

## FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51  
(W. Indian Ocean)

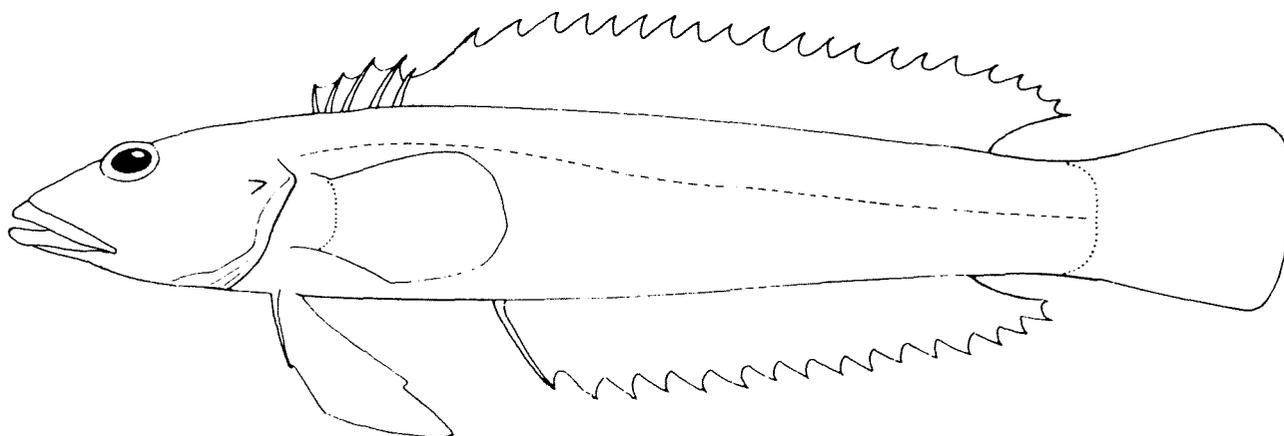
## MUGILOIDIDAE

(Parapercidae of some authors)

Sandsmelts, sandperches, grubfishes

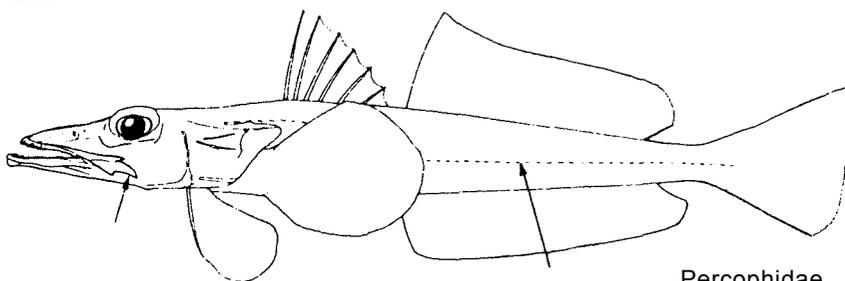
Body elongate, subcylindrical, posteriorly compressed. Maxilla mostly covered by preorbitals; lips somewhat thickened; jaws with a band of villiform teeth and an outer row of larger cardiform teeth, which are enlarged as canines at front of jaws; teeth present on vomer, present or absent on palatines (roof of mouth); gill membranes united, attached to isthmus far forward, with a broad to narrow fold posteriorly across isthmus; branchiostegal rays 6; one stout spine on opercle. Dorsal fin with 4 or 5 short spines and 19 to 24 soft rays, the last spine attached by a membrane to the first soft ray; anal fin with one weak spine and 16 to 19 branched soft rays; pelvic fins with a short spine concealed in the skin, and 5 soft rays; caudal fin rounded, or truncate to emarginate, the upper and/or lower rays prolonged in some adults; branched caudal rays 15. Body scales small to moderate, ctenoid (rough); scales on opercle and cheeks cycloid (smooth).

Small- to medium-sized fishes inhabiting coastal waters mainly on seaweed covered bottoms; carnivorous. Apparently nowhere very abundant, but taken as bycatch in bottom trawls. Most species are too small to be important as food fishes or to be caught with hook and line.



## SIMILAR FAMILIES OCCURRING IN THE AREA:

Percophidae (especially Bembrops): 2 separate dorsal fins; lateral line below middle of flanks; pelvic fins well in advance of pectorals; 6 dorsal fin spines (4 or 5 in Mugiloididae); posterior edge of upper jaw with a well developed tentacle.



Percophidae

**KEY TO GENERA OCCURRING IN THE AREA:**

Parapercis is the only genus of this family that occurs in the Western Indian Ocean.

**LIST OF SPECIES OCCURRING IN THE AREA:**

Code numbers are given for those species for which Identification Sheets are included.

Parapercis albouttata (Günther, 1872)

Parapercis bivittata Schultz, 1968 (= P. trispilota Schultz, 1968)

Parapercis cephalopunctata (Seale, 1901) = (P. quadrispinosa (Weber, 1913))

Parapercis quezei Fourmanoir, 1966

Parapercis hexophthalma (Ehrenberg, in Cuvier & Valenciennes, 1829)

(= P. polyophthalma (Ehrenberg, in Cuvier & Valenciennes, 1829))

Parapercis nebulosa (Quoy & Gaimard, 1825)

? Parapercis pulchella (Temminck & Schlegel, 1843)

Parapercis schauinslandi (Steindachner, 1900)

Parapercis smithii Regan, 1905 (= P. simulata Schultz, 1968, = P. cephalus Kotthaus, 1977)

Parapercis somaliensis Schultz, 1968

Parapercis tetracanthus (Lacepède, 1800)

Parapercis xanthozona (Bleeker, 1849)

MUGILO Para 1

MUGILO Para 2

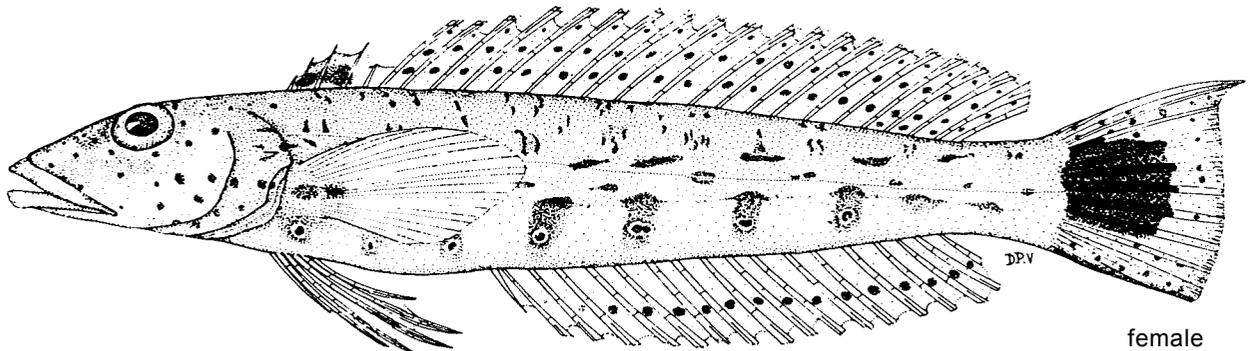
Prepared by P.C. Heemstra, J.L.B. Smith Institute of Ichthyology, Grahamstown, South Africa

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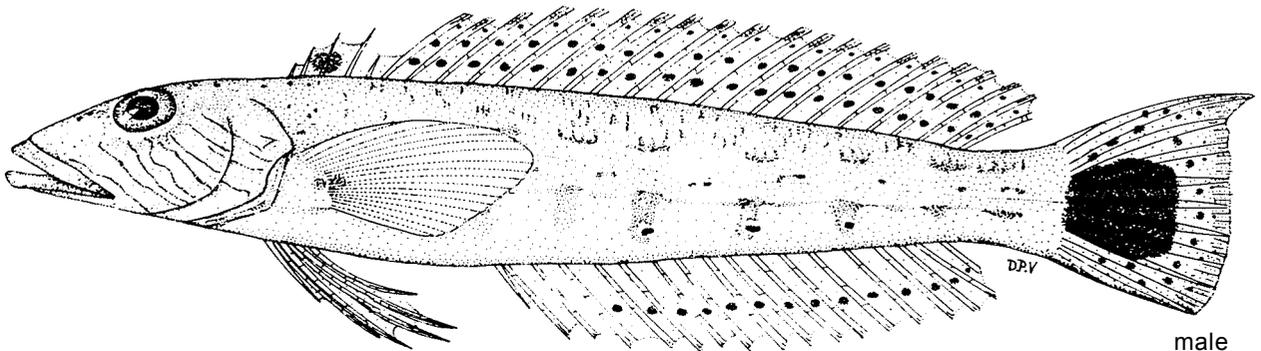
\*Preliminary research indicates that at least some of the species of Parapercis are protogynous (primary female) hermaphrodites. Smaller specimens (females) of these species may differ considerably in colour pattern from the larger (male) fishes.

## FAO SPECIES IDENTIFICATION SHEETS

FAMILY: MUGILOIDIDAE

FISHING AREA 51  
(W. Indian Ocean)Parapercis hexophthalma (Ehrenberg, 1829)OTHER SCIENTIFIC NAMES STILL IN USE : Parapercis polyophthalma (Ehrenberg, 1829)

female



male

## VERNACULAR NAMES:

FAO :           En - Spotted sandsmelt  
                   Fr - Pinge pintade  
                   Sp - Rollizo pintado

NATIONAL:

## DISTINCTIVE CHARACTERS:

Body elongate, subcylindrical, posteriorly compressed. Lips somewhat thickened; palatine teeth absent; 8 canines in outer row at front of lower jaw. Dorsal fin with 5 spines and 21 soft rays; membrane joining last spine to first soft ray of uniform height, its margin not descending to base of first soft ray; anal fin with 1 weak spine and 17 branched rays; pectoral fin rays 17 or 18. Lateral line scales 62 to 72; 7 or 8 scales from base of first soft dorsal ray to lateral line; 27 to 34 scale rows around caudal peduncle.

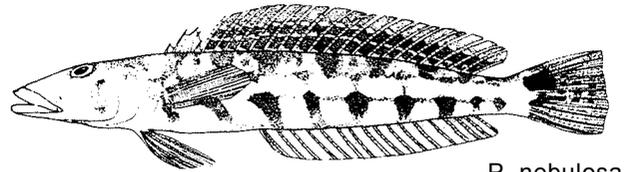
Colour: 3 to 7 white-ringed black ocelli along ventral side of body; a large, oblong, black blotch covering basal half to two-thirds of middle caudal rays; dorsal part of body and head tan, with numerous small dark spots. Small specimens (to 20 cm total length) with small dark spots on head; larger fish (over 18 cm total length) with oblique dark lines on cheek; soft dorsal fin with 3 or 4 horizontal rows of dark spots on membranes; a large dark spot on first dorsal fin between 2nd and 4th spines.

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

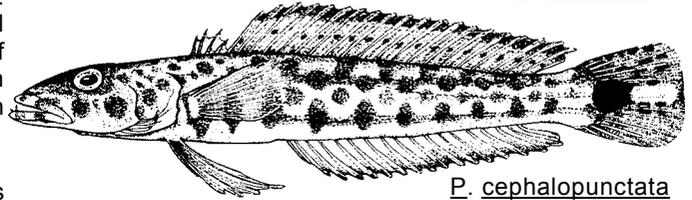
Parapercis nebulosa: no ocelli on ventral part of body; distinct dark spots or oblique lines on head; lateral line scales 79 to 85; membrane joining spiny and soft portions of dorsal fin descending from tip of last spine to base of first soft ray.

P. cephalopunctata: 4 dorsal spines; (5 in P. hexophthalma); no ocelli on ventral part of body; no small dark spots or oblique dark lines on head; middle rays of caudal fin with a large black blotch basally followed by an opaque white rectangle at end of fin; outer rays with small black spots.

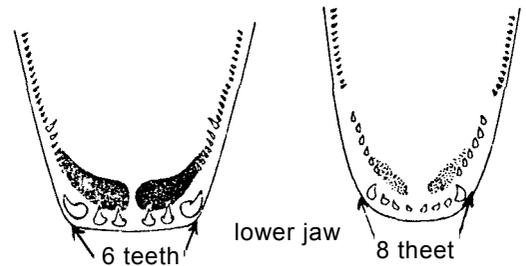
Other Parapercis species: lack the conspicuous black blotch on caudal fin; all, except P. pulchella have only 6 teeth in outer row of lower jaw (8 in P. hexophthalmus and in P. pulchella); membrane joining spiny and soft portions of dorsal fin descends from tip of last spine to base of first soft ray.



P. nebulosa

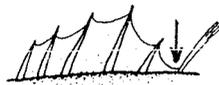


P. cephalopunctata



other Parapercis spp.  
except P. pulchella

P. hexophthalma



P. pulchella  
P. nebulosa



first dorsal fin P. hexophthalma

**SIZE:**

Maximum: 29 cm; common to 18 cm.

**GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:**

From the Red Sea and the east coast of Africa eastward; throughout the Indo-West Pacific Region; southward to Durban.

Found on coral reefs and sandy areas near reefs and rocky outcrops, from the shoreline to moderate depths over the continental shelf.

**PRESENT FISHING GROUNDS:**

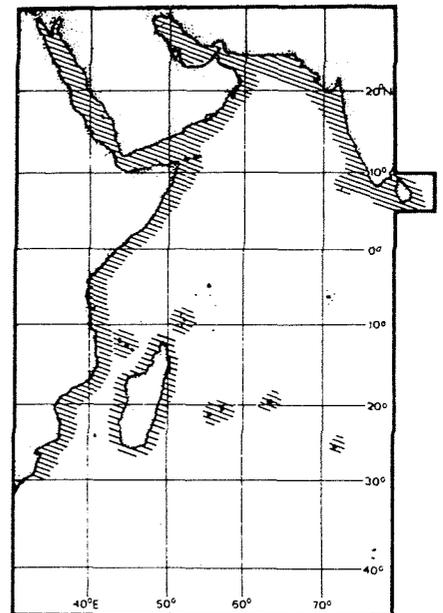
Caught throughout its range, but no specific fishery.

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

Separate statistics are not reported for this species.

Caught as bycatch in bottom trawls.

Marketed mostly fresh or dried.

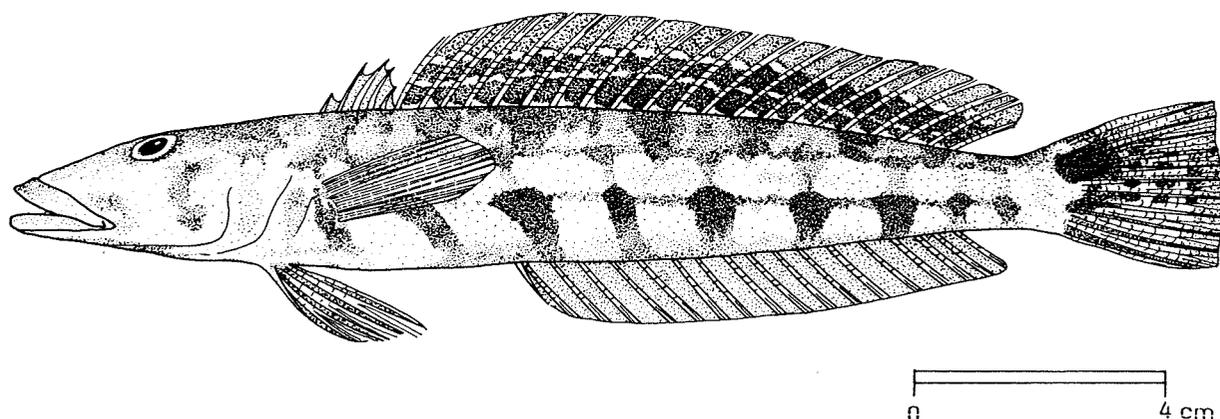


## FAO SPECIES IDENTIFICATION SHEETS

FAMILY: MUGILOIDIDAE

FISHING AREA 51  
(W. Indian Ocean)*Parapercis nebulosa* (Quoy & Gaimard, 1824)

OTHER SCIENTIFIC NAMES STILL IN USE: None



## VERNACULAR NAMES:

FAO :           En - Barfaceo sandsmelt  
                   Fr - Pinge nébuleux  
                   Sp - Rollizo manchado

NATIONAL:

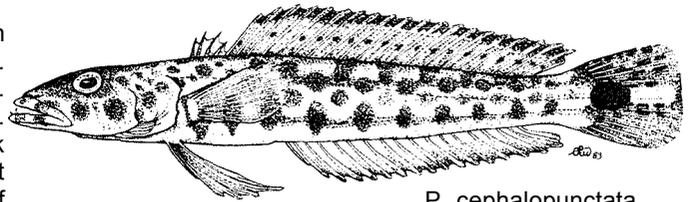
## DISTINCTIVE CHARACTERS:

Body elongate, subcylindrical, posteriorly compressed. Lips somewhat thickened; palatine teeth absent; 6 canines in outer row at front of lower jaw; total gillrakers (upper lower limb on first arch) 11 to 17. Dorsal fin with 5 spines and 21 to 23 soft rays; the membrane connecting the spinous and soft portions of fin deeply incised, descending from tip of last spine to base of first soft ray; anal fin with 1 weak spine and 17 to 19 branched rays; pectoral fin rays 17 to 19. Lateral line scales 79 to 85; 8 to 10 scales from base of first soft dorsal ray to lateral line; 42 to 44 scale rows around caudal peduncle.

Colour: body with a dark-edged pale midlateral band from head to caudal fin; below this band 7 to 9 dark blotches, the first at base of pectoral fin, the third extending to between first and third anal rays, and the last between end of anal fin base and base of caudal; above the pale midlateral band, several dark saddle-like blotches, less distinct than the ventral series; distinct black blotch on caudal fin at base of upper rays; soft portion of dorsal fin with rows of dark spots.

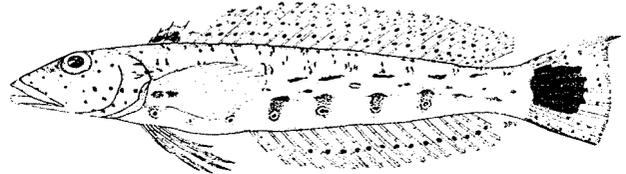
**DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:**

Parapercis cephalopunctata: 4 dorsal fin spines (5 in P. nebulosa); soft dorsal rays 21 (usually 22 in P. nebulosa) branched anal fin rays 17 (usually 18 in P. nebulosa); lateral line scales 55 to 64 (79 to 85 in P. nebulosa); middle rays of caudal fin with a large black blotch basally, followed by an opaque white rectangle at end of fin; membrane joining spinous and soft portions of dorsal fin of uniform height, its margin not descending to base of first soft ray.



P. cephalopunctata

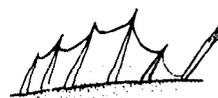
P. hexophthalma: membrane joining spinous and soft portions of dorsal fin uniform in height; lateral line scales 62 to 72; 3 to 7 small, white-ringed, black ocelli along ventral side of body; a large oblong black blotch covering basal half to two-thirds of middle caudal rays.



P. hexophthalma

P. xanthozona: membrane joining spinous and soft portions of dorsal fin uniform in height; lateral line scales 55 to 64; total gillrakers 16 to 20 (11 to 17 in P. nebulosa).

Other Parapercis species: colour pattern quite different, no pale midlateral band or ventral series of dark blotches.



P. nebulosa



first dorsal fin

P. cephalopunctata,  
P. hexophthalma,  
P. xanthozona and  
several other species

**SIZE:**

Maximum: 30 cm; common to 20 cm.

**GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:**

Throughout the Indian Ocean (East Africa and Red Sea to Australia).

Inhabits coastal waters on sandy bottoms with stones and gravel to at least 60 m depth.

**PRESENT FISHING GROUNDS:**

Caught throughout its range, but no specific fishery.

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

Separate statistics are not reported for this species.

Caught mainly on hook and line, also as bycatch in bottom trawls.

Marketed fresh and dried.

