Proyecto Loro Returns Amazon Parrots to the Wild

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On February 22, 1992, a tangible part of a long awaited and worked for project, was about to start. It was in late 1989 in McAllen, Texas during a meeting of conservationists when Mario Vasquez of the Autonomous University of Tamaulipas (UAT) in Mexico, requested help in dealing with parrots that had been confiscated in Mexico. He also reported some sad figures on the status of, and illegal trade with, the Yellow-headed Amazon *(Amazona oratrix).* He too was trying to establish a network to establish an education and conservation program.

It was only a matter of time before Mario Vasquez, Ernesto Enkerlin (a graduate student at Texas A & M University studying parrot ecology) and Jack Clinton-Eitniear (President of the American Federation of Aviculture and Director of the Center for the Study of Tropical Birds) joined forces in what was to become PROYECTO LORO (Project Parrot). The final partner was the Mexican wildlife authorities SEDUE recently changed to Secretaria de Desarrollo Social (SEDESOL).

During one of the many meetings Vasquez, Enkerlin and Eitniear would have in Mexico, a three pronged approach was decided upon including development of the techniques required to successfully release Amazon parrots into areas of safe, suitable habitat, education of the public and scientific research. Enkerlin was conducting doctoral research on the ecology of the parrots of northeastern Mexico so that areas were already in progress with funding achieved from the World Wildlife Fund. Education and the release of the confiscated birds was another matter. The sixty, or so, chicks were being housed in less than satisfactory conditions at UAT. The need for construction of a facility to deal with confiscated birds seemed evident. An appeal went out to the avicultural community for support. With little difficulty financial support was received from the Avicultural Society of America, American Federation of Aviculture, Long Beach Bird Breeders, Orange County Bird Breeders, Arizona Seedcrackers and the Arizona Avicultural Society. With the funds obtained it was only a matter of designing the facility and construction. During this time the parrots confiscated had develped into healthy sub-adults. It was time to begin with the development of the techniques required to return them to the wild. In the spring of 1991, a nest box program was started. We also began preparing for an experimental release of confiscated birds.

The release should be monitored to establish success and improve techniques. It should be viewed not in terms of numbers of birds released per se, but more as an educational and research tool to heighten awareness and streamline the techniques under the Mexican reality. In the future and under the right circumstances, these experiences could be used for translocation and supplementation of wild populations.

The two most important abilities for an organism to survive in the wild are finding food and avoiding predators. For birds that have never been in the wild or have been removed for a long time to accomplish these requires learning and conditioning. This process took seven months. The techniques to do this are known in general but they still need refining and especially fine tuning to the species you are working with. First, parrots are put in a cage large enough that they can exercise and maneuver well. In our case, a 4'x 4'x 30' flight tunnel-cage was constructed of 1 x 2' wire mesh and suspended 4' off the ground in a patch of forest on the release site. This seemed a reasonable compromise in size and cost. It did not allow birds to come in contact with their droppings which fall to the ground. In addition it is easily disassembled and can be erected again at another release site.

Predator avoidance requires knowledge, a combination of experience and parrot common sense, and ability. It is in the knowledge part that still much needs to be done. We are still not sure how much is acquired and how much inherited and how to make it part of the birds behavioral repertoire. We were "lucky" that the release cage was visited by hawks and opposums on several occasions which spooked the birds. This helped the birds become more aware of some dangers when the naive birds learned from the ones which had been free ranging before. The ability part is easier to accomplish and mainly a function of flight speed, maneuverability and endurance. Acquiring these is made possible by the long dimension of the cage. Also locating perches only at the ends to induce the longest possible flight bursts. Birds have to be flushed occasionally during 15-20 minute training sessions to challenge their stamina. Well fed birds develop the muscle tissue and endurance in very few days. In fact a bird that has always lived in a small cage can achieve perfect flight abilities in this short time. To enhance the birds survival we need to give them as much of this ability before release because even if it would take them only a few days, these are precisely the days in which a predator will be able to pick them up easily.

Parrots can learn to eat a variety of things, but if they are to survive, we must help them develop a taste for and ability to handle the foods that will be available to them in the wild. These might not be the same from area to area and special care must be taken that the food items used are actually collected in the release area and wild parrots are known to be using them in their diet. It is frequently hard to break habits regarding food preference. The release candidates had been on a seed mix supplemented with pellets and natural food items for some months and showed preference for such exotics as sunflower, safflower, squash and peanuts. Only when we deprived them of the seed mix did they consume the natural foods. Ideally birds should be mostly on the natural food but we had weak knowledge on preferences at the time. Also during the first five months of conditioning we were not on the site full time and opted for having the ranch cook,

Dona Chicha feed them a balanced diet for this time. We were successful in getting the parrots to consume ebony, ''cow's tongue'', coma, figlets and a wild relative of the tomato. They had trouble opening the pods of ebony and we partially opened the pods for them to extract the seed. Since this was considered one of the staple foods we were concerned that it might represent a big handicap. Now after one year of field work it is apparent that even when the Yellow-headed and Red-lored Amazons, which are also found in the area, frequently consume ebony, the Red-crowned does so only rarely. We speculate that this may be related to the smaller bill and body of the Red-crowned, as the pods that contain the ebony beans are wide and tough to open.

Weeks before the planned release date the birds had been fitted with dummy radio transmitters in order for them to become accustomed to them and for us to check if they did not chew or otherwise damage them. At this time, they were also surgically sexed and physically examined by Kenneth Fletcher, an experienced avian and zoo veterinarian. Out of three males and six females available for release, three females were selected and fitted with functional radio collars a week before the release. They were again physically checked and screened for selected diseases by Dr. Fletcher.

Although all birds are identified with a metal band when they enter ''Proyecto Loro'', it is more practical for us to identify them by the frequency of their radio transmitter because we have to memorize it anyway. Bird No. 108 was a ''bronco'' which means that she was captured as an adult and never tamed down. She was very flighty and nervous in the presence of humans. Birds No. 115 and No. 119 were relatively calm birds and we suspect that they were taken as nestlings and hand raised. All birds had been confiscated by SEDUE and kept at the UAT for one year before the start of the condtioning process.

The release area is not an idyllic rainforest but actually an 1800 acre cattle ranch named ''Los Colorados'' in southeastern Tamaulipas, Mexico. Fortunately, owner Roberto Clynes is interested in conservation. Back in the early seventies he started to clear the land. Unlike many of his neighbors, he ordered all large trees to be left standing. There are also shelterbelts and selected forest patches scattered throughout the ranch. This might not seem ''ideal'' or ''natural'' parrot habitat but parrots are doing well. It is predominantly under these conditions that parrots will be able to survive in the future, so it is important to understand the dynamics of these systems. For the purpose of radio tracking it is also very convenient to be able to move from pasture to pasture in a vehicle through the park like surrounding, as opposed to opening your way through the forest especially with birds that can fly half a mile in one minute in any direction.


Photo by Ernesto Enkerlin

Workers constructing parrot rehab. facility on UAT campus, Ciudad Victoria, Mexico.

Releasing and Radio Tracking

The first release marked the end of anxiety and speculation. Both the birds and we were again in the real world. It was also a pompous occasion with the presence of authorities from SEDUE and part of the Clynes family who treated us to a ''pre-release'' barbecue.

There was also plenty of help. A group of volunteers organized through Wildlife Research Expeditions of the Dallas Zoological Society were there to provide financial and logistical support to Enkerlin's research efforts with parrots. They had arrived a few days early and had been trained with the basics of radio telemetry and note taking. They had also provided valuable advice for some last minute adjustments in the release protocol.

The cage was opened at four in the afternoon, one bird flew out into a nearby tree and No. 108 followed shortly. For the next hour and a half No. 115 and No. 119 alternated between coming back to the cage to eat and flying to nearby trees. They were spooked when trying to land when the twigs of the trees bent under their weight, this was our first lesson. We should be putting perches that have this characteristic and not only rigid ones. All this time No. 108 only walked a little on top of a tree and stared at us and her cage mates. Then some wild Red-crowned Parrots flew overhead, No. 108 called and flew a short circle only to land in the same area. Two minutes later another group flew over, this time No. 108 took wing and called, she kept flying until we lost the signal at about a mile from the release site. We set out to search for her all through the night but with no success. We have never found her again.

Both No. 115 and No. 119 spent the night in the tree tops near the cage. Early the next morning No. 115 was not located immediately but after a short search she was found about 400 yards from the release site. At ''breakfast'' time she flew to the vicinity of the cage and ate, she also took tidbits from Dona Chicha. In the very fist day it became obvious that the two birds left were very imprinted on humans. So much so that No. 115 would land on people's heads and follow the ranch hands in the pastures. This behavior had not been apparent in the cage as we tried not to associate with them and make our visits short and our observations from concealment. During four days the birds stayed close to the cage and fed there from the food dish we had for them. On the fourth night No.

119 was attacked by a predator on top of a tree. We strongly suspect it was a neotropical opposum known as the four-eyed opposum for the distinctive marks on top of each eye. Fortunately, it only had two minor incisions in the rump and had lost about half of the tail feathers but could fly well. The bird was taken into the cage again and medicated for three days, it seemed in good shape and was released again. Despite this she was killed that night by a predator, probably the four eyed opposum again. We found the transmitter and feathers about 100 meters from the cage. A guilt complex set in and of course I started thinking about returning No. 115 (the more human imprinted bird, who had started to wander more widely) to a cage. This was reinforced when she disappeared for two days and was reported at the ranch corral taking food from the cowboys. When we found her she approached us and whistled in her peculiar phrase. She did not come close enough to be captured. Next day she was back at the kitchen visiting Dona Chicha, who now had orders not to feed her anything. The reason I did not trap No. 115 this time is that she came escorted by two wild parrots which made me hesitate. This association seemed promising as during the next several days the wild birds would either patiently wait for their friend to do the human bonding act, while watching from a large fig tree, or they would fly off and return a few minutes later to call her. All three would leave the area together. Twice No. 115's bill was stained with juice from the coma berries, a clear sign that she was taking food in the wild. I once witnessed a possible pair bonding behavior of No. 115 with a wild bird. The ranch veterinarian reported a hawk avoidance behavior of No. 115 and her two companions. The down side of all this was that she still liked to land on people's heads. The positive aspects of this "soft" release though made me very optimistic and of course I dismissed the intentions of putting her back in the cage. All this came to a halt when she stopped coming back after March 18. We radio tracked intensely in the surrounding areas and found nothing. I was dismayed. The bird was most likely dead low on the ground in some unfamiliar site. I liked to think that the bird was captured by an area resident and taken beyond the search area. We passed the word but no information was received. This quick outcome to our release efforts was always a possibility but still hard to accept.

On May 6, when Jack Clinton-Eitniear and Dr. Ann Brice (University of California at Davis Psittacine Research Project) arrived, the second release of four birds took place. We had made some modifications in protocol for this one based on the experience of the first. The cage was changed to a different patch of forest away from human habitation to reduce exposure to predators attracted to garbage and domestic animals. This should also reduce the problem of bonding with humans. A visual barrier was used so they could not see their keeper. Due to increased availabilty and information, natural food items were increased in kind, frequency and amount. Ripe coma berries became their first choice. Two of the radio transmitters for this release were twice as powerful to overcome tracking difficulties

Photos by Ernesto Enkerlin/CSTB

Mario Vazques holds parrot fitted with a radio antennae collar. This bird is being placed in the field enclosure and scheduled for release in the near future.

Confiscated Amazon chicks being hand fed by students at UAT.

Photo by Ernesto Enkerlin

Green-cheek in field enclosure feeding upon native Coma berry.

during the first release. The birds consisted of two males, No. 264 and 064, and two females, No. 385 and 193. The No. 264 was another bronco and 064 was a hand fed yearling. Both females were hand fed and three or more years of age.

The start of the release around noon showed that the birds were apparently also very imprinted on humans as they landed close to us in their first attempts. All four had a slow start that day, similar to that of the first release. Later in the afternoon a flock of wild birds came to visit, the released birds associated with them and kept coming back to the cage area during the afternoon. One of the wild birds was an "old friend", a bird that had often visited and called to the ones in the cage during the days of conditioning, No. 193 immediately associated with this bird. By the next morning the two males were in different areas close to the cage and the two females occasionally flying with the wild flock or by themselves. Each consecutive day the birds would be further away from the release site. We were able to get close to and witness feeding on coma berries all birds except No. 264. Five and seven days after release respectively we lost contact with No. 264 and 065.

We would occasionally in the beginning and frequently afterwards lose contact with No. 193 but she was always escorted by her wild partner. The case for No. 385 was different because the new model of radio worked remarkably well, greatly increasing range of detection of the signal. It turned out that each of these two birds has a very peculiar call, different from any of the wild parrots at the ranch and between themselves. This was most likely picked up from their days in captivity although the possibility of regional dialects can not be discarded. For our work it has been very useful, especially for No. 193 who has a transmitter of the first model which is weak, because the birds actually tell us their location when they call. If they survive, this will allow us to follow the birds beyond the life of the transmitters. It also shows the potential problem of rapid habituation and behavioral shifts of parrots in captivity which can reduce their chances in the wild, especially if there are no more wild birds to teach them.

The two remaining birds have been in the wild for over three months at the time of this writing and seem to be doing very well. Shortly after release No. 193 and her partner started investigating a cavity in a large fig tree. They have been very constant and come to check it several times a week, this plus her peculiar call has allowed us to easily keep track of this bird. I am hopeful that they can survive and nest next year. How exciting to have a previously captive bird reproduce in the wild! Bird No. 385 associates with flocks, possibly of juveniles, and is sometimes located by herself. In the last few weeks she has more frequently associated with a single bird even when part of a larger group, maybe she too is planning to settle down. She is very vocal and is often heard near the ranch headquarters. I guess No. 385 never did forget Dona Chicha. This bird has also established some routine foraging and roosting areas which are helping us understand behavior of parrots in the wild.

Interesting news was received in late July. During a trip to town, a relative of Dona Chicha told me that in a nearby village someone had found and captured a parrot with some sort of collar. They had reported this to the rural police who said that they knew nothing and that they could keep it and see. Despite being told that the village was 45 minutes of winding dirt roads away, we decided to investigate a few days later. On August 1 a pleasant surprise awaited us. It was No. 115, she had approached the village late in March uttering her peculiar call and unafraid of humans. Two local boys had captured her. She had been held in a cage since, "someday, someone will come and get her", they said. Well somebody had told them of our project. They asked the person to inform us of this bird. Looking on a map I realized that after all the turns and bumps, we were only seven miles away from the release site. I was so happy, not only had we found a release bird alive but it showed emerging local involvement and support to our project, something I had no idea existed. One of the challenges is to make these attitudes more widespread in the future.

In summary, of four birds whose fate we know, three are alive, two of them in the wild. Three additional birds we lost radio contact with, two of them were broncos which to me greatly enhances their possibilities for survival. The future holds a lot of work and a lot of promise. Proyecto Loro is off to a good start, much has been learned and many friends of the parrots have been won through our activities. Research on reintroduction and release techniques should continue because in the future we may need to supplement natural populations or establish new ones. We need the knowledge and the human resources to do it right in each species homeland. More importantly, we need to keep the parrots where they belong. If projects like "Proyecto Loro" keep flying so will the wild parrots.●