

# 9

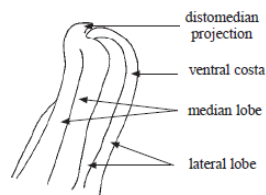
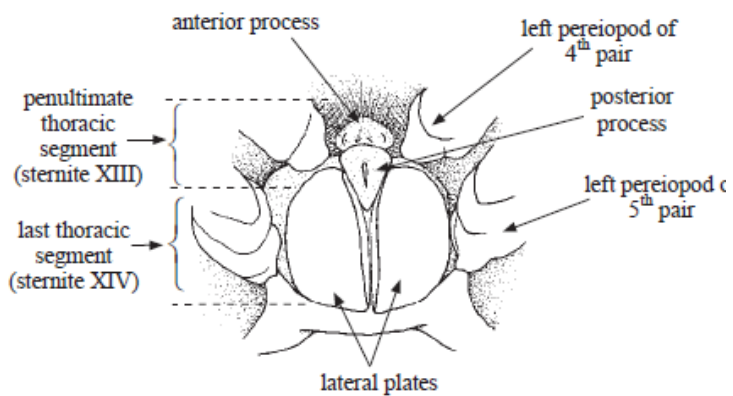
## Commercially Important Coastal Prawns- Identification Characters

S. Lakshmi Pillai

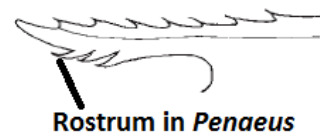
Crustacean Fisheries Division

***Penaeus***- Rostrum serrated on dorsal and ventral margins. Hepatic carina prominent. Thelycum closed. Abdomen smooth. Petasma with ventral costa long, reaching distal margin of lateral lobe.

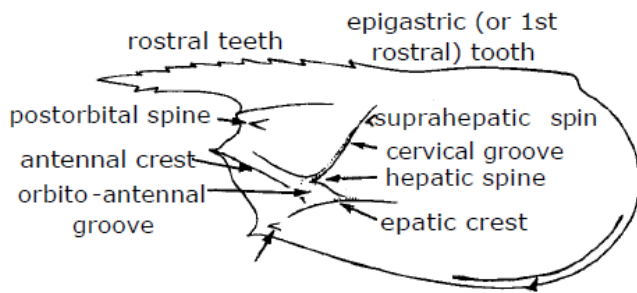
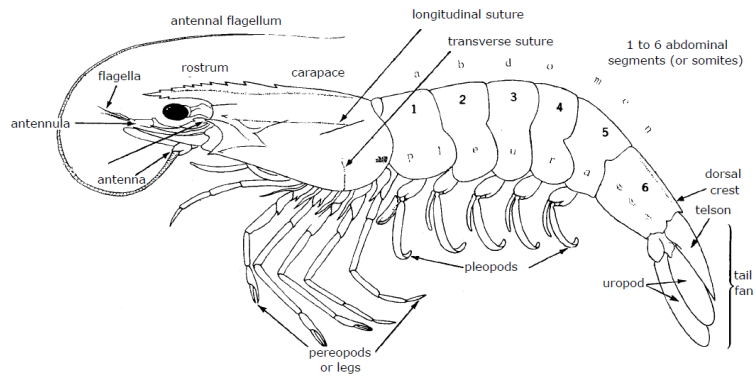
### Thelycum



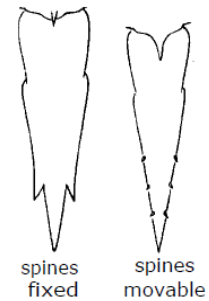
### Petasma



**Penaeidae:** Rostrum well developed with ventral teeth and sometimes with dorsal teeth. Petasma semi open or semi closed. Thelycum open or closed.

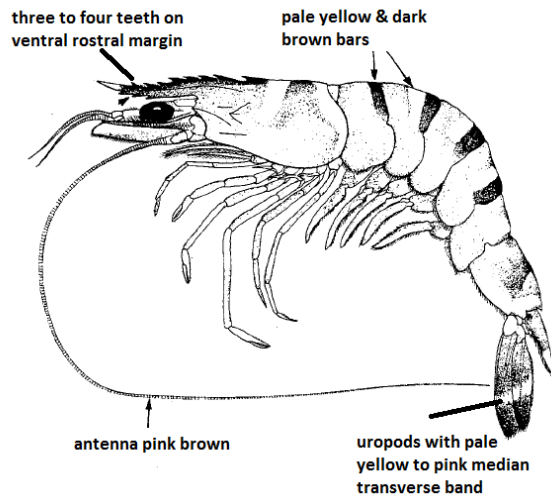
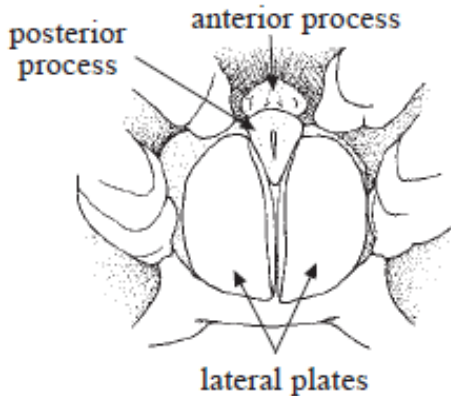


carapace (lateral view)

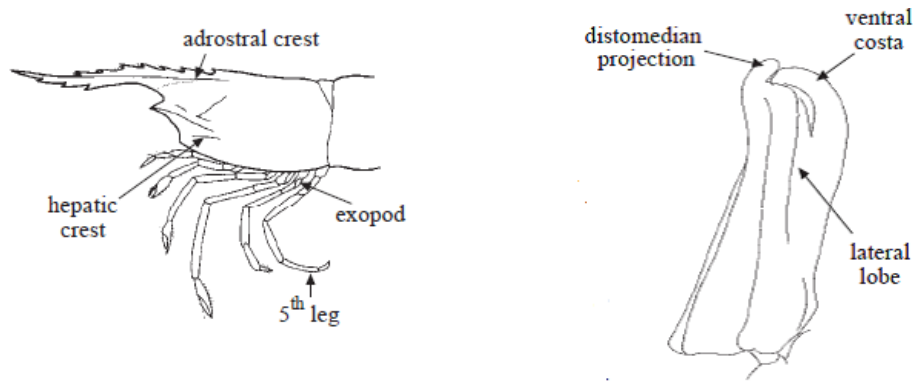


types of spined telsons

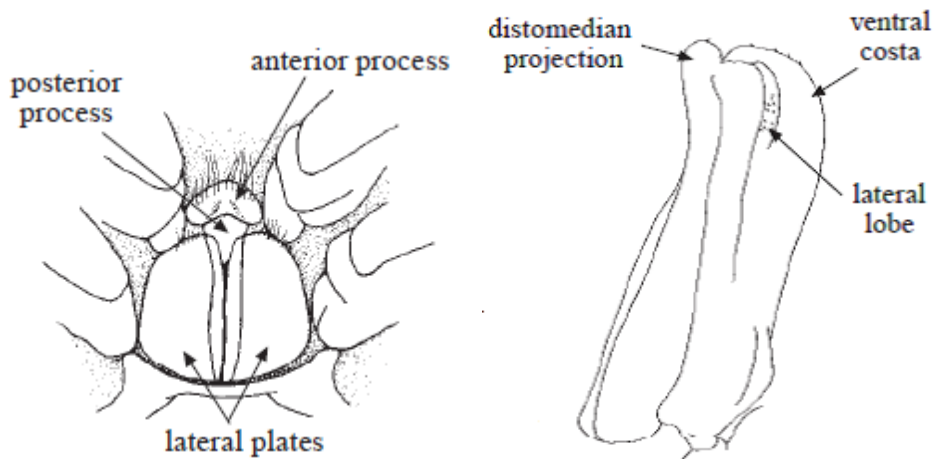
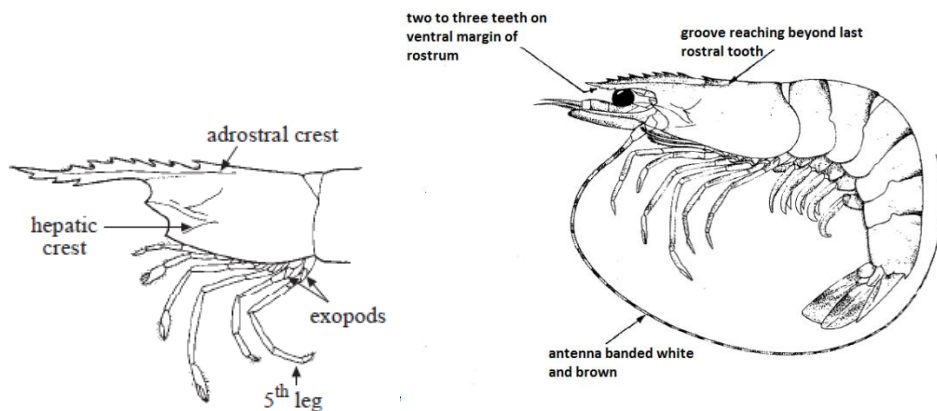
**P. monodon:** 3-4 teeth on ventral margin of rostrum. Fifth leg without exopod. Anterior process of thelycum subtriangular. Distomedian process of petasma slightly overhanging distal



margin of costae. Body grey, abdomen with dark brown to dark grey and pale yellow transverse bands. Uropods with a pale yellow to pink median transverse band.



***P. semisulcatus***: 2-3 teeth on ventral margin of rostrum, hepatic crest sloping anteroventrally. Adrostral crest reaching beyond last postrostral tooth. Antennal flagella banded. Fifth leg bearing a small exopod. Anterior process of thelycum subtriangular with raised edges. Body pale brown, sometimes greenish. Carapace often with two yellow cream dorsal transverse bands. Abdomen with brown grey and pale yellow dorsal transverse bands. Antennae banded white and brown.

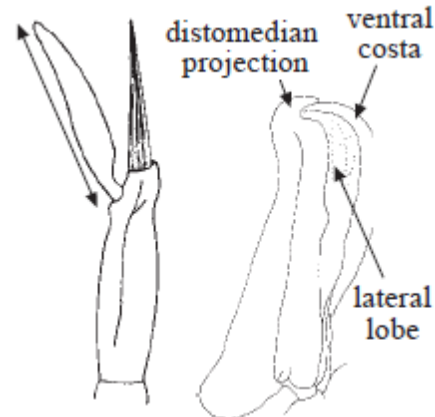
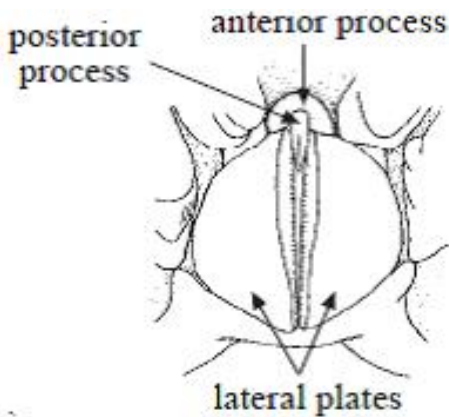
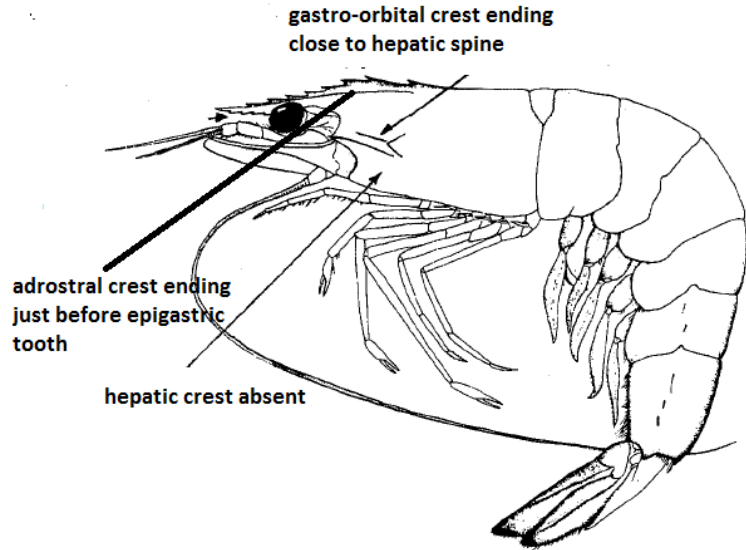


**Fenneropenaeus:** Rostrum serrated on dorsal and ventral margins. Hepatic carina generally absent, if present only feeble. Petasma semiclosed. Thelycum closed. Antennal and hepatic spines pronounced on the carapace.

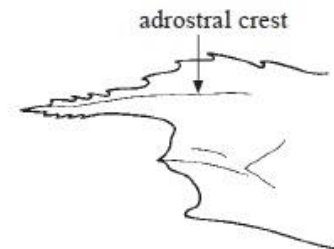
**F. indicus:** Adrostral crest extending as far as or just before epigastric tooth.

Telson lacking lateral spines.

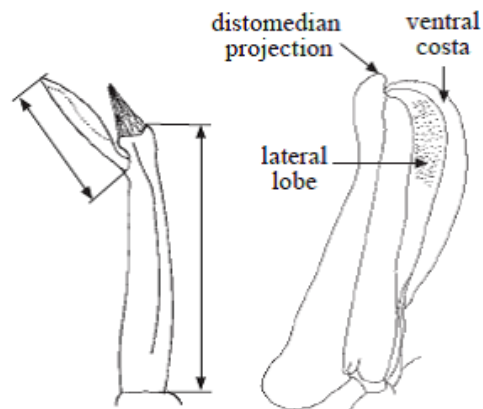
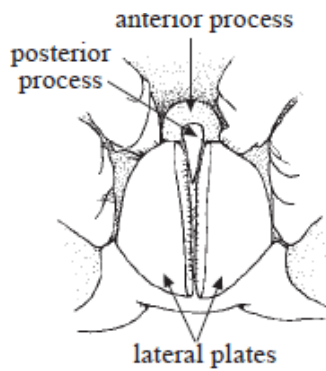
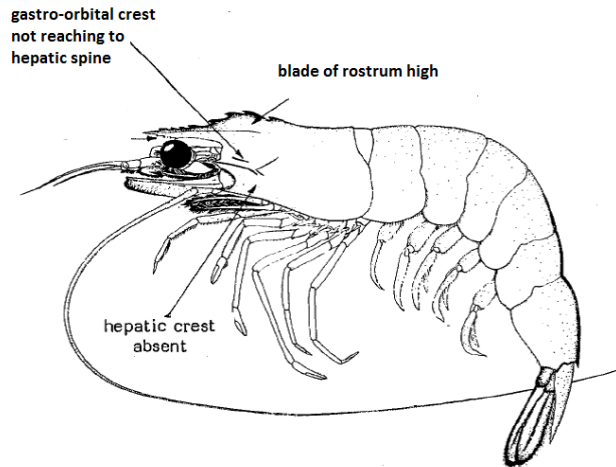
Thelycum formed by 2 semicircular lateral plates with their median margins forming tumid lips. Distomedian projection of petasma strongly curved and overhanging distal margin of costae. Body yellowish white, pereopods (pereiopods) generally of same colour as body. Pleopods and uropods pink or red.



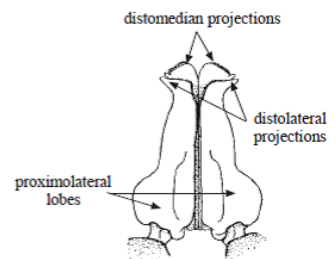
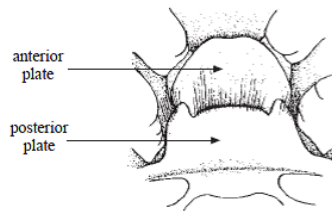
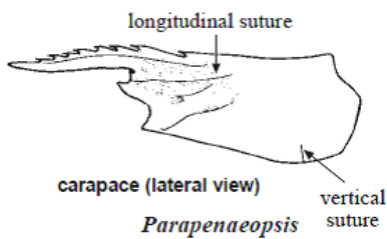
**F. merguensis:** Adrostral crest extending to or just before epigastric tooth, tip of rostrum horizontally straight. Rostral crest very high and broadly triangular in large specimens and in females. Telson lack lateral spines. Anterior process of thelycum slightly rounded and concave. Distomedian projection of petasma short, not reaching distal margin of costae.



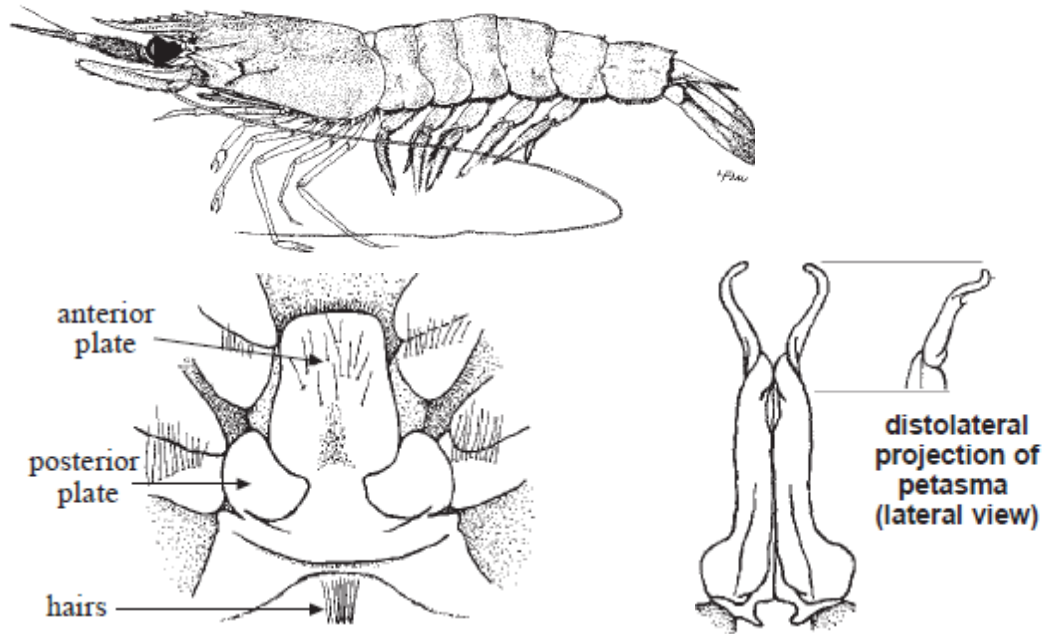
*Penaeus merguensis*



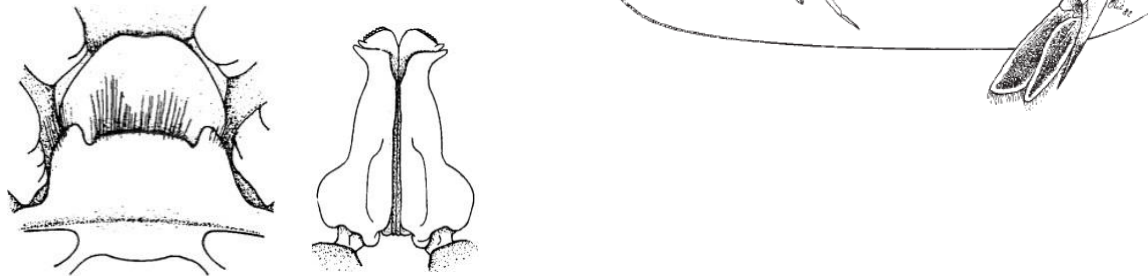
**Parapenaeopsis:** Rostrum serrated only on dorsal margin. Telson without fixed subapical spines but with lateral movable spines. Exopod present on all pereopods. Third pereopod without epipod.



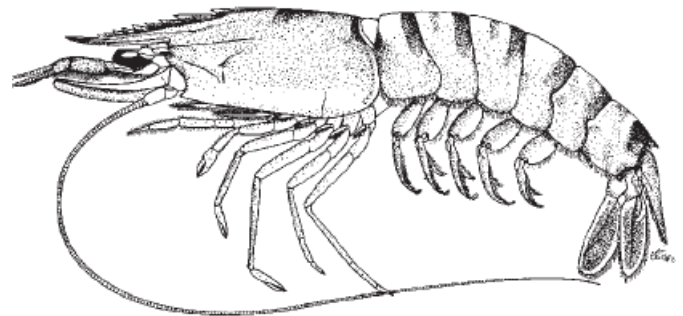
**P. cornuta:** Petasma with long and slender horn like distolateral projections with the distal part curving inwardly. Thelycum oblong, concave and fused posteromedially with posterior plate. A median tuft of long setae behind the thelycum. Transverse brown bands on abdomen.



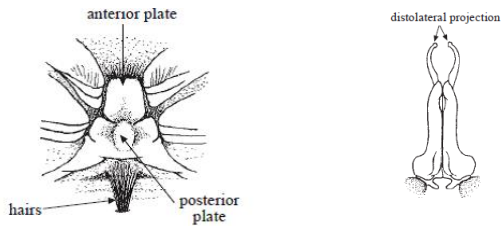
***P. hardwickii***: Distomedian projection of petasma wing like, wider than long. Anterior plate of thelycum concave, rounded anteriorly, posterior plate flat, anteromedian margin bearing a transverse row of long setal hairs. Body grey sometimes with a touch of pink.



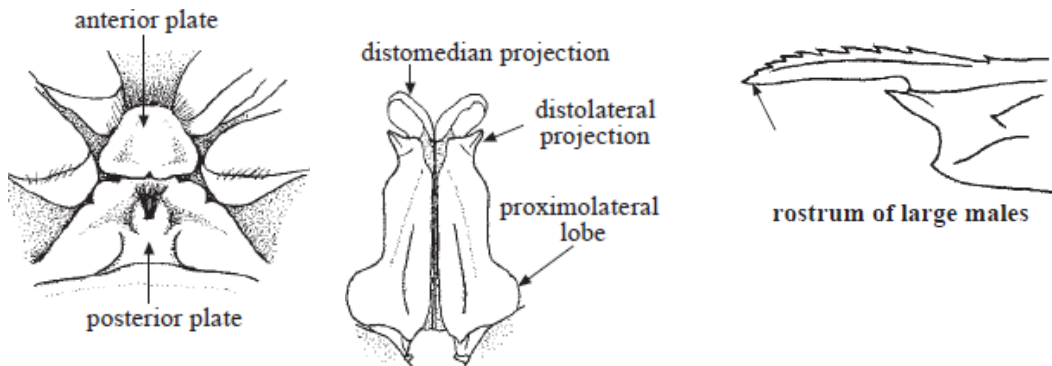
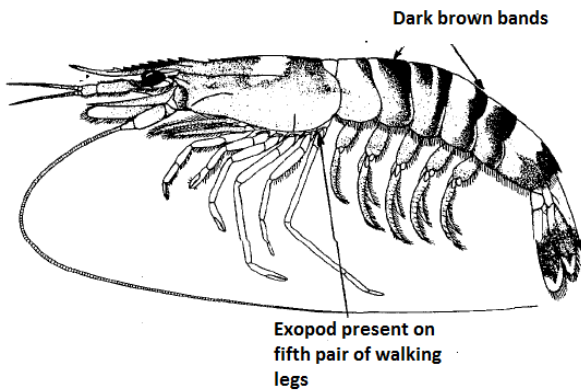
***P. maxillipedo***: Distolateral projection of petasma slender, long and horn like. Thelycum subquadrate, posteriorly depressed and medially fused to posterior plate. Median tuft of long setae behind the thelycum. Pale brown in colour. Abdomen with dorsal transverse dark bands. Uropods greenish to red brown with a pale



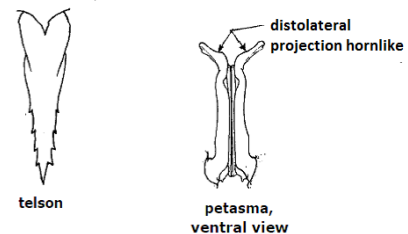
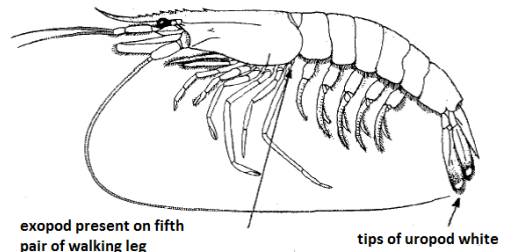
stripe along margins.



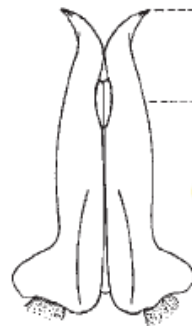
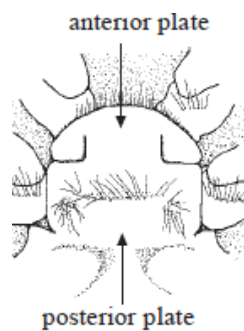
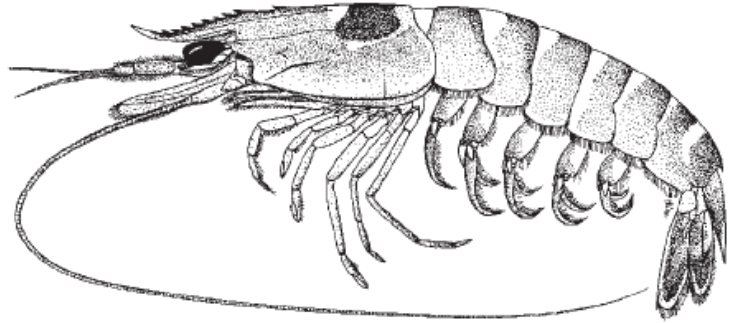
***P. sculptilis***: Rostrum sigmoid in females and upcurved in large males, curving downwards. Distomedian projection long and rabbit ear shaped. Distolateral projection of petasma directed anteriorly and short. Thelycum with anterior plate distally rounded and broadly articulating with posterior plate. The latter has a median tubercle bearing a tuft of long setae. Body pale with black transverse bands. Carapace dark brown dorsally except for a white band about its middle.



***P. styliifera***: Distolateral projection of petasma slender, horn like and directed anterolaterally. Anterior plate of thelycum square, concave with a slender stem like posterior process. Posterior plate deeply notched anteromedially. Body pale brownish or pinkish in colour.



***P. uncta***: Distolateral projection of petasma tapering to ends each with a long dorsomedian spine like process. Anterior plate of thelycum wide and short with curved anterior margin and with two longitudinal ridges medially fused with the quadrate posterior plate. Body brown. Carapace with a large dorso-posterior dark brown patch.

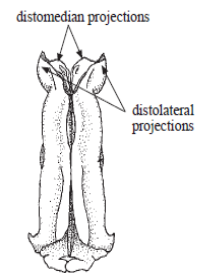
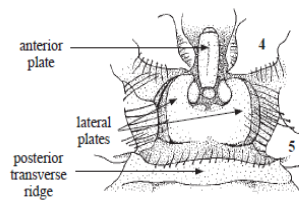


rostrum of large males

***Metapenaeus***: Rostrum serrated only on the dorsal margin. Telson generally without fixed subapical spine, but usually with movable lateral spines; antennular peduncle lacking parapenaeid spine. Fifth pereopod without exopod.

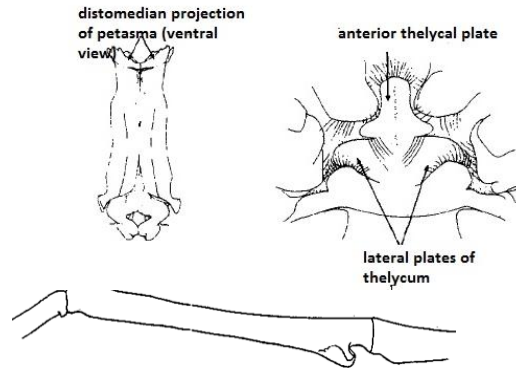
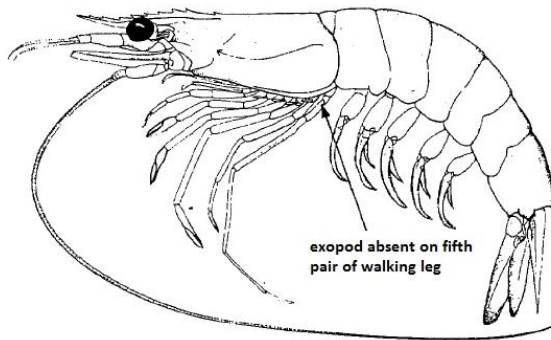


rostrum in *Metapenaeus*

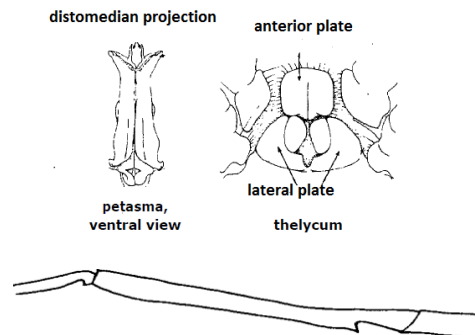
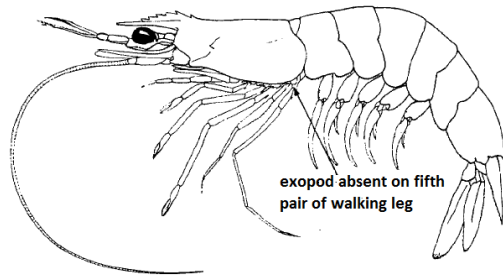


***M. affinis***: Merus of fifth pereiopod bears a proximal notch followed by a twisted keeled tubercle. Distomedian projection of petasma crescent shaped. Anterior plate of thelycum long and deeply grooved. Lateral plates with strongly raised lateral margins forming two longitudinal crests. Body pale pinkish/pale greenish in colour.

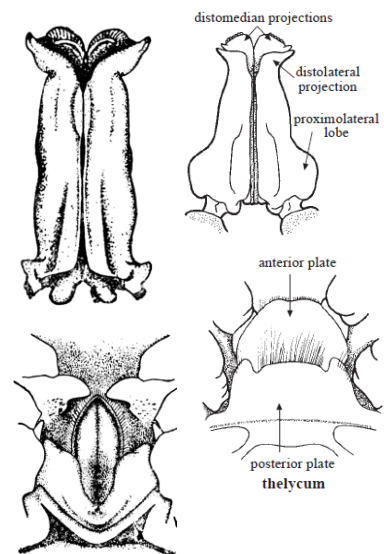
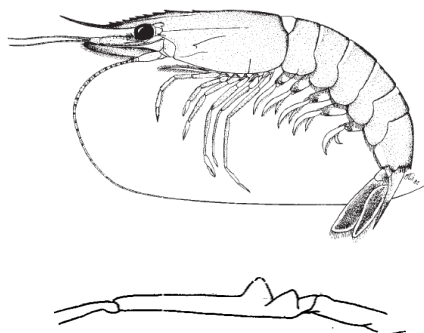




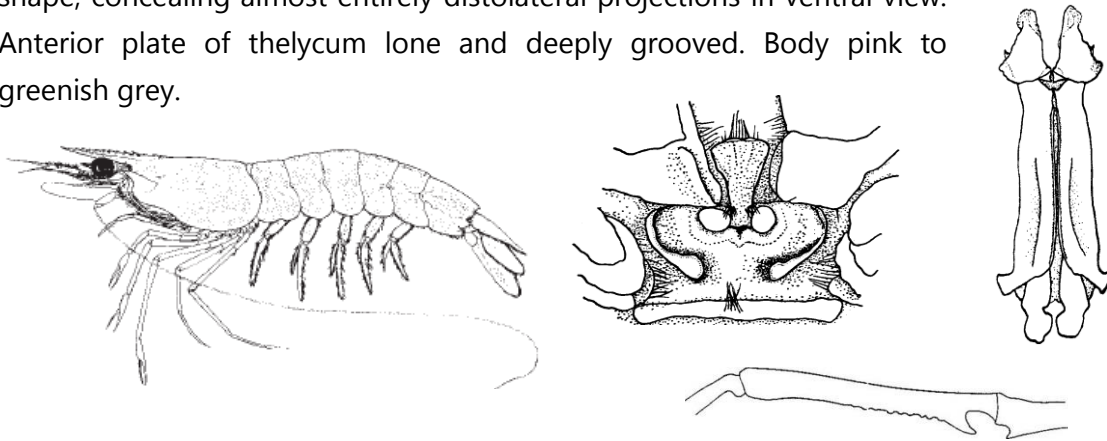
**M. brevicornis:** Distomedian projection of petasma with long and slender apical filament. Anterior plate of thelycum square and grooved; lateral plates boomerang shaped and enclosing 2 pear shaped plates. Distal part of uropods brown to rusty red sometimes only the tips are coloured.



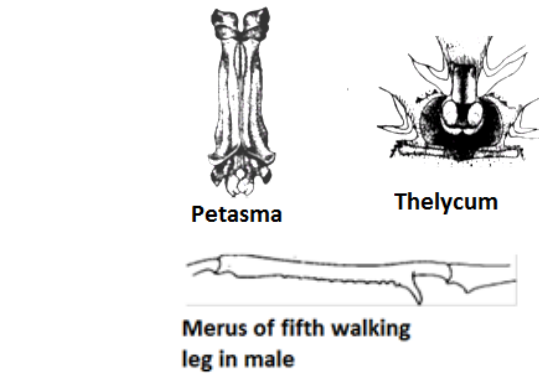
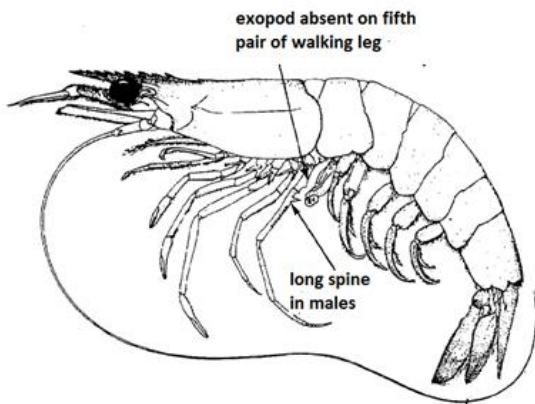
**M. dobsoni:** Merus of 5<sup>th</sup> pereopod with one or two large triangular teeth. Distomedian projection of petasma with a short filament on ventral surface and another on the dorsal surface. Thelycum with a long grooved tongue like anterior plate partially ensheathed in a horse shoe like process formed by lateral plates. Body pale yellow to brown.



**M. ensis:** Merus of 5<sup>th</sup> pereiopod with a proximal notch in adult males. Distomedian projection of petasma convoluted, greatly swollen and directed forward, triangular in shape, concealing almost entirely distolateral projections in ventral view. Anterior plate of thelycum lone and deeply grooved. Body pink to greenish grey.



**M. monoceros:** Distomedian projection of petasma hood like. Lateral thelycal plates with salient end parallel ear shaped lateral ridges. Body greenish. Distal part of uropods purple-blue.



**M. moyebi:** Merus of fifth pereiopod with a proximal notch followed by a twisted keeled tubercle. Anterior plate of thelycum flask shaped and lateral plates kidney shaped.



**Metapenaeopsis:** Rostrum serrated only on the dorsal margin. Telson with two or more pairs of conspicuous spines anterior to subapical spines. Third maxilliped and second pereiopod with basal spine; petasma asymmetrical.

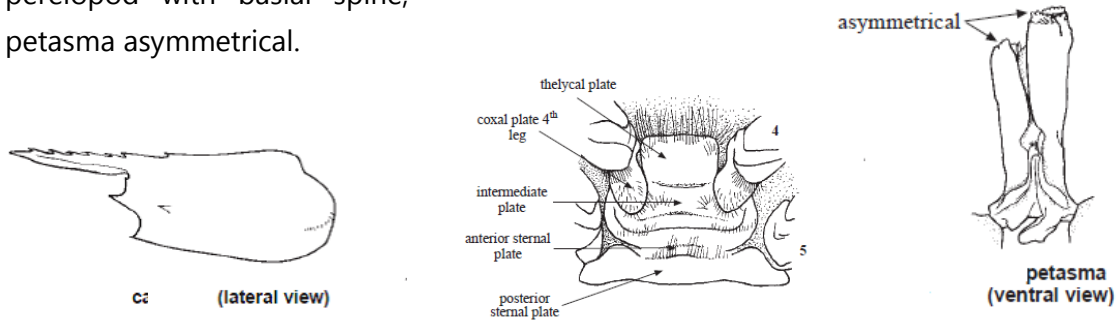
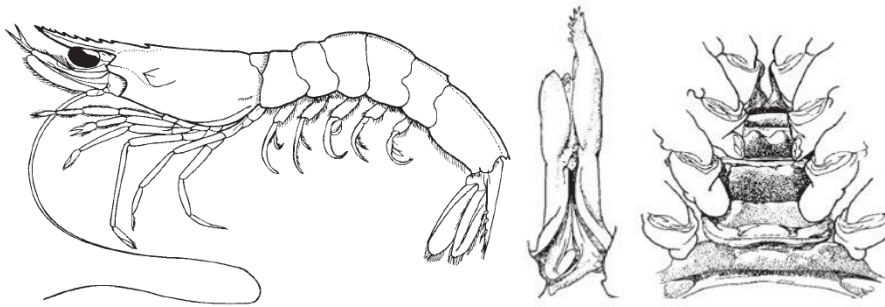
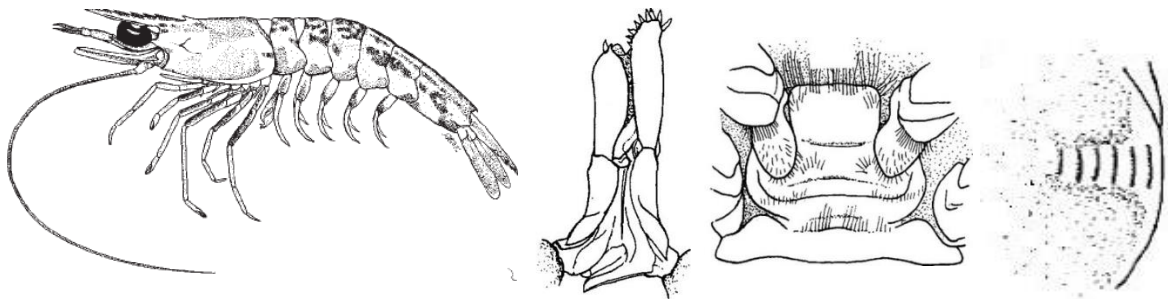


Fig. *Metapenaeopsis*

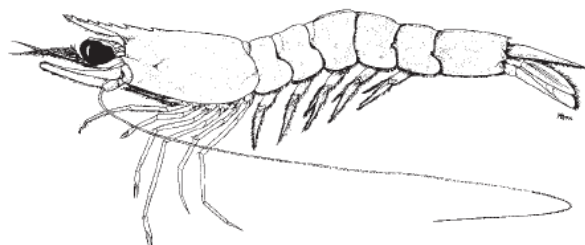
**M. barbata:** Left distoventral projection of petasma long. Thelycal plate broadly subquadrate. Posterolateral part of carapace with 16-27 stridulating organ. Body whitish mottled with irregular red blotches. Antennal flagella crossed with red and white bands.



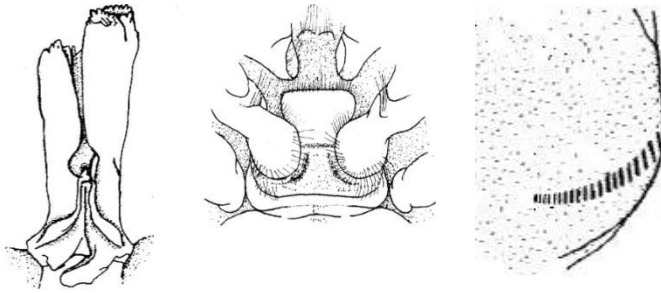
**M. stridulans:** Carapace, abdomen and telson with red patches. Stridulating organ present consisting of 5-7 strong ridges in a wide straight band on the carapace.



**M. toloensis:** Stridulating ridges 14-22 in a curved band. Left distoventral projection of petasma short and left distoventral projection broadly swollen.



Thelycal plate subquadrate with rounded corner. Body with dark red to brown mottling.

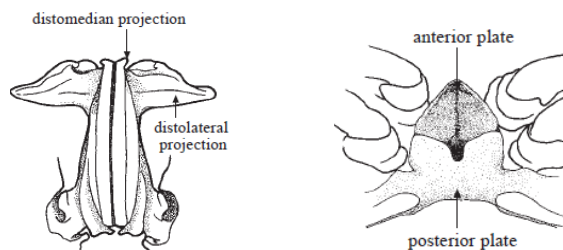
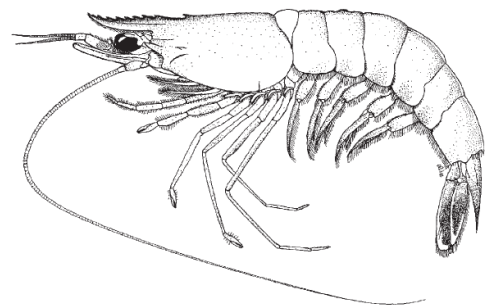


**Trachysalambria:** Rostrum serrated only on the dorsal margin. Third pereiopod with epipod; body thick set; third maxilliped lacking basal spine. Petasma with disto-lateral projections tapering gently from relatively narrow base, extending almost straight laterally or curving slightly backwards.

**T. aspera:** Red band on the third and fourth abdominal segment. Rostrum slightly curved upwards with 7 dorsal teeth. Telson with 2 pairs of spines of which posterior pair is much longer. Petasma 'T' shaped bearing a pair of distal pointed wing like process. Anterior plate of thelycum semicircular in outline. Uropods red with purple margins.



**T. curvirostris:** Rostrum with 7-11 dorsal teeth reaching distal half of second antennular segment. Telson armed with 3 to 4 small movable lateral spines subequal in size. Petasma with broad wing like disto lateral projection directed laterally and curved distoventrally. Anterior plate



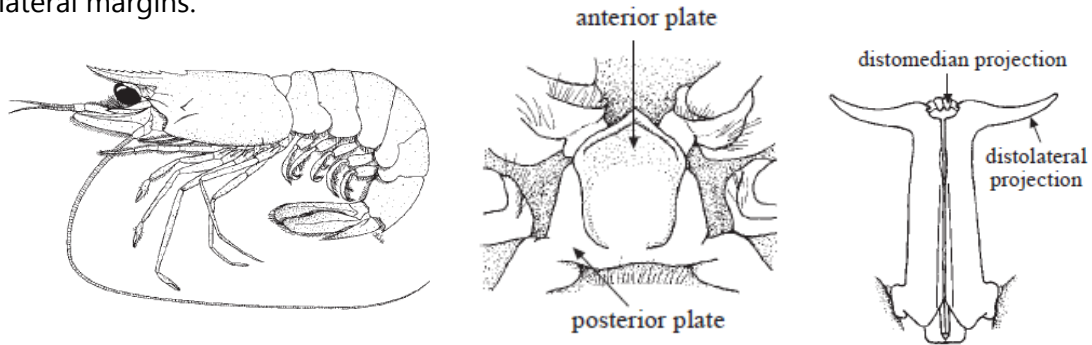
of thelycum curved anteriorly with a middle groove posteriorly. Uropods bright red to reddish brown,

sometimes dark brown with distinct white margins.

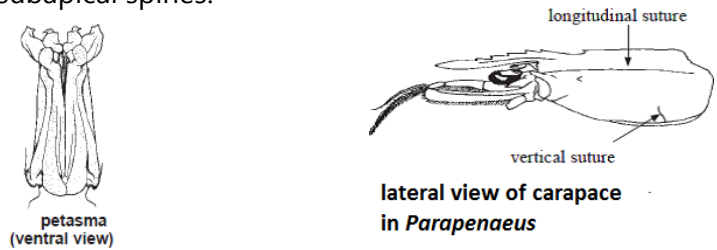
**Megokris:** Third pereiopod with epipod; body thick set; third maxilliped lacking basal spine. Telson with 3 pairs of movable lateral spines. Petasma symmetrical. Thelycum

closed. Petasma with disto-lateral projections either moderately broad to rather narrow basally and extending laterally or forward directed hook-like tip or extremely broad basally but narrowing rapidly, ending in forward directed tip.

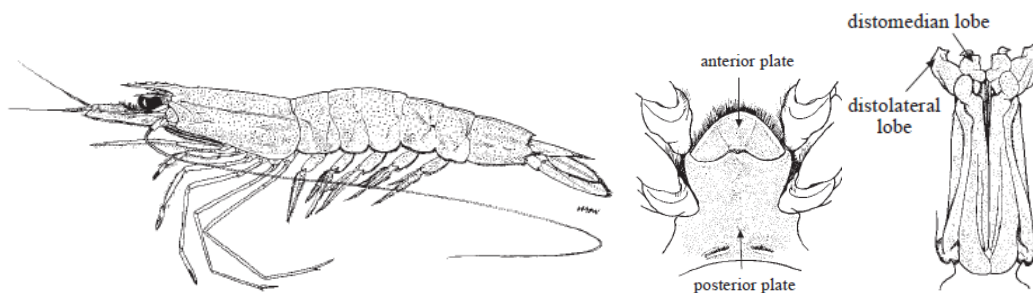
**M. sedili:** Distolateral projection of petasma horn like directed laterally their tips slightly curving forward. Anterior and posterior plates of thelycal plates with strongly raised lateral margins.



**Parapenaeus:** Rostrum serrated only on the dorsal margin. Telson with only one pair of minute lateral spines anterior to subapical spines.

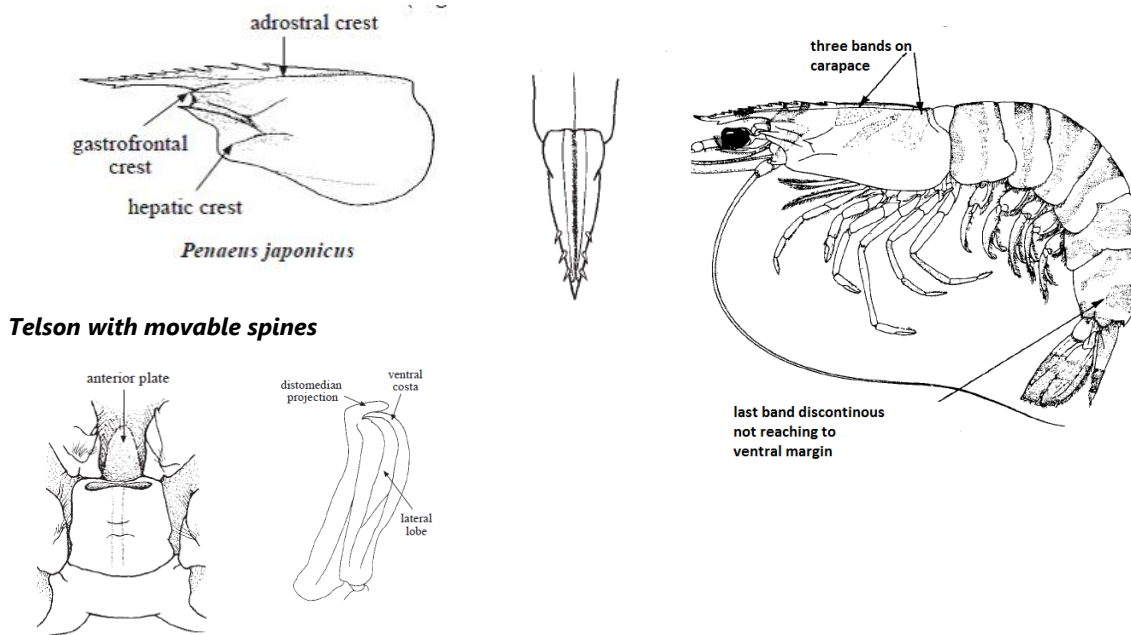


**P. longipes:** Rostrum reaching just beyond the eyes. Third maxilliped reaches the tip of the antennal scale. The process on the distomedian lobe of the petasma directed backwards.



**Marsupenaeus:** Adrostral carina and sulcus extends behind epigastric tooth, gastrofrontal carina present. Gastro-frontal sulcus markedly bifid posteriorly; thelycum with a ventral undivided plate on sterniteXIV infolded laterally, forming pouch opening anteriorly.

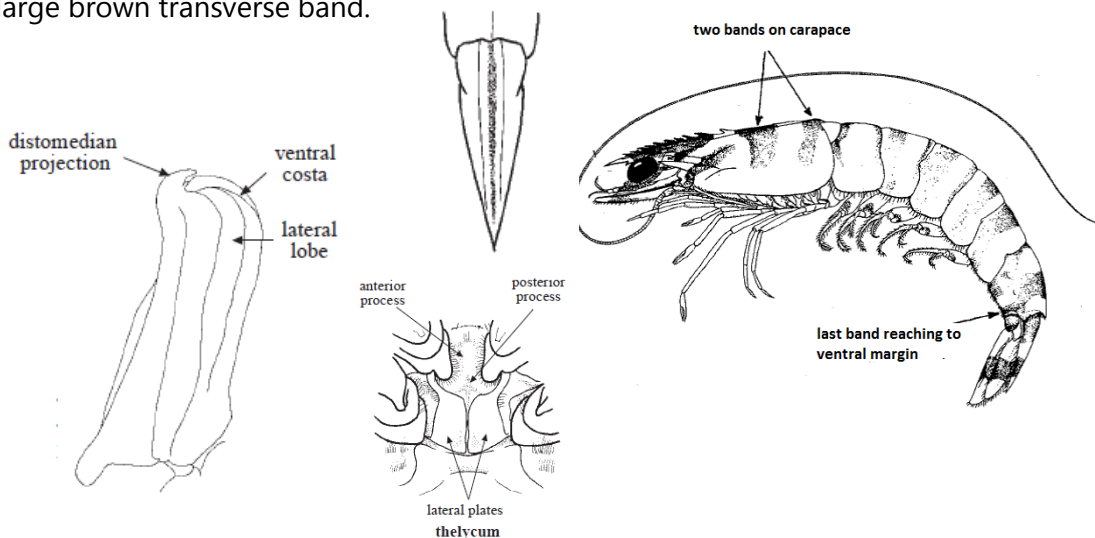
**M. japonicus:** Rostrum with single ventral tooth. Carapace with a round white colour spot. Last abdominal band discontinuous. Telson with lateral movable spines.



**Telson with movable spines**

**Melicertus:** Adrostral carina and sulcus extends behind epigastric tooth; gastro-frontal carina present. Gastro-frontal sulcus not markedly bifid posteriorly; thelycum with a pair of lateral plate on sternite 14 shielding sac like seminal receptacle opening midline. Telson usually armed with three pairs of movable lateral spines (absent only in *M. canaliculatus*).

**M. canaliculatus:** Rostrum with single ventral tooth. Body yellow with red brown to brown transverse bands. Last abdominal band reaching the ventral margin. Uropods with a large brown transverse band.



***M. latisulcatus***: Each abdominal segments with a short vertical black bar on pleuron. Hinges on abdomen bear dark brown spots. Uropods bright yellow with distal half and outer margins of exopods bright blue.

