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VIDUA FISCHERI (REICHENOW) PARASITIC ON *GRANATINA IANTHINOGASTER* (REICHENOW)

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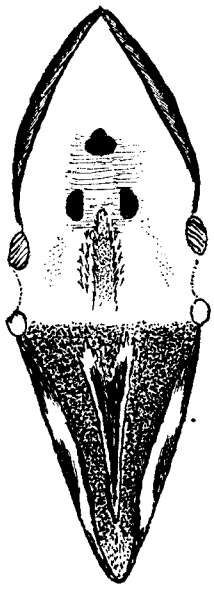
A nest of *Granatina ianthinogaster* was found on 11 April 1970 in a low thorny bush, in long grass by the roadside, at mile 30 from Nairobi, Kenya, on the road to Ololkisaili: a generally dry area of grass and acacia thorn. A male bird was seen entering the thorny bush carrying a guineafowl feather and emerging later without it. The nest contained five eggs which were not examined. On 18 April 1970 the nest contained small chicks and on 25 April 1970 nestlings, which were examined, one of these had a brown rump and tail and the other four had purple rumps. Field notes were made of plumage and gape patterns. On returning later the same afternoon the area around the nest had been trampled by cattle and the bush almost flattened. A search revealed a rather mangled nest but fortunately the five nestlings appeared unhurt and they were taken in the hope that they could be hand-reared. It was suspected that the odd nestling was *Vidua fischeri* and, as the bird was raised to three months old, identification was confirmed.

The nestlings were taken to Nairobi in the nest and on closer examination, the nest and nestlings were found to be swarming with mites. There was no nest hygiene and the entrance and base were badly fouled. The nest was originally lying horizontally and almost on the ground. It was roughly a lemon-shaped mass with a longish entrance spout, constructed mostly of fine grass and lined with feathers. Evidently when first found the male was bringing feathers to the nest after the eggs had been laid (see Friedman 1960).

Neunzig (1929, not seen) but quoted by Payne (1970) described the mouth markings of *V. fischeri* "as generally similar to the mouth markings of the presumptive host, *Granatina ianthinogaster*, with the exception of the greater extent of a U-shaped black mark on the lower mandible and the presence of two small spots on the posterior portion of the palate in the host". Friedmann (1960) reproduces Neunzig's figure. However, this description and the figure is incorrect for *G. ianthinogaster* and fits more closely *G. granatina* (Linn.) and as Friedmann remarks "his description requires verification". It seems from my living specimens that Neunzig did not have definite examples of either species or specimens in good enough condition to describe and figure these markings.

The following is a description of the mouth markings of living nestlings and two month old fledglings of *V. fischeri* and *G. ianthinogaster* on which notes have been made at regular intervals. (See drawing). In *G. ianthinogaster* the beak is black, larger and heavier than that of *V. fischeri*. Inside on the upper palate there are three jet black spots in triangle formation on a greyish salmon-pink background with more intense orange-pink between the spots forming a clear H-pattern. The pink colour fades with age. The naso-pharyngeal cavity in *G. ianthinogaster* is edged by a series of inward and backward

projecting spines. In *V. fischeri* the pattern is similar but the three spots are paler, greyer and not quite the same shape. The lower palate in both species is an intense deep, blue-black: the tongue is long and narrow, black, with white edges and the white distal lobes are finely serrated at the edges: the gape tubercles of both species are identical, the upper brilliant electric-blue and the lower smaller, and irridescent white. At three months there was very little change in colour or pattern except that markings were duller and the gape tubercles much reduced.



The colour pattern of the nestlings and fledglings stages show a very close similarity. When rescued three *G. ianthinogaster* and the *V. fischeri* still had tufts of down on the head. There was a size discrepancy amongst the nestlings. One *G. ianthinogaster* was very much smaller than the other three; the *V. fischeri* was the largest. The heads of all were uniformly coloured a warm chestnut brown, contrasting with the back, wings and breast which were duller. The main difference between the species was in the tail and rump colour. *V. fischeri*, has in addition, a pale almost white belly and undertail coverts, whereas these areas are only slightly paler than the breast in *G. ianthinogaster*. Another obvious difference was that the feet and legs of *G. ianthinogaster* are bluish-grey (lighter than slate) slender and with longer toes than those of *V. fischeri*, the legs of which are brownish-grey and stout. The eyes of both species are very dark brown, almost black. At three months there was little difference in eye colour. At three months, when confirmation of the identification of the *V. fischeri* was fully established, the belly and undertail coverts were in strong contrast to the breast and the rest of the plumage, being almost white. The edges of the beak of *V. fischeri* were turning pinkish-red while in *Granatina* the beak was still black.

Feeding the youngsters at first presented a problem but de-winged termites dipped in a proprietary vitamin-mineral compound*, were readily taken on the second day. On the third day the youngsters were calling, a plaintive, repeated "sip-sip": that of *V. fischeri* being deeper and harsher. They would react to an imitation by begging for food which was always taken with the head lowered, twisted to one side, looking upwards and clearly exhibiting the mouth markings. *V. fischeri* would also lower and flutter one or both wings. The slowest to learn to take food was *V. fischeri.* However at twenty days it commenced to pick up grain but would still take proffered food and at twenty-five days it became independent, taking only grain.

Obvious territorial behaviour was noted with the adult birds at Ololkisaili. A male *V. fischeri* takes over a territory and drives off any intruding *Vidua* spp. At one location this was very noticeable, as it included a water hole which was visited by many species. From time to time, other *V. fischeri* and *V. macroura* (Pallas) visited the water hole, these were always attacked and driven off. Each male appears to have two or three females in attendance and the male chivvies these. Courtship display was seen on several occasions and at very close range. The male perches beside or opposite the female, bounces up and down, at the same time rapidly flaps or claps its wings, which are not fully expanded. Just how the sound of clapping was produced was not established. The male would also carry out this clapping while hovering almost stationary in the air in front of the female. Flight is somewhat undulating usually only over short distances when the male would alight on the extreme top of some bush or tree.

Singing has been heard and is difficult to describe but may be defined as a series of rather watery flute-like notes reminiscent of the song of *V. macroura.* Payne, (1970) (Pers. comm.) remarks "the overall tone is quite similar in the two species and without a tape-record to compare the songs directly it would be difficult to appreciate the difference".

Payne (pers. comm.), since this paper was originally drafted, has drawn attention to a paper by Nicolai (1969) "Beobachtungen an Paradieswitwen (*Steganura paradisea* L. *Steganura obtusa* Chapin) und der Strohwitwe (*Tetranura fischeri* Reichenow) in Ostafrika" *J. Orn. Lpz.* **110** (4) pp. 421-447 (1969).

Payne (*op. cit.*) notes that Nicolai does not describe or figure the lower half of the mouth of *V. fischeri.* Nicolai reports on his work in Northern Tanzania and his findings of definate evidence of specific parasitism are now confirmed for the first time from Kenya.

In view of recent proposed changes in nomenclature with which the writer is not in agreement, the genus *Granatina* is preferred and maintained and not *Estrilda* of White (1963) or *Uraeginthus* of Hall and Moreau (1969) while *Vidua* is maintained instead of *Tetranura,* as used by Nicolai (1969).

*Proprietary product="COMPLAN", Glaxo Laboratories Ltd.

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