

Journal  
of the  
Royal Society of Western Australia

Vol. 52

Part 1

1.—The genus *Tandya* in Western Australia, with a description of a new opisthognathid fish, *Tandya reticulata* sp. nov.

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Manuscript received 9 April 1968; accepted 21 May 1968

**Abstract**

A new species of opisthognathid fish belonging to the genus *Tandya* is described, and a key to the genus in Western Australia is provided.

**Introduction**

These small to moderate sized fishes, known as Smilers, Jaw-fishes or Monkey-fishes are generally found on tropical coasts of the world. In Australia the family is represented by three genera and eight species, one of which is described below as new. Revisions of the family are given by Ogilby (1920, pp. 21-30), and Whitley (1966, pp. 239-241).

**Key to the Monkey-fishes of Western Australia**

- A. Interorbital width 16 to 27 percent of eye diameter, and 7.4 to 8.5 percent of head length. A conspicuous black spot or blotch between the third and seventh dorsal spines; soft dorsal, caudal, and anal fins with oblique dark bars or with black spots. Pectoral and ventral fins spotted. Body densely covered with fine black spots or blotches ..... *Tandya darwiniensis*
- B. Interorbital width 25 to 44 percent of eye diameter, and 9.3 to 10 percent of head length. No black blotch on anterior of dorsal fin; soft dorsal, caudal, and anal fins usually dark. Pectoral and ventral fins without spots. Body with irregular, scattered dark spots ..... *Tandya inornata*
- C. Interorbital width 71 percent of eye diameter, and 14 percent of head length. No black blotch on anterior of dorsal fin; soft dorsal, caudal, and anal fins without spots or markings. Body with pale chain-like reticulate network enclosing one or more dark brown spots. Base of pectoral fins with a dark brown spot. Ventral fins without spots ..... *Tandya reticulata* sp. nov.

**Genus TANDYA Whitley, 1930**

*Tandya* Whitley, Mem. Qld. Mus. 10 (1): 19. Type by original designation, *Opisthognathus maculatus* Macleay, 1878.

*Tandya reticulata*, sp. nov.

(Fig. 1)

D.XII, 16; A.ii, 14; Pect. 21. V 1, 5. C.2, 11, 2. Gill rakers on first branchial arch 8/14. Lateral line ca. 120, ending below eighth dorsal ray.

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Head (100 mm) 3.3, depth of body (91) 3.6, depth of caudal peduncle (36) 9.0, length of caudal peduncle (22) 14.8, snout tip to dorsal fin origin (90 mm) 3.6 in standard length (325). Eye (20) 5.0, interorbital (14) 7.1, snout (7) 14.0, length of pectoral fin (50) 2.0, length of ventral fins (50) 2.0 in head length.

Head naked. Maxillaries extending almost two eye diameters beyond orbits; their posterior margins somewhat truncate. Outermost teeth in both jaws enlarged; two to three rows of small conical teeth followed by a row of slightly larger recurved teeth near the symphyses of both jaws; lateral teeth enlarged, in a single row. No teeth on the vomer, palatines or tongue. Eyes relatively small and separated by a wide, slightly concave interorbital space. Anterior nostrils with a well developed posterior flap; posterior nostrils with low rims. Opercles unarmed; the preopercular margin rounded, the opercle ending in a narrowly rounded flap at upper margin.

Body with small cycloid scales extending almost to the base of the pectoral fin, and becoming embedded above the opercular flap. Isthmus and around ventral fin bases naked. Belly covered with small, non-imbricate scattered scales, gradually becoming imbricate on sides.

Dorsal fin originates above posterior margin of operculum, a little before hindmost margin of the opercular flap. Anal fin originating below third dorsal ray, the length of the longest anal ray (48 mm) exceeds that of the longest dorsal ray (42 mm). Ventral fins jugular, the spine is short and embedded in thick skin, the first two rays are thickened.

Colour after preservation: Head pale brown with scattered dark brown to black blotches and finer spots; scattered reticulate pale markings are present, and well developed on the operculum. Maxillaries with scattered brown and white blotches, and with three poorly defined cross-bars. Body light golden brown with a network of chain-like reticulate pale markings enclosing one or more dark brown blotches within each mesh. Pectoral fin with a conspicuous dark brown spot on each side of the base. Soft dorsal, anal and ventral fins pale, without dark markings.

Described and figured from the unique holotype registered in the Western Australian Museum collection P.15758, collected by Inspec-



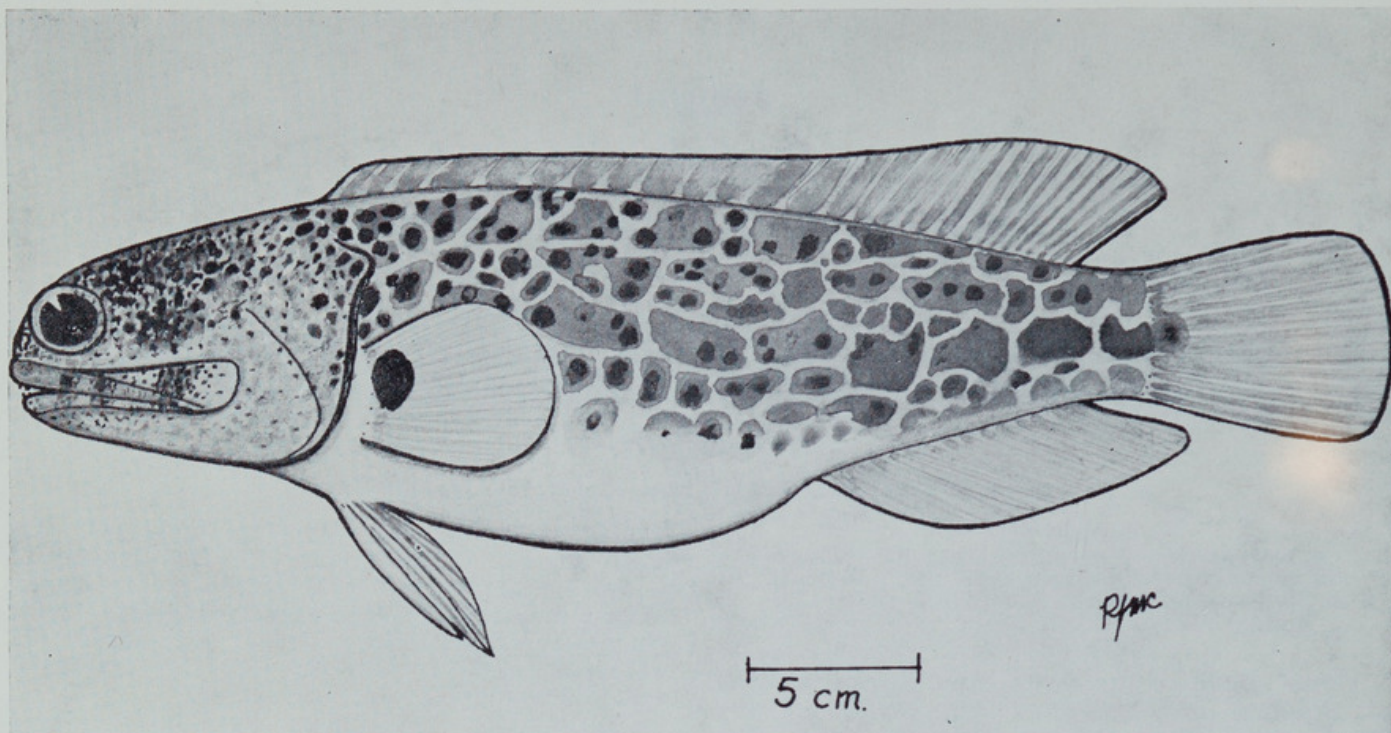


Figure 1.—*Tandya reticulata* from Broome, W.A.

tor R. J. Baird, September 1, 1965, Broome, Western Australia. Total length of holotype 385 mm.

This attractive new species may be readily distinguished from all other species in the genus in having a relatively small eye, a wide interorbital space, and a most distinctive coloration.

*Tandya inornata* (Ramsay and Ogilby)

*Opisthognathus inornatus* Ramsay and Ogilby, 1887, *Proc. Linn. Soc. N.S.W.*, (2) 2: 561.

Originally described from two specimens collected at Derby, this species was later figured by McCulloch (1914, p. 215, pl. XXX) who illustrated one of the syntypes, substituting the coloration for that of a large specimen collected at Port Hedland (No. 10704 W.A. Museum collection). Additional specimens are now recorded from Broome (P.559) and Point Samson (P.7076). Ramsay and Ogilby (1887, p. 561) state that the eyes are about one quarter of their diameter apart. The interorbital width of specimens No. 10704 (S.L. 393 mm) and P.7076 (S.L. 365 mm) are 44 and 40 percent of eye diameters respectively.

Ion L. Idriess devotes a whole chapter describing the interesting habits of a large Monkey-fish from Broome in his book "Forty Fathoms Deep". The fact that Idriess records the coloration of the small wrasse that lives in the same hole as his Monkey-fish, whilst not mentioning the colour of his main subject, suggests that the Monkey-fish might be the drab *T. inornata* rather than the ornate *T. reticulata*. As Idriess's specimen measured about eighteen inches in length, it is unlikely to be the small *T. darwiniensis*.

*Tandya darwiniensis* (Macleay)

*Opisthognathus darwiniensis* Macleay, 1878, *proc. Linn. Soc. N.S.W.*, 2: 355, pl. IX, fig. 3.

In the Western Australian Museum collection this species is represented as follows: Broome (P.15758), Point Samson (P.5062), Monte Bello Islands (P.4357, P.4390), tidepools on Locker Island, near Onslow (P.7938, P.7939).

I have observed this species living in holes dug in the sand near coral reefs at the Monte Bello Islands in a depth of about ten feet. It is a voracious fish and will take a surprisingly large bait. Macleay's specimen from Darwin measured about 153 mm and none of our specimens is greater than 208 mm. This species appears then to be the smallest of the genus in Australian waters.

Mees (1959, p. 8) surmised that *T. darwiniensis* was the juvenile of *T. inornata*, but an examination of P.4390, a female with a standard length of 150 mm revealed it to be sexually mature with large ova measuring approximately 3 mm in diameter.

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Mckay, R J. 1969. "The genus Tandya in Western Australia, with a description of a new opisthognathid fish, *Tandya reticulata* sp. nov." *Journal of the Royal Society of Western Australia* 52, 1–2.

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