

Tribe Brosmophycini Cohen and Nielsen, 1978

Number of recognized genera: 7 + 2?.

Diagnosis: Male intromittent organ without ossified parts.

Beaglichthys Machida, 1993b

Type species: *Beaglichthys macrophthalmus* Machida, 1993b by original designation.

Synonyms: None.

Number of recognized species: 1.

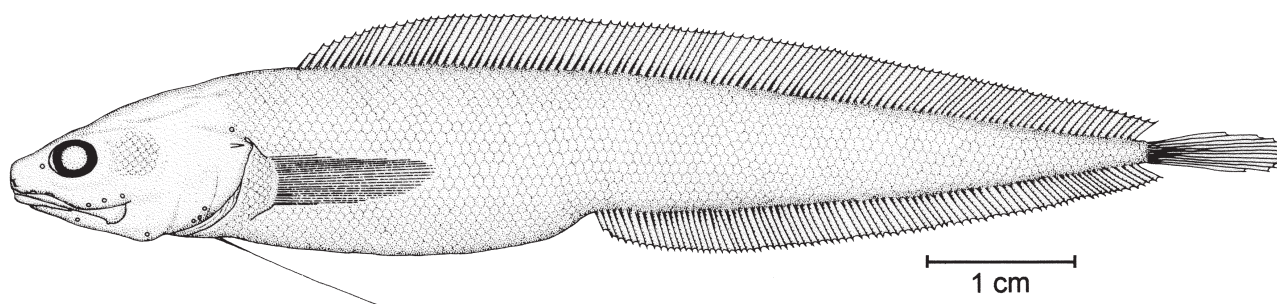


Fig. 112 *Beaglichthys macrophthalmus* (from Machida, 1993b)

Diagnosis and description: Body covered with imbricate scales; **eye relatively large, 5.4 in head length, longer than snout length, maxilla expanded posteriorly, with a pointed process at the posteroventral corner: a patch of scales present behind the eye;** both granular and enlarged teeth present; tongue broad, with a blunt tip; developed gill rakers 3; pores present on head; **branchiostegal rays 8;** dorsal-fin rays 111; **anal-fin origin at midpoint of body,** anal-fin rays 83; pectoral-fin rays 22; pelvic fins each with a single ray; caudal-fin rays 12; **vertebrae 14+36=50.**

Revisions: None.

Geographical distribution: Known only from the type locality, Shoal Bay, Northern Territory, Australia.

Habitat and biology: Probably shallow water. Holotype and only known adult specimen a gravid female.

Interest to fisheries: None.

Size: The holotype is 78 mm; a newly born embryo is 23.3 mm in total length.

List of species

Beaglichthys macrophthalmus Machida, 1993b. Information see above. Rare.

Remarks: *Beaglichthys* is presently known only from the female holotype. Until males are caught the genus can not be allocated to either of the 2 brosmophycine tribes.

***Bidenichthys* Barnard, 1934**

Type species: *Bidenichthys capensis* Barnard, 1934 by monotypy.

Synonyms: None.

Number of recognized species: 3.

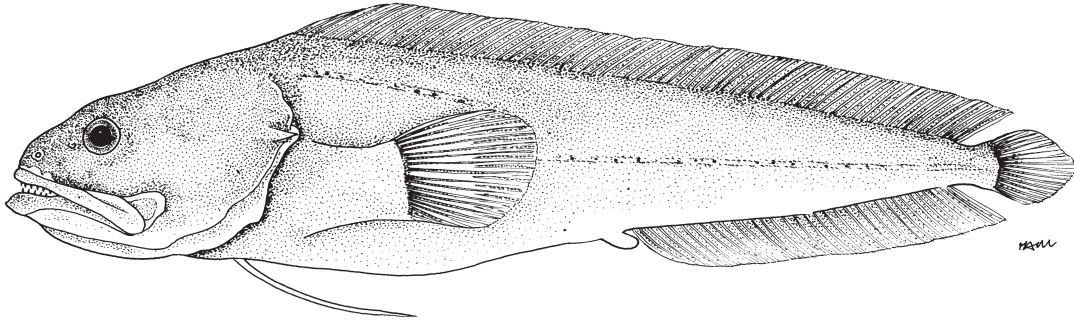


Fig. 113 *Bidenichthys capensis* (after Cohen, 1986)

Diagnosis and description: body covered with imbricate scales; head naked; eye diameter less than snout length; maxilla expanded and free posteriorly; branchiostegal rays 7 or 8; anal-fin origin far posterior to midpoint of body; precaudal vertebrae 15 to 19.

Revisions: Paulin (1995).

Geographical distribution: South Africa and New Zealand.

Habitat and biology: Rocky areas ranging from the intertidal to a depth of 178 m.

Interest to fisheries: None.

Size: At least 148 mm.

Key to species

- 1a. Pectoral-fin peduncle longer than broad *B. capensis*
 1b. Pectoral-fin peduncle broader than long → 2
- 2a. Body colour a uniform grey-brown; dorsal-fin rays 79 to 87 *B. beeblebroxi*
 2b. Body colour with irregular mottled brown bands; dorsal-fin rays 71 to 77 *B. consobrinus*

List of species

Bidenichthys beeblebroxi Paulin, 1995. Found in holes beneath rocks and boulders from the surface to 30 m around the North Island and northern part of South Island, New Zealand. Common.

B. capensis Barnard, 1934. Intertidal in rocky tidepools from East London to the Cape of Good Hope, South Africa. Uncommon.

B. consobrinus (Hutton, 1876). Rocky areas at depths of 30 to 178 m off northern New Zealand. Rare.

Remarks: Further study may show that South African and New Zealand species should be classified in different genera.

Brosmodorsalis Paulin and Roberts, 1989

Type species: *Brosmodorsalis persicinus* Paulin and Roberts, 1989 by original designation.

Synonyms: None.

Number of species: 1.

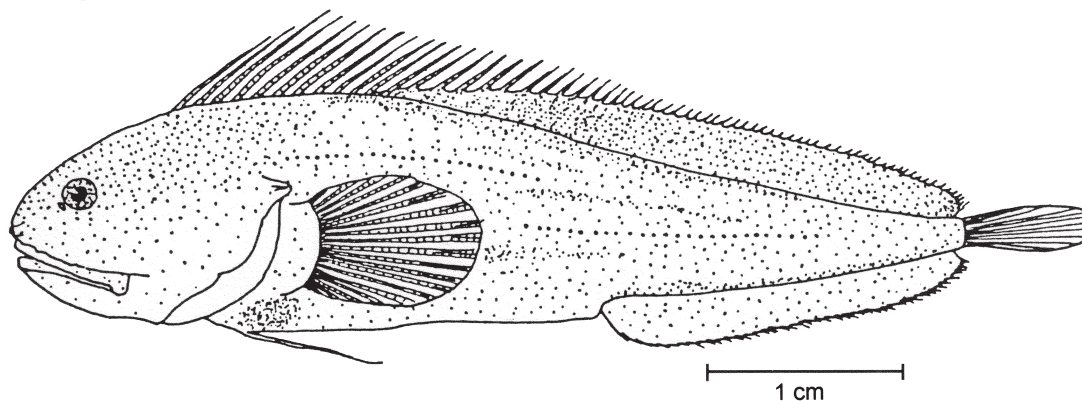


Fig. 114 *Brosmodorsalis persicinus* (from Paulin and Roberts, 1989)

Diagnosis and description: Body covered with small imbricate scales; head naked, 3.4 to 3.9 in standard length; dorsal profile of head rounded; teeth separate, sharp and needle-like; developed gill rakers 13 to 16; fresh specimens peach-pink in colour; dorsal-fin rays 71 to 80, fin originates far forward on top of head, anterior rays free; caudal-fin rays 14; preanal long, 57.3 to 62.5% of standard length; anal-fin rays 35 to 41; precaudal vertebrae 16 or 17.

Revisions: None.

Geographical distribution: Northeastern New Zealand.

Habitat and biology: Lives in areas of dense algal growth at depths of 0 to 17 m. Cryptic in behavior.

Interest to fisheries: None.

Size: At least 53 mm.

List of species

Brosmodorsalis persicinus Paulin and Roberts, 1989. Information see above. Uncommon to locally abundant.

Brosmolus Machida, 1993b

Type species: *Brosmolus longicaudis* Machida, 1993b by original designation.

Synonyms: None.

Number of recognized species: 1.

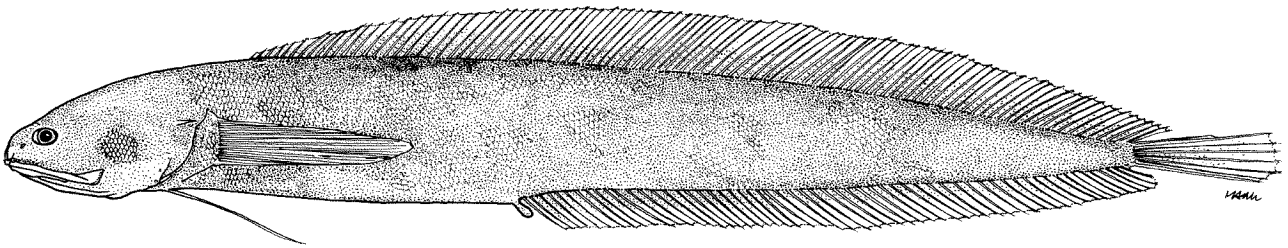


Fig. 115 *Brosmolus longicaudis* (after Machida, 1993b)

Diagnosis and description: Body slender, depth at anus 8.3 in standard length, completely covered with imbricate scales; snout blunt; eye small, 7.6 in head length, less than snout length; large patch of scales present on cheek; teeth needle-like; tongue long and sharply pointed; developed gill rakers 4; pore series present on head; branchiostegal rays 7; dorsal-fin rays 129; anal-fin origin well anterior to midpoint of body, anal-fin rays 94; pectoral-fin rays 23; pelvic fins with 1 ray in each; caudal-fin rays 16; vertebrae 15+44=59.

Revisions: None.

Geographical distribution: Known only from the type locality, Shoal Bay, Northern Territory, Australia.

Habitat and biology: No information but probably shallow water.

Interest to fisheries: None.

Size: Known only from the 58 mm holotype.

List of nominal species

Brosmolus longicaudis Machida, 1993b. Information see above. Rare.

Brosmophyciops Schultz, 1960

Type species: *Brosmophyciops pautzkei* Schultz, 1960 by original designation.

Synonyms: None.

Number of recognized species: 1.

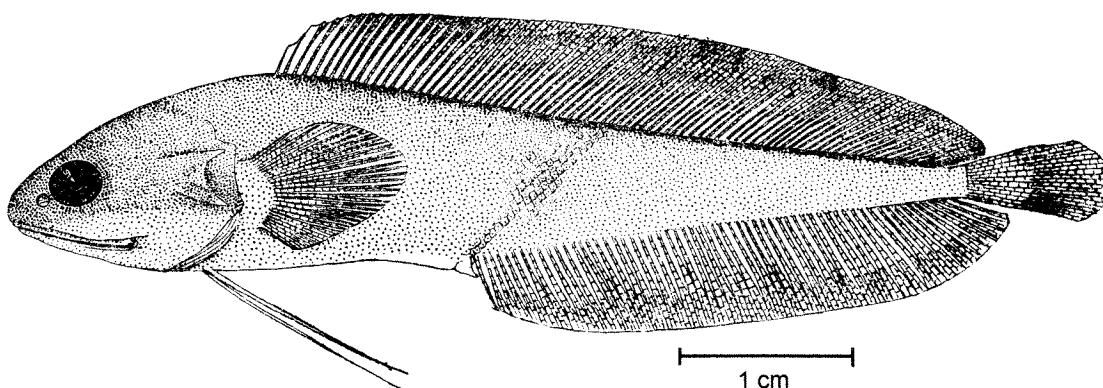


Fig. 116 *Brosmophyciops pautzkei* (from Schultz, 1960)

Diagnosis and description: Body tapering gradually to a slender caudal peduncle, covered with imbricate scales; head naked, about 4 times in standard length; snout rounded; eye large, 4.5 to 5.8 in head length, equal to or greater than snout length; maxilla strongly sheathed, expanded posteriorly, with a pointed process at the posteroventral corner; spine at upper angle of opercle (lower angle of opercle sometimes appears as a buried spine); branchiostegal rays 7; some teeth separate and pointed; tongue with a slender anterior prow; developed gill rakers 3; fresh specimens tan, with median fins yellowish; male intromittent organ consists of penis encompassed by fleshy hood; dorsal-and anal-fin rays long, fin-ray length equal to or greater than adjacent body depth; dorsal fin originating over pectoral fins, fin rays 72 to 84; anal fin originating at about midlength of body, fin rays 54 to 62; caudal-fin rays 11 or 12; pectoral-fin rays 23 to 29, fin mounted on a broad peduncle; precaudal vertebrae 12 or 13.

Revisions: Machida and Yoshida (1984); present additional information.

Geographical distribution: Widely distributed in the Indo-Pacific from the Gulf of Aqaba and Port Sudan to Madagascar, Mauritius, the Gulf of Thailand, New Guinea, Great Barrier Reef, Ryukyu Islands, Palau, Marshall Islands, Caroline Islands, and Pitcairn Island. This wide distribution is puzzling for a low fecundity live-bearing species with early life history stages that are not known from the plankton. Studies on geographical variation might serve as a basis for separating local populations.

Habitat and biology: Apparently cryptic in behavior, sometimes found in marine caves and beneath rocky ledges. Often taken with other genera of small free-tailed bythitids, from which it is immediately distinguished by its larger eye.

Interest to fisheries: None.

Size: At least 61 mm.

List of species

Brosmophyciops pautzkei Schultz, 1960. See information above. Ubiquitous but nowhere very common.

Remarks: *Brosmophyciops* is classified by Howes (1992) as closer to the neobythitine genera *Monomitopus*, *Lamprogrammus* and *Glyptophidium* than to the Bythitidae.

Brosmophycis Gill, 1861b

Type species: *Brosmius marginatus* Ayres, 1854 by original designation.

Synonym: *Halias* Ayres, 1860. Type species *Brosmius marginatus* Ayres, 1854.

Number of recognized species: 1.

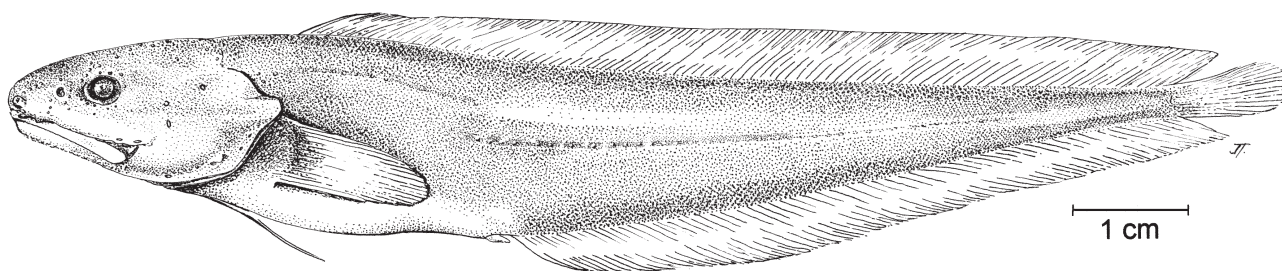


Fig. 117 *Brosmophycis marginata* (from Nielsen et al., 1968)