



Image: Jules Farquhar

Broad-shelled turtle

Chelodina expansa

Status: Vulnerable in South Australia

The broad-shelled turtle is the largest of the three species of turtle found in the Murraylands and Riverland region. Turtles play a crucial role in the River Murray ecosystem and are culturally significant to the region's First Nations. Turtles are under threat from a range of issues but there are a number of ways the community can support their conservation.

Description

The broad-shelled turtle is a large turtle with a very long neck - the longest neck in relation to body size of any turtle in the world.

The neck has loose baggy skin and their long head is relatively flat with eyes towards the front. When extended, the neck can be longer than the top of the shell (carapace). A shell is usually twice as long as it is wide. Females have smaller tails than males.

Broad-shelled turtles are easy to distinguish from long-necked turtles as they are generally much larger and the underside of the shell (plastron) is narrow and lacks the distinct black lines between the plates that appear on a long-necked turtle's shell. The plastron does not cover the legs, head and tail when they are retracted.

Size

The shell of the broad-shelled turtle can be up to 50 centimetres long. Females can exceed five kilograms in weight and males can reach up to four kilograms.

Habitat

Broad-shelled turtles are the least common species in the River Murray. They depend on permanent water bodies and seldom emerge except to lay their eggs.

Seasonal changes in river conditions, including water level and flow, may also influence the selection of habitat.

They mostly live in water bodies that are deeper than three metres and show a preference for aquatic habitats with submerged structures such as logs, tree roots and dead trees.

They tend to inhabit environments that are undisturbed and have moderate vegetation cover along the banks for nest construction.



The underside of a broad-shelled turtle. Image: Jules Farquhar



Adult broad-shelled turtle. Image: Jules Farquhar

Diet

Broad-shelled turtles are carnivores. They are ambush predators that feed mostly on fast swimming prey such as fish and shrimps. They lie in wait among water weeds for small fishes, shrimps and large aquatic insects. When the prey swims past they strike suddenly by shooting their neck out and opening up their jaws.

They also eat carrion (dead animals), cleaning up dead fish and other animals in the water which helps to maintain water quality.

Breeding

Broad-shelled turtles nest in autumn (around Anzac Day). Females lay approximately 20 eggs in a small hole dug into the sand above flood level. They can nest more than 500 metres from the river. Eggs take about a year to hatch and sometimes hatchlings will stay in the nest through the winter after they hatch.

Threats

Many issues threaten broad-shelled turtles. Some of the greatest threats are:

- Deep pools in waterways becoming shallower and less common due to low flows and drier summers
- Foxes digging up nests to eat the eggs and killing adult turtles on land, usually nesting females
- Poor water quality resulting from salinity, turbidity and chemical run-off (from farms and towns).

How can you help?

You can play a role in helping your local turtles by:

- Recording sightings and nesting locations using the TurtleSAT app
- Volunteering for a local wetland group
- Keeping our waterways healthy by reducing soil and chemical run off by preventing litter from entering water ways
- Leaving large snags in the water (or even re-snagging)
- Protecting nests from predators
- Using turtle safe fish traps (ie not funnel traps) and leaving an air pocket for them to breathe.

For more information

landscape.sa.gov.au/mr

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