

**Geographical Distribution** : Western Atlantic (Gulf of Maine, Bermuda, throughout Gulf of Mexico, Caribbean and West Indies to Santa Caterina, Brazil).

**Habitat and Biology** : Coastal, pelagic, schooling (but solitary individuals reported), probably not entering water of low salinity. Feeds by filtering plankton (copepods), but also takes small fishes, crabs and shrimps. Breeds in May-June off North Carolina, possibly March-July off Venezuela.

**Size** : To 25 cm standard length, usually to 20 cm.

**Interest to Fisheries** : Although locally abundant, not greatly valued for food although appearing in markets (West Indies, Panama). The total catch was 5 264 tons in 1983 (mostly USA, Cuba and Venezuela).

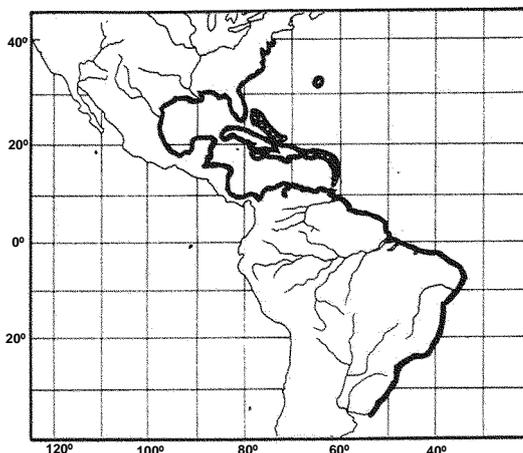
**Local Names** : BRAZIL: Sardinha bandeira; USA: See FWNA (1964:381).

**Literature** : Berry & Barrett (1964 - full revision, but almost no biological data); other references under synonyms, again with rather little data on food and breeding).

**Remarks** : Rivas (1972) distinguished a Colombian form as a distinct species, which he claimed occurred with *O. oglinum*, but the distinguishing characters mostly overlap or are very close; possibly this is a subspecies:

*O. oglinum oglinum*: body deeper, 32 to 37% of standard length; more lower gillrakers, 30 to 37; more dorsal and anal finrays, 19 to 22 and 22 to 25; fewer scales, 32 to 35; Gulf of Maine to Brazil, but not Colombia.

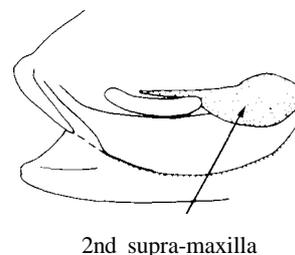
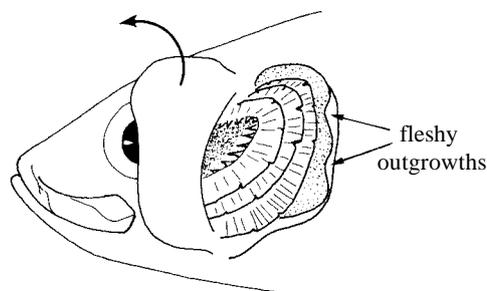
*O. oglinum captivai*: body more slender, 27.9 to 31.1% of standard length; fewer lower gillrakers, 25 to 28; fewer dorsal and anal finrays, 19 or 20 and 18 to 21; more scales, 34 to 37; Colombia only.



**Herklotsichthys** Whitley, 1951

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*Herklotsella* Fowler, 1934, *Proc.Acad.nat.Sci.Philad.*, 85:246 (type: *Herengula dispilonotus* Bleeker) (not *Herklotsella* Herre, 1933 - a siluroid genus). *Herklotsichthys* Whitley, 1951, *Proc.R.zool.Soc.N.S.W.*, (1949-50):67 (type: *Herengula dispilonotus* Bleeker; replacement name since *Herklotsella* preoccupied). *Herengula*: Fowler, 1941:584 (adopted by numerous authors until *Herengula* Valenciennes was finally restricted to New World species).



**Diagnostic Features** : The presence of two fleshy outgrowths on the hind margin of the gill opening distinguishes *Herklotsichthys* from all other clupeoid genera except *Herengula* and *Opisthonema* (both restricted to New World; also characterized by a toothed hypo-maxilla and a filamentous last dorsal finray respectively) and *Sardinella* and *Amblygaster* of which some species closely resemble *Herklotsichthys*, but have more fronto-parietal striae on top of head (7 to 14; cf. 3 to 7), a symmetrical second supra-maxilla (cf. lower part larger than upper) and the last two anal finrays enlarged.

**Biology, Habitat and Distribution** : Marine pelagic and schooling, but some Australian species apparently entering freshwater, or at least estuaries. Indo-Pacific region only, mainly in tropical or subtropical waters. Earlier biological studies are of limited value because of poor taxonomy.

**Species** : In the most recent revision, Wongratana (1980) recognized 8 species and subsequently described 2 of these as new (Wongratana, 1983). Further studies on the Australian *Herklotsichthys* increases the total known species to 12 (of which 3 Australian species have yet to be named):

**Widespread**

H. quadrimaculatus (Rüppell, 1837), Indo-West Pacific

**Western Indian Ocean**

H. lossei Wongratana, 1983, the "Gulf"

H. punctatus (Rüppell, 1837), Red Sea.

H. spilurus (Guichenot, 1863), East Africa, Réunion Island.

**Western Central Pacific**

H. dispilonotus Bleeker, 1852, Indonesia, Gulf of Thailand

**Australia**

H. blackburni (Whitley, 1948), western Australia

H. castelnaui (Ogilby, 1897), eastern Australia

H. gotoi Wongratana, 1983, northern Australia, New Guinea

H. koningsbergeri (Weber & de Beaufort, 1912), western Australia.

Herklotsichthys Species A, western Australia

Herklotsichthys Species B, western Australia

Herklotsichthys Species C, eastern Australia.

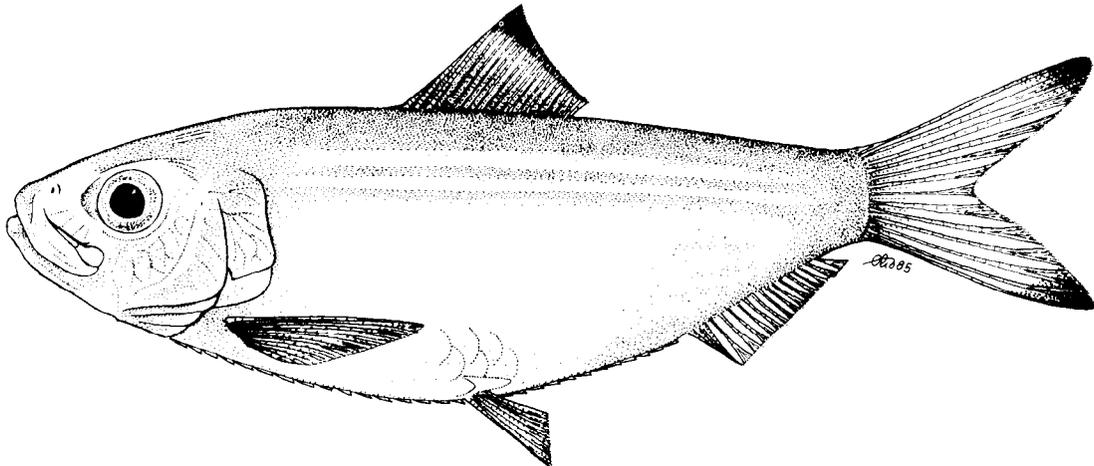
**Herklotsichthys blackburni** (Whitley, 1948)

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*Macrura blackburni* Whitley, 1948, *Aust.Zool.*, 11:266 (Port Hedland, Western Australia).

**Synonyms :** Harengula blackburni:Munro, 1956:23 fig. 163 (Port Hedland, Western Australia).

**FAO Names :** En - Blackburn's herring.



**Diagnostic Features :** Body moderately deep, its depth 30% of standard length of more. Distinguished from most other Australian Herklotsichthys by lacking spots on the flank (H. koningsbergeri, Herklotsichthys Species A) and lacking elongate wing-like scales underneath the normal paired pre-dorsal scales (the previous two species, also H. quadrimaculatus and Herklotsichthys Species B). Most closely resembles H. castelnaui of eastern Australia, but has fewer lower gillraker (38 to 42; cf. 42 to 47, 51 or 52). Separated from H. gotoi and Herklotsichthys Species C (neither found in Western Australia) by its black tips to caudal fin (cf. at most grey) and three distinct dark lines along upper flank.

**Geographical Distribution :** Western Australia (Port Hedland, Onslow).

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

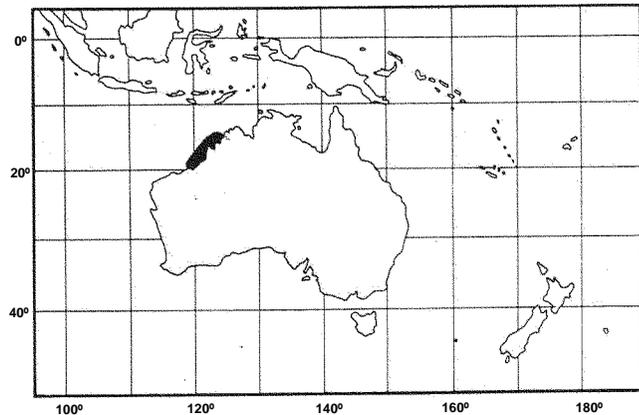
**Size :** To 10.5 cm standard length, usually about 8 cm.

**Interest to Fisheries :** No separate statistics.

**Local Names :** AUSTRALIA: Blackburn's yellowfin herring (Munro, 1965).

**Literature :** See under synonyms.

**Remarks :** The western counterpart of H. castelnaui and possibly merely a subspecies.



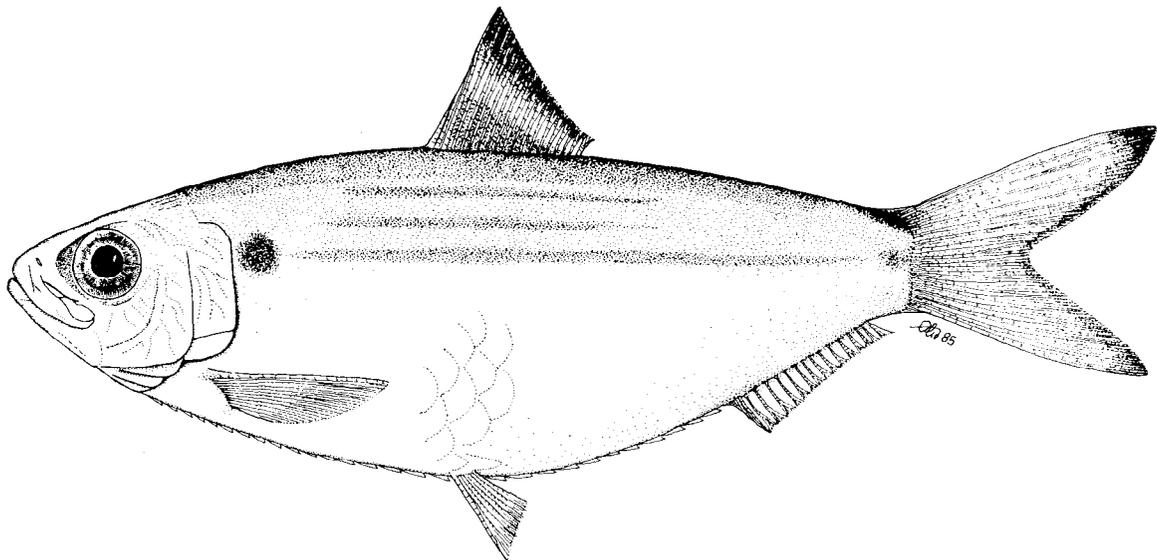
**Herklotsichthys castelnaui** (Ogilby, 1897)

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Kowala castelnaui Ogilby, 1897, Proc.Linn.Soc.N.S.W., 22:66 (New South Wales).

**Synonyms :** Harengula abbreviata:Munro, 1956:24, fig. 164 (not Harengula abbreviata Valenciennes, 1847, which is considered a nomen dubium by Whitehead, 1967:69); Herklotsichthys castelnaui - Wongratana, 1981:145, pls 89, 90 (but excluding the specimens of H. blackburni).

**FAO Names :** En - Castelnaud's herring.



**Diagnostic Features :** Body moderately deep, its depth 30% of standard length or more. Distinguished from most other Australian Herklotsichthys by lacking spots on the flank (H. koningsbergeri, Herklotsichthys Species A) and lacking elongate wing-like scales underneath the normal paired pre-dorsal scales (the previous two species, also H. quadrimaculatus and Herklotsichthys Species B). Most closely resembles H. blackburni of Western Australia, but has more lower gillrakers (42 to 47, some specimens 51 or 52; cf. 38 to 42). Separated from H. gotoi and Herklotsichthys Species C by having three distinct dark lines along upper flank (also, lower gillrakers only 34 to 58 in H. gotoi). Upper caudal tip black, dorsal fin with distinct pale band separating grey base from black tip; a dark line along upper edge of caudal peduncle.

**Geographical Distribution** : Eastern Australia (Queensland southward to New South Wales).

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

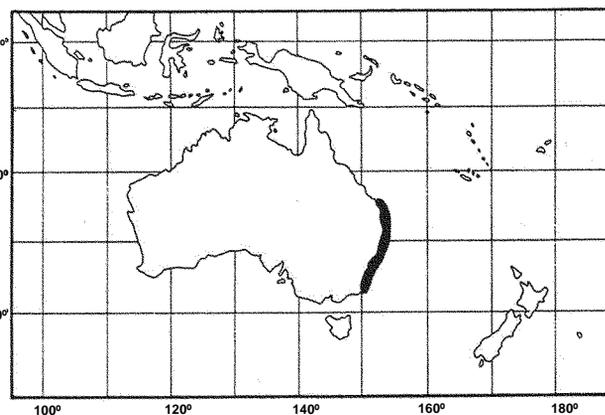
**Size** : To 14 cm standard length, usually to 10 cm.

**Interest to Fisheries** : No separate statistics.

**Local Names** : AUSTRALIA: Southern herring (Munro, 1956).

**Literature** : See under synonyms.

**Remarks** : Possibly is merely an eastern subspecies, of which H. blackburni is the western counterpart; however, it seems equally close to Herklotsichthys Species C.



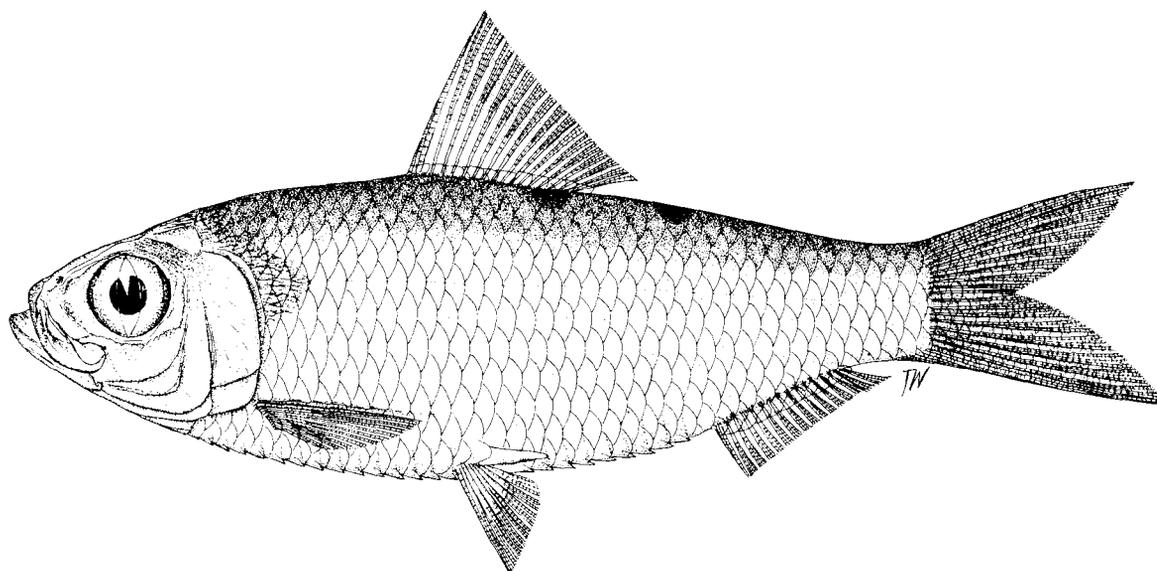
**Herklotsichthys dispilonotus** (Bleeker 1852)

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Harengula dispilonotus Bleeker, 1852, Natuurk.Tijdschr.Ned.-Indië, 3:456 (Banka, Indonesia).

**Synonyms** : Harengula dispilonotus:Fowler, 1941:585 (full synonymy); Herklotsichthys dispilonotus: Wongratana, 1981:151, pls 98, 99 (description, illustrations).

**FAO Names** : En - Blacksaddle herring.



**Diagnostic Features** : Body moderately deep, its depth 30 to 35% of standard length. Immediately distinguished from all other species of Herklotsichthys by the presence of two dark saddle-like blotches on the back, at the hind part of the dorsal fin base and a short distance behind this. Overlaps range of H. quadrimaculatus, which lacks the black saddles and has elongate wing-like scales underneath the normal paired pre-dorsal scales.

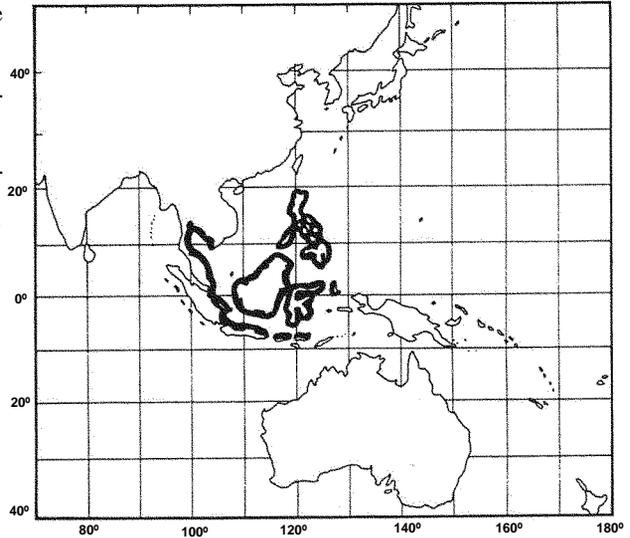
**Geographical Distribution** : Gulf of Thailand, the Philippines, Indonesia (not eastern Indian Ocean).

**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; enters artisanal fisheries, but uncommon.

**Local Names** : -



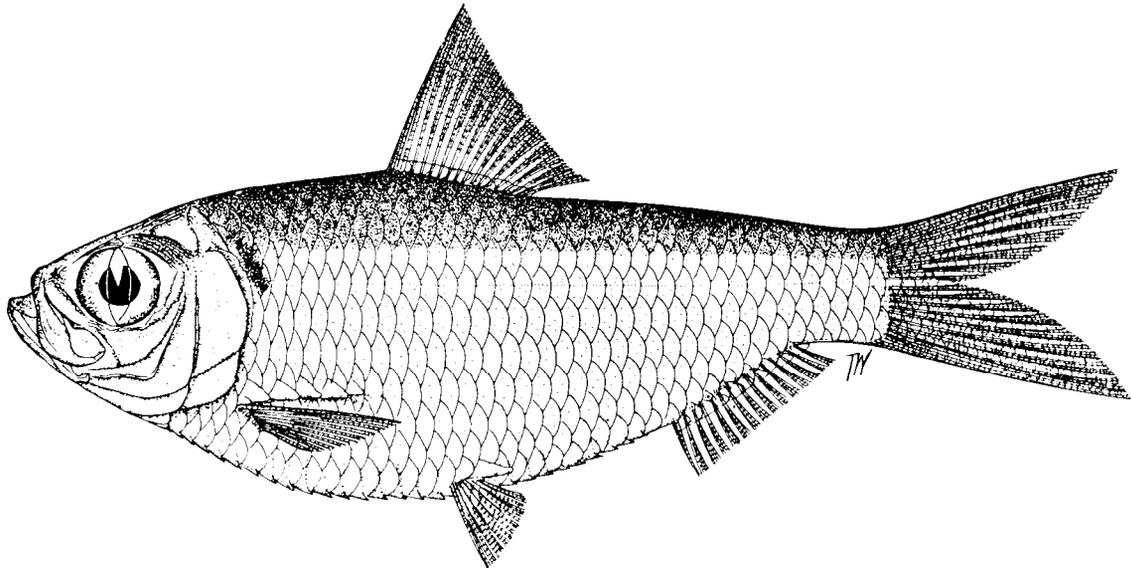
**Herklotsichthys gotoi** Wongratana, 1983

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Herklotsichthys gotoi Wongratana, 1983, Jap.J.Ichthyol., 29(4):391, fig. 6 (Mimiko R., Papua New Guinea).

**Synonyms** : None.

**FAO Names** : En - Goto's herring.



**Diagnostic Features** : Body moderately deep, its depth 38 to 41% of standard length. Distinguished from most other Australian Herklotsichthys by lacking spots on the flank, except for a single dark spot behind gill cover (H. koningsbergeri, Herklotsichthys Species A) and lacking elongate wing-like scales underneath the normal paired pre-dorsal scales (the previous two species, also H. quadrimaculatus and Herklotsichthys Species B). Resembles H. blackburni and H. castelnaui, but lacks the three distinct dark lines along upper flank (also only 34 to 38 lower gillrakers; cf. 38 to 42 and 41 to 51). Distinguished from Herklotsichthys Species C by the fewer gillrakers (cf. 45 to 48), presence of a dark spot behind the gill cover, but no dark tip to dorsal fin.

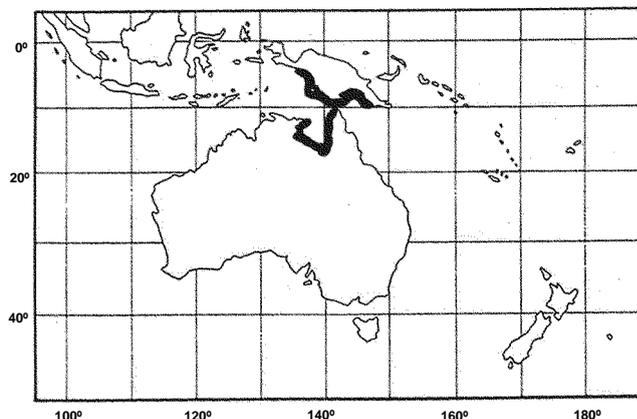
**Geographical Distribution** : New Guinea (Mimika River) and northern Australia (Gulf of Carpentaria).

**Habitat and Biology** : Coastal, pelagic, schooling; appears to enter estuaries, if not to ascend some way up rivers. More data needed.

**Size** : To at least 9 cm standard length, usually to 8 cm.

**Interest to Fisheries** : Possibly enters artisanal fisheries, but does not appear to be common.

**Local Names** : -



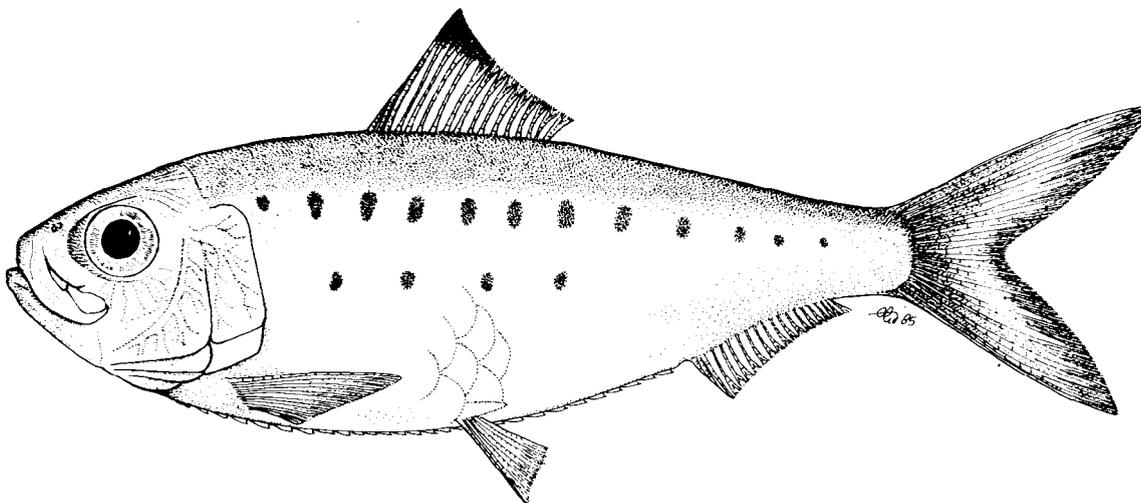
**Herklotsichthys koningsbergeri** (Weber & de Beaufort, 1912)

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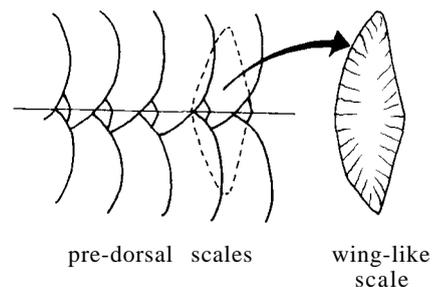
Clupea (Harengula) koningsbergeri Weber & de Beaufort, 1912, Verhand.Akad, Wet.Amst., 17:14 (Aru Island).

**Synonyms** : Harengula maccullochi Whitley, 1931:143, fig. 2 (Port Hedland, Western Australia); Munro, 1956:23, fig. 162.

**FAO Names** : En - Koningsberger's herring.



**Diagnostic Features** : Body fairly deep, its depth 37 to 40% of standard length. Distinguished from all other Australian Herklotsichthys by the series of large and almost oval black spots on the flank, sometimes with a second partial row below. Herklotsichthys Species A has much smaller, round spots and is more slender, its depth 29 to 35% of standard length; also, hind edges of its scales are not denticulated and lower gillrakers 33 to 36; cf. 28 to 31 in H. koningsbergeri. Elongate wing-like scales present underneath normal paired pre-dorsal scales.



**Geographical Distribution** : Western Australia (Carnarvon to about Broome).

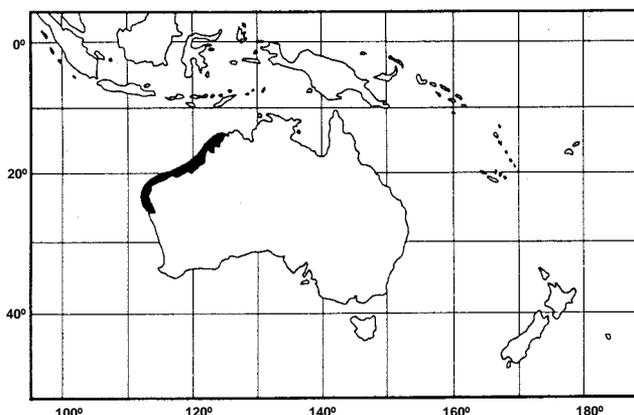
**Habitat and Biology** : Coastal, pelagic, schooling; enters inlets and lower reaches of rivers (Munro, 1956:23). More data needed.

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

**Interest to Fisheries** : No separate statistics; perhaps not sufficiently abundant.

**Local Names** : AUSTRALIA: McCulloch's herring (Munro, 1956).

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



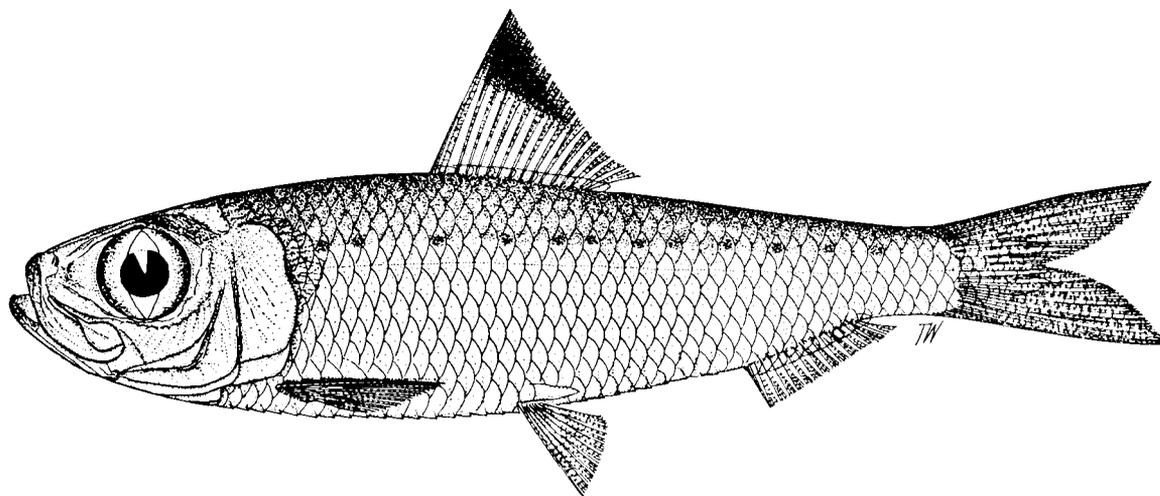
**Herklotsichthys lossei** Wongratana, 1983

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Herklotsichthys lossei Wongratana, 1983, Jap.J.Ichthyol., 29(4):392, fig. 7 (the "Gulf").

**Synonyms** : Sardinella melanura: Blegvad & Løppenthin, 1944:66 (the "Gulf"); Fowler, 1956:67 (same); Herklotsichthys punctatus: Whitehead, 1965:244 (the "Gulf" material only).

**FAO Names** : En - Gulf herring.



**Diagnostic Features** : Body slender, its depth 26 to 28% of standard length. Closely resembles H. punctatus of the Red Sea in shape, but the latter lacks a dark blotch on the dorsal fin and has small dark spots along the back (either side of dorsal fin) and not on the flank. Distinguished from H. spilurus (east African coast) by its more slender body (cf. depth 28 to 35% of standard length) and spots along flank. Possibly overlaps range of H. quadrimaculatus, which lacks spots on the flank and has elongate wing-like scales underneath the normal paired pre-dorsal scales. Flank with small dark spots, tip of dorsal fin with a dark blotch.