Melanotaenia solata - photo© Günther Schmida

Melanotaenia solata

Taylor, 1964
Northern Rainbowfish

Species Summary
Rainbowfishes collected from Arnhem Land in 1948 were later named by William R. Taylor in 1964 as *Melanotaenia solata*. The name "solata" is from solatus Latin, meaning sunburned. It is given to this species of rainbowfish in reference to the characteristic golden yellow life colours. Taylor described them as a species of *Melanotaenia* with a rather slender, compressed body; with complete dentition, with poorest developed in upper jaw; with a rather faint brown lateral body band and with numerous, characteristic, golden yellow life stripes through brown band as well as along the body. Large adults with diffuse dark band and about ten brilliant golden longitudinal stripes on each side; basal half of caudal fin bright yellow; bronze bar behind eye crossing preopercle and diffusing downward on opercle; belly and bases of second dorsal and anal fin pinkish; the inter-radial membranes paler outward; inter-radial membranes of first dorsal fin red. In specimens from Yirrkala, the dorsal and anal fins red; caudal fin yellowish orange; pelvic fins deep red; lower side bluish silvery; scale centres on side generally golden bronze; they form about five longitudinal rows, the lowermost of which is approximately on a level with the ventral surface of the caudal peduncle.

Following a scientific review of the rainbowfish family by Gerald R. Allen (1980) it was considered that *Melanotaenia solata* fell within the range of *Nematocentris australis* with regard to colour pattern, morphometrics and meristics, and in this review these two species were considered as one and were placed in the large "splendida" group as a sub-species, and named *Melanotaenia splendida australis*. However, earlier Allen (1978) remarked that

Melanotaenia australis and *Melanotaenia splendida inornata* were so closely related that he was tempted to consider the latter a subspecies of *M. australis*. Morphologically or meristically there is little that tells them apart, the biggest difference is that *Melanotaenia splendida inornata* tends to be deeper bodied and seems to grow a little larger. Later, Allen et al. (2002) distinguished *Melanotaenia australis* and *Melanotaenia solata* on the basis of the genetic results of McGuigan et al. (2000).

However, despite the research that has been undertaken to date, the specific status and distribution of *Melanotaenia solata* still remains unclear. They are similar in general appearance to *Melanotaenia australis* and best separated on the basis of geographic range (the two do not overlap). Another rainbowfish fitting the description by Allen et al (2002) of *Melanotaenia solata* has been recorded in the Howard River system near Darwin.

Distribution & Habitat

Melanotaenia solata are confined primarily to Arnhem Land, Northern Territory between the South Alligator and Walker rivers. They are also found on the larger offshore islands of the Gulf of Carpentaria including Groote Eyland and Bickerton Island.

They are a stream dwelling rainbowfish mainly found around sub-surface vegetation, submerged logs, or branches in small tributary streams, but can also occur in swamps and lagoons. They generally form small groups at or near the surface of deeper pools in stream habitats, especially where there is aquatic vegetation. Their natural environment is subjected to seasonal variations with water temperature, pH, and hardness levels varying considerably. There is often a large fluctuation in water conditions between the dry and wet seasons.

Literature

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