ALPH

1983

FAO SPECIES IDENTIFICATION SHEETS

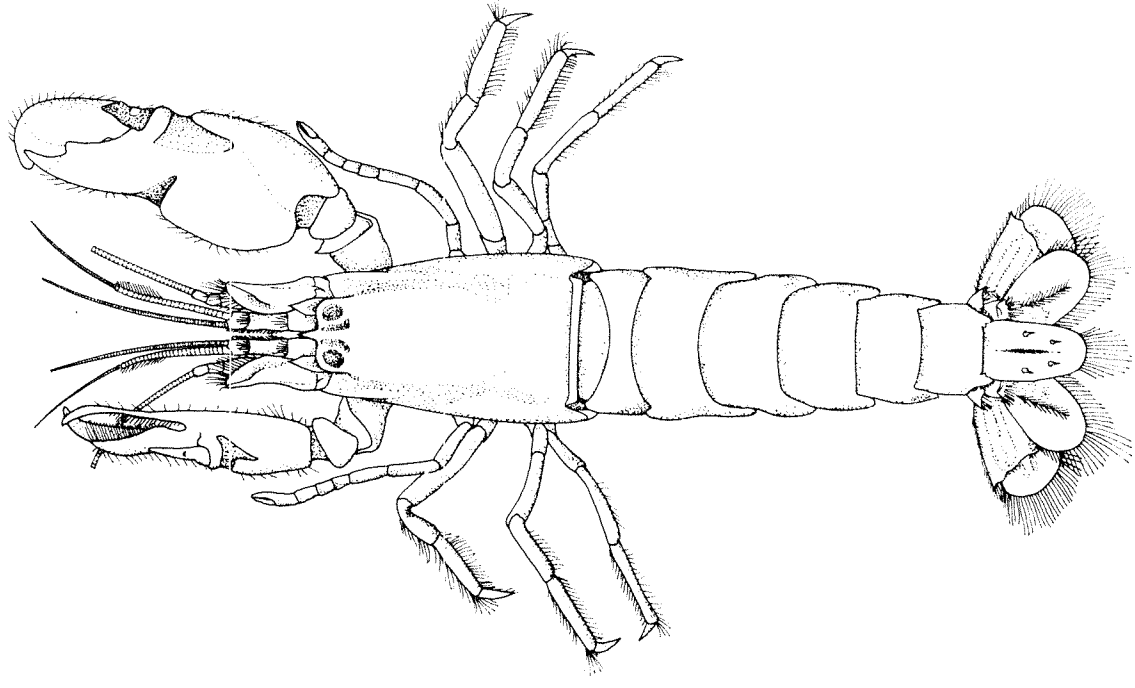
FISHING AREA 51
(W. Indian Ocean)

ALPHEIDAE

Snapping shrimps

Small to medium-sized shrimps. Carapace cylindrical or laterally compressed, usually covering the eyes, so that these are not visible in dorsal view; rostrum very small, without teeth, sometimes entirely absent. Pleura of second abdominal somite wide and covering both those of first and third somites. Telson usually wide. First pereopods very heavy, usually unequal; pincer of larger leg swollen, often with sound-producing teeth and sockets on the fingers. Second legs very slender and rather short, equal and with pincers; carpus subdivided into several segments. Following pereopods with simple or bifid dactyls, without pincers. No exopods on any of the legs. Males without petasma, females without thelycum. Colour very diverse, sometimes very bright and often with a pattern that is characteristic for the species.

This family includes a great number of marine representatives, but only a few species belonging to the genus Alpheus are sporadically found in the landings.



SIMILAR FAMILIES OCCURRING IN THE AREA:

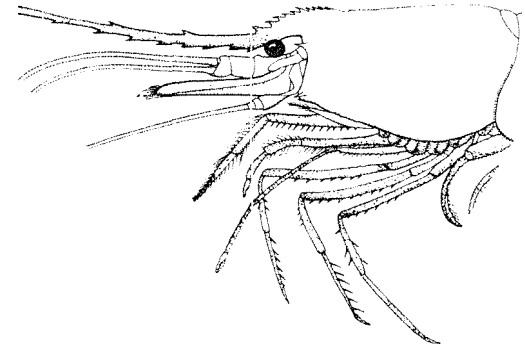
Hippolytidae: eyes free; first pair of pereopods short and rather heavy but not swollen; tips of fingers usually dark coloured.

Ogyridae: eyes extremely elongate, reaching to end of antennular peduncle, cornea small; first pair of pereopods shorter than and about as robust as second.

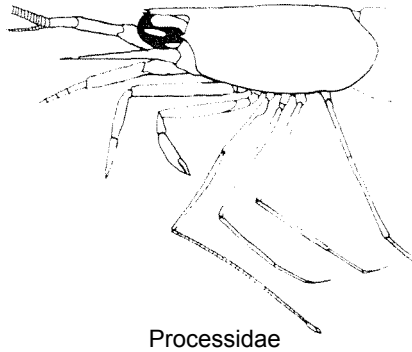
Processidae: eyes free; usually only one leg of first pair of pereopods with pincer, the other ending in a simple claw-like dactyl.

Other families of Caridea: either pincer of first pair of pereopods microscopically small or absent (Superfamily Pandatoidea), or first pair of pereopods subchelate (Superfamily Crangonoidea), or carpus of second pair of pereopods not sub-divided.

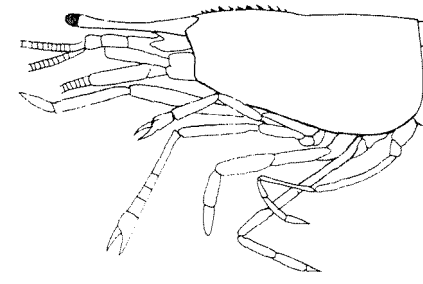
Families of the Infraorder Penaeidea: pleura of second abdominal segment not overlapping those of first; 3 first pairs of pereopods ending in pincers.



Hippolytidae



Processidae



Ogyridae

A key to genera occurring in the area is not presented here since out of about 20 genera only one, Alpheus, is of some interest to fisheries.

Alpheus can be distinguished by the following combination of characters from the other genera of Alpheidae: eyes completely covered by the carapace, which forms orbital hoods that hide them from both dorsal and anterior view; carapace cylindrical; epipods present at bases of pereopods; sixth abdominal segment not showing a posterolateral plate; first pair of pereopods very unequal, movable finger of the larger pincer with a molar-shaped tooth, which fits in a cavity of the immovable finger.

The genus Alpheus is one of the Caridean genera that has the most species; however practically all of these species are small and of no commercial interest. The following 2 species are of reasonably big size (more than 3.5 cm in total length) and have been occasionally found in fish markets or landing places in the area:

Alpheus euphrosyne De Man, 1897
Alpheus malabaricus Fabricius, 1798

Prepared by I..R. Holthuis and J.C. Miguel, Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands.

ARIST

1983

FAD SPECIES IDENTIFICATION SHEETS

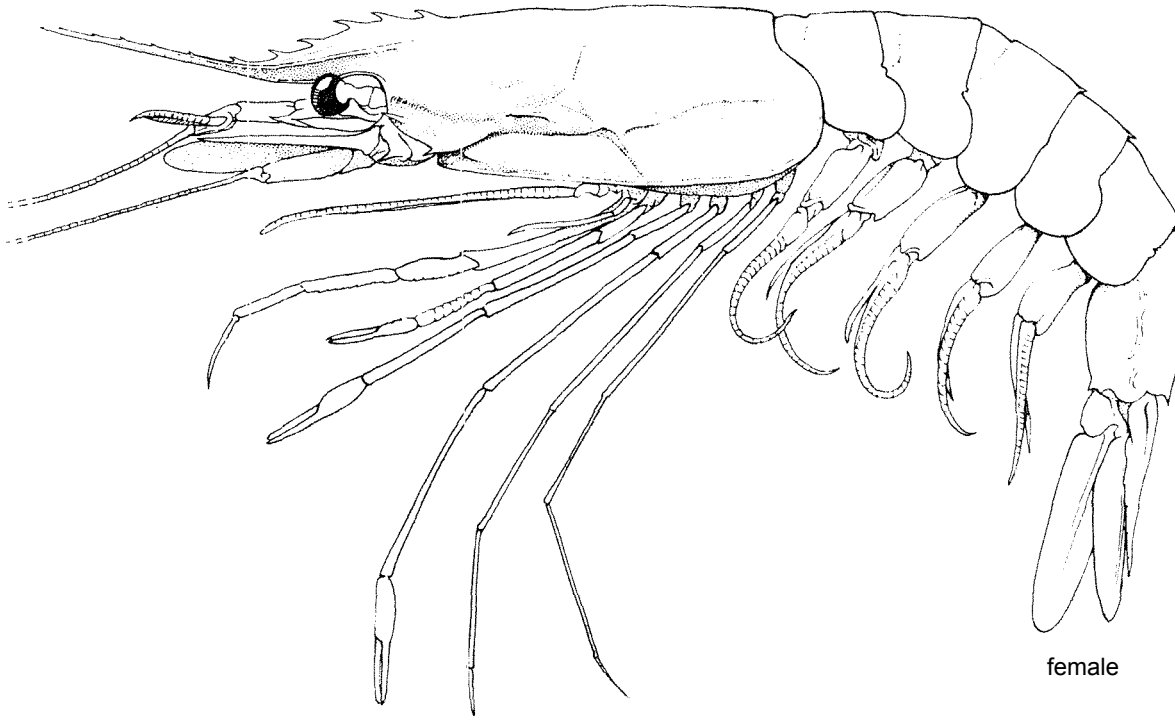
FISHING AREA 51
(W. Indian Ocean)

ARISTEIDAE

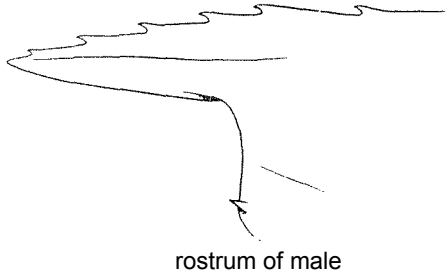
Aristeid shrimps

Rostrum usually very long in females and young males but becoming rather short in adult males (subfamily Aristeinae) or, rostrum short, not exceeding the eye (subfamily Benthesicyminae); no styliform projection at base of eyestalk, but a tubercle present on its mesial (inner) border (very small in Aristaeomorpha). Carapace without postorbital spine; cervical groove either long, extending almost to dorsal midline of carapace, or very short; last 2 pairs of pereopods well developed; endopods of second pair of pleopods in males bearing appendix masculina and appendix interna, but no lateral projection; third and fourth pairs of pleopods biramous; telson armed with 1 to 4 movable spines on each side. Two well developed arthrobranchs on penultimate thoracic segment (hidden beneath the carapace).

All the representatives of this family are marine and occur in deep waters. At present none of them is regularly fished in the area, but during recent exploratory surveys, several species belonging to the genera Aristaeomorpha, Aristeus and Plesiopenaeus have been found to be abundant enough as to be considered of potential interest to fisheries. The species of the subfamily Benthesicyminae are of no interest to fisheries.



female



rostrum of male

SIMILAR FAMILIES OCCURRING IN THE AREA:

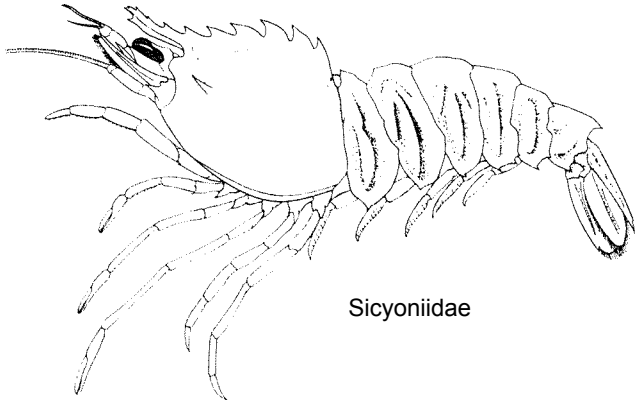
Solenoceridae: carapace with postorbital spine; telson with a fixed spine on each side of tip; endopods of second pair of pleopods in males bearing appendix masculina, appendix interns and lateral projection.

Penaeidae: eyestalk without a tubercle on mesial (inner) border; endopods of second pair of pleopods in males bearing appendix masculina only; a single, well developed arthrobranch on penultimate thoracic segment.

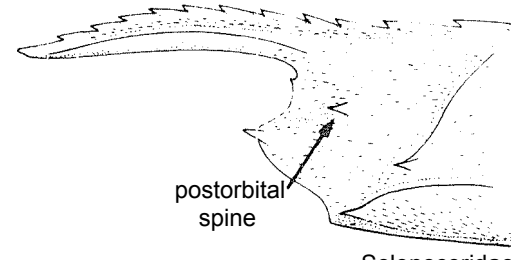
Sicyoniidae: body thick, stony in appearance; abdomen with deep grooves and numerous tubercles; third and fourth pair of pleopods single-branched.

Sergestidae: small size shrimps; rostrum very short; last 2 pairs of pereopods shorter than anterior legs (fifth pair much shorter) or absent.

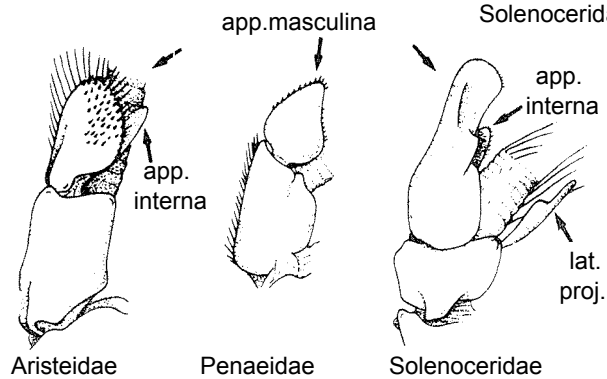
Shrimps belonging to the Infraorder Caridea: pleura of second abdominal segment overlapping those of first and third segments; no pincers on third pair of pereopods.



Sicyoniidae

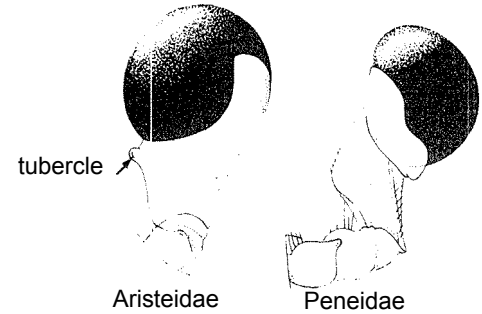


Solenoceridae

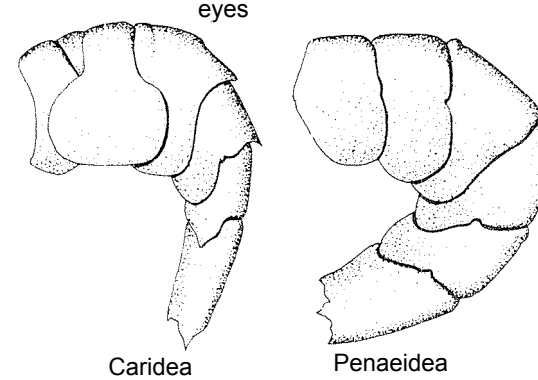


Aristeidae Penaeidae Solenoceridae

endopod of second pleopod in males



Aristeidae Peneidae



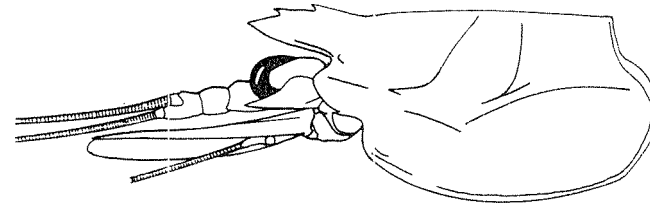
Caridea Penaeidea

abdomen

KEY TO SUBFAMILIES OCCURRING IN THE AREA:

1a. One or 2 dorsal rostral teeth; upper antennular flagella very long and filiform almost throughout their length (Fig.1); bathypelagic species ..... Benthesicyminae

1b. Three or more dorsal rostral teeth; upper antennular flagella very short and flattened almost throughout their length (Fig. 2) ..... Aristeinae



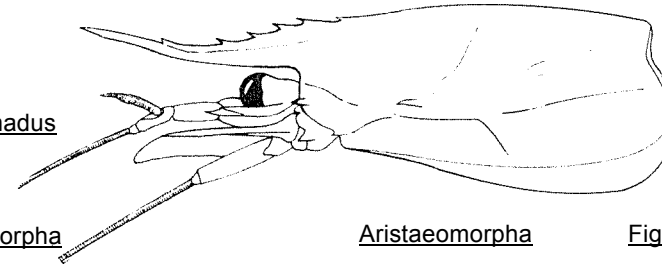
Benthonectes Fig.1

KEY TO GENERA OF ARISTEINAE OCCURRING IN THE AREA:

1a. Hepatic spine present (Fig.3)

2a. Rostrum armed with 3 dorsal teeth (Fig. 3) ..... Hepomadus

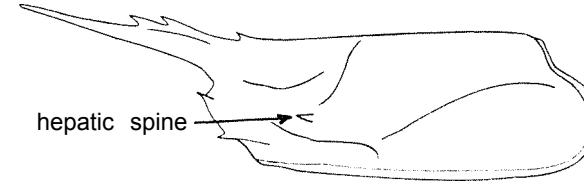
2b. Rostrum armed with 4 or more dorsal teeth (Fig. 2) ..... Aristaeomorpha



Aristaeomorpha Fig.2

1b. Hepatic spine absent

3a. Carapace with a postantennal spine (Fig. 4) ..... Parahepomadus

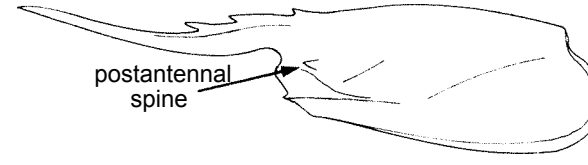


Hepomadus Fig.3

3b. No postantennal spine on carapace

4a. Podobranch present on antepenultimate thoracic segment (segment X11)

5a. Epipod on fourth pereopod: (segment XIII) rudimental, reduced to a small quadrangular lamella ..... Hemipenaeus

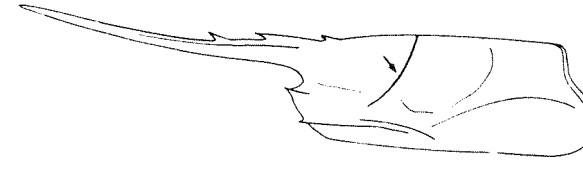


Parahepomadus Fig.4

5b. A large epipod on fourth pereopods ..... Plesiopenaeus

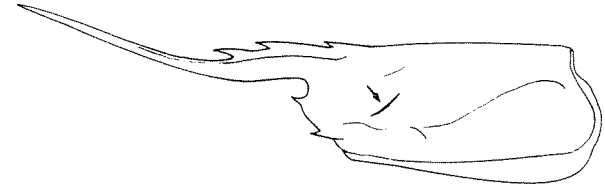
4b. No podobranch on segment XII

6a. Cervical groove long, extending to dorsal midline of carapace (Fig. 5) ..... Pseudoaristeus



Pseudoaristeus Fig.5

6b. Cervical groove distinct only in its basal part (Fig. 6) ..... Aristeus



Aristeus Fig.6

LIST OF SPECIES OF ARISTEINAE OCCURRING IN THE AREA:

* Aristaeomorpha foliacea (Risso, 1827)
Aristaeomorpha woodmasoni Calman, 1925

Aristeus alcocki Ramadan, 1938
Aristeus antennatus (Risso, 1816)
Aristeus mabahissae Ramadan, 1938
Aristeus semidentatus Bate, 1881
Aristeus virilis (Bate, 1881)

Hemipenaeus carpenteri Wood Mason, 1891
Hemipenaeus spinidorsalis Bate, 1881

Hepomadus tener Smith, 1884

Parahepomadus vaubani Crosnier, 1978

Plesiopenaeus armatus (Bate, 1881)
Plesiopenaeus coruscans (Wood Mason, 1891)
Plesiopenaeus edwardsianus (Johnson, 1868)

Pseudoaristeus crassipes (Wood Mason, 1891)
Pseudoaristeus sibogae (De Man, 1911)

Some scientists consider the Indian Ocean specimens a species named Aristaeomorpha rostridentata (Bate, 1881). In this case, A. foliacea is restricted to the Atlantic Ocean.

Prepared by J.C. Miquel, temporary address: Rijksmuseum van Natuurlijke Histoire, Leiden, The Netherlands

HIPPOL

1983

FAO SPECIES IDENTIFICATION SHEETS

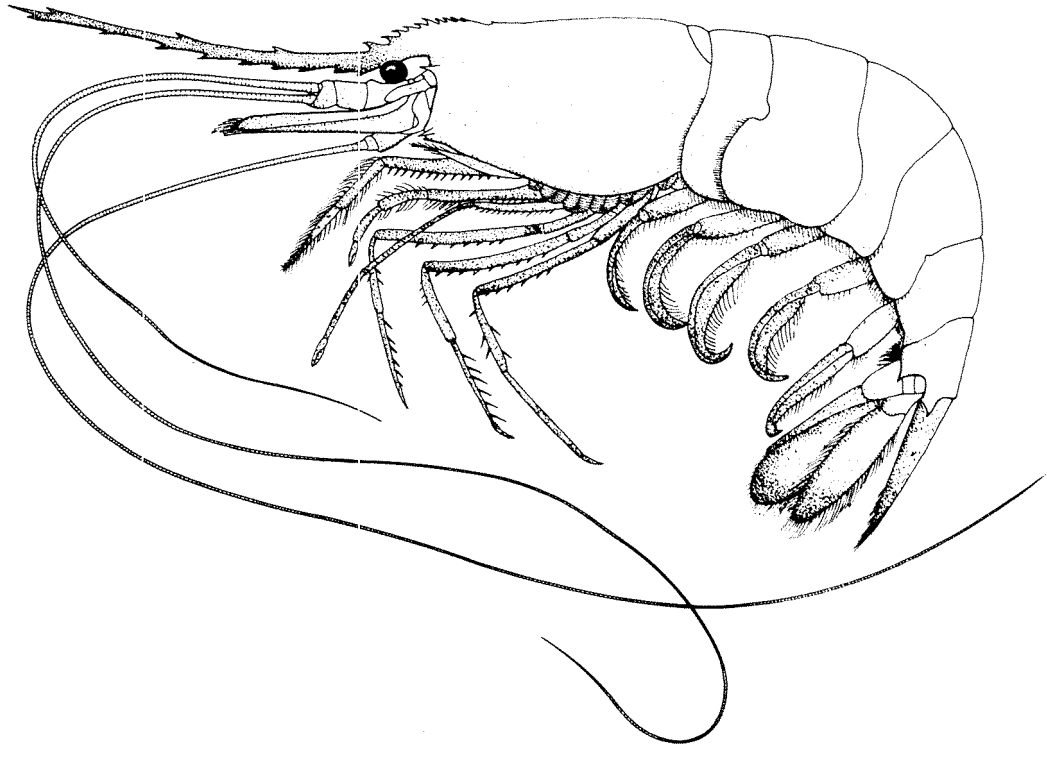
FISHING AREA 51
(W. Indian Ocean)

HIPPOLYTIDAE

Cock shrimps

As in the other families belonging to the Infraorder Caridea, the pleura of the second abdominal segment overlap those of the first and third segments, and the third pair of pereopods lack pincers. Rostrum generally longer than eyes and usually with several dorsal and ventral teeth; eyes free, not covered by carapace; first pair of pereopods ending in clearly distinct pincers and broader than second pair, but not considerably enlarged; carpus of second pair divided into several articles.

This family includes a good number of marine representatives, but only one species is of economic interest in Fishing Area 51.



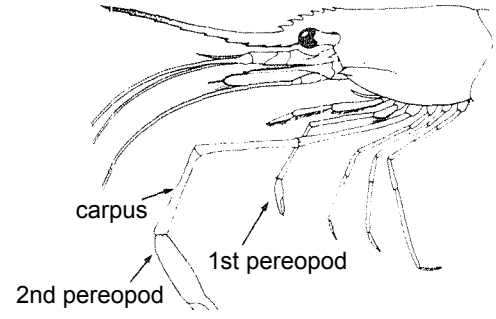
SIMILAR FAMILIES OCCURRING IN THE AREA:

Palaemonidae: first pair of pereopods more slender than second pair, or at most as broad; carpus of second pair undivided.

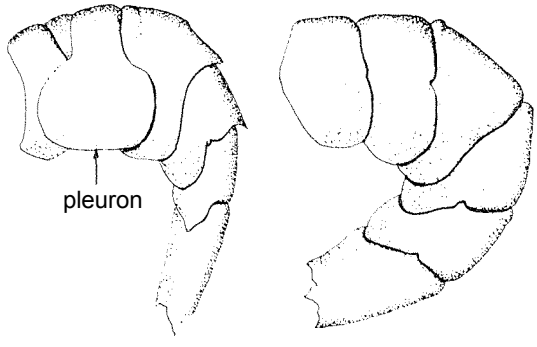
Alpheidae: first pair of pereopods much broader than second, often considerably enlarged; eyes short, usually covered by carapace.

Pandalidae: first pair of pereopods with pincers microscopically small or absent.

Families of the Infraorder Penaeidea: pleura of second abdominal segment not overlapping those of first; 3 first pairs of pereopods ending in pincers.

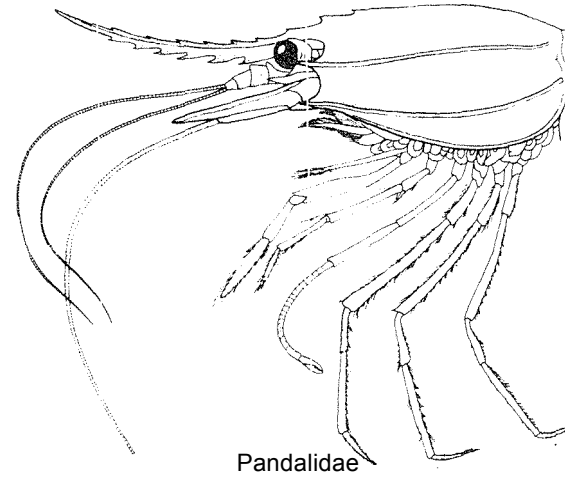


Palaemonidae



Caridea Penaeidea

abdomen



Pandalidae

A key to genera and a list of species occurring in the area are not presented here since out of ten genera only one is of economic interest in Fishing Area 51:

Exhippolysmata ensirostris (Kemp, 1914) HIPPOL Exhip 2

Prepared by L.B. Holthuis and J.C. Miquel, Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands.

HIPPOL Exhip 2

1983

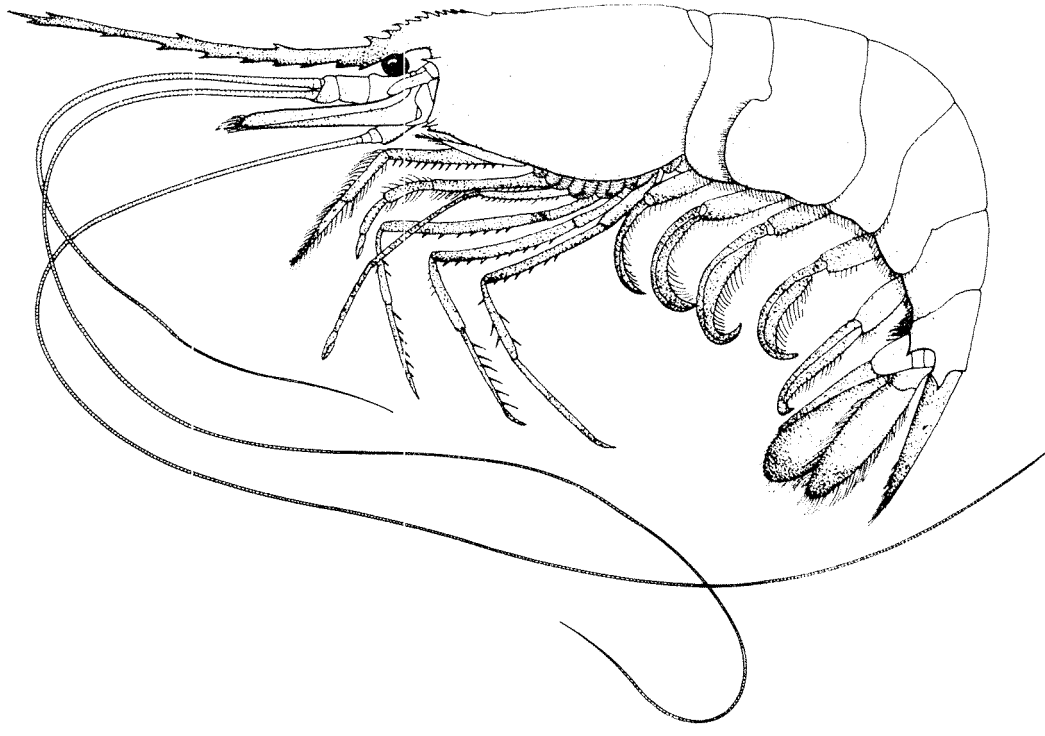
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: HIPPOLYTIDAE

FISHING AREA 51
(W. Indian Ocean)

Exhippolysmata ensirostris (Kemp, 1914)

OTHER SCIENTIFIC NAMES STILL IN USE: Hippolysmata ensirostris (Kemp, 1914)



VERNACULAR NAMES:

FAO: En - Hunter shrimp
Fr - Bouc chasseur
Sp - Camarón cazador

NATIONAL:

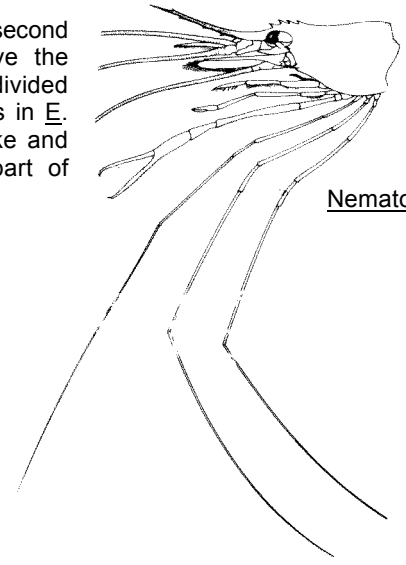
DISTINCTIVE CHARACTERS:

Carapace smooth or pitted. Rostrum long, longer than carapace, its dorsal margin with an elevated basal crest of 7 to 12 teeth, which are placed close together, rest of dorsal margin with 3 or 4 widely spaced teeth; ventral margin with 7 to 16 more or less equally spaced teeth; antennal and pterygostomian spines present on carapace; abdominal segments dorsally smooth, without spines; pleura of fifth segment sharply pointed; telson with a long, pointed tip, with or without a pair of small distolateral spines. Second pair of pereopods with small pincers, carpus long and subdivided into more than 7 articles; dactyls of last 3 pairs of pereopods simple and much shorter than propodi.

Colour: whitish or pinkish with the appendages (especially the third maxillipeds, pleopods and uropods) red, often dark red; rostrum and flagella also reddish.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRHNG IN THE AREA :

Nematopalaemon tenuipes (Family Palaemonidae): second pair of pereopods with conspicuous pincers which have the fingers longer than the slightly swollen palm, carpus undivided (pincers small and carpus subdivided in at least 7 articles in E. ensirostris); dactyls of last 3 pairs of pereopods thread-like and basal crest of rostrum with only 5 to 7 teeth, distal part of rostrum usually unarmed except for a subdistal tooth.



Nematopalaemon tenuipes

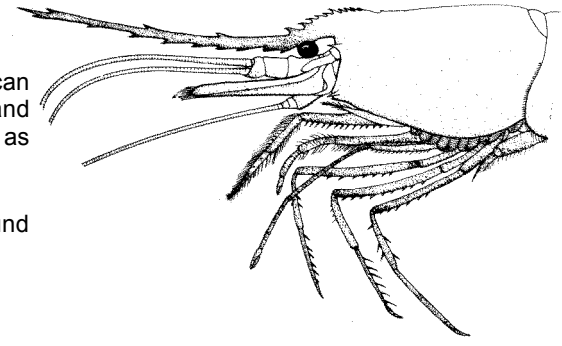
SIZE:

Maximum total length: 7.9 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Within the area, the species occurs along the east African coast from Kenya to South Africa (Natal), and on the west and south coasts of India and Sri Lanka. Further east, it extends as far as Indonesia and New Guinea.

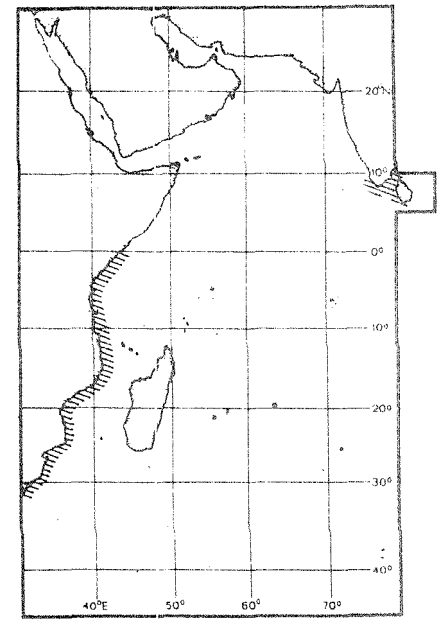
Inhabits shallow marine or estuarine waters; often found together with Nematopalaemon tenuipes.



Exhippalysmata ensirostris

PRESENT FISHING GROUNDS:

Abundantly fished and of major importance in the inshore catches from the central and north-west coasts of India (Gujarat, Maharashtra).



CATCHES, FISHING GEAR AND FORMS OF UTILIZATION :

Separate statistics are not reported for this species by FAO.

Caught with barrier and stake nets, bag nets, shore seines, boat seines and cast nets.

Marketed mainly fresh or dried.