

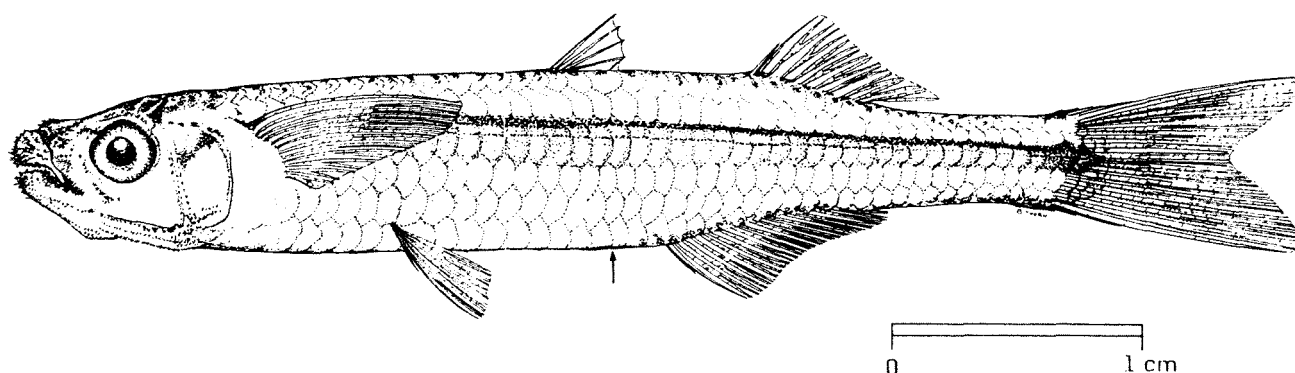
## FAO SPECIES IDENTIFICATION SHEETS

FAMILY : ATHERINIDAE

FISHING AREA 51  
(W. Indian Ocean)

Atherion africanus Smith, 1965

OTHER SCIENTIFIC NAMES STILL IN USE : None



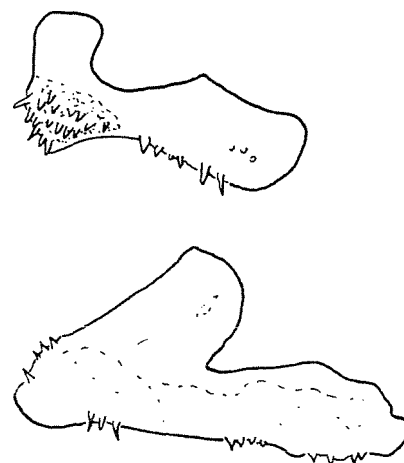
## VERNACULAR NAMES:

FAO: En - Pricklenose silverside  
Fr - Athérine à nex râpeux  
Sp - Pejerrey lijador

NATIONAL:

## DISTINCTIVE CHARACTERS:

A small, moderately elongated and laterally compressed fish, head small, somewhat compressed. Outer surface of premaxilla heavily armoured with small denticles; denticles likewise present on dentary, along edges of preopercular, opercular and infraorbital bones; those on nasals and along edges of postorbital canal forming crest-like structures; denticles may also be present on other bones of head, either in clusters or as single elements, no teeth on vomer or palatines (roof of mouth); premaxilla not reaching vertical through anterior margin of orbit, its median process short and blunt; posterior ramus of dentary bone highly elevated; hind edge of preopercle unnotched, but produced into a blunt triangular lobe near lower angle, gill rakers moderately long and slender, 10 or 11 on lower limb of first gill arch. Anus well behind pelvic fin tips. First dorsal fin consisting of 4 or 5 spines, second dorsal of 1 spine, and 10 to 12 soft rays. Anal fin with 1 spine and 16 soft rays; pectoral fins with 10 to 13 rays. Vertebral count about: 40. Body scales large; midlateral scale count 41 to 44; predorsal scales 16 to 18, interdorsal scales 10 or 11; 5 or 6 transverse scale rows along sides of body.



premaxilla and dentary bone

Colour: probably blue green and translucent in life, with a silvery stripe along sides of body. When preserved, colour brown or brown green. Upper edge of midlateral stripe with a pronounced blue-black line; opercle and iris silvery; upper surface of head black; upper half of body dusky, with numerous small spots forming outlines of scales; fins clear to faintly dusky.

**DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:**

None of the other species in the area have conspicuous shagreen denticles on head forming crest-like structures in nasal and postorbital regions. Furthermore:

Atherina breviceps: large size; body deeper, with 7 or more transverse scale rows (about 5 in A. africanus); vertical from origin of first dorsal fin in front of pelvic fin tips (behind fin tips in A. africanus);

Atherinomorus, Hypoatherina and Teramulus species: a distinct notch present on anterior edge of preopercle.

**SIZE:**

Maximum: 5.5 cm; common to 4 cm.

**GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:**

Known from the southern coast of Africa and the Grand Comores and Madagascar.

Usually seined offshore in depths of less than 2 m. Feeding behaviour unknown.

**PRESENT FISHING GROUNDS:**

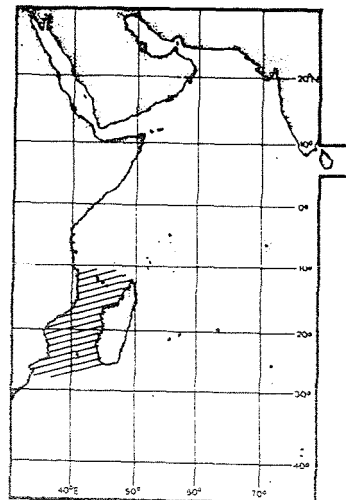
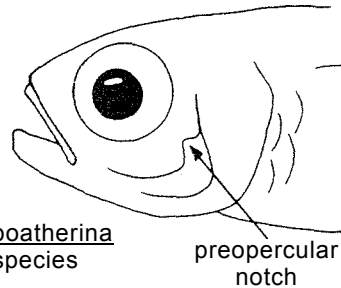
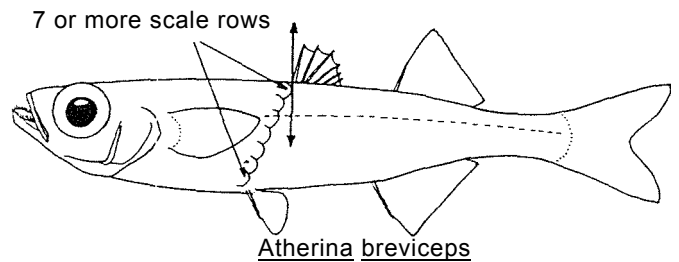
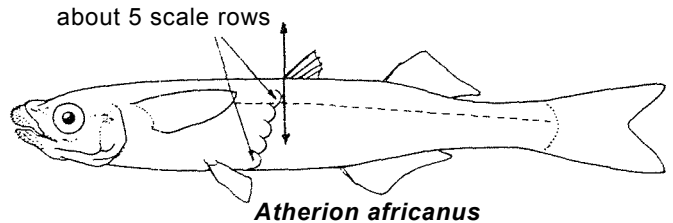
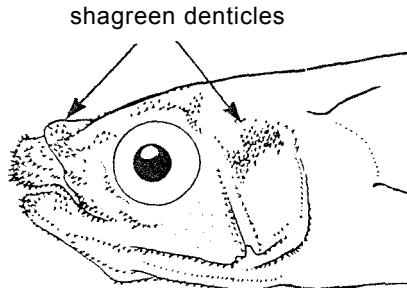
Coastal waters within its range.

**CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:**

Separate statistics are not reported for this species.

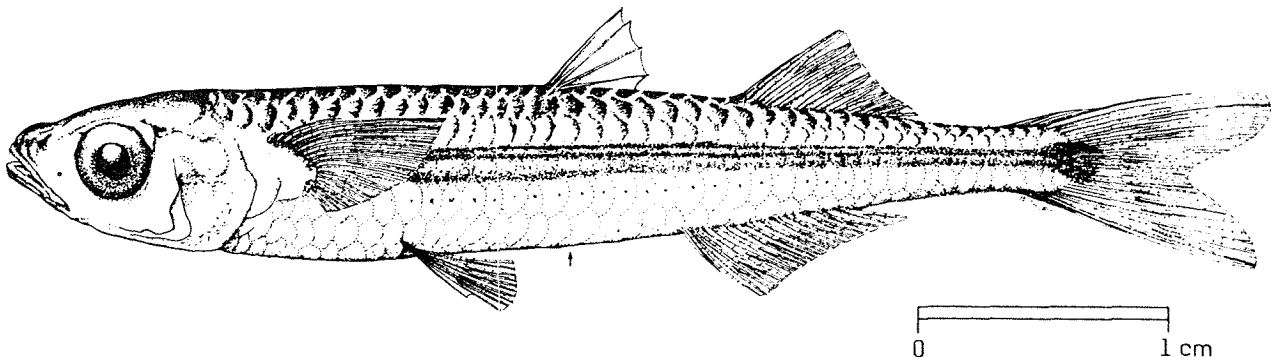
Caught mainly with seines.

Commercially unimportant. Too small to be of any value except as food for larger commercial species, and possibly as bait.



## FAO SPECIES IDENTIFICATION SHEETS

FAMILY : ATHERINIDAE

FISHING AREA 51  
(W. Indian Ocean)Hypoatherina barnesi Schultz, 1953OTHER SCIENTIFIC NAMES STILL IN USE : Allanetta klunzingeri Smith, 1965

## VERNACULAR NAMES:

FAO :           En - Barnes' silverside  
                   Fr - Athérine de Barnes  
                   Sp - Pejerrey de Barnes

NATIONAL:

## DISTINCTIVE CHARACTERS:

A small, slender fish, its body subcylindrical and somewhat compressed. No shagreen denticles on outer surfaces of jaws or other parts of head; fine teeth in both jaws; teeth usually also present on palatines and pterygoids (roof of mouth) and on tongue; premaxilla extending backward to, or just past, vertical through anterior margin of orbit, its ascending process long and slender (its length, at least twice the width); lateral process well defined, although short and wide at base, a second lateral process also present but not visible without dissection; ramus of dentary bone highly elevated posteriorly; posterior edge of preopercle not projected into distinct lobe, anterior edge with a notch above angle; gill rakers moderately long, but less than diameter of pupil, 15 to 19 on lower limb of first gill arch. Anus always behind pelvic fin tips. First dorsal fin consisting of 5 to 7 spines, second dorsal of 1 spine and 8 to 11 soft rays; anal fin with 1 spine and 12 to 17 soft rays; pectoral fins with 12 to 15 rays. Vertebral count 41 or 42. Body scales large; midlateral scale count 40 to 45; predorsal scales 16 to 19, interdorsal scales 6 to 9; 5 transverse scale rows along sides of body.

Colour: preserved specimens are brown, green-brown or grey. Edges of scales above midlateral stripe usually outlined by chromatophores; a black mid-dorsal line running from head to end of caudal peduncle, midlateral stripe wide, broadest between anus and anal fin and extending onto caudal fin forming a triangular blotch on upper half of fin base; upper fifth of stripe distinctly darker than rest; rows of spots on lower sides occasionally present, usually merging with stripe above origin of anal fin. Eases of fins pigmented; all fins dusky, especially the caudal. Upper surface of head dark; opercles and preopercles silvery or dark brown. No blotch on pectoral fins. Live specimens are probably green and translucent.

**DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:**

Hypoatherina temminckii: a large species with a higher gill raker count 21 to 25 on lower limb of first gill arch, against 15 to 19 in H. barnesi; pectoral fin rays 14 to 18 (12 to 15 in H. barnesi); midlateral stripe much narrower than in H. barnesi.

Atherinomorus species: ascending premaxillary process short and broad (long and slender in Hypoatherina), lateral process broad and flat; dentary bone sloping gently upward and backward, but not highly elevated posteriorly.

Teramulus species: snout noticeably pointed; free edge of premaxilla notched anteriorly; teeth in both jaws small, but well developed, curving inward.

Other atherinid species: no notch on anterior edge of preopercle. Furthermore, distinct shagreen-like denticles on head of Atherion africanus, and body much deeper in Atherina breviceps.

**SIZE:**

Maximum: 6.5 cm

**GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:**

Known to be widely distributed in the Pacific. Recent examinations of museum collections indicate them to be ubiquitous in the Western Indian Ocean. Specimens have been identified from the Gulf of Aqaba, Kenya, the Comores, Madagascar, Aldabra and Diego Garcia Islands. Also found along the coasts of Natal and Mozambique.

**PRESENT FISHING GROUNDS:**

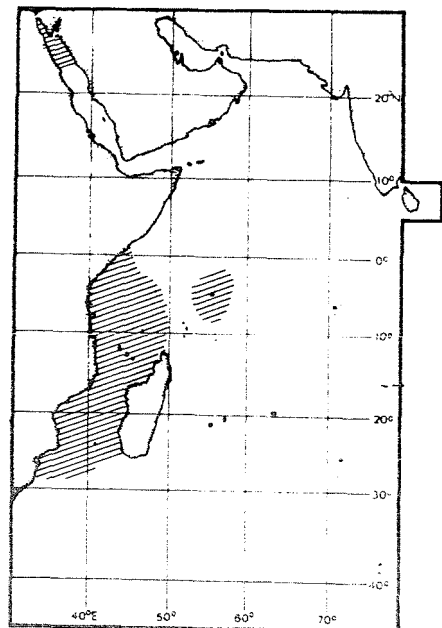
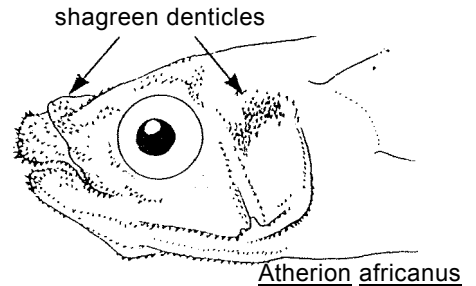
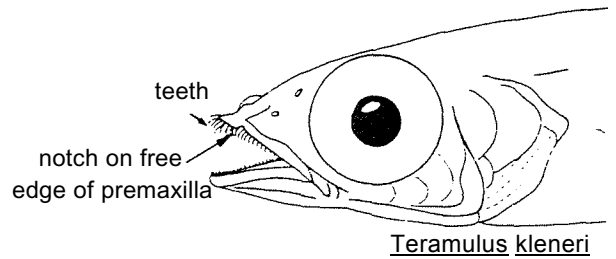
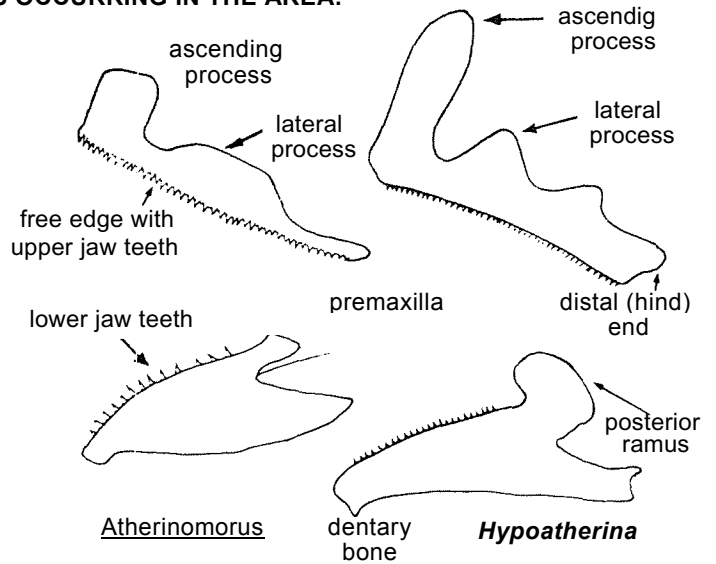
Lagoons, coastal waters within its range. Known to be extremely abundant in the Pacific, occurring in large schools and heavily preyed upon by larger fishes.

**CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:**

Separate statistics are not reported for this species.

Caught mainly with seines.

Unlikely to have commercial value, it may, however, be used as bait,

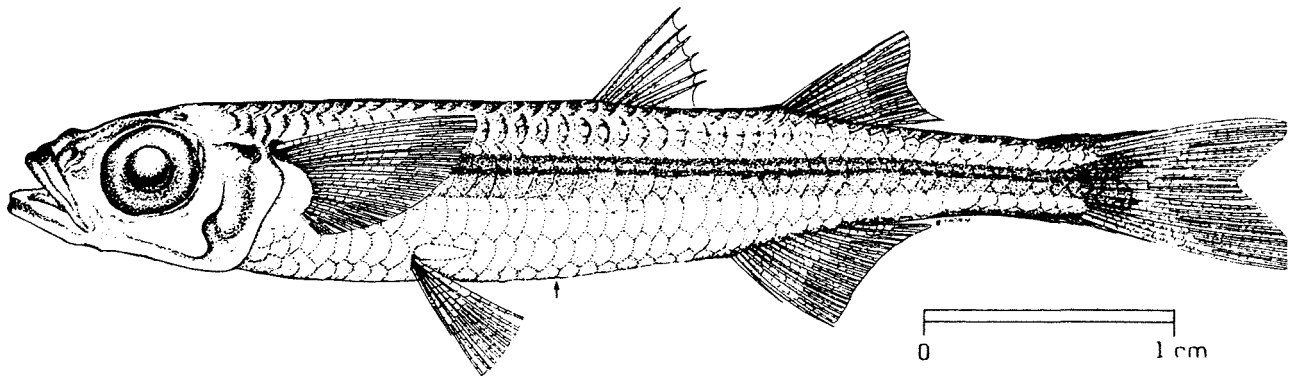


## FAO SPECIES IDENTIFICATION SHEETS

FAMILY : ATHERINIDAE

FISHING AREA 51  
(W. Indian Ocean)*Hypoatherina temminckii* (Bleeker, 1853)

## OTHER SCIENTIFIC NAMES STILL IN USE:

*Allanetta afra* (Peters, 1855)*Hypoatherina uisila* (Jordan & Seale, 1906)*Hypoatherina gobio* (Klunzinger, 1884)

## VERNACULAR NAMES:

FAO : En - Samoan silverside  
Fr - Athérine samoan  
Sp - Pejerrey samoano

NATIONAL:

## DISTINCTIVE CHARACTERS:

One of longer, but more slender silversides of West Indian Ocean. Body slender, subcylindrical and slightly compressed. No shagreen denticles on external surfaces of jaws; fine teeth on dentary bone, premaxilla and on palatines, and meso-pterygoids (roof of mouth); tongue sometimes covered with small tooth-like papillae; premaxilla extending backward to vertical through anterior margin of orbit, its ascending process moderately long and narrow (always longer than twice the width), lateral process only a short, wide elevation; ramus of dentary bone highly elevated posteriorly; posterior edge of preopercle more or less straight and not projected into a lobe, anterior edge with a distinct notch above angle; gill rakers moderately long, but usually less than diameter of pupil, 21 to 25 on lower limb of first gill arch. Anus always behind pelvic fin tips. First dorsal consisting of 5 to 7 spines, second dorsal of 1 spine, and 8 to 10 soft rays; anal fin with 1 spine and 11 to 14 soft rays; pectoral fins with 14 to 18 rays. Vertebral count 38 to 44. Body scales large; midlateral scale count 38 to 44; predorsal scales 16 to 18 interdorsal scales 6 or 7; about 5 transverse rows of scales along side of body.

Colour: preserved specimens green-brown, brown or yellow green. Scales above the midlateral stripe heavily pigmented with edges outlined by chromatophores; chromatophores often forming a pattern resembling incomplete circles along the mid-dorsal line; midlateral stripe narrow, extending onto caudal fin and forming a triangular blotch on upper half of fin base; body below midlateral stripe pale; rows of spots often present along third and fourth scale row along sides of body. Fin bases pigmented; fins clear or dusky, the pectorals frequently with a dark blotch. Upper surface of head dark. Live specimens are probably blue green and translucent.

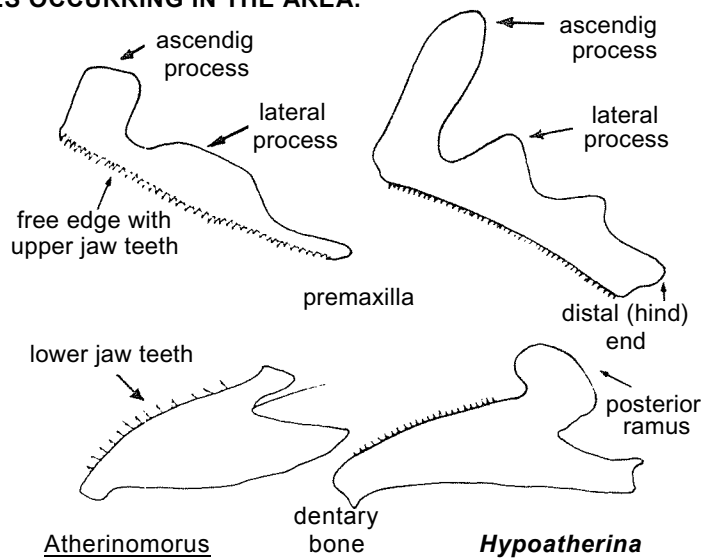
**DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:**

Hypoatherina barnesi: smaller but closely related; fewer gill rakers 15 to 14 against 21 to 25 on lower limb of first gill arch; pectoral fin rays 12 to 15 (14 to 18 in H. temminckii); mid-lateral stripe much wider than in H. temminckii.

Atherinomorus species: ascending premaxillary process short and broad (long and slender in Hypoatherina), lateral process broad and flat; dentary bone sloping gently upward and backward, but not highly elevated posteriorly.

Teramulus species: snout noticeably pointed, free edge of premaxilla notched anteriorly; teeth in both jaws small, but well developed, curving inward.

Other atherinid species: no notch on anterior edge of preopercle. Furthermore, distinct shagreen-like denticles on head of Atherion africanus, and body much deeper in Atherioa breviceps.



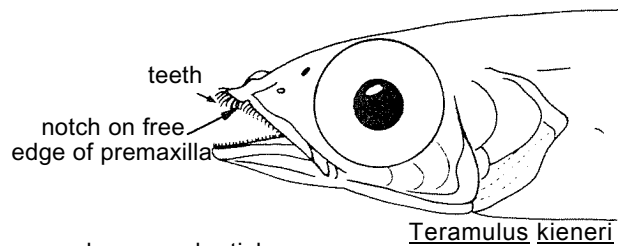
**SIZE:**

Maximum: 11 cm

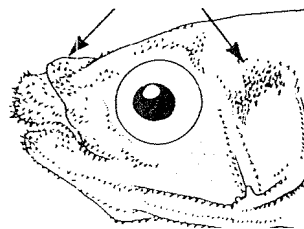
**GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:**

An ubiquitous species occurring throughout the Red Sea, the Indian Ocean and the South and Central Pacific.

Appears to be restricted to coastal waters and harbours.



Teramulus kieneri



Atherion africanus

**PRESENT FISHING GROUNDS:**

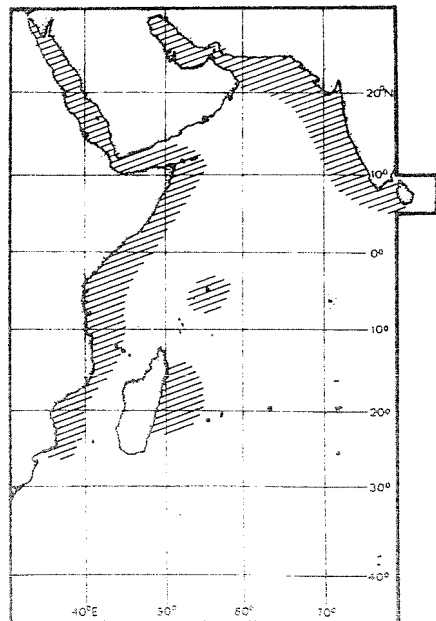
Coastal waters within its range.

**CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:**

Separate statistics are not reported for this species.

Caught mainly with seines.

Could be of value at subsistence level although not known to ever be abundant. As with other silversides and small fishes in general, it can be dried before eating; also used as bait. important as forage species for larger commercial fishes.

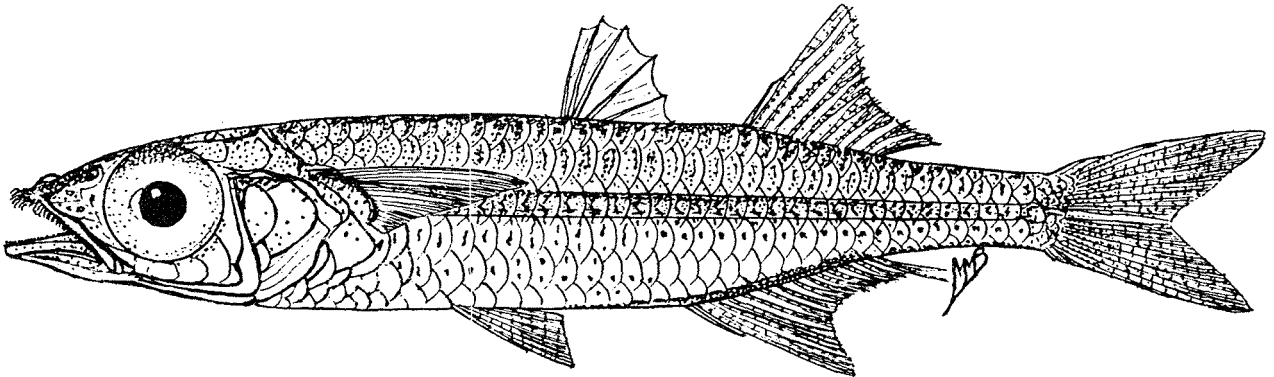


## FAO SPECIES IDENTIFICATION SHEETS

FAMILY : ATHERINIDAE

FISHING AREA 51  
(W. Indian Ocean)Teramulus kieneri Smith, 1965

OTHER SCIENTIFIC NAMES STILL IN USE: None



## VERNACULAR NAMES:

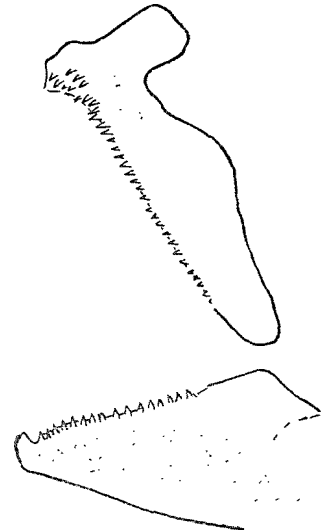
FAO : En - Kiener's silverside  
Fr - Athérine museau piquant  
Sp - Pejerrey picador

NATIONAL:



## DISTINCTIVE CHARACTERS:

Size small. Body compressed. Head large and snout conspicuously pointed; no shagreen denticles on outer surface of head; rows of small, but strongly developed, curved teeth in upper jaw; teeth on dentary bone equally developed, but not as numerous; distinct teeth also present on vomer, palatines and pterygoids (roof of mouth); premaxilla extending backward slightly past vertical through anterior margin of orbit, its median process slightly longer than eye diameter (length approximately equal to width), lateral process a broad elevation; dentary bone sloping backward and upward obliquely but its ramus not distinct from rest of lower jaw; posterior edge of preopercle almost vertical, anterior edge with a distinct concavity above angle; gill rakers moderately long and slender, equal to about diameter of pupil, 18 to 21 on lower limb of first gill arch. Anus near or at tips of pelvic fins. First dorsal fin consisting of 4 or 5 spines, second dorsal of 1 spine and 9 to 11 branched rays; anal fin with 1 spine and 13 to 15 branched rays; pectoral fins with 12 to 14 rays. Body scales large; midlateral scale count 36 or 37, predorsal scales 14 to 16, interdorsal scales 6 or 7; 5 transverse scale rows along sides of body.



premaxille and dentary bone

Colour: translucent in life. Preserved specimens brown or milky yellow. Edges of dorsal scales outlined with chromatophores; midlateral stripe dark, narrow, about 3/4 of scale height; little or no pigmentation on body below midlateral stripe. Dorsal fins with few Chromatophores on membranes; caudal fin. with some pigment on lobes; pectoral fin base dark. Pigment cells sparsely distributed on opercle, snout and dentary.

## DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA

Other silversides in the area: snout never as pointed; no recurved teeth in jaws.

### SIZE:

Maximum: about 5.5 cm

### GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Presently only known from Eastern Madagascar.

Inhabits mangroves, brackish water estuaries and coastal marshes.

### PRESENT FISHING GROUNDS:

Likely to be picked up incidentally when fishing for other species. Apparently not abundant.

### CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Caught mainly with seines.

Unlikely to be of use as human food; probably used as bait.

