

Australian River Mussel

Cucumerunio novaehollandiae

Description

Defining feature: The Australian River Mussel is the largest freshwater mussel in Australia, with mature animals over 200 mm long. Within the family Hyriidae (freshwater mussels) the Australian River Mussel has the most elongated shape (all other species are roundish) and shows distinctive nodules on the posterior surface of the shell (upper part in photograph).

Physical description: The Australian River Mussel is a large and elongated mussel, and possesses a brown-black shell when alive (image shows a dead shell with its dark skin mostly abraded, exposing an iridescent layer of mother-of-pearl).

Habitat

The Australian River Mussel lives in permanent streams at sites of moderate to strong current; often found on outer bends in boulder-stabilised micro-habitats. This species also occurs in pool sections at the base of riffles and cascades, and seems to be sensitive towards siltation.

Feeding

The Australian River Mussel is a filter feeder; that is, it feeds by straining suspended matter and food particles from water.

Breeding

The life cycle of mussels includes a parasitic larval stage (*glochidium*) that must attach itself to the gills of a fish (image below right) to complete its development. After detaching from their hosts, juvenile mussels burrow into the stream bed where they grow rapidly for a few years.

The Australian River Mussel has a brief, highly synchronised spawning period in autumn and is associated with the occurrence of floods. This species retains its *glochidia* within its shell over the winter months, releasing them into the stream in early spring. This species produces millions of *glochidia*, but only very few find a fish host and even fewer survive to maturity. Little is known about the life span of the Australian River Mussel: 40 years seems to be confirmed but there are estimates of a life span of 80 or even 100 years.

Conservation

Status: The Australian River Mussel is included in the International Union for the Conservation of Nature (IUCN) Red List of Threatened Species.

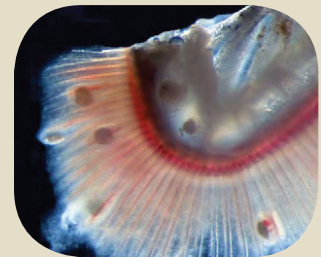
The Australian River Mussel has decreased throughout its distribution range over the past 200 years. Remnant populations seem to be fragmented and are of low densities. Major threats to this species are regulating rivers and stream pollution with sediment and nutrients.

Additional information

There are only two species from the genus *Cucumerunio*: one from Australia and one from New Zealand.



Shell of a mature mussel from Cedar Creek.



Parasitic mussel larvae (*glochidia*) attached to a fish gill.

Distribution

The Australian River Mussel is endemic to coastal rivers in New South Wales and Queensland - from the Hunter to the Burnett River. In the Moreton Bay Region this species is from the South and North Pine Rivers.