

BELLO BIO BLOG

NO 5

BELLINGEN SNAPPING TURTLE MYUCHELYS GEORGESI

The Bellinger river snapping turtle only occurs in the Bellinger catchment.

The Snapping turtle is one of the umbrella Species identified in Bellingen Shires Biodiversity Strategy. By protecting snapping turtle habitat we will also protect many other species that make up the ecological community of its habitat.

It is rated as critically endangered both in NSW and Nationally.

Identification

The Bellinger River Snapping Turtle (BRST) is a moderately large (up to 20cm), short-necked, freshwater turtle. Its shell is brown above, dull whitish below. It usually has a distinct yellow stripe from the angle of the jaws, especially in the young. The top shell is oval shaped with a smooth hind edge. The underside of the shell is nearly twice as long as broad. The head and neck are shorter than the length of the shell. There is no central groove on the carapace and the tail lacks bright markings. There are five claws present on both webbed forelimbs. The Bellinger River Snapping Turtle should not be confused with the Bellinger River Emydura "Emydura macquarii (Bellinger River form)".

Images: Top: Adult . Source environment.nsw.gov.au
Bottom: Juvenile. Source abc.net.au



Distribution

The snapping turtle has only been recorded in the mid-section of the Bellinger river from the Bellingen township upstream to east of Brinerville. The species has not been recorded in the Never Never River, nor in the upper Rosewood River. The status of the turtle in the Kalang River is uncertain. It was reported in 1993 that it was in a few scattered locations in the Kalang River, however surveys in 2000, 2007 and 2015 found no specimens.

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Habitat

The snapping turtle has a preference for moderate to deep pools (> 2 m) with a rocky bottom. Although their preferred habitat is patchy in the river system, the snapping turtle can move easily between pools under normal conditions.

The turtles are mostly aquatic and rarely, if ever, travel overland but will bask on the river bank and on trees that have fallen into the river.

They are omnivorous, and eat mostly macro-invertebrates from the river floor, along with fruit and aquatic vegetation.

Biology

Bellinger River Snapping Turtles have a lifespan of about 29 years.

Females are estimated to reach sexual maturity at ~8 years, males at 5–6 years.

Eggs are laid in nests excavated in the river banks during late spring and early summer in clutches of 10–25 brittle-shelled eggs. Hatchlings emerge after 72 days at an average nest temperature of ~27°C. Hatching success in the absence of predation is 85%

Many Australian freshwater turtles, including *M. georgesi*, have mortality rates that decrease with age. This results in populations with more large/old adults. As a consequence, the turtle population is sensitive to changes in adult survivorship and their ability to recover from a catastrophic loss of adults is likely to be limited.

During winter, turtle activity is significantly reduced and individuals are rarely encountered.

Mortality Event

A rapid and unexpected mortality event in the river, commenced in early 2015 (first reported 16 February) only affecting this species. It resulted in the loss of up to 90% of the total estimated population. Examination of affected individuals and the pattern of spread were consistent with a disease outbreak. A new virus is thought to be associated with the disease.

Saving our Species (NSW Government), stepped in to protect the turtle and established a captive breeding program with Taronga Zoo and Symbio Wildlife Park, providing a lifeline for the species.

Following a successful breeding program, a number of healthy turtles have been released into the river.

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Threats

Other threats to the Bellinger River Snapping Turtle include:

- The predation of nests and nesting females by the introduced Red Fox. While Goannas also predate turtles, short-necked turtles are thought to be particularly vulnerable to fox predation because they are unable to fully retract their limbs and head.
- Habitat degradation, including changes to water quality (e.g. increased water turbidity) and increased sedimentation of deep pools as well as the removal or degradation of riparian vegetation are also threats
- Hybridisation with and competition from other native species.
- Poaching of animals

What can you do to help the BRST?

'Following the mortality event the community wanted to participate in the recovery efforts. The Bellinger Riverwatch citizen science project was born, bringing together community members and scientists who are all working towards helping the critically endangered turtle survive in the wild. The Riverwatchers are supported by OzGreen, Council, and other partners, and are collecting data and monitoring water quality at 27 sites across the Bellinger River catchment, to better understand the health of the river and the impact this has on wildlife.

You can join Bellinger River Watch activities and find out more [here](#).

Other things you can do to help the turtle are:

- Keep a Clean Routine' to prevent the spread of the virus into other catchments. Wash down all boat, canoe and swimming equipment before entering Bellinger River.
- Support river health and protection projects in the Bellinger Catchment
- Report sick or dead turtles in the Bellinger Catchment to the OEH Environment Line
- Report sightings of live turtles on bio-net [here](#).

More Information

A targeted strategy for managing this species has been developed under the NSW Governments Saving Our Species program; click [here](#) for details.

[On a razor's edge: Status and prospects of the critically endangered Bellinger River snapping turtle, *Myuchelys georgesii*](#)



Image:
Source abc.net.au