



**The AZA Parrot Taxon Advisory Group;
Zoos & In Situ Conservation: Thick-billed parrots
(*Rhynchopsitta pachyrhyncha*)**

Joe Barkowski
Curator/Birds – Chair Parrot TAG
Sedgwick County Zoo
5555 Zoo Blvd
Wichita, KS 67212
JCBski@aol.com

The American Zoo and Aquarium Association (AZA) includes 207 accredited member institutions throughout the country. Within this organization, individual facilities take the initiative to create, nurture and expand efforts towards species and habitat conservation. In addition, infrastructure exists through entities such as Taxon Advisory Groups (TAGs) and Species Survival Plans (SSPs) which allow for captive animal management as well as in situ conservation.

Over 40 Taxon Advisory Groups (TAGs) serve as advisory boards to the AZA on various issues that apply to entire taxa. For birds they typically encompass entire Orders: passerines, penguins, etc. The Parrot Taxon Advisory Group (TAG) works to promote the conservation of all parrot species through education, participation, and example. The Parrot TAG is tasked with creating and maintaining a Regional Collection Plan for the management of all psittacine species in North American zoos. Such a plan attempts to evaluate each species on the basis of conservation needs, population status in captivity and the wild, management strategies as well as their exhibit or educational values. There is in no way an exact science to this process. Much of the resulting data is subjective and open to constant reevaluation and scrutiny.

To aid in the collection planning process a ‘decision tree’ was created (see Appendix I). This tool is used to try and standardize the outcome of how species will be managed. In the end, all decisions are pure recommendations. There are no repercussions for zoos or aquariums that choose to work with species that may not be of high priority to the TAG. The goal is to assist in long range captive species management as well as identifying appropriate conservation needs.

As a result, some species are chosen for designated management programs. The primary level involves tracking the population in captivity using a database – a studbook. Using the information gathered these studbooks can be used to generate Population Management Plans. Recommendations are distributed to assist in long term genetic management. The next level



involves most intensive guidance – a Species Survival Plan or SSP. Species Survival Plans were developed in 1981 to provide cooperative population management and conservation for selected species in zoos and aquariums within North America. Since then, 108 SSPs covering 159 individual species are administered through AZA. These programs require full participation regarding breeding recommendations. They also require components such as education, in situ options, husbandry, etc to manage the species on various levels. An example of such a program is the Thick-billed parrot SSP.

The Thick-billed parrot (*Rhynchopsitta pachyrhyncha*) is a medium-sized green parrot with a red forehead and yellow underwing coverts. This species is confined to the Sierra Madre Occidental region of Mexico and is listed under CITES Appendix I as endangered. Due to the rough terrain and nomadic habits of this species, even within its restricted range, accurate population estimates are difficult. This species has the distinction of being the only living parrot that once ranged into the continental United States. Until the 1920's they were regularly found in Arizona and New Mexico but numbers were decimated via hunting by prospectors and settlers. The only other psittacine to share the US in its range would be the now extinct Carolina parakeet.

The goal of the Thick-billed parrot SSP when established in 1988 was to ensure the survival of the species within its historic range by (1) maintaining a captive population, (2) educating the public regarding the conservation of native endangered species, and (3) supporting the wild populations within North America.

In addition to the captive aspects the SSP has provided increasing support in recent years toward in situ components. This has been facilitated through the SSP and the research organized by Dr. Ernesto Enkerlin-Hoeflich, Ph.D. of Monterrey Tech in Mexico. Each year the SSP helps subsidize research through donations and fund raising to offset costs associated with the field work (lodging, food, fuel, vehicles, materials, etc). Beginning in 1999, we were invited to gain more hands on experience with this project.

Nesting season in the wild occurs from June until July. Chicks continue to fledge from September to late October. These birds tend to favor large pine trees and snags for nesting. These months constitute part of the area's rainy season that in turn promotes growth of pine cones – a staple of this species diet. Throughout the season, nests are identified and monitored by the research team. Representatives of the SSP have been able to join the team in the field at this point.

Four or five individuals are scheduled during the breeding season to travel to Mexico and assist for two to three weeks at a time. Curators, supervisors and zookeepers have all received funding from their individual institutions to aid in the fieldwork. Not only has it proved



beneficial to the project but also it has helped promote the species within North America as well as training staff and their institutions on how to participate with existing in situ programs.

These volunteers typically travel by air to Chihuahua, Mexico and are met by the field team. From there they are transported to the nesting areas. These volunteers assist with nest locating, chick weighing/measuring/banding, nest site observations, radio collaring/tracking and flock observations. In the Bisalochic and Madera locations there are basic cooking and sleeping facilities but camping gear is necessary in areas such as Mesa de las Guacamayas. Long hikes in rugged terrain are common.

When a nest site is located, data is collected on the surrounding area as well as the type of tree, height, etc. Observations are made using blinds when necessary. Tree climbing equipment is utilized to access nest sites and perform regular checks. This may involve ascending to heights of 20-30m to access the nest cavities. When chicks are located, they are placed in a secured insulated bag and lowered to the ground. Here the birds are weighed and measured. Closed stainless steel identification bands are placed on their legs to identify individuals. Birds are also checked for parasites. In the past, blood samples as well as cloacal and choanal swabs have been taken. These samples are useful in several research projects regarding the species. Future projects will involve analysis of crop contents as well as disease screening. After each evaluation the birds are returned to their nests and the care of their parents – typically without incident.

When describing such research, the first concept that may come to mind is the physical manipulation of the animals. Much more data is collected than just chick weights. In order to find the nests at the outset – one must be able to find the appropriate areas. Specifically, research is showing that trees should be at least 54cm (~21in) in diameter and 175 cm (~69in) in circumference. This information is gathered without great effort and can be essential when finding nests.

The Thick-billed parrot SSP will continue aiding in the research in various ways. In addition it attempts to use the managed captive population to learn more about this species as well as to educate the general public. The narrative of the Thick-billed parrot can be an excellent example of the pressures facing psittacines worldwide. The Parrot TAG encourages the use of this program as a model for others, which will be developed in the future.

References:

Healy, Susan, Thick-billed Parrot SSP Coordinator. Pers.comm.

Hoyo, J. Del, Elliott, A., & Sargatal, J. (1997): Handbook of the Birds of the World. Vol.4.



Barcelona.

Sexton, Brenda, Zookeeper/Sedgwick County Zoo, Pers.comm.

[Appendix I. Parrot Taxon Advisory Decision Tree](#)