

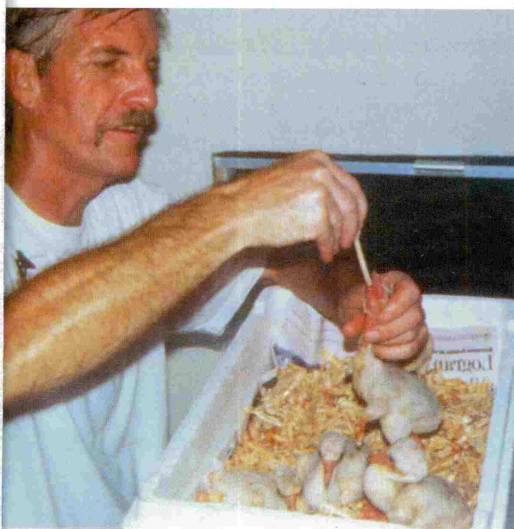
# Aviculture Helps Flamingos in the Yucatan of Mexico

by Charles Pfeifer  
Bird Keeper, Jackson Zoo

In the early summer of 1990, a jaguar began preying upon the American flamingo colony at Reserva de la Biosfera Ria Lagartos or Ria Lagartos Biosphere Reserve at the eastern tip of the Yucatan Peninsula in Mexico. Ria Lagartos means Lizard River in English. This is a reference to the crocodiles, not lizards, seen there by early Spanish explorers.

The American Flamingos *Phoenicopterus ruber ruber* in this colony usually number from 12 to 18 thousand nesting pairs and are of vital importance to the continued survival of this beautiful bird. Eighty-five percent of the flamingo nesting on the Yucatan Peninsula makes Ria Lagartos the largest nesting colony in Mexico and one of the largest in the Caribbean basin.

Photo by Rick Tucker



Handfeeding flamingo chicks with a warmed diet through a syringe and feeding tube.

Display of captive flamingos at Xcaret.

Jaguar predation is nothing new to this colony. In 1996, five thousand chicks and eggs were killed or abandoned during that big cat's attack. After this episode, biolo-

gist Gloria Rodriguez de Baché and Xcaret submitted a proposal to Mexico's National Institute of Ecology to incubate eggs abandoned in these predation incidents. Xcaret



Flamingo chicks at Xcaret.

Photos by Charles Pfeifer



is a park in the Yucatan peninsula that features a modern zoo, bird breeding facility, scuba diving, etc. Half of any successfully raised birds would be released in the wild and half would go to the captive breeding colony at Xcaret. The proposal took four years from start of preparation to final approval.

Again in 1990 a jaguar struck. The reserve biologist, Dr. Rodrigo Migoya von Bertrab, and his staff discovered jaguar tracks and several dead adult flamingos. A night watch was established to monitor the situation and to deter the secretive cat from returning.

It soon became apparent that nearly a thousand adult flamingos were incubating their eggs only during daylight hours and leaving at nightfall. Apparently these birds didn't want any part of another nocturnal jaguar assault. Flamingo colonies are sensitive to disturbance and this portion of the colony had undergone considerable trauma and disruption.

Clearly, the eggs were not going to hatch under these circumstances so it was decided to remove these partially parent-incubated eggs for artificial incubation. The eggs were split between Xcaret and Ria Lagartos.

As the eggs began to hatch in the incubators, the enormity of the undertaking became obvious. One thousand plus eggs were collected. Many embryos died during incubation, but many were hatching. Dr. Migoya von Bertrab asked Chris Brown, Curator of Birds of the Dallas Zoo, to recruit American zoo bird keepers and supervisors with handraising experience to come to Mexico to help with the overwhelming number of hungry chicks.

Zoo personnel from all over the U.S. began rotating in and out for "tours of duty" that usually averaged a week or two in length. While I was there in June, Rick Tryan of Fort Worth Zoo, Laurie Burch of Sea World/San Diego, and Peter Costello of Zoo New England worked hard in a valiant attempt to

satisfy the horde of begging flamingo chicks. Other zoos sent people before and after us. Along with Alberto Baché Zaruaz (supervisor of the Xcaret bird facility) and his staff, our work was cut out for us. It turned out to be rewarding, educational, and satisfying work, but no vacation. We worked much of the day from 8 A.M. to after 10 P.M. tube feeding the demanding flamingo chicks and trying to keep things clean. Everyone should experience the sound of many hungry flamingo chicks in an enclosed room once in their lives!

Some of the eggs turned out to be infertile, some embryos died during incubation, some chicks died during handraising. About two hundred birds survived. We used the Fort Worth Zoo flamingo diet warmed and fed to the chicks in a syringe with a feeding tube inserted into the crop. The recipe is as follows. It was mixed in a blender to a soupy consistency.

Silversides	110 g	7.5%
Krill	80 g	5.5%
Cooked egg yolk	64 g	4.4%
Human baby cereal	29 g	2.0%
Ground Mazuri		
Flamingo	28 g	1.9%
Brewer's yeast	16 g	1.1%
Vionate	4.8 g	0.3%
Calcium carbonate	2.4 g	0.2%
Water	1125 g	77.1%

8 ounces water=227 grams,  
1 tbsp vitamins=15 grams.

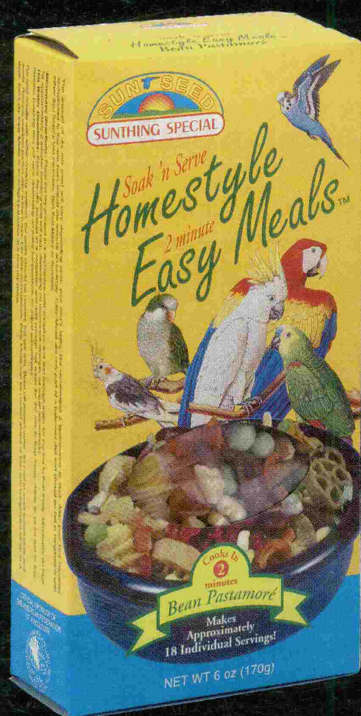
In October, 2000, 51 flamingos from the handraising program were released to the wild. Thousands of dollars were spent on lab testing the birds that were candidates for release and only those which were one hundred percent free of pathogens of any kind were approved for release. The others were kept for further study or captive breeding. Mr. Baché Zaruaz felt that no chance whatsoever should be taken in introducing disease from the captive flamingos to the wild flock. Those released appear to be doing well and are regularly monitored.

The American Flamingo is a good indicator species of the health of the wetland and coastal habitats on the Yucatan peninsula, including Ria Lagartos. The livelihood of many local fishermen depends on the health of these ecosystems. Besides flamingos, a long list of 332 species of birds have been confirmed so far at the reserve. It is a vital stopover for birds migrating between North America and Latin America. Chris Brown, bird curator of the Dallas Zoo, coordinates a research program at Ria Lagartos involving periodic banding of the flamingos and study of their ecology, behavior, physiology, and migration. Attempts to involve the local communities in ecotourism and school outreach programs to educate children about the value of flamingos have begun. This research and flamingo conservation in general deserves our full support. ➤

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