

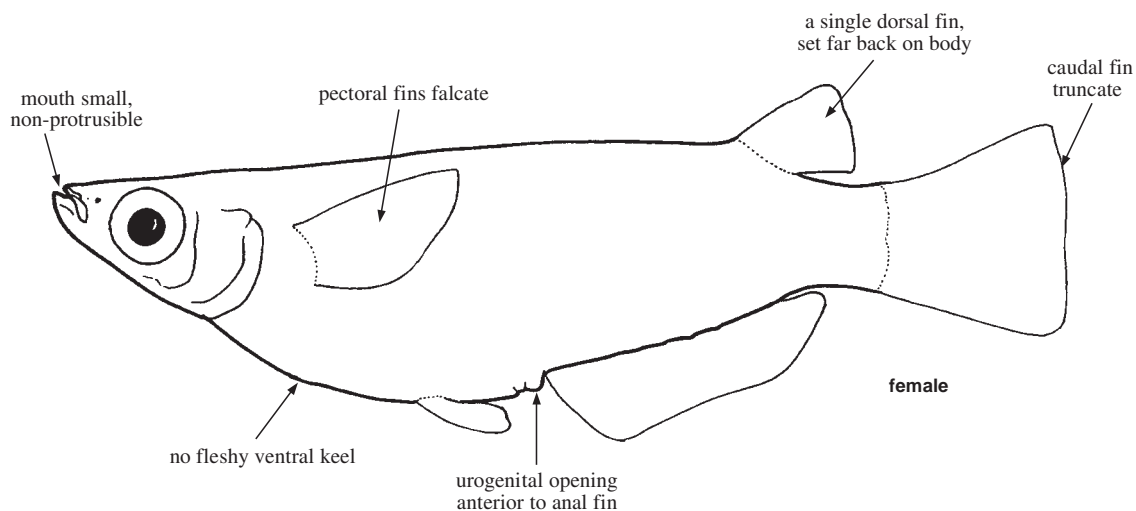
Order BELONIFORMES

ADRIANICHTHYIDAE

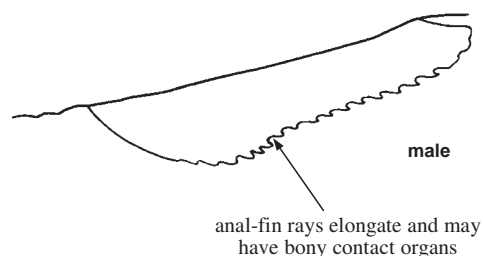
Ricefishes

by L.R. Parenti

Diagnostic characters: Small to medium-sized, laterally compressed beloniform fishes (to about 18 cm standard length, but most species mature at under 3 cm standard length). Eyes large. **Mouth terminal, small to large, not protrusible.** Small, unicuspid teeth in single or multiple rows on premaxilla and dentary. Males, and also females of several species in the area may have several enlarged teeth on distal portion of premaxilla and dentary. Pectoral fins falcate, set relatively high on side of body. Caudal fin truncate or lanceolate, forming incipient lobes. Single dorsal fin set posteriorly, with 5 to 17 soft rays; anal fin with 16 to 32 soft rays; caudal fin asymmetrical, with 4 or 5 upper and 5 or 6 lower branched rays; pectoral fins with 6 to 16 soft rays; pelvic fins with 5 to 7 soft rays. Scales moderate to minute, cycloid, 24 to 85 in lateral series; no lateral line. **Dorsal- and anal-fin rays of male longer and thicker than those of female and often with bony contact organs on distal segments of anal-fin rays.** **Colour:** smaller ricefish species nearly translucent in life, a black line from dorsal surface of head to dorsal-fin origin, a midlateral black line from head to base of caudal fin, a black line along anal-fin base, a black submarginal line on dorsal and on ventral portion of caudal fin, body may be covered with scattered, tiny melanophores concentrated at pectoral-fin base; males may be more darkly coloured than females.



(after Iwamatsu et al., 1982)



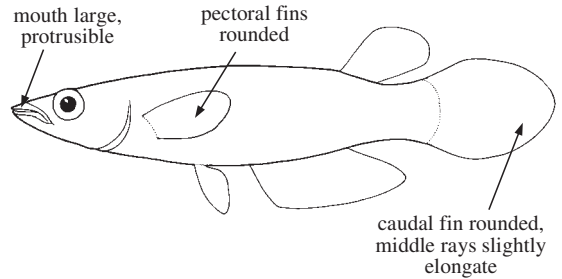
Habitat, biology, and fisheries: Fresh to brackish water, the species listed in the area principally in brackish water, estuaries, and mangroves. Small to moderate, surface-feeding, schooling fishes. Omnivorous, but reported to feed principally on copepods, insects, and mollusc and crustacean larvae. Oviparous, females may carry a cluster of fertilized eggs near urogenital opening prior to hatching or to depositing eggs on plants.

Similar families occurring in area

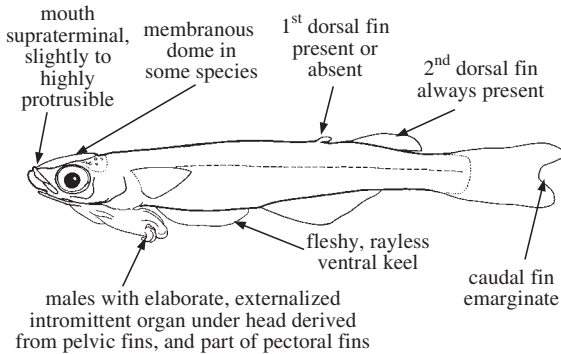
Aplocheilidae: superficially similar to *Oryzias* species with which it is often confused, but differing most notably by having a protrusible mouth, teeth on vomer, and silvery, "pineal" spot on dorsal surface of head; a large, black spot on middle portions of dorsal-fin rays; and may have thin, black horizontal line from tip of lower jaw through eye.

Phallostethidae: male phallostethids readily distinguished from ricefishes by the presence of a bony, externalized intromittent organ that may also have a large, fleshy seminal papilla. Female phallostethids superficially similar to ricefishes but with highly protrusible mouths and urogenital openings under the head.

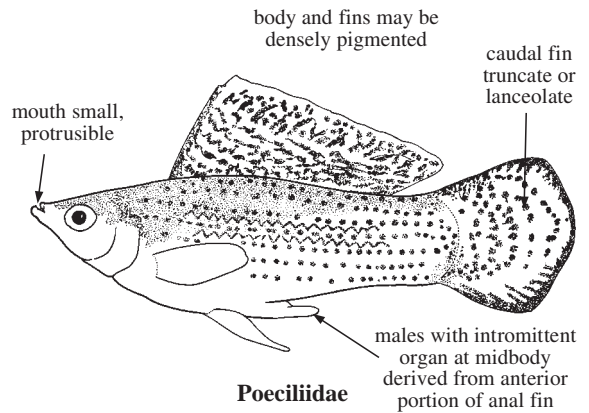
Poeciliidae: superficially similar to ricefishes, but with a protrusible rather than non-protrusible mouth and males with an intromittent organ derived from the anterior anal-fin rays.



Aplocheilidae
(after Smith, 1945)



Phallostethidae
(after Roberts, 1971a)



Poeciliidae
(after Rosen, 1973)

List of species occurring in the area

- Oryzias celebensis* (Weber, 1894)
- Oryzias dancena* (Hamilton, 1822)
- Oryzias haugiensis* Roberts, 1998
- Oryzias hubbsi* Roberts, 1998
- Oryzias javanicus* (Bleeker, 1854)

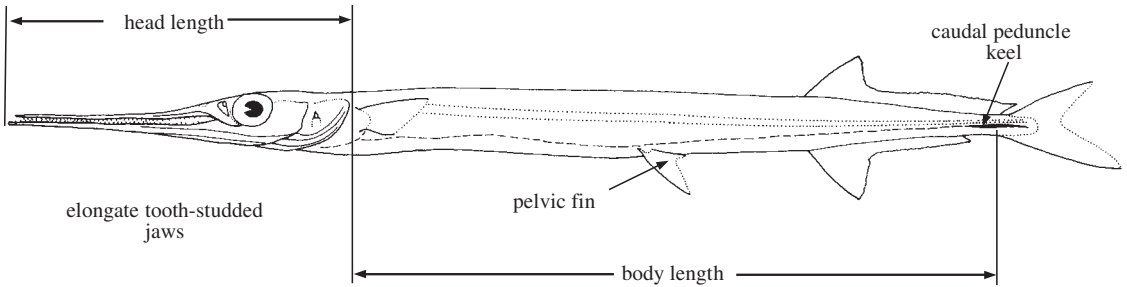
References

- Iwamatsu, T., A. Imaki, A. Kawamoto, and A. Inden. 1982. On *Oryzias javanicus* collected at Jakarta, Singapore and West Kalimantan. *Ann.Zool. Japon.*, 55(3):190-198.
- Kottelat, M., A.J. Whitten, S.N. Kartikasari, and S. Wirjoatmodjo. 1993. *Freshwater fishes of Western Indonesia and Sulawesi*. Periplus Editions (HK) Ltd.
- Roberts, T.R. 1998. Systematic observations on tropical Asian medakas or ricefishes of the genus *Oryzias*, with descriptions of four new species. *Ichthyol.Res.*, 45(3):213-224.
- Rosen, D.E. and L.R. Parenti. 1981. Relationships of *Oryzias*, and the groups of atherinomorph fishes. *Amer. Mus. Novitat.*, (2719):25 p.

BELONIDAE**Needlefishes**

by B.B. Collette

Diagnostic characters: Elongate fishes with **both upper and lower jaws extended into long beaks filled with sharp teeth**; nostrils in a pit anterior to eyes. No spines in fins; dorsal and anal fins posterior in position; pelvic fins located in abdominal position and with 6 soft rays; pectoral fins short. Lateral line running down from pectoral-fin origin and then along ventral margin of body. Scales small, cycloid (smooth), easily detached. **Colour:** these fishes live at the surface and are protectively coloured for this mode of life by being green or blue on back and silvery white on lower sides and belly; usually, a dusky or dark blue stripe along sides; tip of lower jaw frequently red or orange.

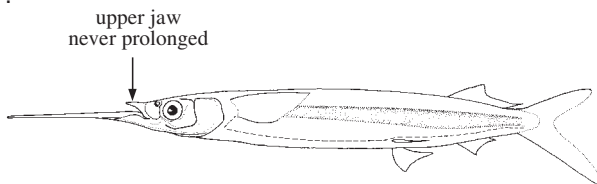
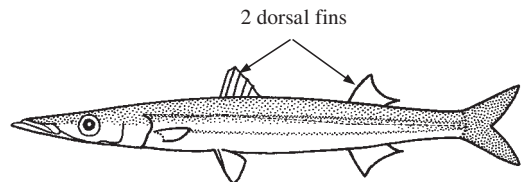


Habitat, biology, and fisheries: Most species are marine, but some occur in fresh water. Carnivorous, feeding largely on small fishes which they catch sideways in their beaks. Needlefishes tend to leap and skitter at the surface and some people have been injured when accidentally struck by them, particularly at night when the fishes are attracted by lights. Caught by casting or trolling surface or near-surface lures. Flesh excellent in flavour although some people have misgivings about eating it due to the green colour of the bones. From 1990 to 1995, FAO's Yearbook of Fishery Statistics reports a range of yearly catch of needlefishes of around 32 900 to 39 400 t from the Western Central Pacific (Philippines, Indonesia). Some fresh-water needlefishes reach only 6 to 7 cm in total length while some marine species may attain 2 m.

Similar families occurring in the area

Hemiramphidae (halfbeaks): only the lower jaw prolonged or neither jaw prolonged and lacking the needle-sharp teeth that stud the upper and lower jaws of needlefishes.

Sphyraenidae (barracudas): jaws pointed but not prolonged into a beak; 2 dorsal fins, the first spiny; pelvic fins in thoracic position.

**Hemiramphidae****Sphyraenidae**

Key to the species of Belonidae occurring in the area

Note: out of 10 genera and about 32 species in the family, only 10 marine species belonging to 4 genera occur in the Western Central Pacific.

- 1a. Body strongly laterally compressed and marked with a series of vertical bars (Fig. 1); anal-fin rays 24 to 28 *Ablennes hians*
- 1b. Body rounded or squarish in cross-section; no vertical bars present; anal-fin rays 13 to 23 (rarely 24) → 2
- 2a. Caudal peduncle strongly depressed (flattened dorsoventrally) and with well-developed lateral keels, least depth of caudal peduncle about 1/2 the width (Fig. 2); gill rakers present *Platybelone argalus platyura*
- 2b. Caudal peduncle not strongly depressed, a small lateral keel on caudal peduncle or no keel at all, caudal peduncle deeper than wide; gill rakers absent → 3

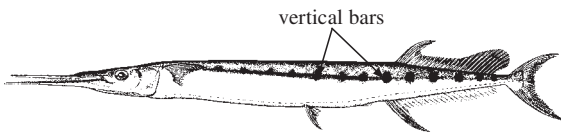
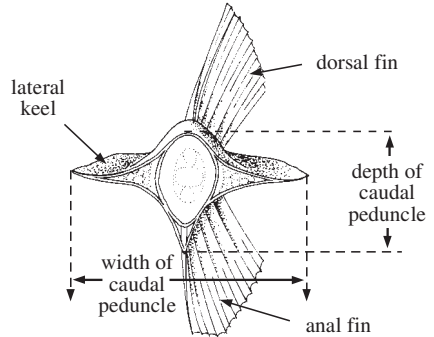


Fig. 1 *Ablennes hians*



cross-section through caudal peduncle

Fig. 2 *Platybelone argalus platyura*

- 3a. Caudal fin rounded or truncate; no keels on caudal peduncle (Fig. 3); no posterior black dorsal-fin lobe at any size; dorsal-fin rays 12 to 21 (*Strongylura*) → 4
- 3b. Caudal fin distinctly forked, with lower lobe longer than upper lobe; narrow raised dark lateral keel on each side of caudal peduncle (Fig. 4); juveniles with an expanded black lobe in the posterior part of the dorsal fin (Fig. 5); dorsal-fin rays 19 to 27 (*Tylosurus*) → 7



Fig. 3 *Strongylura*

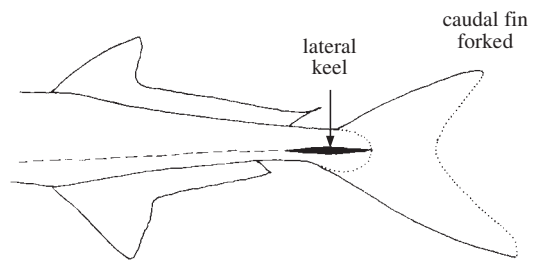


Fig. 4 *Tylosurus*

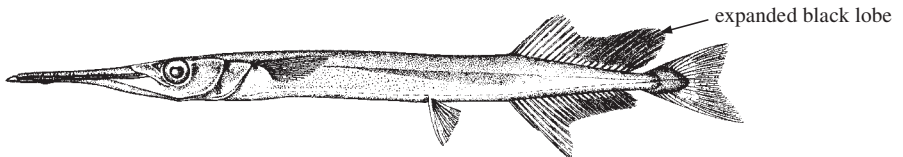


Fig. 5 *Tylosurus* (juvenile)

- 4a. Dorsal-fin rays 12 to 15; anal-fin rays 15 to 18; bases of dorsal and anal fins covered with scales → 5
- 4b. Dorsal-fin rays 17 to 21; anal-fin rays 21 to 27; bases of dorsal and anal fins without scales → 6

- 5a. Prominent black spot at base of caudal fin; predorsal scales 100 to 130. *Strongylura strongylura*
- 5b. No black spot at base of caudal fin; predorsal scales about 80 *Strongylura urvillii*

- 6a. Predorsal scales 100 to 125; dorsal-fin origin over anal-fin rays 4 to 6 *Strongylura incisa*
- 6b. Predorsal scales 130 to 180; dorsal-fin origin over anal-fin rays 7 to 10 *Strongylura leiura*

- 7a. Lower jaw slightly curved upward anteriorly, ending in a thick fleshy formation (Fig. 6); predorsal scales 165 to 225; no teeth on tongue *Tylosurus punctulatus*
- 7b. Lower jaw not curved upward anteriorly, not ending in a thick fleshy formation; predorsal scales 270 to 340; teeth present on tongue → 8

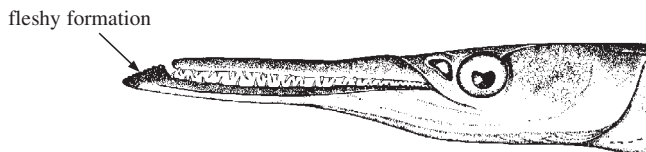


Fig. 6 *Tylosurus punctulatus*

- 8a. Dorsal-fin rays 24 to 27; anal-fin rays 22 to 24; upper jaw curved producing a gap between upper and lower jaws *Tylosurus acus melanotus*
- 8b. Dorsal-fin rays 20 to 25; anal-fin rays 19 to 22; upper jaw straight so there is no appreciable gap between the jaws → 9

- 9a. Dorsal-fin rays 21 to 25 (usually 22 or 23); predorsal scales 271 to 340; vertebrae 82 to 86 *Tylosurus crocodilus crocodilus*
- 9b. Dorsal-fin rays 20 to 22; predorsal scales 185 to 252; vertebrae 78 to 81 *Tylosurus gavialoides*

List of species occurring in the area

The symbol is given when species accounts are included.

- Ablennes hians* (Valenciennes, 1846)
- Platybelone argalus platyura* (Bennett, 1832)
- Strongylura incisa* (Valenciennes, 1846)
- Strongylura leiura* (Bleeker, 1850)
- Strongylura strongylura* (van Hasselt, 1823)
- Strongylura urvillii* (Valenciennes, 1846)

- Tylosurus acus melanotus* (Bleeker, 1850)
- Tylosurus crocodilus crocodilus* (Peron and LeSueur, 1821)
- Tylosurus gavialoides* (Castelnau, 1873)
- Tylosurus punctulatus* (Günther, 1872)

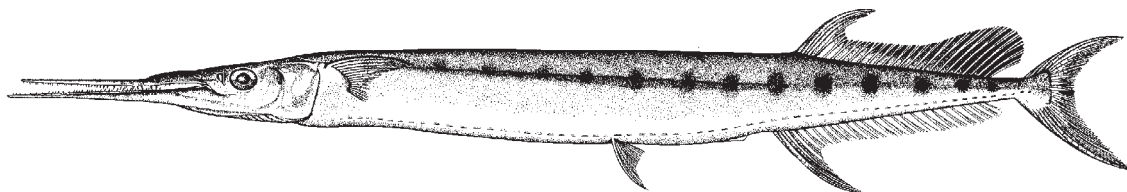
Reference

Parin, N.V. 1967. Review of the marine Belonidae of the western Pacific and Indian oceans. *Trudy Inst. Okean.*, 84:3-83. [In Russian, English translation in Natl. Mar. Fish. Serv. Syst. Lab. Trans. No.68]

Ablennes hians (Valenciennes, 1846)

Frequent synonyms / misidentifications: None / None.

FAO names: En - Flat needlefish; Fr - Orphie plate; Sp - Agujón sable.



Gulf of Guinea, 41.8 cm body length

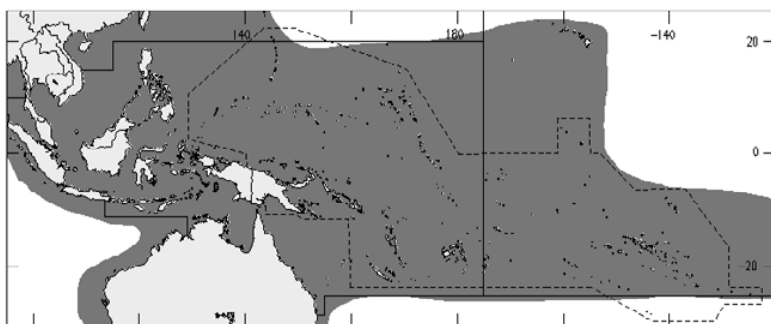
(from Collette and Parin, 1970)

Diagnostic characters: Body elongate and greatly compressed laterally. Upper and lower jaws greatly elongate and studded with small sharp teeth. Gill rakers absent. **Anterior parts of dorsal and anal fins with high falcate lobes;** dorsal-fin rays numerous, 23 to 26 (usually 24 or 25); posterior part of dorsal fin with a prominent dark lobe; **anal-fin rays numerous, 24 to 28** (usually 26 or 27); **pectoral fins falcate;** pectoral-fin rays 13 to 15; caudal peduncle without lateral keels, caudal fin deeply forked, lower lobe much longer than upper. Right gonad absent in females; absent or greatly reduced in males. Total number of vertebrae 87 to 93. **Colour:** bluish green above, silvery white below; a broad dark blue stripe along sides and **about 12 to 14 prominent dark vertical bars on body;** tip of lower jaw red; **juveniles and adults with elevated black lobe in posterior part of dorsal fin;** scales and bones green.

Size: Maximum total length at least 120 cm; maximum body length (without head and caudal fin) 90 cm, commonly to 70 cm.

Habitat, biology, and fisheries: A pelagic species inhabiting offshore surface waters; inshore occurrences seem to be more frequent around islands than along the mainland coast. Carnivorous, feeding mainly on small fishes. Caught mainly by casting or trolling surface or near surface lures; also with seines and drift nets. Marketed mostly fresh.

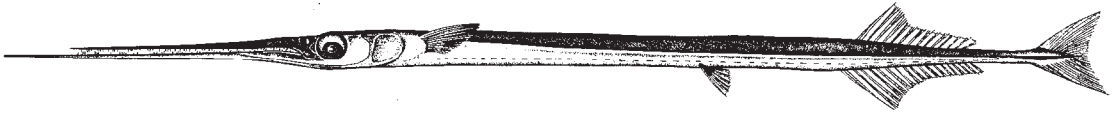
Distribution: A worldwide species of tropical and warm-temperate waters. Found off coasts and islands throughout the area from southern Japan through Indonesia to Australia.



Platybelone argalus platyura (Bennett, 1832)

Frequent synonyms / misidentifications: *Belone platyura* Bennett, 1832 / None.

FAO names: En - Keeltail needlefish; Fr - Orphie carène; Sp - Agujón de quilla.



Belize, 16.8 cm body length (figure of *Platybelone argalus argalus*)

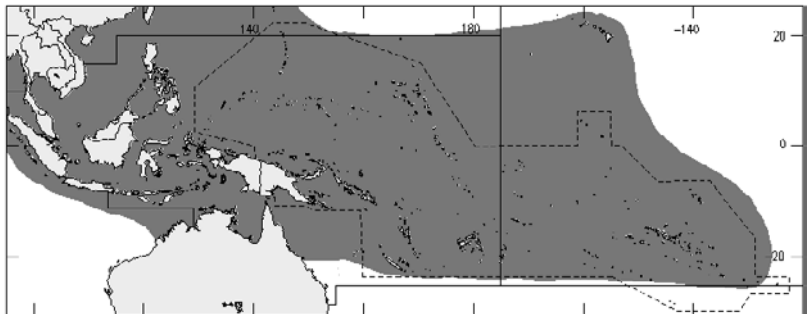
(from Collette, 1977)

Diagnostic characters: Body elongate, rounded in cross-section. Upper and especially lower jaws greatly elongate and studded with fine teeth. **Gill rakers present.** Anterior parts of dorsal and anal fins not forming prominent lobes; **dorsal-fin rays few, 12 to 15**; anal-fin rays 15 to 20; pectoral fin not falcate, pectoral-fin rays 10 to 12 (usually 11); **caudal peduncle greatly depressed with very large lateral keels**; caudal fin forked, upper and lower lobes of about equal length. Predorsal scales (in front of dorsal fin) comparatively few and large, 108 to 120. Both right and left gonads present, right longer than left. Total vertebrae 62 to 75. **Colour:** bluish green above, silvery below; a dark blue stripe along sides; fins unpigmented; scales and bones green.

Size: Maximum standard length (without caudal fin) at least 38.2 cm, commonly to 30 cm; maximum body length 25.6 cm (without head and caudal fin).

Habitat, biology, and fisheries: A pelagic species inhabiting offshore surface waters but particularly abundant about islands. Carnivorous, feeding mainly on small fishes. Caught mainly by casting or trolling surface or near-surface lures; also with seines and trammel nets, often using lights. Marketed fresh.

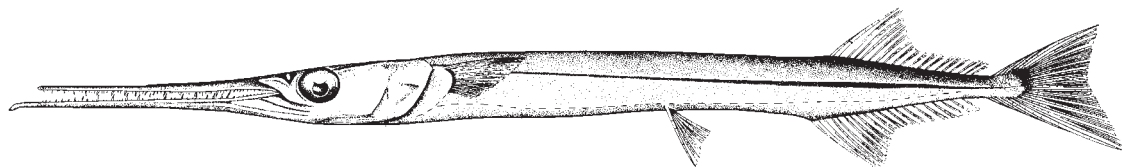
Distribution: In the Western Pacific Ocean, known from many island groups extending into the Central and South Pacific. Other subspecies are found worldwide in tropical and warm temperate waters.



Strongylura incisa (Valenciennes, 1846)

Frequent synonyms / misidentifications: *Rhaphiobelone robusta* Schultz, 1953; *Belone leiuroides* Bleeker, 1851 / None.

FAO names: En - Reef needlefish.



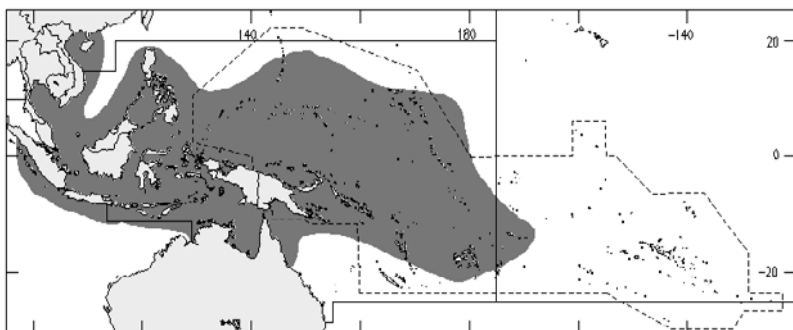
Australia, 21 cm body length

Diagnostic characters: Body elongate, slightly compressed, almost rectangular in cross-section. Head large, about 2.5 times in body length; upper and lower jaws greatly elongate and studded with sharp teeth; **upper surface of head with prominent ridges**; gill rakers absent. Anterior parts of dorsal and anal fins forming well-developed lobes; **origin of dorsal fin over fourth to sixth ray of anal fin**; dorsal-fin rays 18 to 20; anal-fin rays 21 to 24; pectoral fins not falcate; pectoral-fin rays 11 to 13. Caudal peduncle without lateral keels; caudal fin emarginate, not deeply forked. **Predorsal scales** (in front of dorsal fin) **moderately large, 100 to 125, crowded just posterior to head**; bases of dorsal and anal fins without scales. **Colour:** body dark grey with narrow silver lateral stripe, ventral surface white; prominent elongate spot between opercle and preopercle above level with pectoral-fin origin; cheeks with clumped patches of melanophores; fins clear with scattered melanophores, pectoral fin with a slight yellow tinge.

Size: Maximum standard length (without caudal fin) 75 cm, commonly to 60 cm; maximum body length 50 cm (without head and caudal fin).

Habitat, biology, and fisheries: Inhabits coastal areas, particularly near coral reefs. Carnivorous, feeding mainly on small fishes. Taken with drift nets and shore seines. Marketed fresh.

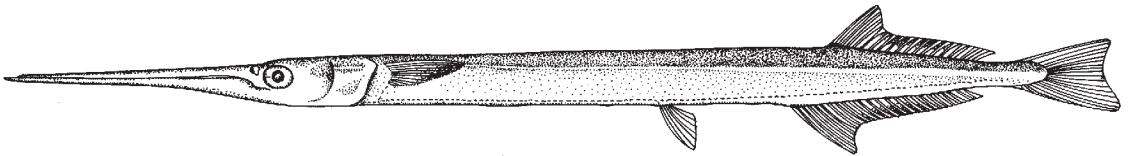
Distribution: Indo-West Pacific from the Maldives and Nicobar islands in the Indian Ocean through Indonesia, New Guinea, and northern Australia; north to the Philippines and South China Sea and east into Oceania (Samoa, Fiji, Marianas, Marshall, and Caroline islands).



Strongylura leiura (Bleeker, 1850)

Frequent synonyms / misidentifications: *Belone ciconia* Richardson, 1846; *B. leiurus* Bleeker, 1850 / None.

FAO names: En - Yellowfin needlefish.

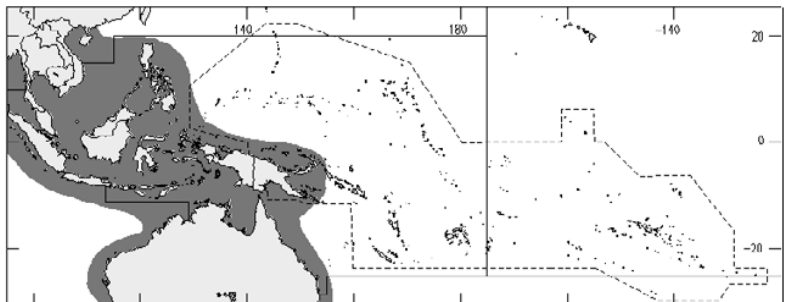


Diagnostic characters: Body elongate, **laterally compressed**, almost rectangular in cross-section. Upper and lower jaws greatly elongate and studded with sharp teeth; gill rakers absent. Anterior parts of dorsal and anal fins forming distinct lobes; **origin of dorsal fin over seventh to tenth ray of anal fin; dorsal-fin rays 17 to 21; anal-fin rays 23 to 25**; pectoral fins not falcate; pectoral-fin rays 10 or 11. **Caudal peduncle without lateral keels; caudal fin emarginate**, not deeply forked. **Predorsal scales** (in front of dorsal fin) **moderately small, 130 to 180**; bases of dorsal and anal fins covered with scales. **Colour:** top of head and back greenish; a silver stripe along sides widening posteriorly, lower sides and ventral surface white; pelvic fins whitish; pectoral fins with a distal dark spot, **tip of fins yellow when fresh**; tips of dorsal and anal-fin lobes yellowish, some black pigmentation along middle of fins; caudal fin dark with a yellowish tinge to upper lobe.

Size: Maximum total length 73 cm; maximum body length (without head and caudal fin) 46 cm, commonly to 35 cm.

Habitat, biology, and fisheries: Inhabits coastal areas and estuaries. Carnivorous, feeding mainly on small fishes. Taken with drift nets, shore seines, and purse seines. Marketed fresh.

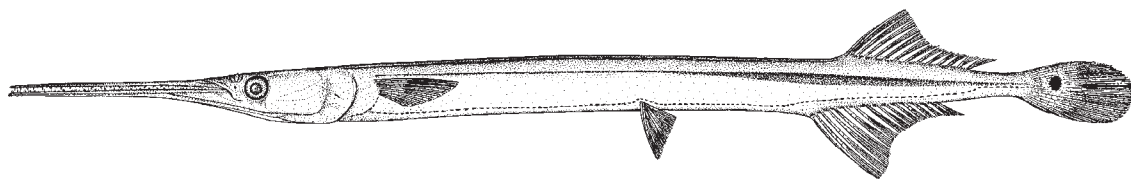
Distribution: Widespread within the Indo-West Pacific from South Africa east along the coasts of Africa, Pakistan, India, and Sri Lanka to the western Central Pacific. In the area, from southeast Asia to New Guinea, Australia, and the Philippines.



Strongylura strongylura (van Hasselt, 1823)

Frequent synonyms / misidentifications: *Tylosurus strongylura* van Hasselt, 1823 / None.

FAO names: En - Spottail needlefish; Fr - Aiguillette ocelée; Sp - Agujón ocelado.

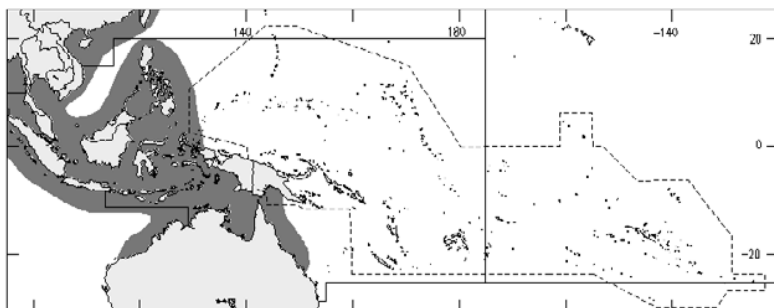


Diagnostic characters: Body elongate, **rounded in cross-section**. Upper and lower jaws greatly elongate and studded with sharp teeth; gill rakers absent. No spines in fins; anterior parts of dorsal and anal fins forming moderate lobes; **dorsal-fin rays 12 to 15; anal-fin rays 15 to 18**; pectoral fins not falcate; pectoral-fin rays 10 to 12 (usually 11). **Caudal peduncle without lateral keels; caudal fin rounded or truncate**, not emarginate or forked. **Predorsal scales** (in front of dorsal fin) **few and relatively large, 100 to 130**; bases of dorsal and anal fins covered with scales. Total number of vertebrae 59 to 65. **Colour:** greenish above, silvery laterally, white ventrally; pectoral, pelvic, and anal fins light; dorsal and anal fins with some pigmentation along middle of the rays; **caudal fin light with a prominent round black spot near its base**; dorsal-fin lobe and distal margin of caudal fin yellow in live adults, anterior margin of anal fin orange.

Size: Maximum standard length (without caudal fin) 40 cm, commonly to 22 cm; maximum body length 26 cm (without head and caudal fin).

Habitat, biology, and fisheries: Inhabits coastal areas and mangrove-lined lagoons, where it is common (especially small specimens) and also enters fresh water. Carnivorous, feeding mainly on small fishes, especially clupeoids. Caught by casting or trolling surface or near-surface lures; also with seines, often using lights and with cast nets in mangrove-lined lagoons. Marketed fresh.

Distribution: Indo-West Pacific from the Persian Gulf along the coasts of Pakistan, India, and Sri Lanka to the western Central Pacific. Within the area, north to the Philippines and southern China, south to northern Australia.



Tylosurus acus melanotus (Bleeker, 1850)

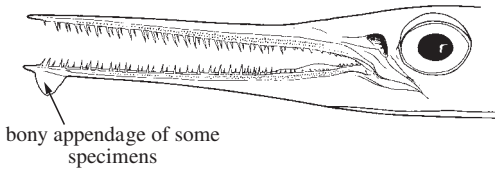
Frequent synonyms / misidentifications: *Belone appendiculatus* Klunzinger, 1871 / None.

FAO names: **En** - Agujon needlefish; **Fr** - Aiguille voyeuse; **Sp** - Marao ojón (= Aguja imperial).



Puerto Rico, 38.2 cm body length (figure of *Tylosurus acus acus*)

(from Collette, 1977)



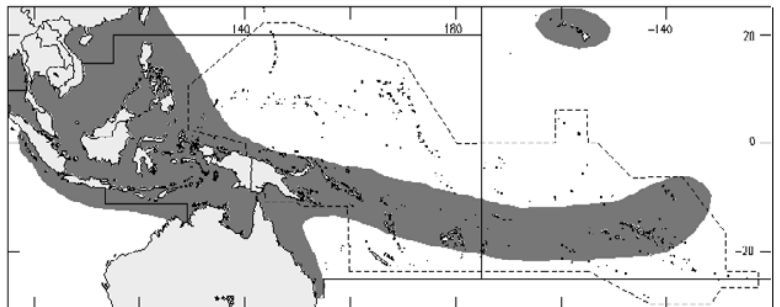
lateral view of head

Diagnostic characters: Body elongate, rounded in cross-section. Upper and lower jaws greatly elongate and studded with sharp teeth; a conspicuous appendage sometimes present at tip of lower jaw; gill rakers absent. **Anterior part of dorsal fin with a low lobe, contained 10.5 to 13.3 times in body length; dorsal-fin rays numerous, 24 to 27;** anal-fin lobe low, contained 9.7 to 11.7 times in body length; **anal-fin rays numerous, 22 to 24** (usually 23); pectoral and pelvic fins relatively short, 8 to 12.4 and 10 to 14.1 times in body length, respectively; pectoral-fin rays 13 or 14; **a distinct black lateral keel on caudal peduncle; caudal fin deeply forked**, lower lobe much longer than upper. Predorsal scales (in front of dorsal fin) very numerous and tiny, 280 to 340. Left gonad absent or greatly reduced in both sexes. Total number of vertebrae 90 to 95. **Colour:** dark bluish above, silvery white below; **juveniles with elevated black lobe in posterior part of dorsal fin** which is lost with growth.

Size: Maximum total length 90 cm; maximum body length (without head and caudal fin) 60 cm, commonly to 50 cm.

Habitat, biology, and fisheries: Pelagic, inhabiting more offshore waters than *Tylosurus crocodilus*, but also found in coastal waters. Carnivorous, feeding mainly on small fishes. Caught by casting or trolling surface or near-surface lures; also with seines and gill nets, often using lights. Marketed mostly fresh. The flesh is of good quality.

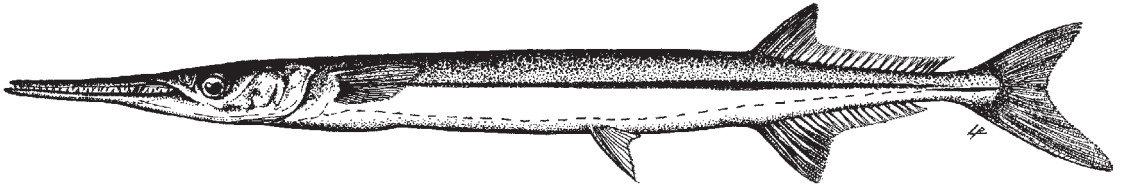
Distribution: Worldwide in tropical and warm temperate waters. This subspecies extends from South Africa through the Central and South Pacific. Other subspecies are found in the Atlantic and eastern Pacific.



Tylosurus crocodilus crocodilus (Peron and LeSueur, 1821)

Frequent synonyms / misidentifications: *Tylosurus raphidoma* (Ranzani, 1842) / None.

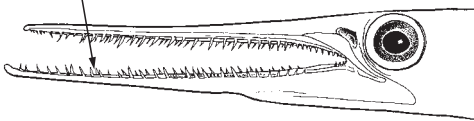
FAO names: En - Hound needlefish; Fr - Aiguille crocodile; Sp - Marao lisero.



Jamaica, 48 cm body length

(from Collette, 1977)

teeth point forward



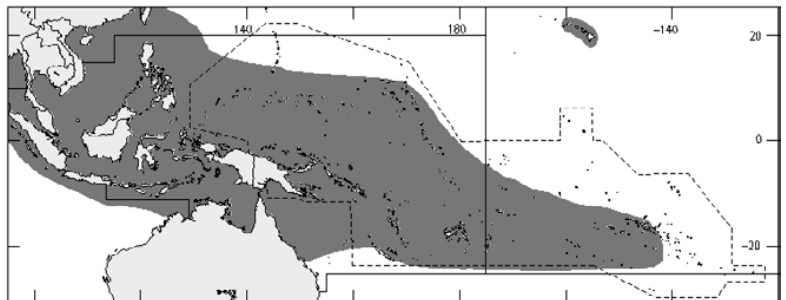
head of juvenile (32 cm body length)

Diagnostic characters: Body elongate, rounded in cross-section. Upper and lower jaws greatly elongate and studded with sharp teeth jaw teeth point anteriorly in juveniles (to 40 cm body length) but are straight at all sizes in other species of *Tylosurus*; gill rakers absent. Anterior part of dorsal and anal fins with relatively high lobes, contained 5.4 to 10.6 and 5.5 to 8 times in body length, respectively; **dorsal-fin rays 21 to 25** (usually 22 or 23); **anal-fin rays 19 to 22** (usually 21 or 22); pectoral and pelvic fins long, contained 6.6 to 8.3 and 7.3 to 10.6 times in body length, respectively; pectoral-fin rays 13 to 15 (usually 14 or 15); **a distinct black lateral keel on caudal peduncle; caudal fin deeply forked**, lower lobe much longer than upper. Predorsal scales numerous and tiny, 271 to 340. Both right and left gonads present, right longer than left. Total number of vertebrae 82 to 86. **Colour:** dark bluish green above, silvery below; a dark blue stripe along sides; **juveniles** (to 20 cm body length) **with elevated black lobe in posterior part of dorsal fin** which is lost with growth; scales and bones green.

Size: Maximum standard length (without caudal fin) at least 124 cm, commonly to 90 cm; maximum body length (without head and caudal fin) 82.5 cm; unverified reports give up to 150 cm total length.

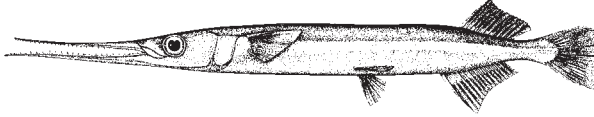
Habitat, biology, and fisheries: A pelagic species inhabiting more coastal waters than *Tylosurus acus*, but also found in offshore waters. Carnivorous, feeding mainly on small fishes. Large individuals may be dangerous when leaping out of the water. Caught by casting or trolling surface or near-surface lures; also with purse seines and drift nets. Marketed mostly fresh.

Distribution: A worldwide species in tropical and warm-temperate waters (replaced by *T. crocodilus fodiator* in the eastern Pacific). Throughout the area, from southern Japan through the Philippines and Indonesia to northern Australia.

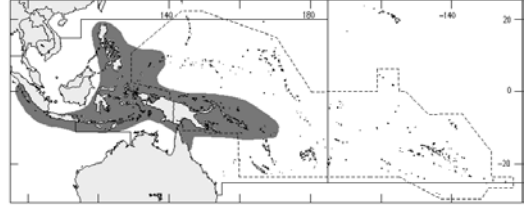


Strongylura urvillii (Valenciennes, 1846)**En** - Urville's needlefish.

Maximum body length 26.3 cm; maximum standard length 43.8 cm, commonly to 35 cm. A coastal species, sometimes entering brackish water. Found only in the waters of Indonesia, Philippines, and New Guinea, and east to the Solomon and Santa Cruz islands.



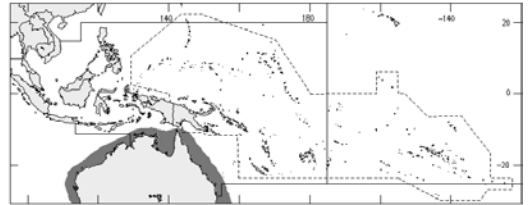
(after Bleeker, 1866-72)

***Tylosurus gavioides*** (Castelnau, 1873)**En** - Stour longtom.

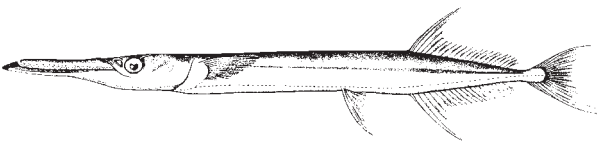
Maximum body length 75 cm; maximum standard length 10.5 cm, commonly to 80 cm. A coastal species. Restricted to the northern three-quarters of Australia.



Australia, 45 cm body length

***Tylosurus punctulatus*** (Günther, 1872)**En** - Spongyjawed needlefish.

Maximum body length 39.5 cm; maximum standard length 58.3 cm, commonly to 50 cm. A coastal species. Restricted to the western Central Pacific, north to the Philippines and east to the Solomon islands.



Philippines, 34 cm body length

