

Breeding the Marvelous Mini-Macaws

By Gail J. Worth - Aves International

Are you enchanted by macaws but can't have the loud noise or provide large breeding aviaries? If so, the marvelous mini-macaws might be just right! These little charmers are increasing in popularity due to their moderate size, impish and precocious personalities, moderate prices, hardiness, and readiness to breed in captivity. Although the minis don't have the flashy colors of the larger macaws, they possess a charm of their own and have many wonderful characteristics to recommend them both as breeding stock and as pets.

For the purposes of this article, we will consider any macaw species that averages 50cm (20 inches) or less to be a mini macaw. This would exclude the Spix Macaw (*Cyanopsitta spixii*) which measures 55cm, but includes the Red-Bellied Macaw (*Ara manilata*) which measures 50cm. Therefore, the other five species of minis are the Severe (*Ara severa*) at 46cm, the Illiger's (*Ara maracana*) at 43cm, the Blue-Headed (*Ara coultoni*) at 41cm, the Yellow-collared (*Ara auricollis*) at 38cm, and the Red-Shouldered (*Ara nobiles*) and subspecies (*Ara nobiles cuamensis*) at

30cm for a total of six species plus one subspecies. Thus all minis are from the *Ara* genus which is the same genus as the Scarlet (*Ara macao*) and the Blue & Gold (*Ara ararauna*) Macaws.

All of the mini macaws are native to South America except for the Severe Macaw which can be found in a small area of Panama. The natural range of these species and population density in the range are factors in the relative availability or scarcity in captivity of the species.

Red-Bellied Macaw

This macaw is physically distinguished by a large maroon splotch on the lower abdomen. Notable also is the dull yellowish color of the bare skin area of the face. Although the natural range of this species is quite extensive and it is apparently numerous within its range, this macaw is not common in captivity. It occurs in most of north-eastern South America including the island of Trinidad, the Guianas (Guyana, Suriname, and La Guyane), Venezuela, and parts of Colombia, Peru, and Brazil. The only country to

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export it in recent years is Guyana. As an imported bird, the Red-Bellied is nervous and delicate and has not adapted well to captive conditions. Although some breeding successes have been recorded, this species is far from being established in captivity. Thus this is a very worthwhile species with which to work. Hopefully, the domestic-raised offspring will prove hardier than their wild-caught parent stock and will be more prolific breeders. Although it is reported that the hand-fed babies make delightful pets, it is imperative that these domestic birds be sexed and paired for breeding and, in my opinion, should not be sold as pets in the foreseeable future.

Severe Macaw

Also known as the Chestnut-fronted Macaw, this attractive macaw is generally green with a chestnut-brown forehead and a blue crown. This species is native to eastern Panama through the Guianas and northern Bolivia and part of Brazil. The Severe was exported from Bolivia for many years and more recently from Guyana. A large number of wild-caught pairs are breeding in captivity and the species is prolific. This macaw is well-established in captivity and many are sold each year as hand-fed pets. The only drawback to this species is that it has a loud voice compared to most of the other minis.

Illiger's Macaw

This lovely species is generally green with a red forehead and a bright red lower abdomen and lower back. Its natural range covers a wide area of eastern central South America including much of Brazil, Paraguay, and Argentina. It is relatively rare in captivity due to the fact that it has not been legally exported in many years. A few pairs have proved to be prolific in captivity, but in general, this species has been difficult to establish, due partially to a propensity to lay infertile eggs. This is unfortunate as it is such a strikingly beautiful species. At this time, specimens should not be kept as pets but should be placed in a breeding situation in the hands of experienced aviculturists.

Blue-Headed Macaw

Also known as Coulon's Macaw, this rare species is generally green with yellowish under parts and an entirely blue head except for the bare facial skin area which is rather small and grey colored. This



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Hahn's Macaw babies. Photo by Wendy Craig

mysterious species hails from a limited range in eastern Peru and possibly a small area in western Brazil. It has not been legally exported for a great many years and is very rare outside of South America. Recently a report on birds confiscated by U.S. Customs and auctioned to the public showed two Blue-Headed Macaws on the list so there is a possibility that there are a few specimens in the United States. Very little is known about this macaw. There has been some scientific disagreement for some obscure reason as to whether this is a



*Severe Macaw babies with a baby Red-fronted Macaw.
Photo by Wendy Craig*

whereas in the Hahn's, it is a dark grey. General body plumage for both subspecies is green with the forehead and the crown blue. The bend of the wing and the upper inside wing area is bright red. The Hahn's is more common than the Noble in the United States due to the fact that its natural range is the Guianas, Venezuela, and Brazil and the Noble's range is only in Brazil. Many more birds were imported from Guyana which remained open for export many years after Brazil closed for export. Both species are prolific breeders in captivity and make delightful pets with an excellent ability to mimic. These two subspecies are very high on my personal list of favorite bird species.

Most of the mini macaw species are easily bred in captivity and some pairs are very

subspecies of the Illiger's Macaw. This does not appear likely as the species are so physically different and have different vocalizations and completely different ranges.

Yellow-Collared Macaw

This is a beautiful macaw with a spirited personality. Its plumage is mainly green with a thin line of bright yellow feathers at the base of the hind neck which gives this species its common name. Widely distributed through parts of Brazil, Bolivia, Paraguay, and Argentina, the Yellow-Collared was virtually unknown in aviculture until the 1970s when a large number were exported from Bolivia. Now well established in captivity, this charming species is highly favored as a pet. It has a good talking ability and is moderately priced.

Red-Shouldered Macaw

There are two subspecies of the Red-Shouldered Macaw that are generally known by other common names. The nominate race, called the Hahn's Macaw, is the smallest of all the macaw species. Total length is about 12 inches but this length includes a long slender tail so the actual body size is smaller than that of some conure species. The slightly larger subspecies, the Noble macaw, closely resembles the Hahn's. The head and beak are slightly larger in the Noble and the upper mandible is horn-colored

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prolific. While not nearly as loud as the larger macaw species, breeding pairs are prone to chatter among themselves. I feel that pairs stimulate other pairs to breed by their vocalizations and think it is best to keep several pairs of a species within hearing distance of each other but separated from sight of other pairs. They can be caged side by side if there is a visual barrier between the two cages. They do not require large flights for breeding. The Hahn's and Noble can be kept in small flights 3 feet wide x 3 feet high x 4-5 feet long. The larger minis breed well in flights that are 3-4 feet wide X 3-4 feet high x 5-6 feet long. A rectangular nest box with approximate dimensions of 11 x 11 x 20 inches high is fine for the smaller minis or an L-shaped or "boot box" can be utilized if you prefer. The larger species will readily accept a rectangular box 12x12x24-36 inches high. Hanging the nest box on the outside of the breeding cage will afford ease of inspection and less chewing on the box by the pair. I prefer wooden nest boxes to metal as they do not conduct heat or cold and are more natural for the birds. I feel that chewing the wooden box stimulates breeding behavior in a pair. An inspection hole located about one-third of the distance from the bottom of the box is recommended. Pine wood shavings should be placed in the nest box to a level just below the inspection hole. Two perches should be placed high up in the end of each flight. It is best to raise the breeding cage 3-4 feet off the ground. By having the perch level higher than the keeper's eye level, the birds will feel more secure. This is especially important for wild-caught individuals or nervous species such as the Red-Bellied. If a pair is especially nervous, aluminum flashing can be affixed to some portions of the cage front so that the birds can hide behind the panels for an added sense of security.

In Southern California, where we house our birds outdoors, the mini macaws tend to breed during the hottest summer months. Our pairs begin to lay in late May or June and lay until August or September. Our Yellow-collared pairs tend to lay later in the season than our Hahn's and Nobles. Three or four eggs are a normal clutch for most species. If eggs are pulled for artificial incubation, most pairs will double clutch and might even lay a third time in a season. If eggs are being pulled for artificial incubation, I recommend leaving them under the hen for a full two weeks for increased chances of successful hatching. Most hens set their eggs well. Incubation time is twenty-four to twenty-eight days. The chicks hatch with white down. They are quite easy to hand-rear and grow rapidly.



Young Severe Macaws. Photo by Wendy Craig

Weaning time varies with the species but generally is ten to fifteen weeks of age.

Since it appears that the days of importing wild-caught birds are generally over for the United States, it is imperative that breeders keep a percentage of their offspring back for breeding stock. Although there are slight dimorphisms, the only reliable way to set up true pairs is to surgically or DNA sex the birds. It is very important for breeders to band their offspring and to keep accurate records on the babies so that inbred bloodlines will not be produced as we will probably not have the option to obtain wild-caught bloodlines in the future years. Domestic-bred pairs can lay eggs at two to three years of age. If not overly imprinted as pets, domestic birds are good breeders. Hand-fed birds destined to be breeders should be handled as little as possible and paired at an early age. Caging them in proximity to older breeding pairs will help to bring them into breeding condition. Domestic-bred birds are much calmer than their wild-caught parents and can be quite entertaining in the aviary. Many of our domestic-bred breeders talk in clear voices.

When deciding which mini-macaw species to procure for breeding, please consider working with several pairs of whatever species is chosen. It is much better to have six pairs of one species than to have one pair of each of six species. Having a number of pairs has several advantages. Vocalization from multiple pairs helps singly housed pairs to feel more secure, as they are usually found in small flocks in the wild. These



Yellow-collared Macaws. Photo by Matt Baird

vocalizations will help to bring the pairs into breeding condition. By having a number of unrelated pairs, the breeder can provide unrelated pairs to other breeders and also keep back unrelated stock for future breeding. It is very satisfying indeed to be breeding birds one or more generations away from wild-caught stock.

Whether to work with the more common species or to accept the challenge of the rarer, more difficult species such as the Illiger's and the Red-bellied is another decision that the breeder must make. Certainly there is more potential for profit if working with the more common species. Not only are they more prolific but there is a market for the offspring both as pets and as breeding stock. However, responsible breeders have an obligation to aviculture to work with rarer species for reasons other than a profit motive. Rather than to jump right into working with a rarer species, I recommend working with a more common species first to gain experience with the minis. Once success with this group is realized, you might decide to try working with one of the rarer types. Some breeders balance their collection with both common and rarer species. Income from offspring from the common species helps to finance the important work with the rarer species. This recommendation applies not only to the mini macaws but to any group of bird species.

Stomach contents of specimens captured in the wild include seeds, nuts, fruits, berries, leaf buds, blossoms, and other vegetable matter. Of course we cannot duplicate the wild diet but I feel it is important to provide a variety of fresh food to birds in captivity. I do not feel that a diet comprised of only seed or only avian pellets is adequate. Instead a diet that includes both seed and avian pellets and a large variety of fresh vegetables, fruits, cooked grains, cooked root vegetables, and sprouted seeds is best in my opinion. To prepare this diet we boil a large variety of grains and pulses including red wheat, lentils, brown rice, kernel popcorn, and several varieties of beans and peas. This is boiled for about thirty minutes and allowed to cool. To this we add chopped fresh produce in season including corn on the cob, green beans in hull, cucumbers, broccoli, chard, kale or other leafy dark greens,

cauliflower, squashes, apples, oranges, coconut, grapes, papaya, plums, berries, and other seasonal fruits. Root vegetables such as carrots, beetroot, yams, and sweet potatoes are chopped and boiled for about thirty minutes or these can be microwaved if you prefer. Cooking these roots breaks down the cellulose and renders them more digestible and more palatable to the birds. The birds love them and they are extremely nutritious, being a wonderful source of natural carotene. After ingesting beetroot, the birds will often pass red feces so don't be alarmed and worry that your birds are bleeding internally! After the roots are cooled, they are added to the mix of cooked grains and fresh produce. Sprouted seeds are then put into the mixture. We use a sprouting kit sold by China Prairie Farm of Garberville, California. This kit provides a high quality seed mix in great variety, an additive for the sprouting water that prevents fungal growth, and a vitamin/mineral powder which contains eighty-eight trace elements and is colored green from the spirulina blue-green algae that it contains. I feel that fresh succulent sprouts are an important addition to captive birds' diets and this kit makes it quite easy to provide these for our birds. Finally, we add a high quality avian pelleted food designed for breeding birds and sprinkle a quality vitamin/mineral powder into the mixture. During the colder winter months right before breeding season begins, we add some dry seed mix including sunflower seeds to the diet. This gives the birds a little additional fat for the cold nights and also increases the protein level of the diet somewhat. I do not find that macaws get overly fat if fed sunflower seeds occasionally as Amazon parrots are prone to

do. In fact, macaws require more fat in their diet than do most other New World psittacines and also can be fed cracked raw nuts in the shells occasionally. We have been adding alfalfa meal to the diet during the past year to see what effect this might have on breeding but have not seen any change. We have experienced some infertility in the recent past in our Yellow-collared macaws and have recently added spirulina and wheat grass powders to the diet to see if this will produce better results in the future. We are also hopeful that the eighty-eight trace elements found in the China Prairie sprouting kit powder will have a positive effect on a feather plucking problem that we have seen in some of our Yellow-collared.

Mini-macaws are generally quite hardy. At our breeding ranch they tolerate great extremes in temperatures from occasional dips into the 20's F in the winter to an occasional day of 115 degrees F. We recently pulled fertile eggs on such a day and all eggs survived just fine. I do not understand how the parent birds can properly care for the eggs in such heat but somehow they did it!

Even if purchasing domestic stock from a reliable breeder, it is recommended that you have the birds checked by an avian veterinarian before setting the birds up for breeding. It is particularly important to have the birds checked for papillomas. This is a contagious condition caused by a virus that will cause warty growths on the cloaca which can interfere with breeding. Some species of macaws seem particularly prone to contracting this disease. If a bird is found to have it, it can still be used for breeding but it is best to pair it with a bird that is already infected. The growth can be removed on a regular basis by your veterinarian and there are some experimental treatments that appear to be effective. Eggs from such pairs should be pulled for incubation to lessen the chances of the offspring being infected as well. Macaw Wasting Disease, also known as Proventricular Dilatation Syndrome, is another concern when adding new macaws to your collection, especially in an indoor environment. The exact cause of this disease is not completely understood and there is no accurate test for it in a living bird at this time but it is thought to be caused by a virus. It seems to be more contagious to birds housed in proximity in a closed building. Research on this syndrome is ongoing and hopefully there will be more answers in the near future. Ask your avian veterinarian for advice and current information about this problem.

Mini-macaws are a delightful group of birds, highly recommended for breeding and for pets. I am truly smitten by them and cannot imagine not having

them in my collection. For a huge personality in a smaller package, try working with the minis. You will be rewarded with delightful, easy to hand-rear, wonderful chicks! ■



Blue-headed Macaws. Photo by Matt Schmit

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