

The babies were D.N.A. sexed as three females and one male. Two females were put into second generation breeding programs with tame wild caught males, the other two were sold as pets.

Each owner has kept an accurate journal for me and the results have been quite interesting. The offspring without exception have proven to be gentle birds. When provoked they will cry and scream, but have never bitten anyone including young children. The pairs set up for breeding have bonded but are still friendly to their human families although they could not be considered pets. Nest boxes will be put up in April as there is mutual feeding and attempts at copulation.

The two offspring kept as pets are adored by their families. They have proven to be good talkers and mimics. One pet had the neighbors rush over by yelling for help and then laughed saying "I'm a Brat" leaving everyone in stitches. The other pet calls to her owner's five year old child every morning "Dustin! Get your book bag!"

It appears that the babies have about a twenty word vocabulary and although their talking ability can't rival that of the *Aochrocephala*, the gentleness of these birds is a consideration when looking for a family pet. The only complaint that has caused problems is mimicry. They appear to imitate everything including the microwave. One baby picked up the cry of the family cockatiel. You can imagine that sound from an Amazon! The cockatiel was placed in another home but Elliot is still letting loose with those screams.

I hope this information will interest Aviculturists in breeding this delightful little Amazon. They appear to make a very stable pet for families with children.



"Aviculturally Speaking"

"The qualities required of an aviculturist working with large parrots include super-human solicitude; extreme vigilance in watching over eggs; tirelessness in spoon-feeding babies every few hours; a heart hardened to the inevitable death of many fledglings; and plenty of good luck. It also helps to have money..."

Jane and Michael Stern

Common Breeding Problems in Amazon Parrots

by Rick Jordan
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Members of the genus *Amazona* are not among the easiest parrots to breed in a captive situation. This is not to imply that Amazon parrots are not bred in captivity as this is far from the truth. Each year, many, many Amazons are bred in captivity in the United States. However, for every pair that produces live young, there are two or three other pairs that have not.

Successful husbandry practices are being recorded as well as a list of "common causes" associated with non-productive pairs. These observations will be discussed in this article but are not meant to be taken as the "rule of thumb" or the only way to breed a pair of Amazon parrots. Due to the nature and intelligence of these birds, many have adapted to their new set-ups and surroundings and have begun to produce young. There is no reason to change a pair's set-up if chicks are being produced.

Many Amazons that are currently available as breeder stock are either older wild caught birds that were imported prior to the "Wild Bird Conservation Act of 1992" or captive bred young produced right here in America. Both wild caught and captive bred birds are capable of breeding although the breeding biology for these two groups has some distinct differences. Older wild caught birds may or may not be of the proper age to breed when purchased. The exact age required for wild birds to breed is not precisely known as there has been very little field research done on parrots.

When dealing with captive bred subjects, the "average" breeding age of most medium sized Amazons is about four years. Larger species, such as the *ochrocephala* group, usually will not breed

until approximately six years of age. There is also little data of the maximum breeding age of this genus of parrots. Captive Amazons, upward of thirty years of age, have laid eggs. This is encouraging and could indicate a very long reproductive lifetime in captivity as well as in the wild.

In addition to age, there are other more controllable problems that can contribute to non-productivity. Birds that are overweight, overly aggressive, nutritionally deficient, improperly housed, or improperly socialized may not breed. Most of these situations can be corrected or controlled by the aviculturist and frequently these non-productive pairs will begin to breed.

Weight Problems

Fat breeder stock is one of the most commonly occurring problems when dealing with Amazon parrots. This is due, in part, to the fact that captive Amazon parrots relish the flavor of very fatty foods. Many of the higher fat content seeds and nuts that are fed in captivity are not available to the wild Amazon. If they were, wild production would probably double.

In captivity there is no harm in feeding these foods as long as the birds can get plenty of exercise and are supplied with other healthier foods to round out the diet. At no time should a pair of Amazon parrots be fed exclusively on seeds and nuts. In most cases this will cause obesity, laziness, and non-productivity. Once again, diet plays an important role in the production of young in captive parrots.

There is a defined breeding season for Amazons in the wild and, in most cases, in captivity. Once defined, the avicultur-

ist can manipulate the diet to assure that breeder stock is supplied with the foods that are "right for the season." During non-productive times of the year, the aviculturist should gear the diet to maintenance of the birds. This is the season when the higher fat content foods should be fed in very limited amounts. Lower fat diets are especially important if the breeder stock is already overweight and inactive.

In cases of weight problems, feed plenty of fresh vegetables and try a lower fat pelleted diet as a supplement to replace the seed in the diet. There is also a product now available from Phoenix Unlimited that can be sprinkled on the vegetables or fruits designed specifically for "fat birds." This product, called "Flight Plan", is designed to assist in the utilization of body fat while supplying the needed vitamins, minerals, and amino acids to the bird.

Sprouted beans, seeds, or grain foods can also be a help when dealing with an overweight bird. In addition to dietary requirements, it is often helpful to put the overweight birds into a larger non-breeding set-up during the off season to encourage flight and additional exercise. If the food bowl is placed on an elevated pedestal in the middle of the cage, the bird will be forced to fly to the bowl to eat. Design the system where the bird cannot get to the food by climbing, make it fly to the food source.

I must caution you that the Amazon parrots require fat in the diet during breeding. For this reason it is not wise to limit the diet during the actual breeding season or while chicks are in the nest box. A reduced fat diet should only be offered during the non-breeding season.

Mate Aggression

The propensity for Amazon parrots to be aggressive to their potential mates is very high. This aggression leads to a fearful situation experienced by one mate or the other. Often this fear of their mate will prevent normal copulation from taking place and, if eggs are laid, they will probably be infertile.

Aggressive mates are not easy to deal with. More often than not, aggression is displayed during the time when the human keeper must intervene to feed or service the cage. If both mates show aggression towards the keeper, this is fairly normal. However, if only one mate shows the aggression and the attack is staged on its mate, breeding problems will most likely occur.

The answer as to how to deal with this

aggression is partially dependent on the observations of the aviculturist. Non-productive pairs where one mate is bickering or attacking the other should probably be separated. A few months in cages adjacent to each other and the birds may display signs that they prefer to be together again. If this is not the case, and the attacks continue, the aviculturist must seek out a new mate to replace the aggressive partner. Although this sounds harsh, it is often the only way to solve the problems of infertility or non-productivity.

Husbandry, Caging, and Diet

Once a compatible pair is formed, they are both of breeding age, and the diet is sufficient, breeding should take place. As discussed above, the diet is important both during and after the breeding season. Amazons, more than most other types of parrots, need to have two diets supplied during the year. One diet for the non-breeding season, and another, high fat diet, during the breeding season. These dietary changes are given a great deal of credit for stimulating production in all successful Amazon breeding programs.

The breeding cage is another important aspect of husbandry. Cages should be as large as possible, within reason. The larger species of Amazon parrots need to exercise and fly if successful nesting is the goal. The smaller Amazon parrots need socialization with other Amazons to stimulate breeding. On this point, it is often wise to set Amazon cages in line with each other to provide normal interaction with other pairs. Nesting areas should be private. This privacy can be provided by hanging barriers of some type near the nesting end of the cage. This should be the only area where the birds cannot see another pair of Amazons from their cage.

Husbandry is dependent on many factors of the collection. How long have the birds been set-up? How compatible are the species that have verbal and visual access to each other? And, probably most important of all, are the pairs compatible with each other? The importance of these elements can be realized by relocating a productive pair of birds into another location within the same collection. Often this will result in a year or two of non-productivity until the pair has established its "order" among the new neighboring pairs.

Socializing the Young

Having only been involved with

breeding parrots for some 12 years now, I have had few occasions where it would be possible to produce second and third generation offspring from my Amazon parrots. Therefore, I felt it necessary to consult with a few of the more "seasoned" breeders in this country and abroad to find out if captive bred Amazons will breed. Of course the answer was yes in all cases, but the situations were all different.

Some of the most successful multiple generation breeders, Howard and Kathy Voren of Florida, gave me some interesting pointers. They have one system of rearing for Amazon parrots that are to be sold as pets and another system for those that are to be maintained or sold as breeders. This is very logical and it awakened me to just how social and intelligent this genus must be.

During the handrearing and weaning process, young Amazons destined for the pet trade are maintained separately and have more access to humans than to each other. Those that are to be used as breeders are grouped in weaning cages with each other and with other Amazon species, allowing them to socialize and learn from others of their own kind. This has resulted in a slightly younger age of successful breeding from a pair of second generation birds. In cases where a young bird is paired with an older, experienced bird, breeding often takes place at an even younger age.

This example demonstrates how important socialization is to young Amazon parrots. It could also be a key factor in the future success of any release programs that may be attempted using South or Central American species. I hope that the designers of these release programs will take this into consideration before the next attempt is made at releasing captive-bred birds.

In Conclusion

The breeding of South and Central American Amazon parrots requires some knowledge of their habits in the wild as well as their behavior in captivity. Problems associated with the breeding of this genus are being solved by close observation and the recording of many aspects of their successful husbandry. We now know that diet, mate compatibility, socialization of the young, and many innovative husbandry techniques are invaluable aspects of successful Amazon breeding in captivity. Through the exchange of knowledge, aviculture as a science has begun to record its contributions to the future of many species. ➤