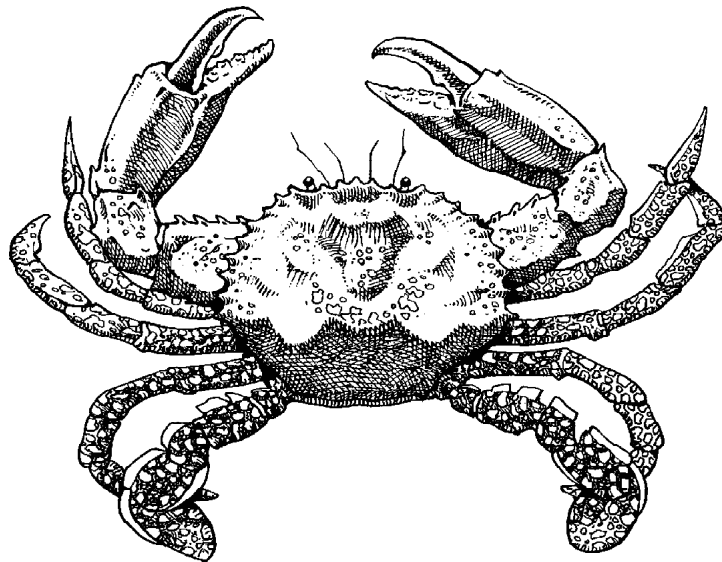


FISHERIES INFORMATION LEAFLET

THE MUD CRAB

The mud crab, *Scylla serrata*, is a portunid crab, that is, it is a member of a group of swimming crabs which has the last pair of legs flattened for swimming. *Scylla serrata* is the largest of the portunid crabs.



Distribution

The mud crab has a wide distribution occurring around the northern half of Australia, eastwards into the Pacific, as far as Samoa and Fiji, northwards to the Phillipines, and westwards into the Indian Ocean, across to the east coast of Africa. Throughout this distribution, *Scylla serrata* is found in sheltered waters especially favouring estuaries and mangrove areas.

Habitat and diet

Mud crabs are extremely tolerant of salinity and temperature variation, and can survive in a salinity range of 2 to 50 /oo and temperatures of 12 to 35° C. It is not known to what extent they are affected by salinity variations but in the case of temperature, it is known that activity and feeding falls off dramatically below 20° C. *Scylla serrata* is mainly active at night. Although many occupy burrows in the intertidal zone, the majority of adults live subtidally, where they bury in the mud during the day. They emerge at night and forage for food, covering about 500m each night. They feed on slow moving, (or stationary), bottom-dwelling animals such as bivalves, snails, other crabs, hermit crabs, and worms. They rarely eat fish under natural conditions since they lack the ability to catch them. They are attracted to a wide variety of baits, including fish, but this does not mean that fish form part of their normal diet.

Reproduction

Mud crabs reach sexual maturity at between 18 and 24 months, and mate in the warmer months. The mature females (known as 'jennies') release a chemical attractant, or pheromone, into the water which attracts the males (known as 'bucks'). The successful male picks up the female and carries her around for several days until she moults. Copulation can occur only when the female is in the soft shell condition. The male deposits a spermatophore, or packet of sperm, inside the female's reproductive opening where it is stored until the developing ova are ready to be fertilised. Following mating, the females migrate offshore to spawn. Their exact progress from here in Australian waters is not known, but in some parts of the world they remain around the river mouths, and then migrate up to 50 km offshore and into water down to 300 m deep.

Eggs are released in batches of two to five million at a time. The eggs are carried beneath the females abdomen which has to be folded outward to accommodate the large egg mass. Eggs hatch in 2 to 4 weeks and a zoea larval stage emerges (See figure 1). These zoea larvae are sensitive to high temperatures and low salinities, and therefore cannot exist in estuaries; they require marine conditions. There are four zoeal stages; they give rise to a megalopa stage. This resembles a small (3 mm) long elongate crab with a well developed abdomen which projects backwards like a tail. Appendages on the abdomen enable the megalopa to swim and return to the estuaries. Larval life lasts about a month. Once back in the estuary, the megalopae change into juvenile crabs which settle down in sheltered areas such as between mangrove roots or in seagrass beds.

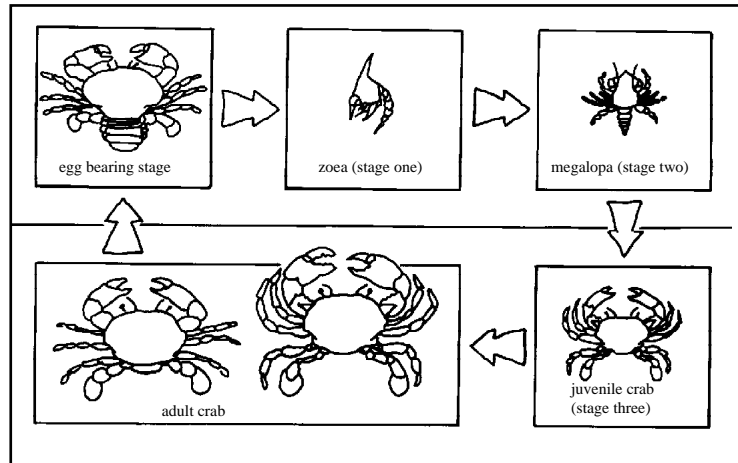


Figure 1 : Life cycle of the mud crab

Marketability

This crab constitutes an important part of the fisheries in the Indo-Australian region. It is considered a delicacy wherever it is found and commands a high price. In Australia, it is not uncommon to find mud crabs with a shell width of larger than 18 cm. The largest recorded size is 22.5 cm shell width, and weighing 3.25 kg. The average size however, lies between 15 and 17 cm shell width, and weigh between 0.7 to 1.2 kg. In Queensland mud crabs (and sand crabs) having a shell width of less than 15 cm, are protected under the *Fisheries Act*. It is also illegal to take female crabs, regardless of size (See Figure 2).

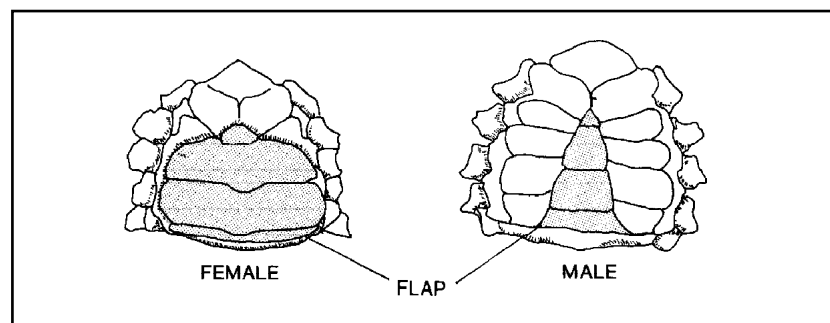


Figure 2 : To sex crab look at underside

Cooking

Mud crabs may be boiled in salty water or steamed whole for about 15 to 20 minutes. In many parts of Asia, mud crabs are often cleaned by removing the top shell, gills, and intestines before being cooked. The mud crab loses its delicate texture and flavour when it is not consumed immediately after cooking. Freezing the uncooked or boiled crab will retard the deterioration, but will not completely eliminate it. Connoisseurs of the mud crab prefer freshly killed mud crabs.

For more information please contact:

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