

Handfeeding Finches and Softbills

by Wayne Schulenburg
Zoological Society of San Diego

The decision to handrear young birds has always been risky and the commitment to this process is very time consuming and often emotionally exhausting.

While avian pediatrics has been in use for many years and has basically been established for the parrot breeder, finches and softbills have been overlooked, for the most part, by the aviculturist. Primarily this is because of ignorance or just simply not being interested in these species.

How many times have we, as finch breeders, gone out into our aviaries and been overjoyed by the sound of babies being fed only to be overwhelmed a few days later to find the nest abandoned with dead babies or babies thrown out of the nest? Many times the babies are found on the ground and are cold and barely moving. We usually respond quickly to this scenario by setting up an aquarium and adjusting a light bulb to a comfortable temperature. We use a butter tub lined with tissue to put the young babies in and then pray a lot.

As a diet for these birds, we mix protein cereals with hulled millets and occasionally offer morsels of mealworm treats. We then worry and worry and worry. After several days of following our schedule the babies seem to thrive; but then disaster occurs and all the babies die. After blaming ourselves, we swear we will never try handfeeding a finch again, or at least not until the next time!

To offer a bit of consolation, I believe we need to remember a few basics when it comes to breeding much less handrearing finches. First, when you have discovered your adults feeding their chicks in the nest, leave the parents alone. I know the temptation is to look at the babies, but please keep your face out of the nest. You have already provided them with the proper diet and environment and promote them to nest and to hatch young. We must give our finches credit to have their own instinctive power to proliferate the species.

When you do find abandoned young in the nest or those which have

been tossed from the nest, you will have nothing but an uphill battle to raise them. One must remember that these young finches were probably abandoned during the night at cooler temperatures. This results in a loss of body heat and nourishment for them. Young finches tossed out of the nest may fall a considerable distance to the floor and may receive internal injuries or some unnoticed damage to them.

The most important requirement is to get these young finches warm and comfortable. Please do not, I repeat, do not make your diet too elaborate. Make it simple, such as using hulled proso millet or small yellow millet that can be obtained from your local health food store. The best feeding utensils are flattened toothpicks which are first dipped in water and then in the millet. This is then fed to the begging finches.

I have had the opportunity to see the particular feeding method used a number of times with both success and failure. There is no set rule when it comes to finches. Also remember to feed only during the daylight hours as the parent birds do.

It is generally easier to handrear

Australian finches than African waxbills because the Australian finches do not seem to require the proteins obtained in live foods as do the African waxbills.

When it comes to softbills, I am taken back to the early '60s when I first purchased honeycreepers and was overwhelmed by their beauty and unique requirements. These honeycreepers would build nests and hatch out young only to throw them out of the nest one by one. I had such a helpless feeling as I watched with ignorance as the babies died. In those days, one never considered handfeeding softbills, much less something like honeycreepers.

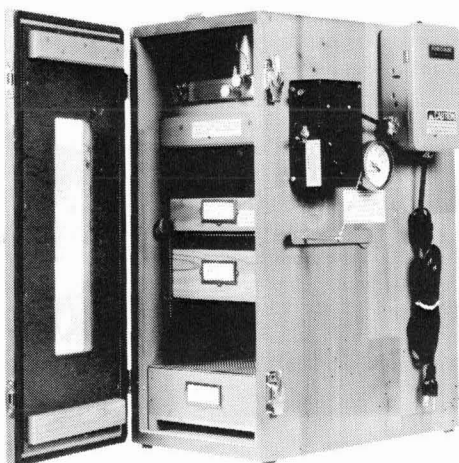
With the wide variety of softbills having been imported into the United States in recent years, there is a renewed avicultural interest in this diverse group of birds. Although every species cannot be dealt with in this article, I would like to relate some personal and San Diego Zoological Society experiences with a few species that may be familiar to you.

The intense interest in the toucan family can be attributed to one private aviculturist, Jerry Jennings. His keen interest and expertise in this group has shown us how simple the birds are to house and maintain.

In 1983, the San Diego Zoo produced their first Toco Toucan baby. The adult pair was housed along with

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many other species of birds in a large walk-through aviary. The toucans were provided a palm *Phoenix canariensis* log that was placed high on a support structure. The Tocos were immediately interested in the log and soon laid three eggs. The incubation period for most of the toucan family lasts between 17 and 21 days. As we waited with anticipation, it soon became evident that the eggs had hatched.

The parent birds were extremely territorial and guarded the enclosure very aggressively. They were first to the food pans to pick out the most tasty morsels of items such as dog food, papaya, grapes and, most importantly, crickets and mealworms. During this time, we placed a human observer to watch the nest. This person would feed up to 200 crickets a day. The adult Tocos would wait anxiously for this food. We removed the chicks on the 40th day, primarily because the other birds were also in the act of fledging young. The adult Tocos were agitated with all bird intruders. Since toucans normally fledge between 37 and 50 days, we felt that removing the Toco chicks on day 40 would be a safe period of time.

The chicks received a simple diet consisting of Gerber's high protein cereal, mixed fruit, vegetables and crickets. The young Tocos were kept in a large brooder measuring 3 ft x 3 ft x 7 ft tall which was heated with one heat lamp. The juveniles were fed three times a day until they were weaned. Weaning varied from 60 to 80 days.

Touracos are reared on a regular basis by zoological institutions as well as private aviculturists. The reason given most often for removing young touraco chicks from their nests is that adult touraco males have a tendency to be rather aggressive with their mates during the incubation and rearing periods. This aggression is usually because the enclosures that house the adult birds are too small. The incubation period for touracos is quite short (approximately 17 days) and the weaning period is approximately three weeks.

Young handfed touracos at the San Diego Zoo are started with a mixture of pinkies (hairless baby mice), papaya and water. This mixture is fed with a spoon in chunk form. Unlike the parrot types, most softbills do not

have a visible crop, so it is difficult to observe when they are full. In our experience, it is best to feel the lower abdominal area. When this area feels tight, the young babies are full. As the young develop, the mixture of food is thickened with bananas and more newborn mice and fed in chunk form until the chicks are weaned.

During the 1987 and 1988 breeding seasons, we decided to try rearing some of the different types of thrushes housed in our collection including Fairy Blue Birds *Irena puella*, Blue Whistling Thrushes *Myophonus caeruleus* and some of the laughing thrushes *Garrulax* ssp. All of our eggs were artificially incubated at 100.5°F (dry bulb) and at 86° to 88°F (wet bulb). Since the handfeeding diets were not considered difficult, the young birds were started out with a liquid diet of water, cat chow, papaya and applesauce for the first seven days. On the seventh day, items such as diced newborn mice and bananas were added to the diet and increased as the chicks developed. This diet also worked well for handrearing Crested Barbets *Trachyphonus v. vellantii*.

While we did lose a number of young birds for unknown reasons, it was felt that those birds that did survive were hardier individuals. One major problem did show up during the 1988 season with some of the young softbills and this was curled and crooked toes. The only way to tell the difference between curled and crooked toes is through a histological exam of the sciatic nerve. Curled toes are generally caused by either low or high incubator temperatures or a riboflavin deficiency (B vitamin). Crooked toes are a genetic tendency aggravated by substrate or infrared heat lamps on brooders. It is very important that all young softbills have the availability of small twigs in the rearing nest so they can exercise their feet from the very beginning to fledging. Heat lamps may also be a source of problems when the young birds leave the brooder to a weaning cage.

In 1988, the zoo's Bolivian Cock-of-the-Rock laid an egg. It was removed from the nest and placed in an artificial incubator in hopes that it would be fertile. It was and the chick hatched on 7 July. The young bird was very bizarre in appearance. It progressed nicely on one part protein (pinkies and insects) and three parts fruit

(papaya and bananas). The problem we encountered was making sure that the rearing nest was clean at all times. This problem showed up when the chick developed pimples on its bottom. Once we realized that its nest needed to be kept cleaner, the problem cleared up quite easily. As the chick developed, slight foot problems were noticed. As with all softbills, perching is a priority. A variety of perch sizes and textures are needed for both adults and young to maintain and develop their feet and legs properly.

After learning by our successes and mistakes of the previous years, we started our 1989 breeding season with Celebean Mynahs *Basilornis celebensis*. The San Diego Zoo houses three pairs of this rare and exquisite species and one pair housed at our Avian Propagation Center decided to go to nest late in January. Two eggs were laid in a nest made of twigs and bamboo leaves. Prior to hatching, the eggs were pulled and placed in an artificial incubator. The eggs were fertile and hatched successfully. The chicks were fed a heavy protein diet of cat chow and fruit sauce mix since this species is highly insectivorous. They were fed every hour on a 12-hour day schedule starting at 07h00. As the chicks progressed, they were fed chunked pinkie mice soaked in Nekton B10 and dipped in calcium carbonate as well as papaya, soft cricket parts and mealworms.

We anticipate with excitement and trepidation many other species of softbills. But we will approach each new hatchling as if it were our first.

Items we find most helpful in our handrearing situations include:

- Aquariums (10 gallon)
- Heating element (Lyon 9" x 9" x 3" - 10 VAC 150 watt heater assembly)
- Nesting receptacle (butter tub)
- Variety of twigs at all times
- Feeding utensils, tweezers, spoon
- Thermometers
- Heating pads
- Patience
- Persistence
- CaCo₃ - Calcium carbonate

It is my hope that this summary of handfeeding techniques used at the San Diego Zoo will stimulate you as private aviculturists to take a stronger look at the diversity of the finches and softbills and reconsider them as avicultural subjects. ➤



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