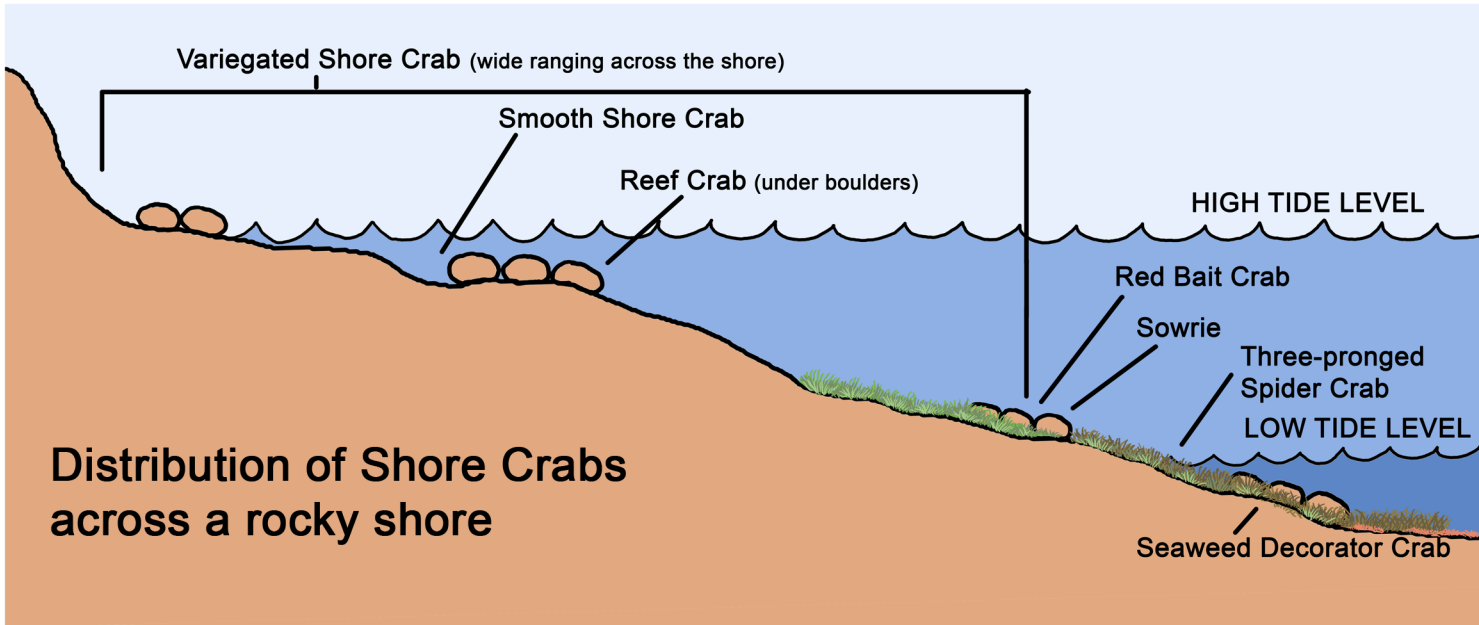


Ocean Shore Crabs of New South Wales

In Australian seas, in estuaries, on rocky shores and along sandy beaches, there are many types of crab from different families. The typical shore crabs found along the coast and in estuaries belong to two main groups. These are the broad-fronted, square-backed grapsids, and the tall-eyed ocyropodids. Crabs from other groups live between low to high tides, or visit our shoreline when the tide is in.



Crab Moulting and Limb Regrowth

Crabs have a tough life. They need to moult their hard outer shell to grow larger. So, a couple of times every year crabs need to moult their shells.

In the early stages of its moulting cycle every crab begins to form a new 'soft' shell inside its hard outer shell. This is the "peeler" stage. Hormones detach the layer of cells just under the shell. Chemicals then begin to dissolve the outer shell, so that the salts are reabsorbed and can be reused. The new inner "soft" shell continues to form and soon the crab is ready to moult.

During the moulting stage, the crab stops feeding and hides to avoid being eaten by predators, including humans. Some crabs reabsorb as much calcium as possible from the old shell, leaving it fragile and delicate.

The crab takes in as much water as it can so that its tissues swell and splits the old shell across its back. Its claws split open along fracture planes so that they can be pulled out. The crab slowly pulls itself out of its old shell. This is a long and difficult process. Some crabs eat their old shell, while others discard it. After being shed, the shell soon breaks up. The newly emerged crab then drinks more seawater to pump up the new shell so that it is one-third larger than its previous shell. For some types of crab, all individuals may moult at the same time giving the appearance of hundreds of dead crabs strewn over the shore.

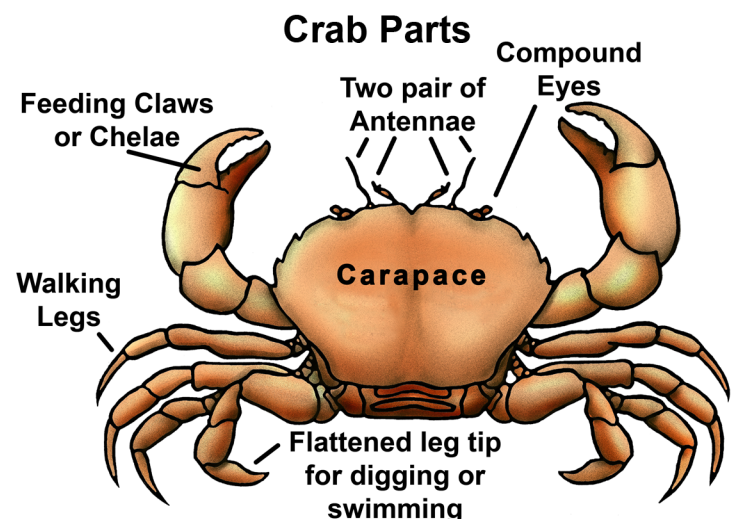
The absorbed salts are then used to thicken and harden the new shell. The new shell will only harden if it remains underwater. This may take about four days. If the crab is removed from the water, as happens in commercial fisheries overseas, the shell does not harden. A soft-shelled crab is a gourmet delight.

In time, the crabmeat, muscle and protein increase in bulk so that there is no more room for the crab to grow inside its shell. The moulting process must start again.



A shore crab cracking open the rear of its carapace and backing out with all its limbs, eyes and hairs intact.

If a predator grabs a crab, often the limb will break. In crab legs, the third and fourth segment are fused together. Where the joint should have been, there is an internal division with a small opening in the middle. Through this nerves and blood vessels pass, but not muscles. If the limb is grabbed, some muscles spasm and make the leg break off. A blood clot soon forms and bleeding stops causing little damage. Beneath the scar a bud forms. Within the bud a new limb begins to grow. After a few moults, the growing leg or chelae is almost the same size as the original one that was lost.



High Rocky Shore

Variegated Shore Crab, *Leptograpsus variegatus*



A fast moving and common crab on rocky ocean shores from NSW across southern shores to North West Cape, WA. Has a purple or reddish carapace marked with lighter flecks. The shell markings give it the common name of Steelback Crab.

The male chelae are much larger than those of the female. May grow to 6 - 8 cm across the carapace. Found on high-energy rocky ocean coasts. If disturbed, they scuttle into crevices or under ledges.

Smooth Shore Crab, *Cyclograpsus audouinii*



This crab has a smooth carapace, which is unbroken except for the groove which holds its eyes. There are no spines or notches. It is cream to light-brown in colour. It grows to 3 cm across.

Found from Fraser Island in Queensland, through NSW, Victoria, SA to southern WA. It is found in cracks in the rock on rocky ocean shores or under stones in estuaries. It shelters during the day.

Low Rocky Shore

Reef Crab, *Ozius truncatus*



Large brown crab with an oval, flattened carapace. Up to 8 cm across. Feeding chelae are large in males with one claw being larger than the other. Fingers dark brown tipped black.

Common on rocky ocean shores of NSW and SA. Often found near boulder beaches. A slow moving crab. If uncovered it may pretend that it is dead. I have seen this crab eating Blue-bottle stingers.

Sowrie Crab, *Plagusia glabra*

Fawn-grey with a covering of dark green spots, so that the crab appears to be green in colour. The legs are fine spotted with brown. The carapace front edge is not as notched as is the Red Bait Crab. Occurs from south-eastern Queensland to the NSW - Victorian border. It is found at the bottom of rock pools or in cracks and crevices low down on rock platforms.

Red Bait Crab, *Plagusia chabrus*



Dark red in colour with a distinctive heavily notched edge to its shell. The claws are large and strong in the male, covered on the upper surface with tubercle bumps.

The females feeding claws are smaller. Found from Newcastle, NSW, around southern shores to southern WA, including Tasmania. Found low on rocky ocean shores, hiding under rocky ledges or in crevices, that are wave swept.



Sowrie crabs seem to live in groups.

Algae and Off Shore

Three-pronged Spider Crab, *Halicarcinus ovatus*



A small spider-like crab with a flattened, oval-shaped carapace. It has long spindly legs. Its feeding claws, called chelae, are large when compared with the rest of its body. Easily identified by the three small bumps between its eyes. Grows to 13 millimetres across.

Has many colour forms such as red-black, red-white or brown-white. Found from Port Stephens, NSW, around southern Australia to southern WA, including Tasmania. Lives under stones and in algae on reefs, rocky shores and in seagrass flats of estuaries.

Seaweed Decorator Crab, *Naxia tumida*



This crab snips off pieces of algae and carefully threads the pieces among the hooked hairs on its carapace and legs as camouflage. The pear-shaped shell is yellowish-brown above and cream below.

The feeding claws are orange-red in colour. Grows to 4 cm across the carapace. Found along NSW, Victorian and Tasmanian shores. Shelters in algae or under boulders of partly protected rocky ocean shores.

Sandy Beaches

Common Ghost Crab, *Ocypode cordimana*



A cream-coloured crab tinged with yellow or pink. Has one claw larger than the other. Is common everywhere on the NSW coast.

Digs deep burrows in dry sand in sandhills backing ocean beaches and near estuary entrances. Comes out at night to forage for food along the shoreline.

Horn-eyed Ghost Crab, *Ocypode ceratophthalmia*



A striking two-coloured crab, white or cream above and chocolate brown below. Has a long spike sticking out of the top of its eyes. The large, pure white, unequal sized chelae are striking.

Widespread in tropical Indian and Pacific Oceans from East Africa and the Red Sea to Japan, Hawaii and Tahiti. In Australia it ranges from Shark Bay in WA across the tropical north to Sydney, NSW. Digs deep burrows above high tide mark on sandy beaches. Emerges at night to feed on flotsam left by the prior high tide.