

Purple Grenadier

(*Ureaginus lanthinogaster*)

by Maureen Newman, Victorville, CA

Purple Grenadiers—which were supposed to be so difficult to raise in captivity, particularly in cages—have turned out to be some of the most prolific breeders with which I have worked. They are by no means beginner finches but they are well worth the effort.

Description

This beautiful, slender bird from the dry scrubland of central east Africa measures approximately five and one quarter inches in length including its long tail. The adult male is a reddish brown with a rich, glossy blue on the chest, belly and base of tail. A similar blue forms a rather wide eye-ring. His beak is a deep coral red. The female is a lighter brown, without the reddish tones. Her chest and belly are a mass of off-white spots which at times form irregular lines. Her eye-ring is most commonly a pale mauve or blue but can vary from almost white to a blue almost as dark as in the male. According to Derek Goodwin in *Estrildid Finches of the World*, this variation in color could be an indication of different subspecies. The color is at least to some extent passed on: one of

my females exhibited a much darker eye-ring than the others and, although none of her offspring have eye-rings as dark as hers, they are darker than average. The female's beak is a pale red. As she reaches full maturity and breeding readiness, a dark, almost black band appears down the length of the upper mandible.

Fledglings are entirely brown except for some purplish blue at the base of the tail. I have observed some slight differences in the shade of brown among my babies which, according to Derek Goodwin, indicates gender. I have not tried to confirm or deny this, however, since the sex of the youngster becomes obvious when at around six weeks of age a partial molt produces the colored eye-ring. At around four months of age a more complete molt results in the adult coloring though the male in particular displays a richer, more beautiful plumage after the second full molt. It seems as if both male and female display richer colors with each successive molt.

The newly hatched chicks are almost black in color, naked except for a few tiny tufts of down and have

deep blue and white gape tubercles. They start out in life surprisingly small considering the size of the adults but they grow quickly and usually fledge at around two and a half weeks. I have, on occasion, been surprised to see them out of the nest as early as two weeks.

Housing

Although Grenadiers can sometimes be kept in community settings with no problems, I have, unfortunately, seen too many instances of incompatibility to recommend this as ideal. Grenadiers are aggressive toward related species such as Cordon Bleus and Violet-eared Waxbills. They can also take a sudden and violent dislike to non-related species with disastrous results—even after having lived peaceably with them for extended periods of time.

Grenadiers do not seem to be overly concerned about the size of cage or flight in which they are housed. However, since they are fairly large, active finches, they do need room to move around. My smallest cage for Grenadiers measures 36" x 22" x 22". I provide tumbleweeds and branches of *Grevillea* as hiding places, and, where there is insufficient natural lighting, I use full spectrum bulbs.

Temperature

Like many other finches, Grenadiers are not as fragile as we sometimes think. Though they are obviously more comfortable when kept in warmer temperatures (70s & 80s °F.), they can endure occasional drops. Several of my pairs have been housed in an aviary where winter temperatures have quite regularly dropped as low as 50° F. These are not sudden drops but more a gradual seasonal change which allows the birds time to adjust. On the other hand, one pair was housed on a glass enclosed patio where summer temperatures of well above 100°F were not uncommon. This pair also showed no ill effect.

Territory

Grenadiers appear to be very territorial. Evidence of this is exhibited in aggression when more than one pair is



Purple Grenadier pair

Photo by Janet Taylor

housed in the same flight. Harmony is disrupted even when the pairs are not housed together, but merely within sight of one another. This aggression, on the part of the male, is directed toward his own female as if he is trying to keep her away from the intruding male. His intentions may be honorable but the results may be deadly.

I have found it necessary to keep my breeding pairs totally out of sight of each other, though I think at one time two of the pairs could hear each other but I saw no problems between the members of each pair. The problems begin when another pair is set up within *sight* of any pair. I have housed young Grenadiers in holding cages within sight of my pairs with no ill effect. Could it be that it is the sight of another pair, as opposed to single birds, which is upsetting? Or is there some kind of communication between the pairs which I am missing? Certainly while fairly large numbers of Grenadiers are housed together in quarantine there appears to be no problems, so the aggression is most surely breeding related.

Breeding

Pairing

Based on past experience, most finches can be set up when they are fully colored out. When setting up young Grenadiers, however, I have observed considerable aggression on the part of the male toward the female. This is not the case with every new pair that I set up, nor does the aggression necessarily start immediately upon introduction. Sometimes, just when I think I have found a good pair, they start fighting. I began to think that the male matures earlier than the female and when she does not respond favorably to his advances he resorts to violence. To complicate matters, I tried on two occasions to introduce an older female to a younger male; this resulted in the female harassing the male. After much trial and error, it seems that by waiting for the female's upper mandible to turn dark and pairing her with a male of approximately the same age, I have the best chance of a peaceful match. I have also found it somewhat helpful to follow the same procedures as when

setting up large psittacines, i.e., house them side by side at first, then introduce the male to the female's cage. She will have established a territory and be less inclined to be intimidated by the male.

Nesting

I give each pair a choice of nests. All but one pair have opted for the small wicker nest, the remaining pair (one from my own stock raised by Societies) chose a standard finch box. Most pairs seem to prefer the nest to be in a fairly high, dark corner but are not overly concerned as long as the entrance is facing away from strong light. I offer a variety of nesting material though they seem to particularly like pampas grass plumes, dry and green grasses, feathers, and shredded burlap. The latter is washed prior to shredding and, for safety reasons, cut into lengths of no more than two to three inches. Both male and female work on building the nest, both sing beautifully though the female's song is not as elaborate, and both dance holding a piece of grass or a feather during courtship.

Eggs

Clutches of four, sometimes five eggs seem to be the norm. At least in captivity, they breed year round breaking for a month or two occasionally. Also occasionally they produce clutches of infertile eggs—this usually coinciding with their molt. (It is not always immediately apparent when Grenadiers are going through a molt because, unlike some other species, they do not turn into a mass of pin feathers.)

Male and female take turns at incubating during the day—the female usually incubates at night while the male roosts on a nearby branch. As hatching time approaches, the male seems to show more interest so when I see both adults spending more time together in the nest, I know the eggs are either hatching or very close to it. The normal incubation period is 12 to 14 days.

I used to be concerned about resting my finches but found that finches tend to have minds of their own and will rest when they are ready, not when I tell them to.

Fostering

Fostering is an almost essential part of a successful Grenadier breeding program. My breeding pairs have differed considerably in the length of time they will incubate, but through trial and error I discovered that the longer the Grenadiers incubate their own eggs the higher the survival rate in the babies. Even those pairs which do incubate to hatching have proven unreliable in raising their young, often throwing new hatchlings from the nest. Ideally then, I have tried to switch to Societies at hatching. Grenadiers appear to do the better job of incubation while Societies do the better job of raising the young. There have been times, however, when I have had to put eggs under Societies or lose them. This has not been a total failure, but it certainly does not produce the high survival rate that transferring at hatching does. Possibly there is a difference in the way that Grenadiers and Societies incubate which could account for the varying survival rates.

It is important to keep in mind when transferring eggs after incubation has begun that the Societies must be sitting tight. Use dummy eggs or some other means to promote this. I have found that my Societies will raise Grenadier babies along with their own though when mixing clutches, I feel a little more comfortable if I arrange it so that the exotic babies are a day or two older than the Societies. This gives the exotics a slight edge should the Society parents show preference to their own babies.

Some species with which I work are less readily accepted by the Societies and in my experience cannot be fostered in mixed clutches—this is particularly true of Blue-faced Parrot Finches. If exotic babies are rejected by the Societies, or if a clutch is extra large, I resort to hand feeding. Since the Societies will usually keep the babies warm, I leave the babies in the nest and take them out only at feeding times. In the case of large clutches, I merely supplement the parents feeding as necessary.

I usually separate chicks from adults at around six weeks of age, making sure before moving them that they are, in fact, independent.



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* Position open: contact regional vice president if interested.

** indicates 2 year term has been fulfilled. If no new interested party comes forward and indicates a desire to serve, incumbent remains in position.

For information about contacting any of these member clubs, please call that club's state coordinator.

Diet

I feed a good quality seed, offering both finch and canary mixes. Every day, each pair is also given a dish containing a selection of small pieces of fresh fruit and vegetables such as apple, orange, broccoli, spinach and carrots. I cook a mixture of rice, pigeon mix, oats and other small grains which they seem to enjoy and I offer hard boiled egg mashed, including the shell, with whole wheat bread crumbs and ground monkey chow. There is also a daily supply of mealworms. I use Avia vitamins and D-Ca-Fos to provide dietary supplements, and, of course, there is always a supply of grit, oyster shell, cuttlebone and egg shell. Baby chick scratch appears to be eagerly taken, especially by fledglings. In an attempt to provide more live food, I tried feeding fly larvae, which the birds loved, however, the house and aviary were soon filled with flies as a result of escapee larvae. For obvious reasons I discontinued this practice.

I have read or heard from various sources that regardless of nutritional content, if a bird's diet is not presented in an acceptable form, the parents will not feed the babies. I assume it is for this reason that my Grenadiers are reluctant to feed their young. Obviously the nutritional content of the diet which I feed is adequate since my Societies raise the Grenadiers with no problem—I don't even feed mealworms to the Society foster parents. Grenadiers, which I have sold to people who are able to provide outside flights, have raised their own young. Presumably these flights give the birds the opportunity to catch insects and bugs which we cannot, or more likely, will not provide indoors.

Water is provided in a bowl on the cage floor. I do not use tube drinkers for any of my finches. Bathing is an important part of a finch's daily routine so I feel a water bowl is the more suitable method of providing water, even though the task of keeping the water clean can become a real chore.

Pair Profile

My most prolific pair chose each other. I had purchased two pairs out of quarantine. On arriving home, I put all

four of the new birds together in a cage overnight. The next morning two of them, a pair, were cuddled up together. With the idea in mind that greater success is achieved by birds being allowed to choose their own mates, I separated them from the other two and put them in a 30" x 24" x 18" cage (still in our quarantine area). Within two weeks they produced their first clutch of eggs. They incubated for 16 days at which time I checked and found the eggs to be infertile. Normally I would have candled the eggs much earlier, but since this pair was so new to me I hadn't wanted to disturb them. They immediately went back to nest. This time the four eggs were fertile but the pair only incubated for 10 days. I fostered the eggs to Societies and three chicks were raised. This pair consistently incubated for eight to 10 days at which time I moved the eggs to Societies.

For the Future

Despite the difficulties encountered in the breeding of this species, there is a need to make the effort to work with these and other African finches. There should be no reason why we can't raise these species as readily as the Australian birds—they too were considered difficult at first.

Note

In their March 1996 article, the Buckleys mention a hypothesis involving temperature effects on developing embryos—that more females are produced at higher temperatures. I had not made the connection at the time, but my pair which were kept on the glass enclosed patio, (which was considerably warmer than the other housing), produced almost exclusively female babies.

References

GOODWIN D: Estrildid Finches of the World. Cornell Univ Press. New York. 1982, pp 156-158.

Recommended Reading

BUCKLEY, S. & BUCKLEY, C.A.: Estrildid finches in aviculture. In *AVA Watchbird* Phoenix, March/April 1996, pp 39-42.
NEWMAN, M.: Purple Grenadier. In *AVA Watchbird* Phoenix. Feb/March 1992, pp 7-12. ➔