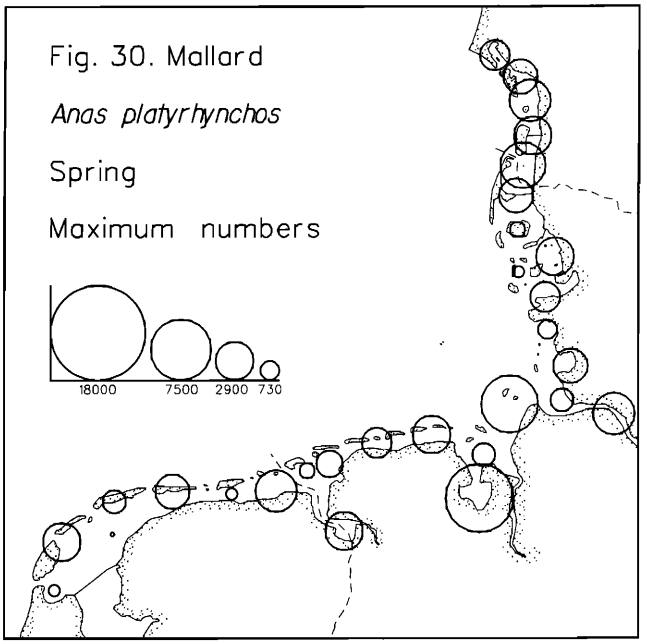


Fig. 30. Mallard
Anas platyrhynchos
Spring
Maximum numbers
18000 7500 2900 730

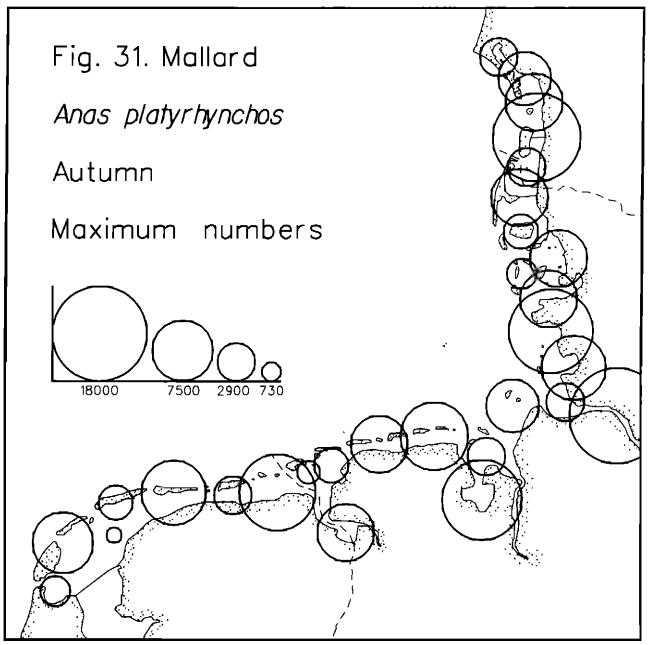


Fig. 31. Mallard
Anas platyrhynchos
Autumn
Maximum numbers
18000 7500 2900 730

Pintail *Anas acuta*

Winter 15,200 Spring 10,100
Summer 98 Autumn 16,200

Only a relatively small part of the West Palearctic population of Pintail winters in North-west Europe, where mid-winter numbers are estimated to be stable at about 70,000 individuals (Monval & Pirot 1989). 300,000 winter in the Black Sea – Mediterranean region and about one million in sub-Saharan West Africa. In North-west Europe most of the Pintail are highly concentrated in relatively few coastal wetlands in the British Isles (25,000), the Netherlands (21,000) and northern and western France (16,000) (Rüger *et al.* 1986). The birds occurring in the Wadden Sea mainly originate from breeding grounds in Fenno-Scandia, northern Russia and north-westernmost Siberia (Perdeck & Clason 1980, Smit & Wolff 1981).

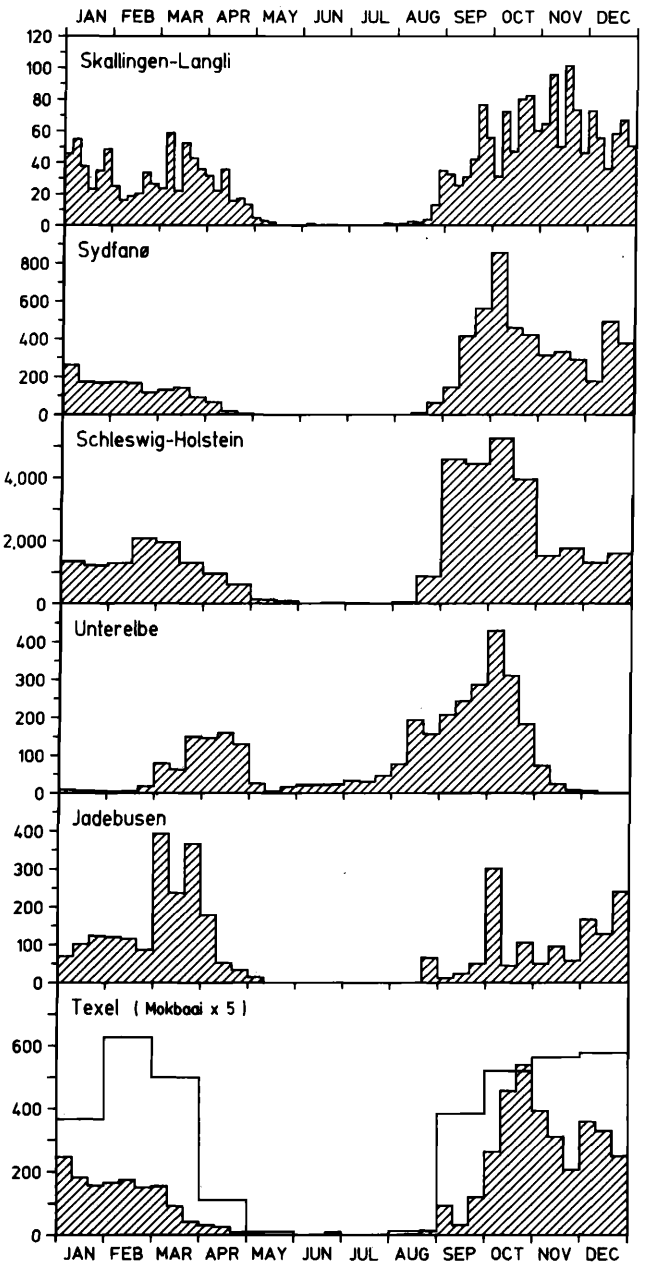
Winter numbers of Pintail in the Wadden Sea range between 7,600 and 15,200 in mild winters, whereas numbers drop to a few thousands or even hundreds during cold winters (Table 10). There is a clear westward shift during severe winters (Figures 32 and 33), when many Pintail move to the British Isles and France or even to the Iberian peninsula (Ridgill & Fox 1990). In such cases the German and Danish parts of the Wadden Sea are almost deserted, while numbers in the Dutch part are generally halved.

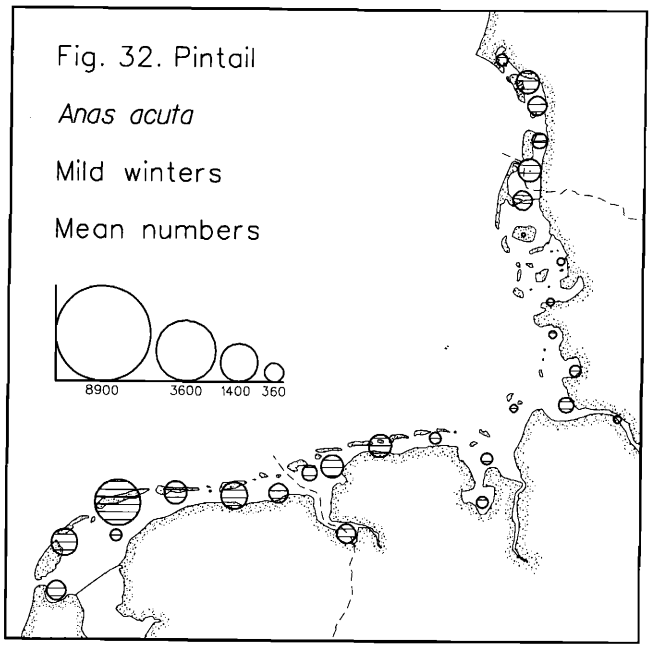
Spring numbers in the Wadden Sea peak during February-March (Figure 34). In adjacent wetlands peak numbers are recorded in March and April (cf. Unterelbe in Figure 34; Schmidt-Moser 1986, Gram *et al.* 1990, and others). Most Pintail have left the Wadden Sea by early May. This is also reflected in our spring counts. About 10,000 were recorded in March, decreasing to a few hundreds during most May counts (Table 10). The birds are highly dispersed all over the Wadden Sea area, but the largest numbers were found in the Danish part (Table 10, Figure 35). In March 1980, 6,365 Pintail were counted in the Dutch Wadden Sea, however (Zegers & Kwint 1992).

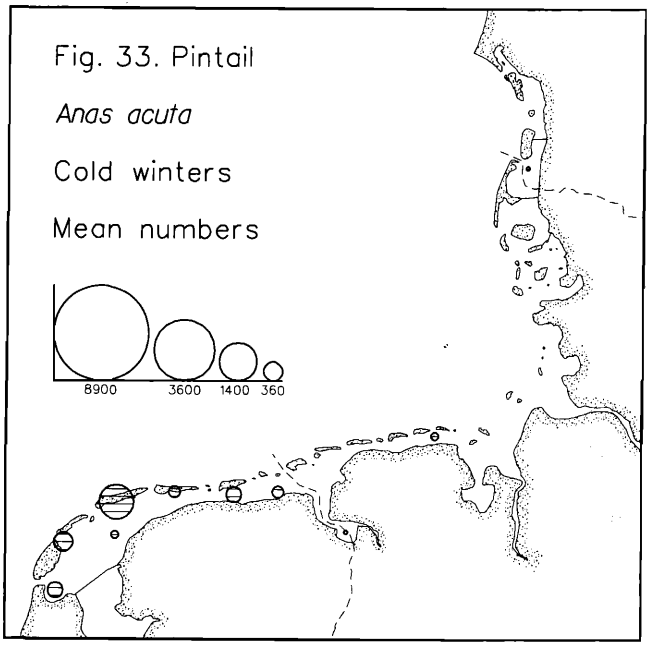
Only 30-50 pairs of Pintail **breed** in the Wadden Sea area; some of them are probably escaped birds from duck decoys (Smit & Wolff 1981). Very few are present in the Wadden Sea area in **summer**, as most migrants moult their primaries closer to the breeding grounds (Table 10; Smit & Wolff l.c.).

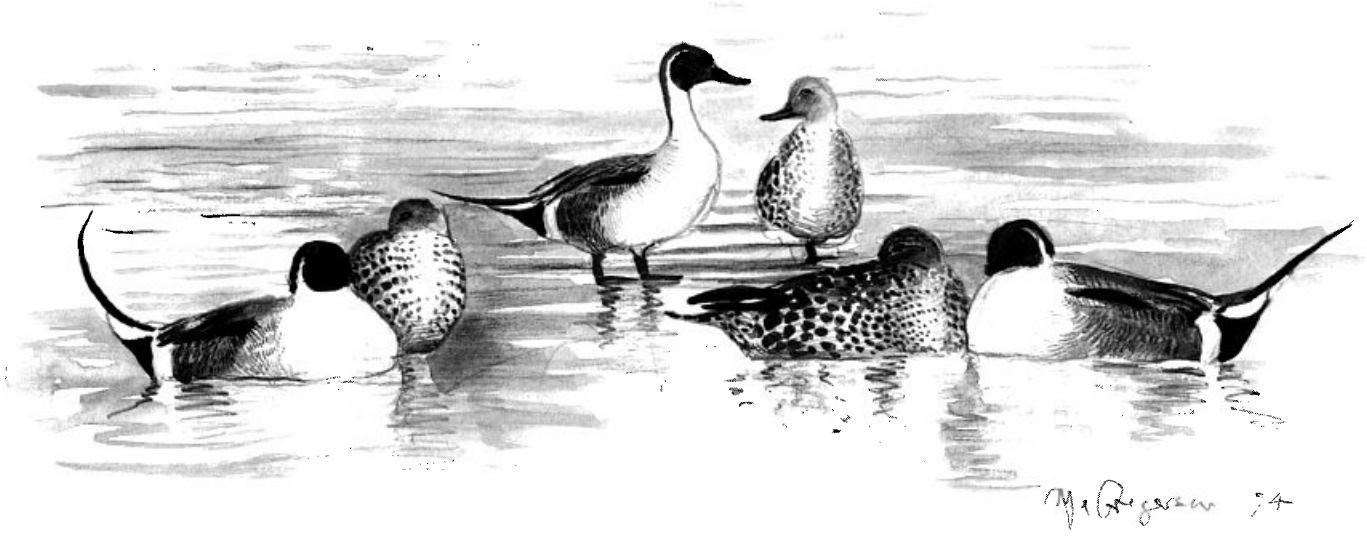
Pintail start to move into the Wadden Sea during August, and immigration is very fast. In many places, **autumn** peak

Fig. 34. Pintail *Anas acuta*





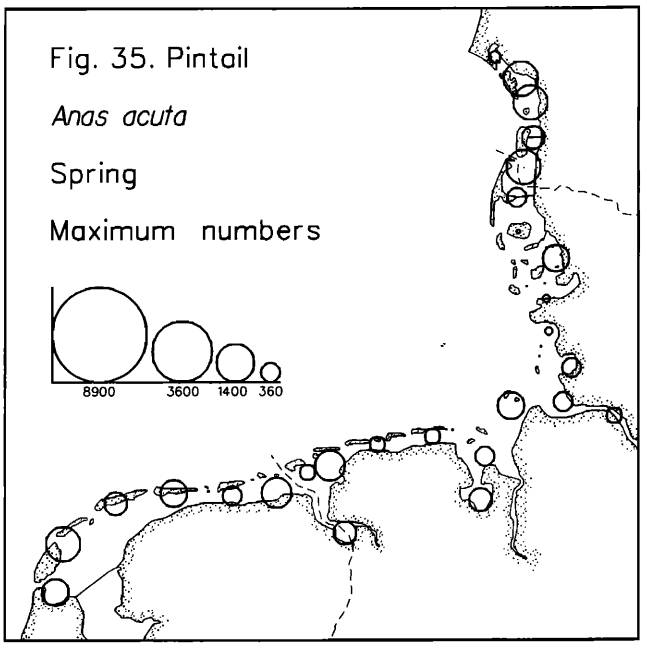


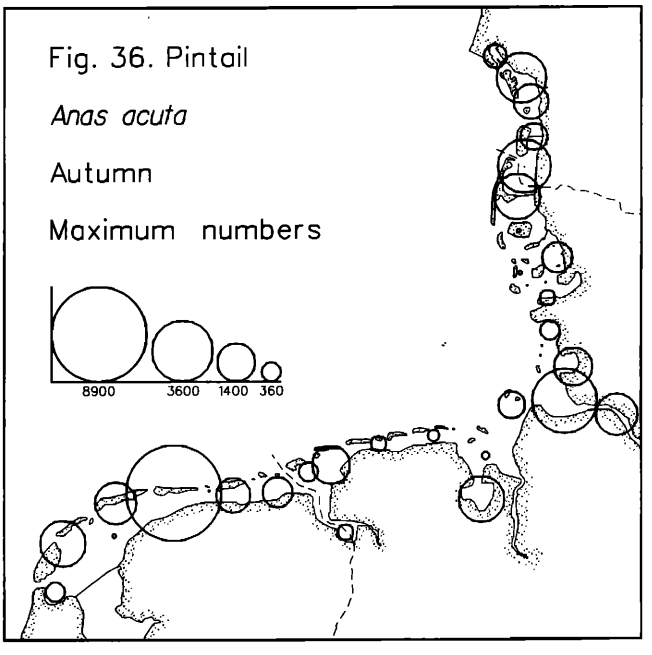


numbers are reached in September-October (Figure 34; Petersen 1974, Busche 1980, Boekema *et al.* 1983, and others). Totals of between 10,000 and 16,200 were recorded at most counts in late September, October and November (Table 10). Also autumn numbers were relatively high in the Danish Wadden Sea, where peak records often are as late as November (Figure 34 and 36; Laursen *et al.* in press). Busche (1980) estimated the autumn population in the Schleswig-Holstein Wadden Sea at 15,000 individuals during the early 1970s, but numbers have apparently decreased since then (Berndt & Busche 1991). Males generally arrive in advance of females. During September to November Pintail **moult** into nuptial plumage, and pre-winter **fattening** probably takes place in the Wadden Sea during late autumn (Cramp & Simmons 1977).

Pintail mainly stay in sheltered places along the mainland coast. They **feed** on seeds and other vegetable matter on flooded saltmarshes and wet meadows, besides *Hydrobia* and other invertebrates on the mudflats (Smit & Wolff 1981). In autumn, much feeding on saltmarshes and inland takes place at night. These birds may roost during day-time on the Wadden Sea.

Status: second only to the Dutch Delta, the Wadden Sea is among the most important sites for Pintail in North-west Europe. Most are present during autumn and mild winters, but high numbers are also recorded in spring. Up to 16,200 were counted, but more individuals probably pass through the Wadden Sea, especially in autumn. Most likely, close to one third of the North-west European flyway population may be present in the Wadden Sea at the same time in autumn, when the birds undergo body moult and build up body reserves.





Shoveler *Anas clypeata*

Winter 3,610 Spring 868
Summer 1,849 Autumn 3,960

About 40,000 Shovelers are estimated to winter in north-western Europe; most of them in western France (12,000) (Rüger *et al.* 1986, Pirot *et al.* 1989). Nearly ten times as many winter in the Mediterranean area. The birds visiting the Wadden Sea primarily originate from breeding grounds in northern Russia, besides birds from local populations as well as from Fenno-Scandia and the Baltic (Cramp & Simmons 1977, Perdeck & Clason 1980).

In mild **winters** we have counted up to 3,600 Shovelers in the Wadden Sea, with the vast majority in the Dutch part (Table 11). In the German part, hundreds may be found as far north as the Danish border. In severe winters few or none remain.

During March Shovelers move inland (Gram *et al.* 1990, and others), and more birds disperse into the German and Danish parts of the Wadden Sea (Table 11; Busche 1980, and others). **Spring** migration peaks in late March and the first half of April (Camphuysen & van Dijk 1983). This is not reflected in numbers in the Wadden Sea, where a more or less stable figure of between 400 and 870 was achieved at all spring counts (Table 11). These may primarily be local breeders, as most migrants move straight over continental Europe during spring migration (Cramp & Simmons 1977).

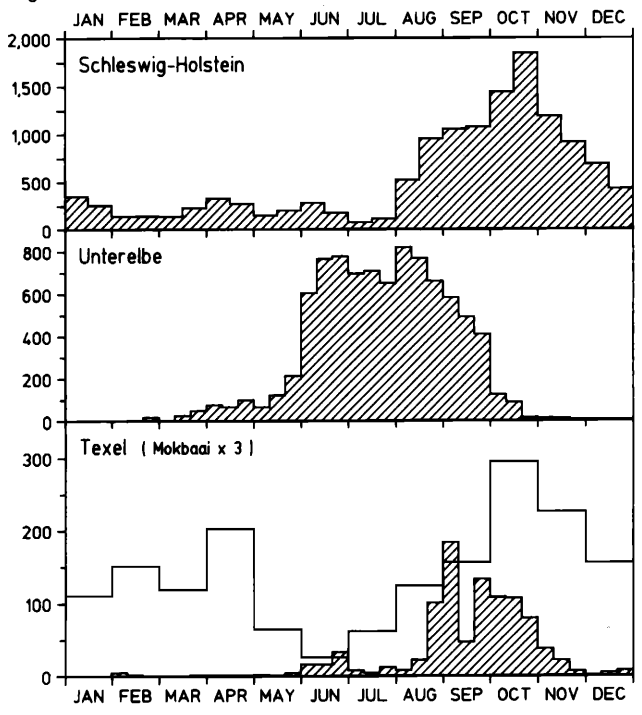
During May-June male Shovelers gather in sheltered wetlands, where they **moult** into eclipse plumage and later undergo primary moult during June-July (cf. Unterelbe in Figure 37; Cramp & Simmons 1977, Berndt & Busche 1991). At our mid-**summer** census 1,850 Shovelers were recorded (Table 11). A maximum of 1,560 was counted at Unterelbe (in sub-area NS14) alone in July 1984 (Blew & Heckenroth in press).

Autumn migration starts in August (Figure 37). In the Wadden Sea numbers continue to increase until October-November, when Shovelers finish most of their **moult** into nuptial plumage and build up body reserves (Cramp & Simmons 1977). At this time of the year (mid September to early November) we recorded between 1,550 and 3,300 Shovelers at good counts in the entire Wadden Sea area (Table 11).

The Shovelers are mainly **distributed** in areas with shallow water, muddy substrates and wet meadows on both sides of the seawalls, and both along the mainland coast and on the larger islands. Most are found in brackish or fresh sites rich in planktonic organisms and seeds (Cramp & Simmons 1977, Berndt & Busche 1991).

Status: the Wadden Sea area is of great international importance for Shovelers in North-west Europe, but most birds actually stay in adjacent wetlands behind the sea-walls. Peak numbers may reach about 10% of the North-west European mid-winter population both in autumn and winter. Fattening and moult takes place in the Wadden Sea area in autumn, and fattening probably also in spring.

Fig. 37. Shoveler *Anas clypeata*



Eider *Somateria mollissima*

Winter 133,000 Spring 127,000
Summer 82,000 Autumn 128,000

Currently, about 3 million Eiders are estimated to winter in North European waters. The majority are found in Icelandic (900,000), Danish (800,000) and Norwegian (450,000) waters, and with lower numbers in Germany, the Netherlands, North Russia and Britain (Laursen 1989, Noer 1991). The birds wintering around the North Sea and Scandinavia primarily breed around the Baltic (600,000 pairs), Norway (150,000-200,000 pairs), South-west Sweden (58,000 pairs) and Denmark (20,000 pairs) (Laursen l.c., Koskimies 1993). Besides a local Wadden Sea population of 6,000-7,000 pairs, the Eiders that occur in the Wadden Sea originate primarily from the Baltic (Smit & Wolff 1981, Swennen *et al.* 1989). The non-breeding area of these birds further includes the southern parts of the inner Danish waters and the western Baltic (Noer l.c.). The Baltic Eider population has more than doubled during the last two decades, but this has apparently not resulted in more wintering birds in the Wadden Sea (Swennen *et al.* l.c.).

In mild **winters** during 1980-1991 we recorded between 74,900 and 133,000 Eiders in the entire Wadden Sea (Table 12). In severe winters figures ranged between 46,400 and 86,500. However, Eiders were not covered well during most of our counts in Germany and the Netherlands, where only a few aerial counts were performed. Accordingly, only the Danish counts can be considered representative of true numbers. In January 1987 and 1991 totals of 246,000 and 331,000 Eiders were recorded, respectively, from aeroplanes in the entire Wadden Sea (Swennen *et al.* 1989, G. Nehls in litt.). The winter of 1986-1987 was a severe winter, but this apparently did not influence total numbers very much. Only the birds in the Danish and Schleswig-Holstein parts of the Wadden Sea were displaced to waters mainly outside the islands. Otherwise the largest concentrations of wintering Eiders are found in the northern and western parts of the Wadden Sea, as opposed to the central German part (Swennen *et al.* l.c.).

In **spring**, large numbers of Eiders – about 70,000 – leave the Wadden Sea during February and March (Figure 38; Swennen *et al.* 1989), when they move to the southern part of the inner Danish waters (Noer 1991). Thus, in March 1984 our total count fell to 48,400 Eiders in the Wadden Sea, which was less than half the January figure of the same year (Table 12). True numbers are much higher. Hence, 87,000

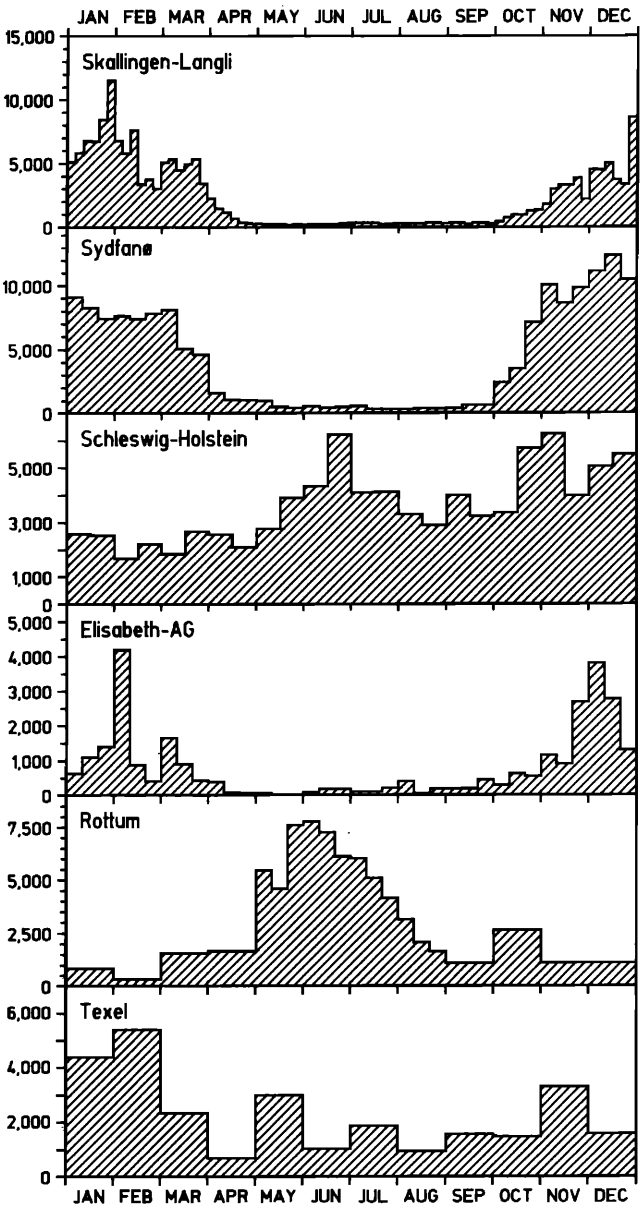
were counted in the German part alone on 10 March 1987 (Nehls *et al.* 1988). Eiders leave for their Baltic breeding grounds mainly during late March and early April (Noer l.c.). Accordingly, numbers remained relatively low in the Danish and German parts of the Wadden Sea during the late April and May counts (see also Nehls 1991 and Laursen *et al.* in press). The large numbers recorded in the Dutch Wadden Sea in early May (Table 12) is a result of immature non-breeders and males gathering near breeding colonies, where they can relatively easily be counted (cf. Rottum in Figure 38 and Mes *et al.* 1980).

The **moult migration** of males from the Baltic breeding grounds begins in late May or early June (Petersen 1974, Swennen *et al.* 1989). Only 82,000 Eiders were recorded at our mid-**summer** count in June 1991 (Table 12). However, the main moult migration of adult males does not take place until late June and early July (Joensen 1973). The numbers of moulting birds in July and August are supposed to be about 250,000 (Swennen *et al.* l.c.). Most are found in the German parts of the Wadden Sea, and they are highly selective for areas undisturbed by human activities such as sailing (Thiel *et al.* 1992, Ketzenberg 1993). 80-90% of the Eiders moulting in the Danish and German areas are males. The male ratio in the Dutch part is lower, due to large numbers of summering immatures and breeders of both sexes, but the overall ratio in the Wadden Sea is still about 75% males (Swennen *et al.* l.c.). They moult into eclipse plumage during June, and from early July they start moulting their flight feathers. From early September practically all males can fly again, and they attain breeding plumage during September-October. A number of females arrive to moult in the Wadden Sea in August-September, and they generally moult one month later than males (Smit & Wolff 1981, Cramp & Simmons 1983, Nehls 1991).

The high numbers of **moulting** Eiders in the German Wadden Sea represent a dramatic increase since the 1970s (Swennen *et al.* 1989, Nehls 1991). The reason for this is unknown.

A large proportion - about 50,000 - of the males apparently leaves the Wadden Sea after completion of primary moult in **autumn**, when numbers remain rather stable in spite of large numbers of especially females and juveniles

Fig. 38. Eider *Somateria mollissima*



arriving from the Baltic mainly during October (Joensen 1974, Petersen 1974, Camphuysen & van Dijk 1983, Swennen *et al.* 1989, Noer 1991). These males probably move to the south-western part of the inner Danish waters by the same time (Noer l.c.).

Most of our reasonably good autumn counts gave totals of between 51,800 and 128,000 (Table 12), but again true numbers are more likely to be 200,000-250,000 (Swennen *et al.* 1989). In the German Wadden Sea alone, 208,000 Eiders were counted from aeroplane in October 1987. In October 1989 almost 180,000 were recorded in the Schleswig-Holstein part, and in late September 1990 even 215,000 were recorded here. At this time large numbers pass through the areas *en route* further west (Nehls *et al.* 1988, Nehls 1991).

During autumn, the **distribution** of the birds apparently reverts back to the winter pattern of most Eiders being concentrated in the northern and western parts of the Wadden Sea (see above). The reason for these seasonal differences in the distribution of Eiders in the Wadden Sea is unknown, but the total annual number of bird-days per area square is about the same on sheltered flats in all of the Wadden Sea (Swennen *et al.* 1989). The phenologies presented in Figure 38 merely illustrate patterns of change in local use of different parts of the Wadden Sea by Eiders and do not reflect overall changes in the abundance of this species (cf. Swennen *et al.* l.c. and Laursen *et al.* in press).

In the Danish part, Eider numbers both during winter and during the summer moult have dropped since intensive mussel fishery began here in 1984 (Laursen & Frikke 1987, Laursen *et al.* in press). Similarly, numbers of wintering Eiders in the Dutch Wadden Sea fell considerably after the disappearance of almost all inter-tidal mussel beds in 1991 (Smit 1994). The consumption by Eiders of mussels and cockles and the conflict between the birds and fishery is discussed by Nehls (1989, 1991), Swennen *et al.* (1989) and Smit (1994). Besides mussel fishery, the distribution of Eiders in the Danish Wadden Sea is influenced by motor boat hunting activity (Laursen *et al.* in press).

Eiders mainly **feed** in shallow water, where they can trample the cockles *Cerastoderma edule* out of the sand or reach the mussels without diving. Hence, they roost at low tide and disperse over the tidal flats with the rising tide. During moult the Eiders only feed for about one hour per day, while during winter they feed for 8-12 hours (Nehls 1991).

Little is known on **weight changes** during the year, and it is not known to what extent Eiders build up body reserves during their stay in the Wadden Sea.

Status: the Wadden Sea is of great international importance for the North European population of Eiders during all of the non-breeding season and for males during the post-breeding moult. About 10-20% of the Baltic population winter in the Wadden Sea, and more than one third of the males from this population moult here. Furthermore, many immatures spend their first 2-3 years of life in the Wadden Sea – the majority in the Dutch part.

Oystercatcher *Haematopus ostralegus*

Winter 593,000 Spring 481,000
Summer 103,000 Autumn 739,000

Oystercatchers from the breeding grounds in north-western Europe all winter along the East Atlantic seaboard, where the mid-winter population is estimated at 874,000 birds (Smit & Piersma 1989; see further below for possible underestimate). Main concentrations occur in the British Isles (312,000), Wadden Sea (391,000; see further below) and Dutch Delta (107,000). A further 40,000 winter in France, but this number may increase during severe winters, when birds are forced south. Oystercatchers wintering in the British Isles mainly breed in Norway, Iceland, the Faroe Islands and in the British Isles themselves. Birds wintering on the continent (incl. the Wadden Sea) mainly come from the adjacent continental countries together with southern Scandinavia, the Baltic coasts and northern Russia (Smit & Piersma l.c., Hulscher *et al.* in press). A total of about 40,000 pairs breed in the Wadden Sea area (Fleet *et al.* in press).

Several of our mid-**winter** counts have provided considerably higher figures than previously anticipated (Table 13). During mild and "normal" winters we recorded between 459,000 and 593,000, of which up to 448,000 have actually been counted. Our three good severe winter counts produced 317,000-379,000, of which a maximum of 268,000 were actually counted. On average a total of 472,000 Oystercatchers were recorded during our good counts in the entire Wadden Sea, or 523,000 when data from the less reliable counts in the severe winters are excluded. This means that the North-west European mid-winter population estimate should probably be revised upwards by at least 81,000-132,000 individuals.

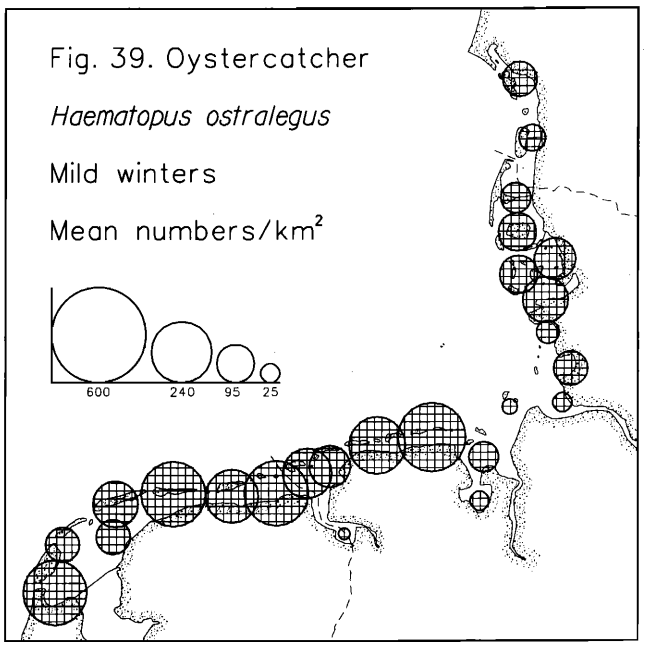
The largest numbers and **densities** are found in the Dutch and Niedersachsen parts – both during mild and cold winters (Table 13, Figures 39 and 40). In severe winters many Oystercatchers leave all areas of the Wadden Sea, but emigration is most pronounced in the Schleswig-Holstein and Danish sections. Between one third and one half of the birds may remain in these areas.

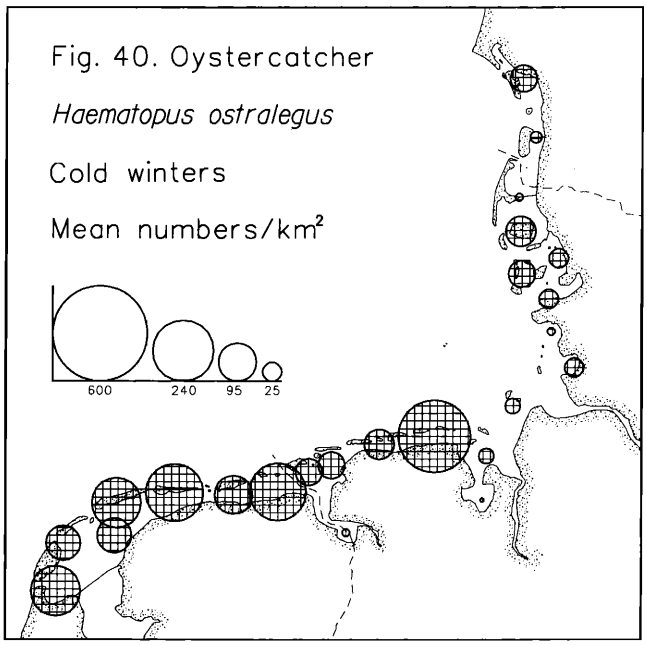
In **spring**, most of the local breeders already occupy territories by the end of February, while Norwegian and southern Scandinavian breeders depart for their breeding grounds during March and early April (Figure 41; Meltofte 1993, and others). Thus, our highest figure was recorded at the earliest spring count, i.e. 481,000 individuals in early March 1981 (Table 13), in spite of inclement weather conditions. This is the same order of magnitude as the mid-winter totals, which may indicate that relatively low numbers of Oystercatchers from more southern wintering areas replace the local breeders that have left by that time. In some areas of the Schleswig-Holstein and Danish Wadden Sea, numbers build up during March and early April (e.g. at Sydfanø; Figure 41). These Oystercatchers are thought to be Finnish and White Sea breeders, which do not leave northwards until late April and early May (Meltofte l.c., Lambeck *et al.* in press). Immatures from northern breeding grounds also depart late (Jansen & Haase 1981). Along the coast of the Netherlands this migration peaks in mid May and continues until June (Camphuysen & van Dijk 1983).

Simultaneously with the departure of Norwegian and South Scandinavian breeders between mid March and mid April, numbers and **densities** of Oystercatchers decrease relatively more in the Dutch and Niedersachsen parts than in the Schleswig-Holstein and Danish parts (Table 13, Figures 42 and 43). This may be a further indication of different populations staging in the different parts of the Wadden Sea in spring. Before the individual populations of Oystercatchers leave the Wadden Sea in spring, they have almost finished their pre-breeding body **moult** (Cramp & Simmons 1983).

More than 100,000 Oystercatchers were recorded in the Wadden Sea in June 1991 (Table 13). Real numbers are probably considerably higher, as Niedersachsen remained largely uncovered and dispersed breeders were poorly covered in general. A large proportion of the birds recorded are **summering** non-breeding immatures. A few samples from the northernmost part of the Danish Wadden Sea show, that about half the birds in flocks showed immature bill and plumage characteristics. These immatures moult 1-2 months earlier than the adults (Smit & Wolff 1981, Meltofte 1993).

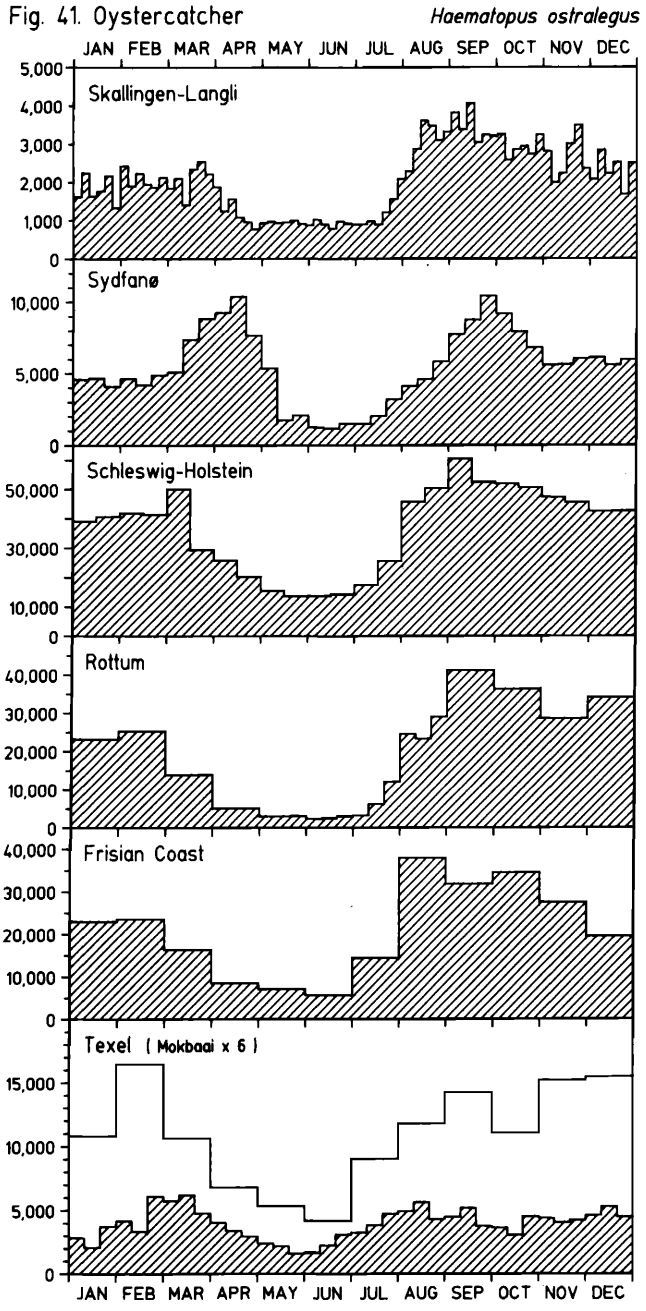
Autumn Oystercatcher numbers in the Wadden Sea start to build up during July (Figure 41), when local breeders and birds from southern Scandinavia and the southern Baltic





coasts move in (Smit & Wolff 1981, Meltofte 1993). The bulk of the large Norwegian population follows during August, while northern breeders from the northernmost Baltic coasts and the White Sea region continue to arrive until late September (Meltofte l.c.). The large numbers of birds from Scandinavia and the southern Baltic apparently mainly move straight to the German and Dutch parts of the Wadden Sea, whereas there are some indications that Oystercatchers from the northern Baltic and White Sea areas make up a larger proportion of the birds in the Danish part (Meltofte l.c., Lambeck *et al.* in press). Juveniles generally migrate later than adults. Accordingly, peak numbers in most areas are reached in September (Figure 41), when more than 600,000 Oystercatchers were recorded in the entire Wadden Sea during most counts (Table 13). In most parts, numbers remain high or even increase throughout the autumn (Figure 41; Smit & Wolff l.c.), when totals from our good counts have varied between 584,000 and 739,000 birds, of which a maximum of 660,000 has actually been counted.

Fig. 41. Oystercatcher *Haematopus ostralegus*

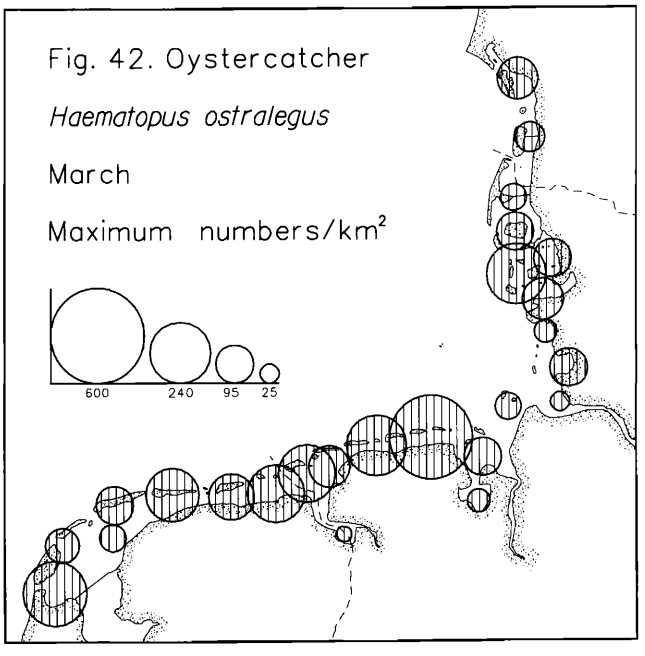


As in winter and early spring the highest numbers and **densities** are found in the Dutch and Niedersachsen parts of the Wadden Sea (Table 13, Figure 44). Most are found on extensive muddy sandflats, where they mainly feed on cockles, mussels and other bivalves. Lower densities are found in silty, sheltered places like Jadebusen and Dollard (Ens *et al.* 1993). The number of Oystercatchers using the Danish and Dutch parts may have declined following commercial overexploitation of intertidal musselbeds (Laursen *et al.* in press, Hulscher *et al.* 1993) and cocklebeds (Smit 1994) in combination with low spatfall of both benthos species in a number of successive years. At high tide they concentrate at roosts most often on dry sandbanks and saltmarshes, where flocks of more than 10,000 – and occasionally even up to 40,000 – may occur.

Like the mid-winter counts, autumn figures suggest that the latest estimate of the total **flyway population** is too low. In the Dutch Delta 80,000-85,000 Oystercatchers are present in November (Meininger *et al.* 1994), and in November 1991 237,000 Oystercatchers were counted on the British Isles (Cranswick *et al.* 1992). This brings the North-west European total in excess of one million birds in late autumn.

During late autumn and early winter, when the post-breeding **moult** is finished, part of the birds move on to wintering grounds in the British Isles and further west and south along the continental coasts. Oystercatchers build up **body reserves** during the whole autumn and winter (Dare 1977).

Status: the Wadden Sea is of outstanding international importance for the Oystercatchers breeding in continental north-western and northern Europe. About half the total East Atlantic flyway population winters in the Wadden Sea, and these birds remain during the pre-breeding body moult in spring. As many as two thirds of the entire population may stay here during the autumn moult. Smaller numbers of birds having wintered further south appear again during spring migration. The birds are distributed on the best feeding grounds on mussel- and cocklebeds in the Wadden Sea, but it seems possible that there is some geographical separation according to origin of different populations.



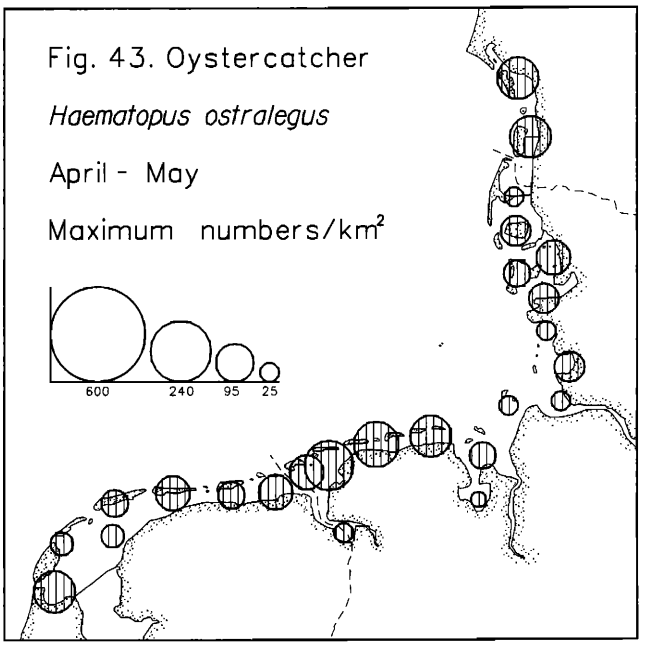


Fig. 43. Oystercatcher
Haematopus ostralegus
April - May
Maximum numbers/km²
600
240
95
25

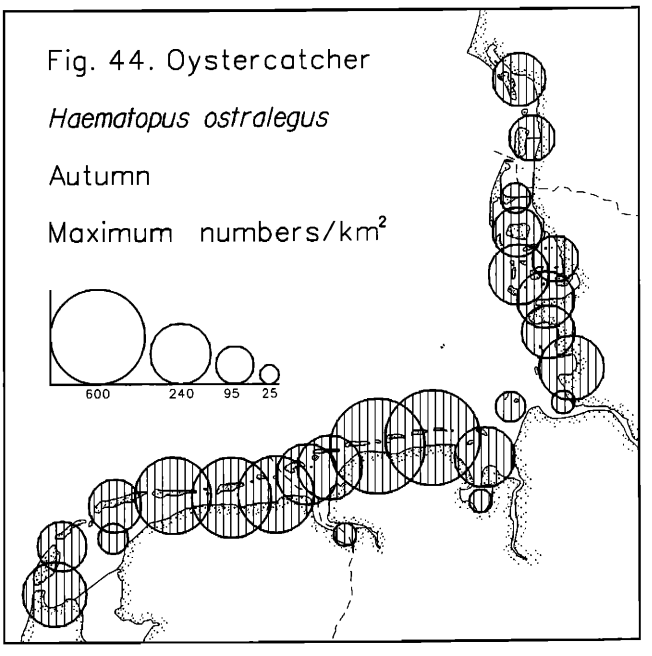


Fig. 44. Oystercatcher
Haematopus ostralegus
Autumn
Maximum numbers/km²
600
240
95
25

Avocet *Recurvirostra avosetta*

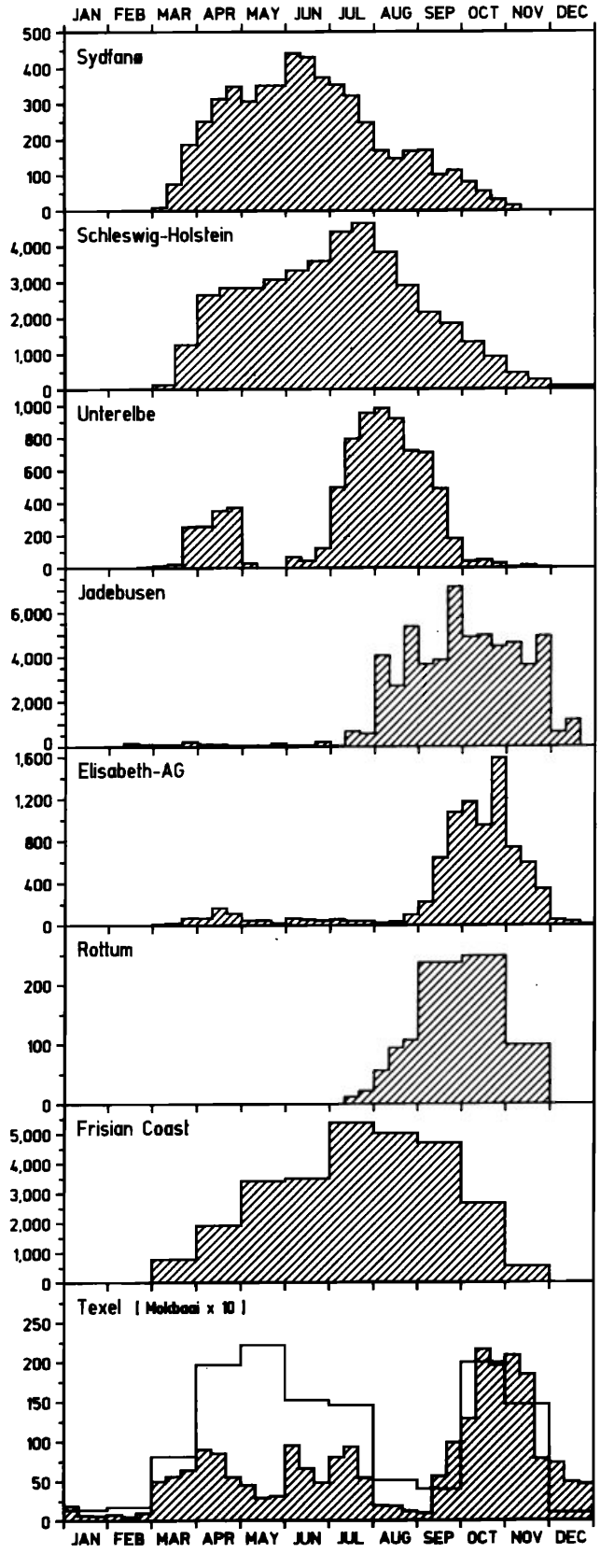
Winter 1,810 Spring 18,000
Summer 16,600 Autumn 44,600

The Avocets that occur in the Wadden Sea breed in the Wadden Sea countries and around the Baltic Sea. Here the population numbers some 17,000 pairs (Smit & Wolff 1981, Piersma 1986, and others). Of these, more than 12,000 pairs breed in the Wadden Sea area itself (Fleet *et al.* in press). Both totals have shown significant increases during most of this century. Most winter along the East Atlantic seaboard, where the total mid-winter population is estimated at 67,000 individuals including 14,400 in the western Mediterranean (Smit & Piersma 1989). The largest concentrations are found in western France (16,000), Portugal (12,600) and Senegal (12,500).

A few thousand Avocets may stay in the Dutch Wadden Sea (incl. the German part of the Dollard) during mild **winters** (Table 14). In **spring**, the majority of the birds arrive during March and the first half of April (Figure 45). Migrants *en route* to Denmark and the Baltic breeding grounds may pass through during the same period (Meltofte 1993). Our good spring counts provided peak figures of about 13,000-18,000 in May (Table 14), a reasonable share of the total breeding population – especially considering the fact that Avocets were not covered at many Dutch sites in the breeding season. The **distribution** (Figure 46) is in good agreement with the situation of the colonies (cf. Fleet *et al.* in press).

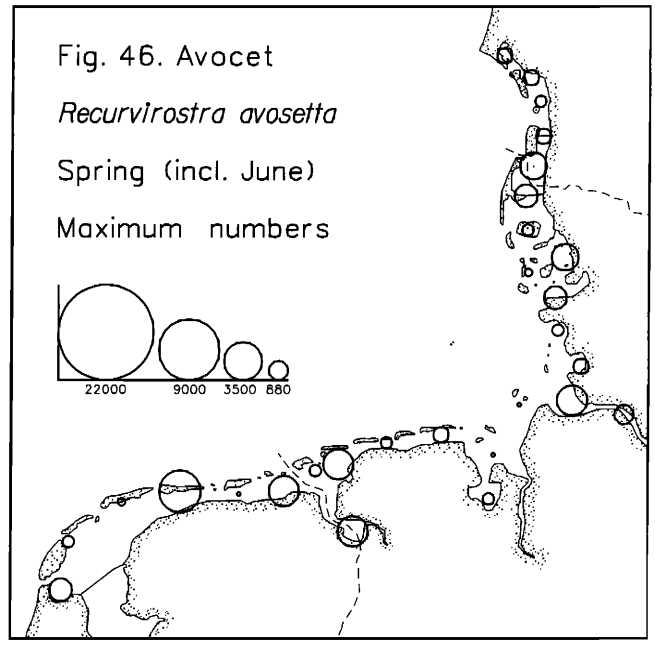
After the breeding season large concentrations of **moulting** Avocets build up in certain areas during July (Dietrich & Hötker 1991, Meltofte 1993). Peak numbers at these moulting sites are reached during late July and August (cf. e.g. Unterelbe in Figure 45), when we recorded 43,400 in mid August 1982 (Table 14). The largest concentrations were found in the Dollard, Leybucht (in sub-area NS20), Jadebusen and at the Rømø Dam (in sub-area DK04) (Figure 47). The importance of these traditional moulting sites varied somewhat during the years. Thus, the Dollard and Leybucht have lost most of their former importance during recent years.

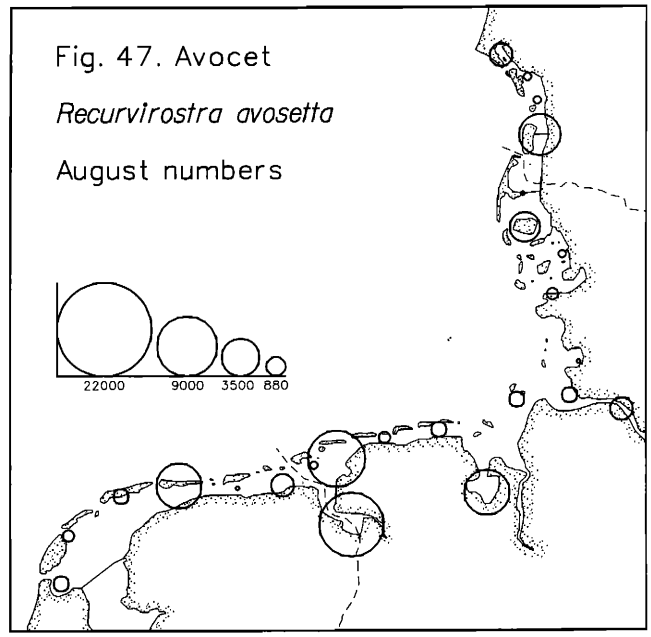
Fig. 45. Avocet *Recurvirostra avosetta*

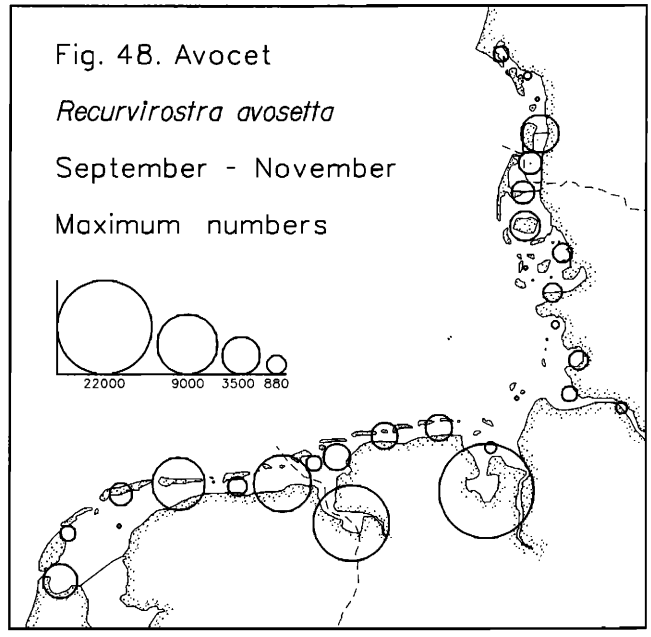


In **autumn**, after the primary moult, the Avocets often move around between good feeding sites in different parts of the Wadden Sea and beyond during September-November (Dietrich & Hötker 1991, Meltofte 1993). Hence, areas not formerly used are occupied during that period (cf. e.g. Elisabeth-AG, Rottum and Texel in Figure 45). Most of our counts from these months gave totals of between 28,000 and 45,000 (Table 14). Again the largest concentrations were found in sheltered areas with the most silty tidal flats such as Jadebusen (21,900) and Dollard (14,200) (Figure 48). Here the birds primarily take *Nereis diversicolor* and *Corophium volutator* (Smit & Wolff 1981), and they probably build up **body reserves** during this period. Our records of 43,000-45,000 Avocets in August and September are very similar to the 45,300 counted already on 1/2 September 1973 (Prater 1974), and they make up the vast majority of the entire North European population. The birds finish their post-breeding **moult** in October-November, and most of them leave for the wintering grounds during the latter month (Figure 45). Many, especially juveniles, have already moved south during September-October (Smit & Wolff l.c., Meltofte 1993).

Status: the Wadden Sea is by far the single most important site for the North European Avocet population. Two thirds of the population breed in the area, and almost the whole population stays in the Wadden Sea during the post-breeding moult and supposed autumn fattening. At this time most of the birds are highly concentrated on traditional moulting sites in sheltered bays with extensive silty sediments. E.g. Jadebusen may hold more than half the total number of Avocets present in the entire Wadden Sea.







Ringed Plover *Charadrius hiaticula*

Winter 201 Spring 13,800
Summer 1,790 Autumn 14,100

Two subspecies of Ringed Plovers visit the Wadden Sea: about 4,500 pairs of *hiaticula* birds breed in the Wadden Sea countries, southern Scandinavia and along the Baltic coasts. They winter mainly in South-west Europe and North-west Africa, where about 20,000 have been recorded. Far larger numbers of *tundrae* birds from breeding grounds in northernmost Europe pass the Wadden Sea to winter in West Africa. Also *hiaticula* birds from Iceland and Greenland may occur in the Wadden Sea during migration (Smit & Wolff 1981, Piersma 1986, Smit & Piersma 1989). About 1,400 pairs of Ringed Plovers now breed in the Wadden Sea area itself (Fleet *et al.* in press).

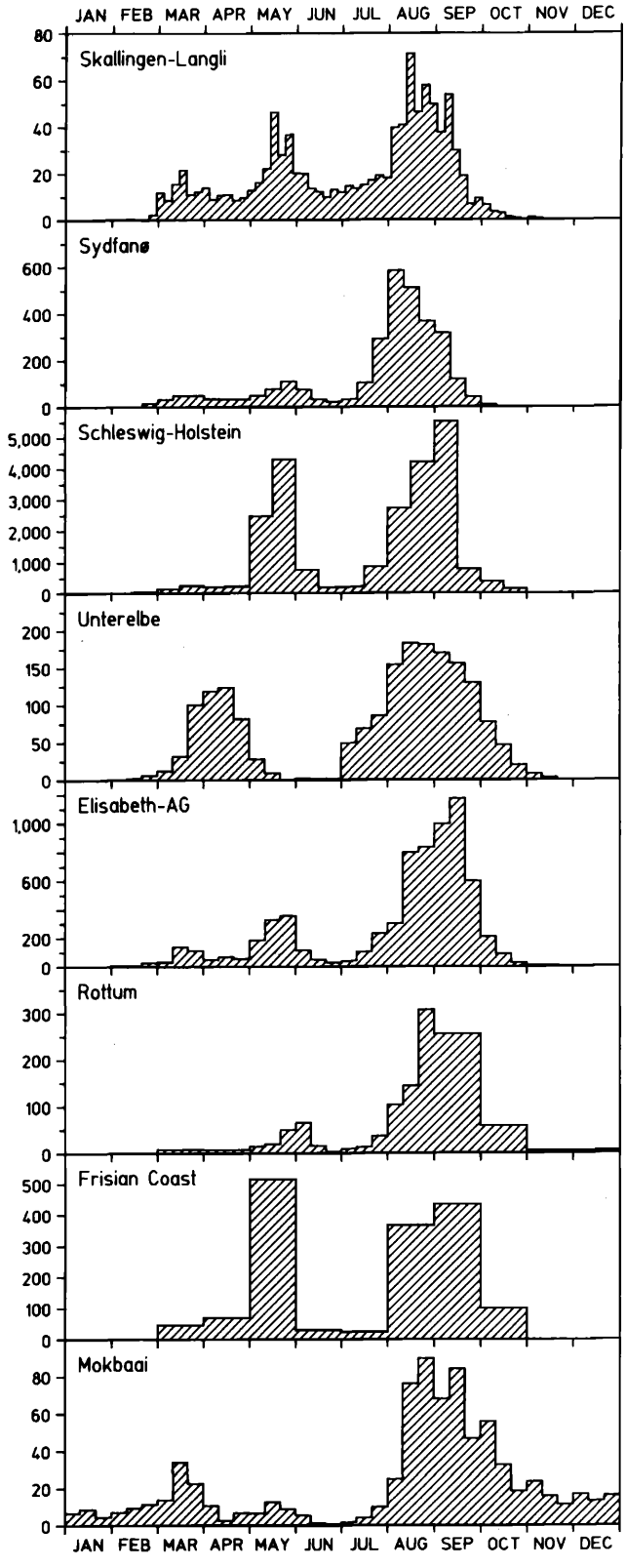
Up to a few hundred Ringed Plovers have been recorded in the Wadden Sea during our mid-**winter** counts (Table 15). These are probably North-west European *hiaticula* birds, some of which are only short-distance migrants (Smit & Wolff 1981, Cramp & Simmons 1983).

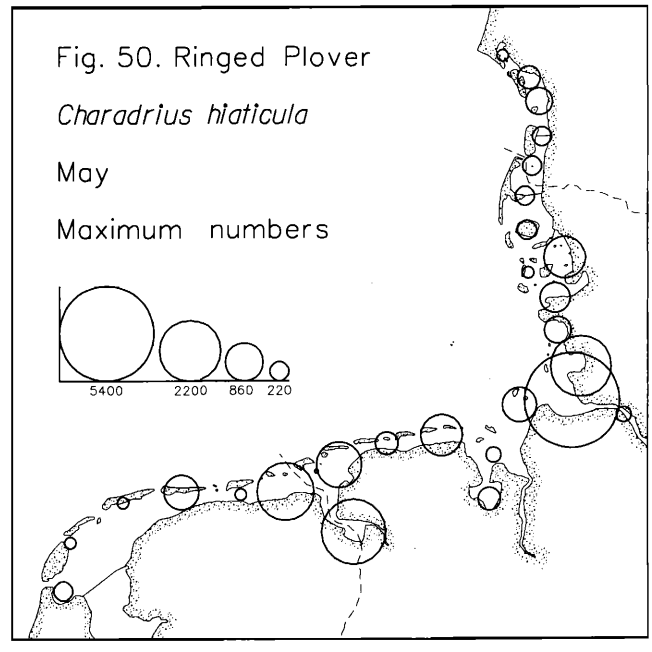
In **spring**, local breeders arrive mainly during March, and the main passage of *hiaticula* is during March and April (Figure 49; Meltofte 1993, and others). The *tundrae* birds do not appear until early May, so our counts of up to 3,500 in mid March and 2,100 in April (Table 15) represent both locally breeding and passage *hiaticula*. No larger concentrations normally occur at this time of the year, and the two records of more than 1,000 in the Dutch and Niedersachsen parts should be taken with some precaution. During May and early June a massive passage of *tundrae* birds takes place (Figure 49; Meltofte l.c.). Our counts provided totals of 9,700-13,800 in mid May (Table 15), prior to the peak migration, so numbers may very well exceed 20,000 in late May. More than 1,000 *tundrae* birds have been recorded in several places with peak numbers of up to 7,500 regularly found north of the Elbe estuary (Figure 50).

Nothing is known about **summering** non-breeding Ringed Plovers in the Wadden Sea.

During **autumn** migration, the passage of the two subspecies is less clearly separated than in spring. Though local breeders may stay into September (A. Haberer in litt.), most *hiaticula* birds have left for the wintering areas by mid August, while *tundrae* birds pass during August-September and even October (Meltofte 1993). Even though Greenlandic *hiaticula* birds pass at the same time, this very pronounced "late" passage in the Wadden Sea (Figure 49) most likely predominantly consists of *tundrae* birds. During the adult passage in August we recorded 10,400 Ringed Plovers, while during the juvenile migration, our early September counts provided numbers between 10,400 and 14,100 (Tab-

Fig. 49. Ringed Plover *Charadrius hiaticula*





le 15; cf. Meltofte l.c.). More than 1,000 individuals were recorded in several German sub-areas, and as in spring a peak concentration of 5,400 was found north of the Elbe estuary (Figure 51). As early as the first international wader census in the Wadden Sea on 1/2 September 1973, a total of 17,500 Ringed Plovers was counted (Prater 1974).

Generally, *tundrae* birds are **distributed** on softer sediments than *hiaticula*, and they often stay in ponds and creeks on foreland areas and even in short vegetation especially during spring migration (Meltofte 1993; see also Smit & Wolff 1981). Apart from initiation of the post-breeding **moult** in locally breeding *hiaticula*, no significant moult takes place in the Wadden Sea (Boere 1976, Meltofte l.c.). However, it seems likely that the *tundrae* birds build up significant **body reserves** during their stay in the Wadden Sea both in spring and autumn.

Status: besides a large breeding population and some passage Ringed Plovers of the subspecies *hiaticula*, the Wadden Sea is probably of great international importance as a staging and fattening area for the European breeding population of *tundrae* birds. Numbers present at one time most likely exceed 20,000 both in spring and autumn, and many more probably pass through the area during each season. The size of this population is incompletely known, but numbers visiting the Wadden Sea may well exceed 10% of the population. A large proportion of the *tundrae* birds visiting the Wadden Sea, concentrate in a number of relatively specific areas.

Kentish Plover *Charadrius alexandrinus*

Winter 7 Spring 391
Summer 342 Autumn 812

Between 1,600 and 2,100 pairs of Kentish Plovers breed in the Wadden Sea countries (Piersma 1986). Of these, 1,000-1,300 bred in the Wadden Sea area in the 1970s, but according to recent surveys, only 569 pairs remained in 1991 (Smit & Wolff 1981, Fleet *et al.* in press). Since almost no Kentish Plovers breed further north and east, no other birds occur here in any numbers.

Most birds arrive during April (Figure 52), and maximum **spring** numbers of 249-391 were recorded during April to June (Table 16). These only represent a fraction of the locally breeding population, since the breeding birds are poorly covered at this time of the year.

During July, post-breeding birds gather to **moult** at "traditional" sites (Smit & Wolff 1981). The **autumn** maximum of more than 800 was achieved in September 1988 (Table 16), but peak numbers are supposed to be present in August (Figure 52). However, our August 1982 count only resulted in a total of 607. As with the spring counts, this is probably due to incomplete coverage of this species. 2,880 were recorded at the count 1/2 September 1973 (Prater 1974), and the real numbers nowadays are most likely to be around 2,000 in August. The largest concentrations are found in the salt-water lagoon (in sub-area DK05) at the Danish-German border (max. 235; Meltofte 1993), in the likewise newly reclaimed Beltringharder Koog (in sub-area SH08: max. 160; H. A. Bruns in litt.), on sandbanks off the Eiderstedt peninsula (sub-area SH10: max. 800; R. Schulz in litt.), on Minsener Oog (sub-area NS18: max. 180; Blew unpubl.) and on Ameland (sub-area NL25: max. 121; present data).

The North-west European population of Kentish Plovers depart mainly during September (Figure 52). Most of them probably **winter** around the western Mediterranean and in North-west Africa, but the exact distribution is unknown. The total East Atlantic mid-winter population is estimated at 67,000 birds (Cramp & Simmons 1983, Smit & Piersma 1989).

Status: the Wadden Sea area (together with the Dutch Delta) is the last stronghold of the North-west European breeding population of the Kentish Plover. Most of the post-breeding moult in both adults and juveniles is performed on "traditional" moulting sites close to breeding areas.

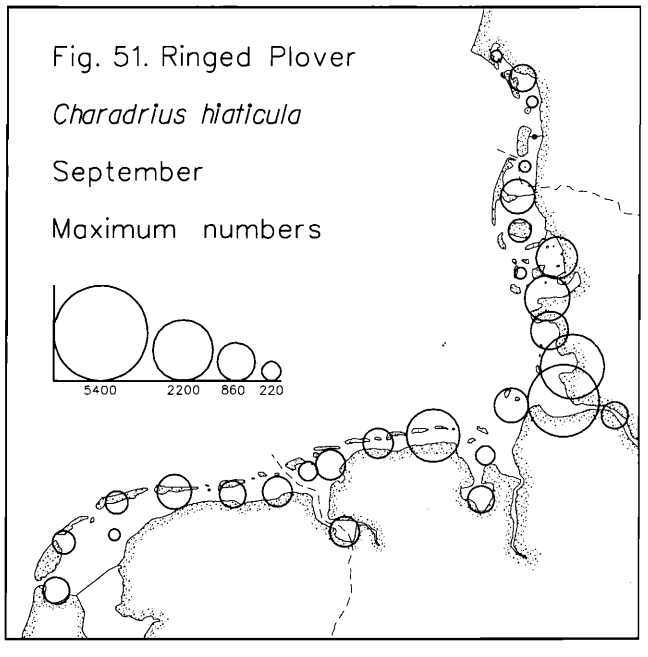
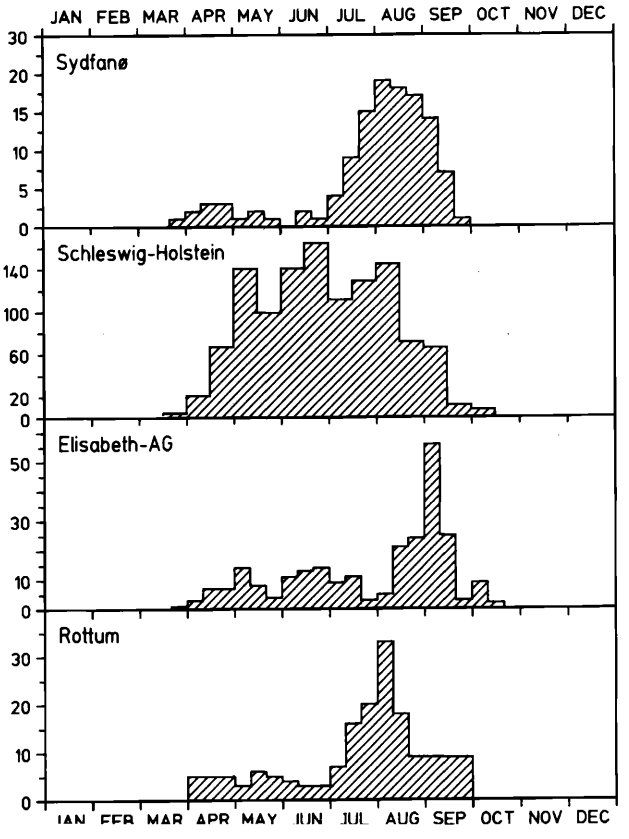


Fig. 52. Kentish Plover *Charadrius alexandrinus*



Golden Plover *Pluvialis apricaria*

Winter 29,600 Spring 80,100
Summer 310 Autumn 168,000

The North-west European population of Golden Plovers probably amounts to about 1.8 million individuals (Rose & Scott 1994). The birds that visit the Wadden Sea area breed in Fenno-Scandia and further into northernmost Russia and Siberia (*P. a. "altifrons"* type). Most of them winter in South-west Europe (Cramp & Simmons 1983, Meltofte 1993). "Southern" Golden Plovers (*"apricaria"* type) are totally outnumbered by the northern "subspecies" and are not treated separately here. In the Wadden Sea area most Golden Plovers stay in the polders and marshlands behind the seawalls, where our counts only have covered only the outermost parts. Thus, our data only concern the coastal fraction of the staging and wintering populations.

The numbers of Golden Plovers **wintering** in the Wadden Sea area vary quite considerably in relation to the winter weather. In most mild winters we recorded between 9,700 and 29,600 birds, compared to 50-100 in severe winters (Table 17). In mild winters large numbers were found in all parts of the Wadden Sea, but specific areas hold the largest numbers (Figure 53).

Spring migration starts in mid March, when numbers begin to increase sharply in the Wadden Sea area (Figure 54). Peak numbers are found in April and early May, when our counts have contributed between 48,000 and 80,000 Golden Plovers (Table 17). These birds are part of a massive concentration of staging and **moulting** (of body feathers) Golden Plovers in the lowlands along the continental North Sea coasts. Most birds leave southern parts of the Wadden Sea already during April, so at the time of our late April and May counts, by far the largest concentrations are found in Schleswig-Holstein and Denmark (Figure 55). At this time the birds build up **body reserves** for the final migration and the pre-breeding period. In the whole of the Netherlands 287,000 Golden Plovers have been counted in early April, and in Niedersachsen up to 36,000 have been found in the same month (van Eerden & Keij 1979, Jukema 1986, Blew & Heckenroth in press). Numbers in Schleswig-Holstein are unknown, but in Denmark an estimated total of 70,000-100,000 mainly Scandinavian birds are present in early May (Meltofte 1993). Already by the middle of May most birds have left, and in mid June 1991 only a few hundred **summering** Golden Plovers were recorded (Table 17).

In **autumn**, large numbers of adult Golden Plovers start to move into the Wadden Sea area by early August (Figure 54). Juveniles appear in numbers from late August, and total numbers build up in most areas until October-November. At our peak count in early November 1987, when we recorded 168,000, the largest numbers were still found in the German and Danish Wadden Sea (Table 17). This may be highly biased, however, as it may result from less coverage of reclaimed polders in the Netherlands, than in Germany and Denmark. As in spring, the birds in the Wadden Sea area are only a minor part of a vast concentration of staging and **moulting** Golden Plovers in the continental lowlands around the North Sea during autumn. On 30/31 October 1993, more than 200,000 were counted in Denmark, at least

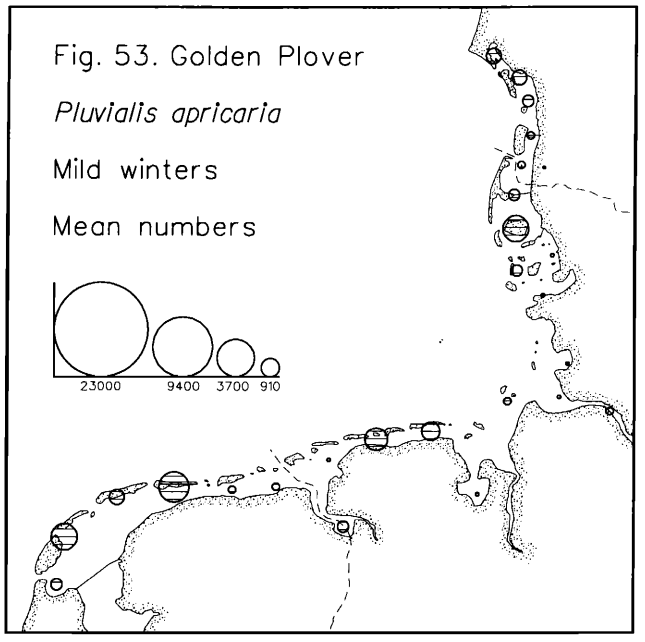
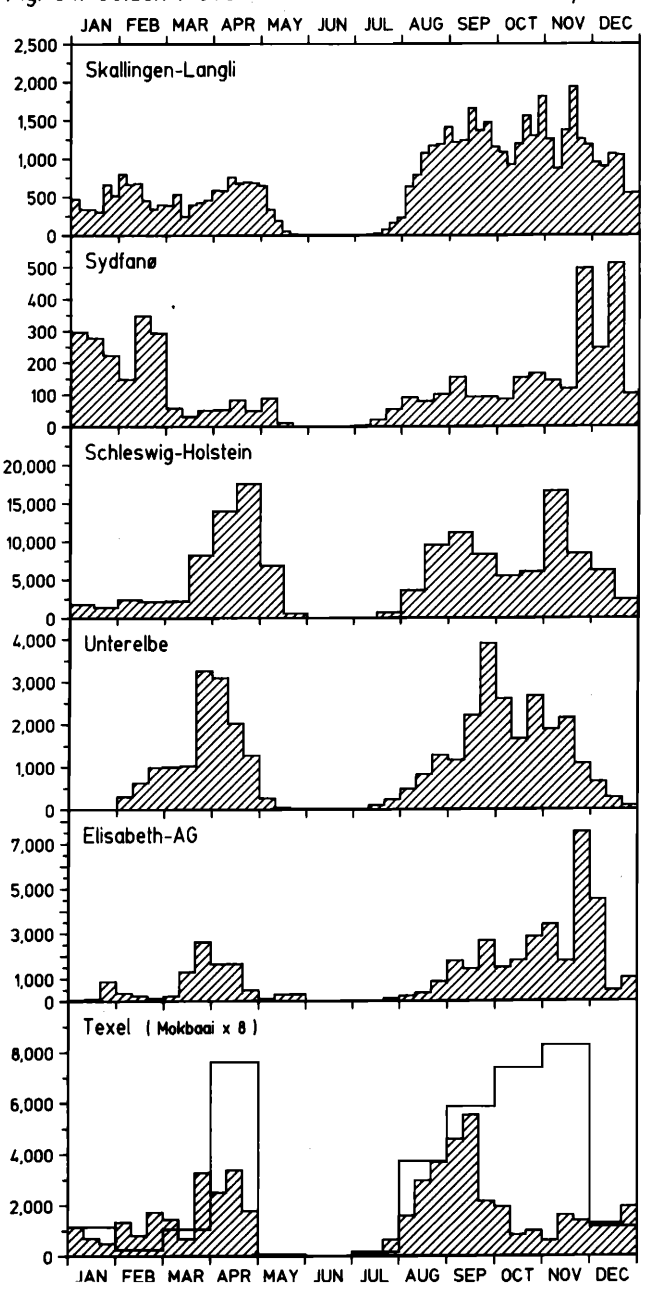


Fig. 54. Golden Plover *Pluvialis apricaria*



70,000 were found in Schleswig-Holstein, and 100,000 in Niedersachsen (L.M. Rasmussen in litt., W. Petersen & G. Busche in litt., Flore *et al.* 1994). Furthermore, over 400,000 have been counted in the Netherlands in November (van Eerden & Keij 1979). There may be some difference between populations, so that Scandinavian birds arrive early and many stay to moult in Jutland (Denmark), while a large part of the North Russian and Siberian birds stay further east during the moult, thus arriving later in the North Sea area (Meltofte 1993). After having built up **body reserves**, most of the Golden Plovers leave for their South-west European winter quarters during December, the extent and timing depending on the onset of winter weather (Jukema 1982, Jukema & Hulscher 1988).

Status: during spring and especially in autumn the vast majority of the Golden Plovers breeding in northern continental Europe and Siberia stay some time on the grasslands of the North Sea countries. A significant part of these birds visit the Wadden Sea area and adjacent polders, and the area is of great international importance to these populations. Both in spring and autumn many birds moult and build up significant body reserves during their stay.

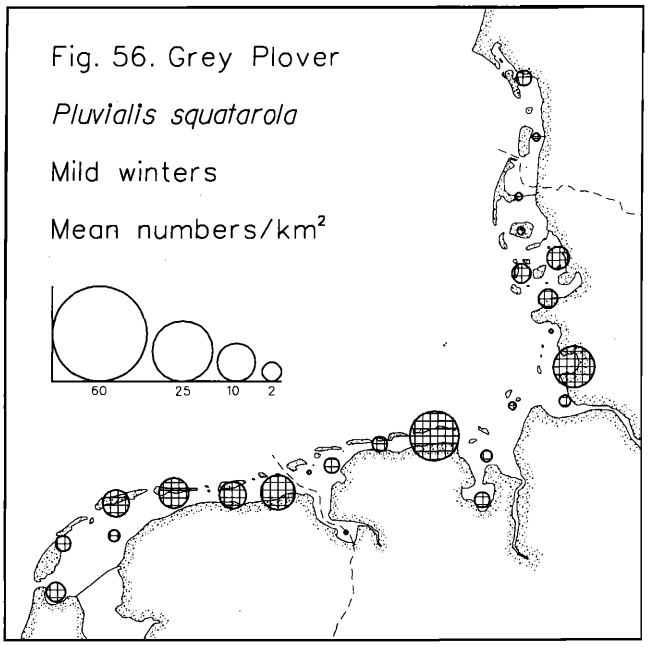
Grey Plover *Pluvialis squatarola*

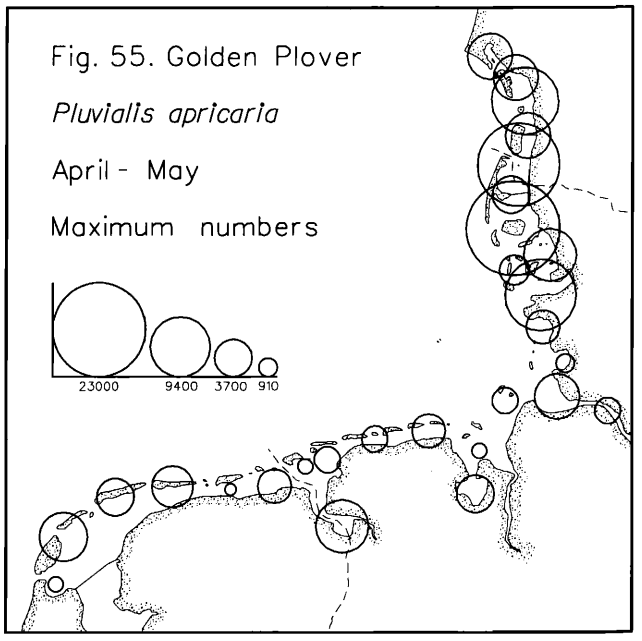
Winter 20,800 Spring 140,000
Summer 9,920 Autumn 74,400

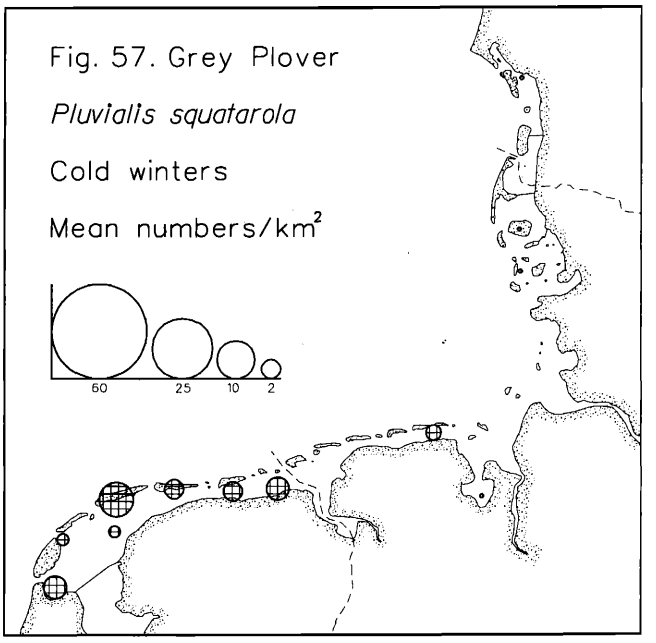
The total East Atlantic flyway population of Grey Plovers are supposed to number at least 166,000 individuals. About half the birds winter in West Europe and the western Mediterranean, the rest in West Africa. They breed in northeasternmost Russia and North Siberia. Numbers wintering in western Europe have increased considerably at least during the last half century, as have numbers of staging birds during spring and autumn in the Wadden Sea in recent years (Prokosch 1988, Smit & Piersma 1989, Laursen *et al.* in press, together with the present data compared to figures given by Smit & Wolff 1981). In January 1993, a total of 103,000 were estimated in western Europe (Rose & Taylor 1993).

In mild **winters** we recorded between 9,400 and 20,800 Grey Plovers in the Wadden Sea, while only a few thousand may remain in severe winters (Table 18). Most birds leave the Danish and German parts in cold winters, whereas numbers in the Dutch part may remain high (Table 18, Figures 56 and 57). Grey Plovers are quite unevenly distributed especially in winter, so that densities are particularly high in certain areas.

In **spring**, Grey Plovers move into the Wadden Sea in two waves consisting of European and African wintering birds, respectively (Meltofte 1993). In March, numbers start to increase in some areas as European winterers begin to arrive (Figure 58; Boekema *et al.* 1983, and others). More birds arrive during April, and from late April a massive immigration of African winterers takes place. Peak numbers are reached in mid or late May, and most Grey Plovers have left for the Siberian breeding grounds by early June (Figure 58). This pattern is clearly reflected in our counts, which show a marked increase from about 13,500 in mid March, to 24,000 in







mid April, and a peak of 140,000 in mid May (Table 18). As more birds are present later in May (cf. Camphuysen & van Dijk 1983), it can be concluded that the vast majority of the entire East Atlantic flyway population may stay in the Wadden Sea concurrently at this time of the year.

The patterns of **distribution** apparently changes somewhat during spring, so that some Dutch and German sub-areas hold the highest densities of early arriving European winterers (Figure 59), whereas concentrations are more evenly distributed on the German and Dutch sub-areas, when the African birds have arrived in May (Figure 60). Grey Plovers **moult** into breeding plumage mainly during April, and during mid and late May they build up significant **body reserves** enabling them to fly non-stop to the breeding grounds (Cramp & Simmons 1983, Prokosch 1988). The number of Grey Plovers **summering** in the Wadden Sea have been estimated to number about 5,000 (Smit & Wolff 1981, Prokosch 1988), but we recorded almost 10,000 in mid June 1991 (Table 18).

In **autumn**, adult Grey Plovers arrive in strength from early August, whereas larger numbers of juveniles do not arrive until early/mid September (Figure 58; Meltofte 1993). The phenological patterns differ considerably between sites (see below), but generally, peak numbers occur in September, when our best counts have produced between 63,600 and 74,400 (Table 18); 42,500 adults were recorded in mid August 1982, and in October more than 55,000 Grey Plovers have been recorded. As in spring, the largest densities were found in the German and Dutch parts of the Wadden Sea (Figure 61). Furthermore, the phenological patterns seem to indicate that some of the areas most exclusively used by African wintering adults in May also primarily serve as autumn staging areas for passage adults in August-September (cf. Skallingen-Langli and Jadebusen in Figure 58). Many adults undergo part of their post-breeding **moult** in the Wadden Sea (Boere 1976). This includes especially birds wintering in Europe, but also some African winterers do so. Most adults leave for Africa during September, whereas the juveniles leave during October-November (Meltofte 1993). Grey Plovers mainly feed on muddy sandflats, where they primarily take *Nereis* (Smit & Wolff 1981, Kersten & Piersma 1984). During autumn, both African and European winterers build up **body reserves** (Cramp & Simmons 1983).

Status: the Wadden Sea is of outstanding international importance for the entire East Atlantic flyway population of Grey Plovers. Almost the whole population may be present in the area in May, when they build up significant body re-

Fig. 58. Grey Plover *Pluvialis squatarola*

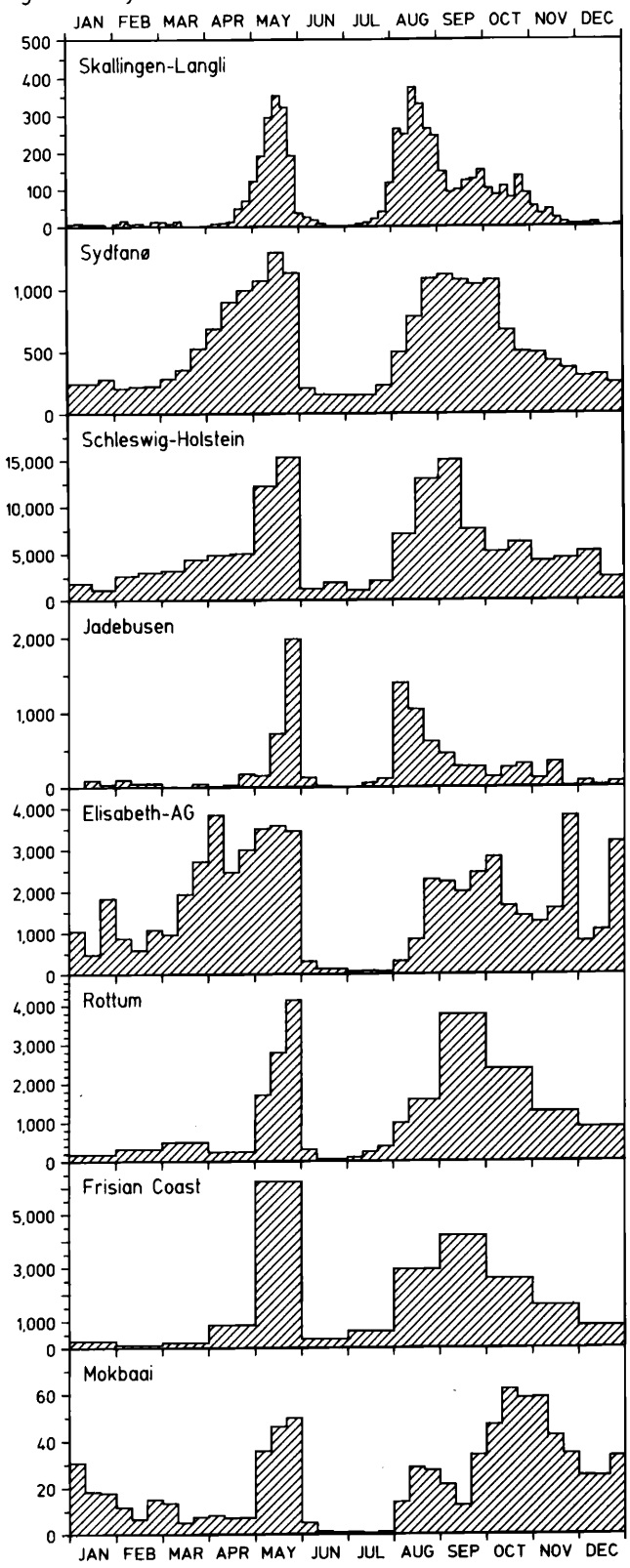
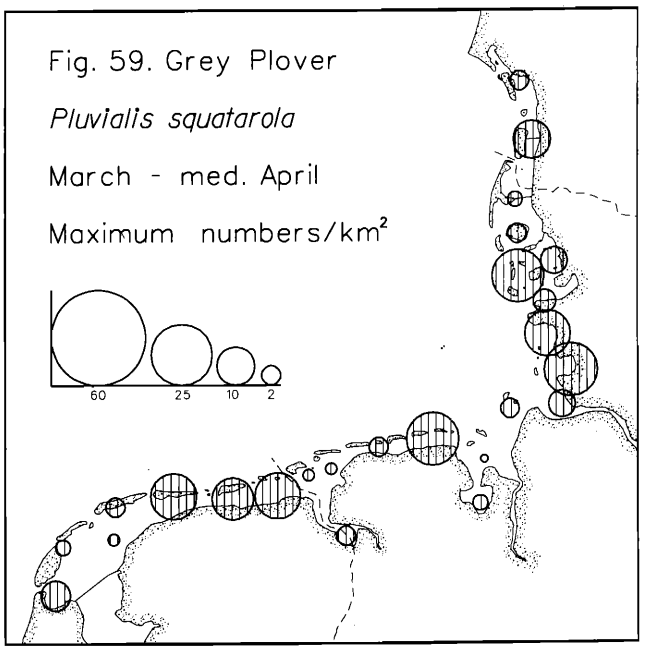


Fig. 59. Grey Plover

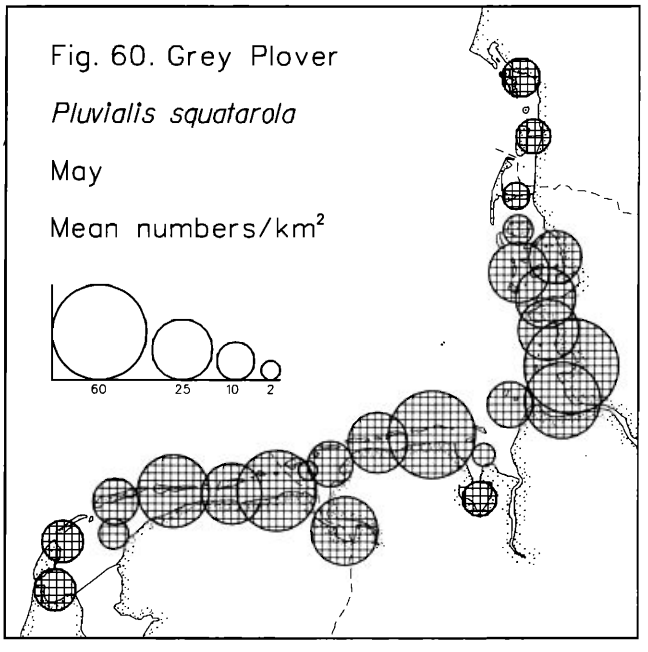
Pluvialis squatarola

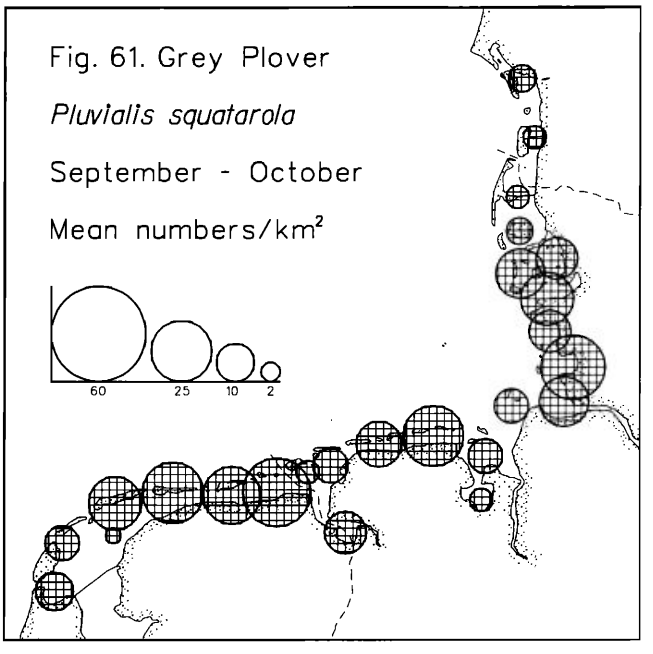
March - med. April

Maximum numbers/km²



serves for their final flight to the breeding grounds. In autumn, the vast majority of the population again passes through the Wadden Sea, when more than one third of the population may be present at the same time. Many stay for extended periods in autumn to moult and build up body reserves for the onward migration or as fat deposits for the winter. Grey Plovers wintering in western Europe reappear in the Wadden Sea for the pre-breeding moult in March-April, and more than 10% of the flyway population may actually winter there.





Lapwing *Vanellus vanellus*

Winter 9,640 Spring 23,200
Summer 6,400 Autumn 132,000

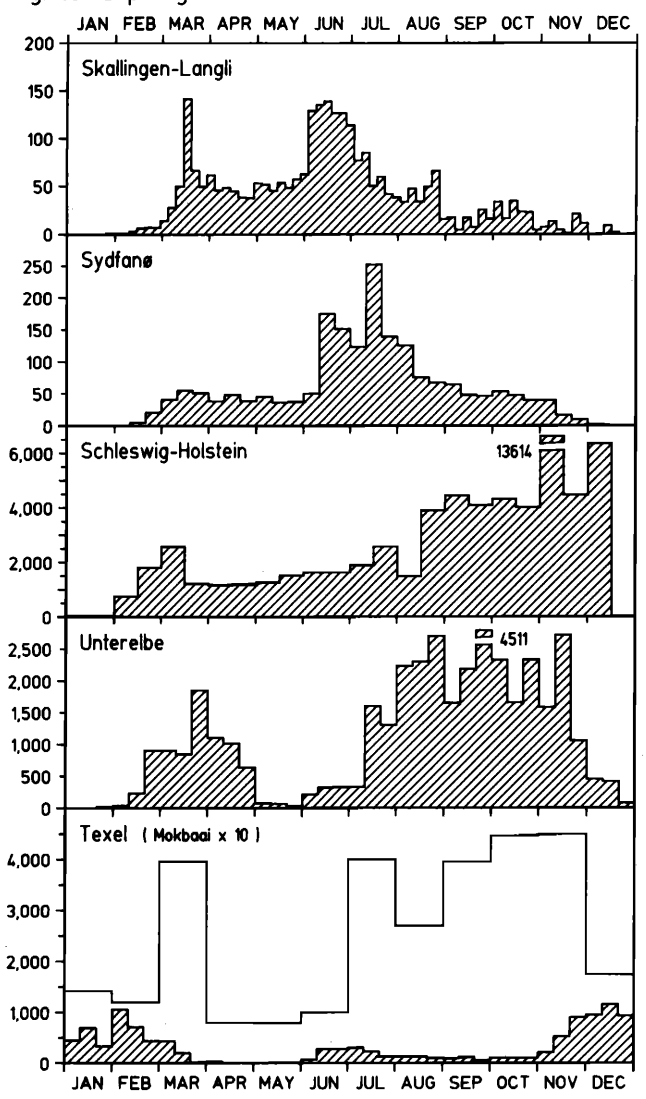
An estimated 7 million Lapwings are found in Europe, where most winter in the western maritime part of the continent (Cramp & Simmons 1983, BirdLife International in litt.). Birds visiting the Wadden Sea area come from breeding grounds in most of northern Europe, and even birds from South-east Europe may be involved during the post-breeding "moult migration". The Wadden Sea area makes up a relatively peripheral part of the Lapwings' main summer and autumn moulting and staging area in north-western Europe, and many more birds stay in the adjacent uncounted grasslands of the Wadden Sea countries (Busche 1980, Gram *et al.* 1990, and others). About 9,250 pairs were found in the Wadden Sea area at the 1991 breeding bird census, but reclaimed polders and several "inland" areas on the islands were not covered in this census (Fleet *et al.* in press).

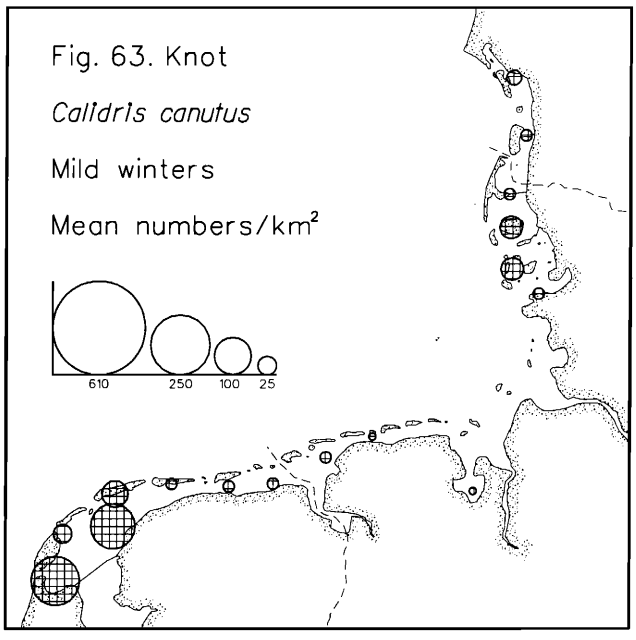
Relatively few Lapwings **winter** in the Wadden Sea area. Our counts have never exceeded 10,000 individuals even in mild winters, whereas almost all birds disappear during severe winters (Table 19). Most are normally recorded in the Dutch part.

Spring migration may start in February, and peak numbers are recorded in March (Figure 62). Thus, our peak count was 23,200 in mid March 1984 (Table 19). At this time, the Lapwings moult into breeding plumage (Cramp & Simmons 1983). Later in spring breeding birds mainly are present, but probably failed or non-breeders are also involved. (Note that Lapwings were not counted in many Dutch sites in spring.)

During **June-July** many Lapwings from central and eastern Europe move to the low coastal areas around the North Sea, where they undergo most of their post-breeding moult (Figure 62; Cramp & Simmons 1983). These birds do not utilize the Wadden Sea to any greater extent, since we only recorded very low numbers during our count in mid June 1991 (Table 19). Even in August, when the main **autumn** migration of North European Lapwings has begun (Figure 62; Meltofte 1993), we only found 16,600 Lapwings in the entire Wadden Sea area. Autumn numbers vary considerably, and according to our counts between 22,000 and 132,000 may be present from September until November (Table 19). Besides varying coverage by the counters (Lapwings were apparently not counted at many Dutch sites), these variations are probably a result of different use of the Wadden Sea by Lapwings under various environmental circumstances, such as feeding conditions in the adjacent polders, moon-phase, etc. (see Milsom *et al.* 1990 and Meltofte l.c.). In accordance with our peak counts, the highest numbers should be present in October-November, when the final rush of North European Lapwings arrives after having finished the moult elsewhere (cf. Schleswig-Holstein in Figure 62 and Meltofte l.c.). At this time an estimated 80,000-100,000 Lapwings may be found in the nearest 20 km fringe of polders adjacent to the Schleswig-Holstein Wadden Sea, and up to 69,000 have been counted in Niedersachsen (Busche 1980, Blew unpubl.). In Denmark an estimated 100,000-200,000 are present in autumn. Of these, up to 45,000 have been counted in Tøndermarsken at the Danish-German border (Meltofte l.c.). In the Netherlands, an estimated total of between 1 and 1.5 million Lapwings are found in November (D. Tanger pers. comm.). Departure from the Wadden Sea area varies considerably in accordance with onset of winter weather, but normally numbers drop sharply during December (Figure 62).

Fig. 62. Lapwing *Vanellus vanellus*





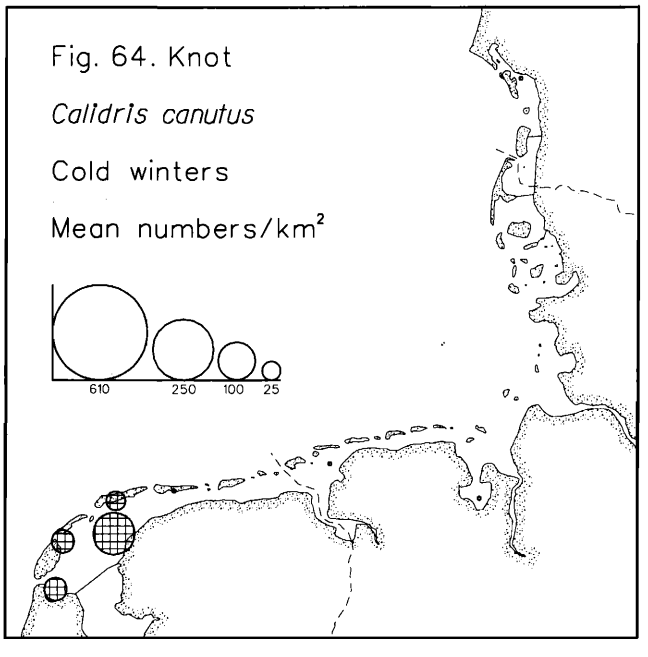
Status: although the Wadden Sea proper plays a marginal role in the annual schedule of European Lapwings, the area may still be of importance as a safe roosting and alternative feeding site under certain conditions. Even under such conditions, however, numbers of Lapwings in the Wadden Sea area hardly exceed 5% of the West European flyway population. For this population, the low-laying inland grasslands etc. of the Wadden Sea countries are of far greater importance as a post-breeding and autumn moulting and staging area. Furthermore, these areas hold some of the highest breeding densities of Lapwings in Europe (Hötker 1991).

Knot *Calidris canutus*

Winter 101,000 Spring 433,000
Summer 22,800 Autumn 352,000

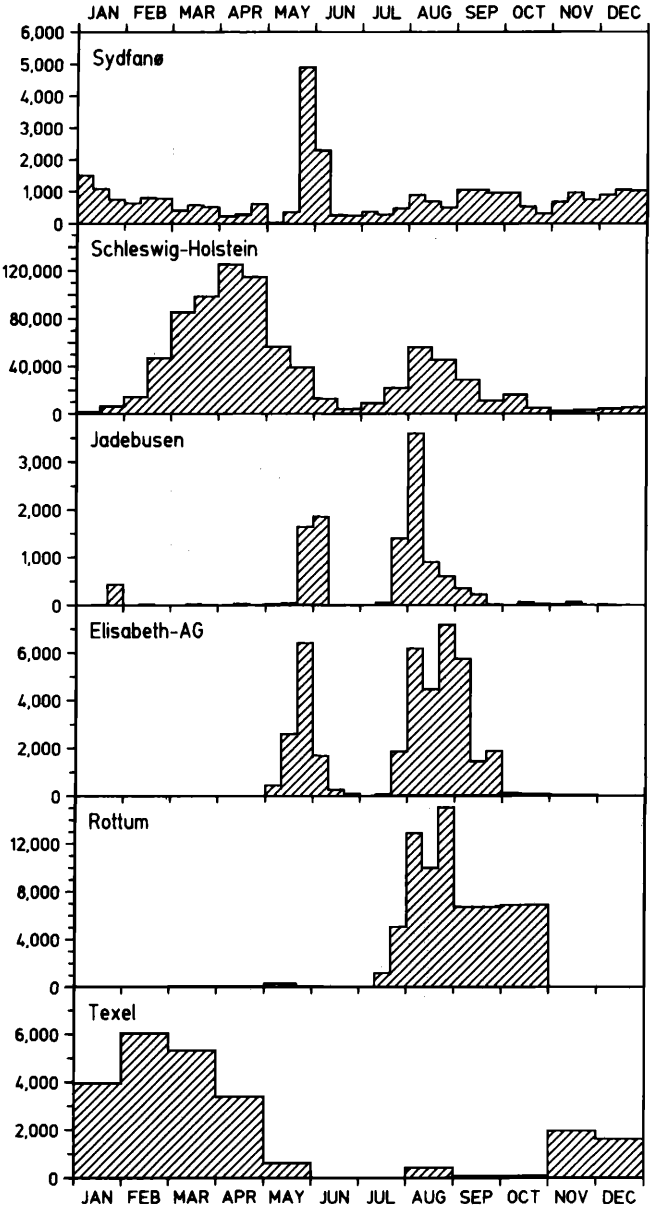
Two subspecies of Knots visit North-west Europe and the Wadden Sea. A population of 345,000 (possibly a gross underestimate; see below) Knots *(C.c. islandica)* breeding in high arctic Greenland and Canada spends the non-breeding season in West Europe, while 512,000 Siberian breeders *(C.c. canutus)* pass through the Wadden Sea in autumn and spring on their way to and from the West African winter quarters (Smit & Piersma 1989). The *islandica* population has apparently decreased considerably (from at least 609,000) since counts began in the early 1970s (see e.g. Boyd 1992). At present, most winter in the British Isles (253,000) and the Netherlands (65,000), whereas 110,000 formerly wintering in France, have decreased to 19,000. The majority of the Siberian *canutus* population winters in Mauritania (364,000) and Guinea-Bissau (144,000).

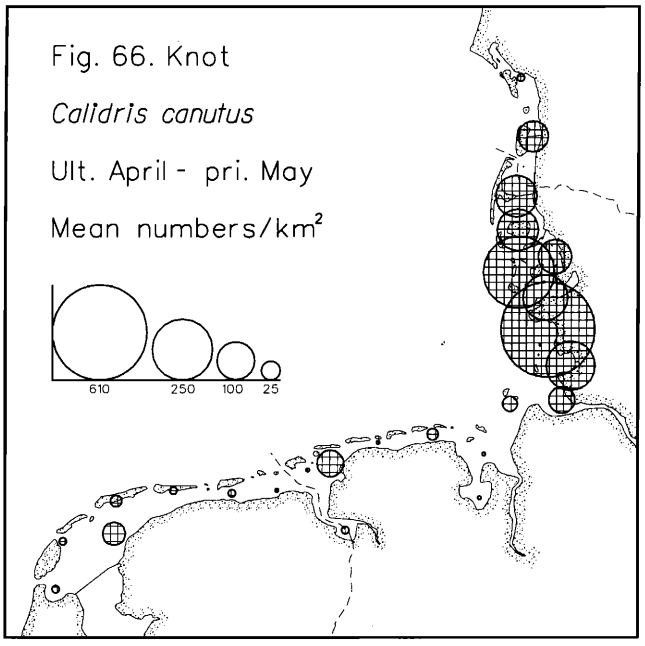
During our mid-**winter** counts between 53,800 and 101,000 *islandica* Knots were recorded in mild winters (Table 20). In severe winters a minimum of about 20,000 has been found in the Wadden Sea. In all conditions, most stay in the western part of the Dutch Wadden Sea, but in most winters 10,000-25,000 may stay in the central Schleswig-Holstein part. The densities of wintering birds show very similar patterns (Figures 63 and 64; note, however, that imputed data from sub-area NL27 could not be differentiated between mild and severe winters).

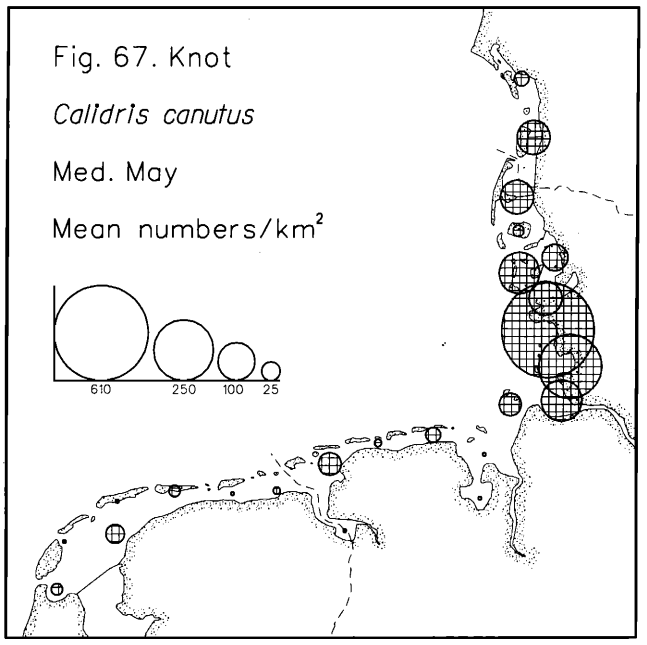


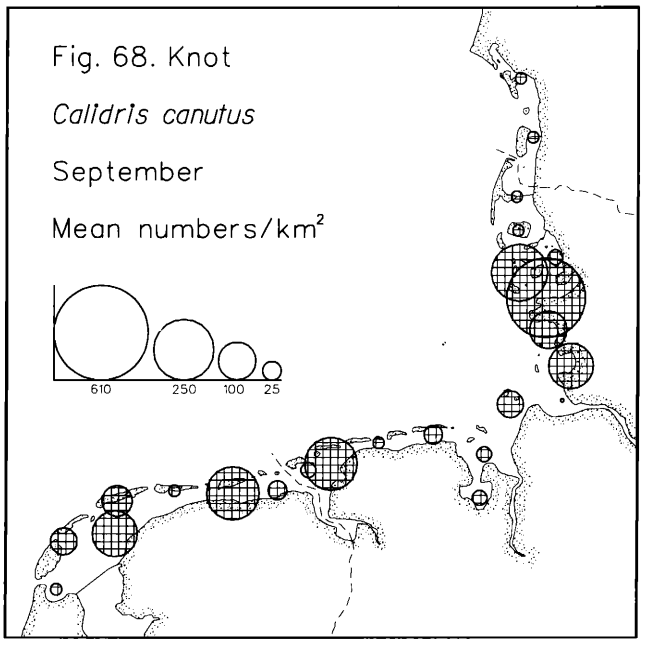
In **spring**, ***islandica*** Knots from the West European wintering grounds move east into the Wadden Sea mainly between late February and early April (cf. Schleswig-Holstein in Figure 65). In the Dutch Wadden Sea during March 1981 and 1984 numbers exceeded those in the preceding winters by 36,000 and 14,000 birds, respectively. Subsequently numbers decrease here, as most birds move on to the Schleswig-Holstein part of the Wadden Sea (Table 20, Figure 65). Here, 56,000 and 64,000 were already present during our two March counts, including several thousands in the southern part of the Danish Wadden Sea. The figure of 56,000 in March 1981 may even be an underestimate, since the weather was poor. Peak numbers of *islandica* Knots occur in late April or early May, just before they leave during the first half of May for their final spring staging areas in Iceland and northernmost Norway (Davidson & Wilson 1992). At this time, a maximum of 433,000 was recorded on 2 May 1987 (Table 20). In the other years between 262,000 and 345,000 were found in this period (note lack of Dutch count in late April 1986 and 112,000 unidentified waders in early May 1988; Appendix 1). As relatively few Siberian *canutus* Knots should have arrived in the Wadden Sea before 5 May

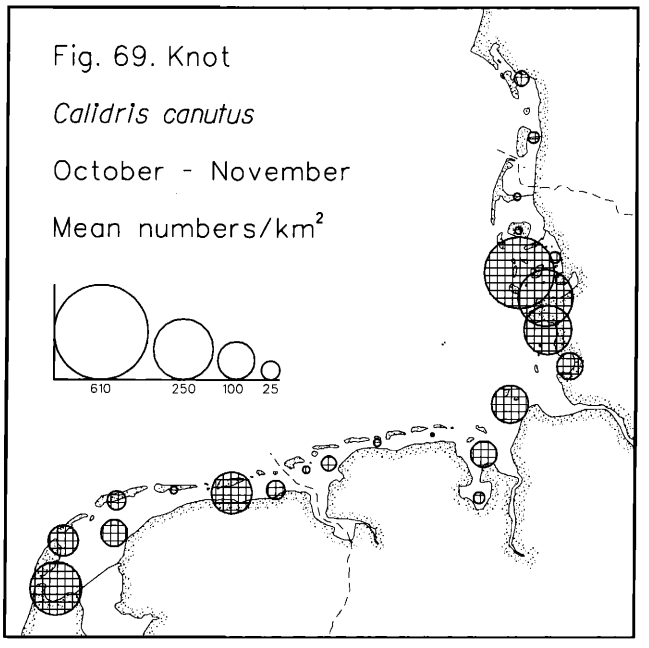
Fig. 65. Knot *Calidris canutus*











(see below), these figures are in conflict with the population estimate of 345,000 for the entire *islandica* population, especially so because about 25-40% of the birds are supposed to be in the British Isles at this time (Davidson & Wilson l.c.). A critically high proportion of these totals derive from average numbers added from uncovered German sites, but on 2 May 1987 383,000 Knots were actually counted (Table 20). Unless virtually all *islandica* Knots have gathered in the Wadden Sea during these years, or *canutus* birds have arrived earlier than expected, these figures mean, that the **total *islandica* population** must number at least 500,000 individuals.

At their peak in late April and early May 85-92% of the Knots in the Wadden Sea are **distributed** in the Schleswig-Holstein part. This concentration in Schleswig-Holstein is also reflected in the mean densities of Knots at this time (Figure 66). Increasing numbers have been found both here and in the southernmost part of the Danish Wadden Sea during the 1980s (Laursen *et al.* in press, Rösner 1994). During their stay in the Wadden Sea the *islandica* Knots **moult** into breeding plumage, and at the same time they build up significant **body reserves** (about 40%) for the migration (Prokosch 1988).

Siberian ***canutus*** Knots arrive from their African winter quarters mainly during 5-15 May (Piersma *et al.* 1992), but birds having paused e.g. in western France continue to move into the Wadden Sea until around 1 June (cf. Camphuysen & van Dijk 1983). As the final departure for the Siberian breeding grounds takes place during the last days of May and first half of June, peak numbers must be present in late May, which is confirmed by the phenology in a number of areas (Figure 65; Frikke & Laursen 1992, Piersma *et al.* l.c.). Unfortunately, we have no counts from late May, and our mid May counts show decreasing numbers between 12 May 1990 (353,000), 14 May 1983 (264,000) and 18 May 1985 (242,000) (Table 20). Some *islandica* Knots may still have been present, however, at least at the 12 May count. Prokosch (1988) states that 140,000-190,000 *canutus* Knots are present in the Schleswig-Holstein Wadden Sea in late May, and that similar numbers stay in the Niedersachsen

part. This means that almost the entire adult population should be present in the German Wadden Sea at this time.

The **distribution** of Knots at our mid May counts is largely identical to the distribution in early May (Figures 66 and 67). This may be partly due to a certain mixture of the populations at this time, and partly to lack of good data from a number of remote islands with potential staging areas for *canutus* Knots in Niedersachsen in mid and late May. During their stay, the *canutus* Knots build up even larger **body reserves** than the *islandica* birds, so that they have gained about 60% in weight before their departure (Prokosch 1988).

Nearly 23,000 Knots were still present on 15 June 1991 (Table 20). These were probably mainly **summering** non-breeding immatures, but late migrants may still have been involved (Meltofte 1993). Some tens of thousands of immature Knots are supposed to summer in the Wadden Sea (Smit & Wolff 1981).

In **autumn**, large numbers of adult Knots from both populations arrive in the Wadden Sea between mid July and mid August, and the juveniles move in mainly between late August and mid September (Meltofte 1993). The Siberian *canutus* Knots leave after a short stay for **refuelling** before their onward migration to West Africa, while at least half the Nearctic *islandica* population stays to **moult** in the Wadden Sea (Davidson & Wilson 1992, Piersma *et al.* 1992). In mid August 1982 we recorded 190,000 adult Knots (Table 20). This increased to between 228,000 and 352,000 during our September counts, when the *canutus* adults have left, but many juveniles from both populations have arrived (note 103,000 unidentified waders in mid September 1980; Appendix 1). Our reasonably good October and November records were in the same order of magnitude; i.e. between 244,000 and 285,000, despite the fact that most *canutus* juveniles have left by then. 313,000 were counted on 1/2 September 1973 (Prater 1974), and 400,000 were estimated in the 1970s to stay in October in the Schleswig-Holstein part alone (Busche 1980). The *islandica* population has decreased considerably since then (see also Smit & Wolff 1981 for former numbers in the Dutch Wadden Sea), so that our 285,000 recorded in mid October 1984 is not far below the present estimated total population size of 345,000. This count took place in very poor weather, and many areas were not covered. Thus, not much more than half the figure was actually counted; the rest were added from averages of counts in other years. The largest number actually counted was 207,000 out of an estimated total of 244,000 in early November 1980 (Table 20), when many parts of the German Wadden Sea were also counted by plane. With at least as many *islandica* Knots present on the British Isles at this time of the year (e.g. Cranswick *et al.* 1992), the total flyway population again adds up to at least 400,000-500,000 individuals (see paragraph on spring numbers).

The **distribution** of Knots in the Wadden Sea shows the same general pattern both in September and in October-November (Figures 68 and 69): the largest concentrations are found in the central part of the Schleswig-Holstein Wadden Sea, while other concentrations are found in the Niedersachsen and Dutch parts. From the phenological graphs it appears, however, that areas are used in a highly different way. E.g. in Jadebusen and Elisabeth-Außengroden apparently mainly staging *canutus* are found in August-September, while at e.g. Rottum moulting *islandica* are found during all of the autumn (Figure 65). Similarly, according to the phenology from Scharhörn in the Niedersachsen part, only staging *canutus* Knots are present here in late spring and early autumn (cf. Schmid 1988). In general, the largest numbers of Knots are found in the outer, sandy parts of the Wadden Sea, where they **feed** on small molluscs; especially *Macoma balthica* (Smit & Wolff 1981, Zwarts & Blomert 1992, Ens *et al.* 1993). At high tide they concentrate in huge flocks at high tide roosts, where up to an estimated 180,000 have been recorded. In several areas in the German parts numbers decrease sharply during November, when many *islandica* birds leave the Wadden Sea after completion of their **moult**, and move to the wintering areas on the British Isles etc. (Davidson & Wilson 1992). At that time they have also built up **body reserves** for the winter.

Status: the Wadden Sea is of outstanding international importance to both subspecies of Knots on the East Atlantic flyway. The majority of the *islandica* Knots from Greenland/Canada spends extended periods during spring and autumn in the Wadden Sea, and at least 10-20% may winter here in mild winters. In autumn, these birds undergo their complete post-breeding moult in the Wadden Sea, and they build up body reserves for the winter. In spring they moult into breeding plumage during their stay, and they build up large body reserves for the spring migration. Almost the entire Siberian *canutus* population passes through the Wadden Sea during spring and probably also during autumn migration on their way to and from their West African wintering grounds. In both seasons they stay for a few weeks, during which they build up significant body reserves for their onward migration.

Sanderling *Calidris alba*

Winter 6,120 Spring 20,200
Summer 1,830 Autumn 13,200

Sanderlings both from North Siberia and high arctic Greenland visit western Europe and the Wadden Sea during the non-breeding season. 27,000 winter in West Europe, while 96,000 have been counted in West and South Africa (Smit & Piersma 1989). True numbers may be much higher, however, especially in Africa.

Our **winter** counts show little difference between mild and cold winters (Table 21). Indeed, the highest count of 6,120 Sanderlings was achieved in the severe winter of 1981-1982. Other counts recorded between 2,550 and 4,120. By far the highest numbers were found on the Dutch Wadden Sea islands, whereas numbers in the other parts rarely exceeded 500. As Sanderlings stay on the sandy beaches of the islands and remote sandbanks, the species is probably often overlooked at the counts. Thus, up to 1,200-1,300 have been found in the Danish Wadden Sea in December and February (Laursen *et al.* in press), and real numbers in the entire Wadden Sea are likely to be in the order of 10,000 birds.

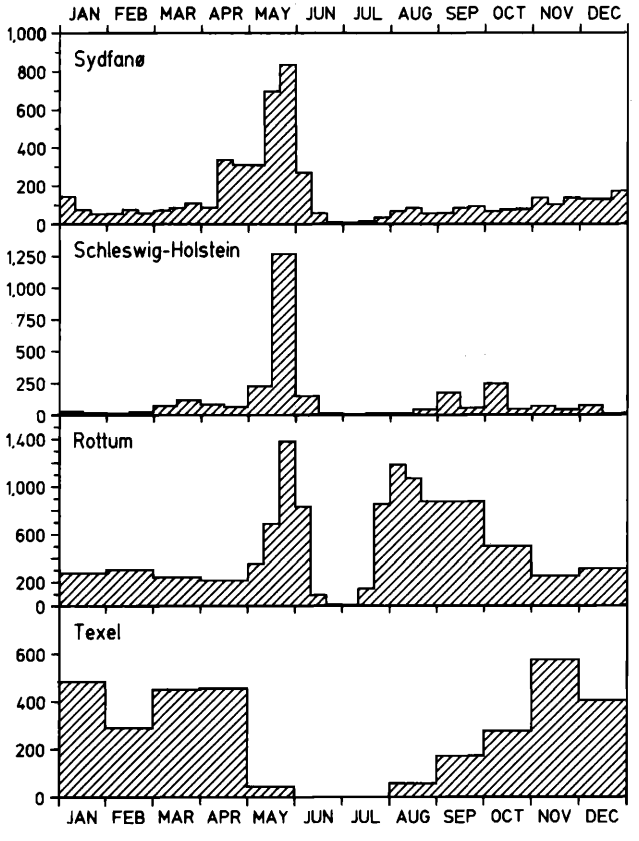
In **spring**, Sanderlings that probably have wintered elsewhere in Europe, move east into the Wadden Sea during March and April. A new wave of apparently African winterers arrives during May (Figure 70; Meltofte 1993). Numbers peak in mid-late May, and many do not leave until early June. Both groups probably mainly consist of Siberian birds (Meltofte l.c.). Our March counts provided similar numbers as the winter counts, but significantly more birds were recorded in late April (Table 21), when many birds stayed in some German sub-areas (Figure 71). Besides the record of 6,200 Sanderlings on Trischen (in sub-area SH12), up to 6,600 Sanderlings have been counted on Scharhörn (in sub-area NS15) in April (Table 21; Lammen & Piper 1992). Between 15,500 and 16,000 were found at the best counts in early May, increasing to around 19,000-20,000 in mid May (Table 21). Again most Sanderlings are found on Trischen (Figure 72), where up to 22,600 were recorded in late May 1994 together with 5,000 at Westerhever (in sub-area SH10). A census in the Dutch part on 28-30 May 1983 produced a total of 7,120 (Smit 1984), and on Grosser Knechtsand (in sub-area NS15) up to 5,000 have been found in May (Smit & Wolff 1981).

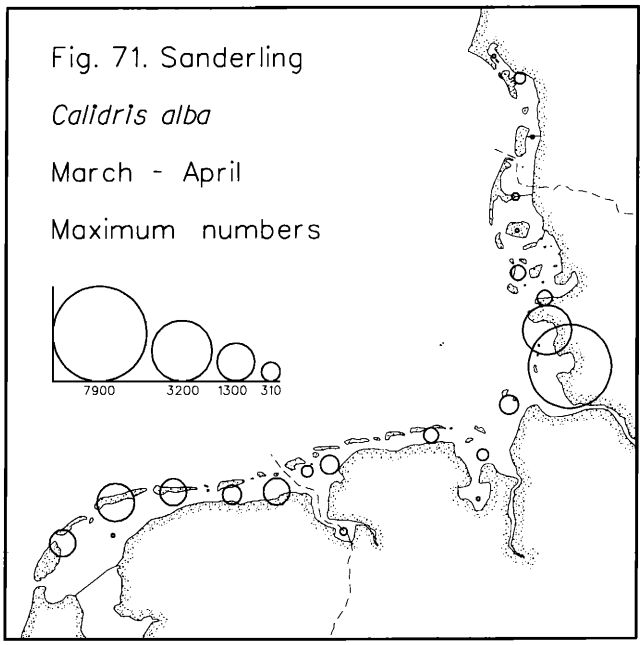
These figures indicate that regular maximum numbers in the Wadden Sea may exceed 40,000-50,000 individuals. This means that a very significant part of the Sanderlings from the East Atlantic flyway pause in the Wadden Sea in late May and early June probably on their way to the Siberian breeding grounds (the extremely late departure from the Wadden Sea supports the conclusion that these birds are destined for Siberia; see Meltofte 1993). It is possible, that this includes the vast majority of the Siberian Sanderlings wintering on this flyway. During their stay in April and May the Sanderlings **moult** into breeding plumage and probably build up **body reserves** for the onward migration (Cramp & Simmons 1993). At least 1,825 were still present in mid June 1991 (Table 21). These were probably mainly late migrants, but several hundred non-breeders may **summer** in the Wadden Sea (Busche 1980, and others).

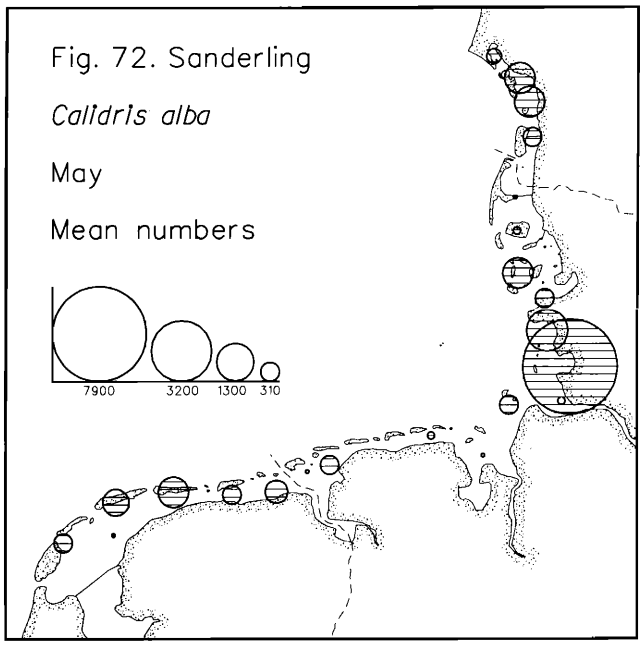
In **autumn**, adult Sanderlings from both North Siberia and Greenland arrive in numbers during the second half of July and August; the "Greenlanders" about ten days ahead of the "Siberians" (Meltofte 1993). The juveniles appear in numbers from late August until October-November, but most of the supposed Greenlandic juveniles move on to their African winter quarters already during September (Meltofte l.c.). Peak records at our autumn counts were 10,100 adults in August, 13,200 in September, 8,320 in October and 5,540 in November (Table 21). These figures agree with the general phenology in most areas, except e.g. Texel which functions primarily as a wintering area (Figure 70). Large numbers were found in many of the Wadden Sea islands, but as in spring highest numbers were generally found on Trischen (in sub-area SH12) (Figure 73). Up to 8,000 have been recorded at Neuwerk (in sub-area NS15) in September and 5,000 in October (Smit & Wolff 1981). Actual numbers may be somewhat higher, so that regular peak numbers are likely to reach at least 20,000 birds. Those Sanderlings in the Wadden Sea wintering in western Europe undergo post-breeding **moult** here. Both these and the passage visitors heading for Africa probably build up **body reserves** during their stay (Boere 1976, Smit & Wolff 1981).

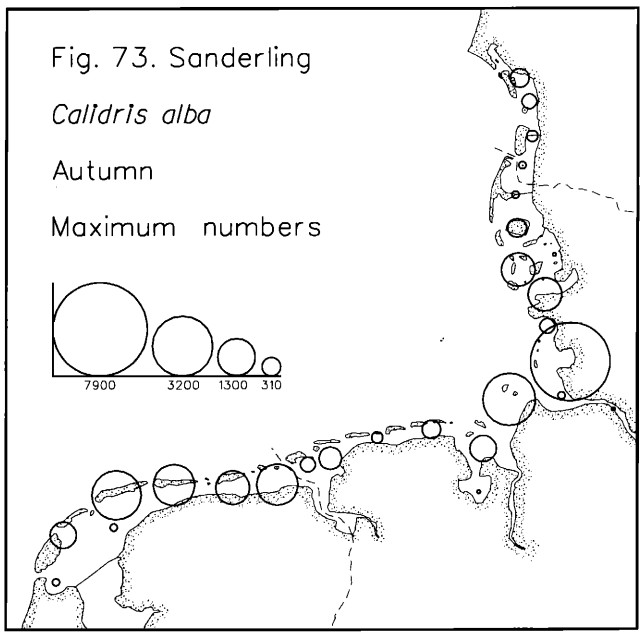
Status: the Wadden Sea is most likely of outstanding importance especially to the East Atlantic flyway population of Siberian Sanderlings. Probably, by far the major part of the population uses the Wadden Sea as a final staging area in May in the same way as a number of other Siberian waterbirds. A large proportion of the population passes through the area again in autumn, and probably at least 10% winter here. The proportion of the Sanderlings in the Wadden Sea which breed in high arctic Greenland is unknown, but these birds probably mainly use the Wadden Sea as a staging area in early autumn. Many of the Sanderlings which winter in western Europe, undergo both post-breeding and pre-breeding moult in the Wadden Sea. Furthermore, both African and European winterers probably build up significant body reserves here.

Fig. 70. Sanderling *Calidris alba*









Curlew Sandpiper *Calidris ferruginea*

Winter 0 Spring 109
Summer 35 Autumn 6,680

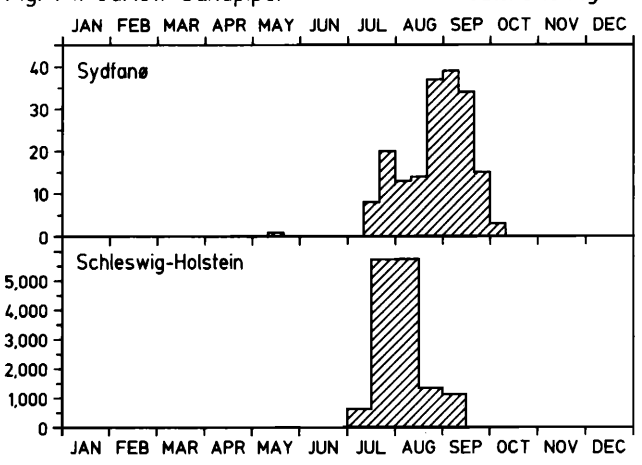
About half a million Curlew Sandpipers winter on the East Atlantic Flyway; almost all of them in West Africa (Smit & Piersma 1989), but many additional birds may winter in inland West Africa. They breed in North Siberia, and in autumn many pass south along the West European seaboard. Spring migration mainly passes north over South-east Europe and the Black Sea area, and very few reach North-west Europe at this time of the year.

The **spring** migration passes Europe during mid April to early June, when up to a hundred birds have been encountered in the Wadden Sea (Table 22).

In **autumn**, adult Curlew Sandpipers arrive in the Wadden Sea during mid-late July, whereas larger numbers of juveniles appear during mid-late August (Figure 74; Meltofte 1993). Most pass through the area relatively quickly, but some stay for more extended periods, so that high numbers may be found until late September. Our count in mid August 1982 provided a grand total of 6,680 Curlew Sandpipers, of which 5,000 derived from averages of later counts in Schleswig-Holstein (Table 22). Here, on muddy tidal flats in the area between the Elbe and Eider estuaries up to 20,000 adults have been encountered in early August during recent years. Many stayed in the area for a few weeks while building up **body reserves** and performing much if not all of the post-breeding body **moult**; some also moulted the innermost primaries (Zeiske 1992). We have no counts during the peak juvenile passage in late August and early September, but 2,030 were counted on 1/2 September 1973 (Prater 1974), and up to 2,400 were recorded during our three counts 10-13 September (Table 22). Numbers of juveniles appearing in western Europe vary considerably between years, due primarily to varying breeding success. Thus, up to 6,000 are estimated to occur in the Dutch Wadden Sea area during peak years (Roselaar 1979).

Status: the Wadden Sea, especially the area between the Elbe and Eider estuaries is of international importance to Curlew Sandpipers. Probably 5-10% of the adult East Atlantic flyway population pause in the area during autumn migration, when they build up body reserves for the onward migration to West Africa, and many undergo most of the post-breeding body moult here. Significant numbers of juveniles may also be present in the Wadden Sea in certain years.

Fig. 74. Curlew Sandpiper *Calidris ferruginea*



Dunlin *Calidris alpina*

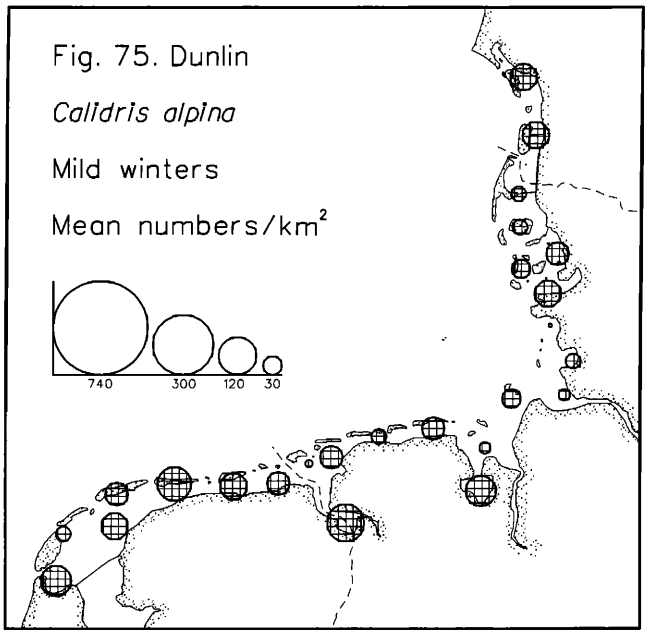
Winter 258,000 Spring 1,120,000
Summer 8,920 Autumn 1,200,000

The Dunlin is the most numerous coastal wader on the East Atlantic flyway, where a total of 2.2 million individuals have been recorded so far (Smit & Piersma 1989). By far the majority of the birds visiting the Wadden Sea belong to the subspecies *C.a. alpina* with an estimated total mid-winter population in West Europe and the western Mediterranean of about 1,350,000 individuals (see below for possible underestimate). Most winter on the British Isles (548,000), France (240,000) and Tunisia (178,000). These birds breed in northernmost Europe and north-western Siberia. About 50 pairs of the southern subspecies *C.a. schinzii* breed in the Wadden Sea area (Fleet *et al.* in press), but even including the few thousand pairs breeding in the countries around the Baltic (Piersma 1986), this population is totally swamped by the *alpina* migrants. An estimated 900,000 Dunlins from Iceland and North-east Greenland *C.a. schinzii & arctica* also pass North-west Europe on their way to wintering grounds in West Africa, but few are thought to visit the Wadden Sea (Smit & Wolff 1981, Smit & Piersma l.c.).

Our mid-**winter** counts have yielded totals of between 131,000 and 258,000 during mild winters (Table 23). Of these, up to 210,000 have actually been counted. Considerably less Dunlins remain during severe winters, when we recorded between 23,400 and 62,200. In mild winters, the Dunlins are surprisingly evenly **distributed** throughout most of the Wadden Sea (Table 23, Figure 75), where they predominantly feed on silty flats (Ens *et al.* 1993). In severe winters, the Danish, German, and eastern parts of the Dutch Wadden Sea are largely deserted (Figure 76). In January 1992 a record 78,000 Dunlins were found in the Schleswig-Holstein Wadden Sea (Rösner unpubl.).

In **spring**, large numbers of Dunlins start to move into the Wadden Sea from late February onwards (Figure 77). These are birds that have wintered further west and south in Europe, which go to the Wadden Sea to **moult** into breeding plumage and build up **body reserves** for the onward migration. Numbers increase in most areas during March and April, until a new influx of birds apparently takes place in early May. There are indications that the Dunlins arriving in March and April are European sub-arctic breeders, while those passing in May breed in Siberia (Goede *et al.* 1990, Meltofte 1993). According to our counts, more than 400,000 Dunlins may be present in the Wadden Sea already by March (Table 23). Numbers increase to between 804,000 and 1,120,000 during our best counts in the first half of May, when birds from the whole breeding range are supposed to be present. Of these, up to 1,046,000 Dunlins were actually counted. With 50,000-100,000 Dunlins staging in other parts of Denmark and 15,000-35,000 in the Dutch Delta (Meininger & van Haperen 1988, Meininger *et al.* 1994), this means that up to about 90% of the West European/West Mediterranean *alpina* Dunlins could be present in the Wadden Sea countries at this time. As some hundreds of thousands may fly north via South-east Europe and the Black Sea in spring (Meltofte 1991, 1993), this may merely point to an underestimation of the population, however. Wadden Sea numbers decrease during mid and late May, when first the European sub-arctic breeders and then the arctic breeders leave for their breeding grounds (Figure 77; Meltofte 1993).

At the same time as Dunlin numbers in the Wadden Sea



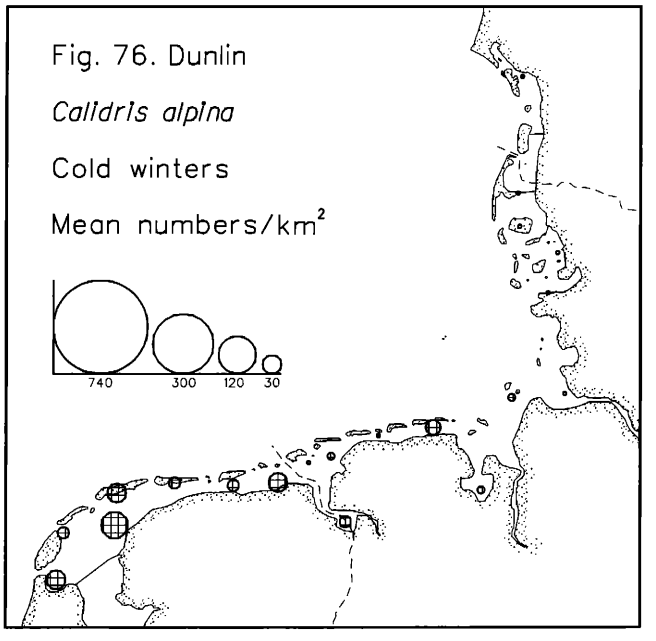
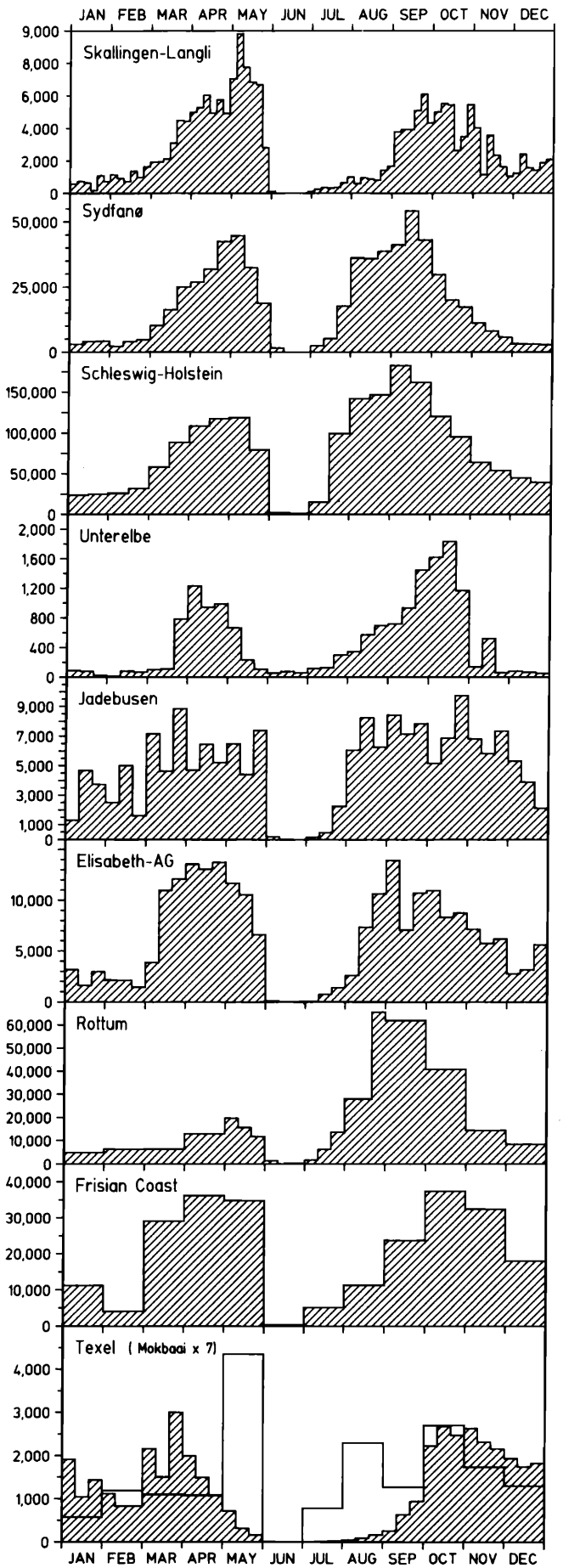


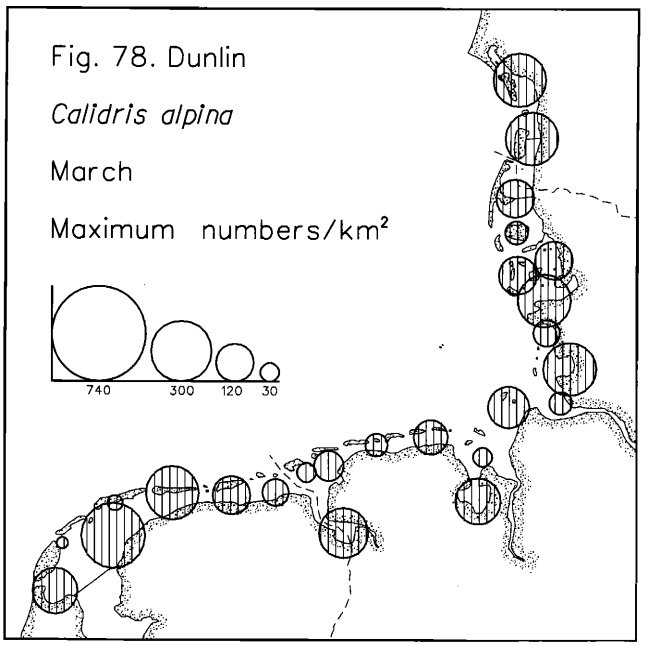
Fig. 77. Dunlin *Calidris alpina*

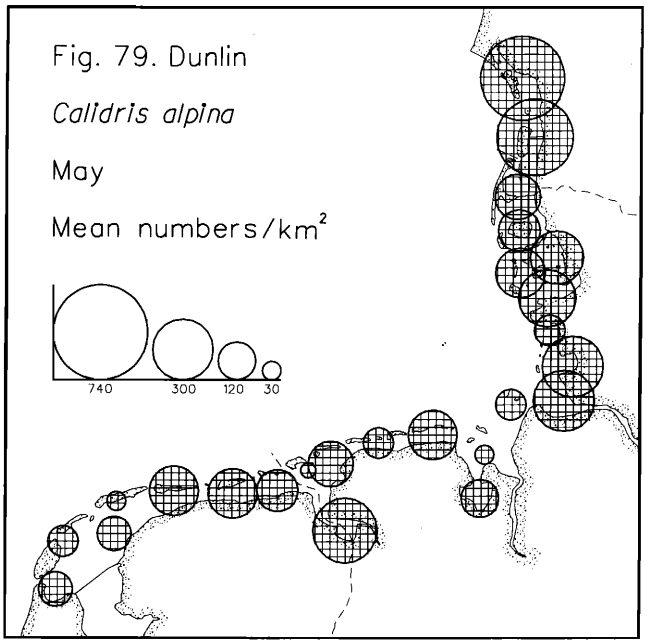


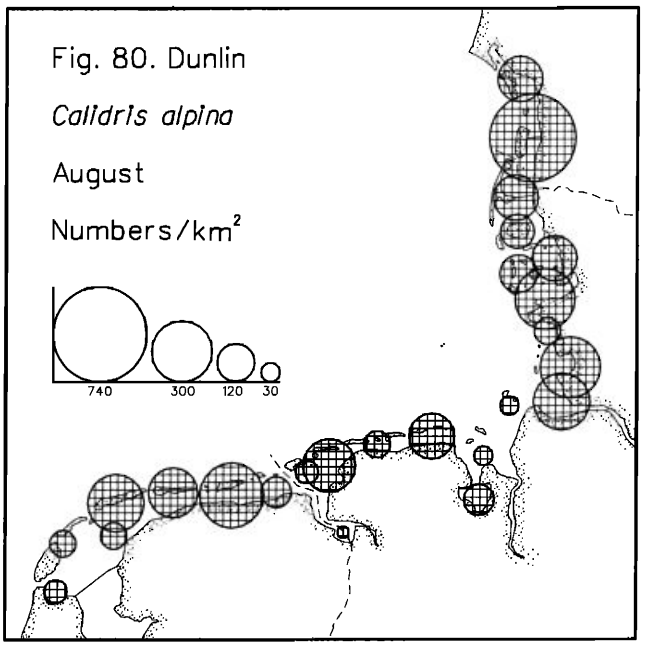
increase during March and April, there is an increasing **concentration** of birds in the Schleswig-Holstein and Danish parts (Figures 78 and 79). From an average of 39% in March the share of Dunlins in these two parts increases to 62% in May. This is probably a result of Wadden Sea Dunlins moving east and north during this period, and/or of the arctic breeders mainly using these north-eastern parts of the Wadden Sea.

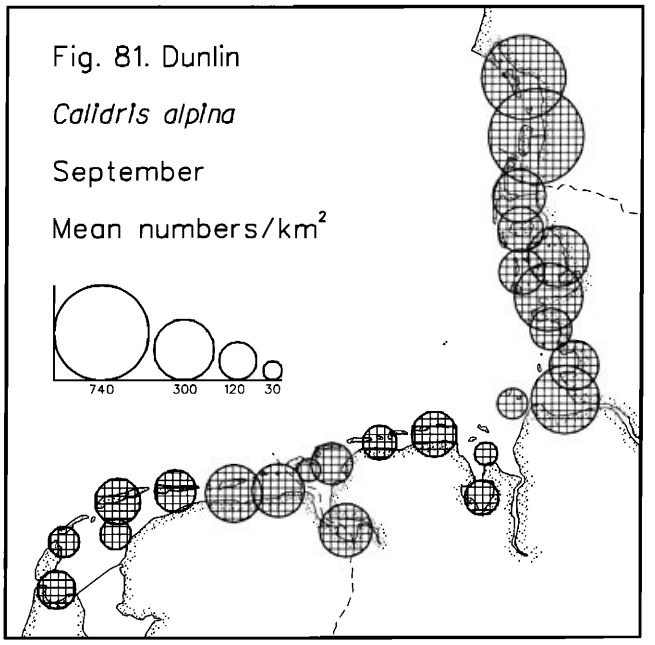
About 20,000 non-breeding Dunlins are supposed to **summer** in the Wadden Sea (Smit & Wolff 1981). At our incomplete count in mid June 1991 8,920 were recorded (Table 23).

In **autumn**, large numbers of adult Dunlins arrive in the Wadden Sea during July, with peak immigration late this month and in early August (Figure 77; Meltofte 1993, and others). Juveniles start to arrive during August, but significant numbers do not appear until late in the month and

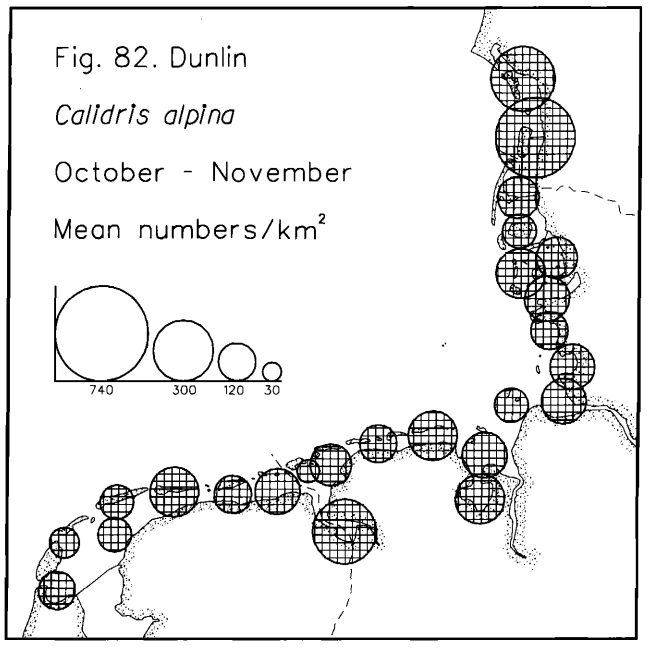








during September. Our mid August count provided a total of 736,000 (Table 23). Most of these adults stay to **moult** in the Wadden Sea. About 60% of the August total was **distributed** in the Danish and Schleswig-Holstein parts (Figure 80). In most areas, numbers peak in September, when our counts gave totals of between 797,000 and 1,200,000 individuals (Figure 77, Table 23; note 103,000 unidentified waders in mid September 1980; Appendix 1). A maximum of 961,000 were actually counted in late September 1990. As in August, there are most birds (64%) and highest densities in the Danish and Schleswig-Holstein parts (Figure 81), but up to 375,000 have earlier been counted in the Dutch part; i.e. in September 1979 (Zegers & Kwint 1992). During October and November, numbers decrease as adults finish their post-breeding **moult** and move on to the winter quarters together with many of the juveniles (Smit & Wolff 1981). Our best counts provided totals between 938,000 in October and 681,000 in early November (Table 23). At this time of the



year, the **distribution** evens out, so that "only" about 50% of the birds stay in the Danish and Schleswig-Holstein parts, and the densities are more even throughout the Wadden Sea (Figure 82). Generally, juvenile Dunlins occupy the tidal flats along the mainland coast and in other sheltered places, as compared to the adults predominantly staying in the more exposed parts of the Wadden Sea during both spring and autumn. The main prey is *Nereis*, *Corophium* and *Hydrobia*. At high tide, the birds concentrate in huge flocks at high tide roosts on saltmarshes and sandbanks, where numbers may exceed 100,000 (Smit & Wolff l.c., van der Have *et al.* 1984, Meltofte 1993, Laursen *et al.* in press). In many areas, numbers continue to drop during December, as more birds leave after having built up significant **body reserves** for the winter (Smit & Wolff l.c.).

Status: the Wadden Sea is of outstanding international importance for Dunlins breeding in northernmost Europe and north-eastern Siberia (ssp. *alpina*). The grand majority of these at least 1.35 million birds stay in the Wadden Sea in spring, when they moult into breeding plumage and build up body reserves for the migration to the breeding grounds. Again during the autumn migration, at least as large a proportion of these birds pass through the Wadden Sea, and most stay for extended periods, while they moult and build up body reserves for the winter. 10-20% of the population remain in the Wadden Sea during mild winters. The Wadden Sea area is also of international importance as a breeding area of the small and decreasing continental population of southern Dunlin (ssp. *schinzii*). Probably, also many *schinzii* Dunlins from the Baltic etc. stay in the Wadden Sea during their post-breeding moult.

Ruff *Philomachus pugnax*

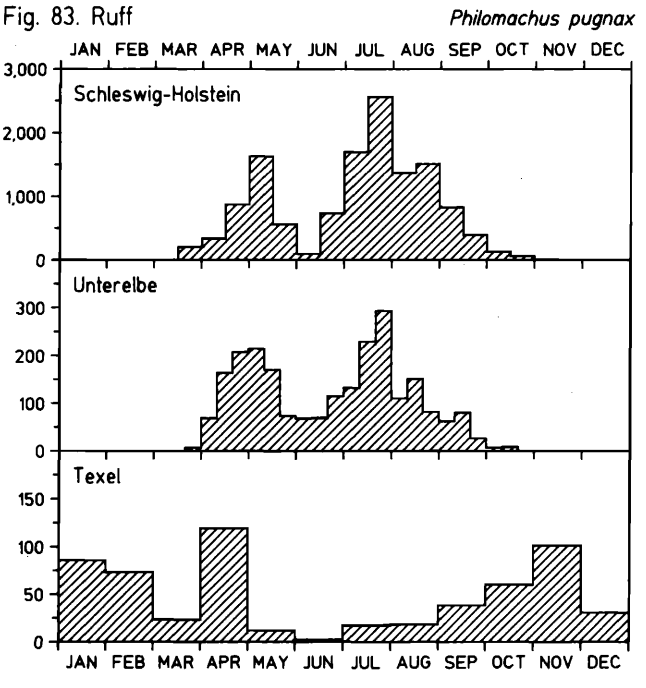
Winter 318 Spring 19,800
Summer 274 Autumn 3,340

Several million Ruff breed in northern Europe and Siberia and winter in Africa (Cramp & Simmons 1983). The number of these that pass north-western Europe and the Wadden Sea area during migration is unknown, but it may involve some hundreds of thousands, especially in autumn. At present, almost 300 "pairs" breed in the Wadden Sea area (Fleet *et al.* in press), but several hundred more breed in adjacent parts of the Wadden Sea countries (Piersma 1986).

About 10,000 Ruff (predominantly males) winter in Europe, and up to a few hundred were recorded at our mid-**winter** counts (Table 24; van Rhijn 1991). Most have been found on Texel in the Dutch part, but low numbers have been encountered at different occasions in other parts as well (Busche 1980).

Spring migration in the Wadden Sea area starts with the arrival of local breeders during late March and April (Figure 83; Gram *et al.* 1990). Significant numbers do not appear until late April and the first half of May, when northern breeders pass by; the males generally 1-2 weeks ahead of the females (Table 24; Meltofte 1993). Large numbers were especially found between the Elbe estuary and Tøndermarsken just north of the Danish-German border. In this area, up to 20,000 were recorded at our counts. Many more may be found in polders and fields a little further inland, than were covered at our counts. Up to 20,000 have been recorded in the Netherlands in April, and a maximum of 14,650 have been found along the German Wadden Sea coast (SOVON 1987, Hötker & Kölsch 1993). In Denmark, a peak record of 21,000 has been counted in western and northern Jutland (Meltofte 1993). These birds apparently fly in one go from their West African winter quarters to North-west Europe, from where they continue to breeding grounds probably in Scandinavia (Meltofte l.c.). Here the populations are estimated to number 60,000-95,000 "pairs" in Norway and Sweden besides 30,000-50,000 in Finland (Koskimies 1993). During their stay in the Wadden Sea area, they finish **moult** into breeding plumage and probably build up **body reserves** (Meltofte l.c., and others).

Male Ruff initiate their **autumn** migration in June, and most adults have left Fenno-Scandia by August (Meltofte 1993). Many stay to **moult** part of their primaries and build up significant **body reserves** in North-west Europe incl. the Wadden Sea area before they continue directly to tropical Africa (Koopman 1986). Most juveniles, incl. Siberian birds, pass through northern Europe between mid August and early September, but many stay in the Wadden Sea area



throughout September (Figure 83; Meltofte l.c.). In Schleswig-Holstein, the number of moulting (adults) in July-August has been estimated at 10,000 (note dominance of adults in the graphs for Schleswig-Holstein and Unterelbe in Figure 83), while between 20,000 and 100,000 stay in the Netherlands during July to October (Busche 1980, van Rhijn 1991). Few of these are found in the Wadden Sea area, where our counts only gave totals of up to a few thousands in August and September (Table 24). Most leave during October.

Status: probably, most of the Scandinavian breeding population of Ruff pause during spring migration in the low grasslands and polders adjacent to the Wadden Sea during late April and the first half of May, when they finish moult into breeding plumage and build up body reserves for the onward migration. Large numbers reappear during autumn migration, when much of the post-breeding moult takes place, and the birds build up large body reserves for a direct flight to tropical Africa. This includes many juveniles even from Siberian breeding grounds. However, the Wadden Sea proper only makes up a marginal part of this highly important staging area.

Snipe *Gallinago gallinago*

Winter 880 Spring 409
Summer 22 Autumn 6,800

The total number of Common Snipe, that visit North-west Europe during autumn migration, has been estimated at 20-30 million (Beintema & Müskens 1983). These are breeding birds from most of northern Europe, which undergo most of the post-breeding moult during their stay in North-west Europe during August to November-December. Many even stay to winter. Numbers of Snipe counted during the waterbird counts in the Wadden Sea area only make up a minor fraction of actual numbers. Birds were mainly recorded when flushed from the vegetation by observers.

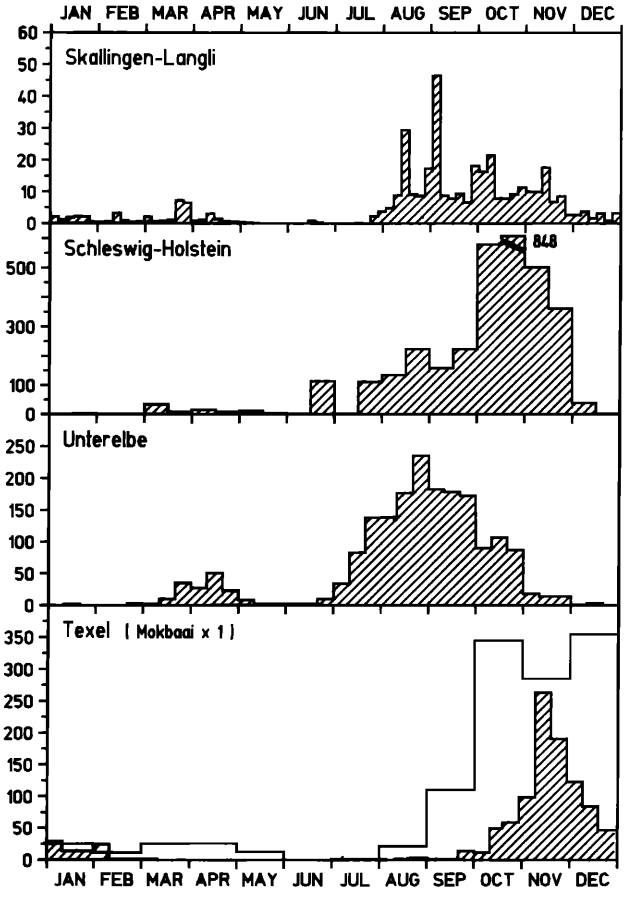
Less than 1,000 were counted in "normal" **winter**s, while even less than 10 were recorded in severe winters (Appendix 1).

Spring migration passes continental Europe during March and April without significant concentrations known from anywhere (Figure 84). Maximum numbers recorded in the Wadden Sea area did not exceed 500 (Appendix 1).

More Snipe were counted during **autumn**, when 6,800 were recorded in October (Appendix 1). The real numbers present in the Wadden Sea area during the autumn could well amount to several hundreds of thousands. During late autumn increasing numbers of Snipe **feed** on exposed tidal silty flats (cf. Schleswig-Holstein and Texel in Figure 84). At this time, they have finished the post-breeding **moult**, and they probably need to build up fat reserves for the winter (Cramp & Simmons 1983).

Status: the Wadden Sea area, especially the vegetated forelands and the wet meadows and marshes behind the seawalls make up a small, but probably significant part of the autumn staging and moulting area for millions of Snipe in the lowlands of north-western Europe. During winter and spring, numbers occurring here are less significant, but could still amount to several tens of thousands. Following the ongoing drainage and deterioration of inland wetlands, the significance of the Wadden Sea coastal areas for Snipe may be increasing.

Fig. 84. Snipe *Gallinago gallinago*



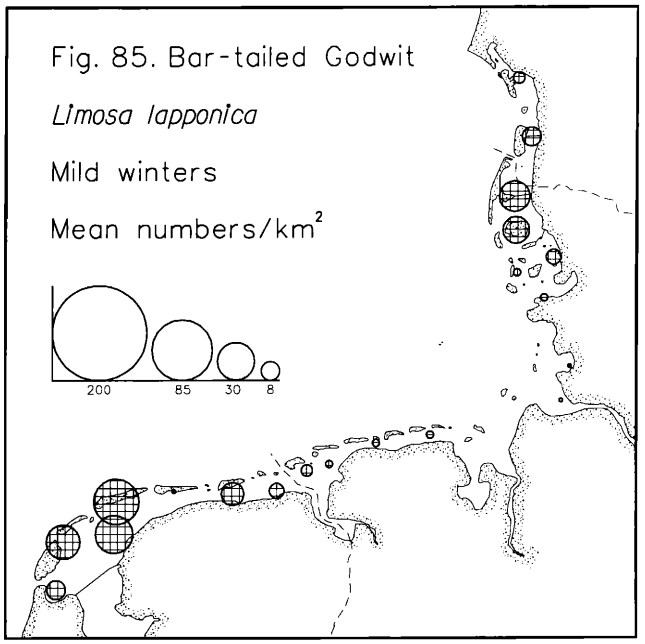
Bar-tailed Godwit *Limosa lapponica*

Winter 43,000 Spring 341,000
Summer 13,500 Autumn 151,000

Some 850,000 Bar-tailed Godwits winter along the East Atlantic flyway (Smit & Piersma 1989). Of these, about 125,000 stay in West Europe, the remainder in West Africa. In Europe the highest wintering numbers occur in the British Isles (79,000) and the Wadden Sea (25,000). Those wintering in Europe are supposed to breed in northernmost Europe, while the African winterers apparently breed in northern Siberia east to the Taimyr Peninsula.

Our mid-**winter** counts ranged between 24,500 and 43,000 in mild winters (Table 25), of which up to 41,700 were actually counted. In severe winters good totals ranged between 8,560 and 16,500 at our reasonably good counts. The lower numbers in severe winters are mainly due to significant reductions of the concentrations in the northern part of the Schleswig-Holstein and the Danish Wadden Sea, but also the concentrations in the Dutch Wadden Sea are reduced (Table 25, Figures 85 and 86; note, however, that imputed data from sub-area NL27 could not be differentiated between mild and severe winters). Most birds stay on sandy flats during winter (Ens *et al.* 1993).

From late February, large numbers of Bar-tailed Godwits begin to move into the Wadden Sea from the European wintering grounds (Figure 87; Prokosch 1988, Meltofte 1993).



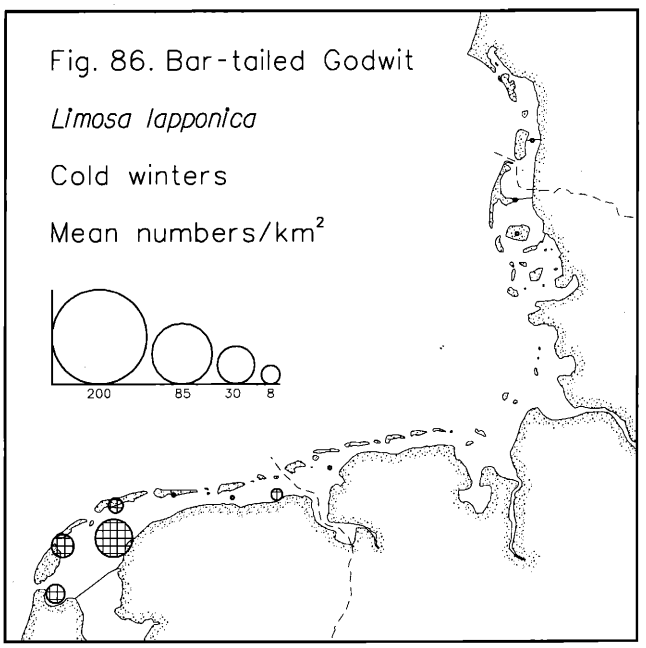
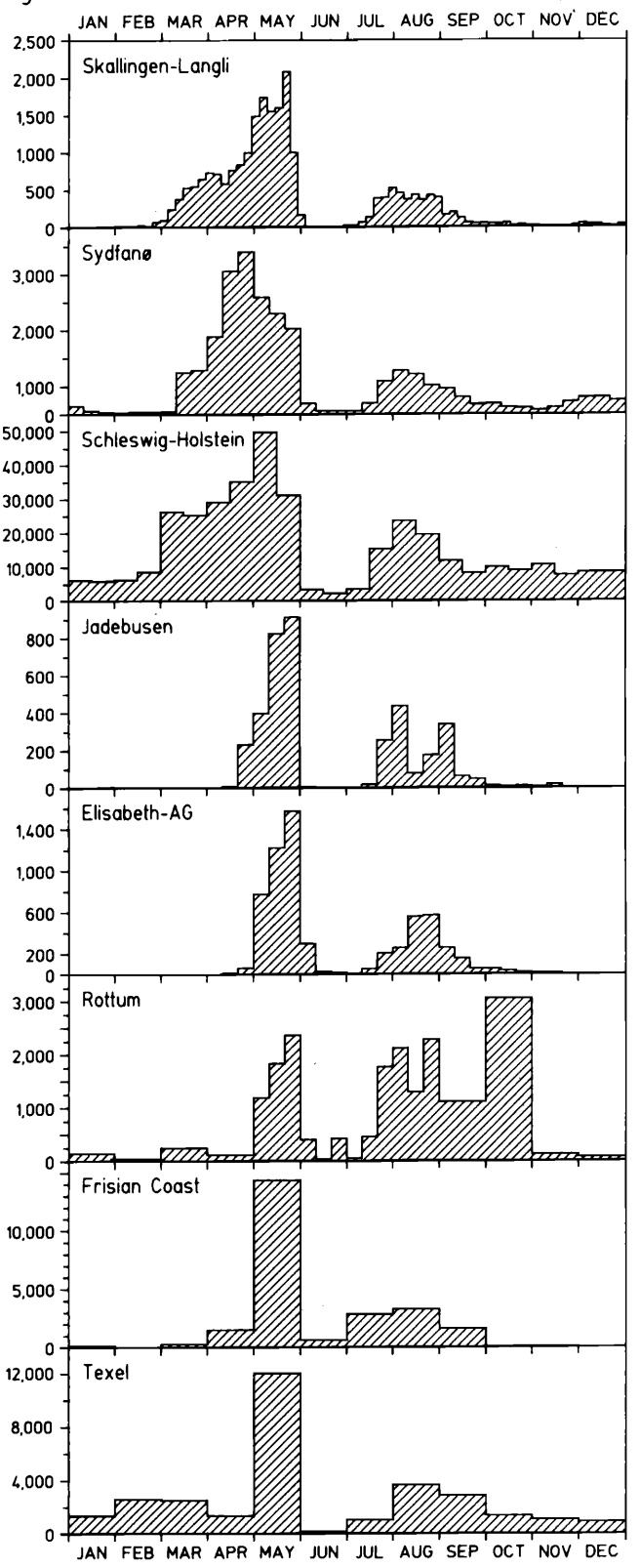
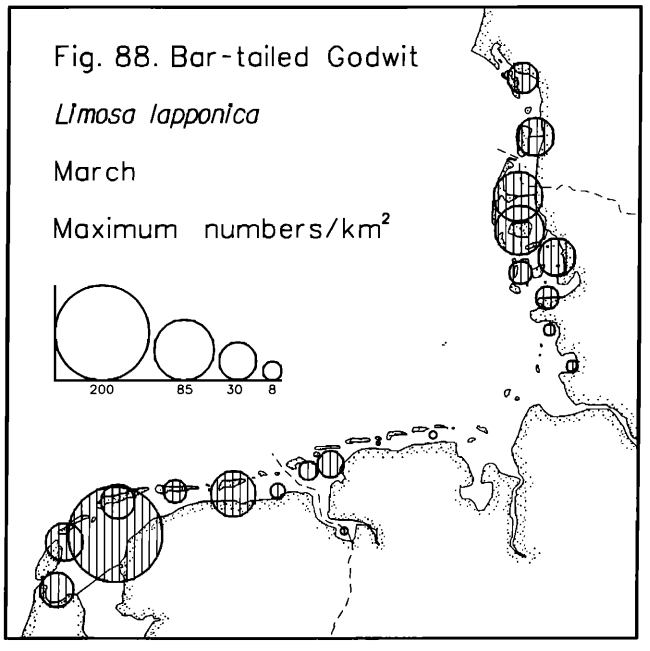
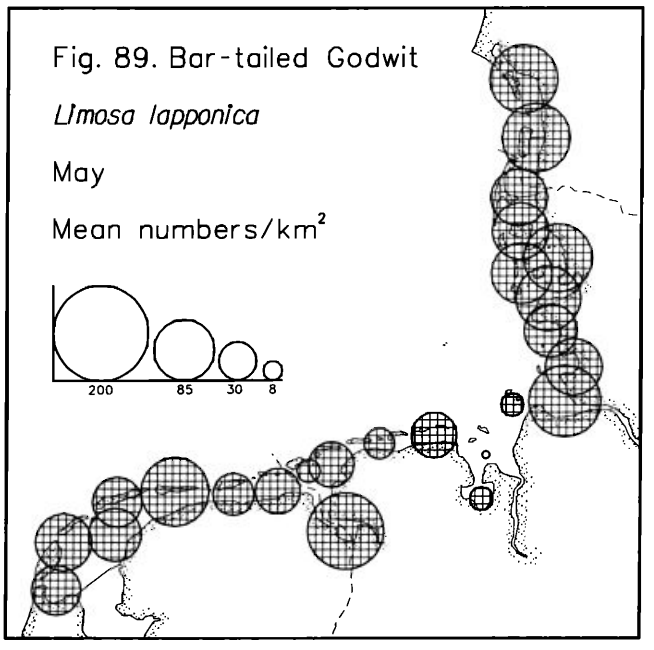


Fig. 87. Bar-tailed Godwit *Limosa lapponica*







This part of the **spring** migration peaks during March. We recorded 91,600 in mid March 1984 (Table 25), increasing to 117,000 in mid April, so that more than 90% of the European wintering population is present in the Wadden Sea at this time. In this early period, the birds are very much distributed in the same way as in winter (Figure 88). During their stay in the Wadden Sea, birds **moult** into breeding plumage (Prokosch l.c.). A new and much bigger wave of Bar-tailed Godwits arrives from West Africa during late April and the first days of May (Figure 87; Piersma & Jukema 1990). Thus, in early May, when both groups are present in the Wadden Sea, peak numbers of 316,000 and 341,000 were recorded during our best counts. A maximum of 300,000 was actually counted (Table 25).

In May, high numbers and concentrations are found in many parts of the Wadden Sea (Table 25, Figure 89). European and Siberian Bar-tailed Godwits apparently use partly separate areas during their stay in the Wadden Sea. In Schleswig-Holstein the supposed Siberian birds tend to be **distributed** along the mainland coast, while the supposed

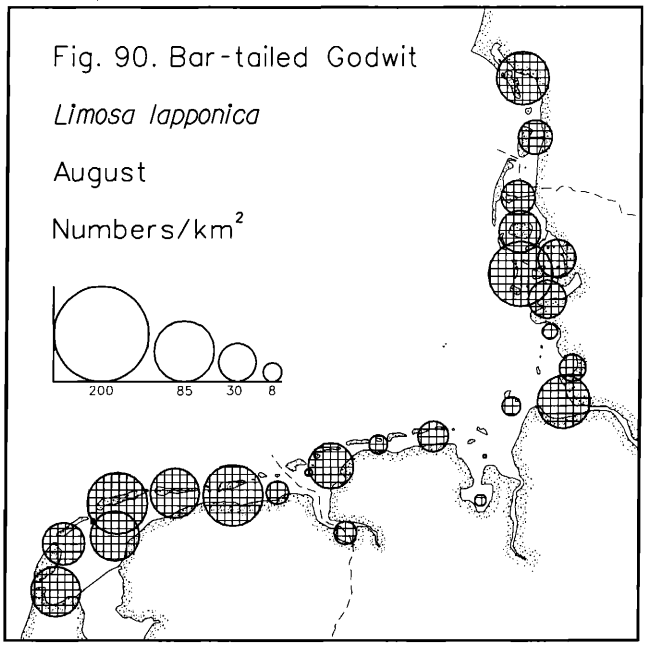
European breeders stay around the islands in the outer part (Prokosch 1988, Piersma & Jukema 1990). At high tide, Bar-tailed Godwits roost in flocks of up to 20,000-30,000 (Meltofte 1980, Prokosch l.c.). Including 25,000 Bar-tailed Godwits staging on other Danish sites (Meltofte l.c.) and 8,500-17,400 in the Dutch Delta (Meininger *et al.* 1994), almost half the total flyway population is present in early May in the Wadden Sea countries. Numbers drop as the supposed European breeders leave during mid May and the supposed Siberian birds depart during late May and the first days of June (Figure 87; Prokosch l.c., Meltofte l.c.). Before departure, the birds have built up significant **body reserves**, the Siberian breeders much more so than the supposed European birds (Prokosch l.c., Piersma & Jukema l.c., Scheiffarth *et al.* 1993).

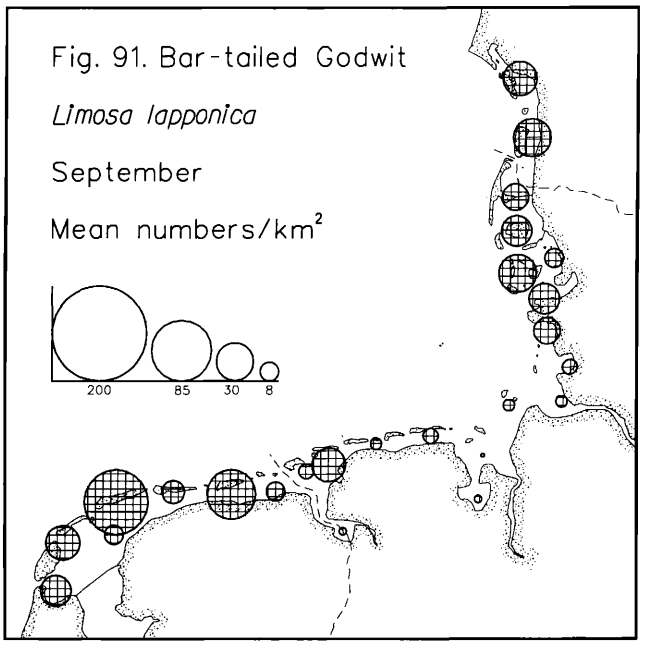
In mid June 1991 we recorded 13,500 **summering** Bar-tailed Godwits in the entire Wadden Sea. Due to incomplete coverage, many birds especially in the Niedersachsen part may have been missed, so that real numbers of summering non-breeders may be about 15,000-20,000.

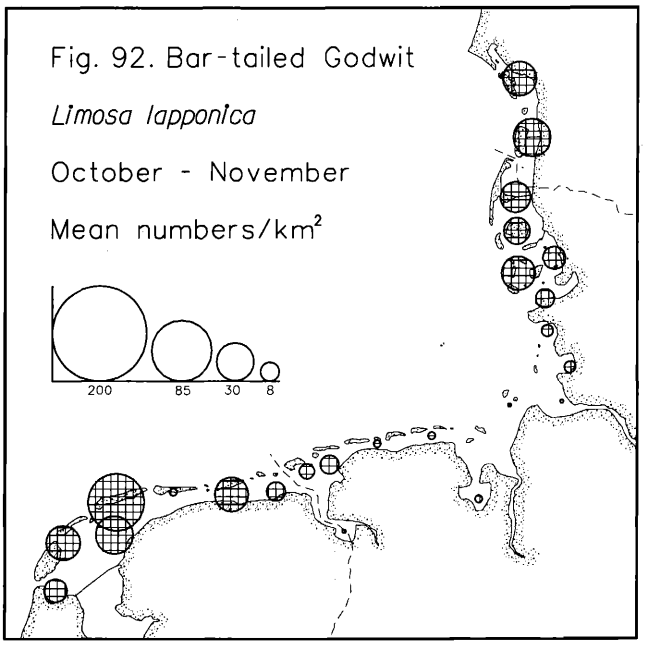
In **autumn**, large numbers of adult Bar-tailed Godwits reappear in the Wadden Sea between mid July and mid August, and the juveniles follow during late August - mid September (Figure 87; Meltofte 1993). Thus, our count of 151,000 in mid August 1982 (Table 25) almost exclusively involved adults. They probably include both European and African winterers, but the latter group only pauses for a short time to build up **body reserves** in the Wadden Sea, before the birds continue to their African winter quarters. In contrast, the European winterers stay to **moult** through the autumn (Cramp & Simmons 1983). Numbers decrease during September, as many birds leave for Africa. Our good counts "only" provided totals of between 73,000 and 97,000 in this month (Figure 87, Table 25). Numbers dropped a little further to 50,800-73,700 during our relatively poor October counts and 42,600-54,700 in early November, when some leave for winter quarters further west and south in Europe; but many actually stay to winter (see above).

The **distribution** changes during the autumn, from the large numbers of adults being well "dispersed" over most of the Wadden Sea in August (Figure 90), to an increasing concentration in the Danish/northern Schleswig-Holstein and western Dutch parts, respectively, during September to November (Table 25, Figures 91 and 92), similar to the situation in mild winters. Furthermore, the juveniles primarily occupy the muddy tidal flats along the mainland coast, while the adults to a higher extent stay on the outer, more sandy flats (Meltofte 1993).

Status: most likely, the vast majority of the Bar-tailed Godwits wintering in West Europe and West Africa pass the Wadden Sea during spring and autumn migration. About half the entire population may be present at the same time in early May. Bar-tailed Godwits wintering in West Europe and probably breeding in northernmost Europe stay in the Wadden Sea for extended periods for moult and fat deposition in spring and autumn, and more than one third of that population may winter here. Birds wintering in West Africa pause for about one month in spring to build up significant body reserves before their final migration to their Siberian breeding grounds. They may stay a few weeks again in autumn to replenish body reserves for the onward migration to Africa. At peak seasons, the birds are distributed over the entire Wadden Sea, whereas mainly the Dutch and the Danish/Schleswig-Holstein parts are occupied for the rest of the non-breeding season.







Whimbrel *Numenius phaeopus*

Winter 1 Spring 1,330
Summer 11 Autumn 631

The Whimbrel that pass through the Wadden Sea during migration originate from breeding grounds in Fenno-Scandia (62,500-110,000 pairs) and north-western Russia (Cramp & Simmons 1983, Koskimies 1993). Most of these birds winter in West Africa, where the mid-winter population has been estimated at 600,000-700,000 individuals (Smit & Piersma 1989), including large numbers breeding in the North Atlantic islands, however. The migration passes over a broad front inland as well as along coasts.

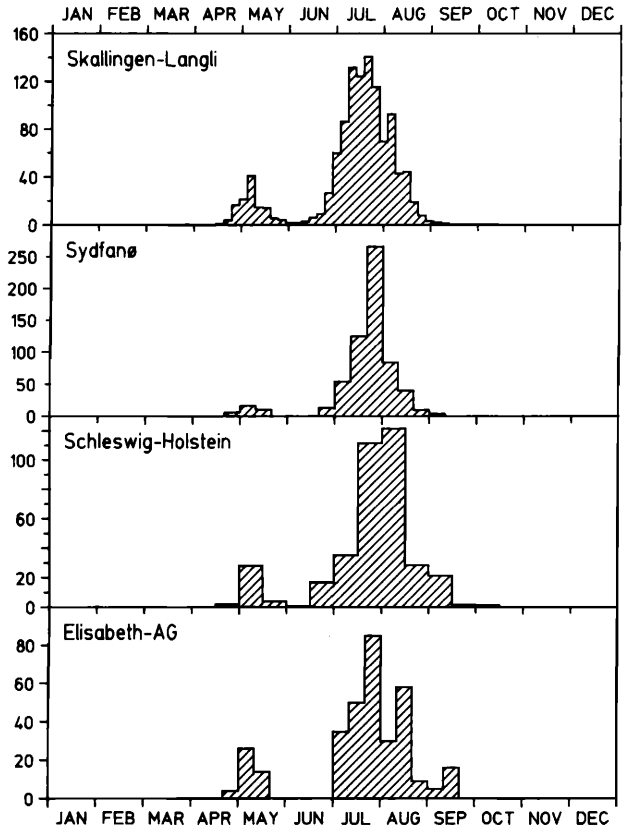
In **winter**, stray birds may occur even north to Denmark (Cramp & Simmons 1983). **Spring** migration in the Wadden Sea area peaks in the first half of May, when up to 1,330 have been recorded (Figure 93, Table 26). The largest numbers are generally found in the Niedersachsen part. Much higher numbers have been found in inland areas in the Netherlands and adjacent parts of Belgium and Germany, where up to 30,000 have been recorded at synchronous counts on night roosts (van Dijk 1979).

In **spring**, most Whimbrel staging in the Wadden Sea area occur on wet grasslands, while they prefer heathlands with crowberries *Empetrum* together with tidal flats during **autumn** migration (Meltofte 1993). Also "rocky" breakwaters and seawalls are used as a feeding habitat.

The **autumn** migration is largely completed by the time most of our autumn counts took place (Figure 93). Only the August 1982 count could have provided significant figures, but it only yielded 631 birds (Table 26). During the peak passage in July and early August up to several thousand Whimbrels may be present in the Wadden Sea area. Besides lack of counts during this period, the evaluation is hampered by the likelihood of many Whimbrels being misidentified as Curlews. Similarly, it can not be excluded that many of the Whimbrels recorded after mid September actually have been Curlews (cf. Figure 93).

Status: only during autumn migration do the tidal flats of the Wadden Sea make up an important habitat for staging Whimbrel. Both in spring and autumn, however, significant numbers stay in wet grasslands and on heathlands of the Wadden Sea islands and on the mainland, where they were poorly covered at our counts. Hence, the area is probably of international importance to the continental North European population.

Fig. 93. Whimbrel *Numenius phaeopus*



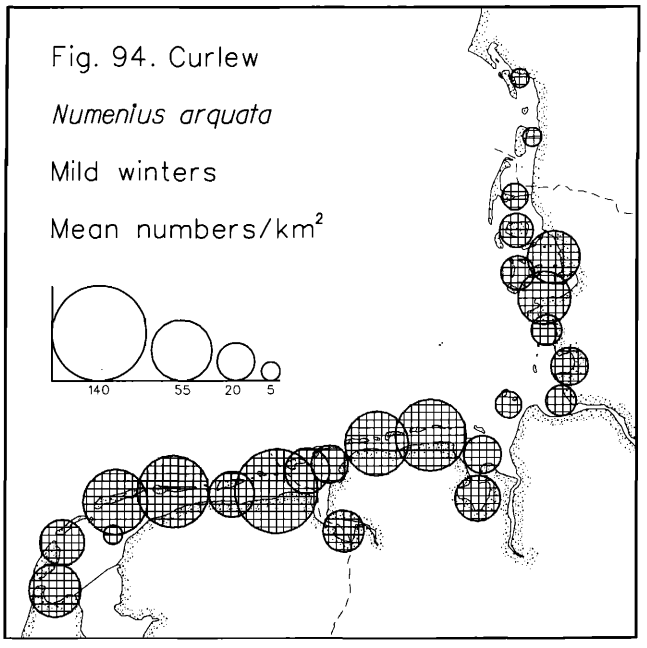
Curlew *Numenius arquata*

Winter 178,000 Spring 120,000
Summer 14,900 Autumn 227,000

The Curlews that visit the Wadden Sea come from breeding grounds in most of northern Europe (Smit & Wolff 1981). Between 53,000 and 88,000 pairs breed in Fenno-Scandia (Koskimies 1993), and similar numbers probably come from north-western Russia. About 10,000 pairs breed in the Wadden Sea countries themselves. Of these, about 860 pairs are found inside the Wadden Sea area; most of them on the islands in the Dutch part (Fleet *et al.* in press). Most of all these birds winter in West Europe, where the mid-winter population is estimated to number a minimum of 400,000 individuals (Smit & Piersma 1989). The highest numbers are found in the British Isles and the Wadden Sea area.

In mild **winters**, we found between 91,100 and 178,000 Curlews in the Wadden Sea (Table 27). Except for the bad-weather count in January 1987, our severe winter totals lay around the lower end of this range, i.e. between 83,500 and 110,000. In such winters, numbers and **densities** remained high in the Dutch part, while they dropped to a varying degree in the German and Danish parts (Table 27, Figures 94 and 95).

During February to April, when the Curlews undergo pre-breeding **moult** and build up **body reserves**, there is a continuous movement through the Wadden Sea (Smit & Wolff 1981, Camphuysen & van Dijk 1983). This **spring** migration apparently does not increase the total numbers present



in the area significantly, and our two March counts did not provide higher numbers than the previous winters (Figure 96, Table 27). Peak numbers are apparently present already in late February or early March, before the Curlews move inland to feed on wet grasslands and arable fields (Figure 96; Meltofte 1993). In most areas, numbers drop during April, and the main migration to the Fenno-Scandian and Russian breeding grounds takes place during the second half of April and early May (Meltofte l.c.). Thus, our counts in early May were down to 16,100-25,900 individuals, of which the majority (at least 10,000) may **summer** in the Wadden Sea (Table 27; Smit & Wolff l.c.). During early spring, the largest numbers and **densities** are found in the Dutch and Niedersachsen parts (Figure 97). Later, in May most stay in Niedersachsen (Table 27).

The **autumn** migration of Curlews has already started in June, when non-breeders and adult females move to the Wadden Sea to **moult** their primaries (Smit & Wolff 1981, Meltofte 1993, and others). The immigration peaks around 1 July, followed by the arrival of adult males and juveniles in the second half of July and throughout August (Meltofte l.c.). The result is, that numbers in the Wadden Sea increase sharply during June and July, to peak in most areas in August-September (Figure 96), when the post-breeding **moult** is at its highest. Our reasonably good counts in these months provided totals of between 177,000 and 227,000 Curlews (Table 27). No less than 138,000 were counted in the Dutch Wadden Sea alone in September 1979 (Zegers & Kwint 1992). In agreement with the phenological graphs, numbers were not much lower in October and early November, when we achieved totals of between 130,000 and 202,000. There is not much difference either in the **distribution** of the Curlews between these two periods. Both numbers and **densities** are generally highest in the Dutch and Niedersachsen parts of the Wadden Sea, whereas numbers and densities are considerably lower in the Danish part (Table 27, Figures 98 and 99). This may be a result of the intensive waterbird hunting in the Danish Wadden Sea (Laursen *et al.* in press). Similarly, the sharp increase in Curlew numbers at Sydfanø in early September (Figure 96) is a result of birds moving to the protected area here, when hunting starts on 1 September (Meltofte l.c.). (From 1994, Curlews are no longer hunted in Denmark.) Part of the Curlews leave the Wadden Sea during the autumn and early winter after having finished **moult** and build up **body reserves** for the winter (Smit & Wolff 1981).

Curlews often alternate between **feeding** on muddy tidal flats, and on grasslands etc. behind the seawalls. Generally, however, the long-billed females tend to stay on the tidal flats, where they take almost all kinds of molluscs, crabs and

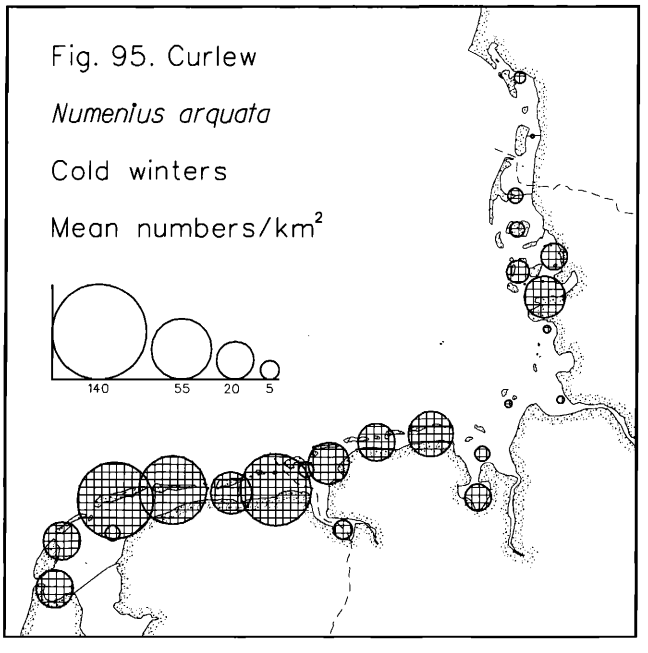
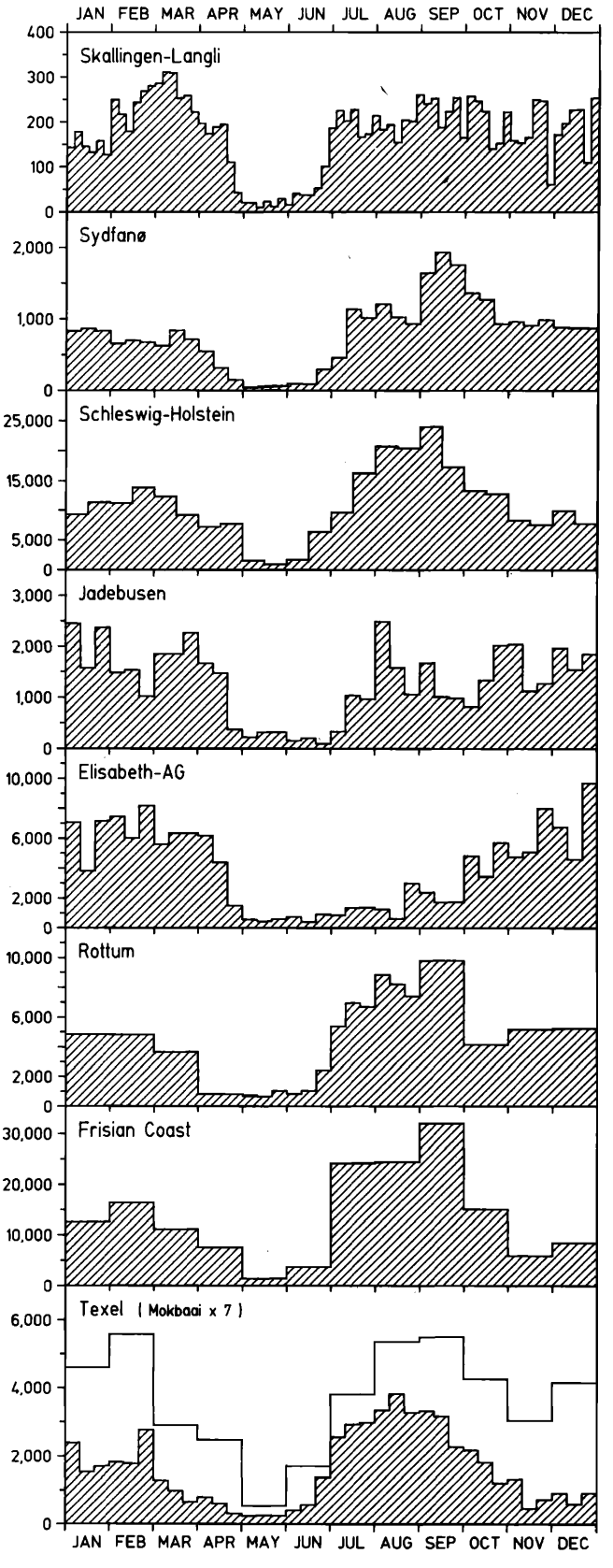
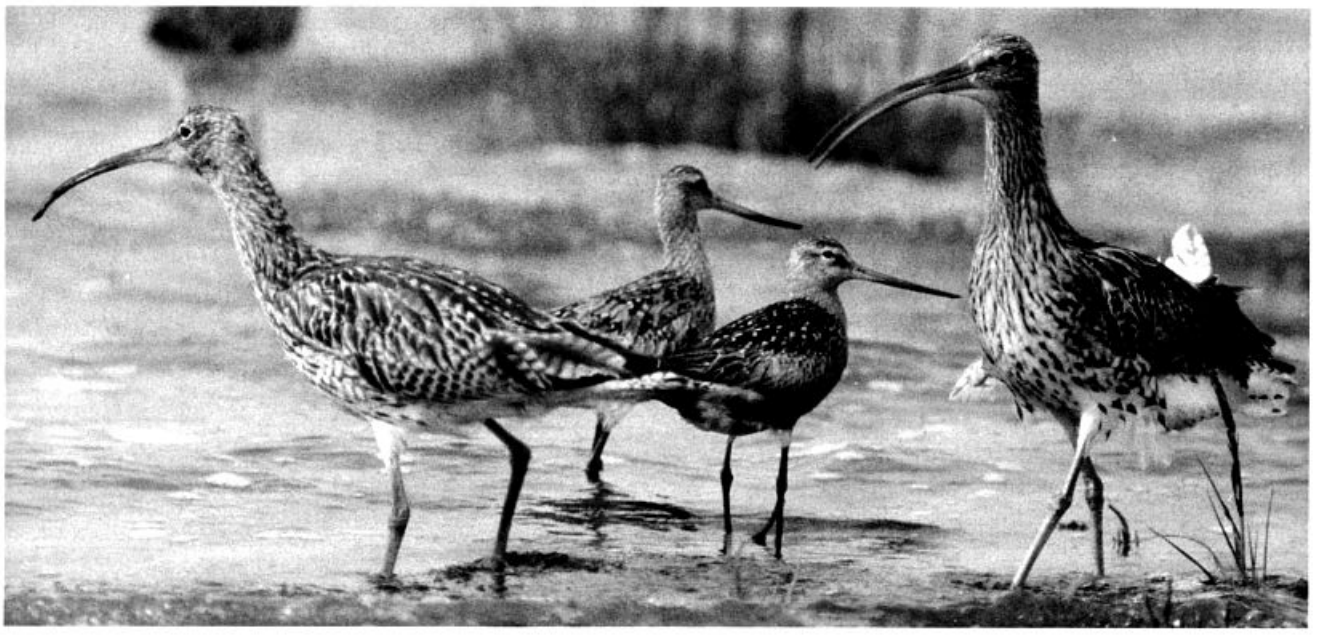


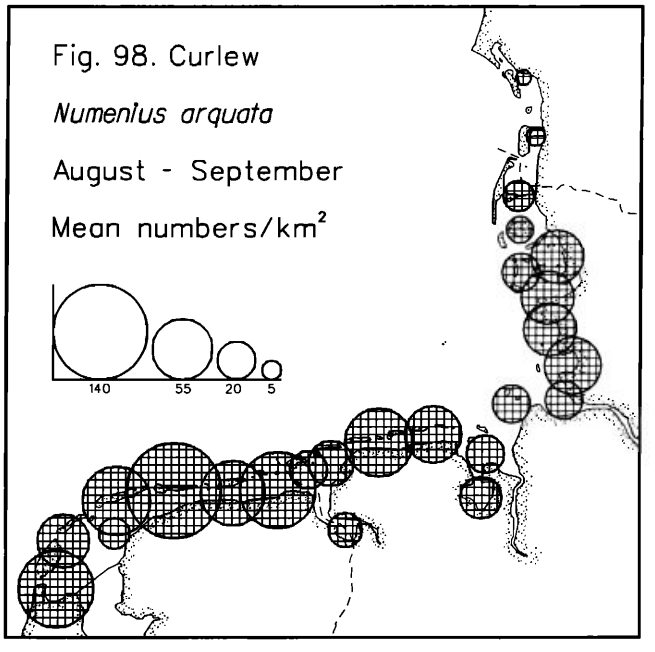
Fig. 96. Curlew *Numenius arquata*

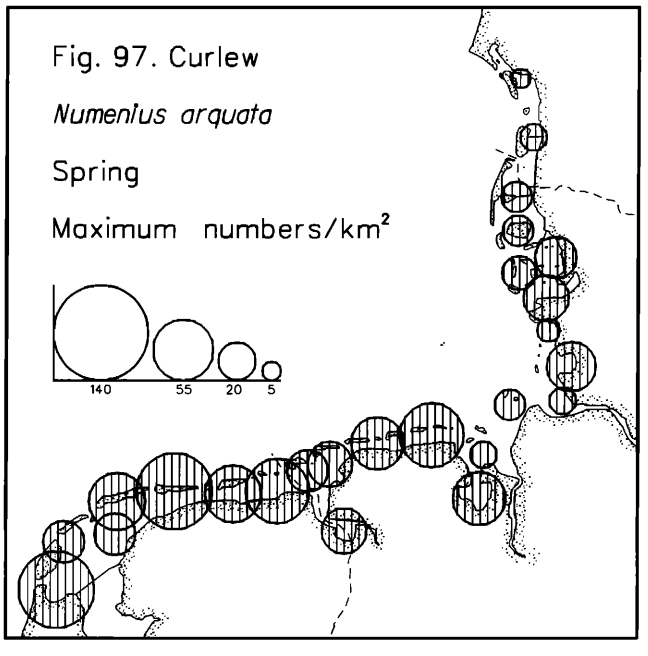


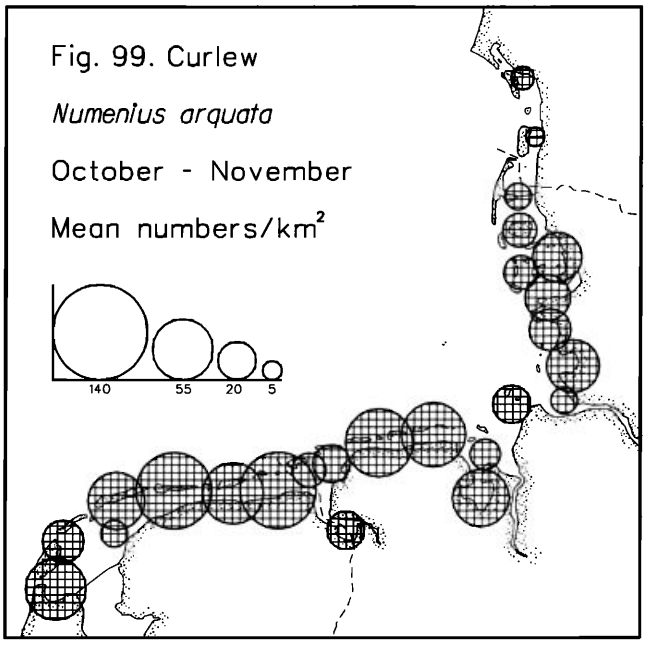


polychaetes, while the short-billed males tend to feed more on lumbricids in grasslands and polders (Smit & Wolff 1981, Ens *et al.* 1993). Curlews are probably the shiest of waterbirds occurring in the Wadden Sea, and their high tide roosts are particularly situated in isolated places on the islands, sandbanks or extensive foreland areas and polders (Smit & Wolff l.c., Laursen *et al.* in press, and others).

Status: the Wadden Sea is by far the single most important site for North European Curlews. About half the entire flyway population may be present in the Wadden Sea at the same time, and probably more than two-thirds pass through during spring and autumn. Most of these birds spend a large part of both the pre-breeding and the post-breeding moult in the Wadden Sea, and body reserves are build up during both spring and autumn. Between one quarter and half the continental breeding population winter here. Furthermore, many Curlews stay in adjacent grasslands and polders during much of the non-breeding season. The Wadden Sea area also holds a large breeding population of Curlews.







Spotted Redshank *Tringa erythropus*

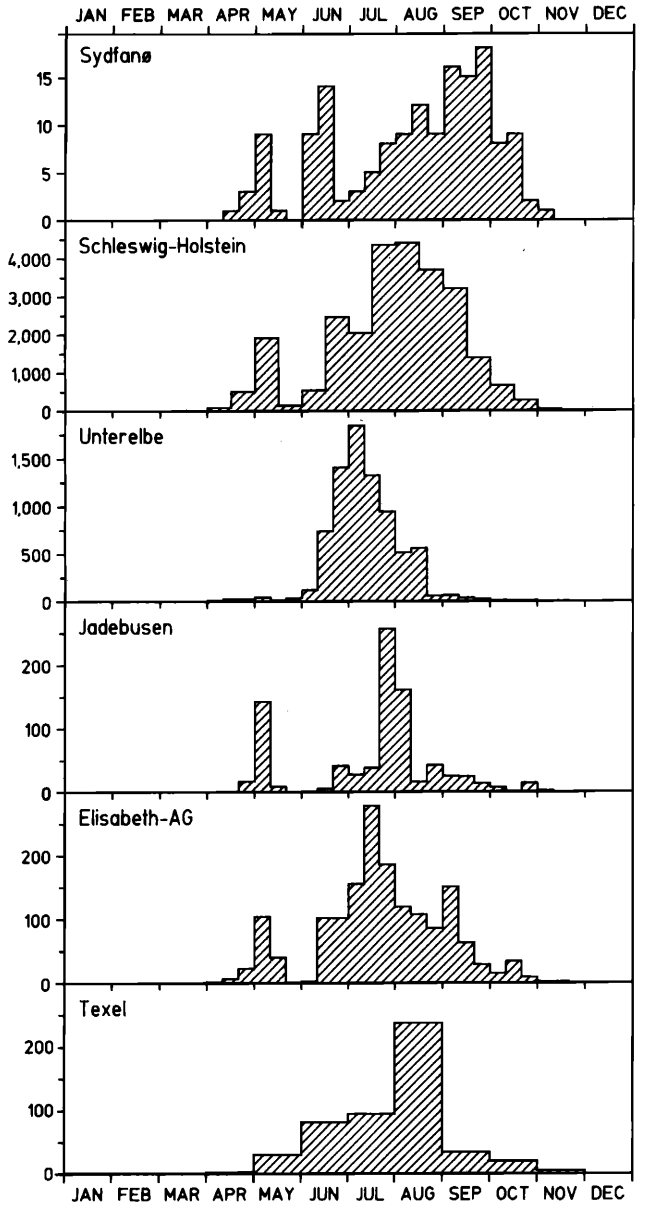
Winter 32 Spring 15,200
Summer 3,200 Autumn 13,800

An estimated total of 23,000-40,000 pairs of Spotted Redshanks breed in Norway, Sweden and Finland (Koskimies 1993). Besides these, the birds visiting the Wadden Sea may come from north-westernmost Russia (Smit & Wolff 1981). Most winter in tropical Africa.

Only a few hundred Spotted Redshanks **winter** in north-western Europe (Smit & Piersma 1989). In most years, our mid-winter counts in the Wadden Sea only yielded a few birds or none at all (Table 28).

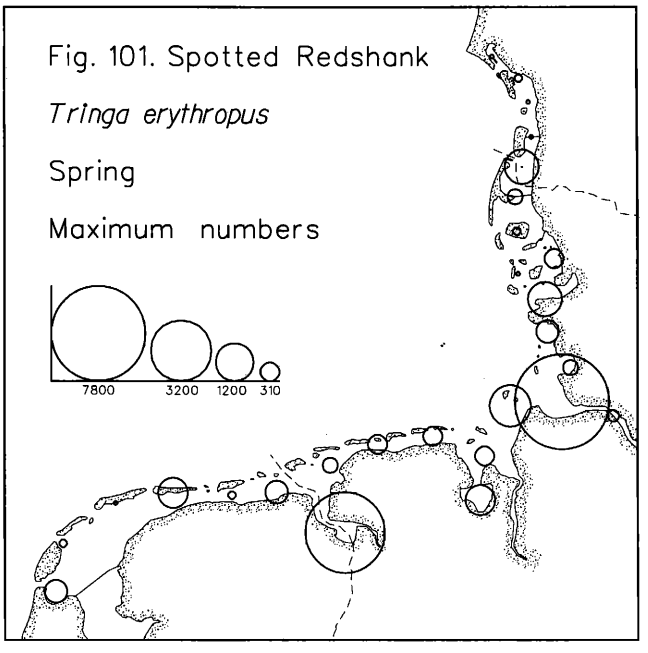
Spring migrants are already present in the Wadden Sea from late March or early April, but substantial numbers do not arrive until the main passage between late April and mid May (Figure 100; Meltofte 1993, and others). At the peak in early May, we recorded up to 15,200 Spotted Redshanks, of which the largest numbers were found in the muddy areas at Friedrichskoog peninsula just north of the Elbe estuary (sub-area SH13: max. 7,760) and in the Dollard (max. 5,260) (Table 28, Figure 101).

Fig. 100. Spotted Redshank *Tringa erythropus*



The **autumn** migration starts already in early June, when females begin to return south (Figure 100; Cramp & Simmons 1983). At the peak in mid June we recorded 3,200 (Table 28). Niedersachsen was not covered, however, and here up to 3,500 have regularly been recorded in sub-area NS14 in June (Blew unpubl.). The males follow during July and the juveniles in August (Meltofte 1993, Nebelung 1993). In mid August 1982 a total of 13,700 Spotted Redshanks was counted (Table 28). Coverage was relatively poor during this census, however, and only 5,620 individuals were actually counted. Again, the largest concentrations are found in sub-area SH13 just north of the Elbe estuary, and in the Dollard (see Holthuijzen 1979), but these concentrations were not recorded at our August count. Between the Eider and Elbe estuaries a maximum of 16,600 was counted in early August 1992 (Nebelung l.c.). Furthermore, up to 6,850 have been counted in July along the south-western bank of the Elbe estuary (Blew unpubl.). Many adults stay to **moult** in the Wadden Sea, but from August increasing numbers of the Spotted Redshanks are juveniles (Smit & Wolff l.c., Meltofte l.c., Nebelung l.c.). During our good counts in September we found between 3,950 and 6,040 individuals, and in October a few thousand could still be recorded (Table 28). Most have gone by November after having build up significant **body reserves** for the onward migration to tropical Africa (Figure 100; Cramp & Simmons 1983).

Status: supposing that the Spotted Redshanks in the Wadden Sea mainly breed in Fenno-Scandia, considerable numbers of these birds may be present in the Wadden Sea simultaneously during spring migration in early May and again during the autumn migration June-September. In spring, the birds probably use the Wadden Sea as a final fattening area before arrival at the breeding grounds, and in autumn many adult and juvenile Spotted Redshanks moult in the Wadden Sea, where they also build up body reserves before the onward migration to the wintering areas in tropical Africa. Both in spring and autumn, the area off the Friedrichskoog peninsula at the Elbe estuary is of major importance as a staging and moulting area especially for adults.



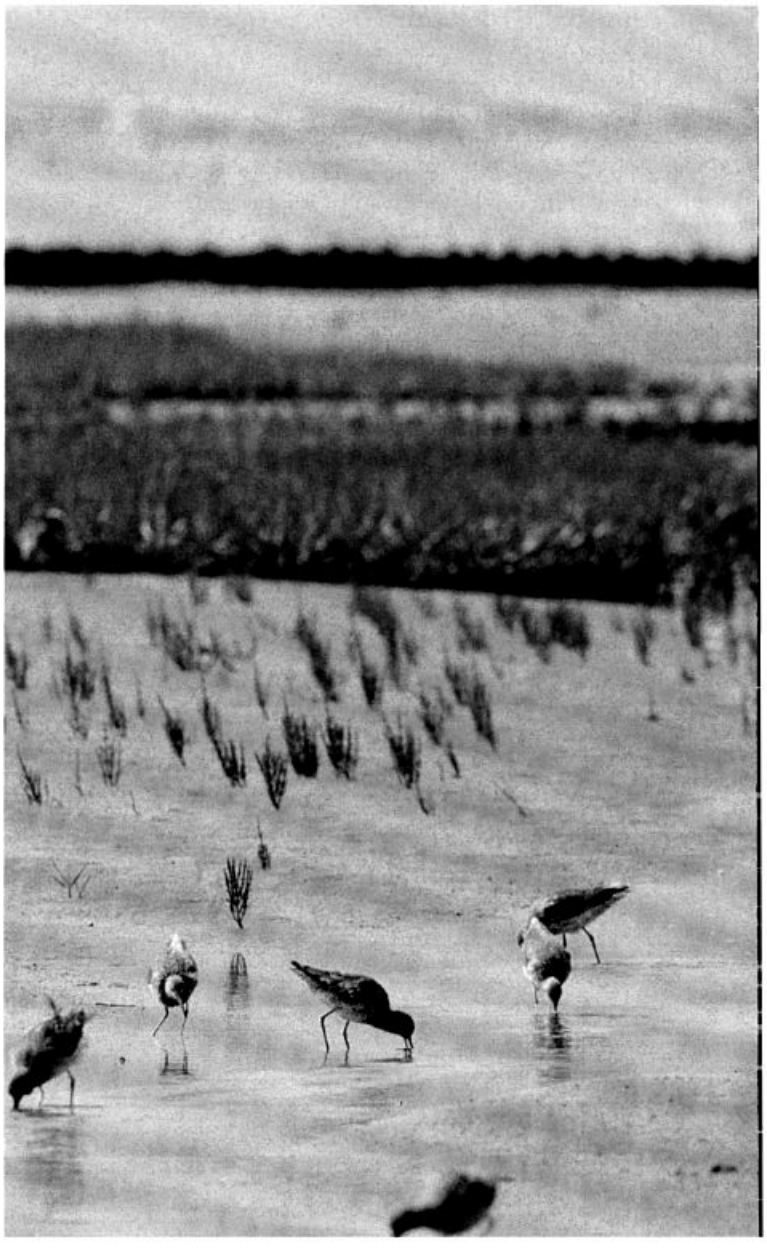
Redshank *Tringa totanus*

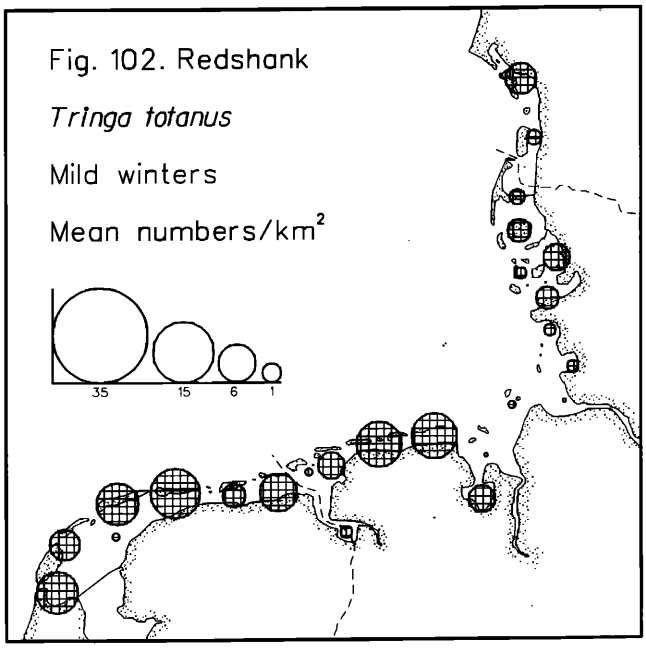
Winter 16,400 Spring 33,000
Summer 9,800 Autumn 59,600

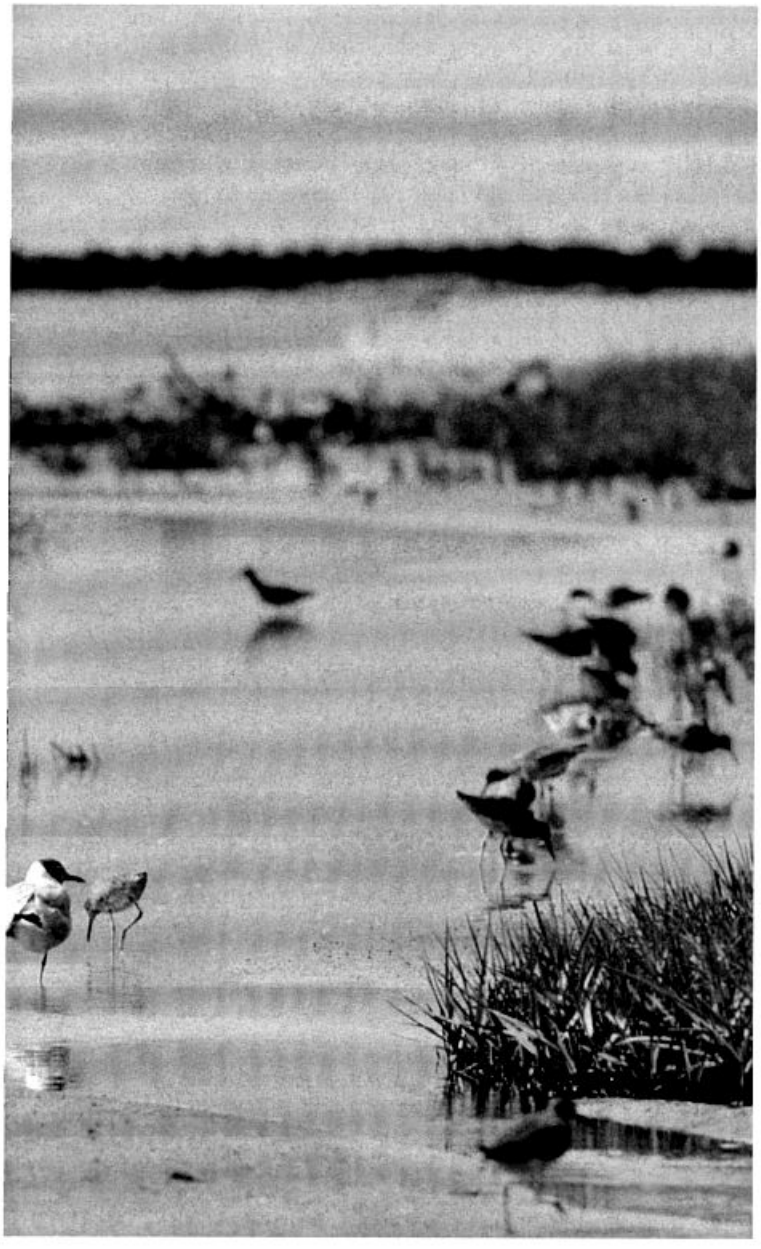
Three different populations, including two subspecies of Redshank occur in substantial numbers in the Wadden Sea. Between 50,000 and 100,000 pairs of *T.t. robusta* breed in Iceland (Koskimies 1993), while the nominate continental birds may be separated into "northern" Redshanks breeding in most of Norway, Sweden and Finland, and "southern" Redshanks breeding in southern Scandinavia, most of the Baltic and the three Wadden Sea countries (Meltofte 1993). The "northern" population numbers 60,000-80,000 pairs, and the "southern" 50,000-70,000 pairs, of which 12,400 pairs breed in the Wadden Sea area itself (Piersma 1986, Koskimies l.c., Fleet *et al.* in press). The *robusta* birds from Iceland winter in North-west Europe, while the continental Redshanks winter in south-western Europe, the Mediterranean, and West Africa with the "northern" birds wintering furthest to the south (leap-frog migration). Some of the *"britannica"* Redshanks from the British Isles (about 35,000 breeding pairs) also occur in the Wadden Sea, but by far the majority are resident (Cramp & Simmons 1983). The overall total recorded throughout the entire wintering area of the East Atlantic flyway is 285,000 Redshanks, but this must be considered to be a low minimum figure, since many winter along non-censused coasts and inland in Africa (Smit & Piersma 1989). Also the breeding population estimates point to considerably higher flyway totals. The largest numbers are wintering in the British Isles (90,000), Guinea-Bissau (83,000) and Mauritania (51,000).

Almost all of the Redshanks **wintering** in the Wadden Sea are *robusta* birds from Iceland (Smit & Wolff 1981). Most of our counts supplied totals of between 12,700 and 16,400 in mild winters, and between 4,690 and 8,240 in severe winters (Table 29). The largest numbers and **densities** are normally found in the Dutch and Niedersachsen parts of the Wadden Sea (Table 29, Figure 102), but 4,230 were recorded in Schleswig-Holstein in January 1992 (Rösner unpubl.). In severe winters some of the remaining birds concentrate in certain favourable places that remain ice-free (Figure 103; Bregnballe 1986, and others).

In **spring**, locally breeding "southern" *totanus* Redshanks do not arrive in the Wadden Sea area until mid March - mid April (SOVON 1987, Gram *et al.* 1990, Meltofte 1993, and others). However, in February-March Redshank numbers have already increased in many areas (cf. Figure 104). It is not known, where these birds have wintered, but they are likely to be *robusta* Redshanks, that undergo body **moult** and build up **body reserves** together with the wintering birds in the Wadden Sea until late April, when they leave straight for Iceland (cf. Skallingen-Langli in Figure 104, Smit & Wolff 1981, Boekema *et al.* 1983 and Meltofte l.c.). Judging from our count in mid March 1984, the number of spring staging *robusta* Redshanks in the Wadden Sea is around 20,000 birds (Table 29), but real numbers may show to be somewhat higher, as more counts become available. A certain passage of "southern" *totanus* Redshanks may take place during April *en route* to the south Scandinavian and Baltic breeding grounds, but most of these birds may just as well overfly the Wadden Sea (Meltofte 1993). Thus, the 34,800 Redshanks counted in mid April 1980 (Table 29) probably mainly represent combined numbers of spring staging *robusta* and locally breeding *totanus* birds. Even though the vast majority of the 25,000 breeding Redshanks may have arrived at this time, most of them probably stay on their breeding territories, especially at high tide, when the counts were







performed, and thus escape registration.

Renewed **spring** passage takes place during late April and most of May (cf. Schmid 1988, Meltofte 1993), though it is not reflected in our phenological graphs (Figure 104). These are "northern" *totanus* Redshanks, that have wintered in West Africa. Some probably stage in the Wadden Sea for a few weeks to replenish **body reserves** before the final

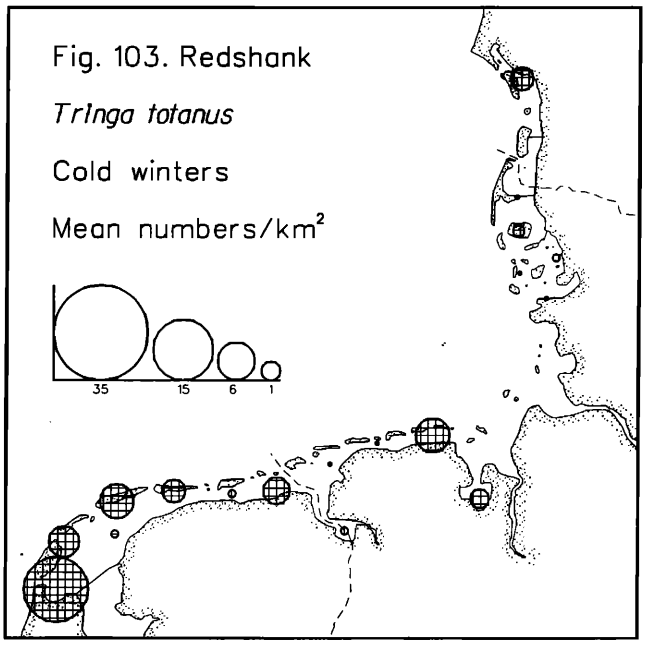
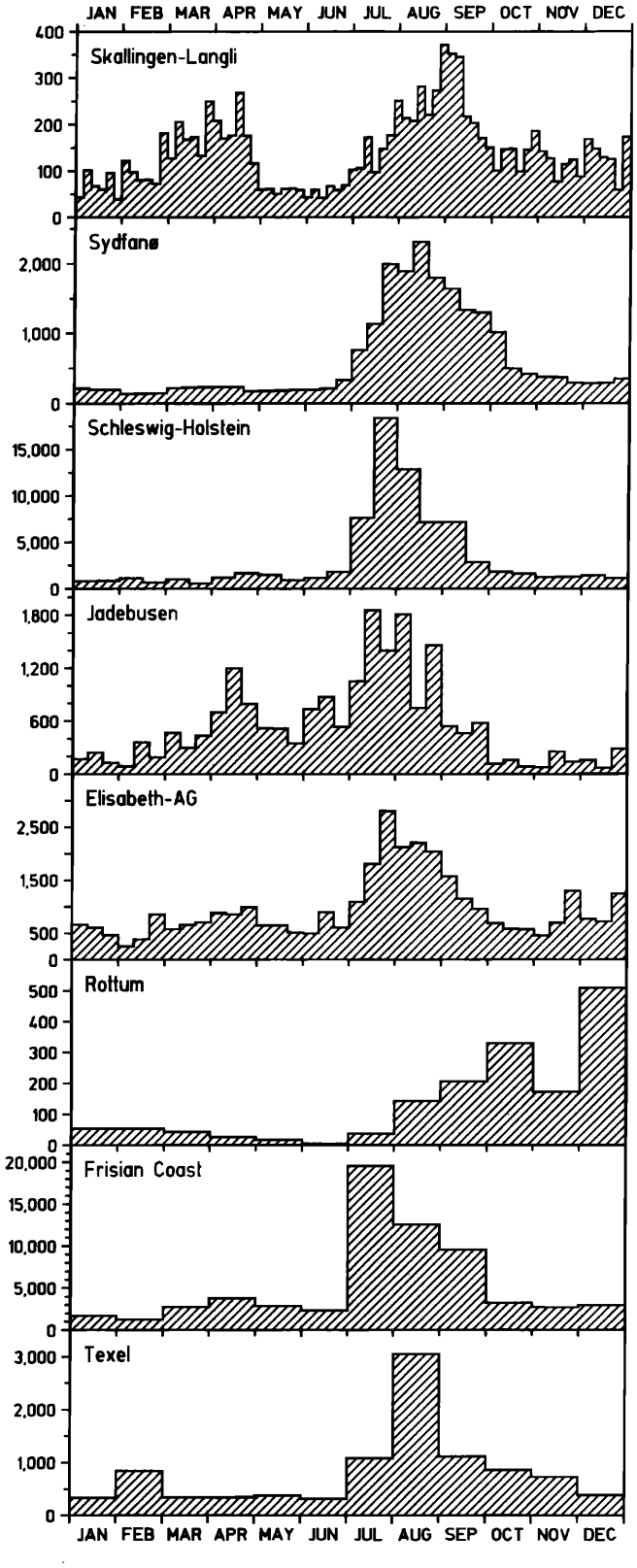


Fig. 104. Redshank *Tringa totanus*

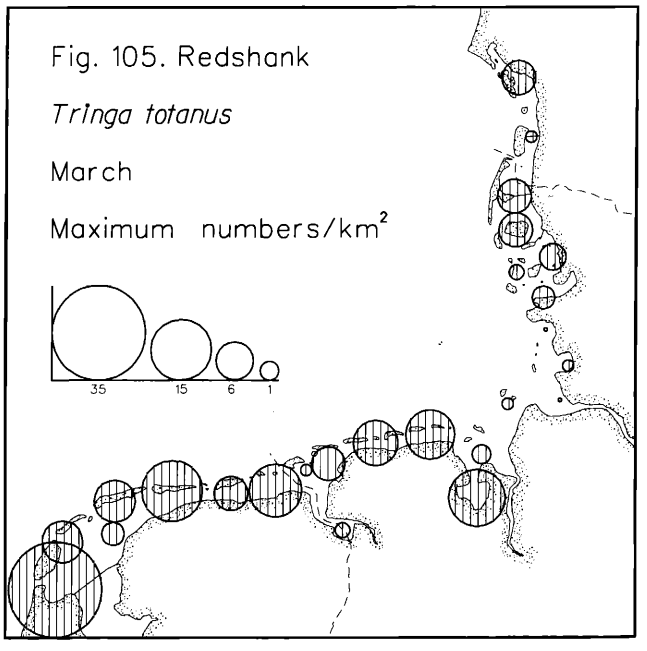


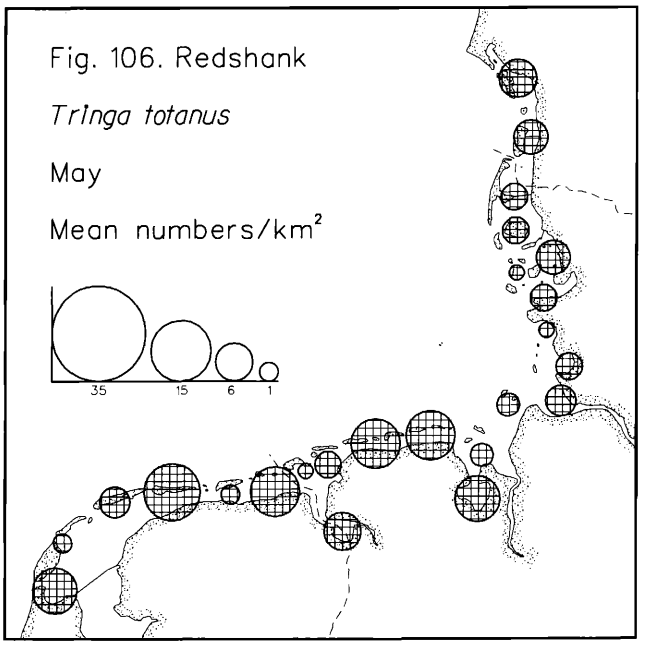
flight to the Fenno-Scandian breeding grounds. Our counts in early-mid May gave totals of between 14,700 and 24,800 individuals (Table 29). As this is about the time, when breeding birds are most occupied by incubation etc. (Meltofte 1987), a large part of the counted individuals are probably "northern" *totanus* Redshanks. This is further supported by our June record of only 9,800 Redshanks (Table 29). To what extent even **summering** non-breeders are involved at this time is unknown.

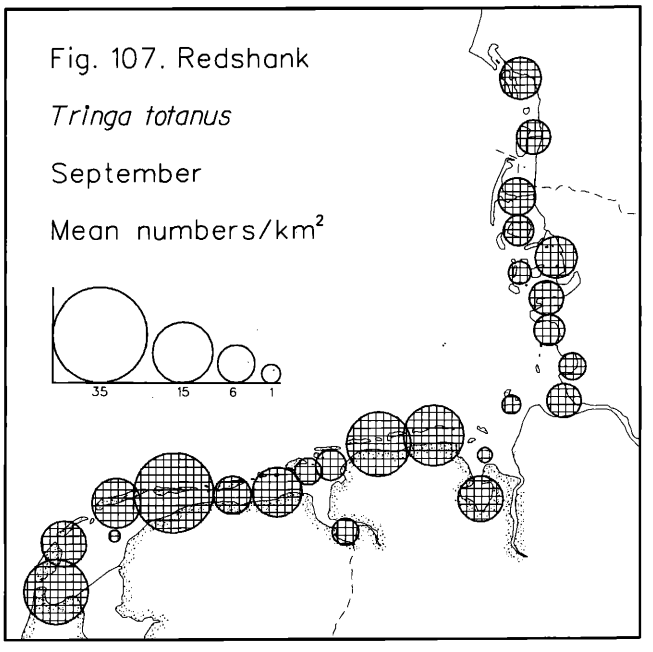
In March, when the vast majority of the Redshanks in the Wadden Sea are *robusta* birds, by far the largest numbers and **densities** were found in the Dutch and Niedersachsen parts, as was the case in winter (Table 29, Figure 105). This holds for April as well, but during the passage of "northern" *totanus* birds in May, the average share of Redshanks that occupy the Schleswig-Holstein and Danish parts increases to about one third of the Wadden Sea totals (Table 29, Figure 106).

Adult "southern" *totanus* Redshanks **leave** for South-west Europe during July, after having initiated the post-breeding moult close to the breeding areas (Smit & Wolff 1981). "Southern" juveniles follow during mid July - early August, at the same time as large numbers of both adult "northern" *totanus* and adult *robusta* Redshanks move into the Wadden Sea (cf. steep increase in many areas during July; Figure 104). The juveniles of the latter populations arrive mainly during mid August - early September (Meltofte l.c.). This means that the majority of the 59,600 Redshanks recorded in mid August 1982 probably were adult *robusta* and "northern" *totanus* birds (Table 29). A peak record of 10,300 has been counted in the Danish Wadden Sea in mid August (Meltofte l.c.), but the phenology differs considerably between different sites (Figure 104). These differences are likely to reflect different usage of individual parts of the Wadden Sea by different populations and age groups. Thus, the relatively early peak in the Schleswig-Holstein Wadden Sea (an estimated max. of 26,000 in July) as well as along the mainland coast of Niedersachsen and the Netherlands (also peak count of 38,000 in the Dutch Wadden Sea in late July) (Figure 104 and Boekema *et al.* 1983; Smit & Wolff 1981, Kempf *et al.* 1989) is likely mainly to consist of "southern" *totanus* juveniles, while large numbers throughout August and September (Figure 104 and Boekema *et al.* 1983) may be dominated by **moulting** adult and juvenile "northern" *totanus* and *robusta* Redshanks (Meltofte l.c.; see also Kempf *et al.* 1989). Furthermore, these two latter groups are probably to some extent separated between different habitats, so that *robusta* birds predominate around sandy islands etc. (e.g. Rottum in Figure 104) and the *totanus* birds (both "southern" and "northern") predominantly stay on more muddy flats (Boere 1976, Smit & Wolff l.c., Meltofte l.c.).

Many "northern" *totanus* birds only pause briefly in the Wadden Sea to replenish **body reserves** for the onward migration to West Africa, but others apparently stay to perform part of their post-breeding **moult** in the Wadden Sea (Meltofte 1993). They leave during September, and by mid October almost all Redshanks in the Wadden Sea are probably *robusta* birds (cf. Figure 104). In September our counts gave totals between 28,200 and 35,300, but 35,000 were counted in the Dutch part alone on 1/2 September 1973,







when 55,500 were found in the entire Wadden Sea (Prater 1974). In October, we recorded between 19,000 and 29,700 and in November 13,400-19,200 (Table 29). The departure of *totanus* birds corresponds well with the change in the **distribution** of Redshanks in the Wadden Sea from September to October-November, where the distribution in October-November is more like the winter distribution of *robusta* birds (Figures 107 and 108). As indicated by the counts, part of the *robusta* Redshanks leave the Wadden Sea during October after having completed their moult and built up **body reserves** (Boere 1976, Smit & Wolff 1981). The November figures are quite similar to the mid-winter numbers.

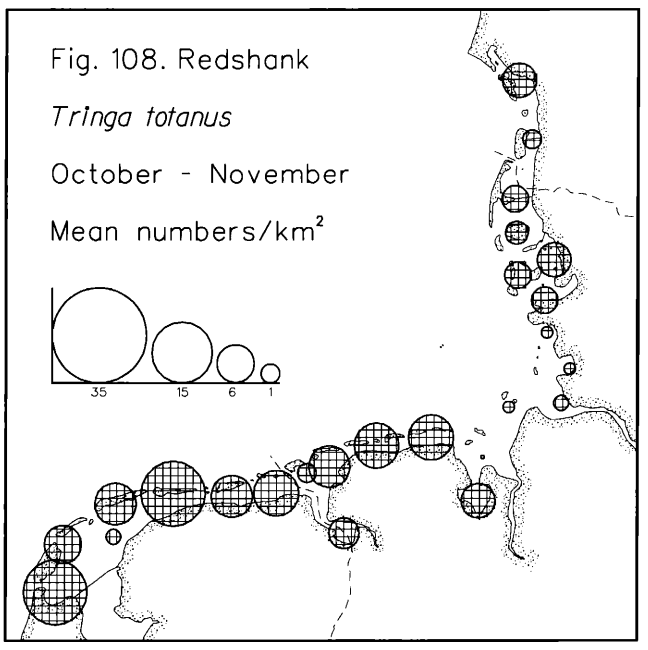
Status: the Wadden Sea is probably of great international importance to three populations of Redshank. At least 5% of the *robusta* Redshanks from Iceland may winter in the Wadden Sea, and most likely, several more stay there to moult during both spring and autumn, when they also build up body reserves for migration and wintering, respectively. Large, but unknown proportions of Fenno-Scandian ("northern") Redshanks pause to build up body reserves in the Wadden Sea during spring and autumn migrations, and many may stay to moult during autumn. Also large parts of the ("southern") Redshanks breeding in the Wadden Sea countries plus southern Scandinavia and the southern Baltic are found in the Wadden Sea area, and part of the remaining birds may use the Wadden Sea during migration.

Greenshank *Tringa nebularia*

Winter 15 Spring 6,970
Summer 120 Autumn 15,000

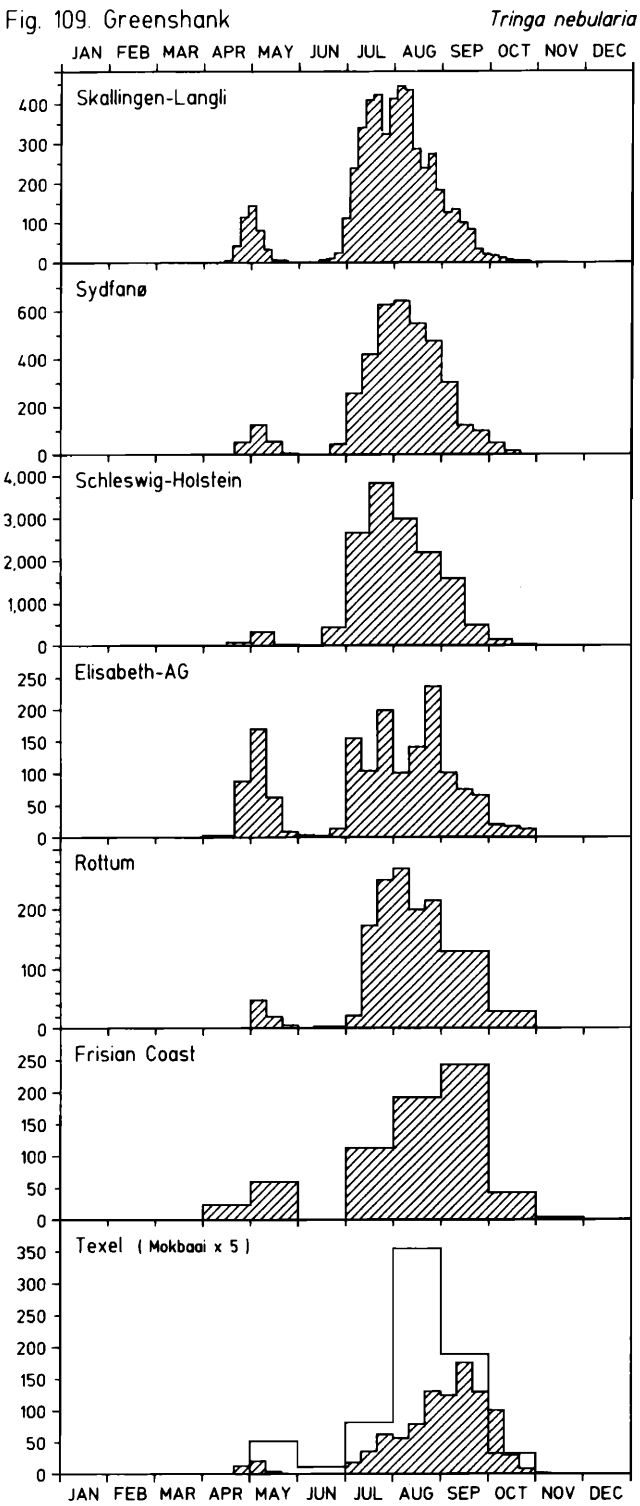
The Greenshanks visiting the Wadden Sea are considered primarily to originate from breeding grounds in Fenno-Scandia (Smit & Wolff 1981). This breeding population is estimated to hold between 50,000 and 90,000 pairs (Koskimies 1993). Many more are found further east in the West Palearctic, and most winter in tropical Africa.

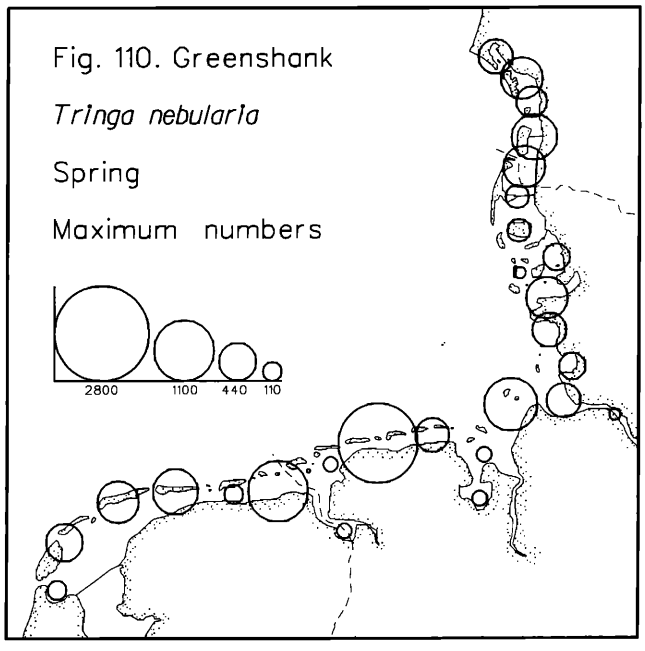
Little more than 1,000 Greenshanks **winter** in West Europe (Smit & Piersma 1989), but few individuals are found in the Wadden Sea (Table 30).

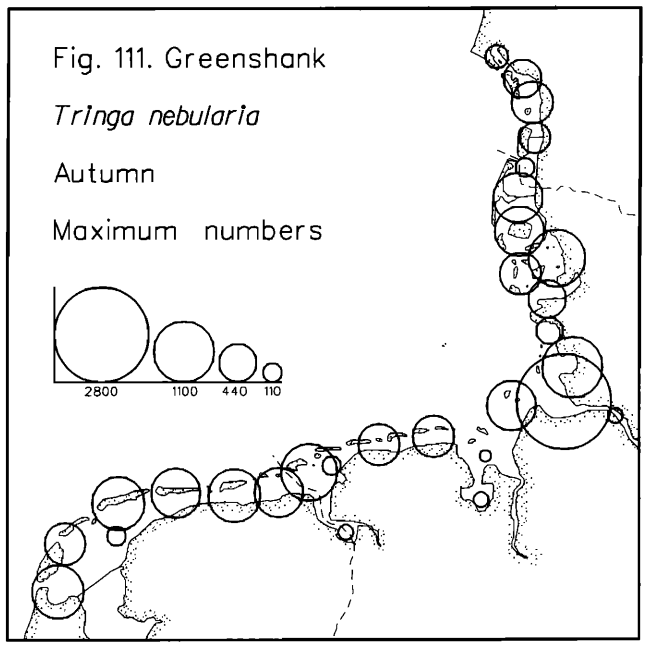


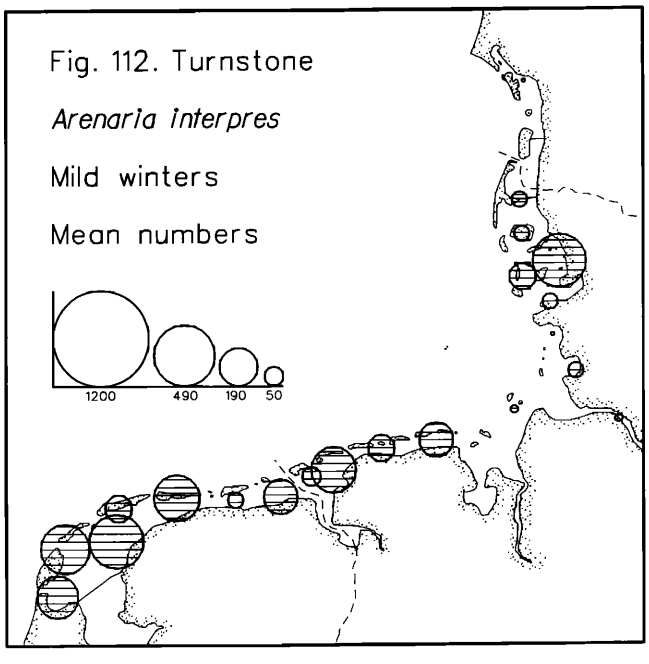
Rapid **spring** migration passes through the Wadden Sea from late April until mid May (Figure 109). During the peak in early May we recorded up to 6,970 Greenshanks with more than 1,000 birds only found in a few places (Table 30, Figure 110). The birds finish their moult into breeding plumage during this period (Meltofte 1993). The number of summering non-breeders in the Wadden Sea is unknown, but only 120 Greenshanks were counted in mid June 1991, just prior to the onset of autumn migration (Table 30).

Autumn migration starts in late June, and is initiated by the females. Most adults arrive in the Wadden Sea during July followed by the juveniles in August (Figure 109; Mel-









tofte 1993). Part of the adults pause for some time in the Wadden Sea, and a minor part initiates post-breeding primary **moult** here. Consequently, our peak count of 15,000 Greenshanks in mid August 1982 involved both adults and juveniles (Table 30; Boere 1976). The birds were distributed quite regularly over most parts of the Wadden Sea, the only excessive numbers having been found in recent years in the areas just north of the Elbe estuary (Figure 111). In areas with many staging and moulting adult Greenshanks numbers may peak as early as late July (Figure 109). Thus, in the second half of July up to 3,400 have been recorded in the Danish part (Laursen *et al.* in press), 8,000 in Schleswig-Holstein (estimate by Kempf *et al.* 1989), 3,800 in Niedersachsen (Blew unpubl.) and 5,640 in the Netherlands (Smit & Wolff 1981). Numbers drop as the birds leave during September and October after having build up **body reserves**, but up to 6,730 were recorded in September and 1,920 in October (Figure 109, Table 30; Smit & Wolff 1981). A total of 9,520 were counted in the entire Wadden Sea on 1/2 September 1973 (Prater 1974).

The Greenshanks **feed** on muddy tidal flats and around musselbeds, but often in less muddy areas than the Spotted Redshank (Holthuijzen 1979). This is well illustrated by the far smaller concentrations in e.g. the Dollard and Jadebusen (Figures 110 and 111), than for the latter species. In spring, the Greenshanks primarily stay along the mainland coasts, whereas they also utilize the areas around the islands to a greater extent in autumn (Meltofte 1993, Laursen *et al.* in press).

Status: some few per cent of the Fenno-Scandian Greenshanks may be found in the Wadden Sea simultaneously during spring and autumn migration. Most individuals probably only pause briefly to replenish body reserves for the onward migration, but some moult takes place in the Wadden Sea both in spring and autumn.

Turnstone *Arenaria interpres*

Winter 4,060 Spring 7,020
Summer 379 Autumn 5,090

Two populations of Turnstones occur in the Wadden Sea (Cramp & Simmons 1983). Including north-westernmost Russia, an estimated total of at least 15,000-30,000 pairs breed in Fenno-Scandia and winter mainly in West Africa. Here, on average 32,000 have been counted in mid-winter, but many coasts have not yet been surveyed (Smit & Piersma 1989, Koskimies 1993). A total of 67,000 is estimated to winter in West Europe, but even this figure may be a significant underestimate. The vast majority of these birds breeds in high arctic Greenland and Canada, while the highest wintering numbers are found in the British Isles (50,000). During autumn, small numbers of (juvenile) Turnstones from northernmost Russia and north-western Siberia may occur in the Wadden Sea (Cramp & Simmons l.c.). A few pairs of Turnstones breed in the Wadden Sea area itself (Fleet *et al.* in press).

In **winter**, between 1,230-4,060 Turnstones were found in the Wadden Sea, and apparently without much difference in total numbers between mild and cold winters. Most stay in the Dutch and to a lesser extent in the German parts of the Wadden Sea, especially in severe winters, when Denmark and Schleswig-Holstein are almost deserted (Table 31, Figure 112).

Numbers remain at about the same level during most of **spring**, i.e. until the African winterers arrive from late April (Table 31, Figure 113; Meltofte 1993). Most of the nearctic birds leave for Iceland during the first half of May, and peak numbers of 5,600-7,000 were recorded at most of our early May counts, when part of both populations are present. In March and most of April, the **distribution** is still very much like in winter, with most birds in the Dutch part, but from late April Turnstones are found in large numbers in most of the Wadden Sea (Table 31, Figure 114). Also according to the phenological graphs, the nearctic birds mainly stay in the Dutch and German parts of the Wadden Sea, while the supposed Fenno-Scandian migrants in May predominate in the Schleswig-Holstein and Danish parts, where many **feed** on short-grassed saltmarshes and along seawalls (Figure 113). Both groups build up **body reserves** at this time, and the nearctic birds undergo body **moult** during March-May (Smit & Wolff 1981). More than 1,000 non-breeding immatures are estimated to **summer** in the Wadden Sea, where we counted 379 in an incomplete census in mid June 1991 (Table 31; Smit & Wolff l.c.).

Autumn migration is initiated by Fenno-Scandian adults which appear in numbers during mid-late July (Figure 113).

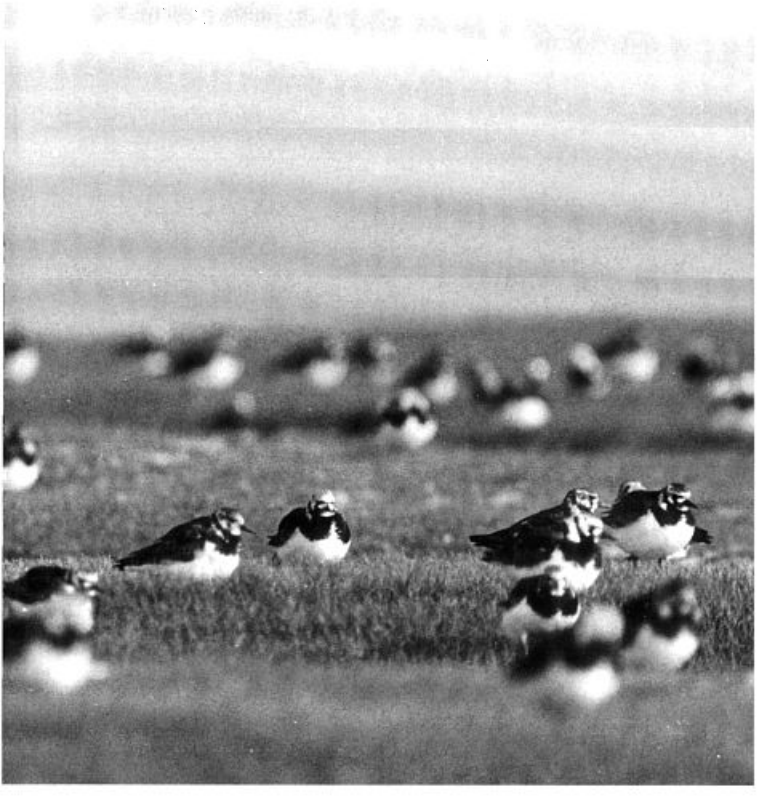
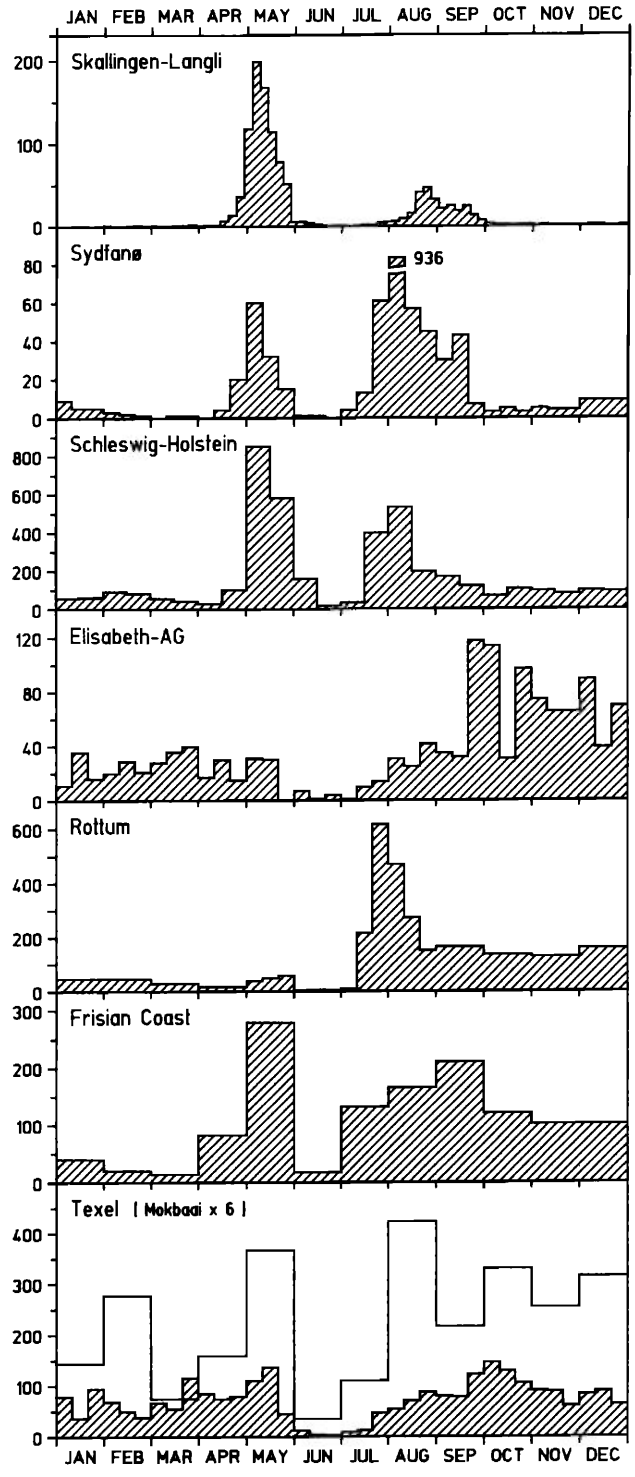
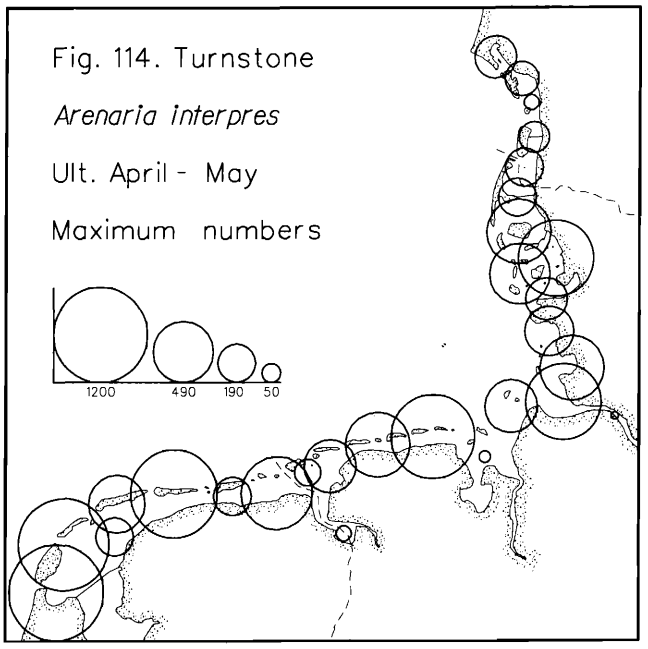
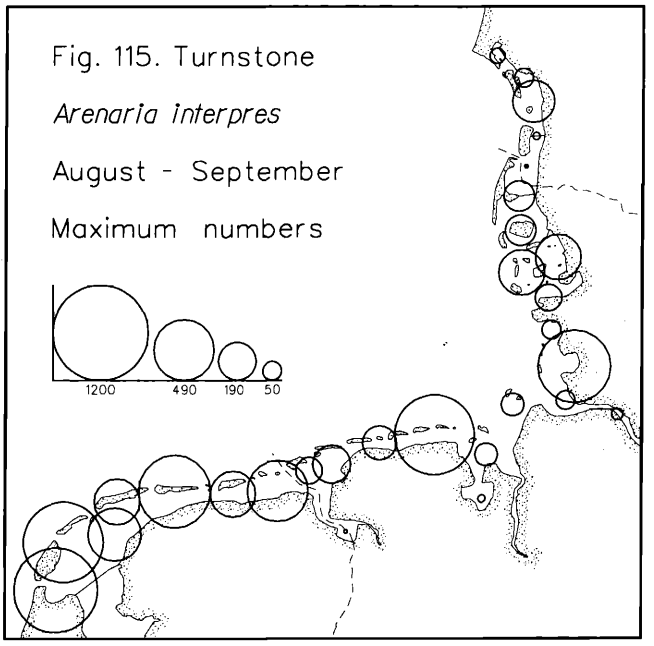


Fig. 113. Turnstone *Arenaria interpres*

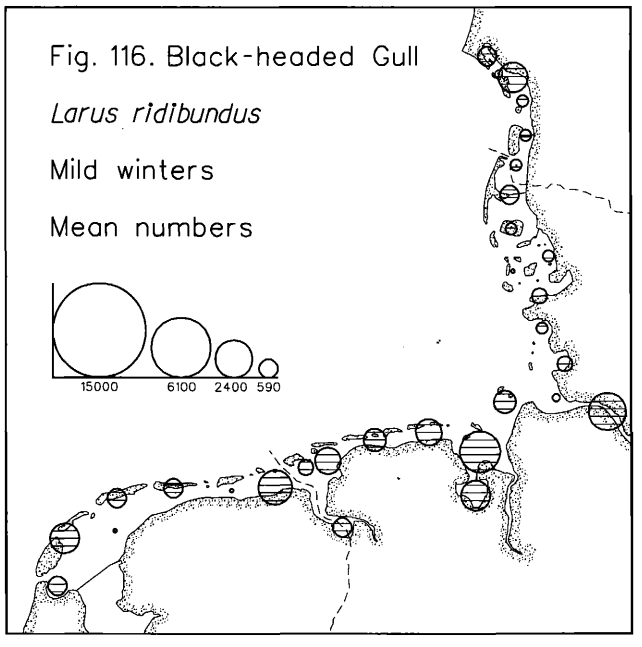


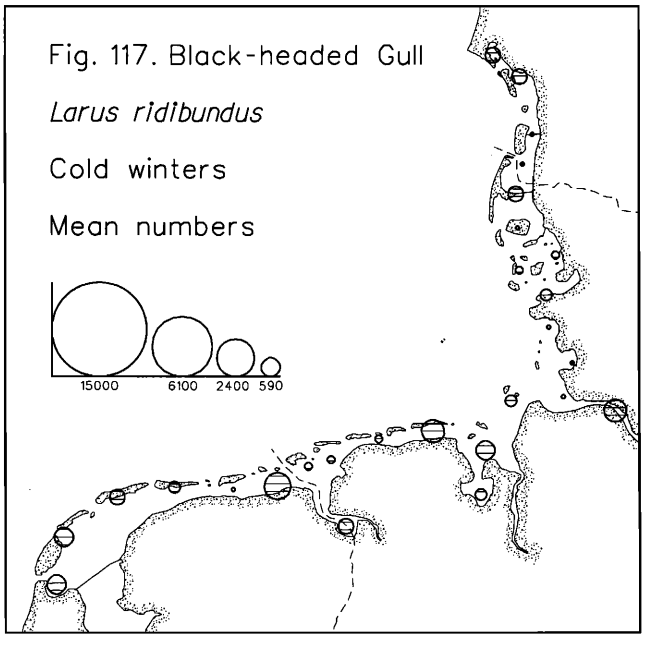




The nearctic adults follow during late July - early August, while juveniles from both groups turn up during August-September (Meltofte 1993). As in spring, the two populations seem to have different patterns of occurrence in the Wadden Sea. In the Danish and Schleswig-Holstein parts plus some Niedersachsen and Dutch sites the passage of supposed Fenno-Scandian birds show a marked peak during July-September. In the rest of the Niedersachsen and Dutch parts, nearctic birds predominate throughout the autumn, when they undergo post-breeding **moult** and build up **body reserves** (Figure 113; Mes *et al.* 1980, Boekema *et al.* 1983, Schmid 1988, Cramp & Simmons 1983). Our mid August count provided 5,090 Turnstones, but this is probably well below the peak in late July - early August. At this time, an estimated 2,000-2,500 may be present in the Schleswig-Holstein part, and 6,720 have been counted in the Dutch Wadden Sea alone (Smit & Wolff 1981). Most of our other autumn counts gave totals between 3,000 and 4,500 individuals, i.e. little more than the ordinary mid-winter numbers (Table 31). Thus, a minor part of the nearctic Turnstones leave for wintering grounds further west in Europe after having finished moult in October-November (Smit & Wolff l.c.). Good numbers may be found in most parts of the Wadden Sea during the early autumn passage with most birds found in Niedersachsen and the Netherlands (Table 31, Figure 115).

Status: probably some few per cent of both the nearctic and the Fenno-Scandian populations of Turnstones may be present in the Wadden Sea simultaneously. The nearctic birds winter in the Wadden Sea, they undergo both pre-breeding and post-breeding moults there, and they build up body reserves in spring and autumn. Fenno-Scandian Turnstones only pause briefly, but apparently in larger numbers during spring and autumn migration, when they probably replenish body reserves for their onward migrations.





Black-headed Gull *Larus ridibundus*

Winter 38,900 Spring 135,000
Summer 122,000 Autumn 242,000

At least 1 million pairs of Black-headed Gulls breed around the North and Baltic seas, from where the Wadden Sea visitors originate (Smit & Wolff 1981, Cramp & Simmons 1983). Almost 130,000 of these now breed in the Wadden Sea area itself, which is an increase from about 73,000 pairs in the 1970s (Smit & Wolff l.c., Fleet *et al.* in press). The mid-winter population is estimated at over five million individuals (Rose & Scott 1994), of which most are found in West European coastal areas.

As many Black-headed Gulls **winter** in harbours and towns etc. in the Wadden Sea area, our winter counts mainly only cover those present in the Wadden Sea proper. Furthermore, many Black-headed Gulls feeding at low tide on the tidal flats, go elsewhere (including off-shore) during high tide, and are not covered either (Laursen *et al.* in press). This means that our counts greatly underestimate the numbers actually utilizing the Wadden Sea. Even larger numbers may come to the Wadden Sea to roost at night. During mild winters we recorded between 14,500 and 38,900 Black-headed Gulls, while 7,100-12,900 were found in severe winters (Table 32). In both mild and cold winters we found greater numbers in the Dutch and Niedersachsen parts, but good numbers of Black-headed Gulls could be found almost everywhere (Figures 116 and 117). About 45,000 have been counted in the western Dutch Wadden Sea alone (Smit & Wolff 1981). Wintering birds **moult** into breeding plumage mainly during January-March (Smit & Wolff l.c.).

Spring migration peaks during mid to late March (Meltofte & Faldborg 1987), although this is not clearly reflected in our Wadden Sea counts, where we only found 60,700 in mid March (Table 32). Many more birds feed on adjacent grasslands during March and April, when also the local breeding colonies are occupied (Smit & Wolff 1981, Gram *et al.* 1990). Numbers in the Wadden Sea continue to increase during April and May, when the vast majority must be local breeders besides summering non-breeding immatures (cf. e.g. Schleswig-Holstein and Texel in Figure 118; Meltofte & Faldborg l.c.). Both in April and May, gulls were not recorded in many Dutch counting areas, but amongst the most complete counts in these months we recorded about 130,000 Black-headed Gulls (Table 32), approximating to one individual per locally breeding pair. As most breeders are probably missed by counts, but some breeders from inland colonies may also feed and be counted in the Wadden Sea, it is

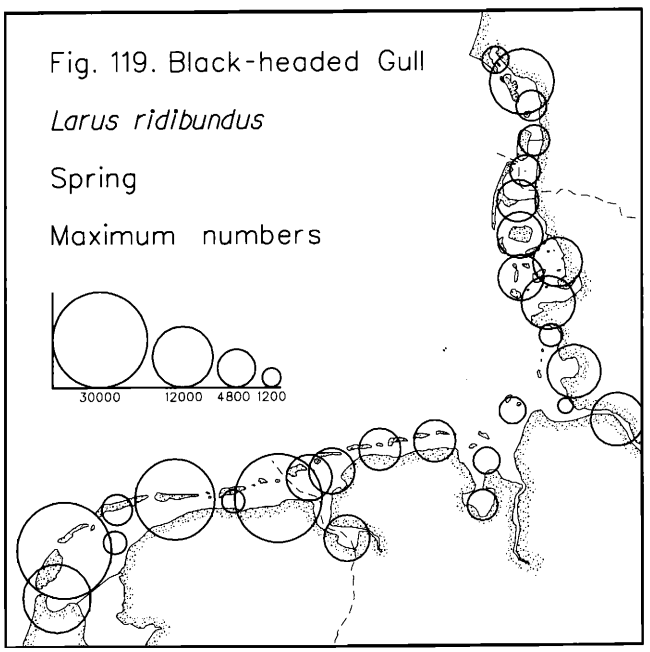
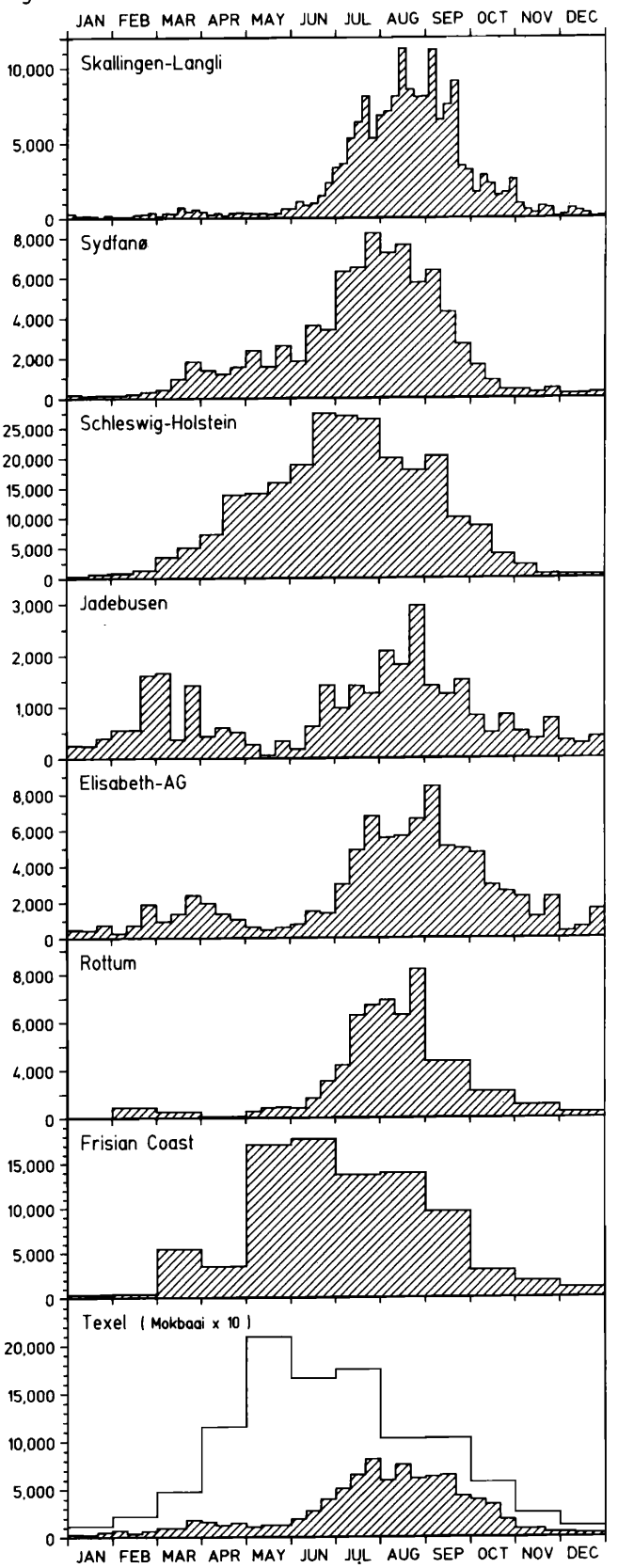
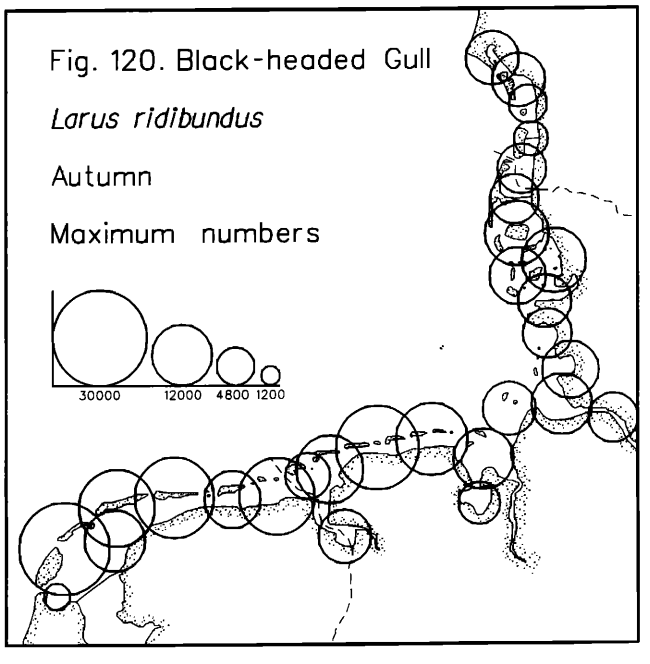


Fig. 118. Black-headed Gull *Larus ridibundus*

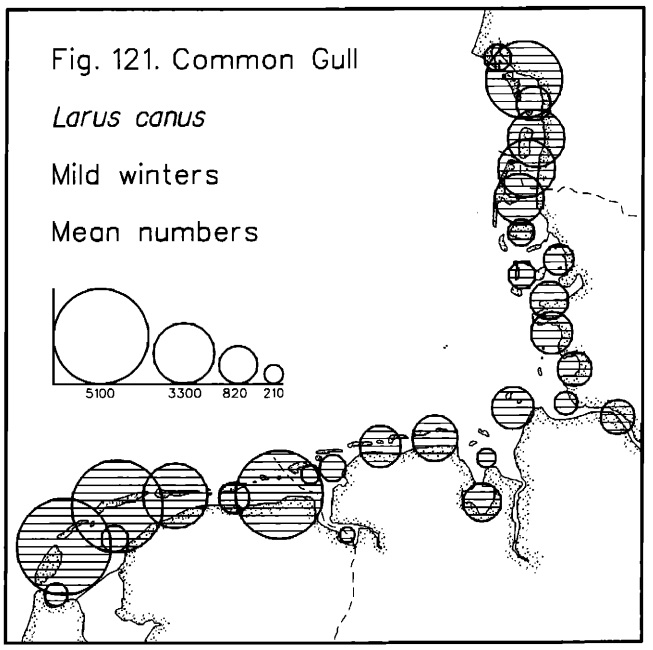


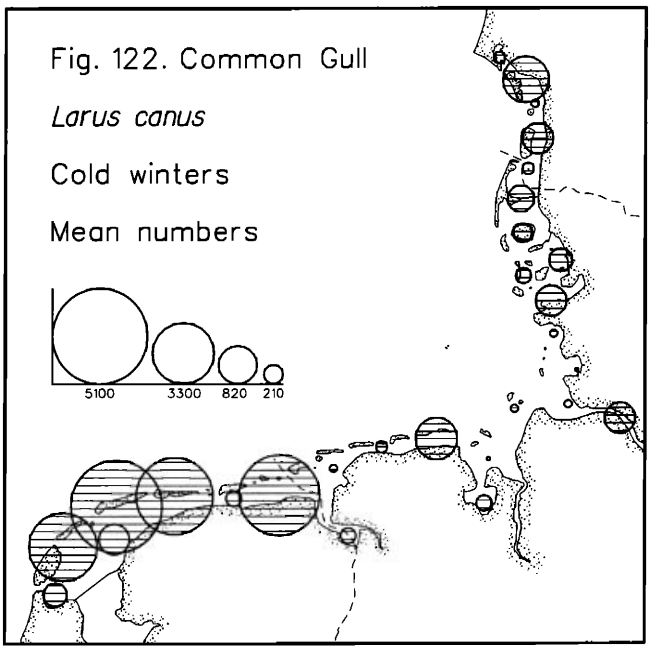
not possible to estimate the number of **summering** immatures from our data. Their numbers may be considerable, however (Smit & Wolff l.c.). Large numbers of Black-headed Gulls were found all over the Wadden Sea, but the highest figures recorded were in the Dutch part, where also the largest colonies are found (Table 32, Figure 119; Fleet *et al.* in press).

During late June and July, large numbers of adults leave their colonies to **moult** in favourable areas (Cramp & Simmons 1983). In the Wadden Sea this results in highly increasing numbers probably originating from both local colonies and the rest of North Europe (cf. several areas in Figure 118; Meltofte & Faldborg 1987). The **autumn** migration of juveniles follows mainly during August, and in most parts of the Wadden Sea numbers peak in August-September. In August, when the number of moulting adults is probably at its highest, we recorded 238,000 Black-headed Gulls, while a peak record of 242,000 was found in early September (Table 32). As in winter, these numbers must be considered to be absolute minimum figures. In the Danish Wadden Sea alone, up to 41,000 have been counted in July and 42,000 in August (Laursen *et al.* in press). Numbers drop considerably during late September, October and November, when gulls leave for wintering areas further west (Figure 118). We recorded up to 125,000 in October and 69,100 in November (Table 32). This indicates that large numbers of adult Black-headed Gulls leaving the southern Baltic and Scandinavian moulting areas mainly during October (Camphuysen & van Dijk 1983, Meltofte & Faldborg l.c.), do not pause to any great extent in the Wadden Sea. Also in autumn, Blackheaded Gulls are found in large numbers throughout the Wadden Sea (Figure 120). Some **fat accumulation** probably takes place during the autumn (Smit & Wolff l.c.).



Status: the Wadden Sea is a very important area for moulting Black-headed Gulls from the countries around the North and Baltic seas, and 5-10% of the North European population breed in the area. The high tide counts greatly underestimate numbers of Black-headed Gulls feeding in the Wadden Sea. But it is likely that more than 10% of the entire North European population may stay in the Wadden Sea area simultaneously in autumn. Probably, many more pass through the area during July to November. A few per cent may remain to overwinter, and some tens of thousands of non-breeding immatures spend the summer and moult in the area.





Common Gull *Larus canus*

Winter 58,100 Spring 42,000
Summer 18,400 Autumn 103,000

The Common Gulls that visit the Wadden Sea during the non-breeding season, mainly originate from Scandinavia and the countries around the Baltic Sea (Smit & Wolff 1981). The breeding populations in this area add up to 400,000-500,000 pairs (Cramp & Simmons 1983, Koskimies 1993). Only a little more than 7,000 pairs now breed in the Wadden Sea area itself, though numbers have increased (Fleet *et al.* in press). The mid-winter population is estimated to number 1.6 million individuals (Rose & Scott 1994), most of which stay along the North-west European seaboard.

Our counts showed totals of between 27,500 and 58,100 Common Gulls **wintering** in the Wadden Sea during mild winters, while between 15,600 and 35,600 were found in severe winters (Table 33). By far the largest numbers stay in the Dutch Wadden Sea especially in cold winters, but also in mild ones (Figures 121 and 122). The difference between numbers in mild and cold winters is not a simple one, however, as the first result of cold or snow is that many Common Gulls leave inland feeding areas, so that sudden large influxes may occur e.g. in the Wadden Sea (Meltofte & Faldborg 1987). Thus, the second highest count in the Dutch part was recorded in the severe winter of 1986, when immigration from the north and east may have also occurred (Table

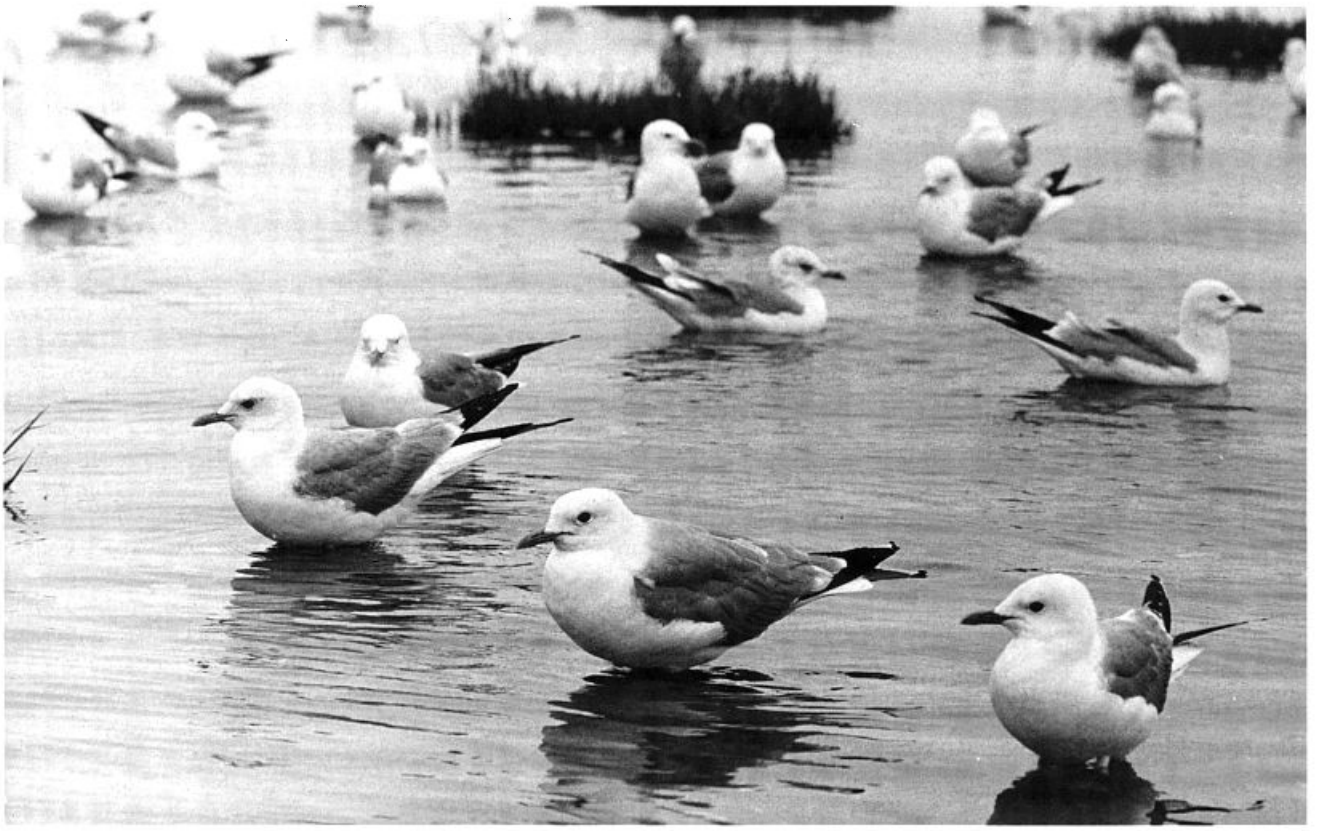
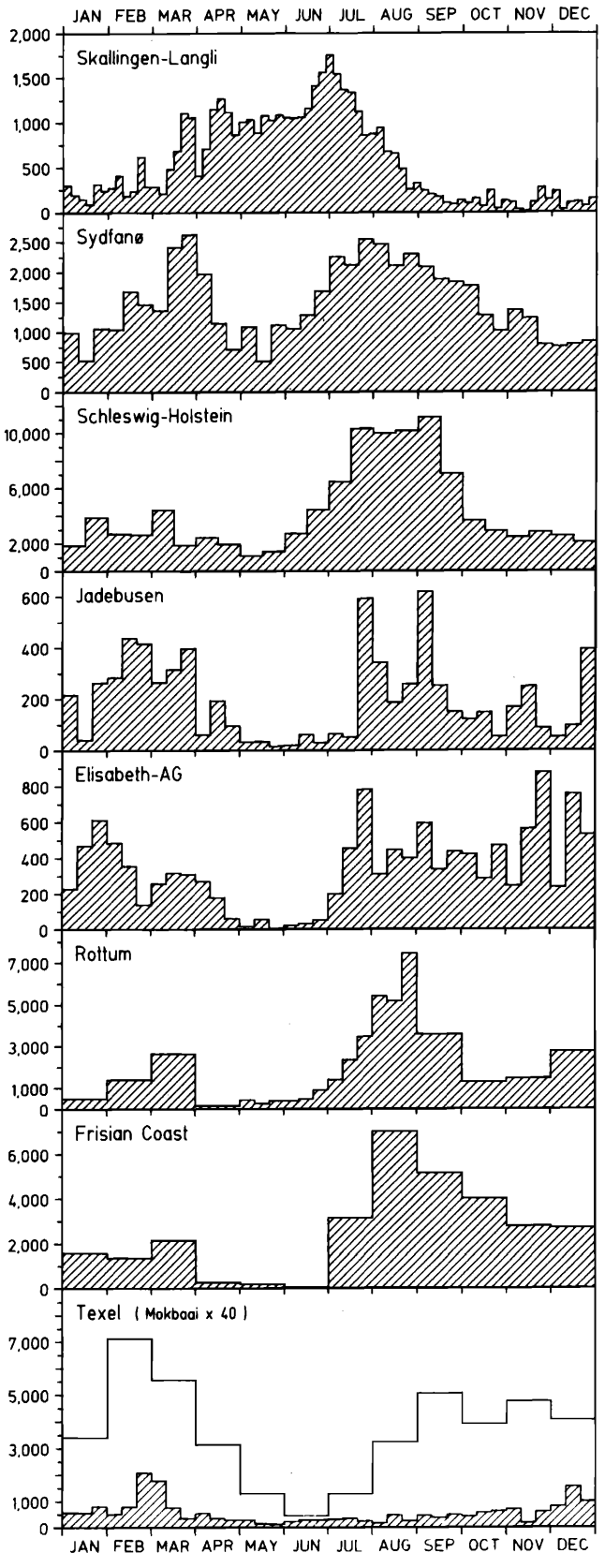
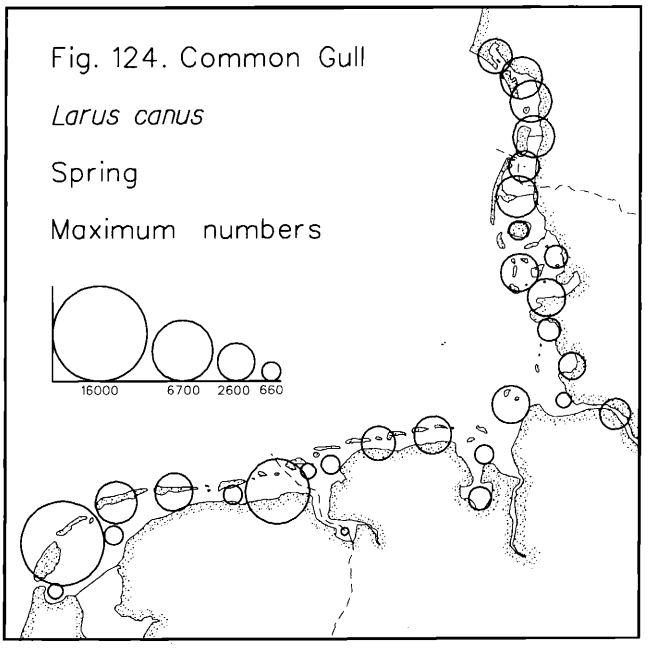


Fig. 123. Common Gull *Larus canus*

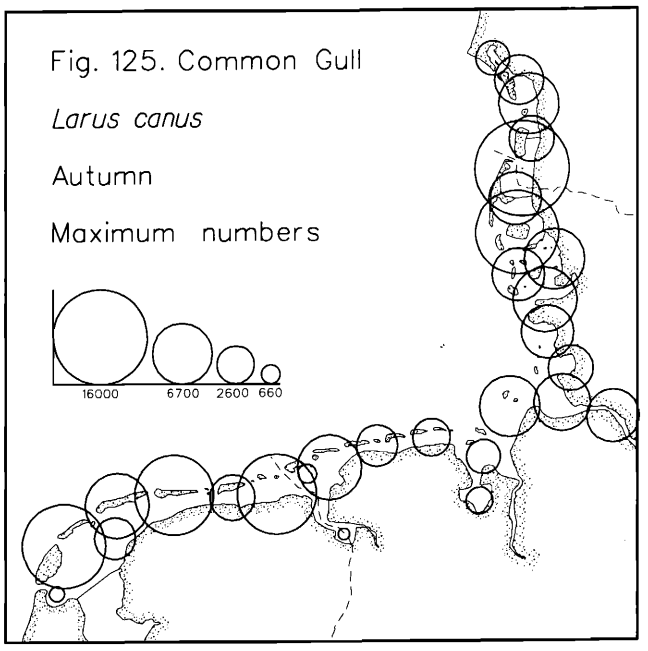


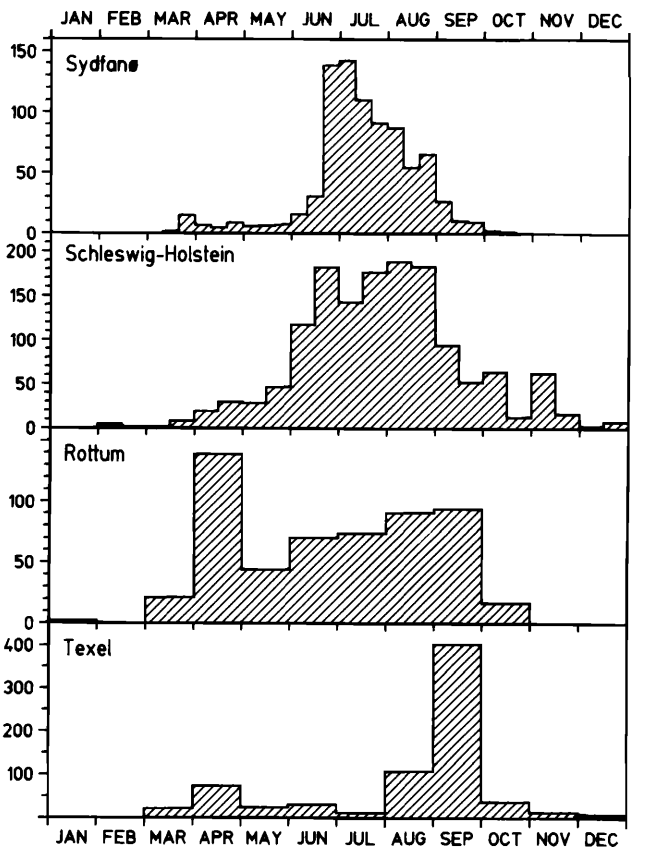


33; Smit & Wolff 1981). Larger numbers of Common Gulls may also roost in the Wadden Sea at night, and many feed off-shore during high tide, when our counts took place. A total of 72,000 Common Gulls are estimated off-shore in the southern North Sea during winter (Skov *et al.* in press).

In **spring**, some Common Gulls immigrate into the Wadden Sea area during February-March (Figure 123). 104,000 have been counted in February in the western Dutch Wadden Sea alone (Smit & Wolff 1981), but only 42,000 were recorded at our best March census (Table 33), little more than during the preceding winter. Departure for the Scandinavian breeding grounds takes place during March and April, but most have moved inland to feed in grasslands etc. during this period, when they **moult** their body feathers (Smit & Wolff 1981, Cramp & Simmons 1983, Meltofte & Faldborg 1987, Gram *et al.* 1990). Many may still come to roost in the Wadden Sea at night. In early May, when the migrants should have left, and most breeders are at the colonies, most counts yielded 14,000-15,000 individuals. Gulls were often neglected in the breeding season, however, especially by many Dutch counters. About the same number of birds were found during our incomplete census in mid June 1991, when numbers of moulting non-breeding **immatures** are still high (Meltofte & Faldborg l.c.). Considering the low numbers of breeding Common Gulls in most parts of the Wadden Sea, it is likely that most of the birds recorded at our counts in May and June were summering immatures. In March, when maximum numbers were recorded in most areas, the birds were rather evenly **distributed** throughout the Wadden Sea, though lower numbers were found in sheltered areas like the Dollard and Jadebusen (Table 33, Figure 124).

In **autumn**, adults arrive in large numbers in the Wadden Sea from local, Scandinavian and Baltic breeding areas mainly between June and August (Figure 123; Camphuysen & van Dijk 1983, Meltofte & Faldborg 1987). Juvenile numbers also start to rise during July, and the highest numbers of both adults and juveniles are present during the peak of **moult** between late July and September (Figure 123; Cramp & Simmons 1983). Our best counts in August and September found totals of 83,900 and 103,000, respectively (Table 33). Most juveniles leave during late September and October, followed by adults in October-November (Meltofte & Faldborg l.c.). In October the maximum was 61,500, and in early November 41,500-45,800 were recorded. Again, many more birds may come to roost in the Wadden Sea at night, especially during September to November, when numbers feeding inland apparently are highest (Busche





1980, Gram *et al.* 1990, Laursen *et al.* in press). Our relatively low numbers in late autumn mean that most of the massive passage during October-November of adults (which have moulted around the southern Baltic and in southern Scandinavia, Meltofte & Faldborg l.c.) apparently bypass the Wadden Sea *en route* to more western wintering grounds. As in spring, the birds were rather evenly **distributed** across most of the Wadden Sea during autumn, except again for lower numbers in the most sheltered places (Figure 125).

Status: the Wadden Sea is a very important moulting, staging and wintering area for North European Common Gulls. Most likely, up to 10-20% of the continental populations may be present in the Wadden Sea area simultaneously during the autumn moult, but many more may pause at different times during the autumn. In the order of 5% may winter in the Wadden Sea. Furthermore, about 1.5% of the population breeds in the Wadden Sea, and probably more than 10,000 non-breeding immatures stay here during the summer moult.

Lesser Black-backed Gull *Larus fuscus*

Winter 795 Spring 2,280
Summer 3,000 Autumn 2,970

Most of the Lesser Black-backed Gulls that occur in the Wadden Sea probably belong to the rapidly increasing local breeding population of 17,400 pairs, but migrants from Norway (20,000-30,000 pairs of ssp. *intermedius*), together with the British Isles and Iceland (ssp. *graellsii*) are probably also involved (Cramp & Simmons 1983, Koskimies 1993, Fleet *et al.* in press). They winter mainly off-shore along the seaboard of West Europe and West Africa, where the non-breeding population is estimated to number 400,000-500,000 individuals (Rose & Scott 1994). Numbers wintering in North-west Europe have increased considerably during recent decades (Cramp & Simmons l.c.).

From our mid-**winter** counts, peak numbers of 450-800 Lesser Black-backed Gulls were recorded in mild winters, with even fewer in severe winters (Table 34). As well as the usual difficulties encountered in all gull species, counts of Lesser Black-backed Gulls were further hampered by identification problems with this species when the birds gathered in dense roosting flocks. Most were recorded in the Dutch and Niedersachsen parts.

In **spring**, local breeders arrive during March and April (Figure 126). Spring coverage was generally poor, especially in the Dutch part, and only a few thousands were recorded in May (Table 34). Few passage migrants are involved in spring, but from May on, increasing numbers of non-breeding immatures appear (Meltofte & Faldborg 1987), peaking in June-July with 3,000 Lesser Black-backed Gulls recorded in mid June (Figure 126, Table 34). Even this figure represents less than one tenth of the local breeding population, however.

Most local breeders leave during July to September, and at the same time the **autumn** passage of northern migrants takes place (Figure 126; Camphuysen & van Dijk 1983, Cramp & Simmons 1983, Meltofte & Faldborg 1987). August and September counts yielded totals of up to about 3,000 individuals (Table 34), but this is probably far below true numbers.

Both in spring, summer and autumn, most Lesser Black-backed Gulls are found in small flocks scattered in different parts of the Wadden Sea. Larger numbers were only found on Terschelling (in sub-area NL26), where a breeding colony of 13,000 pairs is found (SOVON 1987).

Status: the Wadden Sea is probably of great international importance as a breeding and perhaps also as an autumn staging area for the North-west European populations of Lesser Black-backed Gulls. This especially applies to the subspecies *L.f. intermedius* breeding in the Wadden Sea countries and Norway.

Herring Gull *Larus argentatus*

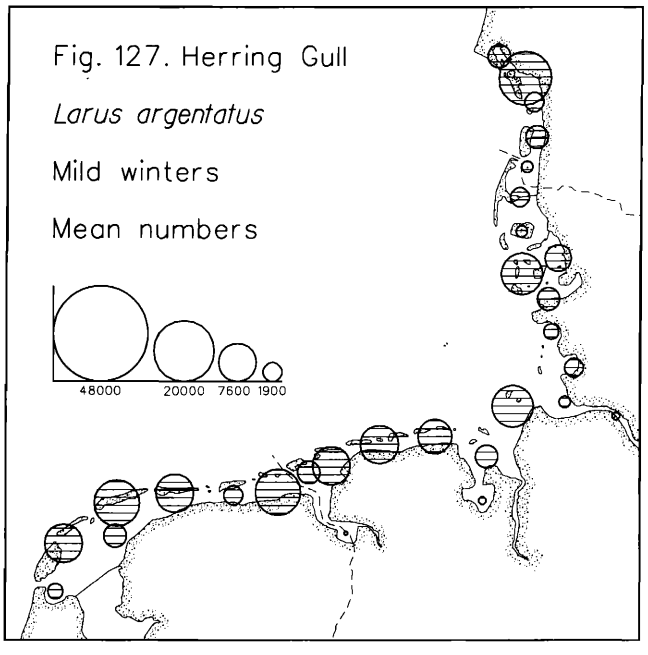
Winter 157,000 Spring 141,000
Summer 79,200 Autumn 328,000

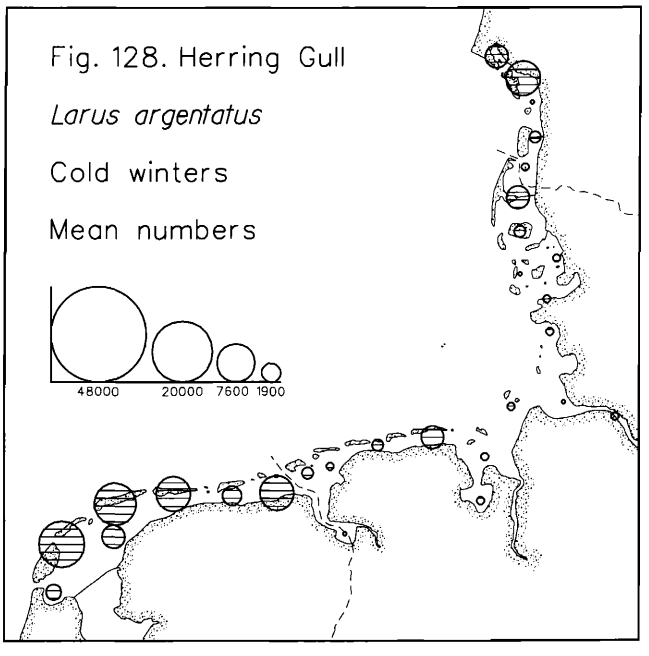
About 90,000 pairs of Herring Gulls now breed in the Wadden Sea area (Fleet *et al.* in press). As throughout much of northern Europe, this represents a dramatic increase in recent decades, from about 66,000 in the 1970s (Smit & Wolff 1981). This local population probably comprises the majority of the birds present in the Wadden Sea at all times of the year. Migrants come from Scandinavia, the countries around the Baltic and England (Smit & Wolff l.c.). A total of 300,000-400,000 pairs breeds in the Scandinavian and Baltic area, and the total West European population is estimated to number 2.7 million individuals (Cramp & Simmons 1983, Koskimies 1993, Rose & Scott 1994).

In mild **winters**, we found between 109,000 and 157,000 Herring Gulls in the Wadden Sea (Table 35). On top of these counts come 12,000 and 14,000 unidentified gulls, respectively, that were most likely mainly Herring Gulls (Appendix 1). In severe winters, numbers recorded were between 39,400 and 100,000 (plus 9,600 and 6,000 unidentified gulls, respectively). The difference between mild and cold winters is mainly caused by changing numbers in the German and Danish parts (Table 35, Figures 127 and 128). Real numbers in the Wadden Sea are hard to evaluate, however, as very high numbers are found in adjacent fishing harbours and rubbish dumps, which were not normally covered by our high tide counts. Many of these birds may feed in the Wadden Sea at low tide, and most roost there by night (Spaans 1971, Smit & Wolff 1981). Others gather around fishing vessels, and roost in the Wadden Sea during storms. A total of 261,000 Herring Gulls is estimated to winter offshore in the southern North Sea (Skov *et al.* in press). During favourable feeding conditions in the Wadden Sea (maximum exposure of tidal flats), an estimated 32% of the Dutch Wadden Sea winter population used refuse dumps inland, this increased to at least 77% under unfavourable conditions (Spaans l.c.). Hence, the reduced numbers in severe winters may result from birds concentrating in rubbish dumps, harbours, etc.

In **spring**, local breeders occupy colonies and start body moult during February-March. At the same time most of the migrants leave, and all have gone by late April (Figure 129; Smit & Wolff 1981, Meltofte & Faldborg 1987). Thus, total numbers are lowest from May to July, when only local breeders and **summering** immatures are present. In spite of often highly incomplete coverage in the Dutch Wadden Sea, our spring counts point to higher numbers of Herring Gulls in early spring, than in January. Thus, 141,000 were recorded in early March in spite of bad weather conditions and lack of coverage of the Dutch part (Table 35). Numbers dropped to between 53,200 and 83,500 recorded in May and 79,200 at the incomplete count in mid June 1991 (Table 35). These figures probably involve large numbers of immature non-breeders.

In July-August numbers increase as the birds leave their colonies (Figure 129). **Autumn** immigration of larger numbers of Herring Gulls from outside the Wadden Sea does not occur until September-November (Smit & Wolff 1981, Meltofte & Faldborg 1987), and probably only in relatively low numbers. Most migrants are probably from northern Scandinavia and north-westernmost Russia, but birds from the rest of Scandinavia and the Baltic are also involved (Meltofte & Faldborg l.c.). Our autumn counts located up to 166,000 in August (only one count, but with a further 22,000 unidentified gulls), 328,000 in September (strong to gale-force wind this day, when 48,000 unidentified gulls were also recorded), 182,000 in October (plus 26,500 unidentified gulls) and 240,000 in November (only 7,800 unidentified gulls) (Table 35, Appendix 1). Thus, in the order of 170,000 to 360,000 Herring Gulls were recorded in our most reliable autumn counts. As in other seasons, real numbers are probably much higher. The breeding population itself, including juveniles and non-breeding immatures, should number in the order of 400,000 individuals in autumn. We found the highest numbers in the Niedersachsen and Dutch parts of the Wadden Sea (Figure 130), and as in winter, most Herring Gulls are found in the outer parts around the islands, where shore crabs *Carcinus maenas* and mussels *Mytilus edulis* constitute their main prey (Dernedde 1993, Laursen *et al.* in press). Local breeders as well as summering immatures undergo post-breeding **moult** during most of the summer and autumn, while migrants have generally completed the major part of their moult prior to arrival.





Status: the breeding population of Herring Gulls in the Wadden Sea area make up around 15% of the West European population. The majority of these birds stay in the Wadden Sea area most of the year, with lower numbers of Scandinavian, North Russian, and Baltic Herring Gulls joining during winter. This probably especially concerns North Scandinavian and North Russian birds, of which a significant part may spend late autumn and winter in the Wadden Sea.

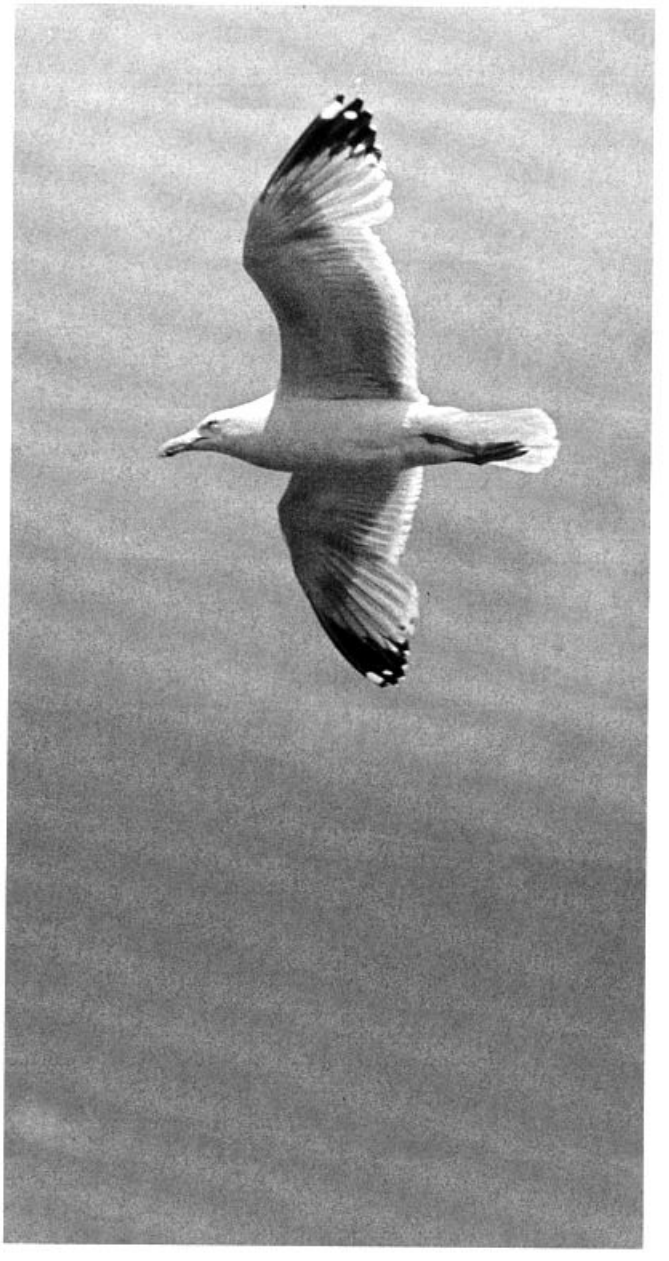
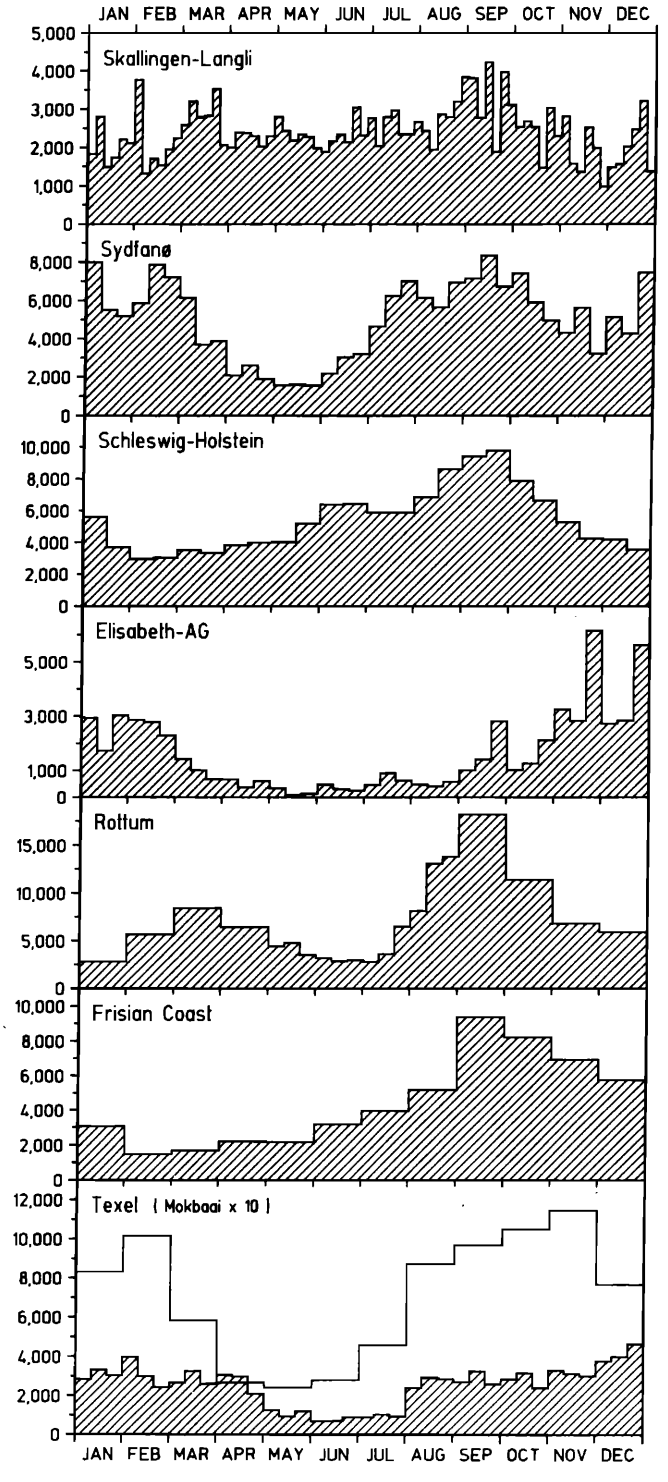
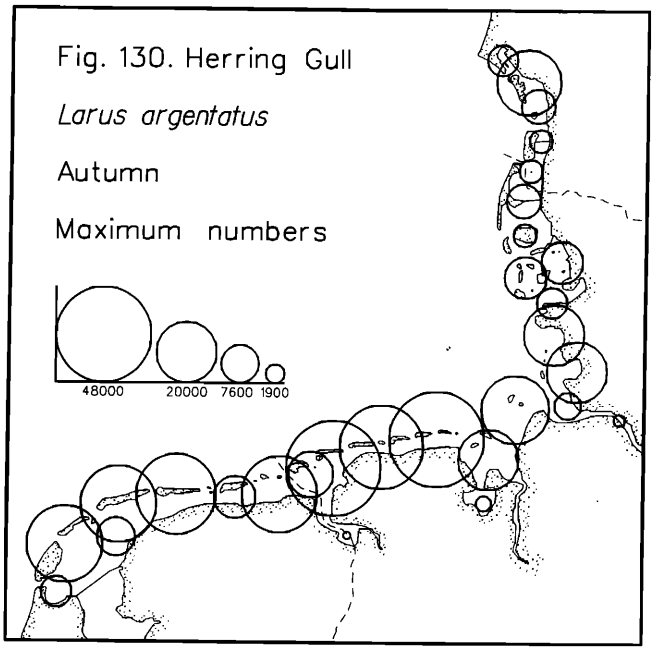


Fig. 129. Herring Gull *Larus argentatus*





Great Black-backed Gull *Larus marinus*

Winter 7,950 Spring 3,910
Summer 1,700 Autumn 15,400

By far the majority of the Great Black-backed Gulls that visit the Wadden Sea, originate from Norway, but birds from the rest of Fenno-Scandia and the Murmansk coast are also involved. An estimated 40,000 pairs breed in Norway and about 20,000 in the rest of the recruitment area (Cramp & Simmons 1983, Koskimies 1993). Most birds from Norway and the Murmansk coast winter in western Norway and around the North Sea, while most of the other Fenno-Scandian birds remain in inner Danish waters and the Baltic. The total East Atlantic population is estimated at 480,000 individuals (Rose & Scott 1994). Only six pairs bred in the Wadden Sea in 1991 (Fleet *et al.* in press).

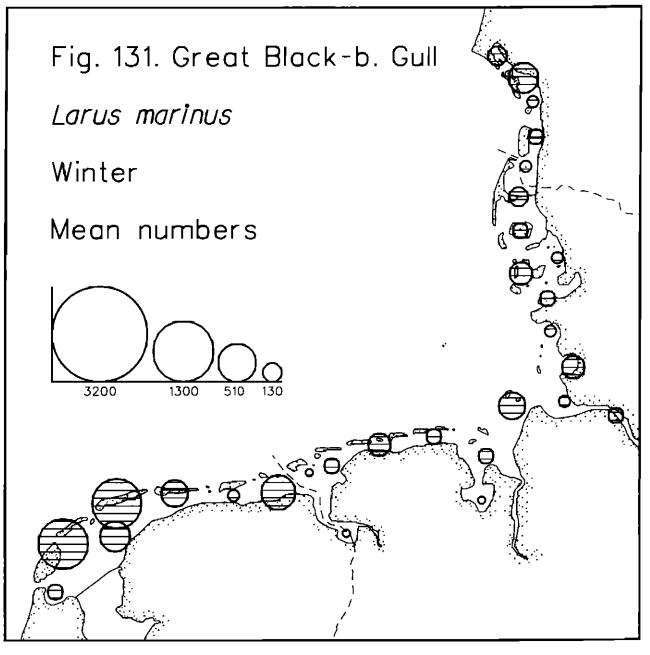
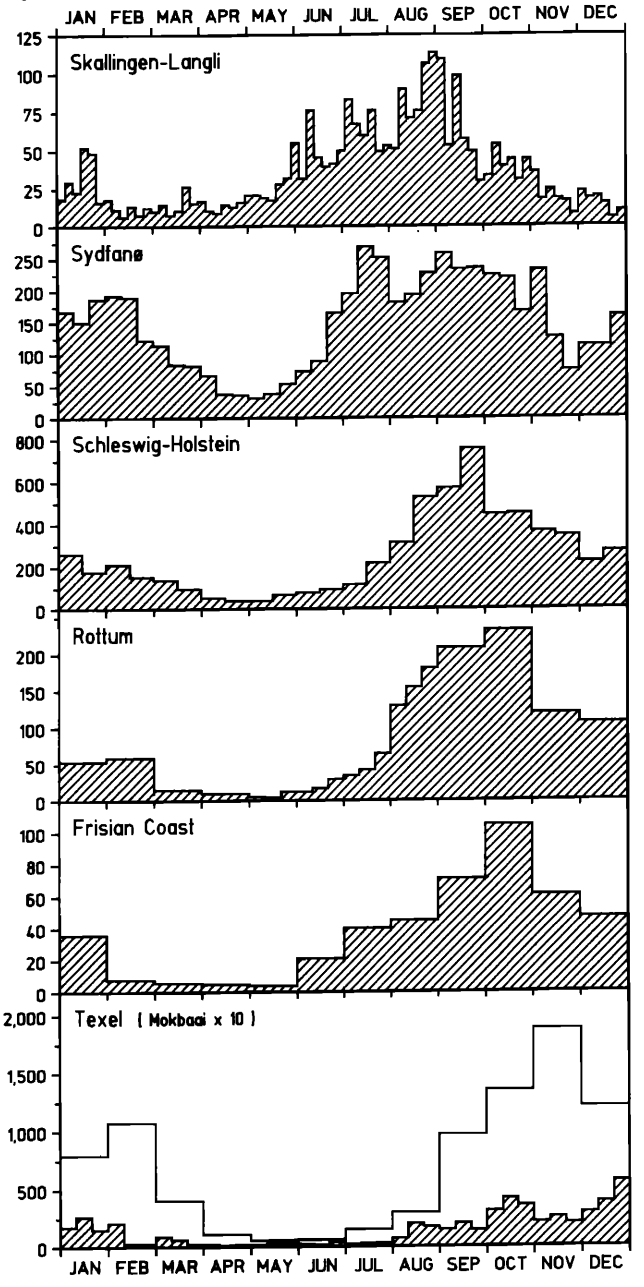


Fig. 132. Great Black-backed Gull *Larus marinus*

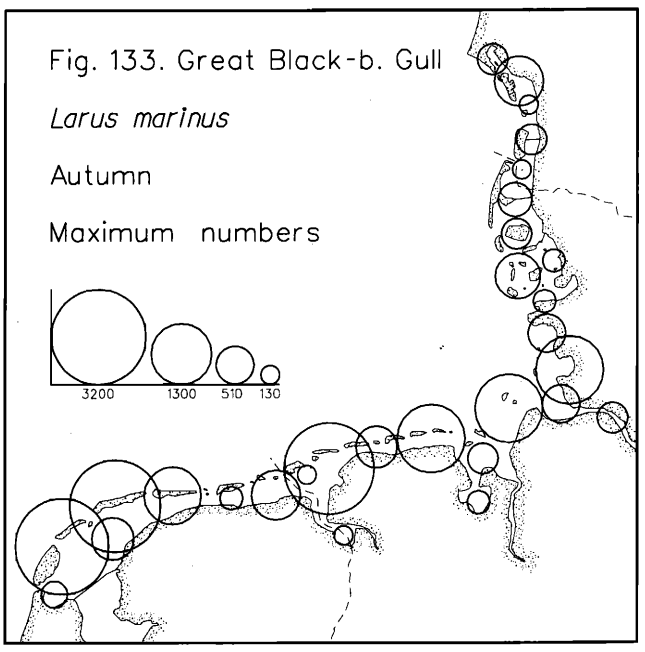


Between 3,400 and 7,950 Great Black-backed Gulls were recorded at our good **winter** counts (Table 36). These numbers are minimum figures, as many gulls remained unidentified (Appendix 1). In both mild and cold winters most were found in the Dutch part (Figure 131). An estimated 20,000 Great Black-backed Gulls are found off-shore on the southern North Sea in winter (Skov *et al.* in press).

Most wintering birds leave during early **spring**, and by mid April summering non-breeders mainly remain (Figure 132; Meltofte & Faldborg 1987). Thus, our spring totals dropped from 3,910 in early March to less than 1,000 in all May counts (Table 36). Numbers of **summering** immatures peak during May to July, when in intensive **moult**, and they come ashore especially during strong winds (Meltofte & Faldborg l.c.). About 1,700 were recorded at our incomplete census in mid June 1991 (Table 36).

In **autumn**, large numbers of adults and juveniles arrive during July-August. Numbers peak during July to November, progressively later towards the south (Figure 132; Meltofte & Faldborg 1987). Our good counts provided totals of between 9,320 and 15,400 September to November, with most birds found around the islands and sandbanks in the southern and western parts (Table 36, Figure 133; Busche 1980). Actual numbers may have been higher, as large roosts of gulls are often difficult to count, and many gulls went unidentified. Furthermore, many gulls do not roost during high tide (see under Herring Gull). The birds **moult** mainly during July to November-December, whereupon about half of them leave for wintering areas further west (e.g. the British Isles) or off-shore in the North Sea and the Channel (Table 36, Figure 132; Cramp & Simmons 1983).

Status: up to an estimated 5% of the North European population of Great Black-backed Gulls may stay in the Wadden Sea during the post-breeding moult in autumn, and some more probably pass through the area in this period. A few percent may winter. Most of the Wadden Sea visitors are probably from Norway and the Murmansk coast.



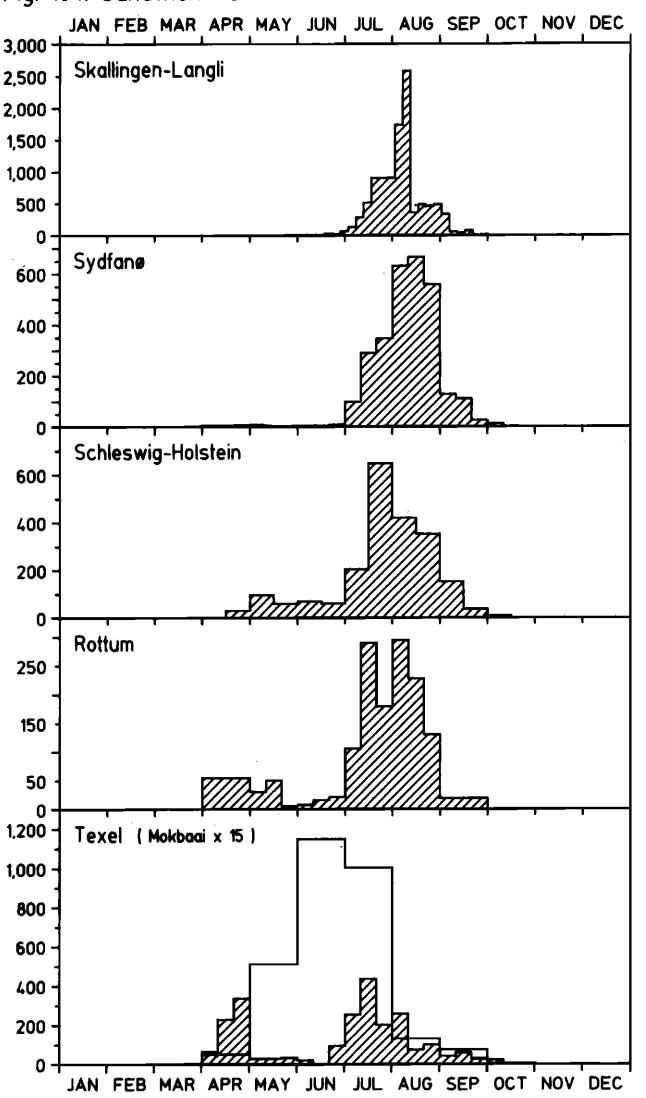
Sandwich Tern *Sterna sandvicensis*

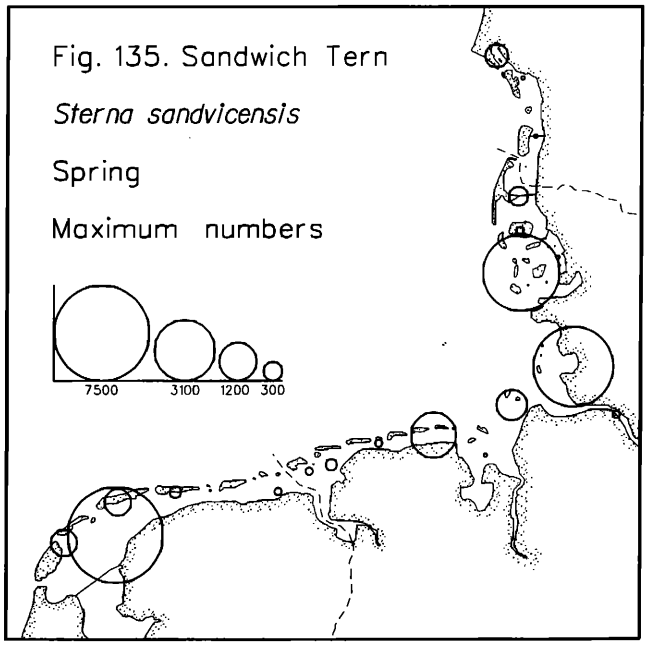
Winter 0 Spring 18,300
Summer 16,400 Autumn 4,410

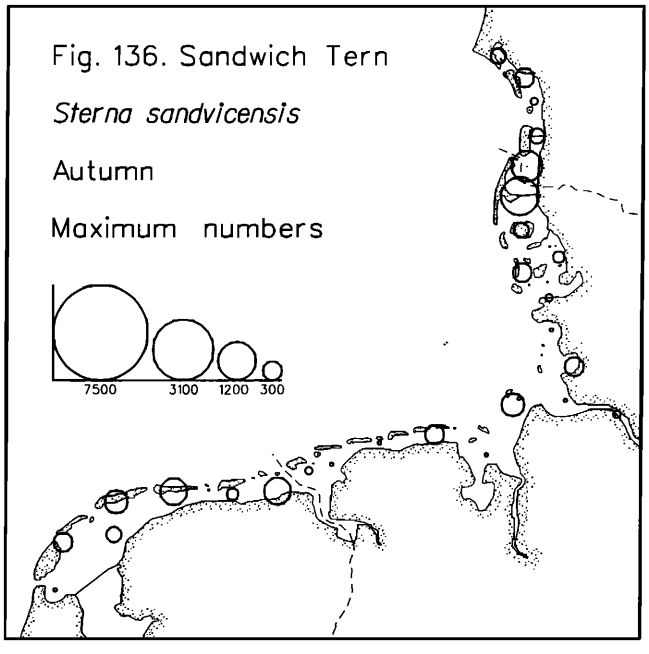
A total of about 17,000 pairs of Sandwich Terns bred in the Wadden Sea area in 1991 (Fleet *et al.* in press). Since 1954 the population has fluctuated between 3,500 and 29,000 pairs. The lowest numbers were found during the mid-1960s, when the terns suffered heavily from pesticide pollution (Koeman 1971). Besides local birds, the breeding populations from other parts of the Wadden Sea countries, East England, southern Sweden and the Baltic occur in the Wadden Sea on migration (Smit & Wolff 1981). The total North European population adds up to about 40,000 pairs, while the entire mid-winter population along the East Atlantic seaboard is estimated to 150,000 individuals (Cramp & Simmons 1985, Rose & Scott 1994). Only occasionally do some occur in the Wadden Sea during **winter**, when the vast majority are along the tropical Atlantic coast of Africa (Cramp & Simmons l.c.).

In **spring**, most Sandwich Terns arrive in the Wadden Sea during April (Figure 134). The 11,500-18,300 Sandwich Terns recorded during most of our May and June counts (Table 37) reflect the presence of breeding colonies (Figure 135). Numbers counted constituted only 10-20% of the total

Fig. 134. Sandwich Tern *Sterna sandvicensis*



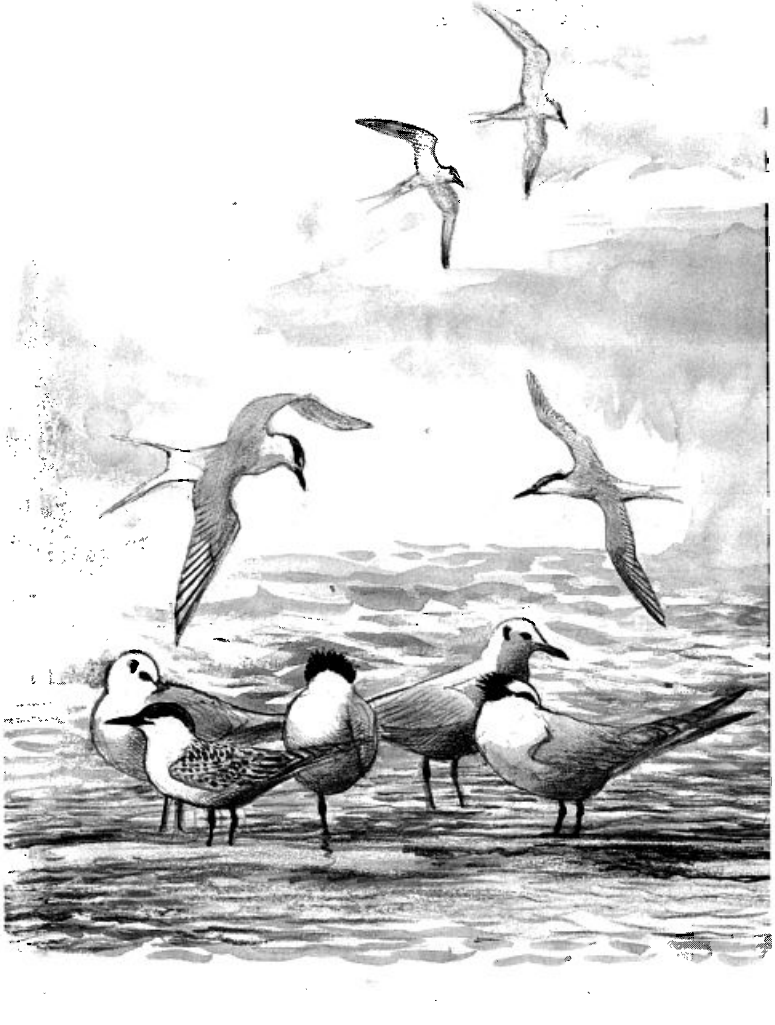




breeding population, caused by many birds staying in the breeding colonies or feeding over the sea, out of view of observers. Spring migration occurs rapidly peaking in late April (Meltofte & Faldborg 1987), and some migrants were probably included with our spring counts. Most **feeding** takes place along the outer coasts of the Wadden Sea islands and in the channels between them (Smit & Wolff 1981).

During July, breeding birds leave the colonies with their young (Figure 134). Many move 250-500 km or more away from breeding colonies during the post-breeding dispersal prior to **autumn** migration (Møller 1981). They go to favoured areas, e.g. places with abundant occurrence of sand eels *Ammodytes tobianus & Hyperoplus lanceolatus*, where the young are still fed by their parents (Smit & Wolff 1981, Meltofte & Faldborg 1987). Here, adults undergo much of their post-breeding body **moult** and the first part of the primary moult (Cramp & Simmons 1985). In such places, autumn peak numbers are reached in late July and August (Figure 134; Meltofte & Faldborg l.c.), but the August 1982 census failed to yield more than 4,410 Sandwich Terns (Table 37, Figure 136). At this time of the year up to 9,800 have been found on Blåvandshuk alone (just North of the Danish Wadden Sea), and a maximum of 3,500 have been counted during aerial surveys in the Danish Wadden Sea in August (Meltofte & Faldborg l.c., Laursen *et al.* in press). Our low figure is probably caused by most birds staying on remote sandbanks or feeding out of view of the observers, when not counted from aeroplane. Concentrations vary considerably from year to year, however (Meltofte & Faldborg l.c.), and probably total numbers in the Wadden Sea do so too. If the entire breeding population and their young remain in the Wadden Sea during the post-breeding period, possibly with birds from other areas as well, then some 50,000 Sandwich Terns could be present in August.

Status: almost half of the entire North European breeding population of Sandwich Terns breeds in the Wadden Sea area. Many of these birds probably stay to moult during August, but numbers present at this time are unknown. Numbers are probably highly variable and dependent on the occurrence of sand eels. Most likely, tens of thousands may stay in some years, when large numbers of birds from the other North European population may also be involved.



Common Tern *Sterna hirundo*

Winter 0 Spring 7,940
Summer 4,260 Autumn 9,510

The Common Terns that occur in the Wadden Sea are probably mainly local breeders together with migrants from Scandinavia and the other countries around the Baltic. The local population numbered almost 11,000 pairs in 1991 (besides 4,800 pairs of "Commic" Terns *Sterna hirundo/paradisaea*) (Fleet *et al.* in press). This is much less than during the middle of this century (Smit & Wolff 1981). The total North European population currently numbers between 100,000 and 150,000 pairs (Cramp & Simmons 1985, Koskimies 1993). Most winter along coasts of western and southern Africa.

In **spring**, Common Terns appear during April, but the main influx does not take place until early to mid May, when the passage of northern breeders also peaks (Figure 137; Smit & Wolff 1981, Meltofte & Faldborg 1987). Due to difficulties of separating Common and Arctic Terns in the field, our counts are somewhat hard to evaluate. In Schleswig-Holstein, these two species were simply pooled. Up to 6,270 Common Terns were actually counted in May, and 3,500-5,700 are estimated to have been present in most years (Table 38). On top of these come 6,000-12,800 "Commic" Terns mainly recorded in Schleswig-Holstein (Appendix 1). By far the largest numbers of Common Terns were recorded at Scharhörn (in sub-area NS15) and at Griend (sub-area NL27), where large breeding colonies also occur. Some May birds could have been migrants, but nothing is known about the occurrence of passage birds.

Common Terns begin to leave the colonies in July, and in August large numbers are concentrated in favourable feeding places prior to **autumn** migration (Figure 137; Smit & Wolff 1981, Meltofte & Faldborg 1987). In such places, adults initiate their post-breeding **moult**, while the young are still often fed by their parents. Our mid August census produced a total of 9,510 Common Terns, of which the vast majority were found in just two areas (Table 38). A further 7,850 "Commic" Terns recorded mainly in the Dutch and Schleswig-Holstein parts are most likely to have been predominantly Common Terns as few Arctic Terns remain in mid August (see next species). Many more birds may prob-

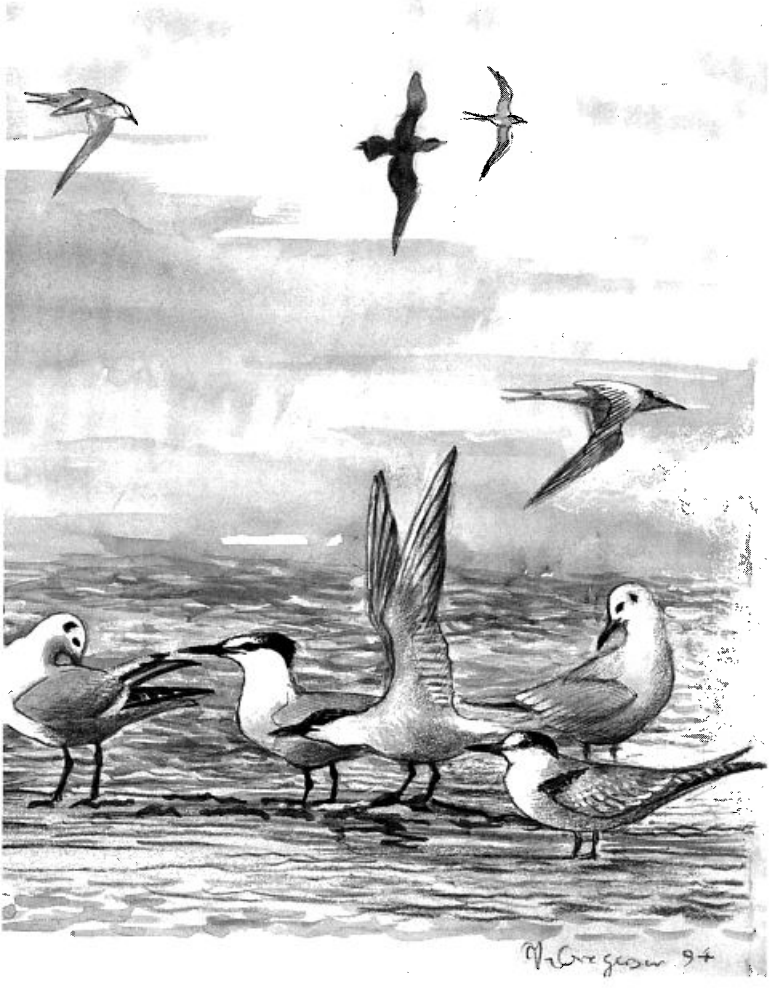
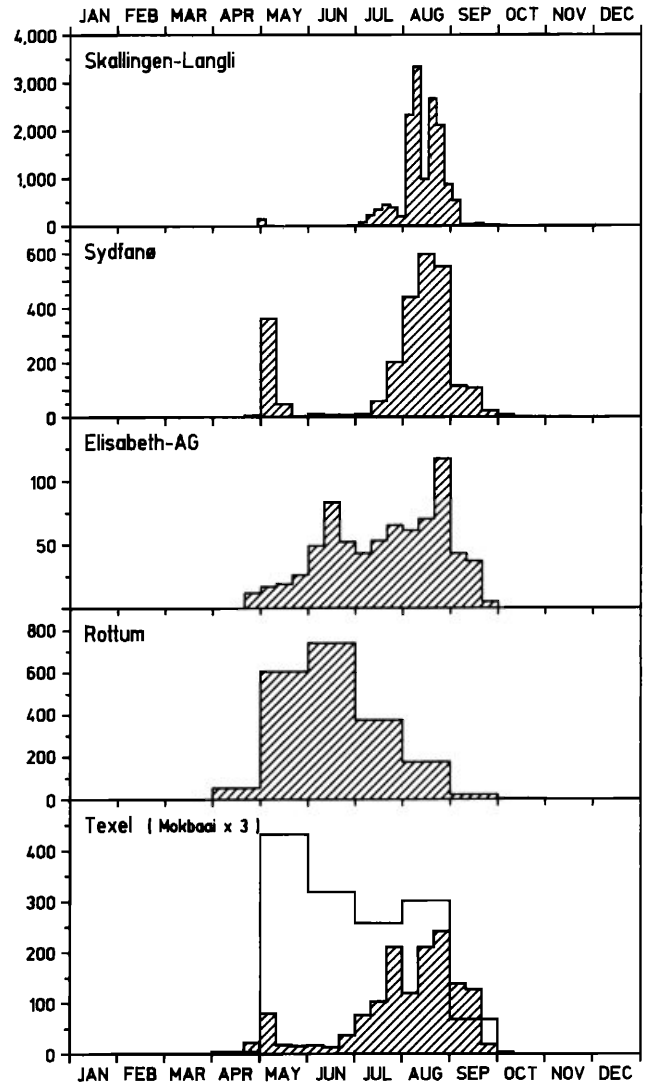


Fig. 137. Common Tern *Sterna hirundo*



ably be present, as they often roost in dense flocks on sandbanks etc. or feed at sea, where they are not recorded. Thus, up to 18,000 Common Terns have been recorded on passage to a night roost on a sandbank in the northernmost part of the Danish Wadden Sea (Meltofte & Faldborg l.c.). These were probably mainly migrants from Scandinavia and the other countries around the Baltic.

Status: at least about 10% of the North European population of Common Terns breed in the Wadden Sea area. Many of these probably stay during the first part of the post-breeding moult in August, when also many migrants from Scandinavia and the Baltic may be involved. Numbers in these post-breeding concentrations in the Wadden Sea are unknown, but most likely it may concern tens of thousands of birds.

Arctic Tern *Sterna paradisaea*

Winter 0 Spring 1,970
Summer 1,050 Autumn 406

During the breeding bird survey of 1991, 4,750 pairs of Arctic Terns were recorded in the Wadden Sea area, but a further 4,800 tern pairs were only identified as "Commic" Terns *Sterna hirundo/paradisaea* (Fleet *et al.* in press). Besides these birds, migrants probably mainly from Scandinavia and the Baltic occur in the Wadden Sea. The population in this area amounts about 60,000 pairs, while the total North European population probably numbers between 500,000 and 750,000 pairs (Cramp & Simmons 1985, Koskimies 1993). They all winter along coasts and off-shore in the southern hemisphere.

Main immigration and passage in **spring** is around 1 May (Figure 138; Meltofte & Faldborg 1987). Most of our counts in May gave totals of between 1,300 and 2,000, with many birds recorded only near major breeding colonies (Table 39). Common and Arctic Terns were not separated in Schleswig-Holstein, and in Denmark, most Arctic Terns were only recorded as "Commic" Terns. Hence, many of the 6,000-12,800 "Commic" Terns recorded in May (Appendix 1), are likely to have been Arctic Terns. As many breeding birds go unrecorded in the colonies or when feeding off-shore, the presence of passage birds is impossible to evaluate.

The **autumn** migration and departure of local Arctic Terns takes place already in July (Figure 138). This means, that almost all the birds have left before our first autumn census in mid August took place. Accordingly, only up to a few hundred were recorded at our autumn counts (Table 39), and even the species identification of these must be considered with scepticism. Few reliable data exist on peak numbers during the passage in July. Up to 11,300 "Commic" Terns counted in the Danish part in July (Laursen *et al.* in press) are most likely to have been predominantly Arctic Terns, as large concentrations of Common Terns mainly occur in August (cf. Figures 137 and 138).

Status: about one per cent of the North European population of Arctic Terns breed in the Wadden Sea area. The number of migrants staging in the area is unknown, but it is possible that some tens of thousands may occur during the autumn passage in July.

Fig. 138. Arctic Tern *Sterna paradisaea*

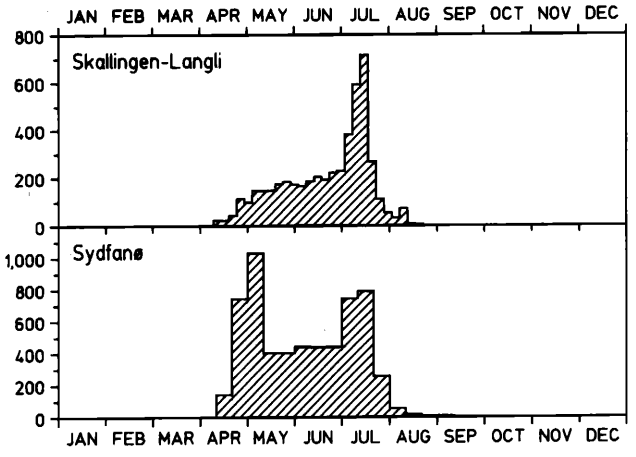
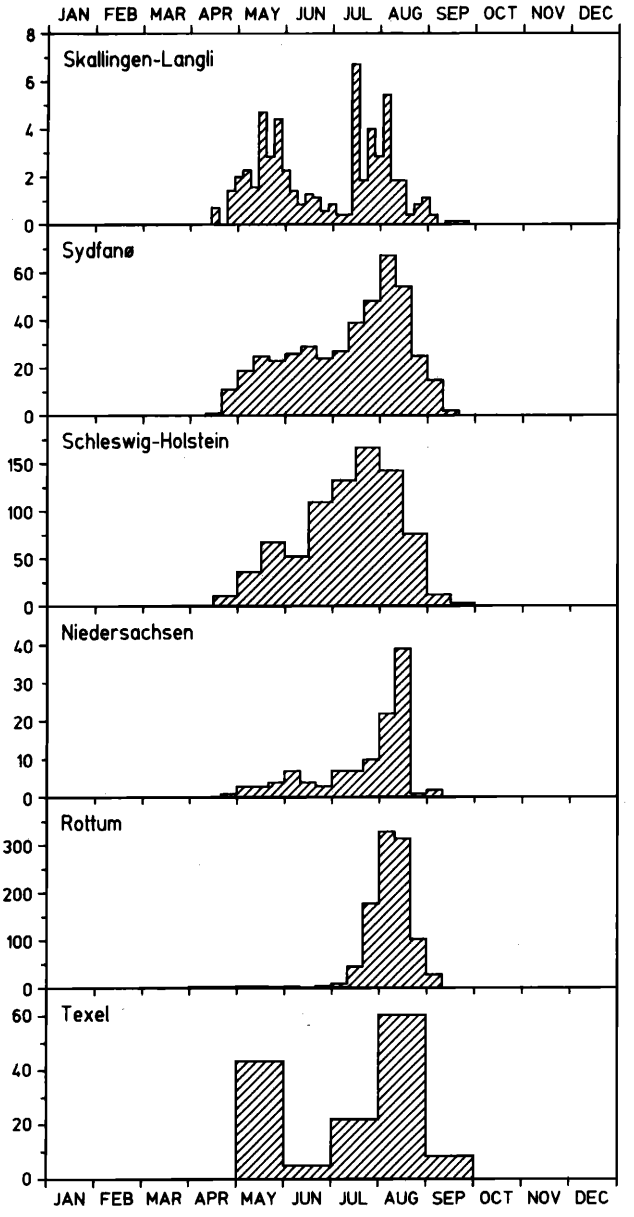


Fig. 139. Little Tern *Sterna albifrons*



Little Tern *Sterna albifrons*

Winter 0 Spring 727
Summer 675 Autumn 1,153

Little Terns occurring in the Wadden Sea come from local breeding areas as well as southern Scandinavia and the Baltic coasts (Cramp & Simmons 1985). The total population in this area amounts to about 2,500 pairs, of which about 650 pairs presently breed in the Wadden Sea area itself (Cramp & Simmons l.c., Fleet *et al.* in press). The entire East Atlantic population is estimated at 34,000 individuals (Rose & Scott 1994).

The North-west European Little Terns winter in West Africa (Cramp & Simmons 1985). From here they arrive in the Wadden Sea area in **spring** from late April until mid May (Figure 139). This means that not all birds have arrived at the time of most of our spring counts. Besides this, many birds may be present in breeding colonies and thus out of sight, so that our counts have never provided more than a few hundred individuals (Appendix 1).

During July, most of the Little Terns leave the breeding sites, to gather at good feeding areas. The largest **autumn** concentrations are found in late July and August (Figure 139), when the first part of the post-breeding **moult** takes place (Cramp & Simmons 1985). A total of 1,153 were recorded in mid August 1982 (Appendix 1), but more birds may be present at this time of the year. In July-August up to 1,135 have been recorded on Rottumeroog (in sub-area NL23) (Keijl & Koopman 1991), and up to 600 have been found at Scharhörn (in sub-area NS15) (Smit & Wolff 1981).

Status: about one quarter of the North European population of Little Terns is found in the Wadden Sea, where they also stay during the first part of the post-breeding moult. Besides these, birds from southern Scandinavia and the Baltic coasts may pass through the area on migration. To what extent this involves extended periods of feeding or moult is unknown.

Discussion

Importance of the Wadden Sea for migratory waterbirds

At least 52 distinct populations of 41 species of waterbirds utilize the Wadden Sea in such numbers to make the area of international importance for the well-being of these populations (see Tables 40 and 41 and below). In by far the majority of these populations, numbers in the Wadden Sea not only fulfil the 1% criterion for international importance, but make up significantly larger proportions of their total populations. In about 18 populations, more than half the individuals utilize the Wadden Sea during their annual cycle, and in about 8 of these, this involves almost the entire population.

Due to basic biological differences, geese, ducks, waders, gulls, and terns utilize the Wadden Sea in quite different ways. Not only do habitat and food requirements differ widely, but the annual schedules vary fundamentally among the groups. This especially relates to moult; e.g. the geese (Brents and Barnacles) and many ducks undergo a complete post-breeding moult at their breeding grounds, whereas the majority of the waders "postpone" most of this moult until they have reached temperate or tropical areas. Hence, the two arctic goose species do not arrive in the Wadden Sea until September-October, whereas most of the adult waders have already arrived during July-August or even June-July.

Another major difference relates to breeding latitude. In spring, most arctic breeding waterbirds do not depart from the Wadden Sea until late May or even June, while most temperate breeders have already left during March and April. In dabbling ducks this includes a shift to inland feeding in early spring and a progressive movement towards the North European and North-west Siberian breeding grounds following the snow and ice melt.

Besides these basic differences in the annual cycle, the

Table 40. Significance of the Wadden Sea for waterbird populations mainly wintering in western Europe and North Africa. For each season the number of symbols denotes the ratio of the specific population that are supposed to utilize the Wadden Sea during the year: + = >1%, ++ = >10%, +++ = >50%. (m) denotes whether significant body moult or primary moult (M) takes place during the stay. (y) indicates whether most of the birds present in spring are local breeders. During the summer period, only summering non-breeders are considered.

Species	Winter	Spring	Summer	Autumn
Phalacrocorax carbo				+(M)
Platalea leucorodia		+(y)	+	++(M)
Anser brachyrhynchus	+++	+++		
Branta leucopsis	+++	+++		+++
Branta bernicla hrota				+++
Branta b. bernicla	++	+++		+++
Tadorna tadorna	++	++	+(M)	+++(M)
Anas penelope	++	++		+++(m)
Anas crecca	+	+		++(m)
Anas platyrhynchos	+	+		+(m)
Anas acuta	++	++		++(m)
Anas clypeata	++	+		++(m)
Somateria mollissima	++	++	+(M)	++(M)
Haematopus ostralegus	+++	+++(m)	++(M)	+++(M)
Recurvirostra avosetta	+	+++(y)		+++(M)
Charadrius h. hiaticula		++(y)		+
Charadrius alexandrinus		+(y)		+(M)
Pluvialis a. apricaria	+	++(m)		++(M)
Pluvialis squatarola	++	+++(m)	+(M)	+++(M)
Vanellus vanellus				+(M)
Calidris canutus islandica	++	+++(m)	+(M)	+++(M)
Calidris alba	++	+++(m)		+++(M)
Calidris a. alpina	++	+++(m)	+?(M)	+++(M)
C. a. schinzii (continental)		+(y)		+?(M?)
Gallinago gallinago				+(M)
Limosa lapponica	++	+++(m)	+(M)	+++(M)
Numenius arquata	++	+++(m)	+(M)	+++(M)
Tringa t. totanus		++(y)		++
Tringa totanus robusta	++	++(m)		++(M)
Arenaria interpres	+	+(m)		+(M)
Larus ridibundus	+	+(y)	+?(M)	++(M)
Larus canus	+	+(y)	+(M)	++(M)
Larus fuscus		++(y)	+?(M)	++?(M)
Larus argentatus	++	++(m,y)	+(M)	++(M)
Larus marinus	+			+(M)

most pronounced contrasts in patterns of utilization of the Wadden Sea relate to the wintering area of the actual species and populations. The vast majority of the waterbird populations that utilize the Wadden Sea in large numbers, winter in temperate areas, i.e. West Europe (incl. the Wadden Sea) and north-westernmost Africa. Most of these birds stay in the Wadden Sea for extended periods both in spring and autumn, during which time many complete a full pre-breeding body moult as well as a total post-breeding moult (Table 40).

Apart from terns, the waterbirds that pass through the Wadden Sea to winter in tropical Africa are almost exclusively north temperate and arctic waders (Table 41). In contrast to the populations wintering north of the Sahara, these birds generally only pause for a fast replenishment of body reserves in the Wadden Sea in spring and autumn, and only relatively few undergo significant moult during their stay (further details in Meltofte 1993). Even so, the Wadden Sea remains of supreme importance in the life cycle of these populations. In some of them, almost the entire population may pass through the Wadden Sea during spring and autumn migrations.

Table 41. Significance of the Wadden Sea for waterbird populations mainly wintering in tropical Africa. For each season the number of symbols denotes the ratio of the specific population, that are supposed to utilize the Wadden Sea during the year: + = >1%, ++ = >10%, +++ = >50%. (m) denotes whether significant body moult or primary moult (M) takes place during the stay. (y) indicates whether most of the birds present in spring are local breeders. During the summer period, only summering non-breeders are considered.

Species	Winter	Spring	Summer	Autumn
Charadrius hiaticula tundrae		++		++
Pluvialis squatarola		+++	+?(M)	+++
Calidris c. canutus		+++	+?(M)	+++
Calidris alba		+++		++
Calidris ferruginea				+(m)
Philomachus pugnax		+(m)		+(M)
Limosa lapponica		+++	+?(M)	+++
Numenius phaeopus		+		+
Tringa erythropus		++		++(M)
Tringa t. totanus		++		++(M)
Tringa nebularia		+		+
Arenaria interpres		+		+
Sterna sandvicensis		++(y)		++(M)
Sterna hirundo		++(y)		++(M)
Sterna paradisaea		+?(y)		+
Sterna albifrons		++(y)		++(M)

The importance for ducks and geese

The Wadden Sea is of international importance for 11 western Palearctic populations of ducks and geese (Table 40). For 6 populations more than half the individuals may use the area during their annual cycle. In "Russian" Barnacle Goose and Dark-bellied Brent Goose this involves virtually the entire population, of which very large numbers occur during autumn, winter and spring.

For Brent Geese, Shelducks and Eiders the Wadden Sea provides vital core wintering and staging habitat. For other species, the area comprises a significant part of their overall general staging and wintering range in North-west Europe.

Largest numbers of ducks occur in **autumn**, when we recorded up to 959,000 ducks and geese in the Wadden Sea (Table 42). Numbers increased from a few hundred thousands in early autumn to peak in October-November, but especially early in the season, very large numbers of moulting Shelduck and Eiders were not covered at our counts. Wigeon and Shelduck were the most numerous species with peak numbers in late autumn of 320,000 and 254,000 recorded, respectively, but similar numbers of Eiders also occur at this time of the year. Most likely, more than 1 million waterfowl regularly occur in the Wadden Sea simultaneously in autumn.

The ducks undergo body **moult** during their autumn stay in the Wadden Sea, but only significant numbers of Shelduck and Eider perform their primary moult here (Table 40). For these two species, the Wadden Sea is the single most important moulting area for the north European populations. About 200,000 Shelduck and 250,000 Eiders are estimated to moult here during the summer and early autumn; most in the German part.

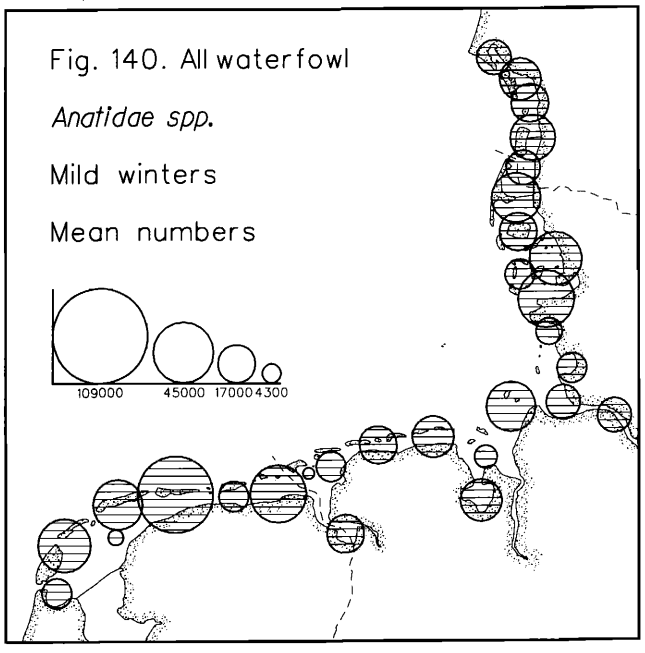
In mild **winters**, total numbers of ducks and geese only fall to between 600,000 and 900,000, taking into consideration that many Eiders were missed during the counts. Besides this species, peak counts were of Shelduck (max. 178,000), Mallard (max. 165,000) and Wigeon (max. 138,000). In severe winters numbers may drop to an estimated minimum of 300,000-400,000, but many ducks probably go unrecorded during severe winters, when they may roost on ice out of view of observers.

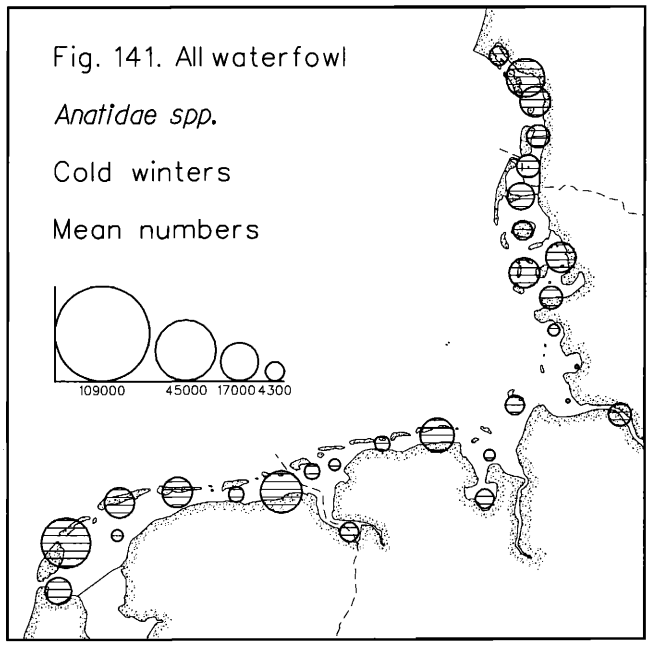
Most ducks leave the Wadden Sea during early **spring**, so that peak numbers occur in March (Table 42). The Dark-bellied Brent Geese, however, concentrate in the Wadden Sea during spring, so that almost two thirds of the 227,000-380,000 waterfowl recorded in May are normally Brents.

At all times of the year, waterfowl are surprisingly evenly **distributed** throughout the Wadden Sea (Figures 140, 141, 142 & 143). Even in severe winters, many waterfowl remain in the Schleswig-Holstein and Danish parts. As large numbers of waterfowl may go unrecorded during severe winters (see above), the relatively low numbers recorded especially in some of the very extensive sub-areas in the German Wadden Sea should be treated with great caution, as these areas are particularly difficult to count under severe conditions. In general, however, the highest numbers of most geese and dabbling ducks are found in the Dutch Wadden Sea in winter. In spring, Dark-bellied Brent Geese concentrate in the northern Schleswig-Holstein and Danish parts as do a number of arctic breeding waders (see below), whereas the large concentrations of moulting Shelducks and Eiders are found mainly in the central part of the German Wadden Sea in summer and early autumn.

Total numbers of waterfowl passing through the Wadden Sea during the year are unknown, but are likely to be in the order of 2.0-2.5 million. With an estimated total of at least 18 million waterfowl in northern and western Europe (Pirot *et al.* 1989), this is more than 10% of all populations. If non-estuarine species are excluded, the ratio increases to at least 15%.

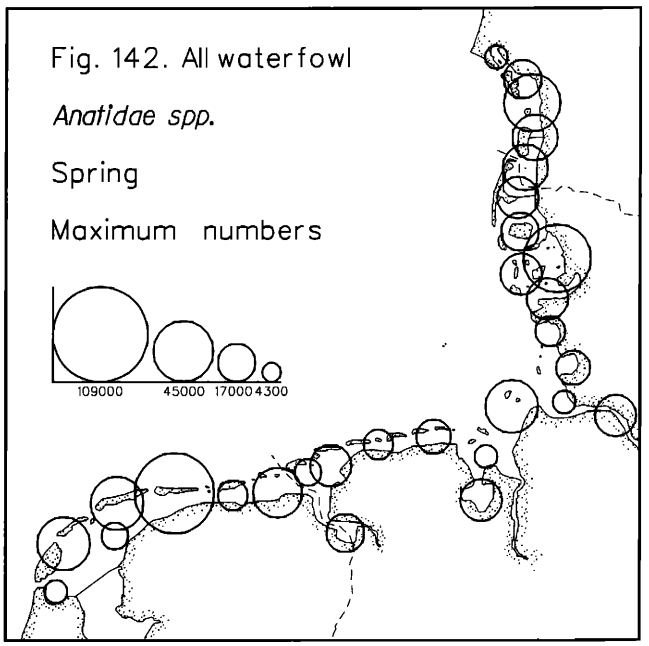
Besides the waterfowl treated in this analysis, significant numbers of Common Scoter and divers *Gavia stellata & arctica* occur in the waters just outside the Wadden Sea islands. Up to 200,000 Common Scoters have been recorded off the Danish Wadden Sea in winter, and 100,000-150,000 (90% males) have been found to moult here (Joensen 1973, Laursen 1989; see also Appendix 1). Recent surveys in the southern North Sea have yielded an average total of 160,000 wintering Common Scoters, or 12% of the entire North-west European mid-winter population (Skov *et al.* in press). Similarly, 42,700 divers are estimated to winter in the southern North Sea waters just outside the Wadden Sea. This is 39%

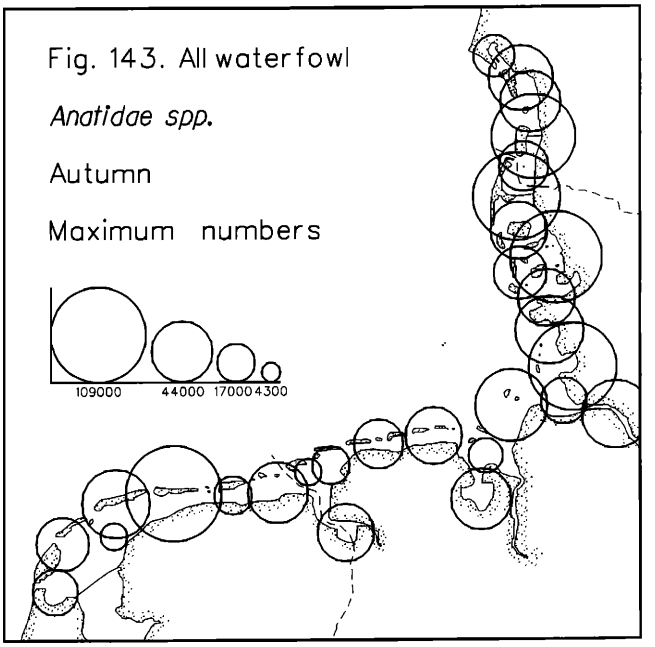




of the entire North-west European winter population (Skov *et al.* l.c.). Recently, also part of the Eiders in the Dutch Wadden Sea have started to utilize the sea territory outside the islands (Leopold *et al.* 1993). Here they find the bivalve *Spisula subtruncata* as alternative prey to the diminishing stocks of mussels and cockles in parts of the Wadden Sea. However, even this bivalve is now being heavily depleted by commercial exploitation.

In addition, internationally important numbers of Bewick's Swan, Whooper Swan, White-fronted Goose, Greylag Goose and Gadwall were recorded, mainly from polders and waterbodies adjacent to the Wadden Sea (Appendix 1).





The importance for waders

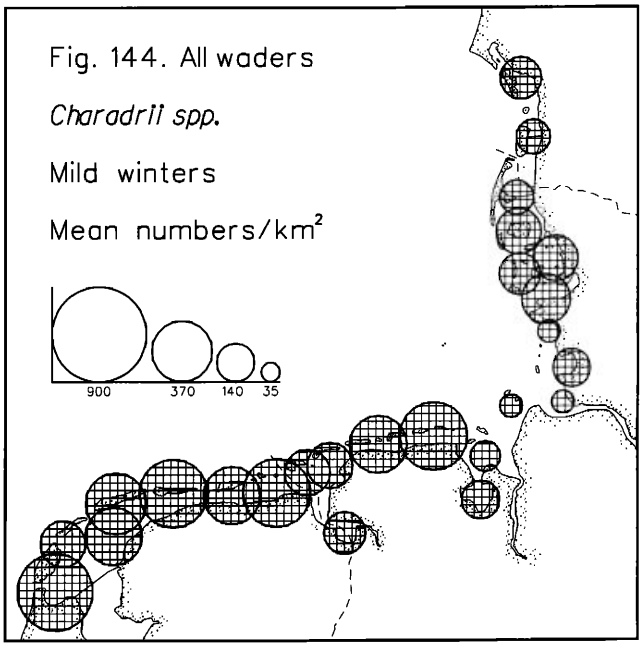
Both quantitatively and qualitatively the waders make up the most important group of birds in the Wadden Sea. The area is of international importance for about 30 populations of West Palearctic and Nearctic waders (of 20 species). In 12 of these more than half the population occurs in the Wadden Sea (Tables 40 and 41). For the Grey Plover, Siberian Knot, West Palearctic Dunlin and Bar-tailed Godwit (both European and Siberian breeders) almost the entire population occurs in the Wadden Sea each year. In a few species also large proportions of the North European breeding populations are found in the Wadden Sea area.

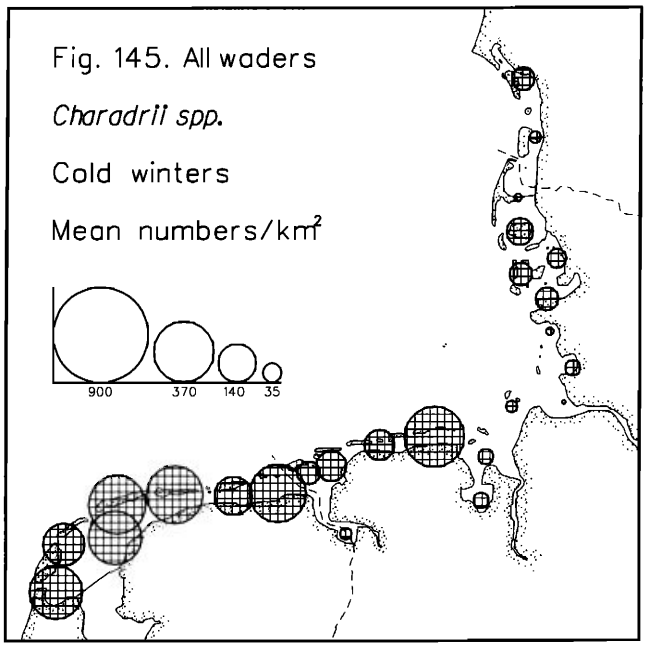
By far the majority of the waders occurring in the Wadden Sea are coastal species, but for "inland" waders such as Golden Plover, Lapwing, Snipe and Ruff the area is also of international importance. For these species the adjacent marshes and polders make up the prime staging habitats, but many feed or roost on the saltmarshes and tidal flats.

The largest numbers of waders are present in late summer and **autumn**, when huge numbers of adults as well as juveniles stay in the Wadden Sea to replenish body reserves for the onward migration or for wintering in Europe. During most of our autumn counts from September to early November we recorded totals of between 2.2 and 2.6 million waders (Table 43). Dunlins and Oystercatchers dominated with up to 1,200,000 and 739,000 recorded, respectively. Many stay for extended periods when they undergo most of their post-breeding moult. This especially concerns populations wintering in western Europe, while most of those wintering in tropical Africa continue after a short stay without significant moult taking place (Tables 40 and 41).

For 11 flyway populations the Wadden Sea is of international importance also as a **wintering** area (Table 40). For the Oystercatcher this involves more than half the West European wintering population. In most of the mild **winters** between 0.9 and 1.2 million waders remained in the Wadden Sea, with Oystercatcher (max. 593,000) and Dunlin (max. 258,000) as the most numerous species. In severe winters recorded numbers are generally halved, and the remaining birds mainly stay in the Dutch and western Niedersachsen parts (Table 43, Figures 144 and 145). As many waders remain unrecorded in severe winters, when they can roost on the ice out of view of observers (when not covered from plane), this reduction must be treated with some caution.

Very large numbers reappear in **spring**, when birds that



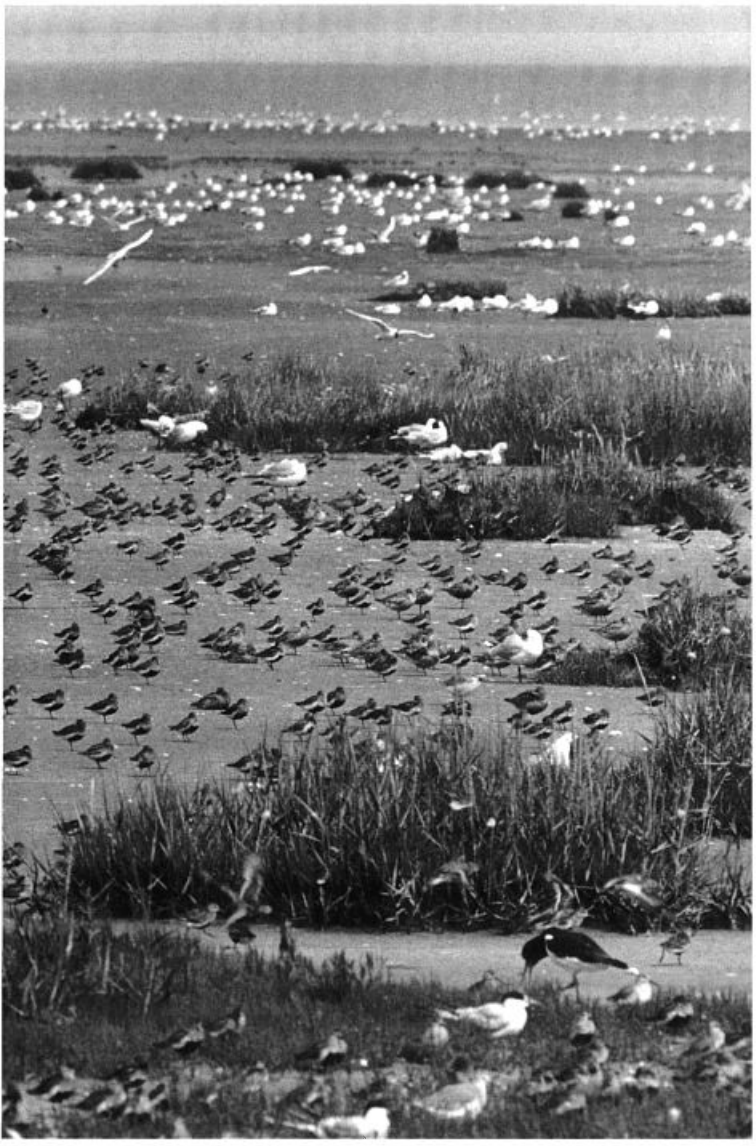


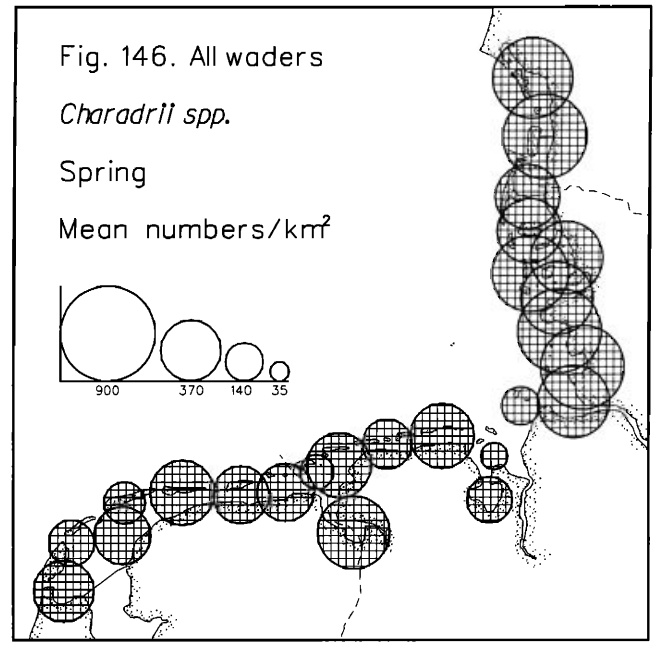
have wintered in western Europe move into the Wadden Sea, mainly during March-April, to build up significant body reserves and undergo body moult into breeding plumage before they leave for the breeding grounds. Again, most of the African winterers only stay for a fast refattening during May and early June. Numbers increased from 1.3 million in March to between 1.8 and 2.2 million during most early May counts (Table 43). During the May peak, Dunlin predominate with a maximum of 1,120,000 recorded, while Knot and Bar-tailed Godwit attained peak counts of 433,000 and 341,000, respectively.

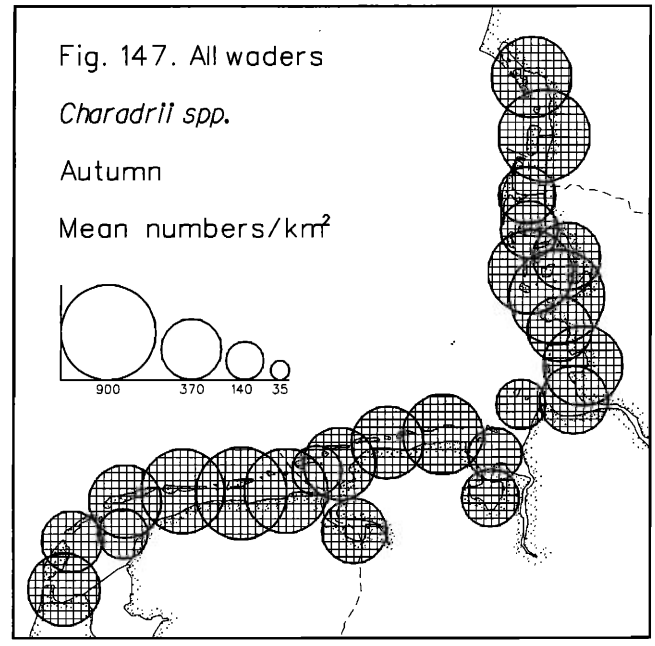
For at least five wader species, the Wadden Sea is also of international importance as a **summering** area for non-breeding immatures (Tables 40 and 41). These birds take the opportunity to perform their "post-breeding" moult during summer, when there is little competition from adults (Boere 1976). During our count in mid June 1991 we recorded 216,000 waders, but coverage was poor and more birds may have been present. On the other hand, some spring migrants and some early autumn migrants were also involved, besides local breeders.

Both in spring and autumn, waders in general are quite evenly **distributed** throughout almost the entire Wadden Sea (Figures 146 and 147). A predominance of high densities in the Danish and Schleswig-Holstein parts in spring is caused by very high numbers here, especially of Dunlin. Large differences in the distribution of individual species occur as a result of differing habitat preferences, but at a regional level the most striking patterns are the large concentrations of Knots in the Schleswig-Holstein Wadden Sea especially in spring. Also the area just north of the Elbe estuary has been shown to be of great international importance especially for Sanderling, Curlew Sandpiper and Spotted Redshank.

By adding estimates of total numbers of individuals of each species that visit the Wadden Sea each year, we estimate that the **total number of waders** visiting the area during the year is in the order of 6-7 million. Due to the large inaccuracies concerning the estimation of the very large population sizes of inland wader species, it can only be estimated that about two thirds of the entire *coastal* wader populations of the East Atlantic flyway visit the Wadden Sea during the year. These probably number at least 7 million (Smit & Piersma 1989) of which we estimate that in the order of 5 million occur in the Wadden Sea.





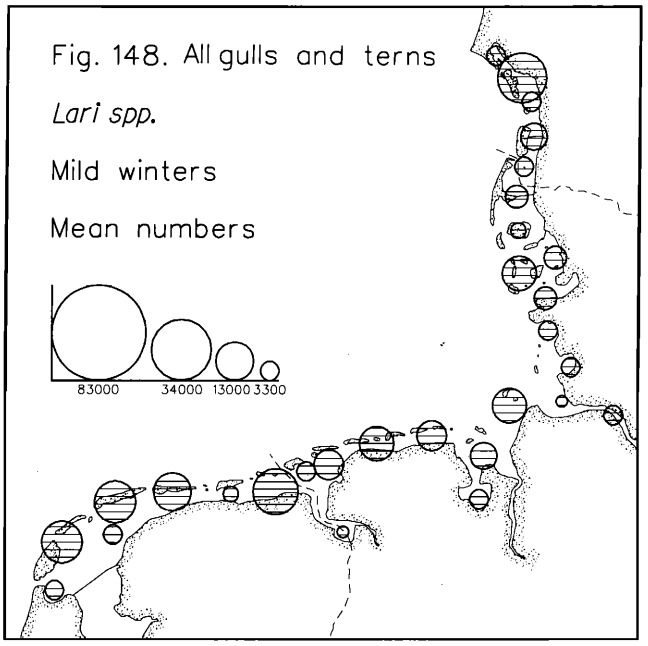


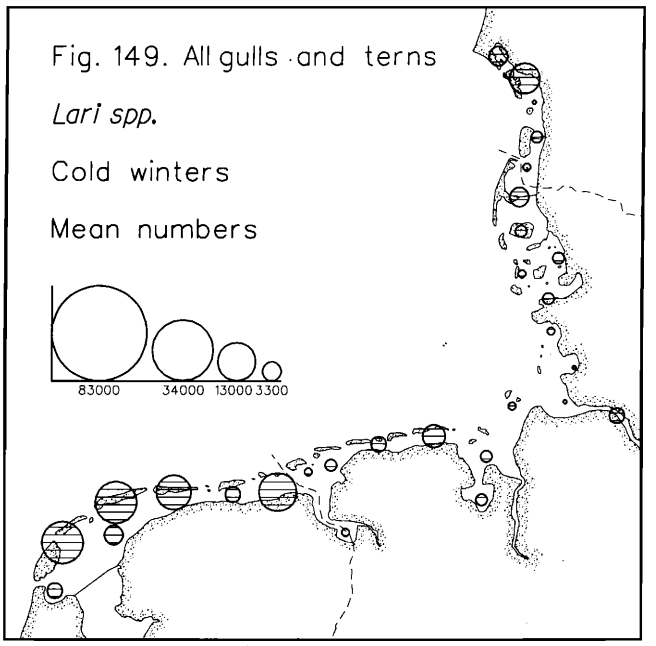
The importance for gulls and terns

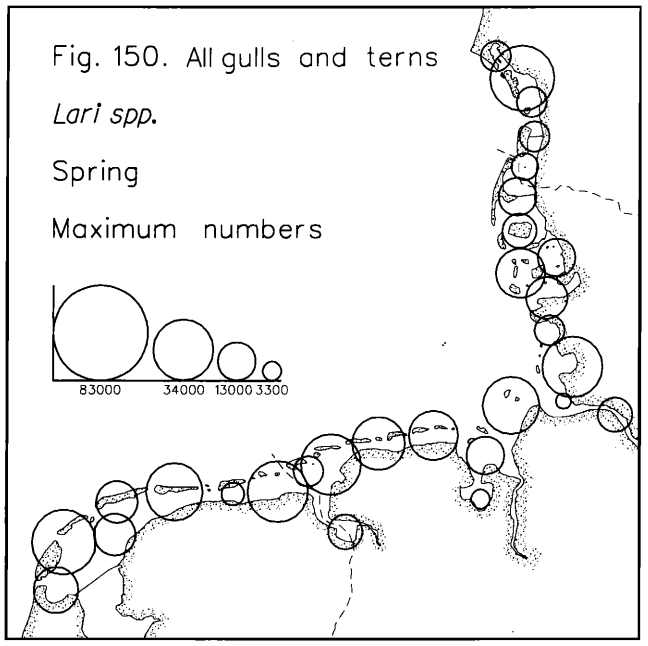
Five species of gulls and four species of terns occur in the Wadden Sea in numbers which make the area of international importance to the North European populations (Tables 40 and 41). In most of these species the breeding populations are also of international importance. Besides the species considered here, the Gull-billed Tern has its last stronghold as a breeding bird in North Europe in the Wadden Sea area (Fleet *et al.* in press).

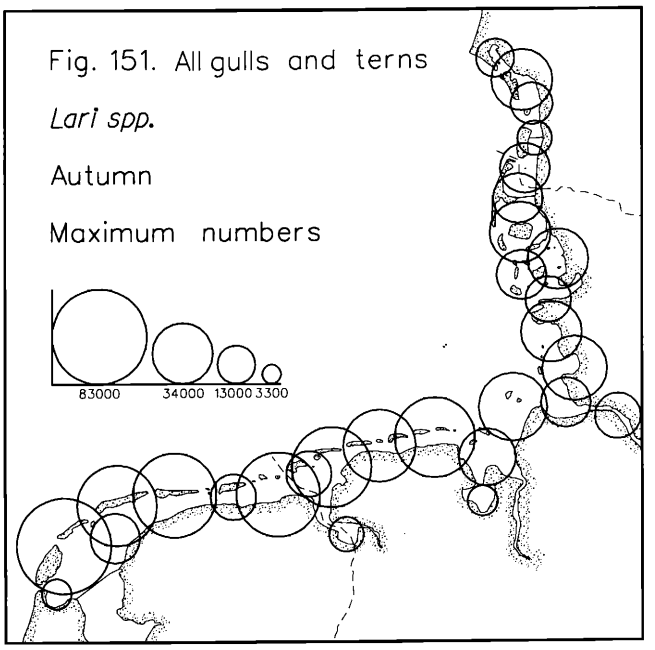
The greatest numbers of gulls and terns occur in the Wadden Sea in **autumn**, when large proportions of most of the populations undergo at least part of their post-breeding moult in the area. Total numbers peak in August and early September, when we recorded between 548,000 and 626,000 gulls and terns (Table 44). Herring Gull and Black-headed Gull highly dominated with maximum recorded numbers of 328,000 and 242,000 respectively. Numbers decrease during autumn, and by mid-**winter** we recorded between 178,000 and 258,000 in mild winters and 76,000 to 164,000 during good counts in severe winters. Again Herring Gull was most numerous with a maximum of 157,000 recorded, whereas Common Gull was second with 58,100. In **spring**, gulls were locally neglected at the counts, but still about a quarter of a million gulls and terns were recorded during several counts throughout the season (Table 44). Peak counts were 141,000 Herring Gulls and 135,000 Black-headed Gulls.

These figures do not fully reflect the importance of the Wadden Sea for gulls and terns, however. Not only were gulls and terns often **poorly covered** due to many birds staying out at sea or roosting in dense flocks on remote sandbanks (or were simply neglected by the counters), but huge numbers of gulls alternate between feeding in the Wadden Sea and inland in fields, polders, and rubbish dumps, in harbours or at sea. True figures are hard to estimate, but peak numbers of gulls in the Wadden Sea area most likely regularly exceed 1 million in early autumn. The coverage for terns may have been even worse, as they peak in July-Au-









gust, when we performed only one rather poor count. Thus the occurrence of post-breeding concentrations of terns in the Wadden Sea are still virtually unknown, as is the use by other North European tern populations of the Wadden Sea as a post-breeding moulting and feeding site. Probably, the best coverage of gulls and terns in the Wadden Sea can be attained from airplane and by counts at night roosts.

Due to these shortcomings, the **total number of gulls and terns** passing through the Wadden Sea during the year are even more difficult to estimate. Perhaps it is in the order of 2.0-2.5 million individuals, which represents about 20% of the North European populations.

In mild winters, large numbers of gulls are **distributed** throughout most parts of the Wadden Sea, whereas many leave the northern and eastern parts during severe winters (Figures 148 and 149). In spring and autumn, the highest numbers of gulls are found in the Dutch and Niedersachsen parts (Figures 150 and 151). Most terns are found close to breeding colonies during spring and summer, whereas large post-breeding concentrations may gather in areas with abundant occurrence of sand eels.

In **summary**, it appears that the Wadden Sea is of outstanding importance to the well-being of a large number of waterbird populations as a staging, moulting, fattening and wintering area. The estimated totals of individuals utilizing the area during the year add up to 10-12 million. We still know too little, however, about the most critical periods (the "bottle-necks") in the life cycle of these populations to evaluate the significance of the different periods of the year. However, it is evident that the Wadden Sea is of extreme importance as a post-breeding moulting area (incl. primary moult) for many populations of especially waders and gulls, and a few waterfowl species. It is further of extreme importance as a spring staging and moulting area especially for many populations of waders. For many populations of waterbirds that winter in western Europe, the Wadden Sea forms a very important part of the wintering range. Finally the Wadden Sea area is of great importance as a breeding area for several North European populations of especially terns, gulls and waders.

For the breeding birds and quite a number of staging waterbird populations the islands and saltmarshes together with the adjacent polders and nearby parts of the North Sea make up an integrated part of the "ecological unit" of the Wadden Sea area. To these bird populations the Wadden Sea proper is not an isolated "site".

Changes in the occurrence of waterbirds in the Wadden Sea

Considerable increases in total flyway population sizes during recent decades are well known in species such as Cormorant, Dark-bellied Brent Goose, Barnacle Goose, Eider, Oystercatcher and Avocet. These trends are considered to be mainly due to improved protection of these species (more sanctuaries for breeding as well as staging, reduced hunting pressure etc.), and possibly in some of them even improved feeding conditions due to eutrophication. *Islandica* Knots, wintering in northwestern Europe, have decreased considerably, while the European wintering populations of Grey Plover and Bar-tailed Godwit may have increased (Smit & Piersma 1989). These latter changes have hardly anything to do with the living conditions in the Wadden Sea. This was, however, the case with the crash in the populations of Brent Geese in the 1930s, when widespread die-off of the eelgrass *Zostera maritima* forced the geese to feed in saltmarshes and inland grasslands, which in turn made them much more vulnerable to hunting (Madsen 1987).

Brent Goose, Oystercatcher, Grey Plover, Shelduck, Mallard, Pintail, Bar-tailed Godwit, Curlew, Spotted Redshank, Redshank and Black-headed, Common and Herring Gulls have increased in numbers in the Dutch part of the Wadden Sea between 1965-77 and 1980-91, the first 3 species showing the most obvious positive trend. The only species that has decreased in this period is Teal (Smit & Zegers 1994). Spring tide counts in the Schleswig-Holstein Wadden Sea area 1987-1993 also showed increase in at least one out of three seasons (autumn, winter, spring) for 16 out of 34 species analyzed (Rösner 1994). Five species (Cormorant, Wigeon, Grey Plover, Spotted Redshank and Redshank) increased in all seasons. Only two species decreased during the period (Shelduck in winter and Herring Gull in autumn). A series of mild winters since the beginning of the project is one possible reason for the general increase, although this may not provide the full explanation of the phenomenon.

Regional changes have also occurred amongst Eiders, which have suffered recently from human overexploitation of the mussel and cockle stocks (Laursen *et al.* in press, Smit 1994). Similarly, the vulnerable population of Light-bellied Brents from Svalbard has used the Wadden Sea (the Danish part) significantly less in recent years because of the deteriorating quality of stands of eelgrass there (which may be caused by increased turbidity due to dumping of dredged material and eutrophication). The Pink-footed Goose has given up all its former haunts in the German Wadden Sea due to habitat change and disturbance (Prokosch 1984a). Local changes in waterbird numbers have also been documented in connection with the embankment of saltmarshes and mudflats (see chapter below).

Regional changes in the breeding tern populations of the Dutch and German parts of the Wadden Sea have occurred, where pollution with pesticides has caused dramatic crashes, especially amongst Sandwich Terns and Common Terns during the 1950s and 1960s (Koeman 1971). The Sandwich Tern has recovered well since action was taken against the pollution, but the increase was relatively slow as compared to the increase of the population in the 1920s and 1930s (Brenninkmeijer & Stienen 1992). At that time, population numbers were very low due to high hunting pressure. The Wadden Sea population of Common Tern was also very low during 1910-1930 but a marked increase followed in the 1950s. Following chlorinated hydrocarbon pollution in the 1960s (Koeman l.c.) numbers in the Dutch Wadden Sea area failed to increase subsequently (Stienen & Brenninkmeijer 1992).

The breeding populations of Kentish Plover and Little Tern have decreased all over the Wadden Sea primarily due to disturbance from visitors on the beaches, where these birds breed (Fleet *et al.* in press). Considerable increases in the Wadden Sea breeding populations over most of this century are known for Eider, Oystercatcher, Black-headed Gull, Common Gull, Lesser Black-backed Gull and Herring Gull (Smit & Wolff 1981). Again these changes may be related to improved protection of breeding colonies as well as increasing food resources possibly due to eutrophication (more benthic prey for both Eiders and gulls) and waste (rubbish and fisheries waste for gulls).

Some of the changes mentioned are further referred to under the actual species, or below in the chapters on specific environmental problems.

Threats to the waterbirds in the Wadden Sea

Human utilization of the resources of the Wadden Sea has taken place as long as humans lived in the area. Until modern times this influence was largely restricted to the saltmarshes, grasslands, rivers and streams that flow into the Wadden Sea, together with wetlands adjacent to the area. Along virtually the entire mainland coast and on the larger islands, such areas have been cut off from the Wadden Sea ecosystem by means of sea walls, dams and sluices. During this century these modifications have expanded to even include embankments of tidal flats in many parts of the Wadden Sea, and dams have been built to a number of the islands. The single largest embankment was build to enclose the Zuiderzee in 1932, now known as the IJsselmeer in the Dutch Wadden Sea. Since 1963 more than 40,000 ha of mudflats and salt marshes have been reclaimed (CWSS 1991). Thus, at most only narrow fringes of saltmarshes remain. Most of these are modified by coastal protection, land reclamation works and grazing. Furthermore, harbours, industrial plants and holiday centres have been build in many places. In the rest of the Wadden Sea human impact has mainly been of a more reversible nature, such as fishery, hunting, other recreational activities and, not least, pollution. (See CWSS 1991 and de Jong *et al.* 1993 for reviews of human impact in the Wadden Sea.)

We know very little about the effects on the birdlife of all these encroachments. Most likely, the breeding bird populations in reclaimed saltmarshes and adjacent wetlands have suffered significant losses. In areas where reclaimed polders were kept as permanent grasslands, some meadow bird species benefitted from the embankments. Similarly, migrants dependent on saltmarshes may have decreased, while "inland" waterbirds have increased especially in those areas where extensive compensatory measures (such as establishment of salt and brackish water lagoons, disturbance free reserves and other habitat management) have been undertaken in reclaimed polders (Laursen *et al.* 1984, Hötker & Kölsch 1993). Studies at recent embankments have demonstrated, that migrants dependent on tidal flats decrease not only in the reclaimed areas but also in a wider area. This is due to loss of feeding time, because a relatively high proportion of upper – i.e. early exposed mudflats are lost (Laursen *et al.* l.c.). We do not know, however, if such local decreases have any impact on total flyway population sizes. We can only say, that they must put further pressure on the populations involved (see e.g. Evans *et al.* 1991). Another serious effect of the embankment of most of the sheltered bays and inlets in the Wadden Sea is increased turbidity in the Wadden Sea water. This has probably significantly added to the decline in eelgrass stands in the Wadden Sea (de Jonge & de Jong 1992).

Pollution

The most direct pollution threat to the waterbirds in the Wadden Sea is probably **oil spills** from ships and off-shore oil installations. Among beached birds along the Wadden Sea coasts, in the order of 40-70% are oiled (de Jong *et al.* 1993). There is some indication that the numbers of oiled birds washed ashore are decreasing in the German part, but not in the Netherlands and Denmark. The vast majority of the oil on birds is fuel oil, that apparently makes up the main source of "back-ground" oil pollution (de Jong *et al.* l.c.). Crude oil from shipwrecks, illegal tank cleaning, and blow outs at off shore oil rigs constitute a permanent threat of disaster to the whole Wadden Sea ecosystem. About 70-80 million tons of cargo, mainly crude oil, are transported annually in the shipping lanes just outside the Wadden Sea (CWSS 1991). These are among the busiest shipping routes in the world.

The contamination of the Wadden Sea ecosystem with **pesticides** has decreased – at least in the Dutch part – since the 1960s when such pollution had a grave impact particularly on fish-eating and shellfish-eating birds such as terns and Eiders (Koeman 1971). Concern remains, however, that the chronical exposure to low concentrations of contaminants such as PCBs creates an equally dangerous long-term problem (de Jong *et al.* 1993). Thus, de Voogt *et al.* (1985) found that PCB concentrations in body lipids of juvenile Knots and Dunlins increased by up to a factor of 40 during their first autumn in the Wadden Sea.

Eutrophication is widespread, and concern is being expressed as to its harmful effects e.g. in the form of algal blooms, extensive mats of macro-algae on the tidal flats, decreasing eelgrass beds, changed benthos communities and anaerobic sediments (CWSS 1991, de Jong *et al.* 1993). On the other hand, the biomass of benthic organisms in the western Dutch Wadden Sea has more than doubled since the 1970's probably due to eutrophication (de Jong *et al.* l.c.). This has possibly been beneficial to a number of bird populations, such as Eiders and Oystercatchers (see e.g. Nehls *et al.* 1988). In the Dollard, where eutrophication decreased as a result of the construction of water purification plants, benthos stocks decreased. Some bird species responded to this development by occurring in lower numbers (J. Prop pers. comm.).

Dumping of **dredged material** is a considerable source of **heavy metals** in the Wadden Sea (CWSS 1991). Furthermore, dumping of dredged material from the harbour of Esbjerg in the northern part of the Danish Wadden Sea, may have further contributed to the heavy reduction of local eelgrass beds (Clausen & Fischer 1994). These beds are now depleted to such an extent that the highly vulnerable population of Light-bellied Brent Geese from Svalbard have shortened significantly their stay in the area.

A comprehensive review of pollutants in the Wadden Sea is given by de Jong *et al.* (1993).

Fisheries

The **mussel fishery** is regulated by licenses, closed areas, quotas, etc., but the exploitation of wild banks both for "seed" and mature mussels has destroyed most of the natural mussel-bank habitat in the Wadden Sea (CWSS 1991). Also the farming of mussels in culture lots has pronounced negative local effects on the benthic faunas. In the Danish part, collapses in mussel populations due to overexploitation caused significant redistributions and decreases in especially the Eider population both during winter and the late summer moult (Laursen *et al.* in press).

Cockle fishing is now banned in the entire German part and restricted to manual exploitation in virtually all of the Danish Wadden Sea (de Jong *et al.* 1993). Extensive mechanical as well as manual cockle exploitation takes place in most of the Dutch part. Here, the cockle (and mussel) stocks were highly depleted in 1991. This caused high mortality among the Eiders in some areas. In later years, most of the Eider population from the Dutch Wadden Sea moved to the neighbouring North Sea and the German part of the Wadden Sea. At the same time Oystercatcher numbers from the eastern part of the Dutch Wadden Sea went down consider-

ably. In the 1991-1992 season, cockle fishery was totally banned (Smit 1994). Now a system with closed areas and flexible quotas has been implemented (Philippart 1993). These will provide a minimum cockle and mussel stock for the birds, which is equivalent to 60% of their estimated annual food consumption (incl. other prey).

Hunting and other disturbances

Hunting of waterbirds in the Wadden Sea has been significantly reduced during the last few years, and further reductions are currently being implemented. In the Danish part, hunting has an especially strong tradition. Here, an estimated 27,000 waterbirds are shot annually in the Wadden Sea proper. Another 29,000 are shot in the polders just behind the dikes (Laursen 1985).

Hunting has been shown to have had significant negative impacts on the population sizes of most West Palearctic goose populations (Ebbinge 1991). This may hold for other waterbird populations as well. Only further protective measures throughout the entire flyway of these populations will probably be able to demonstrate whether this is the case. The problem is not only the actual number of individuals killed, but also the disturbance from hunting and increased shyness caused by shooting. Intensive hunting not only prevents waterbirds from utilizing many roosting, staging, and wintering areas optimally, it also makes them so shy that other human activities cause significant disturbance (Meltofte 1982, Madsen 1993). The high ratio of waterbirds carrying metal shot in their tissue illustrates the extent of the problem (Meltofte l.c.). Such negative side effects were not a feature of the old duck decoys and other catching technics, that were used extensively in the Wadden Sea area even up into this century.

In the Wadden Sea area, hunting on the saltmarshes and high tide roosts probably has the greatest impact on waterbirds (Madsen 1990, Frikke & Laursen 1994a). Hunting over the limited areas of eelgrass beds is similarly destructive to certain species (Madsen 1988), and hunting from motorboats has been shown to influence the distribution of Eider even in the open parts of the Danish Wadden Sea (Laursen *et al.* in press). Intensive hunting in grasslands, wetlands and polders behind the seawalls must also affect living conditions for waterbirds in the Wadden Sea area as many species use such areas as alternative roosting and feeding areas to the Wadden Sea (Gram *et al.* 1990, Frikke & Laursen 1994b).

As mentioned above, **disturbances from other human activities** are closely linked to the shyness that hunting imposes on the birds. Not only do quarry species learn to keep distance to humans, but also non-hunted species occurring together with hunted ones become more wary. Hence, birds living in flocks in open habitats like the Wadden Sea are most susceptible to hunting imposed shyness. In the Danish Wadden Sea, where hunting is more intensive than in the other parts, quarry species like Curlew, Wigeon and Pintail most often flush at distances of more than 300 metres (K. Laursen & J. Frikke unpubl.), and even the protected Brent Geese fly at an average of more than 350 metres distance during the hunting season (Madsen 1988). In the Dutch part, where hunting is restricted to some salt marshes and inland areas people may approach feeding and roosting Brents and Eiders to distances down to 30-40 metres.

These relationships must be considered when assessing the need to regulate public access to the Wadden Sea area. In general, the vast majority of the recreational activities in the Wadden Sea area relate to bathing from exposed beaches, where conflicts with conservation interests are largely limited to disturbances of breeding Kentish Plovers, Ringed Plovers and terns. On the other hand, even small scale activities in sensitive areas may have pronounced effects. Most **conflicts between staging waterbirds and human visitors** (on foot) occur where large numbers of birds are feeding on saltmarshes (and in polders and adjacent wetlands) or gather at high tide roosts. There is no published information, however, as to what extent staging waterbirds are actually prevented from utilizing certain areas, or suffer reduced feeding opportunities.

The large numbers of **moulting Shelducks and Eiders** in the summer months, when they are unable to fly for several weeks, pose special problems in relation to **boating** activities. The moulting birds are extremely shy, and the reason for them concentrating in the central part of the German Wadden Sea is likely to be unacceptable disturbance elsewhere (Thiel *et al.* 1992). The moulting period coincides with the main period of recreational boating. Furthermore, this kind of boating is far more disturbing to the birds than ordinary ships moving along straight routes or involved with commercial fishing activities (Eskildsen 1984). Windsurfers, speedboats and sailboats move around in a totally unpredictable way. They often move very fast, and they often enter sandbanks or shallow water areas, where the birds otherwise find shelter from other disturbance.

Low flying **military and civil aircrafts** are the most frequent disturbance factor to wildlife in bird sanctuaries in the Wadden Sea area (CWSS 1991). Helicopters and small, slow flying fixed wing planes especially have pronounced effects on waterbirds. It is possible, that some of the species or populations remaining for extended periods in the Wadden Sea are able to adapt to some extent even to helicopters passing regularly along fixed corridors, whereas the unpredictable flight of sport planes causes extensive disturbance. The impact of disturbance on condition, survival and reproduction rates are very difficult to study, so there is relatively little 'hard' information on this subject. We can only conclude, that they add to the general pressure on the bird populations dependent on the resources of the Wadden Sea. Geese, Curlews, Bar-tailed Godwits and Oystercatchers are most sensitive, whereas gulls and ducks are less so. The sensitive species may flush at distances of 1000 m from approaching helicopters, and 1500 m from sport airplanes (CWSS 1991, Smit & Visser 1993).

Several **military training fields and shooting ranges** are situated in or very close to the Dutch, Schleswig-Holstein and Danish parts of the Wadden Sea. Activities involving helicopters and small, low flying planes have the same disturbance effects as recorded from non predictable flying with civil aircrafts. In general, jet fighters have less pronounced effects.

Grazing of saltmarshes

Intensive grazing is considered to be in conflict with the conservation of natural saltmarshes and with breeding possibilities for birds. Grazing significantly reduces the seed stocks available as food for ducks. In very intensively grazed areas seed stocks may be less than 10% of ungrazed or little grazed areas (Madsen 1990). On the other hand, moderate grazing may be beneficial to waterfowl. (See Ovesen 1990, Bakker 1993 and Stock 1993 for further information and discussion.)

Recommendations for further protection

Strong conservation measures covering the majority of the Wadden Sea area have been implemented, particularly during the last few decades. Today, a sophisticated network of governmental and non-governmental organisations in all Wadden Sea countries are working together in active conservation or in lobbying. There are governmental conferences of the three Wadden Sea countries aiming at the development of joint trilateral conservation policies, and scientific Wadden Sea symposia are regularly providing the background information for the political decisions. A trilateral Wadden Sea secretariat (the Common Secretariat for the Cooperation on the Protection of the Wadden Sea, CWSS) has been founded by the three states to co-ordinate these activities. This extensive co-operation has been partly initiated by the Wadden Sea project of World Wide Fund for Nature (WWF) and by many national NGOs.

The habitats of the Wadden Sea are now protected by such extensive national legislation as well as international agreements (see de Jong *et al.* 1993 for an overview) that it is now merely a question of political will whether further harmful destruction or modification will take place. Furthermore, our understanding of the natural value of the Wadden Sea is now widespread and accepted both amongst the general public and in the responsible managing bodies. Hence, the threats of irreversible damage to the Wadden Sea ecosystem should have been significantly reduced. This does not mean that the situation is safe. The Wadden Sea straddles some of the most industrialized and overpopulated countries in the World. The ever expanding human demands for natural resources, transport and recreational possibilities together with increasing environmental problems such as sea level rise and pollution still pose serious threats. Despite the many conservation regulations the overall state of the Wadden Sea ecosystem is still deteriorating, though the speed of this process has been reduced considerably (WWF 1991).

Based on the information presented in the previous chapters, *it seems reasonable to conclude that oil pollution, disturbances from hunting and other recreational as well as commercial and military activities, mussel and cockle fisheries, together with other acute chemical pollution are the most immediate threats to the birds of the Wadden Sea. However, the most serious long term threats are probably further "development" in adjacent coastal areas, sea level rise, eutrophication, oil and gas exploitation (including lowering of tidal flat levels) and pollution with persistent chemicals.*

In this light we want to make a number of recommendations. They should be considered as supplementary to the recommendations expressed at the 8th International Scientific Wadden Sea Symposium in 1993 (see Wadden Sea Newsletter 1993-3) and the recommendations on ecological targets for the Wadden Sea (CWSS 1993). Several of the items are already covered by the recommendations in the Esbjerg Declaration of ministers (CWSS 1992), but they need to be implemented and further initiatives should be taken in the framework of the forthcoming trilateral management plan for the Wadden Sea. The information presented in this report makes it possible to evaluate the ornithological importance of the different sectors and habitats of the Wadden

Sea on a more solid basis and over a larger perspective. However, detailed recommendations on the protection, zoning and management of the different parts of the Wadden Sea are outside the scope of this report. Such measures must be based on the more detailed national assessments. The recommendations are restricted to those of major importance for migratory birds.

The boundary of the area

The Wadden Sea is not an isolated unit or site. Many waterbird species use the Wadden Sea as part of an area that includes polders, marshland and other suitable habitats along the mainland coast and on the Wadden Sea islands and are heavily influenced by activities or developments in these areas. Similarly, the sea territory outside the Wadden Sea islands harbour internationally important concentrations of several species of divers, seaducks, gulls and terns. Therefore, *appropriate protection for the Wadden Sea birds has to include measures on such adjacent terrestrial habitats and on the sea territories to a water depth of about 20 metres.* (See also Leopold *et al.* 1993.)

Disturbances and competition for space

Wadden Sea birds face serious competition for space with humans. *The potential negative effects of all new infrastructures such as traffic lanes, buildings, marinas and wind turbines within the Wadden Sea area should be carefully studied, and all harmful projects should be avoided. The existing activities should be carefully managed in relation to the needs of the birds.* However, sound management certainly allows co-existence of humans and birds in the Wadden Sea.

Tourism is the most important industry in the Wadden Sea area – especially on the islands – but it's effective maintenance also depends on the maintenance of the environmental quality of the area. Hence, *the whole tourist industry should be carefully managed and the huge numbers of visitors should be channelled into the least sensitive areas.* At the same time, however, the presence of many visitors gives the opportunity for extensive education of large numbers of people interested in nature and the Wadden Sea. *This opportunity should be much further developed both through information programmes and supervised educational encounters to enhance a better understanding of the natural values of the Wadden Sea ecosystem. Ways should be sought and facilities developed to give interested people the opportunity to experience the huge flocks of staging waterbirds under favourable conditions (e.g. at close range from hides). Activities like guided trips on the tidal flats, waterskiing, catamaran sailing and wind surfing should be restricted to well defined areas. And there should be a ban on new activities, such as the use of jet-ski's.* (See also Jepsen 1991.)

The outstandingly important concentrations of moulting Shelducks and Eiders in the Wadden Sea are apparently under particular high pressure from recreational and commercial boating. The concentrations of moulting birds in the central German part of the Wadden Sea is probably due to high levels of disturbance in other parts. *This implies that much tighter regulations on boating are necessary, i.e. a total ban in large areas during the moulting period and an overall speed limit of 10 knots in the Wadden Sea outside major shipping lanes. Also shrimp fishing must be restricted in those areas and seasons where ducks are moulting in large concentrations.* (See also Wadden Sea Newsletter 1993-3.)

Low flying airplanes constitute one of the most common sources of disturbance. *A general reduction and a minimum flight altitude of 1,500-2,000 feet (450-600 m) for both civil and military airplanes is required. Ultra light aircrafts should be banned totally in the Wadden Sea area.*

It is necessary to safeguard undisturbed roosting sites close to the feeding areas and to each other in order to avoid energy loss caused by unnecessary flights. Therefore, *undisturbed roosting sites should be distributed along the whole coastline and in close proximity to each other.*

Hunting has such pronounced negative consequences for the living conditions of waterbirds, that it must be considered incompatible with the status of the Wadden Sea as one of the World's most important staging and wintering areas for waterbirds. At present, hunting is mainly a problem in the Danish part as well as in adjacent coastal areas in the other parts. In the Wadden Sea proper, it is already policy in all countries to close hunting totally according to the Esbjerg Declaration (CWSS 1992). However, in several parts of the Wadden Sea this policy has still to be implemented. Furthermore, *shooting free-zones and regulations which make it clear to the birds where they are safe should be established in all hinterland areas of importance to waterbirds.* As hunting with shotguns imposes significantly increased shyness in most waterbird populations, these regulations are a prerequisite to achieve natural flight distances. This would make more areas usable for them and reduce the effect of other disturbances on the birds.

Embankment and exploitation

Though large scale embankments are no longer the policy of any Wadden Sea country, area reductions still pose a serious threat. In the context of the forecasted sea level rise, new proposals may be expected for further embankments. Currently, there is still insufficient knowledge on the prime question involved with this matter, i.e. whether sedimentation can cope with sea level rise. It can not be expected, however, that the size of the intertidal flats in the Wadden Sea will grow seawards. Therefore, compensation for possible loss of intertidal area and saltmarsh resulting from sea level rise probably will become a future topic for discussion. For this reason, *outbankments of uninhabited polders bordering the Wadden Sea should be considered* (see below). Furthermore, *all activities which might affect in a negative way the sedimentation processes in the Wadden Sea (such as new shipping lanes, dams and the extraction of sand, clay and shells) should be reduced or banned.*

Oil and gas exploitation involves so many risks and disturbances that the precautionary principle requires a ban on such activities within the boundaries of the Wadden Sea. (See also the recommendations from the 5th international Wadden Sea symposium presented by Tougaard & Asbirk 1987.)

Cockle and mussel fisheries may exert strong negative effects on birds. While *cockle fishing has been phased out already in large pats of the Wadden Sea, the mussel fishery should be better managed. Extensive closed areas should be established and especially old and stable intertidal musselbeds should be protected. Fisheries should be further reduced in years with low mussel and cockle stocks.* The new developing *Spisula* fishery also poses a threat to Eiders and Scoters on the North Sea side of the Wadden Sea. *This fishery should be restricted to allow for investigations on its effects.*

Pollution

Transportation of oil and chemicals constitute the most serious immediate threats to waterbirds in the Wadden Sea. In general, *the security provisions for the transport of oil and other dangerous chemicals through the Wadden Sea and in waters up to 100 kilometres distance should be improved and only the most safe technical means available should be used. This implies that ships which do not meet these criteria should be banned from that area altogether. The present ban on cleaning of tanks in the North Sea should be better policed and enforced, and all harbours should offer "free" (obligatory) reception facilities for oil and other persistent chemicals.* (See also the recommendations from the 5th international Wadden Sea symposium presented by Tougaard & Asbirk 1987.)

Although there are no measurable effects of pollution on migratory birds at present there may be effects of which we are not aware. *It is important that an extensive monitoring scheme for pollutants in migratory bird species is set up. Additionally, efforts should be continued to reduce the use of harmful chemicals.* (See also the recommendations from the Third North Sea Conference and national targets reviewed by CWSS 1991).

Increasing nutrient loads are probably one of the most serious long term threats to the Wadden Sea. Although reducing eutrophication may reduce benthic prey available for birds, high nutrient levels may lead to further development of vast mats of algae covering the mudflats or other forms of algae blooms. Following the principle that the Wadden Sea should be an area as natural as possible, *every effort should be undertaken to reduce direct and indirect influx of nutrients into the Wadden Sea and North Sea.*

Agriculture and management of the hinterland

After more than two centuries of intensive land claim and drainage of wetlands all over Europe, the time has come when efforts should be and are being made in several areas to restore former wetlands as habitats for waterbirds. *In the Wadden Sea area, a plan should be worked up for reestablishment of swamps and wet grasslands in selected polders, and for extensification of agricultural practices to the benefit of wildlife. Estuarine habitats should be restored in the many rivers, channels and storage basins along the Wadden Sea coasts. In the long term, outbankment of present polders should be considered, i.e. to reestablish former natural habitats or to compensate for losses caused by sea level rise.* (See also the recommendations on ecological targets for the Wadden Sea (CWSS 1993), and the recommendations from the 8th International Scientific Wadden Sea Symposium, Wadden Sea Newsletter 1993-3.)

Flyway network

The Wadden Sea constitutes a keystone in the network of breeding, staging and wintering areas for waterbirds in the West Palearctic - African migration system. But the estimated 10-12 million waterbirds utilizing the Wadden Sea each year cannot survive without the complete network of wetlands within the entire flyway. Therefore, *the efforts to safeguard all the other internationally important wetland sites from Siberia, northernmost Europe, Greenland and Northeast Canada in the North to the Sahelian wetlands and the lagoons and intertidal flats of West Africa in the South should be considerably intensified. Such a network of protected sites should include the whole range of important habitats from the major breeding and wintering areas to the large number of stop-over and staging areas all along the flyways. Being among the richest countries in the World, the Wadden Sea states must take the lead in these efforts.* This includes substantial support to international agreements such as the Ramsar and Bonn conventions, the EU directive on protection of wild birds, and further development of bilateral cooperation on establishment of national parks, reserves and management plans for habitats and species.

Recommendations for future monitoring

With the present work, total numbers and the distribution of waterbirds in the Wadden Sea are presented and evaluated for the first time. For most species we have reasonably good data at least for the most important periods of the year. It must be stressed, however, that the German data suffer from poor coverage in some important areas.

Also certain periods of the year are poorly covered or not covered at all. In fact, most of our autumn counts took place under sub-optimal conditions. The very important staging period especially for arctic waders in late May has still not been covered by a total survey. The same applies for the peak season for adult waders in July and August, from which period we have only one relatively poor count from mid-August. Also March and early April, when spring migration of ducks and boreal waders culminates, have poor coverage.

This means that our knowledge, even on such basic parameters as total numbers and geographical distribution, is still incomplete. In other words, *there is still a great need for continued total surveys of waterbirds in the Wadden Sea. Such surveys should include aerial counts to ensure complete coverage of remote sandbanks and other uncovered sites as well as species which cannot be well censused from the shore.*

As it appears, e.g. from the phenological graphs in this report, many species differ considerably in their utilization of different parts and habitats of the Wadden Sea during the year. These patterns have only been poorly studied so far, and *much more data are needed just to document these differences.*

The largest gap in our understanding of the functioning of the Wadden Sea as a staging, moulting, and wintering area for waterbirds is the almost total lack of firm data on the constraints regulating the total population sizes of the species involved, and the role of the Wadden Sea in the processes connected to this. Some hints are beginning to appear, but *we need much more ecological research from all parts of the flyway to get better understanding of this crucial question* (see Evans *et al.* 1991 and Piersma 1994). In the German parts of the Wadden Sea, comprehensive interdisciplinary programmes (Ökosystemforschung Wattenmeer) have been initiated during the last few years. Research on birds is combined e.g. with research on benthic communities, fisheries, saltmarsh development and human activities.

Furthermore, we only have good data on long-term changes in waterbird numbers from the mid-winter period, as these counts have taken place since the mid or late 1970s as part of the continuing waterbird counts in the Western Palearctic and North Africa. During the rest of the year, the occurrence of staging waterbirds was only monitored in very few places in the Wadden Sea until more programmes were initiated during the 1980s (see Smit & Zegers 1994 and Rösner 1994).

To fill this gap, a new programme based on the experiences from Schleswig-Holstein since 1987 has been developed and agreed upon in an international working group, coor-

dinated by the Common Wadden Sea Secretariat. This comprehensive programme primarily involves counts in selected sites at each spring tide, but also includes studies on such parameters as annual production of young among staging birds (Rösner 1993a). It includes plans for organisation, coordination, standardization of survey methods, common databases, publication of results and financing. The programme will be implemented in all Wadden Sea countries in the following years. The main data collecting points are:

1) Annual complete surveys of all waterbird species in the entire Wadden Sea should continue to take place in mid-winter.

2) Complete surveys should be organized in addition to the mid-winter counts (preferably one in autumn and one in spring).

3) Spring tide counts in reference areas should be carried out every year and all year long (about 25 counts per year).

4) Complete surveys of target species in the entire Wadden Sea area should be carried out at their peak time (e.g. Barnacle Geese and Brent Geese in spring and moulting Shelducks and Eiders in late summer).

5) Surveys of annual production (percentage/number of juvenile or immature birds among the migrants) in reference areas should be carried out every year.

Full support and sufficient resources for this project are essential, if the well being of the Wadden Sea as a staging, moulting, and wintering area of outstanding international importance for waterbirds is to be monitored and safeguarded.

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Tables 4-39 & 42-44

The tables present counted as well as estimated numbers of waterbird species and species groups in each of 29 sections within the Wadden Sea. These sections are shown on Figure 1, and they are numbered DK- (for Denmark), SH- (for Schleswig-Holstein), NS- (for Niedersachsen & Hamburg) and NL- (for the Netherlands) 1-29. Sub-areas 14 and 22 are both shared between two "countries".

For each sub-area, two figures are given in the tables. Those denoted **a** are the actual counted numbers. The figures given under **b** include inferred averages from uncounted sites (see chapter on Material and methods). Similarly, combined counted and estimated totals are given for each "national" part of the Wadden Sea and for the Wadden Sea as a whole.

The mid-winter counts are in chronological order, whereas the counts during the rest of the year are arranged according to counting date.

Table 4. Barnacle Goose *Branta leucopsis*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04.05 91
DK01a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK01b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK02a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK02b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK03a	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK03b	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK04a	0	0	0	32	21	0	0	0	263	288	959	1147	28	162	0	400	40	0
DK04b	0	0	0	32	21	0	0	0	263	288	959	1147	28	162	0	400	40	0
DK05a	0	0	0	0	75	0	0	0	0	1084	1270	5096	0	398	0	0	0	18
DK05b	0	0	0	0	75	0	0	0	0	1084	1270	5096	0	398	0	0	0	18
DKTOa	**0**	**23**	**0**	**32**	**96**	**0**	**0**	**0**	**263**	**1372**	**2229**	**6243**	**28**	**560**	**0**	**400**	**40**	**18**
DKTOb	**0**	**23**	**0**	**32**	**96**	**0**	**0**	**0**	**263**	**1372**	**2229**	**6243**	**28**	**560**	**0**	**400**	**40**	**18**
SH06a	-	0	0	270	201	0	0	0	0	81	85	0	340	0	0	0	0	336
SH06b	148	0	0	270	201	0	0	0	1	81	85	0	340	17	0	228	0	336
SH07a	-	0	0	0	0	0	0	0	0	25	0	1	0	0	0	4	0	0
SH07b	0	0	0	0	1	0	0	0	0	25	0	1	0	0	0	4	0	0
SH08a	-	0	0	120	55	0	2	0	80	6710	4277	84	0	14220	0	4876	1	4
SH08b	1392	55	0	120	55	1	2	2	80	6714	4277	84	4739	14220	888	4876	1	4
SH09a	-	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
SH09b	0	0	2	0	0	0	2	1	0	0	0	0	1	0	0	0	0	0
SH10a	-	0	0	1280	918	0	0	0	1221	3613	6406	1302	75	3802	2500	1590	0	2
SH10b	1112	175	0	1455	1107	0	0	0	1221	3788	6406	1314	5848	3820	2500	1590	0	2
SH11a	-	48	0	1201	0	0	0	0	0	3429	600	27	25	3900	2200	2700	48	0
SH11b	640	509	0	1201	0	0	0	0	1233	3429	742	27	6675	3900	2200	2700	48	0
SH12a	-	800	0	53	0	0	0	0	9	1407	240	0	0	21	0	0	0	20
SH12b	465	1053	0	504	256	0	0	0	530	1408	241	598	249	21	6	0	0	20
SH13a	-	0	0	0	0	0	0	0	5000	8035	11506	0	0	5080	0	0	3	1
SH13b	5053	4960	0	4923	2813	0	0	0	5000	8035	11506	0	2398	5582	114	2	3	1
SH14a	-	0	0	0	0	0	0	0	0	11	0	0	0	3	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	11	0	0	0	3	0	0	0	0
SHTOa	**-**	**848**	**0**	**2924**	**1174**	**0**	**4**	**0**	**6310**	**23311**	**23114**	**1414**	**440**	**27026**	**4700**	**9170**	**52**	**363**
SHTOb	**8810**	**6752**	**2**	**8473**	**4433**	**1**	**4**	**3**	**8065**	**23491**	**23257**	**2024**	**20250**	**27563**	**5708**	**9400**	**52**	**363**
NS14a	-	785	0	4949	1956	100	227	441	936	15411	1102	12720	6865	11677	12060	2832	180	1490
NS14b	2208	2480	104	6162	1956	177	227	441	942	15417	2321	12726	6866	11678	12060	2888	180	1490
NS15a	-	1	0	0	0	0	-	0	0	2	0	0	565	0	0	-	0	0
NS15b	0	1	0	0	0	0	0	0	0	2	0	0	565	283	0	0	0	0
NS16a	-	0	0	0	0	0	0	-	0	160	6	0	0	-	-	0	-	0
NS16b	0	0	0	0	0	0	0	0	0	160	6	0	0	0	0	0	0	0
NS17a	-	0	0	200	1	36	0	0	0	441	3	0	0	0	-	0	0	8
NS17b	0	0	0	200	1	36	0	0	0	441	3	0	0	0	0	0	0	8
NS18a	-	144	0	0	47	0	0	0	18	306	0	384	0	51	0	0	0	0
NS18b	0	144	0	0	47	0	0	0	18	306	0	384	0	51	0	0	0	0
NS19a	-	172	0	79	0	0	0	0	2	4826	139	199	0	0	0	0	-	5
NS19b	13	175	0	88	12	0	0	0	5	4829	142	199	0	0	0	0	0	5
NS20a	-	0	0	7	32	0	0	1	1477	3562	5500	0	203	3700	0	500	-	0
NS20b	0	0	0	7	32	0	0	1	1477	3562	5500	0	203	3700	1320	500	0	0
NS21a	-	0	0	-	22	0	-	-	-	-	-	0	1	0	0	-	-	0
NS21b	0	0	0	0	22	0	0	0	0	0	0	0	1	0	0	0	0	0
NS22a	-	0	0	50	6	0	0	0	2405	1637	3050	273	139	0	0	345	0	16
NS22b	50	0	0	50	6	0	0	0	2405	1637	3050	273	140	1	0	345	0	16
NSTOa	**0**	**1102**	**0**	**5285**	**2064**	**136**	**227**	**442**	**4838**	**26345**	**9800**	**13576**	**7773**	**15428**	**12060**	**3677**	**180**	**1519**
NSTOb	**2271**	**2800**	**104**	**6507**	**2076**	**213**	**227**	**442**	**4847**	**26354**	**11022**	**13582**	**7775**	**15713**	**13380**	**3733**	**180**	**1519**
NL22a	0	0	0	1	0	-	70	0	570	280	386	405	6	600	0	-	7	4
NL22b	0	0	0	1	0	150	70	0	570	280	386	405	6	600	0	0	7	4
NL23a	0	2120	100	910	3251	1	183	-	2600	-	14558	660	8610	5815	-	-	1	3
NL23b	0	2120	100	910	3251	1	183	0	2600	2375	14558	660	8610	5815	0	0	1	3
NL24a	0	0	0	1900	0	0	120	0	3290	5610	5750	950	3865	1860	650	-	0	12
NL24b	0	0	0	1900	0	0	120	0	3290	5610	5750	950	3865	1860	650	0	0	12
NL25a	0	1481	0	16445	1365	1	128	0	26211	43651	37078	-	10600	10472	-	-	7	0
NL25b	0	1481	0	16445	1365	1	128	0	26211	43651	37078	13193	10600	10472	0	0	7	0
NL26a	0	1	0	0	4003	-	0	-	0	5	21	0	0	0	0	-	0	1
NL26b	0	1	0	0	4003	0	0	0	0	5	21	0	0	0	0	0	0	1
NL27a	-	0	-	-	-	-	-	-	-	0	-	-	0	0	0	-	0	0
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL28a	9	8	-	0	252	-	168	-	0	-	7	61	1	0	9	-	0	0
NL28b	9	8	0	0	252	0	168	0	0	0	7	61	1	0	9	0	0	0
NL29a	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	-	0	0
NL29b	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	**9**	**3610**	**100**	**19256**	**8873**	**3**	**669**	**0**	**32671**	**49546**	**57800**	**2076**	**23082**	**18747**	**659**	**-**	**15**	**20**
NLTOb	**9**	**3610**	**100**	**19256**	**8873**	**153**	**669**	**0**	**32671**	**51921**	**57800**	**15269**	**23082**	**18747**	**659**	**0**	**15**	**20**
TOTAa	**9**	**5583**	**100**	**27497**	**12207**	**139**	**900**	**442**	**44082**	**100574**	**92943**	**23309**	**31323**	**61761**	**17419**	**13247**	**287**	**1920**
TOTAb	**11090**	**13185**	**206**	**34268**	**15478**	**367**	**900**	**445**	**45846**	**103138**	**94308**	**37118**	**51135**	**62583**	**19747**	**13533**	**287**	**1920**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK01b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK02a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
DK02b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
DK03a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2
DK03b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2
DK04a	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	2795	3
DK04b	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	2795	3
DK05a	0	0	0	0	0	0	0	0	0	0	0	0	0	165	2	0	2	0
DK05b	0	0	0	0	0	0	0	0	0	0	0	0	0	165	2	0	2	0
DKTOa	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**167**	**2**	**4**	**2801**	**5**
DKTOb	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**167**	**2**	**4**	**2801**	**5**
SH06a	163	0	0	4	0	1	0	0	0	0	0	3	0	0	2	2614	2188	6
SH06b	163	3	0	4	0	1	3	0	0	0	0	3	0	16	3	2614	2188	6
SH07a	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	25
SH07b	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	2	0	25
SH08a	0	0	0	5	1	0	0	0	0	1	0	14	14	4109	4	274	2791	2
SH08b	0	0	0	5	1	1	0	0	0	1	0	14	26	4109	374	734	3281	372
SH09a	0	0	0	0	0	0	0	0	0	0	0	0	38	0	0	7	2	0
SH09b	0	0	0	0	0	0	0	0	0	0	0	0	38	0	0	7	2	0
SH10a	275	3	0	0	0	0	0	0	0	0	0	0	0	763	2	610	3980	504
SH10b	275	3	0	0	0	0	0	0	0	0	0	0	0	763	12	3457	3980	3637
SH11a	0	0	0	0	0	0	0	0	0	0	0	0	45	15011	406	5045	10227	4500
SH11b	0	0	0	0	0	0	0	0	0	0	0	0	45	15399	406	5045	10227	4500
SH12a	0	1	0	3	0	0	0	0	0	0	0	0	0	8580	25	17	7560	0
SH12b	3	1	2	3	1	1	0	14	0	0	0	92	77	8628	25	4542	9345	2075
SH13a	48	0	0	0	0	0	0	0	0	0	0	0	0	140	0	0	2513	3125
SH13b	48	0	0	0	0	0	0	0	0	0	0	0	0	140	0	1	2638	3606
SH14a	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0
SHTOa	**486**	**4**	**1**	**12**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**17**	**98**	**28604**	**439**	**8568**	**29261**	**8162**
SHTOb	**489**	**9**	**5**	**12**	**2**	**3**	**3**	**14**	**0**	**1**	**0**	**109**	**187**	**29056**	**820**	**16402**	**31662**	**14221**
NS14a	0	20	0	278	5	18	-	27	13	11	8	5659	5	15621	5266	9767	29307	15871
NS14b	248	20	248	334	5	74	17	30	13	11	8	5659	5	15630	5266	10351	29352	18721
NS15a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
NS15b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
NS16a	0	0	0	0	0	0	-	0	0	0	0	0	0	0	-	-	0	0
NS16b	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
NS17a	0	0	0	0	0	0	-	0	0	0	0	0	0	4	0	0	0	0
NS17b	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0
NS18a	0	0	0	0	0	0	0	0	0	0	0	0	1	300	6	1	65	5
NS18b	0	0	0	0	0	0	0	0	0	0	0	0	1	300	6	1	165	5
NS19a	0	0	0	0	0	0	-	0	1	0	0	0	0	6	0	0	0	172
NS19b	0	0	0	0	0	0	1	0	1	0	0	0	0	10	4	4	40	172
NS20a	0	0	2	0	2	0	-	0	2	10	0	0	0	67	13	0	280	8
NS20b	0	0	2	0	2	0	0	0	2	10	0	0	0	108	54	41	320	176
NS21a	-	0	0	0	0	0	-	0	-	0	0	-	0	0	0	50	-	2
NS21b	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	50	1	2
NS22a	0	0	1	0	0	0	-	0	0	0	0	3	0	101	0	0	300	1
NS22b	0	0	1	0	0	0	0	0	0	0	0	3	0	101	0	0	300	1
NSTOa	**0**	**20**	**3**	**278**	**7**	**18**	**0**	**27**	**16**	**21**	**8**	**5662**	**6**	**16099**	**5289**	**9818**	**29952**	**16059**
NSTOb	**248**	**20**	**251**	**334**	**7**	**74**	**19**	**30**	**16**	**21**	**8**	**5662**	**6**	**16153**	**5334**	**10447**	**30178**	**19077**
NL22a	0	0	1	0	0	0	0	0	0	0	0	1	0	846	0	2	679	0
NL22b	0	0	1	0	0	0	0	0	0	0	0	1	0	846	0	2	679	0
NL23a	2	-	-	4	-	-	0	-	-	-	-	-	0	4	6	-	1455	950
NL23b	2	0	0	4	0	0	0	0	0	0	0	0	0	4	6	5	1455	950
NL24a	0	0	0	0	0	0	0	0	0	0	0	0	0	550	0	-	365	3165
NL24b	0	0	0	0	0	0	0	0	0	0	0	0	0	550	0	250	365	3165
NL25a	3	-	0	1	4	0	0	-	-	0	-	6	0	331	9	-	11426	7140
NL25b	3	0	0	1	4	0	0	0	0	0	0	6	0	331	9	150	11426	7140
NL26a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0
NL26b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL27a	0	0	0	0	0	0	0	0	-	-	0	-	-	0	-	-	0	-
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL28a	-	-	0	-	1	0	0	0	0	0	-	-	0	-	0	-	-	1
NL28b	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
NL29a	0	-	0	0	-	0	0	0	0	0	1	0	0	0	0	-	0	0
NL29b	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
NLTOa	**5**	**0**	**1**	**5**	**5**	**0**	**0**	**0**	**0**	**0**	**1**	**7**	**0**	**1731**	**15**	**2**	**13925**	**11256**
NLTOb	**5**	**0**	**1**	**5**	**5**	**0**	**0**	**0**	**0**	**0**	**1**	**7**	**0**	**1731**	**15**	**407**	**13925**	**11256**
TOTAa	**491**	**24**	**5**	**296**	**13**	**19**	**0**	**27**	**16**	**22**	**9**	**5686**	**104**	**46601**	**5745**	**18392**	**75939**	**35482**
TOTAb	**742**	**29**	**257**	**352**	**14**	**77**	**22**	**44**	**16**	**22**	**9**	**5778**	**193**	**47107**	**6171**	**27260**	**78566**	**44559**

Table 5. Dark-bellied Brent Goose *Branta b. bernicla*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	1925	0	0	0	0	0	144	53	36	28	135	850	570	1230	2176
DK01b	0	0	0	1925	0	0	0	0	0	144	53	36	28	135	850	850	1230	2176
DK02a	150	754	0	1886	818	0	0	0	441	341	837	1051	167	1245	560	1280	2335	3483
DK02b	150	754	0	1886	818	0	0	0	441	341	837	1051	167	1245	560	1280	2335	3483
DK03a	30	270	0	555	407	0	0	0	255	162	212	62	199	1383	3237	150	3755	4099
DK03b	30	270	0	555	407	0	0	0	255	162	212	62	199	1383	3237	2200	3755	4099
DK04a	10	27	0	420	272	0	0	0	135	437	137	1039	860	745	15320	8150	5720	6197
DK04b	10	27	0	420	272	0	0	0	135	437	137	1039	860	745	15320	15000	5720	6197
DK05a	0	0	0	3	700	1	0	7	140	0	0	2	14	1060	5570	250	644	429
DK05b	0	0	0	3	700	1	0	7	140	0	0	2	14	1060	5570	4500	644	429
DKTOa	**190**	**1051**	**0**	**4789**	**2197**	**1**	**0**	**7**	**971**	**1084**	**1239**	**2190**	**1268**	**4568**	**25537**	**10400**	**13684**	**16384**
DKTOb	**190**	**1051**	**0**	**4789**	**2197**	**1**	**0**	**7**	**971**	**1084**	**1239**	**2190**	**1268**	**4568**	**25537**	**23830**	**13684**	**16384**
SH06a	-	4	0	0	53	0	2	0	58	508	243	590	2047	800	5581	1585	16024	4554
SH06b	243	374	2	374	170	2	2	2	178	508	243	966	3258	846	9759	5620	18969	6280
SH07a	-	0	0	511	64	19	0	0	38	232	407	680	0	1299	4113	9357	5260	6533
SH07b	307	696	11	1143	665	21	11	2	776	523	754	971	1873	1589	4189	9587	5490	7172
SH08a	-	1002	0	1160	365	35	0	0	488	936	671	738	1062	4984	11465	42990	30902	32680
SH08b	620	1003	0	1180	510	35	32	0	701	936	671	738	2242	4984	16257	51177	31013	39286
SH09a	-	224	0	220	434	1	15	3	80	348	19	374	65	1203	8710	13409	17315	19491
SH09b	151	267	15	268	478	1	15	11	123	392	65	417	3901	1204	8710	13409	19713	19491
SH10a	-	60	0	501	1005	0	45	0	47	91	145	94	290	1400	11273	6144	7406	11757
SH10b	106	463	0	506	1503	4	45	0	50	494	145	497	945	6594	11273	8405	11307	11763
SH11a	-	0	0	50	3	0	0	0	0	40	0	0	87	20	415	250	54	209
SH11b	0	0	0	50	3	0	0	0	0	40	0	0	87	173	415	290	58	209
SH12a	-	50	0	4	3	0	0	0	0	0	0	0	408	226	3400	3300	5436	8426
SH12b	52	56	0	10	3	0	0	0	9	6	9	9	2704	226	3400	5836	5436	8426
SH13a	-	0	0	1	0	0	0	0	8	0	1	0	0	0	0	0	242	1541
SH13b	3	0	0	1	0	0	0	0	8	0	1	0	10	51	147	143	242	1541
SH14a	-	0	0	0	0	0	0	0	0	0	400	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	400	0	0	0	0	0	0	0
SHTOa	**-**	**1340**	**0**	**2447**	**1927**	**55**	**62**	**3**	**719**	**2155**	**1886**	**2476**	**3959**	**9932**	**44957**	**77035**	**82639**	**85191**
SHTOb	**1482**	**2859**	**28**	**3532**	**3332**	**63**	**105**	**15**	**1845**	**2899**	**2288**	**3598**	**15020**	**15667**	**54150**	**94467**	**92228**	**94168**
NS14a	-	0	0	9	0	0	0	0	0	31	0	27	7	18	10	19	0	6
NS14b	0	0	0	9	0	0	0	0	0	31	0	27	7	18	10	19	0	6
NS15a	-	16	0	0	0	0	-	0	0	0	0	44	50	0	500	-	5	0
NS15b	3	16	0	3	3	0	0	0	0	0	3	47	50	44	690	417	422	410
NS16a	-	128	0	160	0	51	48	-	192	0	4	121	2297	-	-	2500	-	1841
NS16b	221	128	3	281	221	51	48	45	313	221	225	221	2310	1003	2333	2517	1833	1841
NS17a	-	0	0	0	1	0	0	0	0	0	14	0	6	32	-	0	0	0
NS17b	0	0	0	0	1	0	0	0	0	0	14	0	6	32	4	0	0	0
NS18a	-	84	4	62	292	47	21	74	529	1065	247	774	509	425	596	766	27	1422
NS18b	184	92	4	140	418	47	23	76	607	1114	325	809	539	1031	612	1931	1381	1422
NS19a	-	842	0	754	0	0	20	0	168	363	780	405	214	362	1539	0	-	3387
NS19b	122	851	0	768	16	0	20	0	178	370	789	412	350	835	1539	2737	3207	3387
NS20a	-	629	24	1231	782	0	52	0	189	414	167	280	2210	3009	6637	8700	-	7521
NS20b	137	629	24	1356	831	0	52	24	282	539	184	373	2222	3539	9207	10199	5649	7521
NS21a	-	95	5	-	759	0	-	-	-	-	-	200	2090	1171	3100	-	-	2608
NS21b	134	204	5	134	807	0	3	3	134	134	134	334	2771	1206	3100	1448	1448	2608
NS22a	-	0	0	1	43	0	0	0	0	1	0	0	0	0	0	0	0	0
NS22b	0	0	0	1	43	0	0	0	0	1	0	0	23	23	0	0	0	0
NSTOa	**0**	**1794**	**33**	**2217**	**1877**	**98**	**141**	**74**	**1078**	**1874**	**1212**	**1851**	**7383**	**5017**	**12382**	**11985**	**32**	**16785**
NSTOb	**801**	**1920**	**36**	**2692**	**2340**	**98**	**146**	**148**	**1514**	**2410**	**1674**	**2223**	**8278**	**7731**	**17495**	**19268**	**13940**	**17195**
NL22a	0	0	0	0	0	-	0	0	0	0	0	0	0	0	11	-	0	8
NL22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	5	0	8
NL23a	2	970	935	1075	4635	7	71	6	1276	-	1579	835	630	2130	4195	-	4175	11391
NL23b	262	980	1195	1325	4635	67	321	266	1286	860	1839	845	930	2130	4195	7000	5635	11401
NL24a	12	250	0	2580	710	0	81	0	1400	2350	2825	1950	2510	1960	2800	-	1495	1848
NL24b	12	250	0	2580	710	0	81	0	1400	2350	2825	1950	2510	1960	2800	2000	1495	1848
NL25a	2010	6765	97	6980	5299	3	606	11	5280	9887	8364	5050	15310	15467	25635	-	21459	50568
NL25b	2010	6765	97	6980	5299	53	606	11	5280	9887	8364	6245	16810	15467	25635	31000	21459	50568
NL26a	2780	3430	435	3400	8904	-	842	-	3154	4286	4663	4393	7635	4916	13800	-	10011	14629
NL26b	2780	3430	435	3400	8904	1000	842	1000	3154	4286	4663	4393	7635	4916	13800	15000	10011	14629
NL27a	-	30	-	-	-	-	-	-	-	98	-	-	65	150	226	-	178	220
NL27b	100	30	100	100	100	100	100	100	100	98	100	100	65	150	226	225	178	220
NL28a	5530	4800	2630	6420	5980	1414	4410	1065	3620	6210	4585	9679	4320	5030	7450	-	7270	12905
NL28b	5530	4800	2630	6420	5980	1414	4410	1065	3620	6210	4585	9679	4320	5030	7450	6500	7270	12905
NL29a	1685	2060	0	1445	1745	148	2238	3106	1178	324	749	173	2280	847	2290	-	305	849
NL29b	1685	2060	0	1445	1745	148	2238	3106	1178	324	749	173	2280	847	2290	500	305	849
NLTOa	**12019**	**18305**	**4097**	**21900**	**27273**	**1572**	**8248**	**4188**	**15908**	**23155**	**22765**	**22080**	**32750**	**30500**	**56407**	**-**	**44893**	**92418**
NLTOb	**12379**	**18315**	**4457**	**22250**	**27373**	**2782**	**8598**	**5548**	**16018**	**24015**	**23125**	**23385**	**34550**	**30500**	**56407**	**62230**	**46353**	**92428**
TOTAa	**12209**	**22490**	**4130**	**31353**	**33274**	**1726**	**8451**	**4272**	**18676**	**28268**	**27102**	**28597**	**45360**	**50017**	**139283**	**99420**	**141248**	**210778**
TOTAb	**14852**	**24145**	**4521**	**33263**	**35242**	**2944**	**8849**	**5718**	**20348**	**30408**	**28326**	**31396**	**59116**	**58466**	**153589**	**199795**	**166205**	**220175**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	1294	611	700	2993	1595	1530	3	0	0	0	170	127	60	699	1010	4253	117	620
DK01b	1294	611	700	2993	1595	1530	3	0	0	0	170	127	60	699	1010	4253	117	620
DK02a	2834	1370	1250	1892	4131	4690	1	0	24	87	580	1407	1588	3120	6268	20578	4855	3943
DK02b	2834	1370	1250	1892	4131	4690	1	0	24	87	580	1407	1588	3120	6268	20578	4855	3943
DK03a	5487	3000	2546	4275	1800	1359	18	0	40	7	435	840	4503	1835	4215	5279	2605	1253
DK03b	5487	3000	2546	4275	1800	1359	18	0	40	7	435	840	4503	1835	4215	5279	2605	1253
DK04a	7837	7265	5000	3405	10814	5000	9	0	0	0	8	530	1449	6115	1201	3780	1631	2396
DK04b	7837	7265	5000	3405	10814	8000	9	0	0	0	8	530	1449	6115	1201	3780	1631	2396
DK05a	579	41	0	2462	856	1155	1	0	0	30	0	303	1525	2005	749	2253	125	1017
DK05b	579	41	0	2462	856	1155	1	0	0	30	0	303	1525	2005	749	2253	125	1017
DKTOa	**18031**	**12287**	**9496**	**15027**	**19196**	**13734**	**32**	**0**	**64**	**124**	**1193**	**3207**	**9125**	**13774**	**13443**	**36143**	**9333**	**9229**
DKTOb	**18031**	**12287**	**9496**	**15027**	**19196**	**16734**	**32**	**0**	**64**	**124**	**1193**	**3207**	**9125**	**13774**	**13443**	**36143**	**9333**	**9229**
SH06a	4685	206	9554	4569	3627	4410	0	0	52	0	0	358	808	3281	4753	7651	627	184
SH06b	4937	5191	11318	6596	5033	6120	19	4	52	13	15	692	1139	4935	4779	10983	1952	1952
SH07a	5961	7039	4448	5591	0	5144	1	0	0	101	33	396	503	548	829	636	705	515
SH07b	6439	8401	7195	7763	6314	5628	1	3	4	101	33	779	682	2141	1149	2173	1184	1021
SH08a	30118	36552	24905	33141	38659	23571	46	8	417	26	5	2010	1010	17304	8698	11234	2471	1427
SH08b	30124	41663	25126	34507	38757	27277	47	9	419	26	54	2120	2907	17304	11198	14086	2515	2037
SH09a	4360	16157	9237	12788	16410	8260	17	1	16	11	262	1084	1	7014	8615	10699	1988	1732
SH09b	18060	16179	10961	14512	16589	10799	17	15	178	171	308	1126	1518	11651	10476	13057	3261	2682
SH10a	17009	10171	13340	10290	11550	9244	5	15	0	4	55	260	609	7091	4704	3991	1554	201
SH10b	17009	11074	14243	10574	13368	9244	12	15	18	8	55	705	940	8206	5124	4583	1559	1321
SH11a	111	182	92	205	300	100	1	0	0	1	23	13	0	1041	255	1523	3	5
SH11b	111	182	92	205	301	100	7	0	8	4	33	31	2	1267	420	1673	20	5
SH12a	2800	2350	4120	6780	6250	2900	9	8	0	3	3	9	7	78	492	717	0	0
SH12b	5340	5365	4120	6780	6250	4805	9	8	0	3	3	10	7	147	527	768	82	77
SH13a	142	650	0	225	0	0	12	0	0	0	0	4	0	863	42	0	18	0
SH13b	142	650	140	225	225	113	12	1	0	0	0	4	3	1236	101	42	18	13
SH14a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**65186**	**73307**	**65696**	**73589**	**76796**	**53629**	**91**	**32**	**485**	**146**	**381**	**4134**	**2938**	**37220**	**28388**	**36451**	**7366**	**4064**
SHTOb	**82162**	**88705**	**73195**	**81162**	**86837**	**64086**	**124**	**55**	**679**	**326**	**501**	**5467**	**7198**	**46887**	**33774**	**47365**	**10591**	**9108**
NS14a	0	0	0	18	2	1	-	1	5	259	0	109	0	125	31	7	27	7
NS14b	4	0	4	18	2	1	0	1	5	259	0	109	0	145	32	27	27	7
NS15a	0	0	0	424	1030	0	0	13	0	0	6	7	37	350	0	0	24	734
NS15b	417	417	417	424	1030	417	0	13	6	12	6	16	40	496	234	236	861	734
NS16a	1187	0	2500	2000	1200	1600	-	0	0	1	0	0	50	3	-	-	748	210
NS16b	1204	1816	2517	2017	1217	1600	49	0	0	24	0	23	72	480	480	480	928	252
NS17a	25	0	4	0	0	0	-	0	0	0	0	0	0	71	38	17	14	230
NS17b	25	0	4	0	0	0	0	0	0	0	0	0	0	71	38	56	14	230
NS18a	2907	1372	244	1533	1018	12	0	0	0	38	0	81	124	1536	1486	812	986	845
NS18b	2907	1604	1412	1824	2183	1364	20	1	16	38	0	81	124	1948	2478	1657	1177	934
NS19a	4536	695	842	2745	1885	157	-	0	1	2	104	169	1037	2290	1108	2169	0	1087
NS19b	4772	2939	2614	4065	3532	2859	20	0	15	16	104	169	1037	2584	1505	2794	1068	1122
NS20a	5068	2248	187	6030	5105	4208	-	13	33	225	94	79	172	1232	948	101	607	202
NS20b	6258	4002	3477	6034	6895	5998	3	18	33	225	94	114	172	1232	1024	1120	768	202
NS21a	-	1030	1870	795	1760	2060	-	0	-	0	55	-	204	998	1113	1040	-	11
NS21b	1448	1058	2450	823	2308	2640	-	0	3	3	55	3	204	998	1603	1237	390	376
NS22a	0	0	0	0	0	0	-	0	0	1	0	0	0	1	0	0	0	0
NS22b	0	0	0	0	0	0	0	0	0	1	0	0	0	22	21	21	0	0
NSTOa	**13723**	**5345**	**5647**	**13545**	**12000**	**8038**	**0**	**27**	**39**	**526**	**259**	**445**	**1624**	**6606**	**4724**	**4146**	**2406**	**3326**
NSTOb	**17035**	**11836**	**12895**	**15205**	**17167**	**14879**	**92**	**33**	**78**	**578**	**259**	**515**	**1649**	**7976**	**7415**	**7628**	**5233**	**3857**
NL22a	3	1	4	0	0	0	0	0	0	0	0	0	0	2	0	-	0	0
NL22b	3	1	4	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0
NL23a	12787	3634	2468	7559	5165	5336	21	1	25	2	-	100	439	2218	4291	-	3063	1285
NL23b	12797	3644	2478	7569	5175	5346	21	1	25	87	100	200	439	3778	4291	3250	3073	2095
NL24a	1215	1365	3580	2650	3280	1950	4	0	2	8	3	225	280	2555	1404	-	805	1000
NL24b	1215	1365	3580	2650	3280	1950	4	0	2	8	3	225	280	2555	1404	2000	805	1000
NL25a	49928	28632	24365	33888	45680	27898	8	18	13	1	4	536	462	8296	4588	-	7736	3535
NL25b	49928	35482	24365	40738	45680	27898	8	18	13	1	4	536	462	8296	4588	6450	7736	3535
NL26a	12217	7813	8000	9337	17825	13115	29	3	8	11	5	518	1330	4526	7206	-	4047	3020
NL26b	12217	7813	8000	9337	17825	13115	29	3	8	11	5	518	1330	4526	7206	6000	4047	3020
NL27a	240	190	350	400	355	237	5	0	-	-	17	-	-	392	-	-	385	-
NL27b	240	190	350	400	355	237	5	0	100	100	17	100	100	392	625	625	385	525
NL28a	12035	9080	6110	8505	11135	6436	11	0	9	1	-	743	575	4417	6041	-	5501	5635
NL28b	12085	9130	6110	8555	11135	6436	11	0	9	1	0	743	575	4427	6041	5900	5501	5635
NL29a	612	-	750	822	740	1023	30	0	1	2	0	201	4	1876	771	-	1995	1375
NL29b	612	700	750	822	740	1023	30	0	1	2	0	201	4	1876	771	1300	1995	1375
NLTOa	**89037**	**50715**	**45627**	**63161**	**84180**	**55995**	**108**	**22**	**58**	**25**	**29**	**2323**	**3090**	**24282**	**24301**	**0**	**23532**	**15850**
NLTOb	**89097**	**58325**	**45637**	**70071**	**84190**	**56005**	**108**	**22**	**158**	**210**	**129**	**2523**	**3190**	**25852**	**24926**	**25526**	**23542**	**17185**
TOTAa	**185977**	**141654**	**126466**	**165322**	**192172**	**131396**	**231**	**81**	**646**	**821**	**1862**	**10109**	**16777**	**81882**	**70856**	**76740**	**42637**	**32469**
TOTAb	**206325**	**171153**	**141223**	**181465**	**207390**	**151704**	**356**	**110**	**979**	**1238**	**2082**	**11712**	**21162**	**94489**	**79558**	**116662**	**48699**	**39379**

Table 6. Shelduck *Tadorna tadorna*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	7551	1989	57	915	679	3	115	0	752	408	478	585	1003	766	395	433	683	203
DK01b	7551	1989	57	915	679	3	115	0	752	408	478	585	1003	766	395	433	683	203
DK02a	5600	3924	158	14745	3449	340	1374	139	3517	5889	5193	4062	3954	3202	678	634	481	340
DK02b	5600	3924	158	14745	3449	340	1374	139	3517	5889	5193	4062	3954	3202	678	634	481	340
DK03a	1302	4248	80	3289	1361	0	335	0	4344	4070	13271	3523	7936	1155	5123	425	451	197
DK03b	1302	4248	80	3289	1361	0	335	0	4344	4070	13271	3523	7936	1155	5123	3500	451	197
DK04a	130	1986	4	10593	1198	0	72	0	1390	5838	13363	4112	3149	1600	901	537	657	602
DK04b	130	1986	4	10593	1198	0	72	0	1390	5838	13363	4112	3149	1600	901	855	657	602
DK05a	3141	2533	0	453	5945	21	82	120	1789	1345	692	8412	1292	2510	52	185	370	404
DK05b	3141	2533	0	453	5945	21	82	120	1789	1345	692	8412	1292	2510	52	250	370	404
DKTOa	**17724**	**14680**	**299**	**29995**	**12632**	**364**	**1978**	**259**	**11792**	**17550**	**32997**	**20694**	**17334**	**9233**	**7149**	**2214**	**2642**	**1746**
DKTOb	**17724**	**14680**	**299**	**29995**	**12632**	**364**	**1978**	**259**	**11792**	**17550**	**32997**	**20694**	**17334**	**9233**	**7149**	**5672**	**2642**	**1746**
SH06a	-	3398	3	893	5616	0	311	312	6012	6142	7081	1558	2067	1195	14	376	364	516
SH06b	5213	5058	11	2876	7464	8	311	322	9045	6227	7090	3388	3255	2744	807	575	560	709
SH07a	-	3412	892	2493	3819	22	2339	0	2402	3874	5433	2435	0	525	565	217	662	644
SH07b	4639	5535	1143	3300	5303	287	2532	1279	4618	3874	5720	5971	1362	793	709	350	790	859
SH08a	-	14024	580	7939	13503	13282	3744	1059	13427	14364	13394	5705	1395	3713	411	730	741	1080
SH08b	10513	17442	580	9068	13965	13286	4864	1059	15420	15451	14469	6792	3893	3779	784	919	817	1215
SH09a	-	5980	6128	29	1488	2668	2062	210	1217	3188	1104	1000	376	309	193	46	109	116
SH09b	4042	6423	6128	1817	1862	8171	7565	5983	2277	3962	1862	1673	932	389	280	77	151	128
SH10a	-	11196	1016	11950	9580	46	3412	3072	15650	13343	24640	21042	1850	2454	478	407	322	699
SH10b	23133	11342	1358	13230	24985	1331	3442	3444	15747	13431	24823	22763	4833	2971	574	868	403	702
SH11a	-	73	88	192	697	3	53	0	1520	853	1326	1096	1780	807	667	0	440	303
SH11b	850	351	90	396	697	3	53	0	1559	853	1394	1220	2353	872	867	423	462	503
SH12a	-	45	0	547	232	0	0	1	106	1197	1437	0	50	933	87	395	592	713
SH12b	867	276	0	778	335	0	0	1	624	1386	1777	704	1875	933	189	603	592	713
SH13a	-	0	0	190	0	2	88	1	212	625	1028	492	0	44	0	0	602	1230
SH13b	673	537	45	723	624	46	88	1	466	678	1028	492	656	352	910	901	602	1230
SH14a	-	0	2	137	217	580	909	100	517	18	52	71	382	1061	80	41	31	128
SH14b	135	77	2	137	217	580	909	100	517	18	52	71	382	1075	197	111	136	134
SHTOa	**-**	**38128**	**8709**	**24370**	**35152**	**16603**	**12918**	**4755**	**41063**	**43604**	**55495**	**33399**	**7900**	**11041**	**2495**	**2212**	**3863**	**5429**
SHTOb	**50065**	**47041**	**9357**	**32325**	**55452**	**23712**	**19764**	**12189**	**50273**	**45880**	**58215**	**43074**	**19541**	**13908**	**5317**	**4827**	**4513**	**6193**
NS14a	-	28	0	268	143	0	7	0	35	121	66	31	802	434	188	377	169	88
NS14b	33	33	0	273	144	0	7	0	35	122	72	32	802	451	188	377	278	127
NS15a	-	997	660	7724	739	0	-	0	1425	402	686	1883	4207	2184	170	-	85	251
NS15b	1127	1097	660	8025	1490	588	623	620	1655	982	1320	2166	4207	3078	890	430	392	477
NS16a	-	2109	195	480	84	150	2695	-	936	540	280	650	1345	-	-	110	-	396
NS16b	1013	2115	265	1013	965	155	2790	271	1071	1161	901	1186	1354	1241	1050	439	414	636
NS17a	-	6480	3890	8781	5600	1	5467	0	19309	9966	11026	11261	6415	1783	-	213	53	490
NS17b	8339	7130	3890	9031	5850	2591	5467	90	19309	9966	11426	11261	6640	3323	1239	407	414	546
NS18a	-	2199	1288	6537	2000	5281	17132	1303	22280	13091	6900	2834	3951	1452	2470	1015	379	489
NS18b	4722	2380	2714	7254	3868	5306	17411	1582	22999	13294	7618	2835	5040	2015	2479	1307	864	637
NS19a	-	3912	1594	4475	2283	279	302	0	3304	7854	6337	3125	2935	1216	2242	272	-	1093
NS19b	4629	4446	1594	5288	4521	1099	1132	1040	6324	7873	7632	3125	3756	3441	2242	1329	1251	1093
NS20a	-	1058	120	1841	1084	3	163	0	1592	2177	2970	1030	1562	1104	490	639	-	1032
NS20b	1608	1221	120	2321	1371	84	219	132	1820	2722	3043	1316	1787	1451	941	1303	1028	1161
NS21a	-	410	455	-	1165	0	-	-	-	-	-	0	1450	682	430	-	-	155
NS21b	344	627	455	344	1339	125	290	290	344	344	344	344	1748	716	430	157	157	155
NS22a	-	410	63	1442	18	0	25	0	260	1340	1575	1270	575	884	730	263	153	248
NS22b	433	410	63	1442	18	7	28	7	262	1342	1577	1272	735	921	730	372	262	333
NSTOa	**0**	**17603**	**8265**	**31548**	**13116**	**5714**	**25791**	**1303**	**49141**	**35491**	**29840**	**22084**	**23242**	**9739**	**6720**	**2889**	**839**	**4242**
NSTOb	**22248**	**19459**	**9761**	**34991**	**19566**	**9955**	**27967**	**4032**	**53819**	**37806**	**33933**	**23537**	**26069**	**16637**	**10189**	**6121**	**5060**	**5165**
NL22a	0	1130	20	2175	0	-	64	0	1280	1883	1158	633	1370	940	1110	-	441	369
NL22b	0	1130	20	2175	0	770	64	0	1280	1883	1158	633	1370	940	1110	500	441	369
NL23a	1745	9720	1245	19130	24965	3333	10252	52	19024	-	8436	2079	3070	3071	1190	-	2313	884
NL23b	9345	14720	8845	21730	24965	9133	12852	7652	24024	15000	16036	7079	6370	6071	1190	1700	2773	1184
NL24a	29	1795	3	2410	2070	2135	2050	14	2885	6110	1585	480	985	1240	170	-	166	143
NL24b	29	1795	3	2410	2070	2135	2050	14	2885	6110	1585	480	985	1240	170	150	166	143
NL25a	1375	9940	936	14765	9272	1116	7608	415	25297	19882	15470	835	9875	5972	3625	-	2015	417
NL25b	1375	9940	936	14765	9272	1216	7608	415	25297	19882	15470	8275	10935	5972	3625	3010	2025	417
NL26a	235	3425	131	2040	1409	-	2421	-	3136	1842	2545	1331	1560	881	260	-	580	446
NL26b	235	3425	131	2040	1409	2000	2421	2000	3136	1842	2545	1331	1560	881	260	800	580	446
NL27a	-	1100	-	-	-	-	-	-	-	86	-	-	40	70	2	-	36	0
NL27b	200	1100	200	200	200	200	200	200	200	86	200	200	40	70	2	20	36	0
NL28a	2203	4240	560	4905	2298	1071	2936	114	3048	2706	1689	546	1225	1574	1015	-	1926	607
NL28b	2203	4240	560	4905	2298	1071	2936	114	3048	2706	1689	546	1575	1574	1015	900	1926	607
NL29a	10590	5955	8000	1035	2560	7264	2171	692	1805	611	480	342	1045	230	1360	-	616	1024
NL29b	10590	5955	8000	1035	2560	7264	2171	692	1805	611	480	342	1045	230	1360	700	616	1024
NLTOa	**16177**	**37305**	**10895**	**46460**	**42574**	**14919**	**27502**	**1287**	**56475**	**33120**	**31363**	**6246**	**19170**	**13978**	**8732**	**-**	**8093**	**3890**
NLTOb	**23977**	**42305**	**18695**	**49260**	**42774**	**23789**	**30302**	**11087**	**61675**	**48120**	**39163**	**18886**	**23880**	**16978**	**8732**	**7780**	**8563**	**4190**
TOTAa	**33901**	**107716**	**28168**	**132373**	**103474**	**37600**	**68189**	**7604**	**158471**	**129765**	**149695**	**82423**	**67646**	**43991**	**25096**	**7315**	**15437**	**15307**
TOTAb	**114014**	**123485**	**38112**	**146571**	**130424**	**57820**	**80011**	**27567**	**177559**	**149356**	**164308**	**106191**	**86824**	**56756**	**31387**	**24400**	**20778**	**17294**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	142	307	102	838	163	326	107	400	696	373	287	2169	979	1203	225	1600	3617	2474
DK01b	142	307	102	838	163	326	107	400	696	373	287	2169	979	1203	225	1600	3617	2474
DK02a	688	747	270	505	430	294	946	110	2559	2318	2072	6891	4045	6764	3598	7448	6971	6169
DK02b	688	747	270	505	430	400	946	110	2559	2318	2072	6891	4045	6764	3598	7448	6971	6169
DK03a	233	584	294	186	230	163	932	191	1029	1817	646	5232	11295	1632	3042	9830	2315	8972
DK03b	233	584	294	186	230	230	932	191	1029	1817	646	5232	11295	1632	3042	9830	2315	8972
DK04a	1035	777	623	418	1095	200	1466	805	1460	1266	3701	6620	2886	3636	2684	6255	1002	6183
DK04b	1035	777	623	418	1095	1000	1466	805	1460	1266	3701	6620	2886	3636	2684	6255	1002	6183
DK05a	2074	1030	11	405	855	265	200	0	2561	7594	3548	9675	607	11444	7974	4048	15439	8697
DK05b	2074	1030	11	405	855	800	200	0	2561	7594	3548	9675	607	11444	7974	4048	15439	8697
DKTOa	**4172**	**3445**	**1300**	**2352**	**2773**	**1248**	**3651**	**1506**	**8305**	**13368**	**10254**	**30587**	**19812**	**24679**	**17523**	**29181**	**29344**	**32495**
DKTOb	**4172**	**3445**	**1300**	**2352**	**2773**	**2756**	**3651**	**1506**	**8305**	**13368**	**10254**	**30587**	**19812**	**24679**	**17523**	**29181**	**29344**	**32495**
SH06a	1557	175	282	389	139	249	141	87	1472	3095	884	5841	2532	2000	10870	4091	5366	4800
SH06b	1578	512	505	608	470	380	1057	169	1474	3546	1439	7659	3984	11911	11070	13194	10241	9773
SH07a	1368	818	364	406	22	476	463	219	1609	1022	927	1136	710	1994	2817	3191	5897	7152
SH07b	1507	1192	956	989	868	640	508	333	2156	1022	1813	2563	2414	3588	2822	5960	6565	8078
SH08a	1637	1055	346	3113	627	315	2392	197	2271	1046	1757	6838	956	10919	3156	2778	10631	6567
SH08b	1652	1172	509	3152	682	453	3087	197	2574	1099	1820	6900	4329	10919	3531	3181	11831	6867
SH09a	146	255	183	144	99	64	154	1221	3813	194	6644	1232	950	862	5247	873	823	13322
SH09b	157	285	230	188	137	127	160	1229	3976	3338	6649	3981	1692	4163	6645	3948	13409	13428
SH10a	846	761	378	564	429	560	797	94	327	956	5252	13475	3260	5955	5400	1779	5609	11852
SH10b	849	783	399	602	589	571	802	94	3103	1398	5302	14175	4728	5974	7547	5804	5641	13771
SH11a	315	16	452	115	10	151	614	63	0	15975	13608	3410	1146	3292	5529	1621	1963	1936
SH11b	515	300	736	315	366	351	629	563	30671	24353	13608	22090	18344	8803	9920	5461	2423	1936
SH12a	350	525	298	657	223	150	520	80000	23800	11293	12752	3045	11350	490	8383	4012	272	733
SH12b	764	677	586	657	718	722	520	81777	25205	18693	14701	5452	12395	3508	8523	4152	1581	976
SH13a	402	187	0	813	0	80	9996	0	500	945	220	10992	0	5334	117	0	213	143
SH13b	402	556	626	987	286	394	9996	19504	12183	9037	12183	10992	6385	7506	2217	2174	226	349
SH14a	205	116	350	145	313	194	84	0	167	2	74	6	386	53	689	0	1	755
SH14b	205	165	350	151	313	214	95	1	167	2	74	6	387	54	689	16	18	755
SHTOa	**6826**	**3908**	**2653**	**6346**	**1862**	**2239**	**15161**	**81881**	**33959**	**34528**	**42118**	**45975**	**21290**	**30899**	**42208**	**18345**	**30775**	**47260**
SHTOb	**7629**	**5642**	**4897**	**7649**	**4429**	**3852**	**16854**	**103867**	**81509**	**62488**	**57589**	**73818**	**54658**	**56426**	**52964**	**43890**	**51935**	**55933**
NS14a	275	88	64	263	196	263	-	199	222	124	182	82	142	78	224	134	60	125
NS14b	436	118	248	312	218	276	641	225	224	133	189	91	143	91	229	199	60	125
NS15a	300	212	104	573	368	112	65	17558	19350	2264	24434	1048	48295	1469	10526	78	6960	14359
NS15b	602	422	400	722	643	465	111	17558	29490	29709	24464	30001	48516	8829	17998	8635	9265	14359
NS16a	422	274	60	480	1	62	-	7	1200	4370	2359	562	4877	280	-	-	2961	8168
NS16b	621	359	389	569	330	302	47	7	1310	4910	2409	2562	4917	2646	2781	2781	8161	8295
NS17a	423	536	509	661	249	317	-	548	2145	4394	6679	6989	9080	10439	9957	7455	13176	29880
NS17b	554	552	703	667	315	373	144	851	3947	4989	6704	6989	9082	10439	10207	9125	13176	30850
NS18a	829	622	520	594	792	626	0	303	4035	23832	17054	19731	7167	16641	4957	7733	20680	17543
NS18b	901	863	808	748	944	882	669	576	8256	23835	17054	19868	8193	18406	9591	10862	21028	17720
NS19a	1888	540	724	979	1199	32	-	332	3328	8228	10500	8071	8227	10901	7515	4637	4400	19186
NS19b	2017	1279	1677	1537	1948	1089	1004	332	5572	12747	11031	12147	8985	14879	12754	11351	12370	19518
NS20a	1140	482	115	1223	924	233	-	1071	5895	2840	1214	3217	2829	5487	7487	3097	2402	4344
NS20b	1502	1103	908	1360	1627	936	637	1154	6429	3240	2727	3784	3263	5677	8282	5691	4189	5118
NS21a	-	0	1115	131	591	396	-	42	-	485	1550	-	3460	2234	2807	1890	-	337
NS21b	157	0	1179	131	652	460	-	97	2167	1467	2715	2167	4625	2236	3567	2414	1070	1172
NS22a	71	493	571	348	492	585	-	157	889	806	649	2207	346	1249	910	1909	1284	32
NS22b	452	578	649	375	492	663	1213	157	926	843	649	2244	714	1558	1024	2023	1316	940
NSTOa	**5348**	**3247**	**3782**	**5252**	**4812**	**2626**	**65**	**20217**	**37064**	**47343**	**64621**	**41907**	**84423**	**48778**	**44383**	**26933**	**51923**	**93974**
NSTOb	**7242**	**5274**	**6961**	**6421**	**7169**	**5446**	**4466**	**20957**	**58321**	**81873**	**67942**	**79853**	**88438**	**64761**	**66433**	**53081**	**70635**	**98097**
NL22a	594	406	685	322	465	722	1236	80	460	418	685	625	330	1548	112	627	639	720
NL22b	594	406	685	322	465	722	1236	80	460	418	685	625	330	1548	112	627	639	720
NL23a	1431	328	473	1190	563	859	723	118	7790	290	755	7029	5000	8099	20083	-	15485	5190
NL23b	1731	628	773	1490	863	1159	1223	418	12790	12590	4455	15729	5000	18099	20083	17850	20485	14390
NL24a	132	125	340	157	45	176	360	22	1815	660	5435	3005	6460	2395	5415	-	2835	2985
NL24b	132	125	340	157	45	176	360	22	1815	660	5435	3005	6460	2395	5415	4000	2835	2985
NL25a	1885	855	2154	1879	2200	1400	3128	1867	12420	22429	16110	13566	9960	14960	15434	-	32942	21270
NL25b	1885	1425	2154	2449	2200	1400	3128	1877	12570	22429	16110	13716	9960	14960	15434	16350	32942	21270
NL26a	745	691	385	535	365	235	591	46	3130	8093	4095	4640	6450	5214	5224	-	9575	14355
NL26b	745	691	385	535	365	235	591	46	3130	8093	4095	4640	6450	5214	5224	6500	9575	14355
NL27a	14	60	2	0	34	6	0	2	-	-	475	-	-	1450	-	-	3500	-
NL27b	14	60	2	0	34	6	0	2	350	350	475	350	350	1450	250	250	3500	100
NL28a	815	1208	650	975	111	632	1134	172	1865	2787	595	3606	1855	4732	3081	-	2876	3843
NL28b	820	1213	650	980	111	632	1134	172	1865	2787	605	3616	1855	4737	3081	3500	2876	3843
NL29a	287	-	855	1585	-	783	2069	370	320	1290	555	2119	380	9887	2805	-	1765	9585
NL29b	287	700	855	1585	700	783	2069	370	320	1290	555	2119	380	9887	2805	3500	1765	9585
NLTOa	**5903**	**3673**	**5544**	**6643**	**3783**	**4813**	**9241**	**2677**	**27800**	**35967**	**28705**	**34590**	**30435**	**48285**	**52154**	**627**	**69617**	**57948**
NLTOb	**6208**	**5248**	**5844**	**7518**	**4783**	**5113**	**9741**	**2987**	**33300**	**48617**	**32415**	**43800**	**30785**	**58290**	**52404**	**52577**	**74617**	**67248**
TOTAa	**22249**	**14273**	**13279**	**20593**	**13230**	**10926**	**28118**	**106281**	**107128**	**131206**	**145698**	**153059**	**155960**	**152641**	**156268**	**75086**	**181659**	**231677**
TOTAb	**25251**	**19609**	**19002**	**23940**	**19154**	**17167**	**34712**	**129317**	**181435**	**206346**	**168200**	**228058**	**193693**	**204156**	**189324**	**178729**	**226531**	**253773**

Table 7. Wigeon *Anas penelope*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	20	0	0	198	57	0	26	0	454	623	1401	513	1766	259	148	415	47	4
DK01b	20	0	0	198	57	0	26	0	454	623	1401	513	1766	259	148	415	47	4
DK02a	86	14	0	1312	288	0	0	0	545	1094	1052	1535	1598	2640	46	1147	60	75
DK02b	86	14	0	1312	288	0	0	0	545	1094	1052	1535	1598	2640	46	1147	60	75
DK03a	0	0	0	4	561	0	0	0	51	1200	1296	560	2470	5753	4010	1410	5	51
DK03b	0	0	0	4	561	0	0	0	51	1200	1296	560	2470	5753	4010	3800	5	51
DK04a	0	0	0	3500	590	0	2	0	57	1687	226	185	1652	1135	3326	1425	4	60
DK04b	0	0	0	3500	590	0	2	0	57	1687	226	185	1652	1135	3326	3000	4	60
DK05a	0	127	0	1907	1144	0	0	0	597	813	462	3574	1244	3334	5057	870	20	255
DK05b	0	127	0	1907	1144	0	0	0	597	813	462	3574	1244	3334	5057	4000	20	255
DKTOa	**106**	**141**	**0**	**6921**	**2640**	**0**	**28**	**0**	**1704**	**5417**	**4437**	**6367**	**8730**	**13121**	**12587**	**5267**	**136**	**445**
DKTOb	**106**	**141**	**0**	**6921**	**2640**	**0**	**28**	**0**	**1704**	**5417**	**4437**	**6367**	**8730**	**13121**	**12587**	**12362**	**136**	**445**
SH06a	-	274	0	2182	380	6	22	0	635	8663	2343	1122	1842	580	1475	96	31	1334
SH06b	5121	305	1	2639	1057	7	22	1	1158	8735	2612	1544	2267	4760	1533	1151	32	1334
SH07a	-	4	0	10	365	0	6	0	0	1650	5582	8605	0	825	20	0	0	2
SH07b	557	2105	0	687	1288	0	6	3	1582	1650	5935	9097	5149	845	28	2	2	4
SH08a	-	306	0	298	762	22	12	8	3144	9572	18547	19283	146	6922	950	1589	251	810
SH08b	1830	1235	0	748	1701	22	12	8	3482	10997	18797	19283	2982	7102	1730	1779	255	846
SH09a	-	649	0	0	246	64	0	0	223	1330	2471	1415	70	59	12	0	1	0
SH09b	751	2459	0	3010	2486	64	0	0	1353	3570	4471	3725	3112	589	12	0	1	0
SH10a	-	119	0	3630	665	0	12	110	2933	3894	7365	14427	515	4512	150	74	2	21
SH10b	3308	652	0	5877	4592	0	12	110	3474	3898	7956	16492	2725	5350	165	100	5	24
SH11a	-	11	0	90	150	0	0	0	360	278	204	2210	440	700	78	0	23	143
SH11b	115	289	0	96	151	0	0	0	1512	279	447	2211	490	890	85	167	23	143
SH12a	-	0	0	350	600	0	0	0	10	1028	1264	0	102	6348	60	1033	12	170
SH12b	1425	1455	0	1799	1114	0	0	0	1780	2193	2994	2018	5888	6348	225	1033	12	170
SH13a	-	0	0	0	0	0	0	0	110	6130	4104	315	0	110	0	0	440	35
SH13b	2559	3010	0	3084	3007	0	0	0	210	6130	4104	315	2552	563	384	357	440	35
SH14a	-	0	0	0	0	0	0	0	0	28	41	35	0	60	2	0	0	14
SH14b	0	17	0	0	0	0	0	0	0	28	41	35	0	60	42	30	6	14
SHTOa	**-**	**1363**	**0**	**6560**	**3168**	**92**	**52**	**118**	**7415**	**32573**	**41921**	**47412**	**3115**	**20116**	**2747**	**2792**	**760**	**2529**
SHTOb	**15666**	**11527**	**1**	**17940**	**15396**	**93**	**52**	**122**	**14551**	**37480**	**47357**	**54720**	**25165**	**26507**	**4204**	**4619**	**776**	**2570**
NS14a	-	227	1	956	433	0	58	0	407	381	3066	1499	1714	2346	1103	2481	1408	1195
NS14b	112	332	1	960	433	0	58	0	407	381	3066	1499	1714	2346	1103	2481	1474	1253
NS15a	-	0	0	25	0	0	-	0	0	638	30	43	1097	0	80	-	2	0
NS15b	25	0	0	25	0	0	0	0	0	638	30	43	1097	129	80	2	4	2
NS16a	-	160	0	40	0	0	0	-	0	120	28	1262	961	-	-	52	-	0
NS16b	1326	160	0	1326	1326	0	0	0	1276	1436	1344	1302	961	57	18	52	0	0
NS17a	-	92	0	265	688	0	0	0	2325	4158	2191	1954	3580	1304	-	7	0	193
NS17b	1013	287	0	415	838	0	0	0	2325	4158	2191	1954	3580	1594	155	10	3	193
NS18a	-	1316	33	847	635	11	83	41	95	3695	130	2736	3014	3078	326	109	10	25
NS18b	1173	1876	33	1741	1665	11	83	41	1024	4290	1059	2771	3414	3308	326	113	14	29
NS19a	-	2854	0	670	610	0	0	0	8	1045	995	1788	2835	780	270	331	-	4
NS19b	1022	2899	0	728	721	0	0	0	880	1045	1333	1788	3092	1249	270	331	0	4
NS20a	-	2153	22	438	602	0	50	0	680	1920	1394	134	2318	342	2	276	-	175
NS20b	838	2198	22	721	672	25	50	25	943	2203	1444	397	2320	342	450	276	96	175
NS21a	-	1450	45	-	1379	0	-	-	-	-	-	0	1653	2079	5	-	-	10
NS21b	70	1450	45	70	1379	5	25	25	70	70	70	70	1737	2369	5	0	0	10
NS22a	-	32	7	1	0	0	0	0	0	361	137	15	860	367	16	26	0	0
NS22b	14	32	7	1	0	7	7	7	0	361	137	15	864	371	16	26	0	0
NSTOa	**0**	**8284**	**108**	**3242**	**4347**	**11**	**191**	**41**	**3515**	**12318**	**7971**	**9431**	**18032**	**10296**	**1802**	**3282**	**1420**	**1602**
NSTOb	**5593**	**9234**	**108**	**5987**	**7034**	**48**	**223**	**98**	**6925**	**14582**	**10674**	**9839**	**18779**	**11765**	**2423**	**3291**	**1591**	**1666**
NL22a	0	4145	8	7055	450	-	8	0	2291	14780	2130	860	7410	2960	9885	-	12	295
NL22b	0	4145	8	7055	450	7500	8	0	2291	14780	2130	860	7410	2960	9885	100	12	295
NL23a	280	845	380	2645	3782	404	395	31	1430	-	754	1070	559	1791	13	-	2	97
NL23b	780	845	880	3145	3782	504	895	531	1430	1150	1254	1070	859	1791	13	100	2	97
NL24a	56	550	0	2070	310	0	90	0	2560	2355	4515	1020	940	185	0	-	0	0
NL24b	56	550	0	2070	310	0	90	0	2560	2355	4515	1020	940	185	0	150	0	0
NL25a	930	35130	0	27325	10903	-	1405	0	12736	24181	36084	12358	15890	5807	3840	-	6	0
NL25b	1130	35330	0	27525	10903	100	1405	0	12936	24181	36084	24870	23890	5807	3840	0	6	0
NL26a	4340	9050	14	9420	15437	-	1926	-	15516	21803	9304	15936	2765	2606	210	-	0	0
NL26b	4340	9050	14	9420	15437	2000	1926	2000	15516	21803	9304	15936	2765	2606	210	500	0	0
NL27a	-	40	-	-	-	-	-	-	-	82	-	-	8	30	0	-	0	0
NL27b	50	40	50	50	50	50	50	50	50	82	50	50	8	30	0	0	0	0
NL28a	14626	11583	1330	8240	9752	15011	26422	21714	9091	15431	16353	16059	6735	6669	365	-	4	20
NL28b	14626	11583	1330	8240	9752	15011	26422	21714	9091	15431	16353	16059	6860	6669	365	0	4	20
NL29a	1160	2950	5	1920	4513	382	2306	0	2925	505	5022	2442	800	3507	350	-	0	0
NL29b	1160	2950	5	1920	4513	382	2306	0	2925	505	5022	2442	800	3507	350	800	0	0
NLTOa	**21392**	**64293**	**1737**	**58675**	**45147**	**15797**	**32552**	**21745**	**46549**	**79137**	**74162**	**49745**	**35107**	**23555**	**14663**	**-**	**24**	**412**
NLTOb	**22142**	**64493**	**2287**	**59425**	**45197**	**25547**	**33102**	**24295**	**46799**	**80287**	**74712**	**62307**	**43532**	**23555**	**14663**	**1650**	**24**	**412**
TOTAa	**21498**	**74081**	**1845**	**75398**	**55302**	**15900**	**32823**	**21904**	**59183**	**129445**	**128491**	**112955**	**64984**	**67088**	**31799**	**11341**	**2340**	**4988**
TOTAb	**43507**	**85395**	**2396**	**90273**	**70267**	**25688**	**33405**	**24515**	**69979**	**137766**	**137180**	**133233**	**96206**	**74948**	**33877**	**21922**	**2527**	**5093**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	7	109	14	0	2	0	0	260	1556	309	438	12548	215	1528	2009	4858	1942	402
DK01b	7	109	14	0	2	0	0	260	1556	309	438	12548	215	1528	2009	4858	1942	402
DK02a	5	5	0	1	162	1	4	15	3503	10468	2874	6358	13843	5827	10025	17281	15983	6355
DK02b	5	5	0	1	162	160	4	15	3503	10468	2874	6358	13843	5827	10025	17281	15983	6355
DK03a	26	43	0	1	0	1	18	10	2245	504	614	1570	4363	2007	4984	11500	2563	12561
DK03b	26	43	0	1	0	1	18	10	2245	504	614	1570	4363	2007	4985	11500	2563	12561
DK04a	1	8	3	0	0	0	80	0	6833	8653	4415	19345	12014	4922	11785	18935	4385	9838
DK04b	1	8	3	0	0	0	80	0	6833	8653	4415	19345	12014	4922	11785	18935	4385	9838
DK05a	19	16	35	2	46	30	19	35	2003	1551	4150	5076	1336	5015	2326	5871	3104	3803
DK05b	19	16	35	2	46	46	19	35	2003	1551	4150	5076	1336	5015	2326	5871	3104	3803
DKTOa	**58**	**181**	**52**	**4**	**210**	**32**	**121**	**320**	**16140**	**21485**	**12491**	**44897**	**31771**	**19299**	**31129**	**58445**	**27977**	**32959**
DKTOb	**58**	**181**	**52**	**4**	**210**	**207**	**121**	**320**	**16140**	**21485**	**12491**	**44897**	**31771**	**19299**	**31130**	**58445**	**27977**	**32959**
SH06a	253	9	7	48	10	40	0	31	4853	20749	5270	22825	9731	6160	19267	39325	23377	12111
SH06b	254	53	7	48	10	40	102	87	8737	25229	16051	32288	20551	25487	20435	48777	25276	15365
SH07a	0	0	0	0	0	0	0	0	150	967	105	850	209	931	3245	2062	6792	2751
SH07b	2	2	2	2	2	2	0	0	250	967	194	1509	552	3446	3245	5093	7693	3567
SH08a	143	96	4	47	29	0	11	13	6987	8032	13913	54870	24710	55780	27950	25728	13548	17070
SH08b	147	111	19	47	46	10	49	13	8880	8282	18188	56620	31015	55780	30400	33673	14522	17270
SH09a	0	0	2	2	0	0	0	26	2505	1793	3915	1573	0	2878	11832	2928	2696	5822
SH09b	0	0	2	2	0	0	0	144	3213	2504	4146	2783	3645	6647	12291	6169	8933	9252
SH10a	6	65	0	0	0	0	2	100	562	264	4686	896	4435	4850	16456	7937	9870	3118
SH10b	9	68	3	3	4	3	2	100	1991	1207	5696	2956	6057	5188	16974	8625	10005	5914
SH11a	2	0	0	2	0	0	0	5	0	1180	171	20	2226	1501	6945	812	7205	1819
SH11b	2	96	96	2	84	0	0	5	1080	1808	171	756	3520	7446	7475	892	7785	1819
SH12a	3	22	3	4	1	0	41	10	642	4075	981	3921	1412	4500	38540	5487	15930	221
SH12b	133	22	103	4	17	17	41	10	3577	4090	4476	6809	3582	12134	40540	9587	22720	14671
SH13a	12	0	0	0	0	0	10	0	8	340	48	3716	0	8932	330	0	10411	952
SH13b	12	9	10	8	5	0	10	0	402	402	1792	3716	4531	9163	6348	6973	10423	4010
SH14a	3	3	1	4	0	0	2	0	0	1	0	27	0	83	29	0	0	0
SH14b	3	3	1	4	0	0	2	0	1	1	0	27	0	141	29	51	42	0
SHTOa	**422**	**195**	**17**	**107**	**40**	**40**	**66**	**185**	**15707**	**37401**	**29089**	**88698**	**42723**	**85615**	**124594**	**84279**	**89829**	**43864**
SHTOb	**562**	**364**	**243**	**120**	**168**	**72**	**206**	**359**	**28131**	**44490**	**50714**	**107464**	**73453**	**125432**	**137737**	**119840**	**107399**	**71868**
NS14a	36	15	12	518	458	220	-	1547	1475	1329	869	3304	2316	9795	6098	5976	4991	4843
NS14b	534	73	518	576	458	220	42	1631	1479	1371	1717	3344	2330	9944	6110	7451	5020	4843
NS15a	0	0	4	0	2	0	0	0	12	265	10	110	550	524	124	0	110	361
NS15b	2	2	4	2	4	2	0	0	272	520	10	435	550	787	441	452	1274	361
NS16a	0	0	2	0	5	0	-	0	300	0	810	20	1540	102	-	-	0	1440
NS16b	0	0	2	0	5	0	0	0	300	0	810	320	1540	1222	1120	1120	1400	1450
NS17a	63	3	0	3	0	3	-	0	502	380	600	1683	3930	1326	3705	1465	1132	754
NS17b	63	3	3	3	0	3	0	0	502	380	600	1683	3930	1326	3855	2053	1132	1239
NS18a	29	0	0	0	8	0	0	1	1010	578	358	1988	3325	875	2309	1101	785	4061
NS18b	33	4	4	4	8	0	13	5	1164	614	358	1992	4105	1546	4787	3161	1728	4239
NS19a	40	0	180	0	0	0	-	0	218	1078	929	1190	3674	2096	5493	81	0	1597
NS19b	40	0	180	0	0	0	2	0	271	1113	929	1216	3674	3286	5975	2012	2173	1638
NS20a	100	0	148	18	0	0	-	0	278	1900	1466	392	3577	2120	3113	401	512	1480
NS20b	100	96	244	18	96	96	0	28	278	1900	1466	1042	3577	2120	4013	1480	1157	1484
NS21a	-	0	14	0	0	24	-	0	-	0	240	-	2020	418	658	1060	-	1620
NS21b	0	0	14	0	0	24	-	18	370	60	370	370	2150	418	799	1060	947	1772
NS22a	0	2	0	0	0	0	-	0	1661	54	0	310	0	102	1215	0	185	2
NS22b	0	2	0	0	0	0	0	0	1661	54	0	310	4	102	1215	0	187	109
NSTOa	**268**	**20**	**360**	**539**	**473**	**247**	**0**	**1548**	**5456**	**5584**	**5282**	**8997**	**20932**	**17358**	**22715**	**10084**	**7715**	**16158**
NSTOb	**772**	**180**	**969**	**603**	**571**	**345**	**57**	**1682**	**6297**	**6012**	**6260**	**10712**	**21860**	**20751**	**28315**	**18789**	**15018**	**17135**
NL22a	40	3	27	5	6	0	2	220	6365	661	1235	4910	2605	11810	12613	6858	10126	720
NL22b	40	3	27	5	6	0	2	220	6365	661	1235	4910	2605	11810	12613	6858	10126	720
NL23a	40	-	-	2	1	-	5	1	445	100	104	616	1040	1148	4054	-	1466	1415
NL23b	40	0	0	2	1	0	5	1	445	875	704	1216	1040	2948	4054	6400	1466	2515
NL24a	0	0	0	0	0	0	0	0	150	980	775	425	1235	1675	9090	-	3555	3895
NL24b	0	0	0	0	0	0	0	0	150	980	775	425	1235	1675	9090	5000	3555	3895
NL25a	14	-	1	-	0	3	0	4	385	5040	2270	10639	25705	24778	69550	-	39992	25625
NL25b	14	3	1	3	0	3	0	4	385	5040	2270	10639	25705	24778	69550	38905	39992	25625
NL26a	1	0	8	3	5	4	0	0	3145	2634	1370	4224	5785	7564	15114	-	10097	21395
NL26b	1	0	8	3	5	4	0	0	3145	2634	1370	4224	5785	7564	15114	16000	10097	21395
NL27a	0	0	0	0	0	0	0	0	-	-	24	-	-	26	-	-	230	-
NL27b	0	0	0	0	0	0	0	0	100	100	24	100	100	26	800	800	230	140
NL28a	33	5	23	1	5	2	45	6	1220	3969	1142	4447	6260	7841	9639	-	9016	9785
NL28b	33	5	23	1	5	2	45	6	1220	3969	1142	4447	6260	7841	9639	8200	9016	9785
NL29a	8	-	4	0	-	0	0	4	290	480	1035	2651	2620	2731	2136	-	780	2485
NL29b	8	0	4	0	0	0	0	4	290	480	1035	2651	2620	2731	2136	2200	780	2485
NLTOa	**98**	**8**	**63**	**11**	**17**	**9**	**52**	**235**	**12000**	**13864**	**7955**	**27912**	**45250**	**57573**	**122196**	**6858**	**75262**	**65320**
NLTOb	**98**	**11**	**63**	**14**	**17**	**9**	**52**	**235**	**12100**	**14739**	**8555**	**28612**	**45350**	**59373**	**122996**	**84363**	**75262**	**66560**
TOTAa	**846**	**404**	**492**	**661**	**740**	**328**	**239**	**2288**	**49303**	**78334**	**54817**	**170504**	**140676**	**179845**	**300634**	**159666**	**200783**	**158301**
TOTAb	**1490**	**736**	**1327**	**741**	**966**	**633**	**436**	**2596**	**62668**	**86726**	**78020**	**191685**	**172434**	**224855**	**320178**	**281437**	**225656**	**188522**

Table 8. Teal *Anas crecca*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	0	7	0	0	0	77	647	430	56	10	17	130	55	224	38
DK01b	0	0	0	0	7	0	0	0	77	647	430	56	10	17	130	55	224	38
DK02a	0	0	0	92	0	0	0	0	5	118	18	12	4	80	79	160	73	113
DK02b	0	0	0	92	0	0	0	0	5	118	18	12	4	80	79	180	73	113
DK03a	0	0	0	0	0	0	0	0	0	5	30	0	0	77	79	40	15	94
DK03b	0	0	0	0	0	0	0	0	0	5	30	0	0	77	79	120	15	94
DK04a	0	0	0	125	0	0	0	0	0	27	22	5	39	259	284	127	40	352
DK04b	0	0	0	125	0	0	0	0	0	27	22	5	39	259	284	285	40	352
DK05a	0	0	0	4	0	0	0	0	104	293	148	281	15	401	69	70	66	128
DK05b	0	0	0	4	0	0	0	0	104	293	148	281	15	401	69	125	66	128
DKTOa	**0**	**0**	**0**	**221**	**7**	**0**	**0**	**0**	**186**	**1090**	**648**	**354**	**68**	**834**	**641**	**452**	**418**	**725**
DKTOb	**0**	**0**	**0**	**221**	**7**	**0**	**0**	**0**	**186**	**1090**	**648**	**354**	**68**	**834**	**641**	**765**	**418**	**725**
SH06a	-	4	0	367	48	2	14	9	29	2320	318	388	110	68	8	29	29	458
SH06b	250	91	0	443	177	3	14	10	83	2320	403	517	168	352	106	196	35	458
SH07a	-	0	0	0	0	0	0	0	0	0	30	124	0	0	0	0	1	13
SH07b	24	52	0	52	52	0	0	0	24	0	30	124	14	17	22	4	5	17
SH08a	-	0	0	0	0	0	0	0	30	548	171	1077	0	114	0	35	51	285
SH08b	11	6	0	0	0	0	0	0	55	569	191	1077	326	114	171	182	51	319
SH09a	-	0	0	0	0	0	2	0	0	0	0	0	0	0	4	2	0	0
SH09b	0	0	1	0	0	0	2	0	0	0	0	0	0	0	4	2	0	0
SH10a	-	0	0	122	0	0	0	0	0	73	4	8	6	90	12	12	18	61
SH10b	6	4	0	122	4	0	0	0	2	73	4	8	29	93	90	13	20	61
SH11a	-	0	0	32	0	0	0	0	0	0	0	7	0	64	6	0	3	58
SH11b	27	0	0	32	0	0	0	0	16	0	0	7	54	76	7	20	3	58
SH12a	-	1	0	12	30	0	0	0	140	1304	254	0	0	134	5	39	2	247
SH12b	269	136	0	147	269	0	0	0	255	1319	254	254	119	134	25	45	2	247
SH13a	-	0	0	18	0	0	0	0	0	0	12	0	0	0	0	0	14	518
SH13b	15	0	0	18	0	0	0	0	12	0	12	0	1	0	531	521	14	518
SH14a	-	2554	1205	2475	627	130	610	280	773	669	510	0	2373	609	406	150	6	155
SH14b	1653	2927	1205	2475	627	130	610	280	773	669	510	307	2373	613	478	235	39	156
SHTOa	**-**	**2559**	**1205**	**3026**	**705**	**132**	**626**	**289**	**972**	**4914**	**1299**	**1604**	**2489**	**1079**	**441**	**267**	**124**	**1795**
SHTOb	**2255**	**3216**	**1206**	**3289**	**1129**	**133**	**626**	**290**	**1220**	**4950**	**1404**	**2294**	**3084**	**1399**	**1434**	**1218**	**169**	**1834**
NS14a	-	62	0	1234	173	59	540	44	305	7	214	40	453	437	158	1712	576	267
NS14b	53	62	56	1262	173	59	540	44	316	18	225	51	457	448	158	1712	638	271
NS15a	-	194	12	115	5	52	-	0	78	40	0	25	332	142	40	-	2	15
NS15b	8	194	12	115	8	56	8	0	83	48	8	30	332	168	74	10	12	25
NS16a	-	200	0	120	0	0	0	-	10	0	40	0	604	-	-	0	-	0
NS16b	0	200	0	120	0	0	0	0	10	0	40	0	604	30	26	0	0	0
NS17a	-	0	0	24	105	0	0	0	216	225	422	688	49	20	-	20	4	194
NS17b	59	0	0	24	105	0	0	0	216	225	422	688	49	20	61	32	16	194
NS18a	-	10	0	43	5	4	0	0	1	77	1568	26	330	124	159	44	2	29
NS18b	1	10	0	43	5	4	0	0	1	77	1568	26	338	125	185	52	10	37
NS19a	-	28	0	1	12	0	0	0	28	561	382	217	125	2	19	0	-	24
NS19b	58	28	0	37	49	0	0	0	50	561	393	217	137	71	19	3	3	24
NS20a	-	50	0	88	18	0	0	0	98	0	54	7	65	39	2	47	-	70
NS20b	7	50	0	88	18	0	0	0	98	0	54	7	66	40	9	48	3	70
NS21a	-	55	0	-	36	0	-	-	-	-	-	0	202	123	0	-	-	0
NS21b	3	56	0	3	37	0	0	0	3	3	3	3	202	123	0	0	0	0
NS22a	-	58	0	0	0	0	0	0	0	695	88	93	242	172	765	535	0	1920
NS22b	0	58	0	0	0	0	0	0	0	695	88	93	334	262	765	538	3	1923
NSTOa	**0**	**657**	**12**	**1625**	**354**	**115**	**540**	**44**	**736**	**1605**	**2768**	**1096**	**2402**	**1059**	**1143**	**2358**	**584**	**2519**
NSTOb	**189**	**658**	**68**	**1692**	**395**	**119**	**548**	**44**	**777**	**1627**	**2801**	**1115**	**2519**	**1287**	**1297**	**2395**	**685**	**2544**
NL22a	0	530	2	1385	53	-	12	0	2780	3050	570	250	990	634	2010	-	50	705
NL22b	0	530	2	1385	53	840	12	0	2780	3050	570	250	990	634	2010	100	50	705
NL23a	0	49	2	205	152	-	1	-	130	-	73	19	299	133	10	-	-	17
NL23b	0	49	2	205	152	0	1	0	130	45	73	19	329	133	10	100	1	17
NL24a	0	65	0	2410	0	0	2	0	380	240	142	142	125	40	4	-	0	0
NL24b	0	65	0	2410	0	0	2	0	380	240	142	142	125	40	4	0	0	0
NL25a	0	369	12	3328	601	-	51	0	43	712	612	85	290	92	69	-	2	94
NL25b	0	369	12	3328	601	80	51	0	43	712	612	461	360	92	69	25	2	94
NL26a	64	520	0	5285	593	-	44	-	1882	1667	1068	1503	490	19	75	-	1	0
NL26b	64	520	0	5285	593	50	44	50	1882	1667	1068	1503	490	19	75	150	1	0
NL27a	-	20	-	-	-	-	-	-	-	0	-	-	0	0	0	-	0	0
NL27b	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL28a	390	1380	135	1050	685	4	444	20	1410	899	1004	1401	361	414	225	-	29	63
NL28b	390	1380	135	1050	685	4	444	20	1410	899	1004	1401	461	414	225	35	29	63
NL29a	8	64	0	108	4	0	0	0	38	10	1031	305	65	195	0	-	0	0
NL29b	8	64	0	108	4	0	0	0	38	10	1031	305	65	195	0	0	0	0
NLTOa	**462**	**2997**	**151**	**13771**	**2088**	**4**	**554**	**20**	**6663**	**6578**	**4500**	**3705**	**2620**	**1527**	**2393**	**-**	**82**	**879**
NLTOb	**462**	**2997**	**151**	**13771**	**2088**	**974**	**554**	**70**	**6663**	**6623**	**4500**	**4081**	**2820**	**1527**	**2393**	**410**	**83**	**879**
TOTAa	**462**	**6213**	**1368**	**18643**	**3154**	**251**	**1720**	**353**	**8557**	**14187**	**9215**	**6759**	**7579**	**4499**	**4618**	**3077**	**1208**	**5918**
TOTAb	**2906**	**6871**	**1425**	**18973**	**3619**	**1226**	**1728**	**404**	**8846**	**14290**	**9353**	**7844**	**8491**	**5047**	**5765**	**4788**	**1355**	**5982**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	115	3	17	4	4	0	15	50	720	287	155	1453	148	668	321	150	513	45
DK01b	115	3	17	4	4	4	15	50	720	287	155	1453	148	668	321	150	513	45
DK02a	49	4	0	0	8	0	47	270	44	1237	126	1428	1302	1038	410	1154	1010	588
DK02b	49	4	0	0	8	8	47	270	44	1237	126	1428	1302	1038	410	1154	1010	588
DK03a	14	0	0	4	0	0	83	0	540	171	30	24	967	36	113	54	223	1442
DK03b	14	0	0	4	0	0	83	0	540	171	30	24	967	36	113	54	223	1442
DK04a	8	0	0	1	1	0	2	0	509	3117	1202	680	2984	487	2670	1765	1397	8334
DK04b	8	0	0	1	1	0	2	0	509	3117	1202	680	2984	487	2670	1765	1397	8334
DK05a	66	0	0	4	6	9	14	11	740	1282	195	1091	700	175	403	2501	3170	185
DK05b	66	0	0	4	6	9	14	11	740	1282	195	1091	700	175	403	2501	3170	185
DKTOa	**252**	**7**	**17**	**13**	**19**	**9**	**161**	**331**	**2553**	**6094**	**1708**	**4676**	**6101**	**2404**	**3917**	**5624**	**6313**	**10594**
DKTOb	**252**	**7**	**17**	**13**	**19**	**21**	**161**	**331**	**2553**	**6094**	**1708**	**4676**	**6101**	**2404**	**3917**	**5624**	**6313**	**10594**
SH06a	47	2	12	5	5	3	1	308	862	3737	103	2907	1603	168	2576	3652	4405	1022
SH06b	53	20	12	8	5	3	46	316	884	3825	191	3034	1605	3196	2594	3655	4452	1201
SH07a	0	0	31	0	0	3	3	0	0	305	80	4	10	189	0	28	0	0
SH07b	4	4	35	4	5	8	3	2	15	305	92	20	40	189	0	30	54	62
SH08a	77	12	0	19	0	0	160	15	971	518	260	1859	249	1631	1573	418	1063	1091
SH08b	79	37	25	19	0	9	275	15	971	522	264	1863	289	1632	1574	419	1063	1091
SH09a	0	0	0	0	0	0	0	0	0	0	22	2	780	25	320	0	320	0
SH09b	0	0	0	0	0	0	0	0	0	0	22	2	780	178	320	227	354	34
SH10a	0	0	0	0	0	0	18	91	291	7	99	7	627	45	277	67	700	59
SH10b	1	1	0	0	0	0	18	91	295	16	102	27	647	45	312	118	792	151
SH11a	0	10	0	0	0	0	22	54	0	0	7007	0	1790	25	522	654	205	366
SH11b	0	24	14	0	12	0	22	54	7503	7500	7007	7002	2994	533	522	654	205	366
SH12a	4	39	2	2	0	0	7	15	25	3786	52	965	28	630	2640	182	1810	51
SH12b	34	39	26	2	6	6	7	20	965	3786	2409	1855	1718	630	3240	782	1926	151
SH13a	11	0	0	0	0	0	65	0	900	360	60	913	0	221	180	0	403	9
SH13b	11	258	260	4	2	0	65	9	1147	1365	1201	913	621	324	412	461	412	248
SH14a	53	0	21	18	0	0	4	60	537	2145	2764	30	7881	387	1484	732	430	6410
SH14b	53	7	21	19	0	0	30	159	1063	2148	2767	601	7881	567	1484	841	560	6410
SHTOa	**192**	**63**	**66**	**44**	**5**	**6**	**280**	**543**	**3586**	**10858**	**10447**	**6687**	**12968**	**3321**	**9572**	**5733**	**9336**	**9008**
SHTOb	**235**	**390**	**393**	**56**	**30**	**26**	**466**	**666**	**12843**	**19467**	**14055**	**15317**	**16575**	**7294**	**10458**	**7187**	**9818**	**9714**
NS14a	93	75	7	22	10	12	-	1084	4941	1522	2262	3585	2154	2695	3766	2477	2495	2042
NS14b	97	79	62	26	21	16	71	1224	5113	1965	2546	3868	2403	2896	3832	3529	2513	2043
NS15a	0	0	20	0	1	0	0	249	494	15	130	22	350	324	490	142	45	184
NS15b	10	10	20	10	11	10	0	249	494	259	131	266	415	512	536	207	146	184
NS16a	0	26	0	0	0	0	-	0	20	6	370	0	105	250	-	-	344	550
NS16b	0	26	0	0	0	0	0	0	38	6	370	0	123	350	100	100	394	550
NS17a	14	3	0	28	0	0	-	157	205	550	700	660	3498	146	712	225	1554	1
NS17b	14	3	12	28	0	0	1	182	205	550	700	660	3498	146	712	308	1554	49
NS18a	16	0	0	0	19	0	0	32	185	543	190	161	258	99	205	417	45	1300
NS18b	24	8	8	8	19	0	1	32	199	598	190	216	281	190	230	428	535	306
NS19a	6	1	0	0	0	0	-	0	107	199	19	322	206	26	258	0	0	44
NS19b	6	4	0	3	0	3	0	0	161	205	19	328	206	184	317	295	97	44
NS20a	18	0	7	15	1	0	-	94	177	1876	115	248	334	84	402	95	249	181
NS20b	19	2	10	15	4	3	0	132	190	1906	168	315	347	84	464	168	272	221
NS21a	-	0	28	0	15	0	-	430	-	0	445	-	526	0	57	75	-	66
NS21b	0	0	28	0	15	0	-	610	25	25	445	25	526	0	57	75	0	66
NS22a	0	9	39	12	17	0	-	3985	10	1082	85	2960	164	218	1280	4920	3228	27
NS22b	19	12	42	12	17	3	346	3985	15	1087	85	2965	934	219	1281	4921	3255	526
NSTOa	**147**	**114**	**101**	**77**	**63**	**12**	**0**	**6031**	**6139**	**5793**	**4316**	**7958**	**7595**	**3842**	**7170**	**8351**	**8366**	**3395**
NSTOb	**189**	**144**	**182**	**102**	**87**	**35**	**419**	**6414**	**6440**	**6601**	**4654**	**8643**	**8733**	**4581**	**7529**	**10031**	**8766**	**3989**
NL22a	144	8	11	0	0	4	61	1910	4255	2932	8220	2218	18910	8301	3183	5845	4987	2400
NL22b	144	8	11	0	0	4	61	1910	4255	2932	8220	2218	18910	8301	3183	5845	4987	2400
NL23a	-	-	-	368	6	-	14	78	287	15	60	1211	726	1013	1267	-	314	2820
NL23b	0	0	0	368	6	0	14	78	287	635	90	1241	726	1148	1267	1550	314	2840
NL24a	0	0	0	0	0	0	0	0	45	5	67	90	195	100	505	-	190	1055
NL24b	0	0	0	0	0	0	0	0	45	5	67	90	195	100	505	600	190	1055
NL25a	2	2	4	-	0	2	0	92	1623	3060	1354	1025	2883	4831	1489	-	798	1045
NL25b	2	3	4	1	0	2	0	92	1623	3060	1354	1025	2883	4831	1489	2690	798	1045
NL26a	0	8	6	0	0	2	2	24	905	8	1225	163	655	258	121	-	813	2130
NL26b	0	8	6	0	0	2	2	24	905	8	1225	163	655	258	121	1200	813	2130
NL27a	0	0	0	0	0	0	0	0	-	-	9	-	-	7	-	-	5	-
NL27b	0	0	0	0	0	0	0	0	0	0	9	0	0	7	0	0	5	0
NL28a	46	1	130	25	13	0	0	474	1395	732	901	1000	1205	1614	1580	-	550	1215
NL28b	46	1	130	25	13	0	0	474	1395	732	901	1000	1205	1614	1580	1400	550	1215
NL29a	0	-	2	2	-	0	0	34	103	797	405	1483	640	4148	137	-	647	8
NL29b	0	0	2	2	0	0	0	34	103	797	405	1483	640	4148	137	1000	647	8
NLTOa	**192**	**19**	**153**	**395**	**19**	**8**	**77**	**2612**	**8613**	**7549**	**12241**	**7190**	**25214**	**20272**	**8282**	**5845**	**8304**	**10673**
NLTOb	**192**	**20**	**153**	**396**	**19**	**8**	**77**	**2612**	**8613**	**8169**	**12271**	**7220**	**25214**	**20407**	**8282**	**14285**	**8304**	**10693**
TOTAa	**783**	**203**	**337**	**529**	**106**	**35**	**518**	**9517**	**20891**	**30294**	**28712**	**26511**	**51878**	**29839**	**28941**	**25553**	**32319**	**33670**
TOTAb	**868**	**561**	**745**	**567**	**155**	**90**	**1123**	**10023**	**30449**	**40331**	**32688**	**35856**	**56623**	**34686**	**30186**	**37127**	**33201**	**34990**

Table 9. Mallard *Anas platyrhynchos*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	2234	3760	85	2225	2428	202	3019	437	2995	4083	2971	4511	300	2004	207	45	50	13
DK01b	2234	3760	85	2225	2428	202	3019	437	2995	4083	2971	4511	300	2004	207	210	50	13
DK02a	2038	2063	102	2178	1637	194	1477	126	2715	4400	2701	3235	899	2459	137	89	67	24
DK02b	2038	2063	102	2178	1637	194	1477	126	2715	4400	2701	3235	899	2459	137	140	67	24
DK03a	2359	1227	238	180	1360	43	440	12	1636	4627	6668	3111	2226	3820	575	10	10	23
DK03b	2359	1227	238	180	1360	43	440	12	1636	4627	6668	3111	2226	3820	575	550	10	23
DK04a	5790	4892	125	8825	7460	58	2918	162	7617	10087	5766	6446	3117	2916	145	65	15	60
DK04b	5790	4892	125	8825	7460	58	2918	162	7617	10087	5766	6446	3117	2916	145	150	15	60
DK05a	1975	8530	2350	3964	3620	291	3658	111	2856	8054	2234	5706	4201	2691	469	30	166	271
DK05b	1975	8530	2350	3964	3620	291	3658	111	2856	8054	2234	5706	4201	2691	469	150	166	271
DKTOa	**14396**	**20472**	**2900**	**17372**	**16505**	**788**	**11512**	**848**	**17819**	**31251**	**20340**	**23009**	**10743**	**13890**	**1533**	**239**	**308**	**391**
DKTOb	**14396**	**20472**	**2900**	**17372**	**16505**	**788**	**11512**	**848**	**17819**	**31251**	**20340**	**23009**	**10743**	**13890**	**1533**	**1200**	**308**	**391**
SH06a	-	2607	58	4839	2815	34	6859	319	3775	8878	5737	4350	1953	640	46	32	94	128
SH06b	7835	2858	488	5476	3223	511	6859	796	4272	9026	5761	4856	2319	1025	160	76	139	152
SH07a	-	310	172	1014	1130	36	861	50	964	2015	3089	1262	0	45	40	9	18	63
SH07b	2400	1521	1623	2019	2339	1606	2013	1527	1607	2426	3719	3257	392	263	85	23	32	77
SH08a	-	7628	424	4260	5782	2484	1769	2003	6678	8084	5166	9746	407	2667	5	83	80	273
SH08b	4753	9170	424	4624	6105	2531	1779	2051	7800	8688	5484	10136	1572	2724	90	121	86	319
SH09a	-	1202	124	56	880	2	623	64	1148	570	974	1628	71	42	47	45	29	102
SH09b	1579	1412	204	1162	1288	2	623	104	1876	1178	1545	2372	303	149	105	51	43	102
SH10a	-	5567	1330	6590	2806	370	2696	844	2703	11150	9412	16140	820	1153	80	67	126	277
SH10b	6951	6001	1488	9188	6665	1017	2696	1002	3506	11723	9429	17073	1881	1213	240	121	161	277
SH11a	-	120	25	2278	3855	7	3226	817	4825	5347	6060	7105	470	776	92	0	25	190
SH11b	6459	2573	458	3357	3868	7	3226	817	5689	5360	6978	7754	790	780	213	188	29	190
SH12a	-	1584	0	3232	2060	8	6	4	1880	4973	10962	0	32	2073	41	264	333	361
SH12b	6795	3153	100	5351	3498	108	106	104	6300	6093	11802	6474	2383	2073	128	293	333	361
SH13a	-	0	0	600	30	9	487	0	733	4113	4884	4742	0	10	0	0	49	340
SH13b	4729	4011	259	2861	2067	240	487	31	3693	5763	4884	4742	898	305	355	328	49	340
SH14a	-	980	379	2135	1412	532	1841	794	2486	2815	1306	270	2226	1636	27	37	38	71
SH14b	1779	1614	412	2135	1412	565	1855	1005	2486	2950	1306	1076	2226	1750	45	60	78	85
SHTOa	**-**	**19998**	**2512**	**25004**	**20770**	**3482**	**18368**	**4895**	**25192**	**47945**	**47590**	**45243**	**5979**	**9042**	**378**	**537**	**792**	**1805**
SHTOb	**43280**	**32313**	**5456**	**36173**	**30465**	**6587**	**19644**	**7437**	**37229**	**53207**	**50908**	**57740**	**12764**	**10282**	**1421**	**1261**	**950**	**1903**
NS14a	-	2409	512	4660	7886	626	6041	1766	4861	3765	2489	3375	1597	1987	455	1174	1074	300
NS14b	2882	2584	1944	5785	8098	1028	6544	2413	5276	4141	2919	3751	1628	2042	455	1249	1297	382
NS15a	-	6080	1509	935	563	225	-	87	3421	3220	1175	1396	6695	2326	30	-	5	125
NS15b	3130	6080	1509	2852	2767	532	872	457	3685	3809	3412	3016	6749	3922	437	219	197	292
NS16a	-	5227	873	600	110	0	700	-	1532	2300	1200	957	562	-	-	30	-	110
NS16b	1679	5245	873	1947	1424	298	1028	843	1926	3044	1944	1597	571	897	359	284	262	300
NS17a	-	8877	826	5848	6774	700	2970	197	20334	13789	4003	5961	9466	2641	-	216	17	360
NS17b	5614	9701	826	6108	7034	1056	2970	197	20334	13853	4503	6021	9666	4024	1932	281	184	394
NS18a	-	10341	4104	6928	3572	4669	7617	1641	13557	11698	2762	8289	2202	1849	1159	162	53	306
NS18b	7443	10735	5747	8222	6741	4779	7934	1958	15128	12415	4349	8664	2663	2036	1162	282	255	416
NS19a	-	5138	683	2789	2647	525	172	25	1510	6141	6462	6109	1137	998	307	11	-	449
NS19b	4822	5522	683	4012	5067	645	640	541	4404	6246	7486	6122	1339	1765	307	258	277	449
NS20a	-	2042	464	1272	828	203	18	64	1479	2097	3277	1848	1114	1305	77	394	-	499
NS20b	2355	2918	576	1820	1182	282	208	220	1964	2976	3852	3018	1347	1626	118	847	579	602
NS21a	-	800	390	-	296	0	-	-	-	-	-	0	368	186	0	-	-	12
NS21b	108	823	390	108	319	220	305	305	108	108	108	108	437	238	0	8	8	12
NS22a	-	4021	390	2764	447	3	858	14	575	2085	2006	1443	470	871	128	75	0	25
NS22b	1399	4021	390	2764	447	555	1125	559	819	2329	2250	1687	1119	1182	128	137	62	71
NSTOa	**0**	**44935**	**9751**	**25796**	**23123**	**6951**	**18376**	**3794**	**47269**	**45095**	**23374**	**29378**	**23611**	**12163**	**2156**	**2062**	**1149**	**2186**
NSTOb	**29432**	**47629**	**12938**	**33618**	**33079**	**9395**	**21626**	**7493**	**53644**	**48921**	**30823**	**33984**	**25519**	**17732**	**4898**	**3565**	**3121**	**2918**
NL22a	95	3500	1575	2705	2877	-	2125	298	7067	6320	4580	4742	1775	1145	540	-	50	275
NL22b	95	3500	1575	2705	2877	3100	2125	298	7067	6320	4580	4742	1775	1145	540	200	50	275
NL23a	6330	11869	5390	15130	13179	7559	23936	1921	20550	-	10952	3219	1899	3373	568	-	350	292
NL23b	7150	11869	6210	15950	13179	7679	24756	2741	20550	12320	11772	3219	1929	3373	568	410	367	292
NL24a	250	460	960	465	1230	1115	400	550	295	480	460	640	65	325	28	-	51	0
NL24b	250	460	960	465	1230	1115	400	550	295	480	460	640	65	325	28	20	51	0
NL25a	760	4260	2500	5985	8351	725	6201	2495	8968	5540	10903	2320	940	2615	300	-	228	238
NL25b	770	4270	2500	5995	8351	2125	6201	2495	8978	5540	10903	6448	1340	2615	300	250	228	238
NL26a	1370	2155	1575	2025	2060	-	1775	-	1507	1678	2007	4588	1140	660	33	-	159	49
NL26b	1370	2155	1575	2025	2060	2200	1775	2200	1507	1678	2007	4588	1140	660	33	300	159	49
NL27a	-	200	-	-	-	-	-	-	-	197	-	-	12	10	2	-	0	0
NL27b	100	200	100	100	100	100	100	100	100	197	100	100	12	10	2	8	0	0
NL28a	4140	5055	3340	3599	4287	1770	3480	6101	5937	4190	5330	3253	2055	2742	708	-	877	421
NL28b	4140	5055	3340	3599	4287	1770	3480	6101	5937	4190	5330	3253	2140	2742	708	730	877	421
NL29a	290	170	180	530	434	227	710	130	1890	519	345	586	275	70	71	-	20	108
NL29b	290	170	180	530	434	227	710	130	1890	519	345	586	275	70	71	70	20	108
NLTOa	**13235**	**27669**	**15520**	**30439**	**32418**	**11396**	**38627**	**11495**	**46214**	**18924**	**34577**	**19348**	**8161**	**10940**	**2250**	**-**	**1735**	**1383**
NLTOb	**14165**	**27679**	**16440**	**31369**	**32518**	**18316**	**39547**	**14615**	**46324**	**31244**	**35497**	**23576**	**8676**	**10940**	**2250**	**1988**	**1752**	**1383**
TOTAa	**27631**	**113074**	**30683**	**98611**	**92816**	**22617**	**86883**	**21032**	**136494**	**143215**	**125881**	**116978**	**48494**	**46035**	**6317**	**2838**	**3984**	**5765**
TOTAb	**101273**	**128093**	**37734**	**118532**	**112567**	**35086**	**92329**	**30393**	**155016**	**164623**	**137568**	**138309**	**57702**	**52844**	**10102**	**8014**	**6131**	**6595**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	25	43	24	28	24	0	68	105	289	600	335	772	276	2716	485	845	2448	270
DK01b	25	43	24	28	24	24	68	105	289	600	335	772	276	2716	485	845	2448	270
DK02a	65	19	26	26	80	23	286	603	374	491	350	504	344	805	837	1296	5327	1691
DK02b	65	19	26	26	80	80	286	603	374	491	350	504	344	805	837	1296	5327	1691
DK03a	64	17	30	35	12	5	74	8	372	886	65	479	285	1243	338	1250	2176	6916
DK03b	64	17	30	35	12	12	74	8	372	886	65	479	285	1243	338	1250	2176	6916
DK04a	30	23	10	22	4	2	358	147	880	690	576	1858	1648	1502	634	2725	5459	15717
DK04b	30	23	10	22	4	2	358	147	880	690	576	1858	1648	1502	634	2725	5459	15717
DK05a	137	20	36	322	103	46	1200	114	1245	980	305	3174	2054	590	953	1791	3088	2171
DK05b	137	20	36	322	103	100	1200	114	1245	980	305	3174	2054	590	953	1791	3088	2171
DKTOa	**321**	**122**	**126**	**433**	**223**	**76**	**1986**	**977**	**3160**	**3647**	**1631**	**6787**	**4607**	**6856**	**3247**	**7907**	**18498**	**26765**
DKTOb	**321**	**122**	**126**	**433**	**223**	**218**	**1986**	**977**	**3160**	**3647**	**1631**	**6787**	**4607**	**6856**	**3247**	**7907**	**18498**	**26765**
SH06a	165	79	41	167	63	102	178	402	2002	3648	500	1204	1097	604	3743	2523	6374	4798
SH06b	193	191	74	224	132	140	659	562	2122	4095	1030	1628	1415	4932	3753	2679	6403	4992
SH07a	47	82	26	32	0	43	82	15	540	996	82	249	400	1121	820	1206	1067	2104
SH07b	61	100	68	70	56	62	122	282	677	996	552	972	1060	1477	820	1868	1683	2371
SH08a	149	131	61	747	60	58	1169	377	3883	2669	3271	5520	6155	4705	3363	2415	3379	5274
SH08b	155	159	91	753	67	144	1897	1839	3996	2899	3389	5780	6627	4705	3427	2672	3509	5304
SH09a	38	78	137	98	14	53	554	274	345	238	323	451	648	475	1490	897	1719	596
SH09b	38	90	162	126	85	72	554	676	565	807	571	796	1294	844	1498	1138	2093	644
SH10a	63	62	46	149	70	99	956	1248	1270	546	1113	1904	2875	4411	6019	3382	2893	5345
SH10b	70	81	72	165	106	118	956	1248	2010	1771	1213	2307	3887	4573	6680	4731	2976	6134
SH11a	117	125	57	16	0	46	113	1059	0	520	2068	102	7679	3075	4937	1560	13830	7142
SH11b	117	148	80	16	85	46	298	1059	5214	5686	2068	4135	8574	6134	5161	1560	13864	7142
SH12a	200	335	138	675	214	250	680	374	1711	8430	942	3320	2302	3800	3858	3420	4045	2076
SH12b	484	355	413	675	752	805	680	463	6331	8544	7042	7575	7472	5178	5858	5420	6225	2076
SH13a	188	27	0	682	0	30	5894	0	100	107	69	1559	0	1219	230	0	1580	2805
SH13b	188	297	298	806	108	128	5894	523	784	571	962	1559	2211	1615	1840	1840	1900	2805
SH14a	66	23	311	174	392	304	191	22	644	3969	2012	54	2489	54	1364	342	711	4988
SH14b	70	76	311	186	396	316	230	340	1681	3975	2018	1031	2493	1239	1364	766	918	4988
SHTOa	**1033**	**942**	**817**	**2740**	**813**	**985**	**9817**	**3771**	**10495**	**21123**	**10380**	**14363**	**23645**	**19464**	**25824**	**15745**	**35598**	**35128**
SHTOb	**1376**	**1497**	**1569**	**3021**	**1787**	**1831**	**11290**	**6992**	**23380**	**29344**	**18845**	**25783**	**35033**	**30697**	**30401**	**22674**	**39571**	**36456**
NS14a	147	124	71	337	235	359	-	10410	3234	3328	10983	5200	15141	6474	6025	13761	12585	11667
NS14b	293	200	296	422	347	425	971	11140	4312	5316	12334	6210	15748	7545	6190	14742	13097	11762
NS15a	7	33	60	92	511	66	0	347	889	1445	537	154	1964	614	979	319	4150	4467
NS15b	193	175	222	172	651	243	67	347	1273	2034	562	1295	2264	1518	1467	1272	5566	4467
NS16a	215	349	50	202	1	36	-	25	120	325	359	430	1936	570	-	-	1266	2740
NS16b	339	357	304	236	255	256	0	25	475	468	494	673	2109	1046	686	686	1326	2915
NS17a	130	235	372	813	56	64	-	1172	1674	2966	2824	2554	8100	4811	5642	5330	13290	10283
NS17b	139	292	437	820	145	103	275	1611	2239	3117	2907	2554	8150	4828	5759	6060	13290	11003
NS18a	305	159	153	376	460	250	0	756	3296	9055	4602	5716	3599	4503	2598	4154	7755	8571
NS18b	371	287	300	451	492	313	1326	1086	4013	9350	4649	5958	4362	5151	3458	4928	8566	8870
NS19a	293	53	107	390	265	4	-	743	1581	2240	1889	3147	4792	2855	5437	797	570	2151
NS19b	344	196	288	503	405	251	1018	743	2983	3144	2310	3946	5318	3924	6437	3258	3125	2379
NS20a	323	265	154	553	63	94	-	912	1270	1980	475	1268	1166	1264	1138	1447	1144	1790
NS20b	658	686	624	643	519	550	215	1241	1652	2269	1107	2051	1378	1990	1508	2268	2500	2461
NS21a	-	0	295	0	110	42	-	964	-	310	695	-	610	240	523	609	-	575
NS21b	8	0	295	0	111	42	-	1009	574	485	919	574	834	240	604	609	351	655
NS22a	????	67	118	387	160	45	-	846	152	458	76	505	432	180	867	2034	1508	158
NS22b	105	113	129	422	160	56	1798	846	297	603	206	650	665	1584	1816	2983	1997	879
NSTOa	**1441**	**1285**	**1380**	**3150**	**1861**	**960**	**0**	**16175**	**12216**	**22107**	**22440**	**18974**	**37740**	**21511**	**23209**	**28451**	**42268**	**42402**
NSTOb	**2450**	**2306**	**2895**	**3669**	**3085**	**2239**	**5670**	**18048**	**17818**	**26786**	**25488**	**23911**	**40828**	**27826**	**27925**	**36806**	**49818**	**45391**
NL22a	127	63	370	126	240	133	1212	3255	2200	2888	1790	3395	3275	2235	4529	3328	3329	3365
NL22b	127	63	370	126	240	133	1212	3255	2200	2888	1790	3395	3275	2235	4529	3328	3329	3365
NL23a	345	152	211	14	283	419	1285	1479	8175	50	1705	4975	7860	3487	11247	-	12253	6620
NL23b	345	152	211	14	283	419	1285	1479	8175	6170	1855	5125	7860	3837	11247	7160	12253	6820
NL24a	0	12	0	0	0	30	5	195	995	2790	270	126	1400	215	203	-	365	455
NL24b	0	12	0	0	0	30	5	195	995	2790	270	126	1400	215	203	450	365	455
NL25a	178	146	183	209	100	246	284	1995	8850	4939	5480	4320	6985	3420	7886	-	5817	3915
NL25b	178	211	183	274	100	246	284	1995	8850	4939	5480	4320	6985	3420	7886	5002	5817	3915
NL26a	62	70	112	62	21	36	88	155	1485	1346	1045	1946	1405	1989	1543	-	1424	2345
NL26b	62	70	112	62	21	36	88	155	1485	1346	1045	1946	1405	1989	1543	1400	1424	2345
NL27a	0	13	0	0	0	1	0	12	-	-	150	-	-	25	-	-	435	-
NL27b	0	13	0	0	0	1	0	12	140	140	150	140	140	25	125	125	435	10
NL28a	683	532	567	601	555	808	759	3374	7080	7854	3975	4073	3085	6168	4848	-	3789	2955
NL28b	683	532	567	601	555	808	759	3374	7080	7854	3975	4073	3085	6168	4848	4260	3789	2955
NL29a	49	-	63	155	-	57	330	385	445	885	700	942	860	2028	808	-	300	410
NL29b	49	70	63	155	70	57	330	385	445	885	700	942	860	2028	808	1000	300	410
NLTOa	**1444**	**988**	**1506**	**1167**	**1199**	**1730**	**3963**	**10850**	**29230**	**20752**	**15115**	**19777**	**24870**	**19567**	**31064**	**3328**	**27712**	**20065**
NLTOb	**1444**	**1123**	**1506**	**1232**	**1269**	**1730**	**3963**	**10850**	**29370**	**27012**	**15265**	**20067**	**25010**	**19917**	**31189**	**22725**	**27712**	**20275**
TOTAa	**4239**	**3337**	**3829**	**7490**	**4096**	**3751**	**15766**	**31773**	**55101**	**67629**	**49566**	**59901**	**90862**	**67398**	**83344**	**55431**	**124076**	**124360**
TOTAb	**5591**	**5048**	**6096**	**8355**	**6364**	**6018**	**22909**	**36867**	**73728**	**86789**	**61229**	**76548**	**105478**	**85296**	**92762**	**90112**	**135599**	**128887**

Table 10. Pintail *Anas acuta*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	9	0	11	41	0	0	0	200	143	618	35	2	95	8	20	2	10
DK01b	0	9	0	11	41	0	0	0	200	143	618	35	2	95	8	20	2	10
DK02a	150	0	0	9	5	0	0	0	60	417	1881	1289	1055	755	26	269	40	188
DK02b	150	0	0	9	5	0	0	0	60	417	1881	1289	1055	755	26	300	40	188
DK03a	0	0	0	0	25	0	0	0	0	372	1822	1060	1170	1047	11	590	0	79
DK03b	0	0	0	0	25	0	0	0	0	372	1822	1060	1170	1047	11	590	0	79
DK04a	0	0	0	370	75	0	0	0	10	712	135	235	546	188	63	400	12	197
DK04b	0	0	0	370	75	0	0	0	10	712	135	235	546	188	63	450	12	197
DK05a	0	0	0	792	675	0	120	0	765	576	344	399	490	1154	454	87	20	472
DK05b	0	0	0	792	675	0	120	0	765	576	344	399	490	1154	454	350	20	472
DKTOa	**150**	**9**	**0**	**1182**	**821**	**0**	**120**	**0**	**1035**	**2220**	**4800**	**3018**	**3263**	**3239**	**562**	**1366**	**74**	**946**
DKTOb	**150**	**9**	**0**	**1182**	**821**	**0**	**120**	**0**	**1035**	**2220**	**4800**	**3018**	**3263**	**3239**	**562**	**1710**	**74**	**946**
SH06a	-	13	0	42	14	0	0	0	767	462	301	337	142	24	29	0	0	25
SH06b	673	13	0	42	14	0	0	0	767	463	301	337	157	312	31	32	0	25
SH07a	-	0	0	0	0	0	0	0	0	0	23	13	0	0	0	0	0	3
SH07b	20	17	0	17	19	0	0	0	12	0	23	13	9	1	0	0	0	3
SH08a	-	0	0	6	64	0	8	0	9	40	437	18	1	759	0	1	15	282
SH08b	54	1	0	6	64	0	8	0	43	43	437	18	337	759	13	10	15	291
SH09a	-	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
SH09b	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
SH10a	-	28	0	485	2	0	0	0	0	56	11	56	1	38	20	55	2	38
SH10b	16	28	0	487	3	0	0	0	0	56	11	56	80	53	87	64	3	38
SH11a	-	0	0	4	50	0	0	0	0	71	130	30	50	42	19	0	13	6
SH11b	65	1	0	4	50	0	0	0	2	71	130	30	57	48	21	4	13	8
SH12a	-	0	0	34	1	0	0	0	0	0	249	0	0	196	2	10	16	39
SH12b	40	116	0	150	1	0	0	0	133	116	479	124	374	196	15	25	16	39
SH13a	-	0	0	0	0	0	6	0	0	980	327	46	0	0	0	0	22	315
SH13b	125	43	3	46	50	3	6	0	0	980	327	46	45	120	304	239	22	315
SH14a	-	0	0	8	6	0	0	0	0	4	1	0	109	21	6	0	0	2
SH14b	0	0	0	8	6	0	0	0	0	4	1	0	109	29	10	4	4	2
SHTOa	**-**	**41**	**0**	**579**	**137**	**0**	**14**	**0**	**777**	**1613**	**1479**	**500**	**303**	**1080**	**76**	**66**	**68**	**710**
SHTOb	**993**	**219**	**3**	**760**	**207**	**3**	**14**	**0**	**958**	**1733**	**1709**	**624**	**1168**	**1518**	**481**	**378**	**73**	**721**
NS14a	-	0	0	4	52	0	0	0	595	0	0	1	70	109	58	67	142	2
NS14b	0	0	0	4	52	0	0	0	595	0	0	1	70	109	58	67	142	2
NS15a	-	5	0	0	50	0	-	0	0	243	4	0	606	0	300	-	80	21
NS15b	0	5	0	0	50	0	0	0	0	243	4	0	606	238	425	13	83	24
NS16a	-	642	0	26	0	0	0	-	0	0	0	40	422	-	-	0	-	0
NS16b	26	642	0	26	26	0	0	0	0	26	26	66	422	10	0	0	0	0
NS17a	-	145	0	145	149	0	7	0	516	72	118	123	341	572	-	2	6	12
NS17b	69	155	0	155	159	0	7	0	516	72	118	123	341	583	12	5	9	12
NS18a	-	169	7	60	11	3	172	19	91	239	10	81	172	201	90	63	1	15
NS18b	91	233	10	128	82	3	172	19	159	303	78	81	177	208	90	64	2	16
NS19a	-	495	1	1275	312	0	0	0	0	437	180	210	193	2	7	4	-	22
NS19b	319	581	1	1276	399	0	0	0	242	437	411	210	201	59	7	12	9	22
NS20a	-	655	2	1266	61	5	0	0	28	1200	679	104	982	599	45	7	-	26
NS20b	80	662	5	1266	61	5	3	0	28	1200	679	104	984	611	51	7	6	26
NS21a	-	510	0	-	534	0	-	-	-	-	-	0	112	278	0	-	-	0
NS21b	62	512	0	62	536	0	0	0	62	62	62	62	116	279	0	0	0	0
NS22a	-	70	0	15	0	0	0	0	0	150	524	1000	93	131	63	2	0	180
NS22b	10	70	0	15	0	0	0	0	0	150	524	1000	120	131	63	2	0	180
NSTOa	**0**	**2691**	**10**	**2791**	**1169**	**8**	**179**	**19**	**1230**	**2341**	**1515**	**1559**	**2991**	**1892**	**563**	**145**	**229**	**278**
NSTOb	**657**	**2860**	**16**	**2932**	**1365**	**8**	**182**	**19**	**1602**	**2493**	**1902**	**1647**	**3037**	**2228**	**706**	**170**	**251**	**282**
NL22a	0	2	2	11	56	-	0	0	77	248	656	82	35	70	64	-	12	400
NL22b	0	2	2	11	56	100	0	0	77	248	656	82	35	70	64	20	12	400
NL23a	58	95	79	210	673	31	148	1	402	-	317	267	149	813	60	-	-	71
NL23b	148	95	169	300	673	81	238	91	402	240	407	267	209	813	60	50	0	71
NL24a	44	820	0	1465	1285	335	390	3	865	545	530	565	345	49	0	-	0	0
NL24b	44	820	0	1465	1285	335	390	3	865	545	530	565	345	49	0	0	0	0
NL25a	54	657	19	1940	707	6	219	0	300	218	388	92	650	72	67	-	7	300
NL25b	55	658	19	1941	707	256	219	0	301	218	388	288	795	72	67	20	7	300
NL26a	32	4325	15	820	1961	-	842	-	3155	2002	2847	2577	59	498	27	-	0	0
NL26b	32	4325	15	820	1961	1850	842	1850	3155	2002	2847	2577	59	498	27	15	0	0
NL27a	-	50	-	-	-	-	-	-	-	55	-	-	0	0	0	-	0	0
NL27b	200	50	200	200	200	0	0	0	200	55	200	200	0	0	0	0	0	0
NL28a	930	1520	214	520	315	236	1208	30	686	502	628	257	980	545	30	-	4	4
NL28b	930	1520	214	520	315	236	1208	30	686	502	628	257	1130	545	30	30	4	4
NL29a	19	40	1	245	4	120	690	12	507	128	1174	525	92	636	270	-	1	0
NL29b	19	40	1	245	4	120	690	12	507	128	1174	525	92	636	270	140	1	0
NLTOa	**1137**	**7509**	**330**	**5211**	**5001**	**728**	**3497**	**46**	**5992**	**3698**	**6540**	**4365**	**2310**	**2683**	**518**	**-**	**24**	**775**
NLTOb	**1428**	**7510**	**620**	**5502**	**5201**	**2978**	**3587**	**1986**	**6193**	**3938**	**6830**	**4761**	**2665**	**2683**	**518**	**275**	**24**	**775**
TOTAa	**1287**	**10250**	**340**	**9763**	**7128**	**736**	**3810**	**65**	**9034**	**9872**	**14334**	**9442**	**8867**	**8894**	**1719**	**1577**	**395**	**2709**
TOTAb	**3228**	**10598**	**639**	**10376**	**7594**	**2989**	**3903**	**2005**	**9788**	**10384**	**15241**	**10050**	**10133**	**9668**	**2267**	**2533**	**422**	**2724**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	2	0	0	0	0	0	50	0	27	0	14	459	19	474	1	0	302	0
DK01b	2	0	0	0	0	0	50	0	27	0	14	459	19	474	1	0	302	0
DK02a	4	0	0	3	2	0	5	0	42	218	16	330	31	495	39	316	2284	71
DK02b	4	0	0	3	2	0	5	0	42	218	16	330	31	495	39	316	2284	71
DK03a	5	3	0	0	10	0	0	0	274	33	6	70	23	110	30	1030	370	70
DK03b	5	3	0	0	10	10	0	0	274	33	6	70	23	110	30	1030	370	70
DK04a	18	1	0	2	0	0	2	0	23	5	225	18	118	82	11	800	419	134
DK04b	18	1	0	2	0	0	2	0	23	5	225	18	118	82	11	800	419	134
DK05a	29	10	2	17	8	0	3	0	387	2860	15	1384	120	1015	1398	527	2032	17
DK05b	29	10	2	17	8	10	3	0	387	2860	15	1384	120	1015	1398	527	2032	17
DKTOa	**58**	**14**	**2**	**22**	**20**	**0**	**60**	**0**	**753**	**3116**	**276**	**2261**	**311**	**2176**	**1479**	**2673**	**5407**	**292**
DKTOb	**58**	**14**	**2**	**22**	**20**	**20**	**60**	**0**	**753**	**3116**	**276**	**2261**	**311**	**2176**	**1479**	**2673**	**5407**	**292**
SH06a	28	0	4	8	3	2	0	37	139	1907	82	2043	92	33	237	1349	654	153
SH06b	28	3	4	8	3	2	5	37	139	1907	82	2044	98	1153	237	1372	679	179
SH07a	0	0	0	0	0	0	2	0	0	18	1	0	0	8	0	3	0	0
SH07b	0	0	0	0	0	0	2	0	0	18	9	4	4	8	0	3	3	2
SH08a	13	9	5	38	2	0	4	0	44	69	562	818	54	422	295	38	39	10
SH08b	13	18	14	38	2	6	5	0	44	69	562	818	179	422	295	42	39	22
SH09a	0	0	0	0	0	0	0	4	0	0	14	0	0	0	0	0	0	0
SH09b	0	0	0	0	0	0	0	4	0	0	14	0	0	0	0	0	1	1
SH10a	0	12	2	0	0	0	0	8	184	5	77	0	6	0	191	3	78	23
SH10b	0	12	2	3	0	0	0	8	184	5	88	0	6	0	199	5	78	24
SH11a	79	0	0	0	0	0	0	0	0	0	320	0	280	82	42	50	32	40
SH11b	81	2	2	2	2	2	0	0	320	320	320	320	336	124	49	50	32	40
SH12a	0	2	0	0	0	0	0	0	300	111	74	1377	68	300	415	252	420	0
SH12b	11	3	6	0	1	1	0	0	320	128	125	1406	88	301	415	252	1296	875
SH13a	36	0	0	2	0	0	3	0	0	306	122	54	0	3903	0	0	1583	4
SH13b	36	66	66	2	2	0	3	0	197	428	295	54	208	3917	960	942	1584	9
SH14a	8	0	4	0	2	0	0	0	8	1	0	0	0	2	0	21	0	2
SH14b	8	0	4	0	2	0	0	0	8	1	0	0	0	2	0	21	0	2
SHTOa	**164**	**23**	**15**	**48**	**7**	**2**	**9**	**49**	**675**	**2417**	**1252**	**4292**	**500**	**4750**	**1180**	**1716**	**2806**	**232**
SHTOb	**177**	**104**	**98**	**53**	**12**	**11**	**15**	**49**	**1212**	**2876**	**1495**	**4646**	**919**	**5927**	**2155**	**2687**	**3712**	**1154**
NS14a	11	0	0	0	4	0	-	664	436	70	303	140	168	97	111	1618	47	772
NS14b	13	0	2	0	4	0	0	668	436	87	342	157	168	115	113	1618	51	772
NS15a	8	0	6	0	13	0	0	2	9	12	8	12	49	4	56	0	676	2
NS15b	11	3	8	3	18	13	0	2	29	32	8	32	49	7	59	69	681	2
NS16a	0	0	0	0	0	0	-	0	50	0	50	0	0	14	-	-	33	12
NS16b	0	0	0	0	0	0	0	0	50	0	50	0	0	14	0	0	33	12
NS17a	4	2	0	61	0	5	-	8	80	12	0	77	160	2040	154	24	104	41
NS17b	4	2	3	61	0	5	0	19	80	12	0	77	160	2040	154	31	104	82
NS18a	31	0	0	5	0	1	0	0	23	18	106	109	18	10	50	18	47	80
NS18b	32	1	1	6	0	1	2	0	23	18	106	109	18	37	77	40	143	161
NS19a	22	1	0	2	0	0	-	0	144	0	61	80	46	129	158	0	0	194
NS19b	26	5	9	2	9	8	4	0	145	3	61	82	46	163	178	74	26	194
NS20a	7	0	3	60	0	1	-	4	28	16	135	12	68	73	59	8	1423	120
NS20b	7	6	9	60	6	7	0	16	28	16	135	39	68	75	76	30	1487	183
NS21a	-	0	14	0	2	14	-	2	-	0	55	-	117	35	192	345	-	324
NS21b	0	0	14	0	2	14	-	2	6	4	57	6	119	35	204	345	148	344
NS22a	70	0	1	6	2	0	-	0	0	0	0	60	0	0	4	52	2	19
NS22b	71	0	1	6	2	0	1	0	0	0	0	60	0	0	4	52	7	22
NSTOa	**153**	**3**	**24**	**134**	**21**	**21**	**0**	**680**	**770**	**128**	**718**	**490**	**626**	**2402**	**784**	**2065**	**2332**	**1564**
NSTOb	**164**	**17**	**47**	**138**	**41**	**48**	**7**	**707**	**797**	**172**	**759**	**562**	**628**	**2486**	**865**	**2259**	**2680**	**1772**
NL22a	77	3	4	1	0	0	12	0	55	22	138	16	12	11	28	187	28	123
NL22b	77	3	4	1	0	0	12	0	55	22	138	16	12	11	28	187	28	123
NL23a	55	-	-	18	-	5	0	-	208	4	205	779	878	570	369	-	743	365
NL23b	55	0	0	18	0	5	0	0	208	604	260	834	878	690	369	810	743	545
NL24a	0	1	0	0	0	0	0	0	275	0	80	609	360	160	891	-	190	1210
NL24b	0	1	0	0	0	0	0	0	275	0	80	609	360	160	891	400	190	1210
NL25a	34	-	6	2	3	0	1	1	121	542	294	980	149	447	8896	-	546	710
NL25b	34	1	6	3	3	0	1	1	121	542	294	980	149	447	8896	2525	546	710
NL26a	0	0	0	0	0	0	0	4	86	502	77	591	275	581	0	-	1196	1850
NL26b	0	0	0	0	0	0	0	4	86	502	77	591	275	581	0	200	1196	1850
NL27a	0	0	0	0	0	0	0	0	-	-	0	-	-	9	-	-	15	-
NL27b	0	0	0	0	0	0	0	0	20	20	0	20	20	9	20	20	15	1
NL28a	18	80	20	-	6	0	0	2	855	811	700	201	905	488	1087	-	833	1935
NL28b	18	80	20	0	6	0	0	2	855	811	700	201	905	488	1087	650	833	1935
NL29a	36	-	0	0	-	0	3	6	48	363	53	118	121	315	415	-	271	375
NL29b	36	0	0	0	0	0	3	6	48	363	53	150	121	315	415	320	271	375
NLTOa	**220**	**84**	**30**	**21**	**9**	**5**	**16**	**13**	**1648**	**2244**	**1547**	**3294**	**2700**	**2581**	**11686**	**187**	**3822**	**6568**
NLTOb	**220**	**85**	**30**	**22**	**9**	**5**	**16**	**13**	**1668**	**2864**	**1602**	**3401**	**2720**	**2701**	**11706**	**5112**	**3822**	**6749**
TOTAa	**595**	**124**	**71**	**225**	**57**	**28**	**85**	**742**	**3846**	**7905**	**3793**	**10337**	**4137**	**11909**	**15129**	**6641**	**14367**	**8656**
TOTAb	**619**	**220**	**177**	**235**	**82**	**84**	**98**	**769**	**4430**	**9028**	**4132**	**10870**	**4578**	**13290**	**16205**	**12731**	**15621**	**9967**

Table 11. Shoveler *Anas clypeata*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	0
DK01b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	0
DK02a	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
DK02b	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
DK03a	0	0	0	0	0	0	0	0	75	0	0	0	2	0	0	4	0	9
DK03b	0	0	0	0	0	0	0	0	75	0	0	0	2	0	0	4	0	9
DK04a	0	0	0	0	0	0	0	0	0	1	4	6	0	2	4	0	0	4
DK04b	0	0	0	0	0	0	0	0	0	1	4	6	0	2	4	10	0	4
DK05a	0	0	0	2	0	0	0	0	4	21	0	39	21	6	0	0	53	61
DK05b	0	0	0	2	0	0	0	0	4	21	0	39	21	6	0	10	53	61
DKTOa	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**79**	**22**	**4**	**45**	**25**	**8**	**4**	**9**	**55**	**74**
DKTOb	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**79**	**22**	**4**	**45**	**25**	**8**	**4**	**29**	**55**	**74**
SH06a	-	10	0	35	9	0	0	0	30	173	374	10	18	6	4	10	32	59
SH06b	41	10	0	35	9	0	0	0	30	174	374	10	18	12	26	25	38	59
SH07a	-	0	0	0	0	0	0	0	0	7	58	38	0	0	0	0	0	6
SH07b	58	52	0	52	46	0	0	0	49	7	58	38	9	0	10	4	4	10
SH08a	-	0	0	0	0	0	0	0	0	13	18	94	0	1	0	12	91	66
SH08b	0	0	0	0	0	0	0	0	0	17	18	94	4	1	24	32	91	95
SH09a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH09b	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0
SH10a	-	0	0	45	0	0	0	0	0	0	40	19	0	0	4	2	8	29
SH10b	22	0	0	45	4	0	0	0	0	0	40	19	0	0	51	2	12	29
SH11a	-	0	0	0	0	0	0	0	0	2	0	2	0	15	6	0	0	18
SH11b	4	0	0	0	0	0	0	0	0	2	0	2	0	16	6	12	0	18
SH12a	-	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0	13	10
SH12b	2	0	0	0	0	0	0	0	0	0	4	0	0	0	58	0	13	10
SH13a	-	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	24	60
SH13b	1	0	0	0	0	0	0	0	0	0	2	0	0	0	11	13	24	60
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	0	4	5	0	0	53
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	4	28	26	24	57
SHTOa	**-**	**10**	**0**	**80**	**9**	**0**	**0**	**0**	**30**	**195**	**496**	**163**	**18**	**26**	**21**	**24**	**168**	**301**
SHTOb	**128**	**62**	**0**	**132**	**59**	**0**	**0**	**0**	**79**	**200**	**496**	**163**	**41**	**33**	**214**	**114**	**206**	**338**
NS14a	-	0	0	6	0	3	6	0	3	0	0	8	18	27	126	423	300	88
NS14b	0	0	3	6	0	3	6	0	3	0	0	8	18	27	126	423	375	126
NS15a	-	0	0	0	0	0	-	0	0	0	0	0	30	0	10	-	0	25
NS15b	0	0	0	0	0	0	0	0	0	0	0	0	30	0	31	3	3	28
NS16a	-	0	0	0	0	0	0	-	0	20	0	0	4	-	-	0	-	0
NS16b	0	0	0	0	0	0	0	0	0	20	0	0	4	0	6	0	0	0
NS17a	-	0	0	0	0	0	0	0	0	40	40	2	0	7	-	8	2	35
NS17b	0	0	0	0	0	0	0	0	0	40	40	2	0	7	34	27	24	37
NS18a	-	4	0	0	0	0	0	0	0	12	130	122	20	4	24	36	0	42
NS18b	0	4	0	0	0	0	0	0	0	12	130	122	20	4	24	73	37	79
NS19a	-	1	0	0	0	0	0	0	0	0	5	20	0	0	10	3	-	25
NS19b	0	1	0	0	0	0	0	0	0	0	5	20	3	8	10	20	17	25
NS20a	-	0	0	0	0	0	0	0	0	0	0	2	10	4	2	7	-	25
NS20b	0	0	0	0	0	0	0	0	0	0	0	2	10	4	4	13	6	25
NS21a	-	0	0	-	2	0	-	-	-	-	-	0	10	6	0	-	-	7
NS21b	0	0	0	0	2	0	0	0	0	0	0	0	10	10	0	0	0	7
NS22a	-	7	0	1	0	0	0	0	0	0	0	0	5	23	27	85	0	12
NS22b	0	7	0	1	0	0	0	0	0	0	0	0	12	30	27	85	0	12
NSTOa	**0**	**12**	**0**	**7**	**2**	**3**	**6**	**0**	**3**	**72**	**175**	**154**	**97**	**71**	**199**	**562**	**302**	**259**
NSTOb	**0**	**12**	**3**	**7**	**2**	**3**	**6**	**0**	**3**	**72**	**175**	**154**	**107**	**90**	**262**	**644**	**462**	**339**
NL22a	0	0	0	0	0	-	0	0	0	0	10	0	0	0	72	-	14	46
NL22b	0	0	0	0	0	0	0	0	0	0	10	0	0	0	72	30	14	46
NL23a	0	1	-	-	0	-	-	-	2	-	191	2	-	-	-	-	6	5
NL23b	0	1	0	0	0	0	0	0	2	20	191	2	0	0	0	10	6	5
NL24a	0	0	0	5	0	0	50	0	6	420	180	24	2	40	0	-	0	0
NL24b	0	0	0	5	0	0	50	0	6	420	180	24	2	40	0	0	0	0
NL25a	0	34	0	5	0	-	3	0	40	295	194	12	-	6	14	-	-	2
NL25b	0	34	0	5	0	6	3	0	40	295	194	51	10	6	14	10	0	2
NL26a	0	0	0	43	37	-	0	-	27	85	65	314	9	0	8	-	7	0
NL26b	0	0	0	43	37	0	0	0	27	85	65	314	9	0	8	20	7	0
NL27a	-	0	-	-	-	-	-	-	-	0	-	-	0	0	0	-	0	0
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL28a	120	185	22	174	235	-	35	-	288	2169	216	231	134	140	143	-	83	64
NL28b	120	185	22	174	235	0	35	0	288	2169	216	231	154	140	143	120	83	64
NL29a	0	35	0	0	78	23	30	0	29	323	787	395	11	85	0	-	0	0
NL29b	0	35	0	0	78	23	30	0	29	323	787	395	11	85	0	0	0	0
NLTOa	**120**	**255**	**22**	**227**	**350**	**23**	**118**	**0**	**392**	**3292**	**1643**	**978**	**156**	**271**	**237**	**-**	**110**	**117**
NLTOb	**120**	**255**	**22**	**227**	**350**	**29**	**118**	**0**	**392**	**3312**	**1643**	**1017**	**186**	**271**	**237**	**190**	**110**	**117**
TOTAa	**120**	**277**	**22**	**316**	**361**	**26**	**124**	**0**	**504**	**3581**	**2318**	**1340**	**296**	**376**	**461**	**595**	**635**	**751**
TOTAb	**248**	**329**	**25**	**368**	**411**	**32**	**124**	**0**	**553**	**3606**	**2318**	**1379**	**359**	**402**	**717**	**977**	**833**	**868**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	2	0	0	4	4	6	0	0	0	2	3	0	0	20	0	0	0	0
DK01b	2	0	0	4	4	6	0	0	0	2	3	0	0	20	0	0	0	0
DK02a	12	1	0	10	13	4	4	16	0	12	0	0	0	13	0	5	0	0
DK02b	12	1	0	10	13	13	4	16	0	12	0	0	0	13	0	5	0	0
DK03a	2	10	0	7	0	3	110	0	2	1	0	0	4	0	0	2	10	2
DK03b	2	10	0	7	0	3	110	0	2	1	0	0	4	0	0	2	10	2
DK04a	3	0	1	2	8	0	0	7	18	30	114	0	42	30	0	275	210	576
DK04b	3	0	1	2	8	10	0	7	18	30	114	0	42	30	0	275	210	576
DK05a	32	2	12	46	31	3	54	0	24	0	0	17	0	32	0	1731	16	0
DK05b	32	2	12	46	31	30	54	0	24	0	0	17	0	32	0	1731	16	0
DKTOa	**51**	**13**	**13**	**69**	**56**	**16**	**168**	**23**	**44**	**45**	**117**	**17**	**46**	**95**	**0**	**2013**	**236**	**578**
DKTOb	**51**	**13**	**13**	**69**	**56**	**62**	**168**	**23**	**44**	**45**	**117**	**17**	**46**	**95**	**0**	**2013**	**236**	**578**
SH06a	14	3	1	35	8	9	0	182	264	424	40	1181	438	144	962	120	728	640
SH06b	20	24	1	39	12	11	5	182	271	431	52	1190	468	708	980	120	740	703
SH07a	0	0	11	1	0	0	61	0	0	13	21	15	2	104	0	0	0	0
SH07b	4	4	17	5	4	4	61	0	9	13	22	15	2	104	0	9	8	8
SH08a	55	1	3	102	14	6	58	10	105	233	77	275	180	83	230	68	35	118
SH08b	63	22	24	102	15	30	92	10	105	245	77	287	184	83	230	68	35	118
SH09a	0	0	0	0	0	0	0	0	0	0	0	7	0	0	13	2	5	0
SH09b	0	0	0	0	0	0	0	0	0	0	0	43	36	40	13	13	23	14
SH10a	2	4	6	1	0	8	15	25	0	11	71	81	4	72	0	6	15	64
SH10b	4	8	8	12	6	10	15	25	16	12	72	81	24	72	1	6	16	65
SH11a	0	3	0	0	0	5	8	2	0	0	20	0	40	0	6	0	0	37
SH11b	0	11	8	0	8	5	8	2	20	20	20	20	41	0	6	0	0	37
SH12a	0	0	0	18	0	0	659	1	0	87	0	40	12	14	104	54	41	20
SH12b	16	0	19	18	23	23	659	1	87	87	87	127	139	21	118	68	46	20
SH13a	0	0	0	0	0	1	3	0	1	6	0	0	0	2	0	0	0	0
SH13b	0	5	5	1	1	1	3	0	2	7	5	0	0	2	0	0	0	0
SH14a	23	17	52	32	57	37	13	0	8	8	0	5	6	8	0	0	0	0
SH14b	25	29	52	37	59	42	14	11	8	8	0	5	6	8	0	4	0	0
SHTOa	**94**	**28**	**73**	**189**	**79**	**66**	**817**	**220**	**378**	**782**	**229**	**1604**	**682**	**427**	**1315**	**250**	**824**	**879**
SHTOb	**132**	**103**	**134**	**214**	**128**	**126**	**857**	**231**	**518**	**823**	**335**	**1768**	**900**	**1038**	**1348**	**288**	**868**	**965**
NS14a	60	65	26	45	158	120	-	394	192	102	247	97	13	52	63	118	8	51
NS14b	136	103	119	90	185	141	664	394	197	141	298	136	19	58	65	120	9	51
NS15a	40	0	4	0	2	2	0	25	0	0	0	0	15	4	3	0	0	2
NS15b	43	2	5	3	5	4	0	25	0	0	0	0	15	4	3	0	2	2
NS16a	0	0	3	2	6	0	-	0	0	10	0	0	0	0	-	-	0	18
NS16b	0	0	3	2	6	0	0	0	0	10	0	0	0	0	0	0	8	18
NS17a	15	17	0	39	2	3	-	20	30	24	0	42	0	2	22	0	129	0
NS17b	18	19	19	41	15	16	0	47	30	24	0	42	0	2	22	0	129	2
NS18a	35	5	4	7	91	0	0	15	0	9	9	2	8	0	4	1	0	14
NS18b	72	42	45	44	91	0	13	15	0	9	9	2	8	0	4	1	1	14
NS19a	27	0	4	0	13	0	-	2	2	3	2	16	4	76	1	4	0	15
NS19b	27	17	4	17	13	17	0	2	2	3	2	16	4	117	53	41	4	15
NS20a	12	0	0	24	7	4	-	16	78	23	7	13	41	21	50	150	0	21
NS20b	18	5	2	24	9	6	6	40	86	38	30	39	49	41	71	173	8	35
NS21a	-	0	16	0	41	18	-	142	-	17	21	-	39	18	23	26	-	0
NS21b	0	0	16	0	41	18	-	150	19	17	40	19	58	18	27	26	9	9
NS22a	0	0	8	0	14	7	-	5	0	0	28	2	0	3	6	2	0	9
NS22b	0	0	8	0	14	7	12	5	0	0	28	2	0	3	6	2	9	9
NSTOa	**189**	**87**	**65**	**117**	**334**	**154**	**0**	**619**	**302**	**188**	**314**	**172**	**120**	**176**	**172**	**301**	**137**	**130**
NSTOb	**314**	**188**	**221**	**221**	**379**	**209**	**695**	**678**	**334**	**242**	**407**	**256**	**153**	**243**	**251**	**363**	**179**	**155**
NL22a	44	10	41	36	42	11	12	61	17	13	22	1	29	14	8	9	53	0
NL22b	44	10	41	36	42	11	12	61	17	13	22	1	29	14	8	9	53	0
NL23a	1	-	12	3	3	19	67	1	26	-	-	61	8	31	162	-	9	40
NL23b	1	0	12	3	3	19	67	1	26	40	0	61	8	31	162	160	9	40
NL24a	0	0	0	0	0	0	0	0	20	50	0	150	25	81	15	-	150	9
NL24b	0	0	0	0	0	0	0	0	20	50	0	150	25	81	15	50	150	9
NL25a	2	-	1	2	11	18	0	11	32	289	15	347	51	423	166	-	189	30
NL25b	2	5	1	7	11	18	0	11	32	289	15	347	51	423	166	310	189	30
NL26a	2	15	2	5	3	2	2	10	15	32	17	19	3	127	88	-	104	74
NL26b	2	15	2	5	3	2	2	10	15	32	17	19	3	127	88	100	104	74
NL27a	0	0	0	0	0	0	0	0	-	-	0	-	-	0	-	-	1	-
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
NL28a	105	70	118	45	65	48	42	112	232	200	170	388	108	226	162	-	367	200
NL28b	105	70	118	45	65	48	42	112	232	200	170	388	108	226	162	320	367	200
NL29a	8	-	1	2	-	6	6	20	305	244	124	255	555	537	153	-	410	490
NL29b	8	3	1	2	3	6	6	20	305	244	124	300	555	537	153	350	410	490
NLTOa	**162**	**95**	**175**	**93**	**124**	**104**	**129**	**215**	**647**	**828**	**348**	**1221**	**779**	**1439**	**754**	**9**	**1283**	**843**
NLTOb	**162**	**103**	**175**	**98**	**127**	**104**	**129**	**215**	**647**	**868**	**348**	**1266**	**779**	**1439**	**754**	**1299**	**1283**	**843**
TOTAa	**496**	**223**	**326**	**468**	**593**	**340**	**1114**	**1077**	**1371**	**1843**	**1008**	**3014**	**1627**	**2137**	**2241**	**2573**	**2480**	**2430**
TOTAb	**659**	**407**	**543**	**602**	**690**	**501**	**1849**	**1147**	**1543**	**1978**	**1207**	**3307**	**1878**	**2815**	**2353**	**3963**	**2566**	**2541**

Table 12. Eider *Somateria mollissima*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	3090	1300	0	2688	2459	628	10280	3725	13822	23570	7674	15407	2840	2631	0	120	165	548
DK01b	3090	1300	0	2688	2459	628	10280	3725	13822	23570	7674	15407	2840	2631	0	120	165	548
DK02a	27127	13852	346	15580	2210	12355	22487	20620	1275	4761	11293	19676	200	689	623	359	752	645
DK02b	27127	13852	346	15580	2210	12355	22487	20620	1275	4761	11293	19676	200	689	623	359	752	645
DK03a	8865	9045	5615	6126	20131	4040	4375	6082	2290	2125	3599	14225	815	6467	1870	1115	2269	4016
DK03b	8865	9045	5615	6126	20131	4040	4375	6082	2290	2125	3599	14225	815	6467	1870	1115	2269	4016
DK04a	7510	1339	2587	260	8262	480	175	3750	2333	8765	1537	4215	5440	300	285	1475	576	1436
DK04b	7510	1339	2587	260	8262	480	175	3750	2333	8765	1537	4215	5440	300	285	1475	576	1436
DK05a	600	204	12945	272	10330	2862	694	553	8540	940	5804	3933	245	10036	0	95	28	2181
DK05b	600	204	12945	272	10330	2862	694	553	8540	940	5804	3933	245	10036	0	95	28	2181
DKTOa	**47192**	**25740**	**21493**	**24926**	**43392**	**20365**	**38011**	**34730**	**28260**	**40161**	**29907**	**57456**	**9540**	**20123**	**2778**	**3164**	**3790**	**8826**
DKTOb	**47192**	**25740**	**21493**	**24926**	**43392**	**20365**	**38011**	**34730**	**28260**	**40161**	**29907**	**57456**	**9540**	**20123**	**2778**	**3164**	**3790**	**8826**
SH06a	-	7520	2162	8	3818	215	882	2819	877	4972	7910	1411	495	2740	1600	127	550	1245
SH06b	9736	9846	5318	6709	6613	4716	4977	4949	7404	8189	8851	5941	1086	2740	2129	186	703	1299
SH07a	-	405	113	546	535	680	441	210	361	2878	1073	7449	0	174	410	854	1581	4638
SH07b	650	3143	646	2809	6550	682	543	534	1138	4852	3270	9617	404	552	874	2380	2218	5059
SH08a	-	1076	6767	162	84	295	669	305	851	5497	4865	1198	220	7256	2121	97	162	291
SH08b	1982	2066	6767	1047	1747	3606	4063	3647	1591	6676	5258	2455	743	7393	2338	135	162	342
SH09a	-	7424	2763	630	15	1309	732	12	96	327	235	157	78	512	978	130	781	461
SH09b	3327	8605	3463	3609	3045	4019	3442	3131	2902	3357	3205	2961	1365	805	1384	300	1016	502
SH10a	-	1756	2382	686	170	104	129	105	122	2994	1165	616	108	459	0	187	154	294
SH10b	1617	2136	2477	1979	1558	2231	2161	2232	1268	3124	1305	1784	934	824	410	202	303	459
SH11a	-	52	95	249	205	35	76	0	256	926	1869	59	233	12	428	0	14	932
SH11b	718	116	96	361	212	35	76	0	395	933	1926	111	233	269	959	590	209	1102
SH12a	-	20	1	421	2749	0	24	0	1	138	78	0	30	608	65	5	482	2280
SH12b	2773	1723	11	2124	2765	11	35	11	1707	1859	732	1792	148	608	67	5	482	2343
SH13a	-	0	0	0	0	4	0	0	0	0	198	11	0	0	0	0	60	0
SH13b	20	7	0	7	4	4	0	0	12	4	198	11	0	0	1	0	60	0
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**-**	**18253**	**14283**	**2702**	**7576**	**2642**	**2953**	**3451**	**2564**	**17732**	**17393**	**10901**	**1164**	**11761**	**5602**	**1400**	**3784**	**10141**
SHTOb	**20823**	**27642**	**18778**	**18645**	**22494**	**15304**	**15297**	**14504**	**16417**	**28994**	**24745**	**24672**	**4913**	**13191**	**8162**	**3798**	**5153**	**11106**
NS14a	-	25	0	1	17	0	4	0	1	0	0	0	25	24	0	1	0	0
NS14b	26	25	0	26	18	0	4	0	26	26	26	26	25	24	0	110	109	109
NS15a	-	24013	6	185	11	0	-	0	1	0	0	70	81	0	0	-	0	0
NS15b	16668	28683	6	16765	16593	6	6	5	16666	16667	16667	16735	81	38	0	61	61	51
NS16a	-	406	0	0	0	0	0	-	40	16	0	109	35	-	-	560	-	1118
NS16b	347	406	0	341	347	0	0	0	367	349	333	115	35	522	998	612	893	1118
NS17a	-	3	0	0	0	0	4	1	16	2	2	18	0	0	-	0	0	10
NS17b	2	5	0	2	2	1	4	1	16	2	2	18	0	0	10	10	10	10
NS18a	-	905	177	101	13	4230	468	29	681	1209	59	3040	473	10	580	1001	0	3099
NS18b	503	1009	187	495	482	4236	2059	1620	1080	1467	458	3183	510	455	703	2024	1140	3101
NS19a	-	1620	150	229	116	3400	11	0	1830	11363	527	719	820	122	300	0	-	2089
NS19b	503	1655	150	458	392	3400	931	931	2105	11367	590	721	969	757	300	636	638	2089
NS20a	-	3024	216	4	202	502	200	1	600	8	670	264	1074	250	500	400	-	762
NS20b	1519	3198	217	1521	1294	518	217	217	1509	1525	980	999	1116	352	506	1050	1050	1267
NS21a	-	410	75	-	139	3000	-	-	-	-	-	0	1090	162	0	-	-	584
NS21b	134	544	75	134	157	3030	1553	1553	134	134	134	134	1103	168	0	229	229	584
NS22a	-	5	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	90
NS22b	0	5	0	0	0	1	1	1	0	0	0	0	6	0	0	5	5	95
NSTOa	**0**	**30411**	**624**	**520**	**498**	**11132**	**687**	**32**	**3169**	**12598**	**1258**	**4220**	**3598**	**568**	**1380**	**1962**	**0**	**7752**
NSTOb	**19702**	**35530**	**635**	**19742**	**19285**	**11192**	**4775**	**4328**	**21903**	**31537**	**19190**	**21931**	**3845**	**2316**	**2517**	**4737**	**4135**	**8424**
NL22a	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	-	0	0
NL22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL23a	3	64	12	622	6054	421	18	11	3166	-	168	178	319	69	29	-	249	3591
NL23b	1203	1264	1212	1322	6054	1621	718	1211	3666	1325	1368	678	1019	869	229	4300	7699	4091
NL24a	-	130	-	-	-	-	135	450	390	1880	330	55	365	1050	-	-	4410	6770
NL24b	450	130	450	450	450	450	135	450	390	1880	330	55	365	1050	900	1400	4410	6770
NL25a	400	288	82	-	768	80	790	8313	472	4581	1661	4220	-	1081	3482	-	11666	7669
NL25b	1450	1338	1032	1950	768	1080	790	8313	1472	4581	1661	4256	850	1081	3632	6300	15066	7669
NL26a	593	3755	330	1697	5142	-	7147	-	1493	7476	3253	5538	1841	4421	4923	-	13135	11529
NL26b	593	3755	330	1697	5142	3500	7147	3500	1493	7476	3253	5538	1841	4421	4923	3500	13135	11529
NL27a	-	1500	-	-	-	-	-	-	-	9600	-	-	1600	250	-	-	100	3250
NL27b	600	1500	600	600	600	600	600	600	600	9600	600	600	1600	250	150	300	100	3250
NL28a	4667	1797	282	4039	2135	1325	17951	2542	1885	6514	5653	1208	1364	2976	673	-	3557	1063
NL28b	4717	1847	832	4589	2185	1875	18451	2592	2435	7064	6203	1758	2414	4026	6673	8000	10457	7963
NL29a	935	412	-	-	919	574	546	112	1100	95	677	4121	1	1087	-	-	291	443
NL29b	935	412	1000	1000	919	574	546	112	1100	95	677	4121	1	1087	1000	450	291	443
NLTOa	**6598**	**7946**	**706**	**6358**	**15018**	**2400**	**26587**	**11428**	**8506**	**30146**	**11742**	**15320**	**5490**	**10934**	**9107**	**-**	**33408**	**34315**
NLTOb	**9948**	**10246**	**5456**	**11608**	**16118**	**9700**	**28387**	**16778**	**11156**	**32021**	**14092**	**17006**	**8090**	**12784**	**17507**	**24250**	**51158**	**41715**
TOTAa	**53790**	**82350**	**37106**	**34506**	**66484**	**36539**	**68238**	**49641**	**42499**	**100637**	**60300**	**87897**	**19792**	**43386**	**18867**	**6526**	**40982**	**61034**
TOTAb	**97665**	**99158**	**46362**	**74921**	**101289**	**56561**	**86470**	**70340**	**77736**	**132713**	**87934**	**121065**	**26388**	**48414**	**30964**	**35949**	**64236**	**70071**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	839	235	29	1048	520	261	67	8	301	505	0	1265	20	1160	207	60	2260	0
DK01b	839	235	29	1048	520	261	67	8	301	505	0	1265	20	1160	207	60	2260	0
DK02a	1038	421	16	1546	3240	16	807	0	4	74	20	1877	20	400	1500	4115	1909	160
DK02b	1038	421	16	1546	3240	16	807	0	4	74	20	1877	20	400	1500	4115	1909	160
DK03a	8552	2843	4296	4106	5850	4193	2789	1400	607	626	2085	3521	613	11564	4017	1512	302	10801
DK03b	8552	2843	4296	4106	5850	4193	2789	1400	607	626	2085	3521	613	11564	4017	1512	302	10801
DK04a	1474	917	487	1045	1095	894	1080	280	646	497	224	14911	6098	4878	562	7125	6072	1136
DK04b	1474	917	487	1045	1095	894	1080	280	646	497	224	14911	6098	4878	562	7125	6072	1136
DK05a	70	31	208	36	60	155	110	300	4382	913	2265	3113	301	4215	3556	4710	618	198
DK05b	70	31	208	36	60	155	110	300	4382	913	2265	3113	301	4215	3556	4710	618	198
DKTOa	**11973**	**4447**	**5036**	**7781**	**10765**	**5519**	**4853**	**1988**	**5940**	**2615**	**4594**	**24687**	**7052**	**22217**	**9842**	**17522**	**11161**	**12295**
DKTOb	**11973**	**4447**	**5036**	**7781**	**10765**	**5519**	**4853**	**1988**	**5940**	**2615**	**4594**	**24687**	**7052**	**22217**	**9842**	**17522**	**11161**	**12295**
SH06a	1888	290	640	523	476	416	813	266	981	4922	352	7878	8527	2604	2242	4302	15090	8065
SH06b	1892	1104	1152	1106	1263	522	908	709	5018	5319	5533	10210	15046	5209	2820	5426	15188	19638
SH07a	5084	2427	1101	5243	20	3847	4176	796	874	1033	555	629	440	1887	305	513	4345	25693
SH07b	5449	4938	3482	7224	4203	4391	4176	1207	1093	1103	634	851	1057	1916	305	658	9704	25735
SH08a	1077	675	89	1311	328	64	288	286	528	2049	2811	3182	590	5648	1448	8025	7389	7512
SH08b	1077	736	269	1311	328	122	288	787	1003	2049	3266	3332	3197	6360	2131	8758	7813	7595
SH09a	2321	680	307	2292	319	554	7773	5313	146	1260	3350	1453	38	425	1261	425	258	1957
SH09b	2372	821	410	2362	1309	1827	11110	9662	1398	1788	4503	2102	1857	1699	2245	1505	377	1957
SH10a	651	37	10	240	796	73	261	1286	1265	736	2328	2486	133	8121	631	1165	276	5653
SH10b	651	152	125	328	909	73	763	1286	3017	3022	2328	3991	1627	8269	646	1489	3888	5734
SH11a	213	66	0	625	0	572	94	60	0	2558	7065	3017	236	6306	150	22	428	324
SH11b	383	255	19	625	236	572	352	60	9435	4426	7065	14278	7578	12756	6736	6472	586	324
SH12a	880	106	850	2033	576	1900	3418	6000	20000	6507	1251	2444	552	600	4032	2529	351	84
SH12b	974	150	896	2033	578	1946	3418	6089	20000	6516	1255	2449	578	637	4032	2529	548	84
SH13a	0	0	0	0	0	0	4	0	0	0	0	70	0	0	0	0	732	10
SH13b	0	0	0	0	0	0	4	0	0	0	0	70	0	0	0	0	732	29
SH14a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**12114**	**4281**	**2997**	**12267**	**2515**	**7426**	**16827**	**14007**	**23794**	**19065**	**17712**	**21159**	**10516**	**25591**	**10069**	**16981**	**28869**	**49298**
SHTOb	**12798**	**8156**	**6353**	**14989**	**8826**	**9453**	**21019**	**19800**	**40964**	**24223**	**24584**	**37283**	**30940**	**36846**	**18915**	**26837**	**38836**	**61096**
NS14a	0	0	35	0	0	182	-	0	295	14	263	1	25	0	372	0	0	4
NS14b	109	109	35	109	109	182	0	0	296	158	263	145	25	372	372	372	1903	4
NS15a	0	0	0	91	120	0	0	2963	548	0	14635	0	200	0	50	120	3	25209
NS15b	61	61	61	91	120	61	0	2963	5498	5351	14635	5351	200	570	620	633	32877	25209
NS16a	2047	14	750	1570	700	380	-	4000	2000	0	40	0	205	0	-	-	350	800
NS16b	2099	855	802	1622	752	380	4050	4000	2000	0	40	40	205	984	984	984	1150	803
NS17a	7	0	0	20	0	0	-	0	0	10	7	2	0	10	0	0	0	0
NS17b	7	0	10	20	10	10	0	0	0	10	7	2	0	10	4	4	0	0
NS18a	1630	573	1	1069	709	3	330	72	2098	2889	2527	692	1475	184	1	356	192	529
NS18b	1632	578	1026	1134	1667	1144	781	72	2149	2889	2527	1642	1481	346	163	356	478	538
NS19a	754	11	20	742	91	0	-	56	70	638	275	1440	235	702	549	0	0	466
NS19b	980	419	571	819	624	626	1383	56	355	897	307	1592	276	961	810	502	179	525
NS20a	528	94	0	1401	0	0	-	0	410	406	1241	292	3030	590	270	1	3	365
NS20b	643	1098	1015	1901	1045	1045	794	319	548	497	1341	738	3121	590	740	509	553	500
NS21a	-	50	216	71	191	284	-	114	-	34	312	-	83	65	109	515	-	244
NS21b	229	63	282	84	282	350	-	151	168	116	350	168	121	81	109	531	66	269
NS22a	0	0	0	9	0	45	-	0	0	0	0	0	0	0	0	0	0	6
NS22b	5	5	5	9	0	50	0	0	0	0	0	0	0	2	2	2	0	6
NSTOa	**4966**	**742**	**1022**	**4973**	**1811**	**894**	**330**	**7205**	**5421**	**3991**	**19300**	**2427**	**5253**	**1551**	**1351**	**992**	**548**	**27623**
NSTOb	**5765**	**3188**	**3807**	**5789**	**4609**	**3848**	**7008**	**7561**	**11014**	**9918**	**19470**	**9678**	**5429**	**3916**	**3804**	**3893**	**37206**	**27854**
NL22a	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	4
NL22b	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	4
NL23a	14155	8258	56	8213	170	6079	5433	878	379	500	26	1555	148	24	164	-	1067	33
NL23b	15155	9258	7506	9213	7620	7079	7433	4878	4979	5400	1126	6155	4748	3224	1764	1300	1567	1633
NL24a	10130	4390	-	8360	-	4504	4310	-	-	610	290	-	-	2490	110	-	300	300
NL24b	10130	4390	1400	8360	1400	4504	4310	1000	550	610	290	550	550	2490	110	1250	300	300
NL25a	24661	1160	-	4759	-	4980	11316	4705	-	959	1910	5360	1600	2435	427	-	252	82
NL25b	24661	11960	14450	15559	14450	4980	11316	5655	2370	959	1910	5830	2070	2435	427	1230	252	132
NL26a	15991	12139	5296	8556	15031	19545	9492	3271	3854	8255	1956	7966	1956	2466	861	-	28448	1017
NL26b	15991	12139	5296	8556	15031	19545	9492	3271	3854	8255	1956	7966	1956	2466	861	1700	28448	1017
NL27a	7830	130	100	1500	800	239	11060	-	-	-	35	-	-	5380	-	-	230	-
NL27b	7830	130	100	1500	800	239	11060	300	300	300	35	300	300	5380	350	350	230	600
NL28a	13080	2682	1333	2742	897	3601	1202	855	2889	3730	3026	1758	915	1466	4112	-	8143	1367
NL28b	18830	10332	8933	10392	8497	8601	4952	6855	4889	4730	4026	3758	2915	2416	4612	2550	9143	1867
NL29a	3571	-	-	1617	-	778	491	-	-	353	161	472	-	1421	115	-	500	161
NL29b	3571	1500	1500	1617	1500	778	491	500	500	353	161	472	500	1421	115	10	500	161
NLTOa	**89418**	**28759**	**6785**	**35747**	**16898**	**39726**	**43330**	**9709**	**7122**	**14407**	**7404**	**17111**	**4619**	**15682**	**5789**	**0**	**38940**	**2964**
NLTOb	**96168**	**49709**	**39185**	**55197**	**49298**	**45726**	**49080**	**22459**	**17442**	**20607**	**9504**	**25031**	**13039**	**19832**	**8239**	**8390**	**40440**	**5714**
TOTAa	**118471**	**38229**	**15840**	**60768**	**31989**	**53565**	**65340**	**32909**	**42277**	**40078**	**49010**	**65384**	**27440**	**65041**	**27051**	**35495**	**79518**	**92180**
TOTAb	**126704**	**65500**	**54381**	**83756**	**73498**	**64546**	**81960**	**51808**	**75360**	**57363**	**58152**	**96679**	**56460**	**82811**	**40800**	**56642**	**127643**	**106959**

Table 13. Oystercatcher *Haematopus ostralegus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	170	3210	705	173	2330	1300	750	60	1103	675	2762	4269	2161	1626	369	3707	1656	1465
DK01b	170	3210	705	173	2330	1300	750	60	1103	675	2762	4269	2161	1626	369	3707	1656	1465
DK02a	5279	9900	7447	11572	6194	5477	7197	6020	3410	7602	9605	11887	12852	11206	5006	11843	3714	4359
DK02b	5279	9900	7447	11572	6194	5477	7197	6020	3410	7602	9605	11887	12852	11206	5006	11843	3714	4359
DK03a	6369	1086	2212	6220	2204	80	920	25	8180	7100	6280	3315	6916	9037	21772	1447	1193	2714
DK03b	6369	1086	2212	6220	2204	80	920	25	8180	7100	6280	3315	6916	9037	21772	21800	1193	2714
DK04a	5000	2029	0	971	6552	807	425	207	765	4844	2100	1383	2241	4235	1927	1200	1314	910
DK04b	5000	2029	0	971	6552	807	425	207	765	4844	2100	1383	2241	4235	1927	1850	1314	910
DK05a	8200	435	4450	2845	7	990	912	10	3971	1961	1025	3939	1907	1758	6208	1509	1249	1874
DK05b	8200	435	4450	2845	7	990	912	10	3971	1961	1025	3939	1907	1758	6208	6100	1249	1874
DKTOa	**25018**	**16660**	**14814**	**21781**	**17287**	**8654**	**10204**	**6322**	**17429**	**22182**	**21772**	**24793**	**26077**	**27862**	**35282**	**19706**	**9126**	**11322**
DKTOb	**25018**	**16660**	**14814**	**21781**	**17287**	**8654**	**10204**	**6322**	**17429**	**22182**	**21772**	**24793**	**26077**	**27862**	**35282**	**45300**	**9126**	**11322**
SH06a	-	1610	88	1421	4911	6	1854	24	8314	8701	10965	5113	1744	5601	1364	2538	1024	3635
SH06b	8282	6193	242	8670	10308	936	1922	253	11945	9695	11915	9899	7741	7209	4404	4213	2548	4341
SH07a	-	3030	9750	2800	5252	5663	9220	150	13320	32544	14509	14810	0	13781	6105	6250	3889	6695
SH07b	13635	14271	11490	9146	14007	10253	15240	10171	23041	33857	18269	24883	14996	19152	7277	8702	5631	8273
SH08a	-	22560	7736	7021	12470	2471	2359	2455	16505	24601	21592	15427	4300	15979	4174	11439	8053	10374
SH08b	17038	26661	7736	9401	18720	2471	5309	2455	26445	25731	22722	16557	11583	16501	11029	14672	9163	12465
SH09a	-	11775	6106	2100	6510	18010	9300	38	5165	11200	11950	17837	5400	4570	8377	2046	2942	4589
SH09b	12487	14119	6106	16917	15712	18266	9556	2594	16021	20702	22182	25599	49473	13341	8711	3137	4782	4692
SH10a	-	12024	4250	8890	11470	1380	3100	1800	13143	14906	24447	14833	6950	10910	3878	4774	5316	7251
SH10b	17418	13376	4250	16593	23247	3518	4300	3000	22325	17535	27447	21106	16379	14486	4685	5930	8260	8355
SH11a	-	10	3450	2166	8401	0	98	1	5865	7883	10096	2493	3980	2921	3698	0	1330	2867
SH11b	6912	3854	3450	4319	8402	100	198	101	5952	7884	10105	4104	5291	4134	4298	3227	1930	3783
SH12a	-	6201	4000	11250	2422	0	0	0	1990	5383	11441	0	4130	8196	6950	6475	7675	8410
SH12b	12821	6256	4000	19580	2532	4000	4000	4000	15285	14119	19716	11678	15319	8196	8220	8573	7675	8410
SH13a	-	0	0	700	0	0	0	0	5050	7905	6688	1170	0	800	0	0	1477	4005
SH13b	5466	4781	0	5423	4805	0	0	0	6273	7975	6688	1170	4416	2409	2348	2141	1477	4005
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	20	14	19	39	36	80
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	20	32	49	83	84	98
SHTOa	**-**	**57210**	**35380**	**36348**	**51436**	**27530**	**25931**	**4468**	**69352**	**113123**	**111688**	**71683**	**26524**	**62772**	**34565**	**33561**	**31742**	**47906**
SHTOb	**94059**	**89511**	**37274**	**90049**	**97733**	**39544**	**40525**	**22574**	**127287**	**137498**	**139044**	**114996**	**125218**	**85460**	**51021**	**50678**	**41550**	**544227**
NS14a	-	1	0	24	0	0	0	0	0	10	0	0	559	845	475	1177	260	555
NS14b	0	1	0	24	0	0	0	0	0	10	0	0	561	858	475	1185	451	566
NS15a	-	17336	5000	1103	10	0	-	0	1820	886	2231	4700	16165	2042	8200	-	80	1826
NS15b	6665	17336	5000	4668	6575	5000	5000	5000	3945	6011	7839	7308	16165	10384	9795	1195	1089	2165
NS16a	-	6680	1000	2600	8	4560	6420	-	30080	770	194	11760	23015	-	-	2900	-	11375
NS16b	11540	6680	1340	7640	11546	4560	8170	3890	34838	12028	11452	18290	23051	12716	9056	4143	3971	11635
NS17a	-	1573	52	1168	272	0	200	0	9608	4151	1071	1973	3551	397	-	812	95	742
NS17b	1587	1673	52	1268	372	0	200	0	9608	4151	1071	1973	3564	734	1871	979	604	801
NS18a	-	70706	53176	5623	1682	33230	8831	5646	8912	29650	11157	39441	64772	5540	14266	7598	917	10353
NS18b	38399	76718	53206	35910	36146	43480	51576	48391	39216	47525	41449	44971	68430	30139	17053	14008	8967	10670
NS19a	-	40518	10224	19886	28003	13400	400	0	13120	47192	30400	27025	33882	11608	24411	215	-	11431
NS19b	39161	48585	10224	29840	42381	16606	9506	9106	40213	47245	40443	27029	40965	30456	24411	10588	10823	11431
NS20a	-	21927	17007	4903	14387	1635	5002	380	11960	3866	16448	7315	20398	14149	7248	19959	-	13252
NS20b	25185	24409	17197	26635	30619	5142	11267	11455	26911	26048	24167	20834	22809	22900	8695	35938	24579	23432
NS21a	-	11340	8300	-	20662	0	-	-	-	-	-	0	17550	11286	5200	-	-	2044
NS21b	16513	17031	8300	16513	25986	400	4350	4350	16513	16513	16513	16489	21556	11541	5200	3019	3019	2044
NS22a	-	64	0	142	0	0	0	600	1353	1018	1901	1712	225	1144	766	189	38	1679
NS22b	1180	64	0	142	0	300	300	600	1356	1021	1901	1715	1171	1144	766	904	753	2148
NSTOa	**0**	**170145**	**94759**	**35449**	**65024**	**52825**	**20853**	**6626**	**76853**	**87543**	**63402**	**93926**	**180117**	**47011**	**60566**	**32850**	**1390**	**53257**
NSTOb	**140230**	**192497**	**95319**	**122640**	**153625**	**75488**	**90369**	**82792**	**172600**	**160552**	**144835**	**138609**	**198272**	**120872**	**77322**	**71959**	**54256**	**64892**
NL22a	0	850	1	520	0	-	0	11	460	540	420	19	930	521	790	-	397	299
NL22b	0	850	1	520	0	280	0	11	460	540	420	19	930	521	790	250	397	299
NL23a	8210	51835	1810	27905	158685	38725	39467	1541	50661	-	54303	17620	25010	40175	19560	-	8622	9362
NL23b	42210	61835	35810	51905	158685	61225	63467	35541	60661	54700	88303	22620	39010	50175	19560	9700	12772	9862
NL24a	3550	18600	13000	33100	17460	4040	20510	1015	17180	22850	26770	15255	13525	12620	3800	-	1340	2945
NL24b	3550	18600	13000	33100	17460	4040	20510	1015	17180	22850	26770	15255	13525	12620	3800	2500	1340	2945
NL25a	45625	61365	53960	75900	80139	15852	74798	63462	83221	122915	64900	50540	15120	51715	17125	-	14278	14434
NL25b	49925	65665	53960	80200	80139	56552	74798	63462	87521	122915	64900	74410	27120	51715	17125	16750	14828	14434
NL26a	23650	13435	22905	15715	21615	-	23866	-	20626	21187	20893	25365	14085	9626	4800	-	5613	5221
NL26b	23650	13435	22905	15715	21615	20000	23866	20000	20626	21187	20893	25365	14085	9626	4800	5000	5613	5221
NL27a	-	9000	-	-	-	-	-	-	-	12500	-	-	7500	5500	3400	-	990	5350
NL27b	12000	9000	12000	12000	12000	12000	12000	12000	12000	12500	12000	12000	7500	5500	3400	1000	990	5350
NL28a	18380	16230	18730	26960	14672	19772	26942	4390	22049	16307	16375	13522	11625	14757	6493	-	7532	6441
NL28b	18880	16730	19230	26960	15172	20272	26942	4890	22049	16807	16875	13522	17125	14757	6993	8300	7532	6441
NL29a	31560	32270	12700	13205	19502	21651	15875	4174	12410	19070	26160	17816	12295	21262	9140	-	3640	1070
NL29b	31560	32270	12700	13205	19502	21651	15875	4174	12410	19070	26160	17816	12295	21262	9140	5000	3640	1070
NLTOa	**130975**	**203585**	**123106**	**193305**	**312073**	**100040**	**201458**	**74593**	**206607**	**215369**	**209821**	**140137**	**100090**	**156176**	**65108**	**-**	**42412**	**45122**
NLTOb	**181775**	**218385**	**169606**	**233605**	**324573**	**196020**	**237458**	**141093**	**232907**	**270569**	**256321**	**181007**	**131590**	**166176**	**65608**	**48500**	**47112**	**45622**
TOTAa	**155993**	**447600**	**268059**	**286883**	**445820**	**189049**	**258446**	**92009**	**370241**	**438217**	**406683**	**330539**	**332808**	**293821**	**195521**	**86117**	**84670**	**157607**
TOTAb	**441082**	**517053**	**317013**	**468075**	**593218**	**319706**	**378556**	**252781**	**550223**	**590801**	**561972**	**459405**	**481157**	**400370**	**229233**	**216437**	**152044**	**176258**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	1006	1068	290	1924	672	896	1786	1184	3907	1590	4020	2488	7010	2657	6024	2058	5030	2120
DK01b	1006	1068	290	1924	672	896	1786	1184	3907	1590	4020	2488	7010	2657	6024	2058	5030	2120
DK02a	6247	6117	5927	3639	7592	1800	3846	6509	10334	8526	14410	24571	18145	10195	10876	21055	4358	8582
DK02b	6247	6117	5927	3639	7592	1800	3846	6509	10334	8526	14410	24571	18145	10195	10876	21055	4358	8582
DK03a	1259	1870	1780	1804	2700	976	2200	7205	2763	2467	3856	6035	24405	3108	6086	701	12095	13815
DK03b	1259	1870	1780	1804	2700	976	2200	7205	2763	2467	3856	6035	24405	3108	6086	701	12095	13815
DK04a	1091	926	415	2244	2055	395	638	592	6182	2777	5879	2698	2328	3586	585	6780	2138	4403
DK04b	1091	926	415	2244	2055	395	638	592	6182	2777	5879	2698	2328	3586	585	6780	2138	4403
DK05a	2815	1504	1550	3282	793	2153	1213	1597	1381	2760	1206	2377	8141	860	2395	72	4085	1408
DK05b	2815	1504	1550	3282	793	2153	1213	1597	1381	2760	1206	2377	8141	860	2395	72	4085	1408
DKTOa	**12418**	**11485**	**9962**	**12893**	**13812**	**6220**	**9683**	**17087**	**24567**	**18120**	**29371**	**38169**	**60029**	**20406**	**25966**	**30666**	**27706**	**30328**
DKTOb	**12418**	**11485**	**9962**	**12893**	**13812**	**6220**	**9683**	**17087**	**24567**	**18120**	**29371**	**38169**	**60029**	**20406**	**25966**	**30666**	**27706**	**30328**
SH06a	2681	653	1245	2624	709	1556	644	4757	5018	4572	5465	3711	1927	5428	3874	2763	7006	6036
SH06b	3063	2990	2444	4049	1910	2419	1783	9935	6103	6072	8034	5271	7671	7688	6024	6446	11793	11831
SH07a	6875	7817	1550	6287	600	6740	2879	6972	5300	20590	11532	5599	9600	13412	17340	7963	15916	11100
SH07b	8257	11196	5869	8725	5780	8337	3329	13400	15539	20590	18298	27221	31157	21927	22200	18533	17962	12536
SH08a	7220	7569	5473	13146	4981	5659	14840	12452	13176	25033	16935	20258	5010	24256	19866	11043	20833	25470
SH08b	8020	8751	9469	14731	6158	9579	15217	13454	15888	25333	18130	22158	16526	24915	20966	12823	22471	25570
SH09a	4419	3969	2216	5442	3861	2400	3932	25624	8654	17333	15950	8262	2400	23519	28500	14325	13906	28680
SH09b	4473	4176	3758	6580	4733	4488	4009	27398	20777	28688	24026	17262	21404	51251	47368	30933	29502	29776
SH10a	8260	5635	6935	5208	3487	4865	3468	16158	12300	12506	21370	21853	13250	20772	18289	17093	8680	25044
SH10b	8874	8615	9935	6608	5744	5665	3530	16160	29243	17213	21370	27263	17500	23572	20607	22313	19380	29259
SH11a	1515	2960	519	2266	415	1329	1441	2958	0	22080	25252	1648	4064	8576	10217	3121	4230	16242
SH11b	2431	3927	886	2498	1715	1445	2315	2958	17562	28121	34002	8520	12818	8579	11612	3121	17030	16242
SH12a	3450	4910	6745	7058	3526	2600	5262	14600	23190	21816	14550	10020	25019	7500	43000	34101	6500	8735
SH12b	6603	6209	8504	7058	5119	5127	5262	18291	23200	25795	19813	20689	26519	21062	43200	34301	16545	8735
SH13a	2026	982	0	2389	0	350	2794	0	20	3307	34	4029	0	3022	9	0	4965	275
SH13b	2026	1578	1987	2639	1857	2057	2794	5625	7714	5521	6819	4029	3543	3149	4719	6259	4990	275
SH14a	33	47	43	41	49	55	63	0	0	0	0	0	0	0	0	0	0	0
SH14b	40	83	43	56	56	70	77	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**36479**	**34542**	**24726**	**44461**	**17628**	**25554**	**35323**	**83521**	**67658**	**127237**	**111088**	**75380**	**61270**	**106485**	**141095**	**90409**	**82036**	**121582**
SHTOb	**43787**	**47525**	**42895**	**52944**	**33072**	**39187**	**38316**	**107221**	**136026**	**157333**	**150492**	**132413**	**137138**	**162143**	**176696**	**134729**	**139673**	**134224**
NS14a	132	226	114	154	151	324	-	78	110	379	329	74	0	0	10	0	13	0
NS14b	237	233	226	225	213	341	14	78	112	390	337	83	1	0	10	0	59	0
NS15a	120	126	300	1334	2335	64	130	17068	11930	4	19501	3590	23073	220	950	46	1980	13400
NS15b	1127	1065	1247	1554	2678	1211	178	17068	15506	12757	19501	16096	23373	20852	21002	20167	20122	13400
NS16a	3939	476	2800	2845	1200	1819	-	8000	8000	6800	29014	20200	14200	190	-	-	26054	36134
NS16b	4952	3204	4043	3808	2443	2099	1600	8000	8164	14300	29029	30715	14209	28502	28712	28712	55354	36586
NS17a	546	1026	576	1029	276	274	-	1718	163	858	2702	732	3263	1315	262	163	2546	4150
NS17b	634	1037	743	1032	358	348	84	1838	366	867	2702	732	3263	1315	662	563	2546	4320
NS18a	9988	6976	3076	3366	5248	2249	1580	7263	15147	28864	70191	30923	48108	18485	3209	13437	16120	87474
NS18b	10090	7743	9645	7037	8953	9531	6122	18688	37477	28898	70204	36525	49021	23342	23151	30881	38960	87969
NS19a	13920	666	860	4917	3500	1032	-	13737	19615	24602	48175	33638	35070	27544	56440	3936	13000	96741
NS19b	14511	10254	9460	7244	10527	10905	9778	13737	41335	37085	54065	39351	44465	48168	75140	39617	44785	102777
NS20a	10854	5987	1977	10146	1837	1660	-	8180	22151	13600	28800	8366	31060	11578	23399	3479	4000	51639
NS20b	16260	27915	25600	20307	24663	24486	5133	22180	35201	18695	32853	24551	33195	12275	35946	23509	36930	55719
NS21a	-	3350	6300	970	4494	3615	-	8900	-	5530	10100	-	10250	9285	18241	18700	-	21380
NS21b	3019	3375	7494	995	5689	4809	-	9500	15043	13570	15893	15043	16043	9317	22381	25332	9835	26484
NS22a	406	155	1496	392	754	72	-	1724	6	2800	385	3650	1210	0	399	99	0	1230
NS22b	943	624	1951	486	754	527	310	1724	212	3006	385	3856	1210	2196	1796	1496	907	1230
NSTOa	**39905**	**18988**	**17499**	**25153**	**19795**	**11109**	**1710**	**66668**	**77122**	**83437**	**209197**	**101173**	**166234**	**68617**	**102910**	**39860**	**63713**	**312148**
NSTOb	**51773**	**55450**	**60409**	**42688**	**56278**	**54257**	**23219**	**92813**	**153416**	**129568**	**224969**	**166952**	**184780**	**145967**	**208800**	**170277**	**209498**	**328485**
NL22a	340	199	410	155	330	257	330	78	28	5	310	2	103	8	77	12	0	200
NL22b	340	199	410	155	330	257	330	78	28	5	310	2	103	8	77	12	0	200
NL23a	12399	5579	8195	11317	8750	13403	5773	40195	67105	17500	16360	37229	71170	31111	81029	-	60806	28110
NL23b	12899	6079	8695	11817	9250	13903	6273	50195	82105	81000	57360	93229	71170	79111	81029	53000	70806	67610
NL24a	2710	2715	2165	3040	2295	4220	1985	31345	41380	38490	25440	21530	18105	30110	33320	-	30760	32220
NL24b	2710	2715	2165	3040	2295	4220	1985	31345	41380	38490	25440	21530	18105	30110	33320	27000	30760	32220
NL25a	16450	8131	11020	9105	16118	22378	6875	78800	98065	107333	52695	65291	78295	85360	94538	-	96205	63010
NL25b	16450	15531	11020	16505	16118	22378	6875	83800	104565	107333	52695	71791	78295	85360	94538	66500	96205	63010
NL26a	3966	3917	3655	3012	4750	5762	3321	13750	24910	17136	25250	14450	22100	16295	19671	-	21475	26410
NL26b	3966	3917	3655	3012	4750	5762	3321	13750	24910	17136	25250	14450	22100	16295	19671	16000	21475	26410
NL27a	5937	2500	1000	3224	1040	254	4600	9000	-	-	850	-	-	5280	-	-	6500	-
NL27b	5937	2500	1000	3224	1040	254	4600	9000	7500	7500	850	7500	7500	5280	8000	8000	6500	9000
NL28a	7873	7955	7235	6135	7355	7197	5390	22449	30060	39707	35320	15517	28291	14426	28059	-	22326	34479
NL28b	7873	8455	7235	6635	7355	7197	5890	22449	30060	39707	37820	18017	28291	15676	28059	20750	23326	35479
NL29a	2094	-	3550	3759	-	2956	2657	12960	11270	7372	5260	23426	12535	23490	12520	-	14100	11630
NL29b	2094	3200	3550	3759	3200	2956	2657	12960	11270	7372	5260	23426	12535	23490	12520	15000	14100	11630
NLTOa	**51269**	**30996**	**37230**	**39747**	**40638**	**56427**	**30931**	**208577**	**272818**	**227543**	**161485**	**177445**	**230599**	**206080**	**269214**	**12**	**252172**	**196059**
NLTOb	**52269**	**42596**	**37730**	**48147**	**44338**	**56927**	**31931**	**223577**	**301818**	**298543**	**204985**	**249945**	**238099**	**255330**	**277214**	**206262**	**263172**	**245559**
TOTAa	**140071**	**96011**	**89417**	**122254**	**91873**	**99310**	**77647**	**375853**	**442165**	**456337**	**511141**	**392167**	**518132**	**401588**	**539185**	**160947**	**425627**	**660117**
TOTAb	**160247**	**157056**	**150996**	**156672**	**147500**	**156591**	**103149**	**440698**	**615827**	**603564**	**609817**	**587479**	**620046**	**583846**	**688676**	**541934**	**640049**	**738596**

Table 14. Avocet *Recurvirostra avosetta*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75	19	435
DK01b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75	19	435
DK02a	0	0	0	0	0	0	0	0	0	0	0	0	0	12	270	100	249	234
DK02b	0	0	0	0	0	0	0	0	0	0	0	0	0	12	270	270	249	234
DK03a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	140	111	408
DK03b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	140	111	408
DK04a	0	0	0	0	0	0	0	0	0	2	0	0	60	0	355	80	40	137
DK04b	0	0	0	0	0	0	0	0	0	2	0	0	60	0	355	355	40	137
DK05a	0	0	0	0	0	0	0	0	0	0	0	4	1	0	35	130	678	989
DK05b	0	0	0	0	0	0	0	0	0	0	0	4	1	0	35	130	678	989
DKTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**4**	**61**	**12**	**722**	**525**	**1097**	**2203**
DKTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**4**	**61**	**12**	**722**	**970**	**1097**	**2203**
SH06a	-	0	0	0	0	0	0	0	0	0	0	0	2	0	132	82	498	474
SH06b	0	0	0	0	0	0	0	0	0	0	0	0	2	64	301	619	545	546
SH07a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	10	41	136	80
SH07b	0	0	0	0	0	0	0	0	0	0	0	0	4	12	132	42	137	83
SH08a	-	0	0	1	0	0	0	0	0	0	0	0	0	30	44	667	532	1234
SH08b	0	0	0	1	0	0	0	0	0	0	0	0	18	30	366	714	567	1414
SH09a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	79	0	2	41
SH09b	0	0	0	0	0	0	0	0	0	0	0	0	0	3	141	58	62	97
SH10a	-	0	0	0	0	0	0	0	0	0	0	0	0	43	114	191	663	768
SH10b	0	0	0	0	0	0	0	0	0	0	0	0	23	48	432	628	736	770
SH11a	-	0	0	0	0	0	0	0	0	0	0	0	0	11	406	0	2	104
SH11b	0	0	0	0	0	0	0	0	0	0	0	0	11	14	406	128	3	104
SH12a	-	0	0	0	0	0	0	0	0	0	0	0	0	5	73	197	202	494
SH12b	0	0	0	0	0	0	0	0	0	0	0	0	237	5	545	339	202	494
SH13a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	729	2384
SH13b	0	0	0	0	0	0	0	0	0	0	0	0	0	45	1093	1075	729	2384
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	2	38	0	21
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	55	15	24
SHTOa	**-**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**89**	**860**	**1216**	**2764**	**5600**
SHTOb	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**295**	**221**	**3446**	**3658**	**2996**	**5916**
NS14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	256	753	0	324
NS14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	256	753	41	324
NS15a	-	0	0	0	0	0	-	0	0	0	0	0	0	0	7	-	4	2
NS15b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	4	2
NS16a	-	134	0	18	0	0	0	-	0	0	0	0	76	-	-	0	-	24
NS16b	0	134	0	18	0	0	0	0	0	0	0	0	76	3	65	25	25	36
NS17a	-	0	0	1	0	0	0	0	0	0	0	0	12	44	-	56	6	331
NS17b	0	0	0	1	0	0	0	0	0	0	0	0	12	44	351	216	235	336
NS18a	-	2	0	0	0	0	0	0	0	1	0	0	60	25	364	431	3	177
NS18b	0	2	0	0	0	0	0	0	0	1	0	0	67	25	364	463	149	213
NS19a	-	0	0	0	0	0	0	0	0	1	7	4	0	0	9	0	-	115
NS19b	0	0	0	0	0	0	0	0	0	1	7	4	25	49	9	158	166	115
NS20a	-	0	0	0	0	0	0	0	0	0	0	0	188	285	486	156	-	610
NS20b	0	0	0	0	0	0	0	0	0	0	0	0	294	285	1030	772	741	763
NS21a	-	0	0	-	12	0	-	-	-	-	-	0	132	57	320	-	-	130
NS21b	0	0	0	0	12	0	0	0	0	0	0	0	172	60	320	72	72	130
NS22a	-	0	0	711	20	0	0	0	0	700	804	90	782	1049	240	57	32	331
NS22b	0	0	0	711	20	0	0	0	0	700	804	90	856	1119	240	249	224	459
NSTOa	**0**	**136**	**0**	**730**	**32**	**0**	**0**	**0**	**0**	**702**	**811**	**94**	**1250**	**1460**	**1682**	**1453**	**45**	**2044**
NSTOb	**0**	**136**	**0**	**730**	**32**	**0**	**0**	**0**	**0**	**702**	**811**	**94**	**1502**	**1585**	**2644**	**2708**	**1657**	**2378**
NL22a	0	0	0	280	0	-	0	0	0	1	1	0	435	890	0	-	493	370
NL22b	0	0	0	280	0	0	0	0	0	1	1	0	435	890	0	1000	493	370
NL23a	0	-	-	69	220	-	-	-	-	-	-	0	65	138	-	-	1164	1657
NL23b	0	0	0	69	220	0	0	0	0	0	0	0	65	138	0	1600	1164	1657
NL24a	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	-	-	0
NL24b	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	40	40	0
NL25a	0	38	0	1	0	-	0	0	-	0	0	0	1068	342	-	-	2604	4221
NL25b	0	38	0	1	0	0	0	0	0	0	0	0	1085	342	0	3550	2604	4221
NL26a	0	0	0	132	59	-	0	-	55	43	30	24	0	44	0	-	58	40
NL26b	0	0	0	132	59	0	0	0	55	43	30	24	0	44	0	100	58	40
NL27a	-	0	-	-	-	-	-	-	-	0	-	-	0	0	0	-	0	0
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
NL28a	0	12	-	123	71	-	3	-	82	251	197	14	27	90	-	-	218	107
NL28b	0	12	0	123	71	0	3	0	82	251	197	14	57	90	0	220	218	107
NL29a	1	120	0	80	125	0	60	0	820	490	775	470	680	570	0	-	300	1132
NL29b	1	120	0	80	125	0	60	0	820	490	775	470	680	570	0	280	300	1132
NLTOa	**1**	**170**	**0**	**685**	**475**	**0**	**63**	**0**	**957**	**785**	**1003**	**508**	**2293**	**2074**	**0**	**-**	**4837**	**7527**
NLTOb	**1**	**170**	**0**	**685**	**475**	**0**	**63**	**0**	**957**	**785**	**1003**	**508**	**2340**	**2074**	**0**	**6791**	**4877**	**7527**
TOTAa	**1**	**306**	**0**	**1416**	**507**	**0**	**63**	**0**	**957**	**1489**	**1814**	**606**	**3606**	**3635**	**3264**	**3194**	**8743**	**17374**
TOTAb	**1**	**306**	**0**	**1416**	**507**	**0**	**63**	**0**	**957**	**1489**	**1814**	**606**	**4198**	**3892**	**6812**	**14127**	**10627**	**18024**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	45	15	56	117	98	0	94	1130	556	0	0	37	150	415	0	90	0	0
DK01b	45	15	56	117	98	0	94	1130	556	0	0	37	150	415	0	90	0	0
DK02a	487	104	133	469	340	405	573	183	33	32	6	173	0	22	40	112	0	0
DK02b	487	104	133	469	340	405	573	183	33	32	6	173	0	22	40	112	0	0
DK03a	245	128	87	365	30	56	322	134	42	10	0	2	0	0	0	1	1	0
DK03b	245	128	87	365	30	56	322	134	42	10	0	2	0	0	0	1	1	0
DK04a	138	114	432	238	216	36	280	4503	3222	3312	1078	160	1150	350	228	1500	310	0
DK04b	138	114	432	238	216	36	280	4503	3222	3312	1078	160	1150	350	228	1500	310	0
DK05a	1731	551	100	820	356	827	407	6	0	340	56	1066	2	45	6	0	150	2
DK05b	1731	551	100	820	356	827	407	6	0	340	56	1066	2	45	6	0	150	2
DKTOa	**2646**	**912**	**808**	**2009**	**1040**	**1324**	**1676**	**5956**	**3853**	**3694**	**1140**	**1438**	**1302**	**832**	**274**	**1703**	**461**	**2**
DKTOb	**2646**	**912**	**808**	**2009**	**1040**	**1324**	**1676**	**5956**	**3853**	**3694**	**1140**	**1438**	**1302**	**832**	**274**	**1703**	**461**	**2**
SH06a	747	73	250	482	240	1100	28	43	797	404	1056	528	1378	4	371	750	32	680
SH06b	757	470	292	527	285	1153	832	74	797	415	1063	528	1378	74	371	750	32	680
SH07a	110	362	200	93	14	72	54	2064	2050	1591	14	3	0	280	0	1200	0	0
SH07b	111	365	234	107	76	73	61	2085	2051	1591	1832	1588	1585	280	0	1200	0	0
SH08a	804	968	303	1383	467	509	1743	201	61	80	68	764	0	771	8	14	1	0
SH08b	976	974	344	1525	556	520	1754	201	61	120	68	804	3	771	8	14	1	0
SH09a	30	41	13	46	12	45	61	7	0	27	11	0	0	0	2	0	0	0
SH09b	86	91	63	87	53	50	61	8	3	39	13	1	2	2	2	2	1	1
SH10a	927	753	342	1045	485	602	795	264	3	21	965	897	210	335	236	55	13	65
SH10b	940	798	398	1061	582	664	795	264	341	65	971	897	305	335	492	80	23	91
SH11a	221	39	30	28	4	18	183	4	0	3	79	0	0	0	49	2	0	7
SH11b	221	92	83	28	23	18	225	4	78	81	79	79	89	14	49	2	0	7
SH12a	0	65	42	409	75	0	591	0	1	779	57	2	120	0	473	61	0	4
SH12b	413	234	259	409	324	453	621	59	778	783	836	516	597	53	473	61	4	4
SH13a	1058	481	0	930	0	114	1250	0	300	60	0	650	0	143	12	0	1	0
SH13b	1058	767	948	1137	841	810	1250	547	342	360	360	650	490	231	15	16	1	0
SH14a	6	12	14	0	34	36	8	0	0	0	0	0	0	0	1	0	0	0
SH14b	6	15	14	3	34	49	34	0	0	0	0	0	0	0	1	0	0	0
SHTOa	**3903**	**2794**	**1194**	**4416**	**1331**	**2496**	**4713**	**2583**	**3212**	**2965**	**2250**	**2844**	**1708**	**1533**	**1152**	**2082**	**47**	**756**
SHTOb	**4568**	**3806**	**2635**	**4884**	**2774**	**3790**	**5633**	**3242**	**4451**	**3454**	**5222**	**5063**	**4449**	**1760**	**1411**	**2125**	**62**	**783**
NS14a	53	106	45	6	33	62	-	1388	334	215	372	169	58	0	150	23	0	0
NS14b	65	106	74	18	33	62	4	1388	334	215	372	169	58	0	150	23	0	0
NS15a	9	0	0	1	3	0	3	462	12	0	9	0	10	0	0	36	0	37
NS15b	9	0	0	1	3	0	3	462	12	0	9	0	10	0	0	36	19	37
NS16a	30	44	0	29	2	7	-	0	0	0	63	141	246	0	-	-	0	160
NS16b	45	44	25	42	27	19	0	0	6	54	63	141	252	14	14	14	0	160
NS17a	209	296	45	269	11	343	-	5190	2248	3092	4587	15469	8107	5462	5650	3799	21910	1523
NS17b	210	297	205	270	72	404	57	5434	3798	3680	4590	15469	8107	5462	5676	4376	21910	1536
NS18a	169	193	187	247	297	395	0	425	366	1056	823	1101	563	1862	1214	730	1200	233
NS18b	189	213	207	267	297	400	315	509	369	1062	823	1107	571	1862	1245	761	1200	233
NS19a	338	218	31	203	151	6	-	308	506	636	542	1677	685	1016	448	22	0	120
NS19b	345	308	150	254	265	164	250	308	558	694	544	1700	688	1286	699	302	578	190
NS20a	541	170	2163	719	914	404	-	8234	339	1560	90	775	758	494	87	811	260	113
NS20b	850	529	2503	922	932	422	182	8299	339	1574	664	825	772	581	199	850	279	113
NS21a	-	0	232	24	180	163	-	27	-	56	310	-	342	465	15	6	-	0
NS21b	72	0	245	24	187	176	-	177	114	136	344	114	376	465	15	6	0	0
NS22a	159	56	83	120	105	104	-	9308	4145	1013	3709	745	24	693	4280	12815	7000	0
NS22b	325	184	211	190	105	232	316	9308	4157	1025	3709	757	1224	1255	4644	13179	7036	1424
NSTOa	**1508**	**1083**	**2786**	**1618**	**1696**	**1484**	**3**	**25342**	**7950**	**7628**	**10505**	**20077**	**10793**	**9992**	**11844**	**18242**	**30370**	**2186**
NSTOb	**2110**	**1681**	**3620**	**1988**	**1921**	**1879**	**1127**	**25885**	**9687**	**8440**	**11118**	**20282**	**12058**	**10925**	**12642**	**19547**	**31022**	**3693**
NL22a	444	346	0	299	0	301	1401	570	1555	1802	5235	12	1045	3710	1537	972	357	340
NL22b	444	346	0	299	0	301	1401	570	1555	1802	5235	12	1045	3710	1537	972	357	340
NL23a	2529	425	-	2521	-	1510	2167	1105	4473	70	1830	6612	1785	3131	5703	-	1831	380
NL23b	2529	425	0	2521	0	1510	2167	1105	4473	3930	2070	6852	1785	3381	5703	4200	1831	480
NL24a	0	0	0	0	0	0	0	67	925	400	395	589	370	720	910	-	400	75
NL24b	0	0	0	0	0	0	0	67	925	400	395	589	370	720	910	500	400	75
NL25a	3407	3727	-	3446	0	3531	3472	5000	7015	6619	5060	6921	5711	3234	4518	-	1309	136
NL25b	3407	3782	55	3501	0	3531	3472	5004	7030	6619	5060	6936	5711	3234	4518	2600	1309	136
NL26a	27	17	0	18	0	98	26	605	700	1078	655	739	550	800	1348	-	544	575
NL26b	27	17	0	18	0	98	26	605	700	1078	655	739	550	800	1348	650	544	575
NL27a	0	0	0	0	0	0	0	0	-	-	13	-	-	24	-	-	0	-
NL27b	0	0	0	0	0	0	0	0	0	0	13	0	0	24	0	0	0	5
NL28a	229	269	0	234	0	235	142	391	361	248	271	302	280	656	426	-	532	239
NL28b	229	269	0	234	0	280	142	391	361	248	271	302	280	656	426	480	532	239
NL29a	952	-	0	929	-	213	981	570	150	653	340	2379	755	2635	452	-	365	290
NL29b	952	600	0	929	600	213	981	570	150	653	340	2379	755	2635	452	950	365	290
NLTOa	**7588**	**4784**	**0**	**7447**	**0**	**5888**	**8189**	**8308**	**15179**	**10870**	**13799**	**17554**	**10496**	**14910**	**14894**	**972**	**5338**	**2035**
NLTOb	**7588**	**5439**	**55**	**7502**	**600**	**5933**	**8189**	**8312**	**15194**	**14730**	**14039**	**17809**	**10496**	**15160**	**14894**	**10352**	**5338**	**2140**
TOTAa	**15645**	**9573**	**4788**	**15490**	**4067**	**11192**	**14581**	**42189**	**30194**	**25157**	**27694**	**41913**	**24299**	**27267**	**28164**	**22999**	**36216**	**4979**
TOTAb	**16912**	**11838**	**7118**	**16383**	**6335**	**12926**	**16625**	**43395**	**33185**	**30318**	**31519**	**44592**	**28305**	**28677**	**29221**	**33727**	**36883**	**6618**

Table 15. Ringed Plover *Charadrius hiaticula*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	0	0	0	0	0	0	0	0	0	0	29	0	0	14	2
DK01b	0	0	0	0	0	0	0	0	0	0	0	0	0	29	0	12	14	2
DK02a	0	0	0	0	0	0	0	0	0	0	0	0	53	99	126	0	124	37
DK02b	0	0	0	0	0	0	0	0	0	0	0	0	53	99	126	125	124	37
DK03a	0	0	0	0	0	0	0	0	0	0	0	0	0	13	32	0	22	14
DK03b	0	0	0	0	0	0	0	0	0	0	0	0	0	13	32	32	22	14
DK04a	0	0	0	0	0	0	0	0	0	0	0	0	4	0	6	0	35	10
DK04b	0	0	0	0	0	0	0	0	0	0	0	0	4	0	6	10	35	10
DK05a	0	0	0	0	0	0	0	0	0	0	0	16	19	165	0	0	85	222
DK05b	0	0	0	0	0	0	0	0	0	0	0	16	19	165	0	10	85	222
DKTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**76**	**306**	**164**	**0**	**280**	**285**
DKTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**76**	**306**	**164**	**189**	**280**	**285**
SH06a	-	0	0	0	0	0	0	0	0	1	0	0	14	220	27	46	127	93
SH06b	0	0	0	0	0	0	0	0	0	1	0	0	207	236	132	152	182	113
SH07a	-	1	0	0	0	0	0	0	0	0	0	8	0	85	0	16	27	48
SH07b	0	3	0	2	1	0	0	0	3	0	2	8	37	107	22	16	31	49
SH08a	-	0	0	0	0	0	0	0	0	0	0	0	0	81	12	86	1004	62
SH08b	0	0	0	0	0	0	0	0	0	0	0	0	18	84	52	102	1036	103
SH09a	-	0	0	0	0	0	0	0	1	0	0	0	1	10	62	4	15	12
SH09b	0	0	0	0	0	0	0	0	1	0	0	0	12	30	72	10	27	18
SH10a	-	0	0	0	0	0	0	0	0	0	0	0	22	438	14	81	126	109
SH10b	0	0	0	0	0	0	0	0	0	0	0	0	363	482	58	81	158	115
SH11a	-	0	0	0	0	0	0	0	0	0	0	0	6	28	12	0	61	23
SH11b	0	0	0	0	0	0	0	0	0	0	0	0	21	35	12	21	71	23
SH12a	-	0	0	27	0	0	0	0	0	0	0	0	8	104	26	54	65	112
SH12b	0	2	0	29	0	0	0	0	3	2	4	2	122	104	242	54	65	270
SH13a	-	0	0	0	0	0	0	0	0	0	2	0	0	28	0	0	1944	1078
SH13b	1	0	0	0	0	0	0	0	0	0	2	0	28	28	22	54	1944	1078
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	8	45	8	1	2	2
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	8	47	10	6	8	6
SHTOa	**-**	**1**	**0**	**27**	**0**	**0**	**0**	**0**	**1**	**1**	**2**	**8**	**59**	**1039**	**161**	**288**	**3371**	**1539**
SHTOb	**1**	**5**	**0**	**31**	**1**	**0**	**0**	**0**	**7**	**3**	**8**	**10**	**816**	**1153**	**622**	**496**	**3522**	**1775**
NS14a	-	0	0	8	0	0	0	0	0	0	0	0	47	35	125	159	131	1
NS14b	0	0	0	8	0	0	0	0	0	0	0	0	47	35	125	161	140	7
NS15a	-	0	0	82	0	0	-	0	0	0	0	0	16	2	10	-	29	7
NS15b	0	0	0	82	0	0	0	0	0	0	0	0	16	29	29	64	74	40
NS16a	-	50	0	0	0	0	0	-	0	0	0	0	83	-	-	10	-	0
NS16b	0	50	0	0	0	0	0	0	0	0	0	0	83	63	2	24	29	14
NS17a	-	0	0	0	0	0	0	0	0	0	0	0	0	2	-	14	20	12
NS17b	0	0	0	0	0	0	0	0	0	0	0	0	0	7	230	24	31	14
NS18a	-	0	0	0	0	0	0	0	1	0	0	6	114	98	291	96	91	41
NS18b	0	0	0	0	0	0	0	0	1	0	0	6	163	148	307	148	244	169
NS19a	-	103	0	0	0	0	0	0	0	0	93	89	0	1	31	5	-	83
NS19b	0	103	0	0	0	0	0	0	0	0	93	89	6	70	31	70	70	83
NS20a	-	0	0	0	0	0	0	0	0	0	0	0	1628	48	74	56	-	168
NS20b	0	0	0	0	0	0	0	0	0	0	0	0	1638	49	76	161	231	210
NS21a	-	19	0	-	1	0	-	-	-	-	-	0	1	28	25	-	-	2
NS21b	1	19	0	1	1	0	0	0	1	1	1	1	14	28	25	3	3	2
NS22a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3	0	2400
NS22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	132	129	2473
NSTOa	**0**	**172**	**0**	**90**	**1**	**0**	**0**	**0**	**1**	**0**	**93**	**95**	**1889**	**214**	**561**	**343**	**271**	**2714**
NSTOb	**1**	**172**	**0**	**91**	**1**	**0**	**0**	**0**	**2**	**1**	**94**	**96**	**1967**	**429**	**830**	**787**	**951**	**3012**
NL22a	0	0	0	0	0	-	0	0	0	0	0	0	0	5	0	-	142	26
NL22b	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	25	142	26
NL23a	0	-	-	-	66	-	3	-	-	-	-	23	107	1200	63	-	1747	201
NL23b	0	0	0	0	66	0	3	0	0	3	0	23	117	1200	63	139	1792	201
NL24a	0	0	0	0	0	0	0	0	0	0	0	0	18	10	2	-	0	12
NL24b	0	0	0	0	0	0	0	0	0	0	0	0	18	10	2	50	0	12
NL25a	0	3	0	3	0	-	0	0	-	4	1	0	20	136	285	-	96	258
NL25b	0	3	0	3	0	0	0	0	0	4	1	0	25	136	285	325	96	258
NL26a	0	0	0	9	13	-	0	-	7	5	0	0	2	31	6	-	43	0
NL26b	0	0	0	9	13	0	0	0	7	5	0	0	2	31	6	3	43	0
NL27a	-	0	-	-	-	-	-	-	-	0	-	-	4	2	0	-	0	0
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	5	0	0
NL28a	0	-	-	4	12	-	0	-	10	-	13	22	12	69	57	-	94	29
NL28b	0	0	0	4	12	0	0	0	10	0	13	22	22	69	57	60	94	29
NL29a	3	0	0	12	12	0	4	0	39	21	4	34	72	134	40	-	-	78
NL29b	3	0	0	12	12	0	4	0	39	21	4	34	72	134	40	30	150	78
NLTOa	**3**	**3**	**0**	**28**	**103**	**0**	**7**	**0**	**56**	**30**	**18**	**79**	**235**	**1587**	**453**	**-**	**2122**	**604**
NLTOb	**3**	**3**	**0**	**28**	**103**	**0**	**7**	**0**	**56**	**33**	**18**	**79**	**260**	**1587**	**453**	**637**	**2317**	**604**
TOTAa	**3**	**176**	**0**	**145**	**104**	**0**	**7**	**0**	**58**	**31**	**113**	**198**	**2259**	**3146**	**1339**	**631**	**6044**	**5142**
TOTAb	**5**	**180**	**0**	**150**	**105**	**0**	**7**	**0**	**65**	**37**	**120**	**201**	**3119**	**3475**	**2069**	**2109**	**7070**	**5676**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	16	21	73	60	43	8	9	26	64	14	3	6	16	3	0	17	0	16
DK01b	16	21	73	60	43	40	9	26	64	14	3	6	16	3	0	17	0	16
DK02a	86	76	41	141	323	0	85	409	127	377	102	79	294	15	5	20	0	0
DK02b	86	76	41	141	323	320	85	409	127	377	102	79	294	15	5	20	0	0
DK03a	12	31	406	5	9	62	13	65	15	85	5	0	46	0	3	0	3	0
DK03b	12	31	406	5	9	62	13	65	15	85	5	0	46	0	3	0	3	0
DK04a	92	204	55	13	9	38	11	10	16	5	15	6	3	29	0	0	0	0
DK04b	92	204	55	13	9	38	11	10	16	5	15	6	3	29	0	0	0	0
DK05a	145	24	35	193	112	250	30	29	67	83	93	102	79	0	5	0	4	1
DK05b	145	24	35	193	112	250	30	29	67	83	93	102	79	0	5	0	4	1
DKTOa	**351**	**356**	**610**	**412**	**496**	**358**	**148**	**539**	**289**	**564**	**218**	**193**	**438**	**47**	**13**	**37**	**7**	**17**
DKTOb	**351**	**356**	**610**	**412**	**496**	**710**	**148**	**539**	**289**	**564**	**218**	**193**	**438**	**47**	**13**	**37**	**7**	**17**
SH06a	203	68	67	112	54	134	78	332	340	675	36	131	226	82	38	19	0	3
SH06b	217	139	147	180	135	217	118	476	344	746	277	165	298	105	61	24	0	3
SH07a	201	172	83	48	16	74	20	225	47	354	41	25	8	2	12	5	102	6
SH07b	201	187	103	65	51	74	22	356	156	354	95	73	63	10	17	12	102	6
SH08a	241	667	185	729	954	307	193	247	398	1031	77	19	425	57	51	9	9	0
SH08b	267	707	222	766	1007	316	208	248	398	1091	124	87	449	59	51	14	9	4
SH09a	37	43	34	53	11	27	36	45	27	30	0	12	12	1	12	18	0	0
SH09b	41	48	42	64	17	38	38	45	57	81	46	34	32	16	27	33	2	0
SH10a	78	254	67	600	309	314	53	238	81	348	1026	65	324	101	18	30	1	1
SH10b	79	294	129	620	498	343	71	238	1023	755	1238	170	430	111	74	86	1	1
SH11a	226	210	68	411	82	138	11	45	0	710	153	0	140	54	1	7	0	0
SH11b	226	316	174	411	100	138	18	45	420	856	300	147	198	54	1	7	0	0
SH12a	30	195	70	2150	325	390	134	1210	727	2137	717	1540	921	0	85	75	20	1
SH12b	237	269	353	2150	530	1377	134	1491	1216	2562	1367	1933	938	231	85	75	20	1
SH13a	1401	2698	0	5270	0	530	127	0	200	2264	5	9	0	20	4	0	0	0
SH13b	1401	2714	1836	5389	3029	4624	127	1547	3197	2820	3197	9	9	22	24	124	0	0
SH14a	1	6	15	2	8	3	0	28	1	7	0	0	3	0	1	0	0	0
SH14b	4	13	15	8	11	9	7	28	1	7	0	0	3	1	1	1	0	0
SHTOa	**2418**	**4313**	**589**	**9375**	**1759**	**1917**	**652**	**2370**	**1821**	**7556**	**2055**	**1801**	**2059**	**317**	**222**	**163**	**132**	**11**
SHTOb	**2673**	**4687**	**3021**	**9653**	**5378**	**7136**	**743**	**4474**	**6812**	**9272**	**6644**	**2618**	**2420**	**609**	**341**	**376**	**134**	**15**
NS14a	13	1	4	7	0	6	-	271	412	118	188	48	137	27	62	253	0	47
NS14b	19	5	10	13	7	14	0	271	413	122	198	51	137	36	62	253	40	47
NS15a	31	12	20	727	53	24	37	266	727	163	0	137	5	47	50	58	0	1
NS15b	76	41	69	753	101	73	37	266	748	237	2	211	67	47	59	73	1	1
NS16a	24	100	25	9	30	21	-	125	200	200	65	0	20	0	-	-	0	50
NS16b	28	115	39	9	44	35	21	125	200	212	65	180	20	0	0	0	0	50
NS17a	25	329	0	23	22	33	-	43	32	50	385	30	0	1	4	3	17	0
NS17b	26	329	10	23	22	33	3	51	92	65	400	30	0	1	4	3	17	0
NS18a	379	928	125	364	858	564	0	758	1636	1223	1008	1432	775	61	28	149	0	6
NS18b	404	967	192	394	873	589	299	1775	1747	1225	1008	1494	1145	71	48	159	0	6
NS19a	40	85	12	360	85	73	-	353	169	31	219	283	328	277	11	3	0	134
NS19b	46	144	82	360	155	138	8	353	236	273	361	329	506	334	69	60	8	134
NS20a	610	94	104	192	1123	217	-	165	582	312	75	28	465	84	12	0	0	53
NS20b	651	220	250	256	1200	294	53	434	587	323	110	206	476	84	99	87	10	61
NS21a	-	0	14	0	3	10	-	14	-	0	18	-	181	43	40	180	-	0
NS21b	3	1	14	1	4	10	-	22	15	6	18	15	181	43	40	180	0	0
NS22a	47	522	2	857	141	122	-	0	81	73	16	10	180	0	120	84	0	0
NS22b	120	595	75	857	141	195	3	0	81	73	16	10	183	71	120	84	0	0
NSTOa	**1169**	**2071**	**306**	**2539**	**2315**	**1070**	**37**	**1995**	**3839**	**2170**	**1974**	**1968**	**2091**	**540**	**327**	**730**	**17**	**291**
NSTOb	**1373**	**2417**	**741**	**2666**	**2547**	**1381**	**424**	**3297**	**4119**	**2536**	**2178**	**2526**	**2715**	**687**	**501**	**899**	**76**	**299**
NL22a	75	237	5	5	86	30	8	150	325	48	76	72	330	1	1	16	0	1
NL22b	75	237	5	5	86	30	8	150	325	48	76	72	330	1	1	16	0	1
NL23a	21	18	147	608	122	1821	145	290	462	177	3	96	490	29	126	-	20	-
NL23b	21	18	147	608	122	1821	145	290	462	437	263	356	490	89	126	110	20	10
NL24a	0	89	99	8	58	38	13	116	365	150	175	31	275	14	0	-	0	0
NL24b	0	89	99	8	58	38	13	116	365	150	175	31	275	14	0	10	0	0
NL25a	66	357	88	192	765	705	32	915	710	328	187	158	197	75	6	-	1	4
NL25b	66	382	88	217	765	705	32	917	713	328	187	161	197	75	6	125	1	4
NL26a	67	42	12	37	12	13	56	210	215	127	84	293	148	41	19	-	0	5
NL26b	67	42	12	37	12	13	56	210	215	127	84	293	148	41	19	80	0	5
NL27a	0	0	0	0	0	1	2	15	-	-	100	-	-	18	-	-	0	-
NL27b	0	0	0	0	0	1	2	15	15	15	100	15	15	18	0	0	0	0
NL28a	25	50	47	26	99	80	82	263	167	197	142	159	339	83	78	-	114	15
NL28b	25	50	47	26	99	80	82	263	167	197	142	159	339	83	78	135	114	15
NL29a	150	-	215	202	-	37	139	175	255	458	330	79	205	86	117	-	0	18
NL29b	150	150	215	202	150	37	139	175	255	458	330	310	205	86	117	60	0	18
NLTOa	**404**	**793**	**613**	**1078**	**1142**	**2725**	**477**	**2134**	**2499**	**1485**	**1097**	**888**	**1984**	**347**	**347**	**16**	**135**	**43**
NLTOb	**404**	**968**	**613**	**1103**	**1292**	**2725**	**477**	**2136**	**2517**	**1760**	**1357**	**1397**	**1999**	**407**	**347**	**536**	**135**	**53**
TOTAa	**4342**	**7533**	**2118**	**13404**	**5712**	**6070**	**1314**	**7038**	**8448**	**11775**	**5344**	**4850**	**6572**	**1251**	**909**	**946**	**291**	**362**
TOTAb	**4801**	**8428**	**4985**	**13834**	**9713**	**11952**	**1792**	**10446**	**13737**	**14132**	**10397**	**6734**	**7572**	**1750**	**1202**	**1848**	**352**	**384**

Table 16. Kentish Plover *Charadrius alexandrinus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK01b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK02a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	19	7
DK02b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	22	19	7
DK03a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK03b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK04a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK04b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK05a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	17
DK05b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	17
DKTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**22**	**0**	**40**	**24**
DKTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**22**	**22**	**40**	**24**
SH06a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6	3
SH06b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3	6	3
SH07a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH07b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH08a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	168
SH08b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	168
SH09a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH09b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH10a	-	0	0	0	0	0	0	0	0	0	0	0	0	2	15	102	92	4
SH10b	0	0	0	0	0	0	0	0	0	0	0	0	2	2	20	102	95	4
SH11a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	30
SH11b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	27	5	30
SH12a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH12b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH13a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	17
SH13b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	12	17
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
SHTOa	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**26**	**102**	**110**	**222**
SHTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**31**	**133**	**118**	**222**
NS14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	11	5	0	0
NS14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	5	0	0
NS15a	-	0	0	0	0	0	-	0	0	0	0	0	0	0	0	-	0	0
NS15b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	2
NS16a	-	0	0	0	0	0	0	-	0	0	0	0	0	-	-	0	-	0
NS16b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
NS17a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0
NS17b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
NS18a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	20	23	8	14
NS18b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	25	9	15
NS19a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	-	13
NS19b	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	2	2	13
NS20a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	-	22
NS20b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	16	22
NS21a	-	0	0	-	0	0	-	-	-	-	-	0	0	22	30	-	-	2
NS21b	0	0	0	0	0	0	0	0	0	0	0	0	0	22	30	0	0	2
NS22a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	5
NS22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	3	3	5
NSTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**22**	**80**	**47**	**8**	**56**
NSTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**24**	**144**	**64**	**32**	**59**
NL22a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	2	0
NL22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
NL23a	0	0	0	0	0	0	0	0	0	0	0	0	-	12	12	-	3	11
NL23b	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12	15	9	11
NL24a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0
NL24b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL25a	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	-	1	0
NL25b	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	1	0
NL26a	0	0	0	0	0	0	0	0	0	7	0	0	0	0	8	-	9	2
NL26b	0	0	0	0	0	0	0	0	0	7	0	0	0	0	8	10	9	2
NL27a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL28a	0	0	0	0	0	0	0	0	0	0	0	0	-	0	12	-	6	0
NL28b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	5	6	0
NL29a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0
NL29b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**12**	**32**	**-**	**21**	**13**
NLTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**5**	**12**	**32**	**30**	**27**	**13**
TOTAa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**36**	**160**	**149**	**179**	**315**
TOTAb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**7**	**38**	**229**	**249**	**217**	**318**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
DK01b	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0
DK02a	11	12	2	0	6	0	23	16	1	21	0	2	0	0	0	0	0	0
DK02b	11	12	2	0	6	10	23	16	1	21	0	2	0	0	0	0	0	0
DK03a	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK03b	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK04a	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0
DK04b	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0
DK05a	24	11	0	18	5	7	0	4	3	0	0	0	0	0	0	0	0	0
DK05b	24	11	0	18	5	7	0	4	3	0	0	0	0	0	0	0	0	0
DKTOa	**35**	**28**	**2**	**18**	**13**	**7**	**23**	**29**	**4**	**21**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**
DKTOb	**35**	**28**	**2**	**18**	**13**	**19**	**23**	**29**	**4**	**21**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**
SH06a	24	0	11	8	6	23	1	10	22	0	1	0	0	0	4	0	0	0
SH06b	24	6	13	8	6	23	16	16	22	1	2	1	0	0	4	0	0	0
SH07a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH07b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH08a	1	0	0	56	0	0	160	1	55	0	2	0	0	0	0	0	0	0
SH08b	1	0	0	56	0	0	160	1	55	0	2	0	0	0	0	0	0	0
SH09a	0	0	2	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
SH09b	0	0	2	0	0	0	0	3	0	2	2	3	0	0	0	0	0	0
SH10a	116	9	70	18	20	36	22	13	0	312	0	16	0	0	0	0	0	0
SH10b	116	12	75	18	31	38	26	13	26	316	62	16	0	0	0	0	0	0
SH11a	0	17	9	6	0	10	0	9	0	242	2	0	5	0	0	0	0	0
SH11b	0	17	9	6	4	10	12	9	6	243	14	0	5	0	0	0	0	0
SH12a	0	0	18	2	18	6	0	16	1	0	3	0	17	0	0	0	0	0
SH12b	0	0	18	2	18	6	0	17	1	0	4	15	17	8	0	0	0	0
SH13a	158	44	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0
SH13b	158	44	5	0	4	2	20	10	0	0	0	0	0	0	0	0	0	0
SH14a	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14b	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**299**	**70**	**111**	**90**	**44**	**75**	**203**	**52**	**78**	**554**	**8**	**16**	**22**	**0**	**4**	**0**	**0**	**0**
SHTOb	**299**	**79**	**123**	**90**	**63**	**79**	**234**	**69**	**110**	**562**	**86**	**35**	**22**	**8**	**4**	**0**	**0**	**0**
NS14a	0	0	0	0	0	0	-	22	16	0	7	2	13	4	0	20	0	0
NS14b	0	0	0	0	0	0	0	22	16	0	7	2	13	4	0	20	0	0
NS15a	0	0	4	5	22	0	0	10	3	0	0	0	0	0	0	0	0	0
NS15b	2	2	4	7	24	2	0	10	3	0	0	0	0	0	0	0	0	0
NS16a	3	0	10	0	0	0	-	10	1	0	0	0	0	0	-	-	0	0
NS16b	3	0	10	0	0	0	0	10	1	0	0	0	0	0	0	0	0	0
NS17a	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0
NS17b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS18a	7	17	22	38	39	18	0	35	142	49	12	7	3	2	0	2	0	0
NS18b	8	19	30	39	40	19	56	55	142	49	12	30	6	2	0	2	0	0
NS19a	0	0	2	4	70	0	-	40	0	80	7	80	2	24	0	0	0	25
NS19b	0	2	4	4	72	2	0	40	17	80	7	80	2	24	0	0	0	25
NS20a	8	0	27	23	0	0	-	8	236	34	158	0	10	12	0	0	0	0
NS20b	16	16	43	23	16	16	9	28	236	35	160	26	11	12	5	5	0	0
NS21a	-	0	12	0	5	18	-	16	-	0	13	-	2	17	10	10	-	0
NS21b	0	0	12	0	5	18	-	54	2	2	13	2	2	17	10	10	0	0
NS22a	12	156	0	5	0	0	-	0	0	0	0	0	0	0	0	0	0	0
NS22b	12	156	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSTOa	**30**	**173**	**77**	**75**	**136**	**36**	**0**	**141**	**398**	**163**	**197**	**89**	**30**	**59**	**10**	**32**	**0**	**25**
NSTOb	**41**	**195**	**103**	**78**	**157**	**57**	**65**	**219**	**417**	**166**	**199**	**140**	**34**	**59**	**15**	**37**	**0**	**25**
NL22a	0	4	0	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0
NL22b	0	4	0	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0
NL23a	-	-	5	-	3	5	12	25	2	-	-	-	0	-	0	-	-	-
NL23b	0	0	5	0	3	5	12	25	2	2	12	12	0	0	0	0	0	0
NL24a	0	0	0	0	0	0	3	95	80	2	0	0	0	0	0	-	0	0
NL24b	0	0	0	0	0	0	3	95	80	2	0	0	0	0	0	0	0	0
NL25a	0	-	12	-	0	4	0	123	3	15	7	-	0	18	0	-	0	0
NL25b	0	3	12	3	0	4	0	123	3	15	7	0	0	18	0	10	0	0
NL26a	12	0	21	27	13	1	4	11	38	44	29	0	1	0	0	-	0	0
NL26b	12	0	21	27	13	1	4	11	38	44	29	0	1	0	0	0	0	0
NL27a	0	0	0	0	0	0	0	0	-	-	0	-	-	0	-	-	0	-
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL28a	2	-	2	4	3	5	0	10	0	0	2	-	5	-	0	-	-	-
NL28b	2	0	2	4	3	5	0	10	0	0	2	0	5	0	0	0	0	0
NL29a	2	-	0	0	-	0	0	25	1	0	5	-	15	0	0	-	0	0
NL29b	2	0	0	0	0	0	0	25	1	0	5	5	15	0	0	0	0	0
NLTOa	**16**	**4**	**40**	**33**	**19**	**15**	**20**	**290**	**124**	**61**	**43**	**0**	**21**	**18**	**0**	**0**	**0**	**0**
NLTOb	**16**	**7**	**40**	**36**	**19**	**15**	**20**	**290**	**124**	**63**	**55**	**17**	**21**	**18**	**0**	**10**	**0**	**0**
TOTAa	**380**	**275**	**230**	**216**	**212**	**133**	**246**	**512**	**604**	**799**	**248**	**107**	**73**	**77**	**14**	**32**	**0**	**25**
TOTAb	**391**	**309**	**268**	**222**	**252**	**170**	**342**	**607**	**655**	**812**	**340**	**194**	**77**	**85**	**19**	**47**	**0**	**25**

Table 17. Golden Plover *Pluvialis apricaria*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	300	37	0	0	0	1300	1150	3043	11	0	230	1000	20	750	4922
DK01b	0	0	0	300	37	0	0	0	1300	1150	3043	11	0	230	1000	1000	750	4922
DK02a	0	0	0	6	10	0	0	0	600	3050	380	771	1	0	43	40	740	5664
DK02b	0	0	0	6	10	0	0	0	600	3050	380	771	1	0	43	60	740	5664
DK03a	0	0	0	0	0	0	0	0	70	130	2300	600	0	7	97	0	11653	10715
DK03b	0	0	0	0	0	0	0	0	70	130	2300	600	0	7	97	100	11653	10715
DK04a	0	0	0	300	0	0	0	0	2	11	510	208	37	0	1030	0	3220	5322
DK04b	0	0	0	300	0	0	0	0	2	11	510	208	37	0	1030	1030	3220	5322
DK05a	0	0	0	0	0	0	0	0	402	4	200	118	0	138	9350	0	8371	16972
DK05b	0	0	0	0	0	0	0	0	402	4	200	118	0	138	9350	9700	8371	16972
DKTOa	**0**	**0**	**0**	**606**	**47**	**0**	**0**	**0**	**2374**	**4345**	**6433**	**1708**	**38**	**375**	**11520**	**60**	**24734**	**43595**
DKTOb	**0**	**0**	**0**	**606**	**47**	**0**	**0**	**0**	**2374**	**4345**	**6433**	**1708**	**38**	**375**	**11520**	**11890**	**24734**	**43595**
SH06a	-	0	0	0	0	0	0	0	0	954	1213	31	0	15	15	1748	2	650
SH06b	95	0	0	97	80	0	0	0	81	964	1213	63	111	193	367	2039	430	1057
SH07a	-	0	0	736	0	0	0	0	0	4000	3567	751	0	0	0	22353	5294	5572
SH07b	2729	40	0	1506	640	0	0	0	0	4000	3567	751	127	25	22843	22353	5294	5583
SH08a	-	0	0	0	0	0	0	0	0	124	1	257	0	0	300	6440	2802	1819
SH08b	1	0	0	0	0	0	0	0	3	124	1	257	46	0	3139	6733	5079	1819
SH09a	-	0	0	0	35	0	0	0	550	830	0	102	0	0	584	303	2102	203
SH09b	0	224	0	200	235	0	0	0	750	1030	200	302	18	0	783	304	2106	205
SH10a	-	0	0	0	0	0	0	0	0	160	5	8	11	50	14	13430	4189	2765
SH10b	0	0	0	0	0	0	0	0	0	160	5	8	61	50	3786	13435	7869	3355
SH11a	-	1	0	0	0	0	0	0	0	11	0	29	0	0	800	0	2200	1072
SH11b	0	1	0	0	0	0	0	0	0	11	0	29	0	0	990	1916	2200	1072
SH12a	-	0	0	0	0	0	0	0	0	450	0	0	0	0	1100	0	0	645
SH12b	0	0	0	0	0	0	0	0	0	450	0	0	0	0	1100	97	0	645
SH13a	-	0	0	0	0	0	0	0	0	205	248	0	0	0	0	0	1537	315
SH13b	0	7	0	2	52	0	0	0	0	205	248	0	0	0	2207	1946	1537	315
SH14a	-	0	0	20	0	0	0	0	0	330	0	65	60	0	0	30	0	8
SH14b	0	0	0	20	0	0	0	0	0	330	0	65	60	0	50	38	0	8
SHTOa	**-**	**1**	**0**	**756**	**35**	**0**	**0**	**0**	**550**	**7064**	**5034**	**1243**	**71**	**65**	**2813**	**44304**	**18126**	**13049**
SHTOb	**2825**	**272**	**0**	**1825**	**1007**	**0**	**0**	**0**	**834**	**7274**	**5234**	**1475**	**423**	**268**	**35265**	**48861**	**24515**	**14059**
NS14a	-	0	0	817	0	0	0	0	0	25	0	89	1470	4589	1869	1207	292	1373
NS14b	0	0	0	817	0	0	0	0	0	25	0	89	1470	4589	1869	1392	306	1381
NS15a	-	0	0	935	0	0	-	0	245	0	0	39	76	3	50	-	400	420
NS15b	0	0	0	935	0	0	0	0	245	0	0	39	1046	887	1211	842	1200	1220
NS16a	-	0	0	0	0	0	0	-	0	0	0	0	1600	-	-	0	-	0
NS16b	0	0	0	0	0	0	0	0	0	0	0	0	1600	30	123	100	100	100
NS17a	-	0	0	80	0	0	8	0	171	115	86	120	1030	0	-	3214	0	342
NS17b	0	0	0	80	0	0	8	0	171	115	86	120	1030	60	1059	3214	60	342
NS18a	-	1	108	3072	8	0	0	0	3632	1145	150	53	102	20	2684	2217	240	430
NS18b	13	7	108	3072	21	0	0	0	3638	1145	150	53	129	21	2774	2232	357	430
NS19a	-	220	0	24	250	0	0	0	406	3820	1906	697	120	4	370	33	-	1033
NS19b	403	600	0	27	633	0	0	0	806	3820	2306	697	1647	1758	370	462	444	1033
NS20a	-	28	0	0	30	0	0	0	0	100	85	72	4	0	116	1705	-	520
NS20b	0	28	0	0	30	0	0	0	0	100	85	72	4	0	454	1973	338	520
NS21a	-	45	0	-	25	0	-	-	-	-	-	0	150	2	440	-	-	0
NS21b	0	45	0	0	25	0	0	0	0	0	0	0	150	2	440	2	2	0
NS22a	-	0	0	1320	0	0	0	0	0	60	0	0	124	120	790	1209	0	80
NS22b	0	0	0	1320	0	0	0	0	0	60	0	0	184	120	790	1226	17	97
NSTOa	**0**	**294**	**108**	**6248**	**313**	**0**	**8**	**0**	**4454**	**5265**	**2227**	**1070**	**4676**	**4738**	**6319**	**9585**	**932**	**4198**
NSTOb	**416**	**680**	**108**	**6251**	**709**	**0**	**8**	**0**	**4860**	**5265**	**2627**	**1070**	**7260**	**7467**	**9090**	**11443**	**2824**	**5123**
NL22a	0	0	0	840	0	-	0	0	75	0	15	575	7565	105	1045	-	1193	2640
NL22b	0	0	0	840	0	0	0	0	75	0	15	575	7565	105	1045	1000	1193	2640
NL23a	10	70	-	-	155	-	8	-	805	-	193	73	285	489	846	-	301	3219
NL23b	10	70	0	0	155	0	8	0	805	125	193	73	285	489	846	1500	301	3219
NL24a	0	-	0	165	0	0	0	0	90	220	120	0	108	160	240	-	0	136
NL24b	0	200	0	165	0	0	0	0	90	220	120	0	108	160	240	200	0	136
NL25a	0	335	0	1925	110	-	1	0	998	8984	2975	630	520	2208	4760	-	27	3760
NL25b	0	335	0	1925	110	0	1	0	998	8984	2975	1714	870	2208	4760	1150	27	3760
NL26a	0	805	0	670	46	-	43	-	811	1119	587	563	94	182	1180	-	428	3300
NL26b	0	805	0	670	46	50	43	50	811	1119	587	563	94	182	1180	1500	428	3300
NL27a	-	0	-	-	-	-	-	-	-	0	-	-	0	0	0	-	0	0
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL28a	0	2415	-	2700	17	-	64	-	1856	1703	2898	1933	260	1682	6410	-	6	3817
NL28b	0	2415	0	2700	17	0	64	0	1856	1703	2898	1933	280	1682	6410	10	6	3817
NL29a	0	500	0	0	0	0	0	0	760	600	120	540	0	0	580	-	0	435
NL29b	0	500	0	0	0	0	0	0	760	600	120	540	0	0	580	0	0	435
NLTOa	**10**	**4125**	**0**	**6300**	**328**	**0**	**116**	**0**	**5395**	**12626**	**6908**	**4314**	**8832**	**4826**	**15061**	**-**	**1955**	**17307**
NLTOb	**10**	**4325**	**0**	**6300**	**328**	**50**	**116**	**50**	**5395**	**12751**	**6908**	**5398**	**9202**	**4826**	**15061**	**5360**	**1955**	**17307**
TOTAa	**10**	**4420**	**108**	**13910**	**723**	**0**	**124**	**0**	**12773**	**29300**	**20602**	**8335**	**13617**	**10004**	**35713**	**53949**	**45747**	**78149**
TOTAb	**3251**	**5277**	**108**	**14982**	**2091**	**50**	**124**	**50**	**13463**	**29635**	**21202**	**9651**	**16923**	**12936**	**70936**	**77554**	**54028**	**80084**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	304	1724	175	575	0	20	0	352	362	416	105	2538	1716	1820	904	381	134	0
DK01b	304	1724	175	575	0	20	0	352	362	416	105	2538	1716	1820	904	381	134	0
DK02a	121	975	898	203	26	0	1	2186	784	1998	307	5390	1156	1295	1837	689	4454	675
DK02b	121	975	898	203	26	0	1	2186	784	1998	307	5390	1156	1295	1837	689	4454	675
DK03a	3309	4268	353	2108	3	11	6	412	618	8655	1664	0	2149	3020	3326	2903	20480	2529
DK03b	3309	4268	353	2108	3	400	6	412	618	8655	1664	0	2149	3020	3326	2903	20480	2529
DK04a	249	2096	2077	520	22	18	41	695	520	281	663	1810	1089	1689	2172	1185	7630	1741
DK04b	249	2096	2077	520	22	200	41	695	520	281	663	1810	1089	1689	2172	1185	7630	1741
DK05a	13967	14909	16585	597	4709	0	174	214	11778	7877	9830	8718	11931	450	24968	20616	21835	4490
DK05b	13967	14909	16585	597	4709	4700	174	214	11778	7877	9830	8718	11931	450	24968	20616	21835	4490
DKTOa	**17950**	**23972**	**20088**	**4003**	**4760**	**49**	**222**	**3859**	**14062**	**19227**	**12569**	**18456**	**18041**	**8274**	**33207**	**25774**	**54533**	**9435**
DKTOb	**17950**	**23972**	**20088**	**4003**	**4760**	**5320**	**222**	**3859**	**14062**	**19227**	**12569**	**18456**	**18041**	**8274**	**33207**	**25774**	**54533**	**9435**
SH06a	3715	103	442	191	1011	1	0	60	631	5515	38	154	582	36	5688	920	5145	369
SH06b	3745	651	849	644	1309	58	9	1928	959	6027	1252	917	1017	316	5774	1030	5283	720
SH07a	4083	2431	5550	505	7	15	25	1189	150	16930	607	108	59	1039	1957	4205	5994	972
SH07b	4083	2801	6310	548	374	15	32	1778	2755	16930	6372	2799	653	2271	1957	4885	6000	1825
SH08a	3221	2577	180	223	48	237	1	781	2123	9687	1071	125	107	71	7022	0	4023	185
SH08b	3221	2577	180	223	88	237	1	781	2154	9687	1189	125	542	71	7022	770	4023	185
SH09a	381	426	66	76	4	61	0	355	0	1398	0	0	0	208	400	46	87	86
SH09b	383	441	81	104	32	61	0	381	6	1570	327	43	196	208	400	46	88	86
SH10a	5933	5704	6339	672	3	5	7	300	0	4877	925	109	1009	1077	2851	85	19725	1102
SH10b	5933	5704	6339	675	7	5	7	300	1666	5315	1077	109	1009	1423	2884	86	19725	1102
SH11a	1901	2800	1251	320	0	2	8	1341	0	630	10	0	450	205	600	250	1880	97
SH11b	1901	3235	1686	320	163	2	12	1341	2651	640	2822	10	475	565	613	250	1880	97
SH12a	0	4	30	190	0	0	10	0	365	2373	1	11	0	0	4	2	6200	193
SH12b	30	19	31	190	15	48	10	381	2165	2381	2088	16	0	5	4	2	6218	211
SH13a	4892	1233	0	29	0	0	0	0	20	82	45	225	0	0	0	0	620	160
SH13b	4892	1629	1200	239	970	8	0	1377	476	328	876	225	298	0	17	132	780	223
SH14a	0	0	0	0	0	0	0	0	112	420	0	0	290	2	0	35	1060	285
SH14b	0	0	0	0	0	0	0	2	532	420	0	290	290	402	0	35	1160	285
SHTOa	**24126**	**15278**	**13858**	**2206**	**1073**	**321**	**51**	**4026**	**3401**	**41912**	**2697**	**732**	**2497**	**2638**	**18522**	**5543**	**44734**	**3449**
SHTOb	**24188**	**17057**	**16676**	**2943**	**2958**	**434**	**71**	**8269**	**13364**	**43298**	**16003**	**4534**	**4480**	**5261**	**18671**	**7236**	**45157**	**4734**
NS14a	952	545	47	0	663	3	-	5885	6825	829	5615	11368	9433	17075	9891	16772	16649	7933
NS14b	1304	553	399	193	669	188	0	5911	7132	3080	9395	13465	10078	19491	9891	18882	17804	7933
NS15a	4	80	1600	340	0	0	0	471	242	290	1	790	150	1360	50	52	1985	3057
NS15b	804	880	1600	1140	800	842	0	471	562	328	201	1043	381	3263	1948	2052	2231	3358
NS16a	70	180	2	500	0	8	-	3	15	280	61	50	10	570	-	-	286	80
NS16b	70	180	102	500	100	108	0	3	85	280	86	75	55	570	560	560	286	80
NS17a	410	1004	303	302	3400	0	-	152	682	284	23	33	421	221	3667	320	4170	301
NS17b	433	1004	303	302	3400	0	0	347	683	284	23	33	421	221	3717	370	4170	301
NS18a	92	54	619	1585	60	226	0	963	1313	2250	747	3535	2872	2504	755	1288	10830	725
NS18b	92	184	634	1585	75	243	3	1067	1313	2250	1007	3535	3150	2514	1385	1288	10908	733
NS19a	1772	1015	0	299	270	1200	-	1148	2711	534	290	1917	874	229	332	455	0	1086
NS19b	1781	1426	414	549	384	1629	2	1148	3467	1143	538	2432	1711	1678	1725	1871	272	1227
NS20a	303	70	1300	0	200	0	-	68	96	400	89	150	166	12	1455	185	5400	167
NS20b	503	338	1300	68	200	0	0	103	96	500	189	269	166	92	1455	267	5452	167
NS21a	-	55	684	0	190	2	-	257	-	0	152	-	125	0	278	0	-	113
NS21b	2	55	684	0	190	2	-	457	40	15	152	40	125	0	278	0	57	113
NS22a	0	477	443	0	34	66	-	4	59	0	371	233	0	25	1309	507	204	0
NS22b	27	494	460	0	34	83	0	4	59	0	371	233	14	408	1357	555	204	0
NSTOa	**3603**	**3480**	**4998**	**3026**	**4817**	**1505**	**0**	**8951**	**11943**	**4867**	**7349**	**18076**	**14051**	**21996**	**17737**	**19579**	**39524**	**13462**
NSTOb	**5016**	**5114**	**5896**	**4337**	**5852**	**3095**	**5**	**9511**	**13437**	**7880**	**11962**	**21125**	**16101**	**28237**	**22316**	**25845**	**41384**	**13912**
NL22a	506	333	6990	1	160	0	0	48	295	0	610	10965	1325	1645	274	319	3323	880
NL22b	506	333	6990	1	160	0	0	48	295	0	610	10965	1325	1645	274	319	3323	880
NL23a	187	80	68	405	220	95	2	437	301	2	-	957	365	53	488	-	1066	400
NL23b	187	80	68	405	220	95	2	437	301	602	600	957	365	53	488	250	1066	400
NL24a	0	0	-	0	-	0	0	-	190	210	420	0	710	250	500	-	110	150
NL24b	0	0	100	0	100	0	0	200	190	210	420	0	710	250	500	400	110	150
NL25a	845	854	1315	136	-	181	0	1985	3590	10557	2070	3077	2985	3946	1578	-	13788	2685
NL25b	845	1204	1315	486	350	181	0	1985	3590	10557	2070	3077	2985	3946	1578	2620	13788	2685
NL26a	339	151	104	16	18	2	10	1060	2285	2126	1990	2483	1815	977	459	-	3487	1995
NL26b	339	151	104	16	18	2	10	1060	2285	2126	1990	2483	1815	977	459	700	3487	1995
NL27a	0	0	0	0	0	1	0	0	-	-	1	-	-	1	-	-	0	-
NL27b	0	0	0	0	0	1	0	0	5	5	1	5	5	1	0	0	0	0
NL28a	61	25	84	6	78	0	0	3548	4915	4892	6459	7065	9862	5573	7340	-	4405	5155
NL28b	61	25	84	6	78	0	0	3548	4915	4892	6459	7065	9862	5573	7340	7500	4405	5155
NL29a	100	-	0	296	-	0	0	0	0	0	0	212	1	0	0	-	370	0
NL29b	100	80	0	296	80	0	0	0	0	0	0	212	1	0	0	0	370	0
NLTOa	**2038**	**1443**	**8561**	**860**	**476**	**279**	**12**	**7078**	**11576**	**17787**	**11550**	**24759**	**17063**	**12445**	**10639**	**319**	**26549**	**11265**
NLTOb	**2038**	**1873**	**8661**	**1210**	**1006**	**279**	**12**	**7278**	**11581**	**18392**	**12150**	**24764**	**17068**	**12445**	**10639**	**11789**	**26549**	**11265**
TOTAa	**47717**	**44173**	**47505**	**10095**	**11126**	**2154**	**285**	**23914**	**40982**	**83793**	**34165**	**62023**	**51652**	**45353**	**80105**	**51215**	**165340**	**37611**
TOTAb	**49192**	**48016**	**51321**	**12493**	**14576**	**9128**	**310**	**28917**	**52444**	**88797**	**52684**	**68879**	**55690**	**54217**	**84833**	**70644**	**167623**	**39346**

Table 18. Grey Plover *Pluvialis squatarola*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	1	34	0	1	0	0	1	0	0	0	0	0	35	248	28
DK01b	0	0	0	1	34	0	1	0	0	1	0	0	0	0	0	35	248	28
DK02a	0	0	0	192	10	0	33	0	45	202	380	507	0	5	316	25	1081	165
DK02b	0	0	0	192	10	0	33	0	45	202	380	507	0	5	316	305	1081	165
DK03a	0	0	0	0	0	0	0	0	8	2	0	0	0	0	2216	27	837	220
DK03b	0	0	0	0	0	0	0	0	8	2	0	0	0	0	2216	2220	837	220
DK04a	0	0	0	1	0	0	0	0	0	20	0	2	0	0	41	42	462	291
DK04b	0	0	0	1	0	0	0	0	0	20	0	2	0	0	41	70	462	291
DK05a	0	0	0	11	40	0	0	0	7	331	15	16	0	0	3	30	1235	840
DK05b	0	0	0	11	40	0	0	0	7	331	15	16	0	0	3	55	1235	840
DKTOa	**0**	**0**	**0**	**205**	**84**	**0**	**34**	**0**	**60**	**556**	**395**	**525**	**0**	**5**	**2576**	**159**	**3863**	**1544**
DKTOb	**0**	**0**	**0**	**205**	**84**	**0**	**34**	**0**	**60**	**556**	**395**	**525**	**0**	**5**	**2576**	**2685**	**3863**	**1544**
SH06a	-	0	0	55	2	0	0	1	486	15	78	30	0	10	12	81	1110	572
SH06b	12	5	0	63	20	0	0	1	486	18	78	30	70	15	282	432	1148	758
SH07a	-	0	0	31	45	33	42	0	0	0	268	26	0	0	0	106	447	874
SH07b	1	0	40	31	100	33	42	25	1	0	268	26	20	43	510	106	447	915
SH08a	-	45	0	185	193	2	0	0	116	2011	512	772	3	40	234	975	2322	952
SH08b	274	172	0	212	263	2	0	0	481	2011	512	772	216	42	918	1096	2662	1055
SH09a	-	200	0	80	222	15	2	0	0	0	76	92	800	1449	60	3087	1815	1042
SH09b	151	512	1	442	559	15	2	7	364	337	413	429	3549	2034	819	3431	3436	1722
SH10a	-	13	0	545	271	0	3	0	0	351	128	785	45	0	187	439	1928	3093
SH10b	110	20	0	559	301	1	3	0	36	358	142	798	79	436	231	484	2915	3146
SH11a	-	0	0	16	1	0	0	0	0	0	0	5	0	0	43	0	3302	1433
SH11b	42	0	0	84	1	0	0	0	0	0	0	73	0	1840	2543	4603	3324	4603
SH12a	-	0	0	120	70	0	0	0	0	0	1620	0	0	20	2519	4850	8502	9365
SH12b	190	1760	0	1880	70	0	0	0	1980	1760	5070	1764	2624	20	2534	5567	8502	9365
SH13a	-	0	0	35	0	0	0	0	180	65	376	410	0	0	0	0	9939	4587
SH13b	283	143	0	158	61	0	0	0	199	79	376	410	48	76	1135	1868	9939	4587
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**-**	**258**	**0**	**1067**	**804**	**50**	**47**	**1**	**782**	**2442**	**3058**	**2120**	**848**	**1519**	**3055**	**9538**	**29365**	**21918**
SHTOb	**1063**	**2612**	**41**	**3429**	**1375**	**51**	**47**	**33**	**3547**	**4563**	**6859**	**4302**	**6606**	**4506**	**8972**	**17587**	**32373**	**26151**
NS14a	-	0	0	4	0	0	0	0	0	0	0	0	0	0	1	4	4	25
NS14b	0	0	0	4	0	0	0	0	0	0	0	0	0	0	1	4	30	26
NS15a	-	0	0	90	0	0	-	0	2	10	600	135	600	0	700	-	1070	1188
NS15b	5	0	0	95	5	0	0	0	2	10	600	135	600	300	919	3933	3653	2271
NS16a	-	0	0	0	0	0	0	-	0	0	0	425	0	-	-	90	-	1250
NS16b	222	0	0	222	222	0	0	0	222	222	222	425	0	0	101	380	590	1410
NS17a	-	0	0	30	0	0	7	0	645	300	200	465	0	0	-	1214	322	157
NS17b	15	0	6	30	0	6	7	6	645	300	200	465	0	0	142	1214	706	179
NS18a	-	912	44	1013	755	0	815	0	1235	3306	134	2983	731	1469	2479	3602	2419	7189
NS18b	1671	1462	44	2318	2136	0	819	4	2540	3891	1439	2983	2031	2720	2497	7149	6301	7281
NS19a	-	89	0	1	30	0	0	0	5	520	311	346	20	0	334	1	-	1817
NS19b	185	89	0	1	31	0	0	0	190	520	311	346	35	155	334	1713	2472	1817
NS20a	-	11	12	1	66	0	0	0	180	0	272	250	19	150	118	624	-	4160
NS20b	303	261	12	300	316	0	0	0	483	299	276	303	63	190	118	1780	1960	4700
NS21a	-	35	0	-	1	0	-	-	-	-	-	0	35	12	100	-	-	1028
NS21b	0	35	0	0	1	0	0	0	0	0	0	0	35	12	100	130	130	1028
NS22a	-	0	0	18	0	0	0	0	0	0	39	0	0	13	99	833	475	2254
NS22b	0	0	0	18	0	0	0	0	0	0	39	0	0	13	99	1397	1039	2334
NSTOa	**0**	**1047**	**56**	**1157**	**852**	**0**	**822**	**0**	**2067**	**4136**	**1556**	**4604**	**1405**	**1644**	**3831**	**6368**	**4290**	**19068**
NSTOb	**2401**	**1847**	**62**	**2988**	**2711**	**6**	**826**	**10**	**4082**	**5242**	**3087**	**4657**	**2764**	**3390**	**4311**	**17700**	**16881**	**21046**
NL22a	0	0	0	23	0	-	3	0	0	0	2	6	30	0	150	-	674	368
NL22b	0	0	0	23	0	0	3	0	0	0	2	6	30	0	150	750	674	368
NL23a	1	969	-	335	3324	9	120	-	737	-	2265	970	1015	2950	2531	-	6359	9652
NL23b	1151	1969	1150	485	3324	1059	270	1150	1737	1575	3415	1970	1515	3450	2531	7500	10109	11152
NL24a	0	240	0	250	143	7	945	0	995	220	1305	970	285	705	1075	-	3406	1555
NL24b	0	240	0	250	143	7	945	0	995	220	1305	970	285	705	1075	1500	3406	1555
NL25a	522	1025	63	1040	1505	185	1906	12	1571	1893	3726	1065	640	999	3820	-	4654	5193
NL25b	662	1165	63	1180	1505	1010	1906	12	1711	1893	3726	1993	1140	999	3820	3020	7404	5193
NL26a	425	505	1	980	483	-	2641	-	319	447	1448	792	285	121	310	-	3540	1288
NL26b	425	505	1	980	483	800	2641	800	319	447	1448	792	285	121	310	700	3540	1288
NL27a	-	175	-	-	-	-	-	-	-	200	-	-	120	50	0	-	120	1500
NL27b	150	175	150	150	150	150	150	150	150	200	150	150	120	50	0	300	120	1500
NL28a	15	378	3	618	316	9	730	-	676	241	207	192	195	166	232	-	3626	3701
NL28b	25	388	13	618	326	19	730	10	676	251	217	202	295	166	232	2400	3626	3701
NL29a	4	545	25	126	5	9	1012	0	30	22	188	400	545	71	150	-	445	1302
NL29b	4	545	25	126	5	9	1012	0	30	22	188	400	545	71	150	700	445	1302
NLTOa	**967**	**3837**	**92**	**3372**	**5776**	**219**	**7357**	**12**	**4328**	**3023**	**9141**	**4395**	**3115**	**5062**	**8268**	**-**	**22824**	**24559**
NLTOb	**2417**	**4987**	**1402**	**3812**	**5936**	**3054**	**7657**	**2122**	**5618**	**4608**	**10451**	**6483**	**4215**	**5562**	**8268**	**16870**	**29324**	**26059**
TOTAa	**967**	**5142**	**148**	**5801**	**7516**	**269**	**8260**	**13**	**7237**	**10157**	**14150**	**11644**	**5368**	**8230**	**17730**	**16065**	**60342**	**67089**
TOTAb	**5881**	**9446**	**1505**	**10434**	**10106**	**3111**	**8564**	**2165**	**13307**	**14969**	**20792**	**15967**	**13585**	**13463**	**24127**	**54842**	**82441**	**74800**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	321	398	214	427	96	202	4	26	185	247	2	156	42	239	105	75	17	94
DK01b	321	398	214	427	96	202	4	26	185	247	2	156	42	239	105	75	17	94
DK02a	546	810	176	1696	2308	243	136	813	246	820	719	112	817	649	325	685	428	96
DK02b	546	810	176	1696	2308	2000	136	813	246	820	719	112	817	649	325	685	428	96
DK03a	515	1217	348	965	304	774	81	178	269	665	105	1357	496	562	242	40	5	8
DK03b	515	1217	348	965	304	774	81	178	269	665	105	1357	496	562	242	40	5	8
DK04a	268	854	291	834	850	341	244	18	145	527	5	125	356	235	81	159	7	0
DK04b	268	854	291	834	850	850	244	18	145	527	5	125	356	235	81	159	7	0
DK05a	1049	1020	112	1660	568	914	226	261	264	580	8	484	182	112	136	25	66	25
DK05b	1049	1020	112	1660	568	914	226	261	264	580	8	484	182	112	136	25	66	25
DKTOa	**2699**	**4299**	**1141**	**5582**	**4126**	**2474**	**691**	**1296**	**1109**	**2839**	**839**	**2234**	**1893**	**1797**	**889**	**984**	**523**	**223**
DKTOb	**2699**	**4299**	**1141**	**5582**	**4126**	**4740**	**691**	**1296**	**1109**	**2839**	**839**	**2234**	**1893**	**1797**	**889**	**984**	**523**	**223**
SH06a	587	226	365	496	297	650	18	330	293	751	246	294	272	419	263	265	180	61
SH06b	587	645	655	724	469	910	35	455	447	783	447	683	796	534	304	553	181	79
SH07a	1861	2341	264	1112	155	1147	228	760	362	1452	2001	412	123	411	422	38	548	5
SH07b	1861	2425	586	1420	711	1147	228	1155	793	1452	2365	866	512	472	423	56	548	130
SH08a	1899	4063	3181	4226	5016	3369	964	2501	2312	3627	2058	1642	924	1306	819	246	1532	547
SH08b	1911	4323	3182	4636	5506	3400	964	2502	2460	3627	2274	1697	2032	1531	1120	557	1533	748
SH09a	4881	1850	4381	5137	2631	5288	263	997	1610	1299	1120	926	0	2254	719	657	584	1487
SH09b	7106	5014	7258	5984	3142	6043	271	1134	2971	4221	4622	2063	2164	5270	2965	2805	1259	1643
SH10a	2070	1518	1700	6474	4177	4140	690	2152	610	3234	1374	1487	2005	1601	1714	1432	212	1590
SH10b	2076	1851	2057	6530	5172	4359	690	2167	2898	3852	1526	2317	3072	1764	2416	2666	224	2289
SH11a	2121	940	1085	1332	1330	2034	501	1535	0	1136	450	120	643	176	772	646	700	90
SH11b	4621	3509	3654	3832	4792	4534	612	1535	6250	3899	1100	1680	1567	260	852	646	700	90
SH12a	4150	1952	3161	10016	8245	8100	1041	1752	3826	4872	3980	9436	2150	950	3069	3073	20	10
SH12b	11095	6395	3334	10016	8354	14536	1041	6069	4276	6085	4441	10077	2170	1757	3069	3073	2095	1135
SH13a	3587	7944	0	13309	0	1300	357	0	530	3050	21	1516	0	523	220	0	3352	8
SH13b	3587	8489	7150	13610	9431	8930	357	2504	7574	8176	5040	1516	1847	723	1140	1474	3359	78
SH14a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	8	0	0
SHTOa	**21156**	**20834**	**14137**	**42102**	**21851**	**26028**	**4062**	**10027**	**9543**	**19421**	**11250**	**15833**	**6117**	**7640**	**8006**	**6357**	**7128**	**3798**
SHTOb	**32844**	**32651**	**27876**	**46752**	**37577**	**43859**	**4198**	**17521**	**27669**	**32095**	**21815**	**20899**	**14160**	**12319**	**12297**	**11838**	**9899**	**6192**
NS14a	110	3	6	49	13	77	-	30	115	12	74	196	13	0	114	115	71	1
NS14b	115	3	10	50	38	78	0	30	116	13	74	196	13	10	114	119	72	1
NS15a	1640	3997	1200	10399	3096	640	0	1476	4530	1695	141	1340	261	840	855	49	51	20
NS15b	4198	6216	3738	11363	4665	4234	10	1476	6790	3475	141	3628	271	3004	3302	2719	145	20
NS16a	206	170	200	1410	650	710	-	230	1500	1790	1464	70	40	174	-	-	20	230
NS16b	436	470	490	1530	940	880	265	230	1526	1790	1489	1595	41	2524	2525	2525	250	230
NS17a	22	1208	108	2115	1171	1520	-	3399	50	240	900	585	24	1	155	853	1800	84
NS17b	406	1208	108	2115	1171	1520	3	3519	217	244	900	585	24	1	155	854	1800	84
NS18a	4001	6384	1372	16347	3625	3353	25	958	2197	4695	4734	3154	1431	2048	1919	1019	1239	1658
NS18b	4001	7212	5369	16777	6632	6847	715	4258	2942	4695	4734	3304	1711	2542	4663	3641	2242	1729
NS19a	3263	12003	210	5323	831	434	-	434	3174	4187	1177	1997	1104	1518	2240	239	500	661
NS19b	3446	12862	2412	5484	2688	2146	310	434	3453	4671	1239	2417	1198	2044	2989	987	803	711
NS20a	1055	430	304	2661	2207	3509	-	520	725	452	360	553	528	2712	504	287	6	98
NS20b	1817	1480	1984	2999	3207	4509	0	970	1125	888	806	989	964	2781	3004	2983	693	664
NS21a	-	230	72	155	23	114	-	6	-	0	12	-	52	2485	43	9	-	7
NS21b	130	230	92	155	133	134	-	41	12	4	12	12	52	2485	43	9	3	7
NS22a	72	2685	1669	1876	1621	3376	-	448	235	1348	28	1505	0	116	25	79	100	0
NS22b	1143	2765	1749	1876	1621	3456	16	448	235	1348	28	1505	218	1142	1051	1105	100	83
NSTOa	**10369**	**27110**	**5141**	**40335**	**13237**	**13733**	**25**	**7501**	**12526**	**14419**	**8890**	**9400**	**3453**	**9894**	**5855**	**2650**	**3787**	**2759**
NSTOb	**15692**	**32446**	**15952**	**42349**	**21095**	**23804**	**1319**	**11406**	**16416**	**17128**	**9423**	**14231**	**4492**	**16533**	**17846**	**14942**	**6108**	**3529**
NL22a	577	2537	2015	2021	2220	1366	238	605	295	458	245	132	1300	97	522	366	35	6
NL22b	577	2537	2015	2021	2220	1366	238	605	295	458	245	132	1300	97	522	366	35	6
NL23a	9547	2404	2896	16586	10885	9536	1528	2560	10750	1650	43	4236	5185	2554	4509	-	3823	545
NL23b	11047	3904	4396	18086	12385	11036	1578	3060	12250	9150	3843	9536	5185	6904	4509	5850	4823	3045
NL24a	2060	2290	2760	3120	2115	2790	98	835	1605	2030	2510	1888	3005	1045	3148	-	1290	780
NL24b	2060	2290	2760	3120	2115	2790	98	835	1605	2030	2510	1888	3005	1045	3148	1600	1290	780
NL25a	3967	5081	6470	13306	14860	12251	817	5340	7150	7302	6360	8092	4495	6999	5644	-	2187	3610
NL25b	3967	6981	6470	15206	14860	12251	817	5490	7600	7302	6360	8542	4495	6999	5644	4600	2187	3610
NL26a	1309	2383	1100	1754	2305	2006	257	1035	3100	1771	2445	3015	1600	5356	1545	-	2990	1590
NL26b	1309	2383	1100	1754	2305	2006	257	1035	3100	1771	2445	3015	1600	5356	1545	3000	2990	1590
NL27a	1590	0	500	1400	1100	360	100	260	-	-	900	-	-	283	-	-	400	-
NL27b	1590	1000	500	1400	1100	360	100	260	200	200	900	200	200	283	75	75	400	100
NL28a	2006	1813	2325	1808	2670	1405	360	605	2465	714	2250	1990	1495	2977	954	-	1064	120
NL28b	2056	1863	2325	1858	2670	1405	360	605	2465	714	2250	1990	1495	2977	954	1050	1064	120
NL29a	160	-	540	1554	-	1774	265	410	540	702	660	960	465	1092	784	-	44	280
NL29b	160	500	540	1554	1500	1774	265	410	540	702	660	960	465	1092	784	600	44	280
NLTOa	**21216**	**16508**	**18606**	**41549**	**36155**	**31488**	**3663**	**11650**	**25905**	**14627**	**15413**	**20313**	**17545**	**20403**	**17106**	**366**	**11833**	**6931**
NLTOb	**22766**	**21458**	**20106**	**44999**	**39155**	**32988**	**3713**	**12300**	**28055**	**22327**	**19213**	**26263**	**17745**	**24753**	**17181**	**17141**	**12833**	**9531**
TOTAa	**55440**	**68751**	**39025**	**129568**	**75369**	**73723**	**8441**	**30474**	**49083**	**51306**	**36392**	**47780**	**29008**	**39734**	**31856**	**10357**	**23271**	**13711**
TOTAb	**74001**	**90854**	**65075**	**139682**	**101953**	**105391**	**9921**	**42523**	**73249**	**74389**	**51290**	**63627**	**38290**	**55402**	**48213**	**44905**	**29363**	**19475**

Table 19. Lapwing *Vanellus vanellus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	350	0	0	0	0	0	0	0	0	76	490	23	0	43	16
DK01b	0	0	0	350	0	0	0	0	0	0	0	0	76	490	23	30	43	16
DK02a	0	0	0	55	0	0	0	0	10	120	0	180	384	3325	257	10	109	130
DK02b	0	0	0	55	0	0	0	0	10	120	0	180	384	3325	257	260	109	130
DK03a	0	0	0	0	3	0	0	0	0	52	0	32	44	764	908	0	36	123
DK03b	0	0	0	0	3	0	0	0	0	52	0	32	44	764	908	610	36	123
DK04a	0	0	0	42	12	0	0	0	0	110	43	190	285	585	199	0	0	29
DK04b	0	0	0	42	12	0	0	0	0	110	43	190	285	585	199	200	0	29
DK05a	0	0	0	0	0	0	0	0	29	42	0	956	102	2506	109	0	1351	901
DK05b	0	0	0	0	0	0	0	0	29	42	0	956	102	2506	109	105	1351	901
DKTOa	**0**	**0**	**0**	**447**	**15**	**0**	**0**	**0**	**39**	**324**	**43**	**1358**	**891**	**7670**	**1496**	**10**	**1539**	**1199**
DKTOb	**0**	**0**	**0**	**447**	**15**	**0**	**0**	**0**	**39**	**324**	**43**	**1358**	**891**	**7670**	**1496**	**1205**	**1539**	**1199**
SH06a	-	0	0	0	0	0	2	0	0	51	0	75	17	207	14	79	199	165
SH06b	0	0	0	0	0	0	2	0	0	51	0	79	215	503	163	260	271	189
SH07a	-	0	0	0	2	0	0	0	0	0	7	11	0	2	0	18	68	19
SH07b	0	4	0	4	6	0	0	0	0	0	7	11	38	13	51	44	95	45
SH08a	-	0	0	0	0	0	0	0	0	1	17	1	23	194	13	177	221	863
SH08b	17	0	0	0	0	0	0	0	1	1	17	1	260	194	170	254	239	936
SH09a	-	0	0	0	0	0	0	0	0	0	0	0	18	1	20	11	14	26
SH09b	0	0	0	0	0	0	0	0	0	0	0	0	24	1	32	16	14	26
SH10a	-	0	0	0	0	0	0	0	0	0	0	0	125	88	90	42	5	120
SH10b	108	108	0	108	108	0	0	0	108	108	108	108	152	172	148	79	35	127
SH11a	-	0	0	0	0	0	0	0	0	0	0	0	52	199	10	0	6	161
SH11b	0	0	0	0	0	0	0	0	0	0	0	0	227	202	24	85	6	174
SH12a	-	0	0	2	1	0	0	0	0	120	0	0	15	350	29	160	115	72
SH12b	1	1	0	3	1	0	0	0	1	121	0	1	339	350	629	173	115	72
SH13a	-	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	60	79
SH13b	0	0	0	0	0	0	0	0	0	0	0	0	29	29	90	91	60	79
SH14a	-	0	0	130	0	0	0	0	0	2	6	47	212	145	18	39	16	57
SH14b	0	0	0	130	0	0	0	0	0	2	6	47	212	190	38	70	86	78
SHTOa	**-**	**0**	**0**	**132**	**3**	**0**	**2**	**0**	**0**	**174**	**30**	**134**	**462**	**1206**	**194**	**526**	**704**	**1562**
SHTOb	**126**	**113**	**0**	**245**	**115**	**0**	**2**	**0**	**110**	**283**	**138**	**247**	**1496**	**1654**	**1345**	**1072**	**921**	**1726**
NS14a	-	0	0	818	37	0	0	0	0	0	21	122	2826	3694	428	1908	0	456
NS14b	7	7	0	818	37	0	0	0	0	0	21	122	2836	3706	428	1917	327	464
NS15a	-	0	0	9	0	0	-	0	2	0	0	2	631	397	100	-	17	0
NS15b	0	0	0	9	0	0	0	0	2	0	0	2	729	601	142	438	437	420
NS16a	-	0	0	0	5	0	12	-	12	0	0	0	410	-	-	0	-	84
NS16b	0	0	6	0	5	0	12	6	12	0	0	0	426	112	183	144	144	165
NS17a	-	0	1	99	0	0	0	0	35	1500	20	91	1974	848	-	164	26	266
NS17b	40	40	1	99	0	0	0	0	35	1500	20	91	1974	900	711	234	247	299
NS18a	-	0	30	433	0	0	0	0	35	11	3	0	530	528	1609	292	38	119
NS18b	0	0	30	433	0	0	0	0	35	11	3	0	746	623	1609	428	258	261
NS19a	-	3	0	17	10	0	0	0	46	201	5	12	354	146	98	2	-	115
NS19b	10	13	0	17	20	0	0	0	56	201	15	12	572	433	98	106	104	115
NS20a	-	0	0	0	4	0	0	0	0	200	70	1	660	177	96	34	-	65
NS20b	1	0	0	0	4	0	0	0	0	200	70	1	661	185	116	120	111	72
NS21a	-	0	0	-	0	0	-	-	-	-	-	0	500	126	320	-	-	32
NS21b	0	0	0	0	0	0	0	0	0	0	0	0	503	160	320	27	27	32
NS22a	-	5	0	262	0	0	0	0	0	0	0	0	178	696	195	40	0	34
NS22b	0	5	0	262	0	0	0	0	0	0	0	0	252	740	195	91	51	85
NSTOa	**0**	**8**	**31**	**1638**	**56**	**0**	**12**	**0**	**130**	**1912**	**119**	**228**	**8063**	**6612**	**2846**	**2440**	**81**	**1171**
NSTOb	**58**	**65**	**37**	**1638**	**66**	**0**	**12**	**6**	**140**	**1912**	**129**	**228**	**8699**	**7460**	**3802**	**3505**	**1706**	**1913**
NL22a	0	0	0	745	1	-	0	0	14	209	5	0	1175	608	0	-	20	44
NL22b	0	0	0	745	1	0	0	0	14	209	5	0	1175	608	0	100	20	44
NL23a	0	-	-	124	192	24	-	-	55	-	1	0	1089	437	401	-	46	16
NL23b	0	0	0	124	192	24	0	0	55	30	1	0	1089	437	401	100	46	16
NL24a	0	0	-	40	-	0	0	0	-	-	-	0	-	-	-	-	-	0
NL24b	0	0	50	40	50	0	0	0	50	50	50	0	100	100	100	50	50	0
NL25a	0	9	0	183	6	-	0	0	59	2851	120	-	170	371	-	-	82	93
NL25b	0	9	0	183	6	0	0	0	59	2851	120	259	270	371	0	200	182	93
NL26a	0	63	0	32	87	-	1	-	11	143	339	96	1196	325	0	-	86	11
NL26b	0	63	0	32	87	0	1	0	11	143	339	96	1196	325	0	500	86	11
NL27a	-	0	-	-	-	-	-	-	-	0	-	-	0	0	0	-	0	0
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL28a	0	1336	-	5635	124	-	16	-	2527	2830	1892	656	2434	4541	-	-	908	688
NL28b	0	1336	0	5635	124	0	16	0	2527	2830	1892	656	2484	4541	800	800	908	688
NL29a	0	453	0	312	1	0	0	0	414	1010	466	14	89	39	0	-	23	0
NL29b	0	453	0	312	1	0	0	0	414	1010	466	14	89	39	0	20	23	0
NLTOa	**0**	**1861**	**0**	**7071**	**411**	**24**	**17**	**0**	**3080**	**7043**	**2823**	**766**	**6153**	**6321**	**401**	**-**	**1165**	**852**
NLTOb	**0**	**1861**	**50**	**7071**	**461**	**24**	**17**	**0**	**3130**	**7123**	**2873**	**1025**	**6403**	**6421**	**1301**	**1770**	**1315**	**852**
TOTAa	**0**	**1869**	**31**	**9288**	**485**	**24**	**31**	**0**	**3249**	**9453**	**3015**	**2486**	**15569**	**21809**	**4937**	**2976**	**3489**	**4784**
TOTAb	**184**	**2039**	**87**	**9401**	**657**	**24**	**31**	**6**	**3419**	**9642**	**3183**	**2858**	**17489**	**23205**	**7944**	**7552**	**5481**	**5690**

Area	06.05.894	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	42	37	30	49	242	16	57	190	280	2	376	33	88	34	87	1553	100	40
DK01b	42	37	30	49	242	242	57	190	280	2	376	33	88	34	87	1553	100	40
DK02a	198	197	203	187	283	53	105	1209	220	518	1126	318	632	325	310	621	1173	250
DK02b	198	197	203	187	283	283	105	1209	220	518	1126	318	632	325	310	621	1173	250
DK03a	107	96	110	63	101	59	66	756	240	652	2131	0	1425	3632	2040	1296	2302	1162
DK03b	107	96	110	63	101	108	66	756	240	652	2131	0	1425	3632	2040	1296	2302	1162
DK04a	147	51	180	12	279	0	75	241	100	1407	1008	1288	717	642	2444	4646	6054	2025
DK04b	147	51	180	12	279	279	75	241	100	1407	1008	1288	717	642	2444	4646	6054	2025
DK05a	1212	842	84	1168	121	308	602	329	5972	2708	11607	6507	11845	25	35258	7129	8616	3184
DK05b	1212	842	84	1168	121	308	602	329	5972	2708	11607	6507	11845	25	35258	7129	8616	3184
DKTOa	**1706**	**1223**	**607**	**1479**	**1026**	**436**	**905**	**2725**	**6812**	**5287**	**16248**	**8146**	**14707**	**4658**	**40139**	**15245**	**18245**	**6661**
DKTOb	**1706**	**1223**	**607**	**1479**	**1026**	**1220**	**905**	**2725**	**6812**	**5287**	**16248**	**8146**	**14707**	**4658**	**40139**	**15245**	**18245**	**6661**
SH06a	302	19	116	166	121	392	16	68	160	386	65	653	275	0	8633	100	6506	93
SH06b	336	214	143	225	194	476	348	250	271	492	190	713	350	842	8633	117	6506	93
SH07a	330	225	367	66	50	95	39	142	100	996	525	3	83	4	1000	802	832	475
SH07b	356	251	413	96	111	124	89	181	479	996	796	819	603	18	1000	830	832	732
SH08a	391	305	60	799	367	176	1444	91	387	3690	926	321	493	71	4160	287	5245	339
SH08b	401	360	131	817	397	287	1473	91	387	3694	927	325	547	71	4161	1097	5245	339
SH09a	33	67	95	97	8	26	61	2	0	98	0	1	4	6	235	0	6	1
SH09b	33	67	95	97	8	29	61	117	61	159	16	17	41	161	235	180	7	2
SH10a	88	180	72	213	231	105	242	42	300	760	2326	22	2431	175	3203	163	19302	688
SH10b	94	186	157	228	302	160	242	42	509	919	2327	92	2502	217	3415	367	19302	1491
SH11a	70	21	3	51	0	4	56	143	0	440	245	7	244	116	4190	124	3390	215
SH11b	70	83	65	51	81	4	139	143	473	491	525	57	594	4270	4204	124	3394	215
SH12a	0	11	38	40	11	0	516	5	32	739	270	22	407	180	3422	67	21750	42
SH12b	81	29	103	40	34	41	516	160	622	769	936	460	697	275	3602	247	21751	42
SH13a	221	27	0	87	0	80	33	0	20	283	40	0	0	116	40	0	204	90
SH13b	221	78	127	151	154	161	33	239	249	372	454	62	195	148	166	191	294	315
SH14a	64	50	171	62	154	103	30	79	138	356	396	1	1815	468	2760	1506	1060	397
SH14b	74	92	171	83	164	149	186	547	476	356	396	1026	1816	3430	2760	2281	1483	397
SHTOa	**1499**	**905**	**922**	**1581**	**942**	**981**	**2437**	**572**	**1137**	**7748**	**4793**	**1030**	**5752**	**1136**	**27643**	**3049**	**58295**	**2340**
SHTOb	**1666**	**1360**	**1405**	**1788**	**1445**	**1431**	**3087**	**1770**	**3527**	**8248**	**6567**	**3571**	**7345**	**9432**	**28176**	**5434**	**58814**	**3626**
NS14a	404	528	107	524	225	302	-	5469	3313	1880	1521	9023	6095	4902	16580	4914	21459	8329
NS14b	469	532	314	589	289	313	237	6869	4923	4341	6878	11189	8687	6995	16716	6364	22404	8329
NS15a	0	102	600	96	63	78	51	420	595	48	628	683	229	340	1653	628	2150	442
NS15b	420	432	732	486	473	426	107	420	784	498	632	1127	678	1854	2587	1667	3088	602
NS16a	110	142	0	68	0	55	-	1	0	360	430	70	72	94	-	-	1808	700
NS16b	187	142	144	121	144	146	0	1	290	432	520	182	212	218	334	334	1808	839
NS17a	150	624	37	245	103	302	-	92	704	751	745	1699	1030	1004	7264	1509	12310	577
NS17b	187	692	107	245	225	356	169	867	974	1011	915	1699	1200	1004	7324	1736	12310	642
NS18a	166	132	259	281	431	288	0	271	833	591	583	996	1029	997	814	1297	2155	618
NS18b	300	312	437	383	437	321	299	417	902	744	890	1076	1434	1067	1136	1318	2252	663
NS19a	199	28	0	76	257	2	-	149	76	171	246	164	227	35	27	517	0	107
NS19b	203	128	94	175	301	106	346	149	325	366	319	352	511	713	803	1021	307	179
NS20a	92	34	677	81	92	113	-	77	250	81	29	14	1361	34	650	157	1737	87
NS20b	172	119	737	86	130	151	11	103	250	111	76	65	1365	84	685	188	1787	87
NS21a	-	0	188	0	157	95	-	58	-	35	210	-	33	12	19	19	-	22
NS21b	27	0	203	0	165	110	-	88	64	56	241	64	64	14	19	21	12	22
NS22a	29	38	0	20	41	35	-	493	31	124	476	61	64	47	946	376	260	63
NS22b	80	89	47	61	41	82	95	493	84	177	476	114	173	121	967	397	275	155
NSTOa	**1150**	**1628**	**1868**	**1391**	**1369**	**1270**	**51**	**7030**	**5802**	**4041**	**4868**	**12710**	**10140**	**7465**	**27953**	**9417**	**41879**	**10945**
NSTOb	**2045**	**2446**	**2815**	**2146**	**2205**	**2011**	**1264**	**9407**	**8596**	**7736**	**10947**	**15868**	**14324**	**12070**	**30571**	**13046**	**44243**	**11518**
NL22a	167	129	0	71	0	77	138	0	0	435	271	2969	0	1931	2952	671	3222	45
NL22b	167	129	0	71	0	77	138	0	0	435	271	2969	0	1931	2952	671	3222	45
NL23a	1	49	155	15	21	221	62	314	286	-	502	113	667	178	1858	-	1397	313
NL23b	51	49	155	15	21	221	62	314	286	300	502	113	667	178	1858	1000	1397	313
NL24a	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-
NL24b	50	50	50	50	50	50	0	100	200	200	200	200	200	500	500	500	500	500
NL25a	223	130	0	84	-	102	77	-	-	1205	131	271	0	376	310	-	1621	240
NL25b	223	230	0	184	100	102	77	0	0	1205	131	271	0	376	310	1340	1621	240
NL26a	0	36	0	13	0	0	139	0	0	696	574	553	0	187	298	-	762	333
NL26b	0	36	0	13	0	0	139	0	0	696	574	553	0	187	298	250	762	333
NL27a	0	0	0	0	0	0	0	0	-	-	4	-	-	0	-	-	0	-
NL27b	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0
NL28a	937	799	824	529	-	2263	723	2315	2547	3535	3062	1941	6870	2371	7545	-	3048	2257
NL28b	937	799	824	529	800	2263	723	2315	2547	3535	3062	1941	6870	2371	7545	4310	3048	2257
NL29a	30	-	0	16	-	4	0	0	0	8	360	47	0	223	7	-	146	85
NL29b	30	15	0	16	15	4	0	0	0	8	360	47	0	223	7	120	146	85
NLTOa	**1358**	**1143**	**979**	**728**	**21**	**2667**	**1139**	**2629**	**2833**	**5879**	**4904**	**5894**	**7537**	**5266**	**12970**	**671**	**10196**	**3273**
NLTOb	**1458**	**1308**	**1029**	**878**	**986**	**2717**	**1139**	**2729**	**3033**	**6379**	**5104**	**6094**	**7737**	**5766**	**13470**	**8191**	**10696**	**3773**
TOTAa	**5713**	**4899**	**4376**	**5179**	**3358**	**5354**	**4532**	**12956**	**16584**	**22955**	**30813**	**27780**	**38136**	**18525**	**108705**	**28382**	**128615**	**23219**
TOTAb	**6875**	**6337**	**5856**	**6291**	**5662**	**7379**	**6395**	**16631**	**21968**	**27650**	**38866**	**33679**	**44113**	**31926**	**112356**	**41916**	**131998**	**25578**

Table 20. Knot *Calidris canutus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	930	0	0	0	0	0	0	0	0	0	200	0	0	35	10
DK01b	0	0	0	930	0	0	0	0	0	0	0	0	0	200	0	0	35	10
DK02a	0	3	200	673	15	0	105	0	1700	1163	5000	4525	13	10	0	890	570	726
DK02b	0	3	200	673	15	0	105	0	1700	1163	5000	4525	13	10	0	890	570	726
DK03a	0	155	0	0	0	0	0	0	0	9450	200	500	0	0	0	3500	8004	10
DK03b	0	155	0	0	0	0	0	0	0	9450	200	500	0	0	0	3500	8004	10
DK04a	0	0	20	0	0	0	0	0	0	200	0	3050	0	0	0	300	50	7520
DK04b	0	0	20	0	0	0	0	0	0	200	0	3050	0	0	0	300	50	7520
DK05a	0	0	0	0	0	0	0	0	0	0	0	25	6000	7001	0	18000	683	13150
DK05b	0	0	0	0	0	0	0	0	0	0	0	25	6000	7001	0	18000	683	13150
DKTOa	**0**	**158**	**220**	**1603**	**15**	**0**	**105**	**0**	**1700**	**10813**	**5200**	**8100**	**6013**	**7211**	**0**	**22690**	**9342**	**21416**
DKTOb	**0**	**158**	**220**	**1603**	**15**	**0**	**105**	**0**	**1700**	**10813**	**5200**	**8100**	**6013**	**7211**	**0**	**22690**	**9342**	**21416**
SH06a	-	53	0	0	2	1	0	0	0	5538	2150	151	355	6906	300	36025	17758	5618
SH06b	327	54	0	39	1802	1	0	0	38	5539	2150	201	27508	6906	66810	47325	20203	15712
SH07a	-	20	0	0	0	2	0	1	1800	13432	953	11998	0	22822	37020	52660	30270	8020
SH07b	1178	3168	0	3948	5057	3	0	1	4609	13432	3753	14798	1006	22822	37020	52715	30270	12110
SH08a	-	0	0	0	0	0	16	0	0	0	5	294	80	14230	18050	16603	1542	11089
SH08b	0	0	0	0	0	0	16	0	0	0	5	294	2080	14230	45410	26953	1542	11089
SH09a	-	8000	0	0	76	0	1	0	600	0	0	150	600	4848	67250	25520	117481	103285
SH09b	8300	8000	1	5035	5111	0	1	1	5600	5035	5035	5150	15705	6738	67388	39950	139655	109785
SH10a	-	0	0	650	0	0	24	0	0	1250	20	8	40	120	20177	23030	30331	7325
SH10b	900	900	0	1550	900	0	24	0	900	1250	920	908	3495	2270	20408	23030	44076	19396
SH11a	-	0	0	0	0	0	0	0	0	0	40	0	80	0	36954	0	128000	2710
SH11b	0	0	0	0	0	0	0	0	0	0	40	0	80	3642	37694	63900	128000	108110
SH12a	-	0	0	0	0	0	0	0	0	0	0	0	150	203	60600	33500	19246	16920
SH12b	0	0	0	0	0	0	0	0	0	0	0	0	400	203	60750	34100	19246	17995
SH13a	-	0	0	0	0	0	0	0	0	0	20	11	0	0	0	0	8150	6307
SH13b	20	0	0	0	0	0	0	0	10	0	20	11	0	0	2479	3545	8150	6307
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**-**	**8073**	**0**	**650**	**78**	**3**	**41**	**1**	**2400**	**20220**	**3188**	**12612**	**1305**	**49129**	**240351**	**187338**	**352778**	**161274**
SHTOb	**10725**	**12122**	**1**	**10572**	**12870**	**4**	**41**	**2**	**11157**	**25256**	**11923**	**21362**	**50274**	**56811**	**337959**	**291518**	**391142**	**300504**
NS14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS15a	-	0	0	10	0	0	-	0	0	0	0	75	0	100	0	-	100	901
NS15b	0	0	0	10	0	0	0	0	0	0	0	75	0	100	6	3990	3772	1073
NS16a	-	80	0	40	0	0	0	-	0	0	0	0	31	-	-	0	-	26
NS16b	0	80	0	40	0	0	0	0	0	0	0	0	31	0	0	200	228	226
NS17a	-	5000	0	0	0	0	145	0	0	97	50	0	2	200	-	0	0	0
NS17b	0	5000	0	0	0	0	145	0	0	97	50	0	2	200	130	0	0	0
NS18a	-	0	0	0	0	0	0	0	0	0	0	0	11	72	420	50	7	0
NS18b	0	0	0	0	0	0	0	0	0	0	0	0	11	72	420	52	14	0
NS19a	-	2712	0	771	100	0	0	0	0	268	18	100	0	0	10	0	-	28
NS19b	8	2712	0	771	100	0	0	0	8	268	18	100	16	16	10	159	160	28
NS20a	-	22	39	4	1020	0	300	0	360	0	2645	300	1052	5000	0	15000	-	6180
NS20b	1118	622	39	1122	1638	0	300	39	1460	1118	2645	800	1112	5105	0	15000	8000	6180
NS21a	-	25	0	-	105	0	-	-	-	-	-	0	182	256	75	-	-	0
NS21b	0	25	0	0	105	0	0	0	0	0	0	0	182	256	75	0	0	0
NS22a	-	0	2	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0
NS22b	0	0	2	0	0	2	2	2	0	0	0	10	0	0	0	0	0	0
NSTOa	**0**	**7839**	**41**	**825**	**1225**	**0**	**445**	**0**	**360**	**365**	**2713**	**485**	**1278**	**5628**	**505**	**15050**	**107**	**7135**
NSTOb	**1126**	**8439**	**41**	**1943**	**1843**	**2**	**447**	**41**	**1468**	**1483**	**2713**	**985**	**1354**	**5749**	**641**	**19401**	**12174**	**7507**
NL22a	0	0	0	0	0	-	0	0	0	25	0	0	0	0	0	-	0	0
NL22b	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	400	0	0
NL23a	0	-	-	-	9900	-	2	-	275	-	1675	45	37	-	40	-	34	48
NL23b	0	0	0	0	9900	0	2	0	275	0	1675	45	37	0	440	600	44	48
NL24a	0	0	0	3500	0	0	0	0	500	0	1500	0	910	80	0	-	0	0
NL24b	0	0	0	3500	0	0	0	0	500	0	1500	0	910	80	0	20	0	0
NL25a	100	15	10	5765	2637	120	1400	0	3361	720	0	2260	-	2321	1951	-	27	1370
NL25b	300	215	10	5965	2637	120	1400	0	3561	720	0	2449	1350	2321	1951	1300	117	1370
NL26a	21	8550	28	5920	1360	-	5820	-	2011	5946	25043	1451	40	314	145	-	6006	524
NL26b	21	8550	28	5920	1360	5000	5820	5000	2011	5946	25043	1451	40	314	145	800	6006	524
NL27a	-	20000	-	-	-	-	-	-	-	50000	-	-	38000	45200	17000	-	13000	13000
NL27b	16500	20000	16500	16500	16500	16500	16500	16500	16500	50000	16500	16500	38000	45200	17000	100	13000	13000
NL28a	3500	670	630	22025	1251	28496	959	75	14980	2011	2363	1514	11300	4863	1110	-	750	477
NL28b	3500	670	630	22025	1251	28496	959	75	14980	2011	2363	1514	11800	4863	1110	600	750	477
NL29a	21565	25900	2500	5555	27855	6500	2260	50	1670	5004	3870	10500	39550	21000	12500	-	471	40
NL29b	21565	25900	2500	5555	27855	6500	2260	50	1670	5004	3870	10500	39550	21000	12500	1500	471	40
NLTOa	**25186**	**55135**	**3168**	**42765**	**43003**	**35116**	**10441**	**125**	**22797**	**63706**	**34451**	**15770**	**89837**	**73778**	**32746**	**-**	**20288**	**15459**
NLTOb	**41886**	**55335**	**19668**	**59465**	**59503**	**56616**	**26941**	**21625**	**39497**	**63706**	**50951**	**32459**	**91687**	**73778**	**33146**	**5320**	**20388**	**15459**
TOTAa	**25186**	**71205**	**3429**	**45843**	**44321**	**35119**	**11032**	**126**	**27257**	**95104**	**45552**	**36967**	**98433**	**135746**	**273602**	**225078**	**382515**	**205284**
TOTAb	**53737**	**76054**	**19930**	**73583**	**74231**	**56622**	**27534**	**21668**	**53822**	**101258**	**70787**	**62906**	**149328**	**143549**	**371746**	**338929**	**433046**	**344886**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	7	0	0	3440	70	0	2	5	35	10	2	3	45	15	8	5	0	0
DK01b	7	0	0	3440	70	70	2	5	35	10	2	3	45	15	8	5	0	0
DK02a	2055	0	6	1920	771	0	320	12	120	3078	20	1350	725	45	62	6375	4470	0
DK02b	2055	0	6	1920	771	700	320	12	120	3078	20	1350	725	45	62	6375	4470	0
DK03a	65	30	60	100	37	1506	88	10	2	908	0	0	3347	2206	575	1011	92	1430
DK03b	65	30	60	100	37	1506	88	10	2	908	0	0	3347	2206	575	1011	92	1430
DK04a	1305	1079	6000	2395	800	1015	21	5	3	4	0	13	800	150	0	1475	4000	0
DK04b	1305	1079	6000	2395	800	1015	21	5	3	4	0	13	800	150	0	1475	4000	0
DK05a	19720	12101	0	40500	1046	11263	2718	7	0	0	0	2301	1500	50	6	55	232	0
DK05b	19720	12101	0	40500	1046	11263	2718	7	0	0	0	2301	1500	50	6	55	232	0
DKTOa	**23152**	**13210**	**6066**	**48355**	**2724**	**13784**	**3149**	**39**	**160**	**4000**	**22**	**3667**	**6417**	**2466**	**651**	**8921**	**8794**	**1430**
DKTOb	**23152**	**13210**	**6066**	**48355**	**2724**	**14554**	**3149**	**39**	**160**	**4000**	**22**	**3667**	**6417**	**2466**	**651**	**8921**	**8794**	**1430**
SH06a	7805	807	264	5110	6	360	0	151	284	273	12	579	34	242	352	49	820	153
SH06b	7805	17292	16638	21481	16377	362	0	182	284	336	96	697	5567	243	352	607	820	167
SH07a	27193	3342	10600	1859	200	1600	22	4111	30	1980	5100	880	135	0	50	0	1500	472
SH07b	27193	5522	15679	1917	309	1600	22	4381	249	1980	5135	2170	787	605	50	518	1793	864
SH08a	27114	11801	2130	21311	1562	1859	1819	2452	4916	2336	4041	3117	150	27	3550	244	430	1351
SH08b	27114	11801	11780	21311	2025	2009	1819	2452	5036	2336	4242	3117	833	27	3630	391	510	1431
SH09a	45550	2478	40547	3540	36624	13130	1379	14043	12193	10397	160	13260	2000	12750	3440	20330	34	38200
SH09b	47050	18478	48837	11320	42524	15127	1819	28984	31562	41135	48820	58270	39672	74691	76390	78431	57709	57675
SH10a	14267	5906	6550	17213	8310	6821	2702	46562	2550	83247	140090	19946	35400	916	85100	70350	2220	0
SH10b	14267	12410	13059	17838	10067	7151	2702	46578	43683	83473	140190	20066	36553	1086	85120	70370	2220	1900
SH11a	14650	24400	9396	1449	2500	5584	1338	200	0	4200	35015	591	4500	881	201	0	650	70000
SH11b	114650	124400	109396	101449	105710	105584	1859	12200	13225	4875	41515	11891	11000	882	791	0	70650	70000
SH12a	9700	8000	42490	45681	34680	19000	3664	8300	10381	27500	20018	48585	3201	10000	10300	15300	0	2
SH12b	14271	12009	44506	45681	36755	48591	3664	14015	10381	27538	20019	48586	3201	10001	10300	15300	2900	2902
SH13a	20990	16461	0	35389	0	0	3242	0	0	3	50	325	0	13	0	0	0	0
SH13b	20990	17961	10745	35389	16250	25235	3242	4911	722	453	104	325	3	13	0	0	0	0
SH14a	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
SHTOa	**167269**	**73195**	**111977**	**131552**	**83882**	**48354**	**14166**	**75819**	**30354**	**129938**	**204486**	**87283**	**45420**	**24829**	**102993**	**106273**	**5654**	**110178**
SHTOb	**273340**	**219873**	**270640**	**256386**	**230017**	**205659**	**15127**	**113703**	**105142**	**162128**	**260121**	**145122**	**97616**	**87548**	**176633**	**165617**	**136602**	**134939**
NS14a	0	0	0	0	0	0	-	0	0	0	1	0	2	0	1	0	0	0
NS14b	0	0	0	0	0	0	0	0	0	0	1	0	2	0	1	0	0	0
NS15a	4050	10000	90	27820	7047	0	0	8525	8782	0	29	700	30700	160	500	100	0	25050
NS15b	7722	13672	4002	27865	7457	3990	0	8525	24102	15295	29	16130	30700	42213	42628	42205	25016	25050
NS16a	287	231	140	230	300	7	-	4000	200	40	800	0	20000	0	-	-	280	30000
NS16b	287	259	340	230	500	207	4	4000	220	40	820	520	20000	50	50	50	30280	30000
NS17a	64	1092	0	112	130	0	-	1312	0	5	0	108	10052	175	840	80	4210	0
NS17b	64	1092	0	112	130	0	0	3312	0	5	0	108	10052	175	840	80	4210	0
NS18a	5372	1743	278	1490	3720	2361	450	1561	2705	334	163	1379	16709	0	0	236	1	0
NS18b	5372	1752	288	1490	3722	2363	475	4331	2705	334	163	1513	16829	23	23	236	1	0
NS19a	541	51	0	532	1078	0	-	1511	3510	456	156	554	3440	72	805	38	0	696
NS19b	549	201	160	532	1238	159	28	1511	3664	475	246	554	3545	394	1125	432	39	696
NS20a	8204	0	50	8000	0	0	-	1	5067	10070	41000	960	108008	3000	0	21	0	278
NS20b	8204	8000	8050	8000	8000	8000	400	9001	15145	10078	41008	18960	108016	3000	7000	7081	2306	278
NS21a	-	32	512	0	5	36	-	189	-	0	41	-	6300	0	1078	1600	-	15
NS21b	0	32	512	0	5	36	-	539	15	15	41	15	6300	0	1078	1650	3	15
NS22a	2000	0	0	0	0	0	-	8	0	0	0	0	0	0	0	0	0	0
NS22b	2000	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0
NSTOa	**20518**	**13149**	**1070**	**38184**	**12280**	**2404**	**450**	**17107**	**20264**	**10905**	**42190**	**3701**	**195211**	**3407**	**3224**	**2075**	**4491**	**56039**
NSTOb	**24198**	**25008**	**13352**	**38229**	**21052**	**14755**	**907**	**31227**	**45851**	**26242**	**42308**	**37800**	**195444**	**45855**	**52745**	**51734**	**61855**	**56039**
NL22a	0	0	0	0	360	0	20	0	0	0	0	20	0	0	0	0	0	0
NL22b	0	0	0	0	360	0	20	0	0	0	0	20	0	0	0	0	0	0
NL23a	161	-	143	1694	417	1291	74	6656	9054	102	-	223	2316	75	10252	-	-	2
NL23b	161	0	143	1694	417	1291	74	7156	10554	2202	7500	9223	2316	8075	10252	8150	0	52
NL24a	20	1385	205	15	200	0	0	12670	13950	50050	5000	20360	4100	18800	22300	-	3680	0
NL24b	20	1385	205	15	200	0	0	12670	13950	50050	5000	20360	4100	18800	22300	17500	3680	0
NL25a	1200	744	300	2145	91	3527	33	1175	3	1357	354	1599	2622	4	899	-	1715	525
NL25b	1200	1419	300	2820	91	3527	33	2375	2303	1357	354	3899	2622	4	899	825	1715	525
NL26a	344	315	1000	340	76	413	18	2495	15555	1063	8325	10876	13035	4702	2480	-	2036	720
NL26b	344	315	1000	340	76	413	18	2495	15555	1063	8325	10876	13035	4702	2480	5500	2036	720
NL27a	440	0	0	4400	8000	551	3500	4500	-	-	12000	-	-	80	-	-	5	-
NL27b	440	0	0	4400	8000	551	3500	4500	22500	22500	12000	22500	22500	80	12500	12500	5	12000
NL28a	398	841	310	120	631	124	0	15316	11287	15	6992	15880	7089	18326	812	-	40026	5535
NL28b	398	841	310	120	631	124	0	15316	11287	15	11992	20880	7089	18326	812	7100	40026	5535
NL29a	4	-	27	145	-	1302	0	64	500	61	275	2070	775	6600	5927	-	17250	32510
NL29b	4	400	27	145	400	1302	0	64	500	61	275	2070	775	6600	5927	11000	17250	32510
NLTOa	**2567**	**3285**	**1985**	**8859**	**9775**	**7208**	**3645**	**42876**	**50349**	**52648**	**32946**	**51028**	**29937**	**48587**	**42670**	**0**	**64712**	**39292**
NLTOb	**2567**	**4360**	**1985**	**9534**	**10175**	**7208**	**3645**	**44576**	**76649**	**77248**	**45446**	**89828**	**52437**	**56587**	**55170**	**62575**	**64712**	**51342**
TOTAa	**213506**	**102839**	**121098**	**226950**	**108661**	**71750**	**21410**	**135841**	**101127**	**197491**	**279644**	**145679**	**276985**	**79289**	**149538**	**117269**	**83651**	**206939**
TOTAb	**323257**	**262451**	**292043**	**352504**	**263968**	**242176**	**22828**	**189545**	**227802**	**269618**	**347897**	**276417**	**351914**	**192456**	**285199**	**288847**	**271963**	**243750**

Table 21. Sanderling *Calidris alba*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	0	0	0	0	0	0	450	0	0	0	0	1	0	60	600
DK01b	0	0	0	0	0	0	0	0	0	450	0	0	0	0	1	10	60	600
DK02a	0	1	0	0	0	0	67	0	10	50	237	560	5	0	151	0	1102	146
DK02b	0	1	0	0	0	0	67	0	10	50	237	560	5	0	151	150	1102	146
DK03a	0	0	0	0	0	0	0	0	0	0	25	28	0	0	0	0	1230	100
DK03b	0	0	0	0	0	0	0	0	0	0	25	28	0	0	0	0	1230	100
DK04a	0	89	0	0	0	0	0	0	0	40	0	33	0	0	0	20	553	440
DK04b	0	89	0	0	0	0	0	0	0	40	0	33	0	0	0	20	553	440
DK05a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK05b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DKTOa	**0**	**90**	**0**	**0**	**0**	**0**	**67**	**0**	**10**	**540**	**262**	**621**	**5**	**0**	**152**	**20**	**2945**	**1286**
DKTOb	**0**	**90**	**0**	**0**	**0**	**0**	**67**	**0**	**10**	**540**	**262**	**621**	**5**	**0**	**152**	**180**	**2945**	**1286**
SH06a	-	1	1	0	0	8	7	1	0	0	12	10	10	0	4	45	0	0
SH06b	5	7	6	8	6	11	12	7	12	4	18	13	10	0	4	45	7	7
SH07a	-	4	0	0	0	19	50	0	15	210	0	41	0	3	0	0	0	26
SH07b	0	8	50	4	1	19	50	34	22	210	4	41	20	3	26	26	13	26
SH08a	-	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
SH08b	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
SH09a	-	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	146
SH09b	0	368	0	368	368	0	0	0	368	368	368	368	143	49	184	199	265	266
SH10a	-	0	0	23	0	0	0	0	0	0	0	148	0	201	40	250	470	0
SH10b	12	11	0	34	34	0	0	0	60	34	42	148	209	201	70	250	470	295
SH11a	-	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	300
SH11b	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	2075	2222	2372
SH12a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	100	6200	6600	5500
SH12b	0	7	0	7	0	0	0	0	7	7	14	7	925	0	100	6200	6600	5500
SH13a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
SH13b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**-**	**5**	**1**	**23**	**0**	**27**	**57**	**1**	**25**	**210**	**12**	**199**	**10**	**210**	**144**	**6495**	**7075**	**5972**
SHTOb	**17**	**401**	**56**	**421**	**409**	**30**	**62**	**41**	**479**	**623**	**446**	**577**	**1307**	**254**	**384**	**8795**	**9582**	**8466**
NS14a	-	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NS14b	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NS15a	-	10	3	200	0	0	-	0	0	0	0	0	150	0	0	-	0	500
NS15b	0	10	3	200	0	0	2	2	0	0	0	0	150	75	4	325	325	500
NS16a	-	0	0	0	0	0	0	-	0	0	0	49	120	-	-	0	-	0
NS16b	25	0	0	25	25	0	0	0	25	25	25	49	120	120	1	0	0	0
NS17a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0
NS17b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0
NS18a	-	0	15	0	0	0	0	0	0	6	0	43	53	0	160	0	0	20
NS18b	11	0	15	11	11	0	8	8	11	14	11	43	57	83	166	15	15	20
NS19a	-	12	10	107	3	0	0	0	0	24	0	1	0	0	0	0	-	0
NS19b	0	12	10	107	3	0	5	5	0	24	0	1	0	0	0	0	0	0
NS20a	-	0	96	0	80	0	30	0	0	0	90	12	45	90	0	96	-	130
NS20b	97	12	96	97	92	0	30	30	97	97	90	97	80	125	0	276	276	310
NS21a	-	180	35	-	50	0	-	-	-	-	-	0	115	26	130	-	-	0
NS21b	48	214	35	48	50	23	29	29	48	48	48	34	115	26	130	14	14	0
NS22a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS22b	0	0	0	0	0	0	0	0	0	0	0	0	40	40	0	0	0	0
NSTOa	**0**	**202**	**159**	**307**	**134**	**0**	**30**	**0**	**0**	**30**	**90**	**105**	**483**	**116**	**290**	**96**	**0**	**650**
NSTOb	**181**	**248**	**159**	**488**	**182**	**23**	**74**	**74**	**181**	**208**	**174**	**224**	**562**	**469**	**315**	**630**	**630**	**830**
NL22a	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	-	0	0
NL22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL23a	0	150	4	-	1446	220	-	-	245	-	-	80	14	196	120	-	-	732
NL23b	500	300	504	350	1446	570	350	500	395	500	500	230	189	246	120	700	625	832
NL24a	-	-	-	965	-	-	-	-	-	-	-	0	-	-	-	-	-	0
NL24b	200	200	200	965	200	200	200	200	200	200	200	0	200	200	150	300	300	0
NL25a	730	120	-	-	22	2	32	6	27	152	79	49	-	-	-	-	212	125
NL25b	740	710	700	710	722	702	712	6	710	745	701	49	550	400	350	350	1087	125
NL26a	1680	1190	3070	610	701	-	1182	-	61	238	449	653	450	1359	-	-	131	746
NL26b	1680	1190	3070	610	701	1000	1182	1000	61	238	449	653	450	1359	500	400	131	746
NL27a	-	2	-	-	-	-	-	-	-	80	-	-	0	10	0	-	4	30
NL27b	0	2	0	0	0	0	0	0	0	80	0	0	0	10	0	0	4	30
NL28a	420	640	1258	570	156	488	496	728	540	283	956	547	495	598	370	-	234	74
NL28b	595	640	1433	570	331	488	671	728	540	283	1131	547	595	598	670	200	284	124
NL29a	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	-	0	0
NL29b	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
NLTOa	**2830**	**2102**	**4332**	**2146**	**2325**	**710**	**1710**	**734**	**873**	**753**	**1484**	**1330**	**959**	**2163**	**490**	**-**	**581**	**1707**
NLTOb	**3715**	**3042**	**5907**	**3206**	**3400**	**2960**	**3115**	**2434**	**1906**	**2046**	**2981**	**1480**	**1984**	**2813**	**1790**	**1950**	**2431**	**1857**
TOTAa	**2830**	**2399**	**4492**	**2476**	**2459**	**737**	**1864**	**735**	**908**	**1533**	**1848**	**2255**	**1457**	**2489**	**1076**	**6611**	**10601**	**9615**
TOTAb	**3913**	**3781**	**6122**	**4115**	**3991**	**3013**	**3318**	**2549**	**2576**	**3417**	**3863**	**2902**	**3858**	**3536**	**2641**	**11555**	**15588**	**12439**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	190	210	330	31	30	0	0	0	0	0	0	0	0	0	0	0	0	0
DK01b	190	210	330	31	30	10	0	0	0	0	0	0	0	0	0	0	0	0
DK02a	325	1560	0	1486	760	12	62	12	271	142	40	345	28	365	37	7	0	0
DK02b	325	1560	0	1486	760	760	62	12	271	142	40	345	28	365	37	7	0	0
DK03a	1705	700	0	2325	0	0	2	0	0	0	0	0	1	160	80	0	15	0
DK03b	1705	700	0	2325	0	0	2	0	0	0	0	0	1	160	80	0	15	0
DK04a	590	490	0	610	0	320	13	0	0	0	18	0	0	125	125	0	0	0
DK04b	590	490	0	610	0	320	13	0	0	0	18	0	0	125	125	0	0	0
DK05a	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	30	0	0
DK05b	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	30	0	0
DKTOa	**2810**	**2960**	**330**	**4452**	**790**	**332**	**82**	**12**	**271**	**142**	**58**	**345**	**29**	**650**	**242**	**37**	**15**	**0**
DKTOb	**2810**	**2960**	**330**	**4452**	**790**	**1090**	**82**	**12**	**271**	**142**	**58**	**345**	**29**	**650**	**242**	**37**	**15**	**0**
SH06a	7	0	0	10	25	26	4	0	4	3	1	62	2	0	20	0	6	2
SH06b	7	7	7	17	40	33	4	3	4	3	1	62	2	0	20	0	6	2
SH07a	96	52	200	48	0	3	93	0	0	250	1	336	50	0	40	0	0	8
SH07b	96	78	200	48	3	3	93	0	0	250	8	336	320	0	40	0	0	8
SH08a	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	18
SH08b	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	18
SH09a	144	0	110	784	510	1000	6	193	130	13	0	304	0	187	0	94	0	0
SH09b	530	628	640	952	825	1675	29	357	254	437	488	1076	330	1071	801	878	190	190
SH10a	0	0	70	124	480	530	63	0	0	156	1003	129	0	0	5	3	0	160
SH10b	27	468	97	178	534	584	65	0	323	236	1083	172	89	0	34	3	79	160
SH11a	0	301	0	0	0	1150	2	0	0	16	0	0	0	40	0	0	0	0
SH11b	2072	301	0	1461	1677	1150	702	0	149	16	174	134	0	40	40	0	0	0
SH12a	6850	8300	4300	8900	10500	11900	350	2150	1900	1350	1040	5580	1100	950	1030	1180	0	0
SH12b	6850	8300	4300	8900	10500	11900	350	2150	1900	1350	1040	5580	1100	950	1030	1180	1100	1100
SH13a	239	1	0	196	0	0	109	0	0	0	0	33	0	1	0	0	0	0
SH13b	239	1	3	196	7	98	109	0	0	0	0	33	0	2	0	0	0	0
SH14a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**7336**	**8654**	**4680**	**10062**	**11515**	**14609**	**627**	**2343**	**2043**	**1788**	**2045**	**6444**	**1152**	**1178**	**1095**	**1277**	**6**	**188**
SHTOb	**9821**	**9783**	**5247**	**11752**	**13586**	**15443**	**1352**	**2510**	**2639**	**2292**	**2794**	**7393**	**1841**	**2063**	**1965**	**2061**	**1375**	**1478**
NS14a	0	0	0	0	0	0	-	6	3	0	4	3	5	0	0	0	0	0
NS14b	0	0	0	0	0	0	0	6	3	0	4	3	5	0	0	0	0	0
NS15a	0	0	0	150	750	0	0	2400	815	0	572	0	0	0	30	150	0	51
NS15b	325	325	325	150	750	325	0	2400	815	650	572	650	0	1360	1390	1500	196	51
NS16a	50	0	0	0	100	60	-	650	250	0	250	0	0	0	-	-	0	170
NS16b	50	0	0	0	100	60	7	650	250	0	250	150	0	30	30	30	170	170
NS17a	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	4	0
NS17b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
NS18a	14	70	0	5	240	0	10	0	272	57	0	54	5	23	0	0	0	15
NS18b	14	70	15	17	243	15	10	0	274	57	0	78	5	29	21	15	104	77
NS19a	0	0	0	0	2	6	-	6	0	0	0	149	3	28	94	0	0	36
NS19b	0	0	0	0	2	6	1	6	0	0	0	149	3	28	94	0	10	36
NS20a	180	0	3	85	0	0	-	0	95	315	300	150	363	115	0	0	0	63
NS20b	180	276	279	265	276	276	0	187	145	315	300	390	363	115	173	173	166	148
NS21a	-	0	24	0	31	28	-	70	-	0	85	-	33	0	227	45	-	24
NS21b	14	14	24	14	45	28	-	105	25	0	85	25	33	14	227	59	18	24
NS22a	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0
NS22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSTOa	**244**	**70**	**27**	**240**	**1123**	**94**	**10**	**3132**	**1435**	**372**	**1211**	**356**	**409**	**166**	**351**	**195**	**4**	**359**
NSTOb	**583**	**685**	**643**	**446**	**1416**	**710**	**18**	**3354**	**1512**	**1022**	**1211**	**1445**	**409**	**1576**	**1935**	**1777**	**668**	**506**
NL22a	0	10	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
NL22b	0	10	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
NL23a	270	205	81	290	640	204	152	559	1360	1050	-	13	662	-	681	-	186	-
NL23b	370	305	181	390	740	304	152	584	1460	1550	900	1013	662	750	681	751	236	325
NL24a	-	-	-	-	-	-	0	-	-	-	-	-	95	-	-	-	-	-
NL24b	300	300	300	300	300	300	0	230	220	220	220	220	230	950	950	300	400	400
NL25a	850	1325	600	612	375	1520	80	1	84	180	250	310	75	501	173	-	304	41
NL25b	1000	1475	750	762	525	1520	80	751	284	1080	250	510	975	1550	173	950	304	841
NL26a	417	130	1085	519	1025	429	2	2165	1020	453	1530	1663	410	503	970	-	360	1535
NL26b	417	130	1085	519	1025	429	2	2165	1020	453	1530	1663	410	503	970	1100	360	1535
NL27a	0	0	0	0	0	0	131	2	-	-	3	-	-	43	-	-	0	-
NL27b	0	0	0	0	0	0	131	2	50	50	3	50	50	43	10	10	0	5
NL28a	49	99	133	106	260	320	8	44	139	224	325	413	545	151	196	-	603	450
NL28b	199	299	133	306	360	370	8	444	239	224	335	523	545	231	196	240	603	450
NL29a	0	-	0	0	-	0	0	72	0	0	34	0	0	2	4	-	0	0
NL29b	0	0	0	0	0	0	0	72	0	0	34	0	0	2	4	3	0	0
NLTOa	**1586**	**1769**	**1899**	**1527**	**2300**	**2474**	**373**	**2843**	**2604**	**1907**	**2142**	**2399**	**1787**	**1200**	**2024**	**0**	**1453**	**2026**
NLTOb	**2286**	**2519**	**2449**	**2277**	**2950**	**2924**	**373**	**4248**	**3274**	**3577**	**3272**	**3979**	**2872**	**4029**	**2984**	**3354**	**1903**	**3556**
TOTAa	**11976**	**13453**	**6936**	**16281**	**15728**	**17509**	**1092**	**8330**	**6353**	**4209**	**5456**	**9544**	**3377**	**3194**	**3712**	**1509**	**1478**	**2573**
TOTAb	**15500**	**15947**	**8669**	**18927**	**18742**	**20167**	**1825**	**10124**	**7696**	**7033**	**7335**	**13162**	**5151**	**8318**	**7126**	**7229**	**3961**	**5540**

Table 22. Curlew Sandpiper *Calidris ferruginea*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK01b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK02a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK02b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK03a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK03b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK04a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK04b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK05a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK05b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DKTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
DKTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
SH06a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH06b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH07a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH07b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH08a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0
SH08b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0
SH09a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH09b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH10a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH10b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH11a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH11b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH12a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH12b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
SH13a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH13b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**0**
SHTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**6**
NS14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS15a	-	0	0	0	0	0	-	0	0	0	0	0	0	0	0	-	0	0
NS15b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS16a	-	0	0	0	0	0	0	-	0	0	0	0	0	-	-	0	-	0
NS16b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS17a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0
NS17b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS18a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS18b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS19a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	1
NS19b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
NS20a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	-	0
NS20b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1	1
NS21a	-	0	0	-	0	0	-	-	-	-	-	0	0	0	0	-	-	0
NS21b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS22a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**1**
NSTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**1**	**2**
NL22a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	1
NL22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
NL23a	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	2
NL23b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
NL24a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0
NL24b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL25a	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	-	-	0
NL25b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL26a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0
NL26b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL27a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL28a	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	-	0	0
NL28b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL29a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	40
NL29b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
NLTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**0**	**43**
NLTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**43**
TOTAa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**5**	**1**	**44**
TOTAb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**6**	**2**	**51**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	0	0	0	5	0	0	0	0	2	75	0	0	0	0	1	0	0	0
DK01b	0	0	0	5	0	0	0	0	2	75	0	0	0	0	1	0	0	0
DK02a	0	0	0	0	1	0	0	2	0	78	0	30	3	0	0	0	0	0
DK02b	0	0	0	0	1	10	0	2	0	78	0	30	3	0	0	0	0	0
DK03a	0	0	0	0	0	0	0	0	1	15	0	0	0	0	0	0	0	0
DK03b	0	0	0	0	0	0	0	0	1	15	0	0	0	0	0	0	0	0
DK04a	0	1	0	0	0	0	0	0	0	14	340	3	0	0	0	0	0	0
DK04b	0	1	0	0	0	0	0	0	0	14	340	3	0	0	0	0	0	0
DK05a	0	0	0	4	0	0	0	0	2	39	0	3	0	0	0	0	2	0
DK05b	0	0	0	4	0	10	0	0	2	39	0	3	0	0	0	0	2	0
DKTOa	**0**	**1**	**0**	**9**	**1**	**0**	**0**	**2**	**5**	**221**	**340**	**36**	**3**	**0**	**1**	**0**	**2**	**0**
DKTOb	**0**	**1**	**0**	**9**	**1**	**20**	**0**	**2**	**5**	**221**	**340**	**36**	**3**	**0**	**1**	**0**	**2**	**0**
SH06a	0	0	0	0	0	0	1	0	4	82	0	0	15	2	0	0	0	0
SH06b	0	0	0	0	0	0	1	4	4	82	0	1	16	2	0	2	0	0
SH07a	0	1	0	0	0	0	0	1	0	0	0	0	15	0	0	0	0	0
SH07b	0	1	0	0	0	0	0	1	0	0	0	0	15	0	0	0	0	0
SH08a	0	0	0	1	0	0	3	53	2	183	1	0	13	0	0	1	0	0
SH08b	0	0	0	1	0	0	4	53	2	183	1	0	13	0	0	1	0	0
SH09a	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
SH09b	0	0	0	0	0	2	0	3	0	0	0	0	0	0	0	0	0	0
SH10a	0	0	0	7	0	0	0	7	0	32	0	25	0	0	1	0	0	0
SH10b	0	0	0	7	0	0	0	7	2	33	1	25	0	0	1	0	0	0
SH11a	0	13	4	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0
SH11b	0	13	4	1	3	3	0	0	0	0	0	0	0	0	0	0	0	0
SH12a	0	0	5	23	3	0	0	32	1	43	0	0	0	0	0	0	0	0
SH12b	10	0	9	23	16	13	0	120	13	43	18	2	2	0	0	0	0	0
SH13a	0	0	0	13	0	0	22	0	0	61	0	0	0	0	0	0	0	0
SH13b	0	0	0	13	0	0	22	5004	331	67	238	0	2	0	0	0	0	0
SH14a	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0
SHTOa	**0**	**14**	**9**	**45**	**3**	**5**	**26**	**93**	**7**	**461**	**1**	**25**	**43**	**2**	**1**	**1**	**0**	**0**
SHTOb	**10**	**14**	**13**	**45**	**19**	**18**	**27**	**5192**	**352**	**468**	**258**	**28**	**48**	**2**	**1**	**3**	**0**	**0**
NS14a	0	0	0	0	0	9	-	0	4	0	0	7	3	0	0	9	0	0
NS14b	0	0	0	0	0	9	0	0	4	0	0	7	3	0	0	9	0	0
NS15a	0	0	0	0	0	0	0	11	75	30	0	0	0	0	0	0	0	0
NS15b	0	0	0	0	0	0	0	11	75	30	0	0	0	0	0	0	0	0
NS16a	0	0	0	0	0	0	-	0	0	0	0	0	0	0	-	-	0	0
NS16b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS17a	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0
NS17b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS18a	0	0	0	0	0	2	0	1	5	165	815	208	3	0	4	0	0	0
NS18b	0	0	0	0	0	2	0	3	5	165	815	208	7	0	4	0	0	0
NS19a	0	2	0	0	0	0	-	0	2	9	0	64	7	0	0	0	0	0
NS19b	0	2	0	0	0	0	0	0	3	9	1	64	8	0	0	0	0	0
NS20a	30	52	1	46	2	60	-	0	7	7	9	0	0	0	0	1	0	0
NS20b	31	52	2	46	2	60	0	10	7	7	9	0	0	0	0	1	0	0
NS21a	-	0	0	0	0	0	-	0	-	0	0	-	125	0	0	0	-	0
NS21b	0	0	0	0	0	0	-	0	0	0	0	0	125	0	0	0	0	0
NS22a	0	0	0	0	0	0	-	0	0	0	0	5	0	0	0	0	0	0
NS22b	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0
NSTOa	**30**	**54**	**1**	**46**	**2**	**71**	**0**	**12**	**93**	**211**	**824**	**284**	**138**	**0**	**4**	**10**	**0**	**0**
NSTOb	**31**	**54**	**2**	**46**	**2**	**71**	**0**	**24**	**94**	**211**	**825**	**284**	**143**	**0**	**4**	**10**	**0**	**0**
NL22a	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
NL22b	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
NL23a	-	-	-	1	-	-	0	6	-	-	-	3	0	-	0	-	-	-
NL23b	0	0	0	1	0	0	0	6	0	0	0	3	0	0	0	0	0	0
NL24a	0	0	0	0	0	0	0	445	0	0	0	0	50	0	0	-	0	0
NL24b	0	0	0	0	0	0	0	445	0	0	0	0	50	0	0	0	0	0
NL25a	0	-	0	-	0	0	8	97	-	647	12	4	0	424	0	-	0	0
NL25b	0	0	0	0	0	0	8	97	0	647	12	4	0	424	0	0	0	0
NL26a	0	0	0	0	0	0	0	0	0	10	31	1	1	0	0	-	0	0
NL26b	0	0	0	0	0	0	0	0	0	10	31	1	1	0	0	0	0	0
NL27a	0	0	0	0	0	0	0	0	-	-	3	-	-	0	-	-	0	-
NL27b	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
NL28a	-	-	0	-	0	0	0	162	0	492	-	23	0	-	0	-	-	-
NL28b	0	0	0	0	0	0	0	162	0	492	0	23	0	0	0	0	0	0
NL29a	0	-	0	0	-	0	0	755	790	118	930	130	51	50	0	-	0	0
NL29b	0	0	0	0	0	0	0	755	790	118	930	130	51	50	0	10	0	0
NLTOa	**0**	**0**	**0**	**1**	**0**	**0**	**8**	**1465**	**791**	**1267**	**976**	**161**	**102**	**474**	**0**	**0**	**0**	**0**
NLTOb	**0**	**0**	**0**	**1**	**0**	**0**	**8**	**1465**	**791**	**1267**	**976**	**161**	**102**	**474**	**0**	**10**	**0**	**0**
TOTAa	**30**	**69**	**10**	**101**	**6**	**76**	**34**	**1572**	**896**	**2160**	**2141**	**506**	**286**	**476**	**6**	**11**	**2**	**0**
TOTAb	**41**	**69**	**15**	**101**	**22**	**109**	**35**	**6683**	**1242**	**2167**	**2399**	**509**	**296**	**476**	**6**	**23**	**2**	**0**

Table 23. Dunlin *Calidris alpina*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	500	1500	20	2335	3890	0	0	0	1100	1080	706	2241	5	12470	4090	11090	7720	18740
DK01b	500	1500	20	2335	3890	0	0	0	1100	1080	706	2241	5	12470	4090	11090	7720	18740
DK02a	2000	1375	2	1957	3820	460	20	0	3550	22575	10900	11970	1695	18590	38812	51725	69115	104395
DK02b	2000	1375	2	1957	3820	460	20	0	3550	22575	10900	11970	1695	18590	38812	51725	69115	104395
DK03a	2250	200	0	5030	1237	1	0	0	5345	23250	26330	8990	3350	21780	66045	20025	45385	44065
DK03b	2250	200	0	5030	1237	1	0	0	5345	23250	26330	8990	3350	21780	66045	42000	45385	44065
DK04a	15	0	200	2540	0	0	0	0	1951	5300	7435	2064	1741	2600	45320	18960	68790	51505
DK04b	15	0	200	2540	0	0	0	0	1951	5300	7435	2064	1741	2600	45320	25000	68790	51505
DK05a	1500	2000	0	10777	100	0	0	0	1837	4245	10	7641	1686	33421	23700	17975	21199	24333
DK05b	1500	2000	0	10777	100	0	0	0	1837	4245	10	7641	1686	33421	23700	22500	21199	24333
DKTOa	**6265**	**5075**	**222**	**22639**	**9047**	**461**	**20**	**0**	**13783**	**56450**	**45381**	**32906**	**8477**	**88861**	**177967**	**119775**	**212209**	**243038**
DKTOb	**6265**	**5075**	**222**	**22639**	**9047**	**461**	**20**	**0**	**13783**	**56450**	**45381**	**32906**	**8477**	**88861**	**177967**	**152315**	**212209**	**243038**
SH06a	-	113	1	428	626	0	220	0	2292	6805	8003	9185	5818	4176	10910	4847	14471	39358
SH06b	985	535	1	960	791	36	220	14	3119	6805	8010	9562	19236	9746	25295	19000	20431	52688
SH07a	-	623	3	1130	260	182	447	20	30	3877	10383	3496	0	302	24600	38855	24958	29076
SH07b	1910	2465	337	1908	1147	187	449	295	3755	3881	10386	3595	7730	4389	24600	39245	24976	29476
SH08a	-	352	47	7007	5903	5	56	110	1497	13665	18041	8445	2820	19007	33350	48515	20160	33884
SH08b	3641	2260	47	7357	7486	8	58	116	3108	13958	18291	8695	12229	19537	53982	51807	26160	34892
SH09a	-	1120	0	1300	1570	53	46	0	366	6112	800	516	6500	9300	61055	19146	3798	25620
SH09b	1175	4446	36	7158	6368	53	46	38	5479	10910	5613	5714	22658	13410	63695	27391	19752	30293
SH10a	-	3230	150	15800	3263	142	180	90	30	11475	812	12710	4800	21900	18615	11150	20687	52063
SH10b	4452	3230	150	21016	10889	172	180	90	5623	12225	1313	17903	19517	34201	23615	16819	32166	53423
SH11a	-	0	2	0	200	0	5	0	0	20	44	399	5650	13	48890	0	11522	29864
SH11b	22	0	2	0	200	0	5	0	0	20	44	399	5663	11253	48890	35078	11622	35264
SH12a	-	1100	40	6146	802	0	0	0	0	0	925	0	19215	1670	48800	19433	40300	57897
SH12b	2025	1108	40	7254	817	40	40	40	3593	1100	5025	1378	36437	1670	48825	28233	40300	57897
SH13a	-	0	0	1100	0	0	20	0	295	1530	1520	7355	0	18	0	0	28020	68472
SH13b	1538	1530	10	2500	2042	10	20	0	665	1710	1520	7355	3833	10608	76860	69485	28020	68472
SH14a	-	0	0	130	27	0	0	0	116	0	25	45	32	60	0	0	0	13
SH14b	50	13	0	130	27	0	0	0	116	0	25	45	32	60	49	34	38	15
SHTOa	**-**	**6538**	**243**	**33041**	**12651**	**382**	**974**	**220**	**4626**	**43484**	**40553**	**42151**	**44835**	**56446**	**246220**	**141946**	**163916**	**336247**
SHTOb	**15798**	**15587**	**623**	**48283**	**29767**	**506**	**1018**	**593**	**25458**	**50609**	**50227**	**54646**	**127335**	**104874**	**365811**	**287092**	**203465**	**362420**
NS14a	-	0	0	978	177	0	558	0	0	0	0	0	268	29	565	2300	702	0
NS14b	0	0	0	978	177	0	558	0	0	0	0	0	268	29	565	2300	702	0
NS15a	-	10500	1525	10500	1150	0	-	0	110	0	0	1720	54030	5300	13500	-	4650	10700
NS15b	7840	10500	1525	18200	8940	1525	1525	1525	7810	7790	7790	9420	54030	51380	22950	23108	19925	16475
NS16a	-	3300	0	7000	400	0	0	-	5000	400	0	1082	8260	-	-	850	-	14200
NS16b	1691	3300	0	7491	2091	0	0	0	5491	2091	1691	2282	8260	3220	1215	4720	6720	14320
NS17a	-	2150	0	17852	11600	0	1500	0	6746	3185	8443	13831	20370	15275	-	22950	1520	17400
NS17b	6529	2150	500	17852	11600	500	1500	500	6746	3185	8443	13831	20370	20301	35070	22950	11317	19400
NS18a	-	6356	2280	3028	650	174	4140	40	6970	2600	530	6115	6613	6437	49336	19211	8360	28700
NS18b	4221	8056	2280	6293	4171	199	5293	1193	10235	5250	3795	6115	15513	15202	49831	32586	25750	29150
NS19a	-	4220	342	554	1226	0	0	0	41	1250	5594	6107	4690	3000	18875	2500	-	10151
NS19b	1553	4233	342	1325	2051	1	151	151	633	1254	5714	6107	5950	8008	18875	10625	12595	10151
NS20a	-	9191	301	7511	21640	0	2000	0	0	0	3860	1140	17591	16500	4740	48000	-	53030
NS20b	4463	9301	301	11680	21809	0	2001	301	4401	4169	4151	5431	17881	16627	14912	60991	33341	61920
NS21a	-	1420	85	-	382	0	-	-	-	-	-	0	3510	1740	9500	-	-	5250
NS21b	218	1431	85	218	382	65	75	75	218	218	218	190	3573	1740	9500	920	920	5250
NS22a	-	9000	20	51040	750	0	595	0	0	61	6500	4010	825	9453	13655	1365	2500	20340
NS22b	3954	9000	20	51040	750	20	615	20	0	61	6500	4010	6872	9453	13655	7165	8300	21890
NSTOa	**0**	**46137**	**4553**	**98463**	**37975**	**174**	**8793**	**40**	**18867**	**7496**	**24927**	**34005**	**116157**	**57734**	**110171**	**97176**	**17732**	**159771**
NSTOb	**30469**	**47971**	**5053**	**115077**	**51971**	**2310**	**11718**	**3765**	**35534**	**24018**	**38302**	**47386**	**132717**	**125960**	**166573**	**165365**	**119570**	**178556**
NL22a	0	78	37	2235	240	-	1782	0	6370	351	690	19500	15740	2290	3780	-	31736	16715
NL22b	0	78	37	2235	240	1200	1782	0	6370	351	690	19500	15740	2290	3780	24000	31736	16715
NL23a	525	7610	62	1850	23940	245	867	-	7741	-	9247	14279	9915	12719	39950	-	7585	47725
NL23b	6600	8610	6137	6925	23940	6245	5942	6075	8741	8175	15322	15279	12915	13719	39950	42000	28860	50225
NL24a	3	7000	20	14575	760	150	3110	0	8040	2520	8700	8900	9530	11765	24040	-	10900	15000
NL24b	3	7000	20	14575	760	150	3110	0	8040	2520	8700	8900	9530	11765	24040	15000	10900	15000
NL25a	1548	22255	522	23550	19648	4208	5729	190	8214	45579	44914	10070	51160	24487	49450	-	30855	42626
NL25b	3198	23905	522	25200	19648	4358	5879	190	9864	45579	44914	17547	65860	24487	49450	33500	34855	42626
NL26a	1795	3900	200	5565	4218	-	8360	-	2238	8726	13136	5875	2440	620	7430	-	2896	6996
NL26b	1795	3900	200	5565	4218	5000	8360	5000	2238	8726	13136	5875	2440	620	7430	9000	2896	6996
NL27a	-	9000	-	-	-	-	-	-	-	4000	-	-	18000	50000	6000	-	10000	36000
NL27b	9500	9000	9500	9500	9500	9500	9500	9500	9500	4000	9500	9500	18000	50000	6000	4000	10000	36000
NL28a	401	6630	126	3280	2633	1004	5928	33	6041	6665	5366	1716	710	1044	4095	-	7856	26210
NL28b	401	6630	126	3280	2633	1004	5928	33	6041	6665	5366	1716	1710	1044	4095	4650	7856	26210
NL29a	3560	15790	950	4520	2202	1157	8960	60	5640	1441	5490	5490	1520	14502	8980	-	1354	10100
NL29b	3560	15790	950	4520	2202	1157	8960	60	5640	1441	5490	5490	1520	14502	8980	8500	1354	10100
NLTOa	**7832**	**72263**	**1917**	**55575**	**53641**	**6764**	**34736**	**283**	**44284**	**69282**	**87543**	**65830**	**109015**	**117427**	**143725**	**-**	**103182**	**201372**
NLTOb	**25057**	**74913**	**17492**	**71800**	**63141**	**28614**	**49461**	**20858**	**56434**	**77457**	**103118**	**83807**	**127715**	**118427**	**143725**	**140650**	**128457**	**203872**
TOTAa	**14097**	**130013**	**6935**	**209718**	**113314**	**7781**	**44523**	**543**	**81560**	**176712**	**198404**	**174892**	**278484**	**320468**	**678083**	**358897**	**497039**	**940428**
TOTAb	**77589**	**143546**	**23390**	**257799**	**153926**	**31891**	**62217**	**25216**	**131209**	**208534**	**237028**	**218745**	**396244**	**438122**	**854076**	**745422**	**663701**	**987886**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	21295	10230	865	31390	6100	7491	1	300	5967	537	4172	26288	12820	25730	4310	5000	1355	2110
DK01b	21295	10230	865	31390	6100	7491	1	300	5967	537	4172	26288	12820	25730	4310	5000	1355	2110
DK02a	60925	91125	46895	96273	53180	35835	441	22760	57950	90387	18281	128278	65182	52100	53245	70393	24035	8233
DK02b	60925	91125	46895	96273	53180	35835	441	22760	57950	90387	18281	128278	65182	52100	53245	70393	24035	8233
DK03a	50808	55135	73220	77465	45470	55550	445	78350	98610	98700	23690	136525	139907	46512	79710	68800	47575	18035
DK03b	50808	55135	73220	77465	45470	55550	445	78350	98610	98700	23690	136525	139907	46512	79710	68800	47575	18035
DK04a	41015	42465	66060	75405	16890	30840	207	71650	43048	39466	41080	62720	134020	77498	82809	50136	39515	6373
DK04b	41015	42465	66060	75405	16890	30840	207	71650	43048	39466	41080	62720	134020	77498	82809	50136	39515	6373
DK05a	29937	24775	6460	27029	10525	28855	98	6530	4394	32425	8431	43336	49630	35340	66471	5706	43356	5050
DK05b	29937	24775	6460	27029	10525	28855	98	6530	4394	32425	8431	43336	49630	35340	66471	5706	43356	5050
DKTOa	**203980**	**223730**	**193500**	**307562**	**132165**	**158571**	**1192**	**179590**	**209969**	**261515**	**95654**	**397147**	**401559**	**237180**	**286545**	**200035**	**155836**	**39801**
DKTOb	**203980**	**223730**	**193500**	**307562**	**132165**	**158571**	**1192**	**179590**	**209969**	**261515**	**95654**	**397147**	**401559**	**237180**	**286545**	**200035**	**155836**	**39801**
SH06a	17445	8050	22863	19174	7483	18993	8	25063	16323	29348	33236	18008	56740	17665	33585	16489	26153	8001
SH06b	17711	25589	40128	34707	18892	27234	31	31967	21844	33365	43345	28964	71371	30260	36762	27065	26860	10759
SH07a	15029	39894	52300	29965	3500	15050	31	13623	16360	29448	4009	30425	10630	22568	8979	16576	11204	9908
SH07b	15029	40095	57465	34385	13083	15050	31	18297	24543	29448	20008	60530	33515	30478	9529	22897	17867	10394
SH08a	32683	39081	31320	94968	42000	47862	451	32651	55533	54529	48183	41359	31715	20064	35642	21165	35298	17475
SH08b	33133	39611	31350	100098	44976	48440	452	32651	62943	54729	48213	46059	58810	20064	37642	23250	36798	18975
SH09a	71387	5838	19724	92958	18650	17794	2210	17961	16945	20952	14050	10510	2500	18011	6530	12420	4151	41274
SH09b	76387	19590	26226	97572	26414	29130	3452	21526	32083	50449	26692	30815	31278	55458	35088	35132	43371	41274
SH10a	35999	25787	28600	34185	30450	40550	138	42211	13090	40430	61950	38481	31740	30347	23921	27062	1300	8935
SH10b	36022	34860	37154	36708	43314	44293	138	43836	48712	56576	69200	45351	44728	35357	31804	44571	4330	14813
SH11a	10314	11000	3780	3790	6300	6844	171	10450	0	18150	12080	2795	7780	4410	13761	8190	2180	36715
SH11b	15714	16541	9221	4390	12071	12144	243	10450	32143	31708	19230	15531	16794	15771	15536	8190	37980	36715
SH12a	10900	12512	16990	76905	21740	13800	1565	10000	12079	26274	21408	56940	13444	20160	11734	53116	3100	405
SH12b	54772	42903	17161	76905	21808	69678	1565	46470	13580	33024	23552	71968	14245	33842	11894	53276	23405	405
SH13a	79500	63200	0	84551	0	6100	139	0	150	37300	98	101754	0	50727	800	0	41690	2747
SH13b	79500	78090	59775	86441	65891	52806	139	57233	89080	61300	89080	101754	65870	72605	21872	23057	43107	2977
SH14a	100	0	62	0	23	0	0	0	3	289	0	0	84	0	0	0	3	35
SH14b	102	2	62	2	25	25	0	0	4	290	1	34	84	34	0	67	23	35
SHTOa	**273357**	**205362**	**175639**	**436496**	**130146**	**166993**	**4713**	**151959**	**130483**	**256720**	**195014**	**300272**	**154633**	**183952**	**134952**	**155018**	**125079**	**125495**
SHTOb	**328370**	**297281**	**278542**	**471208**	**246474**	**298800**	**6051**	**262430**	**324932**	**350889**	**339321**	**401006**	**336695**	**293869**	**200127**	**237505**	**233741**	**136347**
NS14a	0	766	0	0	310	113	-	562	1693	379	873	549	1371	139	3093	3972	101	731
NS14b	503	766	503	0	310	113	20	562	1723	412	873	571	1371	261	3094	4068	102	731
NS15a	24150	6001	7000	28102	23170	700	310	13620	14720	1430	31151	7400	11140	8970	4850	1395	1787	33070
NS15b	39400	18901	24025	33977	34495	23458	310	13620	40205	27941	31161	39831	11350	45540	49055	46230	32647	33070
NS16a	3540	120	5500	2750	3000	0	-	7000	5500	2700	17050	15520	2970	1610	-	-	11200	52560
NS16b	7410	2970	9370	6500	6870	120	70	7000	5625	6565	17055	21025	2990	26610	26810	26810	53200	52560
NS17a	3814	18051	17163	6738	14850	6465	-	7871	4822	12009	11900	10770	15080	18054	10604	14695	27370	53900
NS17b	13604	19551	17163	8238	16350	7965	0	9871	9272	14759	12550	10770	15080	18054	10904	16145	27370	55000
NS18a	31500	16600	5457	39110	14657	15337	0	12754	19851	15678	35020	31356	13078	27145	14620	10371	15580	44143
NS18b	31500	19415	21022	43510	25322	30642	63	24694	27614	15681	35020	31829	15528	32750	28370	20751	20718	44196
NS19a	16115	10976	4750	10905	3500	4400	-	10648	18300	8337	18859	18623	15383	8740	19300	14149	0	29069
NS19b	16460	18246	13900	14830	11500	12525	6	10648	22450	9810	19920	18896	17197	17935	26914	27464	4780	29399
NS20a	18882	14280	12420	22370	8355	44954	-	33382	26546	13823	24500	9260	51880	10032	35890	11347	0	33535
NS20b	22012	35100	36100	31070	27836	64435	750	48382	29286	16493	29764	24984	54280	10734	53890	34263	22109	35220
NS21a	-	90	3240	607	336	1828	-	4200	-	0	510	-	17900	620	10020	11010	-	3117
NS21b	920	339	3360	856	1050	1948	-	4620	591	126	625	591	18015	659	10020	11563	21	3117
NS22a	1750	17080	12973	17870	10050	9820	-	260	15780	6648	1023	14770	450	6245	9790	32625	3645	40100
NS22b	9573	18630	14523	17870	10050	11370	0	260	15870	6738	1023	14860	3660	16870	15815	38650	13065	45736
NSTOa	**99751**	**83964**	**68503**	**128452**	**78228**	**83617**	**310**	**90297**	**107212**	**61004**	**140886**	**108248**	**129252**	**81555**	**108167**	**99564**	**59683**	**290225**
NSTOb	**141382**	**133918**	**139966**	**156851**	**133783**	**152576**	**1219**	**119657**	**152636**	**98525**	**147991**	**163357**	**139471**	**169413**	**224872**	**225944**	**174012**	**299029**
NL22a	23689	25751	38000	16920	12850	26100	51	1080	17650	6277	16080	14785	26830	6372	12179	18456	11612	9410
NL22b	23689	25751	38000	16920	12850	26100	51	1080	17650	6277	16080	14785	26830	6372	12179	18456	11612	9410
NL23a	40204	27150	16415	43437	36505	26315	80	17285	32220	33150	1280	18561	35645	23402	12268	-	25932	16370
NL23b	42704	29650	18915	45937	39005	28815	180	20285	37220	69550	64280	86561	35645	66402	12268	61000	27932	33370
NL24a	17820	12310	29265	16180	37565	14080	8	32040	15750	18300	37450	14870	50255	14470	14150	-	6790	11200
NL24b	17820	12310	29265	16180	37565	14080	8	32040	15750	18300	37450	14870	50255	14470	14150	16000	6790	11200
NL25a	47049	63311	62235	53579	64165	41033	32	52220	44585	31754	26805	40111	49475	71351	39995	-	52197	46610
NL25b	47049	70861	62235	61129	64165	41033	32	58720	49585	31754	26805	45111	49475	71351	39995	57600	52197	46610
NL26a	2368	4663	5910	2438	3905	5669	126	37650	33500	21049	24380	29099	21915	27900	15312	-	558	6435
NL26b	2368	4663	5910	2438	3905	5669	126	37650	33500	21049	24380	29099	21915	27900	15312	18500	558	6435
NL27a	32000	2400	6000	17900	15000	3104	1	8000	-	-	9000	-	-	2930	-	-	10000	-
NL27b	32000	2400	6000	17900	15000	3104	1	8000	12000	12000	9000	12000	12000	2930	21000	21000	10000	13000
NL28a	20996	7113	19835	10480	23970	7749	21	12910	5695	7855	26555	12404	31426	36454	10203	-	5421	3915
NL28b	21196	7313	19835	10680	23970	7749	21	12910	5695	7855	29055	14904	31426	37454	10203	19700	5571	4065
NL29a	4972	-	11950	12951	-	2645	43	3745	5323	1049	6950	25042	7150	10271	17665	-	2575	8960
NL29b	4972	6500	11950	12951	6500	2645	43	3745	5323	1049	6950	25042	7150	10271	17665	10000	2575	8960
NLTOa	**189098**	**142698**	**189610**	**173885**	**193960**	**126695**	**362**	**164930**	**154723**	**119434**	**148500**	**154872**	**222696**	**193150**	**121772**	**18456**	**115085**	**102900**
NLTOb	**191798**	**159448**	**192110**	**184135**	**202960**	**129195**	**462**	**174430**	**176723**	**167834**	**214000**	**242372**	**234696**	**237150**	**142772**	**222256**	**117235**	**133050**
TOTAa	**766186**	**655754**	**627252**	**1046395**	**534499**	**535876**	**6577**	**586776**	**602387**	**698673**	**580054**	**960539**	**908140**	**695837**	**651436**	**473073**	**455683**	**558421**
TOTAb	**865530**	**814377**	**804118**	**1119756**	**715382**	**739142**	**8924**	**736107**	**864260**	**878763**	**796966**	**1203882**	**1112421**	**937612**	**854316**	**885740**	**680824**	**608227**

Table 24. Ruff *Philomachus pugnax*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK01b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK02a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
DK02b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
DK03a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	0
DK03b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	0
DK04a	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	40
DK04b	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	40
DK05a	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	3897	4184
DK05b	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	3897	4184
DKTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**9**	**0**	**0**	**3952**	**4264**
DKTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**9**	**0**	**0**	**3952**	**4264**
SH06a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	73
SH06b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	77	24	73
SH07a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
SH07b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	22	28	22
SH08a	-	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1016	480
SH08b	0	0	0	0	0	0	0	0	0	0	0	0	0	1	55	108	1016	597
SH09a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	0
SH09b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	24	88	18
SH10a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	41
SH10b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	10	28	41
SH11a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	106	806
SH11b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	653	106	806
SH12a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3000	130
SH12b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	3000	130
SH13a	-	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	128	1
SH13b	2	0	0	0	0	0	0	0	0	0	3	0	0	0	0	6	128	1
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	297	73
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	11	344	88
SHTOa	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**1**	**15**	**0**	**4668**	**1604**
SHTOb	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**1**	**335**	**911**	**4762**	**1776**
NS14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	224	889	1134	1358
NS14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	224	964	1256	1520
NS15a	-	0	0	13	0	0	-	0	0	0	0	0	13	0	25	-	1	0
NS15b	0	0	0	13	0	0	0	0	0	0	0	0	13	7	25	10	11	10
NS16a	-	0	0	0	0	0	0	-	0	0	0	0	0	-	-	0	-	0
NS16b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS17a	-	0	0	1	0	0	0	0	0	0	0	0	0	0	-	6	0	8
NS17b	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	13	8	8
NS18a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	32	3	0	1
NS18b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	6	3	4
NS19a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
NS19b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS20a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	-	5
NS20b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	5
NS21a	-	0	0	-	0	0	-	-	-	-	-	0	0	0	17	-	-	0
NS21b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0
NS22a	-	0	0	0	0	0	0	0	0	0	1	0	0	0	5	0	0	0
NS22b	0	0	0	0	0	0	0	0	0	0	1	0	20	20	5	8	8	8
NSTOa	**0**	**0**	**0**	**14**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**13**	**0**	**303**	**901**	**1135**	**1372**
NSTOb	**0**	**0**	**0**	**14**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**33**	**27**	**304**	**1004**	**1288**	**1555**
NL22a	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	-	3	2
NL22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	3	2
NL23a	0	-	-	-	0	-	-	-	-	-	-	0	-	45	-	-	-	0
NL23b	0	0	0	0	0	0	0	0	0	0	0	0	0	45	0	30	0	0
NL24a	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	-	0	0
NL24b	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
NL25a	0	-	0	4	0	-	0	0	-	0	0	0	-	0	-	-	2	1
NL25b	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	2	1
NL26a	0	0	0	0	0	-	0	-	0	0	0	0	1	0	0	-	0	0
NL26b	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
NL27a	-	0	-	-	-	-	-	-	-	0	-	-	0	0	0	-	0	0
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL28a	5	8	-	300	66	-	38	-	293	69	148	70	12	52	-	-	12	5
NL28b	5	8	0	300	66	0	38	0	293	69	148	70	12	52	0	80	12	5
NL29a	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0
NL29b	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	**5**	**10**	**0**	**304**	**66**	**0**	**38**	**0**	**293**	**69**	**148**	**70**	**15**	**97**	**0**	**-**	**17**	**8**
NLTOb	**5**	**10**	**0**	**304**	**66**	**0**	**38**	**0**	**293**	**69**	**148**	**70**	**15**	**97**	**0**	**140**	**17**	**8**
TOTAa	**5**	**10**	**0**	**318**	**66**	**0**	**38**	**0**	**293**	**69**	**152**	**70**	**36**	**107**	**318**	**901**	**9772**	**7248**
TOTAb	**7**	**10**	**0**	**318**	**66**	**0**	**38**	**0**	**293**	**69**	**152**	**70**	**56**	**134**	**639**	**2055**	**10019**	**7603**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	0	1	1	1	2	0	0	12	3	0	63	18	0	0	0	0	0	0
DK01b	0	1	1	1	2	5	0	12	3	0	63	18	0	0	0	0	0	0
DK02a	285	5	2	11	12	0	0	9	1	4	0	24	0	0	0	0	0	0
DK02b	285	5	2	11	12	10	0	9	1	4	0	24	0	0	0	0	0	0
DK03a	46	126	30	1	1	45	9	0	13	8	6	0	0	0	0	2	0	0
DK03b	46	126	30	1	1	45	9	0	13	8	6	0	0	0	0	2	0	0
DK04a	4	0	2	0	31	30	12	0	1	1	4	7	1	0	4	0	0	0
DK04b	4	0	2	0	31	30	12	0	1	1	4	7	1	0	4	0	0	0
DK05a	13628	2154	1642	359	2901	112	45	23	70	2	3	1	0	0	2	0	2	0
DK05b	13628	2154	1642	359	2901	2000	45	23	70	2	3	1	0	0	2	0	2	0
DKTOa	**13963**	**2286**	**1677**	**372**	**2947**	**187**	**66**	**44**	**88**	**15**	**76**	**50**	**1**	**0**	**6**	**2**	**2**	**0**
DKTOb	**13963**	**2286**	**1677**	**372**	**2947**	**2090**	**66**	**44**	**88**	**15**	**76**	**50**	**1**	**0**	**6**	**2**	**2**	**0**
SH06a	3891	0	1	237	2	21	0	19	45	901	0	15	2	0	25	0	0	0
SH06b	3893	244	1	238	3	27	73	20	45	901	0	15	2	45	25	0	0	0
SH07a	8	0	8	11	0	0	1	0	0	35	7	0	4	0	0	0	0	0
SH07b	30	22	30	33	22	22	1	0	0	35	18	0	4	0	0	0	0	0
SH08a	248	49	79	300	29	0	8	205	25	72	11	48	1502	29	18	0	0	0
SH08b	253	109	139	300	35	30	52	205	25	572	11	548	1503	29	18	0	0	0
SH09a	0	1	16	1	0	6	0	0	0	0	2	0	0	0	0	0	0	0
SH09b	18	13	28	7	6	6	0	236	127	127	178	178	178	90	0	0	0	0
SH10a	4	20	8	0	1	0	2	79	15	107	452	1	16	18	10	0	19	0
SH10b	9	25	11	3	8	3	2	79	241	129	452	1	17	18	10	0	19	0
SH11a	30	13	21	9	0	0	0	304	0	7	0	0	85	0	0	0	0	0
SH11b	30	674	682	9	650	0	0	304	0	7	0	0	98	0	0	0	0	0
SH12a	0	420	0	106	4	0	9	3	32	1176	1	0	0	0	0	0	0	0
SH12b	156	420	145	106	137	133	9	135	1018	1176	1082	985	985	2	0	0	0	0
SH13a	360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH13b	360	180	181	0	180	0	0	274	1	0	9	0	0	0	0	0	0	0
SH14a	61	28	368	29	17	12	0	0	0	4	0	0	8	0	0	0	0	0
SH14b	61	62	368	44	17	21	58	17	0	4	0	0	8	0	0	0	0	0
SHTOa	**4602**	**531**	**501**	**693**	**53**	**39**	**20**	**610**	**117**	**2302**	**473**	**64**	**1617**	**47**	**53**	**0**	**19**	**0**
SHTOb	**4810**	**1749**	**1585**	**740**	**1058**	**242**	**195**	**1270**	**1457**	**2951**	**1750**	**1727**	**2795**	**184**	**53**	**0**	**19**	**0**
NS14a	158	57	87	284	1371	502	-	1346	402	166	221	39	0	0	0	445	0	0
NS14b	827	218	728	401	1373	578	0	1346	402	180	263	53	0	0	0	445	0	0
NS15a	8	32	0	0	4	5	0	4	12	1	34	0	0	0	0	0	0	0
NS15b	18	32	10	10	14	12	0	4	12	1	34	0	0	0	0	0	0	0
NS16a	0	0	0	0	0	0	-	0	0	0	3	0	0	0	-	-	0	0
NS16b	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
NS17a	7	3	3	12	1	8	-	20	0	4	0	19	0	0	0	0	0	0
NS17b	7	4	10	12	2	8	0	27	0	4	0	19	0	0	0	0	0	0
NS18a	9	32	72	11	14	14	0	112	15	5	35	0	13	0	0	43	0	0
NS18b	12	35	75	14	14	14	0	112	15	5	35	0	13	0	0	43	0	0
NS19a	0	2	4	0	33	0	-	0	0	5	1	2	15	0	0	0	0	0
NS19b	0	2	4	0	33	0	2	0	1	6	1	2	15	0	0	0	0	0
NS20a	24	88	4	11	120	0	-	0	4	52	1	0	0	0	1	4	0	0
NS20b	24	90	6	11	122	2	0	3	4	52	2	0	0	0	1	4	0	0
NS21a	-	0	4	0	4	2	-	0	-	0	10	-	0	0	0	0	-	0
NS21b	0	0	4	0	4	2	-	0	0	0	10	0	0	0	0	0	0	0
NS22a	0	0	13	0	8	0	-	11	4	5	73	13	5	0	0	0	0	0
NS22b	8	8	21	8	8	8	0	11	7	8	73	16	15	0	0	0	0	0
NSTOa	**206**	**214**	**187**	**318**	**1555**	**531**	**0**	**1493**	**437**	**238**	**378**	**73**	**33**	**0**	**1**	**492**	**0**	**0**
NSTOb	**896**	**389**	**858**	**456**	**1570**	**624**	**2**	**1503**	**441**	**256**	**421**	**90**	**43**	**0**	**1**	**492**	**0**	**0**
NL22a	63	79	0	20	0	1	9	0	0	11	58	36	0	845	12	0	23	1
NL22b	63	79	0	20	0	1	9	0	0	11	58	36	0	845	12	0	23	1
NL23a	78	-	-	1	-	2	2	-	-	-	17	-	0	1	16	-	-	-
NL23b	78	0	0	1	0	2	2	0	0	0	17	0	0	1	16	10	0	0
NL24a	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	-	0	0
NL24b	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0
NL25a	8	7	0	2	0	109	0	-	-	15	13	-	0	0	0	-	0	0
NL25b	8	7	0	2	0	109	0	0	0	15	13	0	0	0	0	0	0	0
NL26a	0	0	0	0	0	0	0	0	0	24	31	11	0	0	0	-	0	0
NL26b	0	0	0	0	0	0	0	0	0	24	31	11	0	0	0	0	0	0
NL27a	0	0	0	0	0	0	0	0	-	-	0	-	-	0	-	-	0	-
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL28a	-	39	0	-	0	0	0	0	35	30	82	40	0	42	19	-	60	56
NL28b	0	39	0	0	0	0	0	0	35	30	82	40	0	42	19	60	60	56
NL29a	0	-	0	0	-	0	0	0	0	40	65	20	0	75	13	-	15	0
NL29b	0	0	0	0	0	0	0	0	0	40	65	25	0	75	13	40	15	0
NLTOa	**149**	**125**	**0**	**23**	**0**	**112**	**11**	**0**	**35**	**120**	**272**	**107**	**0**	**963**	**60**	**0**	**98**	**57**
NLTOb	**149**	**125**	**0**	**23**	**0**	**112**	**11**	**0**	**35**	**120**	**272**	**112**	**0**	**963**	**60**	**110**	**98**	**57**
TOTAa	**18920**	**3156**	**2365**	**1406**	**4555**	**869**	**97**	**2147**	**677**	**2675**	**1199**	**294**	**1651**	**1010**	**120**	**494**	**119**	**57**
TOTAb	**19818**	**4549**	**4120**	**1591**	**5575**	**3068**	**274**	**2817**	**2021**	**3342**	**2519**	**1979**	**2839**	**1147**	**120**	**604**	**119**	**57**

Table 25. Bar-tailed Godwit *Limosa lapponica*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	17	0	2	0	0	0	20	0	252	168	624	1519	1000	2237	1652
DK01b	0	0	0	17	0	2	0	0	0	20	0	252	168	624	1519	1500	2237	1652
DK02a	0	0	0	2	21	0	36	0	155	370	400	2100	610	2120	14	2445	11130	5134
DK02b	0	0	0	2	21	0	36	0	155	370	400	2100	610	2120	14	2445	11130	5134
DK03a	0	220	0	0	0	0	0	0	690	5826	900	6875	3050	6905	5200	5550	36755	18240
DK03b	0	220	0	0	0	0	0	0	690	5826	900	6875	3050	6905	5200	5550	36755	18240
DK04a	0	0	150	4	2	0	0	0	0	314	0	220	3965	1800	0	230	4902	7605
DK04b	0	0	150	4	2	0	0	0	0	314	0	220	3965	1800	0	5200	4902	7605
DK05a	0	0	0	0	0	0	0	0	0	0	0	0	1201	20	2080	200	2881	1978
DK05b	0	0	0	0	0	0	0	0	0	0	0	0	1201	20	2080	2000	2881	1978
DKTOa	**0**	**220**	**150**	**23**	**23**	**2**	**36**	**0**	**845**	**6530**	**1300**	**9447**	**8994**	**11469**	**8813**	**9425**	**57905**	**34609**
DKTOb	**0**	**220**	**150**	**23**	**23**	**2**	**36**	**0**	**845**	**6530**	**1300**	**9447**	**8994**	**11469**	**8813**	**16695**	**57905**	**34609**
SH06a	-	1620	0	0	573	0	188	0	1552	2470	5750	3215	397	9750	4508	22910	17194	16479
SH06b	3620	4163	0	3246	1386	117	188	3	3363	2470	5750	4368	3972	9780	18428	26114	19946	18480
SH07a	-	380	0	300	2900	0	380	0	1572	5119	7873	2020	0	8900	5300	11930	17395	5491
SH07b	1905	656	0	1500	4225	0	380	15	1974	5119	8073	2064	7194	10454	6987	12271	17511	6882
SH08a	-	17	0	551	700	5	28	0	200	2403	71	1220	1020	5978	12600	26173	35956	17065
SH08b	553	19	0	552	703	5	28	0	237	2403	71	1220	1022	5978	31385	37597	37156	17155
SH09a	-	1115	0	0	1	0	0	0	35	0	0	51	50	170	400	7643	5510	4448
SH09b	18	1115	0	1	1	0	0	0	35	0	0	51	2260	178	483	8183	7194	4623
SH10a	-	529	0	430	40	0	0	0	0	0	0	1	20	1398	280	7880	8584	6121
SH10b	1	529	0	430	40	0	0	0	0	0	0	1	836	1499	1235	7975	16180	11174
SH11a	-	0	0	0	0	0	0	0	0	0	0	0	6	0	3	0	7000	10060
SH11b	0	0	0	0	0	0	0	0	0	0	0	0	6	400	4003	7281	7000	12185
SH12a	-	0	0	0	0	0	0	0	0	0	0	0	0	400	2010	3805	11382	3878
SH12b	0	25	0	25	0	0	0	0	25	25	50	25	150	400	3460	3815	11382	3878
SH13a	-	0	0	0	0	0	0	0	0	0	80	0	0	0	0	0	25100	14199
SH13b	80	0	0	0	0	0	0	0	40	0	80	0	0	0	7884	8175	25100	14199
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**-**	**3661**	**0**	**1281**	**4214**	**5**	**596**	**0**	**3359**	**9992**	**13774**	**6507**	**1493**	**26596**	**25101**	**80341**	**128121**	**77741**
SHTOb	**6177**	**6507**	**0**	**5754**	**6355**	**122**	**596**	**18**	**5674**	**10017**	**14024**	**7729**	**15440**	**28689**	**73865**	**111411**	**141469**	**88576**
NS14a	-	0	0	0	0	0	0	0	0	0	66	0	0	0	8	34	341	27
NS14b	0	0	0	0	0	0	0	0	0	0	66	0	0	0	8	43	420	27
NS15a	-	0	0	0	0	0	-	0	0	0	0	0	16	0	0	-	4125	2373
NS15b	0	0	0	0	0	0	0	0	0	0	0	0	16	8	0	2983	5790	2621
NS16a	-	0	0	0	0	0	0	-	0	0	0	5	2	-	-	10	-	850
NS16b	3	0	0	3	3	0	0	0	3	3	3	5	2	0	0	190	188	860
NS17a	-	0	0	0	0	0	0	0	0	30	0	0	0	0	-	70	837	200
NS17b	0	0	0	0	0	0	0	0	0	30	0	0	0	0	32	70	883	200
NS18a	-	0	0	8	0	0	0	0	0	250	0	250	100	0	267	1084	1215	6799
NS18b	125	0	0	133	125	0	0	0	125	250	125	250	100	117	284	1627	4869	6805
NS19a	-	39	0	0	1750	0	0	0	0	0	0	10	30	0	10	0	-	3319
NS19b	0	39	0	0	1750	0	0	0	0	0	0	10	30	0	10	2241	2301	3319
NS20a	-	0	39	6	1040	0	200	0	11	0	200	0	628	3000	500	15005	-	6130
NS20b	190	0	39	196	1040	0	200	39	201	190	200	190	628	3000	506	20460	9631	11202
NS21a	-	2490	0	-	0	0	-	-	-	-	-	0	710	0	990	-	-	2712
NS21b	0	2490	0	0	0	0	0	0	0	0	0	0	710	0	990	91	91	2712
NS22a	-	0	0	0	0	0	0	0	0	0	0	0	0	220	141	1190	970	2763
NS22b	0	0	0	0	0	0	0	0	0	0	0	0	10	220	141	1802	1582	3375
NSTOa	**0**	**2529**	**39**	**14**	**2790**	**0**	**200**	**0**	**11**	**280**	**266**	**265**	**1486**	**3220**	**1916**	**17393**	**7488**	**25173**
NSTOb	**318**	**2529**	**39**	**332**	**2918**	**0**	**200**	**39**	**329**	**473**	**394**	**455**	**1496**	**3345**	**1971**	**29507**	**25755**	**31121**
NL22a	0	0	0	0	0	-	0	0	0	0	0	0	70	0	3080	-	12085	9450
NL22b	0	0	0	0	0	0	0	0	0	0	0	0	70	0	3080	5000	12085	9450
NL23a	0	1	-	-	3023	-	8	-	2	-	-	2	-	828	4734	-	13821	7203
NL23b	1050	1001	1050	50	3023	1050	58	1050	1002	1053	1050	1002	500	1328	4734	7250	21346	8203
NL24a	0	930	0	5363	315	0	120	0	820	770	710	250	4610	1190	2735	-	6880	2089
NL24b	0	930	0	5363	315	0	120	0	820	770	710	250	4610	1190	2735	3000	6880	2089
NL25a	0	251	2	285	332	14	25	0	251	281	15	1	450	3705	4850	-	25829	23513
NL25b	5	256	2	290	332	154	25	0	256	281	15	2	2950	3705	4850	12500	27629	23513
NL26a	23	4805	2	6955	4152	-	1032	-	2353	12594	11288	8950	205	3523	3310	-	8969	5352
NL26b	23	4805	2	6955	4152	1000	1032	1000	2353	12594	11288	8950	205	3523	3310	2500	8969	5352
NL27a	-	9000	-	-	-	-	-	-	-	220	-	-	13000	30000	6500	-	16300	15000
NL27b	5000	9000	5000	5000	5000	5000	5000	5000	5000	220	5000	5000	13000	30000	6500	4000	16300	15000
NL28a	208	7025	1815	13675	3986	1270	8003	2	7672	10941	5654	4001	3815	6001	3975	-	19694	10731
NL28b	208	7025	1815	13675	3986	1270	8003	2	7672	10941	5654	4001	6815	6001	3975	19000	19694	10731
NL29a	0	1365	505	2200	5	163	1406	334	544	130	800	282	1205	2300	2950	-	3315	6055
NL29b	0	1365	505	2200	5	163	1406	334	544	130	800	282	1205	2300	2950	2500	3315	6055
NLTOa	**231**	**23377**	**2324**	**28478**	**11813**	**1447**	**10594**	**336**	**11642**	**24936**	**18467**	**13486**	**23355**	**47547**	**32134**	**-**	**106893**	**79393**
NLTOb	**6286**	**24382**	**8374**	**33533**	**16813**	**8637**	**15644**	**7386**	**17647**	**25989**	**24517**	**19487**	**29355**	**48047**	**32134**	**55750**	**116218**	**80393**
TOTAa	**231**	**29787**	**2513**	**29796**	**18840**	**1454**	**11426**	**336**	**15857**	**41738**	**33807**	**29705**	**35328**	**88832**	**67964**	**107159**	**300407**	**216916**
TOTAb	**12781**	**33638**	**8563**	**39642**	**26109**	**8761**	**16476**	**7443**	**24495**	**43009**	**40235**	**37118**	**55285**	**91550**	**116783**	**213363**	**341347**	**234699**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	2949	3642	3980	6199	2440	3215	0	350	56	341	45	886	25	93	214	250	1	450
DK01b	2949	3642	3980	6199	2440	3215	0	350	56	341	45	886	25	93	214	250	1	450
DK02a	14208	14466	4664	8831	15130	9255	102	8680	511	6560	161	2695	8481	570	209	12402	600	1775
DK02b	14208	14466	4664	8831	15130	12000	102	8680	511	6560	161	2695	8481	570	209	12402	600	1775
DK03a	17025	9988	13540	11320	11465	10327	667	4300	2335	5638	820	14430	8843	2913	5391	6126	13500	3795
DK03b	17025	9988	13540	11320	11465	10327	667	4300	2335	5638	820	14430	8843	2913	5391	6126	13500	3795
DK04a	10087	6507	5360	5370	4600	5320	93	2610	38	695	4071	2708	100	466	335	285	10	50
DK04b	10087	6507	5360	5370	4600	5320	93	2610	38	695	4071	2708	100	466	335	285	10	50
DK05a	6860	3209	1145	5502	9180	4734	130	55	199	2470	49	157	2512	300	141	4123	2500	186
DK05b	6860	3209	1145	5502	9180	8000	130	55	199	2470	49	157	2512	300	141	4123	2500	186
DKTOa	**51129**	**37812**	**28689**	**37222**	**42815**	**32851**	**992**	**15995**	**3139**	**15704**	**5146**	**20876**	**19961**	**4342**	**6290**	**23186**	**16611**	**6256**
DKTOb	**51129**	**37812**	**28689**	**37222**	**42815**	**38862**	**992**	**15995**	**3139**	**15704**	**5146**	**20876**	**19961**	**4342**	**6290**	**23186**	**16611**	**6256**
SH06a	16945	8892	5431	4873	2116	5870	67	3259	1336	2009	722	4875	668	1242	3354	3185	3219	2392
SH06b	16965	14121	12471	8771	7393	7536	137	4388	1467	2700	1591	5829	1193	2103	4514	3226	3569	3506
SH07a	11168	25305	14710	11942	1840	5864	3	4522	2070	6017	5112	929	4505	169	5700	1380	3801	1468
SH07b	11284	26071	16992	13418	7820	5980	3	7432	3083	6017	5460	1909	4682	770	5702	1828	4112	3395
SH08a	17233	26533	17365	15273	8529	7996	710	5514	3834	2936	434	59	1210	792	4132	1138	3600	27
SH08b	17323	26533	17365	16523	8891	8311	710	5514	3929	2936	530	59	1243	792	4149	1155	3617	1261
SH09a	15082	3994	9187	36745	34383	14534	478	13032	1884	3439	830	1558	0	5100	15	4701	1110	3771
SH09b	15282	6544	9875	37608	37591	18556	479	17430	9245	9619	7203	2821	4916	8602	3238	7139	1543	3772
SH10a	13571	9035	5170	7621	7662	11372	543	5098	320	2903	257	1257	1800	1085	2373	587	0	422
SH10b	13664	16237	12391	9314	11055	11767	589	5098	2231	3006	1680	2857	3400	1177	2973	1187	0	422
SH11a	20671	6400	8919	6341	1600	7023	1304	878	0	4080	43	60	2	961	15	133	650	211
SH11b	22796	10575	13094	6591	7460	9148	1484	878	3295	4276	3542	2094	2003	961	199	133	850	211
SH12a	1700	6230	12165	8565	10080	9800	1183	1800	660	1021	876	1651	550	0	30	638	1	0
SH12b	5220	8081	14668	8565	14280	19154	1183	2293	671	1035	942	1652	551	4	30	638	1051	1050
SH13a	18415	11000	0	36995	0	11100	1037	0	60	450	242	435	0	1	0	0	2	0
SH13b	18415	24380	21438	45260	20784	26125	1037	13475	1212	772	753	435	435	331	0	0	2	0
SH14a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**114785**	**97389**	**72947**	**128355**	**66210**	**73559**	**5325**	**34103**	**10164**	**22855**	**8516**	**10824**	**8735**	**9350**	**15619**	**11762**	**12383**	**8291**
SHTOb	**120949**	**132542**	**118294**	**146050**	**115274**	**106577**	**5622**	**56508**	**25133**	**30361**	**21701**	**17656**	**18423**	**14740**	**20805**	**15306**	**14744**	**13617**
NS14a	225	334	168	739	281	403	-	1	51	35	133	2	4	0	200	43	0	0
NS14b	387	334	359	739	340	412	20	1	51	35	133	2	4	0	200	43	0	0
NS15a	7130	5175	4	5816	1540	62	10	3553	1245	0	200	10	80	35	0	0	0	505
NS15b	8620	6351	2087	6307	2451	3014	10	3553	2675	2100	200	2151	80	35	18	18	513	505
NS16a	2	30	70	295	100	119	-	100	40	40	681	0	0	0	-	-	0	6
NS16b	182	38	250	465	280	129	1	100	40	40	681	100	0	3	3	3	6	6
NS17a	960	875	764	3088	1285	1660	-	272	0	20	177	31	322	0	180	525	0	21
NS17b	1006	875	764	3088	1285	1660	0	272	0	20	177	31	322	0	180	525	0	21
NS18a	4721	6838	8897	7025	7662	1674	1250	1639	453	1265	833	985	82	0	62	376	24	17
NS18b	4721	6871	9800	10160	7870	5317	1407	3389	499	1269	837	1008	102	198	264	380	81	62
NS19a	4695	1800	2935	5179	3104	104	-	1569	100	1099	9	844	303	127	88	0	0	450
NS19b	5027	3663	4521	5894	3660	2345	864	1569	291	1211	88	844	472	441	322	402	5	450
NS20a	8480	1227	252	6381	780	3122	-	342	5020	8820	3689	10	4000	400	1000	45	0	139
NS20b	8815	10510	9586	11401	10042	12384	501	9342	7030	8836	3705	7016	4016	429	4027	3045	352	141
NS21a	-	920	1570	0	420	2506	-	0	-	0	280	-	1815	0	118	200	-	1980
NS21b	91	923	1570	3	511	2506	-	110	150	150	280	150	1815	0	118	200	240	1980
NS22a	0	4353	4674	8295	2592	1733	-	469	7	236	3	9	0	0	5	15	0	0
NS22b	2744	4965	5274	8307	2592	2333	0	469	9	238	3	11	9	0	5	15	0	0
NSTOa	**26213**	**21552**	**19334**	**36818**	**17764**	**11383**	**1260**	**7945**	**6916**	**11515**	**6005**	**1891**	**6606**	**562**	**1653**	**1204**	**24**	**3118**
NSTOb	**31593**	**34530**	**34211**	**46364**	**29031**	**30100**	**2803**	**18805**	**10745**	**13899**	**6104**	**11313**	**6820**	**1106**	**5137**	**4631**	**1197**	**3165**
NL22a	8564	16875	9915	9860	9725	11794	438	940	108	238	6	155	40	0	47	10	0	0
NL22b	8564	16875	9915	9860	9725	11794	438	940	108	238	6	155	40	0	47	10	0	0
NL23a	14237	2125	4390	13515	9030	11238	311	2420	2010	500	800	383	175	31	554	-	270	5
NL23b	15237	3125	5390	14515	10030	12238	411	2820	2860	3750	1600	2033	175	4031	554	4035	520	855
NL24a	2400	4240	6450	1825	4710	2615	3	8130	4310	5660	5370	3580	6960	3005	2270	-	3660	1300
NL24b	2400	4240	6450	1825	4710	2615	3	8130	4310	5660	5370	3580	6960	3005	2270	2300	3660	1300
NL25a	30798	18138	23180	14408	37000	38253	625	13220	1745	5275	3710	1073	3696	36	386	-	191	459
NL25b	30798	30488	23180	26758	37000	38253	625	14420	1995	5275	3710	1323	3696	36	386	260	191	459
NL26a	2783	10313	9325	6390	10090	6952	621	11875	15484	11593	8950	16868	11980	16011	10220	-	9876	5640
NL26b	2783	10313	9325	6390	10090	6952	621	11875	15484	11593	8950	16868	11980	16011	10220	9000	9876	5640
NL27a	6160	18000	5500	1300	9000	4860	670	8000	-	-	2200	-	-	2	-	-	160	-
NL27b	6160	18000	5500	1300	9000	4860	670	8000	750	750	2200	750	750	2	8000	8000	160	7000
NL28a	13742	22053	19895	5391	19180	15892	825	8955	7740	6312	5861	7333	4800	7367	7452	-	5612	4075
NL28b	15742	24053	19895	7391	19180	15892	1125	8955	7740	6312	6361	7833	4800	7467	7452	6100	5712	4175
NL29a	3545	-	11205	3893	-	1230	185	4115	725	3375	1255	1816	890	105	2162	-	2075	155
NL29b	3545	4500	11205	3893	4500	1230	185	4115	725	3375	1255	1816	890	105	2162	900	2075	155
NLTOa	**82229**	**91744**	**89860**	**56582**	**98735**	**92834**	**3678**	**57655**	**32122**	**32953**	**28152**	**31208**	**28541**	**26557**	**23091**	**10**	**21844**	**11634**
NLTOb	**85229**	**111594**	**90860**	**71932**	**104235**	**93834**	**4078**	**59255**	**33972**	**36953**	**29452**	**34358**	**29291**	**30657**	**31091**	**30605**	**22194**	**19584**
TOTAa	**274356**	**248497**	**210830**	**258977**	**225524**	**210627**	**11255**	**115698**	**52341**	**83027**	**47819**	**64799**	**63843**	**40811**	**46653**	**36162**	**50862**	**29299**
TOTAb	**288900**	**316478**	**272054**	**301568**	**291355**	**269373**	**13495**	**150563**	**72989**	**96917**	**62403**	**84203**	**74495**	**50845**	**63323**	**73728**	**54746**	**42622**

Table 26. Whimbrel *Numenius phaeopus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	1
DK01b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	3	1
DK02a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK02b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK03a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	14
DK03b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	14
DK04a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	19
DK04b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	4	19
DK05a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89	175
DK05b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89	175
DKTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**105**	**209**
DKTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**45**	**105**	**209**
SH06a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
SH06b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
SH07a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	26
SH07b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	1	2	26
SH08a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	10	10
SH08b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	11	10
SH09a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
SH09b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
SH10a	-	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	5	6
SH10b	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	0	6	6
SH11a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
SH11b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
SH12a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	15
SH12b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	15
SH13a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	55
SH13b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	43	8	55
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
SHTOa	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**3**	**33**	**140**
SHTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**69**	**46**	**35**	**140**
NS14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	25	35	27	41
NS14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	66	88	68
NS15a	-	0	0	0	0	0	-	0	0	0	0	0	0	0	0	-	8	22
NS15b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	38	51
NS16a	-	0	0	0	0	0	0	-	0	0	0	0	0	-	-	0	-	0
NS16b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS17a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	1
NS17b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	0	0	1
NS18a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	128	40	1	294
NS18b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	130	40	5	298
NS19a	-	1	0	0	0	0	0	0	0	0	0	0	0	28	0	80	-	34
NS19b	0	1	0	0	0	0	0	0	0	0	0	0	0	28	0	85	5	34
NS20a	-	0	0	0	0	0	0	0	0	0	0	0	3	0	0	51	-	0
NS20b	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	53	43	2
NS21a	-	0	0	-	0	0	-	-	-	-	-	0	0	0	0	-	-	0
NS21b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS22a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	40
NS22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	40
NSTOa	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**28**	**153**	**212**	**36**	**432**
NSTOb	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**28**	**202**	**280**	**179**	**494**
NL22a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	105
NL22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	105
NL23a	0	0	0	0	0	0	0	0	0	0	0	0	1	-	-	-	3	39
NL23b	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	39
NL24a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	4
NL24b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
NL25a	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	-	9	32
NL25b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	32
NL26a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	13	23
NL26b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	23
NL27a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL28a	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	-	14	9
NL28b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	14	9
NL29a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0
NL29b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**-**	**39**	**212**
NLTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**70**	**49**	**212**
TOTAa	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**30**	**154**	**215**	**213**	**993**
TOTAb	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**30**	**272**	**441**	**368**	**1055**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	22	35	49	7	0	0	0	59	0	0	0	0	0	0	0	0	0	0
DK01b	22	35	49	7	0	0	0	59	0	0	0	0	0	0	0	0	0	0
DK02a	20	243	2	7	12	0	0	17	60	8	0	0	0	0	0	0	0	0
DK02b	20	243	2	7	12	0	0	17	60	8	0	0	0	0	0	0	0	0
DK03a	1	241	78	1	0	0	0	2	60	0	0	0	0	1	0	12	0	2
DK03b	1	241	78	1	0	0	0	2	60	0	0	0	0	1	0	12	0	2
DK04a	8	25	2	9	11	15	2	139	0	0	1	0	0	0	0	0	0	0
DK04b	8	25	2	9	11	15	2	139	0	0	1	0	0	0	0	0	0	0
DK05a	413	107	2	74	10	8	0	1	35	0	0	26	0	0	0	0	0	0
DK05b	413	107	2	74	10	8	0	1	35	0	0	26	0	0	0	0	0	0
DKTOa	**464**	**651**	**133**	**98**	**33**	**23**	**2**	**218**	**155**	**8**	**1**	**26**	**0**	**1**	**0**	**12**	**0**	**2**
DKTOb	**464**	**651**	**133**	**98**	**33**	**23**	**2**	**218**	**155**	**8**	**1**	**26**	**0**	**1**	**0**	**12**	**0**	**2**
SH06a	15	0	2	15	3	41	0	44	1	10	1	1	0	0	0	0	0	0
SH06b	15	1	3	17	5	41	0	104	1	11	2	1	43	0	0	0	0	0
SH07a	0	12	0	0	0	0	0	88	0	48	2	2	0	0	0	30	0	0
SH07b	0	12	0	0	0	0	0	88	0	48	25	2	0	0	0	30	0	0
SH08a	3	176	9	2	24	22	0	41	31	7	2	0	2	0	0	0	2	0
SH08b	3	176	9	2	24	22	0	41	34	7	7	0	2	0	0	0	2	0
SH09a	0	0	2	0	10	0	0	2	0	1	0	0	0	0	0	0	0	0
SH09b	0	0	2	0	10	0	0	2	0	1	0	0	0	0	0	0	0	0
SH10a	4	21	2	3	10	0	0	6	0	1	3	0	1	0	0	0	0	0
SH10b	4	21	2	3	10	0	0	6	3	2	4	0	1	0	0	0	0	0
SH11a	8	0	0	3	0	2	0	0	0	0	0	0	0	196	0	0	0	0
SH11b	8	2	2	3	2	2	0	0	3	0	0	0	0	196	29	0	0	0
SH12a	0	2	2	0	3	0	0	7	2	1	0	0	0	0	0	1	0	0
SH12b	2	3	3	0	3	0	0	8	3	1	1	2	1	0	0	1	0	0
SH13a	6	24	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
SH13b	6	47	23	0	0	0	0	6	0	1	0	0	0	0	0	0	0	0
SH14a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**36**	**235**	**17**	**23**	**50**	**65**	**0**	**188**	**34**	**69**	**8**	**3**	**3**	**196**	**0**	**31**	**2**	**0**
SHTOb	**38**	**262**	**44**	**25**	**54**	**65**	**0**	**255**	**44**	**71**	**39**	**5**	**47**	**196**	**29**	**31**	**2**	**0**
NS14a	46	39	37	0	74	7	-	22	12	9	11	0	0	0	0	0	0	0
NS14b	73	56	88	27	122	65	0	22	12	9	11	0	0	0	0	0	0	0
NS15a	0	1	56	2	0	2	0	11	0	0	0	0	0	0	1	10	0	0
NS15b	30	29	58	32	30	31	0	11	0	0	0	0	0	0	1	10	105	0
NS16a	0	0	0	0	0	2	-	0	1	0	0	0	80	12	-	-	0	0
NS16b	0	0	0	0	0	2	0	0	1	0	0	0	80	12	0	0	0	0
NS17a	0	0	0	0	0	0	-	0	0	7	0	0	0	0	0	0	20	0
NS17b	0	0	0	0	0	0	0	20	0	7	0	0	0	0	0	0	20	0
NS18a	21	163	6	9	63	20	0	17	6	34	2	2	0	0	0	0	0	0
NS18b	21	163	6	9	63	20	0	26	6	34	2	2	0	0	0	0	0	0
NS19a	113	16	6	3	252	20	-	7	0	56	3	0	0	163	32	0	0	0
NS19b	114	16	11	3	257	25	7	7	0	56	3	0	0	163	32	6	0	0
NS20a	24	4	0	56	3	0	-	0	14	0	12	0	14	45	0	0	0	0
NS20b	26	45	43	56	44	41	0	66	14	0	12	12	14	45	0	0	0	0
NS21a	-	0	0	0	0	0	-	0	-	0	26	-	0	0	0	0	-	0
NS21b	0	0	0	0	0	0	-	0	0	0	26	0	0	0	0	0	0	0
NS22a	0	20	12	1	0	0	-	6	0	42	0	0	0	0	0	0	0	0
NS22b	0	20	12	1	0	0	0	6	0	42	0	0	0	0	0	0	0	0
NSTOa	**204**	**243**	**117**	**71**	**392**	**51**	**0**	**63**	**33**	**148**	**54**	**2**	**94**	**220**	**33**	**10**	**20**	**0**
NSTOb	**264**	**329**	**218**	**128**	**516**	**184**	**7**	**158**	**33**	**148**	**54**	**14**	**94**	**220**	**33**	**16**	**125**	**0**
NL22a	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0
NL22b	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0
NL23a	21	1	-	5	-	1	2	-	-	-	-	-	0	5	100	-	-	-
NL23b	21	1	0	5	0	1	2	0	0	0	0	0	0	5	100	50	0	0
NL24a	2	9	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0
NL24b	2	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL25a	13	60	0	2	0	29	0	-	-	65	4	-	0	0	0	-	0	0
NL25b	13	60	0	2	0	29	0	0	0	65	4	0	0	0	0	0	0	0
NL26a	15	3	0	39	0	0	0	0	0	18	20	10	0	0	1	-	0	0
NL26b	15	3	0	39	0	0	0	0	0	18	20	10	0	0	1	0	0	0
NL27a	0	0	0	0	0	0	0	0	-	-	0	-	-	0	-	-	0	-
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL28a	79	16	0	30	0	0	0	0	15	3	9	-	0	-	0	-	-	-
NL28b	79	16	0	30	0	0	0	0	15	3	9	0	0	0	0	0	0	0
NL29a	0	0	0	61	0	0	0	0	0	2	198	2	0	0	0	-	0	0
NL29b	0	0	0	61	0	0	0	0	0	2	198	2	0	0	0	0	0	0
NLTOa	**130**	**89**	**0**	**138**	**0**	**30**	**2**	**0**	**15**	**88**	**233**	**12**	**0**	**5**	**101**	**0**	**0**	**0**
NLTOb	**130**	**89**	**0**	**138**	**0**	**30**	**2**	**0**	**15**	**88**	**233**	**12**	**0**	**5**	**101**	**50**	**0**	**0**
TOTAa	**834**	**1218**	**267**	**330**	**475**	**169**	**4**	**469**	**237**	**313**	**296**	**43**	**97**	**422**	**134**	**53**	**22**	**2**
TOTAb	**896**	**1331**	**395**	**389**	**603**	**302**	**11**	**631**	**247**	**315**	**327**	**57**	**141**	**422**	**163**	**109**	**127**	**2**

Table 27. Curlew *Numenius arquata*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	438	0	10	21	302	1	132	150	282	117	123	42	361	373	0	23	43
DK01b	0	438	0	10	21	302	1	132	150	282	117	123	42	361	373	370	23	43
DK02a	0	255	0	1146	428	4	457	222	875	982	1184	1143	19	380	216	30	22	79
DK02b	0	255	0	1146	428	4	457	222	875	982	1184	1143	19	380	216	210	22	79
DK03a	1500	174	0	300	296	0	2	0	543	141	129	55	264	140	1268	11	102	257
DK03b	1500	174	0	300	296	0	2	0	543	141	129	55	264	140	1268	1250	102	257
DK04a	0	360	200	801	37	0	0	0	365	116	502	137	2	270	221	50	12	184
DK04b	0	360	200	801	37	0	0	0	365	116	502	137	2	270	221	220	12	184
DK05a	0	0	0	36	3	1	0	1	438	1021	170	2596	7	15	1053	50	204	551
DK05b	0	0	0	36	3	1	0	1	438	1021	170	2596	7	15	1053	980	204	551
DKTOa	**1500**	**1227**	**200**	**2293**	**785**	**307**	**460**	**355**	**2371**	**2542**	**2102**	**4054**	**334**	**1166**	**3131**	**141**	**363**	**1114**
DKTOb	**1500**	**1227**	**200**	**2293**	**785**	**307**	**460**	**355**	**2371**	**2542**	**2102**	**4054**	**334**	**1166**	**3131**	**3030**	**363**	**1114**
SH06a	-	81	0	412	2283	0	1864	1	1330	2161	2459	334	640	1004	253	134	12	185
SH06b	1917	868	0	1216	2845	23	1864	24	2200	2164	2459	1235	1413	2241	422	405	88	255
SH07a	-	300	120	1270	1340	180	820	185	530	4223	4211	2259	0	985	100	712	5	1249
SH07b	3462	2644	135	2945	3282	610	969	720	1382	4657	4827	5313	2435	1882	1223	845	138	1390
SH08a	-	7032	1042	2642	4671	1391	1352	1873	8140	8040	7217	7332	1660	4805	698	4266	304	632
SH08b	6192	8567	1042	3617	5675	1542	2762	2025	10077	8787	7964	8079	3926	4830	2769	4366	716	732
SH09a	-	2252	1470	25	1278	661	854	50	2064	1118	31	700	420	1200	515	1208	81	87
SH09b	3293	3685	1470	3546	3663	1921	2114	1410	4223	3653	2747	2931	3777	2961	1540	1568	163	87
SH10a	-	2874	3350	1177	1858	1780	798	202	3459	4027	8537	7368	980	2537	928	509	259	326
SH10b	6790	2973	3530	2949	6080	4685	3298	2882	4711	4157	9568	8804	2482	4154	1027	714	366	392
SH11a	-	7	210	1650	2360	0	67	350	2123	4199	2862	2339	1052	1387	413	0	39	317
SH11b	2264	1373	216	1685	2360	50	117	400	2822	4199	3387	2348	1139	1407	413	722	39	317
SH12a	-	0	4	1351	1578	0	0	0	392	1524	9558	0	0	2320	1510	1900	1350	1834
SH12b	2911	1333	4	2684	1583	4	4	4	3132	2924	11208	2505	5277	2320	1630	2403	1350	1834
SH13a	-	0	0	135	0	0	209	0	1308	3284	2243	1898	0	0	0	0	251	537
SH13b	1906	2898	117	2593	2025	75	209	25	2288	3509	2243	1898	1491	1561	2101	1562	251	537
SH14a	-	0	0	0	1	0	0	0	0	0	2	0	5	0	13	1	0	2
SH14b	0	1	0	0	1	0	0	0	0	0	2	0	5	0	13	2	0	2
SHTOa	**-**	**12546**	**6196**	**8662**	**15369**	**4012**	**5964**	**2661**	**19346**	**28576**	**37120**	**22230**	**4757**	**14238**	**4430**	**8730**	**2301**	**5169**
SHTOb	**28735**	**24342**	**6514**	**21235**	**27514**	**8910**	**11337**	**7490**	**30835**	**34050**	**44405**	**33113**	**21945**	**21356**	**11138**	**12587**	**3111**	**5546**
NS14a	-	22	0	354	49	0	156	17	389	1460	483	545	146	315	34	162	241	262
NS14b	334	58	17	488	52	0	156	17	389	1463	488	548	146	315	34	240	266	279
NS15a	-	4801	315	115	1000	0	-	0	4185	1945	1754	3168	6001	767	3000	-	74	2253
NS15b	4667	4801	315	3380	4865	291	291	265	5523	3884	4324	5093	6001	3373	4330	1159	1030	3084
NS16a	-	4110	2020	1200	6	245	48	-	3140	590	720	4983	2624	-	-	1050	-	541
NS16b	4729	4222	2053	3979	4716	245	648	661	5438	4950	5080	7295	2704	2183	1870	1168	356	548
NS17a	-	3930	3592	1011	3006	0	1529	0	10949	3437	3778	2902	3230	4456	-	282	64	240
NS17b	2201	4254	3592	1291	3286	408	1529	8	10949	3444	3790	2902	3260	4901	3938	356	262	309
NS18a	-	6008	5100	3768	3013	997	5960	2950	13937	13660	8397	12518	7619	5799	5234	3476	988	1751
NS18b	10442	8252	5901	8450	10471	1692	6280	3965	18620	16147	13079	12583	9199	8095	6607	4061	1804	1751
NS19a	-	6406	4343	5493	2639	1908	452	0	2860	15385	9930	17861	5311	1202	3419	6	-	768
NS19b	10077	6942	4743	8899	7699	2708	3773	3621	8366	15479	10994	17873	7208	5377	3419	1177	1178	768
NS20a	-	4317	6285	1113	1979	55	50	178	2746	2782	4437	3517	4289	4779	884	2821	-	4038
NS20b	4916	5279	6401	3806	4170	5042	5154	5216	4842	5773	5646	5426	5207	5531	1723	5884	5761	7040
NS21a	-	3270	135	-	209	500	-	-	-	-	-	0	1660	97	1990	-	-	162
NS21b	3281	3674	135	3281	613	630	383	383	3281	3281	3281	3281	2482	103	1990	112	112	162
NS22a	-	1594	258	2457	5	0	122	300	382	1858	6090	3015	811	1619	519	404	63	45
NS22b	456	1594	258	2457	5	310	401	331	382	1858	6090	3015	1875	1769	519	443	102	64
NSTOa	**0**	**34458**	**22048**	**15511**	**11906**	**3705**	**8317**	**3445**	**38588**	**41117**	**35589**	**48509**	**31691**	**19034**	**15080**	**8201**	**1430**	**10060**
NSTOb	**41103**	**39076**	**23415**	**36031**	**35877**	**11326**	**18615**	**14467**	**57790**	**56279**	**52772**	**58016**	**38082**	**31647**	**24430**	**14600**	**10871**	**14005**
NL22a	32	845	155	625	145	-	462	12	707	1408	1082	960	960	625	1810	-	13	129
NL22b	32	845	155	625	145	550	462	12	707	1408	1082	960	960	625	1810	100	13	129
NL23a	12260	13840	4810	4810	31825	7010	16108	3417	26198	-	10186	13984	5480	12022	9428	-	199	1006
NL23b	25760	22340	18310	9810	31825	19510	21108	16917	34698	23400	23686	22484	9480	15022	9428	2100	2949	1106
NL24a	1320	1650	3700	2360	4055	2490	2780	480	3865	3350	3175	3070	4930	4405	2660	-	60	216
NL24b	1320	1650	3700	2360	4055	2490	2780	480	3865	3350	3175	3070	4930	4405	2660	300	60	216
NL25a	25805	6620	15535	5950	31674	15896	30529	9577	15586	35042	19132	18770	9735	24741	8780	-	1475	1345
NL25b	26555	7370	15535	6700	31674	22896	30529	9577	16336	35042	19132	31997	18435	24741	8780	2700	1665	1345
NL26a	27425	4970	17095	3680	12328	-	13376	-	3802	6315	6023	10080	3250	6796	2750	-	343	218
NL26b	27425	4970	17095	3680	12328	10000	13376	10000	3802	6315	6023	10080	3250	6796	2750	3700	343	218
NL27a	-	800	-	-	-	-	-	-	-	3500	-	-	4000	850	1220	-	80	560
NL27b	550	800	550	550	550	550	550	550	550	3500	550	550	4000	850	1220	100	80	560
NL28a	3417	4922	6170	6515	7020	5358	6148	416	7692	9513	7126	10522	2575	6167	2150	-	584	827
NL28b	3517	5022	6270	6515	7120	5458	6148	516	7692	9613	7226	10622	4925	6167	2150	2000	584	827
NL29a	4645	1655	400	1345	6737	1505	4480	840	6755	2290	4053	1151	3230	6880	2165	-	210	879
NL29b	4645	1655	400	1345	6737	1505	4480	840	6755	2290	4053	1151	3230	6880	2165	1500	210	879
NLTOa	**74904**	**35302**	**47865**	**25285**	**93784**	**32259**	**73883**	**14742**	**64605**	**61418**	**50777**	**58537**	**34160**	**62486**	**30963**	**-**	**2964**	**5180**
NLTOb	**89804**	**44652**	**62015**	**31585**	**94434**	**62959**	**79433**	**38892**	**74405**	**84918**	**64927**	**80914**	**49210**	**65486**	**30963**	**12500**	**5904**	**5280**
TOTAa	**76404**	**83533**	**76309**	**51751**	**121844**	**40283**	**88624**	**21203**	**124910**	**133653**	**125588**	**133330**	**70942**	**96924**	**53604**	**17072**	**7058**	**21523**
TOTAb	**161142**	**109297**	**92144**	**91144**	**158610**	**83502**	**109845**	**61204**	**165401**	**177789**	**164206**	**176097**	**109571**	**119655**	**69662**	**42717**	**20249**	**25945**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	50	30	53	92	3	0	4	111	195	2	335	36	50	259	144	4	103	240
DK01b	50	30	53	92	3	5	4	111	195	2	335	36	50	259	144	4	103	240
DK02a	87	26	24	138	226	0	90	229	295	296	1260	7	419	1600	6	1423	1234	468
DK02b	87	26	24	138	226	200	90	229	295	296	1260	7	419	1600	6	1423	1234	468
DK03a	192	127	102	53	63	19	2	786	2610	15	193	1180	494	371	85	257	1521	1050
DK03b	192	127	102	53	63	60	2	786	2610	15	193	1180	494	371	85	257	1521	1050
DK04a	123	54	12	124	37	5	28	53	704	723	10	445	1722	987	320	1115	150	302
DK04b	123	54	12	124	37	30	28	53	704	723	10	445	1722	987	320	1115	150	302
DK05a	198	81	1	187	241	189	47	211	2	251	20	516	33	525	183	11	233	49
DK05b	198	81	1	187	241	240	47	211	2	251	20	516	33	525	183	11	233	49
DKTOa	**650**	**318**	**192**	**594**	**570**	**213**	**171**	**1390**	**3806**	**1287**	**1818**	**2184**	**2718**	**3742**	**738**	**2810**	**3241**	**2109**
DKTOb	**650**	**318**	**192**	**594**	**570**	**555**	**171**	**1390**	**3806**	**1287**	**1818**	**2184**	**2718**	**3742**	**738**	**2810**	**3241**	**2109**
SH06a	229	12	195	87	111	94	10	1415	2003	3470	1572	2166	620	1591	1245	342	558	1176
SH06b	229	134	266	160	152	94	205	1423	2027	3525	2212	3709	1888	3031	1246	849	2051	2707
SH07a	214	847	2	53	15	140	187	891	1050	1203	806	787	250	7645	20	2518	2130	745
SH07b	347	982	171	220	208	273	227	1266	2081	1303	1411	3463	2268	8373	21	2965	3094	1949
SH08a	540	1242	490	409	353	72	482	7461	7545	11800	4533	5557	5782	6220	5294	3132	7899	6250
SH08b	640	1342	493	427	353	73	482	7461	8051	11802	5935	5779	8182	6513	5974	4342	8145	6776
SH09a	161	291	83	356	171	146	97	3893	1528	2641	720	973	0	2175	531	1150	456	989
SH09b	161	298	154	381	226	355	97	4990	2737	4882	3342	3287	4085	6287	4292	5170	1067	1324
SH10a	182	366	58	328	346	60	742	4444	3860	6658	4012	4237	3980	4173	3332	2850	3589	4338
SH10b	184	369	61	331	373	62	747	4446	8183	9542	4279	4895	4541	4575	3632	4476	3617	4745
SH11a	59	430	21	54	10	257	98	2436	0	5599	1335	40	2941	1875	2302	400	2511	7955
SH11b	59	486	77	54	61	257	170	2436	9483	8882	6855	7305	8894	2287	2400	400	9222	7955
SH12a	1300	1002	842	953	717	800	1154	7600	2569	5353	4301	3326	8665	1572	6817	13912	4513	663
SH12b	1449	1051	999	953	847	959	1204	12006	2630	8454	4408	7593	8865	3415	6839	13934	7103	663
SH13a	1108	52	0	402	0	0	277	0	4	1870	31	4138	0	1127	34	0	1861	1351
SH13b	1108	74	221	412	211	291	277	4986	4974	4055	4974	4138	2868	1473	1716	2464	2313	1393
SH14a	0	0	1	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0
SH14b	0	0	1	0	0	0	4	0	3	0	0	0	0	0	0	0	1	0
SHTOa	**3793**	**4242**	**1692**	**2642**	**1723**	**1569**	**3048**	**28140**	**18562**	**38594**	**17310**	**21224**	**22238**	**26378**	**19575**	**24304**	**23517**	**23467**
SHTOb	**4177**	**4736**	**2443**	**2938**	**2431**	**2364**	**3413**	**39014**	**40169**	**52445**	**33416**	**40169**	**41591**	**35954**	**26120**	**34600**	**36613**	**27512**
NS14a	105	338	13	317	70	35	-	633	383	518	193	664	132	1726	299	140	734	857
NS14b	307	355	227	392	73	113	119	633	400	564	328	692	133	1767	300	301	741	857
NS15a	8	572	200	1997	422	3	0	6865	7902	200	11729	751	2550	5487	1224	50	2677	8562
NS15b	690	1209	1099	2416	1334	1157	250	6865	12851	7278	11729	9164	2614	10828	6848	6250	9581	8562
NS16a	458	14	9	250	150	145	-	5000	800	3140	5241	2581	7800	560	-	-	612	5545
NS16b	572	252	127	361	268	152	201	5000	928	3782	5241	5657	7834	2798	2438	2438	4062	5756
NS17a	161	2015	252	681	657	92	-	2238	1353	789	5729	1921	6300	1791	3877	917	11790	9384
NS17b	226	2020	326	686	722	157	12	2268	1649	1785	5735	1921	6300	1791	4077	1823	11790	9583
NS18a	1323	769	145	1975	849	297	850	1521	6717	8019	3575	6977	6402	13721	928	1374	9642	7434
NS18b	1323	844	639	2105	1199	778	1815	6474	10945	8020	3595	8478	6443	15731	7072	7026	10744	7761
NS19a	2915	334	31	1312	1006	0	-	11383	9558	9171	8034	8238	12640	12022	8062	2826	2060	7524
NS19b	2968	1391	1179	1343	1689	1171	2090	11383	12925	14640	8390	13576	13009	16850	14770	12089	8346	7840
NS20a	3491	202	90	3034	951	24	-	3258	4896	4995	3720	1441	11365	3535	4963	1869	1014	2070
NS20b	3531	5215	5790	6041	6005	5078	326	6258	7632	5582	4216	7581	11653	4388	8024	6455	3736	2712
NS21a	-	150	158	220	127	36	-	1845	-	890	590	-	2605	2545	308	777	-	3840
NS21b	112	156	171	226	226	49	-	1865	1740	1335	1885	1740	3900	2548	1280	1020	1037	4144
NS22a	10	168	138	101	213	3113	-	523	272	1115	238	1333	20	1073	489	411	419	169
NS22b	73	187	153	105	213	3128	126	523	279	1122	238	1340	411	2290	1399	1321	707	501
NSTOa	**8471**	**4562**	**1036**	**9887**	**4445**	**3745**	**850**	**33266**	**31881**	**28837**	**39049**	**23906**	**49814**	**42460**	**20150**	**8364**	**28948**	**45385**
NSTOb	**9802**	**11629**	**9711**	**13675**	**11729**	**11783**	**4939**	**41269**	**49349**	**44108**	**41357**	**50149**	**52297**	**58991**	**46208**	**38723**	**50744**	**47716**
NL22a	30	111	128	29	265	87	124	2325	855	426	965	1514	2920	1193	1313	452	631	1725
NL22b	30	111	128	29	265	87	124	2325	855	426	965	1514	2920	1193	1313	452	631	1725
NL23a	1114	1169	334	1206	1290	1045	2045	15470	18310	5000	2070	13209	17635	16359	21968	-	17016	5380
NL23b	1214	1269	434	1306	1390	1145	2145	18470	22810	26000	12070	27709	17635	27109	21968	20750	22016	16380
NL24a	790	18	245	40	280	312	575	5030	7065	4200	6450	5725	9925	6100	4337	-	6285	4535
NL24b	790	18	245	40	280	312	575	5030	7065	4200	6450	5725	9925	6100	4337	6000	6285	4535
NL25a	2631	2437	1220	1144	2530	1482	1565	35955	38250	64383	14205	28005	36590	40349	21413	-	17202	18555
NL25b	2631	2937	1220	1644	2530	1482	1565	38955	40750	64383	14205	30505	36590	40349	21413	26500	17202	18555
NL26a	2662	567	370	377	515	489	547	12085	10450	9140	9050	8045	9465	9075	7072	-	7239	5040
NL26b	2662	567	370	377	515	489	547	12085	10450	9140	9050	8045	9465	9075	7072	6500	7239	5040
NL27a	217	160	250	250	83	98	470	2500	-	-	2600	-	-	1130	-	-	3600	-
NL27b	217	160	250	250	83	98	470	2500	1700	1700	2600	1700	1700	1130	1200	1200	3600	1850
NL28a	1293	1045	544	783	355	328	607	10070	9746	14054	4340	10260	8530	7568	7753	-	5193	3120
NL28b	1293	1045	544	783	355	328	607	10070	9746	14054	4690	10610	8530	7618	7753	7850	5243	3170
NL29a	524	-	555	1414	-	667	300	5540	3090	8970	4585	11720	6445	10422	3536	-	2105	1765
NL29b	524	650	555	1414	650	667	300	5540	3090	8970	4585	11720	6445	10422	3536	4500	2105	1765
NLTOa	**9261**	**5507**	**3646**	**5243**	**5318**	**4508**	**6233**	**88975**	**87766**	**106173**	**44265**	**78478**	**91510**	**92196**	**67392**	**452**	**59271**	**40120**
NLTOb	**9361**	**6757**	**3746**	**5843**	**6068**	**4608**	**6333**	**94975**	**96466**	**128873**	**54615**	**97528**	**93210**	**102996**	**68592**	**73752**	**64321**	**53020**
TOTAa	**22175**	**14629**	**6566**	**18366**	**12056**	**10035**	**10302**	**151771**	**142015**	**174891**	**102442**	**125792**	**166280**	**164776**	**107855**	**35930**	**114977**	**111081**
TOTAb	**23990**	**23440**	**16092**	**23050**	**20798**	**19310**	**14856**	**176648**	**189790**	**226713**	**131206**	**190030**	**189816**	**201683**	**141658**	**149885**	**154919**	**130357**

Table 28. Spotted Redshank *Tringa erythropus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
DK01b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
DK02a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	2
DK02b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	2
DK03a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	6
DK03b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	16	6
DK04a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	4
DK04b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	7	4
DK05a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82	405
DK05b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	82	405
DKTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**114**	**424**
DKTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**60**	**114**	**424**
SH06a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	7	54
SH06b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	15	9	55
SH07a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	44
SH07b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	4	0	44
SH08a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	362	67
SH08b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	56	368	69
SH09a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH09b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH10a	-	0	0	0	0	0	0	0	0	2	0	0	0	0	4	141	513	322
SH10b	0	0	0	0	0	0	0	0	0	2	0	0	0	0	91	150	769	322
SH11a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	26	36
SH11b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	9	26	36
SH12a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	248	165
SH12b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	25	248	165
SH13a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	184	7762
SH13b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4317	4375	184	7762
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	6
SHTOa	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**10**	**222**	**1340**	**8456**
SHTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**4533**	**4635**	**1605**	**8459**
NS14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	38	57	0	49
NS14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	57	5	50
NS15a	-	0	0	0	0	0	-	0	0	0	0	0	0	0	0	-	120	1310
NS15b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	342	409	1564
NS16a	-	3	0	0	0	0	0	-	0	0	0	0	0	-	-	0	-	8
NS16b	0	3	0	0	0	0	0	0	0	0	0	0	0	0	5	104	104	108
NS17a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	20	349
NS17b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	25	351
NS18a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	28	5	50	96
NS18b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	11	53	98
NS19a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	265
NS19b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	105	110	265
NS20a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	-	3
NS20b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	16	4
NS21a	-	0	0	-	0	0	-	-	-	-	-	0	0	0	0	-	-	0
NS21b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS22a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	201	724	3065	1754
NS22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	201	724	3065	1754
NSTOa	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**267**	**829**	**3255**	**3834**
NSTOb	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**277**	**1393**	**3787**	**4194**
NL22a	0	0	0	0	0	-	0	0	0	0	0	0	0	0	150	-	2195	496
NL22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	0	2195	496
NL23a	0	-	-	1	0	-	-	-	-	-	10	0	3	-	179	-	54	370
NL23b	0	0	0	1	0	0	0	0	0	0	10	0	3	0	179	200	55	370
NL24a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	-	8	37
NL24b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	25	8	37
NL25a	0	-	6	3	0	0	0	0	29	2	20	0	13	0	50	-	496	744
NL25b	0	0	6	3	0	0	0	0	29	2	20	0	15	0	50	310	496	744
NL26a	0	0	0	0	0	-	0	-	3	0	0	0	0	0	0	-	16	8
NL26b	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	5	16	8
NL27a	-	0	-	-	-	-	-	-	-	0	-	-	0	0	0	-	0	2
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
NL28a	0	-	-	0	-	-	0	-	0	-	-	0	-	0	3	-	66	24
NL28b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	30	66	24
NL29a	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	-	336	418
NL29b	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	20	336	418
NLTOa	**0**	**0**	**6**	**4**	**0**	**0**	**0**	**0**	**32**	**2**	**31**	**0**	**17**	**0**	**383**	**-**	**3171**	**2099**
NLTOb	**0**	**0**	**6**	**4**	**0**	**0**	**0**	**0**	**32**	**2**	**31**	**0**	**19**	**0**	**383**	**590**	**3172**	**2099**
TOTAa	**0**	**3**	**6**	**4**	**0**	**0**	**0**	**0**	**32**	**4**	**31**	**0**	**17**	**0**	**660**	**1051**	**7880**	**14813**
TOTAb	**0**	**3**	**6**	**4**	**0**	**0**	**0**	**0**	**32**	**4**	**31**	**0**	**19**	**0**	**5193**	**6678**	**8678**	**15176**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	0	1	1	0	0	0	3	2	33	0	0	61	0	26	0	0	0	0
DK01b	0	1	1	0	0	0	3	2	33	0	0	61	0	26	0	0	0	0
DK02a	2	43	8	0	6	0	2	4	0	85	0	24	0	4	2	7	3	0
DK02b	2	43	8	0	6	10	2	4	0	85	0	24	0	4	2	7	3	0
DK03a	9	1	2	0	0	0	0	0	1	17	0	0	0	2	0	0	0	0
DK03b	9	1	2	0	0	0	0	0	1	17	0	0	0	2	0	0	0	0
DK04a	4	22	15	1	0	0	38	0	0	3	1	10	0	3	1	0	0	0
DK04b	4	22	15	1	0	5	38	0	0	3	1	10	0	3	1	0	0	0
DK05a	1002	819	11	93	27	22	95	0	6	235	6	274	0	3	3	0	2	0
DK05b	1002	819	11	93	27	30	95	0	6	235	6	274	0	3	3	0	2	0
DKTOa	**1017**	**886**	**37**	**94**	**33**	**22**	**138**	**6**	**40**	**340**	**7**	**369**	**0**	**38**	**6**	**7**	**5**	**0**
DKTOb	**1017**	**886**	**37**	**94**	**33**	**45**	**138**	**6**	**40**	**340**	**7**	**369**	**0**	**38**	**6**	**7**	**5**	**0**
SH06a	66	9	174	35	15	44	20	192	292	381	75	111	58	77	37	1	0	8
SH06b	67	29	175	36	16	44	58	196	294	383	79	116	65	91	37	2	0	8
SH07a	14	37	0	2	11	0	0	36	1	84	0	0	0	3	5	0	0	0
SH07b	14	37	0	2	11	0	10	36	1	84	6	3	3	3	5	0	0	0
SH08a	106	225	109	39	36	80	197	1079	182	641	520	64	649	96	113	3	0	13
SH08b	106	227	111	42	40	81	453	1079	207	721	550	144	692	96	113	4	0	13
SH09a	0	0	2	1	9	2	43	7	72	2	15	0	0	0	0	0	0	0
SH09b	0	0	2	1	9	2	43	10	72	3	16	2	0	0	0	0	35	35
SH10a	452	784	44	92	6	8	340	270	82	10	144	203	175	117	76	10	1	1
SH10b	457	1024	280	98	108	47	340	270	475	630	153	203	192	120	137	14	1	1
SH11a	408	130	165	119	2	44	30	108	0	0	79	0	12	32	5	8	3	1
SH11b	408	198	233	119	48	44	40	108	81	79	79	79	188	37	5	8	3	1
SH12a	5	132	7	93	4	0	138	66	162	486	130	827	9	37	58	47	0	1
SH12b	158	158	102	93	45	41	138	676	289	488	372	955	136	42	60	49	101	101
SH13a	1685	2690	0	246	0	0	734	0	80	300	15	1044	0	10	0	0	1	0
SH13b	1685	3810	1428	660	254	10	734	7476	521	521	957	1044	616	10	4	4	1	0
SH14a	3	2	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0
SH14b	3	2	0	1	0	0	2	2	0	0	0	0	0	0	0	0	0	0
SHTOa	**2739**	**4009**	**501**	**628**	**83**	**178**	**1504**	**1758**	**871**	**1904**	**978**	**2249**	**903**	**372**	**294**	**69**	**5**	**24**
SHTOb	**2898**	**5485**	**2331**	**1052**	**531**	**269**	**1818**	**9853**	**1940**	**2909**	**2212**	**2546**	**1892**	**399**	**361**	**81**	**141**	**159**
NS14a	109	4	1	8	30	18	-	489	93	26	85	31	17	13	20	29	0	11
NS14b	123	4	17	9	31	19	357	489	104	37	88	33	17	13	20	29	0	11
NS15a	413	620	0	1	0	8	11	4	165	42	0	0	6	0	0	0	2	0
NS15b	452	620	338	290	313	346	13	4	171	42	28	31	34	7	7	2	2	0
NS16a	100	262	1	100	0	0	-	0	1	0	0	0	10	14	-	-	0	0
NS16b	104	262	105	104	104	100	0	0	1	0	0	0	10	14	0	0	0	0
NS17a	11	894	27	6	60	0	-	65	0	0	2	4	40	0	0	8	3	0
NS17b	14	894	31	6	62	2	1	80	0	0	2	4	40	0	0	8	3	0
NS18a	280	148	18	81	16	27	0	196	62	113	105	24	299	4	2	47	4	4
NS18b	280	148	20	82	16	28	83	198	62	114	105	25	300	5	5	49	4	4
NS19a	236	65	6	51	0	0	-	1	1	178	0	102	109	138	0	0	0	0
NS19b	291	87	116	51	110	105	7	1	18	178	0	102	109	194	58	56	1	0
NS20a	242	16	3	20	1	0	-	5	3	7	3	0	1	0	5	20	0	75
NS20b	243	17	4	21	2	1	0	12	3	9	5	2	3	1	5	20	74	75
NS21a	-	0	0	0	0	0	-	3	-	0	0	-	5	0	0	0	-	0
NS21b	0	0	0	0	0	0	-	3	0	0	0	0	5	0	0	0	0	0
NS22a	0	1900	929	81	11	9	-	21	1	5	1	10	0	0	2	0	0	0
NS22b	871	1900	929	81	11	9	112	21	1	5	1	10	1	0	2	0	0	0
NSTOa	**1391**	**3909**	**985**	**348**	**118**	**62**	**11**	**784**	**326**	**371**	**196**	**171**	**487**	**169**	**29**	**104**	**9**	**90**
NSTOb	**2378**	**3932**	**1560**	**644**	**649**	**610**	**573**	**808**	**360**	**385**	**229**	**207**	**519**	**234**	**97**	**164**	**84**	**90**
NL22a	1922	2091	400	229	200	109	348	865	465	43	165	504	360	150	49	58	26	10
NL22b	1922	2091	400	229	200	109	348	865	465	43	165	504	360	150	49	58	26	10
NL23a	468	121	215	431	37	14	247	40	211	10	26	349	52	144	37	-	2	3
NL23b	468	121	215	431	37	14	247	40	211	145	41	364	52	144	37	120	2	3
NL24a	29	57	60	5	3	0	0	54	255	165	30	116	195	37	52	-	6	0
NL24b	29	57	60	5	3	0	0	54	255	165	30	116	195	37	52	110	6	0
NL25a	378	778	333	488	317	72	49	805	257	974	112	357	199	377	162	-	100	24
NL25b	378	793	333	503	317	72	49	805	257	974	112	357	199	377	162	205	100	24
NL26a	1	7	4	0	4	0	1	0	83	69	19	32	10	10	39	-	14	6
NL26b	1	7	4	0	4	0	1	0	83	69	19	32	10	10	39	35	14	6
NL27a	0	0	0	0	0	0	0	0	-	-	1	-	-	2	-	-	0	-
NL27b	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0
NL28a	47	23	17	5	30	14	10	471	14	31	16	10	89	49	29	-	1	12
NL28b	47	23	17	5	30	14	10	471	14	31	16	10	89	49	29	20	1	12
NL29a	25	-	235	137	-	307	15	835	350	975	775	970	630	1144	681	-	5	24
NL29b	25	200	235	137	200	307	15	835	350	975	775	970	630	1144	681	500	5	24
NLTOa	**2870**	**3077**	**1264**	**1295**	**591**	**516**	**670**	**3070**	**1635**	**2267**	**1144**	**2338**	**1535**	**1913**	**1049**	**58**	**154**	**79**
NLTOb	**2870**	**3292**	**1264**	**1310**	**791**	**516**	**670**	**3070**	**1635**	**2402**	**1159**	**2353**	**1535**	**1913**	**1049**	**1048**	**154**	**79**
TOTAa	**8017**	**11881**	**2787**	**2365**	**825**	**778**	**2323**	**5618**	**2872**	**4882**	**2325**	**5127**	**2925**	**2492**	**1378**	**238**	**173**	**193**
TOTAb	**9163**	**13595**	**5192**	**3100**	**2004**	**1440**	**3199**	**13737**	**3975**	**6036**	**3607**	**5475**	**3946**	**2584**	**1513**	**1300**	**384**	**328**

Table 29. Redshank *Tringa totanus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	203	300	20	404	2	58	0	197	166	89	129	143	356	308	60	68	42
DK01b	0	203	300	20	404	2	58	0	197	166	89	129	143	356	308	310	68	42
DK02a	0	113	232	418	295	120	146	121	48	450	530	610	156	265	235	75	312	427
DK02b	0	113	232	418	295	120	146	121	48	450	530	610	156	265	235	235	312	427
DK03a	0	35	4	75	168	0	0	0	19	246	142	115	90	60	1722	0	135	205
DK03b	0	35	4	75	168	0	0	0	19	246	142	115	90	60	1722	1715	135	205
DK04a	0	9	0	3	242	0	6	0	37	30	60	240	34	0	648	0	270	361
DK04b	0	9	0	3	242	0	6	0	37	30	60	240	34	0	648	648	270	361
DK05a	0	0	0	40	1	0	0	0	8	0	25	780	0	13	34	15	214	139
DK05b	0	0	0	40	1	0	0	0	8	0	25	780	0	13	34	85	214	139
DKTOa	**0**	**360**	**536**	**556**	**1110**	**122**	**210**	**121**	**309**	**892**	**846**	**1874**	**423**	**694**	**2947**	**150**	**999**	**1174**
DKTOb	**0**	**360**	**536**	**556**	**1110**	**122**	**210**	**121**	**309**	**892**	**846**	**1874**	**423**	**694**	**2947**	**2993**	**999**	**1174**
SH06a	-	178	1	38	83	1	3	4	13	360	136	238	135	652	237	249	195	272
SH06b	120	219	3	131	163	3	6	7	84	371	136	288	764	679	601	455	426	504
SH07a	-	164	205	9	300	63	65	5	6	92	568	447	0	58	115	298	342	329
SH07b	242	504	261	324	853	63	70	33	308	92	700	469	884	674	384	316	354	358
SH08a	-	528	21	607	539	5	79	0	97	237	351	557	135	353	105	856	1396	822
SH08b	311	705	21	629	584	10	80	9	174	243	357	563	349	458	638	1031	1504	915
SH09a	-	6	0	28	170	30	14	0	9	98	24	103	3	138	360	109	144	207
SH09b	22	72	12	86	198	30	14	8	40	126	47	131	152	184	361	110	163	207
SH10a	-	131	0	390	178	2	42	0	10	383	356	388	120	129	217	547	336	587
SH10b	268	160	0	458	373	22	42	0	39	383	373	457	258	225	639	778	420	596
SH11a	-	0	1	7	130	0	5	0	0	4	432	107	0	7	368	0	87	259
SH11b	175	51	2	7	130	0	5	0	0	4	432	107	0	16	383	206	102	307
SH12a	-	0	0	36	9	0	0	0	0	47	170	0	0	13	828	191	307	772
SH12b	45	19	0	55	9	0	0	0	72	66	198	37	106	13	908	244	307	772
SH13a	-	0	0	6	0	0	0	0	0	19	17	8	0	0	0	0	296	264
SH13b	19	3	0	8	3	0	0	0	10	22	17	8	0	0	241	290	296	264
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	19	17	12	40
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	52	47	50
SHTOa	**-**	**1007**	**228**	**1121**	**1409**	**101**	**208**	**9**	**135**	**1240**	**2054**	**1848**	**393**	**1350**	**2249**	**2267**	**3115**	**3552**
SHTOb	**1202**	**1733**	**299**	**1698**	**2313**	**128**	**217**	**57**	**727**	**1307**	**2260**	**2060**	**2513**	**2249**	**4201**	**3482**	**3619**	**3973**
NS14a	-	0	0	0	0	0	0	0	0	1	1	0	20	26	332	656	0	210
NS14b	0	0	0	0	0	0	0	0	0	1	1	0	20	26	332	659	183	214
NS15a	-	562	0	102	2	0	-	0	40	0	3	75	69	122	150	-	15	324
NS15b	47	562	0	107	47	0	0	0	45	45	48	75	69	213	613	674	482	744
NS16a	-	30	0	0	0	0	0	-	0	0	0	2	392	-	-	180	-	65
NS16b	1	30	0	1	1	0	0	0	1	1	1	2	392	0	191	686	508	497
NS17a	-	518	0	900	700	0	633	0	115	86	33	313	1315	1465	-	750	357	757
NS17b	70	558	0	900	700	20	633	20	115	86	73	313	1470	1465	3420	893	636	999
NS18a	-	1170	149	890	244	159	2052	221	2067	1520	598	1596	1379	997	5257	1750	918	1139
NS18b	773	1240	212	1108	837	159	2117	286	2285	1704	816	1621	1456	1086	5304	2159	1507	1367
NS19a	-	824	8	191	180	0	25	0	247	3142	1470	1531	234	90	779	291	-	1871
NS19b	1260	835	8	817	1009	0	30	5	1115	3142	1522	1531	424	1440	779	1421	1441	1871
NS20a	-	441	33	300	3091	0	51	0	52	140	144	341	280	903	597	83	-	277
NS20b	174	455	33	319	3099	3	51	19	108	199	229	449	351	909	638	397	381	329
NS21a	-	120	2	-	2	0	-	-	-	-	-	0	56	69	290	-	-	138
NS21b	17	135	2	17	17	0	1	1	17	17	17	17	71	69	290	75	75	138
NS22a	-	67	1	85	0	0	0	0	115	10	1	0	2	7	352	307	36	102
NS22b	6	67	1	85	0	1	1	1	115	10	1	0	73	47	352	367	96	141
NSTOa	**0**	**3732**	**193**	**2468**	**4219**	**159**	**2761**	**221**	**2636**	**4899**	**2250**	**3858**	**3747**	**3679**	**7757**	**4017**	**1326**	**4883**
NSTOb	**2348**	**3882**	**256**	**3354**	**5710**	**183**	**2833**	**332**	**3801**	**5205**	**2708**	**4008**	**4326**	**5255**	**11919**	**7331**	**5309**	**6300**
NL22a	0	160	2	11	1	-	29	0	27	14	35	79	3	81	1760	-	276	554
NL22b	0	160	2	11	1	30	29	0	27	14	35	79	3	81	1760	750	276	554
NL23a	400	1738	1375	2050	3011	395	608	3	597	-	1638	519	1052	2590	6057	-	5154	2031
NL23b	455	1738	1430	2105	3011	420	663	58	597	1205	1693	519	1072	2590	6057	2540	5168	2031
NL24a	0	100	0	260	170	2	109	0	90	190	295	595	510	385	450	-	100	42
NL24b	0	100	0	260	170	2	109	0	90	190	295	595	510	385	450	300	100	42
NL25a	1730	1905	295	2725	2827	55	1511	211	1711	1974	5758	1100	3390	2843	4785	-	7571	2581
NL25b	1735	1910	295	2730	2827	630	1511	211	1716	1974	5758	2350	4290	2843	4785	3700	7579	2581
NL26a	450	900	220	295	408	-	637	-	854	2079	680	2579	570	1031	400	-	936	369
NL26b	450	900	220	295	408	900	637	900	854	2079	680	2579	570	1031	400	1000	936	369
NL27a	-	80	-	-	-	-	-	-	-	130	-	-	300	350	43	-	0	0
NL27b	35	80	35	35	35	35	35	35	35	130	35	35	300	350	43	30	0	0
NL28a	180	1130	1254	815	751	614	1125	28	984	810	916	595	350	1643	507	-	357	129
NL28b	180	1130	1254	815	751	614	1125	28	984	810	916	595	850	1643	507	550	357	129
NL29a	575	1110	2670	870	87	1630	866	171	120	99	724	860	1250	2921	1690	-	417	714
NL29b	575	1110	2670	870	87	1630	866	171	120	99	724	860	1250	2921	1690	800	417	714
NLTOa	**3335**	**7123**	**5816**	**7026**	**7255**	**2696**	**4885**	**413**	**4383**	**5296**	**10046**	**6327**	**7425**	**11844**	**15692**	**-**	**14811**	**6420**
NLTOb	**3430**	**7128**	**5906**	**7121**	**7290**	**4261**	**4975**	**1403**	**4423**	**6501**	**10136**	**7612**	**8845**	**11844**	**15692**	**9670**	**14833**	**6420**
TOTAa	**3335**	**12222**	**6773**	**11171**	**13993**	**3078**	**8064**	**764**	**7463**	**12327**	**15196**	**13907**	**11988**	**17567**	**28645**	**6434**	**20251**	**16029**
TOTAb	**6980**	**13103**	**6997**	**12729**	**16423**	**4694**	**8235**	**1913**	**9260**	**13905**	**15950**	**15554**	**16107**	**20042**	**34759**	**23476**	**24760**	**17867**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	78	68	118	114	110	10	60	60	106	402	38	258	505	110	112	208	52	63
DK01b	78	68	118	114	110	110	60	60	106	402	38	258	505	110	112	208	52	63
DK02a	268	434	248	242	1895	75	226	890	706	771	304	656	1290	870	216	649	306	804
DK02b	268	434	248	242	1895	1500	226	890	706	771	304	656	1290	870	216	649	306	804
DK03a	158	174	741	91	990	198	186	1016	220	564	543	210	648	314	81	461	41	402
DK03b	158	174	741	91	990	900	186	1016	220	564	543	210	648	314	81	461	41	402
DK04a	553	383	1646	338	894	136	189	475	393	804	1021	373	901	189	85	205	61	92
DK04b	553	383	1646	338	894	750	189	475	393	804	1021	373	901	189	85	205	61	92
DK05a	408	37	59	271	340	416	238	5	23	30	14	44	90	10	40	15	32	35
DK05b	408	37	59	271	340	416	238	5	23	30	14	44	90	10	40	15	32	35
DKTOa	**1465**	**1096**	**2812**	**1056**	**4229**	**835**	**899**	**2446**	**1448**	**2571**	**1920**	**1541**	**3434**	**1493**	**534**	**1538**	**492**	**1396**
DKTOb	**1465**	**1096**	**2812**	**1056**	**4229**	**3676**	**899**	**2446**	**1448**	**2571**	**1920**	**1541**	**3434**	**1493**	**534**	**1538**	**492**	**1396**
SH06a	669	218	226	225	239	456	113	408	461	1693	211	435	756	617	463	437	92	262
SH06b	695	557	552	507	546	618	309	1180	705	1940	632	735	901	660	597	758	177	372
SH07a	474	1124	595	245	295	278	135	390	322	752	433	263	352	100	570	599	0	51
SH07b	485	1205	751	363	453	291	185	834	647	752	719	746	791	131	572	939	219	267
SH08a	510	762	788	474	633	631	940	2990	1219	1629	1905	645	520	313	2027	167	170	1112
SH08b	566	849	884	704	682	748	976	2991	1265	1629	1952	656	938	330	2038	191	179	1126
SH09a	82	194	545	157	10	122	177	584	518	187	70	152	14	50	1118	639	1	182
SH09b	82	208	570	187	176	140	177	891	716	509	244	214	402	426	1118	934	17	185
SH10a	320	453	61	373	502	390	612	1137	223	264	612	777	274	240	568	509	62	352
SH10b	336	489	226	390	692	430	612	1137	1011	690	688	789	301	255	664	703	81	376
SH11a	168	225	72	84	20	129	134	387	0	480	376	162	245	82	157	25	65	15
SH11b	216	233	80	132	167	129	242	387	669	995	376	418	522	105	178	25	138	15
SH12a	210	200	296	359	326	250	936	114	435	637	249	282	131	15	99	89	1	40
SH12b	379	265	362	359	360	351	1086	690	435	752	393	425	131	83	99	89	119	115
SH13a	465	1608	0	1167	0	30	177	0	15	421	76	959	0	486	13	0	37	17
SH13b	465	1683	306	1197	169	132	177	5495	952	736	952	959	589	912	62	66	49	124
SH14a	32	22	156	51	44	41	29	2	1	0	0	0	10	1	0	0	0	0
SH14b	37	42	156	61	49	58	38	5	1	0	0	0	10	1	0	0	0	0
SHTOa	**2930**	**4806**	**2739**	**3135**	**2069**	**2327**	**3253**	**6012**	**3194**	**6063**	**3932**	**3675**	**2302**	**1904**	**5015**	**2465**	**428**	**2031**
SHTOb	**3261**	**5531**	**3887**	**3900**	**3294**	**2897**	**3802**	**13610**	**6401**	**8003**	**5956**	**4942**	**4585**	**2903**	**5328**	**3705**	**979**	**2580**
NS14a	246	141	93	216	140	227	-	71	145	155	313	159	8	3	47	0	0	2
NS14b	264	141	191	234	210	234	17	71	157	167	313	159	8	3	47	2	0	2
NS15a	413	146	300	532	397	163	97	381	532	20	705	449	566	47	520	150	22	4
NS15b	880	468	746	827	953	717	152	381	774	61	705	654	591	142	540	210	143	4
NS16a	463	554	60	383	1	38	-	30	50	98	336	55	71	0	-	-	10	27
NS16b	539	556	566	427	507	500	0	30	153	115	381	127	79	1	11	11	19	27
NS17a	729	1248	703	1020	769	990	-	2300	404	512	1429	977	1123	928	291	426	450	135
NS17b	754	1283	846	1045	812	1023	1124	2380	413	772	1654	977	1123	928	291	499	450	335
NS18a	1328	1374	706	1256	1876	1802	50	3923	1301	2266	2442	2975	2228	1593	820	1589	805	950
NS18b	1380	1597	871	1331	1908	1905	932	4269	1439	2273	2449	3004	2535	1849	1118	1771	986	991
NS19a	1109	1756	50	1585	400	2	-	1741	1173	3452	3028	2226	2819	1188	560	271	150	645
NS19b	1647	2168	1443	1686	1721	1132	294	1741	2045	3868	3404	2354	3345	1588	1773	974	1737	909
NS20a	318	125	901	211	602	428	-	2747	869	133	354	313	1886	77	5529	870	0	224
NS20b	484	301	1085	279	731	557	159	2793	881	274	510	475	1935	200	5586	930	125	247
NS21a	-	0	220	50	188	159	-	37	-	78	75	-	625	284	29	17	-	8
NS21b	75	4	236	54	202	175	-	44	230	101	242	230	792	284	214	17	70	66
NS22a	51	905	149	209	55	0	-	424	32	87	219	31	33	0	0	67	0	650
NS22b	161	944	187	210	55	38	430	424	52	107	219	51	63	70	48	115	53	650
NSTOa	**4657**	**6249**	**3182**	**5462**	**4428**	**3809**	**147**	**11654**	**4506**	**6801**	**8901**	**7185**	**9359**	**4120**	**7796**	**3390**	**1437**	**2645**
NSTOb	**6184**	**7462**	**6171**	**6093**	**7099**	**6281**	**3108**	**12133**	**6144**	**7738**	**9877**	**8031**	**10471**	**5065**	**9628**	**4529**	**3583**	**3231**
NL22a	389	740	520	251	510	464	411	695	114	378	106	171	420	22	225	197	160	270
NL22b	389	740	520	251	510	464	411	695	114	378	106	171	420	22	225	197	160	270
NL23a	1803	192	980	2963	1178	3069	320	2772	4514	50	37	2583	1350	1484	3426	-	602	990
NL23b	1803	192	980	2963	1178	3069	320	2772	4514	3500	237	2783	1350	1809	3426	2325	602	1170
NL24a	25	148	175	102	425	51	35	1035	470	815	355	540	625	400	680	-	250	1540
NL24b	25	148	175	102	425	51	35	1035	470	815	355	540	625	400	680	625	250	1540
NL25a	686	3837	1796	5956	2213	3244	362	18600	6525	8239	9740	4953	6086	4132	3908	-	3739	5565
NL25b	686	3967	1796	6086	2213	3244	362	18630	6525	8239	9740	4953	6086	4132	3908	4500	3739	5565
NL26a	293	445	600	571	355	381	345	1845	1090	2066	1285	1476	1460	1162	705	-	1160	820
NL26b	293	445	600	571	355	381	345	1845	1090	2066	1285	1476	1460	1162	705	750	1160	820
NL27a	0	0	0	0	0	7	0	170	-	-	100	-	-	105	-	-	350	-
NL27b	0	0	0	0	0	7	0	170	100	100	100	100	100	105	50	50	350	120
NL28a	386	593	410	448	350	386	230	3660	2305	1739	2550	1340	1150	804	1904	-	1710	1605
NL28b	386	593	410	448	350	386	230	3660	2305	1739	2550	1340	1150	804	1904	1160	1710	1605
NL29a	227	-	475	1250	-	1217	285	2555	915	175	1835	2342	1215	1077	3297	-	345	880
NL29b	227	700	475	1250	700	1217	285	2555	915	175	1835	2342	1215	1077	3297	1500	345	880
NLTOa	**3809**	**5955**	**4956**	**11541**	**5031**	**8819**	**1988**	**31332**	**15933**	**13462**	**16008**	**13405**	**12306**	**9186**	**14145**	**197**	**8316**	**11670**
NLTOb	**3809**	**6785**	**4956**	**11671**	**5731**	**8819**	**1988**	**31362**	**16033**	**17012**	**16208**	**13705**	**12406**	**9511**	**14195**	**11107**	**8316**	**11970**
TOTAa	**12861**	**18106**	**13689**	**21194**	**15757**	**15790**	**6287**	**51444**	**25081**	**28897**	**30761**	**25806**	**27401**	**16703**	**27490**	**7590**	**10673**	**17742**
TOTAb	**14719**	**20874**	**17826**	**22720**	**20353**	**21673**	**9797**	**59551**	**30026**	**35324**	**33961**	**28219**	**30896**	**18972**	**29685**	**20879**	**13370**	**19177**

Table 30. Greenshank *Tringa nebularia*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	333	40
DK01b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	333	40
DK02a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	202	499
DK02b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	5	202	499
DK03a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154	0	260	178
DK03b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154	155	260	178
DK04a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	387	612
DK04b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	387	612
DK05a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	11	221
DK05b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	15	11	221
DKTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**167**	**0**	**1193**	**1550**
DKTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**167**	**188**	**1193**	**1550**
SH06a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	1	16	29	114
SH06b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	43	56	158
SH07a	-	0	0	1	0	0	0	0	0	0	0	0	0	0	0	17	95	9
SH07b	0	0	0	1	0	0	0	0	0	0	0	0	0	0	9	17	95	9
SH08a	-	0	0	0	0	0	1	4	0	0	0	0	0	0	5	24	205	99
SH08b	0	0	0	0	0	1	1	5	0	0	0	0	0	0	17	34	207	99
SH09a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	2
SH09b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	2
SH10a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	98	51
SH10b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	30	123	54
SH11a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	293	14
SH11b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	254	259	298	264
SH12a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	38	6	201	25
SH12b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	26	201	25
SH13a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	353	67
SH13b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	38	353	67
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	12
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	3	12
SHTOa	**-**	**0**	**0**	**1**	**0**	**0**	**1**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**51**	**91**	**1284**	**393**
SHTOb	**0**	**0**	**0**	**1**	**0**	**1**	**1**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**381**	**449**	**1345**	**690**
NS14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	5	22	0	15
NS14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	24	9	22
NS15a	-	0	0	1	10	0	-	0	1	0	0	0	0	0	0	-	680	550
NS15b	0	0	0	1	10	0	0	0	1	0	0	0	0	0	0	356	727	587
NS16a	-	0	0	0	0	0	0	-	0	0	0	0	0	-	-	0	-	84
NS16b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	21	84
NS17a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	4	17
NS17b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	30	42
NS18a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	40	125	41	90
NS18b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	161	101	103
NS19a	-	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	-	1411
NS19b	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	524	707	1411
NS20a	-	0	0	0	0	0	0	0	0	0	0	0	8	0	0	16	-	22
NS20b	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	39	25	26
NS21a	-	0	0	-	0	0	-	-	-	-	-	0	0	0	7	-	-	5
NS21b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	5
NS22a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	6	13	0	32
NS22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	13	0	32
NSTOa	**0**	**0**	**0**	**1**	**10**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**8**	**0**	**58**	**178**	**725**	**2226**
NSTOb	**0**	**0**	**0**	**1**	**10**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**8**	**0**	**58**	**1148**	**1620**	**2312**
NL22a	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	-	67	31
NL22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	67	31
NL23a	0	-	-	-	5	-	-	-	-	-	-	0	-	-	24	-	1068	611
NL23b	0	0	0	0	5	0	0	0	0	0	0	0	0	0	24	210	1113	611
NL24a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	-	34	47
NL24b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	50	34	47
NL25a	0	-	0	-	0	-	0	0	-	0	0	0	-	2	58	-	642	299
NL25b	0	0	0	0	0	0	0	0	0	0	0	0	1	2	58	250	654	299
NL26a	0	0	0	0	0	-	0	-	0	0	0	0	0	7	52	-	540	37
NL26b	0	0	0	0	0	0	0	0	0	0	0	0	0	7	52	30	540	37
NL27a	-	0	-	-	-	-	-	-	-	0	-	-	0	0	0	-	0	0
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL28a	0	-	-	0	-	-	0	-	0	1	-	0	-	0	2	-	399	49
NL28b	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	100	399	49
NL29a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	119
NL29b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	119
NLTOa	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**9**	**140**	**-**	**2750**	**1193**
NLTOb	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**9**	**140**	**660**	**2807**	**1193**
TOTAa	**0**	**0**	**0**	**2**	**15**	**0**	**1**	**4**	**1**	**2**	**0**	**0**	**8**	**9**	**416**	**269**	**5952**	**5362**
TOTAb	**0**	**0**	**0**	**2**	**15**	**1**	**1**	**5**	**1**	**2**	**0**	**0**	**9**	**9**	**746**	**2445**	**6965**	**5745**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	94	316	90	78	6	17	0	103	158	113	19	38	73	19	15	0	0	0
DK01b	94	316	90	78	6	17	0	103	158	113	19	38	73	19	15	0	0	0
DK02a	168	459	50	170	148	8	3	428	99	322	30	164	47	27	0	80	1	1
DK02b	168	459	50	170	148	148	3	428	99	322	30	164	47	27	0	80	1	1
DK03a	145	185	47	47	3	28	0	524	297	140	92	5	107	20	1	58	1	0
DK03b	145	185	47	47	3	60	0	524	297	140	92	5	107	20	1	58	1	0
DK04a	685	239	105	12	58	103	1	295	129	30	10	27	80	29	17	5	0	0
DK04b	685	239	105	12	58	103	1	295	129	30	10	27	80	29	17	5	0	0
DK05a	297	530	11	28	15	23	2	111	26	62	41	20	27	13	5	3	0	0
DK05b	297	530	11	28	15	23	2	111	26	62	41	20	27	13	5	3	0	0
DKTOa	**1389**	**1729**	**303**	**335**	**230**	**179**	**6**	**1461**	**709**	**667**	**192**	**254**	**334**	**108**	**38**	**146**	**2**	**1**
DKTOb	**1389**	**1729**	**303**	**335**	**230**	**351**	**6**	**1461**	**709**	**667**	**192**	**254**	**334**	**108**	**38**	**146**	**2**	**1**
SH06a	130	27	20	9	3	7	0	528	259	289	52	28	78	119	30	3	0	3
SH06b	136	97	86	75	65	16	0	767	272	315	85	51	94	127	30	18	0	3
SH07a	115	162	5	15	0	10	0	235	57	267	3	0	15	4	10	8	0	0
SH07b	115	162	5	15	7	10	13	707	135	267	32	57	20	9	10	8	0	0
SH08a	89	190	86	11	72	8	7	938	476	265	106	37	111	41	56	28	15	2
SH08b	89	190	89	11	83	9	7	938	480	265	181	42	137	41	57	29	15	9
SH09a	46	0	2	16	2	3	0	436	164	76	35	8	0	10	51	1	0	36
SH09b	46	1	4	17	3	4	0	573	165	131	60	39	19	42	51	2	3	41
SH10a	35	553	17	66	10	6	7	462	27	97	43	59	42	15	87	9	0	0
SH10b	39	570	29	72	32	12	7	462	125	152	87	79	66	17	87	13	0	0
SH11a	87	41	13	9	0	4	0	45	0	63	93	2	21	30	18	1	4	2
SH11b	337	304	276	259	254	254	0	45	211	192	93	122	45	40	38	1	4	2
SH12a	8	5	36	17	17	0	46	215	200	244	208	462	57	0	137	45	0	0
SH12b	41	31	39	17	17	13	47	1111	200	355	210	471	57	18	137	45	1	1
SH13a	86	270	0	43	0	0	7	0	2	196	110	156	0	215	0	0	0	0
SH13b	86	276	41	43	22	3	7	2759	353	353	350	156	100	225	4	4	0	0
SH14a	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
SH14b	1	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0
SHTOa	**597**	**1248**	**179**	**186**	**104**	**38**	**67**	**2859**	**1185**	**1499**	**650**	**752**	**324**	**434**	**389**	**95**	**19**	**43**
SHTOb	**890**	**1631**	**569**	**509**	**483**	**321**	**81**	**7363**	**1941**	**2032**	**1098**	**1017**	**538**	**519**	**414**	**120**	**23**	**56**
NS14a	17	9	7	2	23	8	-	22	59	17	15	66	34	18	14	27	0	2
NS14b	25	10	10	8	26	16	1	22	63	26	31	71	34	22	15	27	0	2
NS15a	855	220	20	61	5	0	0	780	455	575	2	220	62	0	230	60	1	0
NS15b	902	257	128	81	121	356	0	780	499	577	12	310	72	34	255	124	21	0
NS16a	19	0	4	48	20	11	-	20	40	31	45	0	10	0	-	-	0	1
NS16b	25	15	10	54	26	11	0	20	40	31	45	30	10	18	18	18	1	1
NS17a	27	89	16	0	48	1	-	36	0	4	24	33	76	0	5	41	5	0
NS17b	28	89	41	0	48	1	0	47	0	36	54	33	76	0	5	41	5	0
NS18a	225	340	31	126	214	297	0	431	204	377	467	162	322	42	83	90	4	1
NS18b	227	350	59	131	237	324	2	578	224	382	467	173	326	83	164	142	4	1
NS19a	736	1655	16	450	17	0	-	420	104	412	553	64	233	38	31	9	0	18
NS19b	971	1919	708	458	709	522	4	420	141	448	572	85	252	68	56	54	0	18
NS20a	16	5	48	31	5	2	-	81	42	42	93	21	26	2	62	19	0	3
NS20b	37	9	71	33	24	21	0	97	44	57	109	39	40	5	64	21	1	3
NS21a	-	0	1	0	0	2	-	308	-	0	40	-	931	0	43	0	-	0
NS21b	0	0	1	0	0	2	-	360	15	0	40	15	931	0	43	0	0	0
NS22a	0	23	22	24	0	5	-	13	2	0	23	9	0	1	2	0	0	0
NS22b	16	23	22	24	0	5	0	13	2	0	23	9	1	1	2	0	1	0
NSTOa	**1895**	**2341**	**165**	**742**	**332**	**326**	**0**	**2111**	**906**	**1458**	**1262**	**575**	**1694**	**101**	**470**	**246**	**10**	**25**
NSTOb	**2231**	**2672**	**1050**	**789**	**1191**	**1258**	**7**	**2337**	**1028**	**1557**	**1353**	**765**	**1742**	**231**	**622**	**427**	**33**	**25**
NL22a	21	19	39	10	1	5	0	53	49	14	58	48	73	3	8	5	0	0
NL22b	21	19	39	10	1	5	0	53	49	14	58	48	73	3	8	5	0	0
NL23a	312	61	252	401	591	167	6	485	725	10	45	191	213	102	211	-	7	7
NL23b	312	61	252	401	591	167	6	485	725	420	195	341	213	132	211	130	7	7
NL24a	20	87	112	87	9	5	2	800	128	175	71	50	815	6	4	-	1	0
NL24b	20	87	112	87	9	5	2	800	128	175	71	50	815	6	4	100	1	0
NL25a	135	108	107	97	130	52	0	660	555	309	509	126	383	190	180	-	13	18
NL25b	135	228	107	217	130	52	0	690	555	309	509	126	383	190	180	140	13	18
NL26a	72	366	27	67	24	6	0	845	590	351	165	75	160	55	94	-	12	1
NL26b	72	366	27	67	24	6	0	845	590	351	165	75	160	55	94	80	12	1
NL27a	0	0	0	0	1	0	0	100	-	-	125	-	-	3	-	-	0	-
NL27b	0	0	0	0	1	0	0	100	4	4	125	4	4	3	0	0	0	0
NL28a	84	63	117	128	46	20	0	402	555	373	217	137	185	67	6	-	6	-
NL28b	84	63	117	128	46	20	0	402	555	373	217	137	185	67	6	70	6	0
NL29a	101	-	90	116	-	41	18	455	450	61	119	815	110	176	339	-	0	11
NL29b	101	70	90	116	70	41	18	455	450	61	119	815	110	176	339	160	0	11
NLTOa	**745**	**704**	**744**	**906**	**802**	**296**	**26**	**3800**	**3052**	**1293**	**1309**	**1442**	**1939**	**602**	**842**	**5**	**39**	**37**
NLTOb	**745**	**894**	**744**	**1026**	**872**	**296**	**26**	**3830**	**3056**	**1707**	**1459**	**1596**	**1943**	**632**	**842**	**685**	**39**	**37**
TOTAa	**4626**	**6022**	**1391**	**2169**	**1468**	**839**	**99**	**10231**	**5852**	**4917**	**3413**	**3023**	**4291**	**1245**	**1739**	**492**	**70**	**106**
TOTAb	**5255**	**6926**	**2666**	**2659**	**2776**	**2226**	**120**	**14991**	**6734**	**5963**	**4102**	**3632**	**4557**	**1490**	**1916**	**1378**	**97**	**119**

Table 31. Turnstone *Arenaria interpres*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	156	26
DK01b	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	156	26
DK02a	0	0	0	2	0	0	0	0	0	0	2	27	0	0	0	0	15	3
DK02b	0	0	0	2	0	0	0	0	0	0	2	27	0	0	0	0	15	3
DK03a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	5
DK03b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	5
DK04a	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	4
DK04b	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	4
DK05a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	32
DK05b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	32
DKTOa	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**3**	**3**	**27**	**0**	**0**	**0**	**0**	**218**	**70**
DKTOb	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**3**	**3**	**27**	**0**	**0**	**0**	**0**	**218**	**70**
SH06a	-	6	3	0	14	1	2	1	14	25	43	18	0	69	4	16	159	56
SH06b	20	25	3	20	28	5	6	3	30	35	53	30	54	69	78	91	191	58
SH07a	-	51	0	3	0	4	0	2	0	36	3	39	0	3	0	4	123	315
SH07b	3	61	3	13	20	4	3	5	10	36	8	39	8	6	292	6	125	361
SH08a	-	137	1	43	256	0	19	17	21	35	185	313	0	73	8	73	738	150
SH08b	365	412	1	315	318	0	26	17	293	265	415	543	73	73	73	104	768	176
SH09a	-	50	0	14	73	2	20	8	76	45	113	99	9	38	55	22	74	36
SH09b	98	129	24	46	108	2	20	18	87	80	143	105	56	60	74	25	76	36
SH10a	-	31	0	61	41	0	0	0	1	20	6	3	0	20	19	3	103	79
SH10b	34	31	0	77	57	0	0	0	17	20	36	19	20	20	45	25	152	110
SH11a	-	0	0	0	8	0	0	0	0	1	0	24	0	0	19	0	258	249
SH11b	0	0	0	0	8	0	0	0	0	1	0	24	0	0	19	91	267	249
SH12a	-	0	0	0	42	0	0	0	0	0	0	0	0	3	2	70	553	329
SH12b	42	29	0	29	42	0	0	0	29	29	16	29	10	3	74	70	553	329
SH13a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800	346
SH13b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	24	800	346
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**-**	**275**	**4**	**121**	**434**	**7**	**41**	**28**	**112**	**162**	**350**	**496**	**9**	**206**	**107**	**188**	**2808**	**1560**
SHTOb	**562**	**687**	**31**	**500**	**581**	**11**	**55**	**43**	**466**	**466**	**671**	**789**	**221**	**231**	**676**	**436**	**2932**	**1665**
NS14a	-	0	0	11	0	0	0	0	0	2	7	14	0	0	45	1	0	0
NS14b	6	0	0	11	6	0	0	0	0	8	13	20	0	0	45	1	0	0
NS15a	-	0	20	81	1	0	-	0	0	1	0	0	44	0	0	-	11	6
NS15b	1	0	20	82	2	20	20	20	1	2	1	1	44	22	0	19	22	15
NS16a	-	0	0	0	0	0	0	-	0	0	0	0	26	-	-	0	-	4
NS16b	0	0	0	0	0	0	0	0	0	0	0	0	26	2	0	0	1	4
NS17a	-	0	0	0	0	0	0	3	0	0	0	0	0	0	-	0	0	0
NS17b	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
NS18a	-	199	195	191	21	2	132	8	42	47	65	266	100	29	265	222	4	657
NS18b	100	200	195	272	114	2	230	106	130	111	153	311	104	44	268	279	206	699
NS19a	-	44	40	239	157	0	0	0	17	5	64	68	40	0	226	3	-	562
NS19b	28	55	40	251	180	0	20	20	33	5	80	68	40	16	226	152	157	562
NS20a	-	402	25	500	551	0	0	0	0	23	73	269	62	73	0	62	-	264
NS20b	82	433	25	565	581	3	0	3	65	88	73	305	66	91	6	191	177	385
NS21a	-	120	290	-	56	0	-	-	-	-	-	0	320	120	40	-	-	0
NS21b	26	134	290	26	56	210	250	250	26	26	26	26	335	120	40	13	13	0
NS22a	-	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
NS22b	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
NSTOa	**0**	**765**	**570**	**1023**	**786**	**2**	**132**	**11**	**59**	**78**	**209**	**617**	**592**	**222**	**577**	**288**	**15**	**1493**
NSTOb	**243**	**822**	**570**	**1208**	**939**	**235**	**520**	**402**	**255**	**240**	**346**	**731**	**615**	**295**	**586**	**655**	**576**	**1665**
NL22a	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	-	26	4
NL22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	26	4
NL23a	30	55	175	138	536	106	100	33	48	-	63	43	47	102	138	-	108	666
NL23b	80	75	225	168	536	156	130	83	68	130	113	63	67	112	138	210	168	666
NL24a	2	1	1	28	12	1	0	0	105	20	34	66	215	78	23	-	42	23
NL24b	2	1	1	28	12	1	0	0	105	20	34	66	215	78	23	80	42	23
NL25a	129	214	71	270	200	8	152	11	141	44	208	410	1	166	131	-	507	440
NL25b	134	219	71	275	200	8	152	11	146	44	208	951	101	166	131	510	511	440
NL26a	22	220	26	110	214	-	110	-	61	35	59	64	9	146	72	-	223	188
NL26b	22	220	26	110	214	90	110	90	61	35	59	64	9	146	72	90	223	188
NL27a	-	550	-	-	-	-	-	-	-	80	-	-	750	200	200	-	0	12
NL27b	400	550	400	400	400	400	400	400	400	80	400	400	750	200	200	100	0	12
NL28a	323	535	177	435	37	337	295	190	416	306	279	410	141	331	380	-	492	464
NL28b	323	535	177	435	37	337	295	190	416	306	279	410	341	331	380	400	492	464
NL29a	59	750	35	121	15	14	450	13	172	74	249	558	79	1402	970	-	1206	423
NL29b	59	750	35	121	15	14	450	13	172	74	249	558	79	1402	970	600	1206	423
NLTOa	**565**	**2325**	**485**	**1102**	**1014**	**466**	**1107**	**247**	**943**	**559**	**892**	**1551**	**1242**	**2425**	**1914**	**-**	**2604**	**2220**
NLTOb	**1020**	**2350**	**935**	**1537**	**1414**	**1006**	**1537**	**787**	**1368**	**689**	**1342**	**2512**	**1562**	**2435**	**1914**	**2000**	**2668**	**2220**
TOTAa	**565**	**3365**	**1059**	**2248**	**2234**	**475**	**1280**	**286**	**1114**	**802**	**1454**	**2691**	**1843**	**2853**	**2598**	**476**	**5645**	**5343**
TOTAb	**1825**	**3859**	**1536**	**3247**	**2934**	**1252**	**2112**	**1232**	**2089**	**1398**	**2362**	**4059**	**2398**	**2961**	**3176**	**3091**	**6394**	**5620**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	73	206	140	237	9	0	11	5	31	8	13	18	0	0	2	0	0	1
DK01b	73	206	140	237	9	9	11	5	31	8	13	18	0	0	2	0	0	1
DK02a	38	46	166	21	127	0	5	53	4	38	5	20	5	0	0	0	0	0
DK02b	38	46	166	21	127	127	5	53	4	38	5	20	5	0	0	0	0	0
DK03a	7	10	9	26	8	7	2	2	215	24	12	0	48	0	2	1	4	10
DK03b	7	10	9	26	8	8	2	2	215	24	12	0	48	0	2	1	4	10
DK04a	21	132	15	25	12	0	0	1	0	0	6	5	0	0	0	0	0	0
DK04b	21	132	15	25	12	12	0	1	0	0	6	5	0	0	0	0	0	0
DK05a	41	180	0	34	23	0	3	0	1	0	0	1	0	0	0	0	4	0
DK05b	41	180	0	34	23	25	3	0	1	0	0	1	0	0	0	0	4	0
DKTOa	**180**	**574**	**330**	**343**	**179**	**7**	**21**	**61**	**251**	**70**	**36**	**44**	**53**	**0**	**4**	**1**	**8**	**11**
DKTOb	**180**	**574**	**330**	**343**	**179**	**181**	**21**	**61**	**251**	**70**	**36**	**44**	**53**	**0**	**4**	**1**	**8**	**11**
SH06a	67	48	72	86	29	53	5	16	20	72	2	84	10	34	61	32	17	15
SH06b	68	69	120	113	67	73	6	23	47	87	58	118	40	59	72	41	17	17
SH07a	22	244	64	115	9	115	6	6	0	116	1	27	0	5	12	2	0	2
SH07b	68	552	372	165	129	161	6	33	8	116	2	33	28	5	12	6	12	9
SH08a	486	576	297	459	304	60	54	99	76	278	52	163	231	73	111	5	64	106
SH08b	486	597	336	488	304	86	54	105	82	278	207	253	299	158	194	93	64	109
SH09a	57	24	499	194	135	60	14	38	110	207	17	101	0	67	254	124	2	36
SH09b	57	25	505	195	135	74	14	51	143	257	149	134	143	69	254	124	51	116
SH10a	81	185	22	131	24	77	11	48	28	60	35	8	30	7	57	19	1	150
SH10b	103	232	68	170	97	108	11	48	98	62	101	92	105	25	61	23	101	150
SH11a	302	173	155	138	20	24	0	19	0	33	18	9	2	0	0	0	0	0
SH11b	302	238	220	138	72	24	1	19	19	52	18	29	2	0	0	0	0	0
SH12a	190	134	168	252	290	110	37	370	625	666	446	694	225	70	256	650	0	0
SH12b	336	240	264	252	312	245	37	373	625	667	454	694	225	70	256	650	115	115
SH13a	551	535	0	133	0	3	1	0	0	0	1	52	0	2	0	0	0	0
SH13b	551	545	320	136	264	38	1	36	1	1	1	52	1	3	0	0	0	0
SH14a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**1756**	**1919**	**1277**	**1508**	**811**	**502**	**128**	**596**	**859**	**1432**	**572**	**1138**	**498**	**258**	**751**	**832**	**84**	**309**
SHTOb	**1971**	**2498**	**2205**	**1657**	**1380**	**809**	**130**	**688**	**1023**	**1520**	**990**	**1405**	**843**	**389**	**849**	**937**	**360**	**516**
NS14a	1	0	0	1	5	2	-	4	5	0	20	4	6	0	0	2	0	0
NS14b	1	0	0	1	5	2	0	4	5	0	20	4	6	0	0	2	0	0
NS15a	18	0	0	40	370	0	7	46	81	0	2	21	0	0	0	0	0	3
NS15b	29	11	16	40	381	19	7	46	81	1	2	22	0	141	141	140	82	3
NS16a	2	0	7	0	20	0	-	65	30	6	7	15	0	0	-	-	0	8
NS16b	2	1	7	0	20	0	1	65	30	6	7	21	0	0	0	0	8	8
NS17a	0	0	0	0	0	0	-	0	6	0	0	0	0	0	0	0	0	0
NS17b	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0
NS18a	239	445	221	101	958	324	38	806	619	98	69	274	196	8	41	286	89	184
NS18b	239	445	279	217	959	478	41	856	619	98	69	302	200	141	174	325	184	184
NS19a	187	254	4	97	167	26	-	78	40	17	50	113	119	272	163	19	0	67
NS19b	274	264	159	99	322	175	7	78	74	28	77	119	146	302	199	109	20	70
NS20a	166	2	1	115	5	2	-	10	178	151	65	10	150	34	92	88	0	545
NS20b	167	171	170	236	180	177	0	105	178	155	74	109	154	38	161	163	65	581
NS21a	-	28	85	0	50	26	-	48	-	0	85	-	71	0	94	84	-	95
NS21b	13	41	85	13	63	26	-	103	22	0	85	22	71	7	94	91	0	95
NS22a	0	0	7	0	0	0	-	0	2	0	0	0	0	0	0	0	0	5
NS22b	0	0	7	0	0	0	0	0	2	0	0	0	0	3	3	3	0	5
NSTOa	**613**	**729**	**325**	**354**	**1575**	**380**	**45**	**1057**	**961**	**272**	**298**	**437**	**542**	**314**	**390**	**479**	**89**	**907**
NSTOb	**725**	**933**	**723**	**606**	**1930**	**877**	**56**	**1257**	**1017**	**288**	**334**	**599**	**577**	**632**	**772**	**833**	**359**	**946**
NL22a	1	12	12	9	15	1	0	0	0	1	0	0	0	0	0	0	0	0
NL22b	1	12	12	9	15	1	0	0	0	1	0	0	0	0	0	0	0	0
NL23a	267	8	292	190	214	221	29	91	194	200	7	305	124	44	275	-	73	47
NL23b	267	8	292	190	214	221	29	116	214	340	177	495	124	184	275	165	93	177
NL24a	40	168	205	36	108	19	14	180	225	63	40	80	260	16	198	-	38	47
NL24b	40	168	205	36	108	19	14	180	225	63	40	80	260	16	198	70	38	47
NL25a	261	181	350	475	1031	669	41	485	403	89	322	469	263	200	423	-	261	357
NL25b	261	381	350	675	1031	669	41	710	408	89	322	474	263	200	423	255	261	357
NL26a	69	157	460	229	217	240	10	275	155	66	200	220	83	115	137	-	96	91
NL26b	69	157	460	229	217	240	10	275	155	66	200	220	83	115	137	140	96	91
NL27a	103	174	125	100	200	57	6	130	-	-	400	-	-	99	-	-	215	-
NL27b	103	174	125	100	200	57	6	130	300	300	400	300	300	99	200	200	215	300
NL28a	729	554	544	432	1146	488	25	850	303	834	535	475	325	685	843	-	598	735
NL28b	829	654	544	532	1146	488	35	850	303	834	535	475	325	685	843	520	598	735
NL29a	107	-	530	786	-	559	37	825	390	920	670	204	170	331	1162	-	23	210
NL29b	107	600	530	786	600	559	37	825	390	920	670	370	170	331	1162	400	23	210
NLTOa	**1577**	**1254**	**2518**	**2257**	**2931**	**2254**	**162**	**2836**	**1670**	**2173**	**2174**	**1753**	**1225**	**1490**	**3038**	**0**	**1304**	**1487**
NLTOb	**1677**	**2154**	**2518**	**2557**	**3531**	**2254**	**172**	**3086**	**1995**	**2613**	**2344**	**2414**	**1525**	**1630**	**3238**	**1750**	**1324**	**1917**
TOTAa	**4126**	**4476**	**4450**	**4462**	**5496**	**3143**	**356**	**4550**	**3741**	**3947**	**3080**	**3372**	**2318**	**2062**	**4183**	**1312**	**1485**	**2714**
TOTAb	**4553**	**6159**	**5776**	**5163**	**7020**	**4121**	**379**	**5092**	**4286**	**4491**	**3704**	**4462**	**2998**	**2651**	**4863**	**3521**	**2051**	**3390**

Table 32. Black-headed Gull *Larus ridibundus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	-	438	1167	1023	824	25	186	55	1468	316	217	118	479	1841	2553	1182	642	1479
DK01b	531	438	1167	1023	824	25	186	55	1468	316	217	118	479	1841	2553	2400	642	1479
DK02a	-	814	58	568	2153	288	443	640	1585	2852	1365	1147	1536	13801	3691	2345	2478	4430
DK02b	1083	814	58	568	2153	288	443	640	1585	2852	1365	1147	1536	13801	3691	3720	2478	4430
DK03a	-	75	2	85	228	2	4	0	120	296	730	80	70	2391	2308	1010	1675	2745
DK03b	147	75	2	85	228	2	4	0	120	296	730	80	70	2391	2308	2060	1675	2745
DK04a	-	115	0	31	100	5	22	11	41	335	947	413	240	275	1367	1635	3170	3182
DK04b	184	115	0	31	100	5	22	11	41	335	947	413	240	275	1367	1635	3170	3182
DK05a	-	0	3	39	20	20	5	10	615	284	30	160	355	1239	681	870	1673	2861
DK05b	108	0	3	39	20	20	5	10	615	284	30	160	355	1239	681	870	1673	2861
DKTOa	**-**	**1442**	**1230**	**1746**	**3325**	**340**	**660**	**716**	**3829**	**4083**	**3289**	**1918**	**2680**	**19547**	**10600**	**7042**	**9638**	**14697**
DKTOb	**2053**	**1442**	**1230**	**1746**	**3325**	**340**	**660**	**716**	**3829**	**4083**	**3289**	**1918**	**2680**	**19547**	**10600**	**10685**	**9638**	**14697**
SH06a	-	510	220	93	120	89	263	107	187	1286	105	211	779	648	750	2936	5192	1856
SH06b	509	612	341	256	224	243	348	305	406	1426	232	432	999	889	1819	5378	5485	1977
SH07a	-	58	0	0	505	6	24	0	0	140	38	20	0	3	1970	5640	500	5505
SH07b	39	136	5	74	513	26	25	10	168	140	112	29	667	165	2493	5767	624	5922
SH08a	-	107	41	128	192	50	131	11	163	146	81	162	0	193	2618	6278	6923	7530
SH08b	65	238	41	251	315	124	181	58	304	270	204	285	381	233	5243	7708	7473	7974
SH09a	-	0	0	140	0	0	178	2	32	66	4	33	12	124	2510	126	666	6351
SH09b	24	26	89	141	4	0	178	2	32	66	4	34	205	202	2959	420	4759	6364
SH10a	-	225	20	2	144	122	232	351	995	214	243	162	103	573	4288	4070	7935	6776
SH10b	289	285	21	114	215	123	232	352	1152	239	285	197	815	783	5009	5135	8699	7046
SH11a	-	17	0	2	190	9	100	0	350	575	107	85	200	408	163	0	523	1523
SH11b	265	77	0	97	190	9	100	0	413	575	191	160	568	780	883	1205	653	1854
SH12a	-	0	0	290	302	0	32	3	182	231	235	0	140	736	535	3356	4500	8818
SH12b	447	263	0	553	410	0	32	3	523	406	335	337	1174	736	3035	3806	4500	8818
SH13a	-	0	0	0	0	0	15	1	3	7	343	19	0	2	0	0	292	901
SH13b	270	25	12	30	31	11	15	8	111	7	343	19	54	78	708	685	292	901
SH14a	-	13	2	154	978	0	496	30	3192	1319	357	270	115	1308	183	77	19	180
SH14b	315	283	77	154	978	75	546	112	3192	1380	357	334	760	1338	490	412	190	248
SHTOa	**-**	**930**	**283**	**809**	**2431**	**276**	**1471**	**505**	**5104**	**3984**	**1513**	**962**	**1349**	**3995**	**13017**	**22483**	**26550**	**39440**
SHTOb	**2223**	**1945**	**586**	**1670**	**2880**	**611**	**1657**	**850**	**6301**	**4509**	**2063**	**1827**	**5623**	**5204**	**22639**	**30516**	**32675**	**41104**
NS14a	-	515	113	3691	344	71	2065	80	909	856	555	564	2402	346	5980	8594	0	794
NS14b	1322	570	113	3982	993	91	2092	107	1148	1708	1408	1416	2502	526	5980	8928	2123	1087
NS15a	-	516	334	4300	862	0	-	0	10	110	317	203	2102	1000	50	-	105	491
NS15b	175	516	334	4300	871	21	148	127	76	185	492	269	2107	1271	441	817	735	850
NS16a	-	38	0	300	70	182	2110	-	11270	1700	1140	550	445	-	-	0	-	659
NS16b	1440	238	146	1440	1510	182	2110	146	11270	2200	1640	1750	533	2292	1949	1015	1139	1204
NS17a	-	22	5	440	388	0	579	82	4324	1381	1350	1984	740	418	-	287	510	2783
NS17b	943	212	5	700	648	78	579	82	4324	1571	1370	2124	955	853	1911	686	1274	2829
NS18a	-	2122	976	1002	1062	346	714	543	1363	1122	549	774	2136	1286	3781	5051	1875	2625
NS18b	691	2170	1026	1199	1463	346	964	793	1644	1363	916	1015	2896	1857	4896	5717	3421	2850
NS19a	-	208	205	925	525	0	0	0	264	481	368	2841	1587	651	3065	0	-	6171
NS19b	360	287	205	957	686	0	100	100	572	485	611	2841	2456	3068	3065	1484	1744	6171
NS20a	-	613	31	87	329	122	0	2	935	134	962	1770	1893	1404	5727	608	-	3753
NS20b	854	709	90	825	1057	127	66	9	981	882	973	1850	2221	2441	6261	3099	2833	4117
NS21a	-	180	160	-	494	0	-	-	-	-	-	0	720	2842	1700	-	-	5310
NS21b	354	264	160	354	578	90	125	125	354	354	354	339	1259	3012	1700	703	703	5310
NS22a	-	580	79	290	61	0	510	1	60	195	81	0	153	324	345	282	0	85
NS22b	237	580	79	290	61	307	552	308	277	412	296	217	713	338	345	429	147	207
NSTOa	**0**	**4794**	**1903**	**11035**	**4135**	**721**	**5978**	**708**	**19135**	**5979**	**5322**	**8686**	**12178**	**8271**	**20648**	**14822**	**2490**	**22671**
NSTOb	**6376**	**5546**	**2158**	**14047**	**7867**	**1242**	**6736**	**1797**	**20646**	**9160**	**8060**	**11821**	**15642**	**15658**	**26548**	**22878**	**14119**	**24625**
NL22a	3	24	31	30	35	-	22	0	209	1205	1602	4	310	-	0	-	0	3897
NL22b	3	24	31	30	35	100	22	0	209	1205	1602	4	310	7000	0	2750	0	3897
NL23a	275	1661	395	1230	2947	1114	1328	433	3761	-	153	296	4090	295	-	-	22775	8561
NL23b	775	2161	895	1230	2947	1614	1328	933	4261	1800	653	796	5090	3295	5110	17000	24775	9761
NL24a	0	0	15	0	2	0	30	0	20	11	0	81	46	175	-	-	-	0
NL24b	0	0	15	0	2	0	30	0	20	11	0	81	46	175	470	1800	1800	0
NL25a	31	167	35	586	2356	55	94	8	752	568	487	-	6115	1540	-	-	19598	12880
NL25b	31	167	35	586	2356	355	394	308	752	568	487	716	6625	1540	0	15600	20118	12880
NL26a	135	720	555	375	526	-	451	-	722	287	446	1674	69	833	0	-	1847	0
NL26b	135	720	555	375	526	400	451	400	722	287	446	1674	69	833	0	1000	1847	0
NL27a	-	50	-	-	-	-	-	-	-	0	-	-	200	50	0	-	0	0
NL27b	0	50	0	0	0	0	0	0	0	0	0	0	200	50	0	2000	0	0
NL28a	1593	1410	460	1949	1256	522	1266	392	1651	1152	1390	1271	4175	5025	9120	-	17787	8899
NL28b	1593	1410	460	1949	1256	522	1266	392	1651	1152	1390	1271	4675	5025	9120	15500	18287	8899
NL29a	1930	1005	1130	835	481	873	360	440	512	97	351	154	875	2351	0	-	8770	15650
NL29b	1930	1005	1130	835	481	873	360	440	512	97	351	154	875	2351	0	7500	8770	15650
NLTOa	**3967**	**5037**	**2621**	**5005**	**7603**	**2564**	**3551**	**1273**	**7627**	**3320**	**4429**	**3480**	**15880**	**10269**	**9120**	**-**	**70777**	**49887**
NLTOb	**4467**	**5537**	**3121**	**5005**	**7603**	**3864**	**3851**	**2473**	**8127**	**5120**	**4929**	**4696**	**17890**	**20269**	**14700**	**63150**	**75597**	**51087**
TOTAa	**3967**	**12203**	**6037**	**18595**	**17494**	**3901**	**11660**	**3202**	**35695**	**17366**	**14553**	**15046**	**32087**	**42082**	**53385**	**44347**	**109455**	**126695**
TOTAb	**15119**	**14470**	**7095**	**22468**	**21675**	**6057**	**12904**	**5836**	**38903**	**22872**	**18341**	**20262**	**41835**	**60678**	**74487**	**127229**	**132029**	**131513**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	1094	1181	174	462	420	850	1568	4510	2627	9555	655	490	251	2040	4719	4490	2159	568
DK01b	1094	1181	174	462	420	850	1568	4510	2627	9555	655	490	251	2040	4719	4490	2159	568
DK02a	5910	2593	198	5186	1065	4272	4752	4450	3680	9355	4227	5790	3198	3435	2790	4791	7195	1227
DK02b	5910	2593	198	5186	1065	4272	4752	4450	3680	9355	4227	5790	3198	3435	2790	4791	7195	1227
DK03a	2035	2248	371	3295	520	987	2762	4680	2478	3058	4795	4095	2760	850	2940	2315	775	840
DK03b	2035	2248	371	3295	520	987	2762	4680	2478	3058	4795	4095	2760	850	2940	2315	775	840
DK04a	2617	2779	1503	1980	1780	748	2492	3765	2694	2225	1661	3880	1360	1812	2490	1485	449	419
DK04b	2617	2779	1503	1980	1780	748	2492	3765	2694	2225	1661	3880	1360	1812	2490	1485	449	419
DK05a	2683	2026	811	2245	1406	1292	1903	550	2930	2400	8250	3234	1447	486	1420	587	1101	653
DK05b	2683	2026	811	2245	1406	1292	1903	550	2930	2400	8250	3234	1447	486	1420	587	1101	653
DKTOa	**14339**	**10827**	**3057**	**13168**	**5191**	**8149**	**13477**	**17955**	**14409**	**26593**	**19588**	**17489**	**9016**	**8623**	**14359**	**13668**	**11679**	**3707**
DKTOb	**14339**	**10827**	**3057**	**13168**	**5191**	**8149**	**13477**	**17955**	**14409**	**26593**	**19588**	**17489**	**9016**	**8623**	**14359**	**13668**	**11679**	**3707**
SH06a	4096	1184	2747	3418	4391	4944	1221	3004	4755	6468	1605	1012	1668	894	975	1182	1574	3481
SH06b	4181	4816	3590	4262	5254	5380	4926	6086	6691	7991	5174	2434	2564	1754	1752	1300	1609	4161
SH07a	2320	3124	2370	6636	245	2730	3890	1780	2410	12616	3117	377	400	5407	2700	1080	18	136
SH07b	2439	3444	3246	7093	3624	2850	4840	4758	4663	13016	6090	6066	6114	5945	2908	1343	35	165
SH08a	6496	6376	1382	7163	3702	2583	6027	5453	4463	13883	8032	833	437	5385	3001	2115	2956	589
SH08b	6696	6495	3862	8673	4152	5715	7276	5455	5715	14303	9459	1253	1065	5410	3101	2296	3121	1292
SH09a	5139	3918	515	6892	226	1080	6719	10986	5099	3728	1000	583	320	1711	1465	1579	152	92
SH09b	5195	4280	5073	7112	5446	6221	6798	11363	8053	5546	5693	1042	2225	3717	2372	2842	521	428
SH10a	3426	4893	800	3083	1198	4082	3776	2454	4210	4791	5034	2254	2826	4844	4440	1951	3241	1155
SH10b	3683	6179	3342	3976	3166	4815	3814	3494	8712	6315	7166	3054	4238	5033	6133	3150	3241	1996
SH11a	1768	550	250	312	0	759	1158	693	0	7800	3770	600	975	933	576	280	1795	500
SH11b	1768	1053	753	312	703	759	1773	693	4880	8481	6770	3605	5980	1213	685	280	1865	695
SH12a	6500	5055	767	7420	7691	2600	9581	2200	7666	8794	4536	4315	1912	1700	3725	4438	875	43
SH12b	7152	5465	969	7420	7741	5770	9581	11065	10516	10354	8261	5752	3162	2651	4025	4738	2436	1393
SH13a	256	403	0	208	0	360	1868	0	6	1822	0	5471	0	1965	210	0	710	53
SH13b	256	660	407	568	351	513	1868	12592	4305	4515	4263	5471	5760	3045	754	754	713	146
SH14a	341	85	167	35	102	192	76	1780	1812	656	1301	450	173	358	852	1226	3	214
SH14b	369	175	167	118	130	299	151	1877	2004	677	1484	623	666	1162	852	1732	88	214
SHTOa	**30342**	**25588**	**8998**	**35167**	**17555**	**19330**	**34316**	**28350**	**30421**	**60558**	**28395**	**15895**	**8711**	**23197**	**17944**	**13851**	**11324**	**6263**
SHTOb	**31739**	**32567**	**21409**	**39534**	**30567**	**32322**	**41027**	**57383**	**55539**	**71198**	**54360**	**29300**	**31774**	**29930**	**22582**	**18435**	**13629**	**10490**
NS14a	2150	2218	2221	1321	599	2546	-	6498	5665	1189	2090	3970	1790	3239	3928	2767	981	1348
NS14b	2464	2418	3735	1658	1308	2853	29	6498	6457	2876	2916	5004	2464	4914	4187	4184	1411	1408
NS15a	150	520	500	214	630	0	1570	7176	5645	1150	4579	2534	4710	2370	3020	1325	642	850
NS15b	770	1115	935	499	1020	817	1870	7190	8792	4300	4579	6014	5860	5531	6556	5611	1128	850
NS16a	788	257	100	950	10	435	-	260	2000	1200	2417	10650	3610	3350	-	-	4430	400
NS16b	1158	381	1115	1320	1025	1080	0	260	3193	2740	3227	12180	3663	5040	4415	4415	4530	560
NS17a	641	1206	453	1150	145	1235	-	4797	1996	3311	3538	1395	2729	2449	631	818	2201	241
NS17b	853	1237	852	1161	480	1550	279	5271	2346	3506	3663	1415	2779	2504	886	1296	2201	341
NS18a	3046	2364	5265	1092	5901	1422	2800	12842	6176	10992	3621	7279	4093	3520	2255	5468	5095	3725
NS18b	3096	2588	5861	1451	6009	2586	8599	16602	6641	11282	4241	9024	5748	6304	5576	5959	6046	3737
NS19a	2371	1567	200	1252	1006	0	-	8051	4275	20350	2298	5505	4850	3847	2273	155	0	1343
NS19b	2445	2583	1266	2023	1964	1484	4313	8051	9359	22864	4429	7066	8150	5722	4455	3603	794	1576
NS20a	1126	1793	5343	1660	1721	2142	-	7036	6270	2662	3993	2253	4564	3699	14755	1258	277	534
NS20b	3114	3582	7348	1919	3402	3823	3056	7761	9056	4318	5600	4289	4927	4284	15625	4857	2636	2401
NS21a	-	0	3620	220	3020	6213	-	2050	-	2161	3320	-	1430	3350	1505	640	-	430
NS21b	703	35	3758	255	3415	6351	-	6750	4959	3491	6029	4959	4139	3448	1559	1148	133	452
NS22a	25	457	593	103	487	22	-	2893	754	139	1095	387	347	257	784	1665	526	113
NS22b	245	579	653	165	487	82	482	2893	940	325	1205	573	857	593	824	1705	549	303
NSTOa	**10297**	**10382**	**18295**	**7962**	**13519**	**14015**	**4370**	**51603**	**32781**	**43154**	**26951**	**33973**	**28123**	**26081**	**29151**	**14096**	**14152**	**8984**
NSTOb	**14848**	**14518**	**25523**	**10451**	**19110**	**20626**	**18628**	**61276**	**51743**	**55702**	**35889**	**50524**	**38587**	**38340**	**44083**	**32778**	**19428**	**11628**
NL22a	5446	650	0	180	0	-	5108	6695	350	170	1200	1428	4135	583	1031	407	144	580
NL22b	5446	650	0	180	0	3600	5108	6695	350	170	1200	1428	4135	583	1031	407	144	580
NL23a	18204	11816	-	17793	-	14211	10635	15540	17395	1050	2510	10666	10200	7970	6728	-	5019	1145
NL23b	19404	13016	18500	19793	18500	15411	11135	17540	18395	13800	7510	16666	10200	10970	6728	10000	5519	2745
NL24a	-	-	-	-	-	-	0	10820	6650	4210	3360	1060	6090	1510	1600	-	0	76
NL24b	1800	1800	1800	1800	1800	1800	0	10820	6650	4210	3360	1060	6090	1510	1600	1550	0	76
NL25a	15413	18821	-	-	-	16503	7864	20295	17185	11718	5945	6922	8900	3814	3168	-	6143	648
NL25b	15413	19321	500	500	500	17003	7864	21545	18235	15718	5945	7972	8900	3814	3168	4500	6143	648
NL26a	3304	1853	0	1252	0	1313	1071	6455	11960	19819	7820	9670	6715	9570	5640	-	5253	1510
NL26b	3304	1853	0	1252	0	1313	1071	6455	11960	19819	7820	9670	6715	9570	5640	7500	5253	1510
NL27a	0	550	0	0	0	1427	0	13000	-	-	9000	-	-	980	-	-	650	-
NL27b	0	550	0	0	0	1427	0	13000	7000	7000	9000	7000	7000	980	1250	1250	650	200
NL28a	21490	29318	-	16365	-	18609	11225	24280	26589	27195	12257	21778	21340	18461	10452	-	4868	2793
NL28b	21990	29818	500	16865	500	19109	12224	24280	26589	27195	12257	21778	21340	18461	10452	13500	4868	2793
NL29a	7200	-	0	6678	-	7845	11903	1250	305	1030	1585	1478	1370	2146	885	-	1800	1275
NL29b	7200	7500	0	6678	7500	7845	11903	1250	305	1030	1585	1478	1370	2146	885	1500	1800	1275
NLTOa	**71057**	**63008**	**0**	**42268**	**0**	**59908**	**47806**	**98335**	**80434**	**65192**	**43677**	**53002**	**58750**	**45034**	**29504**	**407**	**23877**	**8027**
NLTOb	**74557**	**74508**	**21300**	**47068**	**28800**	**67508**	**49305**	**101585**	**89484**	**88942**	**48677**	**67052**	**65750**	**48034**	**30754**	**40207**	**24377**	**9827**
TOTAa	**126035**	**109805**	**30350**	**98565**	**36265**	**101402**	**99969**	**196243**	**158045**	**195497**	**118611**	**120359**	**104600**	**102935**	**90958**	**42022**	**61032**	**26981**
TOTAb	**135483**	**132420**	**71289**	**110221**	**83668**	**128605**	**122437**	**238199**	**211175**	**242435**	**158514**	**164365**	**145127**	**124927**	**111778**	**105088**	**69113**	**35652**

Table 33. Common Gull *Larus canus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	-	141	172	692	295	122	89	0	1041	343	308	440	154	1285	18	1980	2015	1013
DK01b	331	141	172	692	295	122	89	0	1041	343	308	440	154	1285	18	1980	2015	1013
DK02a	-	2127	1219	2302	925	298	1895	1475	4610	2705	5815	5405	1610	2552	2918	1357	1810	614
DK02b	2616	2127	1219	2302	925	298	1895	1475	4610	2705	5815	5405	1610	2552	2918	3000	1810	614
DK03a	-	960	21	20	551	57	23	14	1200	314	1860	290	152	3128	1242	320	220	191
DK03b	483	960	21	20	551	57	23	14	1200	314	1860	290	152	3128	1242	1220	220	191
DK04a	-	1585	240	226	1256	15	2009	50	3871	1264	4098	986	1196	3347	1055	540	1050	265
DK04b	1418	1585	240	226	1256	15	2009	50	3871	1264	4098	986	1196	3347	1055	1050	1050	265
DK05a	-	1060	36	1660	785	15	325	22	6249	1827	1515	673	1486	1134	66	310	1161	675
DK05b	1288	1060	36	1660	785	15	325	22	6249	1827	1515	673	1486	1134	66	310	1161	675
DKTOa	**-**	**5873**	**1688**	**4900**	**3812**	**507**	**4341**	**1561**	**16971**	**6453**	**13596**	**7794**	**4598**	**11446**	**5299**	**4507**	**6256**	**2758**
DKTOb	**6136**	**5873**	**1688**	**4900**	**3812**	**507**	**4341**	**1561**	**16971**	**6453**	**13596**	**7794**	**4598**	**11446**	**5299**	**7560**	**6256**	**2758**
SH06a	-	1065	55	562	428	39	1344	65	678	1513	1168	1070	1179	337	440	2800	785	543
SH06b	1734	1365	98	1288	839	102	1375	180	1357	1861	1487	1757	1981	650	1394	3038	1134	785
SH07a	-	70	58	400	0	97	318	100	160	337	447	385	0	100	0	67	100	110
SH07b	269	260	241	485	217	149	351	221	236	337	530	558	536	346	184	81	223	155
SH08a	-	166	37	262	723	454	552	55	118	1661	321	607	0	164	37	337	1081	687
SH08b	91	260	37	305	778	455	582	56	232	1724	352	661	136	188	593	752	1088	821
SH09a	-	25	110	27	0	0	62	0	212	275	77	442	86	450	566	64	0	128
SH09b	153	164	166	346	321	110	172	135	375	575	376	563	654	1202	2669	232	68	143
SH10a	-	154	85	570	540	132	1128	220	578	1404	926	369	170	831	8	2707	226	278
SH10b	747	482	185	802	1047	457	1178	370	646	1631	1021	612	1592	1142	599	2771	295	317
SH11a	-	1	47	1510	130	15	115	20	993	1560	962	223	350	498	0	0	280	269
SH11b	1536	371	48	1554	130	15	115	20	1494	1560	1367	244	548	798	37	65	280	269
SH12a	-	124	0	71	511	1	14	2	837	428	332	0	1000	458	322	180	241	354
SH12b	663	572	10	519	631	11	24	12	1353	784	632	539	1385	458	348	208	241	354
SH13a	-	0	0	300	15	50	30	26	357	35	334	182	0	35	0	0	166	472
SH13b	392	220	36	380	113	83	30	41	701	117	334	182	65	108	196	241	166	472
SH14a	-	21	30	228	384	0	237	0	848	47	102	20	113	92	93	106	136	1231
SH14b	161	74	175	228	384	145	247	145	848	66	102	67	150	194	306	319	248	1243
SHTOa	**-**	**1626**	**422**	**3930**	**2731**	**788**	**3800**	**488**	**4781**	**7260**	**4669**	**3298**	**2898**	**2965**	**1466**	**6261**	**3015**	**4072**
SHTOb	**5746**	**3768**	**996**	**5907**	**4460**	**1527**	**4074**	**1180**	**7242**	**8655**	**6201**	**5183**	**7047**	**5086**	**6326**	**7707**	**3743**	**4559**
NS14a	-	100	231	635	57	16	865	3	190	99	444	417	928	497	545	501	0	113
NS14b	238	147	231	785	154	27	888	26	241	203	551	521	1078	727	545	508	172	253
NS15a	-	559	87	1570	291	0	-	0	200	180	2202	882	2571	0	20	-	90	0
NS15b	411	559	87	1636	562	23	23	0	225	450	2547	922	2771	2274	741	119	174	74
NS16a	-	19	12	40	0	0	0	-	200	60	0	42	13	-	-	0	-	689
NS16b	177	19	12	182	177	2	7	7	342	237	177	77	13	0	71	0	73	689
NS17a	-	93	0	121	294	1	124	239	4715	1272	236	10	130	11	-	400	10	24
NS17b	211	213	0	129	302	69	124	239	4715	1280	236	18	130	38	794	412	22	24
NS18a	-	971	718	989	555	317	2105	493	822	1004	2144	1189	2408	412	39	113	1	702
NS18b	667	1244	755	1168	908	317	2355	743	1020	1189	2331	1360	2463	519	177	268	176	720
NS19a	-	128	100	184	1865	1	0	44	260	1079	482	2233	760	1700	301	0	-	104
NS19b	428	212	100	227	2007	1	50	94	631	1158	716	2245	1036	2335	301	40	48	104
NS20a	-	412	27	1308	124	20	15	0	119	38	229	165	485	485	38	200	-	98
NS20b	276	460	37	1452	220	20	27	17	218	285	354	336	514	534	41	375	225	110
NS21a	-	25	1	-	330	0	-	-	-	-	-	0	432	267	60	-	-	11
NS21b	197	51	1	197	356	1	1	1	197	197	197	193	432	267	60	33	33	11
NS22a	-	99	52	287	135	7	66	23	2	40	11	2	14	30	120	0	0	36
NS22b	64	99	52	287	135	72	86	80	38	76	47	38	53	30	120	22	22	56
NSTOa	**0**	**2406**	**1228**	**5134**	**3651**	**362**	**3175**	**802**	**6508**	**3772**	**5748**	**4940**	**7741**	**3402**	**1123**	**1214**	**101**	**1777**
NSTOb	**2669**	**3004**	**1275**	**6063**	**4821**	**532**	**3561**	**1207**	**7627**	**5075**	**7156**	**5710**	**8490**	**6724**	**2850**	**1777**	**945**	**2041**
NL22a	8	5	40	31	56	-	47	29	43	103	73	23	0	-	0	-	0	30
NL22b	8	5	40	31	56	50	47	29	43	103	73	23	0	35	0	15	0	30
NL23a	118	1130	475	1210	10496	1540	2955	213	2338	-	1160	631	690	4070	-	-	337	361
NL23b	3218	3630	3575	1810	10496	4540	3555	3313	4838	4400	4260	3231	4390	7270	500	1250	1387	861
NL24a	195	250	100	200	420	230	0	105	110	0	175	2940	775	220	-	-	-	0
NL24b	195	250	100	200	420	230	0	105	110	0	175	2940	775	220	140	290	290	0
NL25a	233	1175	3510	1410	7571	791	5302	587	3804	1010	545	-	585	2888	-	-	138	3
NL25b	303	1245	3510	1480	7571	1791	6302	1587	3874	1010	545	2070	1785	2888	0	350	363	3
NL26a	7630	2450	3175	1740	16510	-	6198	-	5852	616	840	2385	460	3075	0	-	334	280
NL26b	7630	2450	3175	1740	16510	5000	6198	5000	5852	616	840	2385	460	3075	0	500	334	280
NL27a	-	550	-	-	-	-	-	-	-	0	-	-	40	700	0	-	14	48
NL27b	500	550	500	500	500	500	500	500	500	0	500	500	40	700	0	10	14	48
NL28a	4570	5855	559	5395	9340	1215	5950	2032	4692	1715	5036	3573	5405	4507	3490	-	1113	12180
NL28b	4720	6005	709	5395	9490	1365	5950	2182	4692	1865	5186	3723	5905	4507	3490	2400	1513	12580
NL29a	740	755	7	250	10	170	1075	97	159	0	18	88	63	0	0	-	75	186
NL29b	740	755	7	250	10	170	1075	97	159	0	18	88	63	0	0	20	75	186
NLTOa	**13494**	**12170**	**7866**	**10236**	**44403**	**3946**	**21527**	**3063**	**16998**	**3444**	**7847**	**9640**	**8018**	**15460**	**3490**	**-**	**2011**	**13088**
NLTOb	**17314**	**14890**	**11616**	**11406**	**45053**	**13646**	**23627**	**12813**	**20068**	**7994**	**11597**	**14960**	**13418**	**18695**	**4130**	**4835**	**3976**	**13988**
TOTAa	**13494**	**22075**	**11204**	**24200**	**54597**	**5603**	**32843**	**5914**	**45258**	**20929**	**31860**	**25672**	**23255**	**33273**	**11378**	**11982**	**11383**	**21695**
TOTAb	**31865**	**27535**	**15575**	**28276**	**58146**	**16212**	**35603**	**16761**	**51908**	**28177**	**38550**	**33647**	**33553**	**41951**	**18605**	**21879**	**14920**	**23346**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	1431	913	90	1390	951	495	1030	400	467	825	30	528	911	2300	683	355	822	228
DK01b	1431	913	90	1390	951	900	1030	400	467	825	30	528	911	2300	683	355	822	228
DK02a	528	625	146	1905	3150	705	3446	2211	814	4433	3510	4765	1316	4260	465	2894	4265	1704
DK02b	528	625	146	1905	3150	3000	3446	2211	814	4433	3510	4765	1316	4260	465	2894	4265	1704
DK03a	305	325	68	245	570	275	1459	2050	485	2668	40	6325	1550	920	960	1575	462	1395
DK03b	305	325	68	245	570	500	1459	2050	485	2668	40	6325	1550	920	960	1575	462	1395
DK04a	371	1475	989	345	105	59	1239	655	2045	2023	3640	3955	479	695	2153	1490	1060	1083
DK04b	371	1475	989	345	105	105	1239	655	2045	2023	3640	3955	479	695	2153	1490	1060	1083
DK05a	408	650	119	234	317	599	1431	360	3196	3630	2887	16390	2337	948	2593	1530	2763	2055
DK05b	408	650	119	234	317	599	1431	360	3196	3630	2887	16390	2337	948	2593	1530	2763	2055
DKTOa	**3043**	**3988**	**1412**	**4119**	**5093**	**2133**	**8605**	**5676**	**7007**	**13579**	**10107**	**31963**	**6593**	**9123**	**6854**	**7844**	**9372**	**6465**
DKTOb	**3043**	**3988**	**1412**	**4119**	**5093**	**5104**	**8605**	**5676**	**7007**	**13579**	**10107**	**31963**	**6593**	**9123**	**6854**	**7844**	**9372**	**6465**
SH06a	902	335	61	207	117	1128	274	528	1398	4119	151	1216	2488	547	930	987	899	1110
SH06b	973	734	504	695	817	1348	980	2567	1936	5317	2730	2117	3684	1460	1708	1471	906	1655
SH07a	655	246	332	588	10	347	231	1230	490	13180	1357	61	100	813	2935	338	25	368
SH07b	692	430	395	634	325	385	431	4497	1412	13180	1424	1321	831	1683	3123	686	41	406
SH08a	650	524	119	445	295	425	1247	3596	4170	7021	680	629	715	1653	1473	630	540	184
SH08b	657	655	245	524	306	529	1269	3596	4852	7021	3155	729	882	1659	1894	1033	1010	593
SH09a	111	97	142	71	47	38	203	3400	352	158	4000	492	0	315	1726	491	2	9
SH09b	119	140	179	81	106	68	235	3738	774	1652	5108	1637	1408	2664	2617	2131	417	439
SH10a	269	62	55	15	60	73	352	2406	6003	1922	940	651	2070	4989	2830	1356	1782	232
SH10b	278	75	64	47	94	74	902	2525	7406	2211	1479	3351	4813	5391	5912	4236	1789	475
SH11a	70	74	45	24	0	20	241	1895	0	5276	0	643	475	3549	708	191	1240	40
SH11b	70	101	72	24	27	20	241	1895	60	5276	34	843	4475	3939	1090	191	1440	430
SH12a	160	460	181	324	324	130	602	1850	3701	1512	489	682	932	550	2007	2274	63	76
SH12b	185	464	200	324	342	154	602	3571	3802	1801	871	807	1132	599	2157	2424	301	76
SH13a	260	65	0	282	0	40	279	0	25	1075	0	1924	0	2337	150	0	983	1
SH13b	260	190	203	388	162	134	279	6117	2300	2300	2570	1924	2431	3272	364	364	984	117
SH14a	254	20	117	735	100	65	516	340	135	95	17	140	1	4	88	33	1	157
SH14b	254	93	117	742	100	72	526	368	210	103	50	147	61	167	88	118	98	157
SHTOa	**3331**	**1883**	**1052**	**2691**	**953**	**2266**	**3945**	**15245**	**16274**	**34358**	**7634**	**6438**	**6781**	**14757**	**12847**	**6300**	**5535**	**2177**
SHTOb	**3488**	**2882**	**1979**	**3459**	**2279**	**2784**	**5465**	**28874**	**22752**	**38861**	**17421**	**12876**	**19717**	**20834**	**18953**	**12654**	**6986**	**4348**
NS14a	73	85	533	24	126	174	-	4866	958	211	757	771	286	42	718	467	308	561
NS14b	214	135	603	168	194	321	0	4866	1138	557	830	909	329	445	947	631	551	586
NS15a	325	100	100	368	31	0	0	5748	4586	4080	1467	6200	250	51	2128	1740	1200	700
NS15b	409	174	134	428	99	119	93	5748	5861	6334	1477	6829	2362	4514	5109	5196	3581	700
NS16a	145	0	100	85	1	0	-	600	500	0	2080	300	0	30	-	-	220	850
NS16b	145	73	100	85	1	0	0	600	500	0	2080	300	0	30	30	30	1020	945
NS17a	40	38	250	184	20	90	-	1214	400	620	803	675	990	610	240	404	1029	403
NS17b	48	38	262	184	28	98	17	1222	400	620	803	675	990	610	240	414	1029	478
NS18a	68	105	60	317	343	1	1200	906	992	1787	1724	400	232	2305	102	983	1384	1056
NS18b	68	105	212	364	448	156	1540	1476	1020	1802	1724	715	276	2510	482	983	1452	1058
NS19a	695	39	0	69	15	0	-	1360	851	2520	357	820	11	739	1750	3	0	352
NS19b	698	76	22	95	37	40	244	1360	1858	3458	668	1485	1195	1854	3017	1555	270	360
NS20a	367	203	317	213	177	1	-	269	213	483	4353	714	1338	1371	7306	74	131	337
NS20b	536	338	526	219	374	198	297	373	766	730	4435	869	1417	1441	7566	632	772	655
NS21a	-	0	145	0	36	122	-	210	-	0	65	-	625	0	198	25	-	0
NS21b	33	27	145	27	69	122	-	360	70	70	65	70	625	16	198	41	41	39
NS22a	3	1	36	26	36	20	-	10	2	5	68	100	0	8	1	58	3	94
NS22b	23	21	52	30	36	36	0	10	2	5	68	100	1	44	33	90	97	102
NSTOa	**1716**	**571**	**1541**	**1286**	**785**	**408**	**1200**	**15183**	**8502**	**9706**	**11674**	**9980**	**3732**	**5156**	**12443**	**3754**	**4275**	**4353**
NSTOb	**2174**	**987**	**2056**	**1600**	**1286**	**1090**	**2191**	**16015**	**11615**	**13576**	**12150**	**11952**	**7195**	**11464**	**17622**	**9572**	**8813**	**4923**
NL22a	24	9	0	21	0	1	8	20	30	2	6	6	0	184	20	85	58	190
NL22b	24	9	0	21	0	1	8	20	30	2	6	6	0	184	20	85	58	190
NL23a	1975	926	-	131	-	298	426	8210	8155	2355	2600	2722	5285	2295	2933	-	4450	2740
NL23b	2475	1426	1300	1181	1300	798	526	11210	9655	10080	6100	7722	5285	5595	2933	11300	6450	6440
NL24a	-	-	-	-	-	-	0	1830	2720	3750	760	755	1760	1170	1930	-	18	225
NL24b	290	290	290	290	290	290	0	1830	2720	3750	760	755	1760	1170	1930	1500	18	225
NL25a	338	1795	-	-	-	21	217	10045	7935	6021	3695	3230	5690	3110	5422	-	4305	3990
NL25b	338	1820	25	25	25	46	217	11045	8935	7521	3695	4230	5690	3110	5422	4700	4305	3990
NL26a	1745	154	0	398	0	278	98	2390	4890	4528	2910	2455	3235	1241	959	-	3195	7350
NL26b	1745	154	0	398	0	278	98	2390	4890	4528	2910	2455	3235	1241	959	1100	3195	7350
NL27a	0	8	0	140	0	0	0	2000	-	-	3000	-	-	620	-	-	1000	-
NL27b	0	8	0	140	0	0	0	2000	1100	1100	3000	1100	1100	620	500	500	1000	700
NL28a	1510	1981	-	1679	-	771	656	4774	10990	9601	5103	12562	5630	7800	3341	-	5568	6809
NL28b	1910	2381	400	2079	400	771	1056	4774	10990	9601	5203	12662	5630	7800	3341	5200	5568	6809
NL29a	58	-	0	504	-	2	207	16	101	101	133	80	21	345	0	-	15	56
NL29b	58	150	0	504	150	2	207	16	101	101	133	90	21	345	0	150	15	56
NLTOa	**5650**	**4873**	**0**	**2873**	**0**	**1371**	**1612**	**29285**	**34821**	**26358**	**18207**	**21810**	**21621**	**16765**	**14605**	**85**	**18609**	**21360**
NLTOb	**6840**	**6238**	**2015**	**4638**	**2165**	**2186**	**2112**	**33285**	**38421**	**36683**	**21807**	**29020**	**22721**	**20065**	**15105**	**24535**	**20609**	**25760**
TOTAa	**13740**	**11315**	**4005**	**10969**	**6831**	**6178**	**15362**	**65389**	**66604**	**84001**	**47622**	**70191**	**38727**	**45801**	**46749**	**17983**	**37791**	**34355**
TOTAb	**15545**	**14095**	**7462**	**13816**	**10823**	**11164**	**18373**	**83850**	**79795**	**102699**	**61485**	**85811**	**56226**	**61486**	**58534**	**54605**	**45780**	**41496**

Table 34. Lesser Black-backed Gull *Larus fuscus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	23	23
DK01b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	23	23
DK02a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	38	0	13	3
DK02b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	40	13	3
DK03a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
DK03b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0
DK04a	-	0	0	0	0	0	0	0	0	0	0	0	1	0	7	0	2	0
DK04b	0	0	0	0	0	0	0	0	0	0	0	0	1	0	7	7	2	0
DK05a	-	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK05b	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DKTOa	**-**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**47**	**0**	**38**	**26**
DKTOb	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**47**	**54**	**38**	**26**
SH06a	-	0	2	1	0	0	0	0	0	0	0	0	0	0	2	4	43	15
SH06b	0	0	2	1	0	1	1	2	0	0	0	0	1	0	10	4	46	16
SH07a	-	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
SH07b	0	9	0	0	0	0	0	0	0	0	0	0	0	0	5	0	35	3
SH08a	-	0	1	0	12	0	0	1	0	0	0	0	0	0	0	60	1	1
SH08b	6	6	1	6	12	0	0	1	6	6	6	6	0	0	1	61	1	1
SH09a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	13
SH09b	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	10	13
SH10a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0
SH10b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	1	1
SH11a	-	0	0	63	0	0	0	0	0	8	13	0	20	0	2	0	2	5
SH11b	8	4	0	63	0	0	0	0	0	8	13	0	20	20	2	0	2	5
SH12a	-	0	0	0	0	0	0	0	0	0	0	0	6	0	3	0	80	600
SH12b	0	0	0	0	0	0	0	0	0	0	0	0	7	0	3	0	80	600
SH13a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH13b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14a	-	0	0	2	0	0	2	0	1	0	0	0	2	0	0	0	0	0
SH14b	0	0	0	2	0	0	2	0	1	0	0	0	2	2	0	0	0	0
SHTOa	**-**	**9**	**3**	**66**	**12**	**0**	**2**	**1**	**1**	**8**	**13**	**0**	**28**	**0**	**13**	**67**	**126**	**637**
SHTOb	**14**	**19**	**3**	**72**	**12**	**1**	**3**	**3**	**7**	**14**	**19**	**6**	**30**	**24**	**30**	**68**	**175**	**639**
NS14a	-	0	0	1	1	0	45	0	0	0	3	0	14	1	18	4	0	0
NS14b	0	0	0	1	1	0	45	0	0	0	3	0	14	1	18	4	0	0
NS15a	-	0	10	402	8	0	-	0	0	0	0	0	21	0	0	-	0	5
NS15b	0	0	10	402	8	0	5	5	0	0	0	0	21	21	4	4	4	5
NS16a	-	0	0	0	0	0	0	-	0	40	20	0	5	-	-	0	-	0
NS16b	20	0	0	20	20	0	0	0	0	40	20	20	5	5	33	0	1	0
NS17a	-	0	0	0	0	0	14	0	10	1	5	5	0	0	-	0	0	0
NS17b	1	0	0	0	0	0	14	0	10	1	5	5	0	0	2	0	0	0
NS18a	-	0	0	1	1	0	5	0	0	0	0	5	15	0	6	4	0	40
NS18b	2	0	0	3	3	0	5	0	2	2	2	5	15	1	7	4	0	40
NS19a	-	0	0	66	0	0	0	0	0	17	22	1	2	0	30	0	-	53
NS19b	0	0	0	66	0	0	0	0	0	17	22	1	2	23	30	14	14	53
NS20a	-	1	0	0	0	0	0	0	61	0	74	41	641	0	36	0	-	52
NS20b	29	8	0	29	29	0	0	0	68	29	74	41	653	26	36	79	79	52
NS21a	-	1	0	-	10	0	-	-	-	-	-	0	2	7	2	-	-	0
NS21b	89	84	0	89	93	0	0	0	89	89	89	89	4	7	2	1	1	0
NS22a	-	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
NS22b	0	0	2	0	0	2	2	2	0	0	0	0	0	0	1	0	0	0
NSTOa	**0**	**2**	**12**	**470**	**20**	**0**	**64**	**0**	**71**	**58**	**124**	**52**	**700**	**8**	**93**	**8**	**0**	**150**
NSTOb	**141**	**92**	**12**	**610**	**154**	**2**	**71**	**7**	**169**	**178**	**215**	**161**	**714**	**84**	**133**	**106**	**99**	**150**
NL22a	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	0	0
NL22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL23a	3	12	8	6	44	3	19	0	123	-	0	1	0	2	-	-	2	203
NL23b	3	12	8	6	44	3	19	0	123	15	0	1	0	12	75	100	2	203
NL24a	0	0	0	0	0	0	0	0	0	0	0	0	32	0	0	-	-	0
NL24b	0	0	0	0	0	0	0	0	0	0	0	0	32	0	0	10	10	0
NL25a	0	0	5	5	150	0	7	0	5	1	1	-	4	85	0	-	5	0
NL25b	0	0	5	5	150	0	7	0	5	1	1	13	4	85	0	100	5	0
NL26a	95	3	1	80	86	0	23	0	254	9	1	130	12	335	0	-	594	1167
NL26b	95	3	1	80	86	0	23	0	254	9	1	130	12	335	0	1000	594	1167
NL27a	-	0	-	-	-	-	-	-	-	0	-	-	0	0	0	-	3	11
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	11
NL28a	0	0	0	20	0	0	1	0	1	0	0	-	8	8	96	-	33	74
NL28b	0	0	0	20	0	0	1	0	1	0	0	300	8	8	96	60	33	84
NL29a	0	6	29	1	0	1	0	0	0	0	0	1	0	0	0	-	0	0
NL29b	0	6	29	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0
NLTOa	**98**	**21**	**43**	**112**	**280**	**4**	**50**	**0**	**383**	**10**	**2**	**132**	**56**	**430**	**96**	**-**	**637**	**1455**
NLTOb	**98**	**21**	**43**	**112**	**280**	**4**	**50**	**0**	**383**	**25**	**2**	**445**	**56**	**440**	**171**	**1273**	**647**	**1465**
TOTAa	**98**	**32**	**58**	**649**	**312**	**4**	**116**	**1**	**455**	**76**	**139**	**184**	**785**	**438**	**249**	**75**	**801**	**2268**
TOTAb	**253**	**132**	**58**	**795**	**446**	**7**	**124**	**10**	**559**	**217**	**236**	**612**	**801**	**548**	**381**	**1501**	**959**	**2280**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	5	0	8	20	0	0	11	2	8	41	0	0	1	6	0	0	2	0
DK01b	5	0	8	20	0	0	11	2	8	41	0	0	1	6	0	0	2	0
DK02a	9	0	0	13	0	0	58	7	2	12	0	2	50	0	0	8	0	0
DK02b	9	0	0	13	0	0	58	7	2	12	0	2	50	0	0	8	0	0
DK03a	0	0	2	0	3	0	4	0	29	1	0	5	0	0	0	0	4	2
DK03b	0	0	2	0	3	5	4	0	29	1	0	5	0	0	0	0	4	2
DK04a	1	0	12	0	3	0	0	0	0	0	3	4	0	0	0	0	0	0
DK04b	1	0	12	0	3	5	0	0	0	0	3	4	0	0	0	0	0	0
DK05a	0	1	0	0	0	0	16	0	0	0	1	0	0	0	0	0	1	3
DK05b	0	1	0	0	0	0	16	0	0	0	1	0	0	0	0	0	1	3
DKTOa	**15**	**1**	**22**	**33**	**6**	**0**	**89**	**9**	**39**	**54**	**4**	**11**	**51**	**6**	**0**	**8**	**7**	**5**
DKTOb	**15**	**1**	**22**	**33**	**6**	**10**	**89**	**9**	**39**	**54**	**4**	**11**	**51**	**6**	**0**	**8**	**7**	**5**
SH06a	21	17	10	16	8	1	35	37	84	22	27	5	73	0	5	1	0	1
SH06b	23	21	13	21	312	306	44	51	87	32	45	10	79	3	6	1	7	8
SH07a	89	1	82	451	0	0	135	0	128	0	12	12	0	12	15	2	0	0
SH07b	89	71	82	451	70	0	135	128	129	0	12	13	1	14	15	2	3	3
SH08a	3	0	0	0	0	0	3	3	6	7	0	0	5	1	1	1	0	0
SH08b	3	0	0	0	0	0	3	3	6	7	2	0	5	1	1	1	0	0
SH09a	17	6	0	13	4	0	10	5	75	40	4	0	0	11	0	0	2	0
SH09b	18	12	17	17	12	9	44	15	81	93	63	26	20	18	7	7	2	0
SH10a	2	0	0	3	0	0	12	14	3	3	0	5	0	0	1	11	0	0
SH10b	2	2	2	4	1	0	14	15	8	3	4	6	6	1	1	11	0	0
SH11a	0	1	2	0	0	0	0	0	0	42	0	1	0	0	4	0	1	0
SH11b	0	1	2	0	0	0	0	0	1	42	0	1	0	0	4	0	1	0
SH12a	170	0	14	450	25	30	680	44	7	30	0	2	0	0	8	0	0	0
SH12b	170	0	14	450	25	30	680	44	7	30	0	5	0	0	8	0	0	0
SH13a	1	0	0	0	0	0	6	0	0	2	0	0	0	0	0	0	0	0
SH13b	1	1	1	0	1	0	6	0	0	2	0	0	0	0	0	0	0	0
SH14a	0	0	5	2	0	0	0	0	0	5	0	0	0	0	0	0	0	1
SH14b	0	0	5	2	0	0	3	0	0	5	0	0	0	0	0	0	1	1
SHTOa	**303**	**25**	**113**	**935**	**37**	**31**	**881**	**103**	**303**	**151**	**43**	**25**	**78**	**24**	**34**	**15**	**3**	**2**
SHTOb	**306**	**108**	**136**	**945**	**421**	**345**	**929**	**256**	**319**	**214**	**126**	**61**	**111**	**37**	**42**	**22**	**14**	**12**
NS14a	0	1	0	3	0	1	-	7	3	1	9	3	0	0	1	0	3	0
NS14b	0	1	0	3	0	1	0	7	3	1	9	3	0	0	1	0	3	0
NS15a	0	0	0	0	3	0	0	15	70	0	3	0	0	0	0	0	0	0
NS15b	4	4	4	0	3	4	0	15	70	22	3	22	0	1	1	0	0	0
NS16a	59	0	80	132	1	0	-	60	40	10	0	17	0	0	-	-	135	70
NS16b	59	1	80	132	1	0	0	60	40	10	0	17	0	8	8	8	135	70
NS17a	0	1	0	0	0	0	-	4	0	0	8	0	0	0	0	0	4	5
NS17b	0	1	0	0	0	0	0	5	0	0	8	0	0	0	0	0	4	5
NS18a	4	8	0	15	5	0	20	0	36	156	11	9	0	1	0	0	0	0
NS18b	4	8	0	15	5	0	38	0	37	157	11	17	1	3	2	2	7	0
NS19a	56	0	0	4	10	0	-	35	0	30	2	178	1	16	0	0	2	22
NS19b	56	14	0	18	10	14	74	35	11	30	8	178	7	18	2	2	2	22
NS20a	0	58	0	32	0	0	-	21	117	116	3	95	44	56	20	4	38	4
NS20b	79	115	79	32	79	79	89	671	171	122	10	136	51	56	22	34	98	76
NS21a	-	0	26	0	2	11	-	42	-	10	2	-	11	25	24	0	-	0
NS21b	1	1	26	1	3	11	-	47	15	12	15	15	24	33	24	8	5	2
NS22a	0	0	0	1	0	0	-	6	0	0	0	0	0	0	1	2	0	1
NS22b	0	0	0	1	0	0	0	6	0	0	0	0	0	2	1	2	1	1
NSTOa	**119**	**68**	**106**	**187**	**21**	**12**	**20**	**190**	**266**	**323**	**38**	**302**	**56**	**98**	**46**	**6**	**182**	**102**
NSTOb	**203**	**145**	**189**	**202**	**101**	**109**	**201**	**846**	**347**	**354**	**64**	**388**	**83**	**121**	**61**	**56**	**255**	**176**
NL22a	0	0	0	11	0	0	1	0	0	0	28	0	0	0	0	0	0	0
NL22b	0	0	0	11	0	0	1	0	0	0	28	0	0	0	0	0	0	0
NL23a	25	19	0	2	0	30	252	26	74	270	2	1	57	11	44	-	3	16
NL23b	25	19	0	2	0	30	252	26	74	270	2	1	57	11	44	0	3	16
NL24a	-	0	0	-	0	-	0	55	0	0	0	0	22	0	0	-	0	
NL24b	10	0	0	10	0	10	0	55	0	0	0	0	22	0	0	0	0	0
NL25a	14	23	0	0	0	0	20	65	0	23	0	5	15	45	0	-	4	1
NL25b	14	23	0	0	0	0	20	65	0	23	0	5	15	45	0	0	4	1
NL26a	528	194	0	494	0	326	1462	1600	535	954	1815	254	420	332	745	-	18	2
NL26b	528	194	0	494	0	326	1462	1600	535	954	1815	254	420	332	745	0	18	2
NL27a	6	0	0	0	0	2	7	0	0	0	0	0	0	0	0	-	0	0
NL27b	6	0	0	0	0	2	7	0	0	0	0	0	0	0	0	0	0	0
NL28a	79	58	0	221	0	2	29	111	180	351	909	31	780	32	40	-	11	1
NL28b	89	58	0	231	0	12	39	111	180	351	909	31	780	32	40	0	11	1
NL29a	0	0	0	0	0	0	0	0	0	7	0	0	34	0	0	-	0	0
NL29b	0	0	0	0	0	0	0	0	0	7	0	0	34	0	0	0	0	0
NLTOa	**652**	**294**	**0**	**728**	**0**	**360**	**1771**	**1857**	**789**	**1605**	**2754**	**291**	**1328**	**420**	**829**	**0**	**36**	**20**
NLTOb	**672**	**294**	**0**	**748**	**0**	**380**	**1781**	**1857**	**789**	**1605**	**2754**	**291**	**1328**	**420**	**829**	**0**	**36**	**20**
TOTAa	**1089**	**388**	**241**	**1883**	**64**	**403**	**2761**	**2159**	**1397**	**2133**	**2839**	**629**	**1513**	**548**	**909**	**29**	**228**	**129**
TOTAb	**1196**	**548**	**347**	**1928**	**528**	**844**	**3000**	**2968**	**1494**	**2227**	**2948**	**751**	**1573**	**584**	**932**	**86**	**312**	**213**

Table 35. Herring Gull *Larus argentatus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	-	1776	2245	314	7228	7797	1400	280	3236	3247	2231	732	4156	4091	1397	3788	6189	2034
DK01b	2771	1776	2245	314	7228	7797	1400	280	3236	3247	2231	732	4156	4091	1397	3788	6189	2034
DK02a	-	12057	2948	29736	4835	9164	9297	3757	9607	9630	13756	32295	5770	3392	3063	5552	4733	3974
DK02b	12462	12057	2948	29736	4835	9164	9297	3757	9607	9630	13756	32295	5770	3392	3063	5552	4733	3974
DK03a	-	1524	94	113	4606	199	80	262	1217	2175	718	2265	1687	3629	2030	3470	790	2121
DK03b	1205	1524	94	113	4606	199	80	262	1217	2175	718	2265	1687	3629	2030	3470	790	2121
DK04a	-	1720	375	596	4697	1107	621	371	2151	4806	5424	3930	3790	4080	4726	2110	925	1024
DK04b	2345	1720	375	596	4697	1107	621	371	2151	4806	5424	3930	3790	4080	4726	2110	925	1024
DK05a	-	439	192	639	570	652	129	202	1354	1391	883	947	898	568	620	95	1521	3592
DK05b	673	439	192	639	570	652	129	202	1354	1391	883	947	898	568	620	95	1521	3592
DKTOa	**-**	**17516**	**5854**	**31398**	**21936**	**18919**	**11527**	**4872**	**17565**	**21249**	**23012**	**40169**	**16301**	**15760**	**11836**	**15015**	**14158**	**12745**
DKTOb	**19456**	**17516**	**5854**	**31398**	**21936**	**18919**	**11527**	**4872**	**17565**	**21249**	**23012**	**40169**	**16301**	**15760**	**11836**	**15015**	**14158**	**12745**
SH06a	-	1056	1323	728	772	175	2650	376	602	984	1335	693	336	1384	140	2459	2087	1355
SH06b	2301	1589	2506	1890	1648	1547	3085	2325	1212	1672	2081	1668	1547	1832	2509	3179	3182	2366
SH07a	-	18	18	80	77	155	1208	10	326	1205	1090	496	0	551	1160	234	170	309
SH07b	587	570	857	619	692	196	1248	385	834	1259	1509	1211	1044	859	1382	515	1166	537
SH08a	-	730	174	1547	810	502	424	473	8949	3391	4689	4592	245	1650	1300	2854	1514	3758
SH08b	2030	1376	174	1832	1152	634	544	473	9435	3522	4819	4722	1592	1658	3320	3774	1536	4210
SH09a	-	13034	0	190	0	374	114	5	444	88	409	651	3270	255	3152	323	1009	3887
SH09b	12950	16917	107	8062	7854	374	114	55	8063	7841	8041	8585	4396	2158	3162	3010	3478	3952
SH10a	-	926	40	1165	370	80	629	282	411	870	5875	693	160	574	553	985	174	517
SH10b	2685	2347	47	2624	2160	226	629	289	1116	1946	6003	1010	542	747	662	1111	1308	1550
SH11a	-	3	140	39	720	9	510	25	854	540	1750	521	6296	387	2400	0	636	380
SH11b	1026	148	146	1551	734	129	630	145	891	554	1788	1870	6664	6209	2565	971	1081	864
SH12a	-	784	1	680	1804	0	28	19	425	197	1718	0	3640	4041	3503	6146	7026	13037
SH12b	1436	813	1	2209	1821	1	29	20	2444	1746	4458	1863	5747	4041	3683	6157	7026	13037
SH13a	-	0	225	20	1	30	30	47	136	276	2170	91	0	7	0	0	638	362
SH13b	1265	321	268	340	339	73	30	62	456	277	2170	91	123	80	99	211	638	362
SH14a	-	5	45	25	74	0	36	12	47	25	22	23	27	16	5	30	16	44
SH14b	24	28	51	25	74	6	36	24	47	30	22	28	34	38	38	70	43	47
SHTOa	**-**	**16556**	**1966**	**4474**	**4628**	**1325**	**5629**	**1249**	**12194**	**7576**	**19058**	**7760**	**13974**	**8865**	**12213**	**13031**	**13270**	**23649**
SHTOb	**24304**	**24109**	**4157**	**19152**	**16474**	**3186**	**6345**	**3778**	**24498**	**18847**	**30891**	**21048**	**21689**	**17622**	**17420**	**18998**	**19458**	**26925**
NS14a	-	52	237	1017	106	29	513	5	34	36	20	24	221	92	342	231	0	10
NS14b	381	55	237	1026	460	65	601	93	41	394	380	382	230	111	342	232	29	33
NS15a	-	8996	237	7400	7165	0	-	0	1130	1446	1671	1722	21373	3000	6100	-	500	1707
NS15b	6158	9196	237	12575	12890	182	195	183	6053	6719	7104	6805	21473	15596	7272	1885	1977	2851
NS16a	-	6171	508	400	40	0	800	-	3780	250	110	105	3191	-	-	0	-	400
NS16b	1631	6216	508	1631	1668	8	1058	258	4893	1808	1668	600	3211	350	10680	254	254	434
NS17a	-	120	108	88	486	0	704	115	1697	475	298	209	1482	95	-	104	20	71
NS17b	132	129	108	95	493	93	704	117	1697	491	298	216	1482	240	280	151	159	81
NS18a	-	12089	3710	2130	681	194	1650	2037	8387	5449	1092	4132	11443	1147	1701	1040	87	2582
NS18b	3601	12544	4126	3988	3183	206	2492	2880	10487	6921	3216	5175	11812	3166	1805	1366	1121	2740
NS19a	-	17319	1427	3118	4860	50	200	10	425	7092	7929	7180	21245	2946	19076	0	-	1070
NS19b	4168	17804	1427	4168	6617	75	829	639	3320	7339	8925	7300	23019	6560	19076	902	962	1070
NS20a	-	6578	236	1081	1926	38	402	2	2802	156	7510	4599	23162	1373	27634	20	-	4538
NS20b	6503	7307	245	6901	6010	95	487	225	6178	6135	8665	7562	24016	4940	28044	4590	4585	4568
NS21a	-	1020	750	-	4946	0	-	-	-	-	-	0	3360	4268	2900	-	-	4065
NS21b	2297	1484	750	2297	5345	430	590	590	2297	2297	2297	2211	4418	4518	2900	1009	1009	4065
NS22a	-	319	101	101	132	0	18	13	193	48	10	143	1	59	160	7	0	247
NS22b	70	319	101	101	132	113	124	120	204	59	21	154	48	73	160	148	141	385
NSTOa	**0**	**52664**	**7314**	**15335**	**20342**	**311**	**4287**	**2182**	**18448**	**14952**	**18640**	**18114**	**85478**	**12980**	**57913**	**1402**	**607**	**14690**
NSTOb	**24941**	**55054**	**7739**	**32782**	**36798**	**1267**	**7080**	**5105**	**35170**	**32163**	**32574**	**30405**	**89709**	**35554**	**70559**	**10537**	**10237**	**16227**
NL22a	0	93	46	64	5	-	61	26	43	15	39	4	0	-	0	-	0	38
NL22b	0	93	46	64	5	40	61	26	43	15	39	4	0	3500	0	50	0	38
NL23a	175	4430	220	1550	43953	4267	1857	1041	6896	-	4610	2271	-	15485	-	-	1845	1150
NL23b	6175	6930	6220	5050	43953	8267	5357	7041	9396	8600	10610	4621	6250	18735	8500	6600	8495	5800
NL24a	33	1100	400	1270	3550	360	5540	90	2570	1410	415	2275	0	430	-	-	0	0
NL24b	33	1100	400	1270	3550	360	5540	90	2570	1410	415	2275	0	430	1700	1600	0	0
NL25a	11695	7170	2070	6455	10257	614	13094	44	3091	7645	5066	205	-	7089	-	-	2377	1008
NL25b	13095	8570	2070	7855	10257	4114	16594	3544	4491	7645	5066	2743	2500	7089	0	4900	2727	1008
NL26a	11485	8060	5610	6030	15173	-	13210	-	13895	12009	7509	11394	0	7537	0	-	3289	10226
NL26b	11485	8060	5610	6030	15173	10000	13210	10000	13895	12009	7509	11394	0	7537	0	10000	3289	10226
NL27a	-	6000	-	-	-	-	-	-	-	0	-	-	0	100	0	-	2640	1910
NL27b	2500	6000	2500	2500	2500	2500	2500	2500	2500	0	2500	2500	0	100	0	2000	2640	1910
NL28a	10712	9220	3293	8540	5171	5780	30634	4074	7822	6939	7309	7793	-	3922	3060	-	2274	2676
NL28b	11012	9520	3593	8540	5471	6080	30634	4374	7822	7239	7609	7843	5000	3922	3060	4200	4274	4676
NL29a	1185	2835	1200	1290	610	1154	1545	500	1206	109	1674	957	0	1200	0	-	1133	650
NL29b	1185	2835	1200	1290	610	1154	1545	500	1206	109	1674	957	0	1200	0	800	1133	650
NLTOa	**35285**	**38908**	**12839**	**25199**	**78719**	**12175**	**65941**	**5775**	**35523**	**28127**	**26622**	**24899**	**0**	**35763**	**3060**	**-**	**13558**	**17658**
NLTOb	**45485**	**43108**	**21639**	**32599**	**81519**	**32515**	**75441**	**28075**	**41923**	**37027**	**35422**	**32337**	**13750**	**42513**	**13260**	**30150**	**22558**	**24308**
TOTAa	**35285**	**125644**	**27973**	**76406**	**125625**	**32730**	**87384**	**14078**	**83730**	**71904**	**87332**	**90942**	**115753**	**73368**	**85022**	**29448**	**41593**	**68742**
TOTAb	**114186**	**139787**	**39389**	**115931**	**156727**	**55887**	**100393**	**41830**	**119156**	**109286**	**121899**	**123959**	**141449**	**111449**	**113075**	**74700**	**66411**	**80205**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	2538	3950	2340	4715	2965	1139	3730	700	3017	2415	5370	2990	1266	1987	2569	1190	2961	2780
DK01b	2538	3950	2340	4715	2965	3000	3730	700	3017	2415	5370	2990	1266	1987	2569	1190	2961	2780
DK02a	2903	2450	1869	3050	5340	2966	7700	5682	8103	10510	13810	10820	6982	9637	8360	22105	8053	15410
DK02b	2903	2450	1869	3050	5340	5000	7700	5682	8103	10510	13810	10820	6982	9637	8360	22105	8053	15410
DK03a	323	625	415	1521	2135	1205	1519	1385	617	654	5760	1510	3295	940	3930	5210	1844	2114
DK03b	323	625	415	1521	2135	2000	1519	1385	617	654	5760	1510	3295	940	3930	5210	1844	2114
DK04a	545	1788	808	1416	726	290	1805	1280	1868	420	1918	2709	1659	1342	1497	2920	1707	2148
DK04b	545	1788	808	1416	726	700	1805	1280	1868	420	1918	2709	1659	1342	1497	2920	1707	2148
DK05a	1595	2445	1842	1595	1402	1381	5597	1870	2600	1408	946	2212	1460	1052	2110	711	1458	1630
DK05b	1595	2445	1842	1595	1402	1400	5597	1870	2600	1408	946	2212	1460	1052	2110	711	1458	1630
DKTOa	**7904**	**11258**	**7274**	**12297**	**12568**	**6981**	**20351**	**10917**	**16205**	**15407**	**27804**	**20241**	**14662**	**14958**	**18466**	**32136**	**16023**	**24082**
DKTOb	**7904**	**11258**	**7274**	**12297**	**12568**	**12100**	**20351**	**10917**	**16205**	**15407**	**27804**	**20241**	**14662**	**14958**	**18466**	**32136**	**16023**	**24082**
SH06a	2502	1793	118	604	262	1707	849	1405	1590	4184	860	831	1098	868	1093	867	846	1950
SH06b	3166	2855	1511	2282	2037	2147	2385	3412	2292	5972	3588	1933	2064	2208	1871	1506	868	2711
SH07a	891	975	1670	1336	50	942	334	137	890	1656	898	1394	100	2211	820	630	231	799
SH07b	1119	2380	2001	1587	1661	1174	384	829	1792	1956	1339	2509	2015	2610	1059	971	445	925
SH08a	3896	3779	2355	2858	2086	1893	4326	2808	3924	9735	1412	5835	1687	8211	3007	2590	4697	3157
SH08b	3904	4159	3709	3336	2105	2692	4467	2820	5484	9736	2979	7236	6114	8276	3089	2857	5000	3441
SH09a	2209	1385	499	1690	3376	544	2472	4135	2187	1360	7590	1546	850	1304	1880	1601	1394	6281
SH09b	2549	1967	2969	3386	4226	3188	2881	4871	3598	3743	9425	2583	3339	6416	3552	3168	3834	6778
SH10a	1979	323	136	517	1781	829	876	2708	770	2237	351	1608	1314	4401	2980	2303	1909	908
SH10b	2034	2163	2025	1525	2824	923	1035	2851	3745	3058	2328	2066	2551	4737	4129	3051	2120	1262
SH11a	330	172	137	208	0	39	975	61	0	16792	19120	1115	61	380	423	26	462	14000
SH11b	730	596	161	208	143	39	1437	61	18270	17999	19120	17067	15833	412	767	26	14575	14120
SH12a	4750	4659	6832	6784	6216	6000	8971	15700	18354	11458	5693	2540	9690	4000	10123	8909	396	637
SH12b	5025	4827	6875	6784	6397	6355	9051	17535	18629	12952	7160	3410	9725	5374	10123	8909	1648	637
SH13a	169	396	0	239	0	130	2050	0	13	411	0	3327	0	1475	30	0	451	2285
SH13b	169	428	340	289	381	323	2050	1933	700	604	1279	3327	1728	1838	790	820	496	2285
SH14a	11	29	79	40	44	25	22	10	50	124	6	4	0	6	9	0	0	7
SH14b	11	36	79	43	44	27	59	47	51	125	34	4	13	12	9	7	5	7
SHTOa	**16737**	**13511**	**11826**	**14276**	**13815**	**12109**	**20875**	**26964**	**27778**	**47957**	**35930**	**18200**	**14800**	**22856**	**20365**	**16926**	**10386**	**30024**
SHTOb	**18707**	**19411**	**19670**	**19440**	**19818**	**16868**	**23749**	**34359**	**54561**	**56145**	**47252**	**40135**	**43382**	**31883**	**25389**	**21315**	**28991**	**32166**
NS14a	10	23	22	113	40	112	-	252	122	9	329	178	623	9	79	324	74	54
NS14b	33	28	30	136	49	136	11	252	307	218	341	351	635	161	157	388	103	54
NS15a	814	156	600	1912	1240	0	85	16690	12460	250	21714	1155	12034	1430	17000	2342	2398	23773
NS15b	2289	1465	1795	2380	1728	1885	575	16699	19298	9545	21729	10533	13075	8696	22991	9837	24689	23773
NS16a	50	133	0	30	1	0	-	0	1	40	20767	100	7990	150	-	-	5300	7460
NS16b	260	133	254	240	255	44	0	0	60	445	20767	100	8009	2260	2167	2167	11000	7550
NS17a	123	96	326	198	56	422	-	645	171	290	462	725	1433	587	377	97	296	1499
NS17b	149	97	373	199	97	463	139	648	278	326	482	740	1453	592	382	110	296	1512
NS18a	781	1025	1406	794	2649	847	650	2572	6623	6432	47725	6117	12338	1958	2600	1664	7200	28096
NS18b	858	1149	1765	1334	2721	1671	2684	3002	8715	6715	47741	10140	12524	3417	3847	1850	14230	28161
NS19a	1773	184	0	1005	2650	0	-	10812	10350	6730	34408	7555	2590	9937	16080	3986	1750	35521
NS19b	1903	913	520	1448	3129	902	3544	10812	15193	9593	35812	9491	5018	12711	20582	8973	7164	36418
NS20a	436	6106	978	4257	679	762	-	1583	9654	6830	44939	6799	15203	10048	11241	441	502	21745
NS20b	4484	9705	4999	4303	4867	4950	3041	14083	18412	8208	46439	15962	15694	10282	12807	5632	16863	26123
NS21a	-	0	1670	266	1520	1488	-	7000	-	2807	8100	-	3320	690	5152	3500	-	2180
NS21b	1009	64	2035	330	1789	1853	-	8100	6083	4417	11073	6083	6293	984	5507	3844	2012	3740
NS22a	59	4	101	105	176	0	-	310	6	13	37	171	22	27	67	41	3	201
NS22b	198	142	236	108	176	135	91	310	18	25	45	183	37	200	162	136	176	207
NSTOa	**4046**	**7727**	**5103**	**8680**	**9011**	**3631**	**735**	**39864**	**39387**	**23401**	**178481**	**22800**	**55553**	**24836**	**52596**	**12395**	**17523**	**120529**
NSTOb	**11183**	**13696**	**12007**	**10478**	**14811**	**12039**	**10085**	**53906**	**68364**	**39492**	**184429**	**53583**	**62738**	**39303**	**68602**	**32937**	**76533**	**127538**
NL22a	58	12	0	178	0	1	83	54	17	24	0	10	59	53	8	12	13	21
NL22b	58	12	0	178	0	1	83	54	17	24	0	10	59	53	8	12	13	21
NL23a	6306	9642	-	3643	-	3756	6010	10670	26740	3650	4915	5517	16065	5922	20213	-	13830	3225
NL23b	6956	10292	8650	10293	8650	4406	7760	15670	31740	25175	23415	29017	16065	22922	20213	16110	16830	13225
NL24a	-	-	-	-	-	-	-	0	3075	5360	10070	2180	1650	2805	2610	3410	-	4185	1565
NL24b	1600	1600	1600	1600	1600	1600	0	3075	5360	10070	2180	1650	2805	2610	3410	3000	4185	1565
NL25a	6132	6800	-	-	-	1767	3473	11960	32990	14079	9615	8628	8550	7031	9608	-	13897	8415
NL25b	6132	8800	2000	2000	2000	5767	3473	12860	33840	16079	9615	9478	8550	7031	9608	9300	13897	8415
NL26a	2173	5627	0	2581	0	2189	3738	7700	28095	30586	9190	5633	6685	6781	12171	-	12764	9305
NL26b	2173	5627	0	2581	0	2189	3738	7700	28095	30586	9190	5633	6685	6781	12171	9000	12764	9305
NL27a	4830	6300	0	3470	0	2218	5770	6000	-	-	8000	-	-	3340	-	-	900	-
NL27b	4830	6300	0	3470	0	2218	5770	6000	2300	2300	8000	2300	2300	3340	2600	2600	900	2300
NL28a	1678	3523	-	3532	-	2048	1786	20775	20292	29633	11503	9989	13385	6531	19135	-	12657	18619
NL28b	3678	5523	2000	5532	2000	4048	3786	20775	20292	29633	14503	12989	13385	6681	19135	12150	12807	18769
NL29a	194	-	0	2272	-	643	406	955	1005	1290	1565	2534	1635	5343	327	-	1045	1290
NL29b	194	1000	0	2272	1000	643	406	955	1005	1290	1565	2534	1635	5343	2750	2800	1045	1290
NLTOa	**21371**	**31904**	**0**	**15676**	**0**	**12622**	**21266**	**61189**	**114499**	**89332**	**46968**	**33961**	**49184**	**37611**	**64872**	**12**	**59291**	**42440**
NLTOb	**25621**	**39154**	**14250**	**27926**	**15250**	**20872**	**25016**	**67089**	**122649**	**115157**	**68468**	**63611**	**51484**	**54761**	**69895**	**54972**	**62441**	**54890**
TOTAa	**50058**	**64400**	**24203**	**50929**	**35394**	**35343**	**63227**	**138934**	**197869**	**176097**	**289183**	**95202**	**134199**	**100261**	**156299**	**61469**	**103223**	**217075**
TOTAb	**63415**	**83519**	**53201**	**70141**	**62447**	**61879**	**79201**	**166271**	**261779**	**226201**	**327953**	**177570**	**172266**	**140905**	**182352**	**141360**	**183988**	**238676**

Table 36. Great Black-backed Gull *Larus marinus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	-	35	249	173	88	347	114	0	79	41	147	25	13	37	14	59	71	15
DK01b	118	35	249	173	88	347	114	0	79	41	147	25	13	37	14	59	71	15
DK02a	-	160	268	294	459	186	235	87	265	322	477	518	35	26	176	89	78	109
DK02b	297	160	268	294	459	186	235	87	265	322	477	518	35	26	176	89	78	109
DK03a	-	52	1	7	157	16	23	16	34	161	143	15	62	44	39	15	12	7
DK03b	57	52	1	7	157	16	23	16	34	161	143	15	62	44	39	15	12	7
DK04a	-	18	96	3	62	117	93	24	85	85	214	75	10	19	19	21	20	22
DK04b	79	18	96	3	62	117	93	24	85	85	214	75	10	19	19	21	20	22
DK05a	-	12	29	4	16	50	9	7	70	59	64	107	31	29	0	0	14	5
DK05b	39	12	29	4	16	50	9	7	70	59	64	107	31	29	0	0	14	5
DKTOa	**-**	**277**	**643**	**481**	**782**	**716**	**474**	**134**	**533**	**668**	**1045**	**740**	**151**	**155**	**248**	**184**	**195**	**158**
DKTOb	**590**	**277**	**643**	**481**	**782**	**716**	**474**	**134**	**533**	**668**	**1045**	**740**	**151**	**155**	**248**	**184**	**195**	**158**
SH06a	-	58	15	94	25	8	226	3	55	150	135	15	30	23	5	2	1	15
SH06b	124	75	63	133	46	101	235	101	95	163	143	41	45	30	12	6	7	16
SH07a	-	9	3	36	2	0	210	3	80	138	66	54	0	5	0	0	0	7
SH07b	65	28	140	49	14	5	211	70	100	140	69	70	23	6	3	1	1	7
SH08a	-	17	3	56	21	9	11	2	75	51	62	45	5	6	3	5	22	8
SH08b	39	26	3	60	26	11	13	2	91	52	63	46	14	6	7	6	22	10
SH09a	-	364	0	22	2	1	12	0	6	4	10	17	0	3	0	0	0	12
SH09b	336	521	12	264	259	1	12	5	240	261	248	247	63	18	17	10	15	12
SH10a	-	62	1	58	23	11	72	6	36	18	72	41	1	6	15	0	2	30
SH10b	133	87	2	118	84	14	72	7	95	39	129	73	16	6	15	0	3	31
SH11a	-	1	2	18	68	0	11	3	169	119	141	34	252	2	4	0	0	0
SH11b	113	6	2	33	68	0	11	3	172	119	144	41	254	247	5	1	0	0
SH12a	-	214	0	30	456	0	1	0	35	28	33	0	263	121	6	110	23	60
SH12b	227	215	0	241	456	0	1	0	249	238	145	220	281	121	6	110	23	61
SH13a	-	0	22	6	0	3	20	2	143	37	139	0	0	0	0	0	25	14
SH13b	95	38	38	40	52	19	20	12	152	37	139	0	5	1	1	1	25	14
SH14a	-	3	9	45	33	2	11	0	14	2	19	0	6	2	1	3	0	9
SH14b	19	9	10	45	33	3	11	3	14	5	19	6	10	8	5	7	5	9
SHTOa	**-**	**728**	**55**	**365**	**630**	**34**	**574**	**19**	**613**	**547**	**677**	**206**	**557**	**168**	**34**	**120**	**73**	**155**
SHTOb	**1151**	**1005**	**270**	**983**	**1038**	**154**	**586**	**203**	**1208**	**1054**	**1099**	**744**	**711**	**443**	**71**	**142**	**101**	**160**
NS14a	-	23	109	145	23	9	202	3	17	5	13	7	75	45	30	73	19	68
NS14b	32	26	109	151	45	9	254	55	18	27	35	29	76	46	30	73	20	69
NS15a	-	211	179	656	62	7	-	0	37	9	16	37	1241	0	10	-	0	18
NS15b	190	231	179	778	230	175	173	170	182	180	190	182	1251	792	10	15	15	18
NS16a	-	428	81	30	8	27	31	-	31	10	0	31	114	-	-	0	-	5
NS16b	59	428	81	85	67	28	72	68	86	69	59	35	114	104	11	0	4	5
NS17a	-	34	1	2	9	0	37	2	86	17	7	1	2	0	-	0	1	1
NS17b	3	34	1	3	10	2	37	2	86	18	7	2	2	0	41	0	1	1
NS18a	-	90	67	18	7	9	22	1	34	7	10	29	100	11	42	6	2	10
NS18b	76	102	68	87	78	9	44	23	106	75	82	58	100	25	43	7	6	11
NS19a	-	381	35	473	355	0	0	0	2	161	98	47	38	21	41	0	-	1
NS19b	109	396	35	482	378	0	18	18	99	161	127	47	49	34	41	1	1	1
NS20a	-	74	42	41	67	3	12	0	78	24	68	28	30	20	4	5	-	6
NS20b	64	97	44	87	94	3	14	11	128	69	85	69	44	35	4	9	4	8
NS21a	-	29	5	-	17	0	-	-	-	-	-	0	15	4	4	-	-	0
NS21b	21	36	5	21	24	0	3	3	21	21	21	19	17	6	4	0	0	0
NS22a	-	50	3	46	13	0	2	1	1	9	4	3	0	0	39	0	0	12
NS22b	23	50	3	46	13	1	2	2	21	29	24	23	4	1	39	1	1	13
NSTOa	**0**	**1320**	**522**	**1411**	**561**	**55**	**306**	**7**	**286**	**242**	**216**	**183**	**1615**	**101**	**170**	**84**	**22**	**121**
NSTOb	**577**	**1400**	**525**	**1740**	**939**	**227**	**617**	**352**	**747**	**649**	**630**	**464**	**1657**	**1043**	**223**	**106**	**52**	**126**
NL22a	0	25	4	41	3	-	16	0	20	0	0	4	0	-	3	-	0	1
NL22b	0	25	4	41	3	10	16	0	20	0	0	4	0	5	3	0	0	1
NL23a	1	28	116	99	877	152	37	2	57	-	16	39	6	41	3	-	-	13
NL23b	401	378	516	149	877	542	87	402	407	460	416	49	116	146	23	75	53	66
NL24a	0	0	0	260	8	3	63	0	170	0	111	5	33	12	-	-	-	0
NL24b	0	0	0	260	8	3	63	0	170	0	111	5	33	12	100	50	50	0
NL25a	6	548	91	905	262	7	68	2	135	256	117	4	-	36	-	-	11	6
NL25b	13	555	91	912	262	257	318	252	142	256	117	63	50	36	0	120	96	6
NL26a	880	630	790	1620	569	-	1379	-	988	183	589	482	310	148	0	-	121	40
NL26b	880	630	790	1620	569	800	1379	800	988	183	589	482	310	148	0	120	121	40
NL27a	-	600	-	-	-	-	-	-	-	40	-	-	45	25	0	-	0	55
NL27b	325	600	325	325	325	325	325	325	325	40	325	325	45	25	0	2	0	55
NL28a	1550	892	244	1155	367	176	1997	397	1238	1304	516	609	515	130	102	-	29	49
NL28b	1600	942	294	1155	417	226	1997	447	1238	1354	566	609	821	130	102	125	54	74
NL29a	88	200	47	280	18	139	11	72	34	17	99	71	17	19	2	-	15	11
NL29b	88	200	47	280	18	139	11	72	34	17	99	71	17	19	2	15	15	11
NLTOa	**2525**	**2923**	**1292**	**4360**	**2104**	**477**	**3571**	**473**	**2642**	**1800**	**1448**	**1214**	**926**	**411**	**110**	**-**	**176**	**175**
NLTOb	**3307**	**3330**	**2067**	**4742**	**2479**	**2302**	**4196**	**2298**	**3324**	**2310**	**2223**	**1608**	**1392**	**521**	**230**	**507**	**389**	**253**
TOTAa	**2525**	**5248**	**2512**	**6617**	**4077**	**1282**	**4925**	**633**	**4074**	**3257**	**3386**	**2343**	**3249**	**835**	**562**	**388**	**466**	**609**
TOTAb	**5625**	**6012**	**3505**	**7946**	**5238**	**3399**	**5873**	**2987**	**5812**	**4681**	**4997**	**3556**	**3911**	**2162**	**772**	**939**	**737**	**697**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	77	15	28	33	4	4	90	120	162	158	62	328	190	198	207	68	70	39
DK01b	77	15	28	33	4	4	90	120	162	158	62	328	190	198	207	68	70	39
DK02a	169	153	5	84	24	86	587	261	443	497	545	579	697	582	162	925	213	223
DK02b	169	153	5	84	24	86	587	261	443	497	545	579	697	582	162	925	213	223
DK03a	20	4	9	32	2	7	56	35	86	92	51	113	97	21	73	20	25	81
DK03b	20	4	9	32	2	7	56	35	86	92	51	113	97	21	73	20	25	81
DK04a	10	9	25	51	13	4	44	322	89	138	43	66	89	48	107	92	79	28
DK04b	10	9	25	51	13	4	44	322	89	138	43	66	89	48	107	92	79	28
DK05a	87	1	1	23	15	7	137	20	60	106	9	142	2	99	123	72	48	30
DK05b	87	1	1	23	15	7	137	20	60	106	9	142	2	99	123	72	48	30
DKTOa	**363**	**182**	**68**	**223**	**58**	**108**	**914**	**758**	**840**	**991**	**710**	**1228**	**1075**	**948**	**672**	**1177**	**435**	**401**
DKTOb	**363**	**182**	**68**	**223**	**58**	**108**	**914**	**758**	**840**	**991**	**710**	**1228**	**1075**	**948**	**672**	**1177**	**435**	**401**
SH06a	13	9	34	3	37	15	17	99	140	79	299	119	88	90	140	160	137	98
SH06b	19	12	41	7	44	16	20	153	173	148	391	162	146	150	175	183	137	130
SH07a	5	0	0	8	0	0	20	56	18	189	82	220	90	38	70	100	144	16
SH07b	5	0	0	8	0	0	23	109	91	189	113	331	149	89	132	169	152	99
SH08a	15	3	3	4	2	2	24	23	161	50	43	116	48	72	81	35	49	51
SH08b	15	5	5	4	2	6	30	23	164	50	58	117	113	75	86	47	55	69
SH09a	17	0	11	57	49	0	59	313	137	141	32	460	0	179	48	19	8	45
SH09b	33	28	38	67	53	72	133	437	233	417	259	762	645	391	155	93	49	65
SH10a	5	0	11	1	0	0	19	177	23	49	34	123	21	74	61	163	36	51
SH10b	5	1	12	2	1	0	19	179	151	84	141	158	113	89	141	209	81	70
SH11a	3	0	1	2	0	3	20	11	0	370	98	137	91	57	84	82	65	464
SH11b	3	1	2	2	3	3	22	11	242	411	248	318	259	61	145	82	553	464
SH12a	40	26	198	77	210	280	147	1650	1704	1429	1243	754	501	1040	1485	811	37	137
SH12b	41	26	199	77	211	281	147	1663	1706	1438	1274	779	501	1056	1485	811	233	137
SH13a	2	3	0	0	0	10	8	0	9	41	0	512	0	138	12	0	121	13
SH13b	2	4	2	1	5	10	8	181	72	70	195	512	329	158	101	126	121	13
SH14a	1	7	21	17	13	2	26	48	57	76	19	4	9	27	28	0	2	8
SH14b	1	8	21	17	13	2	33	94	67	76	19	13	20	48	28	23	8	8
SHTOa	**101**	**48**	**279**	**169**	**311**	**312**	**340**	**2377**	**2249**	**2424**	**1850**	**2445**	**848**	**1715**	**2009**	**1370**	**599**	**883**
SHTOb	**124**	**85**	**320**	**185**	**332**	**390**	**435**	**2850**	**2899**	**2883**	**2698**	**3152**	**2275**	**2117**	**2448**	**1743**	**1389**	**1055**
NS14a	5	2	3	106	33	76	-	208	128	4	299	123	110	12	105	100	43	70
NS14b	38	2	35	107	33	77	0	208	169	63	307	137	118	54	119	109	59	70
NS15a	0	0	0	15	21	0	2	516	940	41	1118	35	315	77	522	61	46	1657
NS15b	15	15	15	15	21	15	2	516	1119	813	1118	847	340	1168	1598	1169	1715	1657
NS16a	0	0	10	0	3	5	-	33	250	58	289	35	210	0	-	-	43	182
NS16b	0	4	10	0	3	5	5	33	250	70	289	95	210	106	106	106	223	182
NS17a	1	0	0	0	0	0	-	12	89	2	25	9	43	14	72	4	166	3
NS17b	1	0	0	0	0	0	0	12	89	5	25	9	43	14	74	8	166	3
NS18a	9	2	12	8	43	0	12	84	224	217	1586	241	33	128	12	35	16	503
NS18b	9	2	13	9	43	3	16	89	315	220	1586	282	39	145	98	104	260	509
NS19a	6	0	0	0	18	0	-	67	251	32	609	149	33	129	450	6	0	267
NS19b	7	0	1	0	19	1	2	67	293	76	625	168	56	158	474	90	234	308
NS20a	3	4	0	2	0	1	-	123	123	158	1155	307	389	68	2772	18	21	333
NS20b	5	8	4	4	4	5	2	153	250	266	1280	366	483	73	2878	143	197	392
NS21a	-	0	0	0	1	13	-	70	-	29	56	-	44	4	92	77	-	56
NS21b	0	0	0	0	1	13	-	123	63	38	80	63	68	28	95	101	44	99
NS22a	1	0	3	0	3	0	-	12	2	15	95	26	2	1	2	9	9	13
NS22b	2	1	4	0	3	1	6	12	5	18	95	29	3	14	10	17	24	15
NSTOa	**25**	**8**	**28**	**131**	**122**	**95**	**14**	**1125**	**2007**	**556**	**5232**	**925**	**1179**	**433**	**4027**	**310**	**344**	**3084**
NSTOb	**77**	**32**	**82**	**135**	**127**	**120**	**33**	**1213**	**2553**	**1569**	**5405**	**1996**	**1360**	**1760**	**5452**	**1847**	**2922**	**3235**
NL22a	0	0	0	2	3	0	2	30	66	0	43	0	62	0	31	40	22	18
NL22b	0	0	0	2	3	0	2	30	66	0	43	0	62	0	31	40	22	18
NL23a	16	3	3	9	-	1	26	48	204	135	6	53	501	15	823	-	90	5
NL23b	66	53	53	59	53	51	51	198	404	445	211	458	501	585	823	595	440	475
NL24a	-	-	-	-	-	-	0	15	180	205	0	0	109	111	61	-	48	1
NL24b	50	50	50	50	50	50	0	15	180	205	0	0	109	111	61	80	48	1
NL25a	24	26	5	17	-	3	11	167	660	163	149	772	246	730	284	-	459	234
NL25b	99	101	80	92	75	78	11	202	680	1163	149	792	246	730	284	520	459	234
NL26a	129	302	50	72	115	43	82	32	2615	1407	800	1416	1495	723	3060	-	2709	1105
NL26b	129	302	50	72	115	43	82	32	2615	1407	800	1416	1495	723	3060	2000	2709	1105
NL27a	12	34	0	10	40	-	79	200	-	-	600	-	-	76	-	-	40	-
NL27b	12	34	0	10	40	30	79	200	500	500	600	500	500	76	500	500	40	350
NL28a	15	51	226	65	25	52	26	248	1360	1422	1246	832	1620	1314	1932	-	3087	2544
NL28b	40	76	251	90	50	77	61	248	1360	1422	1326	912	1620	1444	1932	2030	3187	2644
NL29a	0	-	3	56	-	27	28	108	155	198	94	228	80	126	176	-	60	101
NL29b	0	25	3	56	25	27	28	108	155	198	94	228	80	126	176	150	60	101
NLTOa	**196**	**416**	**287**	**231**	**183**	**126**	**254**	**848**	**5240**	**3530**	**2938**	**3301**	**4113**	**3095**	**6367**	**40**	**6515**	**4008**
NLTOb	**396**	**641**	**487**	**431**	**411**	**356**	**314**	**1033**	**5960**	**5340**	**3223**	**4306**	**4613**	**3795**	**6867**	**5915**	**6965**	**4928**
TOTAa	**685**	**654**	**662**	**754**	**674**	**641**	**1522**	**5108**	**10336**	**7501**	**10730**	**7899**	**7215**	**6191**	**13075**	**2897**	**7893**	**8376**
TOTAb	**960**	**940**	**957**	**974**	**928**	**974**	**1696**	**5854**	**12252**	**10783**	**12036**	**10682**	**9323**	**8620**	**15439**	**10682**	**11711**	**9619**

Table 37. Sandwich Tern *Sterna sandvicensis*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	450	0	2
DK01b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	450	0	2
DK02a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	11
DK02b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	11
DK03a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK03b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK04a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	4
DK04b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	4
DK05a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK05b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DKTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**455**	**3**	**17**
DKTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**455**	**3**	**17**
SH06a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	101	288
SH06b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	45	154	294
SH07a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34
SH07b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	33	14	36
SH08a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH08b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0
SH09a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	900	2	20	1618
SH09b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	917	108	1271	1618
SH10a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
SH10b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
SH11a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH11b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH12a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	120	0	3000	450
SH12b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120	0	3000	450
SH13a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
SH13b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1021**	**6**	**3121**	**2393**
SHTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1107**	**190**	**4439**	**2401**
NS14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	12
NS14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	2	14
NS15a	-	0	0	0	0	0	-	0	0	0	0	0	0	0	0	-	0	800
NS15b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	412	412	802
NS16a	-	0	0	0	0	0	0	-	0	0	0	0	0	-	-	10	-	3
NS16b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	1	3
NS17a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0
NS17b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS18a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	262	0	1680
NS18b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	262	2	1680
NS19a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	32
NS19b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	32
NS20a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	130	0	-	2
NS20b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	130	15	17	2
NS21a	-	0	0	-	0	0	-	-	-	-	-	0	0	0	0	-	-	0
NS21b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	0
NS22a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**137**	**272**	**0**	**2529**
NSTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**148**	**708**	**443**	**2533**
NL22a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0
NL22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL23a	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	30
NL23b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	30	30
NL24a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0
NL24b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL25a	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	-	-	0
NL25b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	63	0
NL26a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	210	285
NL26b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	340	210	285
NL27a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1500	7500	7500
NL28a	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	-	26	148
NL28b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	480	66	188
NL29a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0
NL29b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**236**	**463**
NLTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2445**	**7869**	**8003**
TOTAa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1158**	**733**	**3360**	**5402**
TOTAb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1255**	**3798**	**12754**	**12954**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	9	2	4	0	0	0	232	223	21	51	0	5	15	0	0	0	0	0
DK01b	9	2	4	0	0	0	232	223	21	51	0	5	15	0	0	0	0	0
DK02a	2	0	0	0	0	0	30	13	27	294	15	50	0	0	1	0	0	0
DK02b	2	0	0	0	0	0	30	13	27	294	15	50	0	0	1	0	0	0
DK03a	0	0	0	2	0	0	65	46	28	67	0	0	0	0	0	0	0	0
DK03b	0	0	0	2	0	0	65	46	28	67	0	0	0	0	0	0	0	0
DK04a	3	0	0	0	0	0	18	0	31	170	0	67	0	0	0	0	0	0
DK04b	3	0	0	0	0	0	18	0	31	170	0	67	0	0	0	0	0	0
DK05a	0	0	0	0	0	0	0	32	0	830	2	0	0	0	0	0	0	0
DK05b	0	0	0	0	0	0	0	32	0	830	2	0	0	0	0	0	0	0
DKTOa	**14**	**2**	**4**	**2**	**0**	**0**	**345**	**314**	**107**	**1412**	**17**	**122**	**15**	**0**	**1**	**0**	**0**	**0**
DKTOb	**14**	**2**	**4**	**2**	**0**	**0**	**345**	**314**	**107**	**1412**	**17**	**122**	**15**	**0**	**1**	**0**	**0**	**0**
SH06a	98	10	22	22	16	138	295	668	321	539	102	18	544	4	1	6	0	0
SH06b	140	74	92	67	87	203	375	1153	783	626	657	286	783	7	4	10	0	0
SH07a	0	0	0	2	0	0	23	2	35	64	3	1	30	0	0	5	0	0
SH07b	2	4	2	4	2	2	23	187	39	64	16	4	33	0	0	5	0	0
SH08a	0	0	0	0	2	0	0	45	26	78	0	7	0	0	0	0	0	0
SH08b	0	0	0	0	2	0	0	45	33	78	38	7	1	0	0	0	0	0
SH09a	4554	2500	75	5007	1	10	3532	93	48	144	0	25	0	0	0	0	0	0
SH09b	4554	2585	2065	5015	2512	3440	3566	283	109	216	114	305	5	0	0	0	0	0
SH10a	0	0	3	0	0	0	0	19	13	2	30	1	0	0	0	0	0	0
SH10b	0	0	3	0	0	0	0	19	14	2	31	2	1	0	0	0	0	0
SH11a	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0
SH11b	0	0	0	0	0	0	0	0	20	20	20	20	20	0	0	0	0	0
SH12a	400	0	2200	800	4500	5500	3200	350	32	150	0	0	1	0	0	0	0	0
SH12b	400	0	2200	800	4500	5500	3200	350	32	150	1	0	1	0	0	0	0	0
SH13a	0	0	0	0	0	0	0	0	26	0	0	2	0	0	0	0	0	0
SH13b	0	1	1	0	0	0	0	5	26	26	26	2	2	0	0	0	0	0
SH14a	0	0	2	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0
SH14b	0	0	2	0	0	0	0	0	1	0	0	2	2	0	0	0	0	0
SHTOa	**5052**	**2510**	**2302**	**5831**	**4519**	**5648**	**7050**	**1177**	**502**	**997**	**135**	**56**	**575**	**4**	**1**	**11**	**0**	**0**
SHTOb	**5096**	**2664**	**4365**	**5886**	**7103**	**9145**	**7164**	**2042**	**1057**	**1182**	**903**	**628**	**848**	**7**	**4**	**15**	**0**	**0**
NS14a	0	7	30	2	0	0	-	39	2	0	50	0	35	0	0	0	0	0
NS14b	2	7	30	4	0	2	0	39	2	1	50	0	35	0	0	0	0	0
NS15a	0	0	4	0	801	0	0	0	370	0	12	0	0	0	0	0	0	0
NS15b	412	412	414	2	803	412	0	0	370	10	12	10	0	0	0	0	0	0
NS16a	0	0	0	0	2	0	-	6	20	0	0	0	0	0	-	-	0	0
NS16b	0	1	0	0	2	0	1	6	20	0	0	0	0	0	0	0	0	0
NS17a	0	0	0	0	0	0	-	0	0	0	1	0	0	0	0	0	0	0
NS17b	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
NS18a	0	2	2	1	110	0	4	7	47	2	1	36	9	2	0	0	0	0
NS18b	0	2	2	3	110	2	10	247	47	2	1	36	9	2	0	0	0	0
NS19a	2	0	2	2	0	0	-	0	0	0	0	1	3	0	14	0	0	0
NS19b	2	1	3	2	0	1	13	0	0	0	0	1	3	0	14	0	0	0
NS20a	6	0	0	19	0	0	-	0	8	0	8	18	4	0	0	0	0	0
NS20b	21	17	17	19	17	17	109	15	14	6	14	26	10	0	0	0	0	0
NS21a	-	0	50	0	0	16	-	0	-	0	2	-	1	0	0	0	-	0
NS21b	8	8	50	8	8	16	-	48	2	2	2	2	1	0	0	0	0	0
NS22a	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0
NS22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSTOa	**8**	**9**	**88**	**24**	**913**	**16**	**4**	**52**	**447**	**2**	**74**	**55**	**52**	**2**	**14**	**0**	**0**	**0**
NSTOb	**445**	**448**	**516**	**38**	**940**	**450**	**133**	**355**	**455**	**21**	**80**	**75**	**58**	**2**	**14**	**0**	**0**	**0**
NL22a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NL23a	10	2	-	-	-	-	120	570	23	4	-	4	2	-	0	-	-	-
NL23b	10	27	30	30	30	5	130	575	23	27	30	34	2	10	0	0	0	0
NL24a	-	-	-	-	-	-	0	80	0	1	0	124	42	0	0	-	0	0
NL24b	0	0	0	0	0	0	0	80	0	1	0	124	42	0	0	0	0	0
NL25a	7	20	-	-	-	-	4	591	1	4	24	7	46	2	0	-	0	0
NL25b	7	80	60	60	60	60	4	631	26	79	24	32	46	2	0	2	0	0
NL26a	70	532	0	458	0	647	118	280	99	402	220	42	145	0	2	-	0	0
NL26b	70	532	0	458	0	647	118	280	99	402	220	42	145	0	2	5	0	0
NL27a	0	-	-	-	-	-	-	100	-	-	0	-	-	0	-	-	0	-
NL27b	0	7500	7500	7500	7500	7500	7500	100	230	230	0	230	230	0	0	0	0	0
NL28a	67	63	-	437	-	242	824	35	98	267	21	42	60	-	2	-	-	-
NL28b	207	203	40	577	40	482	964	35	98	267	21	42	60	0	2	0	0	0
NL29a	0	-	0	0	-	0	0	0	0	1	0	21	0	0	0	-	0	0
NL29b	0	0	0	0	0	0	0	0	0	1	0	21	0	0	0	0	0	0
NLTOa	**154**	**617**	**0**	**895**	**0**	**889**	**1066**	**1656**	**221**	**679**	**265**	**240**	**295**	**2**	**4**	**0**	**0**	**0**
NLTOb	**294**	**8342**	**7630**	**8625**	**7630**	**8694**	**8716**	**1701**	**476**	**1007**	**295**	**525**	**525**	**12**	**4**	**7**	**0**	**0**
TOTAa	**5228**	**3138**	**2394**	**6752**	**5432**	**6553**	**8465**	**3199**	**1277**	**3090**	**491**	**473**	**937**	**8**	**20**	**11**	**0**	**0**
TOTAb	**5849**	**11456**	**12515**	**14551**	**15673**	**18289**	**16358**	**4412**	**2095**	**3622**	**1295**	**1350**	**1446**	**21**	**23**	**22**	**0**	**0**

Table 38. Common Tern *Sterna hirundo*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
DK01b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	2
DK02a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0
DK02b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0
DK03a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
DK03b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
DK04a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
DK04b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
DK05a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	26	57
DK05b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	26	57
DKTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**44**	**66**
DKTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**15**	**44**	**66**
SH06a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH06b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH07a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH07b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH08a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH08b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH09a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH09b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH10a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH10b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH11a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH11b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH12a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH12b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH13a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH13b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
SHTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
NS14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	724	202	0	542
NS14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	724	205	20	544
NS15a	-	0	0	0	0	0	-	0	0	0	0	0	0	0	0	-	0	3000
NS15b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1117	1115	3107
NS16a	-	0	0	0	0	0	0	-	0	0	0	0	0	-	-	0	-	0
NS16b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
NS17a	-	0	0	0	0	0	0	0	0	0	0	0	0	6	-	136	0	102
NS17b	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2	150	16	102
NS18a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	142	258	16	18
NS18b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	142	287	54	43
NS19a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	-	39
NS19b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	28	28	39
NS20a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	2	12	-	9
NS20b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	22	12	9
NS21a	-	0	0	-	0	0	-	-	-	-	-	0	0	0	22	-	-	18
NS21b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	10	10	18
NS22a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
NS22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9	12
NSTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**899**	**608**	**16**	**3731**
NSTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**901**	**1828**	**1265**	**3874**
NL22a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	4
NL22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	0	4
NL23a	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	275	218
NL23b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	220	375	218
NL24a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0
NL24b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15	0
NL25a	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	-	307	622
NL25b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	535	347	622
NL26a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	40	68
NL26b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	130	40	68
NL27a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140	1500	1500
NL28a	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	-	222	64
NL28b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	440	247	89
NL29a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	695	1498
NL29b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	695	1498
NLTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**1539**	**2474**
NLTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1750**	**3219**	**3999**
TOTAa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**904**	**608**	**1599**	**6271**
TOTAb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**906**	**3593**	**4528**	**7939**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	35	0	3	0	0	0	3	8	8	0	0	3	0	0	0	0	0	0
DK01b	35	0	3	0	0	0	3	8	8	0	0	3	0	0	0	0	0	0
DK02a	15	5	0	0	38	0	10	1	2	173	0	18	0	0	0	0	0	0
DK02b	15	5	0	0	38	40	10	1	2	173	0	18	0	0	0	0	0	0
DK03a	0	5	12	5	0	7	149	4	0	3	8	0	0	0	0	0	0	0
DK03b	0	5	12	5	0	7	149	4	0	3	8	0	0	0	0	0	0	0
DK04a	0	5	0	0	0	0	0	0	2	301	0	3	0	0	0	0	0	0
DK04b	0	5	0	0	0	0	0	0	2	301	0	3	0	0	0	0	0	0
DK05a	289	20	0	172	15	18	41	0	170	2110	0	262	0	1	0	0	0	0
DK05b	289	20	0	172	15	18	41	0	170	2110	0	262	0	1	0	0	0	0
DKTOa	**339**	**35**	**15**	**177**	**53**	**25**	**203**	**13**	**182**	**2587**	**8**	**286**	**0**	**1**	**0**	**0**	**0**	**0**
DKTOb	**339**	**35**	**15**	**177**	**53**	**65**	**203**	**13**	**182**	**2587**	**8**	**286**	**0**	**1**	**0**	**0**	**0**	**0**
SH06a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH06b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH07a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH07b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH08a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH08b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH09a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH09b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH10a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH10b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH11a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH11b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH12a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH12b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH13a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH13b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
SHTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
NS14a	27	36	9	16	20	10	-	2868	19	0	301	0	0	0	0	0	0	0
NS14b	30	36	26	19	23	15	0	2868	19	0	301	0	0	0	0	0	0	0
NS15a	8	4	200	0	2270	14	0	0	380	0	150	0	0	0	0	0	0	0
NS15b	1123	1112	1215	107	2377	1124	0	0	380	75	150	75	0	0	0	0	0	0
NS16a	0	0	80	8	300	2	-	0	320	0	28	0	0	0	-	-	0	0
NS16b	0	1	80	8	300	2	0	0	320	0	28	0	0	0	0	0	0	0
NS17a	10	23	21	48	3	0	-	77	3	10	0	8	0	0	0	0	0	0
NS17b	11	23	35	48	12	9	4	77	3	10	0	8	0	0	0	0	0	0
NS18a	45	19	47	19	219	26	0	27	125	18	70	8	4	0	0	0	0	0
NS18b	68	43	77	54	220	41	182	77	125	25	70	15	10	0	0	0	0	0
NS19a	12	3	26	0	40	0	-	60	0	0	0	0	0	1	0	0	0	0
NS19b	12	31	26	28	40	28	1	60	0	0	0	0	0	1	0	0	0	0
NS20a	16	6	105	4	70	12	-	11	5	0	6	0	0	0	0	0	0	0
NS20b	26	16	107	4	70	12	120	16	5	0	6	0	0	0	0	0	0	0
NS21a	-	0	46	0	75	55	-	8	-	0	80	-	5	0	0	0	-	0
NS21b	10	10	46	10	85	55	-	28	10	10	80	10	5	0	0	0	0	0
NS22a	0	4	4	1	21	0	-	12	0	0	4	2	1	1	0	0	0	0
NS22b	9	13	13	1	21	9	1	12	1	1	5	3	1	1	0	0	0	0
NSTOa	**118**	**95**	**538**	**96**	**3018**	**119**	**0**	**3063**	**852**	**28**	**639**	**18**	**10**	**2**	**0**	**0**	**0**	**0**
NSTOb	**1289**	**1285**	**1625**	**279**	**3148**	**1295**	**308**	**3138**	**863**	**121**	**640**	**111**	**16**	**2**	**0**	**0**	**0**	**0**
NL22a	73	151	0	60	0	75	22	21	2	0	0	0	0	0	0	0	0	0
NL22b	73	151	0	60	0	75	22	21	2	0	0	0	0	0	0	0	0	0
NL23a	125	86	-	58	-	244	312	165	330	-	-	2	92	-	0	-	-	-
NL23b	185	186	250	158	250	304	342	265	580	410	120	372	92	0	0	0	0	0
NL24a	-	-	-	0	-	0	0	0	0	0	0	0	5	0	0	-	0	0
NL24b	15	15	15	0	15	0	0	0	0	0	0	0	5	0	0	0	0	0
NL25a	668	1097	-	-	-	725	755	520	123	24	2	14	0	18	0	-	0	0
NL25b	708	1137	40	40	40	765	755	670	158	24	2	49	0	18	0	0	0	0
NL26a	41	114	0	139	0	149	37	44	111	91	49	1	30	0	0	-	0	0
NL26b	41	114	0	139	0	149	37	44	111	91	49	1	30	0	0	0	0	0
NL27a	0	-	-	-	-	-	-	600	-	-	0	-	-	0	-	-	0	-
NL27b	0	1500	1500	1500	1500	1500	1500	600	400	400	0	400	400	0	0	0	0	0
NL28a	567	532	-	115	-	801	162	430	175	32	76	26	1	1	1	-	-	-
NL28b	592	557	25	140	25	826	187	430	175	32	116	66	1	1	1	0	0	0
NL29a	919	-	0	764	-	524	905	4325	1420	245	320	138	0	0	0	-	0	0
NL29b	919	700	0	764	700	524	905	4325	1420	245	320	650	0	0	0	0	0	0
NLTOa	**2393**	**1980**	**0**	**1136**	**0**	**2518**	**2193**	**6105**	**2161**	**392**	**447**	**181**	**128**	**19**	**1**	**0**	**0**	**0**
NLTOb	**2533**	**4360**	**1830**	**2801**	**2530**	**4143**	**3748**	**6355**	**2846**	**1202**	**607**	**1538**	**528**	**19**	**1**	**0**	**0**	**0**
TOTAa	**2850**	**2110**	**553**	**1409**	**3071**	**2662**	**2396**	**9181**	**3195**	**3007**	**1094**	**485**	**138**	**22**	**1**	**0**	**0**	**0**
TOTAb	**4161**	**5680**	**3470**	**3257**	**5731**	**5503**	**4259**	**9506**	**3891**	**3910**	**1255**	**1935**	**544**	**22**	**1**	**0**	**0**	**0**

Table 39. Arctic Tern *Sterna paradisaea*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK01b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK02a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK02b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK03a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK03b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK04a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK04b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK05a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK05b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DKTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
DKTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
SH06a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH06b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH07a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH07b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH08a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH08b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH09a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH09b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH10a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH10b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH11a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH11b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH12a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH12b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH13a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH13b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
SHTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
NS14a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	14	109	0	0
NS14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	109	1	1
NS15a	-	0	0	0	0	0	-	0	0	0	0	0	0	0	0	-	0	1000
NS15b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	536	536	1063
NS16a	-	0	0	0	0	0	0	-	0	0	0	0	0	-	-	0	-	0
NS16b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS17a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	14
NS17b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
NS18a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	6	3
NS18b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	6	3
NS19a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	-	9
NS19b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	8	8	9
NS20a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
NS20b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
NS21a	-	0	0	-	0	0	-	-	-	-	-	0	0	0	34	-	-	0
NS21b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	12	12	0
NS22a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
NS22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
NSTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**64**	**109**	**6**	**1026**
NSTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**64**	**666**	**564**	**1091**
NL22a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0
NL22b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0
NL23a	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	13	99
NL23b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	38	99
NL24a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0
NL24b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0
NL25a	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	-	34	0
NL25b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	46	0
NL26a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	2	2
NL26b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
NL27a	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-
NL27b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	750	750
NL28a	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	-	80	3
NL28b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120	100	23
NL29a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0
NL29b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**129**	**104**
NLTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**320**	**941**	**874**
TOTAa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**64**	**109**	**135**	**1130**
TOTAb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**64**	**986**	**1505**	**1965**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	0	0	0	323	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK01b	0	0	0	323	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK02a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK02b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK03a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK03b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK04a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK04b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK05a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DK05b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DKTOa	**0**	**0**	**0**	**323**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
DKTOb	**0**	**0**	**0**	**323**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
SH06a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH06b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH07a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH07b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH08a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH08b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH09a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH09b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH10a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH10b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH11a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH11b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH12a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH12b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH13a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH13b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SH14b	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
SHTOb	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
NS14a	3	30	0	23	0	3	-	35	0	0	39	3	0	0	0	0	0	0
NS14b	4	30	0	24	0	4	0	35	0	0	39	3	0	0	0	0	0	0
NS15a	0	0	120	0	350	0	0	0	110	0	28	0	0	0	0	0	0	0
NS15b	536	536	596	60	410	536	0	0	110	0	28	0	0	0	0	0	0	0
NS16a	0	2	0	0	0	0	-	0	0	0	0	0	0	0	-	-	0	0
NS16b	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NS17a	0	10	0	0	0	6	-	45	0	0	0	0	0	0	0	0	0	0
NS17b	0	10	0	0	0	6	0	53	0	0	0	0	0	0	0	0	0	0
NS18a	7	0	27	3	100	2	0	10	14	0	11	0	0	0	0	0	0	0
NS18b	7	0	27	3	100	2	85	11	14	0	11	0	0	0	0	0	0	0
NS19a	23	0	26	0	70	0	-	21	6	0	4	1	5	0	0	1	0	0
NS19b	23	8	26	8	70	8	16	21	6	0	4	1	5	0	0	1	0	0
NS20a	6	2	9	2	0	1	-	1	0	0	2	23	2	0	0	0	0	0
NS20b	7	2	10	2	0	1	18	1	0	0	2	23	2	0	0	0	0	0
NS21a	-	0	36	0	45	50	-	5	-	0	240	-	0	0	0	0	-	0
NS21b	12	12	36	12	57	50	-	20	12	12	240	12	0	0	0	0	0	0
NS22a	33	0	0	0	2	0	-	2	0	0	0	0	0	0	0	7	0	0
NS22b	33	0	0	0	2	0	2	2	0	0	0	0	0	0	0	7	0	0
NSTOa	**72**	**44**	**218**	**28**	**567**	**62**	**0**	**119**	**130**	**0**	**324**	**27**	**7**	**0**	**0**	**8**	**0**	**0**
NSTOb	**622**	**600**	**695**	**109**	**639**	**607**	**121**	**143**	**142**	**12**	**324**	**39**	**7**	**0**	**0**	**8**	**0**	**0**
NL22a	0	0	0	5	0	0	3	0	0	0	0	0	0	0	0	0	0	0
NL22b	0	0	0	5	0	0	3	0	0	0	0	0	0	0	0	0	0	0
NL23a	26	-	-	-	-	-	37	7	16	-	-	-	0	-	0	-	-	-
NL23b	41	25	35	25	35	15	42	27	66	85	50	100	0	0	0	0	0	0
NL24a	0	-	-	0	-	0	0	0	0	0	0	0	2	0	0	-	0	0
NL24b	0	5	5	0	5	0	0	0	0	0	0	0	2	0	0	0	0	0
NL25a	3	45	-	-	-	84	15	-	-	0	-	-	0	0	0	-	0	0
NL25b	13	55	10	10	10	94	15	50	10	0	0	10	0	0	0	10	0	0
NL26a	11	1	0	4	0	0	0	0	35	1	11	0	0	0	0	-	0	0
NL26b	11	1	0	4	0	0	0	0	35	1	11	0	0	0	0	0	0	0
NL27a	0	-	-	-	-	-	-	0	-	-	0	-	-	0	-	-	0	-
NL27b	0	750	750	750	750	750	750	0	150	100	0	100	100	0	0	0	0	0
NL28a	90	260	-	62	-	201	95	4	3	8	-	-	0	-	0	-	-	-
NL28b	90	280	20	62	20	201	115	4	3	8	20	20	0	0	0	0	0	0
NL29a	0	-	0	0	-	0	0	0	0	0	0	0	0	0	0	-	0	0
NL29b	0	100	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	**130**	**306**	**0**	**71**	**0**	**285**	**150**	**11**	**54**	**9**	**11**	**0**	**2**	**0**	**0**	**0**	**0**	**0**
NLTOb	**155**	**1216**	**820**	**856**	**920**	**1060**	**925**	**81**	**264**	**194**	**81**	**230**	**102**	**0**	**0**	**10**	**0**	**0**
TOTAa	**202**	**350**	**218**	**422**	**567**	**347**	**150**	**130**	**184**	**9**	**335**	**27**	**9**	**0**	**0**	**8**	**0**	**0**
TOTAb	**777**	**1816**	**1515**	**1288**	**1559**	**1667**	**1046**	**224**	**406**	**206**	**405**	**269**	**109**	**0**	**0**	**18**	**0**	**0**

Table 42. All waterfowl Anatidae spp.

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	13120	7373	736	8042	6028	1539	14134	4550	18956	29919	13791	21254	6074	6147	1756	1718	2422	3015
DK01b	13120	7373	736	8042	6028	1539	14134	4550	18956	29919	13791	21254	6074	6147	1756	2172	2422	3015
DK02a	35151	21092	1199	36329	8979	13325	25729	25234	8797	17389	23226	31073	8054	11195	2257	3958	3841	5059
DK02b	35151	21092	1199	36329	8979	13325	25729	25234	8797	17389	23226	31073	8054	11195	2257	4142	3841	5059
DK03a	12556	15552	6133	10154	24352	4129	5276	34370	8800	12721	26918	22548	14846	20367	14946	3784	6552	13073
DK03b	12556	15552	6133	10154	24352	4129	5276	34370	8800	12721	26918	22548	14846	20367	14946	11948	6552	13073
DK04a	13440	8324	3216	36264	26285	710	3983	19306	14638	43939	40576	27233	23880	13067	20353	12885	8105	8949
DK04b	13440	8324	3216	36262	26285	710	3983	19306	14638	43939	40576	27233	23880	13067	20353	21950	8105	8949
DK05a	5716	11727	15607	8187	23699	3946	5147	867	16429	14649	11786	30132	7890	24112	11959	1663	1752	4847
DK05b	5716	11727	15607	8187	23699	3946	5147	867	16429	14649	11786	30132	7890	24112	11959	9596	1752	4847
DKTOa	**79983**	**64068**	**26891**	**98976**	**89343**	**23649**	**54269**	**84327**	**67620**	**118617**	**116297**	**132240**	**60744**	**74888**	**51271**	**24008**	**22672**	**34943**
DKTOb	**79983**	**64068**	**26891**	**98974**	**89343**	**23649**	**54269**	**84327**	**67620**	**118617**	**116297**	**132240**	**60744**	**74888**	**51271**	**49808**	**22672**	**34943**
SH06a	-	14982	3368	10124	30278	1173	9269	4694	17369	36426	29062	13622	11262	14941	9010	2317	17997	10368
SH06b	29265	19708	6965	20353	36252	6163	13364	7315	28124	39950	30390	21417	15116	21697	14805	8151	21350	12365
SH07a	-	4131	1177	4575	6153	757	3647	260	3765	15630	16217	20813	0	2868	5148	10441	7523	11902
SH07b	8665	13121	3423	10080	16503	2596	5105	3345	9806	17806	20031	29303	9212	4060	5917	12354	8542	13201
SH08a	-	24038	7771	13960	20617	16168	6334	3375	24712	45796	47559	39493	3231	40651	14952	50413	32294	35798
SH08b	21162	30989	7771	16808	24149	19531	10890	6767	29181	50129	49617	42227	16839	41091	22295	59231	32491	42744
SH09a	-	15479	9015	935	3063	4044	4036	289	2766	5767	4807	4577	660	2126	9944	13632	18235	20170
SH09b	9851	19167	9813	9866	9159	12257	12249	9230	8533	12463	11152	11151	9627	3137	10495	13840	20924	20223
SH10a	-	18726	4728	25289	15147	520	6311	4131	22689	35220	49211	56501	3665	13913	14517	8538	8040	13186
SH10b	36279	20801	5323	32890	40422	4583	8373	6788	25281	36593	50142	62803	17275	20923	15391	11366	12218	13364
SH11a	-	304	218	4096	4960	45	3355	837	6961	11007	10389	11487	3085	6336	3911	2950	620	1863
SH11b	8878	3840	654	5497	4981	45	3355	837	10411	11028	11819	12313	10739	7024	4773	4395	845	2235
SH12a	-	2500	1	4654	5677	8	30	155	3649	11632	15433	0	622	10547	3662	5046	7492	12272
SH12b	12692	7970	111	10866	8246	119	141	266	12841	15965	19237	11977	13747	10547	4120	7840	7492	12335
SH13a	-	0	0	818	30	15	581	1	6167	21184	22363	6065	0	5244	0	0	1456	4050
SH13b	13187	12570	307	11674	8566	293	581	32	9505	22891	22363	6065	6560	6973	2759	2505	1456	4050
SH14a	-	3534	1586	4755	2262	1242	3360	1174	3790	3549	2355	387	5093	3407	526	228	81	433
SH14b	3568	4637	1619	4755	2262	1275	3374	1385	3790	3684	2355	1500	5093	3547	800	466	293	458
SHTOa	**-**	**83694**	**27864**	**69206**	**88187**	**23972**	**36923**	**14916**	**91868**	**186211**	**197396**	**152945**	**27618**	**100033**	**61670**	**93565**	**93738**	**110042**
SHTOb	**143547**	**132803**	**35986**	**122789**	**150540**	**46862**	**57432**	**35965**	**137472**	**210509**	**217106**	**198756**	**104208**	**118999**	**81355**	**120148**	**105611**	**120975**
NS14a	-	3536	533	12092	10660	818	6891	2251	7293	19826	6966	20447	11559	17066	14161	9144	3872	3527
NS14b	5327	5527	2128	14498	10875	1317	7429	2933	7750	20247	8662	20868	11595	17150	14161	9391	4516	3860
NS15a	-	34802	4195	17596	6625	3191	2351	1835	12343	23955	14171	3469	34029	26144	1132	2670	958	445
NS15b	20962	39572	4195	36398	26169	4102	3991	2956	29508	41800	33721	22045	34083	29442	2646	3834	1960	1323
NS16a	-	8892	1068	1426	294	671	3650	-	4092	4193	2115	3201	6240	-	-	3253	-	3564
NS16b	4864	8916	1195	5306	4661	974	4073	1392	6345	7454	5376	4749	6271	3932	5194	4084	3583	4111
NS17a	-	15849	4746	15313	13868	1187	8620	198	44896	32005	17843	20042	19857	6399	-	514	82	1379
NS17b	15104	17538	4746	15991	14546	4209	8620	363	44896	32069	18743	20102	20282	9623	3485	834	678	1471
NS18a	-	15172	5613	14579	6575	14279	25494	3107	37252	31398	11825	18564	10686	7196	5410	3197	473	5500
NS18b	14117	16483	8695	18024	13308	14420	27683	5296	41016	33284	15604	19153	12716	9236	5598	5848	3705	5810
NS19a	-	15062	2585	10307	5980	4214	505	25	6851	32729	15861	12797	8260	3482	4696	621	-	7107
NS19b	11489	16159	2595	12690	11178	5154	2733	2522	14190	32868	18836	12820	9848	8185	4696	5331	5407	7107
NS20a	-	9612	848	6495	5489	1277	483	66	8718	12026	15250	4012	11190	20009	7755	11076	-	10556
NS20b	6544	10877	966	9448	7341	1478	1031	899	10696	15375	16275	6559	11787	21322	12609	14364	8439	11304
NS21a	-	3730	972	-	4332	3000	-	-	-	-	-	200	6976	4787	3535	-	-	3376
NS21b	855	4216	972	855	4598	3380	2177	2177	855	855	855	1055	8125	5209	3535	1842	1842	3376
NS22a	-	4603	460	4274	526	3	883	15	3240	6274	11832	4535	2684	3321	1729	1331	153	2494
NS22b	1906	4603	460	4274	526	570	1161	574	3486	6520	12078	4781	3903	4044	1729	1510	332	2633
NSTOa	**-**	**111258**	**21020**	**82082**	**54349**	**28640**	**48877**	**7497**	**124685**	**162406**	**95863**	**87267**	**111481**	**88404**	**38418**	**31806**	**5538**	**37948**
NSTOb	**81168**	**123891**	**25952**	**117484**	**93202**	**35604**	**58898**	**19112**	**158742**	**190472**	**130150**	**112132**	**118610**	**108143**	**53653**	**47038**	**30462**	**40995**
NL22a	681	10206	1607	15781	3439	-	2309	438	16709	27532	12973	9186	12086	14417	13697	-	745	2489
NL22b	681	10206	1607	15781	3439	12462	2309	438	16709	27532	12973	9186	12086	14417	13697	960	745	2489
NL23a	8786	27372	8153	39995	59928	12228	35249	2115	50362	-	37453	8662	15991	17683	6070	-	7114	16390
NL23b	19256	33582	18623	44955	59928	19558	40209	12585	55872	33907	47923	14172	20711	21483	6270	13679	16507	17200
NL24a	395	4070	963	13305	5605	3585	3403	1017	12111	20010	16322	5826	9278	6769	3652	-	6122	8783
NL24b	845	4070	1413	13755	6055	4035	3403	1017	12111	20010	16322	5826	9278	6769	4552	3720	6122	8783
NL25a	5529	59117	3647	76810	38391	1958	18413	11240	81762	109121	110914	24987	53613	41591	37032	-	35389	59355
NL25b	6790	60378	4597	78971	38391	4944	18413	11240	82973	109121	110914	64188	65651	41591	37182	40640	38803	59355
NL26a	9473	26788	3360	24922	40208	-	15049	-	30275	41196	26136	37082	15577	14185	19336	-	23921	27433
NL26b	9473	26788	3360	24922	40208	12600	15049	12600	30275	41196	26136	37082	15577	14185	19336	20285	23921	27433
NL27a	-	2940	-	-	-	-	-	-	-	10118	-	-	1725	510	230	-	321	3543
NL27b	1250	2940	1250	1250	1250	1050	1050	1050	1250	10118	1250	1250	1725	510	380	553	321	3543
NL28a	33458	31773	9031	29544	27123	21404	58745	32295	28486	42342	38114	35165	17923	21671	10650	-	14243	15912
NL28b	33508	31823	9581	30094	27173	21954	59245	32345	29036	42892	38664	36215	19853	22721	16650	16385	21143	22812
NL29a	15670	12753	8207	5289	10442	9100	10688	4830	10204	2858	10784	9520	5220	7151	4346	-	1254	2941
NL29b	15670	12753	9207	6289	10442	9100	10688	4830	10204	2858	10784	9520	5220	7151	5346	2660	1254	2941
NLTOa	**73992**	**175019**	**34968**	**205646**	**185136**	**48275**	**143856**	**51935**	**229909**	**253177**	**252696**	**130428**	**131413**	**123977**	**95013**	**-**	**89109**	**136846**
NLTOb	**87473**	**182540**	**49638**	**216017**	**186886**	**85703**	**150366**	**76105**	**238430**	**287634**	**264966**	**177439**	**150101**	**128827**	**103413**	**98882**	**108816**	**144556**
TOTAa	**153975**	**434039**	**110743**	**455910**	**417015**	**124536**	**283925**	**158675**	**514082**	**720411**	**662252**	**502880**	**331256**	**387302**	**246372**	**149379**	**211057**	**319779**
TOTAb	**392171**	**503302**	**138467**	**555264**	**519971**	**191818**	**320965**	**215509**	**602264**	**807532**	**728519**	**620567**	**433663**	**430857**	**289692**	**315876**	**267561**	**341469**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	2459	1325	896	4949	2320	2130	342	843	3701	2215	1468	19258	1766	8780	4351	11818	11525	3849
DK01b	2459	1325	896	4949	2320	2168	342	843	3701	2215	1468	19258	1766	8780	4351	11818	11525	3849
DK02a	7826	2623	1570	4176	16373	5115	2251	1215	6597	16423	6197	20199	22234	18689	22713	52505	38416	24569
DK02b	7826	2623	1570	4176	16378	5465	2251	1215	6597	16423	6197	20199	22234	18689	22713	52505	38416	24569
DK03a	19246	6526	7181	8684	36941	5733	4086	1643	5266	4225	3931	12760	23298	26585	18565	32700	10699	42231
DK03b	19246	6526	7181	8684	36941	5826	4086	1643	5266	4225	3931	12760	23298	26585	18566	32700	10699	42231
DK04a	10461	9035	6168	4953	13051	6110	3061	1974	11060	15047	10491	85875	29413	21896	19611	41782	23530	44413
DK04b	10461	9035	6168	4953	13051	9936	3061	1974	11060	15047	10491	85875	29413	21896	19611	41782	23530	44413
DK05a	3317	1231	438	3694	2234	1696	1956	469	11610	15630	10744	25999	6698	25538	17982	23607	28012	16217
DK05b	3317	1231	438	3694	2234	2349	1956	469	11610	15630	10744	25999	6698	25538	17982	23607	28012	16217
DKTOa	**43309**	**20740**	**16253**	**26456**	**70919**	**20784**	**11696**	**6144**	**38234**	**53540**	**32831**	**164091**	**83409**	**101488**	**83222**	**162412**	**112182**	**131279**
DKTOb	**43309**	**20740**	**16253**	**26456**	**70924**	**25744**	**11696**	**6144**	**38234**	**53540**	**32831**	**164091**	**83409**	**101488**	**83223**	**162412**	**112182**	**131279**
SH06a	9704	1329	10895	7112	4960	10612	2548	1472	12802	41179	8788	47745	28739	16491	46347	68005	61096	33049
SH06b	10023	7670	13430	10008	7560	12600	4223	2230	20875	47068	25959	62256	48220	59068	48370	91210	69407	55082
SH07a	12460	10376	5982	11280	42	9513	4788	1035	3173	4533	1805	3466	2274	6797	8020	7656	21685	38240
SH07b	13466	14653	11758	16064	11452	10735	4873	1841	4208	4603	3380	6930	5837	12888	8345	15816	29774	40874
SH08a	33273	38531	25414	38558	39721	24014	4171	919	15257	14825	22662	75583	33926	100702	46732	51006	41992	39168
SH08b	33314	43919	26079	39969	39899	28052	5791	2884	18048	15378	27640	77935	48809	101420	53181	63667	45255	40776
SH09a	6867	17183	9866	15327	16842	8931	8502	6846	6836	3679	14930	5809	2455	11687	28782	15843	9317	23429
SH09b	20629	17388	11765	17193	18120	12825	11845	11739	9345	8839	16644	10848	10871	25231	33492	26077	28463	28016
SH10a	18854	11125	13782	11245	12845	9984	2062	2876	3906	2658	13691	19747	11971	31485	33680	18948	25029	27819
SH10b	18871	12194	14853	11689	14985	10019	2576	2876	10662	7584	14868	24880	17980	33267	37502	28830	28989	37756
SH11a	842	402	601	966	310	874	860	1243	0	20742	30282	6597	13442	30646	18792	11322	39198	16169
SH11b	1214	1019	1048	1168	1098	1076	1337	1743	54279	44627	30316	48676	41442	52775	30696	21842	40448	16169
SH12a	4237	3382	7136	10178	7266	5205	5360	86426	46499	34418	16062	15176	16735	19033	60900	16721	51073	5502
SH12b	7760	6615	7898	10178	8349	8333	5360	88410	56511	41980	30164	25857	27065	31233	65689	28151	64429	23337
SH13a	844	898	0	1723	0	111	15994	0	1509	2082	519	17331	0	20772	899	0	18430	7648
SH13b	844	1877	1408	2035	631	636	15994	20061	14735	11837	16457	17331	13971	24065	11881	12446	18910	11674
SH14a	358	159	743	393	795	536	310	82	1364	6131	4851	178	10765	635	3576	1095	1142	12155
SH14b	364	280	743	417	801	578	387	516	2929	6140	4860	1727	10770	2062	3576	1708	1545	12155
SHTOa	**87439**	**83385**	**74419**	**96782**	**82781**	**69780**	**44595**	**100899**	**91346**	**130247**	**113590**	**191632**	**120307**	**238248**	**247728**	**190596**	**268962**	**203179**
SHTOb	**106485**	**105615**	**88982**	**108721**	**102895**	**84854**	**52386**	**132300**	**191592**	**188056**	**170288**	**276440**	**224965**	**342009**	**292732**	**289747**	**327220**	**265839**
NS14a	647	392	220	1537	1079	1184	-	14651	10945	8617	15135	20744	19999	37991	22170	33925	49550	35385
NS14b	1915	710	1557	1947	1360	1351	2429	15641	12209	11301	17718	22287	20878	39862	22430	38485	52065	38331
NS15a	892	1057	500	2550	2945	877	65	22526	23160	7309	41152	1378	53697	14410	29753	10058	21114	48823
NS15b	1883	1909	1444	2801	3387	1920	178	22532	38945	41250	41231	37449	54286	23896	38935	20957	59821	48823
NS16a	4032	763	3365	4474	1915	2168	-	4044	3702	4888	3996	1543	10024	2046	-	-	7341	13948
NS16b	4440	3515	4196	4678	2746	2795	4157	4044	4528	5601	4481	4460	10279	7632	6743	6743	15039	14306
NS17a	727	876	885	1768	307	392	-	1905	4726	8437	12690	12221	24824	19265	20305	16516	37103	41198
NS17b	874	955	1205	1783	503	524	420	2710	7097	9183	12798	12221	24876	19282	20848	19759	37103	43467
NS18a	5792	2734	926	3586	3105	892	354	1180	10666	37028	24849	28670	16221	24172	11865	14660	31364	31948
NS18b	5982	3390	3609	4222	5412	3705	2884	1794	15843	37418	24896	30089	18820	27950	21051	21508	34225	32787
NS19a	7576	1301	1877	4865	3453	193	-	1134	5468	12438	13784	15524	19374	19811	20532	7688	4970	25025
NS19b	8222	4864	5346	6956	6534	4858	3454	1134	9539	18192	14773	20586	20712	26956	28168	20455	19083	25720
NS20a	7229	3201	631	9742	6128	4558	-	2138	8526	11198	4813	5818	11624	11244	13642	5462	7816	8511
NS20b	9238	7128	6324	10484	10251	8681	1909	3139	9620	12034	7160	8491	12393	12223	16565	11829	12609	10767
NS21a	-	1080	3568	1017	2713	2840	-	1694	-	2209	3376	-	7060	4547	5488	5610	-	3179
NS21b	1842	1121	4278	1058	3414	3550	-	2048	3866	3541	5483	3866	9167	4566	6977	6349	3483	5165
NS22a	162	571	738	764	685	687	-	4996	2712	2412	838	6053	942	1964	4282	8918	6507	254
NS22b	652	710	835	826	685	784	3370	4996	2899	2599	968	6240	2317	3701	5369	10005	7071	2492
NSTOa	**27057**	**11975**	**12710**	**30303**	**22330**	**13791**	**419**	**54268**	**69905**	**94536**	**120633**	**91951**	**163765**	**135450**	**128037**	**102837**	**165765**	**208271**
NSTOb	**35048**	**24302**	**28794**	**34755**	**34292**	**28168**	**18801**	**58038**	**104546**	**141119**	**129508**	**145689**	**173728**	**166068**	**167086**	**156090**	**240499**	**221858**
NL22a	1283	586	1147	704	760	895	2634	5539	14568	7919	12728	12818	25166	33315	28887	23484	26718	8978
NL22b	1283	586	1147	704	760	895	2678	5539	14568	7919	12728	12818	25166	33315	28887	23485	26718	8978
NL23a	28783	12373	3228	17423	6196	12748	7819	2679	18675	965	2892	19003	16277	16749	42155	-	37071	18826
NL23b	30098	13688	10993	18738	13961	14063	10319	6984	28300	26599	8634	33270	20877	33919	43755	38600	42581	31936
NL24a	11477	5893	3920	11167	3325	6660	4706	217	3308	5159	7479	4630	9985	10263	17774	-	8757	14320
NL24b	11477	5893	5320	11167	4725	6660	4706	1217	3858	5159	7479	5180	10535	10263	17774	14010	8757	14320
NL25a	76752	30854	26718	40799	47998	34606	14905	8719	23523	37567	27458	42934	47876	60090	108527	-	99904	63387
NL25b	76752	49154	41168	59099	62448	34606	14905	9729	26088	37567	27458	43599	48346	60090	108527	73767	99904	63437
NL26a	29033	20756	13809	18510	33253	32953	14653	3602	12921	21973	9941	20969	17926	23051	30514	-	55885	46239
NL26b	29033	20756	13809	18510	33253	32953	14653	3602	12921	21973	9941	20969	17926	23051	30514	33160	55885	46239
NL27a	8213	400	452	1911	1211	500	11702	764	-	-	1410	-	-	7466	-	-	4812	-
NL27b	8213	400	452	1911	1211	500	11702	1064	1460	1460	1410	1460	1460	7466	2295	2295	4812	1386
NL28a	27664	14219	9294	13410	12809	11996	4244	5220	16067	22600	11522	17480	15001	27937	32637	-	32362	27960
NL28b	33469	21924	16894	21115	20409	16996	8004	11220	18067	23600	12562	19520	17001	28902	33137	26930	33362	28460
NL29a	4613	-	1683	4266	740	2664	4445	942	1561	5893	3499	9359	5284	23694	8046	-	6869	15573
NL29b	4613	2998	3183	4266	3028	2664	4445	1442	2061	5893	3499	9549	5784	23694	8046	10320	6869	15573
NLTOa	**187818**	**85081**	**60251**	**108190**	**106292**	**103022**	**65108**	**27682**	**90623**	**102076**	**76929**	**127193**	**137515**	**202565**	**268540**	**23484**	**272378**	**195283**
NLTOb	**194938**	**115399**	**92966**	**135510**	**139795**	**109337**	**71412**	**40797**	**107323**	**130170**	**83711**	**146365**	**147095**	**220700**	**272935**	**222567**	**278888**	**210329**
TOTAa	**345623**	**201181**	**163633**	**261731**	**282322**	**207377**	**121818**	**188993**	**290108**	**380399**	**343983**	**574867**	**504996**	**677751**	**727527**	**479329**	**819287**	**738012**
TOTAb	**379780**	**266056**	**226995**	**305442**	**347906**	**248103**	**154295**	**237279**	**441695**	**512885**	**416338**	**732585**	**629197**	**830265**	**815976**	**830816**	**958789**	**829305**

Table 43. All waders Charadrii spp.

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	670	5352	1025	4136	6720	1606	810	192	3850	3847	6722	7025	2595	16396	7686	15987	13365	28030
DK01b	670	5352	1025	4136	6720	1606	810	192	3850	3847	6722	7025	2595	16396	7686	18151	13365	28030
DK02a	7279	11648	7881	16025	10798	6061	8061	6363	10404	36566	29136	34283	15789	36098	45479	67183	88538	122048
DK02b	7279	11648	7881	16025	10798	6061	8061	6363	10404	36566	29136	34283	15789	36098	45479	68555	88538	122048
DK03a	10119	1870	2216	11625	4510	81	922	25	14855	46197	36306	20526	13714	38707	99524	30700	105827	77287
DK03b	10119	1870	2216	11625	4510	81	922	25	14855	46197	36306	20526	13714	38707	99524	79103	105827	77287
DK04a	5015	2487	570	4664	6845	807	431	207	3120	11137	10651	7528	8379	9490	49766	20882	80048	75055
DK04b	5015	2487	570	4664	6845	807	431	207	3120	11137	10651	7528	8379	9490	49766	34981	80048	75055
DK05a	9700	2435	4450	13709	152	991	912	11	6693	7617	1445	16101	10925	45064	42594	37909	42418	67113
DK05b	9700	2435	4450	13709	152	991	912	11	6693	7617	1445	16101	10925	45064	42594	59715	42418	67113
DKTOa	**32783**	**23792**	**16142**	**50159**	**29025**	**9546**	**11136**	**6798**	**38922**	**105364**	**84260**	**85463**	**51402**	**145755**	**245049**	**172661**	**330196**	**369533**
DKTOb	**32783**	**23792**	**16142**	**50159**	**29025**	**9546**	**11136**	**6798**	**38922**	**105364**	**84260**	**85463**	**51402**	**145755**	**245049**	**260505**	**330196**	**369533**
SH06a	-	3665	98	2366	8549	19	4144	45	14001	27114	30819	18402	9159	28654	17848	68832	78019	71132
SH06b	15383	12072	259	14462	17484	1134	4224	325	21358	28150	31792	25770	61330	37685	117390	101298	91718	98328
SH07a	-	4598	10078	6280	13699	6146	11374	363	17873	64713	42550	36606	0	86945	73250	133265	83057	59874
SH07b	25065	23849	12316	21332	32939	11172	17553	11299	35705	66464	50072	52698	34499	59586	101464	136731	60147	67654
SH08a	-	30671	8847	18058	24732	3879	3910	4459	26631	52023	48295	34825	10041	60772	70396	116351	82024	79771
SH08b	28392	38796	8847	22085	33749	4039	8280	4627	40874	54429	50658	37188	31861	61959	150810	145630	93595	83695
SH09a	-	24518	7576	3547	9935	18971	10237	96	8866	19404	12994	19720	13801	21731	138817	59099	134057	139745
SH09b	25544	32670	7650	33799	32323	20487	11753	4076	32968	42242	36748	40850	97828	38991	144307	84406	177792	152078
SH10a	-	18832	7750	27966	17121	3304	4147	2092	17243	32574	34311	36260	13113	37838	48592	62742	73731	81032
SH10b	30093	21338	7930	43774	42029	8398	7847	5972	34419	36232	39954	50268	43878	58248	60520	70665	114827	101682
SH11a	-	18	3663	3839	11100	0	175	351	7998	12118	14274	5746	14826	4569	91627	0	154234	50305
SH11b	9415	5279	3670	6095	11101	150	325	501	8784	12119	14808	7434	16441	22946	99936	120281	157223	169699
SH12a	-	7301	4044	20932	4924	0	0	0	2382	7524	23774	0	23518	14785	124588	76857	105457	106563
SH12b	18035	10540	4044	33546	5054	4044	4044	4044	24127	20603	41361	17426	61946	14785	129328	89919	105457	107802
SH13a	-	0	0	1976	0	0	229	0	6933	13008	11252	11112	0	866	0	0	79093	110475
SH13b	9315	9362	127	10684	8988	85	229	25	9585	13500	11252	11112	9845	14756	100858	94719	79093	110475
SH14a	-	0	0	280	28	0	0	0	116	332	33	157	340	266	102	165	367	345
SH14b	50	14	0	280	28	0	0	0	116	332	33	157	340	334	317	357	630	418
SHTOa	**-**	**89603**	**42056**	**85244**	**90088**	**32319**	**34216**	**7406**	**102043**	**228810**	**218302**	**162828**	**84798**	**256426**	**565220**	**517311**	**790039**	**699242**
SHTOb	**161292**	**153920**	**44843**	**186057**	**183695**	**49509**	**54255**	**30869**	**207936**	**274071**	**276678**	**242903**	**357968**	**309290**	**904930**	**844006**	**880482**	**891831**
NS14a	-	23	0	3090	268	0	716	17	403	1525	578	782	5350	9576	4466	9508	3242	5039
NS14b	347	66	17	3224	277	0	716	17	403	1534	589	791	5362	9601	4466	9918	4335	5299
NS15a	-	33273	6928	13242	2180	2	-	7	6424	2843	4588	9914	78045	8800	25745	698	11411	23882
NS15b	19225	33273	6928	27783	20451	6838	6838	6819	17593	17743	20602	22148	79113	67447	40039	40181	39030	34357
NS16a	-	14389	3020	10858	419	4805	6480	-	38232	3960	1664	19306	36957	-	-	5090	-	29011
NS16b	18961	14501	3399	20169	19359	4805	8830	4557	46030	21520	19224	29848	37089	20299	14913	14340	15435	32657
NS17a	-	13171	3645	21142	15578	0	4522	3	28269	12901	13681	19699	31484	22688	-	29540	3271	20928
NS17b	10442	13675	4151	21522	15958	934	4522	537	28269	12908	13733	19699	31932	28613	47026	30204	15048	23387
NS18a	-	85354	61447	18026	6373	34562	21930	8865	36831	52196	21040	66876	82194	21016	82899	40229	15300	60371
NS18b	55805	95937	62341	58050	54082	45532	66323	53953	76886	76099	61076	72541	98016	58378	87814	65704	50862	61835
NS19a	-	55218	14987	27283	34348	15308	877	0	16802	72159	49798	53855	44681	16079	48576	3138	-	36297
NS19b	52685	64246	15387	42055	55857	19335	13505	12928	51480	72310	61503	53871	56918	47808	48576	29883	33030	36297
NS20a	-	36339	23837	14338	47593	1690	7633	558	15533	7681	30875	14550	50008	52957	14860	103774	-	97779
NS20b	36680	40801	24143	44871	67103	10190	19003	17102	38943	39002	40183	35392	53958	62800	28485	144182	90840	126026
NS21a	-	19068	8847	-	21505	500	-	-	-	-	-	0	24968	13858	19524	-	-	11505
NS21b	20155	25288	8847	20155	27299	1328	5088	5088	20155	20155	20155	20089	29945	14156	19524	4601	4601	11505
NS22a	-	10730	281	56037	776	0	717	901	1854	3792	15336	8845	2947	14323	16995	6343	7179	31859
NS22b	5596	10730	281	56037	776	634	1320	955	1857	3795	15336	8848	11655	14989	16995	14535	15371	34907
NSTOa	**-**	**267565**	**122992**	**164016**	**129040**	**56867**	**42875**	**10351**	**144348**	**157057**	**137560**	**193827**	**356634**	**159297**	**213065**	**198320**	**40403**	**316671**
NSTOb	**219896**	**298517**	**125494**	**293866**	**261162**	**89596**	**126145**	**101956**	**281616**	**265066**	**252401**	**263227**	**403988**	**324091**	**307838**	**353548**	**268552**	**366270**
NL22a	33	1933	195	5280	387	-	2276	23	7663	2561	2258	21149	26955	5132	12565	-	49357	31250
NL22b	33	1933	195	5280	387	2060	2276	23	7663	2561	2258	21149	26955	5132	12565	33985	49357	31250
NL23a	21437	76268	8236	37532	236363	47859	57292	4994	87364	-	79590	47639	44130	73925	72736	-	46343	85109
NL23b	77817	97938	64616	72242	236363	91384	92002	61374	109034	90921	135970	64309	66355	88985	73136	76394	86599	90809
NL24a	4876	28521	16721	60606	22915	6690	27574	1495	31685	30140	42609	29106	34665	31398	35030	-	22770	22106
NL24b	5076	28921	16971	60606	23165	6890	27774	1695	31935	30390	42859	29106	34965	31698	35280	23415	23160	22106
NL25a	76190	94155	70464	117608	139136	36341	116235	73469	115175	220448	141848	84896	82571	114037	96094	-	89433	101130
NL25b	83255	101800	71164	125373	139836	86546	117065	73469	122913	221041	142470	133723	124349	114437	96444	80115	99822	101130
NL26a	55492	39403	43547	44691	45705	-	57069	-	33234	58958	80007	56529	22645	24140	20463	-	29935	24355
NL26b	55492	39403	43547	44691	45705	43840	57069	43840	33234	58958	80007	56529	22645	24140	20963	25368	29935	24355
NL27a	-	48608	-	-	-	-	-	-	-	70710	-	-	81674	132162	34363	-	40494	71454
NL27b	44135	48608	44135	44135	44135	44135	44135	44135	44135	70710	44135	44135	81674	132162	34363	9636	40494	71454
NL28a	26854	42005	33663	84185	31152	57419	53262	5940	65945	52045	44461	35739	33980	43672	25796	-	43876	55950
NL28b	27639	42615	34448	84185	31937	58029	53437	6550	65945	52655	45246	35849	47340	43672	27396	39455	43926	56000
NL29a	61988	80595	19985	28920	56610	32630	35397	5648	29394	30254	42900	38149	60521	71131	39385	-	11717	22913
NL29b	61988	80595	19985	28920	56610	32630	35397	5648	29394	30254	42900	38149	60521	71131	39385	21450	11867	22913
NLTOa	**246870**	**411488**	**192811**	**378822**	**532268**	**180939**	**349105**	**91569**	**370460**	**465116**	**433673**	**313207**	**387141**	**495597**	**336432**	**-**	**333925**	**414267**
NLTOb	**355435**	**441813**	**295061**	**465432**	**578138**	**365514**	**429155**	**236734**	**444253**	**557490**	**535845**	**422949**	**464804**	**511357**	**339532**	**309818**	**385160**	**420017**
TOTAa	**279653**	**792448**	**374001**	**678241**	**780421**	**279671**	**437332**	**116124**	**655773**	**956347**	**873795**	**755325**	**879975**	**1057075**	**1359766**	**888292**	**1494563**	**1799713**
TOTAb	**769406**	**918042**	**481540**	**995514**	**1052020**	**514165**	**620691**	**376357**	**972727**	**1201991**	**1149184**	**1014542**	**1278162**	**1290493**	**1797349**	**1767877**	**1864390**	**2047651**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	26492	18003	6475	44748	9936	11875	2033	3971	11996	3829	9246	32898	22552	31426	11944	9671	6801	5185
DK01b	26492	18003	6475	44748	9936	12339	2033	3971	11996	3829	9246	32898	22552	31426	11944	9671	6801	5185
DK02a	86097	116704	59451	115473	83232	47711	6024	44538	71823	114263	36811	164315	97357	68105	67205	114728	41097	20929
DK02b	86097	116704	59451	115473	83232	56000	6024	44538	71823	114263	36811	164315	97357	68105	67205	114728	41097	20929
DK03a	75613	75138	91697	96762	61193	69628	4101	93785	108380	118676	33203	159744	182035	62825	97671	81706	97776	42310
DK03b	75613	75138	91697	96762	61193	70844	4101	93785	108380	118676	33203	159744	182035	62825	97671	81706	97776	42310
DK04a	56393	56879	82689	88152	27017	38614	1925	81304	54525	50109	55228	74909	143269	85983	89315	67735	59881	15003
DK04b	56393	56879	82689	88152	27017	40348	1925	81304	54525	50109	55228	74909	143269	85983	89315	67735	59881	15003
DK05a	93650	62881	27824	81983	31043	50164	6133	9418	24359	50059	31735	67213	85987	37742	130866	38489	81710	14747
DK05b	93650	62881	27824	81983	31043	60122	6133	9418	24359	50059	31735	67213	85987	37742	130866	38489	81710	14747
DKTOa	**338245**	**329605**	**268136**	**427118**	**212421**	**217992**	**20216**	**233016**	**271083**	**336936**	**166223**	**499079**	**531200**	**286081**	**397001**	**312329**	**287265**	**98174**
DKTOb	**338245**	**329605**	**268136**	**427118**	**212421**	**239653**	**20216**	**233016**	**271083**	**336936**	**166223**	**499079**	**531200**	**286081**	**397001**	**312329**	**287265**	**98174**
SH06a	55621	19304	32003	34207	12526	29948	1189	37007	28586	51630	47057	32126	63879	27566	58728	25550	50455	19269
SH06b	56414	63355	75249	72746	47920	41461	4141	53707	36255	59003	60660	48890	92931	46323	65513	41684	58055	31092
SH07a	76943	84377	101498	52366	6712	31203	3723	35261	27902	82244	30194	40799	25832	45645	66137	35332	52706	25221
SH07b	78680	91973	120180	61527	29148	33160	4352	52036	52523	82344	62584	103618	77012	65355	71558	54713	61920	32128
SH08a	93359	101820	62055	157011	65376	69048	24016	69789	92402	118461	80937	74225	49081	54208	82968	37492	79238	56455
SH08b	95080	104164	76085	165864	71126	74350	24789	70800	103508	119653	84556	81906	92997	55492	87244	44741	82729	57396
SH09a	144732	19389	77524	145773	97031	54646	8757	77223	43838	60876	45982	36217	6930	65038	41843	54505	30337	124745
SH09b	154177	55795	98142	161326	115904	75780	10550	104140	100984	142341	116250	116412	104865	204348	172265	161811	144871	136142
SH10a	82387	60213	56130	74373	56513	69881	10479	119500	33525	156478	246590	90322	92862	62404	143065	120381	55289	42884
SH10b	83224	87215	82471	80852	78626	75691	10616	121160	140842	183428	246590	106144	114988	71477	155636	147103	69270	56839
SH11a	87951	51613	25511	17011	12283	24599	5277	20862	0	57869	77260	6034	21170	18435	32308	12971	16576	131559
SH11b	167562	166644	139842	122352	135053	134890	8074	32862	86750	85443	112754	48726	55358	34878	36567	12971	142164	131559
SH12a	38493	110074	91205	163150	90564	75756	16637	48240	57228	97616	68259	139402	59033	41434	80564	146309	43605	10929
SH12b	102104	152616	98961	163150	99475	181667	16868	106516	64153	113407	82105	172713	63524	71830	81128	146873	84042	17427
SH13a	140648	109250	0	181149	0	19607	10326	0	1409	49656	769	115326	0	56418	1133	0	52770	4648
SH13b	140648	142346	107734	192912	120318	121330	10326	113515	117717	85855	112180	115388	76867	79866	29740	33793	54933	5420
SH14a	301	169	836	187	332	250	134	111	289	1225	401	21	2303	538	2812	1561	2211	726
SH14b	328	313	836	259	359	382	408	617	1068	1226	402	1405	2304	3982	2812	2434	2771	726
SHTOa	**720435**	**556209**	**446762**	**825227**	**341337**	**374938**	**80538**	**407993**	**285179**	**676055**	**597449**	**534472**	**321090**	**371686**	**509558**	**434101**	**383187**	**416436**
SHTOb	**878217**	**864421**	**799500**	**1020988**	**697929**	**738711**	**90124**	**655353**	**703800**	**872700**	**878081**	**795202**	**680846**	**633551**	**702463**	**646123**	**700755**	**468729**
NS14a	2571	3107	731	2307	3455	2100	-	16602	14583	5145	10835	24099	18074	24733	31545	27574	39733	18281
NS14b	4777	3334	3217	2899	3805	2567	789	18028	16638	10112	20376	28500	21316	29562	31691	31666	41937	18282
NS15a	39113	28004	11820	77951	39761	2386	656	57286	53423	4758	111412	16191	69705	17561	20972	3049	11950	104620
NS15b	65981	51441	40653	87840	57540	40860	1077	57286	107315	71581	111669	91203	71147	129399	139863	123669	115212	105081
NS16a	11606	3423	8828	11617	5573	3002	-	25234	16643	16093	56489	39202	46079	5540	-	-	41662	125946
NS16b	17345	9608	18078	16851	14823	7018	2170	25234	18065	28255	57189	61495	46357	63680	63010	63010	146861	126748
NS17a	8142	29158	19997	19647	22783	12188	-	24711	10468	18761	29403	34502	45848	29050	32809	23340	94295	70105
NS17b	18607	30779	20661	21181	24660	13978	1453	30337	17474	23675	30502	34502	46018	29050	33853	27037	94295	71852
NS18a	59837	43508	21493	73453	40829	29248	4253	33660	55498	71241	134742	85569	95226	68583	24654	32381	59777	143670
NS18b	60176	48642	49840	85834	58862	60086	12637	71726	90953	71459	135355	93718	100436	82309	69009	68835	90502	144817
NS19a	46800	30926	8917	31426	14727	7305	-	43536	59046	53459	100952	73747	75038	54145	88659	22522	25310	140965
NS19b	49254	53378	35112	39096	35817	33550	14004	43536	91088	75069	109379	86420	88861	92936	126807	85491	71293	148247
NS20a	62362	28136	20325	68053	17292	55995	-	57260	72261	55117	126152	22242	216755	40084	74938	19269	16123	89120
NS20b	72865	100759	98784	95991	88742	127445	7724	111071	103344	64249	137382	86703	222141	42782	121973	80650	77897	96247
NS21a	-	5605	13340	5161	6225	8662	-	16023	-	7435	12637	-	41395	18311	30567	32663	-	30641
NS21b	4601	5923	14851	5479	8494	10173	-	18148	18721	16362	20715	18721	49473	18408	35864	42164	13557	36668
NS22a	4536	30540	22613	29851	15627	18455	-	13804	20699	13620	6568	22427	7530	8346	17397	47122	11954	42219
NS22b	18098	33588	25626	30083	15627	21468	1408	13804	21100	14021	6568	22828	12749	24574	27240	56965	22675	49802
NSTOa	**234967**	**202407**	**128064**	**319466**	**166272**	**139341**	**4909**	**288116**	**302621**	**245629**	**589190**	**317979**	**615650**	**266353**	**321541**	**207920**	**300804**	**765567**
NSTOb	**311704**	**337452**	**306822**	**385254**	**308370**	**317145**	**41262**	**389170**	**484698**	**374783**	**629135**	**524090**	**658498**	**512700**	**649310**	**579487**	**674229**	**797744**
NL22a	36820	49513	58434	29935	26722	40616	3731	7410	21741	11199	24554	31584	34746	16078	19337	21742	19601	13071
NL22b	36820	49513	58434	29935	26722	40616	3731	7410	21741	11199	24554	31584	34746	16078	19337	21742	19601	13071
NL23a	83628	39601	34568	98639	69903	70194	12957	91124	151977	59478	23022	85187	137834	78745	143670	-	113140	52595
NL23b	89378	45301	40268	104339	75603	75894	13807	108574	180447	202885	151669	241704	137834	198400	143670	166071	131460	124240
NL24a	25916	23516	41741	24458	47768	24130	2736	92842	86698	120715	83712	69359	95745	74973	81873	-	53280	51847
NL24b	26266	23866	42291	24808	48218	24480	2736	93372	87118	121135	84132	69779	96080	76423	83323	73045	54180	52747
NL25a	109042	110739	109026	105394	139595	129203	14451	215381	208940	246879	122232	161033	191072	217615	174611	-	191779	141941
NL25b	109192	142262	109231	136917	140195	129203	14451	233472	226163	247779	122232	178256	191972	218664	174611	169430	191779	142741
NL26a	14759	23536	23673	15874	23309	22482	5518	85906	109175	69197	85071	90017	84733	83215	60647	-	51003	51396
NL26b	14759	23536	23673	15874	23309	22482	5518	85906	109175	69197	85071	90017	84733	83215	60647	62435	51003	51396
NL27a	46447	46234	13375	28574	34424	9293	9480	32677	-	-	28378	-	-	10001	-	-	21230	-
NL27b	46447	46234	13375	28574	34424	9293	9480	32677	45124	45124	28378	45124	45124	10001	51035	51035	21230	43380
NL28a	48654	43536	54476	26801	56173	38691	8646	82435	83449	99541	95059	75503	101490	97853	76161	-	91029	62390
NL28b	51654	46586	54476	29851	57073	38786	9456	82835	83549	99541	105919	86463	101490	100333	76161	77398	92329	63690
NL29a	12995	-	29372	27583	-	13783	5295	33101	24749	25478	24823	72540	31412	57844	50391	-	39649	57767
NL29b	12995	18165	29372	27583	19165	13783	5295	33101	24749	25478	24823	72947	31412	57844	50391	46243	39649	57767
NLTOa	**378261**	**336675**	**364665**	**357258**	**397894**	**348392**	**62814**	**640876**	**686729**	**632487**	**486851**	**585223**	**677032**	**636324**	**606690**	**21742**	**580711**	**431007**
NLTOb	**387511**	**395463**	**371120**	**397881**	**424709**	**354537**	**64474**	**677347**	**778066**	**822338**	**626778**	**815874**	**723391**	**760958**	**659175**	**667399**	**601231**	**549032**
TOTAa	**1671908**	**1424896**	**1207627**	**1929069**	**1117924**	**1080663**	**168477**	**1570001**	**1545612**	**1891107**	**1839713**	**1936753**	**2144972**	**1560444**	**1834790**	**976092**	**1551967**	**1711184**
TOTAb	**1915677**	**1926941**	**1745578**	**2231241**	**1643429**	**1650046**	**216076**	**1954886**	**2237647**	**2406757**	**2300217**	**2634245**	**2593935**	**2193290**	**2407949**	**2205338**	**2263480**	**1913679**

Table 44. All gulls and terns Lari spp.

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DK01a	-	2390	3833	2202	8437	8291	1789	335	5824	3947	2903	1315	4802	7254	3984	7706	9433	4704
DK01b	3751	2390	3833	2202	8437	8291	1789	335	5824	3947	2903	1315	4802	7254	3984	8939	9433	4704
DK02a	-	15158	4493	32914	8374	9936	11870	5960	16068	19509	21414	39366	8951	19771	9900	9480	9822	9702
DK02b	16458	15158	4493	32914	8374	9936	11870	5960	16068	19509	21414	39366	8951	19771	9900	12538	9822	9702
DK03a	-	2611	118	225	5579	274	130	292	2571	2946	3451	2650	1971	9192	5640	4825	3027	5338
DK03b	1892	2611	118	225	5579	274	130	292	2571	2946	3451	2650	1971	9192	5640	6777	3027	5338
DK04a	-	3439	711	857	8469	1244	3320	456	6152	7290	10683	5404	5237	7721	7174	4345	5537	4691
DK04b	4026	3439	711	857	8469	1244	3320	456	6152	7290	10683	5404	5237	7721	7174	4862	5537	4691
DK05a	-	2111	260	2343	1392	737	468	241	8289	3561	2492	1889	2770	2970	1372	1330	4764	7289
DK05b	2108	2111	260	2343	1392	737	468	241	8289	3561	2492	1889	2770	2970	1372	1335	4764	7289
DKTOa	**-**	**25709**	**9415**	**38541**	**32251**	**20482**	**17577**	**7284**	**38904**	**37253**	**40943**	**50624**	**23731**	**46908**	**28070**	**27686**	**32583**	**31724**
DKTOb	**28235**	**25709**	**9415**	**38541**	**32251**	**20482**	**17577**	**7284**	**38904**	**37253**	**40943**	**50624**	**23731**	**46908**	**28070**	**34451**	**32583**	**31724**
SH06a	-	2747	1616	1578	1458	312	4486	552	2922	4674	2768	2171	2474	2392	1348	8487	10501	6043
SH06b	4668	3699	3011	3668	2870	1995	5047	2914	4470	5863	3968	4080	4723	3401	6053	12091	12444	7461
SH07a	-	164	179	516	584	258	1760	113	2500	2520	2164	2397	0	659	3130	5941	1778	7062
SH07b	960	1003	1343	1227	1436	376	1835	686	3272	2576	2743	3310	2270	1376	4251	6557	3231	7768
SH08a	-	1020	271	1993	1758	1015	1118	542	9325	5249	5253	5531	250	2013	3960	9754	11247	13062
SH08b	2231	1906	271	2454	2283	1224	1320	590	10088	5574	5544	5845	2123	2085	9275	12602	11847	14235
SH09a	-	13423	110	379	2	625	366	7	728	451	510	1143	3368	882	8823	569	2697	13999
SH09b	13463	17628	374	8813	8438	735	476	197	8744	8761	8679	9429	5318	3632	11442	3871	11551	14096
SH10a	-	1392	146	1795	1077	345	2061	859	2020	2506	12634	1803	434	1984	4881	13926	8892	8087
SH10b	3854	3226	255	3658	3506	820	2111	1018	3009	3855	12956	2430	2965	2678	6339	15184	11446	9995
SH11a	-	22	189	1932	1108	33	736	72	4316	2802	3223	863	7118	1295	2607	0	1499	2431
SH11b	2948	606	196	3598	1122	153	856	192	4920	2816	3753	2315	8054	8054	3530	2317	2107	3246
SH12a	-	1122	41	1071	3073	1	75	24	1479	884	2618	0	5049	5356	4558	9792	24820	27412
SH12b	2773	1863	51	3522	3318	12	86	35	4569	3174	5870	2959	8594	5356	7424	10285	24820	27413
SH13a	-	0	247	326	16	83	95	148	639	355	3207	453	0	44	0	0	1285	1770
SH13b	2022	604	354	790	535	186	95	195	1420	438	3207	453	247	267	1015	1149	1285	1770
SH14a	-	42	486	454	1469	2	782	42	4102	1393	500	313	263	1418	362	216	171	1464
SH14b	519	394	713	454	1469	229	842	284	4102	1481	500	435	956	1580	919	808	486	1547
SHTOa	**-**	**19932**	**3285**	**10044**	**10545**	**2674**	**11479**	**2359**	**28031**	**20834**	**32877**	**14674**	**18956**	**16043**	**29669**	**48685**	**62890**	**81330**
SHTOb	**33438**	**30929**	**6568**	**28184**	**24977**	**5730**	**12668**	**6111**	**44594**	**34538**	**47220**	**31256**	**35250**	**28429**	**50248**	**64864**	**79217**	**87531**
NS14a	-	690	1690	5507	649	216	3705	91	1180	996	1095	1101	3640	1103	7660	9755	22	1574
NS14b	1973	798	1690	5963	1771	383	4445	831	1478	2332	2437	2437	3900	1533	7660	10138	2423	2089
NS15a	-	12342	1369	14335	8388	7	-	0	1377	1745	4206	2844	27309	14000	6180	189	705	7021
NS15b	7934	12562	1369	20698	15561	427	755	670	7536	8534	11333	9178	27624	29955	8468	5096	4980	8772
NS16a	-	6756	611	770	318	209	3041	-	15381	3260	1600	4898	3768	-	-	25	-	1856
NS16b	3627	7001	807	3658	3942	220	3347	529	16741	5604	3944	6852	3876	2951	12974	1524	1703	2615
NS17a	-	269	1344	651	1305	1	1758	438	10832	4346	1896	2234	2354	542	-	1227	541	2998
NS17b	1290	588	1344	927	1581	342	1758	540	10832	4561	1916	2390	2569	1149	3030	1699	1472	3054
NS18a	-	16473	7251	4140	2311	866	4496	3074	10606	7932	3795	6939	21302	2856	5720	6760	1987	7721
NS18b	5122	17261	7755	6529	5724	1248	6915	5494	13344	9925	6632	8424	22486	5568	7340	7943	4792	8154
NS19a	-	20336	5247	4766	7605	51	200	54	951	8830	8899	12302	23632	5318	22527	0	-	7493
NS19b	5065	20999	5247	5900	9688	511	1932	1786	4622	9160	10401	12434	26562	12020	22527	2482	2810	7493
NS20a	-	10578	1066	2517	2496	183	429	4	4555	456	9310	7253	26211	4082	33571	862	-	9662
NS20b	7876	11481	1146	9394	7460	615	1144	812	8233	7604	10618	10608	27448	8779	34603	8307	8061	10071
NS21a	-	1255	916	-	5797	0	-	-	-	-	-	0	4529	7388	4732	-	-	9404
NS21b	2958	1919	916	2958	6396	521	719	719	2958	2958	2958	2851	6130	7810	4732	1776	1776	9404
NS22a	-	1048	287	724	691	7	596	38	256	292	106	148	168	973	667	289	0	383
NS22b	394	1048	287	724	691	545	816	562	540	576	388	432	818	1002	667	609	320	673
NSTOa	**-**	**69747**	**19781**	**33410**	**29560**	**1540**	**14225**	**3699**	**45138**	**27857**	**30907**	**37719**	**112913**	**36262**	**81057**	**19107**	**3255**	**48112**
NSTOb	**36239**	**73657**	**20561**	**56751**	**52814**	**4812**	**21831**	**11943**	**66284**	**51254**	**50627**	**55606**	**121413**	**70767**	**102001**	**39574**	**28337**	**52325**
NL22a	11	147	121	166	99	-	146	55	315	1333	1719	35	310	-	3	-	0	3970
NL22b	11	147	121	166	99	200	146	55	315	1333	1719	35	310	10540	3	2895	0	3970
NL23a	1072	7661	1419	4161	68645	7796	6296	1689	13209	-	5939	3238	4786	19893	3	-	25361	10663
NL23b	11072	13511	11419	8311	68645	15686	10446	11689	19059	15275	15939	8698	15846	29458	14208	25375	35284	17066
NL24a	228	1350	515	1730	3980	1393	5633	195	2870	1421	701	5301	886	837	-	-	-	0
NL24b	228	1350	515	1730	3980	1393	5633	195	2870	1421	701	5301	886	837	2410	3770	2173	0
NL25a	12017	9060	5711	9361	20596	1467	23065	648	10877	9480	7511	13369	6844	11638	-	-	22895	18367
NL25b	13494	10537	5711	10838	20596	6517	28115	5698	12354	9480	7511	18765	11104	11638	-	21715	24197	18367
NL26a	20227	13363	10134	9984	32867	-	21325	-	21711	13105	9385	16070	851	11928	-	-	6451	12069
NL26b	20227	13363	10134	9984	32867	16200	21325	16200	21711	13105	9385	16070	851	11928	-	13098	6451	12069
NL27a	-	7200	-	-	-	-	-	-	-	3040	-	-	535	875	-	-	2657	2024
NL27b	3325	7200	3325	3325	3325	3325	3325	3325	3325	3040	3325	3325	535	875	-	5729	12407	11774
NL28a	18625	18217	4956	17359	16137	8583	40199	6895	15404	11231	14251	13246	10103	13892	15868	-	21581	24275
NL28b	19125	18717	5456	17359	16637	9083	40199	7395	15404	11731	14751	13746	16409	13892	15868	23380	24596	26800
NL29a	3943	8301	2413	2656	1519	2348	3022	1109	1911	223	2142	1272	6455	3577	2	-	10688	18097
NL29b	3943	8301	2413	2656	1519	2348	3022	1109	1911	223	2142	1272	6455	3577	2	8535	10688	18097
NLTOa	**56123**	**65299**	**25269**	**45417**	**143843**	**21587**	**99686**	**10591**	**66297**	**39833**	**41648**	**52531**	**30770**	**62640**	**15876**	**-**	**89633**	**89465**
NLTOb	**71425**	**73126**	**39094**	**54369**	**147668**	**54752**	**112211**	**45666**	**76949**	**55608**	**55473**	**67212**	**52396**	**82745**	**32491**	**104497**	**115796**	**108143**
TOTAa	**56123**	**180687**	**57750**	**127412**	**216199**	**46283**	**142967**	**23933**	**178370**	**125777**	**146375**	**155548**	**186370**	**161853**	**154672**	**95478**	**188361**	**250631**
TOTAb	**169337**	**203421**	**75638**	**177845**	**257710**	**85776**	**164287**	**71004**	**226731**	**178653**	**194263**	**204698**	**232790**	**228849**	**212810**	**243386**	**255933**	**279723**

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DK01a	5578	6391	2712	6946	4380	2490	6898	6028	6317	13146	6159	4361	2634	6531	8178	6105	6014	3615
DK01b	5578	6391	2712	6946	4380	4794	6898	6028	6317	13146	6159	4361	2634	6531	8178	6105	6014	3615
DK02a	10809	6387	2402	10994	10697	8211	17162	13018	16093	25731	22169	22058	12243	17914	11779	34925	19728	18564
DK02b	10809	6387	2402	10994	10697	12748	17162	13018	16093	25731	22169	22058	12243	17914	11779	34925	19728	18564
DK03a	2979	3510	1175	5710	3240	2508	6293	8211	5291	6682	10704	12048	9702	2735	14803	9120	3110	4432
DK03b	2979	3511	1175	5710	3240	3537	6293	8211	5291	6682	10704	12048	9702	2735	14803	9120	3110	4432
DK04a	4063	6916	3394	4025	2824	1103	5862	6487	7090	5641	7280	10703	3887	3897	6247	6562	3296	3679
DK04b	4063	6916	3394	4025	2824	1762	5862	6487	7090	5641	7280	10703	3887	3897	6247	6562	3296	3679
DK05a	5473	5185	2801	4345	3287	3379	9367	2852	9337	10849	12095	22250	5246	2587	6246	2900	5371	4371
DK05b	5473	5185	2801	4345	3287	3398	9367	2852	9337	10849	12095	22250	5246	2587	6246	2900	5371	4371
DKTOa	**28902**	**28389**	**12484**	**32020**	**24428**	**17691**	**45582**	**36596**	**44128**	**62049**	**58407**	**71420**	**33712**	**33664**	**47253**	**59612**	**37519**	**34661**
DKTOb	**28902**	**28390**	**12484**	**32020**	**24428**	**26239**	**45582**	**36596**	**44128**	**62049**	**58407**	**71420**	**33712**	**33664**	**47253**	**59612**	**37519**	**34661**
SH06a	9381	3909	3168	6894	4942	8596	4110	6473	9558	16584	3073	3240	5965	3104	4252	3211	3497	6641
SH06b	10295	9472	6156	10261	9135	10272	10322	14225	13588	20078	12981	7167	9512	6283	6624	4479	3568	8666
SH07a	4434	6804	5174	10277	305	4195	5397	3219	3971	32247	6573	3035	720	12031	6540	2155	7627	1319
SH07b	4834	8955	6475	11048	6028	4601	6603	10931	8126	32947	10134	11214	9143	13891	7237	3176	7885	1598
SH08a	13988	13188	4361	12278	7139	6375	14704	12232	12756	32543	10321	7424	2894	16244	7563	5371	9992	4012
SH08b	14203	13958	8471	14459	7625	10645	16443	12249	16293	32964	15879	9346	8183	16343	8171	6234	10936	5426
SH09a	17701	11661	1242	18735	4397	1874	16259	19708	8151	6000	12626	3112	1170	3723	5119	3690	1908	6427
SH09b	18126	12827	11850	21076	14762	14810	16976	21629	13115	12097	20676	6361	7642	13409	8703	8241	5173	7710
SH10a	9080	5950	1005	4783	3039	5386	6013	8070	11046	9598	6411	4758	6231	17586	10312	5784	6968	5346
SH10b	9403	10201	6810	7277	7086	6220	6775	9375	20061	12267	11173	8754	11723	18529	16316	10657	7231	6803
SH11a	2275	903	585	890	0	841	2704	2660	0	30431	31064	2498	2000	4919	1799	1579	3963	15004
SH11b	2675	1858	1140	890	935	841	3943	2660	23526	32363	33353	21909	27015	5627	2695	1579	18834	15709
SH12a	18020	25320	19674	23977	32024	26585	32043	25582	31892	23481	12267	8293	13540	7290	17948	17832	1881	893
SH12b	19019	25919	19969	23977	32300	30185	32243	38019	35120	26833	17938	10753	15025	9680	18398	18282	5128	2243
SH13a	748	899	0	735	0	570	4237	0	79	3572	0	11238	0	5917	402	0	2611	2352
SH13b	748	1321	964	1262	921	1016	4237	20961	7404	7739	8333	11238	10250	8315	2009	2064	2660	2561
SH14a	607	141	391	829	267	284	640	2179	2055	1000	1347	690	183	395	977	1259	6	387
SH14b	635	312	391	922	295	400	772	2389	2333	1030	1591	879	807	1389	977	1880	200	387
SHTOa	**76234**	**68775**	**35600**	**79398**	**52113**	**54706**	**86107**	**80123**	**79508**	**155456**	**83682**	**44288**	**32703**	**71209**	**54912**	**40881**	**38453**	**42381**
SHTOb	**79938**	**84823**	**62226**	**91172**	**79087**	**78990**	**98314**	**132438**	**139566**	**178318**	**132058**	**87621**	**99300**	**93466**	**71130**	**56592**	**61615**	**51103**
NS14a	2268	2582	3091	1615	848	2984	-	15597	7661	1414	3929	5063	3070	3302	5221	3658	1749	2033
NS14b	2838	2875	4732	2179	1675	3486	40	15597	8861	3726	4848	6432	3807	5574	5801	5312	2467	2118
NS15a	1350	1145	1554	2569	5694	190	1657	30369	24615	5526	42712	9924	28664	3934	22670	5468	4287	28484
NS15b	5613	5200	5138	3553	6811	5090	2540	30409	38104	27154	42737	30380	32992	20416	36755	22313	32614	28484
NS16a	1192	572	395	1455	320	552	-	964	3141	1618	27881	13202	13510	3980	-	-	11178	8962
NS16b	1852	776	1894	2035	1819	1471	9	964	4568	3725	28751	14852	13637	7894	7151	7151	17958	9307
NS17a	815	1374	1050	1580	224	1753	-	6804	2779	6233	7937	2812	7895	3755	1320	1323	4296	2951
NS17b	1062	1406	1522	1592	617	2126	439	7998	3236	6467	8082	2847	7965	3815	1582	1828	4296	3139
NS18a	3962	3525	6825	2249	9401	2298	4686	19657	21267	19604	60152	14091	25259	11014	4969	8150	13695	33980
NS18b	4118	3903	7969	3239	9687	4461	13386	24714	24194	20203	60788	20230	27157	15481	10005	8898	23996	34065
NS19a	4942	1793	258	2332	3809	0	-	20430	15756	29662	42028	14209	18793	14669	20567	4151	2202	37905
NS19b	5150	3630	1868	3626	5269	2482	8966	20430	26743	36022	45897	18390	25735	20464	28544	14224	8914	39084
NS20a	1964	9490	6752	7195	2649	2919	-	9044	16398	11111	57459	10236	24244	15692	36108	1795	1234	22953
NS20b	8376	15305	13395	7508	9119	9389	6845	24096	28682	14512	60786	21698	25284	16586	39012	11438	20931	29647
NS21a	-	0	5604	676	4718	7987	-	9385	-	5512	11881	-	5436	4079	6971	4242	-	2666
NS21b	1776	157	6107	833	5446	8490	-	15478	11436	8557	17822	11436	11377	4519	7383	5142	2485	4582
NS22a	122	466	756	236	725	442	-	3245	766	172	1299	686	372	294	855	1782	541	422
NS22b	511	756	977	305	725	663	582	3245	968	374	1418	888	899	854	1030	1957	847	628
NSTOa	**16615**	**20947**	**26285**	**19907**	**28388**	**19125**	**6343**	**115495**	**92383**	**80852**	**255278**	**70223**	**127243**	**60719**	**98681**	**30569**	**39182**	**140356**
NSTOb	**31296**	**34008**	**43602**	**24870**	**41168**	**37658**	**32807**	**142931**	**146792**	**120740**	**271129**	**127153**	**148853**	**95603**	**137263**	**78263**	**114508**	**151054**
NL22a	5634	822	0	457	3	77	5227	6822	465	198	1527	1568	4256	901	1090	544	237	809
NL22b	5634	822	0	457	3	3677	5227	6822	465	198	1527	1568	4256	901	1090	544	237	809
NL23a	26893	22592	3	21636	-	19315	17908	38370	55624	7468	11333	18993	33968	19647	41041	-	23547	7256
NL23b	29383	25142	28833	31556	28833	21810	20348	48665	63624	50356	38768	54428	33968	43527	41041	38005	29397	23026
NL24a	-	-	-	-	-	-	0	16550	14941	18246	6360	3589	10839	5401	8801	-	4251	1917
NL24b	3765	3763	3763	3750	3763	3750	0	16550	14941	18246	6360	3589	10839	5401	8801	6130	4251	1917
NL25a	22858	28898	5	17	-	19103	15813	58601	58894	32045	22376	31380	24480	32792	23575	-	24808	13293
NL25b	22988	31613	2720	2732	2715	23818	15813	62126	61909	40620	22376	34395	24480	32792	23575	19032	24808	13293
NL26a	8006	8816	50	5399	115	5212	6645	21994	48523	57857	23342	19474	19286	18652	22603	-	23942	19272
NL26b	8006	8816	50	5399	115	5212	6645	21994	48523	57857	23342	19474	19286	18652	22603	19605	23942	19272
NL27a	4848	6892	-	3620	40	3647	5856	21910	-	-	20600	-	-	5016	-	-	2590	-
NL27b	4848	16642	9750	13370	9790	13430	15606	21910	11685	11635	20600	11635	11635	5016	4850	4850	2590	3550
NL28a	25599	35870	226	22660	25	22964	14868	51368	61191	83204	31509	45282	44764	34139	35226	-	26191	30819
NL28b	28699	38985	3241	25760	3040	25864	18502	51368	61191	83204	34749	48522	44764	34419	35226	32880	26441	31069
NL29a	8374	-	3	10276	-	9079	13479	6669	3032	2914	6273	4480	6140	7961	1388	-	3820	3972
NL29b	8374	9485	3	10276	9485	9079	13479	6669	3032	2914	6273	5041	6140	7961	3811	4600	3820	3972
NLTOa	**102212**	**103890**	**287**	**64065**	**183**	**79397**	**79796**	**222284**	**242670**	**201932**	**123320**	**124766**	**143733**	**124509**	**133724**	**544**	**109386**	**77338**
NLTOb	**111697**	**135268**	**48360**	**93300**	**57744**	**106640**	**95620**	**236104**	**265370**	**265030**	**153995**	**178652**	**155368**	**148669**	**140997**	**125646**	**115486**	**96908**
TOTAa	**223963**	**222001**	**74656**	**195390**	**105112**	**170919**	**217828**	**454498**	**458689**	**500289**	**520687**	**310697**	**337391**	**290101**	**334570**	**131606**	**224540**	**294736**
TOTAb	**251833**	**282489**	**166672**	**241362**	**202427**	**249527**	**272323**	**548069**	**595856**	**626137**	**615589**	**464846**	**437233**	**371402**	**396643**	**320113**	**329128**	**333726**

Appendix 1.
Counts of species and species groups not included in Tables 4-39. True rarities, seabirds and species not properly covered are excluded
Still, some species may not have been included at all counts – especially not in the Netherlands.

Small diver spp. *Gavia stellata/arctica*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	1	0	0	0	2	1	2	8	3	0	0	5	0	0	2
SHTOa	0	116	52	7	12	0	11	1	5	2	4	3	0	4	0	0	0	3
NSTOa	0	3	2	4	0	1	0	0	0	2	1	0	4	0	0	0	0	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	0	119	54	12	12	1	11	3	6	6	13	6	4	4	5	0	0	5

Little Grebe *Tachybabtus ruficollis*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	1	0	2	3	1	3	0	0	15	3	8	0	2	0	0	0	0
SHTOa	0	0	0	0	2	1	2	0	2	0	9	6	0	0	0	0	0	1
NSTOa	0	9	1	23	20	3	9	4	2	5	13	0	20	36	0	26	0	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	3
TOTAa	0	10	1	25	25	5	14	4	4	20	25	74	20	38	0	26	0	4

Great Crested Grebe *Podiceps cristatus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	1	0	0	0	0	0	0	0	0	4	8	0	13	5
SHTOa	0	1	0	0	2	1	0	0	2	1	0	0	0	15	0	7	54	64
NSTOa	0	1	1	4	3	1	4	0	6	20	5	0	11	20	0	14	0	0
NLTOa	0	0	0	0	50	0	22	0	0	0	0	25	0	0	0	0	8	68
TOTAa	0	2	1	4	56	2	26	0	8	21	5	25	11	39	8	21	75	137

Red-necked Grebe *Podiceps grisegena*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0
NSTOa	0	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	0	1	0	1	1	0	0	0	0	1	1	0	1	1	0	0	0	0

Black-necked Grebe *Podiceps nigricollis*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
NSTOa	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
TOTAa	0	0	0	0	1	0	0	0	0	0	0	1	0	2	0	0	0	0

Cormorant *Phalococorax carbo*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	4	1	0	0	7	18	25	0	1	0	0	10	161
SHTOa	0	0	0	1	2	0	0	0	15	6	2	10	3	35	0	0	14	29
NSTOa	0	24	2	44	0	43	5	0	2	17	3	9	20	20	13	17	36	234
NLTOa	0	7	0	6	82	15	9	2	8	16	0	11	9	15	0	0	19	657
TOTAa	0	31	2	51	84	62	15	2	25	46	23	55	32	71	13	17	79	1081

Grey Heron *Ardea cinerea*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	3	6	0	4	0	37	90	97	89	21	62	31	32	57	134
SHTOa	0	2	0	21	4	2	1	0	13	93	69	77	1	7	0	1	2	42
NSTOa	0	0	0	0	0	0	0	0	4	130	75	202	0	0	0	0	0	91
NLTOa	26	69	51	89	27	58	36	20	72	65	62	73	40	44	47	0	21	48
TOTAa	26	71	51	113	37	60	41	20	126	378	303	441	62	113	78	33	80	315

Spoonbill *Platalea leucorodia*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	0	0	0	2	0	0	0	2	0	0	0	0	4	4	0	0	42	64
TOTAa	0	0	0	2	0	0	0	2	0	0	0	0	4	4	0	0	42	64

Mute Swan *Cygnus olor*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	30	65	58	44	65	0	15	1	41	30	72	119	41	29	13	27	22	84
SHTOa	0	4	19	22	22	8	21	18	31	49	71	25	16	49	9	5	70	29
NSTOa	0	27	74	99	69	132	76	181	78	158	280	0	36	97	0	88	76	0
NLTOa	22	25	0	14	11	10	9	21	27	16	17	7	6	3	0	0	11	10
TOTAa	52	121	151	179	167	150	121	221	177	253	440	151	99	178	22	120	179	123

Bewick's Swan *Cygnus columbianus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	304	0	102	71	2	7	0	74	48	93	232	73	48	0	0	0	0
SHTOa	0	0	0	53	230	0	0	17	0	6	69	32	123	592	0	0	0	0
NSTOa	0	0	0	262	54	8	0	0	60	317	179	0	2587	2042	0	1	3	0
NLTOa	226	419	0	281	295	143	101	43	329	271	417	504	21	2	0	0	0	0
TOTAa	226	723	0	698	650	153	108	60	463	642	758	768	2804	2684	0	1	3	0

Small diver spp. cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	0	0	0	0	0	0	1	0	0	0	1	2	5	6	1	0
SHTOa	0	4	0	0	0	1	1	0	5	0	0	0	6	4	17	17	14	0
NSTOa	0	0	0	0	0	2	0	0	1	0	14	0	4	3	0	0	0	2
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	0	4	0	0	0	3	1	0	7	0	14	0	11	9	22	23	15	2

Little Grebe cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	0	3	0	0	2	0	5	8	0	0	1	1	0	9	6	1
SHTOa	0	0	0	1	0	1	1	2	13	14	0	5	20	4	14	8	8	1
NSTOa	9	1	5	2	6	0	0	24	46	5	17	0	77	15	42	72	9	25
NLTOa	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
TOTAa	9	1	5	6	6	1	5	26	64	27	17	5	98	20	56	89	23	27

Great Crested Grebe cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	24	2	7	6	19	0	26	2	2	9	0	6	14	3	1	24	5	0
SHTOa	9	53	13	20	20	18	54	17	117	196	54	174	52	94	102	116	98	10
NSTOa	3	4	9	18	12	5	0	28	26	21	32	0	19	8	38	38	5	20
NLTOa	0	0	0	0	0	28	35	0	0	0	0	0	0	0	83	0	53	0
TOTAa	36	59	29	44	51	51	115	47	145	226	86	180	85	105	224	178	161	30

Red-necked Grebe cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	0	0	0	0	0	0	0	0	5	1	0	2	0	0	0	1	4	0
NSTOa	0	0	0	0	0	0	0	0	2	0	1	0	2	1	1	0	0	1
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	0	0	0	0	0	0	0	0	7	1	1	2	2	1	1	1	4	1

Black-necked Grebe cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	2	0	0	0	0	0	1	1	0	1	3	0	0	0	0	0	0	0
NSTOa	0	0	0	3	0	0	0	2	0	0	0	0	0	0	0	4	0	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	2	0	0	5	0	0	1	3	0	1	3	0	0	0	0	4	0	0

Cormorant cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	7	8	2	60	1	9	96	1	1	1126	3	1931	18	294	6	32	21	14
SHTOa	15	36	5	8	7	23	67	10	21	179	17	263	20	120	28	6	2	1
NSTOa	79	26	24	86	32	26	24	33	102	297	104	421	162	278	267	85	62	16
NLTOa	193	94	1	106	26	45	3883	920	752	3041	849	2043	165	1144	923	1	21	8
TOTAa	294	164	32	260	66	103	4070	964	876	4643	973	4658	365	1836	1224	124	106	39

Grey Heron cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	136	58	39	149	47	20	149	137	307	309	44	669	217	193	206	152	115	82
SHTOa	10	3	0	76	27	0	49	46	87	216	18	228	30	137	41	60	101	16
NSTOa	44	41	0	124	0	0	0	0	0	36	0	515	5	456	0	0	2	0
NLTOa	58	55	67	77	32	20	51	169	167	207	140	319	312	141	247	8	125	104
TOTAa	248	157	106	426	106	40	249	352	561	768	202	1731	564	927	494	220	343	202

Spoonbill cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	1	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	85	52	0	111	0	61	108	250	226	262	96	173	81	0	21	0	0	0
TOTAa	85	52	1	111	0	61	108	250	242	262	96	173	81	0	21	0	0	0

Mute Swan cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	48	24	24	91	46	68	75	10	25	46	7	39	11	24	36	52	37	123
SHTOa	84	34	20	148	53	25	102	3	116	35	110	109	58	17	34	57	20	8
NSTOa	40	26	28	193	90	76	0	80	119	84	92	0	125	403	53	100	69	58
NLTOa	19	8	0	20	0	6	12	0	0	10	19	14	0	9	17	1	50	65
TOTAa	191	92	72	452	189	175	189	93	260	175	228	162	194	453	140	210	176	254

Bewick's Swan cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	8	48
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	1	89	37	1	142	225
NSTOa	0	0	0	16	0	0	0	0	0	0	0	0	0	898	486	87	109	298
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	97	3	2	207	95
TOTAa	0	0	0	16	0	0	0	0	0	0	0	0	1	1097	526	90	466	666

Whooper Swan *Cygnus cygnus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	17	7	143	242	209	138	14	28	297	267	421	95	2	0	0	0	0
SHTOa	0	0	7	26	119	1	41	46	14	21	26	3	45	15	0	0	6	0
NSTOa	0	6	8	0	8	41	2	26	40	35	72	0	56	12	0	1	0	0
NLTOa	4	0	0	2	0	24	14	12	5	38	20	0	0	2	0	0	0	0
TOTAa	4	23	22	171	369	275	195	98	87	391	385	424	196	31	0	1	6	0

Bean Goose *Anser fabalis*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	70	49	5	24	22	0	0	15	0	3	0	0	0	0	2
SHTOa	0	0	0	0	0	0	0	17	1	11	1	0	4	2	0	0	1	0
NSTOa	0	87	308	221	68	4	44	89	451	133	36	0	242	0	0	0	0	0
NLTOa	295	1610	0	104	1565	3	882	364	1266	2289	1284	370	71	4	0	0	0	0
TOTAa	295	1697	308	395	1682	12	950	492	1718	2433	1336	370	320	6	0	0	1	2

Pink-footed Goose *Anser brachyrhynchus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	15	5	12185	5561	155	757	202	3119	4905	17512	10057	8898	6787	220	240	1244	0
SHTOa	0	17	1	5	204	13	0	0	0	72	0	0	0	0	0	0	0	0
NSTOa	0	54	30	66	1614	0	13	40	68	79	0	0	368	0	0	0	0	0
NLTOa	11	0	0	11	76	40	7	8	27	0	93	0	0	0	0	0	34	0
TOTAa	11	86	36	12267	7455	208	777	250	3214	5056	17605	10057	9266	6787	220	240	1278	0

White-fronted Goose *Anser albifrons*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	24	4	1	0	3	1	9	51	8	34	10	40	0	0	2	0
SHTOa	0	0	0	0	0	0	0	0	245	1243	72	353	1166	3048	0	0	0	8
NSTOa	0	325	1	3215	986	7	64	97	4714	9314	7148	0	8727	4391	0	556	10	0
NLTOa	7	307	0	1174	375	0	329	3	1369	225	2596	167	379	5871	0	0	34	1
TOTAa	7	632	25	4393	1362	7	396	101	6337	10833	9824	554	10282	13350	0	556	46	9

Greylag Goose *Anser anser*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	9	0	17	2	0	2	0	2	185	100	517	10	83	38	170	38	144
SHTOa	0	132	13	301	205	23	306	276	674	1016	2691	1217	494	921	2	0	150	223
NSTOa	0	482	4	3128	697	44	290	54	504	7208	3550	0	4964	7384	0	1369	655	0
NLTOa	448	382	182	1530	342	0	245	135	2731	1062	1536	3419	454	2850	0	0	150	372
TOTAa	448	1005	199	4976	1246	67	843	465	3911	9471	7877	5153	5922	11238	40	1539	993	739

Grey goose sp. *Anser sp.*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0
SHTOa	0	0	0	0	0	0	0	0	0	55	9	47	0	0	0	0	0	0
NSTOa	0	0	0	50	3	231	44	0	450	1087	16	58	1465	137	0	71	0	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	0	0	0	50	3	231	44	0	450	1142	33	105	1465	137	0	71	0	0

Canada Goose *Branta canadensis*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	16	117	246	493	281	32	285	25	0	410	0	1	0	0	0	0
SHTOa	0	0	0	0	0	6	117	42	73	11	1	0	0	0	0	0	1	0
NSTOa	0	69	27	10	7	2	60	212	78	149	0	0	36	7	0	1	3	0
NLTOa	1	1	0	0	0	0	36	25	3	0	1	0	1	3	0	0	0	0
TOTAa	1	70	43	127	253	501	494	311	439	185	2	410	37	11	0	1	4	0

Light-bellied Brent Goose *Branta bernicla hrota*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	142	0	0	0	0	0	5	15	14	0	0	0	0	0	0
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	0	0	0	142	0	0	0	0	0	5	15	14	0	0	0	0	0	0

Goose sp. *Anserini sp.*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSTOa	0	1	0	0	0	0	0	0	0	0	50	0	1	110	0	0	0	201
NLTOa	0	0	0	0	223	0	22	0	0	0	0	0	0	0	0	0	0	0
TOTAa	0	1	0	0	223	0	22	0	0	0	50	0	1	110	0	0	0	201

Gadwall *Anas strepera*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	19	15
SHTOa	0	0	0	0	3	2	0	0	1	16	0	0	0	13	2	0	33	79
NSTOa	0	0	0	0	0	0	0	0	0	0	7	0	5	2	0	88	0	0
NLTOa	1	2	0	25	19	0	0	0	10	36	37	25	4	124	0	0	12	29
TOTAa	1	2	0	25	22	2	0	0	11	54	44	25	9	139	2	88	64	123

Garganey *Anas querquedula*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	27	38
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	2
NSTOa	0	17	0	0	0	0	0	0	4	0	0	0	2	2	0	65	0	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1
TOTAa	0	17	0	0	0	0	0	0	4	0	0	0	2	2	16	65	29	41

Whooper Swan cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	20
SHTOa	0	0	0	2	0	0	0	0	0	0	0	0	0	3	0	99	0	20
NSTOa	0	16	2	0	0	0	0	1	0	0	0	0	7	109	22	39	13	2
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0
TOTAa	0	16	2	2	0	0	0	1	0	0	0	0	7	112	22	138	72	42

Bean Goose cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0
NSTOa	0	0	2	0	2	0	0	0	0	80	53	0	0	0	5	12	132	7
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	17	350
TOTAa	3	0	2	0	2	0	0	0	0	80	53	0	0	0	5	71	155	357

Pink-footed Goose cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	0	2	0	1	0	0	69	0	0	0	0	190	8	0	0	76
SHTOa	0	1	0	0	0	0	0	0	0	0	0	0	0	0	55	59	0	0
NSTOa	0	0	0	0	0	0	0	0	0	0	15	0	32	80	20	0	0	108
NLTOa	0	0	0	0	0	0	0	0	0	0	0	4	0	94	0	0	191	0
TOTAa	0	1	0	2	0	1	0	0	69	0	15	4	32	364	83	59	191	184

White-fronted Goose cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	11	0	13
NSTOa	91	6	1	88	10	5	0	0	0	0	3	0	0	2013	191	906	1665	73
NLTOa	0	0	0	0	0	0	2	0	0	0	1	3	0	5	90	4	218	31
TOTAa	91	6	1	88	11	5	2	0	0	0	4	3	0	2018	281	921	1883	117

Greylag Goose cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	144	10	51	200	40	0	71	0	117	615	36	1626	8	881	400	111	216	0
SHTOa	313	109	50	488	265	33	136	1	359	163	61	520	480	384	180	818	708	153
NSTOa	71	449	32	598	453	348	0	582	945	2733	465	0	1101	6993	15732	7397	5728	876
NLTOa	246	165	0	282	0	80	88	0	0	1181	607	6878	0	8488	8904	6547	7794	1488
TOTAa	774	733	133	1568	758	461	295	583	1421	4692	1169	9024	1589	16746	25216	14873	14446	2517

Grey goose sp. cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	35	0	0
NSTOa	0	24	4	92	0	0	0	0	18	64	0	1	56	172	228	0	390	9
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	0	24	4	92	0	0	0	0	18	64	0	1	56	202	228	35	390	9

Canada Goose cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	6	0
NSTOa	0	0	3	7	0	0	0	0	0	3	4	0	2	17	1	1	0	1
NLTOa	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0
TOTAa	0	0	3	9	0	1	0	0	0	3	4	0	2	18	1	1	6	1

Light-bellied Brent Goose cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	2	0	0	0	2	0	0	0	325	39	880	164	0	26	82	0	2
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	0	2	0	0	0	2	0	0	0	325	39	880	164	0	26	82	0	2

Goose sp. cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSTOa	0	54	0	0	0	0	0	0	0	0	0	0	1	0	0	0	76	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	0	54	0	0	0	0	0	0	0	0	0	0	1	0	0	0	76	0

Gadwall cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	2	10	0	20	0	8	11	0	3	0	0	0	0	0	0	0	1	0
SHTOa	61	8	5	41	7	5	36	0	306	276	14	254	60	105	91	2	8	1
NSTOa	5	8	18	10	6	4	0	17	31	4	36	0	25	0	5	7	7	9
NLTOa	9	21	0	19	0	8	19	0	0	78	250	257	0	39	165	0	51	170
TOTAa	77	47	23	90	13	25	66	17	340	358	300	511	85	144	261	9	67	180

Garganey cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	2	4	6	34	25	0	34	0	0	0	0	0	0	0	0	0	0	0
SHTOa	12	2	23	18	66	2	0	3	0	2	0	15	0	0	0	0	0	0
NSTOa	10	8	21	16	18	9	0	28	30	2	34	0	6	6	1	0	1	0
NLTOa	2	1	0	0	0	1	0	10	0	1	38	0	0	0	0	0	0	0
TOTAa	26	15	50	68	109	12	34	41	30	5	72	15	6	6	1	0	1	0

Dabbling duck sp. *Anas sp.*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	712	0	0	400	0	0	0	0	0	700	0	0	1437	0	0	0	0
SHTOa	0	0	0	0	0	0	16	0	0	1310	940	0	0	0	0	0	0	0
NSTOa	0	292	311	348	2459	1174	339	0	5584	1811	1528	3604	200	14421	0	46	0	150
NLTOa	0	515	525	0	1870	0	0	0	23	0	0	0	0	0	0	0	0	0
TOTAa	0	1519	836	348	4729	1174	355	0	5607	3121	3168	3604	200	15858	0	46	0	150

Pochard *Aythya ferina*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	22	0	0	3	94	91	22	43	0	7	0	0	4	8
SHTOa	0	1	274	1	16	0	53	280	174	281	47	410	0	70	2	0	41	30
NSTOa	0	132	34	218	105	2	29	13	53	167	19	0	386	340	0	36	0	0
NLTOa	64	80	0	2	199	42	42	45	369	106	58	39	167	117	0	0	10	40
TOTAa	64	213	308	221	342	44	124	341	690	645	146	492	553	534	2	36	55	78

Tufted Duck *Aythya fuligula*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	54	0	10	19	0	0	1	101	161	20	39	2	15	12	10	15	134
SHTOa	0	4	13	44	7	11	87	115	84	46	162	70	4	104	70	10	226	685
NSTOa	0	426	110	380	156	97	74	55	228	277	46	0	374	353	0	187	14	0
NLTOa	471	228	0	7	245	312	166	279	511	168	128	30	234	192	0	0	229	267
TOTAa	471	712	123	441	427	420	327	450	924	652	356	139	614	664	82	207	484	1086

Scaup *Aythya marila*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	4	0	7	0	0	0	0	1	556	12	43	0	0	0	0	0	2
SHTOa	0	10	0	30	2	1	5	0	2	1	0	81	0	0	0	0	0	101
NSTOa	0	1	4	3	35	0	42	0	200	515	56	0	15	1	0	0	0	0
NLTOa	0	0	7	4	0	0	3085	0	0	0	0	13	0	0	0	0	0	1
TOTAa	0	15	11	44	37	1	3132	0	203	1072	68	137	15	1	0	0	0	104

Long-tailed Duck *Clangula hyemalis*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	2	210	0	431	0	0	0	0	0	0	0	5
SHTOa	0	6	1	40	0	215	36	56	0	1	36	25	0	2	0	0	0	2
NSTOa	0	0	3	0	6	0	0	0	0	10	0	0	8	0	0	0	0	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
TOTAa	0	6	4	40	6	215	38	266	0	442	36	27	8	2	0	0	0	7

Common Scoter *Melanitta nigra*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	304	0	128	3617	0	58	47065	321	11039	16	60	16	20	5	0	20	4392
SHTOa	0	444	11	149	15658	21	63	2	3281	23	3	2	0	2173	1	0	0	0
NSTOa	0	26	6	16	3	3	1	0	5	0	6	0	17	4	0	0	0	0
NLTOa	0	0	318	20	0	0	0	0	0	0	0	303	0	0	0	0	0	761
TOTAa	0	774	335	313	19278	24	122	47067	3607	11062	25	365	33	2197	6	0	20	5153

Velvet Scoter *Melanitta fusca*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	3
SHTOa	0	0	0	1	7	1	2	0	1	1	1	0	0	2	0	0	0	0
NSTOa	0	27	0	0	5	0	0	0	0	0	0	0	2	5	0	0	0	0
NLTOa	0	0	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
TOTAa	0	27	6	1	12	1	2	0	1	1	1	1	3	7	0	0	0	3

Goldeneye *Bucephala clangula*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	195	164	1436	199	490	576	1093	377	1019	330	410	305	232	524	2	45	0	1
SHTOa	0	344	566	274	165	508	301	179	336	472	533	732	103	576	10	8	10	169
NSTOa	0	324	117	260	235	57	544	103	256	275	247	0	384	314	0	71	0	0
NLTOa	0	0	97	22	0	0	0	0	0	0	30	91	0	0	0	0	0	3
TOTAa	195	832	2216	755	890	1141	1938	659	1611	1077	1220	1128	719	1414	12	124	10	173

Smew *Mergus albellus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	5	0	5	4	7	2	13	16	1	24	0	19	0	0	0	0
SHTOa	0	8	0	5	4	4	1	0	0	14	4	22	0	15	1	0	0	0
NSTOa	0	45	8	11	66	9	94	3	48	70	20	0	151	87	0	0	0	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0
TOTAa	0	53	13	16	75	17	102	5	61	100	25	50	151	121	1	0	0	0

Red-breasted Merganser *Mergus serrator*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	3	363	10	8	253	41	339	25	5	19	26	12	49	33	35	41	88
SHTOa	0	10	18	36	11	23	1	12	7	27	32	26	13	27	106	13	74	115
NSTOa	0	16	15	8	3	1	2	0	2	0	2	0	17	3	0	17	0	0
NLTOa	0	0	24	15	0	0	0	0	0	0	0	160	0	0	0	0	0	31
TOTAa	0	29	420	69	22	277	44	351	34	32	53	212	42	79	139	65	115	234

Goosander *Mergus merganser*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	204	281	21	149	399	167	208	39	77	84	57	218	92	4	30	0	0
SHTOa	0	33	162	135	284	40	82	84	124	126	150	114	241	96	21	4	0	2
NSTOa	0	444	132	220	323	113	590	49	324	282	210	0	1129	419	0	25	6	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0
TOTAa	0	681	575	376	756	552	839	341	487	485	444	190	1588	607	25	59	6	2

Dabbling duck sp. cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	30	0	0	0	0	0	140	510	450	0	300	0	0	1775	2200	0	5470
SHTOa	0	0	0	0	0	0	0	0	0	0	400	341	0	0	0	0	0	0
NSTOa	167	97	0	320	26	2	0	337	410	3895	1975	3982	3010	5105	225	2262	10300	113
NLTOa	0	0	0	0	0	0	0	0	2360	0	20	0	0	0	0	0	0	0
TOTAa	167	127	0	320	26	2	0	477	3280	4345	2395	4623	3010	5105	2000	4462	10300	5583

Pochard cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	11	1	0	14	7	6	7	0	0	5	0	0	0	0	0	0	37	9
SHTOa	50	5	0	30	38	6	198	14	15	52	397	497	32	85	81	468	271	245
NSTOa	4	11	0	7	2	32	0	53	110	36	95	0	233	22	92	132	98	526
NLTOa	26	26	0	20	0	31	39	0	0	46	48	14	0	37	107	2	233	84
TOTAa	91	43	0	71	47	75	244	67	125	139	540	511	265	144	280	602	639	864

Tufted Duck cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	35	38	2	37	10	5	47	0	12	5	0	0	5	0	28	3	61	26
SHTOa	277	161	67	230	69	134	456	10	10	83	41	463	63	141	59	96	146	142
NSTOa	192	180	78	220	159	102	0	244	204	91	113	0	187	159	326	177	206	373
NLTOa	377	151	0	175	0	223	205	0	0	96	71	3438	0	79	157	5	191	208
TOTAa	881	530	147	662	238	464	708	254	226	275	225	3901	255	379	570	281	604	749

Scaup cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	1	7	0	0	0	0	0	0	0	0	0	0	0	0	0	1	16	0
SHTOa	0	0	0	4	0	0	0	0	0	0	2	0	9	0	0	2	13	2
NSTOa	1	2	0	0	0	0	0	0	4	0	0	0	0	2	2	6	160	5
NLTOa	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
TOTAa	2	9	0	4	0	0	1	0	4	0	2	0	9	2	2	9	189	7

Long-tailed Duck cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	10
NSTOa	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	14	5
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	18	15

Common Scoter cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	7810	3	0	0	37005	0	0	700	3	30	132	41150	10	8070	4	0	28	14
SHTOa	0	0	42	0	2	5027	87	25	40	6	10	3	42	0	109	18	26	9
NSTOa	0	0	7	0	0	0	0	1	0	0	14	0	2	1	4	3	0	47
NLTOa	0	0	0	0	0	0	3417	0	0	0	0	0	0	0	0	0	0	0
TOTAa	7810	3	49	0	37007	5027	3504	726	43	36	156	41153	54	8071	117	21	54	70

Velvet Scoter cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	5	0	1	0	270	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0
NSTOa	2	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	2
NLTOa	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
TOTAa	7	0	1	0	270	0	5	0	0	0	8	0	0	0	1	0	3	2

Goldeneye cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	5	2	2	0	0	0	0	4	7	0	3	0	19	12	3	321	62
SHTOa	8	0	10	0	3	7	1	43	29	44	80	65	14	111	43	11	297	194
NSTOa	4	0	2	13	1	0	0	0	15	18	10	0	23	8	13	3	176	119
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	12	5	14	15	4	7	1	43	48	69	90	68	37	138	68	17	794	375

Smew cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0
SHTOa	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	10	1
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	13	25

Red-breasted Merganser cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	37	10	12	15	10	6	3	0	42	9	3	12	38	44	41	88	50	15
SHTOa	49	60	66	46	5	18	10	0	6	8	17	39	52	35	30	37	64	20
NSTOa	1	1	13	10	0	2	0	0	2	2	2	0	3	2	16	0	30	63
NLTOa	0	0	0	0	0	0	32	0	0	0	0	2	0	0	0	0	0	0
TOTAa	87	71	91	71	15	26	45	0	50	19	22	53	93	81	87	125	144	98

Goosander cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	1	0	0	0	2	0	1	0	1	0	5	0	1	0	1	83	3
SHTOa	1	0	2	0	0	0	2	0	0	5	0	0	1	0	0	1	4	6
NSTOa	0	9	0	0	0	0	0	0	4	5	8	0	11	2	0	3	40	90
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	1	10	2	0	0	2	2	1	4	11	8	5	12	3	0	5	127	99

Duck sp.

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	0	0	10	8	240	50	730	170	1613	5990	1037	5847	0	0	0	0	600	3
NSTOa	0	0	157	0	80	110	0	0	250	2212	4002	45	300	1000	0	80	0	130
NLTOa	200	0	0	0	1015	0	0	0	2200	0	0	0	42	0	0	0	0	0
TOTAa	200	0	167	8	1335	160	730	170	4063	8202	5039	5892	342	1000	0	80	600	133

Coot *Fulica atra*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	96	3	327	78	24	15	0	297	80	179	331	69	90	78	78	13	166
SHTOa	0	1	8	339	370	35	38	90	124	769	752	724	38	1156	20	14	206	189
NSTOa	0	930	862	461	784	2389	413	822	295	394	370	0	824	964	0	125	0	0
NLTOa	1067	1485	200	40	0	786	497	766	1588	1282	1324	1136	1135	1611	0	0	157	246
TOTAa	1067	2512	1073	1167	1232	3234	963	1678	2304	2525	2625	2191	2066	3821	98	217	376	601

Little Ringed Plover *Charadrius dubius*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
TOTAa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0

Little Stint *Calidris minuta*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	6
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54	3	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
TOTAa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	54	13	42

Temminck's Stint *Calidris temminckii*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TOTAa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

Purple Sandpiper *Calidris maritima*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	1	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0
SHTOa	0	3	4	12	21	2	4	13	0	31	10	1	20	12	0	0	13	6
NSTOa	0	52	65	0	7	2	0	7	17	1	0	0	26	19	0	0	0	0
NLTOa	18	138	0	74	64	71	41	84	102	54	0	34	2	98	245	0	36	24
TOTAa	18	194	69	86	92	75	45	104	119	86	26	35	48	129	245	0	49	30

Jack Snipe *Lymnocryptes minimus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	0	0	0	1	4	0	0	0	0	0	0	1	0	1	0	0	0	0
TOTAa	0	0	0	1	5	0	0	0	0	0	0	1	0	1	0	0	0	0

Snipe *Gallinago gallinago*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	1	0	4	11	0	0	0	2	35	7	30	5	12	30	48	56	33
SHTOa	0	0	0	1	33	0	0	0	0	1	3	8	3	16	4	1	12	17
NSTOa	0	33	0	78	10	0	0	0	18	32	7	33	93	68	103	166	110	353
NLTOa	7	132	0	797	89	1	2	0	66	157	115	71	57	41	0	0	3	6
TOTAa	7	166	0	880	143	1	2	0	86	225	132	142	158	137	137	215	181	409

Black-tailed Godwit *Limosa limosa*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	18	55	55	85	146
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	7	28	60	8	63	287
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	207	47	0	602	12	0
NLTOa	0	0	0	3	1	0	0	0	1	0	0	0	130	114	0	0	389	338
TOTAa	0	0	0	3	1	0	0	0	1	0	0	0	344	207	115	665	549	771

Green Sandpiper *Tringa ochropus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	1	0
NLTOa	1	0	0	0	3	0	0	0	0	0	5	1	1	0	0	0	3	6
TOTAa	1	0	0	0	3	0	0	0	0	0	5	1	1	1	0	3	4	10

Wood Sandpiper *Tringa glareola*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
TOTAa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	6

Duck sp. cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	13	0	0	0	0	0	0	0	116	0	4100	0	0	0	0	0
SHTOa	0	31	1725	0	0	0	0	0	0	857	0	444	1000	607	2400	50	30408	4005
NSTOa	3	60	0	250	0	98	0	0	108	1259	0	0	0	0	0	0	150	0
NLTOa	0	0	0	0	0	0	0	0	0	47	0	0	0	0	80	0	0	0
TOTAa	3	91	1738	250	0	98	0	0	108	2163	116	444	5100	607	2480	50	30558	4005

Coot cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	127	11	51	74	176	22	141	5	156	101	169	343	8	76	99	76	94	122
SHTOa	28	123	53	315	100	84	316	29	1121	1765	755	1241	501	363	809	488	429	199
NSTOa	96	88	75	165	131	109	0	308	305	220	280	0	353	374	470	300	582	750
NLTOa	323	167	299	137	0	128	262	0	0	1470	1445	623	0	1018	1502	0	779	1193
TOTAa	574	389	478	691	407	343	719	342	1582	3556	2649	2207	862	1831	2880	864	1884	2264

Little Ringed Plover cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	0	0	2	0	4	1	0	0	0	0	0	0	0	0	0	0
SHTOa	1	1	2	0	2	0	6	0	1	2	0	1	0	0	0	0	0	0
NSTOa	0	26	16	13	9	16	0	14	40	0	12	0	1	0	0	3	0	0
NLTOa	0	2	0	1	0	1	0	0	0	0	3	0	0	0	0	0	0	0
TOTAa	1	29	18	14	13	17	10	15	41	2	15	1	1	0	0	3	0	0

Little Stint cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	8	12	2	16	1	12	7	0	36	58	3	119	77	8	5	2	8	0
SHTOa	0	16	1	68	5	18	1	4	32	604	2	205	107	0	47	34	3	0
NSTOa	6	5	27	4	43	12	0	19	223	59	203	0	45	4	14	13	65	43
NLTOa	0	8	0	0	0	0	0	0	0	196	71	416	0	35	91	0	0	0
TOTAa	14	41	30	88	49	42	8	23	291	917	279	740	229	47	157	49	76	43

Temminck's Stint cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	0	0	0	12	0	3	2	0	0	0	0	0	0	0	0	0
SHTOa	0	0	0	2	0	1	0	0	1	1	0	0	2	0	0	0	0	0
NSTOa	0	6	0	0	0	5	0	6	2	0	5	0	8	0	3	3	0	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	0	6	0	2	0	18	0	9	5	1	5	0	10	0	3	3	0	0

Purple Sandpiper cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0	0	0	1
SHTOa	1	9	14	0	1	0	0	0	1	2	0	6	1	4	3	0	0	0
NSTOa	0	160	4	0	26	4	0	0	3	0	14	0	11	0	20	20	3	36
NLTOa	0	0	0	68	0	0	0	0	0	29	40	74	0	18	11	0	49	77
TOTAa	1	169	18	68	27	4	0	0	5	31	54	80	15	22	34	20	52	114

Jack Snipe cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	2	0	0
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	0	0	0	0	0	0	0	0	5	0	0	3	0	1	3	0	3	5
TOTAa	0	0	1	0	0	0	0	0	5	1	0	3	0	1	5	3	4	5

Snipe cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	20	0	9	25	53	2	20	79	283	519	537	1249	178	39	1450	1215	774	501
SHTOa	8	16	11	6	5	6	2	118	190	488	63	196	658	112	1392	341	1111	75
NSTOa	24	14	51	10	87	29	0	552	779	791	1001	1837	1052	1138	1335	981	1278	935
NLTOa	4	5	0	3	0	0	0	14	95	1122	617	612	209	459	2625	206	2156	2017
TOTAa	56	35	71	44	145	37	22	763	1347	2920	2218	3894	2097	1748	6802	2743	5319	3528

Black-tailed Godwit cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	204	31	61	124	304	64	115	2	0	3	0	0	0	0	2	1	0	0
SHTOa	68	42	179	87	24	47	169	9	20	3	1203	1	1	0	22	1	0	0
NSTOa	217	577	328	430	303	484	0	382	18	35	229	0	34	20	5	48	0	0
NLTOa	297	220	154	335	0	1078	1222	0	0	20	30	6	0	1	2	0	0	0
TOTAa	786	870	722	976	631	1673	1506	393	38	61	1462	7	35	21	31	50	0	0

Green Sandpiper cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	1	1	0	0	0	1	7	1	10	1	7	0	0	0	1	0	0
SHTOa	3	0	0	1	0	1	0	12	17	6	1	5	1	0	1	0	0	0
NSTOa	3	1	1	1	1	4	0	42	23	9	5	0	5	2	1	12	0	0
NLTOa	6	1	0	0	0	0	2	0	0	26	8	9	0	15	1	0	3	0
TOTAa	12	3	2	2	1	5	3	61	41	51	15	21	6	17	3	13	3	0

Wood Sandpiper cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	3	1	0	0	1	0	0	12	0	12	1	1	0	0	0	0	0	0
SHTOa	0	14	35	1	0	0	0	3	1	0	22	0	4	0	0	0	0	0
NSTOa	1	5	5	11	3	14	0	50	82	7	22	0	13	2	3	13	3	0
NLTOa	0	10	0	2	0	0	0	0	0	7	2	1	0	1	1	0	0	0
TOTAa	4	30	40	14	4	14	0	65	83	26	47	2	17	3	4	13	3	0

Common Sandpiper *Actitis hypoleucos*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	24	20
SHTOa	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	125	9
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	4	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	55	18
TOTAa	0	0	0	0	0	0	0	0	0	1	0	0	0	1	4	40	208	47

Red-necked Phalarope *Phalaropus lobatus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Wader sp. *Charadrii sp.*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	600	0	0	0	0	150	500	0	0	80	0	0	0	0
SHTOa	0	0	0	2000	3600	200	350	0	1355	2087	1423	1588	4000	1500	4800	145	11200	5010
NSTOa	0	0	370	0	3700	0	502	1	286	3200	3300	5933	3450	7800	0	24	0	16780
NLTOa	0	0	3700	4500	35	1125	2650	0	0	0	0	0	0	1500	0	0	800	2000
TOTAa	0	0	4070	6500	7935	1325	3502	1	1641	5437	5223	7521	7450	10880	4800	169	12000	23790

Arctic Skua *Stercorarius parasiticus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2	1
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2	1

Little Gull *Larus minutus*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	6	0	0	0	0	6	0	0	2	0	0	0	0	6	4
SHTOa	0	0	0	10	0	0	0	0	0	0	0	0	0	0	1	3	0	121
NSTOa	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	131	4	0
NLTOa	0	0	0	26	0	0	31	0	2	0	0	0	0	0	0	0	4	55
TOTAa	0	0	0	49	0	0	31	0	8	0	0	2	0	0	1	134	14	180

Kittiwake *Rissa tridactyla*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	1	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0
SHTOa	0	55	0	90	85	0	2	0	0	0	0	0	0	0	0	0	0	0
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	1	0	3	37	34	21	17	0	0	2	0	6	0	7	0	0	0	0
TOTAa	1	56	3	135	127	21	19	0	0	2	0	6	0	7	0	0	0	0

Gull spp. *Larus sp.*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	600	0	0	2387	0	575	0	0	4800	0	0	0	0	0	0	0	0
SHTOa	0	25	555	300	27	250	0	96	4438	1458	6947	2448	150	50	0	6000	4096	867
NSTOa	0	8561	8802	18	851	91	415	0	690	2854	857	5744	5201	11494	0	346	0	1338
NLTOa	752	6240	605	442	10700	2400	4997	7	3122	3130	1300	13160	5890	300	0	0	105	3840
TOTAa	752	15426	9962	760	13965	2741	5987	103	8250	12242	9104	21352	11241	11844	0	6346	4201	6045

Gull-billed Tern *Gelochelidon nilotica*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2

Common/Arctic Tern *Sterna hirundo/paradisaea*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	483	2191	1195
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1888	680	12374	9882
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	416	125
TOTAa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1922	1163	14981	11262

Little Tern *Sterna albifrons*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	55
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	34	265	94
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	53	3	19
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	132
TOTAa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	87	340	300

Black Tern *Chlidonias niger*

Area	12.01.80	17.01.81	09.01.82	15.01.83	21.01.84	19.01.85	11.01.86	17.01.87	09.01.88	21.01.89	13.01.90	19.01.91	07.03.81	17.03.84	19.04.80	26.04.86	02.05.87	04 05 91
DKTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0
SHTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	20
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	6	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	8
TOTAa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	58	26	28

Common Sandpiper cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	6	12	25	41	31	30	3	127	23	41	26	21	22	0	0	3	0	2
SHTOa	14	13	24	105	23	54	0	216	70	66	31	9	21	1	3	41	0	8
NSTOa	37	140	25	69	98	93	0	352	165	135	151	0	62	0	6	0	0	0
NLTOa	44	51	0	99	0	78	1	0	0	50	15	44	0	2	2	2	1	0
TOTAa	101	216	74	314	152	255	4	695	258	292	223	74	105	3	11	46	1	10

Red-necked Phalarope cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0
SHTOa	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	0
NSTOa	0	0	0	0	0	0	0	0	4	0	14	0	0	0	0	0	0	0
NLTOa	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0
TOTAa	0	0	0	0	0	0	0	0	4	2	15	6	3	0	1	0	0	0

Wader sp. cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	2020	750	0	40	0	0	30	0	0	0	2500	0	0	0	0	0	0
SHTOa	17560	75758	18800	5400	0	9200	42	0	120	1115	0	2459	3000	2220	30700	23950	21203	1660
NSTOa	12752	9904	0	23869	95	2000	0	150	6731	5736	103300	5820	13988	13523	11250	36	24250	23911
NLTOa	0	24500	2000	3051	0	2000	0	0	5000	19000	0	0	0	0	2000	0	0	0
TOTAa	30312	112182	21550	32320	135	13200	42	180	11851	25851	103300	10779	16988	15743	43950	23986	45453	25571

Arctic Skua cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	0	1	0	0	0	1	0	14	4	7	0	0	1	0	0	1
SHTOa	0	0	1	0	0	1	0	1	1	2	1	3	2	0	0	0	0	0
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	0	0	1	1	0	1	0	2	1	16	5	10	2	0	1	0	0	1

Little Gull cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	18	1	4	0	129	6	24	0	1	0	0	7	0	0	0	2	0	0
SHTOa	140	33	6	68	4	57	8	0	13	100	3	4	0	0	0	8	38	0
NSTOa	46	197	15	38	159	71	0	168	0	0	38	0	0	6	0	0	1	4
NLTOa	67	11	0	0	0	13	35	0	0	6	53	0	0	53	0	0	0	0
TOTAa	271	242	25	106	292	147	67	168	14	106	94	11	0	59	0	10	39	4

Kittiwake cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	0	1	0	0	0	0	150	0	172	44	0	0	0	0	0	0	0
SHTOa	0	0	0	0	0	0	0	0	1	1	1	4	0	0	3	0	1	0
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	0	25	0	3	0	0	0	0	0	3	0	3	0	5	1	0	3	0
TOTAa	0	25	1	3	0	0	0	150	1	176	45	7	0	5	4	0	4	0

Gull spp. cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	700	0	0	640	0	0	630	4800	0	0	0	2300	0	6900	4775	0	0
SHTOa	812	3085	430	931	0	200	248	0	913	4078	7900	1084	898	8651	1700	2400	5565	3031
NSTOa	150	1663	0	1440	3	564	0	3880	7892	3677	31751	2142	38300	4105	404	0	2705	3300
NLTOa	6	0	0	0	0	758	3400	17573	2930	14500	7336	11844	8110	21505	17540	0	1055	1483
TOTAa	968	5448	430	2371	643	1522	3648	22083	16535	22255	46987	15070	49608	34261	26544	7175	9325	7814

Gull-billed Tern cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	27	0	0	11	0	0	5	0	0	0	0	0	0	0	0	0	0	0
SHTOa	2	2	0	0	2	1	64	0	0	0	0	4	0	0	0	0	0	0
NSTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLTOa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAa	29	2	0	11	2	1	69	0	0	0	0	4	0	0	0	0	0	0

Common/Arctic Tern cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	2795	1356	554	2036	610	285	1441	138	527	1210	118	64	0	5	0	2	2	0
SHTOa	19150	20980	10284	19024	14742	14132	17862	5464	886	3624	564	116	4	4	6	0	2	0
NSTOa	0	0	292	0	29	0	0	0	2	0	36	1	215	0	0	0	0	0
NLTOa	426	329	0	107	0	450	206	4976	1261	252	611	126	169	0	0	0	0	0
TOTAa	22371	22665	11130	21167	15381	14867	19509	10578	2676	5086	1329	307	388	9	6	2	4	0

Little Tern cont.

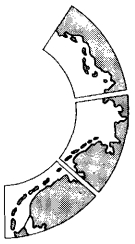
Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	45	32	73	36	80	4	126	35	10	20	0	0	0	0	0	0	0	0
SHTOa	244	203	306	302	172	608	512	442	97	18	20	0	6	0	0	0	0	0
NSTOa	11	15	50	13	64	27	0	227	117	1	37	0	11	0	0	0	0	0
NLTOa	107	126	0	76	0	88	37	449	260	72	28	5	33	0	0	0	0	0
TOTAa	407	376	429	427	316	727	675	1153	484	111	85	5	50	0	0	0	0	0

Black Tern cont.

Area	06.05.89	07.05.88	08.05.82	12.05.90	14.05.83	18.05.85	15.06.91	14.08.82	10.09.83	10.09.88	13.09.80	22.09.90	26.09.81	07.10.89	13.10.84	16.10.82	07.11.87	08.11.80
DKTOa	0	6	0	7	0	0	2	0	1	10	1	0	0	0	0	0	0	0
SHTOa	19	7	3	4	3	11	6	0	70	2	5	1	0	0	1	0	0	0
NSTOa	7	168	11	22	177	105	0	21	0	4	3	0	5	0	0	0	0	0
NLTOa	3	1	0	1	0	9	0	0	0	2	25	0	0	0	0	0	0	0
TOTAa	29	182	14	34	180	125	8	21	71	18	34	1	5	0	1	0	0	0

Appendix 2. National bird names for species mentioned in the text.

English	Scientific	Dutch	German	Danish
Cormorant	*Phalacrocorax carbo*	Aalscholver	Kormoran	Skarv
Spoonbill	*Platalea leucorodia*	Lepelaar	Löffler	Skestork
Bewick's Swan	*Cygnus columbianus*	Kleine Zwaan	Zwergschwan	Pibesvane
Whooper Swan	*Cygnus cygnus*	Wilde Zwaan	Singschwan	Sangsvane
Pink-footed Goose	*Anser brachyrhynchus*	Kleine Rietgans	Kurzschnabelgans	Kortnæbbet Gås
White-fronted Goose	*Anser albifrons*	Kolgans	Bläßgans	Blisgås
Greylag Goose	*Anser anser*	Grauwe Gans	Graugans	Grågås
Barnacle Goose	*Branta leucopsis*	Brandgans	Nonnengans	Bramgås
Brent Goose	*Branta bernicla*	Rotgans	Ringelgans	Knortegås
Shelduck	*Tadorna tadorna*	Bergeend	Brandgans	Gravand
Wigeon	*Anas penelope*	Smient	Pfeifente	Pibeand
Gadwall	*Anas strepera*	Krakeend	Schnatterente	Knarand
Teal	*Anas crecca*	Wintertaling	Krickente	Krikand
Mallard	*Anas platyrhynchos*	Wilde Eend	Stockente	Gråand
Pintail	*Anas acuta*	Pijlstaart	Spießente	Spidsand
Shoveler	*Anas clypeata*	Slobeend	Löffelente	Skeand
Eider	*Somateria mollissima*	Eidereend	Eiderente	Ederfugl
Common Scoter	*Melanitta nigra*	Zwarte Zeeëend	Trauerente	Sortand
Oystercatcher	*Haematopus ostralegus*	Scholekster	Austernfischer	Strandskade
Avocet	*Recurvirostra avosetta*	Kluut	Säbelschnäbler	Klyde
Ringed Plover	*Charadrius hiaticula*	Bontbekplevier	Sandregenpfeifer	Stor Præstekrave
Kentish Plover	*Charadrius alexandrinus*	Strandplevier	Seeregenpfeifer	Hvidbrystet Præstekrave
Golden Plover	*Pluvialis apricaria*	Goudplevier	Goldregenpfeifer	Hjejle
Grey Plover	*Pluvialis squatarola*	Zilverplevier	Kiebitzregenpfeifer	Strandhjejle
Lapwing	*Vanellus vanellus*	Kievit	Kiebitz	Vibe
Knot	*Calidris canutus*	Kanoetstrandloper	Knutt	Islandsk Ryle
Sanderling	*Calidris alba*	Drieteenstrandloper	Sanderling	Sandløber
Curlew Sandpiper	*Calidris ferruginea*	Krombekstrandloper	Sichelstrandläufer	Krumnæbbet Ryle
Dunlin	*Calidris alpina*	Bonte Strandloper	Alpenstrandläufer	Almindelig Ryle
Ruff	*Philomachus pugnax*	Kemphaan	Kampfläufer	Brushane
Snipe	*Gallinago gallinago*	Watersnip	Bekassine	Dobbeltbekkasin
Bar-tailed Godwit	*Limosa lapponica*	Rosse Grutto	Pfuhlschnepfe	Lille Kobbersneppe
Whimbrel	*Numenius phaeopus*	Regenwulp	Regenbrachvogel	Lille Regnspove
Curlew	*Numenius arquata*	Wulp	Großer Brachvogel	Stor Regnspove
Spotted Redshank	*Tringa erythropus*	Zwarte Ruiter	Dunkler Wasserläufer	Sortklire
Redshank	*Tringa totanus*	Tureluur	Rotschenkel	Rødben
Greenshank	*Tringa nebularia*	Groenpootruiter	Grünschenkel	Hvidklire
Turnstone	*Arenaria interpres*	Steenloper	Steinwälzer	Stenvender
Black-headed Gull	*Larus ridibundus*	Kokmeeuw	Lachmöwe	Hættemåge
Common Gull	*Larus canus*	Stormmeeuw	Sturmmöwe	Stormmåge
Lesser Black-backed Gull	*Larus fuscus*	Kleine Mantelmeeuw	Heringsmöwe	Sildemåge
Herring Gull	*Larus argentatus*	Zilvermeeuw	Silbermöwe	Sølvmåge
Great Black-backed Gull	*Larus marinus*	Grote Mantelmeeuw	Mantelmöwe	Svartbag
Gull-billed Tern	*Gelochelidon nilotica*	Lachstern	Lachseeschwalbe	Sandterne
Sandwich Tern	*Sterna sandvicensis*	Grote Stern	Brandseeschwalbe	Splitterne
Common Tern	*Sterna hirundo*	Visdief	Flußseeschwalbe	Fjordterne
Arctic Tern	*Sterna paradisaea*	Noordse Stern	Küstenseeschwalbe	Havterne
Little Tern	*Sterna albifrons*	Dwergstern	Zwergseeschwalbe	Dværgterne
Shore Lark	*Eremophila alpestris*	Strandleeuwerik	Ohrenlerche	Bjerglærke
Twite	*Carduelis flavirostris*	Frater	Berghänfling	Bjergirisk
Snow Bunting	*Plectrophenax nivalis*	Sneeuwgors	Schneeammer	Snespurv



Common Secretariat for the Cooperation on the Protection of the Wadden Sea

Following a decision of the concerned Ministers of the three Wadden Sea countries, Denmark, the Federal Republic of Germany and The Netherlands at the 4th Trilateral Governmental Conference in The Hague in 1985, the Common Wadden Sea Secretariat was founded as a trilateral secretariat in November 1987. The aim was to strengthen the cooperation of the three countries in their work on the protection of the Wadden Sea.

The main duties of the secretariat are

* to provide assistance to trilateral conferences, consultations, and meetings; in particular with respect to governmental conferences, held every three years;
* to analyze legal instruments and/or other means in each country, in existence or needed, in order to fulfil the obligations resulting from the instruments mentioned in the Joint Declaration as well as from the Common Objectives of the Ministerial Declarations;
* to collect information on activities that have or may have significant effects on the nature environment in the Wadden Sea, to identify and signal such activities, and give suggestions for appropriate actions.

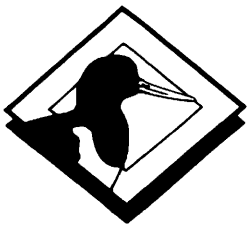
IWRB

International Waterfowl and Wetlands Research Bureau

IWRB was established in 1954 and is the only independent global organization concerned primarily with the conservation of wetland ecosystems.

IWRB's goal is to promote the conservation of wetlands and wetland biodiversity, particularly waterbirds, by stimulating and coordinating international technical cooperation. This is achieved by coordinating international projects, organizing training workshops and by disseminating information through conferences, workshops and publications.

IWRB is governed by an Executive Board comprising delegates from 47 member countries together with coordinators of more than 20 specialist networks which group international experts in wetland and waterbird management and conservation. Additionally, IWRB has networks of specialists on the ground, actively involved in wetland conservation in more than 90 countries.



Wader Study Group

The Wader Study Group (WSG) is an international voluntary association of amateur and professional researchers on all aspects of the biology of waders (or shorebirds). The group has rapid access to experienced people throughout the international field of wader research. The group was founded in Britain but it now has a worldwide membership.

The Wadden Sea, along the North Sea coasts of the Netherlands, Germany and Denmark, constitutes one of the World's most important wetlands to migratory waterbirds. With 4,500 km^2 of inter-tidal flats, the Wadden Sea is the single most important staging and moulting area for waders on the East Atlantic flyway. Together with adjacent saltmarshes and grassland polders, the Wadden Sea area is also of outstanding international importance as a staging, moulting and wintering area for several populations of waterfowl.

This report presents total numbers and distribution of waterbirds in the Wadden Sea area based upon 36 simultaneous counts during 1980-1991. Some 10-12 million waterbirds are estimated to utilize the area during their annual life cycle. The area is of international importance for at least 52 geographically distinct populations of 41 species. In about 18 populations, more than half the individuals utilize the Wadden Sea at some stage of their annual life cycle. In about 8 cases, almost the entire population occurs here.

Price: £ 15