

A NEW SPECIES OF PIPEFISH  
(PISCES: SYNGNATHIDAE: *MICROGNATHUS*)  
FROM TAHITI

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*Abstract.*—*Micrognathus pygmaeus*, characterized by a low number of trunk rings (14), short snout (3.2–3.4 in head), and small size at maturity, is described from Taone, Tahiti.

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The genus *Micrognathus* is one of the more complex in the family Syngnathidae and its taxonomy is poorly known. Most of the species are inadequately described, and some recently described species transcend the limits of the nominal subgenera included in *Micrognathus* (Herald and Dawson, 1974). Most syngnathids frequent relatively shallow water, but a few members of the genus *Micrognathus* are typically found at depths of 20 to 137 meters (Herald and Randall, 1972; Fritzsche, 1975). The deep living habits of these species of *Micrognathus* have contributed to a paucity of specimens and a resultant lack of taxonomic information. However, the specimens described here were collected from relatively shallow water. Perhaps the small size of these fish has been responsible for the lack of observations by previous investigators.

Both the holotype and paratype are deposited in the National Museum of Natural History, Smithsonian Institution (USNM). Measurements are given in millimeters (mm). Terminology and definitions follow Fritzsche (1980).

*Micrognathus pygmaeus*, new species

Fig. 1

*Holotype.*—USNM 207933 (23 mm SL, male); Tahiti, Taone, lagoon 1–2 km E of Papeete, depth about 3 m; 1965; R. L. Sixberry. *Paratype.*—USNM 215775 (20 mm SL, female); same data as holotype.

*Diagnosis.*—(Data for holotype are given first if different from paratype.) Dorsal-fin rays 18, pectoral-fin rays 11, anal-fin rays 2–3, caudal-fin rays 10, trunk rings 14, tail rings 30–29; dorsal fin covering 1 + 4 rings; brood pouch covering first 10 tail rings; head 7.1–7.4 in SL; snout 3.4–3.2 in head; dorsal-fin base 1.6–1.7 in head.

*Description.*—Head ridges smooth, indistinct. Snout ridge slightly concave. Supraorbital ridge smooth, weakly developed, with distinct cirrus.

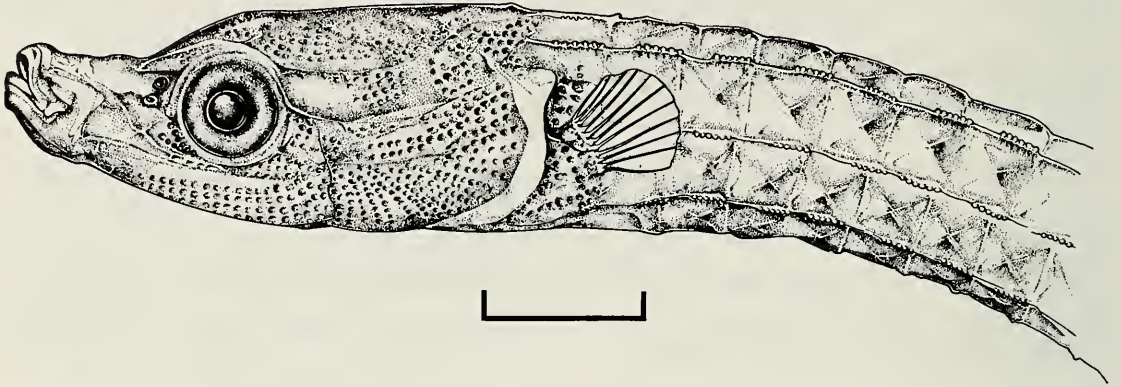


Fig. 1. Head and anterior body of the holotype of *Micrognathus pygmaeus* (USNM 207933); 23 mm SL. Horizontal bar represents 1 mm.

Prenuchal ridge obsolete, nuchal ridge absent. Opercular ridge extending almost full length of opercle. Pectoral-fin base with indistinct ridges. Body ridges rugose to serrate with serrations increasing in distinctness posteriorly. Maxillary with strong, median, dorsal spinous process. Pouch-protecting plates weakly developed, pouch closure of the everted type of Herald (1959). Body ridge pattern typical of *Micrognathus*, i.e., lateral trunk ridge deflected ventrad at anal ring thence continuous with inferior tail ridge; superior tail and superior trunk ridges discontinuous; inferior trunk and tail ridges discontinuous. Scutella on trunk and anterior portion of tail about half height of individual rings. Pectoral fin crossing 1.0–1.2 trunk rings. Color entirely light tan to white; no concentrations of pigment evident.

*Remarks.*—*Micrognathus pygmaeus* most closely resembles *M. brevirostris* (Rüppell) from which it differs in the number of trunk rings (14 rather than 15–17), head 7.1–7.4 rather than 8.0–10.2 in SL, and snout 3.2–3.4 rather than 2.2–3.2 (usually 2.2–2.9) in head. *Micrognathus pygmaeus* might also be confused with *M. nitidus* (Günther), but the latter has a distinct banded color pattern and well developed spines on the snout ridge which distinguish it from *M. pygmaeus*.

*Etymology.*—From the Greek *pygmaios* (dwarf), in reference to its small size, used here as a noun in apposition.

*Discussion.*—*Micrognathus pygmaeus* cannot be placed in any of the three subgenera of the genus as they are presently defined. This quandary is similar to the one faced by Herald and Dawson (1974) in their treatment of *M. erugatus*, which they were unable to place in a subgenus of *Micrognathus*. This suggests that the present subgenera of *Micrognathus* are artificial and in need of reexamination.

The holotype of *M. pygmaeus* is one of the smallest known mature male pipefishes. Only three other species are as small or smaller at maturity; *Micrognathus brevirostris* (25 mm; Herald, 1953); *Doryrhamphus excisus*

(23 mm; Duncker, 1915); and *D. paulus* (24.5 mm; Fritzsche, 1980). The brood pouch of the holotype contained seven eggs.

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