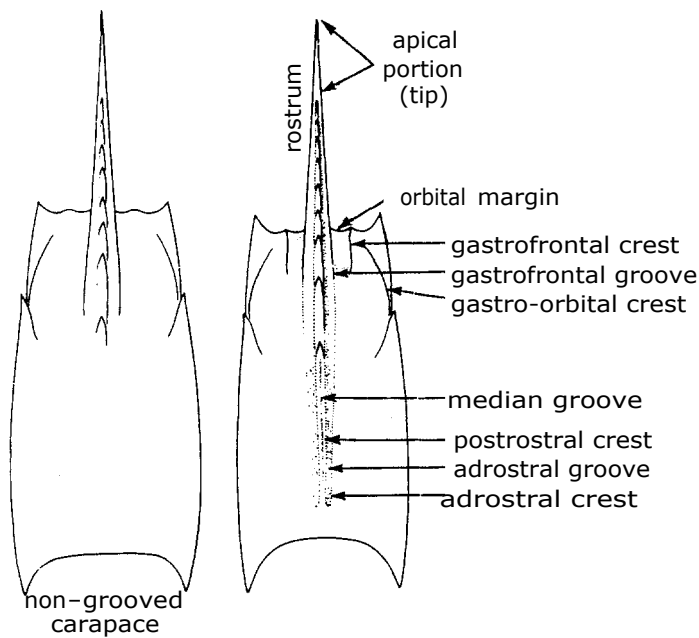
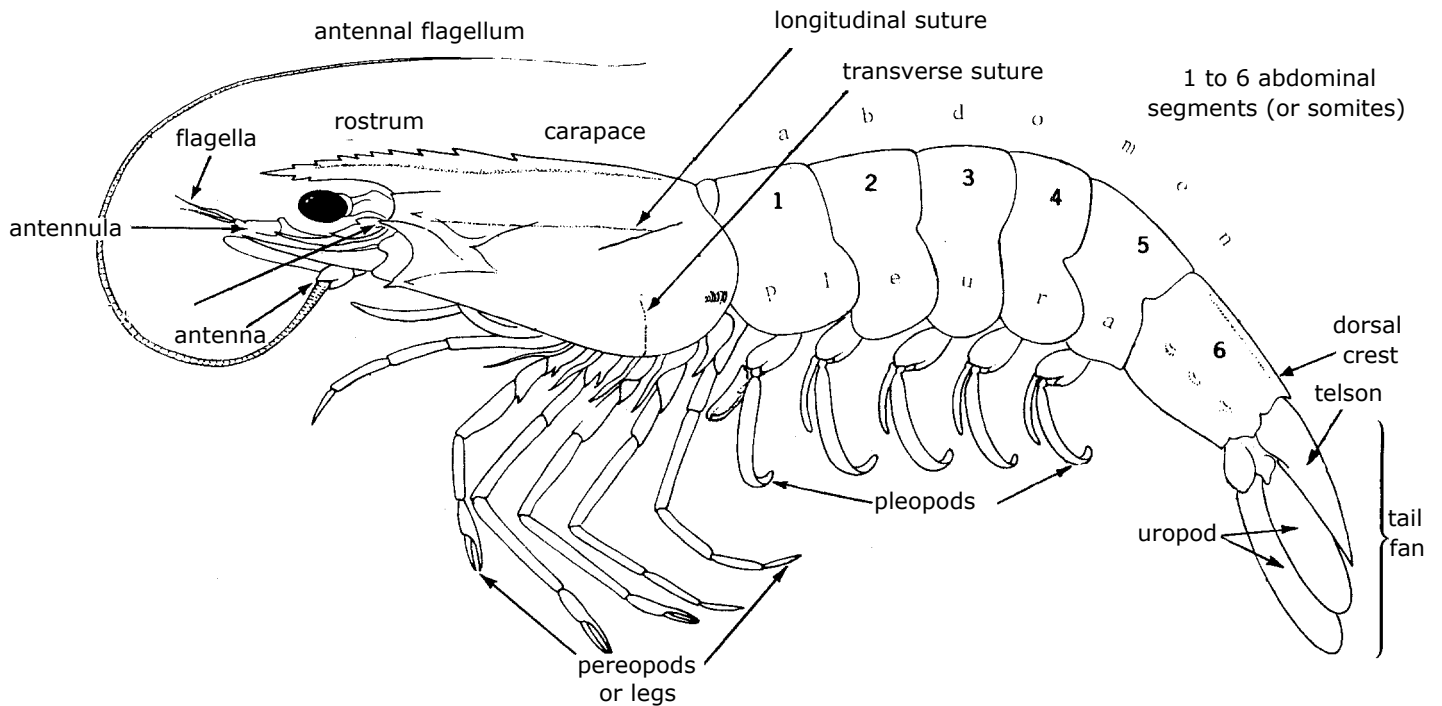
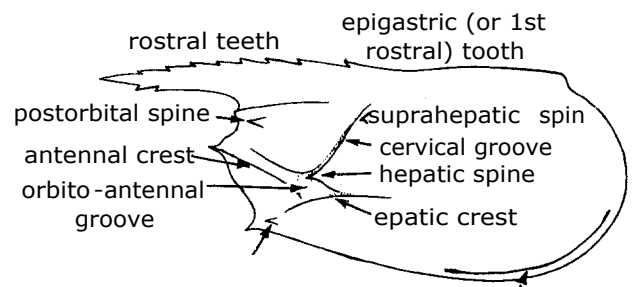


SHRIMPS AND PRAWNS

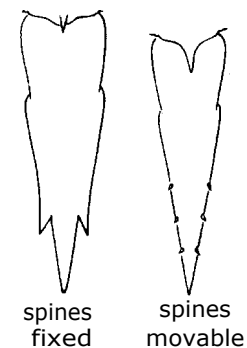
TECHNICAL TERMS



carapace (dorsal view)



carapace (lateral view)



types of spined telsons

SHRIMPS AND PRAWNS

PENAEIDAE

FAO names : En - Penaeid shrimps, pennies prawns
Fr - Crevettes, crevettes chamois, crevettes royales
Sp - Camarones peneidos, gambas

Size : Max.: to more than 30 cm total length,
but most species much smaller

Fishing gear : Various kinds of seines, stake-nets and castnets, used in shallow waters, and trawlers in offshore waters

Habitat and biology : Benthic, living on a large variety of bottoms such as rock, mud, sand, etc. In the genus *Penaeus* spawning takes place offshore, at depths between 10 and 80 m. Females bear sperm sacs attached to the thelycum (genital modification between the last pair of walking legs) which are used when the eggs are shed. After fertilization, the eggs hatch in a few hours. The planktonic larvae are carried by currents toward the shore where they arrive after about 3 weeks, at a size of 6 to 14 mm. Further development to the adult stage takes place in brackish waters, river mouths, creeks, mangrove areas and the cycle is completed with migration to offshore waters for spawning.

Interest to fisheries : This family contains the greatest number of commercially important species of shrimps in Pakistan, as well as worldwide. The fishery is carried out in shallow waters from October to March, while in July, August and September shrimps and prawns are caught in creeks and backwaters. Most of the catches are frozen for export to the USA and European markets. The Handbook of Fisheries Statistics of Pakistan (1973-83) reports catches of penaeid shrimps and prawns ranging from 15 829 t (1974) to 30 000 t (1981), with an average of 22 285 t

Metapenaeus affinis (H.Milne Edwards, 1837)

Synonyms : *Metapenaeus mutatus* (Lanchester, 1901)
Metapenaeus alcocki George & Rao, 1968

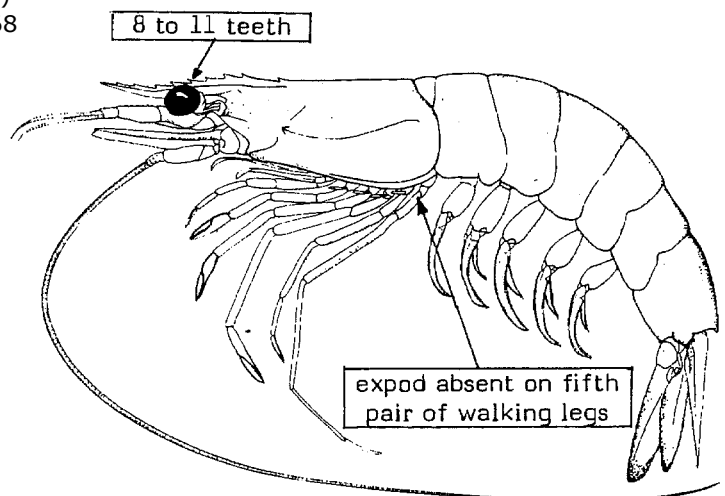
Loc. names : Kalri (Sin); Kalri, Madak (Bal)

FAO names : En - Jinga shrimp
Fr - Crevette jinga
Sp - Camarón jinga

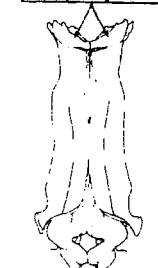
Size : 15 cm (males) and 19 cm (females) maximum total length

Fishing gear : Caught with shrimp trawls offshore, and seines, stakenets and other types of artisanal gear in shallow inshore waters

Habitat and biology : From the coastline to about 60 m depth (sometimes deeper) on mud and sandy-mud bottoms. Juveniles inhabit estuarine areas and backwaters

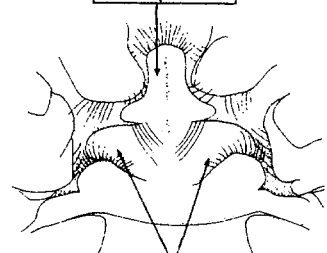


distomed.
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petasma,
ventral view

ant.plate



lat.plates

thelycum

SHRIMPS AND PRAWNS

PENAEIDAE

Metapenaeus brevicornis (H.Milne Edwards, 1837)

Synonyms : None

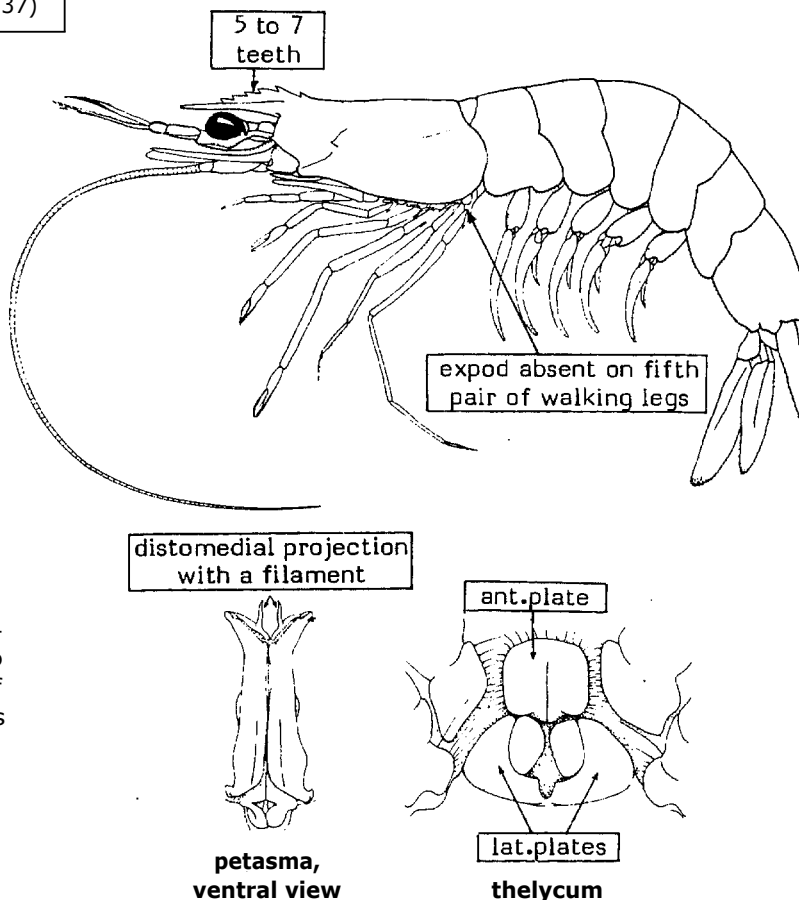
Loc. names : Jaira (Sin); Jaira, Lassa (Bal)

FAO names : En - Yellow shrimp
Fr - Crevette jaune.
Sp - Camarón amarillo

Size : 10 cm (males) and 13 cm (females) maximum total length

Fishing gear : Caught with stakenets, traps, castnets and other types of artisanal gear; also in trawls

Habitat and biology : A marine to almost fresh-water species, on sandy or muddy bottoms to about 40 m depth, but also reported in depths of 90 m. Juveniles are found in estuaries, creeks and backwaters



Metapenaeus monoceros (Fabricius, 1798)

Synonyms : None

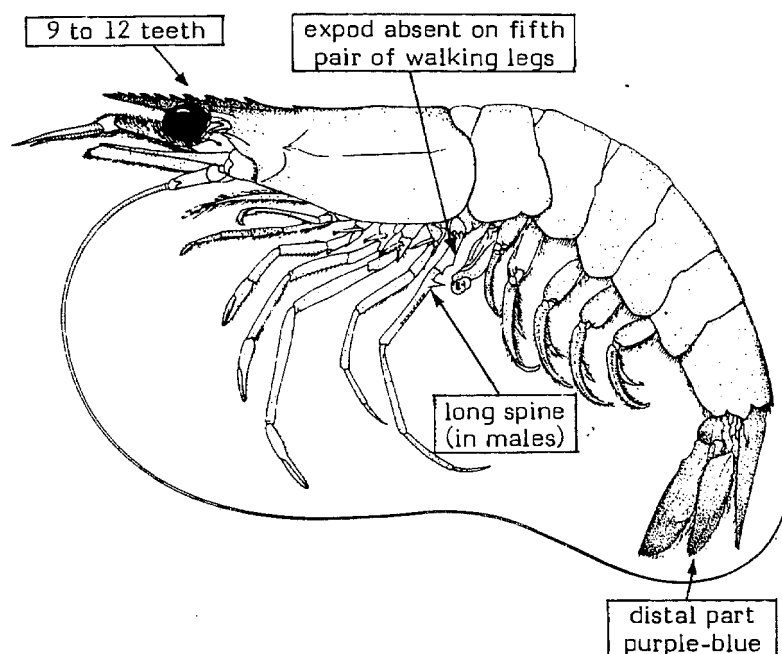
Loc. names : Kalri (Sin); Kalri (Bal)

FAO names : En - Speckled shrimp
Fr - Crevette mouchetée
Sp - Camarón moteado

Size : 15 cm (males) and 20 cm (females) maximum total length

Fishing gear : Caught with shrimp trawls in offshore waters, and seines, stakenets, castnets and other types of artisanal gear in inshore and nearshore waters

Habitat and biology : From the coastline to 70 m depth, but also reported from 170 m depth, on sandy, mud or silt bottoms. Juveniles inhabit estuaries, backwaters and inshore waters. Breeds in deeper waters off Karachi and Somniani Bay, during winter and spring (February to May)



SHRIMPS AND PRAWNS

PENAEIDAE

Metapenaeus stebbingi Nobili, 1904

Synonyms : None

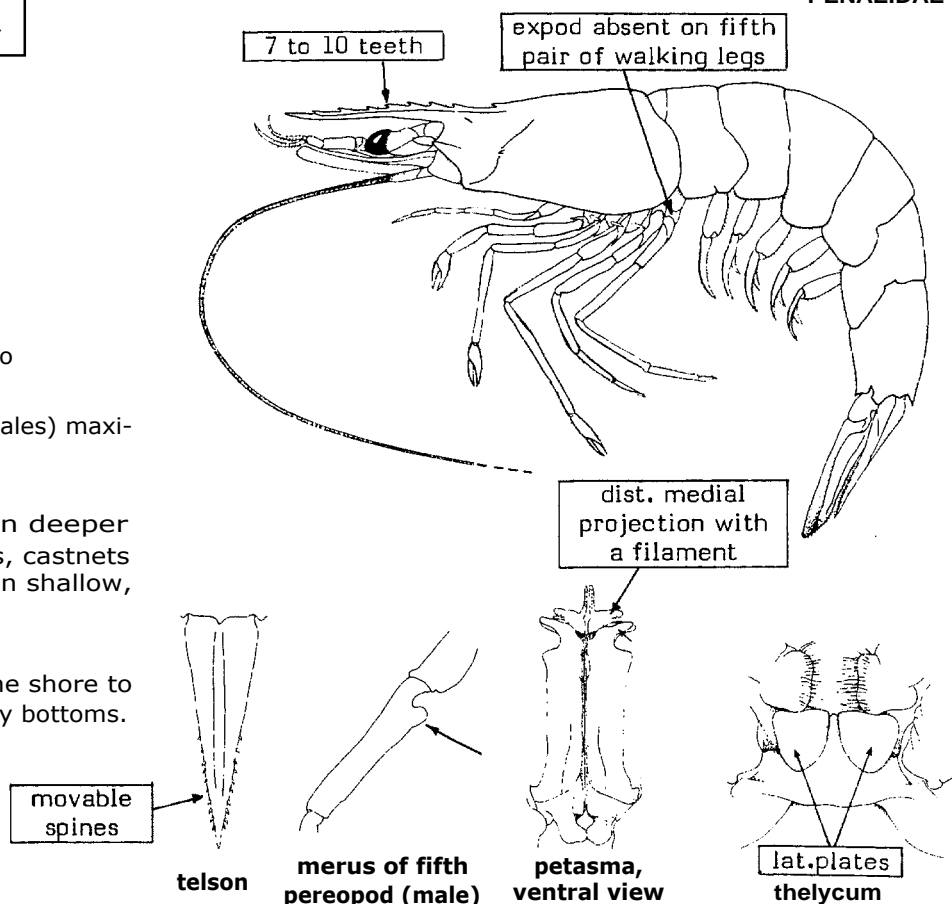
Loc. names : Kalri (Sin); Kalri (Bal)

FAO names : En - Peregrine shrimp
Fr - Crevette fauçon
Sp - Camarón peregrino

Size : 11 cm (males) and 14 cm (females) maximum total length

Fishing gear : Caught in trawls in deeper waters, and with seines, stakenets, castnets and other types of artisanal gear in shallow, inshore waters

Habitat and biology : Found from the shore to about 90 m depth on sandy or muddy bottoms. Juveniles are found nearshore



Parapenaeopsis hardwickii (Miers, 1878)

Synonyms : None

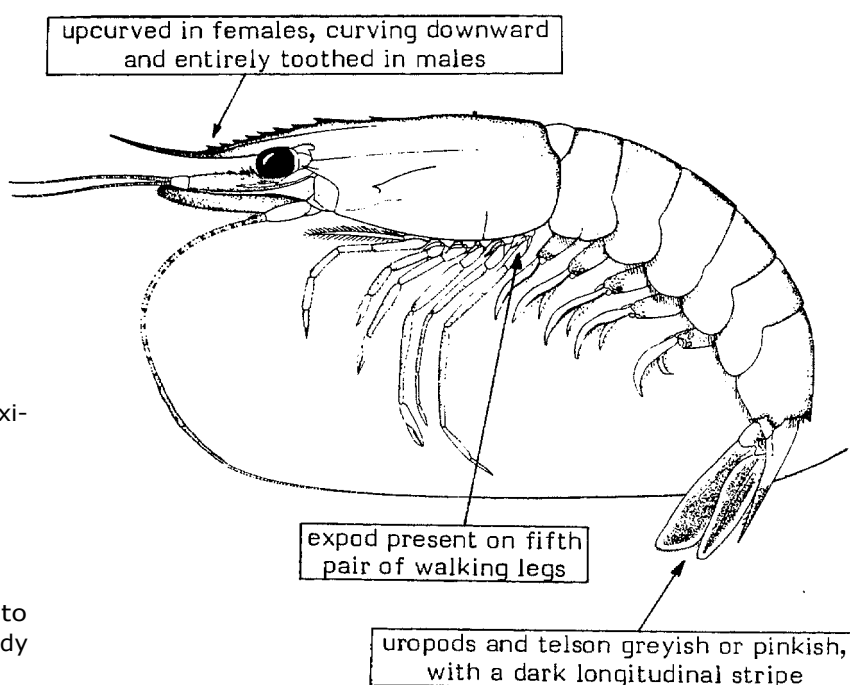
Loc. names : Kiddi (Sin); Kalri (Bal)

FAO names : En - Spear shrimp
Fr - Crevette javelot
Sp - Camarón lanzón

Size : 11 cm (males) and 14 cm (females) maximum total length

Fishing gear : Caught in trawls, stakenets, seines and other types of artisanal gear

Habitat and biology : From the coastline to about 90 m depth, on mud, sandy-mud or sandy bottoms



SHRIMPS AND PRAWNS

PENAEIDAE

Parapenaeopsis sculptilis (Heller, 1862)

Synonyms : Parapenaeopsis affinis sensu Hall, 1962

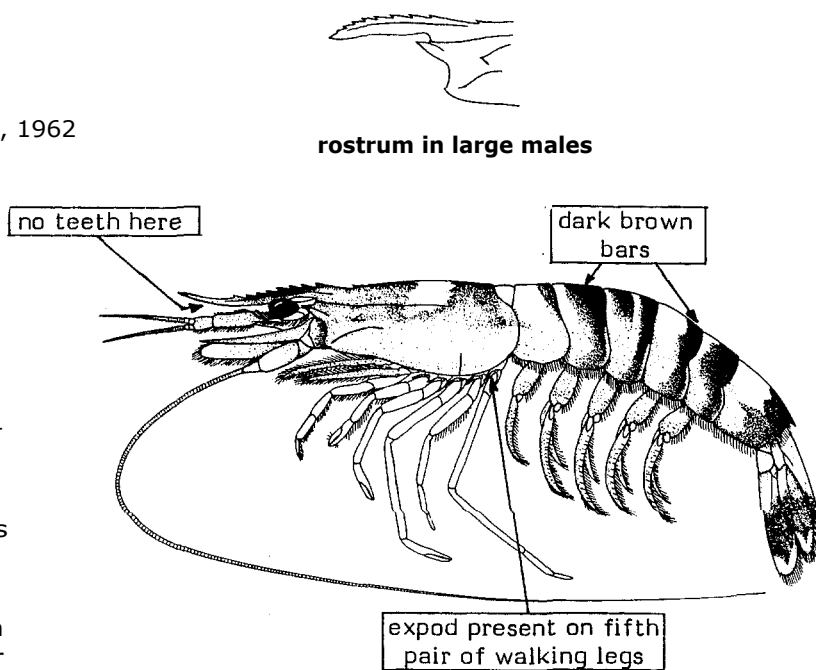
Loc. names : Kiddi (Sin); Kalri (Bal)
Tiger shrimp (English)

FAO names : En - Rainbow shrimp
Fr - Crevette arc-en-ciel
Sp - Camarón arco iris

Size : 11 cm (males) and 17 cm (females) maximum total length

Fishing gear : Caught with stakenets, seines and in trawls

Habitat and biology : In shallow waters, from the coastline to 40 m depth on sandy, mud or mixed bottoms



Parapenaeopsis stylifera (H.Milne Edwards, 1837)

Synonyms : None

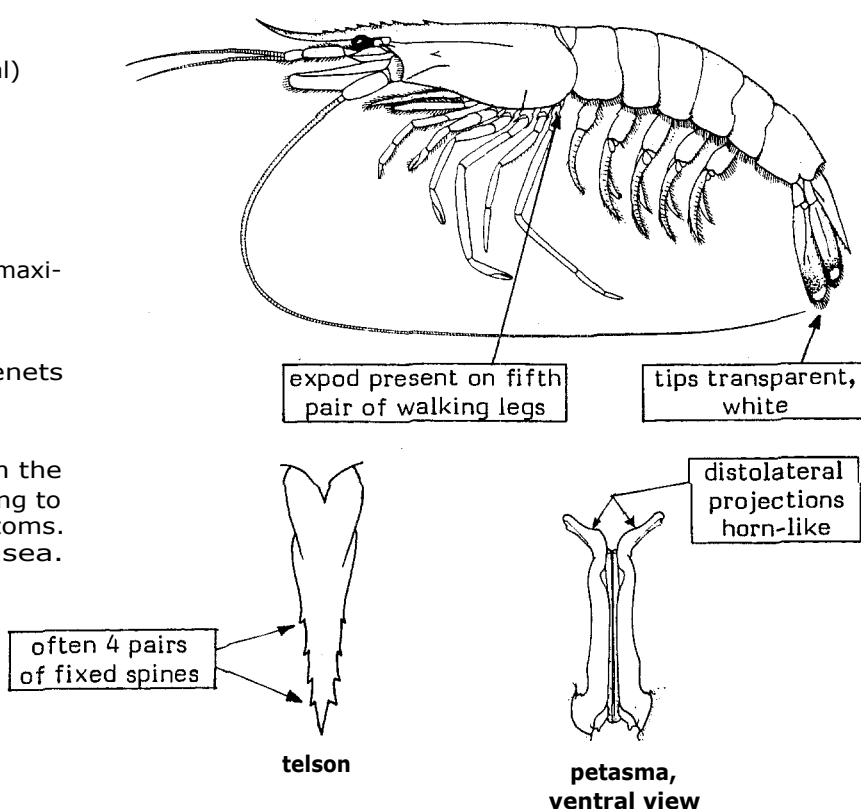
Loc. names : Kiddi (Sin); Kiddi, Madak (Bal)

FAO names : En - Kiddi shrimp
Fr - Crevette kidi
Sp - Camarón kidi

Size : 12 cm (males) and 15 cm (females) maximum total length

Fishing gear : Caught with seines, stakenets and in trawls

Habitat and biology : Most common from the coastline to 50 m depth, but also occurring to 90 m depth, on mud or sandy-mud bottoms. The entire life cycle takes place at sea. Breeding occurs in February and March



SHRIMPS AND PRAWNS

PENAEIDAE

Panaeus (Melicertus) canaliculatus (Oliver, 1811)

Synonyms : None

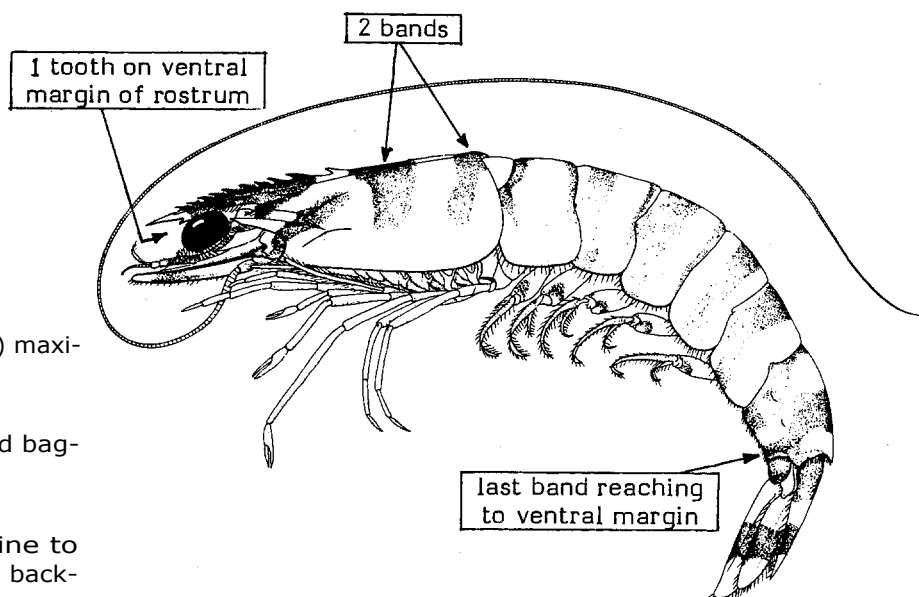
Loc. names : Kalri (Sin); Madak (Bal)

FAO names : En - Witch prawn
Fr - Crevette sorcière
Sp - Camarón brujo

Size : 15 cm (males) and 18 cm (females) maximum total length

Fishing gear : Caught with stakenets and bag-nets, possibly also in trawls

Habitat and biology : From the coastline to about 50 m depth, also in estuaries and backwaters



Penaeus (Marsupenaeus) japonicus Bate, 1888

Synonyms : None

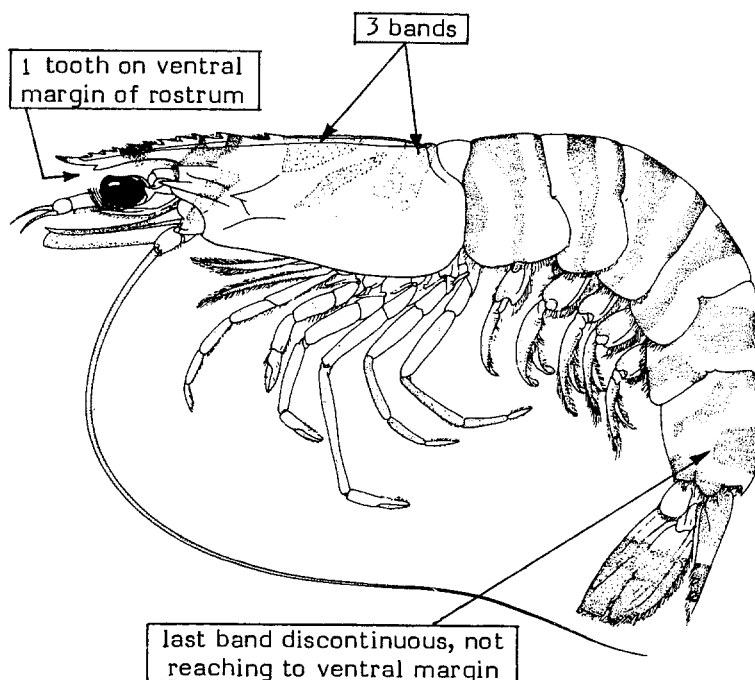
Loc. names : Kalri (Sin);
Kalri, Pata patti (Kalmat area) (Bal)

FAO names : En - Kuruma shrimp
Fr - Crevette kuruma
Sp - Camarón kuruma

Size : 20 cm (males) and 24 cm (females) maximum total length

Fishing gear : Caught in trawls, driftnets and stakenets

Habitat and biology : From the coastline to about 50m depth on sandy bottoms. Adults bury in the substrate during daytime



SHRIMPS AND PRAWNS

Penaeus (Fenneropenaeus) indicus H.Milne Edwards, 1837

PENAEIDAE

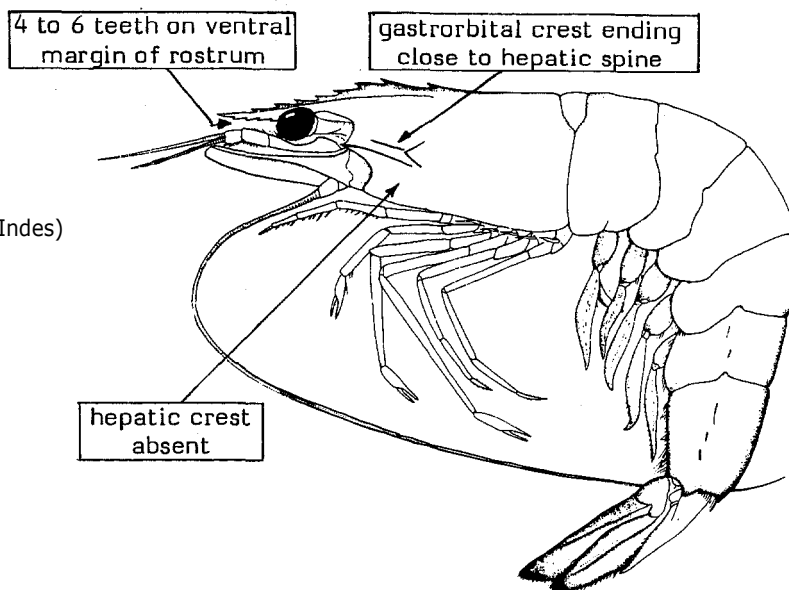
Synonyms : None

Loc. names : Jaira (Sin); Jaira (Bal)

FAO names : En - Indian white shrimp
Fr - Crevette royale blanche (des Indes)
Sp - Camarón blanco de la India

Size : 18 cm (males) and 23 cm (females) maximum total length

Habitat and biology : Found from the coastline to about 90 m depth but most common to 30 m, over sandy or mud bottoms



Penaeus (Fenneropenaeus) marquiensis De Man, 1888

Synonyms : None

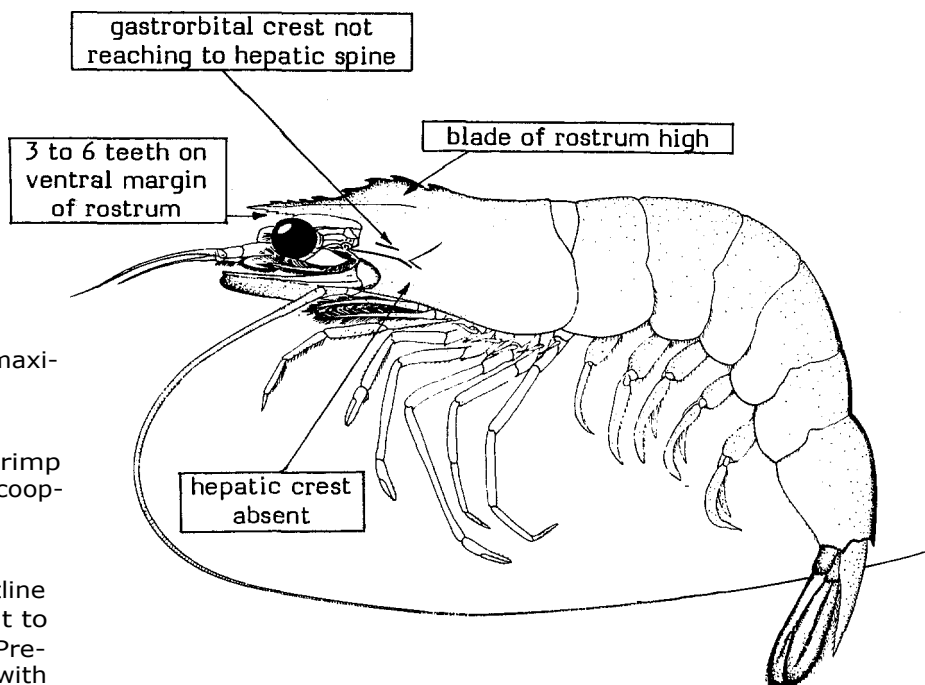
Loc. names : Jaira (Sin); Jaira (Bal)

FAO names : En - Banana shrimp
Fr - Crevette banane
Sp - Camarón banana

Size : 20 cm (males) and 24 cm (females) maximum total length

Fishing gear : Caught mainly in trawls, shrimp driftnets, set gillnets, stakenets, seines, scoop-nets and other types of artisanal gear

Habitat and biology : Found from the coastline to about 50 m depth, but most abundant to 20 m, on sandy and sandy-mud bottoms. Prefers turbid waters. This species together with P. penicillatus is by far the most important in Pakistan. Breeding occurs in deeper waters from December to April



SHRIMPS AND PRAWNS

PENAEIDAE

Penaeus (Penaeus) monodon Fabricius, 1798

Synonyms : Penaeus bubulus Kubo, 1949

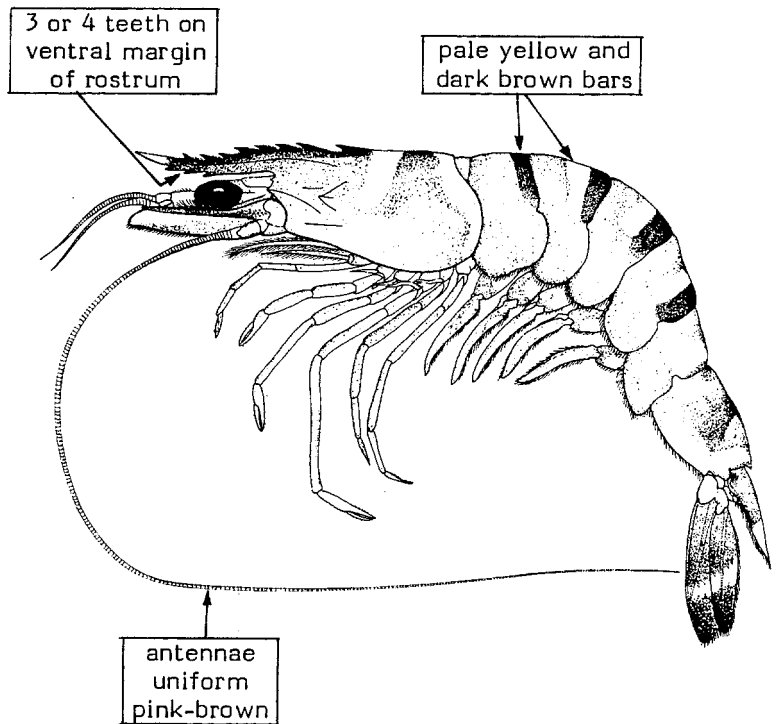
Loc. names : Kalri (Sin); Tiger madak, Kalri (Bal)
Tiger shrimp (En)

FAO names : En - Giant tiger shrimp
Fr - Crevette géante tigrée
Sp - Camarón tigre gigante

Size : 27 cm (males) and 34 cm (females) maximum total length

Fishing gear : Caught with trawls, seines, stake-nets, traps, etc.

Habitat and biology : From the coastline to about 150 m depth, occasionally in deeper waters. Large concentrations are found at about 60 m, on mud or sand. Juveniles in mangrove swamps, estuaries and backwaters



Penaeus (Fenneropenaeus) penicillatus Alcock, 1905

Synonyms : None

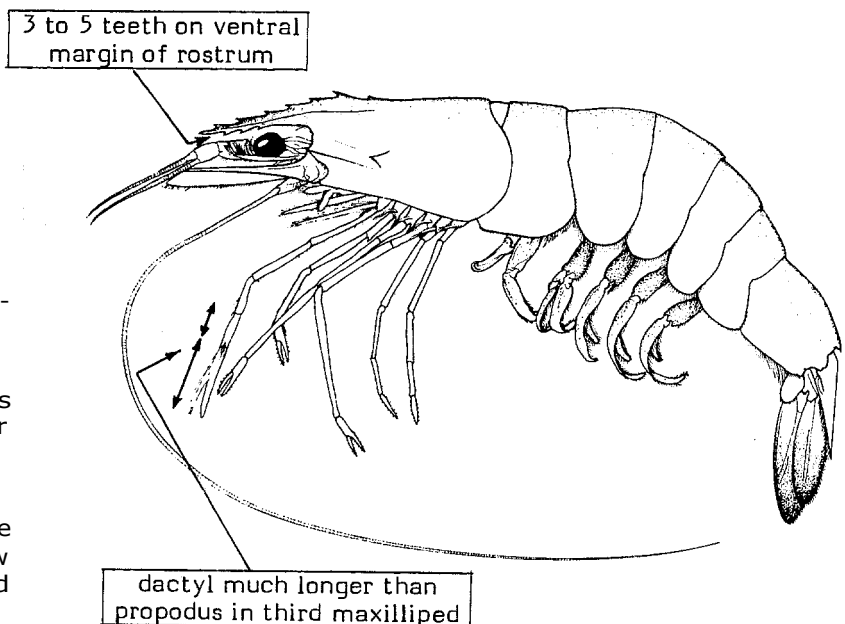
Loc. names : Jaira (Sin); Jaira (Bal)

FAO names : En - Red tail prawn
Fr - Crevette queue rouge
Sp - Camarón colorado

Size : 16 cm (males) and 21 cm (females) maximum total length

Fishing gear : Caught with trawls and seines (adults) and scoopnets and other artisanal gear (juveniles and subadults)

Habitat and biology : Found from the coastline to 90 m depth, but most abundant in shallow waters near the shore, on sandy and mud bottoms. Breeding occurs in October to May



SHRIMPS AND PRAWNS

PENAEIDAE

Penaeus (Penaeus) semisulcatus DeHaan, 1844

Synonyms : None

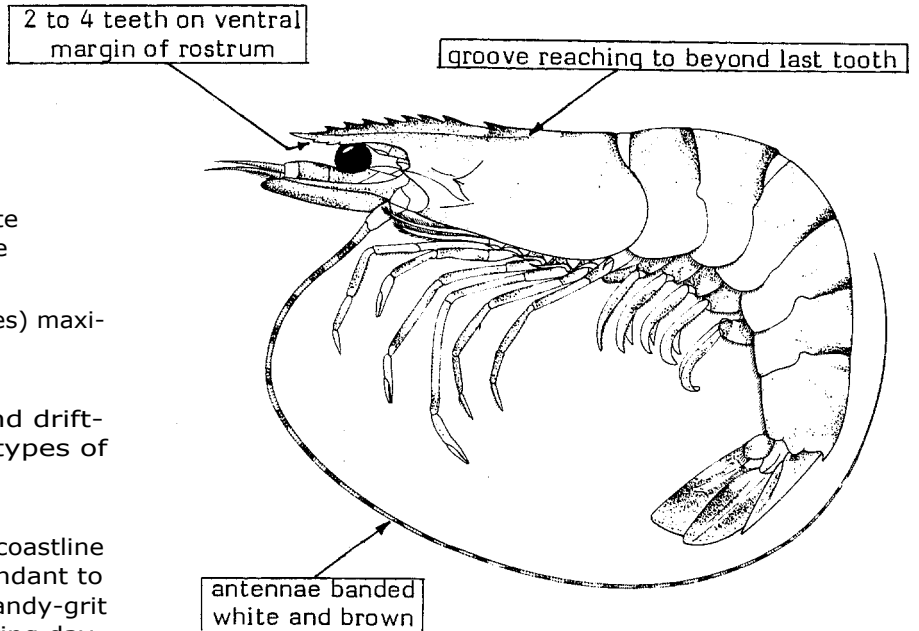
Loc. names : Kalri (Sin); Jaira (Bal)

FAO names : En - Green tiger prawn
Fr - Crevette tigrée verte
Sp - Camarón tigre verde

Size : 18 cm (males) and 23 cm (females) maximum total length

Fishing gear : Caught with trawls and drift-nets, seines, stakenets and other types of artisanal gear

Habitat and biology : Found from the coastline to about 130 m depth, but most abundant to 60 m depth on mud, sandy-mud or sandy-grit bottoms. Buries in the substrate during day-time. Breeding occurs in January to May



SOLENO CERIDAE

Solenocera crassicornis (H.Milne Edwards, 1837)

Synonyms : Solenocera indica Nataraj, 1945
Solenocera subnuda Kilo, 1949

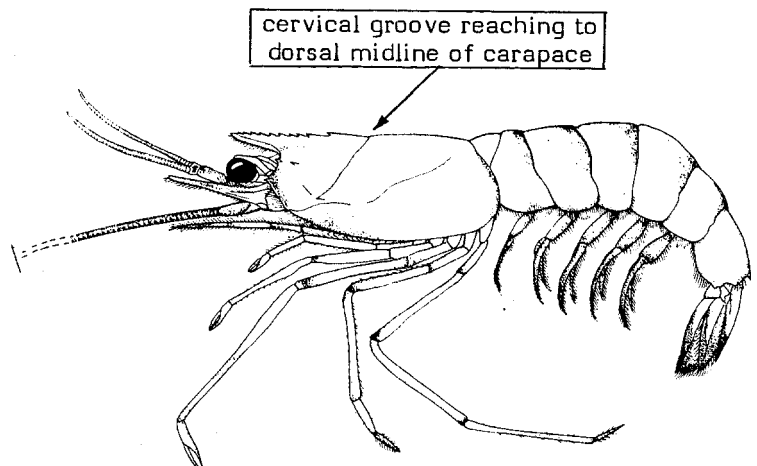
Loc. names : Kalri (Sin); Madak (Bal)

FAO names : En - Coastal mud shrimp
Fr - Salicouque des vases côtières
Sp - Camarón fanguero de orilla

Size : 9 cm (males) and 14 cm (females) maximum total length

Fishing gear : Caught with trawls, stakenets and seines

Habitat and biology : Found from the coastline to about 80 m depth, but most common to 20 m depth on muddy bottoms



colour: reddish-orange to red, posterior margin of each abdominal segment darker

