



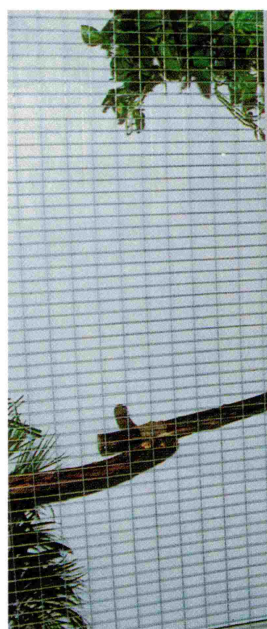
Adult male two and one half years old.



Baby tocos just coming into feather. After the parent birds cannibalized their first chicks, these two were removed and hand raised.



Young tocos five months old.

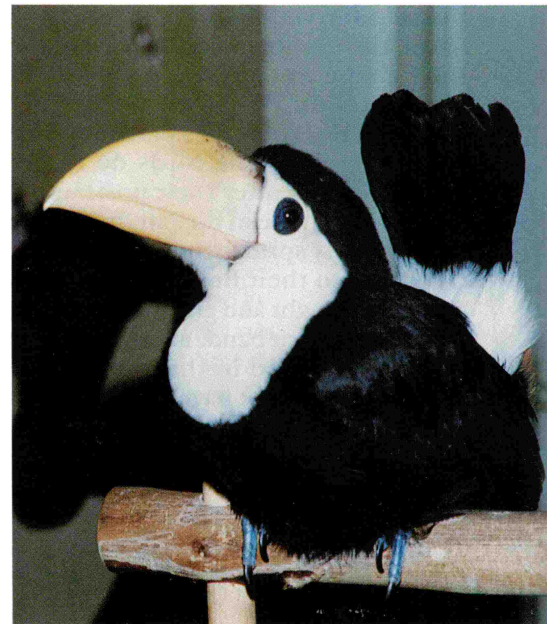


Indoor toucan aviary.

Toucan Tending

by Frank J. Svoboda
San Diego, California

Toco toucans are a fascinating species that delight almost everyone that glimpses their magnificent bills, fur-like feathers and playful antics. However, raising such birds can be a trying task, not only because their diet is quite specialized but also because little is known about the species. When illnesses do occur, professional treat-



Toco youngster two months old getting ready for a nap — tail up. Soon the head will be tucked back with beak mostly lost in feathers. Toucans tend to look like black furballs when they are asleep.



ment often is based on the more common psittacines, which may or may not be applicable to toucans.

I'm writing this article to share my trials and tribulations in trying to mate a pair of toco toucans and to later raise their offspring. I suppose that most people read books or articles in bird magazines when they undertake the task of caring for a newly acquired bird friend, and base their care on that information. That is the approach I took with my toucans, reading all the earlier articles in *Watchbird* that contained toucan information and reading any book about toucans that I could find. Those of you who raise toucans know you can count the number of informative toucan books on one hand, but reading what was available at least gave me some idea on how to start.

I acquired two toco toucans of approximately two years of age and built an outside cage that was 17 feet in length, 6½ feet in height and 5 feet deep. I built the highest cage I felt was possible for the given location, but I was afraid it wouldn't be high enough. Everything I had read indicated that toucans like to be high up in their cages. I later found out that they do sleep on the highest perches available in the cage; but during the day they like to explore, often hopping around on the ground searching for fallen morsels of food.

One of the first discoveries I made was that toucans are highly cautious. Small changes in their environment can cause them to become highly agitated. Putting a new plant or a bird bath in the cage causes them a great amount of distress and they avoid the immediate area for several weeks. I can understand large changes affecting their behavior, but I have also noticed this fear in the face of what appears to be small changes. For example, they became distressed when I entered their cage wearing beach thongs and once when I entered wearing a small bandage on my hand.

Another discovery came about one year after I had acquired the birds. Things had progressed fairly smoothly, with the female laying a clutch of three eggs in a palm log that I had hollowed out. At the upper end of the log I created an entrance with a diameter of

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about six inches. In the process of brooding the eggs, the birds broke two eggs which I attribute to the awkward way the birds spread their wings and extend their bills to shimmy down the hole to the eggs. I suspect this was a learning experience for the birds and they destroyed some eggs in the process. Seventeen days after the female toco had laid the last egg, I heard the sounds of a baby toco coming from the nest. Baby tocos are born blind and bald (altricial) and are totally helpless for many weeks.

I was highly excited that I had been successful in getting the birds to breed, but after three days I experienced another toucan mystery: the baby was eaten by one of the adults. I had read of several zoos that had had similar experiences but I was nevertheless shocked. One week later a second clutch of four eggs was laid; and eighteen days later, the first of three baby tocos hatched. After a week the adults again pulled out a baby and devoured it. It then became necessary to extract the two remaining babies and hand-raise them.

Looking back on the experience, I am aware that the male toco became highly agitated with the female after the eggs hatched and would not let the female come out of the palm log to eat in peace. I suspect that in the wild the male can fly off a distance and harass the rest of nature's inhabitants, thus leaving the female alone. It could be that the confining of the birds, even though the cage seems large to the casual observer, was stressful during the nesting period and contributed to the cannibalistic traits they exhibited.

The hand-raising of the tocos was a wonderful experience, mainly because we found two wonderful people to do it. This left the difficult task for my wife and me of visiting the babies once a week and loving them to pieces. After about thirteen weeks, we were able to bring the babies home to another cage I had built inside the house. I wanted to build as large a cage as possible in the house since the toucans are extremely active birds. Therefore, I built a cage that was 10 feet in length, 8 feet in height, and 4 feet in depth. Three sides of the cage took advantage of the existing walls of the room. The front was constructed of three panels covered with wire; the outer two being stationary and the middle one sliding in either direction in front of them. I did not try to introduce the babies back into the adults' cage because of the tocos' aggressive behavior. In fact, to this day I'm amazed that the baby tocos

will hop down to the ground to attack my cat or dog whenever they come by to sniff near the cage for the dry dog food the birds have dropped.

For the next nine months things progressed normally until suddenly I found my adult female on the bottom of the cage too weak to jump onto a perch. I raced the bird to the vet where it was injected with numerous drugs to counter whatever it was that was making her sick. Ten minutes after the shots the bird died in my arms. A subsequent necropsy revealed that she had suffered from a build-up of iron in her liver, a condition which the doctor said had been seen in most of the toucans he had necropsied.

I had never even read of this problem so I proceeded to research what had happened. A call to a well-known toucan breeder revealed that he, too, had lost many birds to this iron accumulation; some as early as six months of age, others after almost ten years. Lacking a good understanding of what had happened, I resolved that the best way to combat an iron build-up was to limit their iron intake. I was surprised that the worst offenders were the items that most articles on toucans recommend. For instance, mynah pellets have 1600 parts per million (ppm) of iron, vitamins which are recommended often have 8,000 ppm and dog food often has at least 200 ppm. I immediately stopped sprinkling bird vitamins on their food and chose a dog food (Purina Hi Pro) that was low in iron. Most fruits and vegetables don't have more than 20 to 40 ppm of iron so I don't think they were the problem. The only sign of this disease appeared one day earlier when the female toco appeared to be tired and slept occasionally. She had done this a year earlier when she was about to lay eggs so I didn't think it was a problem.

About the same time as this was happening, I began to notice a gradual problem with one of the baby toucans. The feathers on its clipped wing began to crack and break. I took the bird to a specialist who suggested pulling out all the feathers on that wing and letting them grow again. We tried this but, to my dismay, the feathers grew out one to two inches and then broke. To make matters worse, the feathers at this stage are blood feathers and need to be immediately pulled if broken, otherwise the bird will lose a lot of blood.

Since all the birds had been fed the same diet, I figured the problem might be environmental. Two birds were sharing the same cage and the perches

were all four to five feet above the ground. I systematically tried changing all the variables such as lowering the perches, separating the birds, and even confining the bird to a 1 1/2 ft. by 1 1/2 ft. by 4 ft. cage. Nothing seemed to help and both the bird and I were getting frustrated with pulling one or two blood feathers a week.

I went to yet another specialist who suggested we remove one of the feather follicles and have it sent in for analysis. I wasn't happy with this solution because it entailed surgery. I reasoned that the breaking of the feathers might be a protein deficiency, so I started sprinkling a protein powder (with no added iron) to the bird's food, even though it was getting protein from the dry dog food I was feeding it. It took about two more months before the feathers started growing normally. The bird currently is almost full feathered and would most likely be flying had not the wing been weakened by almost eight months of being featherless.

Although this article has been focusing on all the problems I have had in raising toucans, there have been many rewards. Seeing the baby tocos grow up was a fascinating experience that has taught me much about the species. I have also developed a special fondness for the male baby that experienced the feather problem. Although I "tortured" him every week by plucking out bleeding blood feathers, he interacts with me much more than the other toucan does. I go into the cage in the morning to feed them and usually bend down to clean the cage. As I do this, he hops onto my back and makes a contented rattling sound, gradually hopping up to my shoulder where he slaps the side of his bill against my neck. This slapping of the bill is a sign of contentment; the only other time I have seen it done was during nest building.

At night, when the lights are off, he likes to hop onto my arm or shoulder and be fed little bits of dry dog food. He can't see in the dark so he just gropes in the dark while nibbling with his bill until I place a tidbit between his upper and lower bill.

In summary, I feel that much still needs to be learned about the specific dietary requirements of toucans. Iron accumulation and protein deficiency occurred in some of my birds, even though all the birds were on the same diet. There are many variables that we have yet to understand and, unfortunately, toucans are but a very small percentage of the pet bird population. ●

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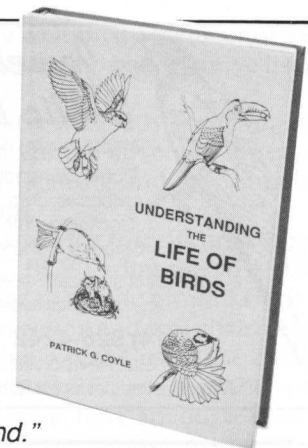
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