

A New Argentinid Fish from Hawaii¹

DANIEL M. COHEN²

THE ARGENTINID FISH described in this paper was collected by Mr. Paul Struhsaker of the University of Hawaii during the course of his investigations on the biology of Hawaiian demersal fish and shrimp populations. The species is referred to *Glossanodon*, a genus with six described Recent species from the tropical Atlantic, Mediterranean, western Indian Ocean, and Japan (Cohen, 1958; Cohen and Atsuides, 1969). It is also represented in the fossil record (Jerzmańska, 1967).

I thank Mr. Struhsaker for making the specimens available to me for study.

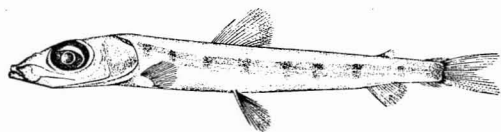


FIG. 1. Holotype of *Glossanodon struhsakeri*, USNM 204686, standard length 92.8 mm. Drawn by Mildred H. Carrington.

Glossanodon struhsakeri sp. nov.

Fig. 1

DIAGNOSIS: A *Glossanodon* with the vent immediately anterior to the anal fin base; dentary teeth present along the entire distance from the symphysis to the angle of the gape; 23 to 25 pectoral fin rays; 51 to 54 lateral line scales; 12 to 14 dorsal fin rays; 13 to 15 ventral fin rays; dusky blotches restricted to dorsal half of side; and width of body 2.3 to 2.9 in head length.

COUNTS: See Table 1.

MEASUREMENTS: Given as percent of standard length for 20 specimens ranging in standard length from 73.2 to 118 mm. The mean is followed by the range in parentheses. Preanal 84.7 (83.2–87.0), preventral 52.8 (50.4–54.5), predorsal 47.7 (45.6–49.7), head length 30.7

(28.7–32.5), snout 10.1 (9.6–10.9), eye 8.9 (8.0–10.0), maxillary length 7.6 (6.9–8.8), maxillary width 2.3 (2.0–2.8), body depth at dorsal 11.4 (10.2–13.0), body width behind head 11.4 (10.5–12.2), caudal peduncle depth 5.7 (5.3–6.0).

DESCRIPTION: Greatest depth and width of body behind head, depth tapering little to caudal peduncle. Body almost rectangular in cross section; width 2.3 to 2.9 in head length. The dorsal profile of the head is slightly interrupted by the dorsal rim of the orbit.

The dorsal margin of the rear part of the maxillary lies under the posterior part of the lachrymal and the anterior part of the jugal; its distal end is closer to the anterior margin of the orbit than to the snout. The lower jaw projects slightly; both jaws are rounded, the lower less broadly. The interorbital space between the supraocular canals is flat.

Each palatine bears 15 to 20 short, conical, widely spaced teeth arranged in an irregular series. The head of the vomer has 12 to 15 similar teeth. Each dentary has 15 to 20 widely spaced teeth in a single row which extends from the symphysis to the angle of the gape. The tongue lacks teeth.

The gill rakers are elongate, lathlike structures and are closely spaced on the gill arch. The longest rakers are equal to about one-third the interorbital distance.

The pectoral fin is inserted on the ventrolateral contour of the body at an angle of about 45 degrees. The dorsal fin origin lies over vertebral centrum 18 or 19.

Scales are deciduous; all scale counts in Table 1 are from scale pockets.

The peritoneum is dusky, the gut immaculate. The swimbladder lacks silvery pigment.

Several specimens over 100 mm standard length are nearly ripe females.

The body is straw-colored with a brown band extending along the side from head to tail. A narrow, more intensively pigmented segment of

¹ Manuscript received January 10, 1970.

² Bureau of Commercial Fisheries, U. S. National Museum, Washington, D. C. 20560.

TABLE 1
FREQUENCY DISTRIBUTIONS OF COUNTS ON TYPE SPECIMENS OF *Glossanodon strubsakeri*

	Dorsal fin rays			Anal fin rays				Pectoral fin rays		
Number of fish	12	13	14	12	13			23	24	25
	8	15	2	19	6			5	13	7
	Ventral fin rays			Gill rakers*				Vertebrae**		
Number of fish	13	14	15	21	22	23	24	50	51	52
	14	8	5	2	7	4	1	1	25	4
	Lateral line scale rows									
Number of fish	51	52	53	54						
	1	7	4	6						

* On lower arm of first arch.

** Not including ural centra.

TABLE 2
COMPARISONS OF THREE PROPORTIONAL CHARACTERS
IN *Glossanodon strubsakeri* AND *G. mildredae*

CHARACTER	TIMES IN HEAD LENGTH	
	<i>G. strubsakeri</i> N = 20	<i>G. mildredae</i> * N = 4
Body width	2.3-2.9	2.9-3.3
Snout length	2.8-3.2	3.2-4.1
Maxillary width	10.8-15.0	16.0-17.3

* Data from Cohen and Atsaiades (1969).

the band lies entirely above the midline of the body; the paler, ventral margin is below the midline. A series of 5 to 9 dark blotches is spaced evenly along the band. The blotches are very obvious in specimens with a relatively light-colored band (Fig. 1) but obscure in specimens with a relatively dark band. The blotches extend ventrally beyond the midline of the body to the light-colored margin of the lateral brown band but not onto the pale ventral section of the side. The ventral part of the opercle, the muzzle, and the breast are dusky. The fin bases are lightly outlined in dark pigment. A dark brown streak is present in the dorsal midline between the epaxial muscle masses.

DISCUSSION: *G. strubsakeri* is closest to *G. mildredae*, a poorly known species from the western Indian Ocean. The two overlap in all but one meristic character—lateral line scale count. Unfortunately, there is only a single count available for *G. mildredae*, 55 or possibly

more; counts for 18 *G. strubsakeri* range from 51 to 54 (see Table 1). The two species also differ in three of the proportional characters surveyed, with *G. strubsakeri* having a wider body, longer snout, and more expanded distal region of maxillary. Data are summarized in Table 2.

STUDY MATERIAL: All from Hawaii; taken from the R.V. "Townsend Cromwell" with a 41-foot shrimp trawl. Holotype: U. S. National Museum 204686, 21°01'N, 156°47'W, 226 m, stat. 33-50, 13 Nov. 1967. Paratypes: USNM 204687, (6), data as for holotype; USNM 204688, (10), 21°10'N, 157°25'W, 183 m, stat. 40-18, 9 Nov. 1968; USNM 204689, (29, including 2 cleared and stained), Bernice P. Bishop Museum (4), California Academy of Sciences (4), 21°04'N, 156°29'W, 296 m, stat. 40-92, 25 Nov. 1968.

LITERATURE CITED

- COHEN, DANIEL M. 1958. A revision of the fishes of the subfamily Argentininae. Bulletin of the Florida State Museum, Biological Sciences, vol. 3, pp. 93-172.
- COHEN, DANIEL M., and SAMUEL P. ATSAIDES. 1969. Additions to a revision of argentinine fishes. Fishery Bulletin, U.S. Fish and Wildlife Service, vol. 68, pp. 13-36.
- JERZMAŃSKA, ANNA. 1967. Argentinidés (poissons) fossiles de la série Ménélique des Karpates. Acta Palaeontologica Polonica, vol. 12, pp. 195-211, pl. I.