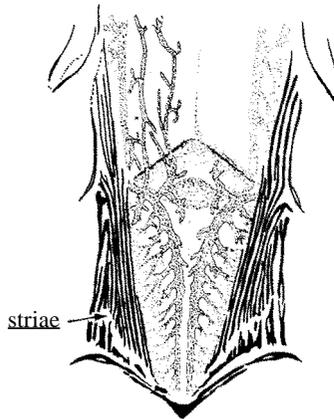
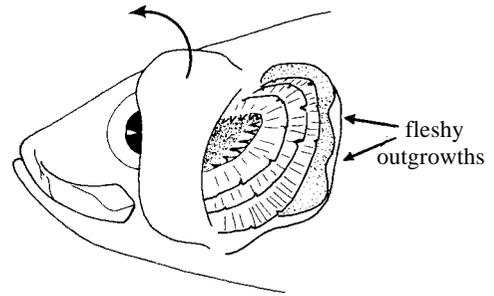


Amblygaster Bleeker, 1849

CLUP Ambl

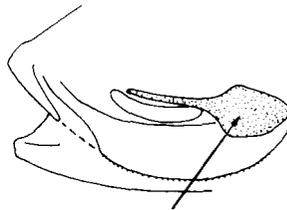
Amblygaster Bleeker, 1849, *J.Ind.Arch.*, 3:73 (type, Amblygaster clupeioides Bleeker). Fusiciupea Whitley, 1940, *Aust.Zool.*, 9(4):401 (type: Sardinops (Fusiciupea) dakini Whitley = A. sirm). Sardinella: widely used until recently for the 3 species of Amblygaster, also many authors acknowledged Amblygaster as a subgenus.

Diagnostic Features : The presence of two fleshy outgrowths on the hind margin of the gill opening distinguishes Amblygaster from all other clupeid genera except Harengula and Opisthonema (both restricted to New World; also characterized by a toothed hypo-maxilla and a filamentous last dorsal finray respectively) and Herklotsichthys and Sardinella. Amblygaster has 7 to 14 fronto-parietal striae on top of the head, a symmetrical second supra-maxilla and the last two anal finrays enlarged (3 to 7 striae, an asymmetrical second supra-maxilla and final anal finrays normal in Herklotsichthys). Amblygaster most closely resembles Sardinella and was formerly combined with it, but has only 26 to 43 lower gillrakers and a median series of pre-dorsal scales (cf. 40 to 100 lower gillrakers, or up to 200 or more in some species, and a median series of pre-dorsal scales (usually paired pre-dorsal scales in Sardinella). In general body shape species of Amblygaster resemble Sardinops (but bony striae on operculum).

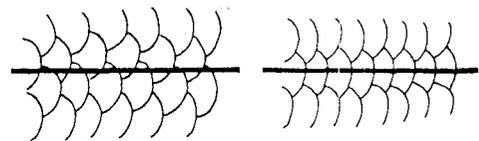


striae

fronto-parietal striae
on top of head



2nd supra-maxilla
symmetrical



a. Sardinella

b. Amblygaster

pre-dorsal scales

Biology, Habitat and Distribution : Marine, pelagic and schooling. Indo-Pacific region only, mainly in tropical or subtropical waters.

Interest to Fisheries : Contributes to numerous local artisanal fisheries, but usually not separated in statistics from general clupeoid catches.

Species : The most recent revision, by Wongratana (1980), recognized 3 species:

- A. clupeioides Bleeker, 1849, Indo-West Pacific
- A. leiogaster (Valenciennes, 1847), Indo-West Pacific
- A. sirm (Walbaum, 1792), Indo-West Pacific.

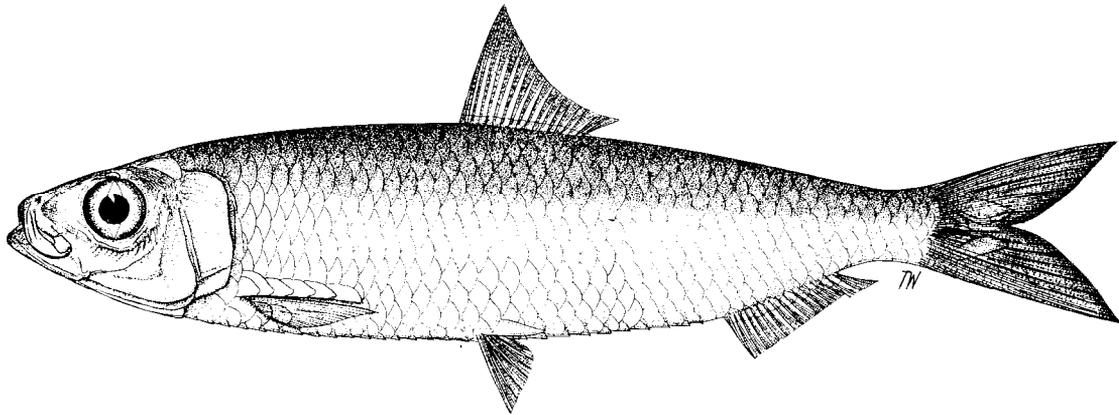
Amblygaster clupeioides Bleeker, 1849

CLUP Ambl 1

Amblygaster clupeioides Bleeker, 1849, *J.Ind.Arch.*, 3:73 (Macassar).

Synonyms : Sardinella clupeioides: Fowler, 1941:619; Bennet, 1965:1 (India); Chan, 1965:115, fig. 14 (description, synonyms); whitehead *et al.*, 1966:67 (type); Whitehead, 1973b:188 (Indian Ocean); Nair, 1973:62 (India); Amblygaster clupeioides - Wongratana, 1980:137, pls 81, 82 (revision).

FAO Names : En - Bleeker's smoothbelly sardinella.



Diagnostic Features : Body moderately slender, belly rather rounded, scutes not prominent. Distinguished from A. sirm by the absence of spots along the flank (gold in life, black on preservation) and fewer lower gillrakers (26 to 31; cf. 33 to 43 in A. sirm). Closely resembles A. leiogaster, which has more lower gillrakers (31 to 33). Round-bodied Sardinella species (S. longiceps, etc.) have 8 pelvic finrays (i 7 in A. clupeioides) and more than 100 lower gillrakers. See CLUP Ambl 1, Fishing Area 51.

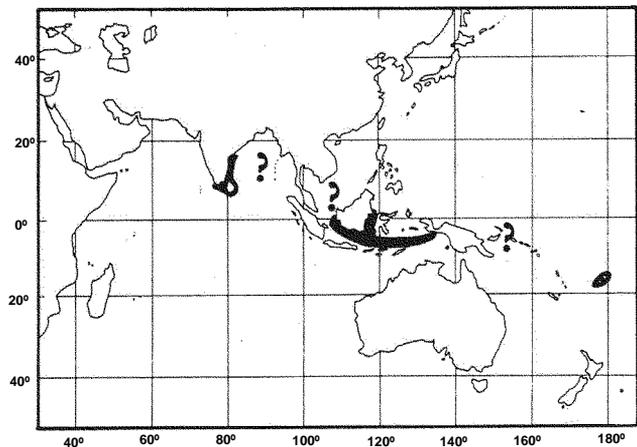
Geographical Distribution : Eastern Indian Ocean (southern coasts of India, perhaps Bay of Bengal) and Indonesia eastward to Fiji.

Habitat and Biology : Coastal, pelagic, schooling. Feeds on copepods, Mysis and other elements in the zooplankton (Bennet, 1965).

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

Interest to Fisheries : No separate statistics, but evidently enters some local artisanal fisheries, at least in small numbers.

Local Names : —



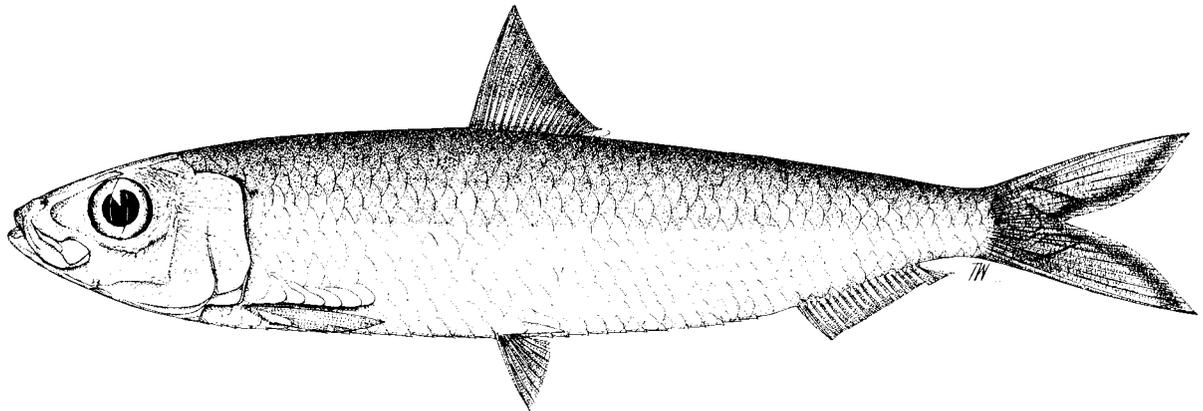
Amblygaster leiogaster (Valenciennes, 1847)

CLUP Ambl 2

Sardinella leiogaster Valenciennes, 1847, Hist.nat.poiss., 20:270 (Indian Ocean, Trincomalee).

Synonyms: Clupea okinawensis Kishinouye, 1907:96 pl. 19, fig.2, pl. 21, fig.5 (Okinawa); Sardinella leiogaster: Chan, 1965:117, fig. 15 (description); Whitehead, 1967a:68 (type); Idem, 1973b:188, fig. 18 (Indian Ocean); Losse, 1968:101 (East Africa); Menon & Talwar, 1974:41 (India); Wongratana, 1980:138, pls 83, 84 (revision).

FAO Names : En - Smoothbelly sardinella.



Diagnostic Features : Body moderately slender, belly rather rounded, scutes not prominent. Distinguished from *A. sirm* by the absence of spots along the flank (gold in life, black on preservation) and fewer lower gillrakers (31 to 35; cf. 33 to 43 in *A. sirm*). Closely resembles *A. clupeioides*, which has fewer lower gillrakers (26 to 31). Round-bodied *Sardinella* species (*S. longiceps*, etc.) have 8 pelvic finrays (7 in *A. leiogaster*) and more than 100 lower gillrakers. See CLUP Ambi 2, Fishing Area 51 (also CLUP Sardl 10, Fishing Areas 57, 71).

Geographical Distribution : Indo-West Pacific (coasts of Africa eastward to Okinawa, also Western Australia).

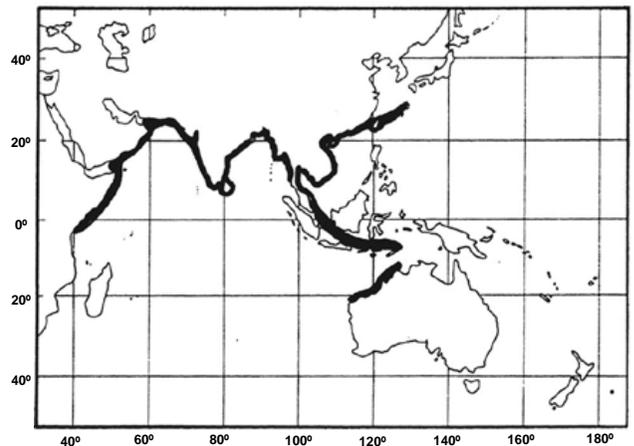
Habitat and Biology : Coastal, pelagic, schooling. More data needed.

Size : To 23 cm standard length, usually to 18 cm.

Interest to Fisheries : No separate statistics, but evidently enters some local artisanal fisheries, at least in small numbers.

Local Names : JAPAN: Yamato-mizun (Okinawa).

Literature : Losse (1968 - East Africa).



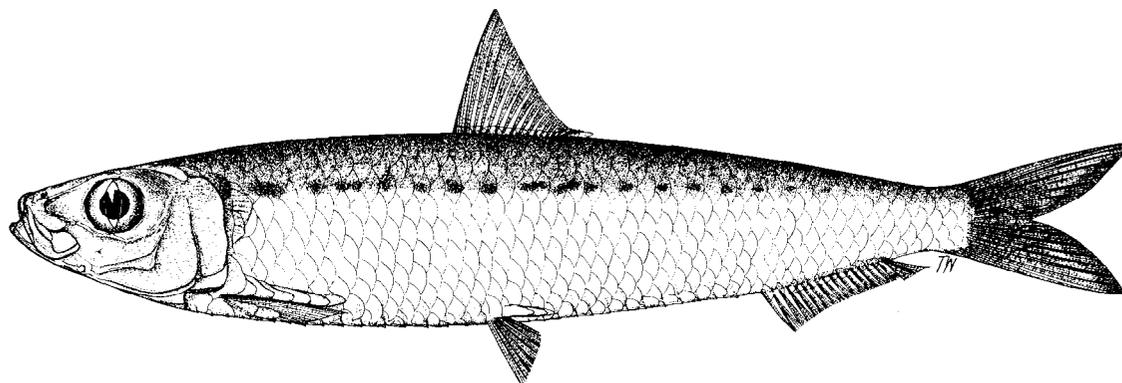
Amblygaster sirm (Walbaum, 1792)

CLUP Ambl 3

Clupea sirm Walbaum, 1792, in Artedi, *Gen.pisc.*:38 (on Forssksål, 1775, *Descript.anim.*:17 - Arabia).

Synonyms : *Sardinella leiogastroides* Bleeker, 1854:255 (Manado, Sulawesi); *Clupea pinguis* Günther, 1872:425 (Misol); *Sardinops dakini* Whitley, 1937:114; *Sardinella sirm*:Fowler, 1941:616; Chan, 1965:113, fig. 13 (description, synonyms Whitehead et al., 1966:69 (type of *leiogastroides*); Losse, 1968:99 (East Africa; Raja & Hiyama, 1969:105 (Okinawa); Whitehead, 1973b:187, fig. 17 (Indian Ocean); Nair, 1973:58 (India); *Amblygaster sirm* - Wongratana, 1980:135, pls 79, 80 (revision).

FAO Names : En - Spotted sardinella.



Diagnostic Features : Body slender, belly rather rounded, scutes not prominent. Distinguished from *A. clupeioides* and *A. leiogaster* by the presence of a series of 10 to 20 gold (in life) or black (on preservation) spots down the flank (but sometimes missing); also, lower gillrakers 33 to 43 (26 to 33 in the other two species). *Sardinops* species are also round-bodied and have spots on the flanks, but possess bony radiating striae on the gill cover. Round-bodied *Sardinella* species (*S. longiceps*, etc.) have i 8 pelvic finrays (i 7 in *A. sirm*) and more than 100 lower gillrakers, also no spots. See CLUP Ambl 3, Fishing Area 51 (also CLUP Sardl 9, Fishing Areas 57, 71).

Geographical Distribution : Indo-West Pacific (coasts of Africa, including Red Sea and Madagascar, eastward to the Philippines, Taiwan Island, Okinawa, New Guinea, Fiji and northern coasts of Australia).

Habitat and Biology : Coastal, pelagic, schooling. Feeds mainly on copepods, nauplii and zoea larvae, larval bivalves and gastropods, *Peridinium* and *Ceratium* (Chacko, 1956); juveniles also on phytoplankton (Basheeruddin & Nayar, 1962). Breeds November-December, February-March, May-June and August-September in Indian waters (Nair, 1973:59). Mature at 14 to 15 cm standard length (Gnamekalai, 1962).

Size : To 23 cm standard length, usually to about 20 cm.

Interest to Fisheries : No separate statistics, but enters some local artisanal fisheries, e.g. in Tuticorin Bay in November-March (Chacko, 1956), and in Fiji (Lewis, Smith & Ellway, 1983).

Local Names : INDIA (Tamil): Keerimeen chalai.

Literature : Nair (1973 - good summary for Indian Ocean, biology, fisheries); Losse (1968 - East Africa).

Remarks : The number of spots on the flanks shows some variation (10 to 20), but this has not yet been correlated with locality, sex or other factors. Raja & Hiyama (1969:106) noted "more than 30 dark spots" which were above the interface between silver flank and dark back (normally they lie along this interface); they also noted that the spots were faint or absent in some specimens.

