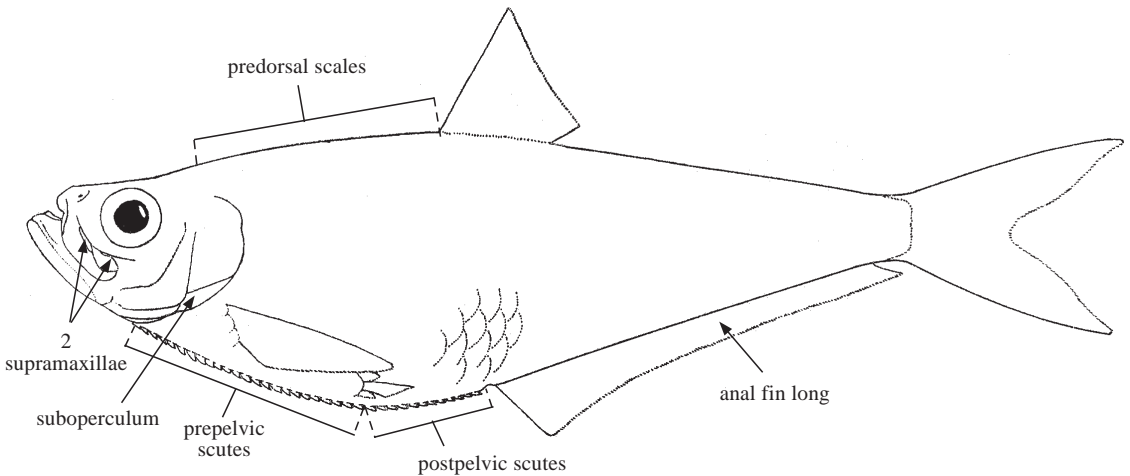


PRISTIGASTERIDAE

Ilishas, pellenas

by T.A. Munroe, T. Wongratana, and M.S. Nizinski

Diagnostic characters: Moderate or sometimes quite large clupeoid fishes (usually about 20 to 25 cm standard length). Body compressed, very deep in some (*Pristigaster*), more elongate in others; **with a complete series of scutes along the abdomen.** Mouth terminal, or more often, lower jaw projecting; with 2 supramaxillae, and jaw teeth usually small or minute. A toothed hypomaxillary bone present in some genera, joining posterior tip of premaxilla to blade of maxilla. Tooth plates fused to second basibranchial and to 1 or more pairs of hypobranchials, especially the second pair. Eyelids with broad vertical opening in middle. No spiny rays in dorsal fin; a single short fin (if present) near midpoint of body. Dorsal-fin origin (if fin present) near body midpoint in very deep-bodied forms, but posterior to midpoint in elongate forms; reduction of dorsal fin occurs in long-bodied pristigasterids (*Opisthopterus*, etc.), but only *Raconda* has completely lost this fin. **Predorsal bones either upright or inclined forward (inclined backward in all clupeids, except upright in *Ramnogaster*).** Pectoral fins moderate or large in the elongate forms; pelvic fins small, with 6 or 7 fin rays, but absent in some genera; **anal fin long, with at least 30 fin rays (60 or more in some species).** Caudal fin forked. **No gap between second and third hypural bones (upper and lower caudal-fin rays separated by this gap in clupeids).** Scales cycloid, without posterior striations, adherent or easily lost, of moderate size (about 35 to 55 in lateral series). **No lateral line.** **Colour:** typically blue-green on dorsum and silvery on flanks, but generally without distinctive colour patterns.

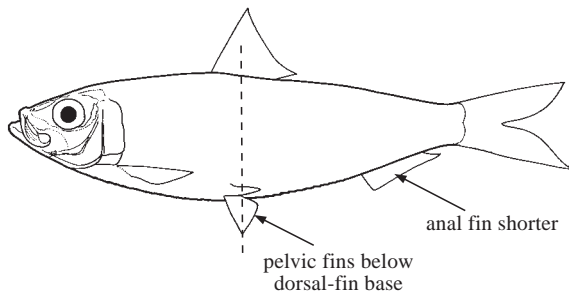


Habitat, biology, and fisheries: Mostly marine, coastal, and schooling fishes of tropical and subtropical seas. They are found on both sides of the Pacific and Atlantic oceans and throughout the Indian Ocean, from about 30°N (southern Japan) to about 30°S (South Africa). Some species enter estuaries and a few species in South America appear to be restricted to fresh water. No special fisheries exist for particular species. Pristigasterids are common in tropical fish markets and probably make a substantial contribution to clupeoid catches.

Remarks: Until recently, pristigasterines were considered a subfamily of the Clupeidae.

Similar families occurring in the area

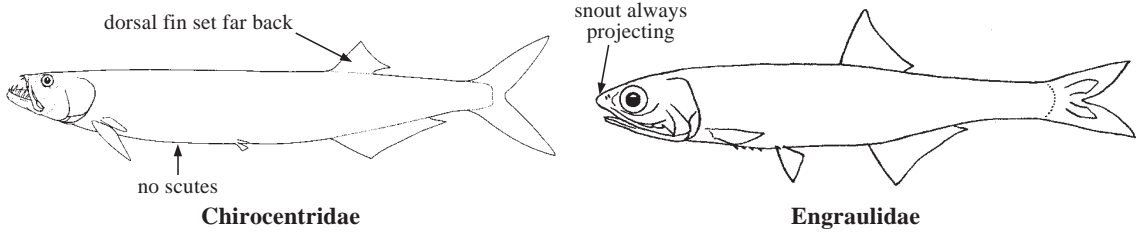
Clupeidae: snout not pig-like and projecting, lower jaw not underslung, articulation of lower jaw always anterior to vertical through middle of eye; scales without posterior striations; eyelids with vertical openings in middle (completely covered in *Etrumeus*); usually with a complete series of scutes along abdomen; pelvic fins inserting below dorsal-fin base; anal fin with less than 28 fin rays.



Clupeidae

Chirocentridae: no scutes along abdomen (even pelvic scute absent); 2 fang-like canine teeth in upper jaw, pointing anteriorly; body highly compressed, very elongate; eyes relatively small, eyelids covering eyes completely; scales without striations, usually lost upon capture.

Engraulidae: articulation of lower jaw well behind eye, lower jaw usually slender; snout pig-like and projecting, lower jaw underslung; adipose eyelid completely covering eyes; scales with posterior striae or striations.



Key to the species of Pristigasteridae occurring in the area

Remarks on key characters: many Indo-Pacific species were seriously confused until fundamental differences in swimbladder structure were found between superficially very similar species. This character is included in the diagnoses, but where possible other diagnostic features are also used to separate the species. Three types of swimbladders occur in this group (Fig. 1): a) **2 slender tubes** from posterior end of swimbladder passing back into the muscles on either side of the haemal spines (*Ilisha kampeni*, *I. melastoma*, *I. lunula*; and also in *I. africana*, *I. obfuscata*, *I. striatula*, from outside the WCP area); b) **a single long tube** from posterior end of swimbladder passing back through muscles of right side of body (*I. elongata*, *I. filigera*, *I. macrogaster*, *I. megaloptera*, *I. pristigastroides*); c) **no tube or only a very short one** at the posterior end of the swimbladder, not passing back into muscles (*I. sirishai*; this is also the condition in *I. novacula*, and in species of *Pellona*).

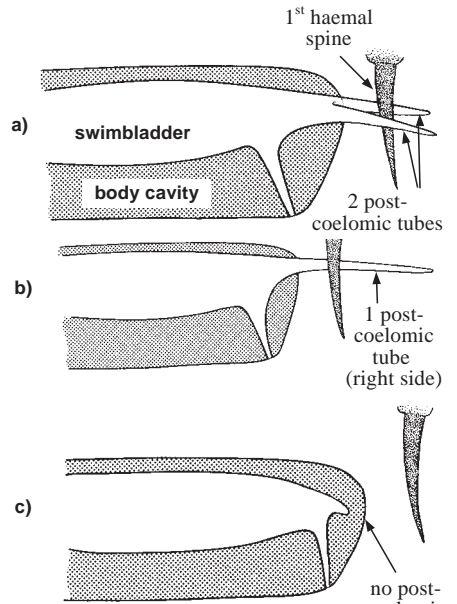


Fig. 1 types of swimbladders

- 1a. Toothed hypomaxilla present (Fig. 2a) *Pellona ditchela*
- 1b. No toothed hypomaxilla (Fig. 2b) → 2
- 2a. Dorsal fin present → 3
- 2b. No dorsal fin; no pelvic fins; anal fin very long, with 81 to 93 rays *Raconda russeliana*
- 3a. Anal fin long, with 51 to 65 fin rays; no pelvic fins. (*Opisthopterus*) → 4
- 3b. Anal fin moderate, with 34 to 53 fin rays; pelvic fins present (*Ilisha*) → 5

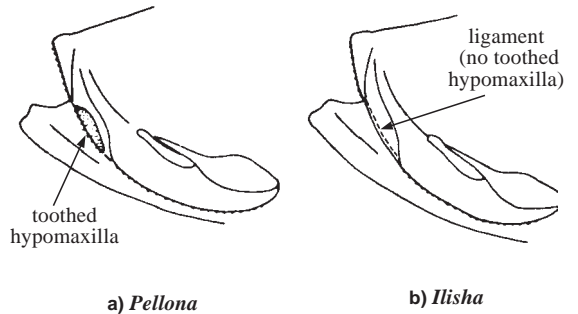


Fig. 2 lateral view of mouth

- 4a. Pectoral fins relatively long (21 to 26% standard length, greater than or about equal to head length) with 12 to 14 rays; 46 to 51 scales in lateral series *Opisthopterus tardoore*
- 4b. Pectoral fins relatively short (14 to 17% standard length, less than head length) with 15 to 17 rays; 51 to 56 scales in lateral series. *Opisthopterus valenciennesi*

- 5a. Distinct lobe or flange on shaft of maxilla between posterior tip of premaxilla and blade of maxilla (Fig. 3); 26 to 30 (usually 28 or 29) scutes on abdomen; 39 to 43 anal-fin rays; no tube or a very short one at posterior end of swimbladder, not passing back into muscles on either side of haemal spines *Ilisha sirishai*
- 5b. No distinct lobe on shaft of maxilla; either a single or 2 tubes from posterior end of swimbladder passing back into muscles on side(s) of haemal spines → 6

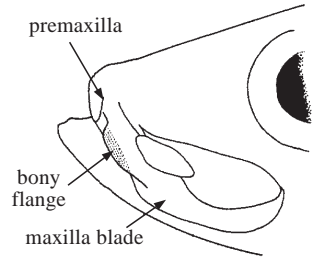


Fig. 3 *Ilisha sirishai*

- 6a. Usually 30 or less scutes on abdomen; 2 tubes from posterior end of swimbladder passing back into muscles on either side of haemal spines → 7
- 6b. Usually 30 or more scutes on abdomen; only a single tube from posterior end of swimbladder passing back through muscles of right side of body. → 10

- 7a. Vertical striae on scales distinctly discontinuous across centre of scale (Fig. 4a) → 8
- 7b. Vertical striae on scales continuous or overlapping across centre of scale (Fig. 4b); body moderately deep (32.8 to 42% standard length) → 9

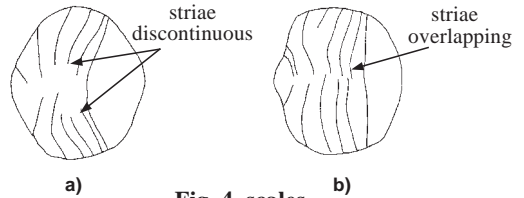


Fig. 4 scales

- 8a. Body moderately slender (24 to 32% standard length) *Ilisha kampeni*
- 8b. Body deeper (32 to 39% standard length) *Ilisha striatula*
(Indian Ocean; not yet recorded from the area)

- 9a. Lower gill rakers 18 to 20; caudal-fin lobes with extended tips such that expanded fin is deeply forked and strongly lunate *Ilisha lunula*
- 9b. Lower gill rakers 21 to 25; caudal-fin lobes without extended tips *Ilisha melastoma*

- 10a. Usually 30 to 34 (rarely 29, or 35) scutes on abdomen *Ilisha megaloptera*
- 10b. Usually 34 to 42 scutes on abdomen → 11









- 11a. Body moderately slender (27 to 31% standard length); anal-fin origin slightly posterior to vertical line through base of posteriormost dorsal-fin ray *Ilisha elongata*
- 11b. Body moderately deep (31 to 36% standard length); anal-fin origin about equal with vertical through middle of dorsal-fin base → 12

- 12a. Lower gill rakers about 17. *Ilisha pristigastroides*
- 12b. Lower gill rakers 19 or more → 13

- 13a. Lower gill rakers 19 to 23 *Ilisha filigera*
- 13b. Lower gill rakers 23 to 25 *Ilisha macrogaster*

List of species occurring in the area

The symbol  is given when species accounts are included.

-  *Ilisha elongata* (Bennett, 1830)
-  *Ilisha filigera* (Valenciennes, 1847)
-  *Ilisha kampeni* (Weber and de Beaufort, 1913)
-  *Ilisha lunula* Kailola, 1986
-  *Ilisha macrogaster* Bleeker, 1866
-  *Ilisha megaloptera* (Swainson, 1839)
-  *Ilisha melastoma* (Bloch and Schneider, 1801)
-  *Ilisha pristigastroides* (Bleeker, 1852)
-  *Ilisha sirishai* Seshagiri Rao, 1975
- ?  *Ilisha striatula* Wongratana, 1983^{1/}
-  *Opisthopterus tardoore* (Cuvier, 1829)
-  *Opisthopterus valenciennesi* Bleeker, 1872
-  *Pellona ditchela* Valenciennes, 1847
-  *Raconda russeliana* Gray, 1831

References

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- Kailola, P.J. 1986. A new species of clupeid fish (Pisces: Pristigasteridae) from northern Australia and Papua. The Beagle, *Occas. Paps. No. Terr. Mus. Arts and Sci.*, 3(1):51-57.
- Whitehead, P.J.P. 1985. FAO species catalogue. Vol. 7. Clupeoid fishes of the world (suborder Clupeiodei). An annotated and illustrated catalogue of the herrings, sardines, pilchards, sprats, shads, anchovies and wolf-herrings. Part I. Chirocentridae, Clupeidae, and Pristigasteridae. *FAO Fish. Synop.*, (125) Vol. 7, Pt. 1: 303 p.

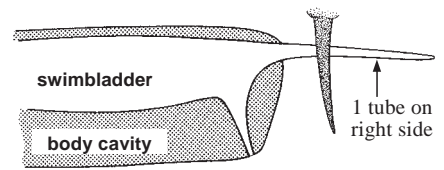
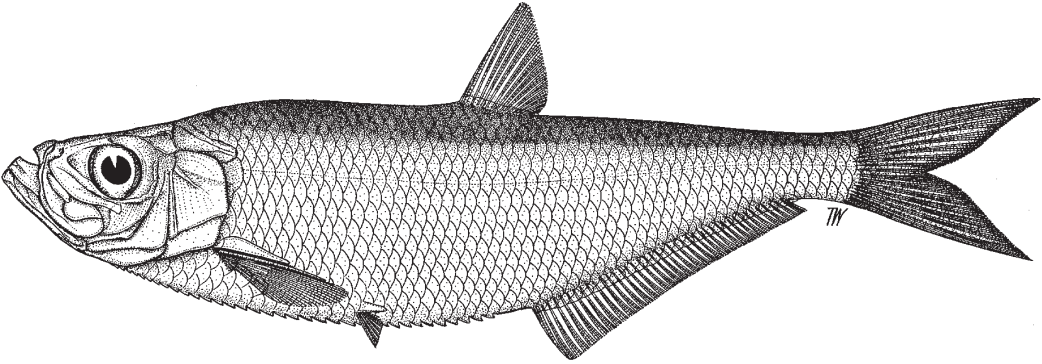
^{1/} Indian Ocean (Karachi to Madras, perhaps north to Calcutta). Specimens from the northwestern coasts of Australia may be this species and it possibly occurs in the area.

Ilisha elongata (Bennett, 1830)

EIL

Frequent synonyms / misidentifications: *Ilisha affinis* (Gray, 1830); *I. abnormis* Richardson, 1846; *Pellona elongata* (Bennett, 1830) / None.

FAO names: En - Elongate ilisha; Fr - Alose gracile.

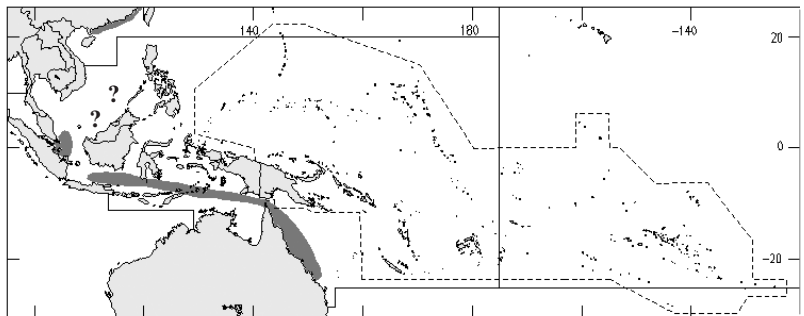


Diagnostic characters: Body slender, depth 27 to 31% standard length; abdomen usually with 24 to 25 pre- and 10 to 15 postpelvic scutes; total number of sharply-keeled scutes 34 to 42. Eye large, lower jaw projecting; mouth directed obliquely upward; upper jaw reaching at most to vertical through centre of eye; no toothed hypomaxilla between posterior tip of premaxilla and blade of maxilla; shaft of maxilla without distinct lobe or flange between posterior tip of premaxilla and blade of maxilla; jaw teeth small or minute, usually with distinct gap at centre of upper jaw. Gill rakers fairly short and thick; lower gill rakers 19 to 25. Dorsal-fin origin at about midpoint of body or slightly posterior to this point; anal fin with 43 to 53 fin rays, its origin at or slightly posterior to vertical through base of posteriormost dorsal-fin ray. Pelvic fins present, small, with 6 or 7 fin rays, well in advance of vertical through dorsal-fin origin. Scales moderate. Swimbladder with single long tube passing posteriorly down right side of body above anal-fin base. **Colour:** no distinctive colour patterns.

Size: Maximum standard length 40.5 cm.

Habitat, biology, and fisheries: Marine, pelagic, and inshore, entering estuaries and presumably able to tolerate lowered salinities. A warm-water species that does not reach the northern part of its range in cool years. Caught with purse seines, beach seines, gill nets, lift nets, trap nets, and bottom trawls. Marketed fresh, dried, dried-salted, boiled, or made into fishballs.

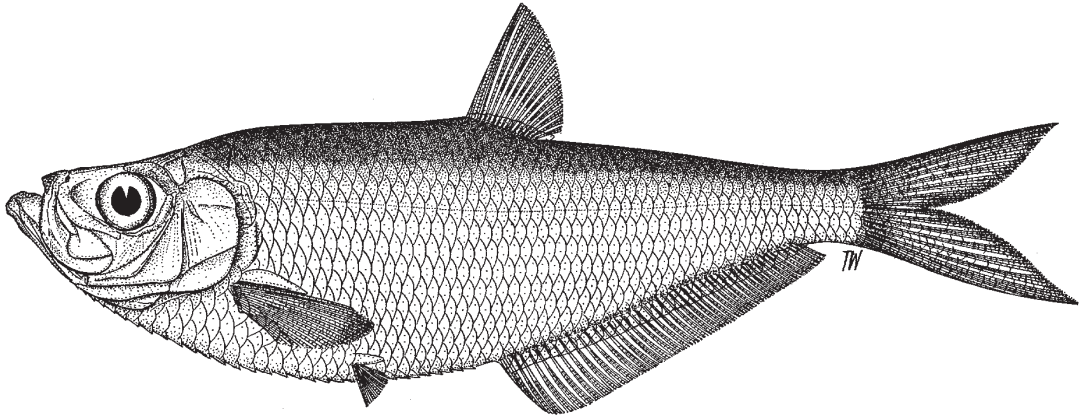
Distribution: Widespread in Indo-West Pacific from Pondicherry (based on single record), through Java Sea, northern Australian coast to Queensland, to East China Sea; north to Korea and southern Japan, as far as Osaka on the Pacific coast and Fukuoka in Sea of Japan, also Peter the Great Bay in Russian waters.



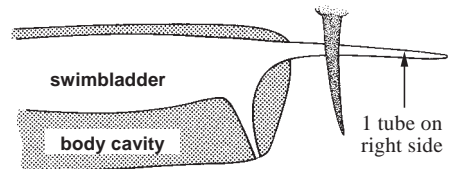
Ilisha filigera (Valenciennes, 1847)

Frequent synonyms / misidentifications: *Pellona xanthopterus* Bleeker, 1851; *Ilisha xanthopterus* (Bleeker, 1851) / None.

FAO names: En - Coromandel ilisha.



Diagnostic characters: Body moderately slender, depth 31 to 35% standard length; abdomen with 23 to 26 pre- and 11 to 13 postpelvic scutes; total number of sharply-keeled scutes 34 to 38. Eye large, lower jaw projecting; mouth directed obliquely upward; upper jaw only reaching posteriorly about to vertical through anterior margin of pupil; no toothed hypomaxilla between posterior tip of premaxilla and blade of maxilla; shaft of maxilla without distinct lobe or flange between posterior tip of premaxilla and blade of maxilla; jaw teeth small or minute, usually with distinct gap at centre of upper jaw. Gill rakers fairly short and thick; lower gill rakers 19 to 23. Dorsal-fin origin at about midpoint of body or slightly posterior to this point; anal fin with 46 to 52 fin rays, its origin at vertical through middle of dorsal fin; pelvic fins present, small, with 6 or 7 fin rays, well in advance of vertical through dorsal-fin origin. Swimbladder with single long tube passing posteriorly into muscles along right side of body above anal-fin base. Colour: no distinctive colour patterns on body; distalmost tips of fins black.

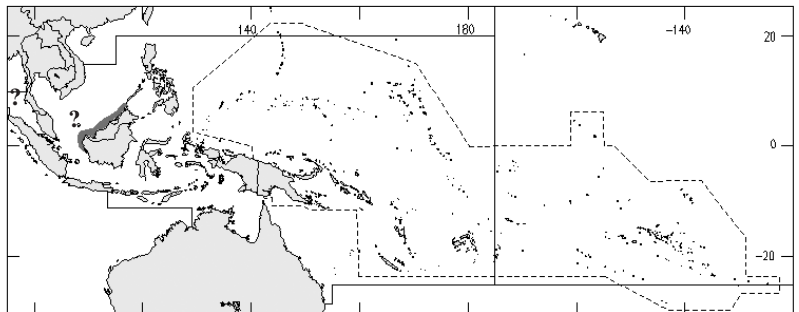


Size: Maximum standard length 22 cm, perhaps more.

Habitat, biology, and fisheries: Marine, pelagic, and coastal; apparently entering estuaries. More data are needed, based on better identifications. Contributes to artisanal catches of clupeoids, but no special fishery.

Distribution: Indo-West Pacific (Bombay to eastern coasts of India; perhaps east to Andaman Sea coasts), to South China Sea (north-western coasts of Kalimantan, also Sarawak).

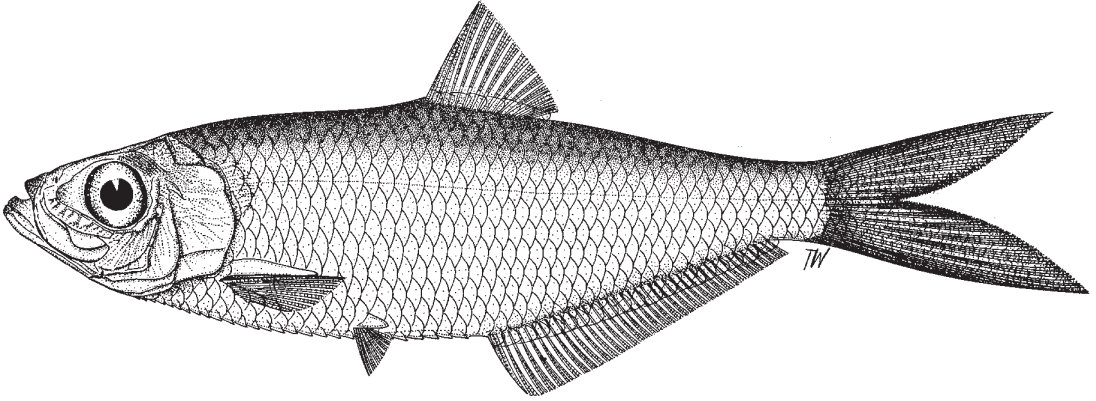
Remarks: This species may prove to be the senior synonym for *Ilisha macrogaster*. Specimens of the 2 nominal species smaller than 12 cm standard length need to be compared directly to resolve this question.



Ilisha kampeni (Weber and de Beaufort, 1913)

Frequent synonyms / misidentifications: *Ilisha whiteheadi* Seshagiri Rao, 1974 / None.

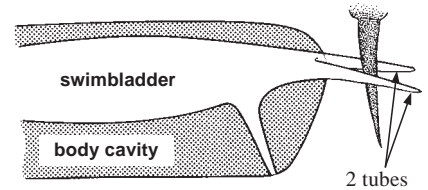
FAO names: En - Kampen's ilisha.



striae not
continuous



scale



2 tubes

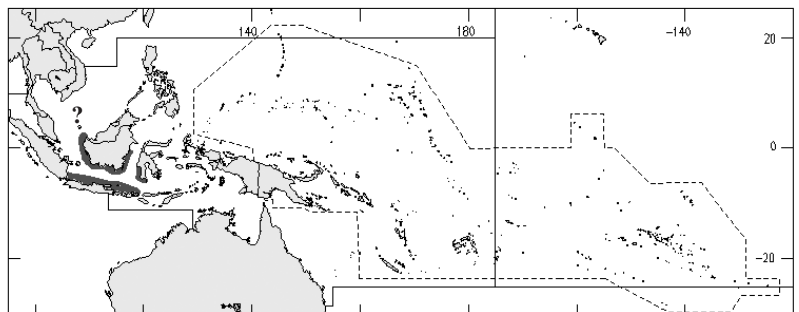
Diagnostic characters: Body moderately slender, depth 24 to 32% standard length; abdomen usually with 19 to 21 pre- and 8 postpelvic scutes; total number of sharply-keeled scutes 27 to 29. Eye large; lower jaw projecting; mouth directed obliquely upward; upper jaw reaching

posteriorly to a point between verticals through anterior margin and centre of pupil; **no toothed hypomaxilla between posterior tip of premaxilla and blade of maxilla; shaft of maxilla without distinct lobe or flange between posterior tip of premaxilla and blade of maxilla;** jaw teeth small or minute, usually with distinct gap at centre of upper jaw. Gill rakers fairly short and thick, **lower gill rakers 20 to 24.** Dorsal-fin origin at about midpoint of body; **anal fin with 38 to 46 fin rays,** its origin equal with vertical through bases of posterior dorsal-fin rays; **pectoral-fin length 15 to 17% standard length; pelvic fins present,** small, with 6 or 7 fin rays, moderately in advance of vertical through dorsal-fin origin. **Vertical striae on scales not continuous, but with distinct gap across centre of scale. Swimbladder with 2 tubes passing posteriorly into muscles on either side of haemal spines.** **Colour:** no distinctive colour patterns on body.

Size: Maximum standard length 15 cm, perhaps more.

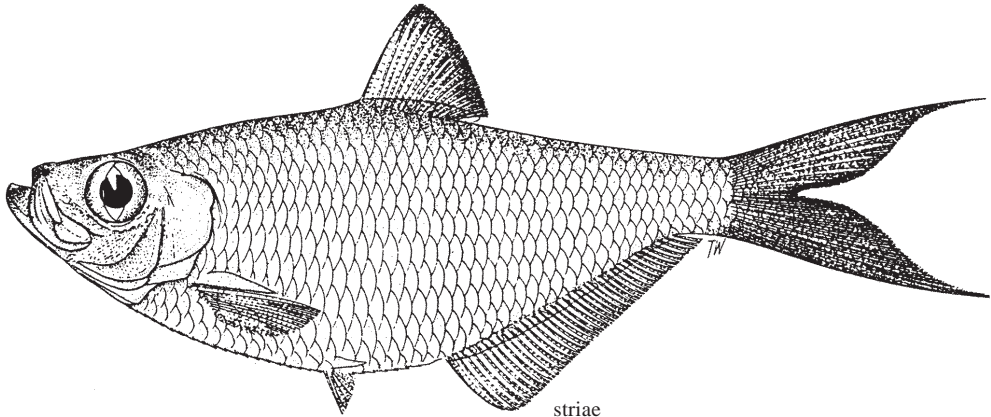
Habitat, biology, and fisheries: Marine, pelagic, coastal, but also entering rivers and tolerating water of low salinity. Feeds on planktonic crustaceans and fishes, also amphipods. Contributes to artisanal clupeoid catches, but no special fishery. Caught by cast nets.

Distribution: Indo-West Pacific, off eastern coasts of India (north to Calcutta), Indonesia (Jakarta, Java; also Kalimantan at Kotabaru, Takisung on southeastern coast and at Aluhuluh on Barito River). Records from Arabian Sea need confirmation.

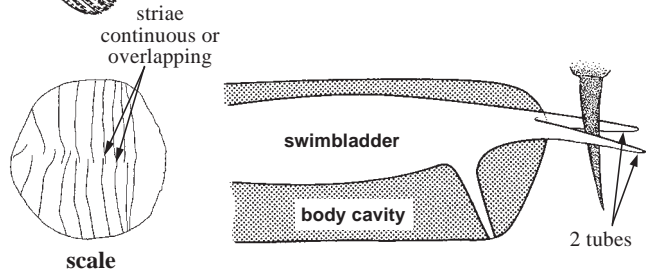


***Ilisha lunula* Kailola, 1986**

Frequent synonyms / misidentifications: None / *Ilisha melastoma* (Bloch and Schneider, 1801).
FAO names: En - Crescent long-tailed Ilisha.



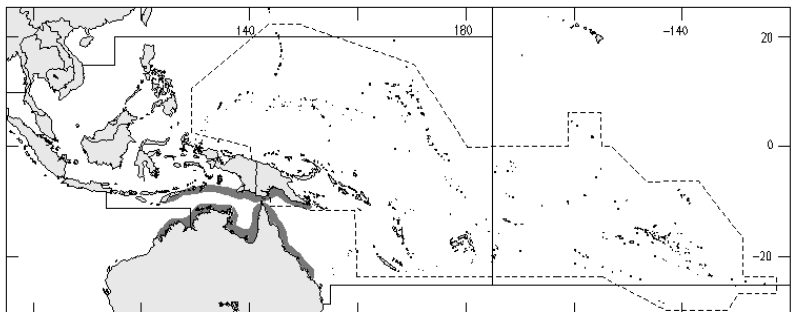
Diagnostic characters: Body moderately slender, depth 32.8 to 39.2% standard length; abdomen usually with 18 to 22 (usually 19) pre- and 8 to 10 (usually 9) postpelvic scutes; total 28 to 32 sharply-keeled scutes; 14 to 17 predorsal scales. Eye large, lower jaw projecting; mouth directed obliquely upward; upper jaw about reaching vertical through anterior margin of pupil or slightly posterior to this point; **no toothed hypomaxilla between posterior tip of premaxilla and blade of maxilla; shaft of maxilla without distinct lobe or flange between posterior tip of premaxilla and blade of maxilla;** singular row of small jaw teeth. Frontal bones with 2 prominent ridges. Gill rakers slender, fairly short and thick, **lower gill rakers 18 to 20**. Pyloric caecae long, 19 to 24. Dorsal-fin origin about at midpoint of body; **anal fin with 41 to 46 fin rays**, its origin at or slightly posterior to vertical through bases of posterior dorsal-fin rays; **pelvic fins present**, small, with 6 or 7 fin rays, slightly in advance of vertical through dorsal-fin origin. Scales moderate, about 41 to 46 in lateral series. **Vertical striae on scales continuous or overlapping across centre of scale.** Swimbladder with 2 tubes passing posteriorly in muscles on either side of haemal spines. Caudal fin deeply forked, caudal-fin lobes slender, tips attenuated such that expanded fin is strongly lunate; undamaged specimens with longest filamentous caudal-fin rays about 4 to 7 (mean 5) times that of length of middle fin rays. **Colour:** upper dorsum and top of head olive-brown to dark green-yellow; snout and chin brown; golden lustre on opercle; flanks silvery; pectoral fins golden; caudal and dorsal fins dusky yellow, **dorsal tip and margin of entire caudal fin dark brown or charcoal coloured.**



Size: Maximum standard length about 17 cm.

Habitat, biology, and fisheries: Marine, pelagic, inshore. Taken in trawl catches down to 47 m. Previously confused with *Ilisha melastoma*. No separate statistics reported for this species.

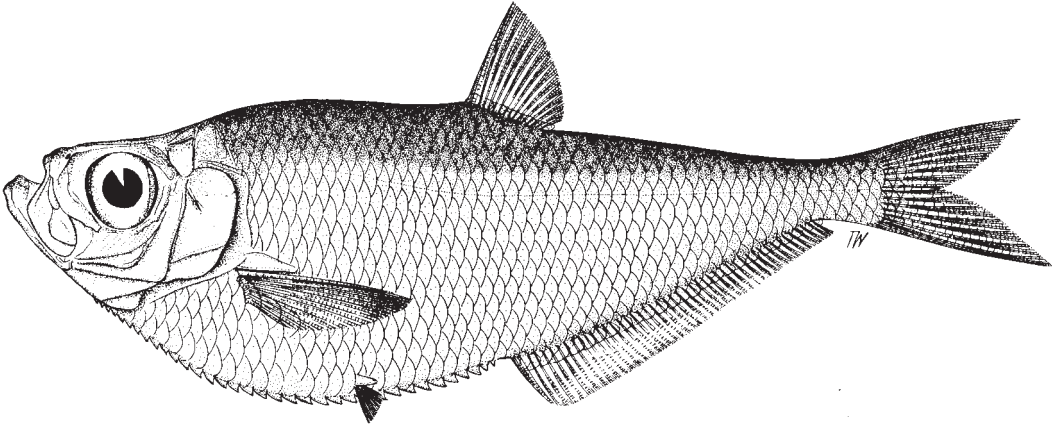
Distribution: Indo-West Pacific, from Timor Sea near northwestern Australia, through Arafura Sea, off northern Australia, Gulf of Carpentaria, Gulf of Papua, and southward along Queensland coast at least to Fitzroy River mouth.



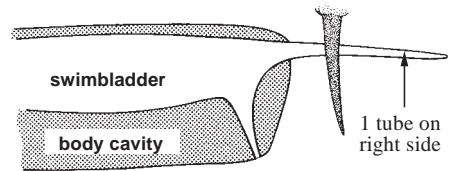
Ilisha macrogaster Bleeker, 1866

Frequent synonyms / misidentifications: *Pellona macrogaster* (Bleeker, 1866) / None.

FAO names: En - Kalimantan ilisha.



Diagnostic characters: Body moderately deep, depth 34 to 36% standard length; abdomen with 25 pre- and 11 postpelvic scutes; total number of sharply-keeled scutes 36. Eye large, lower jaw projecting; mouth directed obliquely upward; upper jaw not reaching vertical through anterior margin of pupil; **no toothed hypomaxilla between posterior tip of premaxilla and blade of maxilla; shaft of maxilla without distinct lobe or flange between posterior tip of premaxilla and blade of maxilla;** jaw teeth small or minute, usually with distinct gap at centre of upper jaw. Gill rakers fairly short and thick, **lower gill rakers 23 to 25**. Dorsal-fin origin about equal with vertical through midpoint of body; **anal fin with 49 fin rays**, its origin at vertical through middle of dorsal fin; **pelvic fins present**, small, with 6 or 7 fin rays, well in advance of vertical through dorsal-fin origin. **Swimbladder with single long tube passing posteriorly down right side of body above anal-fin base.** **Colour:** no distinctive colour patterns on body; distalmost tips of pectoral fins black.

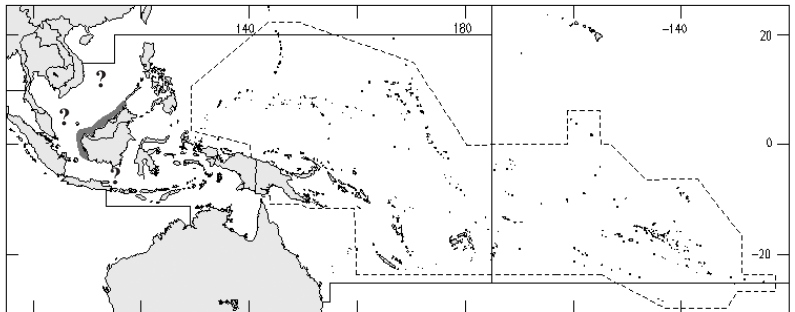


Size: Maximum standard length 12 cm.

Habitat, biology, and fisheries: Marine, pelagic, and coastal; perhaps entering estuaries. No other biological or fisheries data are available.

Distribution: Western Pacific in South China Sea (western Kalimantan, Sarawak).

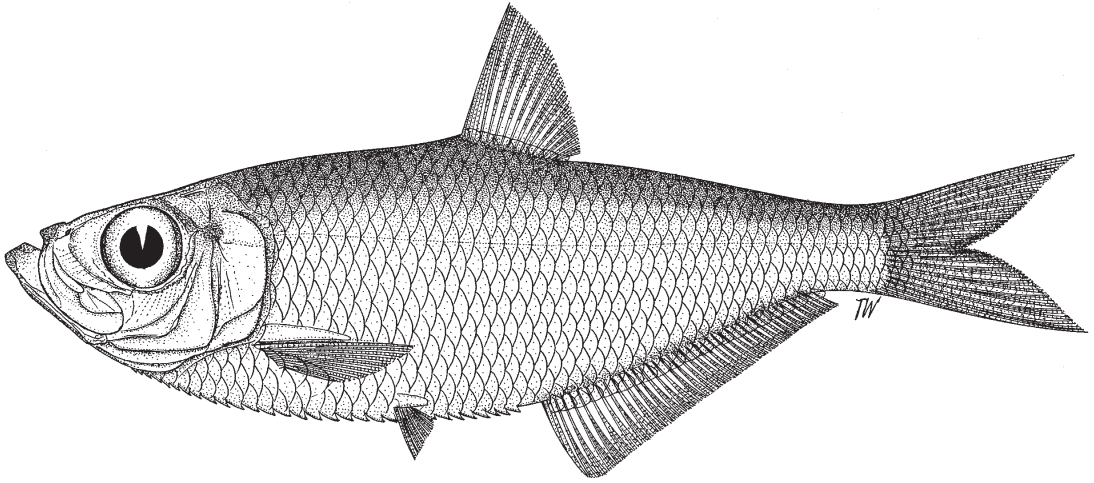
Remarks: This species may be synonymous with *Ilisha filigera*.



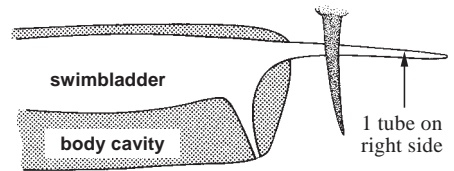
Ilisha megaloptera (Swainson, 1839)

Frequent synonyms / misidentifications: *Pellona dussumieri* Valenciennes, 1847 / *Ilisha melastoma* (Bloch and Schneider, 1801).

FAO names: En - Bigeye ilisha; Fr - Alose à gros yeux; Sp - Sardineta ojigrande.



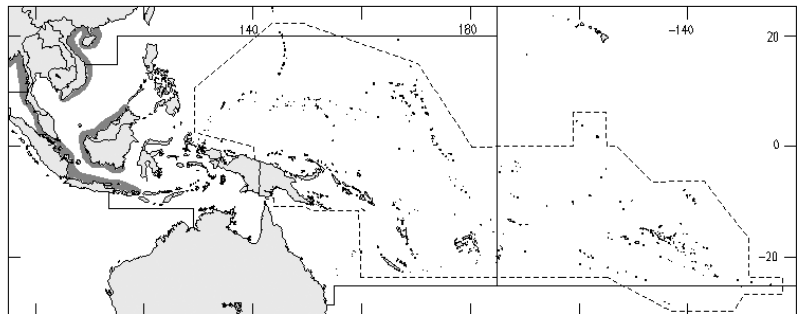
Diagnostic characters: Body moderately deep, depth 28 to 39% standard length; **abdomen with 19 to 23 pre- and 8 to 12 postpelvic scutes; total number of sharply-keeled scutes 28 to 35 (usually 30 to 34)**. Eye large; lower jaw strongly projecting; mouth directed obliquely upward; upper jaw reaching a vertical through anterior margin of pupil; **no toothed hypomaxilla between posterior tip of premaxilla and blade of maxilla; shaft of maxilla without distinct lobe or flange between posterior tip of premaxilla and blade of maxilla;** jaw teeth small or minute, usually with distinct gap at centre of upper jaw. Gill rakers fairly short and thick, **lower gill rakers 18 to 23**. Dorsal-fin origin near midpoint of body; **anal fin with 38 to 53 fin rays**, its origin posterior to vertical through base of posteriormost dorsal-fin ray; **pelvic fins present**, small, with 6 or 7 fin rays, slightly in advance of vertical through dorsal-fin origin. **Swimbladder with single long tube passing posteriorly down right side of body cavity above anal-fin base.** **Colour:** no distinctive colour patterns.



Size: Maximum standard length 27.5 cm.

Habitat, biology, and fisheries: Marine, pelagic, inshore, but apparently occurs also in some rivers. Possibly *Ilisha megaloptera* ascends and spawns in lower courses of rivers. Feeds on fishes, crustaceans, amphipods, occasionally polychaetes, tunicates, and small amounts of algae and diatoms. No separate statistics, but it is perhaps the commonest species of *Ilisha* in the Indian Ocean and must make a significant contribution to artisanal catches of clupeoids. Caught mainly by gill nets and boat seines in India (even found in trawl catches from 30 to 40 m). Marketed fresh, dried, dried-salted, boiled, or made into fishballs.

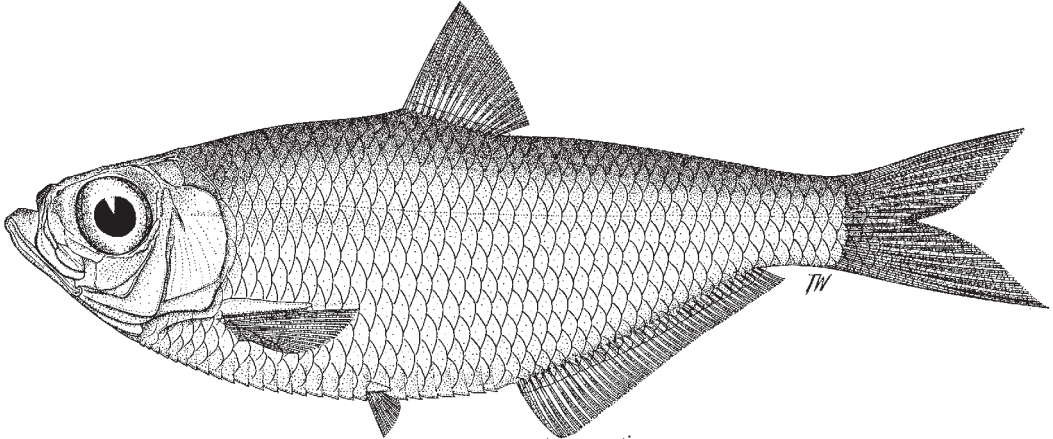
Distribution: Indo-West Pacific from Bombay to Bay of Bengal and Andaman coast of Thailand to Java Sea (off Java, Singapore), and South China Sea (Sarawak and Kalimantan).



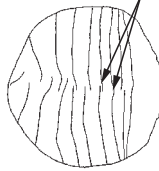
Ilisha melastoma (Bloch and Schneider, 1801)

Frequent synonyms / misidentifications: *Pellona ditchoa* Valenciennes, 1847; *P. brachysoma* Bleeker, 1852; *Platygaster indica* (Swainson, 1839); *Clupanodon motius* Hamilton, 1822; *Ilisha indica* (Swainson, 1839) / None.

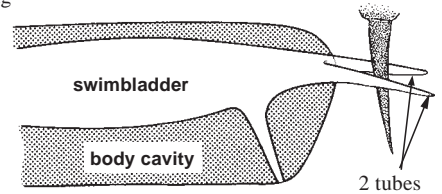
FAO names: **En** - Indian ilisha; **Fr** - Alose indienne; **Sp** - Sardineta indica.



striae continuous or overlapping



scale



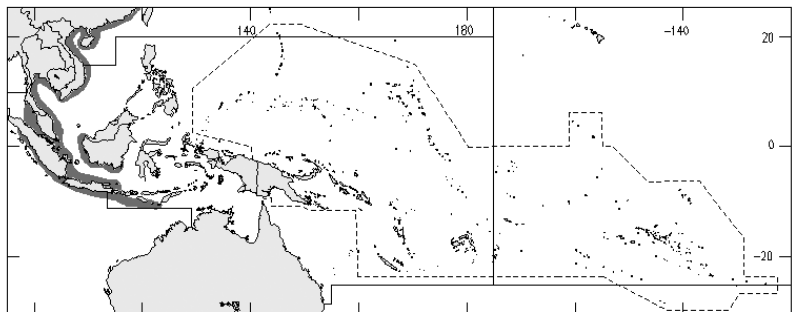
Diagnostic characters: Body moderately deep, depth 33 to 42% standard length; abdomen usually with 17 to 21 pre- and 8 or 9 postpelvic scutes; total number of sharply-keeled scutes 25 to 30. Eye large; lower jaw projecting; mouth directed obliquely upward; upper jaw reaching a vertical through anterior margin of eye; no

toothed hypomaxilla between posterior tip of premaxilla and blade of maxilla; shaft of maxilla without distinct lobe or flange between posterior tip of premaxilla and blade of maxilla; jaw teeth small or minute, usually with distinct gap at centre of upper jaw. Gill rakers fairly short and thick, lower gill rakers 21 to 25. Dorsal-fin origin distinctly anterior to midpoint of body; anal fin with 35 to 48 fin rays, its origin at point equal with or slightly posterior to vertical through bases of posterior dorsal-fin rays; pelvic fins present, small, with 6 or 7 fin rays, moderately in advance of vertical through dorsal-fin origin. Caudal-fin lobes without extended tips, not lunate. Vertical striae on scales traversing whole scale or mostly overlapping across centre of scale. Swimbladder with 2 tubes passing posteriorly into muscles on either side of haemal spines. **Colour:** no distinctive colour patterns.

Size: Maximum standard length 17 cm.

Habitat, biology, and fisheries: Marine, pelagic, coastal, but entering estuaries and presumably able to tolerate lowered salinities. Feeds on plankton (probably small crustaceans). Contributes to clupeoid catches in artisanal fisheries, but separate statistics not reported. Mostly caught by gill nets and boat seines over depths of 10 to 15 m along coasts and in estuaries, also by cast nets in estuaries (southern India). Marketed fresh, dried, dried-salted, boiled, or made into fishballs.

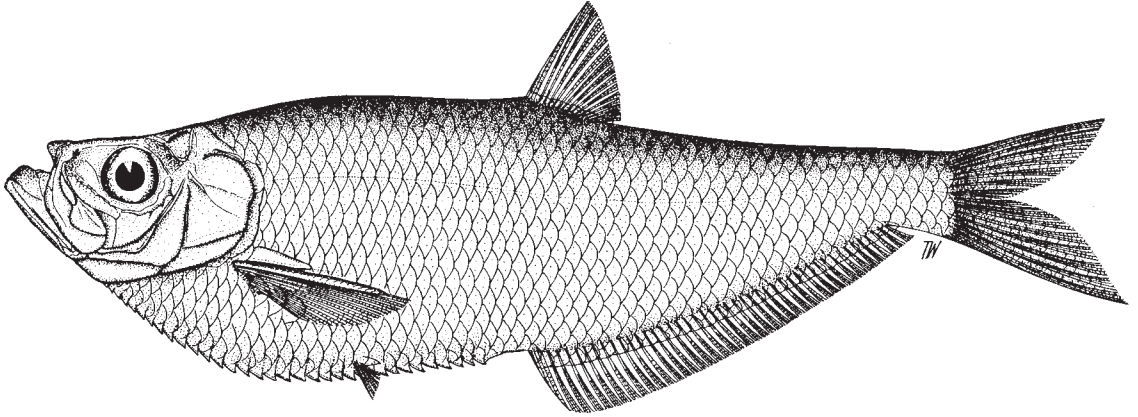
Distribution: Indo-West Pacific from Malabar coast to Calcutta, to Java Sea (off Java), South China Sea (Singapore, Gulf of Thailand), and East China Sea north to Taiwan Province of China.



Ilisha pristigastroides (Bleeker, 1852)

Frequent synonyms / misidentifications: *Pellona amblyropterus* Bleeker, 1852; *Ilisha amblyroptera* (Bleeker, 1852) / None.

FAO names: En - Javan ilisha.



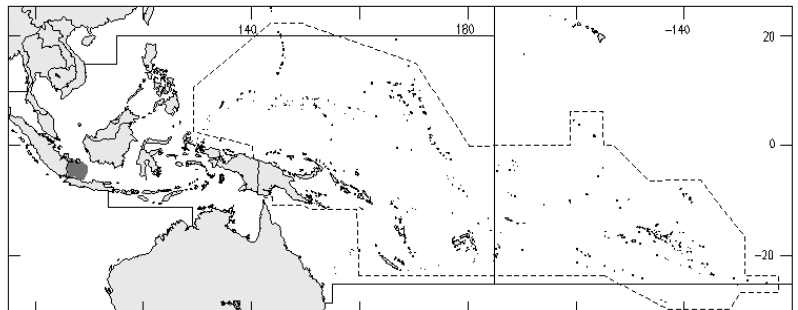
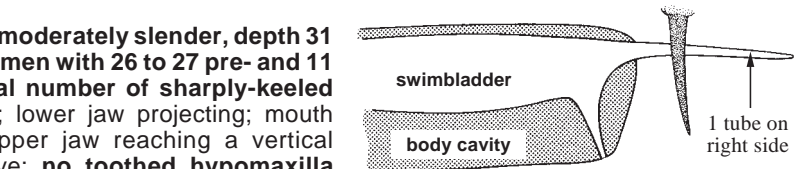
Diagnostic characters: Body moderately slender, depth 31 to 32% standard length; abdomen with 26 to 27 pre- and 11 or 12 postpelvic scutes; total number of sharply-keeled scutes 37 to 39. Eye large; lower jaw projecting; mouth directed obliquely upward; upper jaw reaching a vertical through anterior margin of eye; **no toothed hypomaxilla between posterior tip of premaxilla and blade of maxilla;**

shaft of maxilla without distinct lobe or flange between posterior tip of premaxilla and blade of maxilla; jaw teeth small or minute, usually with distinct gap at centre of upper jaw. Gill rakers fairly short and thick, **lower gill rakers 17**. Dorsal-fin origin slightly posterior to midpoint of body; **anal fin with 45 or 46 fin rays**, its origin at vertical through middle of dorsal fin; **pelvic fins present**, small, with 6 or 7 fin rays, distinctly in advance of vertical through dorsal-fin origin. **Swimbladder with single long tube passing posteriorly down right side of body above anal-fin base.** **Colour:** no distinctive colour patterns.

Size: Maximum standard length 30 cm.

Habitat, biology, and fisheries: Marine, pelagic, coastal; apparently entering rivers and estuarine waters. No fisheries data available. Caught with lift nets and set nets. Marketed fresh, dried, and dried-salted.

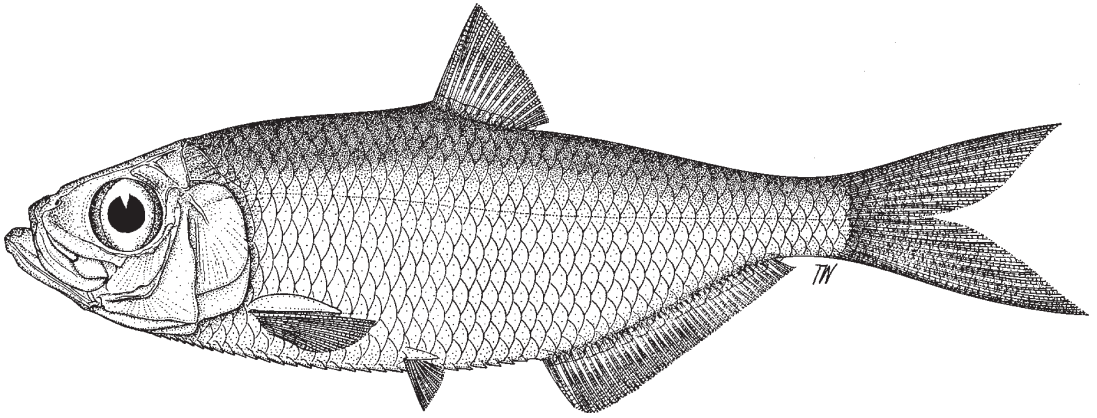
Distribution: Western Pacific in Java Sea (Jakarta).



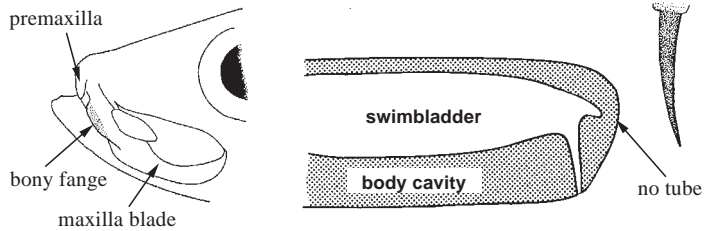
Ilisha sirishai Seshagiri Rao, 1975

Frequent synonyms / misidentifications: None / None.

FAO names: En - Lobejaw ilisha.



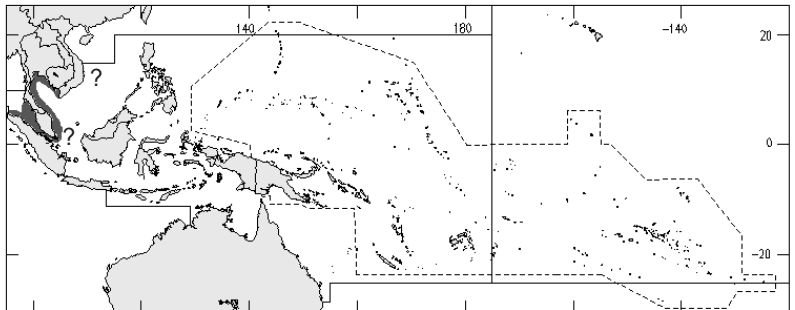
Diagnostic characters: Body moderately deep, depth 32 to 37% standard length; abdomen with 18 to 21 pre- and 8 or 9 postpelvic scutes, total number of sharply-keeled scutes 26 to 30 (usually 28 or 29). Eye large; lower jaw strongly projecting; mouth directed obliquely upward; upper jaw reaching a vertical through anterior margin of eye; **no toothed hypomaxilla between posterior tip of premaxilla and blade of maxilla; shaft of maxilla with distinct lobe or flange between posterior tip of premaxilla and blade of maxilla;** jaw teeth small or minute, usually with distinct gap at centre of upper jaw. Gill rakers fairly short and thick, **lower gill rakers 22 to 26**. Dorsal-fin origin near or slightly anterior to midpoint of body; **anal fin with 39 to 43 fin rays, its origin slightly posterior to vertical through base of posteriormost dorsal-fin ray;** pelvic fins present, small, with 6 or 7 fin rays, slightly in advance of vertical through dorsal-fin origin. **Swimbladder without posterior tube (or tubes) passing posteriorly into body muscles.** **Colour:** no distinctive colour patterns.



Size: Maximum standard length 17.2 cm.

Habitat, biology, and fisheries: Marine, pelagic, and inshore; presumably able to tolerate some lowering of salinity. More data needed. Contributes to artisanal catches of clupeoids, but no special fishery.

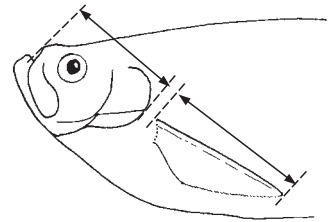
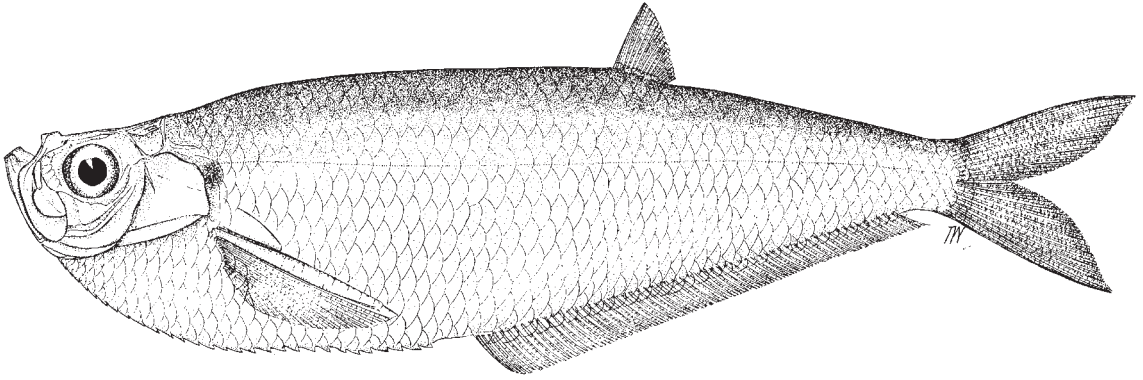
Distribution: Indo-West Pacific from the Persian Gulf to Bay of Bengal and Andaman coast of Thailand, to Gulf of Thailand (Songhka Lake).



Opisthopecterus tardoore (Cuvier, 1829)

Frequent synonyms / misidentifications: *Pristigaster elongata* Swainson, 1838; *Pristigaster indicus* Swainson, 1839; *P. tartoor* Valenciennes, 1847; *Opisthopecterus macrognathus* Bleeker, 1866; *O. tartur* Zugmayer, 1913 / None.

FAO names: En - Tardoore; Fr - Poisson-papier tarture; Sp - Arenquillo tardoore.



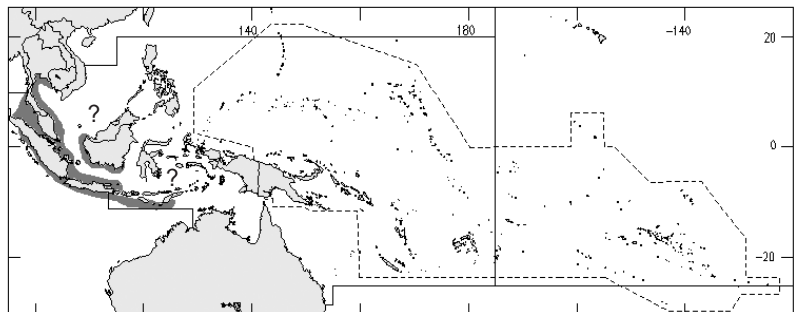
pectoral fins equal to or longer than head

Diagnostic characters: Body elongate and strongly compressed; depth 27 to 33% standard length; abdomen concave in front, with 29 to 35 sharply-keeled scutes. Eye large. Lower jaw projecting; mouth directed obliquely upward; upper jaw short, not reaching posteriorly to vertical through centre of eye. **No toothed hypomaxilla between posterior tip of premaxilla and blade of maxilla.** Jaw teeth small, usually with distinct gap at centre of upper jaw. Lower gill rakers 22 to 28, increasing with size of fish. **Pectoral fins relatively long with 12 to 14 fin rays, their length 21 to 26% standard length (usually about equal with or greater than head length);** uppermost pectoral-fin ray enlarged, bony; **dorsal fin small, its origin well posterior to midpoint of body; pelvic fins absent; anal fin long, with 51 to 63 fin rays,** its origin well in advance of vertical through dorsal-fin origin. **Scales easily lost, about 46 to 51 in lateral series.** **Colour:** a dark spot on body posterior to gill opening.

Size: Maximum standard length 18 cm.

Habitat, biology, and fisheries: Marine, close to shore, also entering estuaries (e.g. Aluhaluh on Barito River, Kalimantan). Feeds on mysids, *Pseudodiaptomus* and copepod eggs, also prawns and other small crustaceans, bivalve eggs and larvae, amphipods, and small fishes. Spawns from late February or early March to July or August (around Karwar, India). No special fishery, but is caught seasonally with other clupeoids in shore seines; also caught with lift nets and trawls in shallow waters. Marketed fresh, dried, dried-salted, boiled, or made into fishballs or fishmeal.

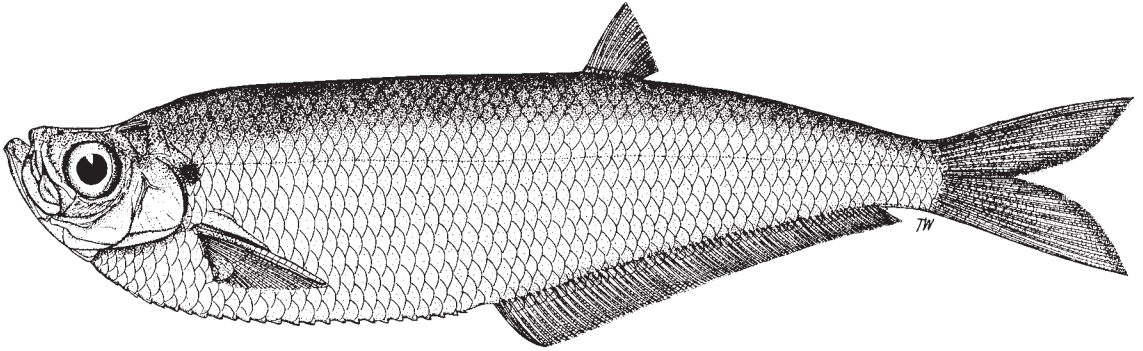
Distribution: Tropical Indo-West Pacific from Gulf of Oman to at least Madras, perhaps northward and along coasts of Myanmar, certainly at Penang, to Java Sea, and Gulf of Thailand.



***Opisthopterus valenciennesi* Bleeker, 1872**

Frequent synonyms / misidentifications: *Opisthopterus tartoor* Bleeker, 1872 / *Opisthopterus tardoore* (Cuvier, 1829).

FAO names: En - Slender tardoore.

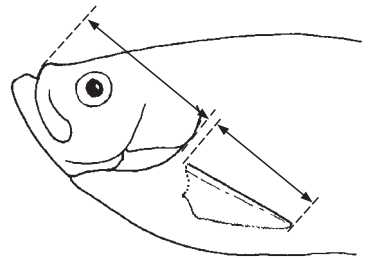


Diagnostic characters: Body very elongate and strongly compressed, depth 24 to 29% standard length; abdomen concave anteriorly, with 30 to 33 scutes. Eye large. Lower jaw projecting; mouth directed obliquely upward; upper jaw short, posterior extent about equal with vertical through anterior margin of eye. **No toothed hypomaxilla between posterior tip of premaxilla and blade of maxilla.** Jaw teeth small, usually with distinct gap at centre of upper jaw. Lower gill rakers 23 to 25. **Pectoral fins relatively short with 15 to 17 fin rays, its length 14 to 17% standard length (thus distinctly shorter than head length);** uppermost pectoral-fin ray enlarged, bony; **dorsal fin small,** well posterior to body midpoint; **pelvic fins absent; anal fin long, with 54 to 65 fin rays,** its origin well anterior to vertical through dorsal-fin origin. **Scales easily lost, about 51 to 56 in lateral series.** **Colour:** a dark spot on body posterior to gill opening.

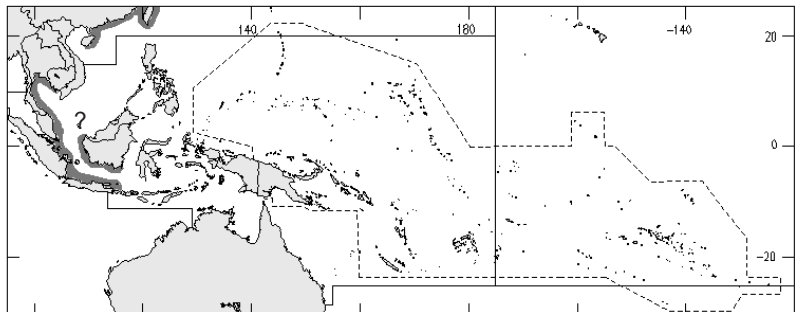
Size: Maximum standard length 20 cm.

Habitat, biology, and fisheries: Along shores and in estuaries; probably similar to *Opisthopterus tardoore*, but more specimens and data needed. Probably contributes to artisanal fisheries for clupeoids.

Distribution: Western Pacific from Java Sea (Singapore) north to Gulf of Thailand and East China Sea at Foochow.



head longer than pectoral fins

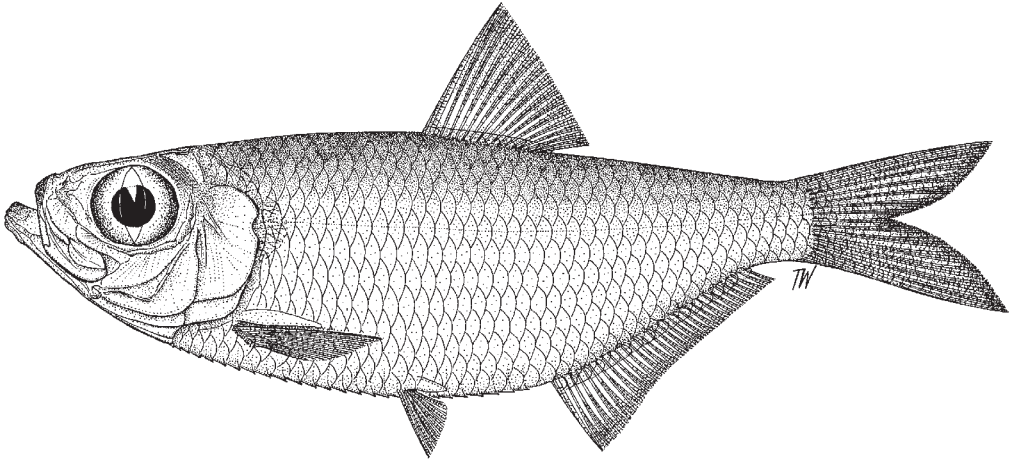


Pellona ditchela Valenciennes, 1847

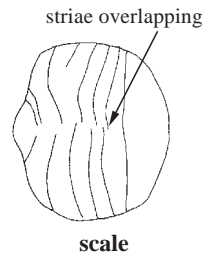
PEO

Frequent synonyms / misidentifications: *Pellona hoevenii* Bleeker, 1852; *P. natalensis* Gilchrist and Thompson, 1908 / None.

FAO names: **En** - Indian pellona; **Fr** - Aloose-écaille indienne; **Sp** - Sardinata indica.



Diagnostic characters: Body moderately deep, compressed; abdomen usually with 18 or 19 pre- and 8 or 9 postpelvic scutes; total number of sharply-keeled scutes 26 to 28. Eye large; lower jaw projecting; mouth directed obliquely upward; upper jaw reaching a point between verticals through anterior margin of eye and anterior margin of pupil; **upper jaw with a toothed hypomaxillary bone between posterior tip of premaxilla and lower bulge of maxilla blade** (easily felt with fingernail); jaw teeth small or minute, usually with distinct gap at centre of upper jaw. Gill rakers fairly short and thick; **lower gill rakers 22 to 27**. Dorsal-fin origin near midpoint of body;

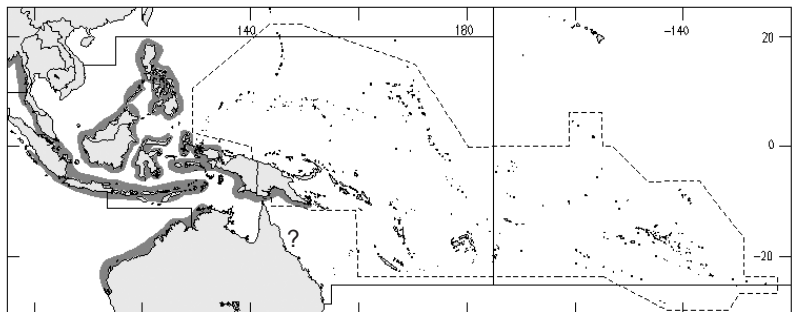


anal fin with 34 to 42 fin rays, its origin posterior to vertical through base of posteriormost dorsal-fin ray; pelvic fins present, small, with 6 or 7 fin rays, equal with vertical through anterior dorsal-fin rays. **Scales with upper and lower vertical striae very slightly overlapping each other at centre of scales. No tube or tubes at posterior end of swimbladder passing posteriorly into body muscles. Colour:** head gold, snout and chin dusky; body dusky above, gold on flanks and silvery below; faint humeral spot present; dorsal and caudal fins with dark stippling, other fins pale.

Size: Maximum standard length 16 cm.

Habitat, biology, and fisheries: Marine, coastal, but entering mangrove swamps and also penetrating estuaries into fresh water, thus apparently fully euryhaline (fresh-water records need verification). No specific fishery, but contributes to artisanal catches of clupeoids. Caught mainly with purse seines and beach seines. Marketed fresh, dried, dried-salted, boiled, or made into fishmeal or fishballs. From 1990 to 1995, FAO's Yearbook of Fishery Statistics reports a range of yearly catch of *Pellona ditchela* of around 1 500 to 3 700 t from the Western Central Pacific (Malaysia).

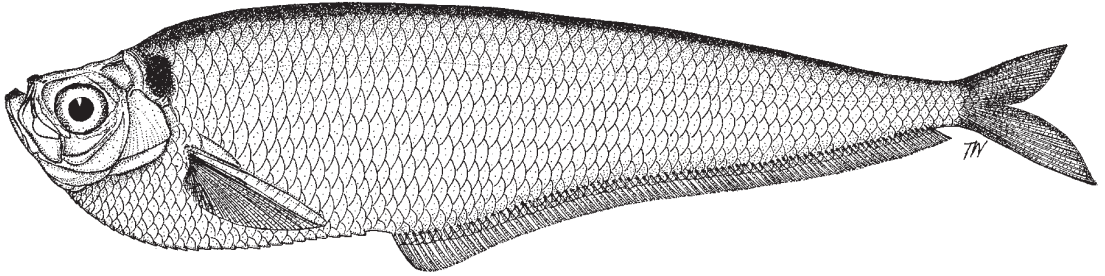
Distribution: Tropical Indo-West Pacific from western Gulf of Oman to Durban, South Africa, also Madagascar, Thailand, India to Indonesia, Papua New Guinea, the Philippines, and to north- and southwestern Australia.



Raconda russeliana Gray, 1831

Frequent synonyms / misidentifications: *Apterygia ramcarata* Gray, 1835; *A. hamiltoni* Valenciennes, 1847 / None.

FAO names: En - Raconda.



Diagnostic characters: Body very elongate and greatly compressed, with strongly convex lower profile bearing a sharp keel of 33 to 38 scutes. Eye large. Lower jaw prominent, projecting; mouth pointing obliquely upward; upper jaw short, not reaching posteriorly to vertical through centre of eye. **No toothed hypomaxilla between posterior tip of premaxilla and blade of maxilla.** Jaw teeth small, usually with distinct gap at centre of upper jaw. Lower gill rakers 23 to 27. **Dorsal fin absent; uppermost pectoral-fin ray enlarged, bony; pelvic fins absent; anal fin very long, with 81 to 93 fin rays, its origin well in advance of vertical through midpoint of body. Caudal fin small.** Scales easily lost, about 60 to 68 in lateral series. **Colour:** a dark spot posterior to gill opening.

Size: Maximum standard length 19 cm.

Habitat, biology, and fisheries: Marine, or perhaps more commonly estuarine (e.g. Aluhaluh on the Barito River, Kalimantan). Feeds mainly on prawns, and other small crustaceans including copepods. More specimens and data are needed. Probably of insignificant importance in commercial fisheries and seems to be uncommon in catches.

Distribution: Indo-West Pacific from east coast of India, possibly coasts of Myanmar, Gulf of Thailand to Singapore, and Java Sea.

