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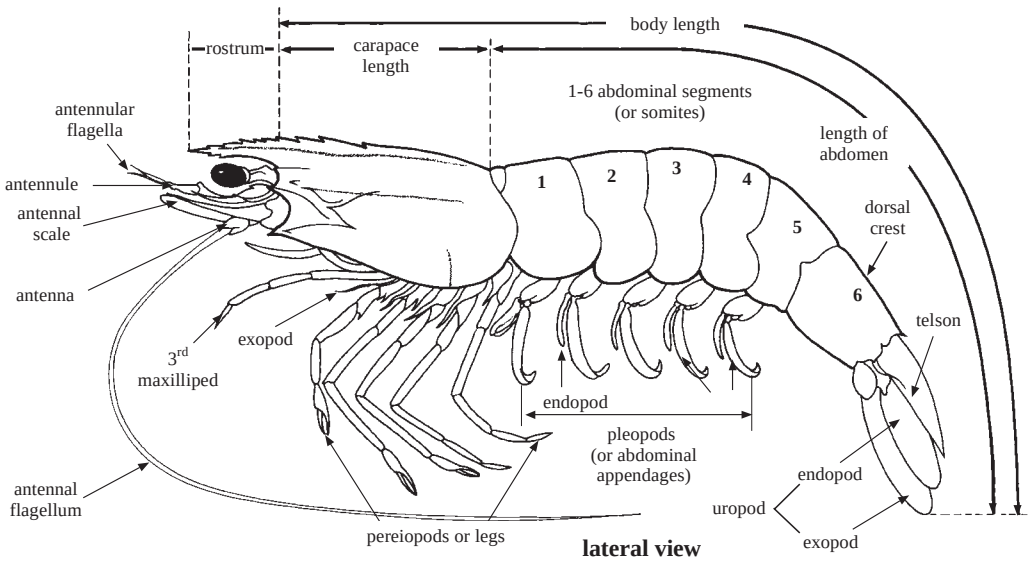
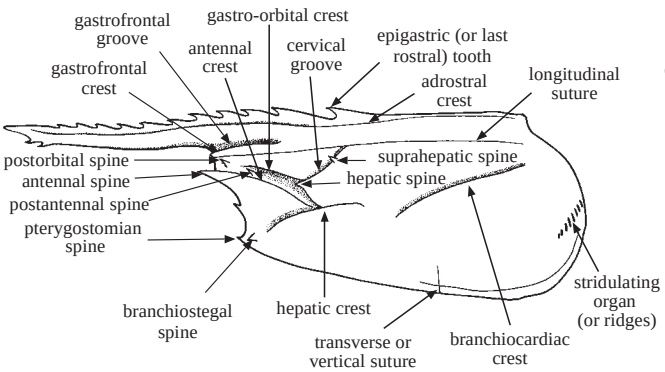
SHRIMPS AND PRAWNS

by T.Y. Chan

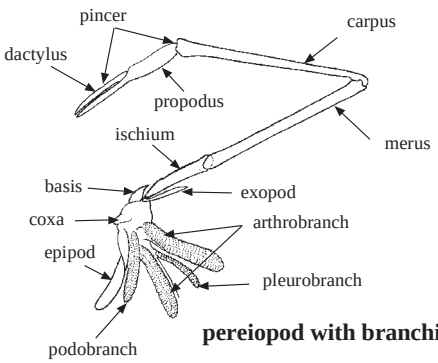
TECHNICAL TERMS AND MEASUREMENTS



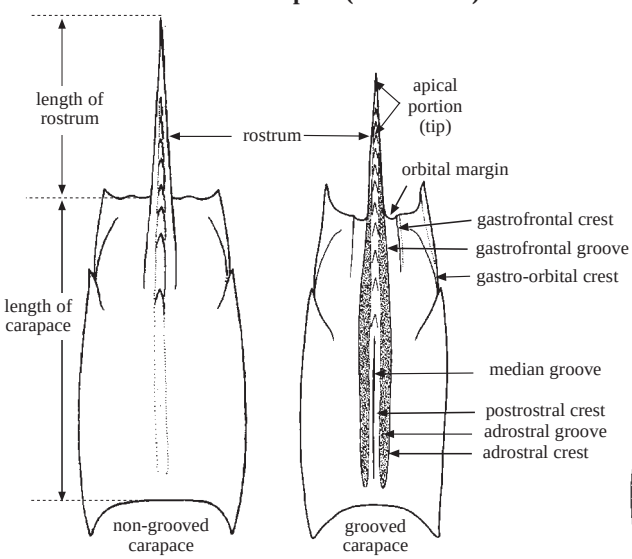
lateral view



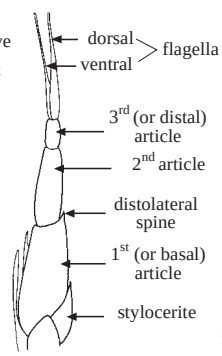
carapace (lateral view)



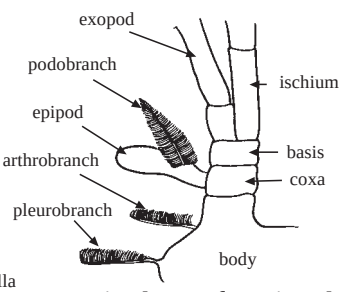
pereiopod with branchiae



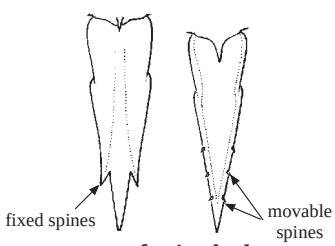
carapace (dorsal view)



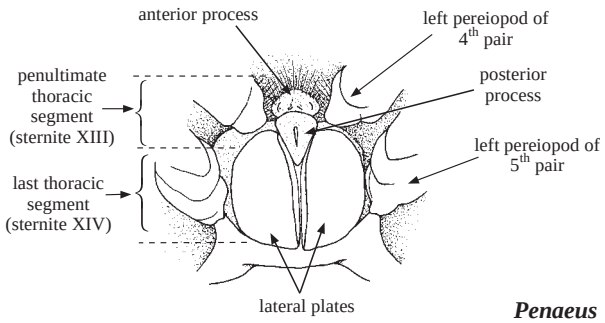
antennule

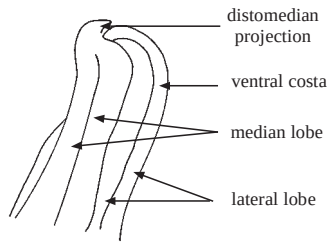


proximal part of pereiopod (schematic)

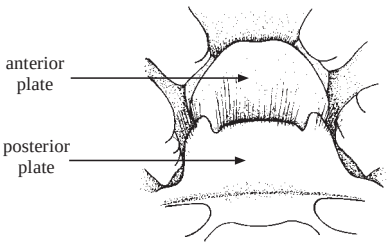


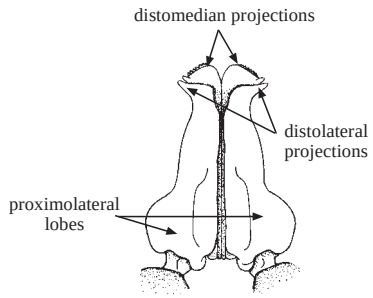
types of spined telsons



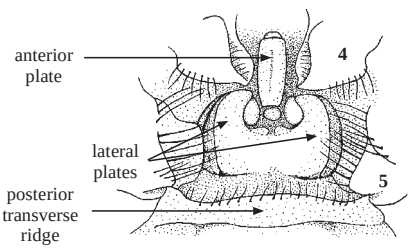


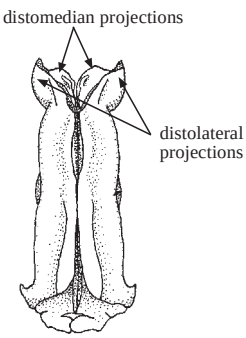
Penaeus



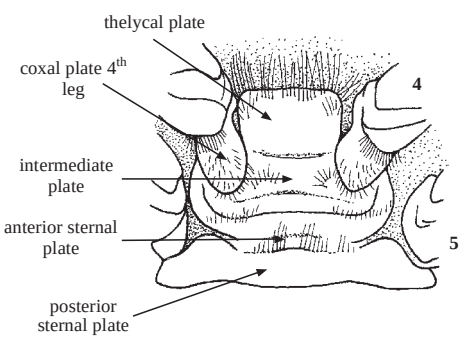


Parapenaeopsis

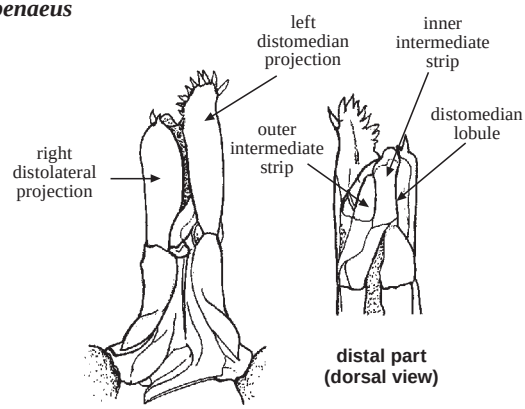




Metapenaeus



basic types of thelycum of female penaeid shrimps (ventral view)

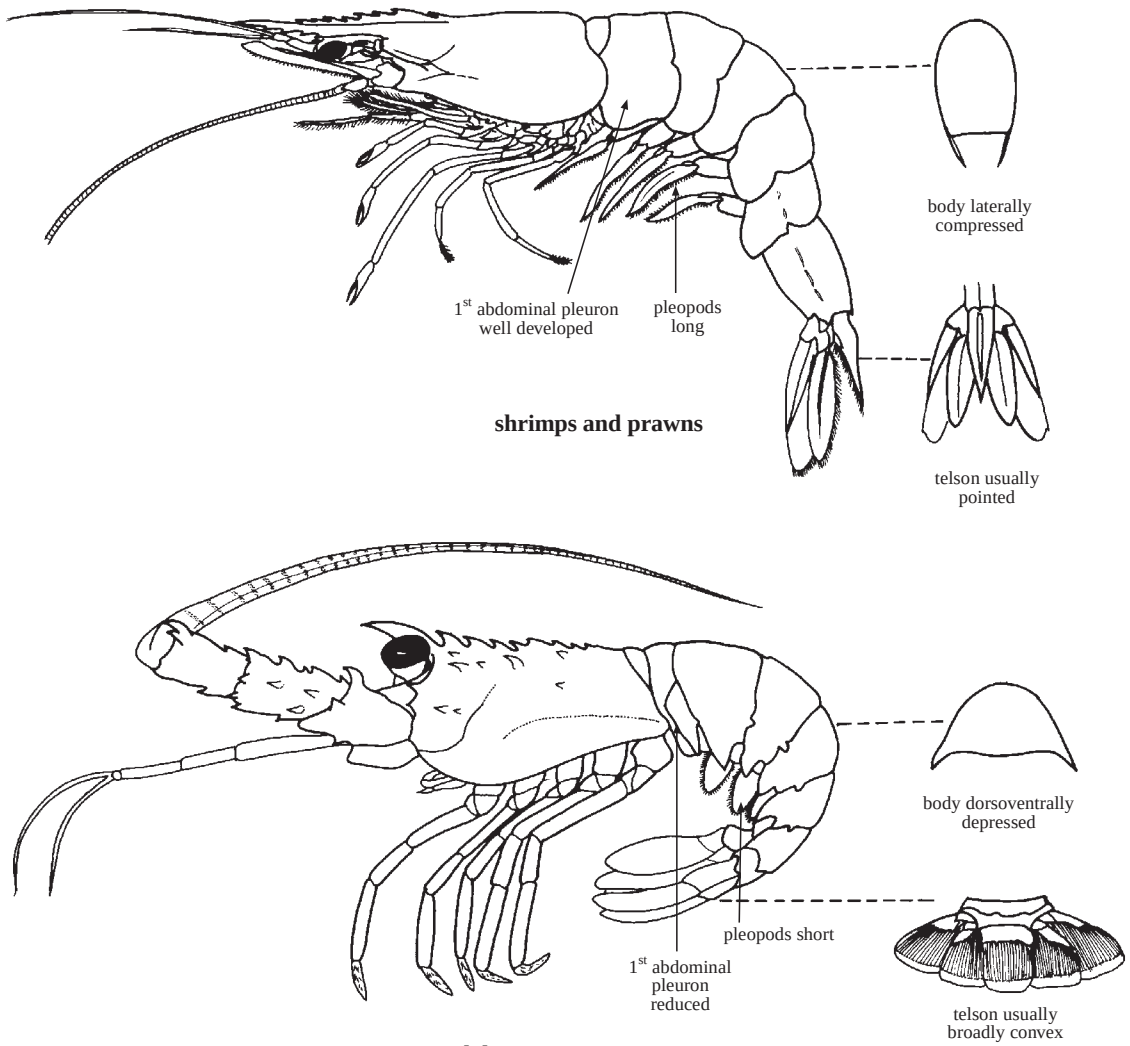


Metapenaeopsis

basic types of petasma (joined endopods of first pair of pleopods) of male penaeid shrimps (ventral view - except otherwise stated)

GENERAL REMARKS

Shrimps and prawns constitute a large group of crustaceans with an extended abdomen (or "tail"), varying in size from microscopic to about 35 cm body length (measured dorsally from the posterior orbital margin to the end of the tail, excluding the rostrum and the appendages). Taxonomically, shrimps and prawns belong to the "swimming group" of decapod crustaceans in the suborder Macrura Natantia. They differ from the lobsters (suborder Macrura Reptantia) by having the body generally more laterally compressed, the pleopods (abdominal appendages) well developed, the thoracic sternum (i.e. ventral part of thoracic body segments, between the legs) often narrow and not easy to observe, the first abdominal pleuron (or lateral plate) well developed (about as large as the pleura of following segments, see figure below), and the telson usually tapering distally.



(after Chan and Yu, 1993)

conspicuous morphological differences between shrimps and lobsters

The terms “shrimp” and “prawn” have no definite reference to any known taxonomic groups. Although the term “shrimp” is sometimes applied to smaller species, while “prawn” is more often used for larger forms, there is no clear distinction between both terms and their usage is often confused or even reverse in different countries or regions. Therefore, no attempt has been made here to restrict or define their meaning. Certain other crustaceans, such as the “mysid shrimps” (Mysidacea), “mantis shrimps” (Stomatopoda), and “mud shrimps” (Thalassinidea), are taxonomically not true shrimps.

Altogether, there are about 3 047 species of shrimps and prawns known to date, subdivided into 4 major groups, namely Sergestoidea (about 94 species), Penaeoidea (about 376 species), Stenopodidea (at least 60 species), and Caridea (at least 2 517 species). Although the Caridea comprise the majority of species, only some are abundant enough to be of interest to fisheries. Most of the commercial shrimps and prawns belong to the Penaeoidea. At present, only slightly less than 300 species of shrimps and prawns are of economic interest worldwide, and out of these, only about 100 comprise the principal share of the annual world catch. FAO’s Yearbook of Fishery Statistics reports in 1995 a worldwide production of all shrimps and prawns of around 3 200 000 t (both from capture fishery and aquaculture). Around 710 000 t of this production originated in the Western Central Pacific.

The exact number of species of shrimps and prawns present in the Western Central Pacific is uncertain. This is especially true for the carideans and stenopodids, most species of which have no economic value and thus only very few studies exist on them. However, recent extensive studies on carideans from the Philippines and adjacent areas have shown that 528 species occur in that region alone. Although caridean shrimps are widely distributed in marine waters, brackish and fresh waters, and are found from high mountain regions to coral reefs and the deep sea, at present only the giant river prawn *Macrobrachium rosenbergii* is of high economic importance in the Western Central Pacific. This is a very large species, sometimes found in marine waters, and extensively fished and cultured in several countries. The other coastal or fresh-water caridean shrimps in the area are either too small or not abundant enough to be fished on a large scale, although a few of them may locally be used as food. It should be noted, however, that the present commercial fishing activities in the area are generally rather simple and mainly limited to shallow waters with depths less than 100 m. Several deep-sea caridean shrimps, mostly belonging to the family Pandalidae, can often be caught in large quantities during exploratory trawling operations and may eventually prove to be of commercial interest with the development of a deep-sea fishery.

The Stenopodidea (with the single family Stenopodidae) generally have no economic importance, although a few of them, as well as some coral reef carideans, are sporadically seen in the aquarium trade and thus have some commercial value.

Most of the commercial species of shrimps and prawns belong to the Penaeoidea. Studies on penaeoids are more comprehensive and at present 4 families including 191 species are known to occur in the Western Central Pacific, with the Penaeidae being the most important family. As species of the Penaeidae are generally of moderate to large size and often occur in large quantities in shallow waters along the continental shelf on trawlable bottoms, they are fished extensively by trawls, seines, set nets, traps, and artisanal gear. Large-scale pond culture of penaeid shrimps is practised in several countries. Species of the penaeoid families Aristeidae and Solenoceridae are mainly deep-water dwellers and largely unexploited. The fact that larger representatives of these 2 families are often caught on the basis of exploratory deep-sea trawling, indicates that they have a high commercial potential with the future development of a deep-sea fishery in the area. In contrast, species of the penaeoid family Sicyoniidae are generally small, nowhere abundant, and do not have any commercial potential.

Sergestoid shrimps are usually small and of no interest to fisheries, except for the genus *Acetes*, 7 species of which are found in the Western Central Pacific. These epipelagic shrimps inhabit shallow coastal estuarine waters and often occur in great abundance. They are extensively fished by push nets, bag nets and seines, and are of considerable economic importance, particularly in the Southeast Asian countries of the area.

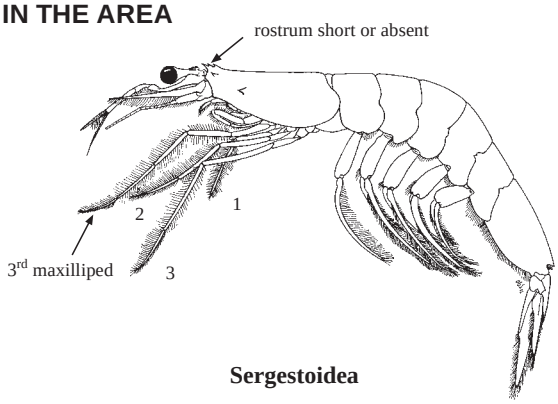
Shrimps and prawns in the Western Central Pacific are generally marketed fresh or frozen, sometimes live, except for species of *Acetes* which are usually processed into shrimp paste. They are locally consumed or exported. In the Philippines, Indonesia and Thailand, altogether 94 200 t of shrimps and prawns were exported in 1987.

GUIDE TO THE MAJOR GROUPS OF SHRIMPS AND PRAWNS OCCURRING IN THE AREA

SERGESTOIDEA **Page 858**

Sergestoid shrimps

Usually small to microscopic, body strongly compressed laterally, shell rather soft; rostrum and last 2 pairs of legs (pereiopods) reduced (absent in Luciferidae); abdomen with posterior part of pleura (lateral plates) covering anterior part of succeeding pleura; males with large copulatory organ (petasma) on first pair of pleopods (abdominal appendages); generally pelagic, with eggs released directly into the water (eggs carried on second pair of legs in Luciferidae).

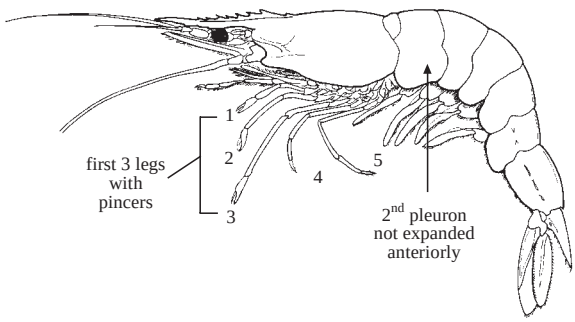


Sergestoidea

PENAEOIDEA **Page 866**

Penaeoid shrimps

Small to large; all 5 pairs of legs (pereiopods) well developed, with first 3 pairs forming a pincer, none of the pincers particularly large; abdomen with posterior part of pleura (or lateral plates) covering anterior part of succeeding pleura; with large specific copulatory organ on first pair of pleopods (abdominal appendages) in males (petasma), and on posterior thoracic sternites in females (thelycum); eggs released directly into the water, not retained by the females.

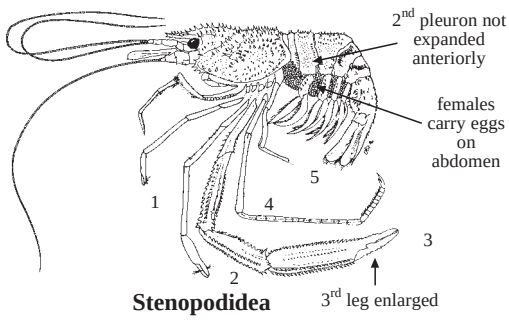


Penaeoidea

STENOPODIDEA **Page 955**

Stenopodid shrimps

Usually small; all 5 pairs of legs (pereiopods) well developed, with first 3 pairs forming a pincer, third pair huge and massive; abdomen with posterior part of pleura (lateral plates) covering anterior part of succeeding pleura; males and females without large specific copulatory organ on first pair of pleopods (abdominal appendages) or posterior thoracic sternites, respectively; females carry the eggs on the abdomen until hatching.

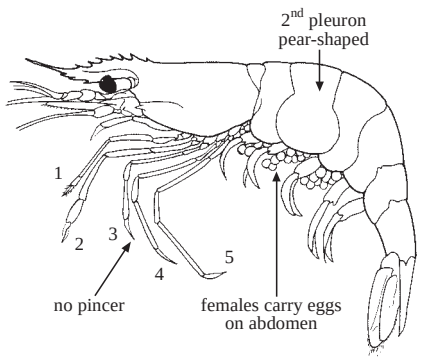


Stenopodidea

CARIDEA **Page 957**

Caridean shrimps

Size very small to large; all 5 pairs of legs (pereiopods) well developed, the first 2 pairs with or without pincer, but third pair never bearing a pincer; second abdominal pleuron (lateral plate) greatly expanded, pear-shaped and overlapping posterior part of first pleuron and anterior part of third pleuron; males and females without large specific copulatory organ on first pair of pleopods (abdominal appendages) or posterior thoracic sternites, respectively; females carry the eggs on the abdomen until hatching.



Caridea

LIST OF FAMILIES OCCURRING IN THE AREA

The symbol  is given for those families which are treated further in this contribution.

Infraorder PENAEIDEA

Superfamily SERGESTOIDEA

LUCIFERIDAE

 SERGESTIDAE

Superfamily PENAEOIDEA

 ARISTEIDAE

 SOLENOCERIDAE

 PENAEIDAE

 SICYONIIDAE

Infraorder STENOPODIDEA

 STENOPODIDAE

Infraorder Caridea

Superfamily PASIPHAEOIDEA

PASIPHAEIDAE

Superfamily OPLOPHORIDEA

OPLOPHORIDAE

Superfamily ATYOIDEA

 ATYIDAE

Superfamily BRESILIOIDEA

BRESILIIDAE

Superfamily NEMATOCARCINOIDEA

EUGONATONOTIDAE

NEMATOCARCINIDAE

 RHYNCHOCINETIDAE

Superfamily PSALIDOPODOIDEA

PSALIDOPODIDAE

Superfamily STYLODACTYLOIDEA

STYLODACTYLIDAE

Superfamily CAMPYLONOTIDEA

BATHYPALAEMONELLIDAE

Superfamily PALAEMONOIDEA

ANCHISTIOIDIDAE

GNATHOPHYLLIDAE

 HYMENOCERIDAE

 PALAEMONIDAE

Superfamily ALPHEOIDEA

ALPHEIDAE

 HIPPOLYTIDAE

OGYRIDIDAE

Superfamily PROCESSOIDEA

PROCESSIDAE

Superfamily PANDALOIDEA

 PANDALIDAE

THALASSOCARIDIDAE

Superfamily CRANGONOIDEA

CRANGONIDAE

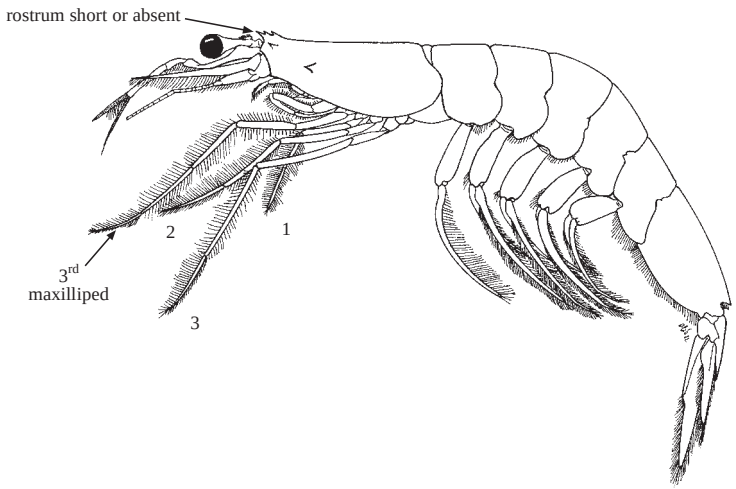
GLYPHOCRANGONIDAE

Infraorder PENAEIDEA

Superfamily SERGESTOIDEA

Sergestoid shrimps

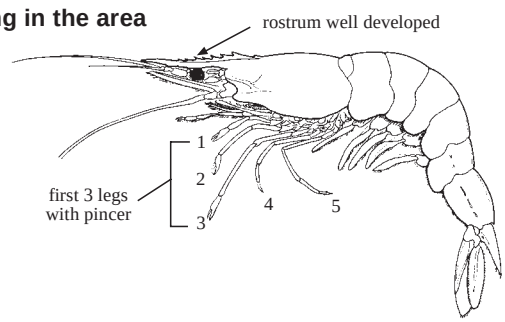
Diagnostic characters: Usually microscopic to small sized, with a body length from 1 to about 5 cm (exceptionally over 8.5 cm). **Body strongly compressed laterally**, shell soft. Carapace with crests and grooves poorly developed, often wanting. **Rostrum very short and small, sometimes absent**. In males, lower antennular flagella with a clasping organ. First leg with or without pincer, second and third legs bearing small pincers; **fourth and fifth legs reduced or absent**. Abdomen with **posterior part of pleura (lateral plates) covering anterior part of succeeding pleura**. **Males with large copulatory organ (petasma)** on first pair of pleopods (abdominal appendages). Generally pelagic; eggs released directly into the water (family Sergestidae), or carried on second pair of legs until hatching (family Luciferidae).



Habitat, biology, and fisheries: Members of this superfamily (including 2 families and 7 genera) mainly inhabit brackish and marine environments (a single species is found in pure fresh water). They can be found from shallow to deep waters (deeper than 2 100 m) and are generally pelagic, although a few (in the genus *Sicyonella*) have adapted to a benthic way of life. At present, 2 families and 4 genera of sergestoid shrimps are known from the Western Central Pacific, but all except the genus *Acetes* are without any economic importance as they are either too small, not abundant enough, or occur in very deep water. Members of the genus *Acetes* mainly occur in estuarine or shallow coastal waters and are seasonally very abundant. These are small shrimps with a body length of adults ranging between 1 and 4 cm. Their bodies are translucent or semi-translucent, with black eyes and several pairs of red pigment spots (chromatophores) on the bases of uropods. In the course of their fishing seasons, they are extensively caught by push nets, bag nets, and seines. They are mainly fished in the Southeast Asian countries of the area and are of significant commercial importance. From 1990 to 1995, the reported annual catch of sergestoid shrimps in the Western Central Pacific ranged from around 38 500 to 45 700 t (FAO Yearbook of Fishery Statistics). Only a small part of the catch is marketed fresh, and the greater fraction is dried, salted or fermented with salt and processed into shrimp paste. As only species of *Acetes* are of commercial interest, a key to species of this genus is given here.

Other major groups of shrimps and prawns occurring in the area

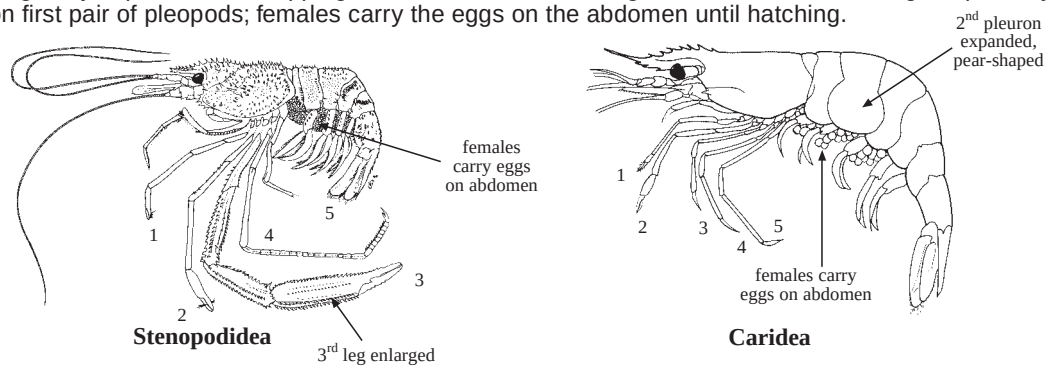
Penaeoidea: all 5 pairs of legs well developed, with first 3 pairs forming a pincer, none of the pincers particularly large; rostrum usually well developed, extending beyond eyes; numerous branchiae (more than 8 on each side).



Penaeoidea

Stenopodidea: all 5 pairs of legs well developed, first 3 pairs forming a pincer, third pair huge and massive; males without large copulatory organ on first pair of pleopods; females carry the eggs on the abdomen until hatching.

Caridea: all 5 pairs of legs well developed, third pair without pincer; abdomen with pleuron of second segment greatly expanded, overlapping those of first and third segments; males without large copulatory organ on first pair of pleopods; females carry the eggs on the abdomen until hatching.



Key to families and genera[1/] **of Sergestoidea occurring in the area**

1a. Head greatly elongated (Fig. 1); no branchiae; size very small, about 1 cm body length . . . . . **Luciferidae**

1b. Head not particularly elongate; branchiae present; size small, but generally adults with more than 2 cm body length . . . . . **(Sergestidae)** → *2*

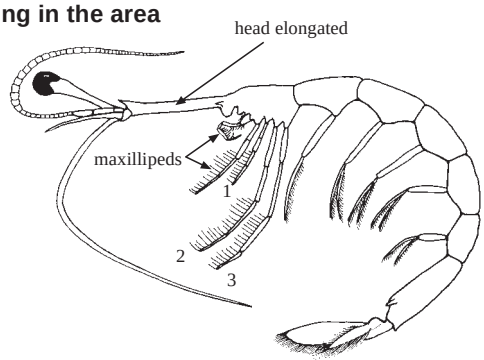


Fig. 1 Luciferidae

2a. Fourth and fifth legs entirely lacking, reduced to a pair of protuberances (genital coxae) in males (Fig. 2); first maxillae and first maxillipeds without palp; second maxillae with a single undivided lobe . . . . . ***Acetes***

2b. Fourth and fifth legs present, with fifth leg much shorter than fourth (Fig. 3); first maxillae and first maxillipeds with palp; second maxillae with 2 lobes . . . . . **other genera**

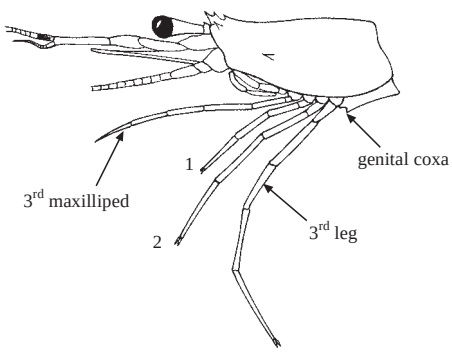


Fig. 2 *Acetes*

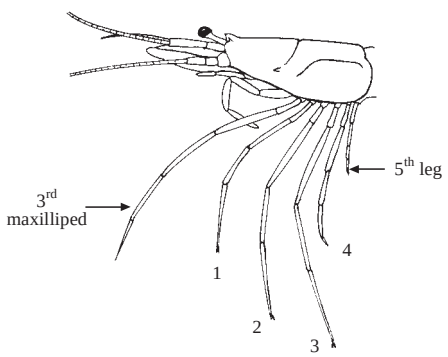


Fig. 3 *Sergestes*

1/ Restricted to the identification of *Acetes*, the only genus of interest to fisheries in the area.

SERGESTIDAE

Key to sexes of *Acetes*

1a. A pair of protuberances (genital coxae; Fig. 2) between third legs and first pleopods; lower antennular flagella with 1 or 2 clasping spines, or modification of these (Fig. 4); petasma (Fig. 5) present on first pleopods . . . . . **male**

1b. No protuberance in genital area; lower antennular flagella without spine; petasma absent . . . . . **female**

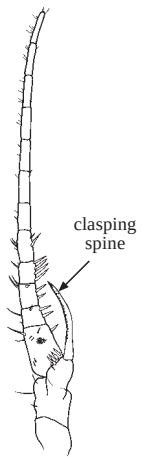


Fig. 4 lower antennular flagellum of a male

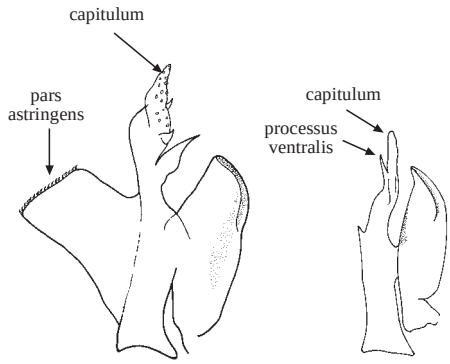


Fig. 5 examples of the petasma

Key to the species of *Acetes* occurring in the area

Remark on key characters: see the respective species accounts for illustrations of the petasma and lower antennular flagellum of males, and the basis of third leg of females.

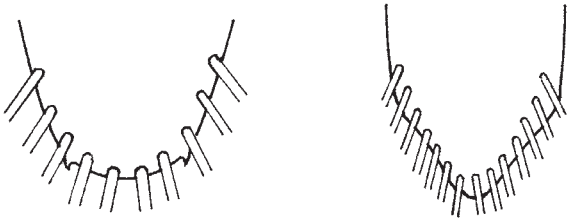
Females

1a. Apex of telson rounded or truncated (Fig. 6a) . . . . . → *2*

1b. Apex of telson triangular (Fig. 6b) . . . . . → *3*

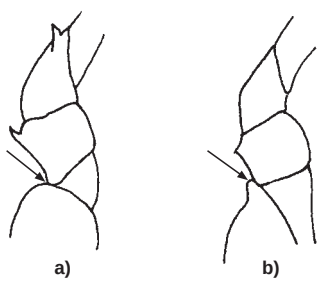
2a. Third thoracic sternite produced posteriorly (Fig. 7b) . . . . . ***Acetes japonicus***

2b. Third thoracic sternite not produced posteriorly (Fig. 7a) . . . . . ***Acetes serrulatus***



a) rounded or truncated **b) triangular**

Fig. 6 apex of telson



a) **b)**

Fig. 7 base of third leg

3a. Procurved tooth present between bases of first pleopods . . . . . → *4*

3b. Procurved tooth absent between bases of first pleopods . . . . . → *6*

4a. Inner margin of basis of third leg with sharply pointed projection; third and fourth thoracic sternites deeply channeled longitudinally . . . . . ***Acetes indicus***

4b. Inner margin of basis of third leg without sharply pointed projection; third and fourth thoracic sternites not channeled longitudinally . . . . . → *5*

5a. First segment of antennular peduncle at most as long as second and third segments together; distal inner margin of basis of third leg ending in blunt projection . . . ***Acetes intermedius***

5b. First segment of antennular peduncle longer than second and third segments together; distal inner margin of basis of third leg without projection . . . . . ***Acetes erythraeus***

6a. Lower antennular flagellum with 20 segments or less; distal inner margin of basis of third leg ending in projection; pair of small protuberances on anterior part of third thoracic sternite . . . . . ***Acetes sibogae***

6b. Lower antennular flagellum with 20 segments or more; distal inner margin of basis of third leg without projection; pair of large protuberances on anterior part of third thoracic sternite . . . . . ***Acetes vulgaris***

Males

1a. Anterior margin of genital coxa rounded; petasma without pars astringens (Fig. 5) . . . . . → ***2***

1b. Anterior margin of genital coxa pointed; petasma with pars astringens (Fig. 5) . . . . . → ***4***

2a. Procurved tooth present between bases of first pleopods; lower antennular flagellum with 1 clasping spine . . . . . ***Acetes indicus***

2b. Procurved tooth absent between bases of first pleopods; lower antennular flagellum with 2 clasping spines . . . . . → ***3***

3a. Lower antennular flagellum with triangular projection from upper end of first segment of main branch . . . . . ***Acetes serrulatus***

3b. First segment of main branch of lower antennular flagellum without triangular projection . . . . . ***Acetes japonicus***

4a. Procurved tooth present between bases of first pleopods . . . . . → ***5***

4b. Procurved tooth absent between bases of first pleopods . . . . . → ***6***

5a. First segment of antennular peduncle shorter than second and third segments together; capitulum of petasma with 3 to 5 subequally large hooks along outer margin . . ***Acetes intermedius***

5b. First segment of antennular peduncle longer than second and third segments together; capitulum of petasma with 1 large hook at outer margin . . . . . ***Acetes erythraeus***

6a. Lower antennular flagellum with 12 segments or less; capitulum of petasma with 1 large hook and often additionally 1 small hook along outer margin . . . . . ***Acetes sibogae***

6b. Lower antennular flagellum with 17 segments or more; capitulum of petasma with 3 large hooks along outer margin . . . . . ***Acetes vulgaris***

List of genera and commercial species occurring in the area

The symbol is given when species accounts are included.

LUCIFERIDAE

Genus *Lucifer*

SERGESTIDAE

Genus *Acetes*

Acetes erythraeus Nobili, 1905
Acetes indicus H. Milne Edwards, 1830
Acetes intermedius Omori, 1975
Acetes japonicus Kishinouye, 1905
Acetes serrulatus (Krøyer, 1855)
Acetes sibogae Hansen, 1919
Acetes vulgaris Hansen, 1919

Genus *Sergestes*

Genus *Sergia*

Genus *Sicyonella*

References

Miquel, J.C. 1984. Shrimps and Prawns. In *FAO species identification sheets for fisheries purposes. Western Indian Ocean (Fishing Area 51),* edited by W. Fischer and G. Bianchi. Rome, FAO.

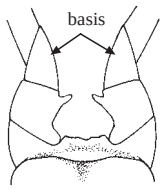
Omori, M. 1975. The systematics, biogeography, and fishery of epipelagic shrimps of the genus *Acetes* (Crustacea, Decapoda, Sergestidae). *Bull. Ocean Res. Inst., Univ. Tokyo*, 7:1-89.

Pérez Farfante, I. and B.F. Kensley. 1997. Penaeoid and sergestoid shrimps and prawns of the world. Keys and diagnosis for the families and genera. *Mem. Mus. Natn. Hist. Nat.*, 175:1-233.

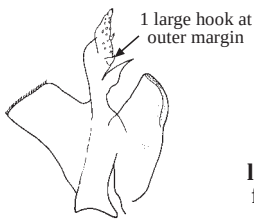
Acetes erythraeus Nobili, 1905

En - Tsivakihini paste shrimp; **Fr** - Chevrette tsivakihini; **Sp** - Camaroncillo tsivakihini.

Maximum body length 1.6 to 4.0 in females (rarely 4.8 cm) and 1.6 to 3.2 cm in males. Epipelagic, found over muddy or sandy bottoms, from the surface to a depth of 55 m. Marine or brackish, but usually brackish and fished in the intertidal zone and estuaries with mangroves. Probably the most common species of the genus in the area and of major commercial importance in its range, despite its very small size. Caught with triangular nets, lift nets, scoop nets, push nets, bag nets, set filter nets, and seines, occasionally encountered in penaeid shrimp culture ponds. Marketed dried, boiled, salted, fermented with salt, fresh, or processed in other ways; consumed locally, mainly in the form of seasoning such as shrimp paste or shrimp sauce, sometimes exported. Indo-West Pacific from the eastern coast of Africa to southern China and northeastern Australia.



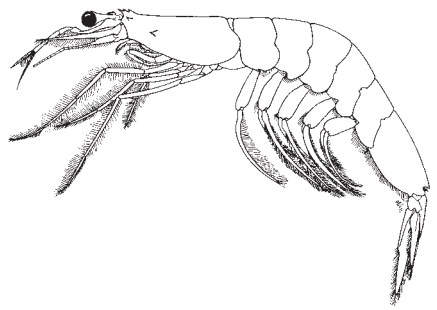
bases of 3rd legs (female)

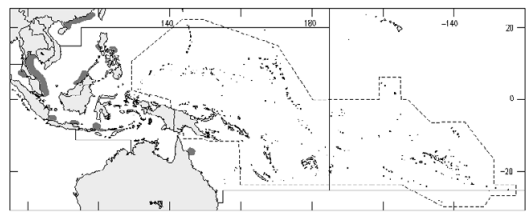


petasma

lower antennular flagellum (male)

(after Omori, 1975)

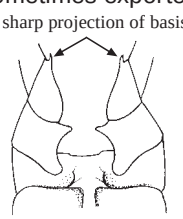




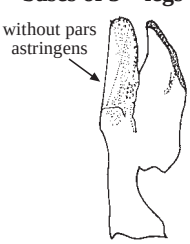
Acetes indicus H. Milne Edwards, 1830

En - Jawla paste shrimp; **Fr** - Chevrette jawla; **Sp** - Camaroncillo javlá.

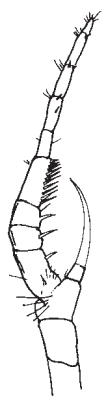
Maximum body length 2.3 to 4.0 cm (females) and 1.5 to 2.5 cm (males). Inhabits shallow, sometimes brackish coastal waters; epipelagic, usually swims in midwater or near the surface. One of the more common species of the genus in the area and of considerable economic importance. Caught with push nets, bag nets and seines, and sometimes by light fishing at night. Taken throughout its range. Marketed dried, boiled, salted, fermented with salt, fresh, or processed in other ways; consumed locally, mainly in the form of seasoning such as shrimp paste or shrimp sauce, sometimes exported. Indo-West Pacific from India to Viet Nam and Indonesia.



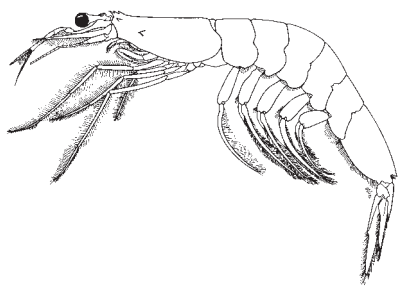
bases of 3rd legs (female)

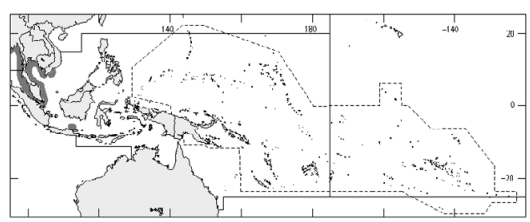


petasma



lower antennular flagellum (male)

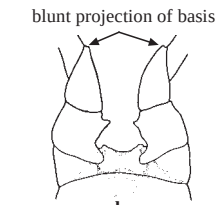




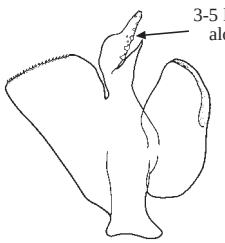
Acetes intermedius Omori, 1975

En - Taiwan mauxia shrimp; **Fr** - Chevrette mauxia de Formose; **Sp** - Camaroncillo mauxia dè Formosa.

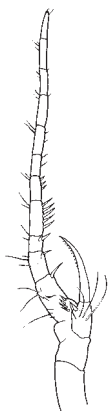
Maximum body length 2.0 to 2.6 cm (females) and 1.7 to 2.4 cm (males). Epipelagic, found mainly at sea. Within the area, reported from commercial catches made in the Philippines and Indonesia, and probably of moderately commercial importance. Caught with midwater trawls, triangular nets, lift nets, and scoop nets, and sometimes by light fishing at night. Marketed dried, boiled, salted, fermented with salt, fresh, or processed in other ways; consumed locally, mainly in the form of seasoning such as shrimp paste or shrimp sauce, sometimes exported. Found in the western Pacific, but so far only reported from Taiwan Province of China, Philippines, and the southern coast of Java.



bases of 3rd legs (female)

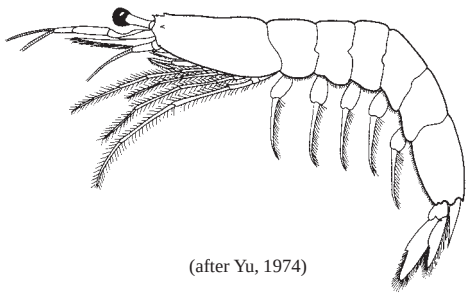


petasma

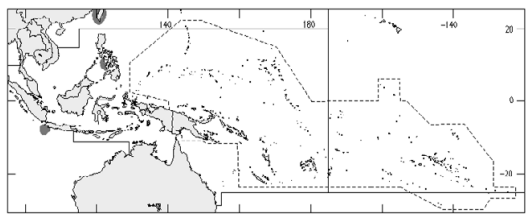


lower antennular flagellum (male)

(after Omori, 1975)



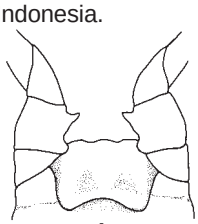
(after Yu, 1974)



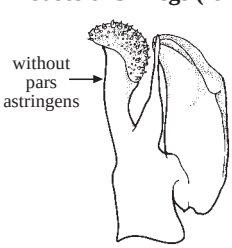
Acetes japonicus Kishinouye, 1905

En - Akiami paste shrimp; **Fr** - Chevrette akiami; **Sp** - Camaroncillo akiami.

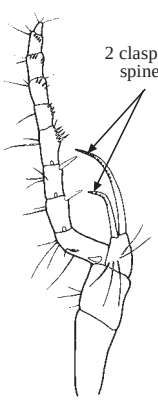
Maximum body length 1.5 to 3.0 cm (females) and 1.1 to 2.4 cm (males). Epipelagic, inhabits shallow coastal waters over muddy bottoms. One of the more common species of the genus in the area and of considerable economic importance; reported from commercial catches made in Viet Nam, Thailand, and Malaysia. Caught with push nets, bag nets, and seines, and sometimes by light fishing at night. Marketed dried, boiled, salted, fermented with salt, fresh, or processed in other ways; consumed locally, mainly in the form of seasoning such as shrimp paste or shrimp sauce, sometimes exported. In 1995, the reported production from culture ponds of this species in Indonesia amounted to 3 500 t (FAO Aquaculture Production Statistics). Widely distributed in the Indo-West Pacific from the Persian Gulf to Japan and Indonesia.



bases of 3rd legs (female)

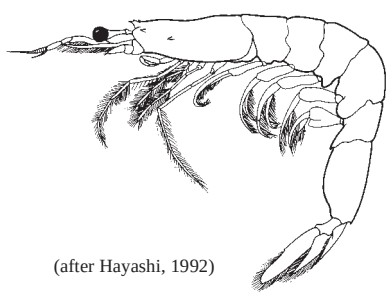


petasma

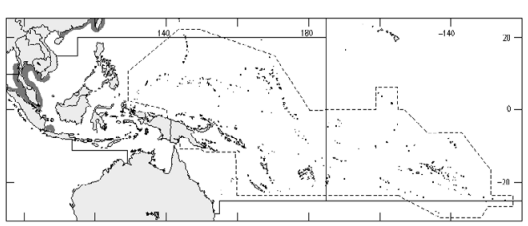


lower antennular flagellum (male)

(after Omori, 1975)



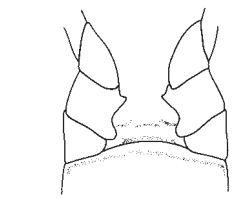
(after Hayashi, 1992)



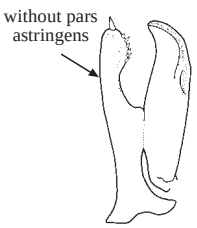
Acetes serrulatus (Krøyer, 1855)

En - Southern mauxia shrimp; **Fr** - Chevrette mauxia méridionale; **Sp** - Camaroncillo mauxia sureño.

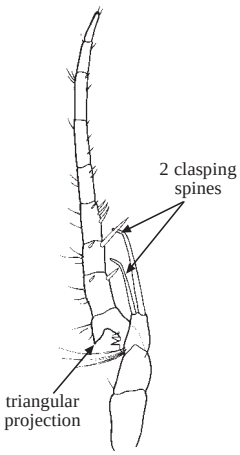
Maximum body length 1.5 to 2.1 cm (females) and 1.2 to 1.7 cm (males). Epipelagic, inhabits shallow coastal water. Probably less common than the other species of the genus. Within the area, reported from commercial catches made in Malaysia and Indonesia, but no further information on its economic status is presently available. Caught by push nets, bag nets, and seines. Marketed dried, boiled, salted, fermented with salt, fresh, or processed in other ways; consumed locally, mainly in the form of seasoning such as shrimp paste or shrimp sauce, sometimes exported. Western Pacific and so far known only from southern China, Singapore, Malaysia, and Indonesia.



bases of 3rd legs (female)

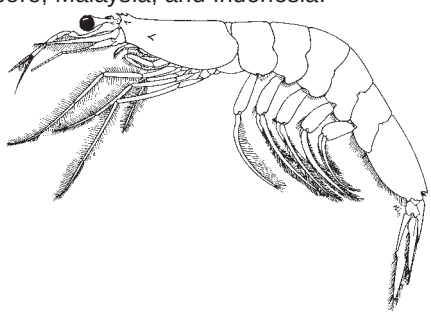


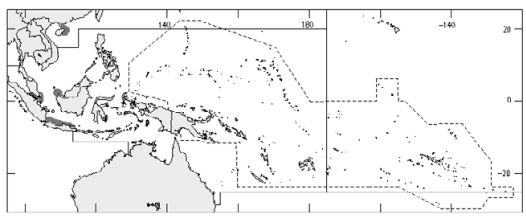
petasma



lower antennular flagellum (male)

(after Omori, 1975)

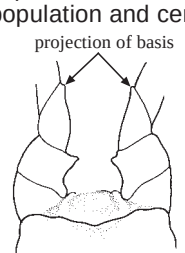




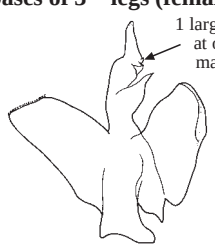
Acetes sibogae Hansen, 1919

En - Alamang shrimp; **Fr** - Chevrette alamang; **Sp** - Camaroncillo alamang.

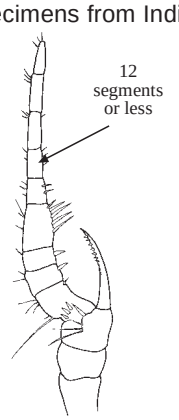
Maximum body length 1.4 to 3.4 cm (females) and 1.3 to 2.5 cm (males). Epipelagic, found over muddy bottoms in estuarine and marine waters to a depth of 55 m. Probably caught throughout its range in the area and of moderate commercial importance. Taken by triangular nets, lift nets and scoop nets. Marketed dried, boiled, salted, fermented with salt, fresh, or processed in other ways; consumed locally, mainly in the form of seasoning such as shrimp paste or shrimp sauce, sometimes exported. Indo-West Pacific from India to the Philippines and eastern Australia (the Australian population and certain specimens from India are sometimes considered to be 2 subspecies).



bases of 3rd legs (female)

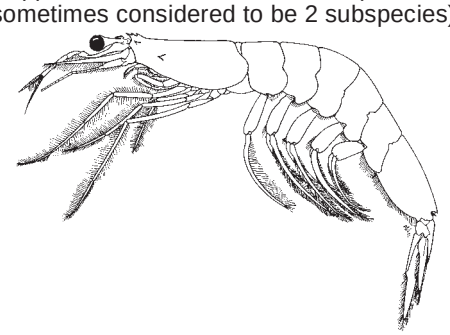


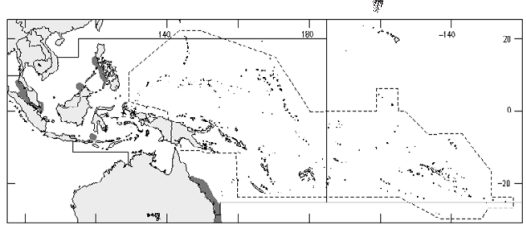
petasma



lower antennular flagellum (male)

(after Omori, 1975)

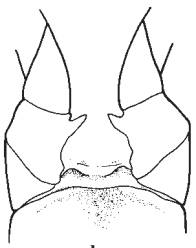




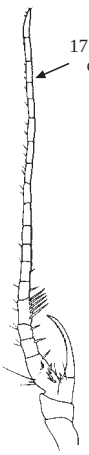
Acetes vulgaris Hansen, 1919

En - Jembret shrimp; **Fr** - Chevrette jembre; **Sp** - Camaroncillo jembre.

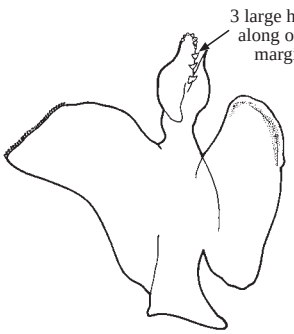
Maximum body length 2.0 to 3.4 cm (females) and 1.7 to 2.6 cm (males). Epipelagic, found over sandy and muddy bottoms in marine waters from depths of 9 to 55 m. One of the more common species of the genus in the area and of considerable economic importance; reported from commercial catches made in Thailand, Singapore, and Indonesia. Caught with push nets, bag nets, scoop nets, and seines, sometimes by light fishing at night. Marketed dried, boiled, salted, fermented with salt, fresh, or processed in other ways; consumed locally, mainly in the form of seasoning such as shrimp paste or shrimp sauce, sometimes exported. Western Pacific from southern China to the Strait of Malacca and Indonesia.



bases of 3rd legs (female)



lower antennular flagellum (male)



petasma

(after Omori, 1975)