

SHORT NOTE

Notes on Redheaded Finches breeding in a Chestnut Weaver Colony

by

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Chestnut Weavers *Ploceus rubiginosus* established colonies in the central region of the Etosha National Park in March 1986, after this area had experienced above average rainfall. When first observed, nests were in all stages of construction and egg laying had commenced. A feature of all colonies was the presence of Redheaded Finches *Amadina erythrocephala* investigating the weaver nests.

Within a few days of discovering one specific colony, all weaver males and about 25-30% of females deserted, some prior to laying, others leaving behind completed and uncompleted clutches. Redheaded Finches immediately took over deserted nests and started laying. In this colony, 11 nests occupied by Redheaded Finches were found. All eggs laid by the weavers (N=170) were turquoise blue in colour, as in Braine & Braine (1971), with about 10% being sparsely speckled and scrolled with dark green. By contrast the Redheaded Finch eggs (N=64) were plain white.

The mean sizes of the eggs of the species were: weaver (n=128) length \bar{x} =22.143 mm, SD=0.976; width \bar{x} =15.757 mm, SD=0.550 and finch (n=36) length \bar{x} =18.281 mm, SD=0.793; width \bar{x} =14.594 mm, SD=0.367, which were significantly different (t-test $p < 0.001$).

In five instances eggs of both species were found in the same nest (Plate 1.). In these mixed weaver/finch clutches, the finches laid fewer eggs (\bar{x} =3.6 : range 3-5) than in the six normal clutches (\bar{x} =7.6 : range 6-11). The mean number of eggs in these mixed clutches was, however, similar to that of the normal finch clutch size (\bar{x} =6.0 : range 5-7).

Two weaver nestlings were hatched by finches in different nests and both appeared normal and healthy at the time of hatching. Weaver nestlings (N=37) were flesh coloured and almost naked while finch nestlings (N=60) were blackish with long thin downy plumes. The two species were therefore clearly distinguishable. The weaver nestlings in both nests rapidly lost condition, their deterioration following a similar pattern. Both died within three days. Finch nestlings from the same nests however, showed normal development and growth.



PLATE 1: Mixed clutch of Redheaded Finch eggs (white) and Chestnut Weaver eggs (turquoise-blue) from same nest.

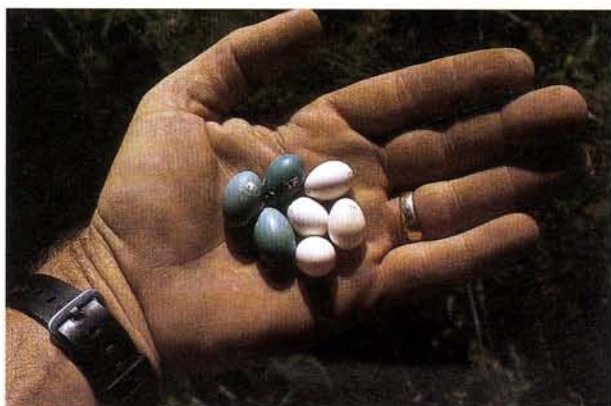


PLATE 2: Flesh-coloured Chestnut Weaver and blackish Redheaded Finch nestlings with unhatched finch eggs. Note partial encapsulation of finch egg in weaver egg shell.

In a mixed clutch of one weaver and four finch eggs, the weaver and one finch hatched on the same day (Plate 2.). Begging for food by both nestlings was noted on the second day. On the third day, the weaver nestling was found dead in the nest, whereas the finch nestling was well fed and its crop bulged with seeds. The latter was also noticeably larger than its siblings, which had hatched by this time.

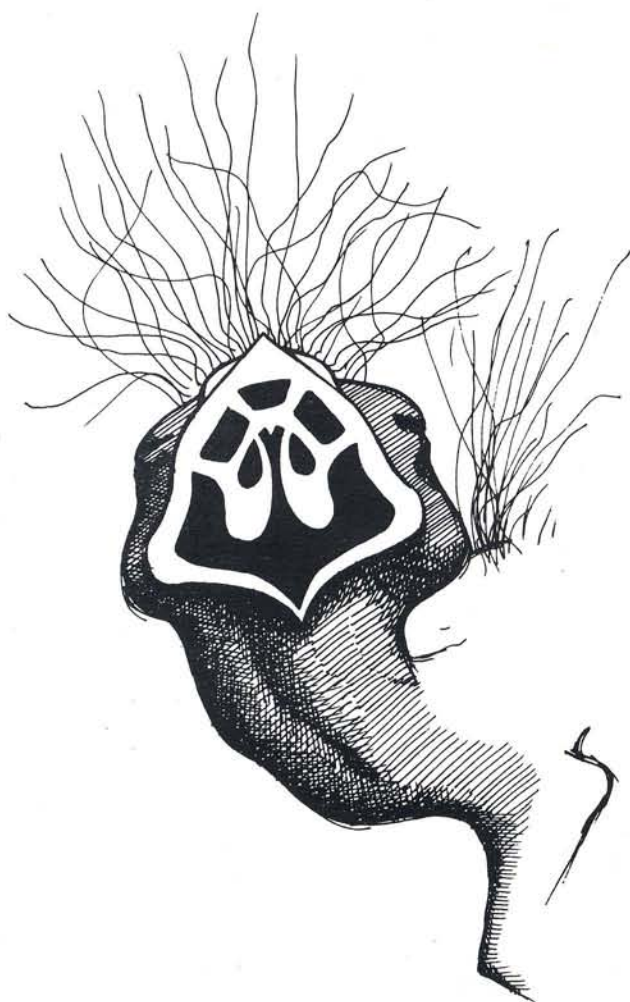


FIGURE 1: Gape of Redheaded Finch nestling showing pattern formed by palate spots, the cue to initiate feeding by the adult.

Another nest contained three weaver eggs when the finches took over and laid a clutch of three eggs. One weaver nestling hatched and was clearly hungry after one day, begging incessantly for food. A day later the nestling was emaciated and weak. It was found dead the following day.

Both weaver nestlings in these mixed clutches failed to defecate when handled, unlike other weaver nestlings raised by their parents in this colony. This suggests that no food was ingested. A possible explanation is the absence in Chestnut Weaver nestlings of the characteristic black spots occurring on the palate of Redheaded Finch nestlings (Figure 1).

As Redheaded Finches are not known to build nests, but instead opportunistically use those of another species (Maclean, 1973), it is suggested that species specific palate markings are particularly important to prevent them from expending energy in providing food to nestlings other than their own.

The fact that Redheaded Finches laid smaller clutches in nests already containing weaver eggs suggests that parent birds could not distinguish between the two sets of eggs. This resulted in smaller brood sizes and thus lower productivity. In one case a finch egg became encapsulated in a slightly larger weaver egg shell and the nestling failed to hatch.

Both turquoise-blue and white eggs found in Chestnut Weaver nests have been ascribed to this species (Maclean, 1985). It is suggested that the latter are in fact Redheaded Finch eggs. The distribution of both species in Southern Africa overlap completely, and the described association between the two species appears to be common.

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