

Breeding

Rufous-backed Mannikins

(*Lonchura bicolor* subsp.)

by Roddy Gabel
Silver Spring, Maryland

In the fall of 1988, I was in a local pet shop and spotted an odd, unfamiliar bird in a cage of Bronze-winged Mannikins (*Lonchura cucullata*). After returning home, with mental notes on the bird's coloration and markings for reference, I searched through Goodwin's (1982) *Estrildid Finches of the World* until I found the species whose description matched the bird in the shop — the Rufous-backed Mannikin. I promptly returned to the shop and purchased the bird, which was sold as a "miniature Tri-colored Nun," which, indeed, they do resemble. By August 1989, I had managed to obtain four more of these birds at another shop.

Bates and Busenbark (1970) indicated that the Rufous-backed Mannikin was rarely imported into the United States and gave this species only cursory treatment in their book. Similarly, other general avicultural texts give only a brief mention of this bird (Rogers, 1975; Martin, 1983). Goodwin (1982) provided some notes on captive breeding that occurred in Germany, but the most extensive descriptions of courtship behavior, nesting and other breeding characteristics, as well as management of this species, were provided by Borlase (1987), based on his breeding success in New Zealand.

Here I describe my own experience in breeding this species, which may constitute a first U.S. breeding.

Taxonomy and Distribution

According to Goodwin (1982), Rufous-backed Mannikins include three subspecies: *L. b. nigriceps*, *L. b. woltersi*, and *L. b. minor*. The latter two are distinguished from the first by a darker coloration and smaller size, respectively. These subspecies share species status with the Black and White Mannikins, *L. b. bicolor*, *L. b. poensis*, and *L. b. stigmatothorax*, which resemble the Rufous-backed Mannikin except that black replaces all brown coloration. Other close relatives are the Bronze-winged Mannikin and the much larger Magpie Mannikin, *L. fringil-*

loides.

Rufous-backed Mannikins generally inhabit open areas such as grasslands, marshes, and other clearings, although they may be found in palm groves and forested areas adjacent to open areas. Geographically, they extend from southern Somalia and Kenya southward to South Africa in eastern Africa. *Lonchura bicolor nigriceps* is more widely distributed than the other two subspecies (Goodwin, 1982). Although it is most likely that my birds belong to the *nigriceps* subspecies, this is not a certainty.

Description

The Rufous-backed Mannikin is slightly over three inches long and is similar in size and shape to the more common Bronze-winged Mannikin. The mantle, back, wing coverts, and parts of the secondaries are a dark, rich, chestnut brown. Wing coverts have straw-colored streaks along the feather shafts that vary in intensity from bird to bird. The exposed edges of the secondaries are barred with dull white, reminiscent of the wing coloration of the Owl Finch (*Poephila bichenovii*). The head, upper breast, and tail are black, and the lower breast, abdomen, and vent area are white. The flanks are scalloped in black and white. The irides are dark brown. Legs and feet are blackish, and the bill is blue-grey, almost silvery in appearance. Sexes are alike. Before they molt into adult plumage, juveniles are a grey-buff color on the underparts and brown above; flight feathers and the tail are an even darker brown. The bill of young birds is also a dull black rather than the adult color.

Diet

The birds receive a diet of a standard, commercial finch seed mix and an eggfood mixture. The eggfood consists of three hard-boiled (or microwaved) eggs, three slices of whole-wheat bread, two heaping teaspoons of 95% soy protein powder, and two teaspoons of Vionate pow-

dered vitamin supplement. These ingredients are combined and chopped to a fine, crumbly consistency in a food processor. Cuttlebone and crushed oyster shell are both provided as sources of calcium for laying females and are available at all times. Fresh water is provided daily and is available continuously.

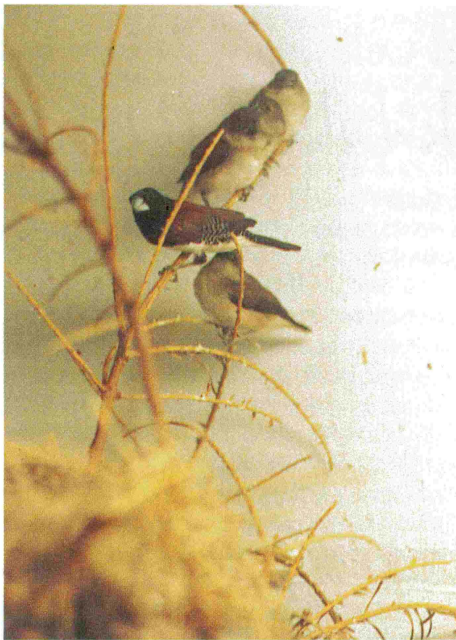
Breeding

The greatest difficulty in breeding Rufous-backed Mannikins is distinguishing the sexes. Although the males do sing and perform a courtship ritual in the presence of the females, these activities can be difficult to observe and may not be exhibited by the birds in the presence of humans. I have attempted to sex the birds on the basis of bill size — male mannikins reputedly have a stouter, larger bill, although this can be difficult to distinguish in birds this small. A female in breeding condition can also look fuller in the abdominal area, indicating the expansion of the reproductive tract in preparation for egg-laying. However, these indicators are not always reliable, and a presumed pair may never lay because they are two males, or may lay lots of infertile eggs because they are both females.

The breeding cage I used was a large, wire-fronted, box-type cage with a 20-watt fluorescent light in the top. The cage measures four feet wide by three feet high by two feet deep. The light is on a timer set for 15 hours of light per day (7 a.m. to 10 p.m.) year-round. Juniper branches were placed in one end to provide cover and potential nest sites. Large and small domed wicker nests were also placed in the cage to provide additional nest sites. Fine dried grasses and strands of burlap were placed in the cage for nesting material. The cage bottom was covered with about one inch of small, hardwood chips.

Three wild-caught birds were placed in the cage together in the fall of 1989. I believed these to be two males and a female. After a couple of weeks, one of the males appeared to be harassing the other male, and the subordinate male was removed. The remaining birds promptly began nest-building and constructed a nest in the juniper branches. The nest was essentially a grass shell lined with burlap and was covered over with an entrance hole on one side.

A clutch of four eggs was laid in early December; all four were infertile. The birds produced five more eggs in the last week of December



This photo shows the parent bird along with four fledged young Rufous-backed Mannikins. This breeding was submitted as a possible U.S. first breeding.

1989. These eggs were all fertile and all hatched on January 13, 1990. The chicks were reared without any live food or additional supplements other than those described above. Four chicks fledged at about 20 days of age, but returned to the nest to roost, both during the day and at night, so they may have actually fledged a day or two earlier. The chicks became very active and inquisitive, and gradually destroyed the "roof" of their nest, although they continued to roost in the open-topped, cup-shaped platform that remained. While the chicks remained with them, the parents attempted to re-lay twice, in mid- and late February, but both times the chicks destroyed the nests and eggs because of their constant activity and tendency to pick and tug on everything in the cage. These chicks were removed from the parents on March 3 and were already showing signs of molting into adult plumage. By April 13, they had completely molted and had acquired their adult coloration.

Once the chicks were removed, the parents immediately renested, this time in one of the small wicker nests, which I had wedged in some juniper branches. They laid a single egg, which they failed to incubate. This was removed, and beginning on March 20, six eggs were laid, which were all fertile. All six hatched (the first on April 6), and five chicks were reared and fledged at 21 days. They had been closed-banded at two weeks

of age, which caused no disruption to their care and feeding.

Another chick was later raised by the original pair while they were housed with a pair of Gouldians and a pair of Shaftails in a cage similar to the original breeding cage. At the time of this writing (December, 1990), a female from the second brood and the subordinate male from the original three birds have bred and are rearing an unknown number of young. They built a nest in juniper branches in the back upper corner of the cage so that the top of the cage forms the top of the nest. They, too, are rearing their young with no live food or supplements outside of the basic breeding diet described earlier.

Final Comments

Rufous-backed Mannikins appear to be relatively easy to breed and tolerate normal disturbances such as nest checks and closed-banding of chicks. They do well on a fairly simple diet. They can be somewhat aggressive toward one another, however, and must be watched for signs of fighting. Subordinate birds must be separated, and often only two birds may be housed together at one time. This aggression appears to only be aimed at others of the same species. Even small waxbills (e.g., Gold-breasted, *Amandava subflava*) do not seem to be bothered by them in group cages.

I encourage others to breed these birds and other species that have been neglected in American aviculture because of their low cost. When importations of such species are halted, what a loss it will be if we have failed to establish them in our aviaries!

References

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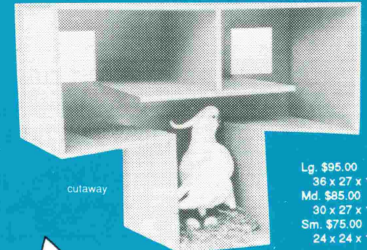
Editor's Note: *This breeding of the Rufous-backed Mannikin was submitted to the AFA's Avy Awards Committee as a possible U.S. first breeding. Any person having any knowledge of a previous successful breeding, please contact Dale R. Thompson, Chairman, Avy Awards Committee, through the AFA home office in Phoenix, Arizona. ●*

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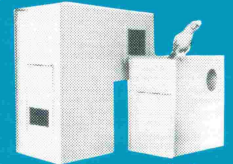


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