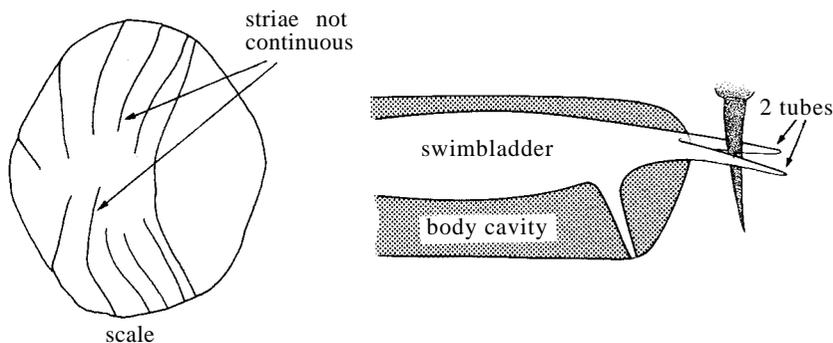


**Diagnostic Features** : Body moderately slender, its depth 24 to 32% of standard length, belly with usually 19 to 21 - 8, total 27 to 29 scutes. Eye large, lower jaw projecting; lower gillrakers 20 to 24. Dorsal fin origin at about midpoint of body; anal fin with 38 to 46 finrays, its origin under hind part of dorsal fin base. Vertical striae on scales not continuous, but with a distinct gap across centre of scale. Swimbladder with two tubes passing back in the muscles on either side of haemal spines. Resembles three other Indo-Pacific species of *Ilisha* in this swimbladder character, but these have more gillrakers (*I. obfuscata*), scale striae that traverse the scale, also body deeper (*I. melastoma*) or are deeper and have longer pectoral fins (*I. striatula*; pectoral fin 18 to 21% of standard length, cf. 15 to 17%). Other *Ilisha* species have either a single long tube from the hind end of the swimbladder (and more scutes), or no posterior tubes (and a deeper body or more scutes). *Pellona* species have a distinct toothed hypo-maxilla.



**Geographical Distribution** : Indian Ocean (eastern coasts of India north to Calcutta), Indonesia (Jakarta, Java; also Kalimantan at Kotabaru, Takisung on southeastern coast and at Aluhaluh on Barito River). Records of this species from the Arabian Sea (Seshagiri Rao, 1975) need confirmation.

**Habitat and Biology** : Marine, pelagic, coastal, but also entering rivers and tolerating water of low salinity. Feeds on planktonic crustaceans and fishes, also amphipods.

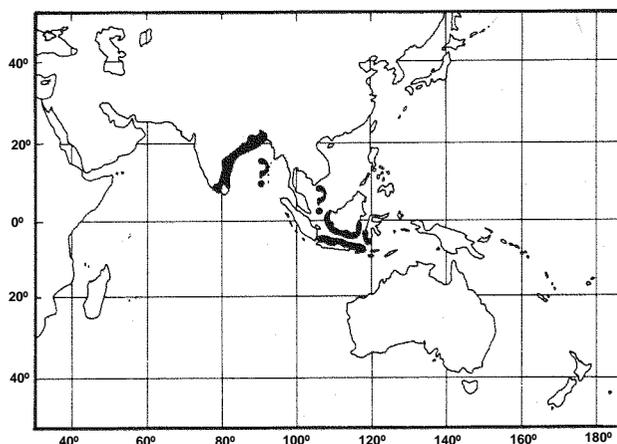
**Size** : To 15 cm standard length, perhaps more.

**Interest to Fisheries** : Contributes to artisanal clupeoid catches, but no special fishery. Caught by cast nets in the Vellar estuary, Porto Novo, India.

**Local Names** :-

**Literature** : Ramaiyan & Whitehead (1975 - brief notes on distribution and biology).

**Remarks** : Long regarded as an Indonesian species, its presence off Indian coasts was unsuspected until reported by Ramaiyan & Whitehead (1975) and the revision by Wongratana (1980). An apparently distinct but closely related species from the Arafura and Timor Seas, Gulf of Carpentera and off Papua New Guinea will be described by Dr Patricia Kailola. It differs from *I. kampeni* chiefly in having the striae continuous across the scale, slightly more pyloric caeca (19 to 24; cf. 15 to 19), fewer gillrakers (18 to 20; cf. 20 to 24) and more vertebrae (43 to 45; cf. 41 or 42).



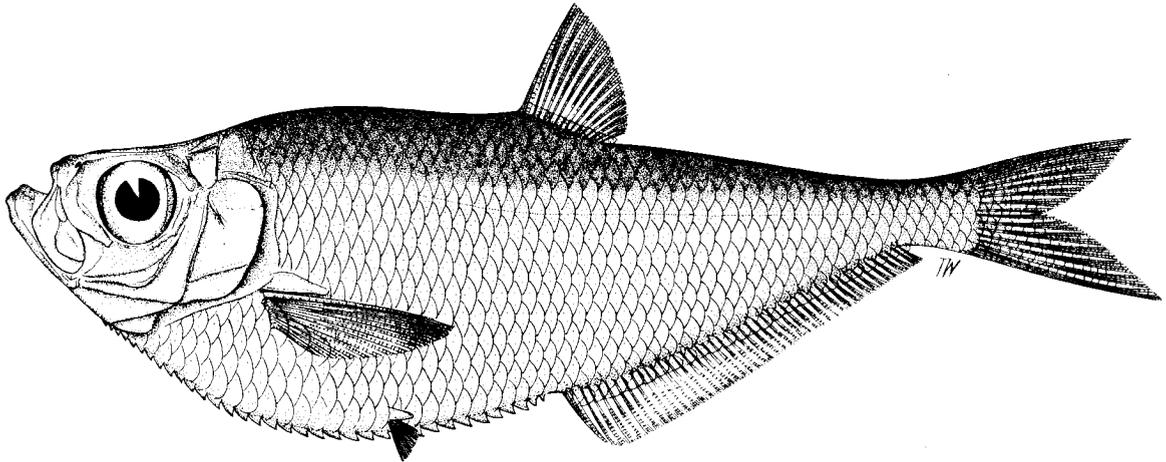
***Ilisha macrogaster*** Bleeker, 1866

PRIST Ilish 9

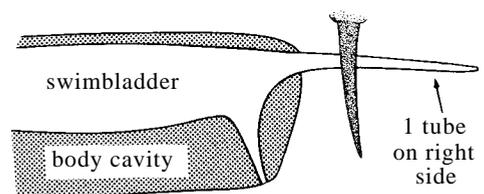
*Ilisha macrogaster* Bleeker, 1886, *Ned.Tijdschr.Dierk.*, 3:300 (Sambas, Kalimantan, Indonesia).

**Synonyms** : *Pellona macrogaster*:Weber & de Beaufort, 1913:93 (on Bleeker); *Ilisha macrogaster* - Fowler, 1941:660 (compiled); Whehead *et al.*, 1966:98, pl. 12, fig. 2 (Bleeker's fig.) (type of *macrogaster*) Whitehead 1973b:211 (key only); Wongratana, 1980:207, pl. 169 (revision).

**FAO Names** : En Kalimantan ilisha.



**Diagnostic Features :** Body moderately deep, its depth 34 to 36% of standard length, belly with 25 + 11, total 36 scutes. Eye large, lower jaw projecting; lower gillrakers 23 to 25. Dorsal fin origin at about midpoint of body; anal fin with 49 finrays, its origin under dorsal fin base. Swimbladder with a single long tube passing back down right side of body above anal fin base. Resembles four other Indo-Pacific species of *Ilisha* in this swimbladder character, but these are more slender. (*I. elongata*, *I. pristigastroides*), have fewer scutes and gillrakers (*I. megaloptera*) or fewer gillrakers (*I. filigera*). Other *Ilisha* species have either twin tubes from the hind end of the swimbladder (and usually only 25 to 30 scutes) or no posterior tubes (and fewer scutes or fewer gillrakers). *Pellona* species have a distinct toothed hypo-maxilla.



**Geographical Distribution :** South China Sea (western Kalimantan, Sarawak).

**Habitat and Biology :** Marine, pelagic and coastal, perhaps entering estuaries. More data needed.

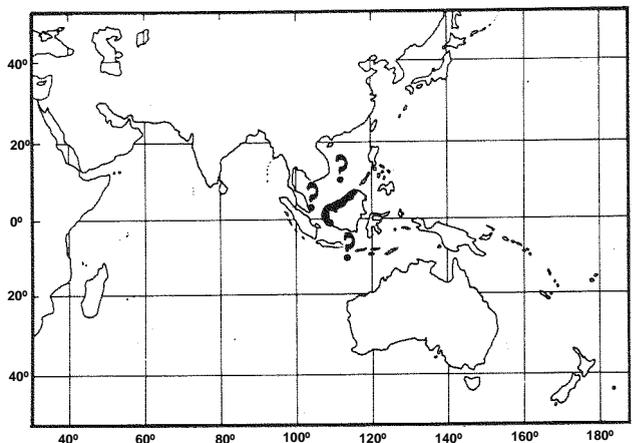
**Size :** To 12 cm standard length.

**Interest to Fisheries :** No data.

**Local Names :-**

**Literature :** See under Synonyms.

**Remarks :** Wongratana (1980) was able to examine only two specimens; more material may show that this species is merely *I. filigera*.



***Ilisha megaloptera*** (Swainson, 1839)

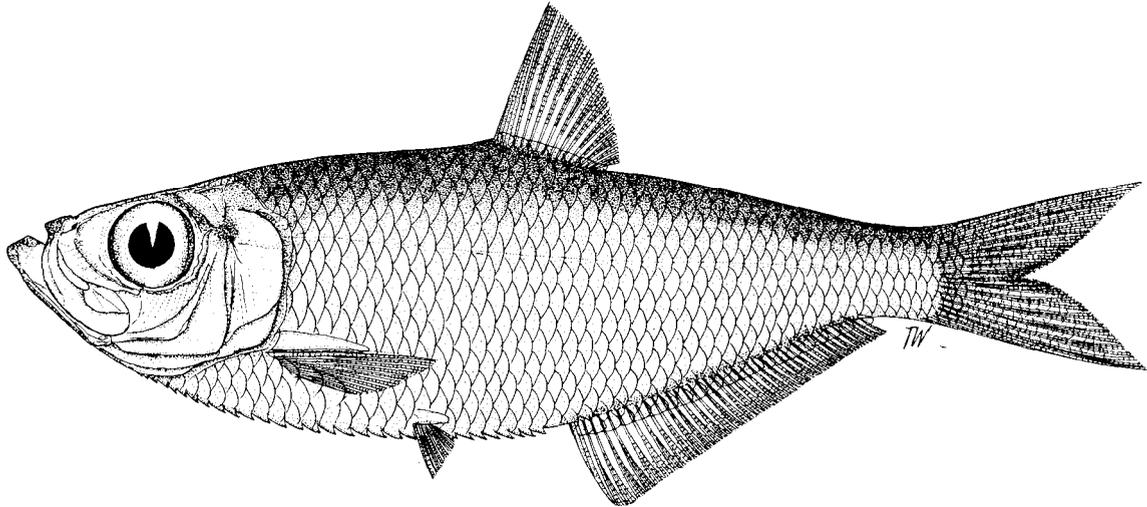
PRIST Ilish 4

Formerly CLUP Ilish 4

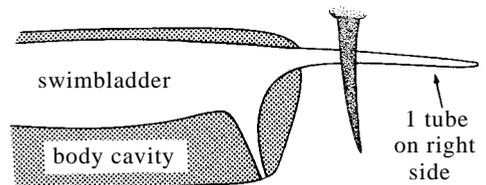
*Platygaster megalopterus* Swainson, 1839, *Nat.Hist.Anim.*, 2:294 (on Jangarloo of Russell, 1803).

**Synonyms :** ? *Clupanodon motius* Hamilton-Buchanan, 1822:251 (Brahmaputra; nomen dubium); *Platygaster macrophthalma* Swainson, 1838:278 (on Jangarloo of Russell, 1803; nomen oblitum); ? *Platygaster parva* Swainson, 1839:294 (on *Clupea motius* of Gray, 1834); *Pellona dussumieri* Valenciennes, 1847:316, pl. 516 (Bombay, Malabar, Coromandel; *Pellona russellii* Bleeker, 1852:72 (Java, Madura, Pasuruan, Singapore); ? *Ilisha melastoma*: Fowler, 1941:659 (Kalimantan; megaloptera in syn.); *Ilisha megaloptera* - Whitehead, 1967:113, pl. 7c (Valenciennes figure) (type of dussumieri; macrophthalma rejected); *Idem*, 1973b:213, fig. 38 (key, synon., descr.; filigera, xanthoptera, russellii wrongly included; Ramaiyan & Whitehead, 1975:191, fig. 1d (key, descr.; Bombay to Singapore, Sarawak to Macao); Wongratana, 1980:201, pls 163, 164 (revision); Whitehead & Bauchot, in press (type of dussumieri).

**FAO Names:** En - Bigeye ilisha.



**Diagnostic Features :** Body rather deep, its depth 28 to 39% of standard length, belly with 19 to 23 +8 to 12, total 28 to 35 (usually 30 to 34) scutes. Eye large, lower jaw strongly projecting; lower gillrakers 18 to 23. Dorsal fin origin near midpoint of body; anal fin with 38 to 53 finrays, its origin below hind part of dorsal fin base. Swimbladder with a single long tube passing back down right side of body above anal fin base. Resembles *I. elongata*, *I. filigera*, *I. macrogaster* and *I. pristigastroides* in this swimbladder character, but these have more scutes total 34 to 42). Other *Ilisha* species have either twin tubes from the hind end of the swimbladder (and usually only 25 to 30 scutes) or no posterior tubes (and more or fewer scutes). *Pellona* species have a distinct toothed hypo-maxilla. See CLUP Ilish 4, Fishing Area 51, also 57, 71.



**Geographical Distribution :** Indian Ocean (Bombay to Bay of Bengal and Andaman coast of Thailand), Java Sea (off Java, Singapore). Sarawak, 'Cochinchina' and Macao specimens of Ramaiyan & Whitehead (1975) should be rechecked.

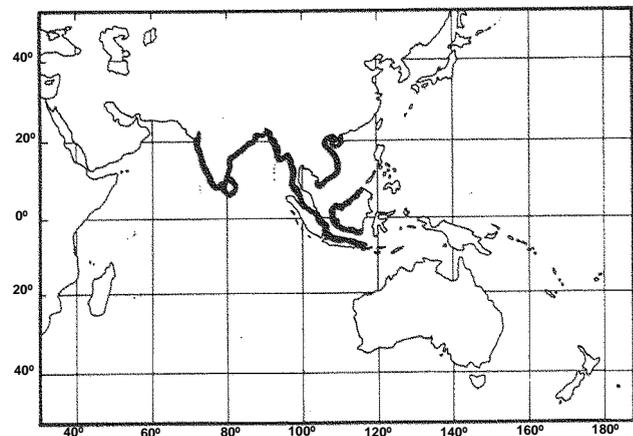
**Habitat and Biology :** Marine, pelagic, inshore, but apparently occurs also in rivers (Ganges at Allahabad, rivers of eastern Uttar Pradesh - see Wongratana, 1980), but not in Vellar estuary (Ramaiyan & Whitehead, 1975); Day (1875:644) referred to *Pellona motius* (if this was indeed the present species) as riverine, "descending as low as the coast" and gave its size as not much over 4 inches, i.e. about 10 cm standard length; this would suggest that *I. megaloptera* ascends and spawns in rivers. Feeds on fishes, crustaceans, amphipods, occasionally polychaetes, tunicates and small amounts of algae and diatoms.

**Size :** To 27.5 cm standard length.

**Interest to Fisheries :** 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 gillnets and boat seines in India (even found in trawl catches from 30 to 40 m).

**Local Names :** INDIA: Phansa (Calcutta, but probably the same name used for other species of *Ilisha*).

**Literature :** Ramaiyan & Whitehead (1975); other identifications in the literature cannot be wholly relied upon.



***Ilisha melastoma*** (Schneider, 1801)

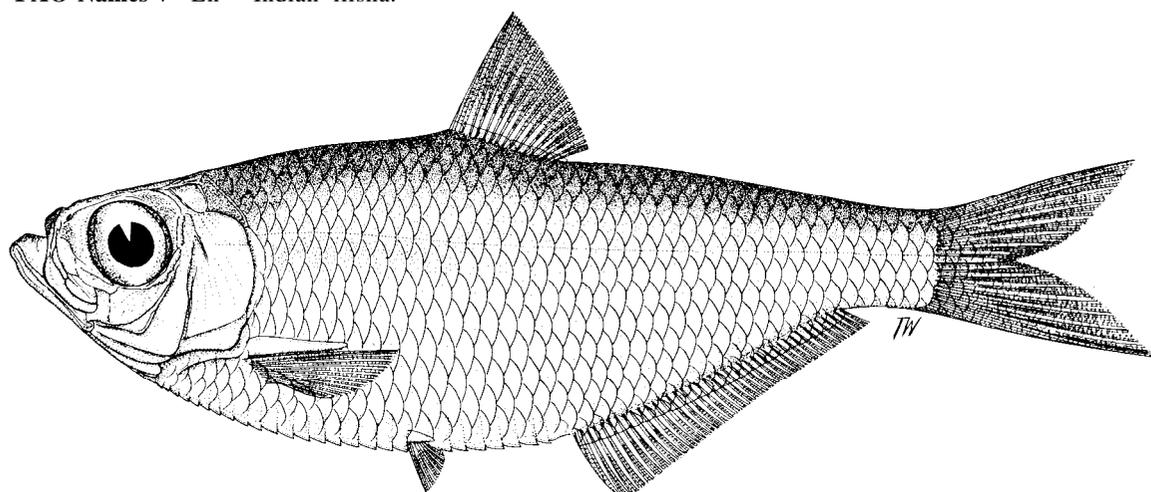
PRIST Ilish 3

Formerly CLUP Ilish 3

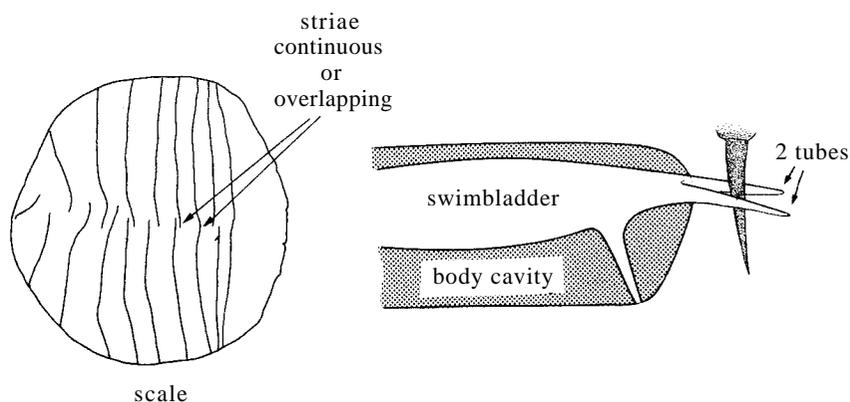
*Clupea melastoma* Schneider, 1801, Syst.Ichthyol.Bloch.:427 (near Coromandel).

**Synonyms** : *Platygaster verticalis* Swainson, 1838:278 (on *Ditchoe* of Russell, 1803); *Platygaster indicus* Swainson, 1839:294 (on *Ditchoe*); *Pellona ditchoa* Valenciennes, 1847:313 (on *Ditchoe*); *Pellona micropus* Valenciennes, 1847:320 (Coromandel coast; in part, the other specimen being *Ilisha obfuscata*); *Pellona brachysoma* Bleeker, 1852:22 (Jakarta); Weber & de Beaufort, 1913:87 (on Bleeker); *Ilisha brachysoma*:Fowler, 1941:653 (Padang, Sumatra); Whitehead *et al.*, 1966:100, pl. 13, fig. 1 (Bleeker's fig.) (type of *brachysoma*); *Ilisha indica*:Fowler, 1941:652 (Bombay, Calicut, Jakarta, large synonym.); Whitehead, 1967:116 (type of *ditchoa*); *Ilisha micropus*:Whitehead, 1967:115,116 (type of *micropus*); *Ilisha melastoma* - Fowler, 1941:659 (Sandakan Bay, Kalimantan, large synonym.); Whitehead, 1973b:212, fig. 37 (key, synonym., refs); Ramaiyan & Whitehead, 1975:189, fig. 1a-c (key, descr.; Karachi to Hong Kong); Wongratana, 1980:211, pls 175, 176 (revision).

**FAO Names** : En - Indian ilisha.



**Diagnostic Features** : Body moderately deep, its depth 33 to 42% of standard length, belly with usually 17 to 21 + 8 or 9, total 25 to 30 scutes. Eye large, lower jaw projecting; lower gillrakers 21 to 25. Dorsal fin origin a little before midpoint of body; anal fin with 35 to 48 finrays, its origin under hind part of dorsal fin base. Vertical striae on scales traversing whole scale or overlapping across centre of scale. Swimbladder with two tubes passing back in the muscles on either side of haemal spines. Resembles three other Indo-Pacific species of *Ilisha* in this swimbladder character, but these have more gillrakers (*I. obfuscata*) or scale striae not continuous, with a distinct gap across centre of scale (*I. kampeni*, *I. striatula*). Other *Ilisha* species have either a single long tube from the hind end of the swimbladder (and more scutes), or no posterior tubes (and a more slender body or a distinct bony lobe on the shaft of the maxilla behind the tip of the pre-maxilla). *Pellona* species have a distinct toothed hypo-maxilla. See CLUP Ilish 3, Fishing Area 51, also 57, 71.



**Geographical Distribution :** Indian Ocean (Malabar coast to Calcutta), Java Sea (off Java), South China Sea (Singapore, Gulf of Thailand), East China Sea (north to Taiwan Island).

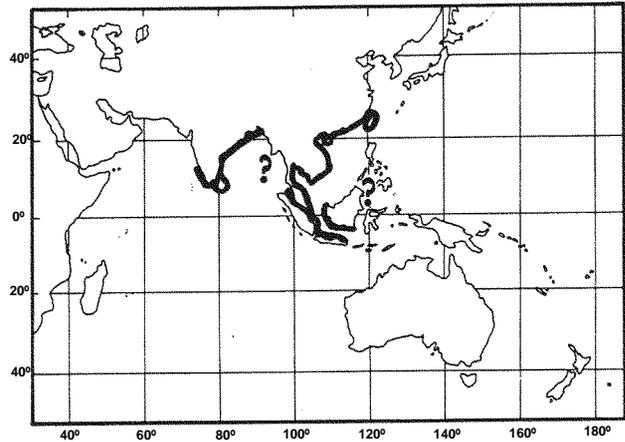
**Habitat and Biology :** Marine, pelagic, coastal, but entering estuaries and presumably able to tolerate lowered salinities. Feeds on plankton (probably small crustaceans, etc.).

**Size :** To 17 cm standard length.

**Interest to Fisheries :** Contributes to clupeoid catches by artisanal fisheries. 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).

**Local Names :** -

**Literature :** Ramaiyan & Whitehead (1975 - brief notes on distribution and biology, but Karachi record is *I. striatula*).



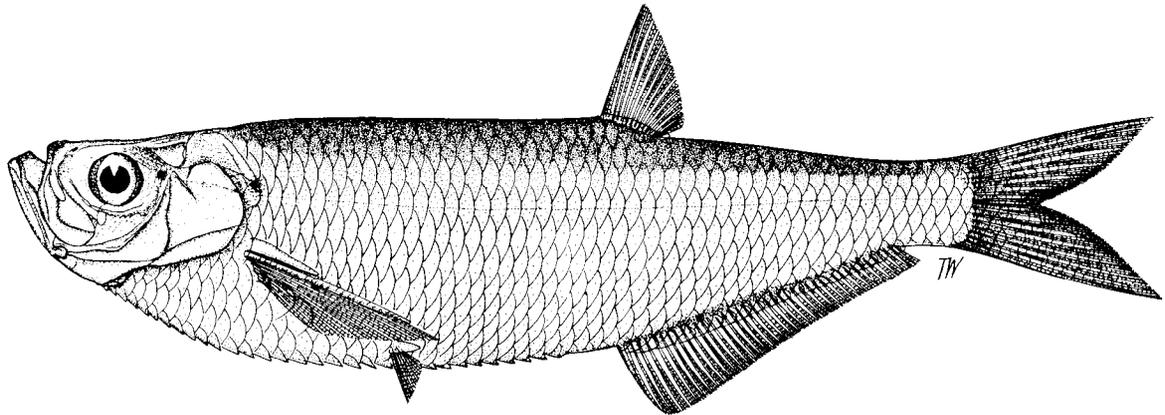
***Ilisha novacula*** (Valenciennes 1847)

PRIST Ilish 10

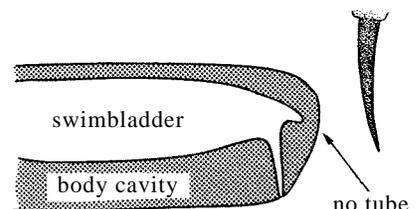
*Pellona novacula* Valenciennes, 1847, *Hist.nat.poiss.*, 20:319 (Rangoon).

**Synonyms :** *Pellona sladeni* Day, 1869:623 (Irrawady River at Mandalay); *Ilisha sladeni*:Fowler, 1941:657 (compiled); Whitehead, 1971:74 (type of *sladeni*); *Idem*, 1973b:211 (key only); Whitehead & Talwar, 1976:155 (type of *sladeni*, listed); *Ilisha elongata*:Whitehead, 1967:121 (type of *novacula*); Wongratana, 1980:199, pls 161, 162 (revision).

**FAO Names :** En - Burmese River ilisha.



**Diagnostic Features :** Body rather slender, its depth 22 to 27% of standard length, belly with 24 to 25 + 10 or 11, total 34 to 36 scutes. Eye large, lower jaw strongly projecting; lower gillrakers 21 to 23. Dorsal fin origin behind midpoint of body; anal fin with 43 to 45 finrays, its origin below dorsal fin base. Swimbladder without a posterior tube (or tubes) passing backward into the body muscles. Resembles *I. sirishaj* in this swimbladder character, but that species has a distinct bony lobe on the shaft of the maxilla behind the tip of the pre-maxilla, fewer scutes (total 28 or 29), more gillrakers (22 to 26) and a deeper body (depth 32 to 37%). Other *Ilisha* species have one or two thin tubes passing backward from the swimbladder, also fewer scutes (26 to 30) or a deeper body (27 to 39%). *Pellona* species have a distinct toothed hypo-maxilla and are deep-bodied; *Opisthopterus* species have the anal fin origin well in advance of the dorsal fin origin.



**Geographical Distribution** : Burma rivers (Irrawaddy at Rangoon and Mandalay; Sittang River).

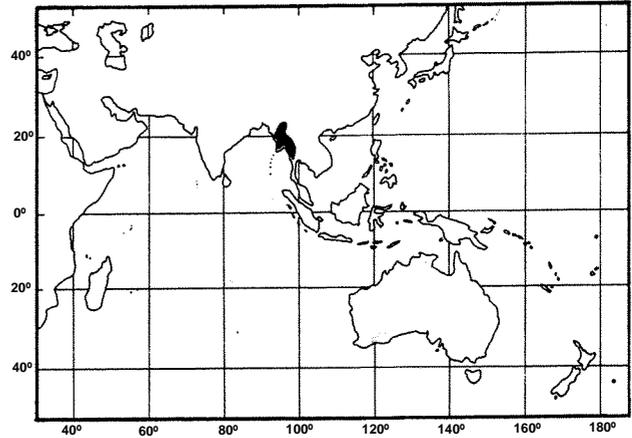
**Habitat and Biology** : Riverine, reaching at least 650 km up the Irrawaddy, perhaps more. More data needed.

**Size** : To 32 cm standard length.

**Interest to Fisheries** : Perhaps of local interest, but no special fishery.

**Local Names** :-

**Literature** : See under Synonyms.



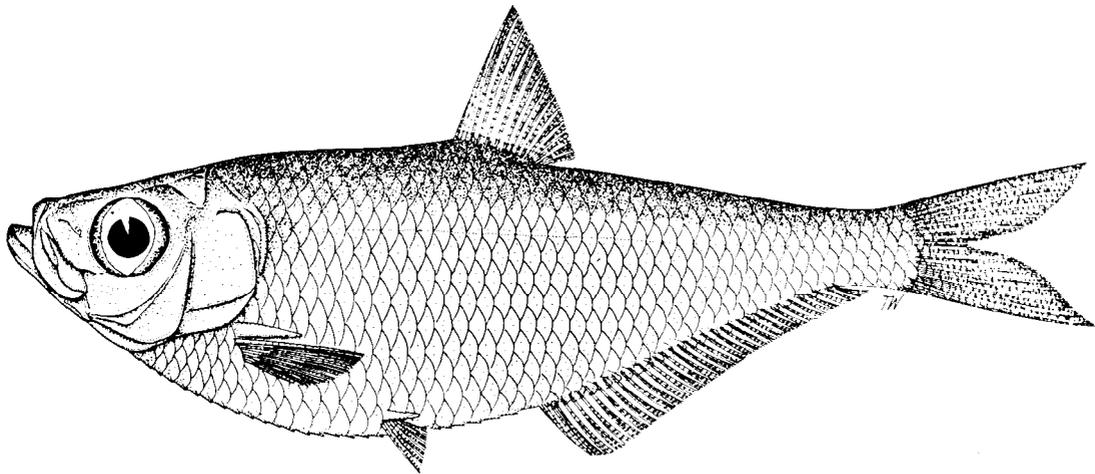
***Ilisha obfusata*** Wongratana, 1983

PRIST Ilish 11

*Ilisha obfusata* Wongratana, 1983, *Jap.J.Ichthyol.*, 29(4):397, fig. 14 (Bombay, Pondicherry; on a syntype of *Pellona filigera* Valenciennes and a paralectotype of *Pellona micropus* Valenciennes, i.e. *I. melastoma*).

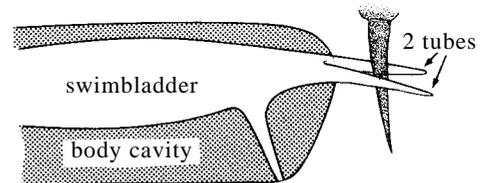
**Synonyms** : None.

**FAO Names** : En - Hidden ilisha.



**Diagnostic Features** : Body moderately deep, its depth 34 or 35% of standard length, belly with 19 or 20 + 8, total 27 or 28 scutes. Eye large, lower jaw projecting; lower gillrakers 27 or 28 (2 fishes only). Dorsal fin origin at about midpoint of body; anal fin with 39 to 42 finrays, its origin under or just behind final dorsal fin rays. Vertical striae on scales traversing whole scale or overlapping across centre of scale. Swimbladder with two very short tubes passing back in the muscles on either side of haemal spines (not reaching back beyond vertical from about 10th anal finray base). Resembles three other Indo-Pacific species in its paired swimbladder tubes, but these all have fewer gillrakers (25 or less; *I. melastoma*, *I. striatula*, *I. kampeni*).

Other *Ilisha* species have fewer gillrakers and either a single long tube from the hind end of the swimbladder and more scutes), or no posterior tubes (and a more slender body or a distinct bony lobe on the shaft of the maxilla behind the tip of the pre-maxilla). *Pellona* species have a distinct toothed hypo-maxilla.



**Geographical Distribution** : Indian Ocean (only known from Bombay and Pondicherry).

**Habitat and Biology** : Marine, pelagic, coastal. More specimens and data needed.

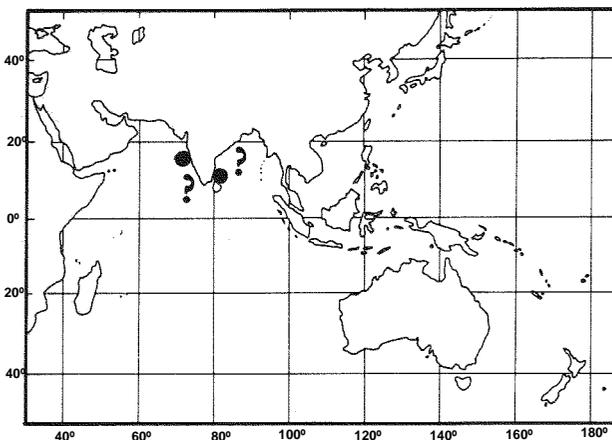
**Size** : To 7.4 cm standard length, but probably grows larger.

**Interest to Fisheries** : No data.

**Local Names** :-

**Literature** : Probably mixed with records of *I. filigera* and other species of Indian coasts.

**Remarks** : The only two specimens known came from the type series of *filigera* and *micropus*. The species is unique among Indo-Pacific *Ilisha* in its high gillraker count and very short swimbladder tubes.



***Ilisha pristigastroide*** (Bleeker, 1852)

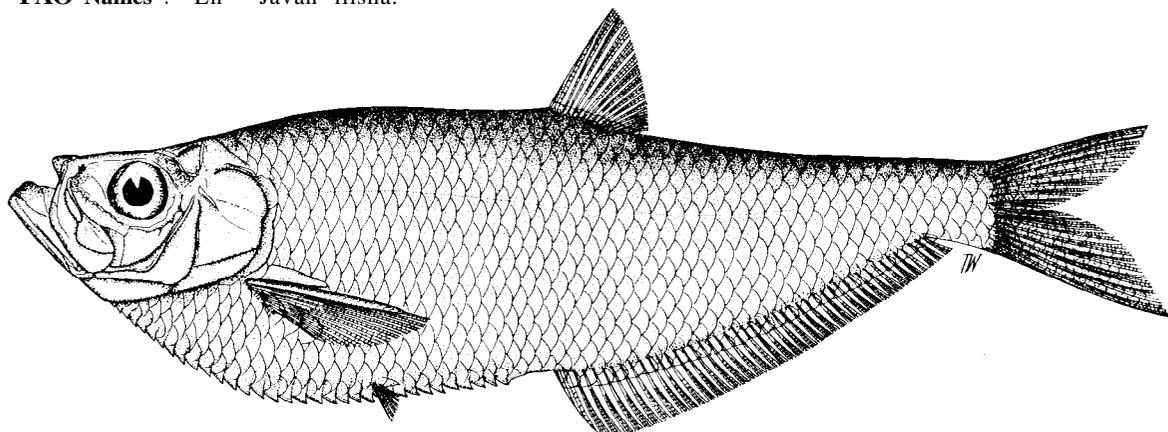
PRIST Ilish 1

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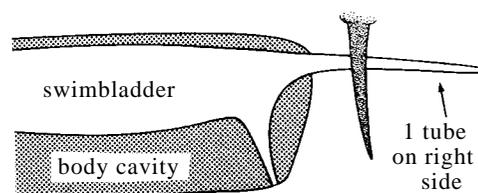
*Pellona pristigastroides* Bleeker, 1852, *Verh.batav.Genoot.Kunst.Wet.*, 24:20 (Jakarta).

**Synonyms** : *Pellona amblyropterus* Bleeker, 1852:21 (Jakarta; Weber & de Beaufort, 1913:90 (Java, Sumatra, Kalimantan, Singapore); *Ilisha amblyroptera*:Fowler, 1941:656 (compiled); *Ilisha pristigastroides* - Whitehead *et al.*, 1966:93, 94, pl. 11, fig. 3 Bleeker fig. (types of *pristigastroides*, *amblyropterus* ; Whitehead, 1973b:211 (key only); Wongratana, 1980:208, pl. 170 (revision).

**FAO Names** : En - Javan ilisha.



**Diagnostic Features** : Body moderately slender, its depth 31 or 32% of standard length, belly with 26 or 27 + 11 or 12, total 37 to 39 scutes. Eye large, lower jaw projecting; lower gillrakers 17 (3 fishes). Dorsal fin origin behind midpoint of body; anal fin with 45 or 46 finrays, its origin below front part of dorsal fin base. Swimbladder with a single long tube passing back down right side of body above anal fin base. Resembles four other Indo-Pacific species of *Ilisha* in this character, but they have fewer scutes (*I. megaloptera*) or more gillrakers (*I. elongata*, *I. filigera*, *I. macrogaster*). Other *Ilisha* species have either twin tubes from the hind end of the swimbladder or no posterior tubes and more gillrakers and fewer scutes). *Pellona* species have a distinct toothed hypo-maxilla. See CLUP Ilish 1, Fishing Areas 57, 71.



hind end of the swimbladder or no posterior tubes and more gillrakers and fewer scutes). *Pellona* species have a distinct toothed hypo-maxilla. See CLUP Ilish 1, Fishing Areas 57, 71.

**Geographical Distribution :** Java Sea (Jakarta).

**Habitat and Biology :** Marine, pelagic, coastal, apparently entering rivers and brackishwater (Weber & de Beaufort, 1913 - as Pellona pristigastroides and P. amblyuropterus).

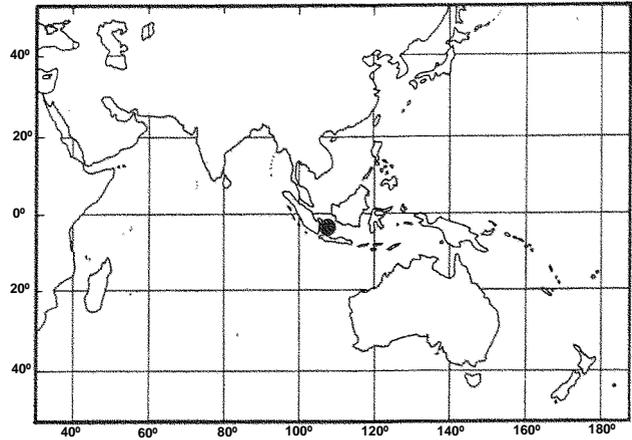
**Size :** To 30 cm standard length.

**Interest to Fisheries :** No data.

**Local Names :** INDONESIA: Ikan puput.

**Literature :** See under Synonyms.

**Remarks :** Wongratana (1980) was able to examine only three specimens, but the species seems to be distinct.



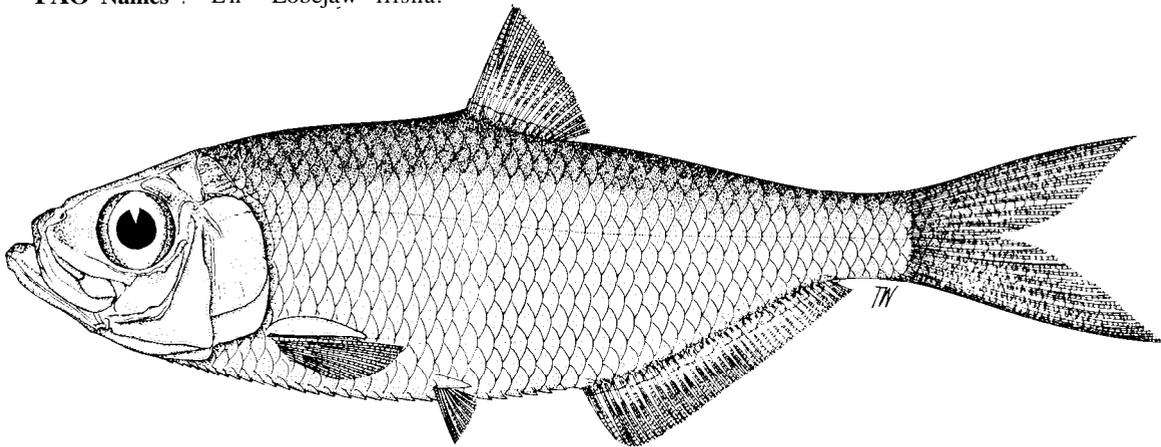
**Ilisha sirishai** Seshagiri Rao, 1975

PRIST Ilish 12

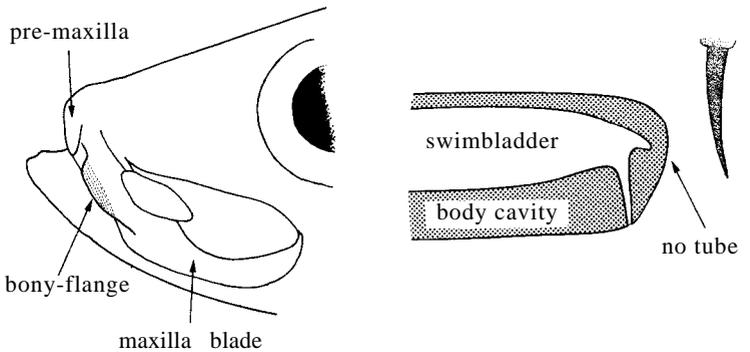
Ilisha sirishai Seshagiri Rao, 1975, Hydrobiologia, 47:463, figs 1, 2 (Vizagapatnam, India).

**Synonyms :** Ilisha sirishai - Wongratana, 1980:198, pls 159, 160 (revision).

**FAO Names :** En - Lobejaw ilisha.



**Diagnostic Features :** Body moderately deep, its depth 32 to 37% of standard length, belly with 18 to 21 + 8 or 9, total usually 28 or 29 scutes. Eye large, lower jaw strongly projecting; shaft of maxilla with a distinct lobe or flange between hind tip of pre-maxilla and blade of maxilla; lower gillrakers 22 to 26. Dorsal fin origin near or before midpoint of body; anal fin with 39 to 43 finrays, its origin a little behind dorsal fin base. Swimbladder without a posterior tube (or tubes) passing backward into the body muscles. Resembles I. novacula in this swimbladder character, but that species has no lobe on the maxilla, more scutes (total 34 to 36), fewer gillrakers (121 to 23) and is more slender (depth 22 to 27%). Other Ilisha species have one or two thin tubes passing backward from the swimbladder, also usually more scutes or more gillrakers or are more slender, and none has a lobe on the maxilla (I. striatula and I. melastoma are otherwise very similar to I. sirishai). Pellona species have a distinct toothed hypo-maxilla in place of the lobe on the maxilla.



**Geographical Distribution** : Indian Ocean (from the "Gulf" to Bay of Bengal and Andaman coast of Thailand), Gulf of Thailand (Songkhla Lake).

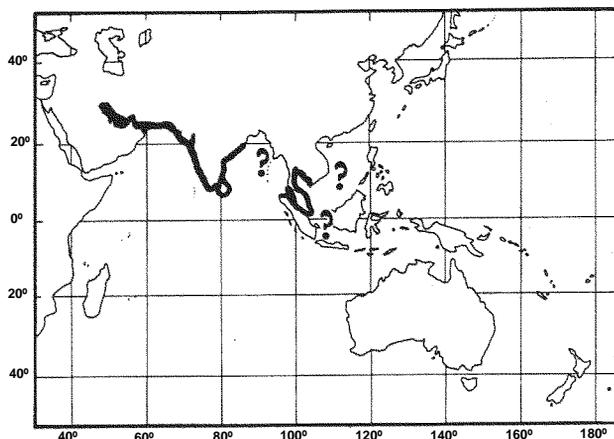
**Habitat and Biology** : Marine, pelagic and in-shore, presumably able to tolerate some lowering of salinity. More data needed.

**Size** : To 17.2 cm standard length.

**Interest to Fisheries** : Contributes to artisanal catches of clupeoids, but no special fishery.

**Local Names** :-

**Literature** : Dehadrai (1960 - swimbladder, as *I. indica*).



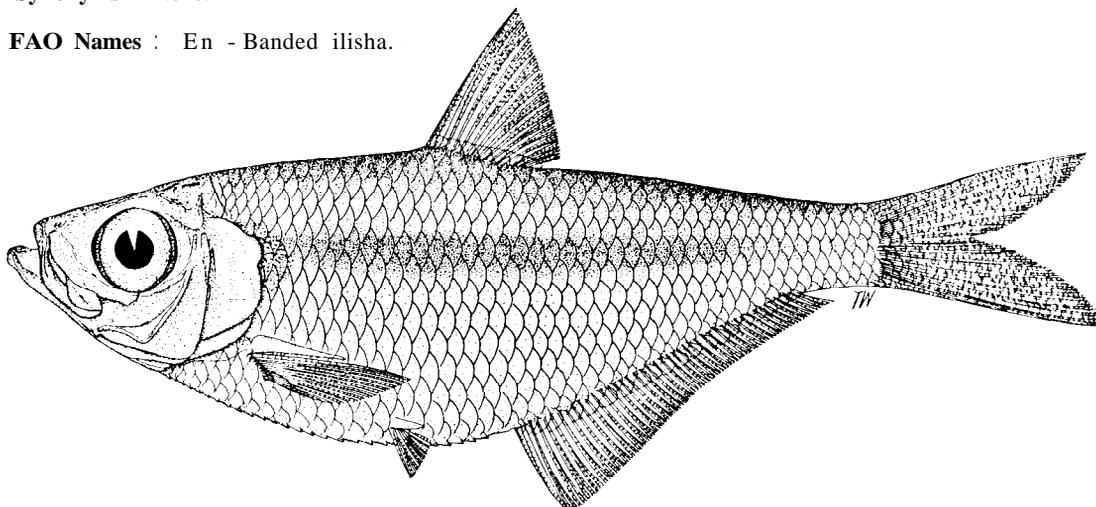
***Ilisha striatula*** Wongratana, 1983

PRIST Ilish 13

*Ilisha striatula* Wongratana, 1983, *Jap.J.Ichthyol.*, 29(4):396, fig. 13 (Karachi, Porto Novo, Madras, Tuticorin).

**Synonyms** : None.

**FAO Names** : En - Banded ilisha.



**Diagnostic Features** : Body moderately deep, its depth 32 to 39% of standard length, belly with usually 18 to 21 - 7 to 9, total 26 to 29 scutes. Eye large, lower jaw projecting; lower gillrakers 21 to 24. Dorsal fin origin a little before midpoint of body; anal fin with 40 to 47 finrays, its origin below final dorsal finray bases. Vertical striae on scales not continuous, but with a distinct gap across centre of scale. A faint dark band along flanks. Swimbladder with two tubes passing back in the muscles on either side of haemal spines. Resembles three other Indo-Pacific species of *Ilisha* in this swimbladder character, but these have more gillrakers (*I. obfuscata*), or scale striae that traverse the scale (*I. melastoma*) or are more slender and have shorter pectoral fins (*I. kampeni*; pectoral fin 15 to 17% of standard length, cf. 18 to 21%). Other *Ilisha* species have either a single long tube from the hind end of the swimbladder (and more scutes), or no posterior tubes (and a more slender body or a distinct bony lobe on the shaft of the maxilla behind the tip of the pre-maxilla). *Pellona* species have a distinct toothed hypo-maxilla.

