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## NOTES ON NEW OR RARE MARINE FISHES FROM SURINAM

by

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The fish collection of the Leiden Museum has recently been enriched by the donation of a few small or moderate collections of fishes assembled in tropical Atlantic America. As these proved to contain some representatives of species rarely encountered or even new to science and, moreover, provided interesting distributional information, publication of a few notes containing the principal data seems of interest.

Note I. — A collection of about 40 specimens from Surinam, representing 29 species mostly marine, was received from Ir. Z. Salverda, who appears to have collected them himself. Unfortunately, Ir. Salverda omitted adding more detailed locality information, but all marine species can be expected to occur throughout the whole of the coastal region. Two of these species, each represented by a single example, seem of sufficient interest to be recorded here in the present and the second note.

### ***Carcharhinus porosus* (Ranzani)**

*Carcharhinus porosus*, Bigelow & Schroeder, 1948, pp. 394-399, figs. 74, 75.  
1 ex., 267 (355) mm, ♂, RMNH reg. no. 24704, Surinam.

It is remarkable that Bigelow & Schroeder seem to have recorded the first specimen(s) from Surinam while, considering their references, the species, though differently named, has been known to occur in both French and British Guiana waters for more than a hundred years. As Bigelow & Schroeder state that nothing is known of the habits of the present species, merely adding that it is probably a littoral species, I surmise that the species is not abundant.

The specimen completely agrees with Bigelow & Schroeder's extensive description; the teeth seem to number  $13 + 1 + 13/12 + 1 + 12$ .

Note II. — The Salverda collection provided a second interesting specimen worthy to be mentioned and described here.

**Anchoviella lepidentostole** (Fowler)

*Anchoviella lepidentostole*, Hildebrand, 1943, pp. 127, 128, fig. 55.  
1 ex., 87 (104+) mm, RMNH reg. no. 24705, Surinam.

The following data seem conclusive for the present identification: D 14; A 23; scales in longitudinal series about 40; gill membranes wholly separate; eye 3.2 in head; teeth all subequal, small; maxillaries wholly toothed, with the obliquely truncate posterior ends just falling short of the mandibular joint; gill rakers 17 + 1 + 19 on first arch; dorsal origin slightly closer to caudal base than to tip of snout; anal origin below middle of dorsal base; body moderately compressed, rather deep; a wide, still distinct, silvery band, its width slightly surpassing height of eye but subequal eye length, runs along the sides.

The specimen shows an almost ideal agreement with the descriptions by Fowler (1911, p. 214, fig. 3) and Hildebrand (l.c.), and appears to be the first specimen recorded since Fowler described the species in 1911 after two specimens measuring 84(96) mm (holotype) and 63(76) mm (paratype).

Note III. — During his recent visit to Surinam, Dr. C. O. van Regteren Altena, Curator of Mollusca, Leiden Museum, collected a small number of marine fishes which proved to contain a few interesting examples. The first to be recorded here is a new species of Torpedinid ray which is gratefully named after its collector.

**Diplobatis altenai** nov. spec. (fig. 1)

1 ex., 117 (140) mm, ♂, RMNH reg. no. 24706, 20 miles E. of lightship before Surinam River outlet, 20 February 1963, depth 70-72 feet.

Distinctive characters. The species may be separated from its closest western Atlantic relatives (*Benthobatis marcida* Bean & Weed, *Torpedo nobiliana* Bonaparte, *Narcine brasiliensis* (Olfers), *Diplobatis pictus* Palmer, and *Diplobatis guamachensis* Martin) by its divided nostrils, its small but not minute eyes, the shape of the roundish disc (see fig.), the lacking of fringes or papillae along the spiracular margins, the narrow protractile mouth, the very moderate pliae along the peduncle, the pointed dorsal fins, and the length of the caudal fin.

Description. The principal measurements, with the proportions in per cent of the total length added between brackets, are as follows.

Disc width 58 mm (41.4), disc length 62 mm (44.3); snout length before orbits 16 mm (11.4), in front of posterior margin of nasal curtain 17 mm (12.1), in front of mouth cleft 19.5 mm (13.9); horizontal diameter of eyes 3 mm (2.15), interorbital width 8.3 mm (5.95), flat bony interorbital

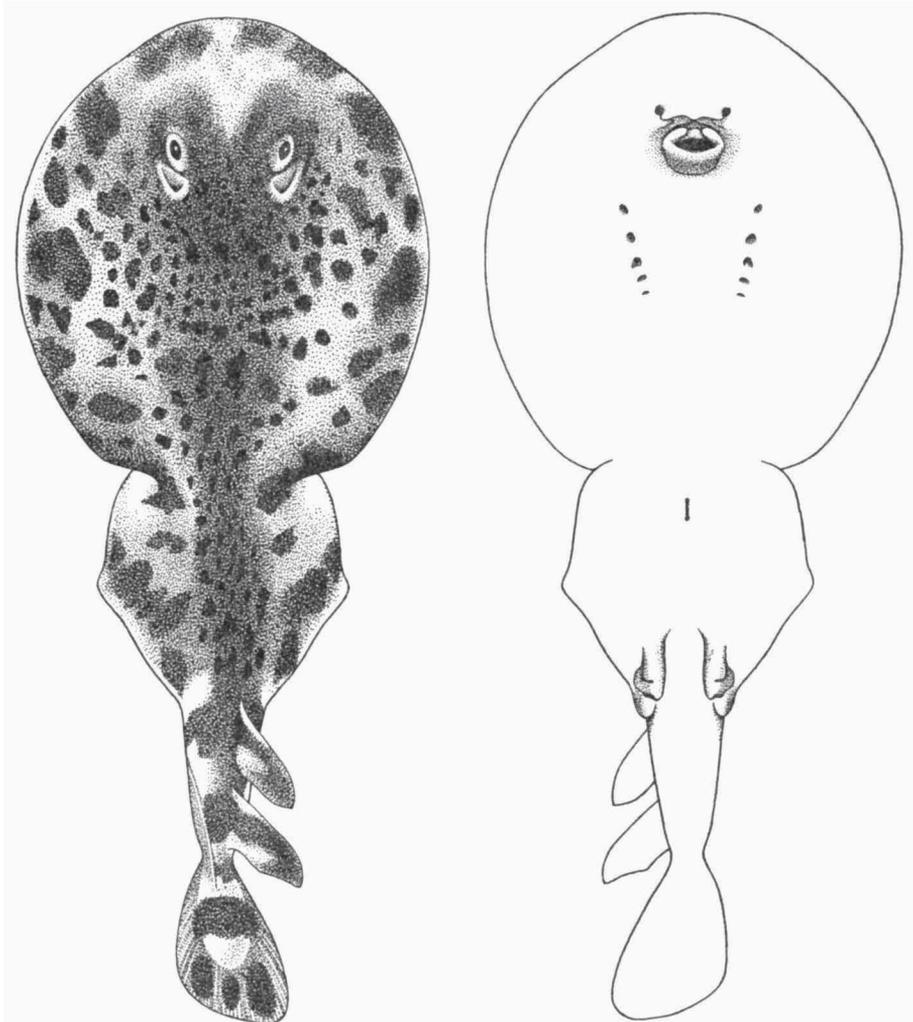


Fig. 1. *Diplobatis altenai* nov. spec., dorsal and ventral view. Almost natural size.

9.5 mm (6.8); length of spiracles 4.5 mm (3.2), interspiracular distance 8.5 mm (6.1); width of mouth cleft 5.8 mm (4.1), width of oral tube externally 8.2 mm (5.85); distance between inner ends of outer nostrils 8 mm (5.7); lengths of gill openings, 1st 1.5-2.0 mm (1.05-1.45), 3rd 1.5-

3.0 mm (1.05-2.15), 5th 1.0-2.0 mm (0.7-1.45), the right side openings being shrunk; distances between inner ends of gill openings, 1st 15.0 mm (10.7), 3rd 12.5 mm (9.0), 5th 11.0 mm (7.85); vertical height of first dorsal fin 9.5 mm (6.8), its basal length 8.5 mm (6.05); vertical height of second dorsal fin 10.5 mm (7.5), its basal length 8.0 mm (5.7); upper anterior margin of caudal fin 22.0 mm (15.7), lower anterior margin of caudal fin 16.0 mm (11.4); anterior margins of pelvic fins 18.0 mm (12.85), its posterior margin almost nil, the distal margin about 30.0 mm (21.45); length of claspers from inner attachment 10.0 mm (7.15); distance from tip of snout to vent 67.0 mm (47.85), from vent to tip of tail 73.0 mm (52.15); interspace between first and second dorsal fins 3.5 mm (2.5), between second dorsal and caudal fin 3.5 mm (2.5).

Disc rounded, subcircular, hardly longer than wide, the greatest width hardly behind half its length; disc length 1.9 in standard length, 2.25 in total length. Interorbital width almost 2 in preorbital snout; greatest length of spiracles almost 2 in interspiracular width, situated a short distance behind orbits; spiracular margins rounded, without fringes or papillae; interspiracular width 2.3 in preoral snout, 2 in snout before posterior margin of nasal curtain. Outer anterior aperture of nostrils separated by bridge of tissue from concealed inner posterior aperture; nasal curtain much wider than long, the free edge smooth. Mouth narrow, protractile. Teeth rows about 17/18, teeth rhomboid, with a shallow transverse groove, the posterior half with a sharp, anteriorly flattened, retrorse denticle; with closed mouth, a few of the anterior upper teeth rows remain visible. Vent slit-like. First dorsal fin originating above or hardly before posterior attachment of pelvic fins, its base being slightly longer than second dorsal base. Lateral dermal folds on caudal peduncle very moderately developed, reaching backward to slightly beyond caudal notch. Tail from vent to caudal notch (49 mm) 1.25 in length of disc. Caudal fin moderately broad, rounded posteriorly, dorsal and ventral margins almost straight; maximum depth (11.5 mm) about 2 in its total length. Pelvic fins separate, with only a minute tip free from peduncle posteriorly, the anterior attachment difficult to define, the external angles far free from the pectoral fins. The claspers are small, stout, slightly widened towards the ends, and approximately reaching the posterior tips of the pelvic fins. Dorsal and ventral surfaces both wholly smooth.

The dorsal surface is light brownish with numerous dark spots of various sizes, especially well defined and small on the central part of the disc and the median part of the back, large blotches on a wide marginal zone of the

disc, on the dorsal peduncle, the dorsal surface of the pelvic fins, the dorsal and caudal fins. The lower surface is uniformly yellowish white.

Concluding remarks. Both the morphological data and the description of the colouration clearly indicate that the present species is most closely related to *Diplobatis pictus* Palmer, especially since Bigelow & Schroeder (1962, pp. 164-167, pl. 1) showed that a considerable variability exists in that species both in morphology and in colouration. Still, the present species seems well distinguished by having the vent slightly before half total length, by having much smaller eyes (3 mm) and orbits (presumably about 4 or 4.5 mm, 2.9 to 3.2 per cent of total length), by the lacking of papillae or fringes along spiracular margin, by the smooth free edge of the nasal curtain, by apparently smaller gill openings, by its lower and slightly smaller dorsal fins, by its usually larger and more elongate caudal fin, and by lacking white spots.

Note IV. — Dr. Van Regteren Altena collected another specimen of ray which should be recorded here.

#### ***Urotrygon microphthalmum* Delsman**

*Urotrygon microphthalmum*, Bigelow & Schroeder, 1953, pp. 428-430, fig. 101; 1962, pp. 235-241, figs. 20-23; Lowe (McConnell), 1962, pp. 677, 679, 683, 684, 692, 698. 1 ex., 237 mm, ♀, RMNH reg. no. 24707, 5 miles NW. of lightship before Surinam River outlet, 21 February 1963, depth 50-54 feet.

Length to middle of vent 107 mm; tail from middle vent 130 mm; preoral length 35 mm; snout before orbits 36 mm; length of disc 109 mm, width of disc 121 mm; horizontal diameter of eyes (exposed) 2 mm, of orbits 3.5 mm; interorbital width 15 mm; maximum diameter of spiracles 4.5 mm, interspiracular width 17 mm; width mouth cleft 12.5 mm; distance between inner nostrils 13 mm; length gill openings, 1st 3.5 mm, 3rd 3.5 mm, 5th 3.0 mm; distance between gill openings, 1st 3.2 mm, 5th 1.6 mm; width of base of caudal peduncle 11 mm, its height 6 mm; anterior margin of pelvic fins 17 mm; width of caudal fin 4 mm, its length approximately 47 mm; distance from vent to base of caudal spine 45 mm, length of spine 38 mm.

The disc is evenly rounded laterally, with the about straight sides of the rostral part meeting at an angle of about 120°, the snout tip slightly projecting. The pectoral margin approximately continued by the distal margins of the fan-shaped pelvic fins. The caudal fin originates near the tip of the caudal spine. The teeth are oval, with the long axes parallel to the jaws, grooved, and not pointed or with a low cusp only; teeth rows about 36/35. Behind the upper teeth a fringed curtain, the mouth floor with three papillae. The distal third of the spine serrate only. Wholly smooth on both

sides excepting a series of about 20 spinules in two rows along the inner spiracular margin and a few along snout margin. Colour brownish dorsally, without markings; ventrally whitish with slightly dusky margins; caudal fin dark, blackish.

This evidently littoral species (Lowe (McConnell), l.c.), after being first described by Delsman in 1941 from before the Amazon mouth (not *in* the mouth as erroneously stated), has only recently been rediscovered at the type locality and near the coasts of British Guiana and Venezuela. The present must be the first record for Surinam.

Note V. — From the same collector, a third species may be recorded here.

### **Syacium micrurum** Ranzani

*Syacium micrurum*, Norman, 1934, pp. 132-133, fig. 86.

1 ex., 72 (87) mm, ♀, RMNH reg. no. 24708, near lightship before Surinam River outlet, February?, 1963.

D 82; A 66; scales in lateral line 63, though pores were perceived on about 45 scales only; gill rakers 2 + 1 + 7; interorbital width minute; upper jaws with two teeth rows, lower jaws with a single row; no teeth on vomer; depth of body 2.0 in standard length; maxillary length 2.65 in head; eye about 4 in head; fin rays scaled.

Though the numbers of rays in dorsal and anal fin, and especially the number of perceivable pores in the lateral line, are rather low for the present species, the further characteristics appear to prevent a different identification.

I am not acquainted with any previous record of *S. micrurus* from Surinam.

Acknowledgement. — The accompanying figure of *Diplobatis altenai* nov. spec. has been expertly drawn by Mr. H. Heijn, artist at the Leiden Museum.

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