Before entering and feeding the youngster, the adults would land on the entrance bole of a large smooth-trunked log that was originally used for a Toco Toucan



At approximately three weeks of age the juvenile shows the awareness of an adult. The chick looks like its father—much more colorful than the mother.

## Crested or Levaillant's Barbet

By Dale R. Thompson, Lemon Cove, CA

Crested Barbet. **1** he Trachyphonus vaillantii, originates from a large part of Africa. It ranges from Angola, Zambia, SE Zaire (now the Republic of Congo), Tanzania south to Nambia, Botswana and the eastern part of South Africa. In modern references the Crested Barbet is being referred to as the Levaillant's Barbet. There is an excellent photograph of this barbet depicted in Martin Vince's book Softbills-Care, Breeding and Conservation.

The Levaillant's Barbet was quite common in the zoological world in the past decade, but since it has not been placed on a SSP or TAG program it is not receiving the attention given to birds who are listed on the programs. The International Species Identification System (ISIS), March 1997, records show 7.6.17 (7 males, 6 females and 17 unknowns) with no listed hatchings. It is very important that the private sector work with this species and work toward establishing it in captivity.

Barbets originate from Africa, Asia and Indonesia, and Central and South America and belong to a wide range of genera. All are tunnel nesters and will most often utilize an abandoned (or even an active) woodpecker hole that has been tunneled into the trunk or branch of a tree. Barbets can be quite pugnacious and in the wild have been known to take over a nest of less dominant birds. The breeding morphology of the barbet family is very similar to that of the toucan family.

In 1995, I received a pair of Levaillant's Barbets from Jim Gunderson who has reared a considerable number of softbills in his lifetime including the Levaillant's Barbet. The pair I received consisted of a wildcaught male with a handfed female. The male was very nervous and skittish while the female was not afraid of humans in any way.

The Levaillant's Barbet has a wonderful song consisting of a long running trill. This handfed female would sit on a log close by and, stretching in a high upright position, would run off a musical trill right in front of you. Not only did it do it around people as she loved the attention, but one could hear her song from several hundred feet away in the very early mornings. Due to this great attention-getting behavior, this female was named "Barbie Doll." She was so imprinted to human that I did not know if she would ever reproduce or would ever lay eggs. And if she did would they be fertile?

I really enjoyed this bird and could easily understand Jim Gunderson's great affection for her. He had hand reared the bird and wanted it to always have the freedom of a large flight.

The pair was originally housed in a 10-foot flight until it could be housed in a very large walk-through flight cage that was just being finished in my back yard. This flight cage measured 30 feet in width by 56 feet in length. It had a domed roof that attained the height of 24 feet. The sides were make of paneled 1" X 1/2" wire that went up for approximately 10 feet. Then an aluminum alloy tubular structure made for shade houses was used to dome over the top. Nylon netting was stretched and secured at the top and this created an incredible environment for softbills.

This flight cage had a shallow (14 foot diameter) pool placed in it with a man-made stream flowing into it. The flight was well planted using two fruitless Mulberry trees as the main shade in the non-winter month. The Mulberry trees were heavily pruned to shape them into an umbrella, as they would normally grow straight up in the air and punch holes through the roof. The flight was planted with a number of hardy plants as the wintertime temperatures could drop below freezing at night. Cape Honeysuckle and several types of Jasmine vines covered several of the sides. I personally am not afraid of placing labeled toxic plants within a softbill aviary as the inhabitants do not partake of them. While in the Los Angeles Zoo's enormous flight cage that had a large number of softbills (and even parrot-types), we counted over 27 toxic plants including the very toxic Elephant Ear



The mother Levaillant's Barbet was handfed and not afraid of bumans. She would trill a wonderful song in front of anyone.



The parent bird drilled an additional small tunnel at the bottom of this large palm log. Here the female has food in her beak just prior to taking it into the nest to feed the chick.

plant. But each aviculturist must make his or her own decisions when it comes to planting an aviary.

The inhabitants of this flight cage consisted of the pair of Levaillant's Barbets, a pair Fischer's Turacos, a pair of Black-naped Orioles, a pair of Lilacbreasted Rollers and several singles. These included a Blue-crowned Pigeon, a Tawny Frogmouth, a nonflighted (rehab) Red-billed Toucan (Kita) and an ordinary white dove.

Within this flight I had placed a large smooth-barked palm trunk that was 31 inches in diameter. It was a proven nest for Toco Toucans in past years and I was hoping to soon acquire another pair of large toucans even if it couldn't be the Toco. The internal dimensions were 10 inches in diameter and 17 inches deep. I had no thought that this log would be used by anything other than a toucan.

I knew quickly that the barbets enjoyed the large flight. When I released them into it the male instantly flew to the topmost secure corner away from me while the female landed on a log within feet of my face. Their previous 10 foot flight was never entered except to feed. Now their new home, a walk-through flight cage, was a different matter. Wherever anyone went, Barbie was sure to follow.

After several months in the flight cage the female barbet began a behavior that was not too pleasant to humans. She began to land on one's arm and pinch the skin very tightly without letting go. This was not only annoying but was quite painful, as one had to physically remove the bird's beak from the arm. When she began to fly at people's faces, the problem became very serious. An eye could be damaged. Many a nose got pinched. So a verbal warning was given to all those entering the walk-through and warning signs were posted.

In the spring of 1996 the female began to disappear at times. Since she was always "in your face" I knew there was something going on. I could not find her at times and did not know where she was disappearing to until one day she appeared at the entrance of the large Toco nesting log.

I checked the nest and this pair of Levaillant's Barbets had drilled an additional hole only 2 inches in diameter through the bottom of the toucan nest. This tunneled in a slight curve and with my thin hands could feel something at the bottom. My first reaction was to quickly remove my hand as the tips of my fingers had felt a warm body or bodies that felt like baby mice. The instant reaction of removing my hand was in hopes of not getting bit by a mother mouse as I thought that this was a mouse nest. I crashed my elbow into a tree limb with the force of removing my hand in a jerky impulse.

It was only seconds later that I thought this might actually be a baby bird as just the tips of my fingers had touched something fleshy and warm. Why not a precocial bird that did not have its feathers instead of pinky mice?

With care I then took a flashlight to look into the nesting hole (within the larger nesting hole) but due to the curve in the narrow nest I could not observe anything. So down the hole went my hand again and this time I removed an approximately 10-day-old baby Levaillant's Barbet. I carefully photographed it and placed it back in the hole. There was only one chick and with careful observation I could see that both parents were feeding the youngster. Another photograph was taken a week later and then the chick fledged after approximately three to four weeks.

The fledged juvenile looked like its father. Both showed great amounts of yellow flecking and red edging. The tame female, however, is very pale in appearance and I do not know if this is and individualistic trait or a difference between sexes.

It important for barbets (especially wild-caught) to have plenty of privacy and planted aviaries are the best. A natural log is ideal as courtship is solidified with the drilling of the nest-hole.

The diet given to our birds in the flight cage is made up of chopped (1/4 and 1/2 inch pieces) soft fruit (apple, melon, pear etc.), thawed mixed vegetables, cooked brown rice, soaked heat and serve soft food for parrots, and Moist & Meaty dog food in small cellophane bags. The birds also can always catch the natural insects and bugs found in an outdoor walkthrough flight cage and there are plenty.

## Calcium the Misunderstood Mineral

By Thomas P. Ryan, D.V.M. Binghamton, NY (Oct/Nov 1985)

Another compound found in our bird's diet, calcium is still to this day a misunderstood mineral to many. Either we give too little or too much. This early article gives a very clear concept of calcium.

alcium and phosphorus are two important minerals in the diet of birds. Calcium- and phosphorus-related problems are not uncommon in pet birds. The deficiency most frequently seen in pet birds fed an all-seed diet is of calcium. Calcium is required in greater quantities than any other mineral and its metabolism is closely intertwined with that of phosphorus and vitamin D.

Calcium is important for the following:

- **1.** The major component of bone and egg shell;
- 2. Necessary for nerve impulses.
- 3. Heart rate and blood clotting.
- 4. Muscle function.
- 5. Metabolic processes.

Phosphorus is found in bone, egg shell, muscles and is important in the metabolism of fats and carbohydrates. Low calcium can be a result of several things including the following:

- **1.** High phosphorus and magnesium in the diet.
- **2.** Large amounts of fat (such as seen in high oil seeds).
- 3. Not enough calcium in the diet.
- 4. High intestinal alkalinity.
- **5.** Calcium complexing with oxalates or phytates in the diet.

It is important to remember that the calcium-to-phosphorus ratio of seeds most commonly included in bird feed range from 1:6 to 1:37. The correct