

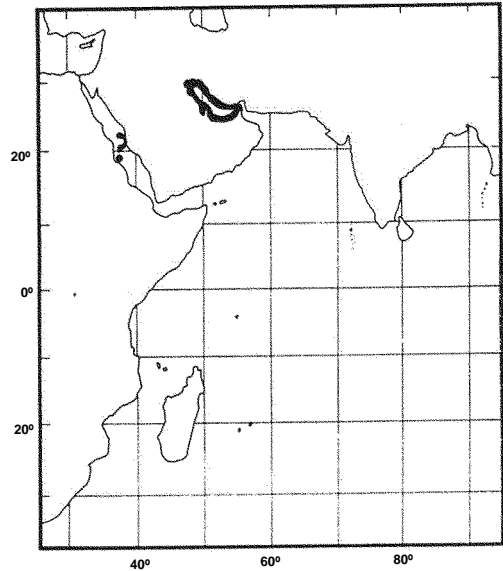
Geographical Distribution : The “Gulf”. possibly also Red Sea.

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

Size : To 8 cm standard length, usually to 7 cm.

Interest to Fisheries : No separate statistics, but perhaps of potential interest.

Local Names : THE “GULF”: Hashineh.



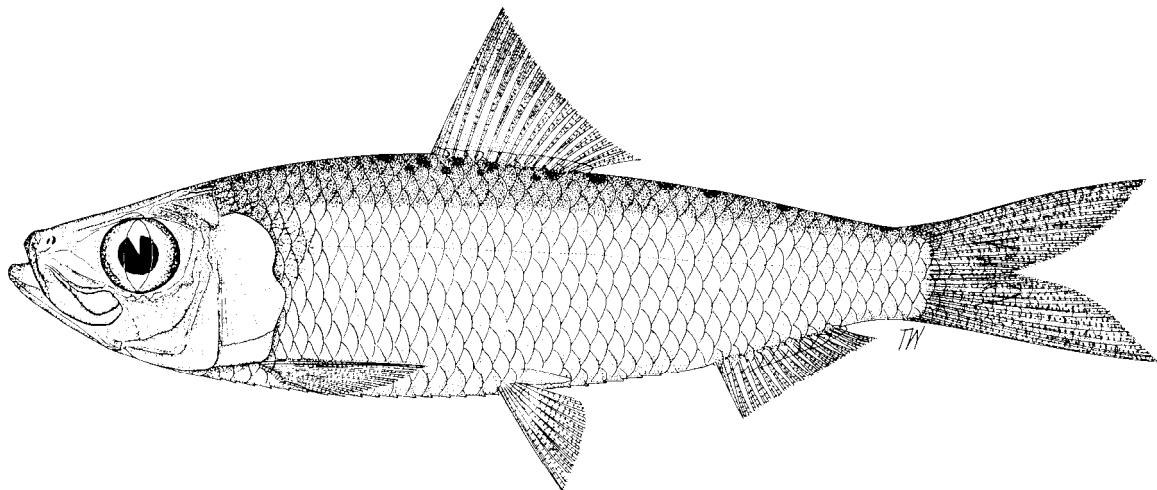
Herklotsichthys punctatus (Rüppell, 1837)

CLUP Herk 1

Clupea punctata Rüppell, 1837, Neue Wirbelth., Fische:78, pl.21, fig. 2 (Red Sea).

Synonyms : Harengula arabica Valenciennes, 1847:298 (Mohila, Red Sea, on Ehrenberg MS); Spratella erythraea Klunzinger, 1870:599 (Red Sea); Herklotsichthys punctatus - Whitehead, 1965:244 (Red Sea records only); Wongratana, 1988:149. pls 96, 97 (revision); FNAM, 1984:221 (Mediterranean). Note: the name punctata or punctatus has been widely misused in the literature for H. quadrimaculatus.

FAO Names : En - Spotback herring.



Diagnostic Features : Body slender, its depth 24 to 30% of standard length. Closely resembling H. lossei of the “Gulf” in shape, but the latter has a dark blotch on the dorsal fin and small dark spots along the flank and not on the back. Distinguished from H. spilurus by its more slender body (cf. depth 28 to 35% of standard length) and presence of spots on back. Overlaps range of H. quadrimaculatus, which lacks spots on the back and has elongate wing-like scales underneath the normal paired pre-dorsal scales. Flank silvery, without spots, but a series of very small dark spots on back on either side of dorsal fin base or behind it. See CLUP Herk 1, Fishing Area 51.

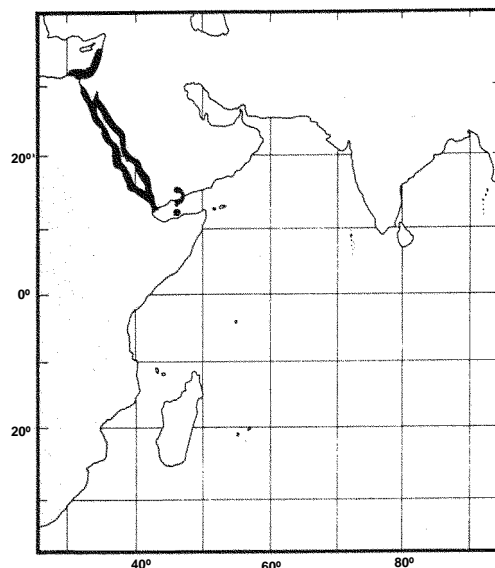
Geographical Distribution : Red Sea, possibly Gulf of Aden; immigrant into eastern Mediterranean (FNAM, 1984:221).

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

Size : To 8.5 cm standard length, usually to 7 cm.

Interest to Fisheries : No separate statistics.

Local Names : -



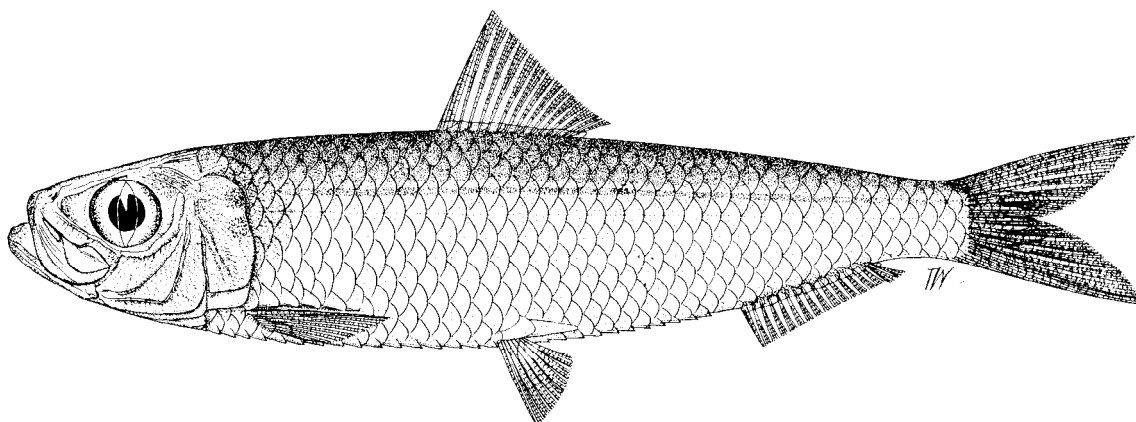
Herklotsichthys quadrimaculatus (Rüppell, 1837)

CLUP Herk 2

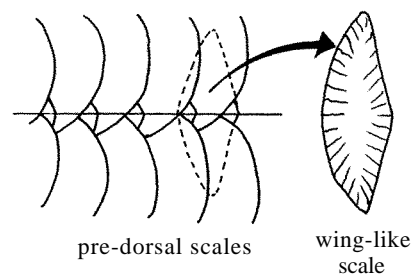
Clupea quadrimaculata Rüppell, 1837, Neue Wirbelth..Fische:78, pl. 21, fig. 3 (Bay of Massawa, Red Sea).

Synonyms : Harengula bipunctata Valenciennes, 1847:98 (on Ehrenberg MS; Massawa); Sardinella lineolata Valenciennes, 1847:272 (Trincomalee, Bourou Island); Clupea fasciata Valenciennes, 1847:349 (Saint-Denis de Bourbon); Meletta obtusirostris Valenciennes, 1847:375 (Seychelles); Meletta venenosa Valenciennes, 1847:377 (Seychelles); Alausa schrammi Bleeker, 1849:11 (Bali); Harengula moluccensis Bleeker, 1853:609 (Ternate, Amboina, Ceram); Harengula kunzei Bleeker, 1856:209 (Ternate); Clupea (Harengula) dubia Bleeker, 1872:108 (on S. lineolata); Harengula stereolepis Ogilby, 1897:759 (Torres St., Darnley Island, southeastern New Guinea); Clupea mizun Kishinouye, 1907:98, pl. 20, fig. 3 (Okinawa); Clupea rechingeri Steindachner, 1908:1424 (Samoa); Harengula lippa Whitley, 1931:142, fig. 1 (northwestern Australia); Herklotsichthys punctatus Form B:Losse, 1968:88 (East Africa). Herklotsichthys quadrimaculatus - Wongratana, 1980:139, pls 85, 86 (full synonymy, illustrations); SFSA, in press (southern Africa). Note: This species is widely given as Harengula or Herklotsichthys punctatus in the literature, although Fowler (1941:589) used the equally incorrect name Harengula ovalis.

FAO Names : En - Bluestripe herring.

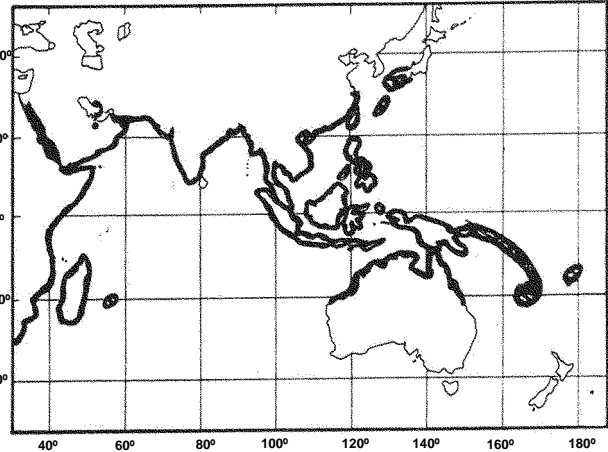


Diagnostic Features : Body slender, its depth 18 to 30% of standard length. The presence of elongate wing-like scales underneath the normal paired pre-dorsal scales separates it from all other species except the two Australian species with prominent black spots on the flank (H. koningsbergeri and Herklotsichthys Species A) and the unspotted Australian Herklotsichthys Species B), which has dusky tips to dorsal and caudal fins and more lower gillrakers (36 to 42; cf. 33 to 36 in H. quadrimaculatus). Flank silvery with an electric blue line preceded by two orange spots. See CLUP Herk 2, Fishing Area 51.



Geographical Distribution : Widespread in Indian Ocean and western Pacific (entire eastern coast of Africa, Madagascar, Mauritius eastward to Japan, eastern Australia, Samoa). Introduced into Hawaii, apparently by accident, and now abundant (Williams & Clarke, 1983).

Habitat and Biology : Coastal, pelagic, schooling; daytime in a few metres of clear water, night-time into deeper water and further offshore (at least the adults). Feeds on zooplankton, mainly at night, chiefly copepods in juvenile stages, but larger prey as adults (chaetognaths, polychaetes, shrimps and small fishes); at no time is phyto-plankton taken (data from Williams & Clarke, 1983; Marichamy, 1970). Breeds during its first year and probably survives only a few months after maturity (Williams & Clarke, 1983: 595). Most previous data published under the name H. punctatus.



Size : To 14 cm standard length, usually about 10 cm..

Interest to Fisheries : Usually not separately reported, but probably combined with Sardinella catches. Locally of some importance in artisanal fisheries.

Local Names : USA: Gold spot herring (Hawaii).

Literature : Williams & Clarke (1983 - Hawaii, biology, but spawning not observed). Also Losse (1968 - as H. punctatus Form B, East Africa); Marichamy (1970, 1974 - as H. punctatus, in Indian waters, food, condition factor).

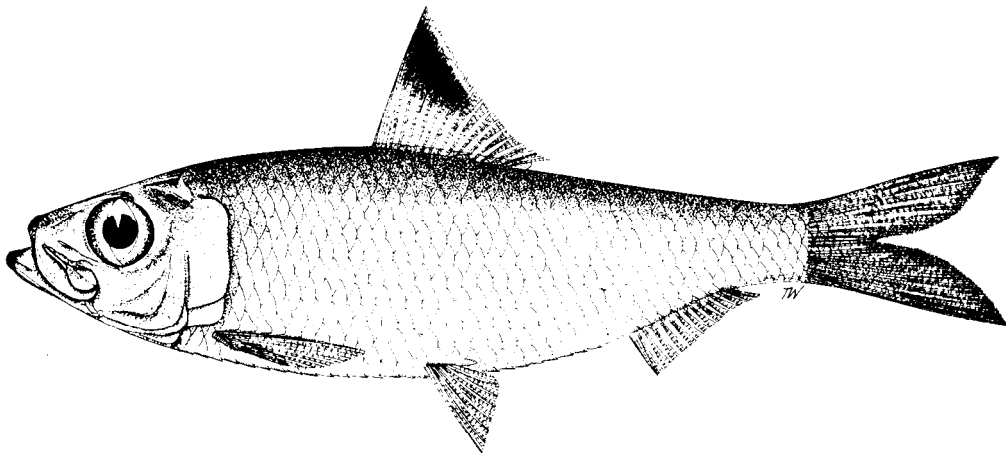
Harklotsichthys spilurus (Guichenot, 1863)

CLUP Herk 4

Harengula spilura Guichenot, 1863, In Maillard, Ile de Réunion poiss.:16 (Bourbon).

Synonyms : Herklotsichthys punctatus Form A:Losse, 1968:88 (Kenya, Zanzibar); Whitehead, 1973b:176 (on Losse); Harklotsichthys spilurus:Wongratana, 1981:149, pls 94, 95; Whitehead & Bauchot, in press (type of spilura).

FAO Names : En - Reunion herring.



Diagnostic Features : Body moderately deep, its depth usually 28 to 35% of standard length. Resembles H. lossei, which is more slender (depth 26 to 28% of standard length) and has small dark spots on the flank. Overlaps range of H. quadrimaculatus, which has elongate wing-like scales underneath the normal paired pre-dorsal scales. Flank silvery, without dark spots; a bright yellow or orange patch behind gill opening; dark blotch on tip of dorsal fin.

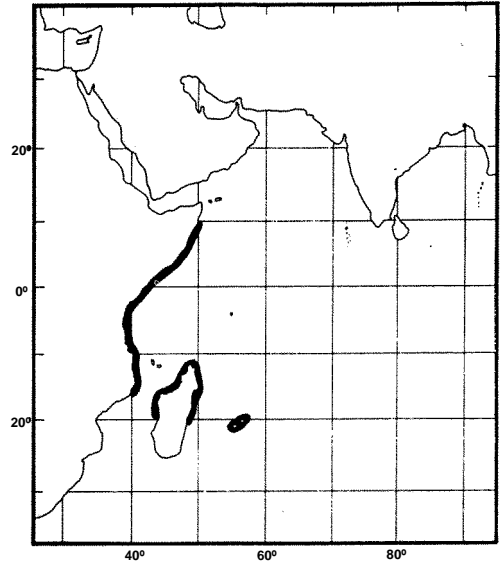
Geographical Distribution : Zanzibar, Kenya coast, Réunion Island, presumably also Madagascar.

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

Size : To 8.5 cm standard length, usually to 7 cm.

Interest to Fisheries : No separate statistics, but probably enters artisanal fisheries.

Local Names : ZANZIBAR: Daga (but used for other similar clupeids).



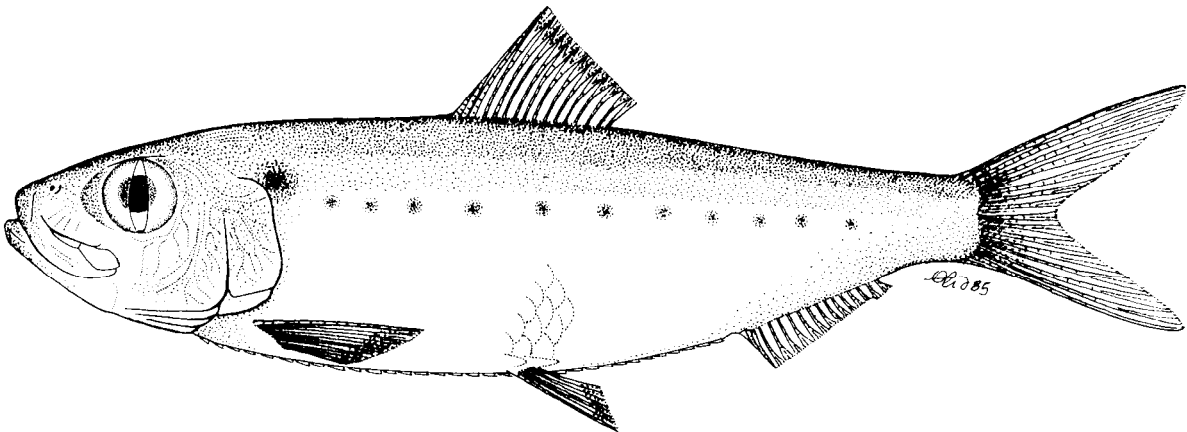
Herklotsichthys Species A

CLUP Herk 10

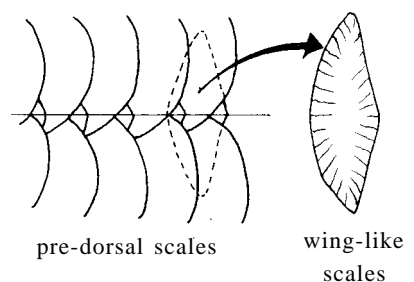
(AWAITING DESCRIPTION AND NAME)

Synonyms : Harengula koningsbergeri:Munro, 1956:23, fig. 161 (not H. koningsbergeri of Weber & deBeaufort, which Munro in error called H. maccullochi Whitley); ? Harengula ovalis:Munro, 1956:23, fig. 160 (sensu Fowler, 1941:589, i.e. H. quadrimaculatus).

FAO Names : En - Australian spotted herring.



Diagnostic Features : Body moderately slender, its depth 29 to 35% of standard length. Distinguished from all other Australian Herklotsichthys by the series of small round black spots on the flank (H. koningsbergeri has much larger oval spots and is deeper-bodied, its depth 37 to 40% of standard length; also, hind edges of its scales denticulated and lower gillrakers 28 to 31; cf. 33 to 36 in Species A). Elongate wing-like scales underneath normal paired pre-dorsal scales. A dark spot behind gill cover.



Geographical Distribution : Western Australia (Exmouth Gulf to Gulf of Carpentaria, Cape York and Aru Islands).

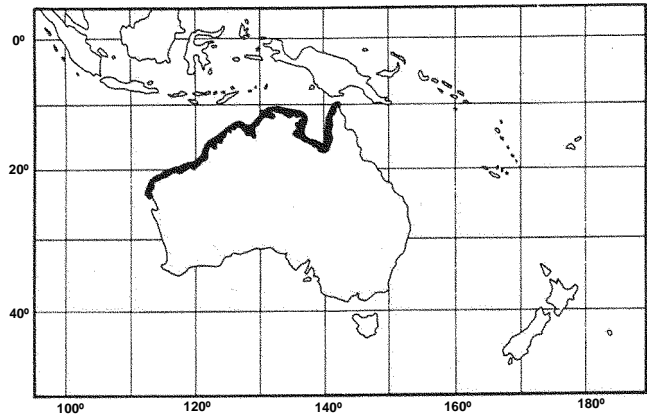
Habitat and Biology : Coastal, pelagic, schooling. More data needed.

Size : To 16 cm standard length, usually to 14 cm.

Interest to Fisheries : No separate statistics; possibly more abundant than H. koningsbergeri.

Local Names : -

Literature : Munro (1956 - as H. koningsbergeri, description, brief notes).



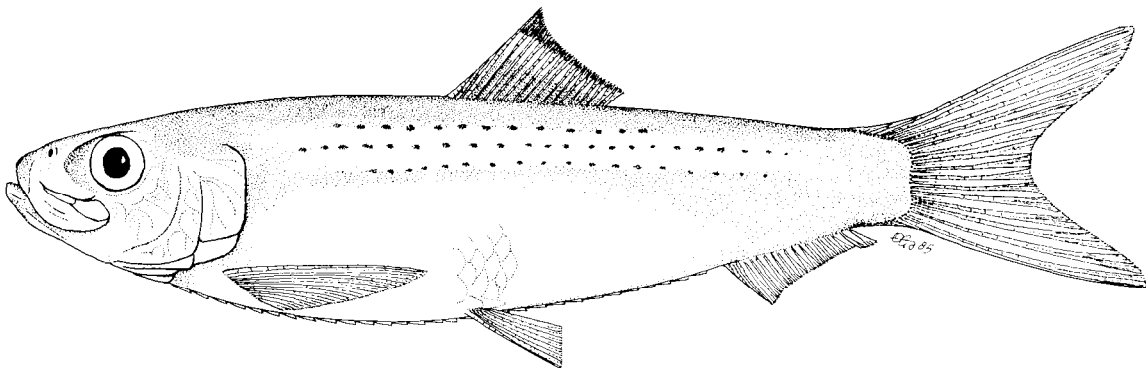
Herklotsichthys Species B

CLUP Herk 11

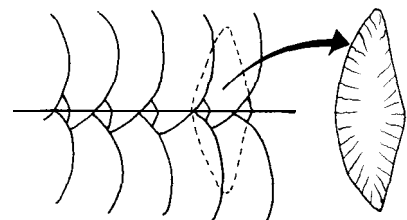
(AWAITING DESCRIPTION AND NAME)

Synonyms : ? Harengula lippa of authors, e.g. Munro, 1956:23, fig. 159 (not H. lippa Whitley, which is H. quadrimaculatus).

FAO Names : En -



Diagnostic Features : Body slender, its depth 27 to 35% of standard length. Distinguished from most other Australian Herklotsichthys by the presence of elongate wing-like scales beneath the normal paired pre-dorsal scales and absence of spots along the flank. Closely resembles H. quadrimaculatus in these features, but has more lower gillrakers (36 to 42; cf. 32 to 35 in H. quadrimaculatus). Three fine dark lines along upper flank and dorsal fin with distinct pale band separating grey base from black tip.



pre-dorsal scales

wing-like scale

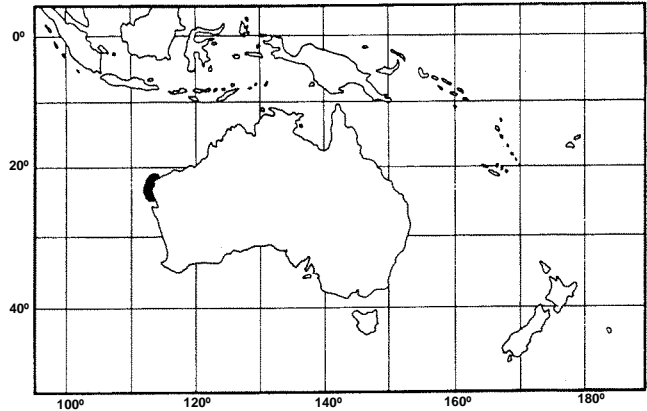
Geographical Distribution : Western Australia (Shark Bay to Onslow).

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

Size : To 13 cm standard length, usually to 10 cm.

Interest to Fisheries : No separate statistics.

Local Names : AUSTRALIA: Oily herring (Munro, 1956 - if it was indeed this species).



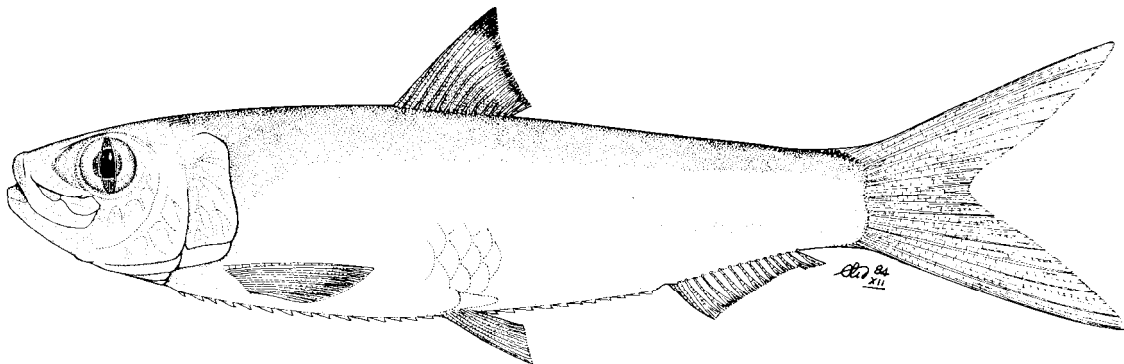
Herklotsichthys Species C

CLUP Herk 12

(AWAITING DESCRIPTION AND NAME)

Synonyms : None.

FAO Names : En



Diagnostic Features : Body moderately slender, its depth about 30% of standard length. Distinguished from most other Australian *Herklotsichthys* by lacking spots on the flank (*H. koningsbergeri*, *Herklotsichthys* Species A) and lacking elongate wing-like scales beneath the normal paired pre-dorsal scales (the previous two species, also *H. quadrimaculatus* and *Herklotsichthys* Species B). Resembles *H. blackburni* and especially *H. castelnaui* (same range), but lacks the three distinct dark lines along upper flank. Distinguished from *H. gotoi* by having more lower gillrakers (47 to 48; cf. 34 to 38) and no dark spot behind gill cover; also dorsal fin with distinct pale band separating grey base from black tip and a dark line along upper edge of caudal peduncle.

Geographical Distribution : Eastern Australia (Warrell Creek at Scott's Head, New South Wales).

Habitat and Biology : More data needed.

Size : To 9 cm standard length.

Interest to Fisheries : Probably nil.

Local Names : -

Literature : -

Remarks : Very similar to *H. castelnaui* in number of lower gillrakers and colour pattern, except lacking the lines along upper flank. More specimens may show it to be that species.

