

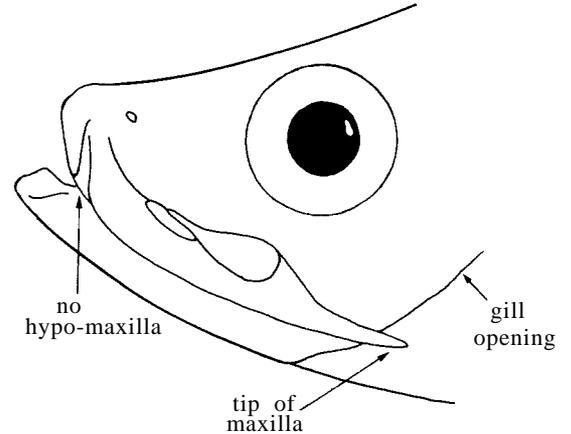
Odontognathus Lacepède, 1800

PRIST Odont

Formerly CLUP Odont

Odontognathus Lacepède, 1800, Hist.nat.Poiss., 2:220 (type: Odontognathus mucronatus Lacepède). Gnathobolus Schneider, 1801, Syst.Ichthyol.Bloch.:556 (type: Odontognathus mucronatus Lacepède).

Diagnostic Features : Moderate-sized marine, estuarine and freshwater clupeoids (to about 17 cm standard length), body elongate and highly compressed, with a sharp keel of scutes along belly. Eye fairly large; lower jaw somewhat projecting, mouth directed obliquely upward; upper jaw long, reaching to or beyond gill opening; no toothed hypo-maxilla between hind tip of pre-maxilla and lower bulge of maxilla blade; jaw teeth small or minute, with a distinct toothless notch at centre of upper jaw. Gillrakers short and slender, 18 to 26 on lower part of arch. Dorsal fin small, well behind midpoint of body; pectoral fins large; pelvic fins absent; anal fin very long, with 55 to 85 finrays its origin well in advance of dorsal fin. Closely resembles Pacific Opisthopterus, in which the upper jaw barely reaches to eye centre, as also in Neopisthopterus, which has a shorter anal fin (50 finrays or less). Chirocentron has canine teeth and other clupeoids are deeper-bodied.



Biology, Habitat and Distribution : Marine and inshore, but penetrating 10 km or more up rivers in some cases. Atlantic and Pacific coasts and drainage of South and Central America.

Species : According to Whitehead (1973a:73), there are 3 species:

Atlantic

- O. compressus Meek & Hildebrand, 1923, Panama to the Guianas
- O. mucronatus Lacepede, 1800, Trinidad to Brazil

Pacific

- O. panamensis (Steindachner, 1876), Honduras to Panama Bay.

Odontognathus compressus Meek & Hildebrand, 1923

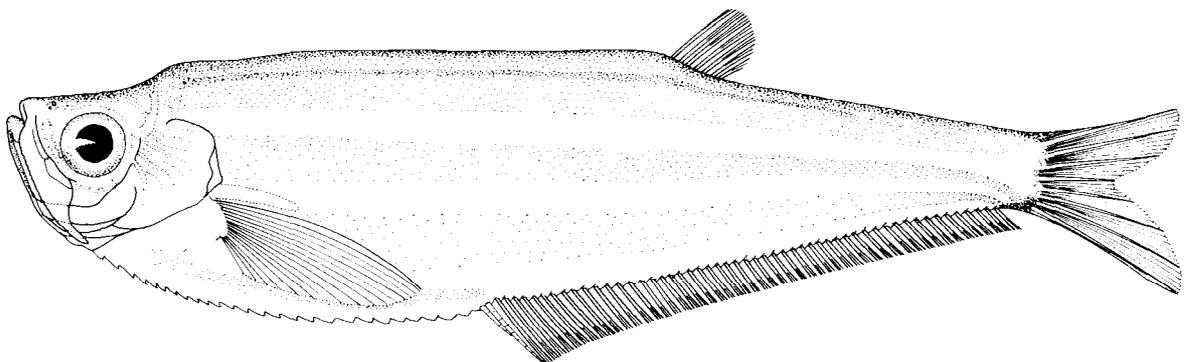
PRIST Odont 1

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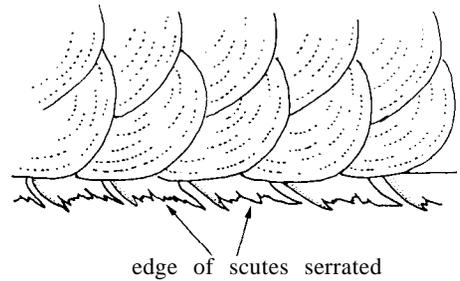
Odontognathus compressus Meek & Hildebrand, 1923, Publs Field Mus.nat.Hist., 15(1):194 (Colón, Panama).

Synonyms : Odontognathus mucronatus: Valenciennes, 1847:91, fig. 611 (Cayenne, Surinam; misidentified); Odontognathus compressus - FWNA, 1964:433, fig. 110, 111 (Panama, Gulf of Venezuela); Cervigón, 1966:130 (Venezuela, compiled); Whitehead, 1973a:78, fig. 25 (Trinidad); Whitehead & Bauchot, in press (mucronatus of Valenciennes).

FAO Names : En - Caribbean longfin herring.



Diagnostic Features : Body long and compressed, with an uninterrupted keel of 24 to 28 scutes, the outer edges of the scutes distinctly serrated. Upper jaw broad at midpoint, tapering posteriorly, the tip reaching or surpassing gill opening. Pectoral fins large; pelvic fins absent; dorsal fin rather small, set far back on body; anal fin long, with 55 to 61 finrays. Resembles *O. mucronatus* (which it overlaps in Trinidad and Cayenne), which has smooth edged scutes with a gap below pectoral fin base, and more anal finrays (70 to 85); no other clupeoid in the area has so many anal finrays or such a long upper jaw (*Neoopisthopterus*, *Chirocentrodon*). See CLUP Odont 1, Fishing Area 31.



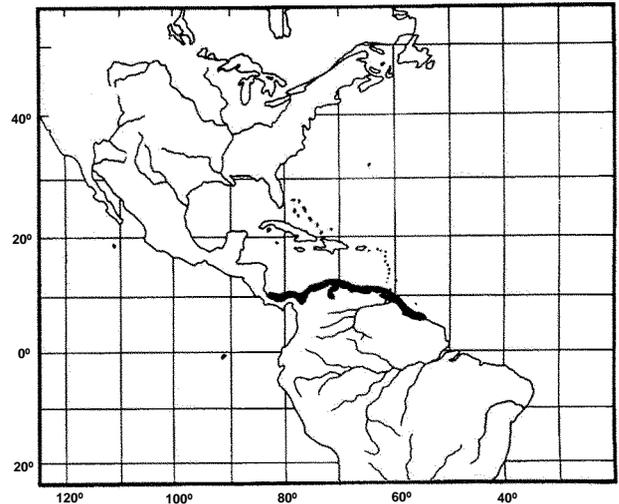
Geographical Distribution : Atlantic coasts and perhaps estuaries of Central and South America (Panama, coasts of Venezuela, Trinidad, Surinam or Cayenne - the *mucronatus* figured by Valenciennes, 1847).

Habitat and Biology : Coastal, inshore, probably entering estuaries, but more data needed.

Size : To at least 13 cm standard length.

Interest to Fisheries : Probably contributes to artisanal catches.

Local Names :-



Odontognathus mucronatus Lacepède, 1800

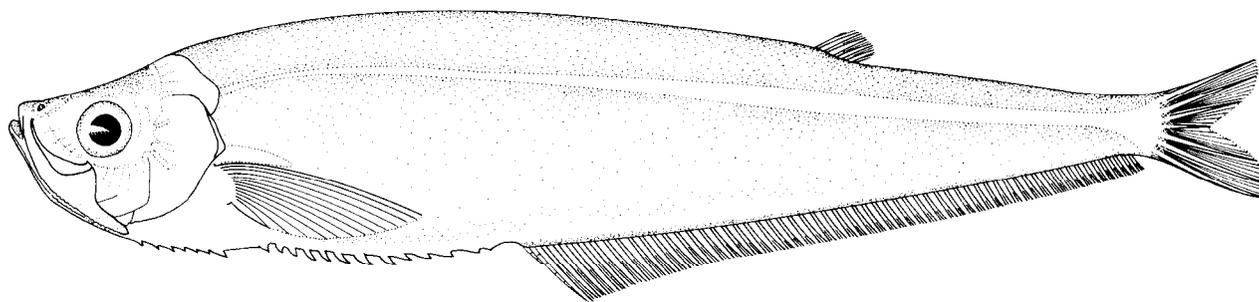
PRIST Odont 2

Formerly CLUP Odont 2

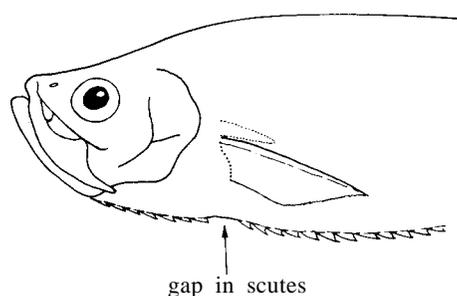
Odontognathus mucronatus Lacepède, 1800, *Hist.nat.pois.*, 2:220, pl. 7, fig. 2 (Cayenne).

Synonyms : *Odontognathus aculeatus* Schinz, 1822:300 (on Lacepède); *Odontognathus mucronatus* - FWNA, 1964:431, fig. 109 Trinidad; Cervigón, 1966:131, fig. 55 (off Orinoco delta; Whitehead, 1967:104 (type of *mucronatus*); Idem, 1973a:73, figs 22-24 (Guayana, Surinam coasts and rivers); Figueiredo & Menezes, 1978:25, fig. 30 (Brazil, compiled); Uyeno, Matsuura & Fujii, 1983:94, fig. (colour photo) (Surinam); Whitehead & Bauchot, in press (type of *mucronatus*).

FAO Names : En - Guiana longfin herring.



Diagnostic Features : Body long and strongly compressed, with a keel of scutes along belly, but interrupted below pectoral fin base; scutes 7 or 8, then a gap, followed by 10 to 13, the outer edges of scutes smooth and not serrated. Upper jaw broad at midpoint, tapering posteriorly, the tip reaching or surpassing gill opening; no hypo-maxilla. Pectoral fins large; pelvic fins absent; dorsal fin very small, set far back on body; anal fin long, with 70 to 85 finrays. Resembles *O. compressus*, which has serrated outer edges to scutes with no gap below pectoral fin base and only 52 to 62 anal finrays; no other elongate clupeoid in the area has so many anal finrays or such a long upper jaw (*Neopisthopterus*, *Chirocentron*). See CLUP Odont 2, Fishing Area 31



Geographical Distribution : Atlantic coasts and rivers of South America (Trinidad and the Guianas; then no records until southern Brazil, from Sergipe south to about Rio de Janeiro).

Habitat and Biology : Off coasts, trawled at down to 40 m, also close to shore, off river mouths, in estuaries and some distance up rivers in freshwater (e.g. up Coppename River near Wilhelmina Mts, Surinam). Possibly spawns in rivers.

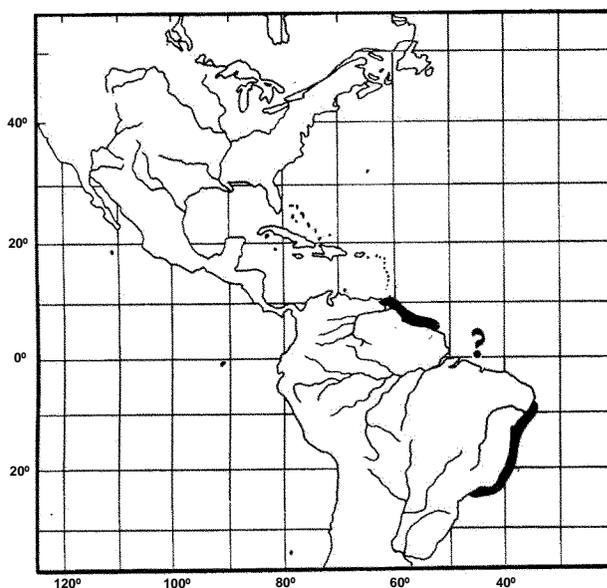
Size : To 15, perhaps to 17 cm standard length.

Interest to Fisheries : No special fishery, but contributes to clupeoid catches in coastal waters.

Local Names : SURINAM: Giana-nishin (Uyeno, Matsuura & Fujii, 1983).

Literature : See under Synonyms.

Remarks : The extension of the range to include southern Brazil is based on specimens in the Museu de Zoologia, São Paulo.



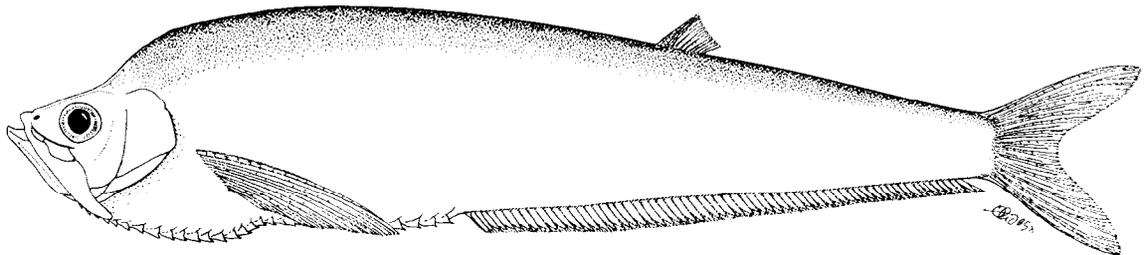
Odontognathus panamensis (Steindachner, 1876)

PRIST Odont 3

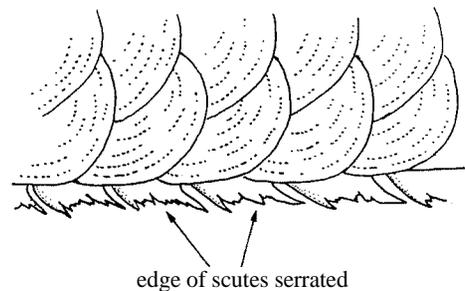
Pristigaster (Odontognathus) panamensis Steindachner, 1876, Sber.Akad.Wiss.Wien, 74:72 (Panama); Idem, 1876, Ichthyol.Beitr., (5):24 (repeat).

Synonyms : Odontognathus panamensis - Meek & Hildebrand, 1923:194, but the illustration is Opisthopecterus dovii (Chame Point, Panama); Norman, 1923:16 (Panama); Peterson, 1956:183 (Gulf of Nicoya, Costa Rica); Whitehead, 1971:27, fig. 3a, b (type of panamensis; key).

FAO Names : En - Panama longfin herring.



Diagnostic Features : Body long and compressed, with an uninterrupted keel of about 29 or 30 scutes, the outer edges of the scutes distinctly serrated. Upper jaw broad at midpoint, tapering posteriorly, the tip reaching or surpassing the gill opening; no hypo-maxilla. Pectoral fins large; pelvic fins absent; dorsal fin rather small, set far back on body; anal fin long, with 61 to 68 finrays. Resembles the Atlantic O. compressus, which has only 55 to 61 anal finrays and 24 to 28 scutes; also very similar to species of Opisthopecterus, which have a short upper jaw, not reaching beyond eye. Pliosteostoma has a small toothed hypo-maxillary bone between the hind tip of the pre-maxilla and the lower bulge of the maxilla blade. Other clupeoids have a shorter anal fin.



Geographical Distribution : Pacific coasts and perhaps estuaries of central America (Gulf of Fonseca, Honduras to Panama; possibly it extends further south).

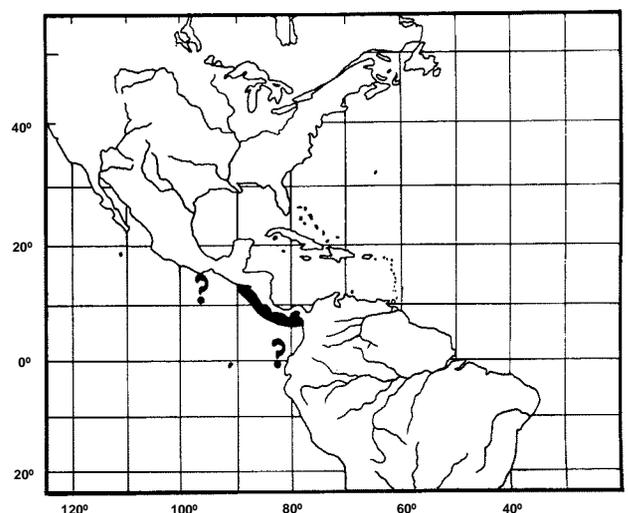
Habitat and Biology : Marine, inshore, perhaps like its congeners entering estuaries. Feeds on small crustaceans and fishes (Peterson, 1956).

Size : To 17 cm standard length.

Interest to Fisheries : Enters artisanal fisheries, but not in great numbers.

Local Names :-

Literature : Peterson (1956 - maturity, food).



Pristigaster Cuvier, 1816

PRIST Prist

Pristigaster Cuvier, 1816, Règne animal, 1st ed., 2:176 (descr., no species named); Idem, ibid., 4:pl. 10, fig. 3 (presumed type figured, but not named = Pristigaster cayana Cuvier, 1829); Idem, 1829, Règne animal, 2nd ed., 2:321 (P. tardoore and P. cayanus listed); Idem, 1830, ibid., 3:pl. 12, fig. 3 (repeat of 1st ed., species still not named) (the problem of the type species is discussed by Whitehead, 1967:100, 101). Pristogaster Swainson, 1838, Nat.Hist.Anim., 1:266, fig. 57 (type: not indicated, but figure = P. cayana Cuvier); Idem, 1839, ibid., 2:294 (P. indicus, on Russell's Tartoore = Clupea melastoma Schneider, a species of Ilisha, and P. martii Agassiz = P. cayana).

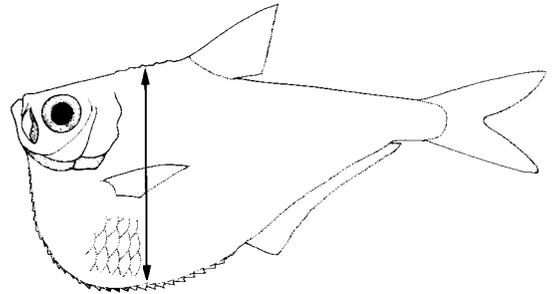
Diagnostic Features : Relatively small freshwater clupeoid fishes (to 15 cm standard length) characterized by the enormously deep body and strongly convex belly profile. Mouth directed nearly upward; no toothed hypo-maxilla. Pelvic fins usually absent; anal fin long, with more than 40 finrays. No other clupeoid has such a deep body (at most to about 40% of standard length; cf. over 50% in Pristigaster).

Biology, Habitat and Distribution : Riverine, but apparently reaching to mouth of Amazon and thus perhaps able to tolerate some salinity. Known only from the Amazon drainage.

Interest to Fisheries : Little or none.

Species : Until recently, only a single species has been recognized, but there is some evidence (see Remarks under P. cayana) that a second species may be present:

P. cayana Cuvier, 1829, Amazon drainage.



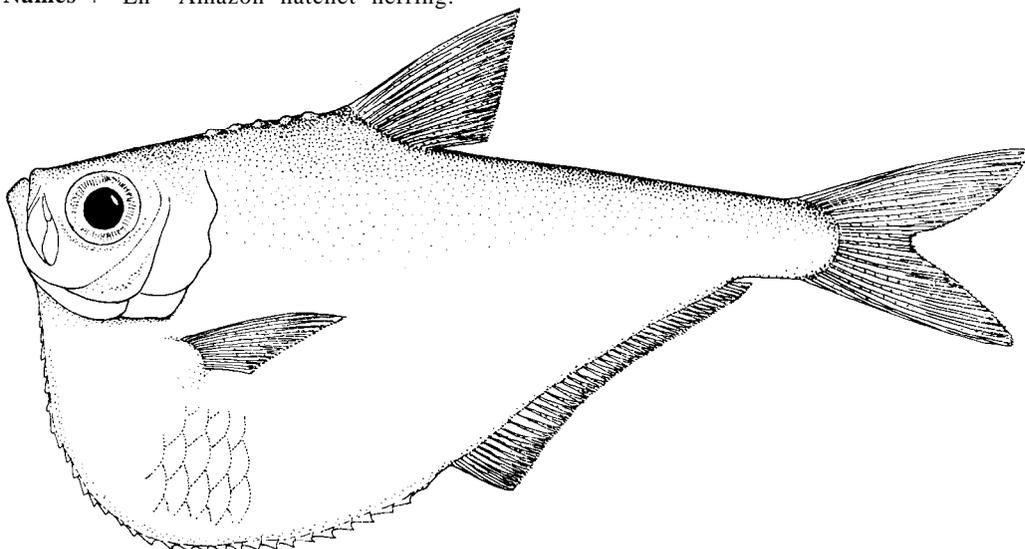
Pristigaster cayana Cuvier, 1829

PRIST Prist 1

Pristigaster cayanus Cuvier, 1829 (February or March), Règne animal, 2nd. ed., 2:321 (footnote, name only, American seas); Idem, 1830, ibid., 4:pl. 10, fig.3 (merely as Pristigaster).

Synonyms : Pristigaster argenteus Schinz, 1822:300 (on Cuvier's fig.; nomen oblitum); Pristigaster lichtensteini Jarocki, 1822:332, fig. 3 (on Cuvier's fig., reproduced; for Jarocki's Polished. of the Regne animal, see Whitehead, 1982b; nomen oblitum); Pristigaster triangularis Stark, 1828:408 (on Pristigaster fig. in Cuvier, 1816:pl. 10, fig. 3; nomen oblitum); Pristigaster martii Agassiz, in Spix & Agassiz, 1829 (May or June):55, pl. 24a (Amazon); just post-dates cayanus by a month or so); Pristigaster americanus Guerin-Meneville, 1844:33, pl. 57, fig. 3 (Atlantic coast of South America); Pristigaster phaeton Valenciennes, 1847:338 (Amazon); Pristigaster cayana FWNA, 1964:428, fig. 108 (synopsis); Whitehead, 1967:100, 102 (types of cayana, phaeton); Whitehead & Myers, 1971:487 (validity of martii); Whitehead, 1973a:85 (triangularis a nomen oblitum; synon.); Whitehead & Bauchot, in press (types of cayana, phaeton).

FAO Names : En - Amazon hatchet herring.



Diagnostic Features : Body extremely deep and compressed, its depth 50 to 60% of standard length, belly profile strongly convex (almost circular from throat to anus), with 30 to 33 scutes. Eye large; lower jaw projecting, mouth directed almost vertically upward; no toothed hypo-maxillary bone between hind end of pre-maxilla and lower bulge of maxilla blade. Pectoral fins high on body; pelvic fins usually absent, but present in some (see Remarks below); dorsal fin before midpoint of body; anal fin long, its origin behind dorsal fin base, with 45 to 54 finrays upper caudal fin lobe ending in a filament in larger fishes. The deep body distinguishes it from other Amazon clupeoids (Pellona, Ilisha, etc.). Superficially, it resembles the deep-bodied gasteropelecine fishes, but these have a keel on the chest and no distinct bony scutes.

Geographical Distribution : Amazon drainage (from perhaps mouth of Rio Branco at Goiaçu, Rio Solimões, Rio Juruá and as far as the Río Ucayali in Peru fide Fowler, 1940:16).

Habitat and Biology : Riverine, perhaps entering slightly saline waters near mouth of Amazon (but this part of its range not well documented). Compared with the 'flying' characoid fishes (Gasteropelecus, Thoracocharax, etc.), the vertically aligned scute arms in Pristigaster and the rather small pectoral muscles show that flight by vibration of the pectoral fins is almost certainly impossible; since Pristigaster and Thoracocharax have been caught together (e.g. at Paraná do Mocambo near Parintins), is mimicry involved?

Size : To 14.4 cm standard length, usually about 7 to 10 cm.

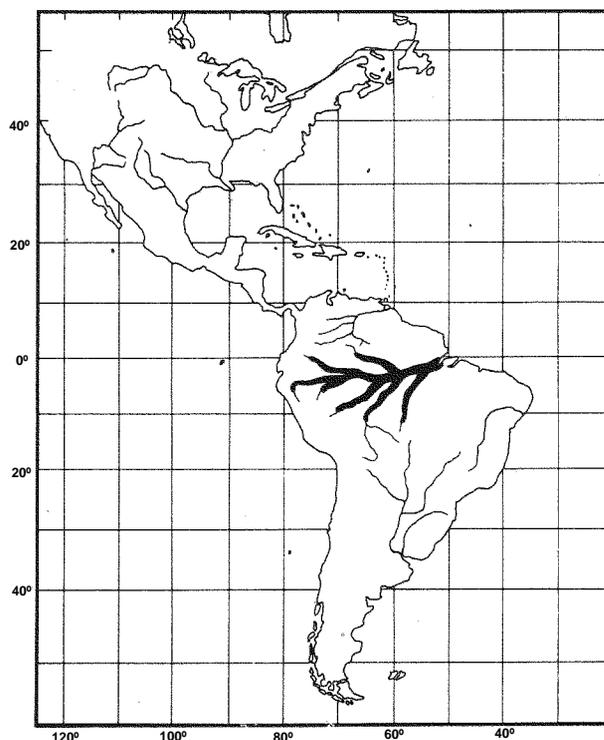
Interest to Fisheries : Little or none.

Local Names : BRAZIL: Apapa.

Literature : See under Synonyms.

Remarks : Possibly there are two species, judging from specimens in the Museu de Zoológia, São Paulo:

- A. Pelvic fins absent, lower gillrakers 22 to 24 (usually 23); Amazon from Rio Juruá to Manaus, but probably throughout (5 fishes)
- B. Pelvic fins present (i 4 finrays), lower gillrakers 19 or 20 (usually 20); Rio Solimões (3 fishes).



Raonda Gray, 1831

PRIST Racon

Raonda Gray, 1831, Zool.Miscellany, 1:9 (type: Raonda russeliana Gray). Apterygia Gray, 1835 (20 February), Illustr.Ind.Zool.Hardwicke, 2:pl. 92, fig. 1 (type: Apterygia ramcarate Gray, not Mystus ramcarati Hamilton-Buchanan = Coilia, an engraulidid).

Diagnostic Features : Medium-sized marine or estuarine clupeoid fishes (to perhaps not more than 20 cm standard length) with elongate and compressed bodies. No dorsal fin; no pelvic fins; anal fin longer than in any other pristigasterid genus, its base more than half standard length. The lack of a dorsal fin and the very long anal fin easily distinguish Raonda from Opisthopterus, the most similar genus in the Indo-Pacific region.

Biology, Habitat and Distribution : See species.

Interest to Fisheries : See species.

Species : A single species:

R. russeliana Gray, 1831, eastern Indian Ocean to Java Sea.

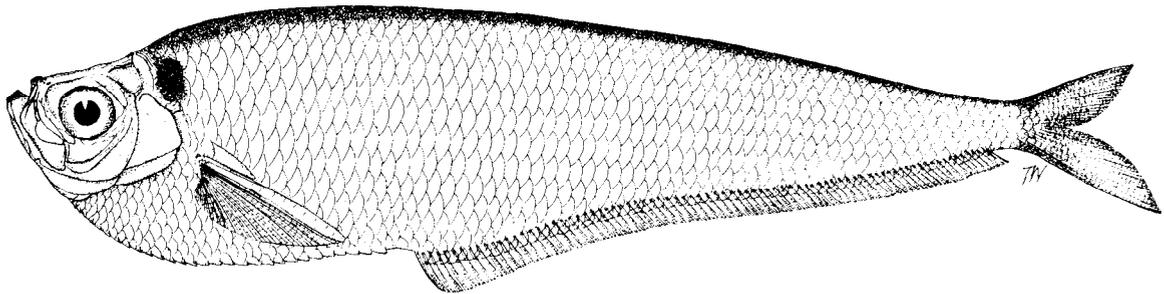
Raconda russeliana Gray, 1831

PRIST Racon 1

Raconda russeliana Gray, 1831, Zool.Miscellany, 1:9 (Sangar Roads, India).

Synonyms : Apterygia ramcarate Gray, 1835:pl. 92, fig. 1 (Sangar Rocks); Apterygia hamiltoni Valenciennes, 1847:333 (on ramcarate, not on Thryssa hamiltonii Gray = an anchovy); Fowler, 1941:665 (compiled); Whitehead, 1973b:216, fig. 4 (key, synon., refs); Wongratana, 1980:217, pls 181, 182 (revision).

FAO Names : En - Raconda.



Diagnostic Features : Body elongate, with strongly convex lower profile bearing a sharp keel of 33 to 38 scutes. Lower jaw prominent, mouth pointing obliquely upward; upper jaw short, not reaching beyond eye centre. Lower gillrakers 23 to 27. Dorsal fin absent; pelvic fins absent; anal fin very long, with 81 to 93 finrays, its origin well before midpoint of body. A dark spot behind gill opening. Most closely resembles species of Opisthopterus, which have a small dorsal fin and a slightly shorter anal fin (51 to 65 finrays, not more than half body length). Other pristigasterids are deeper bodied, have a well developed dorsal fin and a shorter anal fin.

Geographical Distribution : Indian Ocean (eastern coasts of India, possibly also coasts of Burma), Singapore and Java Sea (south coast of Kalimantan, also Bagan Api Api, Sumatra).

Habitat and Biology : Marine, or perhaps more commonly estuarine (e.g. Aluhuluh on the Barito River, Kalimantan). Feeds mainly on prawns (especially Acetes), also copepods. More specimens and data needed.

Size : To 19 cm standard length.

Interest to Fisheries : Probably slight since the species seems to be uncommon in catches.

Local Names : INDIA: Raconda.

Literature : Vergheze (1962 - food, fecundity, length-weight).

Remarks : Reduction of the dorsal fin occurs in other long-bodied pristigasterids (Opisthopterus, etc.), but only Raconda has lost this fin.

