Alive and well...

Mexican Thick-billed Parrot

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Fifteen years ago, two private aviaries, one in Oklahoma, the other in Texas, embarked upon a long-term project to breed the Mexican Thick-billed Parrot (Rhynchopsitta p. pachyrhyncha). This was made possible by the farsightedness of the Gladys Porter Zoo, Brownsville, Texas; the St. Louis Zoological Park, St. Louis, Missouri; and the Oklahoma City Zoological Park, Oklahoma City, Oklahoma. These institutions enjoyed, at that time, very active breeding loan programs. The Oklahoma City Zoo, through its director, Stephen R. Wylie, still supports this project currently with three specimens on the premises and with others available if needed for unrelated blood.

During the early years of the project, breeding was attempted at both the Texas and Oklahoma locations. It proved difficult to maintain continuity in management of the breeding flocks, so all operations were consolidated in one location, where it remains today. The effort now supports 41 specimens with 20 adults, 18 juveniles, and 3 babies.

In presenting the information that follows, it is our intention to pass on to other Thick-billed Parrot breeders our techniques and some observations that were generated over the past ten years. Additionally, it is our hope to demonstrate that with diligence and dedication, a private breeding effort can have a significant impact on the aviculture of an endangered species. Our effort has produced a sizeable percentage of the Thick-billed chicks ever hatched in North America. We realize our experience is largely anecdotal. Unfortunately, controlled experimentation with breeding techniques is often not prudent with such small numbers of animals.

Housing

Initially there was concern that an outdoor element to the birds’ quarters might be important, therefore, about half the birds were placed in indoor flights and half in indoor-outdoor flights. The birds were allowed access to the outdoor flight component during the off-breeding months (October through June). All flights were 3 x 6 x 7.5 feet.

To date, no difference has been noticed in breeding activity among birds afforded access to outdoors and those totally confined to indoor flights.

Indoor flight areas should be kept refrigerated when outside ambient temperatures are high. Flights are grouped close together to allow visual and verbal social interaction between members of the breeding flock.

Nesting

Our birds were provided with 11 x 11 x 13 inch boxes. These were placed within the flight or on the outside of the flight as convenient. The parents are not aggressive and will tolerate the keeper reaching into the flight to check the box. The parents used redwood bark (chewed by the hen to a fine powder) as nesting material. The hen can be expected to continue chewing bark for the 30 days she is confined brooding.

Diet

Maintenance diet consists of two-thirds cereal seed and one-third oil seed presented in one cup with a mixture of fresh fruits and vegetables being offered in another. During July, August, and September, pine nuts are mixed in the fruits and vegetables three times weekly. One ounce of these nuts per bird is provided.

Breeding

As one might anticipate, temperature seems to be a very important factor in the breeding of the Thick-bill. These birds breed in the wild in the cool, high, mountain air of the Sierra Madres. A refrigerated environment may be a necessity for successful, captive breeding in other than a mountain setting. This was neglected at the outset of the project, and may have been the major deciding factor in the early lack of success.
Just as with many other parrots, increasing the “daylight” to 16 hours during the breeding months seems to stimulate the birds’ activity. At the same time, stimulating the birds by the addition of pine nuts may be important. The days that pine nuts are supplied in the diet, the birds eat everything presented them, including vegetables that go usually ignored.

As the breeding season commences, these very social birds are heard to chatter and cluck from flight to flight, leading to the strong suspicion that this interaction may be important or even essential to successful breeding.

Early on, the breeding pairs were allowed to parent-raise their young; however, losses were unacceptably high, leading to our current practice of “pulling” the chicks at the median age of 15 days. This is done only for the sake of the chick; we have never seen “double-clutching” occur with the Thick-bill. Successful pairs lay one or two eggs yearly. The hatch varies from one to two. When two eggs are layed and only one hatches, the failed egg is observed to be infertile. We have not yet seen a dead-in-the-shell Thick-bill.

**Breeding Results**

With the practices outlined above, 23 chicks were produced from 1987 to present.

In 1990, we suffered the loss of some members of our producing pairs. The chick production in 1990 shows how devastating such a loss can be. The complete studbook is kept as a computer database. Meticulous record-keeping is necessary to avoid mistakes when pairing offspring. From such records, a genealogic chart can be developed to further facilitate management of the flock.

**Development of the Young**

Chicks were pulled from the nest at about two weeks and hand-fed until weaned at about 90 days of life. The weaned birds were placed in a communal flight to mature. At this writing, 18 of the 23 survive. Careful record of weight gain of the young through Day 60 was kept.

The growth kinetics of the animals, shows a nearly linear gain from the time of being pulled to about 30 to 35 days of life, where the shoulder of the curve that leads into the typical small weight decline at the end of early development of psittacines is apparent. About 280 to 340 grams appeared to be the range at 60 days. A stacked area graph of the same data emphasizes the shape of the curves and clearly demonstrates the consistent pattern of weight gain. The babies were close-banded at 20 days. Photographic identification was taken at 30 and 60 days.

**Conclusion**

At this point, we are relatively confident of our ability to breed the Mexican Thick-billed Parrot in captivity. Our record-keeping indicates that only a few new pairings are possible without inbreeding. We are anticipating an increase in production from the new pairings set up the last two years. We sincerely hope this information will be of help to other Thick-bill breeders and, perhaps more importantly, will be of interest and encouragement to those individuals also involved in a private effort to preserve endangered bird species.

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