

**Spratelloides** Bleeker, 1851

CLUP Spratel

*Spratelloides* Bleeker, 1851, *Natuurk.Tidschr.Ned.-Indië*, 2:214 (type: *Clupea argyrotaeniata* Bleeker, 1849 = *S. gracilis*). *Stolephorus*:Fowler, 1941, *Bull.U.S.natn.Mus.*, 13(100):561 (not *Stolephorus* Lacepède, which is an anchovy).

**Diagnostic Features :** The W-shaped pelvic scute and few branchiostegal rays (6 or 7) distinguish *Spratelloides* from all other clupeids except *Jenkinsia*, which has only a single (posterior) supra-maxilla and does not occur in the Indo-Pacific region.

**Biology, Habitat and Distribution :** Small marine pelagic fishes of the Indo-Pacific region, from the western Indian Ocean (the "Gulf" south to about Durban) to the western Pacific (Japan south to northern and western Australia, also Samoa).

**Interest to Fisheries :** Contribute to general clupeoid catches, but separate statistics only given for around Japan (5 159 tons in 1983) and Fiji (96 tons in 1983).

**Species :** Whitehead (1963: 1973) recognized only two species, but Wongratana (1980, 1983) adds two more:

- S. delicatulus* (Bennett, 1831), Indo-West Pacific
- S. gracilis* (Temminck & Schlegel, 1846), Indo-West Pacific
- S. robustus* Ogilby, 1897, Indo-West Pacific.
- S. lewisi* Wongratana, 1983, Indo-West Pacific

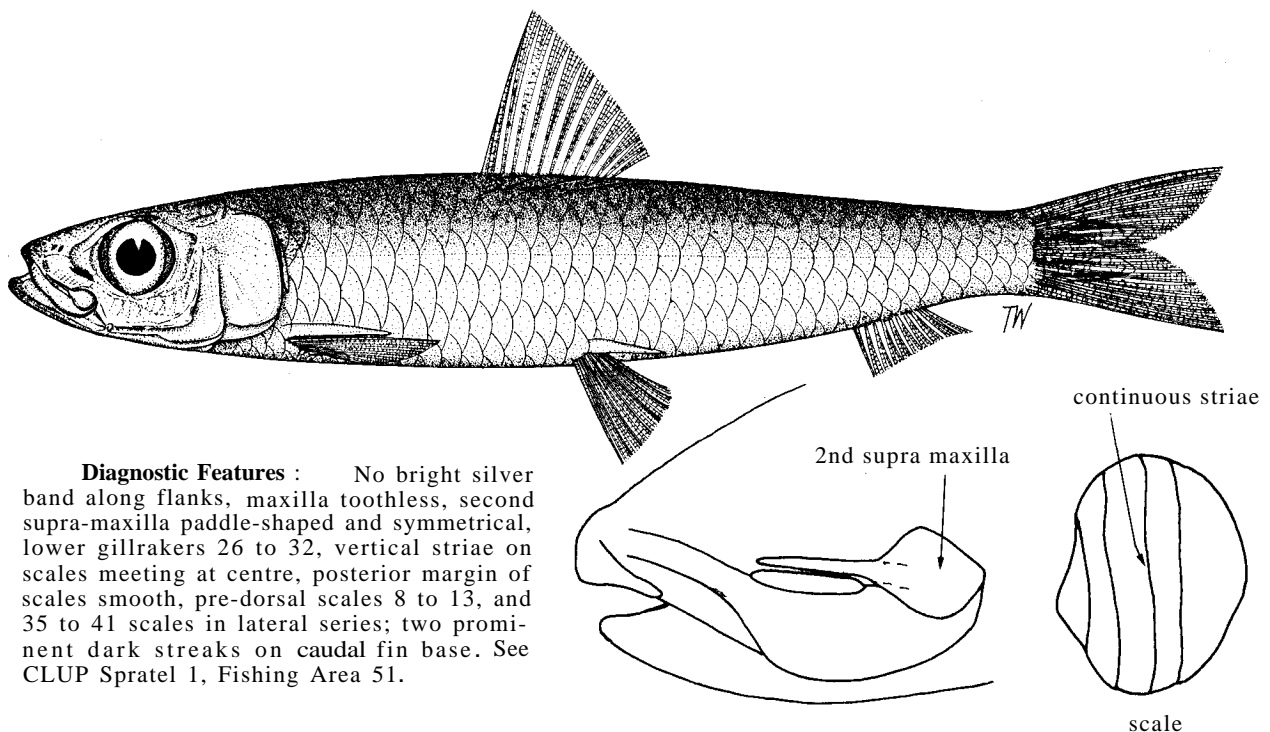
***Spratelloides delicatulus*** (Bennett, 1831)

CLUP Spratel 1

*Clupea delicatula* Bennett, 1831, *Proc.zool.Soc.Lond.*, 1:168 (Mauritius).

**Synonyms :** *Clupea macassariensis* Bleeker, 1849:72; *Alausa alburnus* Kner & Steindachner, 1866:387 (Valparaiso given, but in fact Samoa); *Spratelloides delicatulus* - Whitehead, 1963:345 (including *S. robustus*); *Idem*, 1973b:172, fig. 6 (same); FNAM, 1984:279, fig. (single eastern Mediterranean specimen; given' & *Etrumeus teres* in CLOFNAM, 1973:110); Wongratana, 1980:105, pls 39, 40 (revision; *S. robustus* removed); SFSA, in press (southern Africa).

**FAO Names :** En - Delicate round herring.



**Diagnostic Features :** No bright silver band along flanks, maxilla toothless, second supra-maxilla paddle-shaped and symmetrical, lower gillrakers 26 to 32, vertical striae on scales meeting at centre, posterior margin of scales smooth, pre-dorsal scales 8 to 13, and 35 to 41 scales in lateral series; two prominent dark streaks on caudal fin base. See CLUP Spratel 1, Fishing Area 51.

**Geographical Distribution :** Indo-Pacific, from western Indian Ocean (Red Sea south to Durban, also Madagascar and Mauritius) to western Pacific (Japan south through the Philippines to northern Australia, also eastward to Society Islands, but not Tuamotu and Marquesas Islands). A single specimen from eastern Mediterranean (Tel-Aviv, Israel).

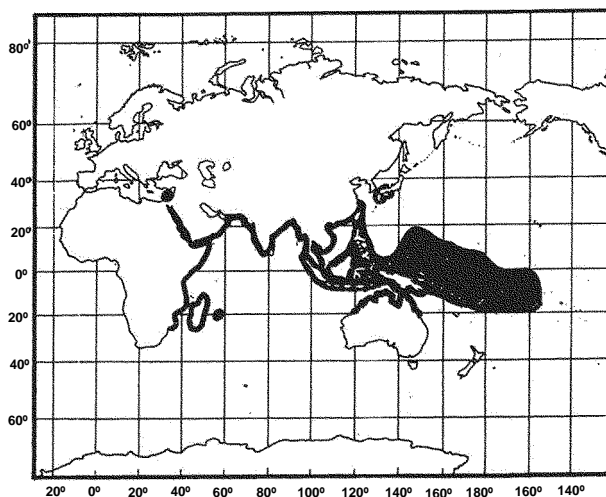
**Habitat and Biology :** Marine pelagic and usually inshore schooling fishes. More data needed.

**Size :** To 7 cm standard length.

**Interest to Fisheries :** Separate statistics are not recorded, but probably makes a significant contribution to clupeoid fisheries. Used as a tuna baitfish in the Pacific.

**Local Names :-**

**Literature :** Whitehead (1963, 1973b - review); Wongratana (1980 - key, diagnosis); Lewis, Smith & Ellway (1983 - tuna baitfish).



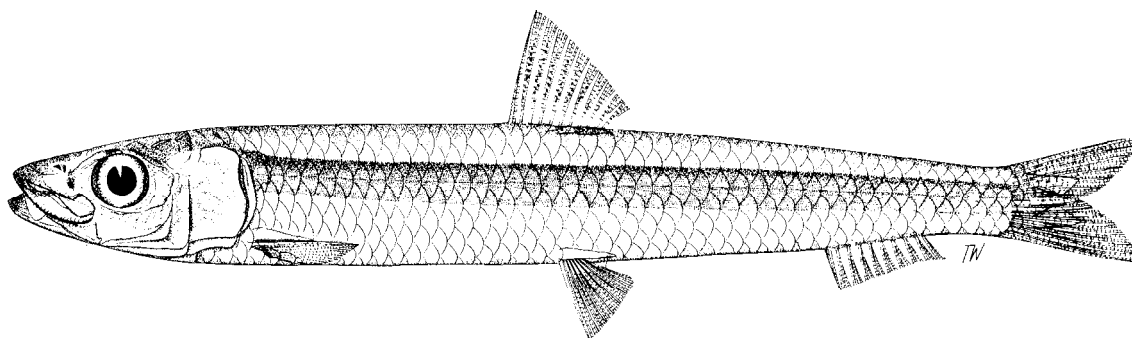
***Spratelloides gracilis*** (Temminck & Schlegel, 1846)

CLUP Spratel 2

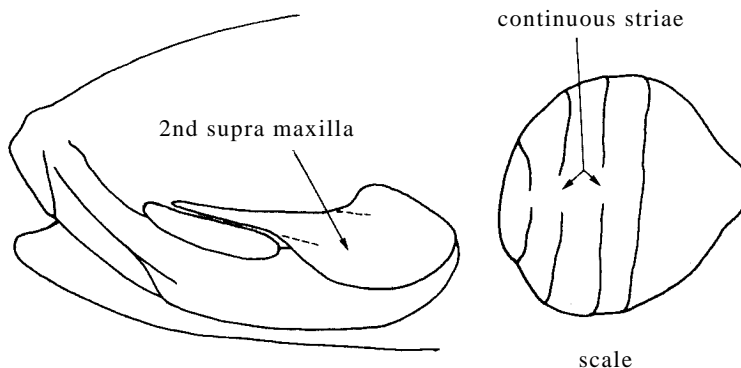
*Clupea gracilis* Temminck & Schlegel, 1846, *Fauna Japonica, Poiss.*, pt. 5, inst. 13:238 (southern coast of Nagasaki).

**Synonyms :** *Clupea argyrotaeniata* Bleeker, 1849:72; *Spratelloides atrofasciatus* Schultz, 1943:8; *Stolephorus japonicus*:Fowler, 1941:567 (not *S. japonicus* Lacepède, 1803, an anchovy); *Spratelloides gracilis*-Whitehead, 1963:338, fig. 18; *Idem*, 1973b:171, fig. 5; Wongratana, 1980:102, pls 35, 36 (revision).

**FAO Names :** En - Silver stripe round herring.



**Diagnostic Features :** Immediately distinguished from other species by the bright silver band along the flanks (a fainter band which fades anteriorly in *S. lewisi*). Also, maxilla toothed, second supra-maxilla asymmetrical (lower part larger than upper), lower gillrakers very variable (27 to 37), vertical striae on scales not meeting at centre and 42 to 48 scales in lateral series. See CLUP Spratel 2, Fishing Area 51.



**Geographical Distribution:** Indo-Pacific, from western Indian Ocean (Red Sea south to Zanzibar) to western Pacific (Japan south through the Philippines to Samoa, not Cook, Society or Marquesas Islands, but reappears in the Tuamotu Islands, and southeastern Australia, also off western Australia).

**Habitat and Biology:** Marine, pelagic and usually inshore schooling fishes. More data needed.

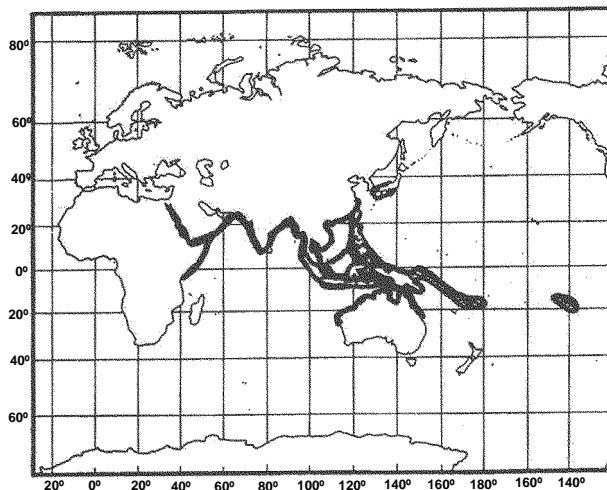
**Size:** To 9.5 cm standard length.

**Interest to Fisheries:** Separate statistics only recorded for Fishing Areas 61 and 71 (5 255 tons in 1983, which may include other species), but probably contributes more to clupeoid catches than the records show. Used as a tuna baitfish in the Pacific.

**Local Names:** -

**Literature:** Whitehead (1963, 1973b - review); Wongratana (1980 - key, diagnosis); Lewis, Smith & Ellway (1983 - tunabait).

**Remarks:** Whitehead (1963, 1973b) considered the southern and western Australian form a subspecies, but Wongratana (1980) convincingly showed it to be a distinct species, *S. robustus*.



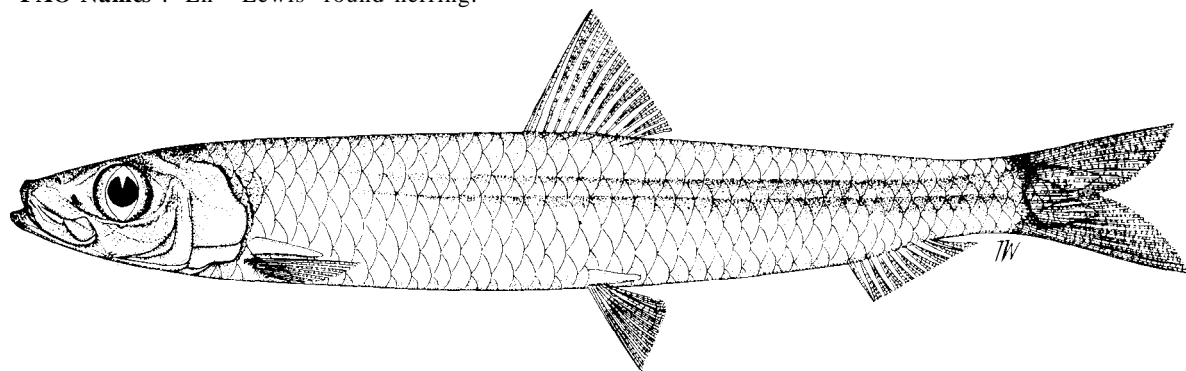
***Spratelloides lewisi* Wongratana, 1983**

CLUP Spratel 3

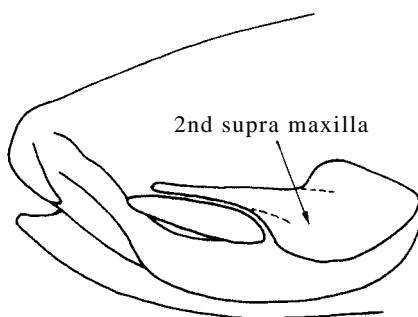
*Spratelloides lewisi* Wongratana, 1983, *Jap.J.Ichthyol.*, 29(4):389 (Solomon Island, coasts of Papua New Guinea).

**Synonyms:** Probably included by authors in records of *S. gracilis* or *S. delicatulus* from the Papua New Guinea area; Wongratana, 1980:104, pls 37, 38 (revision).

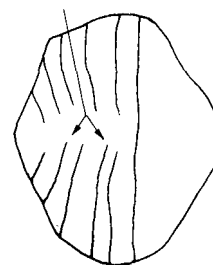
**FAO Names:** En - Lewis' round herring.



**Diagnostic Features:** Distinguished from other species mainly by the silver band on the flanks which fades anteriorly (at about tips of pectoral fins). Also, maxilla toothed, second supra-maxilla asymmetrical (lower part larger than upper), lower gillrakers 28 to 32, vertical striae on scales not meeting at centre, and 39 to 43 scales in lateral series.



discontinuous striae



scale

**Geographical Distribution :** Western Pacific (Solomon Islands, coasts of Papua New Guinea, off Irian Jaya).

**Habitat and Biology :** Marine, pelagic and usually inshore schooling fishes. More data needed.

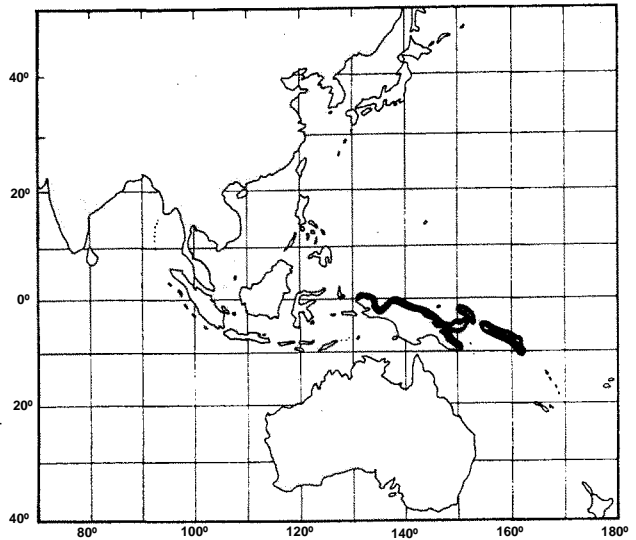
**Size :** To 6 cm standard length.

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

**Local Names :** -

**Literature :** Wongratana (1983 - key, diagnosis).

**Remarks :** The anterior fading of the silver lateral stripe along the flanks appears to be a good field character.



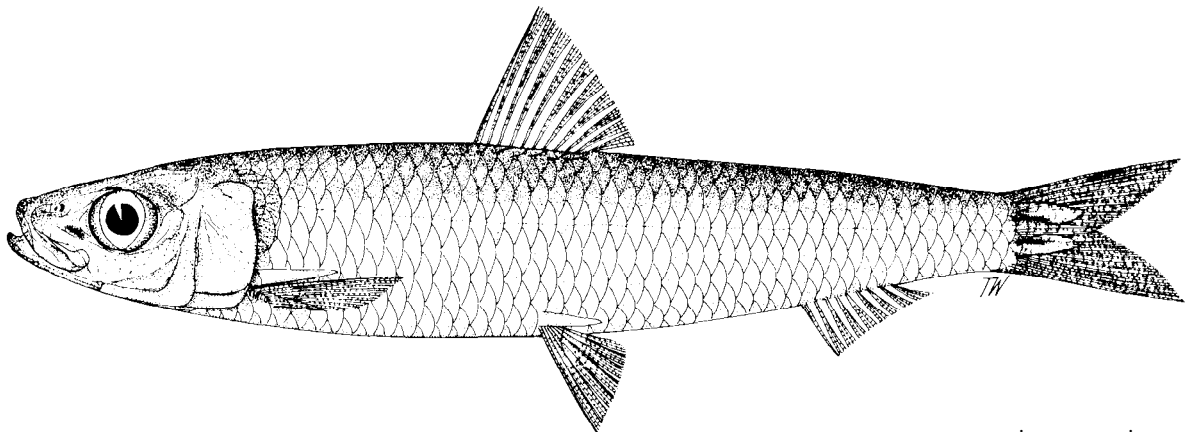
***Spratelloides robustus*** Ogilby, 1897

CLUP Spratel 4

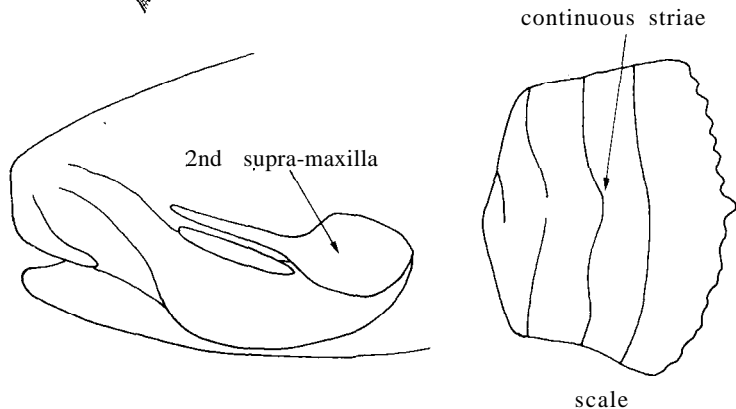
*Spratelloides robustus* Ogilby, 1897, *Proc.Linn.Soc.N.S.W.*, 22:64 (New South Wales).

**Synonyms :** *Spratelloides delicatulus robustus*:Whitehead, 1963:348; *Spratelloides robustus* - Wongratana, 1980:108, pls 41, 42 (revision)

**FAO Names:** En - Fringe-scale round herring.



**Diagnostic Features :** Closely resembles *S. delicatulus* in lacking a silvery stripe along the flanks, no teeth on maxilla, second supra-maxilla symmetrical and scale striae meeting at centre; differs in having a toothed posterior margin to scales, pre-dorsal scales 13 to 16, and 42 to 46 scales in lateral series.



**Geographical Distribution :** Western Australia (Brenner Bank westward and northward to Dampier Archipelago), southeastern, Australia (southern parts of New South Wales).

**Habitat and Biology :** Marine, pelagic and usually inshore schooling fishes. More data needed.

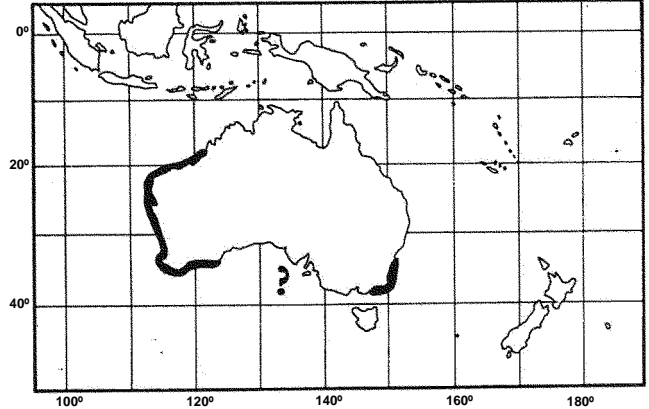
**Size :** To 7.5 cm standard length.

**Interest to Fisheries :** Separate statistics not recorded, probably of little importance.

**Local Names :-**

**Literature :** Wongratana (1980 - key, diagnosis).

**Remarks :** Apparently overlaps with S. delicatulus along northwestern coast of Australia.



**Jenkinsia** Jordan & Evermann, 1896

CLUP Jenk

Jenkinsia Jordan & Evermann, 1896, Bull.U.S.natn.Mus., 50:418 (type: Dussumieria stolidifera Jordan & Gilbert, 1884).

**Diagnostic Features :** The W-shaped pelvic scute and few branchiostegal rays (6 or 7) distinguish Jenkinsia from all other clupeids except Spratelloides, which has two supra-maxillae (anterior missing in Jenkinsia) confined to the Indo-Pacific region.

**Biology, Habitat and Distribution :** Small, mainly coastal marine pelagic fishes of the western Atlantic (Florida south to Venezuela and the Guianas; also Bermuda).

**Interest to Fisheries :** No separate statistics; perhaps of small local interest.

**Species :** Hildebrand (1964:268, i.e. FWNA) recognized two species, the widespread J. lamprotaenia and the Bermudan J. viridis, the latter considered merely a synonym by Whitehead (1963:351), who described a second species, J. majua. Cervigón & Velasquez (1978) split J. lamprotaenia into three apparently distinct species, the other two being J. stolidifera and J. parvula. Gillraker numbers suggest that the situation is more complex and can only be resolved using large collections throughout the Caribbean area. For the moment, four species can be recognized:

- J. lamprotaenia (Gosse, 1851) western Atlantic
- J. majua Whitehead, 1963, western Atlantic
- J. parvula Cervigón & Velasquez, 1978, western Atlantic
- J. stolidifera (Jordan & Gilbert, 1884), western Atlantic.

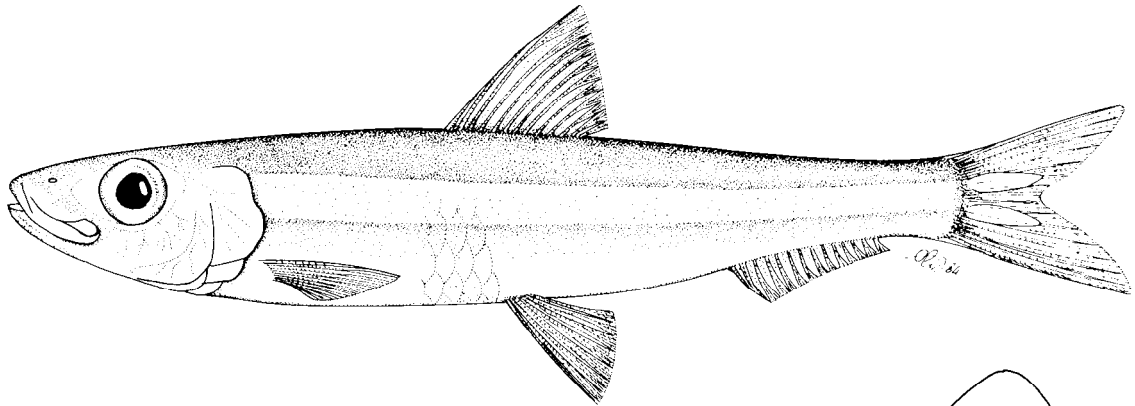
**Jenkinsia lamprotaenia** (Gosse, 1851)

CLUP Jenk 1

Clupea lamprotaenia Gosse, 1851, Naturalist's sojourn in Jamaica:291 (Jamaica).

**Synonyms :** Stolephorus viridis Bean, 1912:122 (Bermuda); Jenkinsia bermudana Rivas, 1946:1 (viridis overlooked); Jenkinsia lamprotaenia -FWNA, 1964:268, fig. 64; Whitehead, 1963:351, fig. 23; Cervigón 1966:116; Whitehead, 1973a:18, fig. 3; Cervigón & Velasquez, 1978:5, figs. 1-54 (descr., osteology).

**FAO Names :** En - Dwarf round herring (Dwarf herring in FAO Sheet, Area 31).



**Diagnostic Features :** Pre-maxillae toothed, lower gillrakers 20 to 30, but some correlation with geographical area (see Remarks below), isthmus slender, but with slight 'shoulders' anteriorly, pectoral finrays 12 to 15 (usually 13), vertebrae 40 to 43 (usually 42 - Venezuela), silver lateral band not becoming narrower or fading near gill opening. See CLUP Jenk 1, Fishing Area 31.

**Geographical Distribution :** Western central Atlantic (Florida, Gulf of Mexico and Caribbean south to Tobago; also Bermuda).

**Habitat and Biology :** Marine pelagic and usually inshore schooling fishes, feeding on zooplankton.

**Size :** To 6.5 cm standard length.

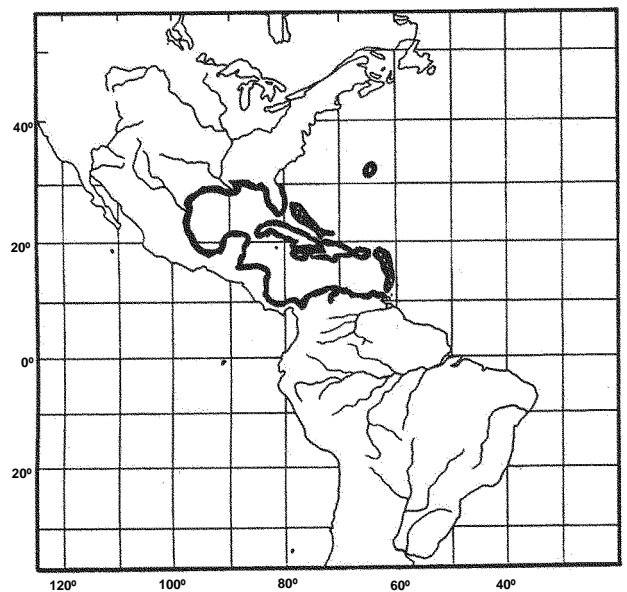
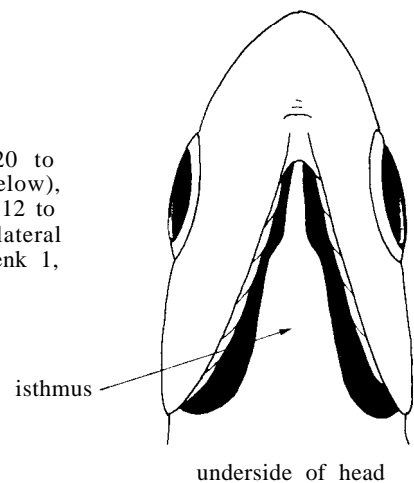
**Interest to Fisheries :** Separate statistics not recorded, probably of little importance.

**Local Names :** USA: Dwarf herring (AFS list); VENEZUELA: Canalera.

**Literature :** FWNA (1964 - key, diagnosis, biology); Whitehead (1963, 1973a - revision); Cervigón & Velasquez (1978 - osteology).

**Remarks :** Lower gillraker counts, although showing some overlap, show some correlation with geographical area, suggesting that the species may comprise three races or subspecies:

- (a) gillrakers 20 to 26, usually 22 to 24; Mexico, Jamaica, Dry Tortugas, Bahamas, Virgin Islands, Martinique, Tobago;
- (b) gillrakers 23 to 29, usually 24 to 27; Colombia, Venezuela;
- (c) gillrakers 27 to 30, usually 29; Bermuda (*viridis*).



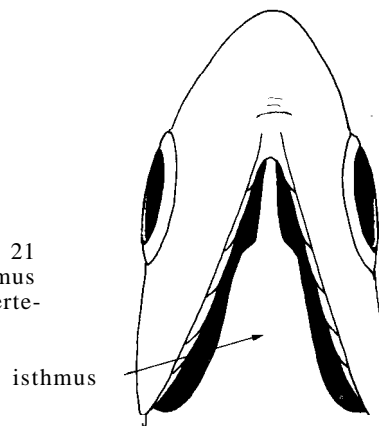
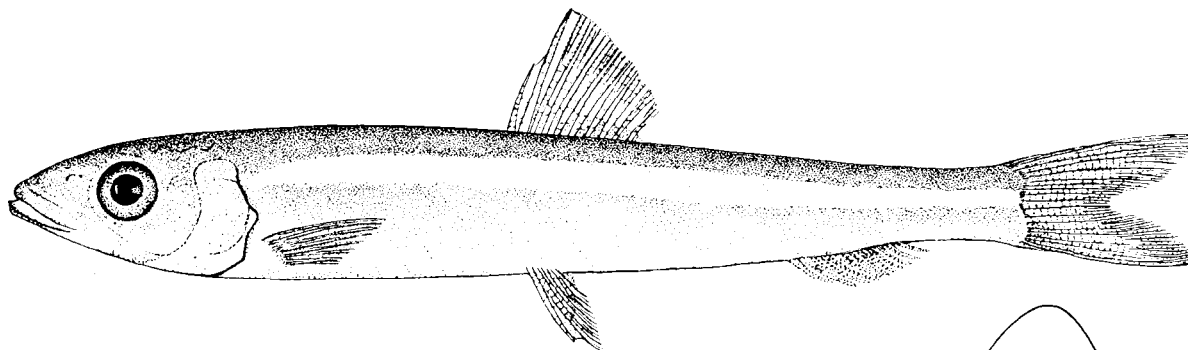
**Jenkinsia majua** Whitehead, 1963

CLUP Jenk 2

Jenkinsia majua Whitehead, 1963, Bull.Br.Mus.nat.Hist.Zool., 10(6):355 (Campeche Bank; Swan Island; Bahamas).

**Synonyms** : Jenkinsia majua woodsii Whitehead, 1963:356, fig. 24.

**FAO Names** : En - Little-eye round herring.



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**Diagnostic Features** : No teeth on pre-maxillae, lower gillrakers 21 to 28, but correlated with geographical area (see remarks below), isthmus with distinct blunt 'shoulders' anteriorly, pectoral finrays 12 to 14, vertebrae 38 (one fish), silver lateral band not fading away anteriorly.

**Geographical Distribution** : Western central Atlantic (Gulf of Campeche; Bahamas, northwestern coast of Caribbean).

**Habitat and Biology** : Marine, pelagic and usually inshore schooling fishes, feeding on zooplankton.

**Size** : To 5.5 cm standard length.

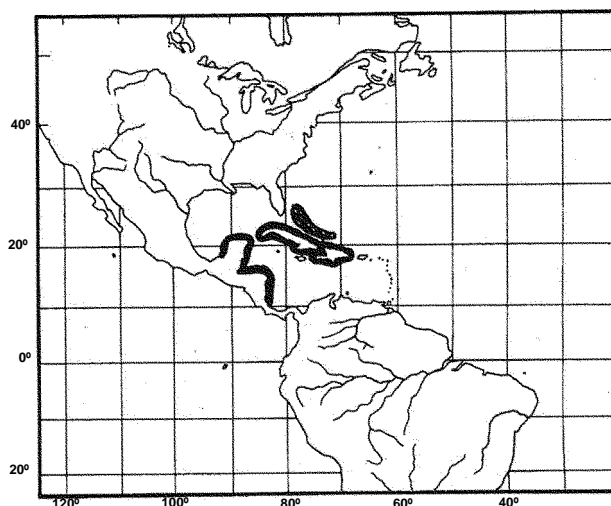
**Interest to Fisheries** : Separate statistics not recorded, probably of little importance.

**Local Names** : USA: Little-eye herring (AFS list).

**Literature** : Whitehead (1963 - key, revision).

**Remarks** : TWO subspecies were recognized by Whitehead (1963:354), based on lower gillraker counts:

- (a) J. majua majua: lower gillrakers 24 to 28 (mode 26); Gulf of Mexico.
- (b) J. majua woodsii: lower gillrakers 21 to 24 (mode 23); Bahamas, northwestern Caribbean.



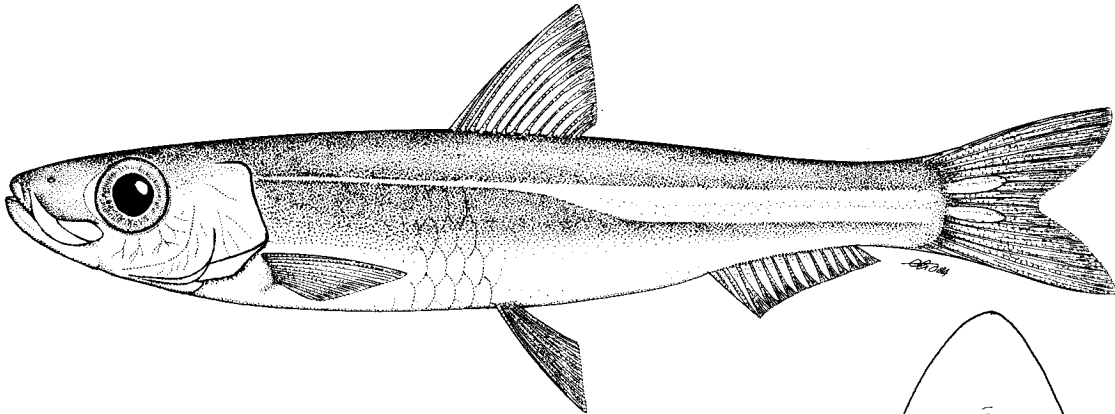
**Jenkinsia parvula** Cervigón & Velasquez, 1978

CLUP Jenk 3

*Jenkinsia parvula* Cervigón & Velasquez, 1978, *Cuadern.oceanogr.Univ.de Oriente Venez.*, (7):9 (Venezuela).

**Synonyms** : *Jenkinsia stolifera* - Cervigón, 1966:925, fig. 376.

**FAO Names** : En - Short-striped round herring.



**Diagnostic Features** : Pre-maxillae toothed, lower gillrakers 20 to 24 (usually 21 or 22), isthmus broadly triangular, pointed anteriorly, pectoral finrays 10 to 13 (usually 11 or 12), vertebrae 38 or 39 (usually 39), silver lateral band becoming narrower and fading anteriorly.

**Geographical Distribution** : Western central Atlantic (Venezuela).

**Habitat and Biology** : Marine, pelagic schooling near coral reefs, feeding on zooplankton.

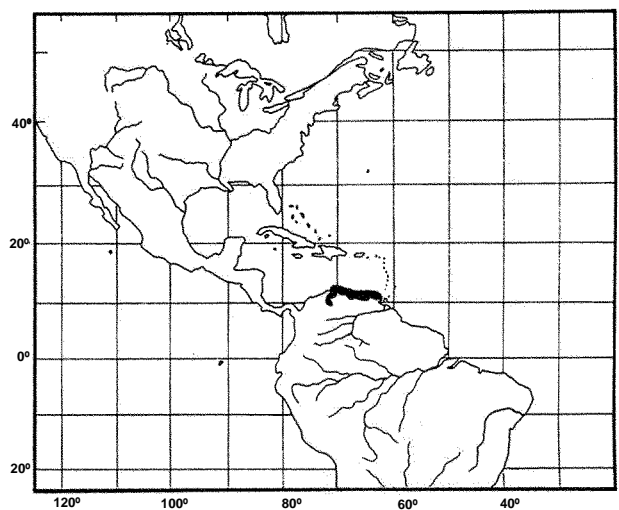
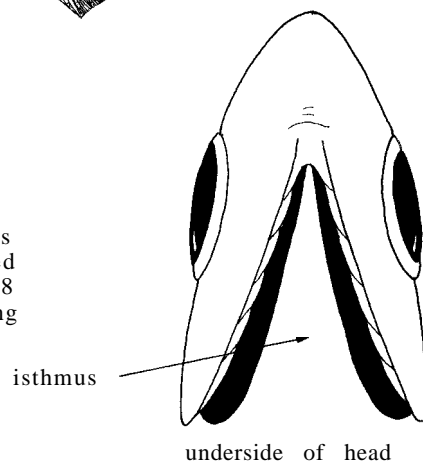
**Size** : To 5.5 cm standard length.

**Interest to Fisheries** : Separate statistics not recorded, probably of little importance.

**Local Names** : -

**Literature** : Cervigón & Velasquez (1978 - key, diagnosis).

**Remarks** : Specimens with the same characteristic anterior narrowing of the silver band on the flanks, but with a wide range of lower gillrakers (18 to 25), have been reported from Florida, the Bahamas, Jamaica, Serrana Bank and Puerto Rico (Whitehead, 1973a:20). More taxonomic work is needed.





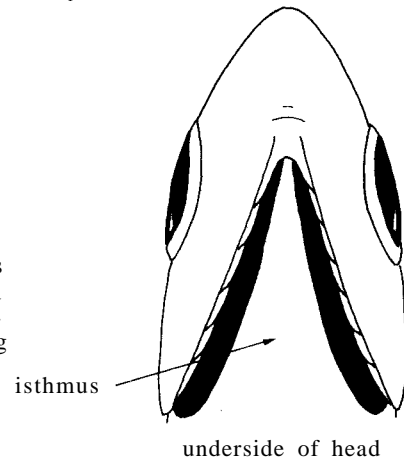
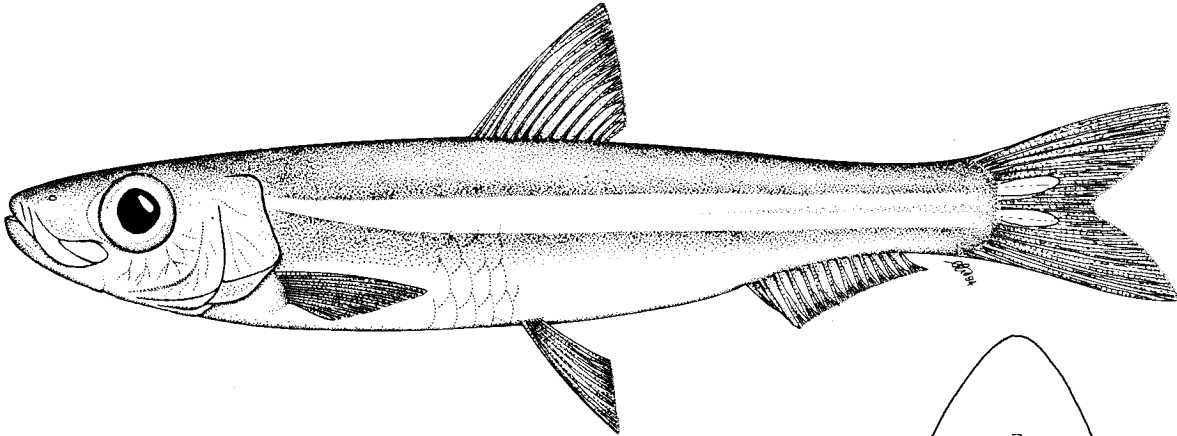
***Jenkinsia stolifera*** (Jordan & Gilbert, 1884)

CLUP Jenk 4

*Dussumieria stolifera* Jordan & Gilbert, 1884, *Bull.U.S.natn.Mus.*, 7:25 (Key West, Florida).

**Synonyms** : Included in *J. lamprotaenia* in FWNA, 1964:271; Whitehead, 1963:351; *Jenkinsia stolifera* - Whitehead, 1973a:18 (key); Cervigón & Velazquez, 1978:9, 12 (Venezuela).

**FAO Names** : En - Florida round herring.



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**Diagnostic Features** : Pre-maxillae toothed, lower gillrakers 28 to 24 (usually 22 or 23), isthmus broadly triangular, pointed anteriorly, pectoral finrays 11 or 12, vertebrae 38 to 39 (usually 39 - Venezuela). Silver lateral band not becoming narrower or fading anteriorly.

**Geographical Distribution** : Western central Atlantic (Florida, British Honduras, Venezuela).

**Habitat and Biology** : Marine, pelagic and usually inshore schooling fishes, feeding on plankton.

**Size** : To at least 4 cm standard length, probably to 5 or 6 cm.

**Interest to Fisheries** : Separate statistics not recorded, probably of little importance.

**Local Names** : USA: Shortband herring (AFS list).

**Literature** : Whitehead (1973a - key); Cervigón & Velazquez (1978 - key, diagnosis, on Venezuelan specimens only).

**Remarks** : The broadly triangular isthmus and the complete silver lateral band seem to characterize the species, but more taxonomic work is needed.

