

the Little Black Crake

by John Heston
Los Angeles, California

Photos by John Heston



A very small crake chick.

*The adult little black crake
is shy and difficult to photograph.*



Taxonomy

The little black crake, *Limnocorax flavirostra*, is a member of the very diverse order, *Gruiformes*. It shares that classification with a seemingly unrelated group of birds such as cranes, button (bustard) quail, trumpeters, bustards, coots, and sun bitterns. Besides the fact that they all bear feathers and the females lay eggs, what common denominators do the members of this order specifically share? They are all ground feeders and almost all nest on or near the ground. Almost all have long legs well suited for inhabiting or frequenting marshlands and other aquatic environments. Almost all hatchlings are precocial which enables the down covered young to leave the nest soon after hatching, and anatomically, only members of this order have non-fused dorsal vertebrae. Obvious similarities in physical appearance are not readily apparent unless crakes are compared to other members of their family; the family *Rallidae*. Other members of this family are gallinules, coots, and rails. Crakes are very similar in appearance to rails.

Morphology

Little black crakes are uniquely attractive little creatures. They are approximately eight to nine inches (20-23 cm.) in length, and as their name suggests, their entire plumage is black. The black plumage contrasts and brightly enhances their charruuese beak, red-orange iris, and red long-toed feet and legs. Except for the female being slightly larger, both sexes look alike.

Natural Distribution and Behavior

Indigenous to tropical Africa, they are widely distributed in areas where there are lakes, sluggish streams and rivers, and swamps and marshes. Within their natural habitat they feed upon insects and their larvae, water snails, other assorted aquatic animals, and some seeds of aquatic plants. Possessing narrowed and very compressed little bodies, these efficient and stealthy hunters are well suited for moving about through thick vegetation. When not alarmed or rushing to a morsel of food, they move about with careful deliberation. Each step taken is accentuated by a forward movement of the head and an upward flick of their short, stubby tail feathers. Frequently they will freeze in mid-stride, seemingly to spot potential prey, and at times they will crouch slightly assessing the degree of their own vulnerability. When alarmed, they make a peeping sound while rushing to safety. They also make a deep guttural churring noise that I have heard mostly during brooding periods. Using their wings in conjunction with their extremely long-toed feet, they can really move about. They are easily able to speed swiftly across water plants, under and through dense vegetation and up into trees. One young male in an aviary I am presently tending, quickly scales 1 x 1 inch weldwire mesh to a height of 25 feet simply to attain a safe roosting place each evening.

In Captivity

In the aviary these birds are hearty

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subjects, faring best in a well planted scene to accommodate their secretive nature. An aviary equipped with running water (even if it's just a trickle) and shallow pools is ideal as they prefer to take their food near water. If this sort of situation is not feasible, a conventional water source is perfectly adequate as long as servicing remains simple and creates little disturbance. Disturbances are especially detrimental during brooding periods. They may be placed with other birds, but only with careful discretion. At times I have kept them with red-crested cardinals, peking nightingales, and saffron finches. Not only were the crakes indifferent to their cagemates, but they actually went to nest and raised two broods without incident. I am now convinced that that situation was the exception rather than the rule, as after removing those birds, I have not been able to keep any other birds of comparable size with them since.

I later tried to house some bulbuls, babblers, and thrushes with them but the crakes were bent upon eliminating them entirely. Of course the design and dimensions of an aviary, the sequence in which the birds are introduced, competition, territoriality, specific behavior, and the relative sizes and feeding habits of the birds are all important factors to consider, but as a general rule, I would not recommend housing actively breeding black crake with birds that are smaller or near their same size. And of course not with any larger birds or bird species that may harm the crakes or their young. Considering all important factors, in my opinion, black crakes could be housed safely with just about every member of the order Columbiformes (pigeons and doves), except for the very small species such as cape, diamond and zebra doves.

Diet

Livefood such as goldfish, crickets, mealworms, cleaned fly larvae (maggots), and water snails are relished by these birds. However, for general daily maintenance, I prefer to feed them a predominantly non-live food ration. Most commonly, bird of prey food (Central Nebraska brand), minced shrimp, moist trout chow, and pulverized hard-boiled egg. These food items are supplemented with the variety of live foods previously mentioned. When the crakes are not brooding, their food is placed in a shallow pan which allows for good daily sanitation. During the brooding period, food is also thrown loosely within the aviary. This is especially helpful when the chicks are still less than a few weeks old because the food can be thrown nearer to the brood site without causing

much disturbance. Of course the food intended for those "tiny black balls of down" is chopped and minced into fine pieces so that they can make some use of it.

Development and the Pair Bond

At four and one half weeks a young crake, still in the down stage, will have grown to approximately two thirds the size of the adults and will be eating entirely on its own. Also by this time it would not be unusual if the adults were back on a new clutch of eggs. At three and one half months, the young crake will have left the down stage behind and will begin to acquire adult characteristics. The eyes will begin fading to the red-orange color and the legs and beak will begin to acquire color, but in a mottled fashion. By six to seven months a young black crake should have acquired adult features completely. Because they may vary slightly between individuals, these "mini-milestones" of development are averages. In one case, from the same one-month-old clutch, one youngster was almost as large as the adults but the other was only half that size.

Between ten to twelve months after hatching, a young black crake will have reached sexual maturity and pair bonds will begin to form. This is also the time when novices with this species will begin to wonder why they started messing around with these birds in the first place. Normally, an aviculturist would be elated to learn that a pair bond had formed among the birds he/she intended to propagate. However, if certain precautions are not taken with this species, the consumated pair may be the only surviving witnesses of their union. This should be of little wonder as the limitations of a captive environment usually cannot afford the elasticity of a species' natural habitat. Especially when considering intraspecific territoriality.

In one particular case, four young crakes were together in the same aviary, two at eleven months and two at six months. Suddenly, without any obvious warning, the older ones killed the younger ones overnight. There would have been some consolation at realizing that a pair bond had formed if the birds were unrelated, but these birds were siblings. To avoid this sort of situation in the future, I decided that it would be wise to alter my program as follows:

1. Obtain and sex unrelated stock.
2. Sex my propagated stock and pair them with the unrelated.
3. Never keep two pairs of crakes together or have younger crakes in the same aviary.
4. Keep crakes of varying ages together

only as juveniles.

My hunch about the "killer crakes" forming a pair bond turned out to be correct. Little more than a month later they constructed a nest of bermuda grass and the female laid two eggs.

Nesting and Brooding

Regardless of where a pair of crakes decides to construct their nest, in an aviary, the predominant prerequisite is privacy. Once the nest is established, black crakes will cycle year round. As soon as one set of young are three to four weeks of age, they will lay a new clutch of eggs, incubate, etc. The pair I originally started with like nesting in a basket approximately ten inches in diameter and four inches deep. It is suspended about three inches from the ceiling of their aviary and partially wedged behind a burl perch. It seemed like a secure little spot. The aviary they are being maintained in is only three and a half feet high but is five feet deep and twelve feet long. It has two plexiglass skylights and a continuous water trickle at one end. It is well planted with clivias, nandenas, and golden bamboo, and gets washed down and misted regularly.

Both sexes work at constructing the nest. That is, lining the inside of their nest basket with bermuda grass and dried papyrus tassles provided for them. When the nest has been lined sufficiently, the female will lay four to five eggs at about the rate of one per day. The eggs are approximately 3.20 cm. in length by 2.40 cm. in diameter (about the size of a quail egg), and are basically a light creamy brown covered uniformly with light brown and purplish specks.

During the egg laying period it is not unusual to find both parents in the nest at the same time, and after the eggs are laid each adult will take turns at incubating. After banding one of the adults, I kept a constant record of which parent was in the nest when and could detect no distinct pattern, either in sequence or duration. After 20-22 days (usually 21), the eggs will hatch. It takes up to 24 hours for all of the eggs that are going to hatch (usually one less than the number laid), to hatch. At this point a dilemma arises that induced me to coin the term "semi-precocial."

The hatchlings are able enough to run clumsily around the aviary, but not able to take care of themselves without close supervision by at least one of the adults. Clearly not to the extent of newly hatched gamebirds and waterfowl. The first to hatch may draw both adults away from the nest before the remaining eggs have hatched, or, in other cases, the adults may stick to the nest letting the

first hatchlings run around unprotected. Fortunately, as the adults become more experienced, these problems subside as one adult will brood the first chick until all have hatched and left the nest. When all of the young are out and running around, the adults will construct a brood nest in a secluded area of the aviary and both parents will share the task of brooding. Usually all of the young will be under one parent at any given time, but sometimes the brood will split requiring the-services of both parents.

The young are very tiny, about the size of quail chicks, but noticeably less able to negotiate with the environment. They are completely covered with black down, their legs and feet are blackish grey and their beak is a light horn color with a black spot near the tip of the upper mandible. The hatchlings do not actually go in search of food on their own. Instead the adults will search out a suitable morsel, take it to water to wet it down, and will run it back to the brood nest for the young. The young do not feed on their own until they are about three weeks of age.

Until that time the food provided for the brood is finely minced into small pieces. Shrimp, canned tuna and salmon works quite well. It sounds like a swank diet, but they really don't eat that much. If the chicks make it past two weeks, their chances of surviving are quite good. Usually only one half to three quarters of the brood make it that far. Some chicks are just not strong enough at hatching or some chicks may be aggressed upon by the adults. This is usually in the form of pecking at the chick's back until it is red or raw causing lacerations. The chick eventually dies. This sort of aggression seems to occur only when there is too much disturbance by humans. Even though our breeder pair of crakes are maintained in a display aviary, we have learned to set it up and maintain the birds with minimum disturbance.

I realize that little black crakes are not exactly at the top of every aviculturist's "hit parade," but I am sure we are not alone in this endeavor either. I just hope that this information will stimulate others to get started with this species, help some "closet" crake breeder somewhere, or just be interesting reading for aviculturists with brood interests. Regardless of the little black crake's popularity and survival status at the present time, they should not be ignored or taken for granted. After all, their future depends entirely on man's attitude toward their environment in the future, and what we learn about them in the aviary today. ●

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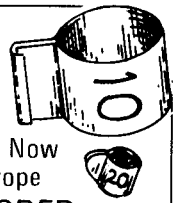
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