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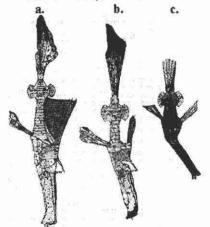


Fig 1. Solenostomus cyanopterus from Mahe (drawn from life)

- a). male (1985)
- b). female (1985)
- c). juvenile (1986)

NOTES

On Edentulina moreleti, the first herbivorous streptaxid (Gastropoda)

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Several distinctive Streptaxidae have been described from Seychelles (Gerlach & Bruggen 1999), some taxa closely resemble African genera, although there is some doubt as to their true generic placement (Gerlach & Bruggen 1999). Edentulina is the largest and most conspicuous of these genera. One species, E. dussumieri (Dufo, 1840) is the most abundant streptaxid in the islands (pers. obs.) but the other Seychelles member of the genus, E. moreleti (Adams, 1868), is known from only 4 collections, comprising 34 specimens (Gerlach & Bruggen 1999).

The species was originally described from one specimen from Silhouette island (as Gibbus (Gibbulina) Moreleti) without any record of precise locality or habitat (Adams 1868). Subsequent records refer to the holotype (Pfeiffer 1941; Nevill 1868; Martens 1880). Seven specimens were collected by A. Brauer in 1894 on Mahé (Copolia, Mare aux Cochons, Morne Blanc, Morne Seychellois), one by G. Lionnet in the 1960s (Mahé: Congo Rouge) and 12 by Van Mol & Benoit in 1972 (Silhouette: Mare aux Cochons) (Gerlach & Bruggen 1999). Brauer's specimens were reported to be found "under damp leaves on the ground" (Martens 1898), none of the other specimens have associated micro-habitat data although it

has been reported that the Congo Rouge specimen may have been arboreal (G. Lionnet pers. comm.). Repeated searches on Mahé and Silhouette in 1986-1999 failed to locate any specimens, despite careful searches of all the above sites. In July 2000 a population was found at Mon Plaisir, Silhouette. Eight specimens were collected from Mon Plaisir, all from the axils of Dracaena reflexa plants. These comprised one adult, one subadult and six juveniles. Five D. reflexa were studied in the mist forest, E. moreleti were found in four of the plants, all from the highest altitude. These data provide a preliminary estimate of population densities, with two snails per axil and an mean number of axils per plant of three (range 1-4, s.d 0.9) at the occupied altitudes, giving six per plant. D. reflexa occurs at 80 plants per hectare in this site. E. moreleti was not found in plants below 540m and D. reflexa was not found above 600m, the area bounded by these limits covers two hectares, giving a population at the site of approximately 160 individuals. It appears that this species is found in high humidity sites with a high abundance of D. reflexa. This is conspicuous at Mon Plaisir and in areas around Mare aux Cochons. Other small sites may also support this micro-habitat.

The new material allows the descriptions to be expanded. The body has been described as being red in life (Martens 1898). Neonatal snails are yellow, juveniles yellow with crimson tentacles, this crimson colour spreads over the body with age but darkens to brown in the subadult, becoming dark brown in the adult snail. The shell is colourless in juveniles, the periostracum thickening and tanning brown in the subadult and adult. The snails collected at Mon Plaisir were kept alive and their diet and reproduction studied. They were maintained in a plastic box with damp paper towel on the base. Temperatures and humidity were not controlled but varied in the ranges of 18-24°C and 80-100% respectively, ranges which approximate those recorded at Mon Plaisir (pers. obs.).

The radula has characteristically broad teeth (Gerlach & Bruggen 1999), although the shape of the teeth has not been commented on previously, it is notable that their shape is in marked contrast to those of other streptaxids. The broad shape appears similar to those of herbivorous snails more than carnivorous taxa, and may be adapted to scraping rather than predation. In captivity the snails were offered a free choice of plant material (carrot, apple, green leaves) and small snails. No snails were eaten during a one month period but all age groups of E. moreleti were observed feeding on carrot, apple and decaying leaves. From these observations it can be concluded that E. moreleti is herbivorous, in the wild it probably feeds on the algae and decomposing vegetation trapped in the axils of the D. reflexa plants.

The presence of a brood chamber at the base of the spermoviduct has been noted previously (Gerlach & Bruggen 1999). Over the course of 1 month the captive adult gave birth twice. On both occasions single neonates were produced, confirming that E. moreleti is ovo-viviparous.

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