

PARROT TAXON ADVISORY GROUP (TAG)

**Regional Collection Plan
5th Edition
2020-2025**



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This document is the result of the dedicated efforts of the Parrot TAG’s Steering Committee and Animal Programs Leaders. We appreciate the participation of all facilities that responded to the space survey and those Institutional Representatives who offered comments. TAG Secretary Gen Anderson is credited for her efforts in formatting the entire document.

Special thanks to Justin Miller for the Parrot TAG logo.

Sustainability of Parrot Populations in AZA Facilities

Since the first Parrot TAG Regional Collection Plan was published, the numbers of parrots and parrot 'spaces' in AZA facilities can appear to be surprisingly stable. The TAG feels strongly that this data is misleading. The longer life expectancies found in the Order Psittaciformes as well as the ability to obtain individual parrots from outside of AZA facilities may lull us into a false sense of security – assuming these species and populations will be in our facilities long-term. Unfortunately, a lack of focused commitment to house and specifically reproduce parrots in our facilities is apparent. It is also possible the increased interest in creating multi-species and interactive aviaries versus dedicated breeding space for program species, is not augmenting parrot population sustainability at this time. Husbandry knowledge continues to wane, and zoos and aquariums will find it harder and harder to secure parrots in the years ahead. This is indicative in our long-standing SSP populations which continue to decline with each RCP iteration. Without a focus on the species recommended in this document the future of parrots in AZA facilities is truly unknown. We urge all our AZA colleagues to make planned commitments to even a single parrot species to ensure their long-term survival.

Mission/Objectives/Strategies

Mission

The AZA Parrot TAG will inspire best practices in parrot management, population sustainability, education, and conservation.

Major objectives/strategies

1. Create links between the zoological, aviculture, and conservation communities by serving as a communication channel and central hub of information.
 - a. Maintain the appropriate information for the AZA Sustainability Database and the Avian Scientist Advisory Group (ASAG) fact sheets
 - b. Organize and host ASAG workshops every 5 years focused on parrots
 - c. Establish a social media presence for the TAG
2. Maintain successful demographic and genetic management of populations in human care through studbooks and Species Survival Plans (SSPs) as part of the Regional Collection Planning process.
 - a. Within the TAG, support our Program Leaders through routine communication and mentoring to provide support and guidance to aid in success
 - b. Increase Steering Committee involvement in the success of our recommended programs and Program Leaders by working within AZA to garner more resources and leverage support
3. Facilitate educational outreach by providing zoos, aquariums, nature centers, schools, etc. with information, ideas, and tools about parrots and their conservation.
 - a. Work with the AZA Conservation Education Committee (CEC) in supporting a dedicated Education Liaison
 - b. Work with the Ambassador Animal Scientific Advisory Group (AASAG) to provide information, guidance and support for parrots used in ambassador roles
4. Support organizations dedicated to parrot conservation by endorsing their work and helping broadcast their projects and initiatives.
 - a. Continue to develop protocols and standards to effectively evaluate conservation organizations for alignment with the TAG's mission, objectives and strategies
 - b. Develop a more extensive plan to support and promote World Parrot Day

The Parrot TAG Steering Committee and Animal Program Leaders will work to assign action steps for the strategies described above and create a plan defining who will spearhead each area and deadlines for the actions created throughout the life of this Plan.

TAG Operational Structure

Steering Committee

The Parrot TAG Steering Committee will consist of no more than 12 voting members. A Vice-chair and Secretary will be elected by simple majority from these 12 members by the Steering Committee itself. If fewer than 12 persons are available to serve on the steering committee, participation will be automatic as interest is expressed. At the start of each calendar year the committee should poll the IRs to encourage increased participation in the management of the TAG. Also, all existing committee members must be contacted to ensure their participation for the upcoming year. If there are not enough open positions for interested IRs, an election must be held by the existing Secretary (with Committee members elected by the IRs through simple majority voting) with the help of the AZA offices as needed. Members will either be up for re-election or rotate off the committee after serving a three-year term if all 12 positions remain filled. Terms will be staggered to promote continuity.

<p>Joe Barkowski - Chair Tulsa Zoo 6421 East 36th St N Tulsa, Oklahoma 74115 918-669-6667 JCBski@aol.com</p>	<p>Dominick Dorsa – Vice-Chair San Francisco Zoo 1 Zoo Road San Francisco, California 94132 415-753-7080 x7032 DominickD@SFZoo.org Term: 1/1/2020 – 12/31/2022</p>	<p>Gen Anderson - Secretary St. Augustine Alligator Farm 999 Anastasia Blvd. Saint Augustine, Florida 32080 904-824-3337 x116 ganderson@alligatorfarm.com Term: 1/1/2018 – 12/31/2020</p>
<p>Tessa Giannini Zoo Tampa at Lowry Park 1101 W Sligh Ave Tampa, Florida 33604 443-848-7376 Tessa.giannini@zootampa.org Term: 1/1/2019 – 12/31/2021</p>	<p>Phil Horvey Sedgwick County Zoo 5555 Zoo Blvd. Wichita, Kansas 67212 316-266-8335 Phillip.Horvey@scz.org Term: 1/1/2018 – 12/31/2020</p>	<p>Lizzy Larson Lake Superior Zoo 7210 Fremont St. Duluth, Minnesota 55807 612-207-9080 ljohnson@lszoo.org Term: 1/1/2018 – 12/31/2020 <i>Sustainability Database Coordinator</i></p>
<p>Paula Kolvig The Aquarium and Rainforest at Moody Gardens 1 Hope Blvd Galveston, Texas 77554 409-683-4107 pkolvig@moodygardens.org Term: 1/1/2020 – 12/31/2022</p>	<p>Jessica Meehan Denver Zoo 2300 Steele St. Denver, Colorado 80205 720-337-1513 JMeehan@denverzoo.org Term: 1/1/2020 – 12/31/2022</p>	<p>Quinton Pyle San Antonio Zoo 3903 N Saint Mary's Street San Antonio, Texas 78212 210-734-7184 x1352 quinton.pyle@sazoo.org Term: 1/1/2019 – 12/31/2021</p>
<p>Taylor Rubin Zoo Atlanta 800 Cherokee Avenue SE Atlanta, Georgia 30315 404-624-5861 trubin@zoatlanta.org Term: 1/1/2018 – 12/31/2020 <i>Chair – Conservation Subcommittee</i></p>	<p>Michelle Smurl Brevard Zoo 8225 N Wickham Rd Melbourne, Florida 32940 321-254-9453 x217 MSmurl@brevardzoo.org Term: 1/1/2019 – 12/31/2021</p>	<p>Jessica Theule San Diego Zoo 2920 Zoo Dr. San Diego, California 92101 619-557-3975 jtheule@sandiegozoo.org Term: 1/1/2020 – 12/31/2022</p>

TAG Operational Structure

TAG Advisors

EAZA Parrot TAG Chair: Simon Bruslund Marlow Birdpark Kölnzower Chaussee 1, D-18337 Marlow, Germany Phone: +49 38221-427465, insitu@vogelpark-marlow.de	Education Advisor: VACANT
Veterinary Advisor: Dr. Jennifer D'Agostino DVM, Dipl. ACZM Oklahoma City Zoo 2101 NE 50th St Oklahoma City, Oklahoma 73111 Ph: 405-425-0251 Fax: 405-425-0220 jdagostino@okc Zoo.com	Husbandry Advisor: Susie Kasielke Toledo Zoological Gardens P. O. Box 140130 Toledo 43614-0130 SKasielke@aol.com

TAG Operational Structure

SSP Coordinators

Thick-billed parrot <i>(Rhynchopsitta pachyrhyncha)</i>	Joe Barkowski Tulsa Zoo (918) 669-6667 jcbksi@aol.com Program Leader since: 16 May 2018
Hyacinth macaw <i>(Anodorhynchus hyacinthinus)</i>	Emily Insalaco Denver Zoo (720) 337-1518 EInsalaco@denverzoo.org Program Leader since: 5 Aug 2016
Blue-throated macaw <i>(Ara glaucogularis)</i>	Gen Anderson St. Augustine Alligator Farm (904) 824-3337 x116 ganderson@alligatorfarm.com Program Leader since: 4 Mar 2009
Golden conure <i>(Guarouba guarouba)</i>	Tara Sprankle Phoenix Zoo (602) 286-3800 tsprankle@phoenixzoo.org Program Leader since: 11 Oct 2018
Red-fronted macaw <i>(Ara rubrogenys)</i>	Holly Ray Oklahoma City Zoo (405) 425-0239 hray@okczoo.org Program Leader since: 13 Apr 2018
Hawk-headed Parrot <i>(Deroptyus accipitrinus)</i>	Kathy Russell Santa Fe College Teaching Zoo (352) 395 5605 Kathy.Russell@sfcollge.edu Program Leader since: 15 Dec 2009
Palm cockatoo <i>(Probosciger aterrimus)</i>	Jessica Theule San Diego Zoo (619) 557 3975 jtheule@sandiegozoo.org Program Leader since: 11 Sept 2011
Kea <i>(Nestor notabilis)</i>	Jessica Meehan Denver Zoo (720) 337 1513 JMeehan@denverzoo.org Program Leader since: 12 Jan 2009

TAG Operational Structure

Institutional Representatives (IRs)

- * Each institution may be represented in the TAG by one IR.
- * The IR is the primary point of contact with the TAG, will receive all TAG correspondence (Regional Collection Plans, meeting minutes, requests for information, etc.), and is responsible for disseminating TAG information within her/his institution.
- * IRs are responsible for actively participating in the TAG, most importantly in the regional collection planning process, and are required to respond to all TAG information requests (space surveys, policy questions, husbandry information, etc.)
- * IRs must be able to conduct regular business via e-mail and have access to the Internet and the Members Only section of the AZA Web site.
- * IRs are responsible for voting on relevant TAG business (e.g., to elect Steering Committee members). The only voting members of the TAG are the IRs.

Advisors

Appointed advisors to the TAG will report to the Vice-chair. The Vice-chair will be responsible for soliciting new advisors when positions become vacant.

Species Champions

- * Species champions may be designated for any species, or taxa designated as "TAG Monitored."
- * These individuals are intended to become a source for information on their respective taxa as well as working to monitor populations (wild and/or managed). Each species champion may pursue different avenues for their populations. For example, one person may work on behavioral issues for their species while another may concentrate on housing specifications. All such projects will be discussed with the Chair and/or Steering Committee to ensure the TAG is in support.
- * Species champions are not required to be designated as the IR for their facility but the TAG requests they do work with their IR to ensure information and responsibilities are clearly defined.
- * Species champions must be able to conduct regular business via e-mail and have access to the Internet.

Sustainability Database Coordinator

The Sustainability Database was developed to collect population and species care information from Program Leaders for every AZA Species Survival Plan® (SSP). The Sustainability Search Portal is designed not only to connect Program Leaders with their SSP Sustainability Reports, but also to facilitate collection planning searches for institution directors, curators, and others in a collection planning team.

- One TAG Steering Committee member (outside of the officer positions) will serve as the Sustainability Database Coordinator.
- The Parrot TAG Sustainability Database Coordinator's role is to coordinate with the Animal Program Leaders for each TAG identified Program to ensure the Animal Program's Sustainability Database Report is accurate and up-to-date.
- The Coordinator will communicate with each Program Leader at least once annually to discuss if the Animal Program's Sustainability Database Report has been reviewed and updated as needed.
- In addition to the general categories (Husbandry and Care, etc.), the Coordinator will ask about the section entitled "Challenges to SSP Population Sustainability". The goals, actions and needs in this section may be beneficial if aligned with the Animal Program Goals that are listed and updated through the Regional Collection Plan (RCP).

TAG Operational Structure

- The Coordinator will compile this information on the status of these Reports and update the TAG Steering Committee.
- Animal Program Leaders are expected to identify issues or concerns with their Sustainability Database Reports during these updates. The Coordinator will then work to communicate these items to the TAG Steering Committee to provide support and solutions to the Program Leader.



Conservation Subcommittee

There is a tremendous amount of economic support that can benefit parrot conservation and wildlife conservation in general. The Parrot TAG has chosen to identify and evaluate opportunities for AZA institutions to support conservation (in situ, research, etc.) rather than directly managing TAG coordinated programs. Projects and programs are evaluated by the Conservation Projects/Programs Subcommittee before being reviewed by the TAG Steering Committee.

- One TAG Steering Committee member (outside of the officer positions) will serve as the chair of the Conservation Subcommittee.
- The subcommittee will be made up of interested members of the TAG Steering Committee and appointed Advisors.
- The subcommittee will review any project/programs submitted to assess if they are in line with the TAG's mission, goals and strategies.
- Any submissions which the subcommittee feels are good candidates for TAG support will submit them to the full Steering Committee for approval.
- The subcommittee will review existing projects/programs annually to ensure they continue to meet the TAG's mission, goals and strategies for inclusion in the RCP and distribution outside the TAG.

Hot Topics: TAG Recommendations

- We understand that hybrid psittacines are not uncommon in the pet trade and in private aviculture. We also understand the humanitarian aspect of accepting donations of hybrids into managed AZA collections. However, if these animals must be acquired, we encourage the use of such birds in educating against the proliferation of hybrid parrots. We also do not support reproduction of parrots in AZA facilities that results in hybridization.
- The TAG supports the AZA Policy on [Responsible Population Management](#).
- The TAG would like to have all psittacines receive closed leg bands when produced as chicks in AZA facilities. Closed-banding chicks is a common practice in aviculture worldwide and helps in the semi-permanent identification of these animals. Closed bands also show that the bird was raised in captivity – therefore not adding to the international commerce of wild-caught birds. The following reference is available for assistance on [closed-banding of parrot chicks](#).
- It is desirable, especially in situations where psittaciformes are encouraged to have contact with the public, to employ subcutaneous transponders in order to provide a secondary method of identification for individual animals.

The TAG does not support the practice of irreversibly restricting normal flight any species of psittaciforme for any reason other than due to veterinary matters such as injury or disease.

- All but a few species of parrots are social creatures. The TAG encourages all institutions to investigate the natural history of its parrot species and make every effort possible to house them in appropriate social groupings – pairs, family groups, flocks, etc. These situations may promote positive behaviors such as allopreening, foraging, food sharing, and play. Housing birds alone for medical issues or due to aggressive tendencies may be necessary in certain instances.
- In addition to providing for appropriate social interaction, the TAG would like all AZA facilities to evaluate the practice of exhibiting parrots on perching structures or ‘parrot islands’. It has been a common practice to present many species (macaws, cockatoos, etc) by clipping primary feathers and confining them to a few branches. Although it may allow the general public an unobstructed view of the animals, it is not common to display other avian species in this manner. Instead, we would like to promote the beauty of parrots in flight when possible.

Parrots as Ambassador Animals

The use of psittacines in educational programs and bird shows may be beneficial in promoting conservation messages as well as an overall appreciation for avian taxa. However, not all psittacines are suited for use in these ways. The TAG recommends several species, which are felt to be appropriate for hands-on programs. We understand that each animal is an individual and that there are exceptions to every rule.

Goldie's lorikeet *Psitteuteles goldiei*
Galah *Eolophus roseicapillus*
Cockatiel *Nymphicus hollandicus*
Eclectus parrot *Eclectus roratus*
Budgerigar *Melopsittacus undulates*
Senegal parrot *Poicephalus senegalus*
Rose-ringed parakeet *Psittacula krameri*
Blue and yellow macaw *Ara ararauna*
Sun parakeet *Aratinga solstitialis*

We ask at this time that SSP species not be added as handleable animals for shows or education programs without expressed consent from the appropriate SSP coordinator. Often, due to declining populations of these long-managed Program species the TAG would like to focus efforts to create more sustainable populations. Again, the TAG only wishes to discuss the use of SSP species as Ambassador animals to ensure the goals of the SSP are primarily being met. The TAG feels that there are many TAG monitored species which are equally suited to act as ambassadors for the Order.



Ashley Arimborgo, Cheyenne Mountain Zoo

Interactive Aviaries Housing Psittaciformes

Many AZA facilities have designed and fabricated interactive aviaries that provide guests with opportunities to get up close and personal with avian species – with an emphasis on psittaciformes. A workshop held by the Avian Scientific Advisory Group (ASAG) in conjunction with the AZA Western Regional Conference in Tucson, Arizona – April 2002, focused on such exhibits. With over 30 in existence the TAG feels there are many points that must be specifically addressed. The current RCP identifies various species that may be incorporated into these exhibits. They are identified in the document with a symbol:



Many interactive aviaries have been focused on using lory species to fill spaces. The TAG may recommend some lory species that have been successfully used:

- Ornate lorikeet *Trichoglossus ornatus*
- Rainbow (Coconut) lorikeet *Trichoglossus haematodus*
- Australian Rainbow Lorikeet *Trichoglossus moluccanus*
- Marigold Lorikeet *Trichoglossus capistratus*
- Weber's Lorikeet *Trichoglossus weberi*
- Forsten's Lorikeet *Trichoglossus forsteni*



Ashley Gwaltney, Nashville Zoo

Other lory species have been used, but incidents of aggression have been noted:

- Dusky lory *Pseudeos fuscata*
- Red lory *Eos bornea*
- Black-capped lory *Lorius lory*

Observations have shown that these lory species tend to react most favorably to life in these aviaries. Some other species of lorries have been exhibited for this purpose but on the whole have not proved successful. As with any species though, individuals may behave differently in different situations. Some species may

Hot Topics: TAG Recommendations

not be recommended through the RCP process, but we feel it is more important to share information on all species managed historically for these specific aviary situations.

Other interactive aviaries have been constructed that focus on other species:

Budgerigar *Melopsittacus undulatus*

Cockatiel *Nymphicus hollandicus*

These species can be housed communally and offer different management strategies from lorries.

Other species also been used (to a lesser extent) in these exhibits:

Bourke's parrot *Neophema bourkii*

Rosellas *Platycercus spp.*

In recent years, these 'budgie' aviaries have become more common. The reduced cost of animal acquisition and diets (versus lorry aviaries) in addition to somewhat easier management (reduced aggression – both inter-specific and toward guests) appears to have increased their popularity.

The current RCP identifies various other species that may also be incorporated into these exhibits. They are identified in the document with a symbol:



Jessica Cockrell, Pinola Conservancy

In order to maximize space and diversify a collection, the species listed below (while housed in interactive aviaries) may not engage as part of the interactive experience. The presence of other interesting avian types may hold visitors in the areas longer or act as talking points for staff presentations. Such species include:

Scarlet-chested parakeet *Neophema splendida*

Alexandra's (Princess) parrot *Polytelis alexandrae*

Eclectus parrot *Eclectus roratus*

Sun parakeet (conure) *Aratinga solstitialis*

This list is only a suggestion. There are other species that have been housed in similar aviaries. We encourage facilities to be creative in order to expand their psittacine collections.

We recommend facilities with these exhibits communicate with each other as well as with facilities researching future aviaries to ensure common problems are avoided. In addition, we recommend that any facility with an interactive aviary include space for proper housing of surplus birds in addition to breeding spaces. Most birds found in these aviaries were procured from non-AZA private breeders. Although this can be a viable source for birds, we encourage institutions to create self-sustaining populations.

Hot Topics: TAG Recommendations

Institutions should have a clear plan for surplus of animals that may not incorporate themselves into the existing managed flocks. It is not uncommon for some birds, lorries for example, to exhibit aggressive behaviors towards their conspecifics as well as both guests and staff. Given longer lifespans of psittacines we also recommend geriatric planning. We caution that these birds should not be shuffled between institutions – only to cause similar problems again. The TAG also recognizes the AZA Responsible Population Management Policy as it pertains to these situations.

Since these aviaries are typically created to house large groups of birds, it is difficult to estimate target population sizes for the selected species. We ask that these birds either not compete for space with other species of parrots or that in addition to the aviaries, dedicated spaces also be produced for parrots in need of management.

It has been shown that direct interaction with animals can be a powerful experience for zoo and aquarium guests, the TAG feels this is an excellent opportunity to educate the public. We would like to see facilities develop graphics within their aviaries that point out why many psittaciformes may not necessarily make appropriate pets. Examples include specialized/costly diets as well as veterinary care, long lifespan, noise and mess associated with birds, social and housing requirements and finally the idea that most (lories, rosellas, etc.) are not domesticated species like dogs and cats. The placement of unwanted pet psittaciformes in AZA facilities is becoming more difficult. Interactive aviaries have a responsibility to ensure the clarity of the message portrayed to its visitors.

The TAG will continue to act as a resource for facilities that are investigating such interactive aviaries.



The Living Desert Zoo and Gardens

Private Aviculture

While no discussion of parrots could, or should, ignore the role of private aviculture, every attempt was made to make this the regional collection plan for AZA institutions. The Parrot TAG recognizes the tremendous void that can be filled by private aviculture in parrot conservation and will encourage and advise as requested in the development and maintenance of managed breeding programs.

Communication

The Parrot TAG maintains an AZA Network Group that allows members to start discussions, add resources, and share documents. The AZA Network brings together great ideas, best practices and lessons learned from within the zoo and aquarium community.

AZA Members may join this forum by signing into the Network - where you can manage notifications of activity, allowing you options to receive emails as activity occurs, or in a daily, or weekly digest email – and looking for the “Parrot TAG” group.

The screenshot displays the AZA Network interface. At the top, the logo "AZA | network" is visible. Below it, a navigation bar includes "Home", "Communities", "Marketplace", "Browse Activity", and "MyAZA". A search bar is located on the right. The main heading is "Parrot TAG" with a "Settings" button. Below this, a secondary navigation bar shows "Community Home", "Discussion 48", "Library 3", "Events 0", and "Members 132". A red text prompt reads: "Send an email to this community from your inbox, using aza_parrottag@ConnectedCommunity.org". The page is divided into two columns: "Latest Discussion Posts" and "Announcements". The "Latest Discussion Posts" section features a post titled "The Parrot TAG needs YOU!" by Jennifer Anderson, posted 12 days ago. The "Announcements" section displays a "No Data Found" message: "No Data Found. Either the content you're seeking doesn't exist or it requires..."

Veterinary Updates - General Health

Jennifer D'Agostino, DVM, DACZM - Parrot TAG Veterinary Advisor
26 January 2020

A psittacine general health survey was distributed to all holding institutions in November 2019. Thirty-nine out of 134 holding institutions responded (29% response rate). Overall, the general psittacine population is relatively healthy with few disease concerns.

Morbidity and Mortality:

By far the most common disease issues and health concerns noted in responding institutions were reported in lorikeet, budgerigar and cockatiel flocks. This is not surprising given the generally large size of the flocks compared to other psittacine species and common occurrence as walk-through aviaries in zoological institutions. The most common health related concerns associated with these species appears to be infectious/inflammatory diseases. The most common causes of mortality include enteritis (lorikeet), hepatopathy (lorikeet), avian gastric yeast (budgerigar) and mycobacteriosis (lorikeet and budgerigar). See table 1 for a list of diseases causing mortality reported in walk-through aviary flocks.

In other psittacine species, non-infectious/non-inflammatory diseases were the most common causes of mortality. A wider range of age related and degenerative disease were reported in these species vs the larger walk-through aviary flock species. See table 2 for a list of diseases causing mortality reported in all other psittacine species.

Preventative Health:

The majority of responding institutions conduct annual routine health examinations on psittacine species with varying levels of routine diagnostic testing. Infectious disease screening is most commonly conducted during quarantine and pre-shipment examinations.

Areas for Research:

The most common comments received regarding needs for improving the health and management of our psittacine species were focused on disease screening, treatment recommendations and nutrition. Further research is needed into some of the more common diseases seen especially in the larger aviary flocks (such as preventative measures or treatment recommendations for *Macrorhabdus ornithogaster* in budgerigars). Lorikeet hepatopathy has anecdotally been linked to possible nutritional cause highlighting the need for further research into lorikeet nutrition. In general, psittacine holding institutions are interested in guidelines for both nutrition and preventative health for psittacines in general.

Summary:

In summary, there are some health concerns with our psittacine species which appear to be more isolated to aviary flocks of lorikeets, budgerigars and cockatiels. Further investigation into preventative health measures as well as proper nutrition may be warranted to improve the overall care of these species.

Hot Topics: TAG Recommendations

Table 1: Most common diseases reported for budgerigar, lorikeet and cockatiel flocks

Budgerigars	# Cases	Lorikeets	# Cases	Cockatiels	# Cases
Avian gastric yeast	20	Enteritis	28	Neonatal death	5
Mycobacteriosis	14	Undetermined cause of death	13	Sarcocystis	3
Trauma	13	Trauma	7	Neoplasia	1
GI disease	9	Hepatopathy	4	Trauma	1
Neoplasia	7	Yolk coelomitis	4	Dystocia	1
Hepatopathy	7	Neurologic disease	3		
Cardiovascular disease	2	Yolk sacculitis	3		
Gout	1	Respiratory disease	2		
Kidney disease	1	Degenerative disease	2		
		Neoplasia	1		
		Myositis	1		
		Mycobacteriosis	1		
		Ventriculitis	1		

Table 2: Most common diseases reported for all other psittacine species.

Other psittacines	# Cases
Neonatal death	6
Trauma	6
Predation	4
Aspergillosis	3
Degenerative disease	3
Enteritis	2
Cardiovascular disease	2
Neoplasia	2
Drowning	2
Anesthetic death	1
Bee envenomation	1
Chronic renal disease	1
Chronic yolk coelomitis	1
Encephalitis	1
Hepatitis	1
Iatrogenic hematoma	1
Mycobacteriosis	1
Pneumonia	1
Proventricular perforation	1
Pulmonary edema	1
Senescence	1
Systemic shock	1
Tracheal granuloma	1
Umbilical infection	1
Undetermined	1
Visceral gout	1
WNV	1

Taxonomy

For convenience, the order is divided into the five major groups suggested by Forshaw and Cooper's Parrots of the World (Cockatoos, Lories, Pacific Parrots, African/Asian Parrots, and New World Parrots).

For the first edition of the RCP (2002-2005), Sibley and Monroe's Distribution and Taxonomy of Birds of the World was chosen as the primary taxonomic list, with Forshaw and Cooper's Parrots of the World as a secondary reference. In 2005, the decision was made - for the second edition - to adopt the taxonomy utilized within Handbook of Birds of the World – Vol. 4. This reference is currently used by many other groups including CITES and is hoped to provide increased continuity. The most current form of this reference is HBW and BirdLife International Illustrated Checklist of the Birds of the World.

This TAG will cover the entire order of Psittaciformes – subdivided into the families Cacatuidae and Psittacidae.

All recognized species are listed in the “Complete Species Accounts” section. However, with this adopted taxonomic reference, some subspecies listings have been omitted – specifically when they have not been designated for RCP categorization or have not been identified in AZA collections. This deliberate exclusion was deemed appropriate in the interest of brevity and does not affect the recommendations made herein. For example, the red-cheeked parrot (*Geoffroyus geoffroyi*) lists 16 recognized subspecies but there are no specimens in AZA facilities and the TAG feels the species earns the Management Option of “Not Recommended”. Listing the entire species under that option should account for any subspecies in question.

When certain subspecies have been recognized as being held by institutions or have a particular need to be mentioned for the purpose of TAG management, they have been listed under the appropriate species.

Frequently used English common names as well as some scientific names are shown parenthetically in the species accounts to assist readers with species identification.

Species listed in this taxonomic reference as “extinct” were not included in the document.



Conservation Status

Conservation status for all species uses the following references:

- BirdLife's Global Species Programme collates and analyses information on all the world's birds in order to set priorities for action, through species-specific initiatives, safeguarding of sites, campaigns and policy interventions. BirdLife is the IUCN Red List authority for birds, classifying species in terms of the risk of extinction. (www.birdlife.org/datazone/species)
- The International Union for Conservation of Nature (IUCN) Red List is the world's most comprehensive information source on the global conservation status of animal, fungi and plant species and their links to livelihoods. Far more than a list of species and their status, the IUCN Red List is a powerful tool to inform and catalyze action for biodiversity conservation and policy change, critical to protecting the natural resources we need to survive. It provides information on population size and trends, geographic range and habitat needs of species. (www.iucnredlist.org)
- While the United States Fish & Wildlife Service (USFWS) Endangered Species Program deals primarily with species found in the U.S. and our territories, and the International Affairs Program deals primarily with foreign endangered species, these species occasionally overlap. Both programs work closely with the governments of Canada and Mexico to cooperatively conserve species at risk across North America. (www.fws.gov)
- CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival. (www.cites.org)

Using data from Zoological Information Management System (ZIMS)*, for parrots currently held in participating institutions in AZA (1 July 2019):

IUCN Categories	Total # of Recognized Parrot species or subspecies	% by Category	Total # of Parrot species or subspecies Currently Held in AZA/ZIMS Facilities	% of Collection Taxa	Total # of Individual Parrots Currently Held in AZA/ZIMS Facilities	% of Individual Animals
<i>Extinct (EX)</i>	11	1.0	0	0	0	0
<i>Critically Endangered (CR)</i>	19	1.7	5	2.4	137	1.2
<i>Endangered (EN)</i>	43	3.7	20	9.4	598	5.3
<i>Vulnerable (VU)</i>	84	7.3	26	12.3	514	4.6
<i>Near Threatened (NT)</i>	80	7.0	13	6.1	136	1.2
<i>Least Concern (LC)</i>	643	56.0	120	56.6	9328	83.0
<i>Not Listed</i>	268	23.3	28	13.2	533	4.7
Totals	1148	100	212	100	11246	100

* Please note that while data from ZIMS was used here, the TAG understands that not every AZA facility uses this system but believes this is still a robust dataset from which to review IUCN status of parrots.

Conservation Status

As of 1 July 2019, the status for the 415 species of parrots in the wild recognized by IUCN:

- 16 species are listed as Extinct (4.2%)
- 18 species are listed as Critically Endangered (4.2%)
- 39 species are listed as Endangered (9.4%)
- 58 species are listed as Vulnerable (13.9%)
- 58 species are listed as Near Threatened (13.9%)
- 226 species are listed as Least Concern (54.4%)

The plight of parrots is due to many factors. Two threats stand out as especially important; habitat destruction and fragmentation and trapping for the bird trade. Diminished international trade has been dwarfed by significant growth in internal trade. For many species, the threats of habitat loss and trade act concurrently, so that it is difficult to determine which threat might be the most severe. However, these factors are clearly not the only causes of declining parrot populations. In other cases, large-scale reductions in parrot populations have occurred in spite of the persistence of natural habitats and an absence of trade. Introduced predators or competitors have apparently threatened 16 species, while others have suffered significantly from hunting for food or feathers, or to protect crops. Though not well documented, it is also reasonably likely that introduced diseases have been a major factor in the woes of some species.

The principle threats vary geographically, temporally, and with the specific characteristics of the species involved; introduced predators and competitors have been a major threat primarily for parrot populations on oceanic islands; hunting for food is a principle threat for relatively large species; and trade has been extremely damaging for many highly charismatic or colourful species, especially for those that are extraordinarily talented in imitating human speech. While legal international trade has been declining in magnitude for the past decade (due to CITES regulations, passage of various national regulations, and increased law enforcement activities), internal trade still remains a major problem in many countries. Illegal internal and international trade imposes grave threats on certain parrot species.

Some parrot species represent major conservation dilemmas, as their feeding habits make them competitors for agricultural crops. Finding acceptable solutions to crop damage problems without extermination of the parrots involved is one of the most difficult aspects of conservation of a significant number of species. Most of the specific threats faced by parrots can be traced to various human activities. Consequently, lasting conservation of many species will entail changing various human practices that directly and indirectly affect the species in question. For this reason, education efforts and generation of public awareness and support are of major importance in the conservation of most species.

Excerpted from: Snyder, N., McGowan, P., Gilardi, J., and Grajal, A. (eds.) (2000) *Parrots. Status, Survey and Conservation Action Plan 2000-2004*. IUCN, Gland, Switzerland and Cambridge, UK

IUCN Categories

EXTINCT (EX)

A taxon is Extinct when there is no reasonable doubt that the last individual has died. A taxon is presumed Extinct when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.

CRITICALLY ENDANGERED (CR)

A taxon is Critically Endangered when the best available evidence indicates that it meets any of the criteria A to E for Critically Endangered (see Section V), and it is therefore considered to be facing an extremely high risk of extinction in the wild.

ENDANGERED (EN)

A taxon is Endangered when the best available evidence indicates that it meets any of the criteria A to E for Endangered (see Section V), and it is therefore considered to be facing a very high risk of extinction in the wild.

VULNERABLE (VU)

A taxon is Vulnerable when the best available evidence indicates that it meets any of the criteria A to E for Vulnerable (see Section V), and it is therefore considered to be facing a high risk of extinction in the wild.

NEAR THREATENED (NT)

A taxon is Near Threatened when it has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future.

LEAST CONCERN (LC)

A taxon is Least Concern when it has been evaluated against the criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. Widespread and abundant taxa are included in this category.

DATA DEFICIENT (DD)

A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution are lacking. Data Deficient is therefore not a category of threat. Listing of taxa in this category indicates that more information is required and acknowledges the possibility that future research will show that threatened classification is appropriate. It is important to make positive use of whatever data are available. In many cases great care should be exercised in choosing between DD and a threatened status. If the range of a taxon is suspected to be relatively circumscribed, and a considerable period of time has elapsed since the last record of the taxon, threatened status may well be justified.

NOT EVALUATED (NE)

A taxon is Not Evaluated when it has not yet been evaluated against the criteria

USFWS Endangered and Threatened Designations

A species is listed under one of two categories, endangered or threatened, depending on its status and the degree of threat it faces.

An “**endangered species**” is one that is in danger of extinction throughout all or a significant portion of its range.

A “**threatened species**” is one that is likely to become endangered in the foreseeable future throughout all or a significant portion of its range.

To help conserve genetic diversity, the ESA defines “species” broadly to include subspecies and (for vertebrates) distinct populations.

A species is added to the list when it is determined to be endangered or threatened because of any of the following factors:

- the present or threatened destruction, modification, or curtailment of its habitat or range
- overutilization for commercial, recreational, scientific, or educational purposes
- disease or predation
- the inadequacy of existing regulatory mechanisms
- other natural or manmade factors affecting its survival

CITES Appendices I, II, and III

Appendices I, II and III to the Convention are lists of species afforded different levels or types of protection from over-exploitation.

Appendix I lists species that are the most endangered among CITES-listed animals and plants. These are threatened with extinction and CITES generally prohibits commercial international trade in specimens of these species. However, trade may be allowed under exceptional circumstances, e.g. for scientific research. In these cases, trade may be authorized by the granting of both an export permit (or re-export certificate) and an import permit.

Appendix II lists species that are not necessarily now threatened with extinction but that may become so unless trade is closely controlled. It also includes so-called “look-alike species”, i.e. species of which the specimens in trade look like those of species listed for conservation reasons. International trade in specimens of Appendix-II species may be authorized by the granting an export permit or re-export certificate; no import permit is necessary. Permits or certificates should only be granted if the relevant authorities are satisfied that certain conditions are met, above all that trade will not be detrimental to the survival of the species in the wild.

Appendix III is a list of species included at the request of a Party that already regulates trade in the species and that needs the cooperation of other countries to prevent unsustainable or illegal exploitation. International trade in specimens of species listed in this Appendix is allowed only on presentation of the appropriate permits or certificates.

Management Options (Program Definitions)

Criterion	Green SSP Program	Yellow SSP Program	Red SSP Program	Candidate Program
Population size (Total N)	50 and above	50 and above	20-49	19 and fewer
# AZA member facilities	3 and above	3 and above	3 and above	2 or fewer
Projected % GD at 100 years or 10 generations	90.0% or above	Less than 90.0%	Less than 90.0%	N/A

Green SSP Programs

- Green SSP Programs have a population size (total N at the time of population planning) equal to or greater than 50 individuals.
- This population is able to retain > 90.0% GD for 100+ years or 10+ generations.
- The population is presently sustainable demographically with a sufficiently large population size and a positive growth rate to reach 100 years or 10 generations.

Yellow SSP Programs

- Yellow SSP Programs have a population size (total N at the time of population planning) equal to or greater than 50 individuals.
- The population is not able to retain at least 90.0% GD over for 100+ years or 10+ generations.
- The population may have never been formally planned, or was planned more than 5 years ago, so that the population sustainability score cannot be properly assessed.

Red SSP Programs

- Red SSP Programs have a population size between 20 and 49 individuals unless accepted models can demonstrate long-term sustainability, or the species is classified as Extinct in the Wild, Critically Endangered, or Endangered (e.g., IUCN or other government agency).

Candidate Programs

- Candidate Programs do not meet the minimum criteria to be an SSP Program.
 - Candidate Programs may have a population size fewer than 20 individuals, and/or
 - Candidate Programs may have a fewer than 3 participating AZA member institutions.
- Candidate Program populations may meet minimum SSP criteria but are not designated as an SSP Program because they do not yet have a published AZA Regional Studbook.

Phase-out and phase-in species

- “Phase-out species” refer to species currently held within AZA that the TAG recommends the specific action of removing or reducing the population to reallocate resources toward another formally managed Animal Program. This may be indicated as an active process (sending animals to other zoological regions) or over time (through attrition).
- “Phase-in species” refer to species currently unrepresented within the AZA that the TAG recommends the specific action of bringing into AZA member facilities. If phase-in species are listed, the TAG should develop specific goals for this population to be added.

TAG Monitored populations

The TAG may include an appendix that lists additional species that, although not recommended to be an SSP or Candidate Program, are frequently cared for in AZA member institutions (e.g., budgies, lorikeets, some fish and invertebrates, American alligators, etc.). The TAG may choose to track or monitor these populations informally and may recommend them for formal AZA Animal Programs in the future. However, until that time, these will be considered unmanaged populations that the TAG only wishes to monitor informally. Only those taxa selected using the Species Selection Criteria may be further designated by the TAG as an AZA SSP and/or Candidate Program.

For the Parrot TAG, TAG Monitored populations provide continued diversity and work to help facilities choose species which seem best suited for a variety of needs. Often, TAG Monitored species are not suited for intensive genetic management (e.g. budgerigars) at this time. The TAG has worked to provide recommendations on species that are suited for various display properties (pairs versus flocks) as well as to meet zoogeographic needs. Target Population Sizes are offered for all TAG Monitored species to also help facilities see where animals can be added through acquisition or breeding to fill future or current spaces. When populations are recommended to remain stable or even be reduced – again this can be used to interpret if a facility may be able to eventually transfer birds elsewhere.

Not Recommended

Species not currently in AZA institutions and the TAG recommends it not be brought into a management program at this time

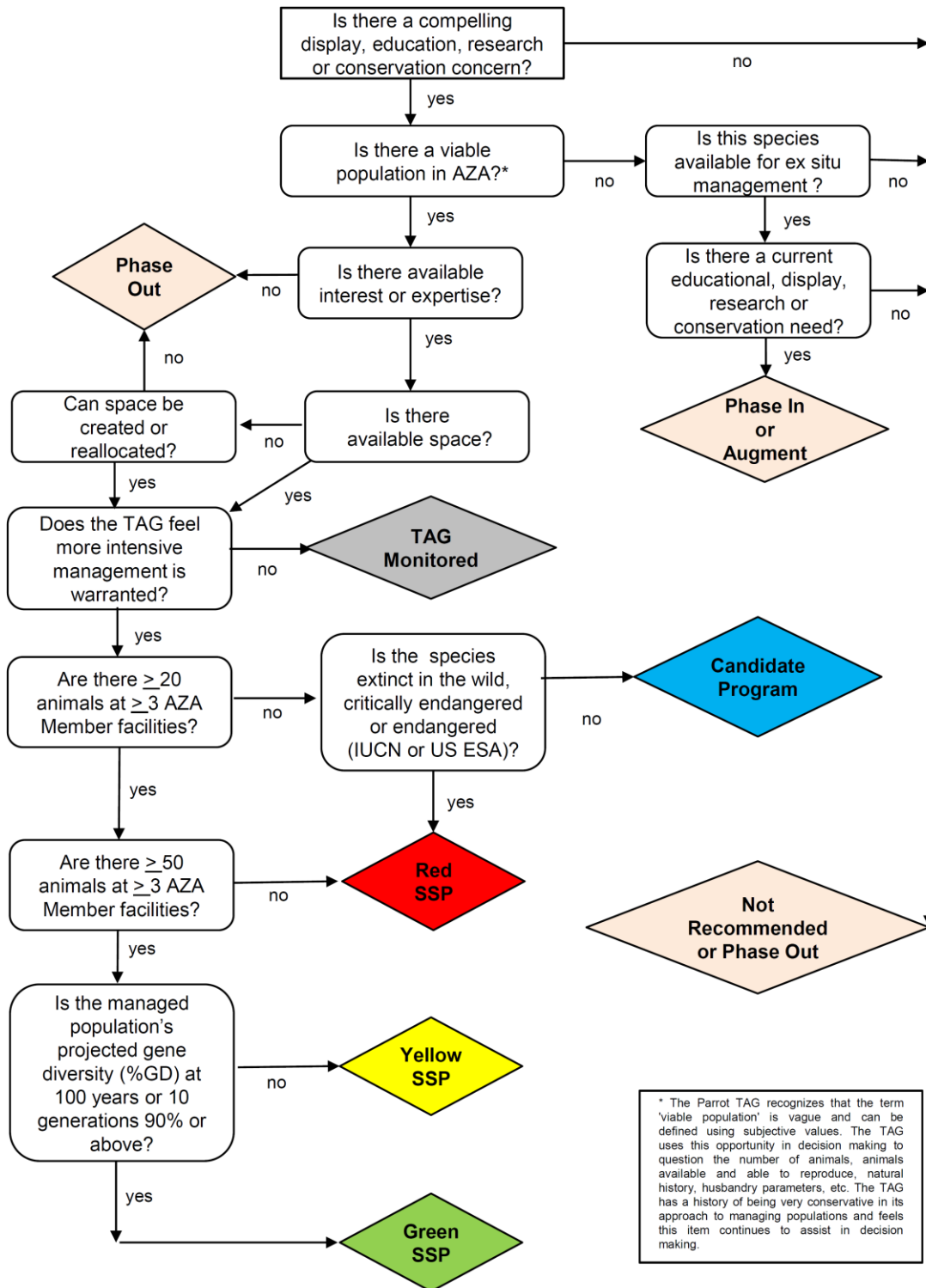
	Green SSP Program	Yellow SSP Program	Red SSP Program	Candidate Program
AZA Policies				
AZA Acquisition, Transfer and Transition Policy	Required	Required	Required	Required
AZA Code of Professional Ethics	Required	Required	Required	Required
AZA Full Participation in SSP Program Policy	Required	Voluntary	Voluntary	NA
AZA Animal Management Reconciliation Policy	Required	Not Required	Not Required	NA
APM Committee Approval of Sustainability Partners	Required	Required	Required	Not Required
Sustainability Criteria				
Minimum population size (N)*	50	50	20	NA
Minimum number of participating AZA member institutions*	3	3	3	NA
Projected gene diversity (%GD) at 100 years or 10 generations	90.0% or above	Less than 90.0%	Less than 90.0%	NA
Cooperative Management				
TAG recommended Animal Program in RCP	Required	Required	Required	Required
AZA Regional Studbook	Required	Required	Required	Not Required
Formal population planning by PMC, PMC Adjunct or SPMAG Advisor	Required	Required	Required	Not Required
Management Group	If Needed	If Needed	If Needed	If Needed
Accountability				
Develop three Program goals	Required	Required	Required	Required
AZA and APM Committee oversight	Yes	Yes	Yes	No
Breeding and Transfer Plan published at least every 3 years	Required	Required	Required	Not Required
AZA Regional Studbook published at least every 3 years	Required	Required	Required	Not Required
AZA Regional Studbook Keeper must take Population Management 1	Required	Required	Required	Recommended
Program Leader must take Population Management 2	Recommended	Recommended	Recommended	Recommended

*If a managed species is listed by the IUCN or other government agency as Extinct in the Wild, Critically Endangered, or Endangered, there will be no minimum number of participating facilities, nor minimum population size requirements, in order to qualify for management at the SSP level. In these cases, SSP status (Green, Yellow, Red) will be determined based upon population size and projected gene diversity at 100 years or 10 generations.

^For a Candidate Program to upgrade to management at the SSP level, an AZA Regional Studbook must be published. The Candidate Program Leader, therefore, must complete AZA's Population Management I in order to publish an official AZA Regional Studbook.

Program Qualifications (Decision Tree)

The following 'decision tree' was utilized to determine in which category each species with a current or potential managed population would be placed:



Species Selection Criteria

A species that qualified for a program was put through a more subjective evaluation to determine the program type. Considerations included:

Conservation status

- Conservation status of the species in the wild
- Extinction risk for the species in the wild

Husbandry expertise

- Level of expertise available to the management program to meet the species basic biological needs (e.g., nutritional, medical, social, etc.) as related to maintaining and propagating them in AZA member institutions

Reproduction factors

- Relative ease of breeding and/or contracepting the species

Availability

- Within AZA member institutions
- Outside AZA member institutions
- Potential non-AZA partnerships
- Ongoing programs for intensively building sustainability of the species

Demand within AZA

- Demand for the species within AZA member institutions
- Space availability

Institutional commitment

- Commitment to the species within AZA member institutions
- Space and resource availability (currently or in development)

Availability & feasibility of potential founders

- Availability of potential founders in conjunction with the viability of the North American population
- Expense, legal, ethical, and logistical issues
- Interest among AZA member institutions to import founders from other regions or the wild

Scientific and research potential

- Essential research objectives and potential needs within AZA member institutions, universities and other scientific collaborators
- Potential to increase scientific knowledge of the species that has direct applications to conservation of the species in the wild

Exhibit value

- Visitor appeal for the species

Species Selection Criteria



Steve Martin, Natural Encounters

Education Value

- Potential to increase visitor awareness of the species, its habitat, and conservation issues surrounding the species
- Program animal use/potential

Taxonomic Uniqueness

- Level at which the taxon is unique, if this criterion is deemed pivotal in the TAG's decision-making process
- This criterion may be valuable in conjunction with other criteria, such as exhibit value and conservation potential

Risk of Losing the *Ex situ* Population

- Risk of loss within AZA member collections if the population is not managed
- Risk of loss within AZA member collections if the population is managed
- Analysis through Zoo Risk is not required; the TAG can use its own expertise to assess risk

Link to *In situ* Conservation

- Potential for a managed population to affect *in situ* conservation (e.g., bona fide assurance population, reintroduction program)
- Potential to engage visitors in conservation action for the species and its habitat
- Existence of a link between a management program and conservation of these taxa in the wild, including field research, conservation capacity building, population and habitat survey work, and in-range educational programs

Acquisition Costs

- Cost of obtaining the species from sources outside AZA member institutions

International Program

- Existence of an international conservation/management program for these taxa, such as International Studbooks, Global Species Management Programs (GSMPs), and established conservation programs (e.g., Save the Tiger Fund)

North American Government Conservation Program

- Existence of a North American governmental or other NGO conservation program associated with this species

Thick-billed parrot

Program Qualifications

Steering Committee members were responsible for reviewing species identified as SSPs, Candidate Programs and TAG Monitored in the previous RCP (2015-2020) using the Decision Tree to guide initial review. The Committee then used the Species Selection Criteria to refine their recommendations and identify where best to manage or house the species in the RCP format.

Species Selection Criteria definitions determined by consensus of the Steering Committee, and the Decision Tree were used to populate this table with Yes/No responses. All questions were based on quantitative data for each species with data obtained from most recent studbook or breeding and transfer plan publication, or for those not previously recommended for management from ZIMS data or from the registry for the species.

The table below is the result of assessments for the 8 species which the TAG chose to manage as Animal Programs. All other species that were evaluated in those processes were assigned to TAG Monitored or to be phased out at this time. This was due to the Committee's decision that the species did not merit more intensive management at this time. This could be for lack of resources (time, interest, feasibility, etc.) or a lack of understanding that would need to be investigated in the future.

Common name (<i>Scientific name</i>)	Is there a viable North American population?	Is this species available?	Is there available space, interest, expertise?	Is there a current educational, display, research or conservation need?	Is there available space?	Is the species extinct in the wild, critically endangered, or endangered (IUCN or US ESA)?	Does it have an AZA published studbook?
Thick-billed parrot (<i>Rhynchopsitta pachyrhyncha</i>)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hyacinth macaw (<i>Anodorhynchus hyacinthinus</i>)	Yes	Yes	Yes	Yes	Yes	No	Yes
Blue-throated macaw (<i>Ara glaucogularis</i>)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Golden conure (<i>Guarouba guarouba</i>)	Yes	Yes	Yes	Yes	Yes	No	Yes
Red-fronted macaw (<i>Ara rubrogenys</i>)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hawk-headed parrot (<i>Deropterus acciptrinus</i>)	Yes	Yes	Yes	Yes	Yes	No	Yes
Palm cockatoo (<i>Probosciger aterrimus</i>)	Yes	Yes	Yes	Yes	Yes	No	Yes
Kea (<i>Nestor notabilis</i>)	Yes	Yes	Yes	Yes	Yes	Yes	Yes



Managed Programs

Thick-billed parrot *Rhynchopsitta pachyrhyncha*

Program Leader:

Joe Barkowski - Studbook Keeper/SSP
Coordinator
Tulsa Zoo
6421 E 36th St. North
Tulsa, OK 74115
918 669 6667
jcbarki@aol.com

AZA Managed Population: 35.27 (62) *
Projected Space: 31.41.11 (83)
5-Year Target Population: 100
15-Year Target Population: 150
* Studbook data 1 Nov 2019

Distribution: Sierra Madre Occidental, Mexico



Steve Duncan

CITES: I

IUCN Status: Endangered

USFWS: Endangered

Species Summary: What makes this species unique is that they are one of the only parrot species to have inhabited/visited the United States. Another interesting fact is that they live in high-altitude pine forest habitat. Their decline in the wild has continued because of deforestation and poor tree health.

Program Purpose: The mission of the thick-billed parrot SSP is to ensure the survival of the thick-billed parrot within its historic range. The SSP works to maintain a viable managed population, educates the public regarding the conservation of this native endangered species, and acts to protect and bolster wild and managed populations by supporting *in situ* and *ex situ* research and conservation projects. The managed population serves as a refugium for future options, a resource for increasing our knowledge of thick-billed parrot biology and serves as ambassadors for our education programs. Education programs will be conducted in the United States and Mexico to foster a strong conservation ethic. We will work to bolster wild thick-billed parrot populations as well as protect native habitat.

Exhibit Qualities: They have been maintained successfully in pairs or flocks. They are a very busy, loud and colorful species. The larger flock exhibits are interesting to watch as these birds interact, and as they fly as one unit. They can be housed with some other bird species. They have routinely reproduced on public exhibit. Smaller exhibits should plan to provide large amounts of natural wood enrichment to meet the behavioral needs (chewing, etc.).

Husbandry: They are not a difficult species to care for. They are able to adapt to higher and lower temperature extremes - as long as there is shelter from both. They are amazing chewers and need to live behind strong mesh and with very hardy plants and trees. They need to have access to not only drinking water but also separate areas to bathe. They do not need seclusion for breeding. Many of the pairs have

Thick-billed parrot

bred on exhibit very close to the public. Chicks must remain with the adults until they are about four years old. Any hand reared offspring must be placed in a group situation as soon as possible after weaning. Due to experiences in the past this species should not be housed directly with other mammal or reptile species.

Other Notes: The population has been in decline and genetic analysis of birds with unknown parentage has been undertaken to recruit all birds into the breeding population.

While there remains a strong interest in exhibiting this species, the population has been consolidated to allow for more intensive breeding for the time being. When the population rebounds demographically, the SSP will utilize the existing list of interested institutions and expand the program to more participating facilities. Based on current and historic interests, the TAG believes the projected target populations would be no problem to accommodate.



Sacramento Zoo



Hyacinth macaw *Anodorhynchus hyacinthinus*

Program Leader:

Emily Insalaco - Studbook Keeper/SSP Coordinator
Denver Zoo
2900 E 23rd Ave
Denver CO 80205
720 337 1518
Einsalaco@denverzoo.org

Managed Population: 75.64.2 (141) *

Projected Space: 65.54.15 (134)

5-Year Target Population: 150

* Studbook data 1 Nov 2019

Distribution: Northcentral to Southcentral Brazil ranging into extreme Northwest Paraguay and Eastern Bolivia; formerly present in Amapá, Northern Brazil, and possibly still persists there.

CITES: Appendix I

IUCN Status: Vulnerable

USFWS: Not listed (proposed Endangered – February 2013)

Species Summary: Largest macaw species and largest flying parrot, overall size 3.3 ft - head to tail tip. Weight 1.1 to 1.5 kg. Can be confused with the smaller, rarer Lear's macaw (*Anodorhynchus leari*), the even rarer, thought to be extinct, glaucous macaw (*Anodorhynchus galucus*), and the rare Spix macaw (*Cyanopsitta spixii*). Collectively these four species are commonly referred to as the "Blue Macaws"



Shutterstock

Program Purpose: Secure a demographically stable and genetically healthy population to safeguard the species in captivity should the need for supplemental releases be needed although re-introduction is unlikely in the foreseeable future.

Exhibit Qualities: Large, richly colored charismatic parrot. Even-tempered referred to as "gentle giant". Flagship species for macaws and other parrots. Conservation status brought about due to habitat loss and collection for trade. Given their gentle nature hyacinth macaws are used successfully as education specimens, making excellent ambassadors for their species and other parrots.

Husbandry: Typically housed in single pairs, though single gender flocks (3-5) have been kept without issues. Enclosures should be large enough to allow short flight distance, high enough (10-12ft) to be above staff and visitors and wide enough (5-6 ft) to spread its wings without touching the enclosure boundaries. Given the massive beak and their destructive capabilities, materials used should be strong enough to withstand the birds' chewing potential. Nest boxes can be vertical or horizontal, though horizontal boxes tend to safeguard eggs as birds enter the nest box. Vertical boxes tend to lead to smashed or broken eggs as the birds return to the nest box in a hurry.

Hyacinth macaw

Other Notes: Meaning of Anodorhynchus, An=no, odo= tooth, rhynchus=bill/beak or “no tooth bill/beak” referring to the lack of serrated edge of the bill as is present in other parrot species, hyacinthinus refers to color; hyacinth, violet, blue, sapphire, or purple. Long lived 50-60 years.

Hyacinth Macaw SSP Action Plan

- 1) Discourage the acquisition of unknown pedigree birds into the AZA managed population
- 2) Explore funding source to identify pedigrees of unknown pedigree birds through DNA
- 3) Prioritize known pedigree birds for breeding in order to genetically manage the population
- 4) Increase reproduction from ~4 hatches per year to 6-8 hatches per year
- 5) Work toward moving the management level from Yellow SSP to Green SSP

References:

USFWS – Environmental Conservation Online System (ECOS).
ecos.fws.gov/tess_public/pub/listedanimals.jsp

BirdLife International 2014 *Anodorhynchus hyacinthinus*. The IUCN Red List of Threatened Species. Version 2014.2, www.iucnredlist.org



San Diego Zoo



Blue-throated macaw *Ara glaucogularis*

Program Leader:

Gen Anderson -
 Studbook Keeper/SSP Coordinator
 St. Augustine Alligator Farm Zoological Park
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 St. Augustine, Florida 32080
 904 824 3337 x116
ganderson@alligatorfarm.com

AZA Managed Population: 56.51.2 (109)*
 Projected Space: 29.64.9 (102)
 5-Year Target Population: 125
 * Studbook data 1 Nov 2019

Distribution: Beni region of north-central Bolivia. Habitat primarily comprised of savanna habitat containing palm and forest islands.

CITES: Appendix I

IUCN Status: Critically Endangered

USFWS: Endangered

Species Summary:

Often mis-identified as a juvenile form of the blue and gold macaw (*Ara ararauna*), this psitticine species was not formally described until 1992. *A. glaucogularis* is turquoise blue in color with bright yellow underparts. Their bare facial patch is traversed with blue feather lines in a pattern unique to each macaw like a fingerprint. The blue bib under their large bill is the most distinctive difference compared to the black-bibbed *A. ararauna*. Their tiny range also overlaps with *A. ararauna*, Green-winged *A. chloropterus*, Red-shouldered *Diopsittaca nobilis*, Chestnut-fronted *A. severus*, and Yellow-collared macaws *Primolius auricollis* which all compete for the limited nesting cavities.

Under 300 mature adults are estimated to remain in the wild, though *A. glaucogularis* has probably never been plentiful. This critically endangered population currently resides within two locations in Bolivia. This species was discovered in 1992 and until recently resided only on private cattle ranch land. Cattle-ranching has occurred in this region since the 17th century, but the habitat is compromised by clearing for pasture land, removal of trees for fuel, and cattle inhibiting Motacú palm regeneration. Armonia and the Loro Parque Fundacion established the 11,530 acre Barba Azul Reserve in 2008. This reserve is comprised of grasslands, tropical hammock forest, savanna, and wetlands. Supports other conservationally significant wildlife like waterfowl, such as the Orinoco goose, wading birds, and mammals like the giant anteater, pampas cat, and the maned wolf. In 2018, a 1,680 acre former cattle ranch was purchased by Armonia and the American Bird Conservancy. The Laney Rickman Reserve was named after a prominent American aviculturist and conservationist that passed unexpectedly. It is the most important known nesting area of this macaw. In 2018, this reserve was noted as one of the biggest conservation wins for birds.

A supplemental nest box program began in 2005, but took off in 2007 when Bird Endowment's Nido Adoptivo program was implemented. As natural nest cavities are extremely limited and competition fierce,



Blue-throated macaw

the installation of artificial nest boxes have proven very successful. As of 2019, 81 *A. glaucogularis* chicks have fledged over 13 breeding seasons. Support of this conservation project is encouraged by the SSP and Parrot TAG. (See the Conservation Project/Program section for more details).

Program Purpose:

The Managed population is being managed to increase gene diversity and avoidance of inbreeding. Holders of this species are encouraged to maintain the macaws in social pairs or groups and allow pairs to parent-rear their own offspring. Reintroduction into the wild is not currently a priority for the managed population. It is instead focusing on establishing more successful breeding pairs.

Based on an analytical studbook, the current Blue-throated macaw population is descended from 41 founders with 1 potential founder remaining in the population. It is instead focusing on establishing more successful breeding pairs. The current managed population is 85.5% known pedigree, 5 birds completely unknown, and 92.4% known after exclusions (4%) and assumptions. Gene diversity is 96.67% with a potential of 98.13%.

Exhibit Qualities:

This charismatic and boisterous parrot species draws the undivided attention of guests and zoo staff alike. The species strong conservation message can be detailed within zoo graphics or relayed during free-flight bird shows. 42% of the population is used as ambassador role. This appears extremely high, but most of these birds are young and are in a perfect free-flighted, social situation. Species holders should ensure single educational macaws are housed with or near other parrots, preferably macaw species, in order to minimize mal-imprinting and maximize future breeding potential.

Husbandry:

Housing: This mechanically-inclined, intelligent psitticine species is adept at dismantling ill-constructed enclosures and supplemental fixtures such as feeders and misting systems. Secure enclosures should be constructed of 10 or 12 g wire, preferably without any wood framing. Individual chewing skills do vary and some Blue-throats can be maintained in 16 g wire enclosures without any issues. Enclosed wire feeder systems with stainless steel bowls, accessed from the outside, work well with this species. Clips, locks, hinges, etc should all be located away from prying beaks.

Enclosures should be large enough to encourage flight. Width should be a minimum of five feet, but greater lengths are more important. As with most managed species, blue-throated macaws greatly benefit from access to the outdoors. With proper shelter, wind breaks and access to heat, they can be housed outdoors year-round in the south. In the north, a permanent indoor housing structure is required during the winter months, but access to an outdoor run during warm days would be ideal. Supplemental heat should be offered below 55° F, though is often not used until in the 40s.

Diet: The primary offering should be a parrot maintenance pellet, then supplemented with fresh produce and nuts and seeds. To



Blue-throated macaw

maintain a proper nutritional balance, ensure the pellet is being consumed as opposed to just the nuts and seeds.

Breeding:

The first breeding of *A. glaucogularis* in human care, in the world occurred on July 10, 1984 at Last Chance Farms in Miami, Florida. Breeding in this species can start as early as 5 or 6 for males and females and has been recorded as late as 28 years of age. Hand-raised *A. glaucogularis* females may take a longer time to reach breeding condition due to imprinting and reduced social skills. Breeding is expected to continue much longer and as demographic data improve over time the observed maximum age of breeding is expected to increase. The average number of hatched chicks from clutches is around 2 with a range of 1 – 4 observed after an incubation period of approximately 26 days.

Horizontal nest boxes are most successful with this species, but more than one style should be offered to new breeding hens until she selects her preferred design. Vertical nest boxes result in more egg breakage and whisky barrels are usually too large for comfort for this smaller macaw. Pairs should be encouraged to parent-rear their own young. If recommended breeding pairs continue to break eggs or fail to raise chicks, the first two can be hand-reared together or with other macaw species to encourage natural social development.

Enrichment:

As with other parrot species, they are extremely dexterous with their feet and beaks. Perching should be comprised of natural, non-toxic branches which vary in diameter in order to maintain proper leg and foot health. Fresh branches and browse should be replaced as often as the particular individual requires. Weekly enrichment should also be offered that is not to be destroyed, such as: acrylic parrot puzzles, large stainless nuts and bolts, and pvc climbing structures.

Other Notes:

Population Viability Analysis report model results indicate that if the AZA blue-throated macaw population continues on its current trajectory it will be able to increase to its potential space under current breeding rates. Under the baseline scenario, the population will reach 72 individuals (the modeled potential spaces) in approximately nine years, requiring only about 3.5 hatches per year, while retaining approximately 89% gene diversity in 100 years. If the population continues on this path, it will be capable of maintaining itself over 100 years. Increasing the population's reproduction rates and increasing the potential spaces to 125 allows the population to maintain higher levels of gene diversity and reach 125 individuals in approximately 19 years.

Though importations are available for this population, they are not needed to improve the demographics of the population and only have minimal impact on the amount of gene diversity retained in 100 years. Exportation scenarios were also explored for this population. Overall, the population would be capable of recovering from exportations, however the more individuals that are exported from the population, the longer it will take for the managed population to reach the potential spaces available to the population.

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Blue-throated macaw

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ZooAtlanta



Golden conure *Guarouba guarouba*

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Managed Population: 33.27 (60)*
Projected Space: 23.25.23 (71)
5-Year Target Population: 100
15-Year Target Population 125
* Studbook data 1 Nov 2019

Distribution: Northern Brazil in Northern Maranhão and Pará

CITES: Appendix I

IUCN Status: Vulnerable

USFWS: Endangered-Proposed rule to list as Threatened



Tara Sprankle, Phoenix Zoo

Species Summary: The Golden conure (also known as golden parakeet or Queen of Bavaria's conure) is a medium sized neo-tropical parrot native to the Amazon Basin of Maranhão and Pará in Northern Brazil. Golden conures are highly prized in managed collections for their striking plumage, which is mainly bright yellow with green outer wing feathers. It has a large pale beak, pale, bare, orbital eye rings and pink legs. There is no sexual dimorphism amongst the sexes. Juvenile birds have green feathers interspersed, mainly on the head and back, which molts into adult colored plumage at approximately 1 year.

Program Purpose: Golden conures are currently classified as Vulnerable by IUCN and Endangered by the USFWS. There is currently a proposed rule by the USFWS to list as Threatened but at this time, it is not final. The decline in wild populations is unfortunately due to capture for the pet trade, as well as by feather collectors. Habitat destruction is another main cause as land is cleared for agriculture and/or for the logging industry. The current wild population estimate is between 6,600-13,400 individuals. The program works to ensure a long-term, viable, population in our facilities. The first international studbook for Golden Conures was published in September 1990 and it included many private facilities in North America, as well as zoo and aquarium facilities. In the AZA Parrot TAG's first Regional Collection Plan (2002-2005) it was decided to create a new North American Regional studbook that would use a new database using the most recent PopLink software. In September 2007, the first North American Regional Studbook was published. In 2011, this animal program was designated a Yellow Species Survival Plan (SSP). The most recent studbook was published in July of 2018.

Natural History: Golden conures are a nomadic species in lowland, humid forests. It frequents the canopy of tall terra firma (or dry land forests) and nearby várzea (seasonally flooded forests,) but appears to inhabit clearings with few scattered trees during breeding season.

Golden conure

Husbandry:

- **Housing:** Golden conures can be exhibited in outdoor aviaries with indoor holding areas with heat for cold winters. A large amount of space with various size trees is needed for this species to exhibit natural behaviors. As with any parrot species, care should be taken to not let them overheat in the summer (provide plenty of shade, misters, coolers and access to plenty of fresh water).
- **Social Nature:** Golden conures are a very social species and spend a lot of their time engaging in preening behavior. They may be exhibited in flocks or in groups. A fascinating feature of Golden Conure behavior is the presence of “helper” birds that are loyal to one breeding pair and help with the rearing of their offspring. In the wild, roosting groups may have 6-8 individuals.
- **Diet:** In the wild, golden conures will eat fruits, flowers, buds, seeds, and cultured maize. They have been noted to feed on mango trees, muruci fruit, and açai fruit. A good quality pellet can be used as a diet for managed parrots, as well as fruit and vegetable salads.
- **Breeding:** golden conures will require a nest boxes to breed successfully. Pairs may need to be separated from flocks for breeding to allow them to focus on incubation of eggs and chick rearing.
- **Medical:** Golden conures have been noted to exhibit feather-plucking behaviors in managed settings even when held in appropriate social groupings and given large areas to promote positive natural behaviors. It is recommended that facilities work to minimize this issue as soon as it is first observed to identify the source and a treatment.
- **Special Requirements:** As with most parrot species, golden conures need a variety of enrichment to remain stimulated and healthy.
- **Keeper Resources:** Golden conures can be very messy and care should be taken to remove scattered food daily. This parrot species is tractable and easily trained.



Joe Barkowski, Sedgwick County Zoo

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Red-fronted macaw *Ara rubrogenys*

Program Leader:

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Managed Population: 39.24.5 (68)*

Projected Space: 19.14.8 (41)

5-Year Target Population: 50

* Studbook data 1 Nov 2019

Distribution: Central Bolivia

CITES: I

IUCN Status: Critically Endangered

USFWS: Not listed



Species Summary: The red-fronted macaw is known as the smallest of the large macaws. The length of this species ranges from 21 to 24 inches. Average weights can range from up to 0.500kg to 0.400kg, however weight will vary depending on activity level of each animal. Sexual maturity for Red-fronted macaws is approximately 3-6 years. Life expectancy in captivity is 25-50 years for both males and females.

Program Purpose: To ensure this species has a genetically diverse population managed in zoological institutions. The goal of this studbook and SSP is to secure additional specimens from private sector with the hope that historical information is provided with the bird/s. Ensure breeding space is allocated by holders of red-fronts to increase the managed population of birds important to the SSP.

Exhibit Qualities: Red-fronted macaws are great macaws in a free flight aviary and have been successfully mixed well with most species. Depending on individual dispositions, individuals with multiple other red-fronts (same sex) along with multiple different species of parrots, fish and meat-eating birds, waterfowl, and some mammals. These macaws like to be seen and heard which make for a good visual in a free flight. Red-fronts also can do well in smaller free flight exhibits due to the fact they are the largest of the macaws that can sustain hovered flight for short periods. Optimal habitat size for year-round exhibit space for a pair of birds is recommended to be 100-200 sq. ft. A reasonable temporary/seasonal holding space for a pair of birds (minimum recommendation) is a space of 80-100 sq. ft and 8' height. Mixed species optimal habitat size varies based on species present.

Husbandry: For breeding success it is best to house in a single pairing (1.1). Nesting boxes have varied from horizontal to vertical. Keep in mind if the box is vertical the chicks need a small ladder to exit the nesting hole (this can be made out of 1" X 1" mesh leading up to the nest box hole). Same sex groups have been kept successfully at many institutions. The incubation period for the red-front is between 26 and 28 days, with clutch sizes varying from one to three. Eggs are white. Fledging period is 70-73 days. Offspring are recommended to remain with parents for at least the first year for optimal development; but can stay for 1-3 years. Breeding areas can vary due to the smaller stature of this species. Like most of the large to mid-

Red-fronted macaw

sized macaws the red-front is no different in needing fresh browse or branches to chew on and daily enrichment to ensure positive behaviors long term. Diet in most facilities consists of commercial parrot maintenance pellets along with a mixture of fruits and vegetables. Limited amounts of seeds/nuts can be supplemented to diet. Wild diet is fruits, seeds, cultivated maize and peanuts. Red-fronted macaws should be secured inside when temperatures are below 35F with adequate heat sources. These birds can be housed outdoors above freezing as long as the high gets to 45-55F and it is sunny or adequate heat sources are available.

Other Notes: The next goal for the SSP is to set up contacts with universities and other organizations within Bolivia to get AZA zoos and members involved with long term field work.



Ellen Aparicio

Palm cockatoo *Probosciger aterrimus*



Program Leader:

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Managed Population:

AZA Managed Population: 37.29 (66)*
Projected Space: 19.14 (33)
5-Year Target Population: 75
* Studbook data 1 Nov 2019

Distribution:

P. a. stenolophus Northern & Eastern New Guinea (from Mamberamo R, Irian Jaya, E to Collingwood Bay, Papua New Guinea) and Yapen Island.

P. a. goliath West Papuan Island (except Misool) and West, Central and possibly South Eastern New Guinea.

P. a. aterrimus Misool and Aru Island, and Southern Trans-Fly (Southern New Guinea); also Cape York Peninsula, Australia; perhaps this race introduced to Kai Island. (SE Moluccas)



Katy McElroy, Hornbeam Aviary

CITES: I

IUCN Status: LC

USFWS: Not listed

Species Summary: In their book *Parrots of the World*, Forshaw and Cooper noted “Spectacular and lordly in both appearance and behaviour, Palm Cockatoos are among the most impressive of all parrots”. Considered by many as an icon species for parrot conservation, the palm cockatoo (*Probosciger aterrimus*) is a unique species that captures the public eye. Long lived and charismatic, Palm cockatoos make for great display birds, but typically require a refuge from public viewing and can have difficulty breeding successfully without the right conditions.

Program Purpose: Listed as CITES Appendix I and considered Least Concern under the IUCN Red List, palm cockatoos in the wild face their biggest threat from habitat and nest cavity loss. Most of the initial work for evaluation of this species was conducted with the help of the World Parrot Trust from 1999-2007 and headed by Stephan Murphy. It was Murphy who reported that 26% of the nest cavities for this species were destroyed from 1999-2005 by human set fires. He also found in a five year study that 63.4% of palm cockatoos eggs laid hatched, which is a similar rate to other parrots but that 81% of nesting attempts “failed to produce a fledgling, thereby ranking the breeding success of palm cockatoos among the lowest reported for any species of parrot”. While no field projects for conservation currently exist for wild Palm Cockatoos, the managed population is in dire need of help. Both the AZA and EAZA populations are projected to decline and cease to exist in the next 30-50 years and the chief reason the current numbers remain stable is due to the longevity of this species.

Palm cockatoo

Exhibit Qualities: Despite the lack of bold coloration, palm cockatoos are a large, dynamic species with a wide array of calls. Their smoky black coloration often dispels the public belief that all parrots are brightly colored. They are easily visible to the public due to their size and can be found either perched high in the exhibit or foraging on the ground. Palm cockatoos can be kept as a single bird, in pairs, or in mixed-sex flocks up to 20 birds. Aggression from males towards females has been reported and pairs must be closely monitored regardless of length of time the pair has been together. Palm cockatoos can also be kept with other species of cockatoos as well as some species of lorries and ground dwelling birds given an enclosure with ample space. Pairs will often be observed allopreening and courtship displays typically involve the male approaching the female with his wings spread while bobbing his head and whistling. Similarly, territorial displays are a captivating sight that involves the male using a branch that he carefully selects and trims down to a size of his liking that he then uses to “drum” against the side of a hollowed tree while holding his wings spread. Pairs of birds will also take branches and splinter them in small pieces that are then dropped down into their hollow nest log to create a platform on which the female will incubate her egg.

Husbandry:

- Palm cockatoos require a generous space for enclosures that were determined by a management group in 1998 for pairs to be optimal at 2.6 m x 4 m x 2.6 m (8' x 12' x 8'), but satisfactory at a minimum of 1.3 m x 2.6 m x 1.3 m (4' x 8' x 4'). Wire should be 12 gauge as there are reports that these birds are able to chew through 14 gauge with their large beaks.
- A survey was conducted in 2004 to look at factors contributing to successful Palm Cockatoo breeding. The results of the survey yielded several commonalities in exhibit size, location and level of disturbance. The Palm Cockatoo Management Group feels that breeding pairs have a greater chance of success when housed outdoors at least part of the year and housed off display where they experience minimum disturbance. Mate aggression has historically been an issue with this species. Large aviaries may help to curtail some of these incidences of aggression. Therefore, the Program has set the following minimum housing requirements:
 - For a breeding pair: o minimum of 1200 cubic feet o outdoor exhibits (at least some outdoor component) o off display (unless specially designated by the Program)
 - For single birds: o Minimum of 320 cubic feet (based on 4ft W x 10ft L x 8ft H)
- Nest logs or boxes should be provided to breeding pairs, with the option to provide more than one nest in larger enclosures. Since hollowed nest logs of adequate size can be difficult to provide, nest boxes are often made and should be a rectangular and situated on end. Open top boxes are the preferred option, however, boxes with large entrance holes, approximately 30 cm (12") diameter, have been known to be used by Palm Cockatoos as well. Boxes are recommended to be between 1-3.3m (3-4 ft) deep.
- A fresh supply of branches or browse is not only essential for the mental well-being of these parrots, but also required for breeding pairs in order to build their nest within the nest logs.
- Palm cockatoos can be wary of novel enrichment items and keeper observation should follow the introduction of any new item to ensure it doesn't stress out the bird(s).



Denver Zoo

Palm cockatoo

- Nutritional requirements for palm cockatoos is still under consideration, though the most commonly offered diet includes a manufactured pellet with sufficient levels of calcium, a variety of fruits and vegetables, fresh greens, large nuts and seed mixture.
- While palm cockatoos are considered to be hardy birds, they tend to be susceptible to Aspergillosis, Sarcocystis, Psittacine Beak and Feather Disease, and Avian Bornavirus as well as other common avian diseases.

Other Notes: Due to the sensitive nature of introductions and limited number of females in the zoo population, a partnership with Hornbeam Aviary has been established to pair three surplus males with unrelated females. Offspring from these pairs will help increase the overall number of birds in the population as well as increase genetic diversity. Breeding enclosures, as mentioned above, should ideally be off-exhibit and subjected to limited human interference. Currently, it is recommended that all eggs be pulled and artificially incubated for hand rearing to ensure population growth. When hand-rearing it is of the utmost importance to avoid imprinting birds and to socialize them with conspecifics if possible. All birds in the population are designated as potential breeders at this time and imprinted birds have a history of mate aggression, poor reproductive success, and exhibiting stereotypic behaviors.

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Bruce Watts, Cape York, Queensland, Australia

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Hawk-headed parrot *Deroptylus accipitrinus*

Program Leader:

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Managed Population: 10.25 (35) *

Projected Space: 10.21.6 (37)

5-Year Target Population: 50

* Studbook data 1 Nov 2019

Distribution:

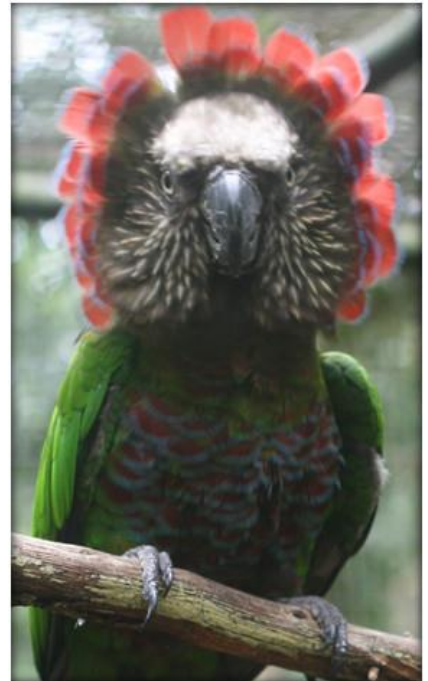
D. a. accipitrinus South Eastern Colombia, Eastern Ecuador and North Eastern Peru to Venezuela, the Guianas and Brazil North of Amazon

D. a. fuscifrons Brazil South of Amazon from upper R Madeira, Rondônia and North Mato Grosso Easy to Maranhão; possibly also Northern Bolivia

CITES: II

IUCN Status: LC

USFWS: Not Listed



Kathy Russell, Santa Fe Teaching Zoo

Species Summary: The hawk-headed parrot is a very unique parrot in its coloration and behaviors. It is a medium size parrot standing at about 32 to 36 cm. Weights in our facilities have been recorded anywhere from 200g to 350g which is very close to the weights of those found in the wild. These birds inhabit the Amazon rainforest covering Brazil and parts of all the countries that border Brazil. The hawk-headed parrot has also been called the red-fan parrot, referring to the erectable nuchal crest. This is what makes this parrot so unique. The scientific name means neck fan that resembles a hawk. (*Deroptylus* means “neck fan” and *accipitrinus* means “resembling a hawk.” Although cockatoos can erect a crest of feathers, the hawk-headed parrots spread their nape feathers out revealing a bare patch on the back of the head that it only lightly covered with down feathers.

Exhibit Qualities: They have beautiful colorations that complement the green found on wings, back and rump. The feathers on their chest and abdomen are maroon and edged in blue. The head is white, and the face is covered in black and white feathers streaked across. The head crest when erected shows off rich maroon feathers that have the same blue coloration as the chest along the tips. In addition to the striking combination of colors they are active display birds and have even been known to “play.” Their pair bond behaviors can be seen year-round but intensify at the onset of the breeding season which can be as early as February. The pair calls to each other, approach, go through a series of vocalizations and erect their crests. This is often followed by locking beaks. There is also a lot of allopreening observed before and after the vocalizations. Pairs as well as offspring have been observed going to the ground and mock fighting.

They can be used in a mixed species exhibits.

Hawk-headed parrot

Program Purpose: To maintain a successful demographic and genetic managed population and to learn more about the husbandry of this species.

Program Goals

1. Increase the number of breeding pairs from 7 to 9 by December 2020.
2. Increase awareness of this species to AZA institutions in order to increase their participation with the SSP. Add in 3 institutions for placement of both genetically desired birds for breeding non-genetically desired birds for display by December 2020.
3. Begin to establish a relationship with the private sector to determine the possibility of the acquisition of birds.

Husbandry: They are typically housed in pairs and do better when kept outdoors. Wire mesh should be no larger than 1 inch by 2 inches. Although they do not chew as much as some parrots it is strongly recommended to use 14-gauge wire or stronger. So far there are no reported issues when vinyl coated wire has been used. Nest boxes should be used year-round. They will use the boxes at night for roosting/security. It is not necessary to line the boxes as they tend to remove nesting material. Prior to breeding season make sure the box is in good shape and be large enough for two chicks to fit in comfortably. Because they remove nesting material, chicks that don't have a cup-like floor may develop leg issues. The cup-like shape keeps the legs together as the chick grows. Provide plenty of enclosure furnishing, props, and vegetation not only for visual and tactile security but also for chewing. If provided a heat source, they can acclimate to temperatures near freezing. Maintain on a nutritious parrot diet. Unlike several other parrot species hawk-headed parrots are easier to keep at a healthy weight due to their high activity level.



Smithsonian's National Zoo



Kea *Nestor notabilis*

Program Leader:

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Managed Population: 23.12 (35) *

Projected Space: 29.15.1 (45)

5-Year Target Population: 50

15-Year Target Population: 75

* Studbook data 1 Nov 2019

Distribution: South Island, New Zealand

CITES: Appendix II

IUCN Status: Endangered

USFWS: not currently listed

Species Summary: The kea is endemic to the Southern Alps on the South Island of New Zealand and is the only parrot species in the world that nests in high alpine climates. Unique in looks, behavior and intelligence, this parrot is unlike any other exhibited in North American zoos. A fascinating natural history coupled with a compelling conservation story makes for a truly unique exhibit opportunity.



Denver Zoo

Program Purpose: Kea were recently reclassified from Vulnerable to Endangered by the IUCN. Early declines in population were due to hunting under a bounty from the mid-1800's until 1970 due to their habit of harassing and attacking sheep grazing in their native range. Current threats include human-kea conflict, predation by introduced species, habitat loss, and environmental lead contamination, among other issues. The current population estimate is between 3,000-7,000 individuals. The North American population seeks to support conservation efforts by providing a sustainable *ex situ* population of kea to spread awareness and interest in these unique birds. The Kea SSP Program and Parrot TAG recommend support of the Kea Conservation Trust (KCT), a New Zealand non-profit organization which seeks to study and protect the species in the wild and improve managed husbandry. The KCT has a strong relationship with the New Zealand Department of Conservation and a proven track record of accomplishing conservation goals with projects such as population surveys, nest monitoring, human-kea conflict mitigation, education and signage for tourists and local communities, and lead testing and rehabilitation for birds with high lead levels. Several institutions have created fundraising opportunities that support the KCT, including interactive coin-drop puzzles, cell phone or other recycling programs, and training kea to place dollar bills into donation bins. Grant funding from kea holding institutions and the AZA's Conservation Grant Fund have also provided important sources of funding for several years and a goal of the Kea SSP is to increase the level of support from kea holding institutions as well as seek other sources of funding for this important organization.

Kea

Exhibit Qualities: Kea provide many opportunities for exhibiting parrots in unconventional ways. This alpine species can tolerate cold temperatures and so can be exhibited outdoors all year, even in northern zoos. Kea are extremely active and entertaining for guests and staff alike. Provided with plenty of enrichment, they can offer a compelling exhibit highlighting avian curiosity and intelligence. Kea love a challenge and will readily interact with any novel items or puzzles offered to them. These birds will often spontaneously interact with guests and opportunities for meet-and-greets also exist. Kea can also represent a variety of conservation subjects such as human-wildlife conflict, the impact of introduced species on island endemics, habitat loss and environmental contaminants such as lead.



Ashley Arimborgo, Denver Zoo

Husbandry:

- **Housing:** Care should be taken when choosing an exhibit for kea, as they are known to test and damage enclosures. Their beaks are not particularly strong, but they are very clever and curious and often damage or remove caulk, latches, screws and bolts. Kea can handle colder temperatures (0F or lower for short periods) and may be held outdoors all year if they have access to shelter and heat. Care should be taken to not let them overheat in temperatures above 80F (provide shade, access to air conditioning, misters and access to plenty of fresh water).
- **Social Nature:** Kea should be held in male-female pairs, male-male pairs or small groups. Larger groups can be successful given adequate space and opportunities for separating birds if needed. Housing birds alone or in female-only groups is not recommended.
- **Diet:** The kea is an opportunistic omnivore and should be provided with a balanced but varied diet including vegetables, fruit, pelleted food and grains, with small amounts of nuts, seeds, meat, insects and a variety of novel foods.
- **Breeding:** Kea typically require a nestbox with a tunnel entrance to breed successfully. Nests can be located on the ground or mounted off the ground.
- **Medical Problems:** Similar to other parrots, kea can be susceptible to parasites, Aspergillosis, Sarcocystis, Avian Bornavirus and other common avian ailments.
- **Special Requirements:** This species needs an extreme amount and variety of enrichment to remain stimulated and healthy.
- **Keeper Resources:** Kea can be a bit messier than other parrots and care should be taken to remove scattered food daily. Birds are tractable and easily trained.

Kea

The Kea SSP will require improved breeding outcomes in order to meet space and population goals. Mate choice is increasingly being used to create breeding pairs but it is too soon to tell if these efforts will result in increased breeding success. Institutions with breeding pairs are encouraged to contact the SSP to discuss ideas for increasing chick numbers using double-clutching, incubation and hand-rearing. Importations from EAZA or other regions would also benefit the genetics and demographics of this population.

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Jennifer Gainer, Cincinnati Zoo

TAG Monitored Cockatoos ***Galah *Eolophus roseicapillus****



AZA Population: 23.21.5 (49)
Projected Space: 22.26.21 (69)
5-Year Target Population: 100

Distribution: Australia

CITES: II

IUCN Status: Least Concern

USFWS: Not Listed

Species Summary: Also known as the Rose-breasted cockatoo, this distinctive medium-small cockatoo is found in woodlands and grasslands throughout its range. Forming flocks up to 1000 birds, it has been persecuted in recent decades as a crop pest.



San Diego Zoo Global

Program Purpose: This species is well-suited to living in smaller aviaries as a pair or in large free flights with a flock of individuals. It does not exhibit some of the more aggressive behaviors as the other cockatoos.

Exhibit Qualities: Does well in flocks and in mixed species and walk-through aviaries. Overall not aggressive. As a parrot it is assumed to be tree-dwelling but if comfortable and with enough space the species will exhibit natural behaviors of foraging on the ground. Candidate for use as a Program Animal species.

Husbandry: Best if housed in pairs or flocks. No unusual dietary or behavioral requirements. If in proper health and condition, the species can be maintained at temperatures from 40°-100°F/4°-38°C with appropriate shelter. Birds may be maintained for short periods from 35°-40°F/2°-4°C with shelter and supplemental heat if properly conditioned. When temperatures are consistently at freezing birds must be moved or sequestered in temperature-controlled accommodations.



Richard Taylor, Flickr

Cockatiel *Nymphicus hollandicus*

AZA Population: 65.64.250 (279)
Projected Space: 86.70.436 (592)
5-Year Target Population: (600)

Distribution: Australia

CITES: Not Listed

IUCN Status: Least Concern

USFWS: Not Listed

Species Summary: Small brownish-grey parrot with a long tail and long wispy crest. Abundant in large flocks in savanna, woodland, grassland and cropland habitats. Forms large flocks and maybe regarded as pest species in some areas. Sexes differ with male having yellow cheek patches while females are primarily orange.



Joel Sartore

Program Purpose: Display value through flocking behavior. A large increase in the population is due to use in interactive aviaries.



Exhibit Qualities: The TAG feels that there is a positive place in interactive aviaries for this species. Candidate for use as a Program Animal species.

Husbandry: Often fed seed-based diets but pelleted parrot diets may be used to provide more balanced nutrition. Will accept fruits, vegetables and greens also. If in proper health and condition, the species can be maintained at temperatures from 40°-100°F/4°-38°C with appropriate shelter. Birds may be maintained for short periods from 35°-40°F/2°-4°C with shelter and supplemental heat if properly conditioned. When temperatures are consistently at freezing birds must be moved or sequestered in temperature-controlled accommodations. As with all social parrots, best kept at least in pairs if not larger flocks.



Buffalo Zoo

Other Notes: As with several commonly held species there are many variations in morphology being bred in the private sector. The TAG suggests the use of only the wild form whenever possible.

TAG Monitored Lories/Lorikeets

'Rainbow' lory *Trichoglossus spp.*



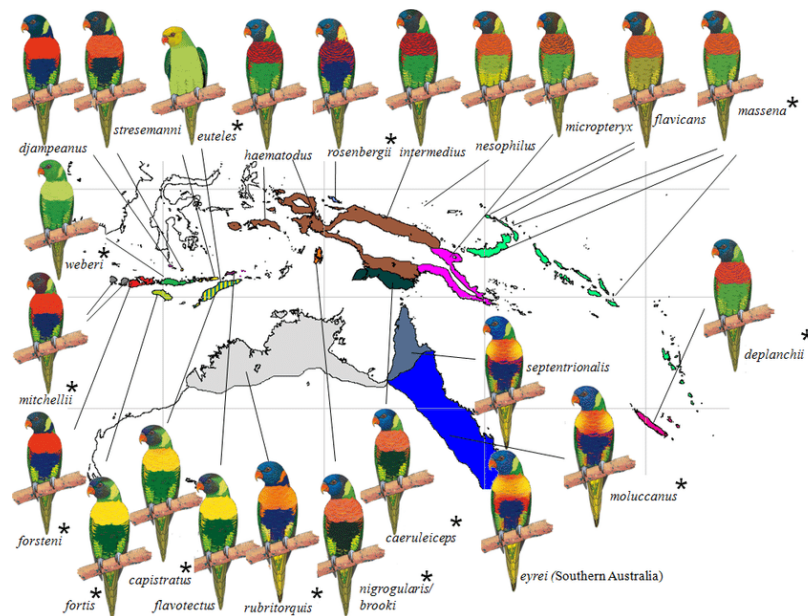
Prior to 2014, the taxonomy for this species lumped most forms as subspecies of *Trichoglossus haematodus*. More recently, most of these were split into full species. This taxonomic change has precipitated how the TAG will recommend the management of populations to ensure birds for interactive aviaries while focusing on species with more conservation value.

The TAG recommends that institutions working with *Trichoglossus spp.* begin to phase out the Australian Rainbow Lorikeet (*T. moluccanus*) and Edward's (Marigold) Lorikeet (*T. capistratus*). This process will, over time, create space for Forsten's lorikeet (*T. forsteni*). Forsten's lorikeet is also estimated to have fewer than 10,000 mature individuals, based on a tentative assessment of the locations likely to retain any numbers of the species. It is further considered possible that the assumed largest population on Sumbawa may well not exceed 1,000 mature individuals. The population is suspected to be undergoing a moderately rapid decline owing to unsustainable levels of exploitation.

There are zoos planning to increase propagation of this species for this purpose. They are working with private sector aviculturalists to locate birds that have not been hybridized with other *Trichoglossus* lories in the past.

"Lory" vs. "Lorikeet":

In general, lories are bigger with tails that are short, rounded, or square. Lorikeets tend to be smaller with longer, pointed tails. Most lories are red with patches of yellow, purple, and green; most lorikeets are green with patches of red and yellow. There are, of course, exceptions, and these birds can be found in all the colors of the rainbow.



Michael Peter Braun



Rainbow/ Coconut lorikeet *Trichoglossus haematodus*

Nominate form

(*Trichoglossus h. haematodus*)

Rainbow lorikeet

(*Trichoglossus h. caeruleiceps*)

AZA Population: 222.224.175 (621)

Projected Space: 234.230.210 (674)

5-Year Target Population: 650

Distribution: New Guinea and many satellite islands, New Britain, New Ireland, Bougainville and the Solomon Islands

CITES: II

IUCN Status: Least Concern

USFWS: Not listed

Species Summary: A medium-sized parrot, with very bright plumage - head is deep blue with a greenish-yellow collar, and the rest of the upper parts (wings, back and tail) are deep green.

The chest is red with blue-black barring. This species of Australasian parrot is found in rainforest, coastal bush and woodland areas.



Joel Sartore

Program Purpose: In the mid to late 1990's, there was an increase in aviaries built with the specific purpose of guests interacting directly with the birds – specifically by offering them food. While one or two forms of lories/lorikeets were more readily available and proved easier to keep, there is a desire for some variation in these exhibits. These lories offer diversity in form.



Exhibit Qualities: Primarily housed in larger mixed-species flocks of lories in interactive aviaries.

Husbandry: Lories are highly social birds and should always be kept in flocks for proper social interaction. As with all lories, a balanced diet may consist of fruits, vegetables, lory/parrot pelleted diets and nectar products. This varies on the holding institution and should be evaluated on a case-by-case basis. If in proper health and condition, the species can be maintained at temperatures from 50°-100°F/10°-38°C with appropriate shelter. When temperatures are consistently below 50°F/10°C this small species must be moved or sequestered in temperature-controlled accommodations.

Other Notes: The TAG recommends that institutions working with *Trichoglossus spp.* begin to phase out the Australian rainbow lorikeet (*T. moluccanus*) and Edward's (Marigold) lorikeet (*T. capistratus*). This process will, over time, create space for Forsten's lorikeet (*T.f. forsteni*). In 2011, Forsten's lorikeet (whose US population descends from founders imported in the 1960's) was feared extinct in the wild, on Sumbawa, the only island where this subspecies is recorded. As of 2019, it is considered possible that the population on Sumbawa may well not exceed 1,000 mature individuals. The population is suspected to be undergoing a moderately rapid decline owing to unsustainable levels of exploitation. There are zoos planning to increase propagation of this species for this purpose. They are working with private sector aviculturalists to locate birds that have not been hybridized with other *Trichoglossus* lories in the past.



Forsten's lorikeet *Trichoglossus forsteni*

AZA Population: 15.11.2 (28)
Projected Space: 13.11.16 (40)
5-Year Target Population 75

Distribution: Bali, Lombok, Sumbawa, Tanahjampea and Kalaotoa

CITES: II

IUCN Status: Vulnerable

USFWS: Not listed

Species Summary: It is the darkest and arguably most strongly marked member of the rainbow lorikeet group, with a dark bluish head that contrasts strongly with a lime green nape and a deep scarlet breast, that again contrasts strongly with the dark bluish belly.

It inhabits forest, woodland and plantations but its small range combined with extensive habitat destruction and capture for the parrot trade gives cause for serious concerns.

Program Purpose: In the mid to late 1990's, there was an increase in aviaries built with the specific purpose of guests interacting directly with the birds – specifically by offering them food. While one or two forms of lorries were more readily available and proved easier to keep, there is a desire for some variation in these exhibits. These lorries offer diversity in form.



Snowmanradio, Wikipedia

Exhibit Qualities: May be housed in larger mixed-species flocks of lorries in interactive aviaries.

Husbandry: Lorries/lorikeets are highly social birds and should always be kept in flocks for proper social interaction. As with all lorries/lorikeets, a balanced diet may consist of fruits, vegetables, lorry/parrot pelleted diets and nectar products. This varies on the holding institution and should be evaluated on a case-by-case basis. If in proper health and condition, the species can be maintained at temperatures from 50°-100°F/10°-38°C with appropriate shelter. When temperatures are consistently below 50°F/10°C this small species must be moved or sequestered in temperature-controlled accommodations.

Other Notes: The TAG recommends that institutions working with *Trichoglossus spp.* begin to phase out the Australian rainbow lorikeet (*T. moluccanus*) and Edward's (Marigold) lorikeet (*T. capistratus*). This process will, over time, create space for Forsten's lorikeet (*T.f. forsteni*). In 2011, Forsten's lorikeet (whose US population descends from founders imported in the 1960's) was feared extinct in the wild, on Sumbawa, the only island where this subspecies is recorded. As of 2019, it is considered possible that the population on Sumbawa may well not exceed 1,000 mature individuals. The population is suspected to be undergoing a moderately rapid decline owing to unsustainable levels of exploitation. There are zoos planning to increase propagation of this species for this purpose. They are working with private sector aviculturists to locate birds that have not been hybridized with other *Trichoglossus* lorries in the past.

Goldie's lorikeet *Psitteuteles goldiei*

AZA Population: 13.10 (23)
Projected Space: 24.13 (37)
5-Year Target Population: 50

Distribution: Indonesia; Papua New Guinea

CITES: II

IUCN Status: Least Concern

USFWS: Not Listed

Species Summary: A small lory species with dark streaks over a yellow-green chest. Found in small groups to large flocks feeding on many flower species.

Program Purpose: While not threatened in the wild, this small lory has been held in human care for many decades. It mixes well with other species and is often less destructive in exhibits than larger parrots. It offers an ability to display and breed a parrot without some of the concerns of large psittacines.

Exhibit Qualities: Candidate for use in education programs. Due to its small size it is not recommended for interactive aviaries. However, it can be housed with many other species and has done well in mixed species aviaries and free-flights.

Husbandry: As with all lorries/lorikeets, a balanced diet may consist of fruits, vegetables, lory/parrot pelleted diets and nectar products. This varies on the holding institution and should be evaluated on a case-by-case basis. If in proper health and condition, the species can be maintained at temperatures from 50°-100°F/10°-38°C with appropriate shelter. When temperatures are consistently below 50°F/10°C this small species must be moved or sequestered in temperature-controlled accommodations. As with all social parrots, best kept at least in pairs if not larger flocks.



Nashville Zoo at Grassmere

TAG Monitored Pacific Parrots
Eastern rosella *Platycercus eximius*



AZA Population: 24.15.3 (42)
Projected Space: 33.29.30 (92)
5-Year Target Population: 100

Distribution: Australia

CITES: II

IUCN Status: Least Concern

USFWS: Not Listed

Species Summary: A very colorful social species that is common in its varied wild ranges. It seems to have been able to adapt and prosper in areas cleared of forest for farm and pastureland.



Joel Sartore

Program Purpose: Display value through flocking behavior. An increase in the population is due to

use in mixed species aviaries. It offers an ability to display and breed a parrot without some of the concerns of large psittacines.



Exhibit Qualities: The TAG feels that there is a positive place in interactive aviaries for this species. Candidate for use as a Program Animal species.

Husbandry: Best if housed in pairs or flocks. No unusual dietary (pelleted parrot diets may be used to provide more balanced nutrition. Will accept fruits, vegetables and greens also) or behavioral requirements. If in proper health and condition, the species can be maintained at temperatures from 40°-100°F/4°-38°C with appropriate shelter. Birds may be maintained for short periods from 35°-40°F/2°-4°C with shelter and supplemental heat if properly conditioned. When temperatures are consistently at freezing birds must be moved or sequestered in temperature-controlled accommodations.



David M. Gascoigne, www.travelswithbirds.blogspot.com



Bourke's parrot *Neopsephotus bourkii*

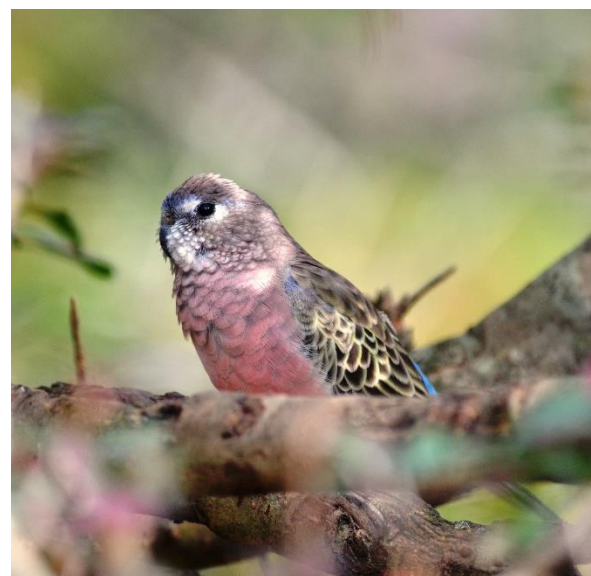
AZA Population: 7.9 (16)
Projected Space: 20.17.4 (41)
5-Year Target Population: 50

Distribution: Australia

CITES: II

IUCN Status: Least Concern

USFWS: Not Listed



Jessica Cockrell, Pinola Conservancy

Species Summary: Small parrot with brown and blue coloration and pink chest. Sexually dimorphic in breeding season, although this is very subtle. Breeding males have brighter blue feathers above the cere. Vocalization is chirpy and quiet. They have a distinctive call when they take flight that sounds similar to a mourning doves take off call. Bourke's parrots are very active in the early morning, foraging on the ground for seed and grain. Abundant in dry scrubland areas. Forms large flocks.

Program Purpose: Display value through flocking behavior. A slight increase in the population is due to use in interactive and mixed species aviaries. It offers an ability to display and breed a parrot without some of the concerns of large psittacines.



Exhibit Qualities: The TAG feels that there is a positive place in interactive aviaries for this species. Candidate for use as a Program Animal species.

Husbandry: Often fed seed-based diets but pelleted parrot diets may be used to provide more balanced nutrition. Will also accept fruits, vegetables and greens. This varies on the holding institution and should be evaluated on a case-by-case basis. If in proper health and condition, the species can be maintained at temperatures from 50°-100°F/10°-38°C with appropriate shelter. When temperatures are consistently below 50°F/10°C this small species must be moved or sequestered in temperature-controlled accommodations. As with all social parrots, best kept at least in pairs if not larger flocks. Bourke's parrots will breed all year round under the right managed conditions. The female begins incubating her clutch of 3-6 eggs after the first egg is laid and the male enters the nest box often to feed her. These parrots do love to chew but aren't as destructive as some of their larger relatives. If provided with regular chewing enrichment, they won't typically destroy live plants.

Other Notes: As with several commonly held species there are many variations in morphology being bred in the private sector. The TAG suggests the use of only the wild form whenever possible.

Budgerigar *Melopsittacus undulatus*

AZA Population: 624.518.1822 (2964)
Projected Space: 375.331.2689 (3395)
5-Year Target Population: 3500

Distribution: Australia

CITES: Not Listed

IUCN Status: Least Concern

USFWS: Not Listed

Species Summary: Commonly known as a 'parakeet' in the US, the wild budgerigar is still found throughout the Australian continent.

Program Purpose: This species is suggested due to display value through flocking behavior. Single sex flocks may be considered to prohibit breeding. Also a good candidate for use as program animals.



Exhibit Qualities: There have been many interactive aviaries constructed which house large numbers of these birds. The increase in both existing and target populations have been altered to reflect that. Success in these facilities

seems to offer budgerigars as an alternative to lorries in interactive aviaries. Single sex flocks may be considered to prohibit breeding.

Husbandry: Often fed seed-based diets but pelleted parrot diets may be used to provide more balanced nutrition. Will also accept fruits, vegetables and greens. This varies on the holding institution and should be evaluated on a case-by-case basis. If in proper health and condition, the species can be maintained at temperatures from 50°-100°F/10°-38°C with appropriate shelter. When temperatures are consistently below 50°F/10°C this small species must be moved or sequestered in temperature-controlled accommodations. As with all social parrots, best kept at least in pairs if not larger flocks.

Other Notes: As with several commonly held species there are many variations in morphology being bred in the private sector. The TAG suggests the use of only the wild form whenever possible.

The space survey shows more projected spaces than the TAG's target population. The TAG wants to encourage institutions to consider incorporating other species into these interactive aviaries. To diversify their collections in an existing space, species chosen may also be handleable or just display birds which add to the experience.



Tim Snyder, Brookfield Zoo



Eclectus parrot *Eclectus roratus*

AZA Population: 13.15 (28)
Projected Space: 16.15 (31)
5-Year Target Population: 50

Distribution: Australia; Indonesia; Papua New Guinea; Solomon Islands

CITES: II

IUCN Status: Least Concern

USFWS: Not Listed



Edmonton Valley Zoo

Species Summary: Unusual in the parrot family for its extreme sexual dimorphism of the colours of the plumage; the male having a mostly bright emerald green plumage and the female a mostly bright red and purple/blue plumage. Joseph Forshaw, in his book *Parrots of the World*, noted that the first European ornithologists to see eclectus parrots thought they were of two distinct species. While they are sometimes considered pests for eating fruit off trees some populations restricted to relatively small islands are comparably rare. Their bright feathers are also used by native tribes people in New Guinea as decorations.



Program Purpose: Display value.

Exhibit Qualities: The TAG feels that there is a positive place in interactive aviaries for this species. While it may not be a candidate for interactions directly with guests, it mixes well with other parrots and can offer diversity in an aviary. It can be housed with many other species and has done well in mixed species aviaries and walk-through exhibits.

Husbandry: Best if housed in compatible pairs. No unusual dietary or behavioral requirements. It is suggested parrots be offered varied diets - commercially available parrot pellets along with fruits, vegetables, greens, etc. This varies on the holding institution and should be evaluated on a case-by-case basis. If in proper health and condition, the species can be maintained at temperatures from 40°-100°F/4°-38°C with appropriate shelter. Birds may be maintained for short periods from 35°-40°F/2°-4°C with shelter and supplemental heat if properly conditioned. When temperatures are consistently at freezing birds must be moved or sequestered in temperature-controlled accommodations.

Other Notes: Various subspecies can be visually identified. It is the belief of both the TAG and much of the private sector that pure forms of these subspecies would be difficult to find due to decades of accidental or deliberate hybridization. The resources necessary for DNA analysis would be better spent on other more critical species at this time. It was decided to therefore manage the entire population at the species level. This species is chosen for taxonomic uniqueness (being sexually dimorphic), display value and as a candidate for use in education programs.

Princess parrot *Polytelis alexandrae*



AZA Population: 7.4 (11)
Projected Space: 15.17.4 (36)
5-Year Target Population: 50

Distribution: Australia

CITES: II

IUCN Status: Near Threatened

USFWS: Not Listed

Species Summary: Found in sandy deserts with grass and scrublands adjacent.

Program Purpose: Display value through flocking behavior. It offers an ability to display and breed a parrot without some of the concerns of large psittacines.



Joel Sartore



Exhibit Qualities: The TAG feels that there is a positive place in interactive aviaries for this species. While it may not be a candidate for interactions directly with guests, it mixes well with other parrots of similar size and can offer diversity in an aviary. It can be housed with many other species and has done well in mixed species aviaries and walk-through exhibits.

Husbandry: Best if housed in pairs or flocks. No unusual dietary or behavioral requirements. Often fed seed-based diets but pelleted parrot diets may be used to provide more balanced nutrition. Will also accept fruits, vegetables and greens. This varies on the holding institution and should be evaluated on a case-by-case basis. If in proper health and condition, the species can be maintained at temperatures from 50°-100°F/10°-38°C with appropriate shelter. When temperatures are consistently below 50°F/10°C this small species must be moved or sequestered in temperature-controlled accommodations. As with all social parrots, best kept at least in pairs if not larger flocks.

Other Notes: As with several commonly held species there are many variations in morphology being bred in the private sector. The TAG suggests the use of only the wild form whenever possible. May be housed in pairs or small flocks.



Princess Parrot Progression, Sydney Zoo, Angela Robertson-Buchanan

TAG Monitored African/Asian Parrots
Blue-crowned hanging parrot *Loriculus galgulus*



AZA Population: 31.23.8 (62)
Projected Space: 28.26.28 (82)
5-Year Target Population: 100

Distribution: Brunei Darussalam; Indonesia; Malaysia; Singapore; Thailand

CITES: II

IUCN Status: Least Concern

USFWS: Not Listed

Species Summary: One of the smallest parrot species, these emerald green birds are noted for the blue patch on the crown of the head. Males exhibit a bright red throat patch also. Found in forests; they are still considered common in their ranges.



Kevin McGee, Flickr

Program Purpose: Housing this species offers an ability to display and breed a parrot without some of the concerns of large psittacines. They are interesting for guests when exhibiting the behavior they are named for – hanging upside down from their perches from time to time.

Exhibit Qualities: This species is suggested due to display value through flocking behavior. May be mixed with other avian species in exhibits, although they may be destructive in smaller planted aviaries. May be housed with other non-aggressive passerines in mixed species aviaries and walk-through exhibits. Not suggested for interactive aviaries due to their small size.

Husbandry: As with many nectar feeding species, a balanced diet may consist of fruits, vegetables, lory/parrot pelleted diets and nectar products. This varies on the holding institution and should be evaluated on a case-by-case basis. If in proper health and condition, the species can be maintained at temperatures from 50°-100°F/10°-38°C with appropriate shelter. When temperatures are consistently below 50°F/10°C this small species must be moved or sequestered in temperature-controlled accommodations. As with all social parrots, best kept at least in pairs if not larger flocks. Has been housed in breeding groups up to 30 or 40 birds on occasion.



Black-cheeked lovebird *Agapornis nigrigenis*

AZA Population: 14.15 (29)
Projected Space: 34.35 (69)
5-Year Target Population: 75

Distribution: Zambia

CITES: II

IUCN Status: Vulnerable

USFWS: Not Listed

Species Summary: A flocking species found in woodlands

Program Purpose: Considered Vulnerable due to its restricted range. Large exports for the caged-bird trade in the late 1980's/early 1990s caused drastic population declines. It is one of two African psittaciformes recommended that may be available for exhibit in large numbers.



Nik Borrow, Flickr

Exhibit Qualities: This species is suggested due to display value through flocking behavior and geographic display value. May be mixed with other avian species in exhibits, although they may be destructive in smaller planted aviaries. May be housed with other non-aggressive passerines in mixed species aviaries and walk-through exhibits. Not suggested for interactive aviaries due to their small size. Single sex flocks may be considered for institutional population management.

Husbandry: Often fed seed-based diets but pelleted parrot diets may be used to provide more balanced nutrition. Will also accept fruits, vegetables and greens. If in proper health and condition, the species can be maintained at temperatures from 50°-100°F/10°-38°C with appropriate shelter. When temperatures are consistently below 50°F/10°C this small species must be moved or sequestered in temperature-controlled accommodations. As with all social parrots, best kept at least in pairs if not larger flocks. Has been housed in breeding groups up to 30 or 40 birds on occasion.



ZSL London Zoo

Grey parrot *Psittacus e. erithacus*



AZA Population: 27.21.7 (55)
Projected Space: 29.14.10 (53)
5-Year Target Population: 75

Distribution: Angola (Angola); Burundi; Cameroon; Central African Republic; Congo; Congo, The Democratic Republic of the; Côte d'Ivoire; Equatorial Guinea; Gabon; Ghana; Kenya; Nigeria; Rwanda; Sao Tomé and Príncipe; Tanzania, United Republic of; Uganda

CITES: I

IUCN Status: Endangered

USFWS: Not Listed

Species Summary: This species has been uplisted to Endangered because the extent of the annual harvest for international trade, in combination with the rate of ongoing habitat loss, means it is now suspected to be undergoing rapid declines over three generations (47 years).



Ashley Arimborgo, Cheyenne Mountain Zoo

Program Purpose: The nominate form will be managed and the *timneh* subspecies will be phased out. If institutions wish to reproduce African grey parrots, we ask that a 'want' be identified prior to the production of a surplus.

Exhibit Qualities: Geographic display value (Africa). This species is commonly acquired or used for education or bird show purposes. The TAG consensus is that although some individuals may do well in these situations, the species overall is not always well suited to these scenarios. Some institutions have expressed interest in flocking this highly social species for exhibit purposes.

Husbandry: Best if housed in pairs or flocks. No unusual dietary or behavioral requirements. It is suggested parrots be offered varied diets - commercially available parrot pellets along with fruits, vegetables, greens, etc. This varies on the holding institution and should be evaluated on a case-by-case basis. If in proper health and condition, the species can be maintained at temperatures from 40°-100°F/4°-38°C with appropriate shelter. Birds may be maintained outdoors for periods from 30°-40°F/-1°-4°C with shelter and supplemental heat if properly conditioned. When temperatures are consistently below freezing birds must have constant access to temperature-controlled accommodations. As with all social parrots, best kept at least in pairs if not larger flocks. These birds need a constant supply of enrichment for mental and physical stimulation, especially to satisfy their need to chew and manipulate with their strong beaks.



TAG Monitored New World Parrots **Blue and yellow macaw *Ara ararauna***

AZA Population: 126.117.22 (265)
Projected Space: 107.106.21 (234)
5-Year Target Population: 250

Distribution: Bolivia, Plurinational States of; Brazil; Colombia; Ecuador; French Guiana; Guyana; Panama; Paraguay; Peru; Suriname; Venezuela

CITES: II

IUCN Status: Least Concern

USFWS: Not Listed

Species Summary: A large South American parrot with blue top parts and yellow under parts. It is a member of the large group of Neotropical parrots known as macaws. It inhabits forest and woodland of tropical South America.



St. Augustine Alligator Farm Zoological Park

Program Purpose: Large macaws are often considered ambassadors for all parrots. They are large, striking and vocal members of the taxon. Candidate for use as a Program Animal species.

Exhibit Qualities: Large macaws have historically held a place in AZA facilities. The TAG would like all AZA facilities to evaluate the practice of exhibiting parrots on perching structures or 'parrot islands'. It has been a common practice to present many species (macaws, cockatoos, etc) by clipping primary feathers and confining them to a few branches. Although it may allow the general public an unobstructed view of the animals, it is not common to display other avian species in this manner. Instead, the TAG would like to promote the beauty of parrots in flight when possible and ask all facilities to evaluate this practice in their own collections.

Husbandry: Best if housed in pairs or flocks. No unusual dietary or behavioral requirements. It is suggested parrots be offered varied diets - commercially available parrot pellets along with fruits, vegetables, greens, etc. This varies on the holding institution and should be evaluated on a case-by-case basis. If in proper health and condition, the species can be maintained at temperatures from 40°-100°F/4°-38°C with appropriate shelter. Birds may be maintained outdoors for periods from 30°-40°F/-1°-4°C with shelter and supplemental heat if properly conditioned. When temperatures are consistently below freezing birds must have constant access to temperature-controlled accommodations. As with all social parrots, best kept at least in pairs if not larger flocks. These birds need a constant supply of enrichment for mental and physical stimulation especially to satisfy their need to chew and manipulate with their strong beaks.

Military macaw *Ara militaris*

AZA Population: 48.59.8 (115)
Projected Space: 45.54.9 (108)
5-Year Target Population: 115

Distribution: Argentina; Bolivia, Plurinational States of; Colombia; Ecuador; Mexico; Peru; Venezuela

CITES: I

IUCN Status: Vulnerable

USFWS: Not Listed

Species Summary: Though considered vulnerable as a wild species, it is still commonly found in the pet trade industry. A predominantly green bird, it is found in the forests of Mexico and South America.

Program Purpose: Large macaws are often considered ambassadors for all parrots. They are large, striking and vocal members of the taxon.

Exhibit Qualities: Large macaws have historically held a place in AZA facilities. The TAG would like all AZA facilities to evaluate the practice of exhibiting parrots on perching structures or 'parrot islands'. It has been a common practice to present many species (macaws, cockatoos, etc.) by clipping primary feathers and confining them to a few branches. Although it may allow the general public an unobstructed view of the animals, it is not common to display other avian species in this manner. Instead, the TAG would like to promote the beauty of parrots in flight when possible and ask all facilities to evaluate this practice in their own collections.

Husbandry: Best if housed in pairs or flocks. No unusual dietary or behavioral requirements. It is suggested parrots be offered varied diets - commercially available parrot pellets along with fruits, vegetables, greens, etc. This varies on the holding institution and should be evaluated on a case-by-case basis. If in proper health and condition, the species can be maintained at temperatures from 40°-100°F/4°-38°C with appropriate shelter. Birds may be maintained outdoors for periods from 30°-40°F/-1°-4°C with shelter and supplemental heat if properly conditioned. When temperatures are consistently below freezing birds must have constant access to temperature-controlled accommodations. As with all social parrots, best kept at least in pairs if not larger flocks. These birds need a constant supply of enrichment for mental and physical stimulation especially to satisfy their need to chew and manipulate with their strong beaks.



Oakland Zoo



Eliot Malumuth, Smithsonian's National Zoo



Scarlet macaw *Ara macao*

AZA Population: 86.77.13 (176)

Projected Space: 80.68.15 (163)

5-Year Target Population: 175

Distribution: Belize; Bolivia, Plurinational States of; Brazil; Colombia; Costa Rica; Ecuador; French Guiana; Guatemala; Guyana; Honduras; Mexico; Nicaragua; Panama; Peru; Suriname; Trinidad and Tobago; Venezuela

CITES: I

IUCN Status: Least Concern

USFWS: Not Listed

Species Summary: A large, red, yellow and blue South American parrot, it is native to humid evergreen forests of tropical South America. It has suffered from local extinction through habitat destruction and capture for the parrot trade, but regionally it remains fairly common. It is the national bird of Honduras.

Program Purpose: Large macaws are often considered ambassadors for all parrots. They are large, striking and vocal members of the taxon.

Exhibit Qualities: Large macaws have historically held a place in AZA facilities. The TAG would like all AZA facilities to evaluate the practice of exhibiting parrots on perching structures or 'parrot islands'. It has been a common practice to present many species (macaws, cockatoos, etc.) by clipping primary feathers and confining them to a few branches. Although it may allow the general public an unobstructed view of the animals, it is not common to display other avian species in this manner. Instead, the TAG would like to promote the beauty of parrots in flight when possible and ask all facilities to evaluate this practice in their own collections.

Husbandry: Best if housed in pairs or flocks. No unusual dietary or behavioral requirements. It is suggested parrots be offered varied diets - commercially available parrot pellets along with fruits, vegetables, greens, etc. This varies on the holding institution and should be evaluated on a case-by-case basis. If in proper health and condition, the species can be maintained at temperatures from 40°-100°F/4°-38°C with appropriate shelter. Birds may be maintained outdoors for periods from 30°-40°F/-1°-4°C with shelter and supplemental heat if properly conditioned. When temperatures are consistently below freezing birds must have constant access to temperature-controlled accommodations. As with all social parrots, best kept at least in pairs if not larger flocks. These birds need a constant supply of enrichment for mental and physical stimulation especially to satisfy their need to chew and manipulate with their strong beaks.



Indianapolis Zoo



Red and green macaw *Ara chloropterus*

AZA Population: 79.68.10 (157)

Projected Space: 73.62.13 (148)

5-Year Target Population: 150

Distribution: Argentina; Bolivia, Plurinational States of; Brazil; Colombia; Ecuador; French Guiana; Guyana; Panama; Paraguay; Peru; Suriname; Venezuela

CITES: II

IUCN Status: Least Concern

USFWS: Not Listed

Species Summary: A large mostly-red macaw -the largest of the *Ara* genus - widespread in the forests and woodlands of northern and central South America. However, in common with other macaws, in recent years there has been a marked decline in its numbers due to habitat loss and illegal capture for the parrot trade.



St. Augustine Alligator Farm Zoological Park

Program Purpose: Large macaws are often considered ambassadors for all parrots. They are large, striking and vocal members of the taxon.

Exhibit Qualities: Large macaws have historically held a place in AZA facilities. The TAG would like all AZA facilities to evaluate the practice of exhibiting parrots on perching structures or 'parrot islands'. It has been a common practice to present many species (macaws, cockatoos, etc) by clipping primary feathers and confining them to a few branches. Although it may allow the general public an unobstructed view of the animals, it is not common to display other avian species in this manner. Instead, the TAG would like to promote the beauty of parrots in flight when possible and ask all facilities to evaluate this practice in their own collections.

Husbandry: Best if housed in pairs or flocks. No unusual dietary or behavioral requirements. It is suggested parrots be offered varied diets - commercially available parrot pellets along with fruits, vegetables, greens, etc. This varies on the holding institution and should be evaluated on a case-by-case basis. If in proper health and condition, the species can be maintained at temperatures from 40°-100°F/4°-38°C with appropriate shelter. Birds may be maintained outdoors for periods from 30°-40°F/-1°-4°C with shelter and supplemental heat if properly conditioned. When temperatures are consistently below freezing birds must have constant access to temperature-controlled accommodations. As with all social parrots, best kept at least in pairs if not larger flocks. These birds need a constant supply of enrichment for mental and physical stimulation especially to satisfy their need to chew and manipulate with their strong beaks.

Sun parakeet (conure) *Aratinga solstitialis*

AZA Population: 82.45.13 (140)
Projected Space: 67.39.21 (127)
5-Year Target Population: 150

Distribution: Brazil; Guyana

CITES: II

IUCN Status: Endangered

USFWS: Not Listed

Species Summary: This species has recently been listed as Endangered due to rapid reduction in wild populations during the last three decades. Although considered common in the past, trapping for the cage bird trade extirpated it from much of its former range and now is in urgent need of effective in situ protection.

Program Purpose: This species is suggested due to display value through flocking behavior. Candidate for use in animal programs and interactive aviaries.

Exhibit Qualities: The TAG feels that there is a positive place in interactive aviaries for this species. While it may not be a candidate for interactions directly with guests, it mixes well with other parrots of similar size and can offer diversity in an aviary. It can be housed with many other species and has done well in mixed species aviaries and walk-through exhibits. Candidate for use as a Program Animal species.



Husbandry: Best if housed in pairs or flocks. No unusual dietary or behavioral requirements. It is suggested parrots be offered varied diets - commercially available parrot pellets along with fruits, vegetables, greens, etc. This varies on the holding institution and should be evaluated on a case-by-case basis. If in proper health and condition, the species can be maintained at temperatures from 40°-100°F/4°-38°C with appropriate shelter. Birds may be maintained for short periods from 35°-40°F/2°-4°C with shelter and supplemental heat if properly conditioned. When temperatures are consistently at freezing birds must be moved or sequestered in temperature-controlled accommodations. As with all social parrots, best kept at least in pairs if not larger flocks.



Jamis Huss, Washington Park Zoo



TripAdvisor, Tracy Aviary



Yellow-headed amazon *Amazona oratrix*

(*A.o.oratrix*; *A.o.tresmarie*)

AZA Population: 16.17.3 (36)

Projected Space: 13.18.4 (35)

5-Year Target Population: 50

Distribution: Belize; Guatemala; Mexico

CITES: I

IUCN Status: Endangered

USFWS: Not Listed

Species Summary: An endangered amazon parrot of Mexico and northern Central America, it is a stocky short-tailed green parrot with a yellow head. It prefers to live in mangrove forests or forests near rivers or other bodies of water.



St. Augustine Alligator Farm Zoological Park

Program Purpose: Display value. The species' population is estimated to be in very rapid decline, owing to habitat loss and degradation and levels of trapping and persecution. Institutions should use best available information to pair birds of known subspecies whenever possible.

Exhibit Qualities: Due to a bold and inquisitive nature, amazon parrots are often found in aviaries not accessible to guests or in larger walk-through areas that do not encourage direct interaction. As a result these birds need a constant supply of enrichment for mental and physical stimulation especially to satisfy their need to chew and manipulate with their strong beaks.

Husbandry: Best if housed in pairs. Amazon parrots in general may exhibit aggression toward other parrot species. While they are often housed with other parrots without issue, introductions and periods of aggression should be observed carefully to ensure permanent injuries do not occur. No unusual dietary or behavioral requirements. It is suggested parrots be offered varied diets - commercially available parrot pellets along with fruits, vegetables, greens, etc. As with many amazon parrots, dietary levels of fat should be monitored to prevent obesity and lipomas (fatty tumors). This varies on the holding institution and should be evaluated on a case-by-case basis. If in proper health and condition, the species can be maintained at temperatures from 40°-100°F/4°-38°C with appropriate shelter. Birds may be maintained for short periods from 35°-40°F/2°-4°C with shelter and supplemental heat if properly conditioned. When temperatures are consistently at freezing birds must be moved or sequestered in temperature-controlled accommodations. As with all social parrots, best kept at least in pairs if not larger flocks.

Other Notes: Using an updated taxonomic reference:

del Hoyo, J.; Collar, N. J.; Christie, D. A.; Elliott, A.; Fishpool, L. D. C. 2014. *HBW and BirdLife International Illustrated Checklist of the Birds of the World*. Barcelona, Spain and Cambridge UK: Lynx Edicions and BirdLife International.

Yellow-headed amazons are now considered a full species with several subspecies identified.

Conservation Projects/Programs

Conservation is a priority for all AZA-accredited zoos, aquariums and related facilities and a key part of their missions. Every year, AZA-accredited zoos and aquariums spend over \$220 million on field conservation alone, supporting more than 2,600 projects in 130 countries. To date, the AZA Conservation Grants Fund has provided \$7.7 million in support for 400+ projects worldwide.

This a tremendous amount of economic support that can benefit parrot conservation and wildlife conservation in general. The Parrot TAG has chosen to identify and evaluate opportunities for AZA institutions to support conservation (in situ, research, etc.) rather than directly managing TAG coordinated programs. Projects and programs are evaluated by the Conservation Projects/Programs Subcommittee before being reviewed by the TAG Steering Committee.

For a project/program to be considered by the TAG, it must support the mission, objectives and strategies of the Parrot TAG. Any individual or organization may request listing a project/program for support by providing the following information to the Conservation Subcommittee:

Title of the project/program
Organization(s)/Individual(s) overseeing the project/program
Overview
Goals
Duration
Partners/references

Those projects/programs approved by the Parrot TAG will be added to the current RCP document for posting on the AZA website. In addition, new projects may be distributed through the AZA Network and other associated websites. Social media posts may also be appropriate in many cases. The goals of any distribution will be for individuals and organizations to value such vetted projects/programs and provide other support (resources such as money, staffing, media, etc.). Updates to existing projects/programs may be distributed through the aforementioned platforms at any point also.

Project Title: Nido Adoptivo Blue-throated macaw nest box project (Bolivia)

Implemented in 2007 with the installation and monitoring of 20 nest boxes, the Nido Adoptivo nest adoption program was developed to increase the nesting success rate of the critically endangered Blue-throated macaw in Bolivia. Suitable nest cavities are scarce and they are outnumbered by their primary nest competitor, the Blue & Gold macaw.

Per the Asociación Armonía Update of June 2019:

“Asociación Armonía created a second Blue-throated Macaw Reserve in August 2018, the Laney Rickman Reserve (681ha/1.683ac). This reserve is protecting vital breeding habitat in the Southern subpopulation. The 2018-2019 breeding season was highlighted with the highest ever reproduction result since Armonía started the nest box program. A total of 9 nest boxes were used and 12 Blue-throated Macaw chicks fledged into the wild population. Through Armonía’s 14-year nest box program, 81 Blue-throated Macaw chicks successfully fledged into the wild.

During the 2018/19 nesting season, a total of 5 breeding birds were confirmed to be ringed individuals, fledged from Armonía’s nest boxes in previous years, returning to breed. These are important indicators of increasing population recruitment where fledged birds survive and reproduce, showing the successfulness of this program. The first ringed individuals used our nest boxes in 2015. A total of 20 nest boxes (33% occupancy rate) were used by 6 different birds species (table 1 & annex 1): Blue-throated Macaws (9); Blue-and-Yellow Macaw (3); Chestnut-fronted Macaw (2); White-eyed Parakeet (1); Black-bellied Whistling Duck (6); and an unidentified Woodpecker (1).

Of the 9 occupied nest boxes by Blue-throated Macaws, 8 were located in the Laney Rickman Reserve (fig. 6) and 1 in the La Cantina ranch. A total of 25 eggs were produced, 15 chicks hatched, of which 12 chicks successfully fledged. A total of 5 breeding individuals were ringed, fledged from Armonía’s nest boxes in previous years. Three of the 9 occupied Blue-throated Macaw nest boxes have been used by Blue-throated Macaws in previous years, indicating favorable breeding conditions.”

For more information, please visit: www.birdendowment.org



Project Title: Scarlet Macaw Population Recovery in Maya Biosphere Reserve (Guatemala)

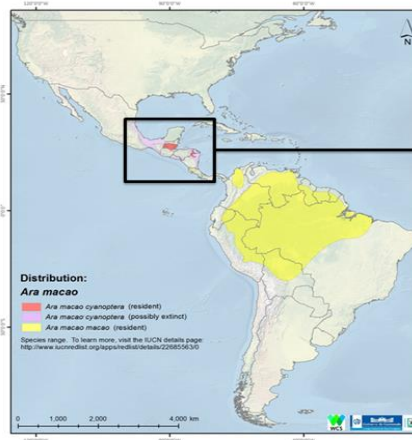


For more than two decades, the Wildlife Conservation Society (WCS) - Guatemala Program has working to ensure the survival of Guatemala's extremely threatened scarlet macaw population (*Ara macao cyanoptera*). Current estimates suggest as few as 300 individuals remain in the country, with 250 of those living in the Maya Biosphere Reserve (MBR), the largest protected area complex in Central America.



WCS Guatemala has developed a robust scarlet macaw recovery program to help bring this iconic species back, including through nest protection programs, monitoring macaw fledging rates at key nesting sites, raising awareness through environmental education involving local communities, and habitat protection initiatives including over flights. A victim of the national and international pet trade and habitat loss from illegal deforestation, macaw recovery and protection must be approached in multi-faceted way.

Currently, we are working to accelerate the pace of recovery of the wild scarlet macaw population. For example, after identifying and monitoring nesting sites each year, WCS scientists hand rear third and fourth chicks from many nests—chicks which otherwise have a 99% mortality rate when left in the wild as their siblings receive much needed attention and nourishment from macaw parents instead.



Conservation Projects/Programs



Once strong enough, chicks are either released back into foster nests or moved to a macaw facility for further health evaluations as they continue to mature. Some macaw chicks are eventually released back into the wild of the

MBR with satellite tags, helping WCS scientists identify annual spatial movements and activity routes while also correlating this data with feeding patterns, tree phenology and potential nesting patterns for the following year.

Scarlet macaws in the MBR are, however, studied and protected beyond fledgling incubation and satellite tagging and monitoring. WCS scientists also administer Africanized bee treatments in nesting cavities, install and monitor video surveillance systems inside and outside of nests, engage in falcon poaching and double-chamber nest testing, provide periodic health evaluations, and reduce the frequency of macaw poaching in the MBR with Spatial Monitoring and Reporting (SMART) patrols to combat poaching and habitat destruction.

As WCS Guatemala continues to develop the scarlet macaw program, we seek to update and improve management protocols designed to increase the recruitment of scarlet macaws in Guatemala, while also improving existing macaw facilities at our field site in Laguna del Tigre National Park. Direct investment in our macaw flight cages, laboratory equipment, and other health management essentials such as macaw medicine and food, will enable us to improve our macaw conservation impact on the ground.

To promote the efforts of our conservation partners, we maintain diverse social media platforms and have good relationships with a variety of local Guatemalan, US-based and international media outlets. Materials are periodically shared on our webpage <http://www.wcsguatemala.org> and wcs.org, Facebook <https://www.facebook.com/TheWCS/>, Twitter <https://twitter.com/thewcs>, Instagram <https://www.instagram.com/thewcs/>, and YouTube <https://www.youtube.com/user/WCSMedia> and reach hundreds of thousands of followers worldwide.

Contact:

Alexa Montefiore
WCS Americas Program Manager
amontefiore@wcs.org



Program Title: Kea Conservation Trust (New Zealand)



The Kea Conservation Trust was established in 2006 to assist in conservation of wild Kea (*Nestor notabilis*) in their natural habitat and to increase the husbandry standards and advocacy potential of those Kea held in facilities within New Zealand. The Kea Conservation Trust was registered as a charitable entity under the Charities Act 2005 (registration number CC29701).

The Kea Conservation Trust aims to assist in conservation of wild Kea in their natural habitat through;

- establishing positive working relationships with associated conservation groups/individuals;
- raising of funds to allow research on Kea issues;
- provision of an easily accessible information resource on Kea.

The Kea Conservation Trust also aims to increase the husbandry standards and advocacy potential of those Kea held in facilities within New Zealand through;

- provision of information on best practice management;
- raising of funds to conduct research into advocacy strategies, optimum enclosure design, and how best to maintain the physical/psychological health of managed kea;
- provision of a support network for all Kea holders.

Ongoing community outreach and conservation programs include annual wild population surveys, nest monitoring and predator control in nest areas, community-kea conflict resolution (kea often damage human property), Bird repellent trials for sheep to prevent kea-strike and for inanimate objects which can harm kea (lead, power lines, etc), Banding projects, and Education/Advocacy tours, and more.

For more information visit <http://www.keaconservation.co.nz/projects-research/>.

Goals are summarized in a Strategic Plan for Kea Conservation:
(<http://www.keaconservation.co.nz/projects/strategic-plan-kea-conservation/>).



Animal Programs Summary Table

* Population trends were identified from the demography section of the Breeding and Transfer Plans.

Common Name (<i>Genus species</i>)	Date of Last PVA/ Breeding and Transfer Plan	Current Population Size (N)	Current Number of Participating Institutions	Retained %GD at 100 years or 10 generations)	Animal Program Designation	5-year Target Population Size	Space Needed (target population size - current space)	Recent 5 Year Population Trend (increasing, decreasing, or stable) *	CITES IUCN USFWS
Thick-billed parrot (<i>Rhynchopsitta pachyrhyncha</i>)	13 May 2019	62	11	0%	Yellow SSP	100	100-72=28	Decreasing	Appendix I Endangered Endangered
Hyacinth macaw (<i>Anodorhynchus hyacinthinus</i>)	8 May 2019	141	72	81.9%	Yellow SSP	150	150-141=9	Stable	Appendix I Endangered Not Listed
Blue-throated macaw (<i>Ara glaucogularis</i>)	23 Aug 2018	109	17	79.3%	Yellow SSP	125	125-109= 16	increasing	Appendix I Critically Endangered Endangered
Golden conure (<i>Guarouba Aratinga guarouba</i>)	18 Oct 2018	61	16	65.1	Yellow SSP	100	100-61=39	Stable	Appendix I Vulnerable Endangered

Common Name (<i>Genus species</i>)	Date of Last PVA/ Breeding and Transfer Plan	Current Population Size (N)	Current Number of Participating Institutions	Retained %GD at 100 years or 10 generations)	Animal Program Designation	5-year Target Population Size	Space Needed (target population size - current space)	Recent 5 Year Population Trend (increasing, decreasing, or stable) *	CITES IUCN USFWS
Red-fronted macaw (<i>Ara rubrogenys</i>)	8 Jan 2016	68	20	62.5	Yellow SSP	50	50-68= (18)	decreasing	Appendix I Critically Endangered Not Listed
Hawk-headed parrot (<i>Deropterus accipitrinus</i>)	March 2018	35	13	59.5%	Red SSP	50	50-35=15	Stable	Appendix II Least Concern Not Listed
Palm cockatoo (<i>Probosciger aterrimus</i>)	26 March 2019	66	14	82%	Yellow SSP	75	75-66=9	Stable	Appendix I Least Concern Not Listed
Kea (<i>Nestor notabilis</i>)	20 May 2019	35	12	64%	Red SSP	50	50-35=15	Stable	Appendix II Endangered Not Listed

History/RCP Planning Process

In accordance with WCMC guidelines, the Parrot TAG reorganized in 1999. A new roster of Institutional Representatives (IR) was generated, and Steering Committee and officer elections held. The IR roster was updated again in early 2002 – with new officers elected. In 2003 and 2004, the IR list was continually updated. The members on the Steering Committee have changed but formal elections have typically been unnecessary. The number of IRs interested in serving on the Committee has not exceeded the number of open positions.

1st Edition Regional Collection Plan - 2002-2005

The first Regional Collection Plan (RCP), originally crafted in 1997 and modified at subsequent meetings, was returned unapproved by WCMC with comments and direction for improvements.

Space:

In the first edition of the Collection Plan, 6716 parrots were identified in participating North American institutions using a combination of ISIS data and a space survey compiled during 1998-1999.

Target Population Sizes:

Members of the Parrot TAG Steering Committee met to revisit the entire collection planning process, first at the 2000 Regional Workshop in Toledo, OH and again at the 2001 Regional Workshop in Chattanooga, TN. Final revisions were completed during the 2002 Regional Workshop in Tucson, AZ. The selection criteria process was reviewed and standardized (see Program Qualifications, below), and a systematic review of all parrot species conducted (see Complete Species Accounts). After initial review, this document was made available for all IRs for a 30-day comment period. In addition, it was given to the Population Management Center at Lincoln Park Zoo to assist in analysis of target populations. A meeting was held in late August 2002 to finalize the target population options available for varying management scenarios. This collection plan was eventually approved by WCMC.



Steve Martin, Natural Encounters

2nd Edition Regional Collection Plan – 2006-2009

In 2005, an RCP meeting was held at the AZA Central Regional Workshop in Kansas City, MO. The TAG undertook a complete review of the content. A revised draft was prepared for initial review by the steering committee and later by TAG IRs. The Population Management Center (PMC) at Lincoln Park Zoo reviewed the existing and proposed programs in September 2005. The draft was then posted for 30-day comment period on the AZA website for all Institutional Representatives to the TAG as well as other interested parties.

This collection plan was approved by WCMC on 18 September 2006.

Space:

For the second edition, information for all species was updated again using ISIS data current through January 2005. The total of 6837 parrots shows a slight increase of 121 individual birds.

During the planning phase of the 2nd Collection Plan, the steering committee agreed that a formal space survey of participating institutions would not yield enough new and concrete information from the previous survey. This decision was in accordance with the TAG RCP guidelines at the time to “compile a reasonably accurate estimate of space in our facilities that is or may be available to TAG species”.

One of the difficulties when addressing space for psittaciformes is the continued increase in interactive aviaries. These spaces are designed to house 50-100 individuals in some instances. One particular aviary appears to have a carrying capacity of 1000 budgerigars. The TAG has found it difficult to successfully identify these proposed aviaries. Many institutions have begun planning for such exhibits only to abandon the idea due to a myriad of issues (budgetary, staffing, change in institutional focus, etc.).

Although these flocking opportunities do not appear to compete directly with space for larger psittaciformes, there may be a perceived ‘quota’ in a collection. More directly, if a flock of lorries/lorikeets is housed at a facility it may be seen as a fair representation of psittaciformes in their collection. As a result, the TAG wishes to encourage the continued creation and designation of spaces in addition to these aviaries to house breeding pairs or groups of other species.

Target Population Sizes:

Prior to the formal planning meeting in early 2005, emails were sent to IRs through the Parrot TAG listserv. All IRs were encouraged to attend the planning meeting as well as polled about significant changes in their psittacine collections. It was believed that the IRs would be able to offer the best information to trends or changes since their participation on the TAG already showed an interest. However, additional email requests were also sent to the Avian Scientific Advisory Group listserv that reaches a much larger audience than the specific TAG lists. Although responses to these and subsequent inquiries were limited, the information received showed little change in carrying capacity. During the meetings, steering committee members talked one on one to institutions identified as holding large collections of psittacines or having had prior experience with the groups. Yet again, it was shown that existing collections were not reducing their holding spaces for parrots but also not creating new ones either.

Comparing the first and second edition shows that species designated as ‘Phase out’ did decline in many instances. Recommended species, for the most part, showed room to grow to target population sizes. The TAG remains confident that space and continued interest will exist for the species recommended in this edition of the plan. In the interim, the TAG will continue to communicate with facilities in assessing their level of interest and support for the recommendations described here. The third edition of the Collection Plan will involve a full review of space via a formal space survey polling all institutions.

RCP History

Data for the second edition was reviewed at the PMC in September 2005.

Cockatoos	720
Lories/Lorikeets	1760
Pacific Parrots	1283
African/Asian Parrots	811
New World Parrots	<u>2263</u>
Total existing spaces:	6837

A total of 7180 spaces were needed to reach TAG recommendations. The TAG allowed the recommended DERP population for Budgerigars to almost double (from 880 to 1500) due to the opening of new interactive avian exhibits housing this species in large numbers. Since these birds are not appearing to compete for space that would house other designated psittaciformes, the existing spaces (6837) will serve the TAG's remaining space. Through phasing out of some species and augmentation of others, it is believed the overall space and numbers will remain balanced.

2 SSPs

6 PMPs

45 DERPs

107 species/subspecies currently being held are recommended for 'Phase out'.

None were recommended for 'Phase in' at this time.

3rd Edition Regional Collection Plan – 2010-2015

In December 2008, a space survey was circulated electronically to Institutional Representatives of the Parrot TAG and Institutional Liaisons of all accredited facilities. A full day meeting was held on 22 March 2009 at the AZA Mid-Year Meeting in Oklahoma City, OK. This allowed the steering committee, program leaders, IRs and interested parties to weigh in on all decisions related to the RCP update. A draft of the RCP was sent to Steering Committee members, program leaders and species champions on 1 June 2009 for review.

A draft of the RCP document was sent to all IRs on November 1, 2009 as well as being posted on the AZA’s website for a 30-day comment period. The final document was submitted to WCMC electronically on 16 December 2009.

The final document was approved by WCMC at the AZA Mid-Year Meeting in Virginia Beach, VA on 1 March 2010. Minor changes were made to further clarify some sections. Most significant was the approval of a five-year planning cycle instead of the previous three-year cycle. This was due to two previously accepted plans and the approval of WCMC.

Space:

In December 2008, a space survey was circulated electronically to 145 Institutional Representatives of the Parrot TAG and Institutional Liaisons of all accredited facilities.

Surveys Returned:

191 from 238 AZA accredited and certified related facilities – 80% return

121 from 142 facilities with TAG Institutional Representatives – 85% return

The TAG felt that the responding institutions provided the vast majority of data on current and future space for psittaciformes.

Target Population Sizes:

Taxonomic Group	AZA Population from ISIS data	Projected Spaces from 2009 Space Survey	Spaces suggested after RCP process
Cockatoos	448	406	375
Cockatiels	327	496	400
Lories/Lorikeets	556	675	700
‘Rainbow’ lories	1466	1610	1400
Pacific Parrots	411	533	525
Budgerigars	3939	5533	5000
African/Asian Parrots	659	641	625
New World Parrots	2092	1858	1850
	Total: 9898	Total: 11,752	Total: 10,875



Roland Seitre, Nature Picture Library

After a full-day meeting at the AZA Mid-Year Meeting in Oklahoma City, OK in March 2009, and further discussion within the TAG, the program recommendations were made. These included:

2 SSPs

7 PMPs

41 DERPs

103 species/subspecies currently being held are recommended for 'Phase out'.

(Of note, 77 of the 103 species have less than ten individuals in the AZA population.)

None were recommended for 'Phase in' at this time.

Finally, a target population size was assigned to each program. For existing programs, the population size was based on the studbook keeper's or coordinator's recommendations to effectively manage the program under the guidance of the TAG steering committee and the Population Management Center (PMC) at Lincoln Park Zoo. The PMC has used both studbook data from established programs as well as ISIS data to extrapolate target population sizes for taxonomically similar species (e.g. Thick-billed parrot, Hawk-headed parrot). For the other species, it is based on existing population size, number of comparable specimens being phased out, and professional input. As mentioned in the Management Options section, many of the DERP category population sizes were assigned to meet the display, educational, show, and donation needs unique to parrots.

4th Edition Regional Collection Plan – 2015-2020

In January 2014, a space survey was circulated electronically to Institutional Representatives of the Parrot TAG and Institutional Liaisons of all accredited facilities. A full day meeting was held on 28 March 2014 at the AZA Mid-Year Meeting in Memphis, TN. This allowed the steering committee, program leaders, IRs and interested parties to weigh in on all decisions related to the RCP document. The document was posted on the AZA website for the 30-day IR comment period on 1 December 2014. It was submitted to WCMC electronically on 19 January 2015.

The final document was approved by WCMC at the AZA Mid-Year Meeting in Columbia, SC on 26 March 2015. Minor changes were made to further clarify some sections.

Surveys Returned: 184 from 214 AZA accredited and certified related facilities – 86% return
122 from 138 facilities with TAG Institutional Representatives – 88% return

The TAG felt that the responding institutions provided the vast majority of data on current and future space for psittaciformes.

Taxonomic Group	2014 AZA Populations	Projected Spaces from 2014 Space Survey	Spaces needed after RCP process
Cockatoos	352	347	325
Cockatiels	799	881	800
Lories/Lorikeets	297	270	325
‘Rainbow’ lories	1395	1682	1400
Pacific Parrots	301	334	425
Budgerigars	6759	6002	6000
African/Asian Parrots	533	433	575
New World Parrots	2138	1711	1810
	Total: 12,574	Total: 11,660	Total: 11,660

After a full-day meeting at the AZA Mid-Year Meeting in Memphis, TN in March 2014, and further discussion within the TAG, the program recommendations were made. These included:

8 SSPs
1 Candidate Program
33 TAG Monitored Species

109 species/subspecies currently being held are recommended for ‘Phase out’.

(Of note, 75 of the 109 species have less than ten individuals each in the AZA population.)

None were recommended for ‘Phase in’ at this time.

5th Edition Regional Collection Plan – 2020-2025

In February 2019 a space survey was circulated electronically (using the SurveyMonkey platform) to Institutional Representatives of the Parrot TAG and Institutional Liaisons of all accredited facilities. A half-day in-person meeting was held on 18 March 2019 at the AZA Mid-Year Meeting in Phoenix, AZ. This allowed the steering committee, program leaders, IRs and interested parties to weigh in on all decisions related to the RCP document. The document was posted on the AZA website for the 30-day IR comment period on 2 December 2019. It was submitted to the APM Committee electronically for review on 20 January 2020. The RCP was approved by the APM Committee on 27 March 2020 upon the completion of required edits.

Surveys Returned: 205 from 253 AZA accredited and certified related facilities – 81% return
 121 from 133 facilities with TAG Institutional Representatives – 91% return

A Note about the 2019 Parrot Space Survey

The purpose of the survey was to collect information on the current institutional holdings for each species and a five-year plan for each species so that trends in wants and needs could be determined. In order to determine the likelihood of population increases via managed programs, the Parrot TAG Steering Committee also elected to add a question asking the primary role of the species in the collection using a drop-down menu with the following response options:

Primary Role of Species in Collection
Breeding
Exhibit
Flighted Ambassador
Non-Flighted Ambassador
Holding (SSP/TAG request)
Interactive Aviary
Attempting to Phase Out



Jurong Bird Park

After the survey was distributed it was determined that wording in the instructions may be unclear, causing survey responses for the five-year projection to vary: some institutions reported total numbers of birds they wanted to have in five years and some reported only the birds they wanted to add to their collections in five years. This caused an identified drop in the number of spaces reported to be available in the next five years for some species. To address this concern, each survey was reviewed to determine whether the five-year plan response appeared to match the primary role in collection listed for each species (e.g. 2.2 listed for the current collection, 0 listed for five-year plan, and Breeding as the primary role). It was determined that 56 of the 205 surveys appeared to have this response. 34 of those collections had more than 10 individual parrots in their overall collection so these were targeted for adjustment, as they would have the biggest impact on the survey results. 8 institutions (24% of those identified) were contacted to confirm that the corrections were reflective of their true five-year plan for parrots. After these spot checks were completed and it was confirmed that this trend in survey responses was indeed not reflective of available space in five years, the remaining 26 of the 34 surveys were adjusted without verification from the institutions due to time constraints.

RCP History

The following conventions were put in place:

- If an facility reported a current parrot collection of >10 individuals with any role other than “Attempting to Phase Out” listed for each species but did not list a future collection it was assumed that their collection in five years would remain approximately the same as the current collection.
- In cases where a facility listed some additions to the five year plan and it seemed these would be logical additions to the collection (i.e. 1.0 in current collection and 0.1 in future collection with “Breeding” as the primary role), the current collection was added to the five year plan.
- If a clear trend was not obvious from a survey, the respondent was emailed to confirm the five-year plan.

The distributed survey only allowed responses with numbers up to 99 individuals with a final option of >99. Emails were sent to respondents in cases where >99 was the response so that a complete count could be determined for those species. However, only some of these institutions replied with updated numbers, so the remaining unconfirmed institutions numbers for >99 were listed as 100. Therefore, counts of space for Budgerigars and Cockatiels (the only species with >99 listed) are lower than actual available space. This has not been deemed a concern for overall parrot numbers however since they are calculated separately for current space and projected numbers (i.e. it is never assumed that 100 projected spaces for budgerigars may be reallocated for macaws).

Information for individual species was managed as described below:

AZA Managed Population: Information taken from Space Survey unless otherwise noted to have come directly from a studbook database

Projected Space: Information taken from Space Survey

5-Year Target Population: Information from Space Survey and Breeding & Transfer Plan analysis

15-Year Target Population: In some cases, it was advantageous to show the population would be encouraged to exceed the 5-year target from information gathered

Target Population Size – The desired number of SSP animals to be held across AZA and approved partner facilities over a specific, stated timeframe. This number is determined with consideration for program roles and goals (genetic, demographic, and others), logistical constraints, spatial competition with other TAG-managed species, and other population-specific concerns. Target Population Size is determined by the Taxon Advisory Group (TAG) and published in their Regional Collection Plan (RCP).

Moving the overall populations toward recommended species and target sizes can be difficult to accurately address. This must consider variables such as their potentially long lifespan, phasing out species mainly through attrition and the reduction in AZA facilities willing to provide dedicated breeding opportunities to parrot species.



Jennifer Gainer, Cincinnati Zoo

RCP History

Target Population Sizes:

Taxonomic Group	2019 AZA Populations from ZIMS Data	2019 AZA Populations from Space Survey	Projected Spaces from 2025 Space Survey	Spaces needed after RCP process
Cockatoos	256	212	224	150
Cockatiels	435	379	592	600
Lories/Lorikeets	645	468	261	125
‘Rainbow’ lories (<i>haematodus</i>)	558	621	1004	650
Pacific Parrots	178	165	357	300
Budgerigars	6958	2964	3395	3500
African/Asian Parrots	414	217	355	250
New World Parrots	2120	1584	1612	1365
	Total: 11564	Total: 6610	Total: 7800	Total: 6940

After the half-day meeting at the AZA Mid-Year Meeting in Phoenix, AZ in March 2019, and further discussion within the TAG, the program recommendations were made.

The Steering Committee voted to approve the following:

8 SSPs

19 TAG Monitored Species

112 species/subspecies currently being held are recommended for ‘Phase out’.

(Of note, 72 of these 112 species have less than ten individuals each in the AZA population.)

None were recommended for ‘Phase in’ at this time.

The TAG has always worked to offer Target Population Sizes for all species recognized for Animal Program Status AND as TAG Monitored. This allows facilities to understand if there is a need to increase, decrease or hold a population stable. For example, if a TAG Monitored species is shown to have 50 individuals but the RCP recommends a Target Population Size of 100, it is encouraging facilities to add this species or look into breeding individuals they may already have. This is done through a combination of information from the space survey and the expertise of the Steering Committee to understand the current and potential trends in zoos and aquariums.

Management Updates Table

Common Name (Genus species)	Date Animal Program Initiated	RCP 2002-2005 Designation	RCP 2006-2009 Designation	RCP 2010 - 2015 Designation	RCP 2015 - 2020 Designation	RCP 2020 - 2025 Designation	SSP Coordinator/ Studbook Keeper/ Candidate Program Leader/ Species Champion
Thick-billed parrot (<i>Rhynchopsitta pachyrhyncha</i>)	31 Dec 1985	SSP	SSP	SSP	SSP	SSP	<u>SSP Coordinator/Studbook Keeper:</u> Joe Barkowski Tulsa Zoo (918) 669-6667 jcbksi@aol.com Program Leader since: 16 May 2018
Hyacinth macaw (<i>Anodorhynchus hyacinthinus</i>)	8 July 1988	PMP	PMP	PMP	SSP	SSP	<u>SSP Coordinator/Studbook Keeper:</u> Emily Insalaco Denver Zoo (720) 337-1518 Elnsalaco@denverzoo.org Program Leader since: 5 Aug 2016
Blue-throated macaw (<i>Ara glaucogularis</i>)	18 June 2001	PMP	PMP	PMP	SSP	SSP	<u>SSP Coordinator/Studbook Keeper:</u> Gen Anderson St. Augustine Alligator Farm (904) 824-3337 x116 ganderson@alligatorfarm.com Program Leader since: 4 Mar 2009
Golden conure (<i>Guarouba guarouba</i>)	11 Oct 1982	PMP	PMP	PMP	SSP	SSP	<u>SSP Coordinator/Studbook Keeper:</u> Tara Sprankle Phoenix Zoo (602) 286-3800 tsprankle@phoenixzoo.org Program Leader since: 11 Oct 2018
An international studbook once existed for golden conures and encompassed many of the private facilities in North America as well as the zoo and aquarium community. The studbook was vacant for many years and it was decided in 2003 by the Parrot TAG to begin a new North American Regional studbook using newer data collection and entry guidelines. The database also focuses only on the AZA population for the time being in hopes of first managing toward a formal population management plan.							

Common Name (<i>Genus species</i>)	Date Animal Program Initiated	RCP 2002-2005 Designation	RCP 2006-2009 Designation	RCP 2010 - 2015 Designation	RCP 2015 - 2020 Designation	RCP 2020 - 2025 Designation	SSP Coordinator/ Studbook Keeper/ Candidate Program Leader/ Species Champion
Red-fronted macaw (<i>Ara rubrogenys</i>)	5 Oct 1988	PMP	PMP	PMP	SSP	SSP	<u>SSP Coordinator/Studbook Keeper:</u> Holly Ray Oklahoma City Zoo (405) 425-0239 h-ray@okc-zoo.org Program Leader since: 13 Apr 2018
Hawk-headed Parrot (<i>Deroyptus accipitrinus</i>)	8 Dec 1989	PMP	PMP	PMP	SSP	SSP	<u>SSP Coordinator/Studbook Keeper:</u> Kathy Russell Santa Fe College Teaching Zoo (352) 395 5605 Kathy.Russell@sfccollege.edu Program Leader since: 15 Dec 2009
Palm cockatoo (<i>Probosciger aterrimus</i>)	7 Feb 1985	SSP	SSP	SSP	SSP	SSP	<u>SSP Coordinator/Studbook Keeper:</u> Jessica Theule San Diego Zoo (619) 557 3975 jtheule@sandiegozoo.org Program Leader since: 11 Sept 2011
Kea (<i>Nestor notabilis</i>)	27 Aug 2008	DERP	DERP	PMP	SSP	SSP	<u>SSP Coordinator/Studbook Keeper:</u> Jessica Meehan Denver Zoo (720) 337 1513 JMeehan@denverzoo.org Program Leader since: 12 Jan 2009
			The species was given Animal Program status in the 2010-2015 RCP due to increased reproduction and interest within AZA institutions.				

Common Name (Genus species)	Date Animal Program Initiated	RCP 2002-2005 Designation	RCP 2006-2009 Designation	RCP 2010 - 2015 Designation	RCP 2015 - 2020 Designation	RCP 2020- 2025 Designation	SSP Coordinator/ Studbook Keeper/ Candidate Program Leader/ Species Champion
Lesser sulphur-crested cockatoo (<i>Cacatua sulphurea</i>)	2014	DERP	Phase out	DERP	Candidate Program	Phase out	N/A
		This species has been in severe decline in the wild. An EEP (European Association of Zoo's & Aquariums program similar to our SSP) has been managed for many years. The TAG did identify a Program Leader to investigate the potential this population has in the US and see if it may act as an assurance population if the wild decline continues as predicted. Unfortunately the numbers and interest continued to wane and it was decided to Phase out the species in 2019.					
Sulphur-crested cockatoo (<i>Cacatua galerita</i>)	Unk.	PMP	DERP	Phase out	Phase out	Phase out	N/A
		Decision had been made to focus similar space on Lesser sulphur-crested cockatoos (<i>Cacatua sulphurea</i>). Lessers are critically endangered and managed breeding will probably be necessary in the long-term survival of the species. Unfortunately, the focus on Lessers was not successful either.					
Moluccan cockatoo (<i>Cacatua moluccensis</i>)	Unk.	PMP	DERP	DERP	TAG Monitored	Phase Out	N/A
		The TAG feels that a formal managed program should not be undertaken at this time.					
Cuban amazon (<i>Amazona leucocephala</i>)	1988	PMP	PMP	PMP	Phase out	Phase out	N/A
		The managed population of Cuban Amazon Parrots began as a group of 50 birds seized by the U.S. Department of Interior in 1988. A Consortium agreement was established to manage the collection with the purpose of maintaining a managed population for species preservation. As time went on, less and less interest remained for this species in zoo collections. In 2008 holding facilities were asked to only breed birds if there were known available spaces. In 2012 the TAG recognized the declining interest and population and opted to stop formal management of the population.					

Phasing Out Species/ Replacement Suggestions

In situations where a species is directed to be 'phased out', it is hoped that the opening created in a collection will again be filled by another psittacine species. This RCP groups taxa mainly by geographic region but recommended species may also have additional information on housing or temperament or even cold tolerance. The TAG feels there is no way to cover all possibilities when considering a change in an animal collection. We hope that the information in this document will allow facilities to create a list of options.

As always, we want to encourage institutions to contact any of the TAG Steering Committee members, Program Leaders or Species Champions. Contact information may be found throughout the document. All these individuals would welcome questions and inquiries at any time. If the individual contacted cannot be of assistance, they will be able to identify another TAG resource to provide support.



Animal Program Roles, Goals and Essential Actions Table

Common Name / Scientific Name	Thick-billed parrot (<i>Rhynchopsitta pachyrhyncha</i>)
Animal Program Designation	Yellow SSP
Primary Role	Assurance Population
Goal #1 / Essential Action(s) 2019-2020	Identify Vice-chair who would also be interested in eventually taking on the role of studbook keeper in the future by 1 Jan 2020.
Goal #2 / Essential Action(s) 2019-2020	Update existing handrearing information and distribute electronically to holding facilities by 1 Jan 2020.
Goal #3 / Essential Action(s) 2019-2020	Update species information for Regional Collection Plan by 1 Sept 2019.

Common Name / Scientific Name	Hyacinth macaw (<i>Anodorhynchus hyacinthinus</i>)
Animal Program Designation	Yellow SSP
Primary Role	Education/Exhibit Needs
Goal #1 / Essential Action(s) 2019-2020	Identify interested individual to serve as a vice coordinator for the SSP, who can bring more breeding experience and skill, since this SSP has both breeding challenges and a strong Ambassador component to it. Talk to Parrot TAG spring 2019, bring person on summer 2019, and familiarize with the population.
Goal #2 / Essential Action(s) 2019-2020	With new vice chair, create and distribute survey to institutions to collect information on husbandry and breeding practices. Develop by Sept 2019. Distribute and receive back Oct 2019.
Goal #3 / Essential Action(s) 2019-2020	Use survey information to create a best practices document that covers husbandry topics including housing, diet, and breeding set up. Nov - Dec 2019. Distribute beginning of year 2020. Note: there may be a lot of transfers in 2019 to meet B&T recommendations, so early 2020 will be an ideal time to provide this information to new holders and holders of new pairs.

Common Name / Scientific Name	Blue-throated macaw (<i>Ara glaucogularis</i>)
Animal Program Designation	Yellow SSP
Primary Role	Assurance Population
Goal #1 / Essential Action(s) 2019-2020	Add one more successful breeding pair by 1 June 2020.
Goal #2 / Essential Action(s) 2019-2020	Add one more AZA facility for holding by 1 June 2020.
Goal #3 / Essential Action(s) 2019-2020	Strengthen ties with the private sector by presenting on Blue-throated macaws at the American Federation of Aviculture annual conference in August 2019.

Common Name / Scientific Name	Golden conure (<i>Guarouba guarouba</i>)
Animal Program Designation	Yellow SSP
Primary Role	Assurance Population
Goal #1 / Essential Action(s) 2019-2020	Survey of current diets of institutions holding Golden's. Send emails to all currently participating facilities in the SSP and ask them to provide diet information for their golden conures for eventual comparison by 1 Jan 2020.
Goal #2 / Essential Action(s) 2019-2020	Compare diets to breeding success, looking for common factors in successful production of chicks. Compile diet information received from facilities into a single document/database. Identify similarities and differences and cross reference with breeding successes. Share results electronically with holders and Parrot TAG by 1 June 2020.
Goal #3 / Essential Action(s) 2019-2020	Survey of band size and preferred provider (also what day they are banded if closed bands). Send emails to all currently participating facilities in the SSP and query their practices of close-banding chicks. Ask for all information regarding banding practices, size choices, providers, etc. Compile all responses and share results electronically with holders and Parrot TAG by 1 June 2020.

Common Name / Scientific Name	Red-fronted macaw (<i>Ara rubrogenys</i>)
Animal Program Designation	Yellow SSP
Primary Role	Assurance Population
Goal #1 / Essential Action(s) 2019-2020	Compile breeding data and share electronically with the Parrot Tag and holders by June 1, 2020.
Goal #2 / Essential Action(s) 2019-2020	Identify past institutions that have had Red-Fronted Macaw mixed species habitats by researching previous holding institutions and contacting IR's via email or phone by
Goal #3 / Essential Action(s) 2019-2020	Program will add 1 additional holding facility by March 1, 2020 by contacting prospective institutions via email and on the list serve.

Common Name / Scientific Name	Kea (<i>Nestor notabilis</i>)
Animal Program Designation	Red SSP
Primary Role	Conservation and Education
Goal #1 / Essential Action(s) 2019-2020	Contact each facility with new or existing breeding pairs by email or phone to discuss breeding set-ups and recommend changes for 2020 breeding season (nest boxes, materials, husbandry changes, etc.). Deadline 1 Nov 2019.
Goal #2 / Essential Action(s) 2019-2020	Create and distribute a letter to current kea holders requesting financial donations or other support for Kea Conservation Trust by July 31, 2019. Follow up with each institution by November 31, 2019 to ask for updates on funding, with the goal of at least 33% of kea holding institutions supporting KCT in 2020.
Goal #3 / Essential Action(s) 2019-2020	Finalize the Kea ACM for publication by December 31, 2019. Continue collaboration with AASAG representative to guide the development of the AAG (Deadlines will be dependent on AASAG).

Common Name / Scientific Name	Hawk-headed parrot (<i>Derophtus acciptrinus</i>)
Animal Program Designation	Red SSP
Primary Role	Assurance Population
Goal #1 / Essential Action(s) 2019-2020	Reach out to each zoo and aquarium that has Hawk-headed parrots with the purpose of establishing a strong working relationship with the IRs. In addition, I will be able to gather information related to how each institution is maintaining their birds. I will put the information collected from these communications into a simple format that will be easily accessible for quick husbandry reference. All communication will be completed by June 2010. Compiling information will be completed by November 2020.
Goal #2 / Essential Action(s) 2019-2020	Experiment with the stud book in ZIMS sand box and be prepared to go "live" with the studbook in ZIMS by December 2019.
Goal #3 / Essential Action(s) 2019-2020	Bring two more facilities on board by December 2019.

Common Name / Scientific Name	Palm cockatoo (<i>Probosciger aterrimus</i>)
Animal Program Designation	Red SSP
Primary Role	Education/Exhibit Needs
Goal #1 / Essential Action(s) 2019-2020	Create and distribute an electronic survey to gather information from current holding facilities (AZA and non-AZA) that will compile current diets, nesting arrangements and information about reproductive aspects (pair bonding behaviors, breeding, nesting, egg laying etc.). Compile all responses by July 2020 and return compiled information to all participants and the TAG Steering Committee/Program Leaders.
Goal #2 / Essential Action(s) 2019-2020	Denver Zoo will attempt artificial insemination with pairs recommended by the program leader. Data will be collected through March of 2020 and reported back to the steering committee/TAG
Goal #3 / Essential Action(s) 2019-2020	Continue Hornbeam Aviary partnership, tracking progress of pair introduction and breeding with AZA owned birds. Provide an update to steering committee/TAG March 2020

Complete Species Accounts

Information was gathered and compiled into the following tables using the Space Survey data from 2019.

"Commonly-held" vs. "Other"

To make the survey more user friendly, some larger groups of parrots were broken down into smaller groups, either by taxa (i.e. macaws and amazons) or by the number of individuals reported in the 2015 Parrot TAG RCP. Species with 10 or more individuals reported in 2015 were considered "Commonly-held" in the survey. Numbers for some of these species have changed since 2015, making them no longer commonly held but the table was reported as the survey respondents viewed it.

Species with no individuals in the Current Population column were given designations of 'Not Recommended'.

Species with individuals in the Current Population column not selected for management were given designations of 'Phase Out'

Species selected for other management options have been color-coded for easier identification:

SSP	Candidate Program	TAG Monitored
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Complete Species Accounts

SSP		Candidate Program				TAG Monitored			
Common Name	Scientific Name	CITES IUCN USFWS Status	Current Population (Space Survey)			Estimated Space Available in 5 Years			Recommendation
			M	F	U	M	F	U	
Cockatoos									
Palm Cockatoo	<i>Probosciger aterrimus</i>	I – LC	21	14	0	19	14	0	SSP
Red-tailed Black-Cockatoo	<i>Calyptorhynchus banksii</i>	II – LC	4	10	0	4	8	1	Phase Out
Glossy Black-Cockatoo	<i>Calyptorhynchus lathami</i>	II – LC	0	0	0	0	0	0	Not Recommended
Yellow-tailed Black-Cockatoo	<i>Calyptorhynchus funereus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Short-billed (Slender-billed) Black-Cockatoo	<i>Calyptorhynchus latirostris</i>	II – EN	0	0	0	0	0	0	Not Recommended
Long-billed (White-tailed) Black-Cockatoo	<i>Calyptorhynchus baudinii</i>	II – EN	1	1	0	0	0	0	Phase Out
Gang-gang Cockatoo	<i>Callocephalon fimbriatum</i>	II – LC	0	0	0	2	2	0	Not Recommended
Galah	<i>Eolophus roseicapillus</i>	II – LC	23	21	5	22	26	21	TAG Monitored
Long-billed Corella	<i>Cacatua tenuirostris</i>	II – LC	3	0	0	3	1	0	Phase Out
Western Corella	<i>Cacatua pastinator</i>	II – LC	0	0	0	0	0	0	Not Recommended
Little Corella	<i>Cacatua sanguinea</i>	II – LC	1	2	0	0	1	0	Phase Out
Tanimbar (Goffin's) Cockatoo	<i>Cacatua goffini</i>	I – NT	3	4	0	3	2	0	Phase Out
Solomon (Ducorp's) Cockatoo	<i>Cacatua ducorpsii</i>	II – LC	0	1	0	0	0	0	Phase Out
Phillipine Cockatoo	<i>Cacatua haematuropygia</i>	I-En-CR	1	0	0	0	0	0	Phase Out
Major Mitchell's (Leadbeater's) Cockatoo	<i>Cacatua leadbeateri</i>	II – LC	8	0	0	9	6	0	Phase Out
Yellow-crested (Lesser Sulphur-crested) Cockatoo	<i>Cacatua sulphurea</i>	I-En-CR	6	6	3	6	6	4	Phase Out
Sumba Island	<i>C.s. citrinocristata</i>	I-En-CR	2	0	0	0	0	0	Phase Out
Nominate	<i>C.s. sulphurea</i>	I-En-CR	2	1	0	2	0	2	Phase Out
Sulphur-crested Cockatoo	<i>Cacatua galerita</i>	II – LC	10	4	0	9	4	0	Phase Out
Aru Island	<i>C.g. eleanora</i>	II – LC	2	0	1	2	0	1	Phase Out
Nominate	<i>C.g. galerita</i>	II – LC	1	4	1	0	4	1	Phase Out
New Guinea	<i>C.g. triton</i>	II – LC	4	0	1	6	2	1	Phase Out
Blue-eyed Cockatoo	<i>Cacatua ophthalmica</i>	II – VU	0	0	0	0	0	0	Phase Out
White (Umbrella) Cockatoo	<i>Cacatua alba</i>	II-Th-EN	12	13	0	10	10	0	Phase Out
Salmon-crested (Moluccan) Cockatoo	<i>Cacatua moluccensis</i>	I – VU	11	5	0	6	4	0	Phase Out
Cockatiel	<i>Nymphicus hollandicus</i>	-	65	64	250	86	70	436	TAG Monitored

Complete Species Accounts

SSP	Candidate Program					TAG Monitored			
Common Name	Scientific Name	CITES IUCN USFWS Status	Current Population (Space Survey)			Estimated Space Available in 5 Years			Recommendation
			M	F	U	M	F	U	
LORIES (COMMONLY HELD)									
Red Lory	<i>Eos bornea</i>	II – LC	1	4	0	4	6	10	Phase Out
Blue-streaked Lory	<i>Eos reticulata</i>	II – NT	1	0	0	0	0	0	Phase Out
Dusky Lory	<i>Pseudeos fuscata</i>	II – LC	3	1	0	7	6	0	Phase Out
Rainbow (Coconut) Lorikeet	<i>Trichoglossus haematodus</i>	II – LC	196	196	148	220	217	166	TAG Monitored
Nominate	<i>T.h. haematodus</i>	II – LC	9	6	27	7	6	42	
Rainbow	<i>T.h. caeruleiceps</i>	II – LC	17	22	0	7	7	2	
Australian Rainbow Lorikeet	<i>Trichoglossus moluccanus</i>	II – LC	96	115	82	87	127	116	Phase Out
Edward's (Marigold) Lorikeet	<i>Trichoglossus capistratus</i>	II – LC	8	11	4	8	9	15	Phase Out
Weber's Lorikeet	<i>Trichoglossus weberi</i>	II – NT	1	1	0	1	1	0	Phase Out
Forsten's Lorikeet	<i>Trichoglossus forsteni</i>	II – VU	15	11	2	13	11	16	TAG Monitored
Red-collared Lorikeet	<i>Trichoglossus rubritorquatus</i>	II – LC	6	7	0	5	6	0	Phase Out
Olive-headed (Perfect) Lorikeet	<i>Trichoglossus euteles</i>	II – LC	1	0	0	0	0	0	Phase Out
Mindanao (Johnstone's) Lorikeet	<i>Trichoglossus johnstoniae</i>	II – NT	5	3	0	5	5	4	Phase Out
Iris Lorikeet	<i>Psitteuteles iris</i>	II – NT	2	1	0	0	0	0	Phase Out
Goldie's Lorikeet	<i>Psitteuteles goldiei</i>	II – LC	13	10	0	24	13	0	TAG Monitored
Black-capped Lory	<i>Lorius lory</i>	II – LC	2	2	3	7	7	4	Phase Out
Collared Lory	<i>Phigys solitarius</i>	II – LC	6	10	0	8	8	0	Phase Out
Blue-crowned Lorikeet	<i>Vini australis</i>	II – LC	7	7	0	7	7	0	Phase Out
Papuan (Stella's) Lorikeet	<i>Charmosyna papou</i>	II – LC	5	6	0	8	8	0	Phase Out

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			M	F	U	M	F	U	
LORIES (OTHER)									
Black Lory	<i>Chalcopsitta atra</i>	II – LC	0	0	0	1	1	0	Not Recommended
Brown (Duyvenbode's) Lory	<i>Chalcopsitta duivenbodei</i>	II – LC	1	0	0	0	0	0	Phase Out
Yellow-streaked Lory	<i>Chalcopsitta scintillate</i>	II – LC	1	0	1	4	3	0	Phase Out
Cardinal Lory	<i>Chalcopsitta cardinalis</i>	II – LC	1	2	0	3	3	0	Phase Out
Red-and-Blue Lory	<i>Eos histrio</i>	I – EN	2	1	0	0	0	0	Phase Out
Violet-necked Lory	<i>Eos squamata</i>	II – LC	0	0	0	0	0	0	Not Recommended
Black-winged Lory	<i>Eos cyanogenia</i>	II – VU	0	1	0	0	1	0	Phase Out
Blue-eared Lory	<i>Eos semilarvata</i>	II – LC	1	2	0	0	0	0	Phase Out
Ornate Lory	<i>Trichoglossus ornatus</i>	II – LC	1	0	0	0	0	0	Phase Out
Rosenberg's Lorikeet	<i>Trichoglossus rosenbergii</i>	II – VU	0	0	0	0	0	0	Not Recommended
Scarlet-breasted Lorikeet	<i>Trichoglossus forsteni</i>	II – VU	0	0	0	0	0	0	Not Recommended
Yellow-and-green Lorikeet	<i>Trichoglossus flavoviridis</i>	II – LC	0	0	0	0	0	0	Not Recommended
Pohnpei Lorikeet	<i>Trichoglossus rubiginosus</i>	II – NT	0	0	0	0	0	0	Not Recommended
Scaly-breasted Lorikeet	<i>Trichoglossus chlorolepidotus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Varied Lorikeet	<i>Psitteuteles versicolor</i>	II – LC	0	0	0	0	0	0	Not Recommended
Chattering Lory	<i>Lorius garrulus</i>	II – VU	0	1	0	3	3	0	Phase Out
Purple-naped Lory	<i>Lorius domicella</i>	II – EN	0	0	0	0	0	0	Not Recommended
Purple-bellied Lory	<i>Lorius hypoinochrous</i>	II – LC	0	0	0	0	0	0	Not Recommended
White-naped Lory	<i>Lorius albidinuchus</i>	II – NT	0	0	0	0	0	0	Not Recommended
Yellow-bibbed Lory	<i>Lorius chlorocercus</i>	II – LC	0	0	0	3	3	0	Not Recommended
Rimatara (Kuhl's) Lorikeet	<i>Vini kuhlii</i>	II – EN	0	0	0	0	0	0	Not Recommended
Henderson (Stephen's) Lorikeet	<i>Vini stephensi</i>	II – VU	0	0	0	0	0	0	Not Recommended
Blue Lorikeet	<i>Vini peruviana</i>	II – VU	0	0	0	0	0	0	Not Recommended
Ultramarine Lorikeet	<i>Vini ultramarina</i>	I – CR	0	0	0	0	0	0	Not Recommended
Musk Lorikeet	<i>Glossopsitta concinna</i>	II – LC	0	0	0	0	0	0	Not Recommended
Little Lorikeet	<i>Glossopsitta pusilla</i>	II – LC	0	0	0	0	0	0	Not Recommended
Purple-crowned Lorikeet	<i>Glossopsitta porphyrocephala</i>	II – LC	0	0	0	0	0	0	Not Recommended
Palm Lorikeet	<i>Charmosyna palmarum</i>	II – VU	0	0	0	0	0	0	Not Recommended

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			M	F	U	M	F	U	
LORIES (OTHER)									
Red-chinned Lorikeet	<i>Charmosyna rubrigularis</i>	II – LC	0	0	0	0	0	0	Not Recommended
Meek's Lorikeet	<i>Charmosyna meeki</i>	II – NT	0	0	0	0	0	0	Not Recommended
Blue-fronted Lorikeet	<i>Charmosyna toxopei</i>	II – CR	0	0	0	0	0	0	Not Recommended
Striated Lorikeet	<i>Charmosyna multistriata</i>	II – NT	0	0	0	0	0	0	Not Recommended
Pygmy Lorikeet	<i>Charmosyna wilhelminae</i>	II – LC	0	0	0	0	0	0	Not Recommended
Red-fronted Lorikeet	<i>Charmosyna rubronotata</i>	II – LC	0	0	0	0	0	0	Not Recommended
Red-flanked Lorikeet	<i>Charmosyna placentis</i>	II – LC	1	0	0	0	0	0	Phase Out
New Caledonian Lorikeet	<i>Charmosyna diadema</i>	II – CR	0	0	0	0	0	0	Not Recommended
Red-throated Lorikeet	<i>Charmosyna amabilis</i>	II – CR	0	0	0	0	0	0	Not Recommended
Duchess Lorikeet	<i>Charmosyna margarethae</i>	II – NT	0	0	0	0	0	0	Not Recommended
Fairy Lorikeet	<i>Charmosyna pulchella</i>	II – LC	0	0	0	0	0	0	Not Recommended
Josephine's Lorikeet	<i>Charmosyna josefinae</i>	II – LC	0	0	0	0	0	0	Not Recommended
Plum-faced Lorikeet	<i>Oreopsittacus arfaki</i>	II – LC	0	0	0	0	0	0	Not Recommended
Yellow-billed (Musschenbroek's) Lorikeet	<i>Neopsittacus musschenbroekii</i>	II – LC	0	0	0	0	0	0	Not Recommended
Orange-billed Lorikeet	<i>Neopsittacus pullicauda</i>	II – LC	0	0	0	0	0	0	Not Recommended

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			M	F	U	M	F	U	
PACIFIC PARROTS (COMMONLY HELD)									
Pesquet's Parrot	<i>Psittrichas fulgidus</i>	II - VU	1	5	0	6	6	2	Phase Out
Kea	<i>Nestor notabilis</i>	II - EN	20	11	0	29	15	1	SSP
Eastern Rosella	<i>Platycercus eximius</i>	II - LC	24	15	3	33	29	30	TAG Monitored
Bourke's Parrot	<i>Neopsephotus bourkii</i>	II - LC	7	9	0	20	17	4	TAG Monitored
Scarlet-chested Parrot	<i>Neophema splendida</i>	II - LC	0	0	0	5	5	0	Not Recommended
Budgerigar	<i>Melopsittacus undulates</i>	-	624	518	1822	375	331	2689	TAG Monitored
Eclectus Parrot	<i>Eclectus roratus</i>	II - LC	6	8	0	9	9	0	TAG Monitored (manage at species level)
MacGillivray's	<i>E.r. macgillivrayi</i>	II - LC	0	0	0	0	0	0	
Red-sided Eclectus	<i>E.r. polychoros</i>	II - LC	4	2	0	4	3	0	
Grand Eclectus	<i>E.r. roratus</i>	II - LC	2	3	0	2	3	0	
Solomon Island Eclectus	<i>E.r. solomonensis</i>	II - LC	1	1	0	1	1	0	
Northern Eclectus	<i>E.r. vosmaeri</i>	II - LC	0	1	0	0	0	0	
Alexandra's (Princess) Parrot	<i>Polytelis alexandrae</i>	II - NT	7	4	0	15	17	4	TAG Monitored

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PACIFIC PARROTS (OTHER)									
Kaka	<i>Nestor meridionalis</i>	II - EN	0	0	0	0	0	0	Not Recommended
Kakapo	<i>Strigops habroptilus</i>	I - CR	0	0	0	1	1	0	Not Recommended
Yellow-capped Pygmy Parrot	<i>Micropsitta keiensis</i>	II - LC	0	0	0	0	0	0	Not Recommended
Geelvink Pygmy Parrot	<i>Micropsitta geelvinkiana</i>	II - NT	0	0	0	0	0	0	Not Recommended
Buff-faced Pygmy Parrot	<i>Micropsitta pusio</i>	II - LC	0	0	0	0	0	0	Not Recommended
Yellow-breasted (Meek's) Pygmy Parrot	<i>Micropsitta meeki</i>	II - LC	0	0	0	0	0	0	Not Recommended
Green (Finsch's) Pygmy Parrot	<i>Micropsitta finschii</i>	II - LC	0	0	0	0	0	0	Not Recommended
Red-breasted Pygmy Parrot	<i>Micropsitta bruijnii</i>	II - LC	0	0	0	0	0	0	Not Recommended
Blue-fronted (Orange-breasted) Fig-Parrot	<i>Cyclopsitta gulelmitertii</i>	II - LC	0	0	0	3	3	0	Not Recommended
Double-eyed Fig-Parrot	<i>Cyclopsitta diophthalma</i>	I - LC	1	0	0	0	0	0	Phase Out
Edwards's Fig-Parrot	<i>Psittaculirostris edwardsii</i>	II - LC	0	0	0	0	0	0	Not Recommended
Salvadori's Fig-Parrot	<i>Psittaculirostris salvadorii</i>	II - LC	0	0	0	0	0	0	Not Recommended
Guaibero	<i>Bolbopsittacus lunulatus</i>	II - LC	0	0	0	0	0	0	Not Recommended
Crimson Shining-Parrot	<i>Prosopeia splendens</i>	II - VU	0	0	0	0	0	0	Not Recommended
Masked Shining-Parrot	<i>Prosopeia personata</i>	II - NT	0	0	0	0	0	0	Not Recommended
Red Shining-Parrot	<i>Prosopeia tabuensis</i>	II - LC	0	0	0	0	0	0	Not Recommended
Horned Parakeet	<i>Eunymphicus cornutus</i>	I - NT	3	1	0	3	3	0	Phase Out
Antipodes Parakeet	<i>Cyanoramphus unicolor</i>	II - NT	0	0	0	0	0	0	Not Recommended
Red-fronted Parakeet	<i>Cyanoramphus novaezelandiae</i>	I - LC	7	0	0	7	0	0	Phase Out
Yellow-fronted Parakeet (Kakariki)	<i>Cyanoramphus auriceps</i>	II - NT	0	0	0	0	0	0	Not Recommended
Chatham (Forbe's) Parakeet	<i>Cyanoramphus forbesi</i>	I - VU	0	0	0	0	0	0	Not Recommended
Malherbe's Parakeet	<i>Cyanoramphus malherbi</i>	II - CR	0	0	0	0	0	0	Not Recommended
Red-capped Parrot	<i>Purpureicephalus spurius</i>	II - LC	0	0	0	0	0	0	Not Recommended
Port Lincoln Ringneck	<i>Barnardius zonarius</i>	II - LC	0	0	0	0	0	0	Not Recommended
Green Rosella	<i>Platycercus caledonicus</i>	II - LC	0	0	0	0	0	0	Not Recommended
Crimson Rosella	<i>Platycercus elegans</i>	II - LC	1	1	0	5	5	0	Phase Out
Yellow Rosella	<i>Platycercus flaveolus</i>	II - LC	0	0	0	0	0	0	Not Recommended
Northern Rosella	<i>Platycercus venustus</i>	II - LC	0	0	0	0	0	0	Not Recommended
Pale-headed Rosella	<i>Platycercus adscitus</i>	II - LC	2	1	0	2	1	0	Phase Out

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PACIFIC PARROTS (OTHER)									
Western Rosella	<i>Platycercus icterotis</i>	II – LC	3	2	0	0	0	30	Phase Out
Bluebonnet	<i>Northiella haematogaster</i>	II – LC	0	0	0	0	0	0	Not Recommended
Red-rumped Parrot	<i>Psephotus haematonotus</i>	II – LC	1	0	0	0	0	1	Phase Out
Mulga Parrot	<i>Psephotus varius</i>	II – LC	2	0	0	2	0	0	Phase Out
Hooded Parrot	<i>Psephotus dissimilis</i>	I – LC	0	0	0	0	0	0	Not Recommended
Golden-shouldered Parrot	<i>Psephotus chrysopterygius</i>	I – EN	0	0	0	0	0	0	Not Recommended
Blue-winged Parrot	<i>Neophema chrysostoma</i>	II – LC	0	0	0	0	0	0	Not Recommended
Elegant Parrot	<i>Neophema elegans</i>	II – LC	0	0	0	0	0	0	Not Recommended
Rock Parrot	<i>Neophema petrophila</i>	II – LC	0	0	0	0	0	0	Not Recommended
Orange-billed Parrot	<i>Neophema chrysogaster</i>	I – CR	0	0	0	0	0	0	Not Recommended
Turquoise Parrot	<i>Neophema pulchella</i>	II – LC	0	0	0	0	0	0	Not Recommended
Swift Parrot	<i>Lathamus discolor</i>	II – CR	0	0	0	0	0	0	Not Recommended
Ground Parrot	<i>Pezoporus wallicus</i>	I – LC	0	0	0	0	0	0	Not Recommended
Night Parrot	<i>Geopsittacus occidentalis</i>	I – EN	0	0	0	0	0	0	Not Recommended
Blue-rumped Parrot	<i>Psittinus cyanurus</i>	II – NT	0	0	0	0	0	0	Not Recommended
Brehm's Tiger-Parrot	<i>Psittacella brehmii</i>	II – LC	0	0	0	0	0	0	Not Recommended
Painted Tiger-Parrot	<i>Psittacella picta</i>	II – LC	0	0	0	0	0	0	Not Recommended
Modest Tiger-Parrot	<i>Psittacella modesta</i>	II – LC	0	0	0	0	0	0	Not Recommended
Madarasz's Tiger-Parrot	<i>Psittacella madaraszii</i>	II – LC	0	0	0	0	0	0	Not Recommended
Red-cheeked Parrot	<i>Geoffroyus geoffroyi</i>	II – LC	0	0	0	0	0	0	Not Recommended
Blue-collared Parrot	<i>Geoffroyus simplex</i>	II – LC	0	0	0	0	0	0	Not Recommended
Singing Parrot	<i>Geoffroyus heteroclitus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Montane Racquet-tail	<i>Prioniturus montanus</i>	II – NT	0	0	0	0	0	0	Not Recommended
Mindanao Racquet-tail	<i>Prioniturus waterstradti</i>	II – NT	0	0	0	0	0	0	Not Recommended
Blue-headed Racquet-tail	<i>Prioniturus platenae</i>	II – VU	0	0	0	0	0	0	Not Recommended
Green Racquet-tail	<i>Prioniturus luconensis</i>	II – EN	0	0	0	0	0	0	Not Recommended
Blue-crowned Racquet-tail	<i>Prioniturus discurus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Sulu (Blue-winged) Racquet-tail	<i>Prioniturus verticalis</i>	II – CR	0	0	0	0	0	0	Not Recommended
Yellowish-breasted Racquet-tail	<i>Prioniturus flavicans</i>	II – NT	0	0	0	0	0	0	Not Recommended

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PACIFIC PARROTS (OTHER)									
Golden-mantled Racquet-tail	<i>Prioniturus platurus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Buru Racquet-tail	<i>Prioniturus mada</i>	II – LC	0	0	0	0	0	0	Not Recommended
Great-billed Parrot	<i>Tanygnathus megalorynchos</i>	II – LC	0	0	0	0	0	0	Not Recommended
Blue-naped Parrot	<i>Tanygnathus lucionensis</i>	II – NT	0	0	0	0	0	0	Not Recommended
Blue-backed Parrot	<i>Tanygnathus sumatranus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Black-lored Parrot	<i>Tanygnathus gramineus</i>	II – VU	0	0	0	0	0	0	Not Recommended
Australian King-Parrot	<i>Alisterus scapularis</i>	II – LC	2	1	0	2	2	0	Phase Out
Moluccan (Amboina) King-Parrot	<i>Alisterus amboinensis</i>	II – LC	1	0	0	2	2	0	Phase Out
Papuan (Green-winged) King-Parrot	<i>Alisterus chloropterus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Olive-shouldered Parrot	<i>Aprosmictus jonquillaceus</i>	II – NT	0	0	0	0	0	0	Not Recommended
Red-winged Parrot	<i>Aprosmictus erythropterus</i>	II – LC	1	0	0	1	0	0	Phase Out
Superb Parrot	<i>Polytelis swainsonii</i>	II – LC	0	0	0	0	0	0	Not Recommended
Regent Parrot	<i>Polytelis anthoepus</i>	II – LC	1	0	0	6	5	0	Phase Out

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			M	F	U	M	F	U	
African/Asian Parrots (Commonly Held)									
Alexandrine Parakeet	<i>Psittacula eupatria</i>	II – NT	1	2	0	6	5	0	Phase Out
Rose-ringed (Ring-necked) Parakeet	<i>Psittacula krameri</i>	LC	1	0	0	5	5	2	Phase Out
Neumann's Rose-ringed Parakeet	<i>P.k. borealis</i>	LC	0	0	0	0	0	0	Not Recommended
African Rose-ringed Parakeet	<i>P.k. krameri</i>	LC	1	2	0	1	2	0	Phase Out
Indian Rose-ringed Parakeet	<i>P.k. manillensis</i>	LC	0	0	0	0	0	0	Not Recommended
Plum-headed Parakeet	<i>Psittacula cyanocephala</i>	II – LC	4	3	0	7	6	5	Phase Out
Derbyan Parakeet	<i>Psittacula derbiana</i>	II – NT	5	7	0	8	8	6	Phase Out
Blue-topped (-crowned) Hanging-Parrot	<i>Loriculus galgulus</i>	II – LC	31	23	8	28	26	28	TAG Monitored
Grey-headed Lovebird	<i>Agapornis canus</i>	II – LC	6	0	2	2	2	2	Phase Out
Rosy-faced Lovebird	<i>Agapornis roseicollis</i>	LC	0	0	1	0	0	0	Phase Out
Fischer's Lovebird	<i>Agapornis fischeri</i>	II – NT	2	4	1	3	2	2	Phase Out
Yellow-collared (Black-masked) Lovebird	<i>Agapornis personatus</i>	II – LC	0	1	0	5	6	0	Phase Out
Black-cheeked Lovebird	<i>Agapornis nigrigenis</i>	II – VU	14	15	0	34	35	10	TAG Monitored
Black Parrot	<i>Coracopsis nigra</i>	II – LC	1	1	0	0	0	0	Phase Out
Grey Parrot	<i>Psittacus erithacus</i>	I – EN	22	12	7	27	13	10	TAG Monitored
Nominate	<i>P.e. erithicus</i>	I – EN	5	9	0	2	1	10	
Western	<i>P.e. timneh</i>	I – EN	2	0	0	2	0	0	Phase Out
Red-bellied Parrot	<i>Poicephalus rufiventris</i>	II – LC	0	1	0	2	2	0	Phase Out
Senegal Parrot	<i>Poicephalus senegalus</i>	II – LC	3	1	0	2	1	2	Phase Out

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			M	F	U	M	F	U	
AFRICAN/ASIAN PARROTS (OTHER)									
Mauritius (Echo) Parakeet	<i>Psittacula echo</i>	I – EN	0	0	0	0	0	0	Not Recommended
Slaty-headed Parakeet	<i>Psittacula himalayana</i>	II – LC	0	0	0	0	0	0	Not Recommended
Grey-headed Parakeet	<i>Psittacula finschii</i>	II - NT	0	0	0	0	0	0	Not Recommended
Blossom-headed Parakeet	<i>Psittacula roseate</i>	II - NT	0	0	0	0	0	0	Not Recommended
Malabar Parakeet	<i>Psittacula columboides</i>	II – LC	0	0	0	0	0	0	Not Recommended
Emerald-collared Parakeet	<i>Psittacula calthropae</i>	II – LC	0	0	0	0	0	0	Not Recommended
Red-breasted Parakeet	<i>Psittacula alexandri</i>	II – NT	0	0	0	0	0	0	Not Recommended
Nicobar Parakeet	<i>Psittacula caniceps</i>	II - NT	0	0	0	0	0	0	Not Recommended
Long-tailed Parakeet	<i>Psittacula longicauda</i>	II - VU	6	4	0	6	6	4	Phase Out
Vernal Hanging-Parrot	<i>Loriculus vernalis</i>	II – LC	0	0	0	0	0	0	Not Recommended
Ceylon Hanging-Parrot	<i>Loriculus beryllinus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Philippine Hanging-Parrot (Colasisi)	<i>Loriculus philippensis</i>	II – LC	0	0	0	0	0	0	Not Recommended
Maroon-rumped (Sulawesi) Hanging-Parrot	<i>Loriculus stigmatus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Sula Hanging-Parrot	<i>Loriculus sclateri</i>	II – LC	0	0	0	0	0	0	Not Recommended
Moluccan Hanging-Parrot	<i>Loriculus amabilis</i>	II – LC	0	0	0	0	0	0	Not Recommended
Sangihe Hanging-Parrot	<i>Loriculus catamene</i>	II – NT	0	0	0	0	0	0	Not Recommended
Orange-fronted Hanging-Parrot	<i>Loriculus aurantiifrons</i>	II – LC	0	0	0	0	0	0	Not Recommended
Green-fronted Hanging-Parrot	<i>Loriculus tener</i>	II – NT	0	0	0	0	0	0	Not Recommended
Green (Red-billed) Hanging-Parrot	<i>Loriculus exilis</i>	II - NT	0	0	0	0	0	0	Not Recommended
Yellow-throated Hanging-Parrot	<i>Loriculus pusillus</i>	II – NT	0	0	0	0	0	0	Not Recommended
Flores Hanging-Parrot	<i>Loriculus flosculus</i>	II – EN	0	0	0	0	0	0	Not Recommended
Red-headed Lovebird	<i>Agapornis pullarius</i>	II – LC	0	0	0	0	0	0	Not Recommended
Black-winged Lovebird	<i>Agapornis taranta</i>	II – LC	0	0	0	0	0	0	Not Recommended
Black-collared Lovebird	<i>Agapornis swindernianus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Nyasa (Lilian's) Lovebird	<i>Agapornis lilianae</i>	II – NT	0	0	0	0	0	0	Not Recommended
Vasa Parrot	<i>Coracopsis vasa</i>	II – LC	3	3	0	3	5	2	Phase Out
Brown-necked Parrot	<i>Poicephalus robustus</i>	II - VU	0	0	0	0	0	0	Not Recommended
Red-fronted (Jardine's) Parrot	<i>Poicephalus gulielmi</i>	II – LC	0	1	0	0	1	0	Not Recommended
Brown (Meyer's) Parrot	<i>Poicephalus meyeri</i>	II – LC	1	0	1	1	1	1	Phase Out

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SSP	Candidate Program					TAG Monitored			
Common Name	Scientific Name	CITES IUCN USFWS Status	Current Population (Space Survey)			Estimated Space Available in 5 Years			Recommendation
			M	F	U	M	F	U	
AFRICAN/ASIAN PARROTS (OTHER)									
Ruppell's Parrot	<i>Poicephalus rueppellii</i>	II – LC	0	0	0	0	0	0	Not Recommended
Brown-headed Parrot	<i>Poicephalus cryptoxanthus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Niam-niam Parrot	<i>Poicephalus crassus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Yellow-fronted Parrot	<i>Poicephalus flavifrons</i>	II – LC	0	0	0	0	0	0	Not Recommended

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			M	F	U	M	F	U	
NEW WORLD PARROTS - MACAWS									
Hyacinth Macaw	<i>Anodorhynchus hyacinthinus</i>	I-Th-VU	61	51	1	65	54	15	SSP
Indigo (Lear's) Macaw)	<i>Anodorhynchus lear</i>	I – EN	0	0	0	0	0	0	Not Recommended
Spix Macaw	<i>Cyanopsitta spixii</i>	I - CR	0	0	0	0	0	0	Not Recommended
Blue-and-yellow (-gold) Macaw	<i>Ara ararauna</i>	II – LC	126	117	22	107	106	21	TAG Monitored
Blue-throated Macaw	<i>Ara glaucogularis</i>	I-En-CR	27	55	8	29	64	9	SSP
Military Macaw	<i>Ara militaris</i>	I-En-VU	48	59	8	45	54	9	TAG Monitored
Great Green (Buffon's) Macaw	<i>Ara ambigua</i>	I-En-EN	5	11	3	8	13	6	Phase Out
Scarlet Macaw	<i>Ara macao</i>	I-E/Th-LC	86	77	13	80	68	15	TAG Monitored
Red-and-green (Green-winged) Macaw	<i>Ara chloroptera</i>	II – LC	79	68	10	73	62	13	TAG Monitored
Red-fronted Macaw	<i>Ara rubrogenys</i>	I – CR	23	12	6	19	14	8	SSP
Chestnut-fronted (Severe) Macaw	<i>Ara severa</i>	II – LC	1	3	4	2	3	4	Not Recommended
Red-bellied Macaw	<i>Orthopsittaca manilatus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Blue-headed Macaw	<i>Primoleus (Propyrrhura) couloni</i>	I – VU	9	9	0	11	11	0	Phase Out
Blue-winged (Illiger's) Macaw	<i>Primoleus (Propyrrhura) maracana</i>	I – NT	0	0	1	3	3	0	Phase Out
Yellow-collared Macaw	<i>Primoleus (Propyrrhura) auricollis</i>	II – LC	2	2	1	4	3	1	Phase Out
Red-shouldered Macaw	<i>Diopsittaca nobilis</i>	II – LC	1	0	0	0	0	0	Phase Out

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			M	F	U	M	F	U	
NEW WORLD PARROTS – AMAZONS									
Cuban Amazon	<i>Amazona leucocephala</i>	I – NT	9	4	0	6	3	2	Phase Out
Yellow-billed Amazon	<i>Amazona collaria</i>	II-Th- VU	0	0	0	0	0	0	Not Recommended
Hispaniolan Amazon	<i>Amazona ventralis</i>	II – VU	1	0	0	1	0	0	Phase Out
White-fronted Amazon	<i>Amazona albifrons</i>	II – LC	1	1	0	1	1	0	Phase Out
Yellow-lored Amazon	<i>Amazona xantholora</i>	II – LC	0	0	0	0	0	0	Not Recommended
Black-billed Amazon	<i>Amazona agilis</i>	II – VU	0	0	0	0	0	0	Not Recommended
Puerto Rican Amazon	<i>Amazona vittata</i>	I – CR	2	0	0	0	0	0	Phase Out
Tucuman Amazon	<i>Amazona tucumana</i>	I – VU	1	0	0	3	2	0	Phase Out
Red-spectacled Amazon	<i>Amazona pretrei</i>	I – VU	0	0	0	0	0	0	Not Recommended
Red-crowned (Green-cheeked) Amazon	<i>Amazona viridigenalis</i>	I – EN	3	0	3	1	0	3	Phase Out
Lilac-crowned Amazon	<i>Amazona finschi</i>	I – EN	10	7	1	5	5	4	Phase Out
Red-lored Amazon	<i>Amazona autumnalis</i>	II – LC	5	5	2	5	3	2	Phase Out
Blue-cheeked Amazon	<i>Amazona dufresniana</i>	II – NT	1	0	0	0	0	0	Phase Out
Red-browed Amazon	<i>Amazona rhodocorytha</i>	I – VU	7	8	0	7	8	0	Phase Out
Red-tailed Amazon	<i>Amazona brasiliensis</i>	I – NT	0	0	0	0	0	0	Not Recommended
Festive Amazon	<i>Amazona festiva</i>	II – NT	0	0	0	0	0	0	Not Recommended
Yellow-faced Amazon	<i>Amazona xanthops</i>	II – NT	0	0	0	0	0	2	Phase Out
Yellow-shouldered Amazon	<i>Amazona barbadensis</i>	I – VU	1	0	0	0	0	0	Phase Out
Blue-fronted Amazon	<i>Amazona aestiva</i>	II – LC	10	8	5	7	7	6	Phase Out
Yellow-crowned Amazon	<i>Amazona ochrocephala</i>	II – LC	2	1	12	2	1	12	Phase Out
	<i>A.o.ochrocephala</i>	II – LC	1	2	0	1	2	0	Phase Out
	<i>A.o.panamensis</i>	II – LC	0	1	0	0	1	0	Phase Out
Yellow-headed Amazon	<i>Amazona oratrix</i>	I – EN	13	10	2	10	11	3	TAG Monitored
	<i>A.o. oratrix</i>	I – EN	3	7	1	3	7	1	TAG Monitored
	<i>A.o.tresmarie</i>	I – EN	0	0	0	0	0	0	TAG Monitored

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			M	F	U	M	F	U	
NEW WORLD PARROTS – AMAZONS									
Yellow-naped Amazon	<i>Amazona auropalliata</i>	I – EN	3	10	4	4	7	4	Phase Out
	<i>A.a. auropalliata</i>	I – EN	1	2	1	1	2	1	Phase Out
	<i>A.a. caribea</i>	I – EN	0	0	0	0	0	0	Phase Out
	<i>A.a. parvipes</i>	I – EN	0	0	1	0	0	1	Phase Out
Orange-winged Amazon	<i>Amazona amazonica</i>	II – LC	3	0	5	2	0	5	Phase Out
Scaly-naped Amazon	<i>Amazona mercenaria</i>	II – LC	0	0	0	0	0	0	Not Recommended
White-faced Amazon (Kawall's Parrot)	<i>Amazona kawalli</i>	II – NT	0	0	0	0	0	0	Not Recommended
Mealy Amazon	<i>Amazona farinosa</i>	II – NT	0	1	0	0	0	0	Not Recommended
Vinaceous Amazon	<i>Amazona vinacea</i>	I – EN	1	1	0	2	2	0	Phase Out
St. Lucia Amazon	<i>Amazona versicolor</i>	I – VU	0	0	0	0	0	0	Not Recommended
Red-necked Amazon	<i>Amazona arausiaca</i>	I – VU	0	0	0	0	0	0	Not Recommended
St. Vincent Amazon	<i>Amazona guildingii</i>	I – VU	7	6	0	8	8	0	Phase Out
Imperial Amazon	<i>Amazona imperialis</i>	I – EN	0	0	0	0	0	0	Not Recommended

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SSP			Candidate Program			TAG Monitored			
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			M	F	U	M	F	U	
NEW WORLD PARROTS (COMMONLY HELD)									
Thick-billed Parrot	<i>Rhynchopsitta pachyrhycha</i>	I – EN	35	27	0	31	41	11	SSP
Golden Conure (Parakeet)	<i>Guaruba guarouba</i>	I-Th-VU	26	22	0	23	25	23	SSP
Green Parakeet (Conure)	<i>Aratinga holochlora</i>	II – LC	0	0	0	0	0	0	Not Recommended
Sun Parakeet (Conure)	<i>Aratinga solstitialis</i>	II – EN	82	45	13	67	39	21	TAG Monitored
Jandaya Parakeet (Conure)	<i>Aratinga jandaya</i>	II – LC	1	0	0	3	3	0	Phase Out
Monk Parakeet	<i>Myiopsitta monachus</i>	II – LC	8	0	13	4	0	12	Phase Out
Blue-headed Parrot (Pionus)	<i>Pionus menstruus</i>	II - LC	5	6	5	9	9	0	Phase Out
Hawk-headed (Red-fan) Parrot	<i>Deroptryus accipitrinus</i>	II – LC	11	24	0	10	21	6	SSP

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			M	F	U	M	F	U	
NEW WORLD PARROTS (OTHER)									
Maroon-fronted Parrot	<i>Rhynchopsitta terrisi</i>	I – EN	0	0	0	0	0	0	Not Recommended
Yellow-eared Parrot	<i>Ognorhynchus icterotis</i>	II – EN	0	0	0	0	0	0	Not Recommended
Blue-crowned Parakeet (Conure)	<i>Aratinga acuticaudata</i>	II – LC	0	1	1	0	0	1	Phase Out
Red-throated Parakeet (Conure)	<i>Aratinga rubritorquis</i>	II – LC	0	0	0	0	0	0	Not Recommended
Scarlet-fronted Parakeet (Conure)	<i>Aratinga wagleri</i>	II – NT	0	0	4	0	0	4	Phase Out
Mitred Parakeet (Conure)	<i>Aratinga mitrata</i>	II – LC	4	2	4	3	1	4	Phase Out
Red-masked Parakeet (Conure)	<i>Aratinga erythrogenys</i>	II – NT	0	0	0	0	0	0	Not Recommended
Crimson-fronted Parakeet (Conure)	<i>Aratinga finschi</i>	II – LC	0	0	0	0	0	0	Not Recommended
White-eyed Parakeet (Conure)	<i>Aratinga leucophthalmus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Cuban Parakeet (Conure)	<i>Aratinga euops</i>	II – VU	0	0	0	0	0	0	Not Recommended
Hispaniolan Parakeet (Conure)	<i>Aratinga chloroptera</i>	II – VU	0	0	0	0	0	0	Not Recommended
Golden-capped Parakeet (Conure)	<i>Aratinga auricapilla</i>	II – NT	1	0	0	1	0	0	Phase Out
Dusky-headed Parakeet (Conure)	<i>Aratinga weddellii</i>	II – LC	0	0	0	0	0	0	Not Recommended
Olive-throated Parakeet (Conure)	<i>Aratinga nana</i>	II – NT	0	0	0	0	0	0	Not Recommended
Orange-fronted Parakeet (Conure)	<i>Aratinga canicularis</i>	II – LC	0	0	0	0	0	0	Not Recommended
Peach-fronted Parakeet (Conure)	<i>Aratinga aurea</i>	II – LC	0	0	0	0	0	0	Not Recommended
Brown-throated Parakeet (Conure)	<i>Aratinga pertinax</i>	II – LC	0	0	0	0	0	0	Not Recommended
Cactus Parakeet (Conure)	<i>Aratinga cactorum</i>	II – LC	0	0	0	0	0	0	Not Recommended
Nanday Parakeet (Conure)	<i>Nandayus nenday</i>	II – LC	0	0	0	0	0	0	Not Recommended
Golden-plumed Parakeet (Conure)	<i>Leptosittaca branickii</i>	II – VU	0	0	0	0	0	0	Not Recommended
Burrowing Parakeet (Patagonian Conure)	<i>Cyanoliseus patagonus</i>	II – LC	1	1	0	2	2	2	Phase Out
Blue-throated Parakeet (Conure)	<i>Pyrrhura cruentata</i>	I – VU	2	1	0	1	1	0	Phase Out
Blaze-winged Parakeet (Conure)	<i>Pyrrhura devillei</i>	II – NT	0	0	0	0	0	0	Not Recommended
Maroon-bellied Parakeet (Conure)	<i>Pyrrhura frontalis</i>	II – LC	0	0	0	0	0	0	Not Recommended
Crimson-bellied Parakeet (Conure)	<i>Pyrrhura perlata</i>	II – VU	0	0	0	0	0	0	Not Recommended
Pearly Parakeet (Conure)	<i>Pyrrhura lepida</i>	II – VU	0	0	0	0	0	0	Not Recommended
Green-cheeked Parakeet (Conure)	<i>Pyrrhura molinae</i>	II – LC	0	0	0	0	0	0	Not Recommended
Painted Parakeet (Conure)	<i>Pyrrhura picta</i>	II – LC	0	0	0	0	0	0	Not Recommended

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			M	F	U	M	F	U	
NEW WORLD PARROTS (OTHER)									
Maroon-faced Parakeet (White-eared Conure)	<i>Pyrrhura leucotis</i>	II – VU	0	0	0	0	0	0	Not Recommended
Santa Marta Parakeet (Conure)	<i>Pyrrhura viridicata</i>	II – EN	0	0	0	0	0	0	Not Recommended
Fiery-shouldered Parakeet (Conure)	<i>Pyrrhura egregia</i>	II – LC	0	0	0	0	0	0	Not Recommended
Maroon-tailed Parakeet (Conure)	<i>Pyrrhura melanura</i>	II – LC	0	0	0	0	0	0	Not Recommended
El Oro Parakeet (Conure)	<i>Pyrrhura orcesi</i>	II - EN	0	0	0	0	0	0	Not Recommended
Black-capped Parakeet (Conure)	<i>Pyrrhura rupicola</i>	II – NT	0	0	0	0	0	0	Not Recommended
White-necked Parakeet (Conure)	<i>Pyrrhura albipectus</i>	II – VU	0	0	0	0	0	0	Not Recommended
Brown-breasted Parakeet (Conure)	<i>Pyrrhura calliptera</i>	II – VU	0	0	0	0	0	0	Not Recommended
Red-eared Parakeet (Conure)	<i>Pyrrhura hoematotis</i>	II – LC	0	0	0	0	0	0	Not Recommended
Rose-headed Parakeet (Conure)	<i>Pyrrhura rholocephala</i>	II – LC	0	0	0	0	0	0	Not Recommended
Sulphur-winged Parakeet (Conure)	<i>Pyrrhura hoffmanni</i>	II – LC	0	0	0	0	0	0	Not Recommended
Austral Parakeet (Conure)	<i>Enicognathus ferrugineus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Slender-billed Parakeet (Conure)	<i>Enicognathus leptorhynchus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Cliff Parakeet	<i>Myiopsitta luchi</i>	II – LC	0	0	0	0	0	0	Not Recommended
Grey-hooded Parakeet	<i>Psilopsiagon aymara</i>	II – LC	0	0	0	0	0	0	Not Recommended
Mountain Parakeet	<i>Psilopsiagon aurifrons</i>	II – LC	0	0	0	0	0	0	Not Recommended
Barred Parakeet	<i>Bolborhynchus lineola</i>	II – LC	0	0	0	6	0	0	Not Recommended
Andean Parakeet	<i>Bolborhynchus orbynesius</i>	II – LC	0	0	0	0	0	0	Not Recommended
Rufous-fronted Parakeet	<i>Bolborhynchus ferrugineifrons</i>	II – VU	0	0	0	0	0	0	Not Recommended
Mexican Parrotlet	<i>Forpus cyanopygius</i>	II – NT	0	0	0	0	0	0	Not Recommended
Green-rumped Parrotlet	<i>Forpus passerinus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Blue-winged Parrotlet	<i>Forpus xanthopterygius (crassirostris)</i>	II – LC	0	0	0	0	0	0	Not Recommended
Spectacled Parrotlet	<i>Forpus conspicillatus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Dusky-billed Parrotlet	<i>Forpus sclateri</i>	II – LC	0	0	0	0	0	0	Not Recommended
Pacific Parrotlet	<i>Forpus coelestis</i>	II – LC	0	0	0	3	3	0	Not Recommended
Yellow-faced Parrotlet	<i>Forpus xanthops</i>	II – VU	0	0	0	0	0	0	Not Recommended
Plain Parakeet	<i>Brotogeris tirica</i>	II – LC	0	0	0	0	0	0	Not Recommended
Canary-winged Parakeet	<i>Brotogeris versicolurus</i>	II – LC	5	1	20	5	1	20	Phase Out

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NEW WORLD PARROTS (OTHER)									
Yellow-chevroned Parakeet	<i>Brotogeris chiriri</i>	II – LC	0	0	0	0	0	0	Not Recommended
Grey-cheeked Parakeet	<i>Brotogeris pyrrhopterus</i>	II – EN	0	0	0	0	0	0	Not Recommended
Orange-chinned Parakeet	<i>Brotogeris jugularis</i>	II – LC	0	0	2	0	0	2	Phase out
Colbalt-winged Parakeet	<i>Brotogeris cyanoptera</i>	II – LC	0	0	0	0	0	0	Not Recommended
Golden-winged Parakeet	<i>Brotogeris chrysopterus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Tui Parakeet	<i>Brotogeris sanctithomae</i>	II – LC	0	0	0	0	0	0	Not Recommended
Tepui Parrotlet	<i>Nannopsittaca panychlora</i>	II – LC	0	0	0	0	0	0	Not Recommended
Amazonian Parrotlet	<i>Nannopsittaca dachilleae</i>	II – NT	0	0	0	0	0	0	Not Recommended
Lilac-tailed Parrotlet	<i>Touit batavica</i>	II – LC	0	0	0	0	0	0	Not Recommended
Scarlet-shouldered Parrotlet	<i>Touit huetii</i>	II – LC	0	0	0	0	0	0	Not Recommended
Red-fronted Parrotlet	<i>Touit costaricensis</i>	II – VU	0	0	0	0	0	0	Not Recommended
Blue-fronted Parrotlet	<i>Touit dilectissima</i>	II – LC	0	0	0	0	0	0	Not Recommended
Sapphire-rumped Parrotlet	<i>Touit purpurata</i>	II – LC	0	0	0	0	0	0	Not Recommended
Brown-backed Parrotlet	<i>Touit melanonota</i>	II – VU	0	0	0	0	0	0	Not Recommended
Golden-tailed Parrotlet	<i>Touit surda</i>	II – VU	0	0	0	0	0	0	Not Recommended
Spot-winged Parrotlet	<i>Touit stictoptera</i>	II – VU	0	0	0	0	0	0	Not Recommended
Black-crowned Parrot (Black-headed Caique)	<i>Pionites melanocephala</i>	II – LC	0	0	2	0	0	2	Phase Out
White-bellied Parrot (Caique)	<i>Pionites leucogaster</i>	II - EN	0	1	0	0	1	0	Not Recommended
Vulturine Parrot	<i>Pyrilia (Pionopsitta) vulturina</i>	II - VU	0	0	0	0	0	0	Not Recommended
Brown-hooded Parrot	<i>Pyrilia (Pionopsitta) haematotis</i>	II – LC	0	0	0	0	0	0	Not Recommended
Rose-faced Parrot	<i>Pyrilia (Pionopsitta) pulchra</i>	II – LC	0	0	0	0	0	0	Not Recommended
Orange-cheeked Parrot	<i>Pyrilia (Pionopsitta) barrabandi</i>	II – NT	0	0	0	0	0	0	Not Recommended
Saffron-headed Parrot	<i>Pyrilia (Pionopsitta) pyrilia</i>	II – NT	0	0	0	0	0	0	Not Recommended
Caica Parrot	<i>Pyrilia (Pionopsitta) caica</i>	II – NT	0	0	0	0	0	0	Not Recommended
Pileated Parrot	<i>Pionopsitta pileata</i>	I – LC	0	0	0	0	0	0	Not Recommended
Black-winged Parrot	<i>Hapalopsittaca melanotis</i>	II – LC	0	0	0	0	0	0	Not Recommended
Rusty-faced Parrot	<i>Hapalopsittaca amazonina</i>	II – VU	0	0	0	0	0	0	Not Recommended
Indigo-winged Parrot	<i>Hapalopsittaca fuertesi</i>	II – CR	0	0	0	0	0	0	Not Recommended
Red-faced Parrot	<i>Hapalopsittaca pyrrhops</i>	II – VU	0	0	0	0	0	0	Not Recommended

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NEW WORLD PARROTS (OTHER)									
Short-tailed Parrot	<i>Graydidascalus brachyurus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Red-billed Parrot (Pionus)	<i>Pionus sordidus</i>	II – LC	0	0	0	0	0	0	Not Recommended
Scaly-headed Parrot (Pionus)	<i>Pionus maximiliani</i>	II – LC	0	0	0	0	0	0	Not Recommended
Speckle-faced Parrot (Pionus)	<i>Pionus tumultuosus</i>	II – LC	0	0	0	0	0	0	Not Recommended
White-crowned Parrot (Pionus)	<i>Pionus senilis</i>	II – LC	0	0	1	0	0	1	Phase Out
Bronze-winged Parrot (Pionus)	<i>Pionus chalcopterus</i>	II – LC	1	0	1	0	0	1	Phase Out
Blue-bellied (Purple-bellied) Parrot	<i>Triclaria malachitacea</i>	II – NT	0	0	0	0	0	0	Not Recommended

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