



Scarlet Macaws

by William Horsfield

Amazona Endangered Parrot Breeding Facility
Assagay, Kwazulu-Natal, South Africa

Taxonomy here are three probable subspecies of the Scarlet Macaw although only two are recognized at this stage – *Ara macao macao* and *Ara macao cyanoptera*. The three are visually distinguished by their different wing patterns.

Most commonly seen in captivity is the variety with a very wide band of yellow on the wing and navy blue perimeter and secondary flight feathers. These birds have a more orange-red body coloration which fades in intense sunlight. The inferior surface of the primary and secondary flight feathers have red midlines with yellow outer edges.

A second has a very deep red colour which is more colour fast and remains red. These have emerald green on the wing coverts in addition to yellow, with navy primary and secondary flight feathers from a distance, this second type shows almost no yellow on the wing. The inferior surface of the flight feathers are red.

A third is a much larger bird whose navy blue flight feathers are replaced by royal blue. These have royal blue on the lower portion of their yellow wing coverts. In research done at Raintree Macaws in California in the USA, this type of Scarlet was found to be longer than any other macaw, including the Hyacinth. Photographs of my birds of this type accompany this article and are all progeny of birds originally imported into South Africa from Nicaragua.

Distribution

A.m.macao – Costa Rica, Panama and north and east Columbia, east through Venezuela and the Guianas to Central Brazil, and South to Ecuador, east Peru and north east Bolivia

A.m.cyanoptera – south east Mexico to Nicaragua

Status and Conservation

Scarlet Macaws were listed on CITES Appendix I on 1 Aug 1985. Habitat

destruction, poor nest-site availability, trapping for the avicultural trade and for local household pets, as well as hunting for the pot and for feathers for traditional Indian ceremonial dress, all have contributed to the rapid decline in numbers of this macaw. It is now extinct or critically endangered in much of its former Central American range and only reasonably common in the remote areas far away from human disturbance. Conservation initiative in Carara Biological Reserve (CBR), Costa Rica, involves education programs for local communities, visitors, and guards, community development with ecotourism promotion, and ongoing intensive biological study.

Anyone with a serious interest in the macaws should do themselves a favor and buy the superb, definitive book titled, *The Large Macaws*, cited in the references at the end of this article.

Scarlets often are found in large mixed flocks of Blue and Golds and Green-wingeds out of the breeding season. These large groups provide tourists with lifelong memories as they fly down to the clay river banks in a dazzling display of rainbow colors. It is thought that in eating the clay from these river banks, they detoxify the toxins found in some of the unripened fruits in their diets.

I read a recent posting on the Internet from Dr. Donald Brightsmith (Duke University, Durham, NC). He is soon to be heading into the field again in Costa Rica, to hang artificial nests for a group of recently released Central American Scarlet Macaws in the Curu Refuge on the Pacific Coast. It is hoped that this released group will form another self-sustaining population of this endangered subspecies of Scarlet. Donations to this project and the other outstanding work that he is doing, must surely be one way in which aviculturists the world over can play a decisive role in supporting the preservation of these magnificent creatures.

Character and Personality

As with everything, there is always the exception but on the whole I would not recommend the Scarlets as pets or companion birds. They are not generally as trustworthy as the handraised Green-winged or Blue and Gold and can be absolutely spiteful at times.

Some may jump to their defense at this accusation, but those who have had the opportunity to have a number of the large macaws as pets will agree that the Scarlet does not rate very highly on the loyalty stakes. Many devoted owners have had sudden non-voluntary, painful reconstructive procedures, normally involving the lips, nose and ears! Give me a handraised Greenwing any day. I have clients whose four-year old kids push the Scarlets around in prams, and who play housey-housey under the duvet with them for hours on end, all with total immunity from the massive mandible. Scarlets are uncannily like your average cat in that way – friendly when it most suits them!

With bonded adult pairs there is always the strong bond as seen with the other macaws but there are periodic arguments. Again this varies from pair to pair, and handraised pairs are more prone to this trait than parent-raised pairs. There are bouts of bickering that can turn into full-scale war at the slightest provocation. Any attention from the keeper can cause instant jealousy and often the result is a scrap. Serious injury is uncommon but quite a few of my more temperamental pairs occasionally lose a few feathers in these domestic squabbles. Minimal interference from the keeper is advisable for these volatile pairs and avoiding eye contact and not talking to the birds certainly does help.

Lifelong pair loyalty is also questionable with Scarlets. My best breeding male fell madly in love with a very young hen placed in the adjacent aviary and turned on his mate of many years with surprising rage, apparently determined to trade her in on the younger model! The young distraction was quickly moved to another aviary whereupon the old male appeared



PRESENTING
**PARROT
SPECIALTY FOODS**
For Breeders & Hobbyists



Genuinely Balanced Formulas of Vital & Pure Ingredients, Resulting in Foods with High Biological Value, to Help Ensure an Active, Healthy Life for your Bird.

TROPICAN™

FORMULATED FOOD

Special Hand Feeding Formula for Babies

Micro-ground Extruded Formula

B-2661, 1kg (2.2 lb) B-2262, 5kg (11 lb)

Natural Extruded Granules

Comes in two granule sizes:

Cockatiel and Parrot.

Tropicana contains seven different grains and nuts with natural colors and fruit flavors for maximum nutrition and palatability. Less powder waste, along with higher caloric value, making it very economical to feed.

Life-Time/Maintenance Granules

Cockatiel: B-2527, 3.6 kg (8 lb)

B-2528, 9.1 kg (20 lb)

B-2529, 18.2 kg (40 lb)

Parrot: B-2627, 3.6 kg (8 lb)

B-2628, 9.1 kg (20 lb)

B-2629, 18.2 kg (40lb)

High-Performance/Breeding Granules

Cockatiel: B-2532, 3.6 kg (8 lb)

B-2533, 9.1 kg (20 lb)

B-2534, 18.2 kg (40 lb)

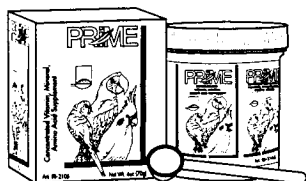
Parrot: B-2622, 3.6 kg (8 lb)

B-2533, 9.1 kg (20 lb)

B-2624, 18.2 kg (40 lb)

*Note New smaller bulk sizes

PRIME



CONCENTRATED FULL SPECTRUM VITAMIN, MINERAL AND LIMITING AMINO ACID SUPPLEMENT

Sprinkle over fruit and veggies for birds on seed/legume based diets.

B-2105 - Screw top jar, 70g

B-2106 - Screw top jar, 0.45 kg (1 lb)

B-2110 - Bucket, 2.2 kg (5 lb)

Distributed by:

CANADA: Rolf C. Hagen Inc., Montreal, Qc H4R 1E8

U.S.A.: Rolf C. Hagen (U.S.A.) Corp., Mansfield MA 02048

In U.S.A. call: Tel.: 1-888-BY-HAGEN for local distributor

HARI'S WEB SITE:

<http://www.pubnix.net/~mhagen/>

NOW AVAILABLE!

TROPICAN FOOD STICKS

Same Premium Tropicana Formulas

Sticks are larger and longer, designed for large parrots who like to pick up their food and hold it.

**Tropicana High Performance
Parrot Food Sticks**

B-2615, 3.6 kg (8 lb)

B-2616, 9.1 kg (20lb)

B-2617, 18.2 kg (40 lb)

Tropicana

Life-Time

Maintenance

Parrot Food Sticks

B-2611, 3.6 kg (8 lb)

B-2612, 9.1 kg (20 lb)

B-2613, 18.2 kg (40 lb)



Gourmet

SEED, FRUIT, NUT & VEGETABLE MIX *Fortified with Tropicana*

Rich variety for fun, Parrot food can be soaked with warm water to rehydrate fruits and vegetables.

Cockatiel: B-2804, 5 kg (11 lb)

Parrot: B-2809, 4.5 kg (10 lb)

Parrot Gourmet is 100% edible fruits, veggies, and nuts, no messy shells

- *All foods are packed in *Gas-Flushed Air Barrier Bags* * with the exception of 40 lb sizes which have no fruit flavor or CO2 gas.
- Protects package from environmental deterioration. Carbon dioxide gas slows oxidation of nutrients and *prevents bug infestation*.
- *Exceptional Quality Control*. Each batch is *tested for quality and guaranteed analysis*.
- Fed to HARI's birds before being released.
- *Smaller Consumer Sizes Also Available*.



totally heartbroken. Only after prolonged sulking did he reluctantly return to his faithful spouse. He now appears as devoted to her as before and they have successfully bred a number of times again, so the possibility of original incompatibility seems slight. Amusingly, a pair of the originally imported birds from Nicaragua still yells *Hola! Hola!* (Hello! in Spanish) when they are excited.

Despite these disputes, the Scarlets are not difficult to breed. They mature rapidly and can breed from three to four years of age. Younger birds paired to older proven birds will breed the fastest. Having said that, there are many pairs that have taken six to 10 years to breed. This delay in onset of breeding may well have something to do with poor socialization and lack of exposure to adult birds and breeding behaviors at a time when this finer-tuning aspect of aviculture was largely overlooked. This has now been proven to be of enormous benefit to future breeding success and young birds that are initially kept in small groups or flocks, and that have visible access to breeding pairs during their formative months and years, certainly are at an advantage.

Scarlets are sociable out of the breeding season and will benefit from being placed in a large community flight. Initial squabbles may occur but the pairs soon settle down and as long as there are enough food and water stations, there should be no serious fighting. This is an excellent way to allow the breeding birds to exercise and get into peak condition for the next breeding season. I am going to build a free-flight macaw aviary approximately 35m x 8m x 5m [approx. 115 x 26 x 16 feet] at the end of this breeding season and will allow the larger macaws to flock together out of season.

As mentioned, young birds will also benefit enormously from being allowed to interact in this flock situation, and if space and funds permit, there is no better way to enjoy one's birds.

Scarlet macaws are not particularly noisy, and besides the loud early morning and evening calls are not likely to annoy any reasonable person. My pairs will call loudly for their food when feeding youngsters as the feeding time

approaches as if to hurry us along. Alarm calls are raucous! Wild Ibis flying overhead seem to particularly annoy them and the Scarlets will set off a deafening racket. Raptors, on the other hand, instill immediate silence in any of my screaming birds and they will silently observe the raptor's movement while keeping very still.

I feed my flock three times a day and because these times become a routine for them, they invariably are more vocal at the anticipated feeding time. Pairs with large clutches in the nest get their soft-food replaced as needed throughout the day.

If stressed by something, like seeing other birds being caught up for veterinary inspections, they will often hang from the roof of the aviary by the tip of their beak and let their whole body hang while making small flapping movements with their wings. They only extend the wings very slightly in this posture. Another unusual posture of the agitated bird is to hang with its body and head between its legs as if it is about to do a pull-up. This posture is often done after reversing into a corner of the aviary ceiling. Another stress pose is simply to lie almost flat on the perch with head low and make small flapping movements with both wings, similar to the hanging stress posture.

Of all the macaws in South Africa, Scarlets seem to be slightly more prone to feather plucking than the other large macaws. Culprits may pluck their chest right to the down covering or go the whole hog and just about strip everything they can reach. Adult birds that pluck do not normally chew their wing and tail feathers. Plucked feathers are either nipped off at the shaft or shredded along the shaft. The abdomen and back are commonly plucked. Feather pickers often do the same to their mate and the scruffiest bird, often with no feathers on the head, is the unlucky innocent party. This would probably be a result of pair incompatibility or of environmental factors that are upsetting the birds. Due to the multitude of reasons that parrots pluck their feathers, expert advice is best sought in this regard.

Young Central American Scarlets must learn how to "handle" their long

tails. These magnificent tails, being the longest of all the large macaws, must be "lifted" when the bird turns around on a perch. Youngsters always drag their tails over a perch initially and as they mature they learn to bend forward and lift their tail over, so that it does not touch the perch.

These youngsters also seem to derive great pleasure from chewing their own tails, as well as those of their aviary companions. They often do this at some point in their first year and sometimes take another year to grow out of the annoying habit. It does not help to pull the broken feathers out so that they can re-grow because they will just nip them off again. One must either separate the culprits or simply wait for them to lose the habit. Ample distractions are the best way to keep them occupied and if they are busy, they, hopefully, will not chew feathers. Fresh fruit tree branches, sugar-cane, coconut shells, palm nuts, pine-cones and safe commercial parrot swings and toys are all healthy boredom relievers.

Diet

There are a number of commercial diet options available these days for parrots. In South Africa many of the overseas diets are now available, although they are very expensive due to the exchange rate. Everyone seems to have their own opinion as to the finer points of their nutrition regime. The decision to take with regards diet, is basically whether the traditional mixed seeds, nuts, fruits, and vegetables is to be followed or the exclusive pelleted or extruded diets or even a combination of both.

At Amazona Farm, the Scarlet Macaws are fed a varied traditional diet. Pecan nuts are readily available in South Africa and we cut these in half with a pair of garden shears to check that they are not mouldy inside. Pumpkin seeds are relished and are included in the mixed seed mix, which has a base of good quality striped sunflower.

Fresh vegetables and fruit are offered daily depending on what is in season and are mixed with the Aviplus Parrot soft food. All types of melons are enjoyed by the Scarlets who tip their

heads back to get the last bit of juice as they do with grapes. Melons are cubed and fed with the skin. Generally the dark green and red/orange vegetables are fed. Broccoli, spinach, green peas and beans, celery, and then beetroot, red peppers, pepperdews, chilis, oranges, pawpaw, carrots, pumpkins and sweet potato. The sweet potatoes are cooked in the microwave to break down the starch.

Kaytee pellets are added to the mixed variety of boiled peas and beans that are fed at midday and this is mixed into a variety of soaked sunflower, barley, wheat, oats, and sorghum. The soaked seeds are only left to soak overnight in warm weather so that the seed basically just swells up but isn't all roots and shoots. Fungal inhibitors are used in the soaking process and rinsed off well before feeding. Affordable Spirulina is now produced in South Africa and being a firm believer in phyto-nutrients, I have started to include this in the soft food ration. Pasta, rice, cheese, scrambled egg, lean chicken breast, and other tit-bits including the very old-fashioned and often frowned upon whole-grain bread soaked in milk are fed as occasional treats.

Garden flowers (bottlebrush, cape honeysuckle, cigarette bush, marmalade bush, pentas) and berries in season (nandina, cotoneaster, privet) various palm nuts – especially *Cocos plumosa* – and dates, sugar cane and Napier grass and selected fresh branches from fruiting trees (mulberry, loquat, plum, peach) are given daily depending on availability.

Aviary Design

It must always be remembered that any loose piece of wire in any cage is a death trap for a close-banded parrot. I use V-shaped perch holders to secure perches instead of tying with wire and make sure that any wire used on the main aviary framework is clipped short with a side-cutter and bent flat against the frame. Somehow, the birds manage to get these offending pieces of wire underneath their rings and die a slow and terrifying death through hanging. It may seem terribly unlikely to happen but it so

often does – and the day you find your bird hanging needlessly dead in the aviary, will be a very sad day indeed.

Macaws need to exercise and fly and the Scarlet should be housed in an aviary where both birds can fly at the same time without the wings of either touching each other, or the sides of the aviary. Any aviary 1.8m wide x 5m long x 2m high [approx. 6 x 16.5 x 6.6 feet] or larger will be ideal. The narrower widths will only allow one bird to fly at a time. Scarlets will breed in much smaller aviaries but in order for them to maintain optimum health and fitness, there is no substitute for ample flight-space. Suspended aviaries are not suitable in my opinion, unless they have the same flight space and this is usually not cost effective. We have plenty of space and labor in South Africa and small hanging cages for large macaws are the lazy man's option.

I use UK Twilweld post-galvanized welded mesh with an aperture of 25mm x 25mm. A larger aperture has the disadvantage of allowing scavenging feral birds and rodents entry into the aviary, which may carry disease and parasites. I use a wire diameter of 2.5mm. Scarlets are not generally wire-chewers like the Buffon's, Green-wingeds and Hyacinths can be, but there are always exceptions and it is certainly better to be safe than sorry.

I recently heard that there have been many cases of lead poisoning of macaws that tend to lick wire when it is damp in the UK in aviaries where new wire was not properly scrubbed down and allowed to naturally oxidize for a period outdoors.

Escaped macaws will commonly

return to their aviary and for this reason they are sometimes kept at liberty and even are allowed to fly free. This should only be allowed in areas where there is less threat from dangers like overhead cables, predators – and only the more common species like Blue and Golds should be allowed to fly free. A breeding pair of Scarlets belonging to a friend, never once flew in their very large aviary but eagerly took to the skies on their accidental escape and made many spectacular flypasts before being recaptured some days later to everyone's immense relief!

A client of mine allowed his Scarlets to roam free around his farmhouse in Balgowan in KZN, only to have them killed by wild genet cats at night. He was understandably upset and purchased another pair, promising to keep them in his large aviary but lost them to cats again, after feeling sorry for them and letting them out. Needless to say he is an ex-client! Sentimentality is often a great hurdle when it comes to successfully breeding parrots and what we as humans may like to think, is often not in the best interests of the birds themselves.

Breeding

Seasonal?

Scarlets may breed at any time of the year but are usually reasonably seasonal in South Africa. Individual pairs will often go down at approximately the same time each year. However, they may occasionally be late in comparison to previous years and even skip breeding altogether in other years. With factors like diet having been kept relatively constant and this still occurring, the

"Quality Leg Bands With A Worldwide Reputation!"

PARROT BANDS • COCKATIEL BANDS • LOVEBIRD BANDS • PARAKEET BANDS
CANARY BANDS • FINCH BANDS • STAINLESS STEEL FEEDING NEEDLES
ALL SIZES PLASTIC BANDS • FEEDING SYRINGES • CLAW SCISSORS
BAND CUTTERS • PIPETTES • NETS

**Since
1978**



"New"
**Stainless Steel
Parrot Bands**



L & M Bird Leg Bands

P.O. Box 2943 • San Bernardino, CA 92406 Dept: AF
Phone: (909) 882-4649 • Fax (909) 882-5231

Monday thru Friday 8:00 a.m. to 4:00 p.m. (Pacific Time) • E-mail: lmbird@earthlink.net

Send self addressed stamped envelope for brochure!




climate is usually the deciding factor. There is an interesting theory that the low-pressure cells that accompany frontal weather systems are actually a major breeding stimulant for many species. Thunderstorm activity certainly does excite my birds and they breed locally during this stormy season.

Some years many macaws are bred by certain breeders, while elsewhere in the country few are bred. This often corresponds to drought and rainfall figures. The fact that in the wild many large macaws often breed only on alternate years (because they are still flying with youngsters from the previous season) may also contribute to them skipping a season in captivity.

First Time Parents

Captive-bred birds breed readily, whether parent raised or handraised. Parent raised birds might have an edge on hand-raised birds in my opinion, unless the handraised birds were well socialized as youngsters. It takes experience to become a good parent and the first attempts at breeding may be disappointing for the keeper, but the birds soon will get the hang of things. It may be a good idea to leave only one fertile egg with an inexperienced pair and see how they manage. In this way, if you are competent with your artificial incubation and handraising, you can at least be fairly certain of some chicks on the perch. Reliable foster parents may also be a useful option.

Nestboxes and Pests

I use 1.2 m [approx. 4 feet] horizontal wooden octagonal barrels as nestboxes for the Scarlets. The timber used is thick untreated South African Pine and I have found the Scarlets less destructive than the other large macaws. They make a few minor modifications, mainly to the entrance area of the nest and then do not do much further damage.

These long nests prevent damage to the lengthy tails of the adults and give the whole family plenty of room. Nests are regularly sprayed with the revolutionary South African bee deterrent (BYE BYE BEE) to discourage passing swarms of killer bees from invading them. I also use the cattle dip

GRENADE (cyhalothrin) @ 1ml per litre water to kill any mites, lice, biting flies, that may be in the nests. Infested birds may even be dipped in this solution, although a degree of resistance has developed to the pyrethroids. I was recently advised by my specialist avian vet, that he has used FRONTLINE (fipronil) dog and cat flea remedy very successfully as an external parasitic control on birds. This product interferes with the development of the exoskeleton of the insect and is safe to use as a spray on infested birds.

I use flat, golf-ball sized, eucalyptus chips as a nesting substrate for the Scarlets which they chew into smaller pieces. Certain pairs chew these into narrow pieces and other pairs chew them almost into a fine sawdust. Both adults will actively get their "house in order" and then the hen will disappear for up to a week before the first egg is laid. The archangel wing display is a threat posture exhibited by birds in breeding condition and also is an indication of strong pair-compatibility when synchronized, i.e. when both birds display together.

Incubation and Handraising

Scarlets will usually lay 3-4 eggs and start to incubate soon after the first egg is laid. Lay interval is two to three days, therefore the youngest chick will often be unable to always compete for food resulting in stunting. Handraising or supplementary feeding until the chick has caught up would be the safer option in these cases.

If eggs are pulled as laid then some pairs will lay up to 10 eggs or 2-3 clutches. Days to hatch 25-27; Hatch interval is 2-3days; and chick weights for Central American Scarlets at hatch are very high at around 24-26g. Eggs of this subspecies are extremely large with an average egg measuring 51x 31.5mm and having a mass of 43g.

Eggs are incubated at 37.5C [99.5° F.] at sea level and normally developing embryos require 50-55% RH. Once external pip has taken place then the % RH is raised to 70% and the temperature dropped to 37.2C [99° F.] until hatch.

I send the eggshell with its traces of blood, to the labs for DNA sex determination and thereby avoid any trauma to

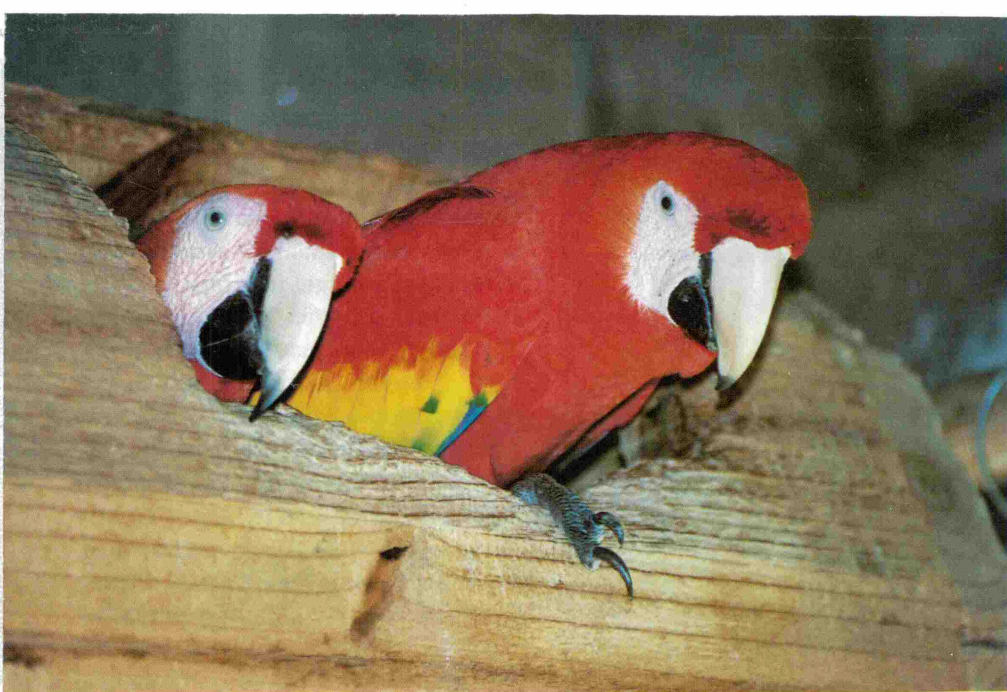
the bird insofar as having to either draw blood at a later stage or perform an endoscopy procedure. This information obviously comes in very handy when available this early. The same can be done for chicks hatching in the nest but careful monitoring needs to be undertaken, in order to avoid a mismatch of eggshell and chick.

Brooder temperature is decreased by approximately 0.2C per day but varies with individual chicks.

I feed newly hatched chicks on Kaytee Macaw formula for three to four weeks and then change them over to AVIPLUS PREMIUM until weaning at 12-14 weeks.

Scarlet neonates are characteristically vocal and have a very strong feeding response and care must be taken when they are being fed not to damage the soft tissues in the mouth and throat. They will easily grab and swallow a teaspoon and should be fed with a dessert spoon if this method is used. Plastic tubing attached to catheter tipped syringes can also be pulled off and swallowed. If tube feeding, always make sure the tube is long enough to pull back out the oesophagus if it is swallowed. Metal tubes should not be used once the feeding response is strong because of the risk of esophageal puncturing. If a puncture occurs and food is deposited under the skin, the bird will definitely die unless operated on ASAP to remove the foreign matter. Crop burns are a common occurrence in South Africa and care must always be taken to make sure that the formula is not warmer than 39C [102.2° F.]. Microwave heated formula is often not stirred properly and boiled water from the kettle not allowed to cool sufficiently and this is the main cause of crop burns.

Crop burns are a result of total irresponsibility and are unnecessary but happen nonetheless. Accidents can happen to anyone and these injuries can be treated successfully by a specialist avian veterinarian. Severely burnt tissue will discolor dark and this is an indication that the tissue has died. The whole affected area will literally fall out of the crop and this is often the first time that inexperienced handfeeders



Central American Scarlet Macaws peering out of a nest opening at Amazona Farm.

will realize that they have a serious problem. When the bird is fed the handfeeding formula will stream out of the hole in the crop. Immediate veterinary attention is necessary and the hole can be sutured closed.

I have always used an ordinary tap mixer to determine the correct water temperature on my wrist and it works well.

There are effective under-the-sink filtration systems available today, which I have started using to drastical-

ly reduce the various chemicals, such as chlorine, and impurities found in our municipal water.

Scarlets are rung with 14mm ID closed bands made from stainless steel at the age when the pin feathers on the wings are just appearing through the skin. It is also advisable to microchip all CITES APP I birds.

The microchip is a small rice-grain sized transponder that is inserted under the skin on the left-hand side of the neck and provides permanent identifi-

cation. A scanner can then be used to identify the bird through its very own number and this is accepted as proof of ownership in the courts in South Africa. In South Africa where birds are considered "wild game," the unwritten rule of finders-keepers basically applies to lost or stolen birds, even if close banded. The microchip provides the owner with a guarantee of legal retrieval, if the bird can be located.

Transportation

There will be a time when the birds need to be transported from one location to another or to the vet, etc. The wooden sliding-top macaw box with angled, weld-mesh sides is ideal. We now use the dog and cat type of tough plastic transport crates with the wire front for long trips, e.g., international flights. These are available in South Africa from Hagen in three sizes from their Pet Voyager range. An additional modification of a raised wire base with a floor-mounted perch will protect the bird from fouling itself and prevent it from sliding around. It is vital that birds being sent overseas have enough food for three days and refillable water bowls in case of unforeseen flight delays.

Careful and diligent packing will greatly reduce the stress of the whole journey. Some European countries (The Netherlands and Belgium) have recently banned all birds on their local airlines. This is because of the shocking way in which some people send their birds in spite of the IATA regulations.

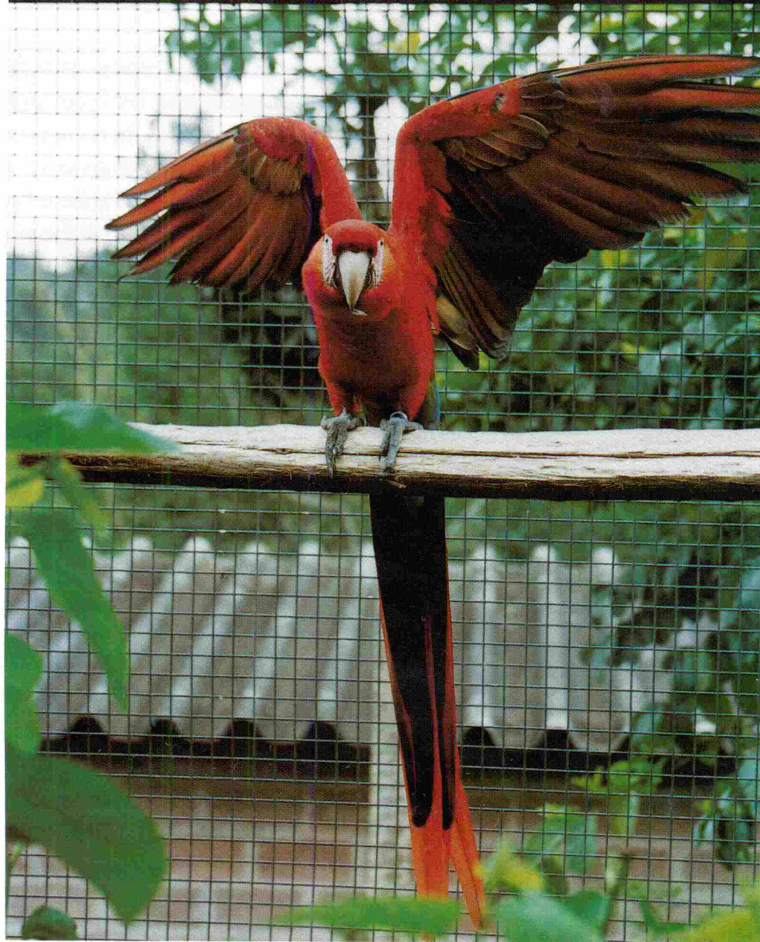
With all birds listed by CITES on APP I (Scarlets) and APP II, precisely correct documentation will also need to accompany the birds. In February this year, birds from South Africa were seized in The Netherlands because their ring numbers did not match those on the CITES permits. Should this happen on subsequent occasions with CITES APP I birds, then the Environment Ministry in Holland can quite easily slap a total ban on all imports from South Africa and those few individuals ruin it for everyone.

The same applies to diseased birds. Veterinary inspections are required immediately prior to shipping for export. I recently heard of PBFVDV Positive African Greys being exported

Photos by William Horsfield



Some of the 1999 macaws bred at the Amazona Farm



Defensive "archangel" display by a male Central American Scarlet Macaw.

with the express knowledge of their owner and this is the most selfish and highly irresponsible, not to mention illegal, act that I have heard of in a long time.

Ecotourism

Each year tourists flock to south-eastern Peru to see what is described as possibly the most spectacular wildlife spectacle in the entire Amazon basin. The ecotourism company, Rainforest Expeditions, takes visitors to see the macaws at Tambopata Research Centre. The birds have become so habituated that visitors can climb scaffolding towers to observe active nests in any habitat from as little as 8 meters away [approx. 26 feet]. Handraised birds fly totally free and return to eat bananas and nutritionally balanced pellets out of the tourists' hands, posing confidently for the trophy photographs.

It was calculated by Moon (1992) that each free-flying macaw would generate between US \$22,500 and \$165,000 in tourism receipts in a lifetime. The importance of the macaws to

ecotourism is therefore clear, but the importance of ecotourism to conservation lies in its indirect use of wildlife and ecosystems as tourist attractions to generate significant revenue and local employment. For ecotourism to be an effective conservation tool however, it is important that the income remain in the region and that the local peoples benefit from it. Only then will they view ecotourism as a development alternative and fully understand the value of nature conservation.

This is a concept which I hope will be applied in the future with our very own beautiful and critically-endangered Cape Parrot, whose numbers are now below 500 individuals in the wild.

Conclusion

The Scarlet Macaw with its beautiful rainbow colors is surely one of the most strikingly beautiful of all parrots. There are many breeders of the nominate species in South Africa and young pairs are usually available. The large Central American subspecies is much less common – I would guess not more than about 60 individuals.

Prospective buyers can expect to join a waiting list and cough up a cool R 18,000 [US \$2,347 at time of editing] for a young pair in mint condition. Prices of plucked birds and problem birds are obviously substantially lower.

Always arrange with the seller to have birds tested for PBFDV, APV and *Chlamydia* unless this is already offered. De-worm new birds and have them microchipped with the TROVAN transponder system which is internationally recognized. Proventricular Dilatation Syndrome (formerly Macaw Wasting Disease) is still hard to diagnose but an endoscopic examination may reveal an enlarged proventriculus, which would certainly be suspicious. Hopefully there will be a definitive DNA assay in South Africa to check for Proventricular dilatation soon.

When purchasing adult birds that are supposedly "ready to breed" or are a "guaranteed breeding pair" ask to have them internally examined (at your expense) by a specialist avian veterinarian. Any reasonable seller should not object to this and if there is any objection, then you were probably going to be taken for a ride.

Unfortunately there will always be those individuals that try to offload their dud birds, particularly onto beginners. Aviculture is a wonderful hobby and a challenging business and these underhand individuals bring it into disrepute through their own greed and dishonesty. If I could offer one bit of advice to beginners, buy only young, captive bred, close banded, unrelated, vet checked pairs from someone who is personally recommended. The three to four year wait until they are breeding age will be well worth it in the long run and you will not be spending your hard-earned cash on birds which are possibly harboring a latent or blatant defect.

Happy birding.

References

- Del Hoyo J., Elliott, A & Sargatal, J. eds. (1997). Handbook of the Birds of the World. Vol 4 Sandgrouse to Cuckoos. Lynx Edicions, Barcelona.
- J. Abramson, B.L. Speer, J.B. Thompson, (1995) The Large Macaws Their Care, Breeding and Conservation Raintree Publications. Fort Bragg. California.
- Avizandum. Vol 12 No3 April 2000

