SOLENO

1983

FAO SPECIES IDENTIFICATION SHEETS

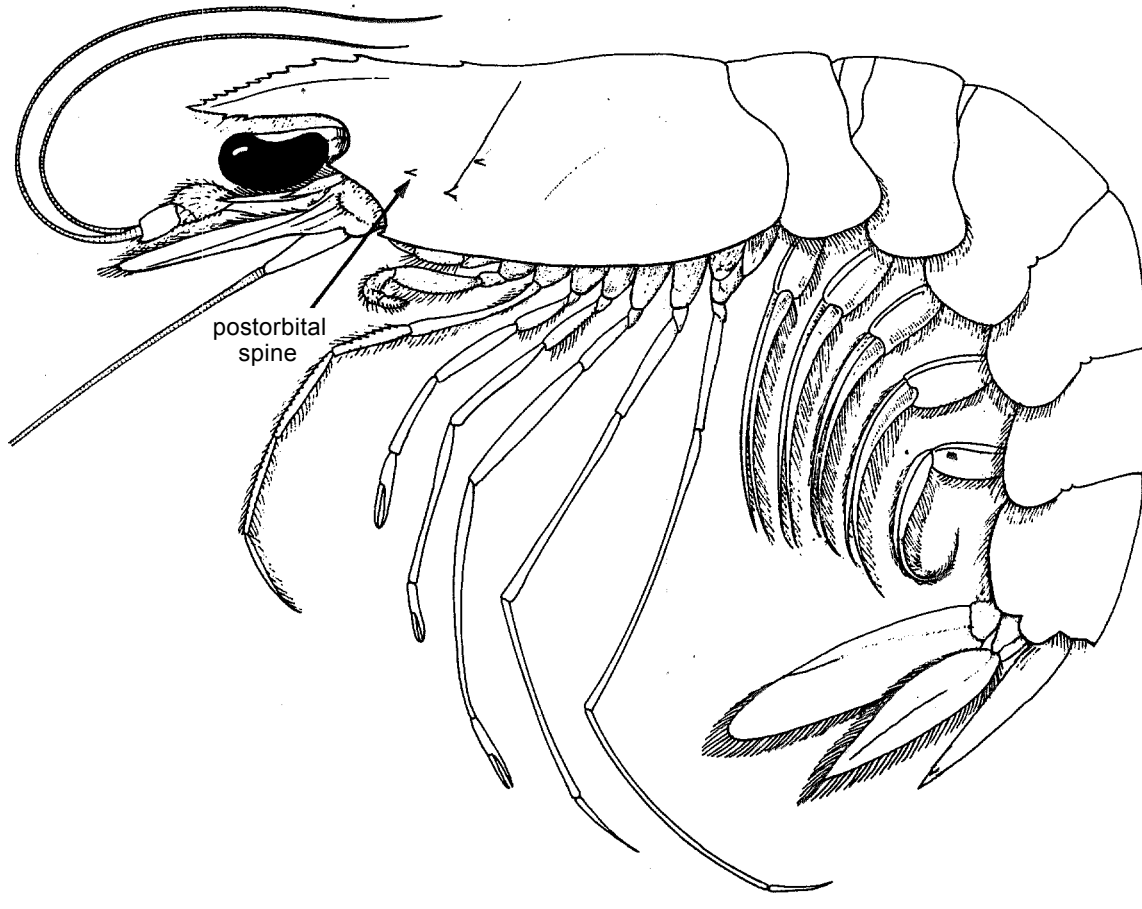
FISHING AREA 51
(W. Indian Ocean)

SOLENOCERIDAE

Solenocerid shrimps

Shrimps with a well developed and toothed rostrum which extends at least to centre of eye diameter; no styliform projection at base of eyestalk, but a tubercle present on its mesial (inner) border. Carapace with postorbital spine and long cervical groove which end at, or close to, dorsal midline. Last 2 pairs of pereopods well developed; endopods of second pair of pleopods in males bearing appendix masculina appendix interna and lateral projection; third and fourth pairs of pleopods biramous. Telson tridentate in most species (with a fixed spine on each side of tip). Two well developed arthrobranchs on the penultimate thoracic segment (hidden beneath the carapace).

This family includes only marine representatives. All except four of the species occurring in the W. Indian Ocean are too small or not abundant enough to be of present or potential economic interest.



SIMILAR FAMILIES OCCURRING IN THE AREA:

Aristeidae, Penaeidae and Sicyoniidae: post-orbital spine on carapace absent. Further distinguishing characters of these families are the following:

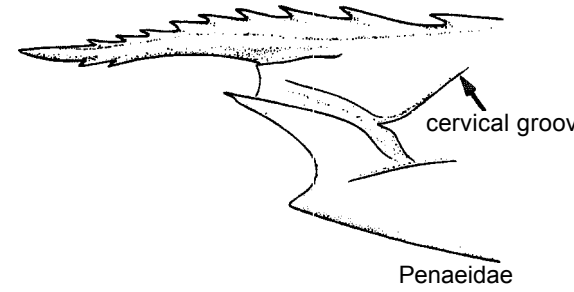
Aristeidae: telson bearing movable spines; endopods of second pair of pleopods in males bearing appendix masculina and appendix interns but no lateral projection.

Penaeidae: eyestalk without tubercle on inner border; cervical groove much shorter, ending well below dorsal midline of carapace; endopods of second pair of pleopods in males bearing appendix masculina only; a single well developed arthrobranch on penultimate thoracic segment (hidden beneath carapace).

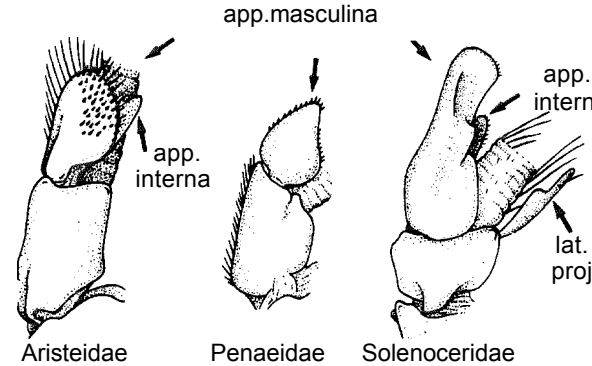
Sicyoniidae: body thick, stony in appearance; abdomen with deep grooves and numerous tubercles; cervical groove very faint or absent.

Sergestidae: small-sized 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.

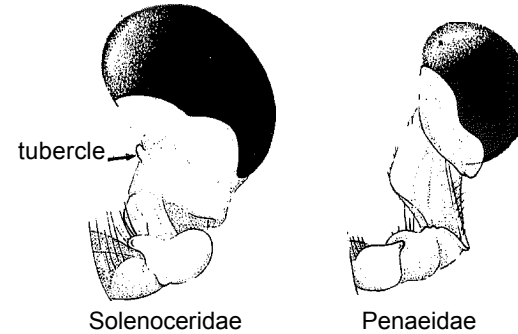


Penaeidae



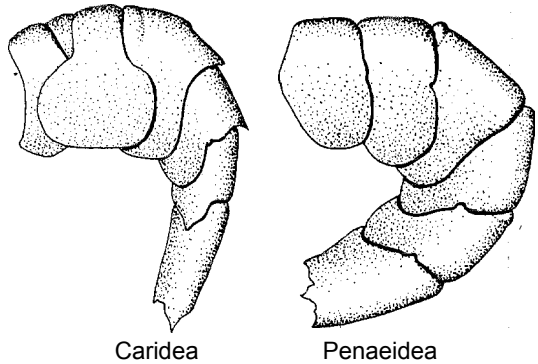
Aristeidae Penaeidae Solenoceridae

endopod of second pleopod in males



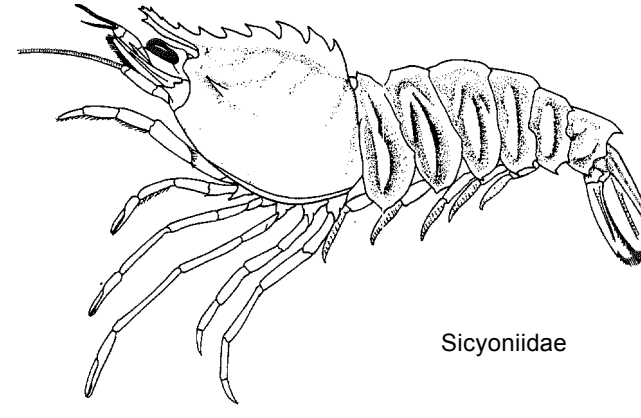
Solenoceridae Penaeidae

eyes



Caridea Penaeidea

abdomen



Sicyoniidae

KEY TO GENERA OCCURRING IN THE AREA:

1a. Telson with several pairs of movable lateral spines anterior to fixed pair (Fig. 1a); podobranchs present on at. least second and third maxillipeds ..... Haliporus

1b. Telson without movable spines, generally with a pair of fixed lateral spines (Fig. 1b); podobranchs restricted to second maxilliped

2a. Dorsal and ventral antennular flagella lamellate (Fig.2a); lateral ramus of uropod generally lacking distolateral spine ..... Solenocera

2b. Dorsal and ventral antennular flagella subcylindrical (occasionally ventral flagellum depressed) (Fig. 2b); lateral ramus of uropod armed with a distolateral spine

3a. Epigastric (first rostral) tooth separated from second rostral tooth by about same interval as that between second and third rostral teeth (Fig. 3)

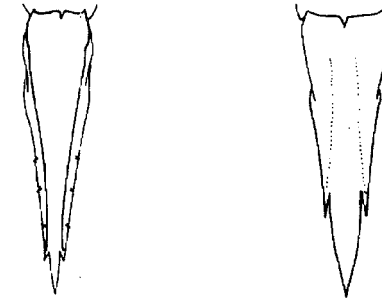
4a. Rostrum low, with ventral margin straight or concave; submarginal carina present (Fig. 3) ..... Pleoticus

4b. Rostrum deep, with ventral margin pronouncedly convex; submarginal carina absent (Fig.4) ....Hadropenaeus

3b. Epigastric or epigastric and second rostral teeth separated from remaining teeth by a relatively long interval (Figs. 5 and 6)

5a. Epigastric and second rostral teeth separated from remaining ones by a long interval; suprahepatic spine absent (Fig.. 5) ..... Hymenopenaeus

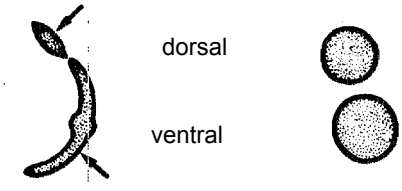
5b. Epigastric tooth separated from other rostral teeth by a long interval; suprahepatic spine present (Fig. 6) ..... Haliporoides



a) Haliporus **b**) Hadropenaeus

telson

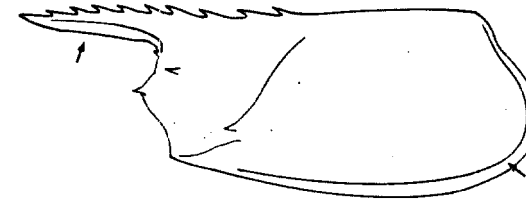
Fig. 1



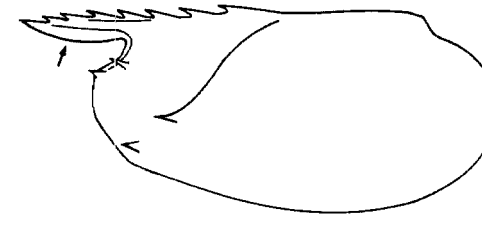
a) Solenocera **b**) Pleoticus

cross section of antennular flagella

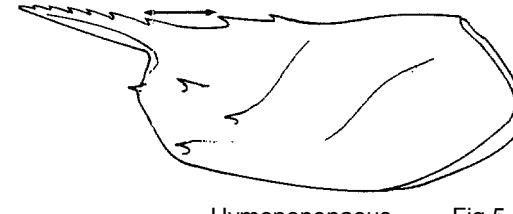
Fig. 2



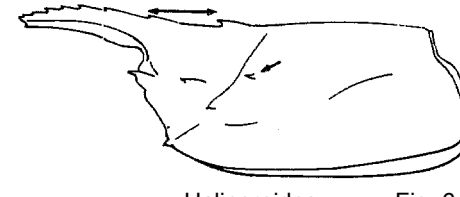
Pleoticus Fig.3



Hadropenaeus Fig. 4



Hymenopenaeus Fig.5



Haliporoides Fig. 6

LIST OF SPECIES OCCURRING IN THE AREA:

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

Hadropenaeus lucasii (Bate, 1881)

Haliporoides sibogae madagascariensis Crosnier, 1978
Haliporoides triarthrus Stebbing, 1914 SOLENO Hali 3

Haliporus taprobanensis Alcock & Anderson, 1899
Haliporus villosus Alcock & Anderson, 1894

Hymenopenaeus aequalis (Bate, 1888)
Hymenopenaeus fattahi Ramadan, 1938
Hymenopenaeus furici Crosnier, 1978
Hymenopenaeus halli Bruce, 1966
Hymenopenaeus laevis (Bate, 1881)
Hymenopenaeus propinquus (De Man, 1907)
Hymenopenaeus sewelli Ramadan, 1938

Pleoticus steindachneri (Balss, 1914)

Solenocera africana Stebbing,1917
Solenocera algoensis Barnard, 1947
Solenocera bedokensis Hall, 1962
Solenocera choprai Nataraj, 1945 SOLENO Soleno 4
Solenocera comata Stabbing, 1915
Solenocera crassicornis (H. Milne Edwards, 1837) SOLENO Soleno 5
Solenocera hextii Wood-Mason & Alcock, 1891 SOLENO Soleno 8
Solenocera koelbeli De Man, 1911
Solenocera pectinata (Bate, 1888) (? = S. pectinulata Kubo, 1949)
Solenocera waltairensis George & Muthu, 1970

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

SOLENO Hali 3

1983

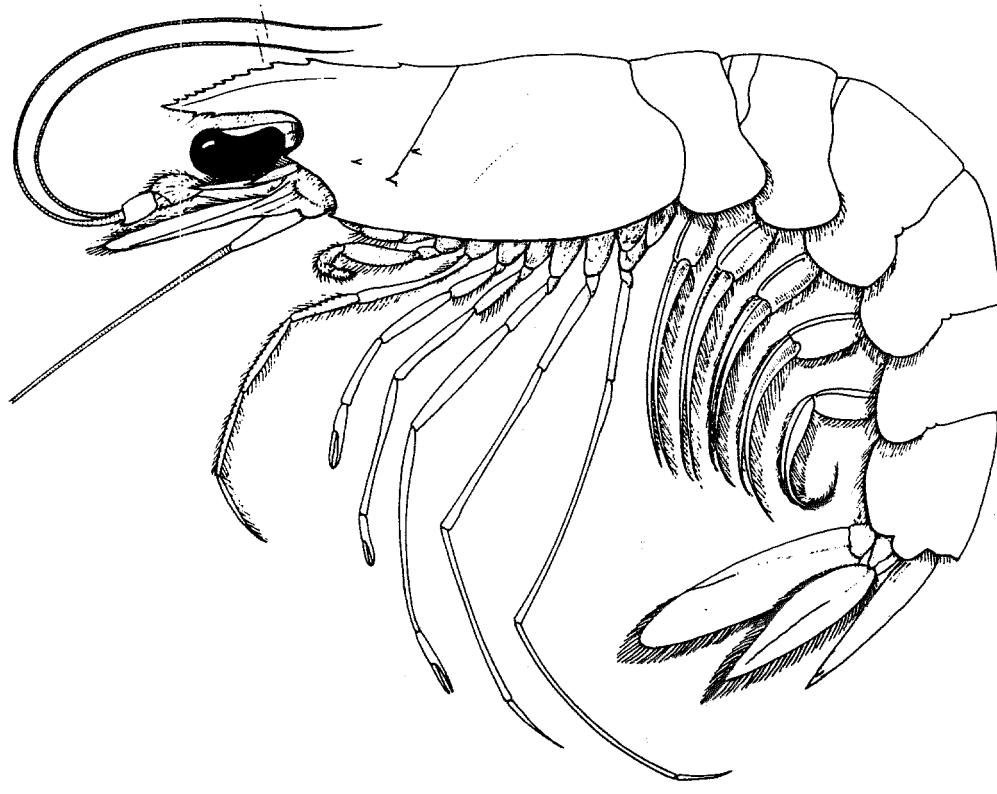
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: SOLENOCERIDAE

FISHING AREA 51
(W. Indian Ocean)

Haliporoides triarthrus Stebbing, 1914

OTHER SCIENTIFIC NAMES STILL IN USE : Hymenopenaeus triarthrus (Stebbing, 1914)



VERNACULAR NAMES:

FAO : En - Knife shrimp
Fr - Salicoque navaja
Sp - Camarón navaja

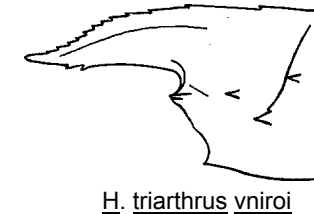
NATIONAL:

DISTINCTIVE CHARACTERS:

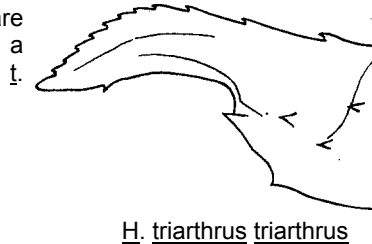
Body finely pubescent. Rostrum very high and prominent, arched or straight, extending far beyond the eye, with 10 to 14 teeth on dorsal margin (2 behind the anterior margin of carapace) and 1 or 2 on ventral; no postrostral crest; cervical groove reaching dorsal midline; postorbital and pterygostomian spines present; suprahepatic spine also present, but very small; telson armed with a pair of fixed distolateral spines; antennular and antennal flagella longer than the body; first pereopods armed with 1 to 3 spines on merus, none on basis.

Two geographically separated subspecies of H. triarthrus, are recognized. The northern form (H. triarthrus vniroi, Crosmer 1978) has a lower rostrum which is not as strongly arched as in the southern form H. t. triarthrus.

Colour: uniformly red, frozen specimens paler.



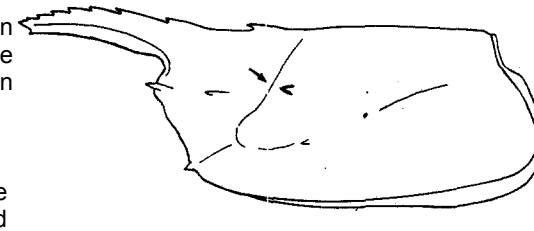
H. triarthrus vniroi



H. triarthrus triarthrus
anterior part of carapace

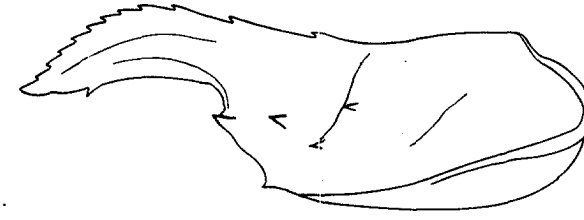
DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Haliporoides sibogae: usually 7 to 9 dorsal teeth on rostrum (usually 10 or 12 in H. triarthrus), suprahepatic spine stronger; merus of first pereopod with 3 to 5 spines (1 to 3 in H. triarthrus).



H. sibogae

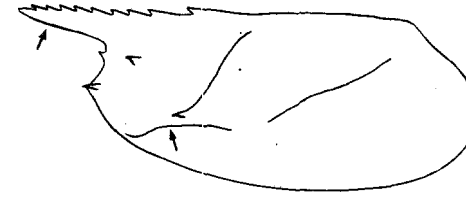
Solenocera species: rostrum short, hardly exceeding the eye and without ventral teeth (extending far beyond eye and with ventral teeth in H. triarthrus); antennular flagella shorter than body; carapace hairless and with a distinct hepatic crest.



H. triarthrus

SIZE:

Maximum total length: males, 15 cm; females, 17.5 cm.

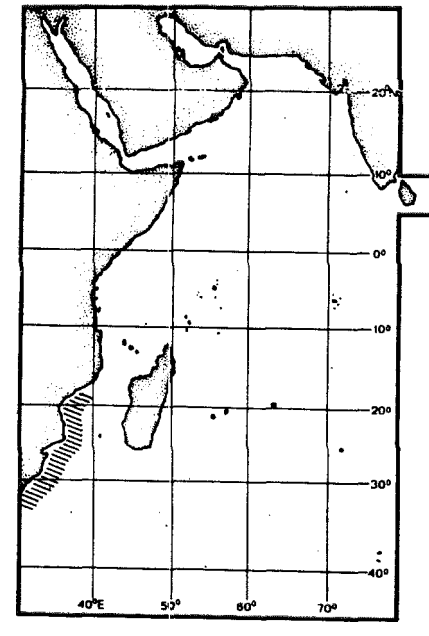


Solenocera sp.
carapace

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

South and southeast Africa from Table Bay (off Cape Town, South Africa) to central Mozambique (off Beira). H. triarthrus vniroi occurs off Mozambique, while H. t. triarthrus is found off South Africa.

Inhabits depths between 290 and 550 m on soft mud or sandy bottoms; off Mozambique, it is fished at depths of 500 to 550 m.



PRESENT FISHING GROUNDS:

Of major commercial importance within its range; landed at Durban in South Africa and at Beira in Mozambique.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

The 1980 catch reported from Fishing Area 51 totalled 1,029 tons (South Africa only).

Caught with otter trawls.

Marketed frozen; in South Africa also marketed fresh (headed) and peeled.