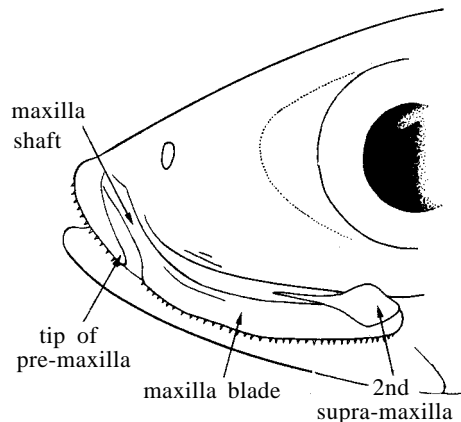


**Stolothrissa** Regan, 1917

CLUP Stolo

*Stolothrissa* Regan, 1917, *Ann.Mag.nat.Hist.* (8)19:206 (type: *Stolothrissa tanganicae* Regan).

**Diagnostic Features :** Small or moderate pelionulines, reaching about 8.5 cm, known only from Lake Tanganyika. Belly rather rounded, pre-pelvic scutes not strongly keeled, but post-pelvic scutes with sharp spines. Lower jaw very slightly protruding when mouth closed, rising steeply within mouth, teeth small; pre-maxillae with very small teeth; maxilla blade long, more than twice length of its shaft, its upper edge with a distinct flange; second supra-maxilla somewhat paddle-shaped, as deep as maxilla blade. Lower gillrakers long, slender and numerous. Pelvic finrays i 7, its insertion below first third of dorsal fin base. Scales small, 36 to 46 in lateral series. Resembles *Limnothrissa*, which has an even longer maxilla blade (to tip of pre-maxilla) and lower part of second supra-maxilla much deeper than upper. All other West African pelionulines have the maxilla blade only a little longer than its shaft.



**Biology, Habitat and Distribution :** Freshwater, in one central African lake (Lake Tanganyika).

**Interest to Fisheries :** Of considerable local commercial importance and far more abundant than *Limnothrissa*; combined catches were 65 129 tons in 1983.

**Species :** A single species recognized:

*S. tanganicae* Regan, 1917, central African freshwaters.

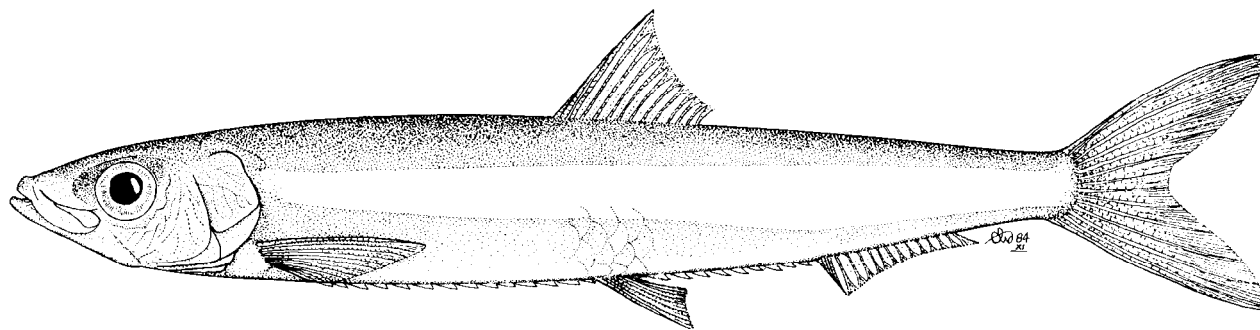
**Stolothrissa tanganicae** Regan, 1917

CLUP Stolo 1

*Stolothrissa tanganicae* Regan, 1917, *Ann.Mag.nat.Hist.* , (8)19:206, fig. 2 (2) (Lake Tanganyika).

**Synonyms :** *Pellonula miodon*:Boulenger,1906:546 (some of his specimens, the rest *Limnothrissa miodon*); Boulenger, 1909:157 (same) *Stolothrissa tanganicae* - Poll, 1974:149, map 3 (synopsis); CLOFFA, 1984:54 (complete synonymy, refs to habitat, food breeding, population biology, growth, migrations, fisheries).

**FAO Names :** En - Lake Tanganyika sprat.



**Diagnostic Features :** Body slender (depth about 17 to 22% of standard length). Pre-pelvic scutes not strongly keeled, beginning behind base of last pectoral finray Maxilla blade about 2 1/4 times as long as its shaft, but not continued forward to hind tip of pre-maxilla; second supra-maxilla diamond-shaped or more or less rhomboidal, approximately symmetrical. Lower gillrakers long and slender, 36 to 42. A distinct silver stripe along flanks, broadest over tips of pelvic fins. Resembles *Limnothrissa miodon* of Lake Tanganyika, which is slightly deeper-bodied, has a larger eye (about equal to length of head behind and a maxilla blade continued forward to hind tip of pre-maxilla).

**Geographical Distribution** : One central African lake (Lake Tanganyika).

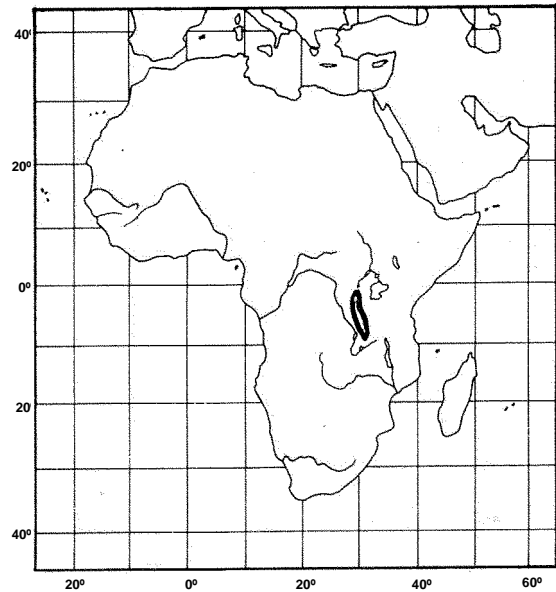
**Habitat and Biology** : Lacustrine, forming very large schools, the juveniles tending to stay closer to the shore than those of 5 cm standard length or more; appear to spend daylight hours below about 60 m, rising up to 8 to 15 m at night, especially on dark nights. Feeds on plankton (prawns, shrimps, also copepods, chironomids, diatoms and algae). Breeds at about 6 cm standard length, with ripe individuals present almost throughout the year, but major spawning in May/June and again in December/January, the adults moving inshore to breed. The eggs sink slowly.

**Size** : To about 8.5 cm standard length, usually about 7 cm.

**Interest to Fisheries** : The more abundant of the two Lake Tanganyika clupeids, but catch statistics combined with those for *Limnothrissa miodon* to total 65 129 tons in 1983. Caught with seine nets, often using lights.

**Local Names** : Ndakala, Daga (Lake Tanganyika).

**Literature** : Fifty-six references to the species in CLOFFA (1984).

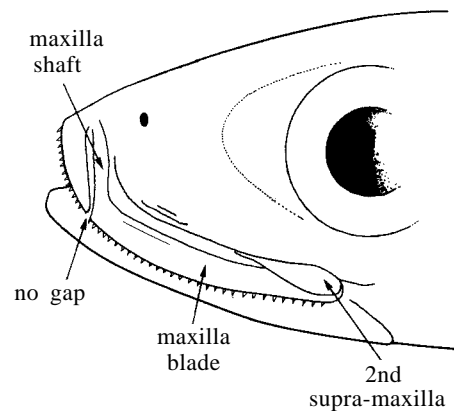


**Limnothrissa** Regan, 1917

CLUP Limno

*Limnothrissa* Regan, 1917, *Ann.Mag.nat.Hist.*, (8)19:207 (type: *Pellonula miodon* Boulenger, in part).

**Diagnostic Features** : Small or fairly large pellonulines, one species reaching about 13 cm, known only from Lake Tanganyika and Lake Mweru. Belly rather rounded, pre-pelvic scutes not strongly keeled, but post-pelvic scutes with sharp spines. Lower jaw very slightly protruding when mouth closed, rising steeply within mouth, with minute teeth at sides (not saw-like, however); pre-maxillae with very small teeth; maxilla blade very long, more than four times length of its shaft, its upper edge with a slight ridge, its lower edged toothed and meeting tip of pre-maxilla; second supra-maxilla paddle-shaped, lower part larger than upper, not quite as deep as maxilla blade. Lower gillrakers long, slender and in one species numerous. Pelvic finrays 7, its insertion below first third of dorsal fin base. Scales small, 40 or more in lateral series. Resembles *Stolothrissa* of Lake Tanganyika, which has a shorter maxilla blade (not reaching forward to tip of pre-maxilla) and a more symmetrical second supra-maxilla. All other West African pellonulines have the maxilla blade only a little longer than its shaft.



**Biology, Habitat and Distribution** : Freshwater, in two central African lakes (Lake Tanganyika, Lake Mweru); introduced into other lakes.

**Interest to Fisheries** : Of some local commercial importance in Lake Tanganyika and with potential value when introduced into other lakes. Catches of this species and the more abundant *Stolothrissa* in 1983 were 65 129 tons.

**Species** : Long believed monotypic, but a second species was subsequently discovered in Lake Mweru:

*L. miodon* (Boulenger, 1906), central African freshwaters  
*L. stappersii* (Poll, 1948), central African freshwaters.

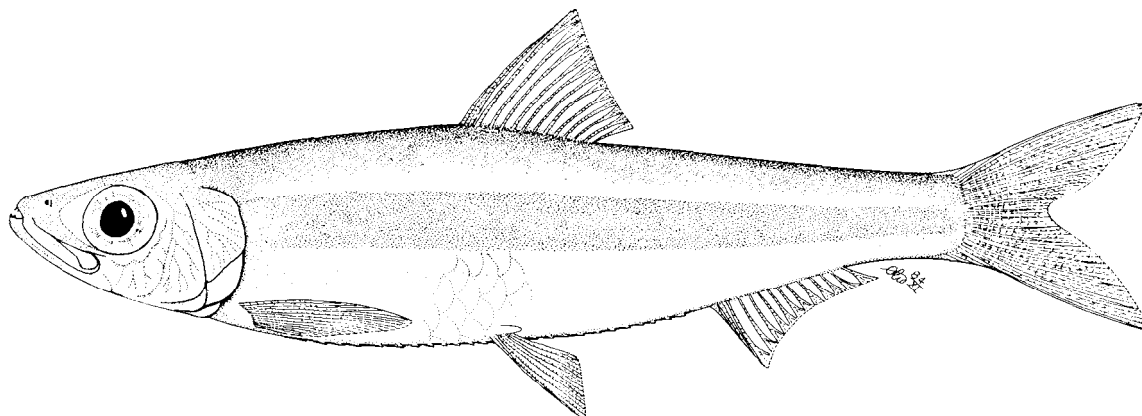
**Limnothrissa miodon** (Boulenger, 1906)

CLUP Limno 1

Pellonula miodon Boulenger, 1906, Trans.zool.Soc.Lond., 17(6):546, pl. 30, fig. 2 (Lake Tanganyika; but some specimens were Stolothrissa tanganicae Regan).

**Synonyms** : Pellonula miodon:Boulenger, 1909:157, fig. 125 (but some specimens S. tanganicae); Limnothrissa miodon - Regan, 1917:207, fig. 2(1) (Lake Tanganyika); Poll, 1974:149, map 2 (synopsis); CLOFFA 1984:45 (complete synonymy, refs to habits, food, breeding, growth, behaviour, migrations, fisheries).

**FAO Names** : En - Lake Tanganyika sardine.



**Diagnostic Features** : Body fairly slender (depth about 22 to 24% of standard length). Pre-pelvic scutes not strongly keeled, beginning behind base of last pectoral finray. Maxilla blade over 4 times as long as its shaft, its lower toothed edge continued forward to meet hind tip of pre-maxilla; second supra-maxilla asymmetrical, lower half larger. Lower gillrakers long and slender, 35 to 38. A distinct silver stripe along flank. Resembles Stolothrissa tanganicae of Lake Tanganyika, which is more slender, has a small eye (less than head behind eye) and a shorter maxilla blade not reaching forward to hind tip of pre-maxilla. Distinguished from its congener in Lake Mweru, Limnothrissa stappersii, chiefly by having more gillrakers (cf. only 22 to 25).

**Geographical Distribution** : One central African lake (Lake Tanganyika), but introduced into several other lakes (Lake Kivu, Lake Kariba, Cahora Bassa reservoir).

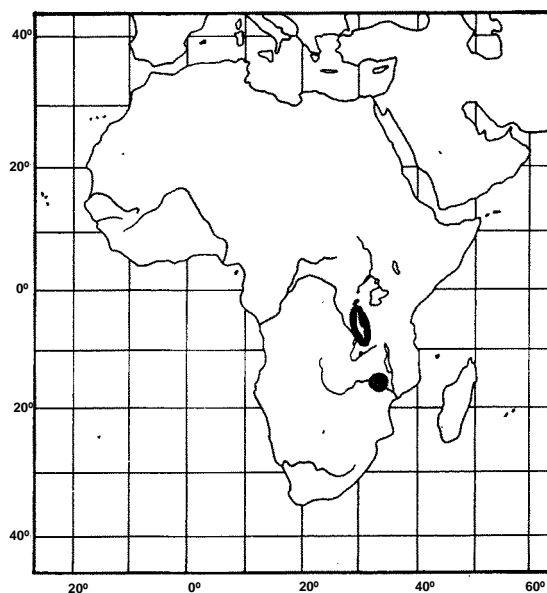
**Habitat and Biology** : Lacustrine, forming large schools. Feeds on plankton (especially atyid shrimps, also copepods, prawns, etc.), but larger individuals apparently take larval Stolothrissa. Breeds close to the shore throughout the rainy seasons, but with peaks in May/June and December/January.

**Size** : To about 13 cm standard length.

**Interest to Fisheries** : Of less importance than Stolothrissa tanganicae in Lake Tanganyika, although reaching a slightly larger size. Catch statistics combine the two species, with a total of 65 129 tons in 1983. Introduced into Lake Kariba, it may support a moderate but locally valuable fishery.

**Local Names** : Daga (Lake Tanganyika), Kapenta (Lake Kariba).

**Literature** : Sixty-four references to the species in CLOFFA (1984).



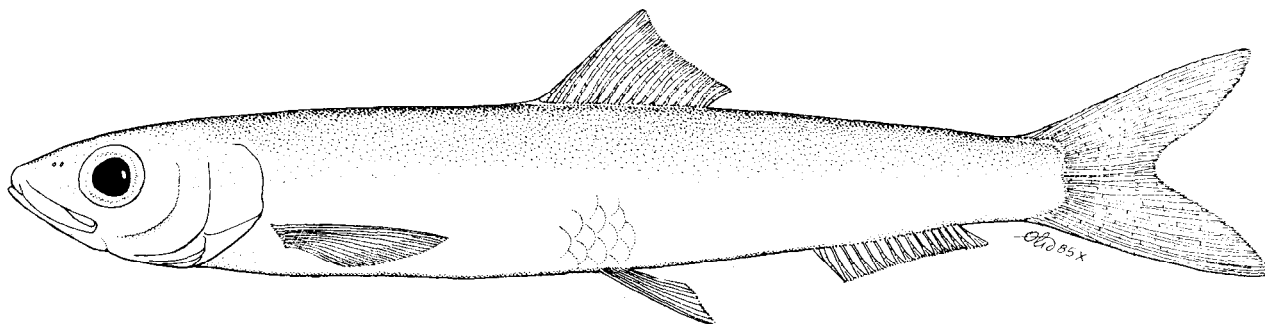
**Limnothrissa stappersii** (Poll, 1948)

CLUP Limno 2

Microthrissa (Potamothrissa) stappersii Poll, 1948, Bull.Mus.r.Hist.nat.Belg., (24)21:17, fig. 7 (Lake Mweru at Lukonzolwa).

**Synonyms** : Limnothrissa stappersii - Poll, 1974:149, map 2 (synopsis, misspelt as stappersi); CLOFFA, 1984:46 (complete synonymy).

**FAO Names** : En - Stapper's sprat.



**Diagnostic Features** : Known only from small and perhaps juvenile specimens of 2.8 cm total length, but appears similar to L. miodon of Lake Tanganyika except for fewer lower gillrakers (22 to 25; cf. 35 to 38), fewer anal finrays (15 to 17; cf. 17 to 18) and absence of scutes (a juvenile character) ?

**Geographical Distribution** : One central African lake (Lake Mweru).

**Habitat and Biology** : Lacustrine, apparently forming large schools. More data needed.

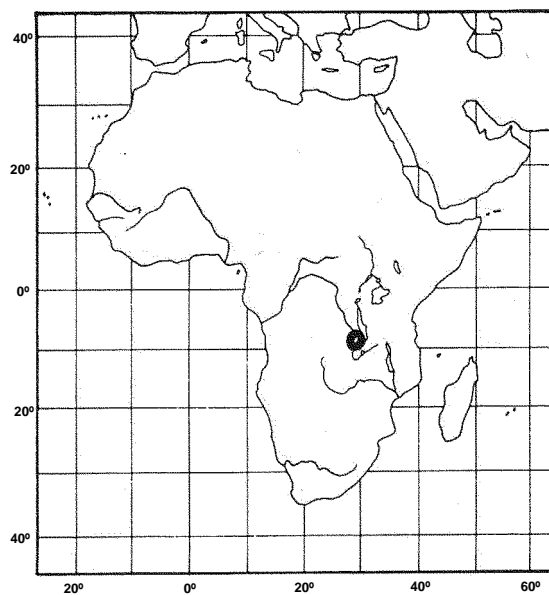
**Size** : Specimens of 2.8 cm total length (about 2.3 cm standard length) recorded, but perhaps grows larger.

**Interest to Fisheries** : Little or none.

**Local Names** : -

**Literature** : Six references to this species in CLOFFA (1984).

**Remarks** : Possibly this is merely the juvenile of L. miodon, although adult anal finray counts are usually fixed by about 2.5 cm standard length and scutes are visible.

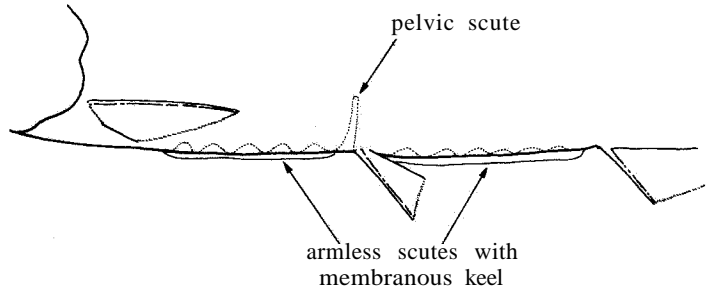


**Sierrathrissa** Thys van den Audenaerde, 1969

CLUP Sierr

*Sierrathrissa* Thys van den Audenaerde, 1969, *Rev.Zool.Bot.afr.*, 80(3-4):386 (type: *Sierrathrissa leonensis* Thys van den Audenaerde).

**Diagnostic Features** : Very small pello-nulines, adult at 1.8 to 2 cm standard length. Scutes present before and behind pelvic fin base, without lateral arms (except for the pelvic scute itself), but bearing a low membranous keel. Jaws about equal, with small teeth; second supra-maxilla spatulate, with moderate anterior shaft. Lower gillrakers less than 20. Branchiostegal rays usually 3. Dorsal fin origin behind midpoint of body; pelvic fin insertion well before dorsal fin, with i 6 finrays; anal finrays 17 to 21, its origin below dorsal fin base. Scales apparently absent except near tail. Resembles juveniles of other pello-nulines (especially *Pellonula*), but other genera have i 7 pelvic finrays, the pelvic fin insertion below or only a little before the dorsal fin base and 6 branchiostegal rays (except *Thrattidion* and *Congothrissa* with 3, but no second supra-maxilla).



**Biology, Habitat and Distribution** : Freshwater, in West African rivers from Senegal to Cameroon, also man-made lakes (Kainji and Volta).

**Interest to Fisheries** : Little or none.

**Species** : A single species recognized:

*S. leonensis* Thys van den Audenaerde, 1969, West African freshwaters.

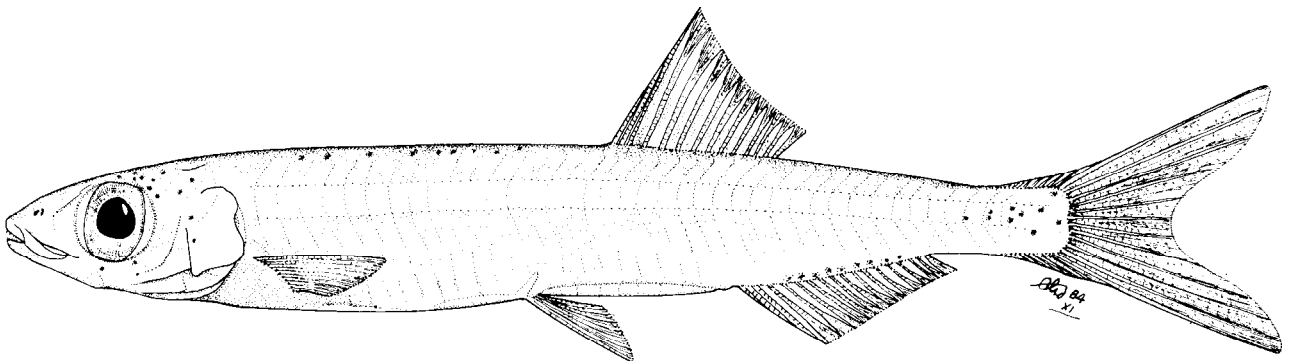
**Sierrathrissa leonensis** Thys van den Audenaerde, 1969

CLUP Sierr 1

*Sierrathrissa leonensis* Thys van den Audenaerde, 1969, *Rev.Zool.Bot.afr.*, 80(3-4):386, figs 1,2 (Waanje ferry near Pujehun, Sierra).

**Synonyms** : *Pellonula afzeliusi*: Johnels, 1954:351 (Gambia River, some of the smaller syntypes of *afzeliusi*); *Microthrissa miri*: Daget, 1954:67 (Bamako, Diarafable, upper Niger; some of the smaller paratypes); *Potamothrissa miri*: Turner, 1970:11 (some juveniles); *Sierrathrissa leonensis* - Poll, 1974:150 (synopsis); Teugels & Thys van den Audenaerde, 1979:523, figs 2,4,6,9 (comparison with *Pellonula afzeliusi*); CLOFFA, 1984:54 (complete synonymy); Whitehead & Teugels, 1985 (descr.distrib., osteology).

**FAO Names** : En - West African pygmy herring.



**Diagnostic Features** : Small, slender fishes, easily mistaken for the juveniles of *Pellonula*. Belly rounded, pre-pelvic scutes minute, 4 to 10, without arms, supporting a low membranous keel, post-pelvic scutes similar, the keel more apparent. Lower gillrakers 13 to 16. Pelvic insertion well before dorsal fin, with i 6 finrays; anal fin beginning under dorsal fin base. Commonly occurs with *Pellonula*, which has i 7 pelvic finrays, normal scutes and the pelvic fin insertion more or less below the dorsal fin origin.

**Geographical Distribution** : Rivers of West Africa (Senegal to Cameroon, apparently in both lower and upper reaches, but the latter only confirmed in the case of the Niger); also the man-made lakes Kainji (Nigeria) and Volta (Ghana).

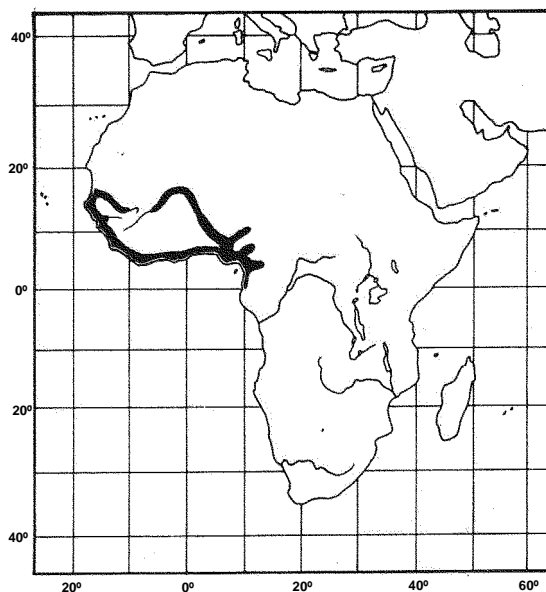
**Habitat and Biology** : Riverine, but also in man-made lakes, schooling in open waters and at about 2 to 8 m in Kainji Lake; rising to about 30 cm from the surface at night in Volta Lake. Feeds on plankton, especially cladocerans. Breeds at about 1.8 to 2 cm standard length, in Kainji Lake in February March and October/November, but with ripe individuals occurring throughout the year.

**Size** : To 3 cm standard length, usually 2 to 2.5 cm.

**Interest to Fisheries** : Little or none.

**Local Names** : -

**Literature** : Fifteen references to this species in CLOFFA (1984); Whitehead & Teugels (1985 - synopsis of biol.; also anatomy).



**Thrattidion** Roberts, 1972

CLUP Thrat

Thrattidion Roberts, 1972, Breviora, (382):2 (type: Thrattidion noctivagus Roberts).

**Diagnostic Features** : Among the smallest of the pellonulines, not yet known to exceed 2.14 cm standard length. Scutes present before and behind pelvic fin base, with lateral arms, the pre-pelvic scutes unkeeled. Jaws about equal, with small teeth; no second supra-maxilla. Lower gillrakers few (at most 11). Branchiostegal rays 4 or 5. Pelvic fin with i 6 or 7 finrays, its insertion before dorsal fin origin; anal fin with 23 to 25 finrays, its origin below dorsal fin base. Scales present behind gill opening and on either side of belly. Resembles juveniles of other pellonulines, but all have a second supra-maxilla (except Congothrissa, which has no pre-pelvic or post-pelvic scutes and only 3 branchiostegal rays).

**Biology, Habitat and Distribution** : Freshwater, in at least one West African river (Sanaga, Cameroon).

**Interest to Fisheries** : -

**Species** : A single species recognized:

Thrattidion noctivagus Roberts, 1972, West African, freshwaters.

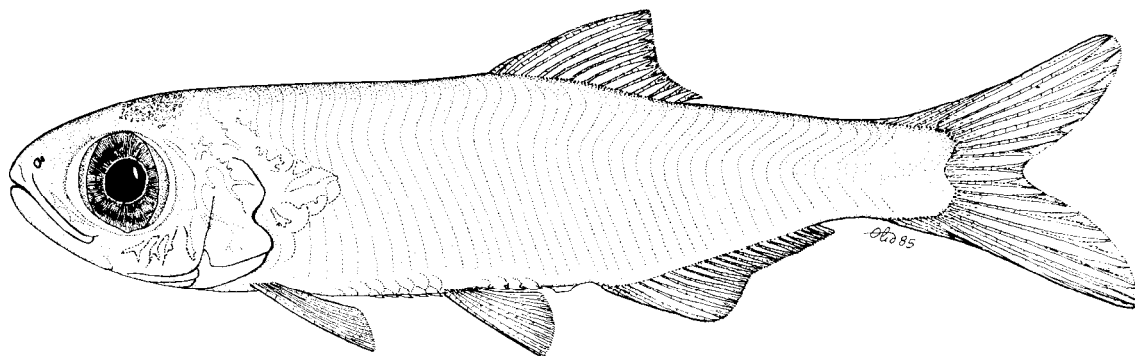
**Thrattidion noctivagus** Roberts, 1972

CLUP Thrat 1

Thrattidion noctivagus Roberts, 1972, Breviora, (382):4, figs 1-14 (Sanaga River at Edea, Cameroon).

**Synonyms** : Thrattidion noctivagus - Poll, 1974:150 (synopsis); CLOFFA, 1984:55 (complete synonymy).

**FAO Names**: En - Sanaga pygmy herring.



**Diagnostic Features** : Small and slender or moderately deep-bodied fishes (depth 20 to 28% of standard length), perhaps not reaching much over 2 cm standard length. Belly rounded, pre-pelvic scutes 4 to 7, with lateral arms, but without keels; pelvic scute with 2 or 3 lateral arms (i.e. branched); post-pelvic scutes keeled and with arms. Lower gillrakers 10 or 11. Pelvic insertion well before dorsal fin, with i 6 or 7 finrays; anal fin beginning under dorsal fin base. The presence of scutes distinguishes it from *Congothrissa gossei* and the absence of a second supra-maxilla distinguishes it from all other West or central African pellenulines (even at 2 cm standard length).

**Geographical Distribution** : Only recorded from a single West African river (Sanaga at Edea).

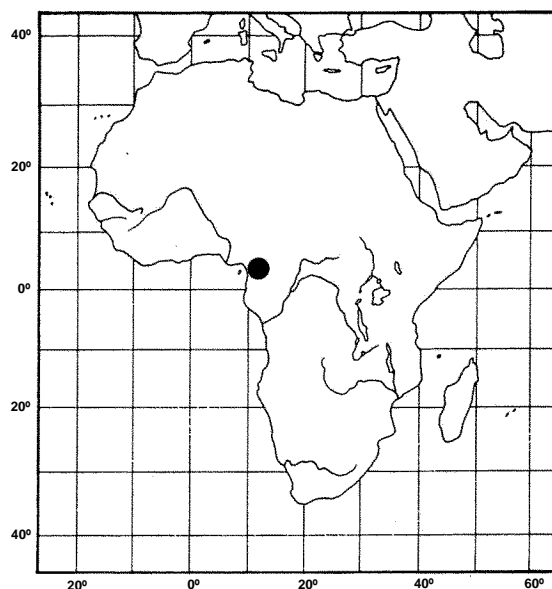
**Habitat and Biology** : Riverine, collected only at dusk and dawn in swiftly flowing water of about 1 m just above the hydro-electric dam at Edea. Feeds on plankton and some terrestrial insects. No data on breeding; Roberts (1972) assumed his largest specimen (2.14 cm standard length) was mature.

**Size** : To 2.14 cm standard length.

**Interest to Fisheries** : -

**Local Names** : -

**Literature** : Subsequent references merely repeat the data of Roberts (1972).

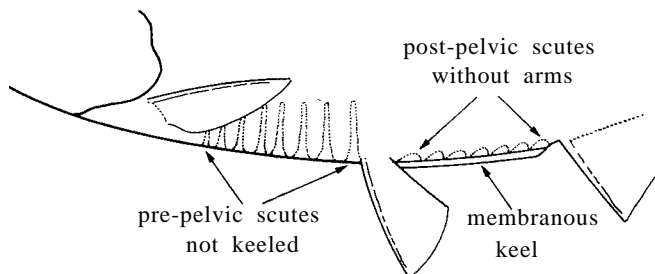


**Laeviscutella** Poll, Whitehead & Hopson, 1965

CLUP Laev

*Laeviscutella* Poll, Whitehead & Hopson, 1965, *Bull.Acad.r.Belg.Cl.Sci.*, (5)51(3):279 (type: *Laeviscutella dekimpei* Poll, Whitehead & Hopson).

**Diagnostic Features** : Small pellenulines reaching about 4 cm standard length. Scutes present before pelvic fin base, with lateral arms, but not keeled, those behind without arms, but supporting a low membranous keel. Lower jaw a little prominent, both jaws with small teeth; second supra-maxilla paddle-shaped. Lower gillrakers 21 to 26. Branchiostegal rays 6. Pelvic fin with i 7 finrays, its insertion below about dorsal fin origin; anal fin origin behind dorsal fin base. Scales present and visible on whole body. Distinguished from other pellenulines by its armed but unkeeled pre-pelvic scutes and armless post-pelvic scutes.



**Biology, Habitat and Distribution** : Freshwater, in West African rivers (Ivory Coast to Gabon).

**Interest to Fisheries** : Little or none.

**Species** : A single species recognized:

L. dekimpei Poll, Whitehead & Hopson, 1965, West African freshwaters.

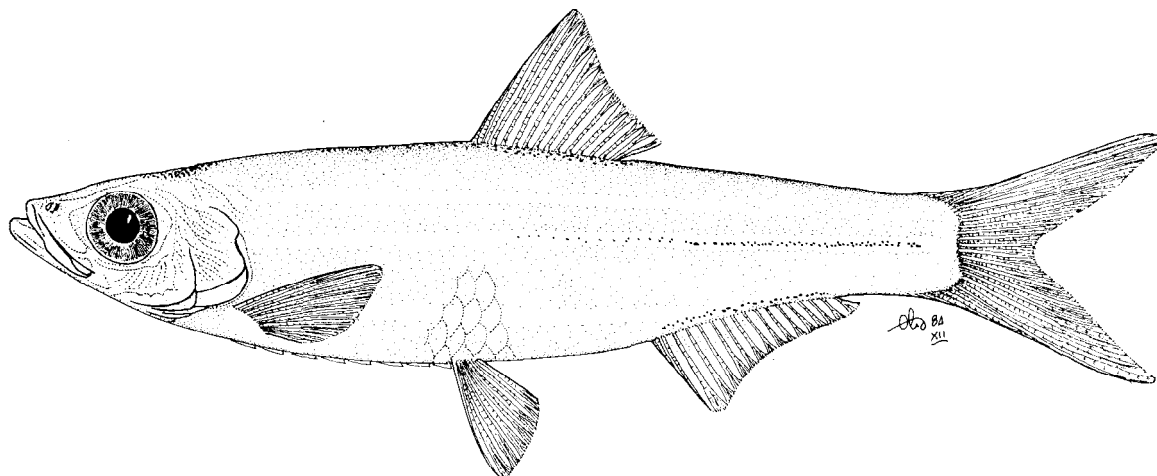
**Laeviscutella dekimpei** Poll, Whitehead & Hopson, 1965

CLUP Laevi 1

Laeviscutella dekimpei Poll, Whitehead & Hopson, 1965, Bull.Acad.r.Belg.Cl.Sci., (5)51(3):280, figs 1-4 (Ghana near Tema, Nigeria near Lagos, Dahomey in Lake Nokoué, Gabon at Agilé and Congo in the Loumé River).

**Synonyms** : Laeviscutella dekimpei - Poll, 1974:150 (synopsis); CLOFFA, 1984:45 (complete synonymy).

**FAO Names** : En - Roundbelly pellowline.



**Diagnostic Features** : Small and fairly slender fishes (depth 22 to 25% of standard length), probably not exceeding about 4 cm standard length. Belly rounded, pre-pelvic scutes 7 or 8, with lateral arms but without keels and hidden by scales; post-pelvic scutes without arms, but supporting a low membranous keel. Lower gillrakers 21 to 26. In all other West African pellowlines with scutes, the post-pelvic scutes have lateral arms, except Sierrathrissa (in which the pre-pelvic scutes also lack arms and the pelvic fin insertion is well before the dorsal fin origin).

**Geographical Distribution** : Lower parts of rivers of West Africa (Ivory Coast to Congo, perhaps also to Zaire), also lagoons (Lake Ebrié, Ivory Coast; Lake Nokué, Dahomey).

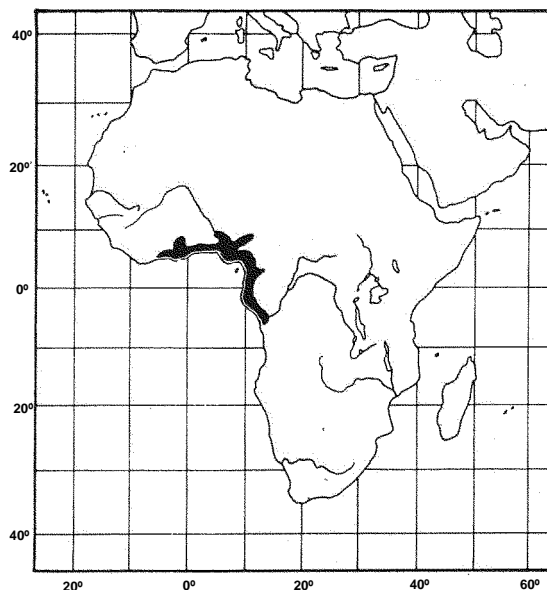
**Habitat and Biology** : Riverine, chiefly near the coast and entering lagoons, where salinities vary with the tides; the species is presumably euryhaline, although it may escape high salinities. No data on feeding. Ripe females of 3.5 to 4 cm standard length were recorded in Lake Ebrié by Daget & Iltis (1965:54).

**Size** : To just over 4 cm standard length.

**Interest to Fisheries** : Little or none.

**Local Names** : -

**Literature** : Only five references to this species found by CLOFFA (1984), adding little to the original description.



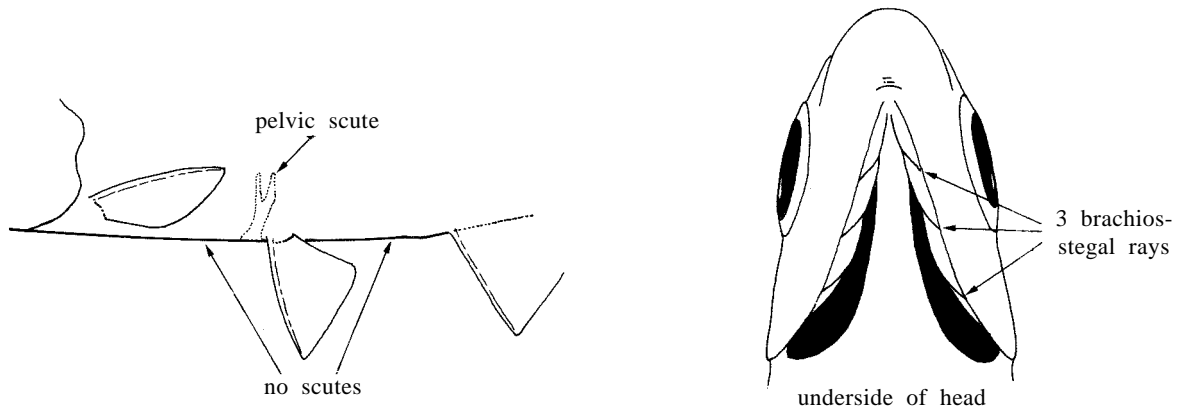


**Congothrissa** Poll, 1964

CLUP Congo

Congothrissa Poll, 1964, Bull.Acad.r.Sci.Outre-Mer Cl.Sci.nat.méd., NS 15(2):8 (type: Congothrissa gossei Poll).

**Diagnostic Features** : Unique among West African pellenulines in lacking pre-pelvic and post-pelvic scutes. Small fishes not exceeding about 3.5 cm standard length, with a reduced number of lower gillrakers (10 to 12) and branchiostegal rays (3 or 4) and the second supra-maxilla absent.



**Biology, Habitat and Distribution** : Freshwater, in West Africa (Zaire system only).

**Interest to Fisheries** : Little or none.

**Species** : A single species recognized:

C. gossei Poll, 1964, West African freshwaters.

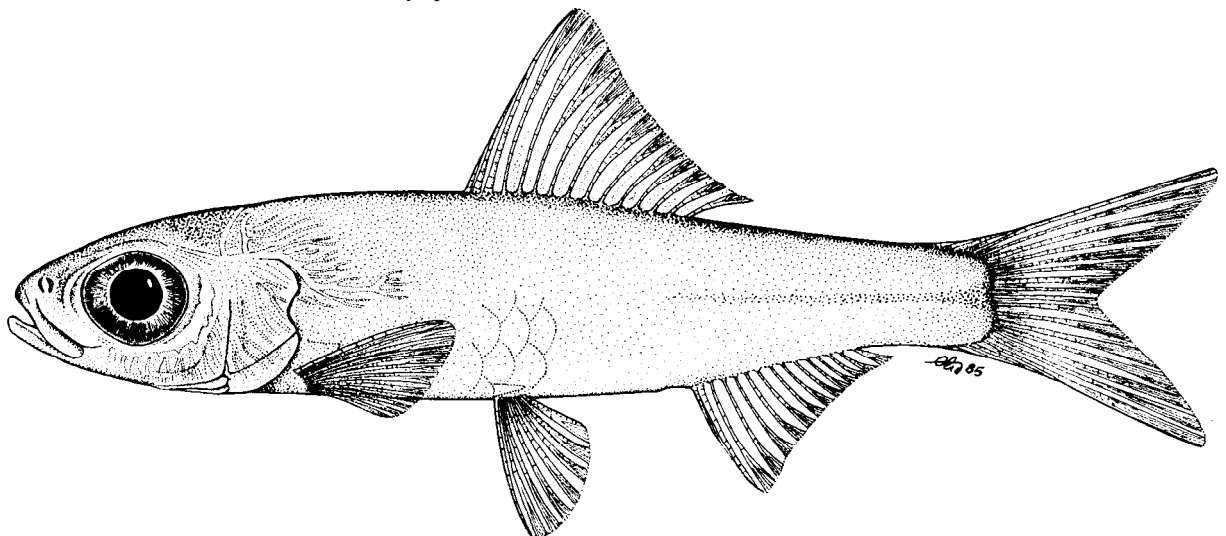
**Congothrissa gossei** Poll, 1964

CLUP Congo 1

Congothrissa gossei Poll, 1964, Bull.Acad.r.Sci.Outre-Mer Cl.Sci.nat.méd., NS 15(2):8 (Yangambi, near Yaekela, Zaire River).

**Synonyms** : Congothrissa gossei - Poll, 1974:151 (synopsis); Poll & Teugels, 1984:56 (complete synonymy).

**FAO Names** : En - Smoothbelly pellenuline.



**Diagnostic Features** : Small, fairly slender fishes (depth around 22 to 24% of standard length), probably not exceeding 3.5 cm standard length. Belly rounded, smooth, no trace of scutes before or behind pelvic fins (pelvic scute itself present, however, the tips of its lateral arms bifurcated). Jaws about equal, with fine teeth; no second supra-maxilla. Lower gillrakers 10 to 12. Pelvic fin insertion just behind dorsal fin origin, with i 7 finrays. Scales large, about 22 in lateral series. Occurs with species of *Microthrissa*, *Poecilothrissa*, *Potamothrissa*, etc., but the smoothly rounded belly, absence of spiny post-pelvic scutes and lack of a second supra-maxilla makes it unmistakable.

**Geographical Distribution** : Central part of Zaire system (around Kisangani area and also Ubangui River at Bangui and upstream).

**Habitat and Biology** : Riverine, apparently in the main stream. Feeds on small shrimps, mosquito larvae and chironomid larvae (Poll, 1964). More data needed.

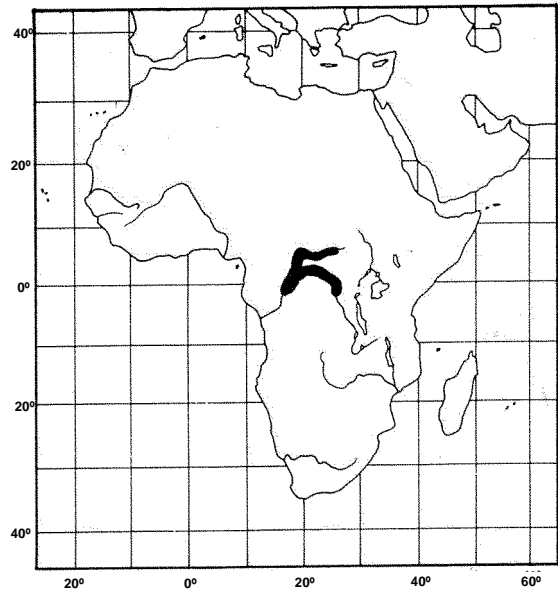
**Size** : To 3.5 cm standard length.

**Interest to Fisheries** : Little or none.

**Local Names** : -

**Literature** : Only seven references to this species in Poll & Teugels (1984).

**Remarks** : Poll (1964) proposed a distinct family for this species, the Congothrissidae, and on additional anatomical grounds Taverne (1977) agreed and was followed by Poll & Teugels (1984). However, *Congothrissa* only carries pellation-line trends of reduction a stage further (scutes and second supra-maxilla now completely absent) and shows no characters that differ fundamentally from those of all other pellationines; even the recognition of a separate tribe, the Congothrissini of Poll (1974), seems unnecessary.

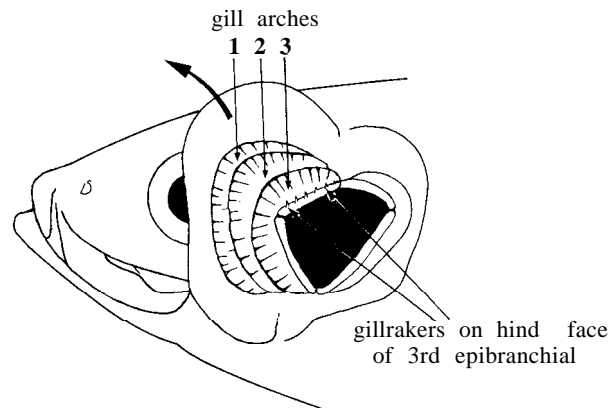
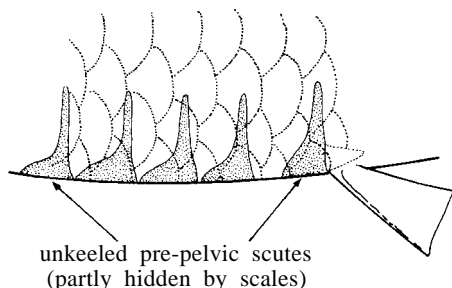


**Gilchristella** Fowler, 1935

CLUP Gil

*Gilchristella* Fowler, 1935, *Proc.Acad.nat.Sci.Philad.*, 87:365, fig. 4 (type: *Spratelloides aestuarius* Gilchrist, 1914).

**Diagnostic Features** : Small pellationines of southern Africa reaching about 6.5 cm standard length. Thin scutes, unkeeled and barely visible, with slender lateral arms present before pelvic fins, none behind. Lower jaw slightly projecting; second supra-maxilla paddle-shaped. Lower gillrakers 42 to 76 (at 4 to 6.3 cm standard length); gillrakers small but present on posterior face of third epibranchial. Branchiostegal rays 6 or 7. Pelvic fin with i 7 finrays, its insertion below or just before dorsal fin origin; anal fin origin just behind last dorsal finray. Scales present, about 40 in lateral series. Distinguished from all other clupeids in the area by the presence of unkeeled pre-pelvic scutes.



**Biology, Habitat and Distribution** : Rivers, estuaries, lakes and lagoons of the eastern and western coasts of southern Africa (Lake Piti, Mozambique to Saldanha Bay and perhaps Orange River mouth).

**Interest to Fisheries** : Little or none.

**Species** : A single species recognized, but a second species has been suspected (Talwar & Whitehead, 1971:69):

G. aestuarius Gilchrist, 1914, South African fresh- and brackishwaters.

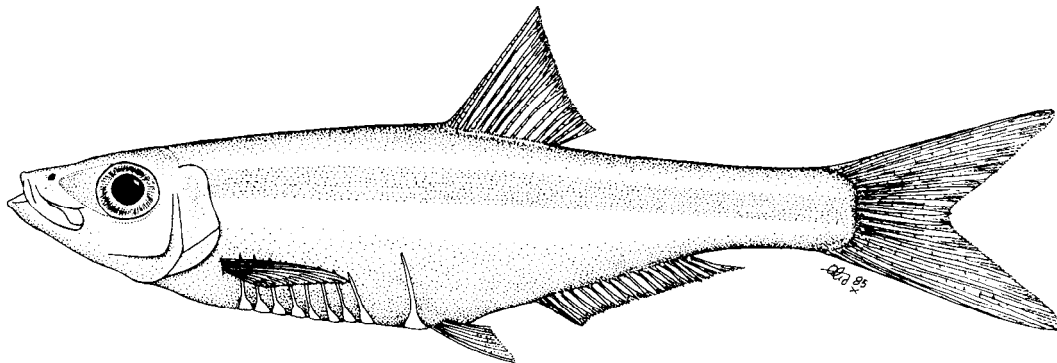
**Gilchristella aestuarius** (Gilchrist, 1914)

CLUP Gil 1

Spratelloides aestuarius Gilchrist, 1914, Mar.biol.Rep.S.Afr., (1):55 (Swartkops River, Port Elizabeth).

**Synonyms** : Stolephorus aestuarius:Fowler,1941:569 (Blue Lagoon, Natal); Ehirava madagascariensis: Whitehead, 1963:333 (only the 11 Buffalo River specimens); Gilchristella aestuarius - Whitehead, 1963:334, fig. 13 (St. Lucia south to Knysna estuary); Talwar & Whitehead, 1971 (key, Buffalo River specimens); Whitehead 1973:194, fig. 24 (key, synonymy, refs); CLOFFA, 1984:44 (synonymy); SPSA, in press (key, descr.).

**FAO Names** : En - Gilchrist's round herring.



**Diagnostic Features** : Body rather compressed, belly rounded, with 6 to 9 thin unkeeled pre-pelvic scutes (difficult to see unless scales removed) followed by an equally thin pelvic scute, all with slender ascending arms; no post-pelvic scutes. Snout pointed, lower jaw a little prominent, with a single row of fine teeth in each jaw; second supra-maxilla paddle-shaped. Gillrakers 39 to 45 (but to 76 in Buffalo River fishes); gillrakers small but present on posterior face of third epibranchial. Pelvic fin with 7 finrays, under or a little before dorsal fin origin. Resembles Spratelloides spp or juvenile Etrumeus and Dussumieria, but pre-pelvic scutes present; other clupeids in area have keeled pre-pelvic and post-pelvic scutes.

**Geographical Distribution** : Lake Piti, Mozambique along southern African coast to Saldanha Bay, possibly to mouth of Orange River (but range perhaps confused by presence of a second undescribed species - see below).

**Habitat and Biology** : Rivers, lakes, estuaries and lagoons, apparently able to tolerate brackishwater. More data needed.

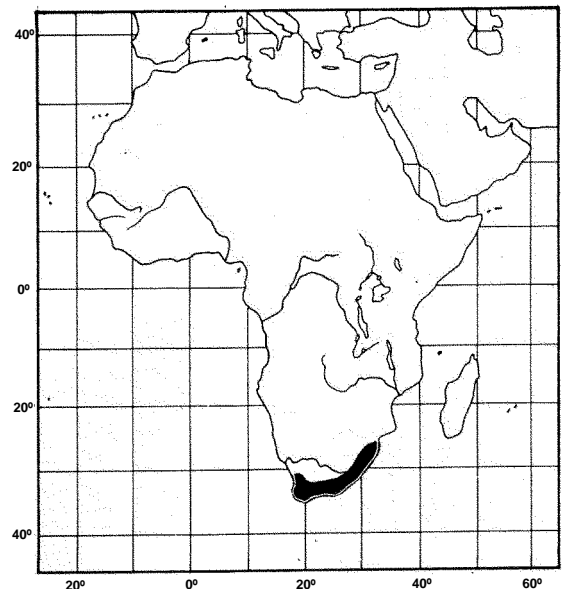
**Size** : To 6.5 cm standard length.

**Interest to Fisheries** : Little or none.

**Local Names** : -

**Literature** : Twenty-one references in CLOFFA (1984).

**Remarks** : The Buffalo River specimens, placed in Ehirava madagascariensis by Whitehead (1963:333), had 40 to 56 gillrakers, while specimens from other localities, given as Gilchristella aestuarius, had only 39 to 45 gillrakers; later work suggested other differences between the two (Talwar & Whitehead, 1971:68,69) and the gillraker count for 'aberrant' specimens was found to be as high as 76. A second species of Gilchristella is thus probable.



**Sauvagella** Bertin, 1940

CLUP Sauv 2

Sauvagella Bertin, 1940, Bull.Mus.natn.Hist.Nat.Paris, (2)12(6):300 (type: Spratelloides madagascariensis Sauvage, 1883 - but excluding S. madagascariensis bianalis Bertin, 1940, which is Spratellomorpha bianalis). Pellonulops Smith, 1949 (June), Ann.Mag.nat.Hist., (12)2:98 (type: Spratelloides madagascariensis Sauvage, 1883); Idem, 1949, Seafish.S.Africa:91 (? published after June).

**Diagnostic Features** : Small elongate pellowulines of Madagascar reaching about 4.6 cm standard length. No pre-pelvic scutes, but pelvic scute with slender vertical arms (W-shaped in Spratelloides, Dussumieria, Etrumeus). Jaws about equal or lower slightly projecting. Lower gillrakers about 20; gillrakers present on posterior face of third epibranchial (see Gilchristella). Pelvic fin with i 7 finrays, its insertion a little before dorsal fin origin; anal fin without last two finrays separate (cf. Spratellomorpha).

**Biology, Habitat and Distribution** : Freshwaters of Madagascar.

**Interest to Fisheries** : None.

**Species** : A single species recognized:

S. madagascariensis (Sauvage, 1883), Madagascar, freshwaters.

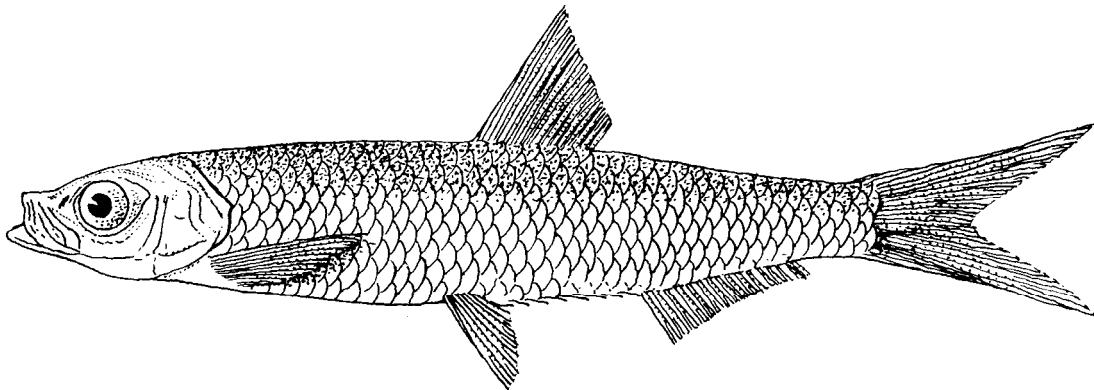
**Sauvagella madagascariensis** (Sauvage, 1883)

CLUP Sauv 1

Spratelloides madagascariensis (part) Sauvage, 1883, Bull.Soc.philomath.Paris, (7)7:160 (Madagascar; excluding the form bianalis Bertin, 1940, based on 12 of the syntypes = Spratellomorpha bianalis).

**Synonyms** : Sauvagella madagascariensis longianalis and brevadorsalis Bertin, 1940; Pellonulops madagascariensis:Smith, 1949a:98 (in part on South African specimens of Gilchristella aestuarius, but diagnosis mainly on Sauvage, 1883); Ehirava madagascariensis:Whitehead, 1963:333 (type, but 11 Buffalo River G. aestuarius included in error); Sauvagella madagascariensis - Talwar & Whitehead, 1971:67 (key); Whitehead, 1973:193, fig. 22 (key, synonymy, refs); CLOFFA, 1984 (synonymy); Whitehead & Bauchot, in press:types).

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



**Diagnostic Features** : Body elongate, a little compressed, belly rounded, without pre-pelvic scutes, but a pelvic scute present with slender vertical arms. Gillrakers probably few (19 at 4 cm standard length in one syntype). Pelvic fin with i 7 finrays, under or a little before dorsal fin origin; last two anal finrays not separate from others (cf. Spratellomorpha bianalis). Distinguished from other non-scuted clupeids in area (Spratelloides, Dussumieria, Etrumeus) by presence of normal pelvic scute (cf. W-shaped).

**Geographical Distribution** : Freshwaters of Madagascar.

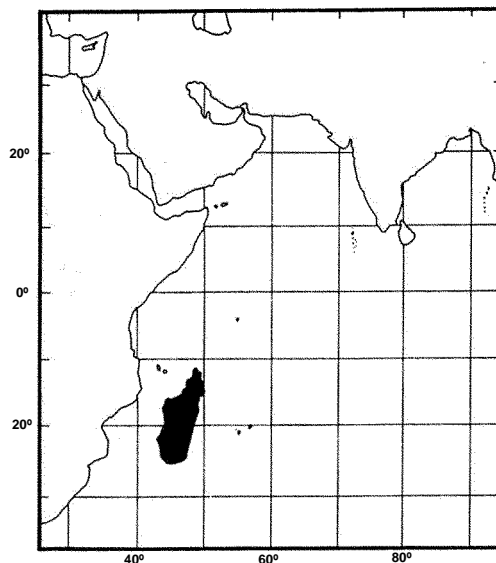
**Habitat and Biology** : Freshwaters, possibly tolerating brackishwater. More specimens and data needed.

**Size** : To about 5 cm standard length, perhaps more.

**Interest to Fisheries** : Little or none.

**Local Names** : -

**Literature** : Only 11 references in CLOFFA (1984), mostly repetitive.



**Spratellomorpha** Bertin, 1946

CLUP Spratam

Spratellomorpha Bertin, 1946, in Angel, Bertin & Guibé, Bull.Mus.natn.Hist.nat.Paris, (2)18:473-474 (type: Sauvagella madagascariensis bianalis Bertin, 1940).

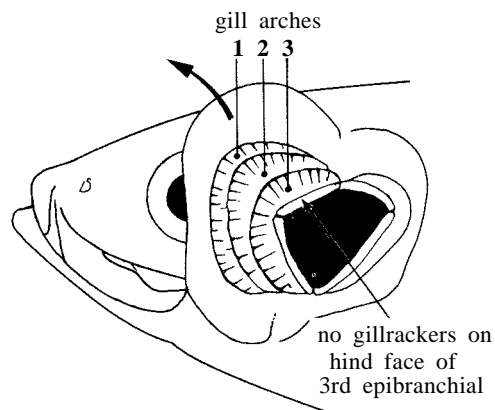
**Diagnostic Features** : Small pelionulines of East Africa and Madagascar reaching about 4.5 cm standard length. No pre-pelvic scutes, but pelvic scute with slender vertical arms (W-shaped in Spratelloides, Dussumieria, Etrumeus). Snout pointed, lower jaw projecting slightly. Lower gillrakers 26 to 31; gillrakers absent on posterior face of third epibranchial. Pelvic fin with i 7 finrays, its insertion well before dorsal fin origin; last two anal finrays separate, forming a distinct little finlet (otherwise known only in the Indian and Southeast Asian genera Corica and Clupeichthys).

**Biology, Habitat and Distribution** : Marine or estuarine in Madagascar, also Kenya.

**Interest to Fisheries** : None.

**Species** : A single species recognized:

S. bianalis (Bertin, 1940), Madagascar, Kenya, marine or estuarine.



**Spratellomorpha bianalis** (Bertin, 1940)

CLUP Spratam 1

Spratelloides madagascariensis (part) Sauvage, 1883, Bull.Soc.philomat.Paris, (7)7:160 (Madagascar, excluding the forms longianalis and brevidorsalis of Bertin 1940, based on two of the syntypes = Sauvagella madagascariensis).

**Synonyms** : Sauvagella madagascariensis bianalis Bertin, 1940 (types); Sauvagella bianalis: Whitehead, 1963:336, fig. 14 (types, descr.); Spratellomorpha bianalis - Losse, 1968:84 (Mombasa, descr.); Talwar & Whitehead, 1971:68 (key); Whitehead, 1973:194, fig. 23 (key, synonymy, refs); CLOFFA, 1984:54 (synonymy); Whitehead & Bauchot, in press:types).

**FAO Names** : En - Two-finned round herring.