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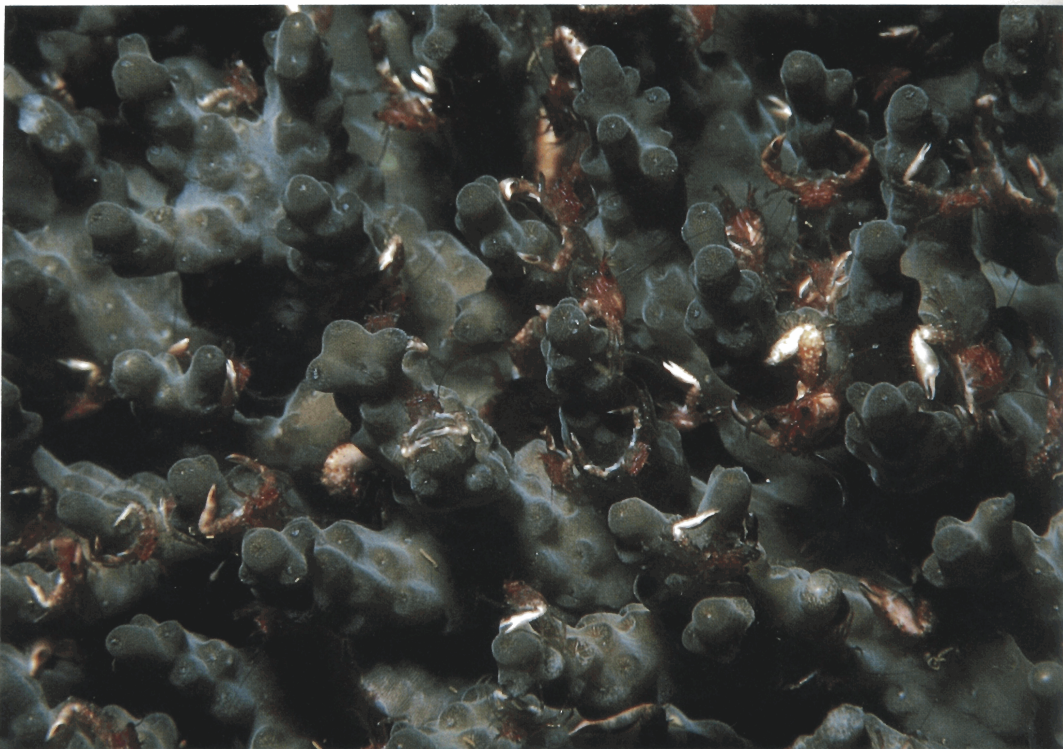
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A FIELD GUIDE TO
CRUSTACEANS
OF
AUSTRALIAN WATERS

Diana S. Jones
and
Gary J. Morgan
Western Australian Museum



P. BAKER



Porcellanids on coral (Family Porcellanidae)

species. The background colour is usually brown or cream, often with paler brown or red markings; some species are brightly coloured with iridescent blue-green marks, or distinct red markings on a white background.

Sexes: Males grow larger than females.

Habitat: Usually occurring beneath rocks, especially on medium to high wave energy coasts. They are also found on coral reefs, under rubble, or on the branches of live coral. Some species occur in mangrove forests.

Distribution: Found Australia-wide but they are most diverse and abundant in the tropics.

Notes: Porcelain crabs are, like the hairy stone crab, filter feeders. However, they filter water with their mouthpart appendages (the third maxillipeds), rather than with the antennae. In some habitats porcellanids can occur in very high densities. In WA, the genus *Petrolisthes* is most common in inter-

tidal areas.

References: Hale (1927), Haig (1965), Healy & Yaldwyn (1970).

Family Galatheidae

These small crustaceans are rarely seen but can occur in large numbers and some species are known to swarm at certain times of the year. They bear some similarity to small lobsters, as is reflected by their common names.

Galathea spp.,

Munida spp.

Craylets, lobster krill, squat lobsters

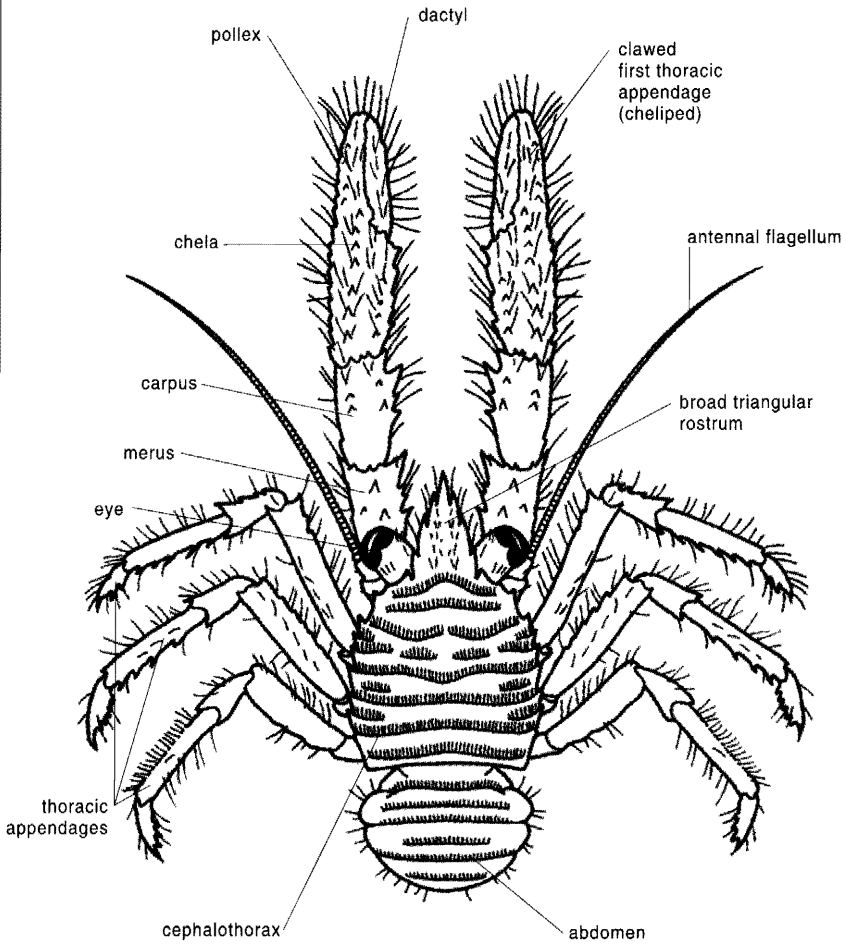
Description: These animals show a superficial resemblance to small rock lobsters. The thorax is flattened, with a pronounced rostrum and the long, symmetrical abdomen is held under the

FAMILY GALATHEIDAE

Galathea sp.

whole animal, dorsal view

SCALE: x .9



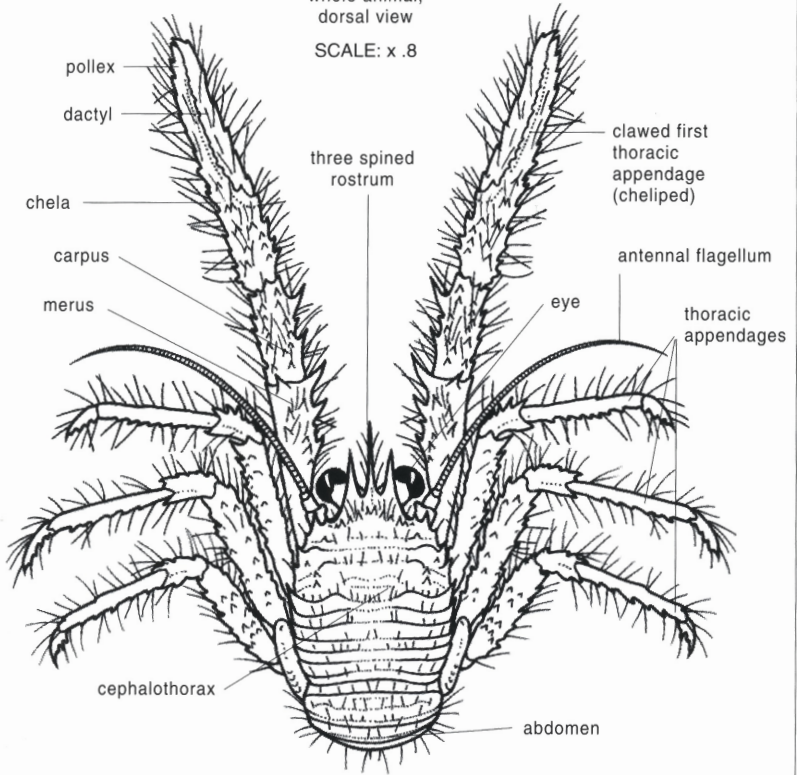
Source: Baba, K. (1969)

FAMILY GALATHEIDAE

Munida elegantissimum

whole animal,
dorsal view

SCALE: x .8



Source: Baba, K. (1969)

Galathea sp. (Family Galatheidae)



G. MORGAN

Galathea sp. (Family Galatheidae)



G. MORGAN



Allogalatea elegans (Family Galatheidae)

thorax. The clawed legs are elongated and the last pair of legs is very small. These animals reach a carapace length of 15 mm.

Colour: Variable, depending on the species, often brown or red, and some species have vivid stripes.

Sexes: There is little difference between males and females, except for the position of the gonopores.

Habitat: Occurring intertidally and subtidally to a depth of at least 150 m, and associated with rock or coral. Some species are found in symbiosis with crinoids and corals.

Distribution: Found Australia-wide.

Notes: The two most common genera can be distinguished by the shape of the rostrum. *Galathea* species have a broad triangular rostrum, with a variable number of teeth along its edge, while *Munida* species have the rostrum in the form of three sharp spines, the middle spine being longer than the two side spines.

References: Hale (1927), Healy & Yaldwyn (1970).

Family Hippidae

The common name of these unusual crustaceans stems from their habit of burrowing in soft sand and mud. Although they are not uncommon they are rarely seen.

Hippa spp.

Mole crabs

Description: The carapace is oval in shape, and the abdomen is folded beneath the thorax. The antennae are very long and hairy. The legs are flattened and spade-like, and almost obscured from view from above. These animals can grow up to 30 mm in carapace length.

Colour: Cream or pale brown.

Sexes: Females are larger than males.

Habitat: Occurring intertidally and shallow subtidally on open sandy beaches, burrowing just below the sediment surface.

Distribution: Found in the Perth region,

*Hippa australis* (Family Hippidae)

C. BRYCE

*Hippa australis* (Family Hippidae)

WA, north and east to northern NSW.

Notes: The antennae of hippids protrude from the sand and collect plankton and detritus upon which the mole crabs feed. Occasionally small invertebrates are also eaten. The most common Australian species of *Hippa* are *H. australis*, which has a single central lobe on the front of the carapace between the orbits of the eyes, and *H. pacifica*, with two lobes between the orbits.

References: Hale (1927), Haig (1974).

Infraorder Brachyura

This group comprises the true crabs, the dominant decapod crustaceans on most marine coasts although rare in freshwater systems. The first pair of legs are clawed and the last pair are usually not much smaller than the others. The antennae are short and the abdomen is very reduced, flattened, and folded underneath the carapace. In males, the

first and second pleopods are modified for sperm transfer and called gonopods. The first pleopod is cylindrical and the second acts as a piston inside the first. The abdomen of the female is wider than that of the male. Eggs are attached to the female pleopods and carried under the abdomen.

There are many families of crabs that are encountered frequently in Australia. The following have been selected as examples to illustrate their immense diversity and variety.

Family Dromiidae

Dromiids are frequently called sponge crabs, due to the habit of most species of carrying a living sponge (or sometimes a sea-squirt) on the carapace. The last two pairs of legs are clawed and smaller than the preceding pairs and are used to grip the sponge. Dromiids are regarded as very primitive crabs.

Dromidia spp., *Petalomera* spp., *Cryptodromia* spp.

Sponge crabs

Description: The carapace is usually about as long as it is broad, with a variable number of spines on the sides, but the upper surface is always fairly smooth and often covered in fine hairs. The last two pairs of legs have claws and are smaller and more slender than the other legs. Large species can grow up to 80 mm in carapace width but most are considerably smaller than this.

Colour: Various shades of brown or red-brown.

Sexes: The females have distinct longitudinal grooves on the underside of the sternum of the thorax.

Habitat: Occurring in intertidal areas to a depth of at least 220 m, on a variety of bottoms, including mud, sand, rocks and coral, often in algal beds.

Distribution: Found Australia-wide.

Notes: The majority of species carry a living shelter, which provides protection and camouflage.

References: Hale (1927), Healy & Yaldwyn (1970).

R. SPRINGTHORPE



Galathea balssi (Family Galatheidae)



Munida militaris(Family Galatheidae)

G. MILLEN

Munida sp. (Family Galatheidae)



D. EVANS