

THE HATCHERY:

Turtle Streaming

Thursday, 22 March until
Sunday, 25 March 2018

The Queensland Museum acknowledges the expertise and support of the Department of Education in developing these curriculum links.



Students can observe baby Loggerhead Turtles (*Caretta caretta*) hatching from eggs that will be incubated for a World Science Festival Brisbane event at the Queensland Museum.

The Loggerhead Turtle is named for its large head, equipped with powerful jaws for crushing the hard shells of the crustaceans and molluscs on which it feeds. Adults have brown to reddish-brown shells (carapaces) but the hatchling turtles are dark brown.¹

Loggerhead Turtles are found throughout the world's tropical and subtropical seas. In Australia, they occur in the coastal waters off Queensland, New South Wales, the Northern Territory and Western Australia.

Loggerhead Turtles face many threats. In 1970s many of the nests on the Bundaberg coast were lost to predation, a problem that was initially addressed using poisoned baits but is now also addressed using sniffer-dogs to locate fox dens prior to the nesting season. From the late 1970s to the early 1990s there was a marked decline in the number of

female Loggerhead Turtles nesting on beaches in southeast Queensland. If this continued, the eastern Australian Loggerhead Turtle population was at risk of becoming extinct. The decline resulted from the deaths of larger turtles in their feeding grounds, and on their nesting migrations, and was linked largely to trawling, crabbing and boating activities. Measures have been taken to reduce these losses and the numbers of female Loggerhead nesting on the Bundaberg coast are now increasing. The Loggerhead Turtle is currently listed by the Australian Government as an Endangered Species under the Environment Protection and Biodiversity Conservation Act (EPBC Act).

The World Science Festival Brisbane Loggerhead Turtle hatching event (The Hatchery) is overseen by the Queensland Museum's Reptile Curator, Patrick Couper and Dr Colin Limpus a conservation biologist and renowned marine turtle expert from the Department of Environment and Science. Following the festival the hatchlings will be released offshore into the Eastern Australian Current.

¹<https://www.environment.gov.au/marine/marine-species/marine-turtles/loggerhead>

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Loggerhead Turtle mathematical

Breeding season	Late October to early March, peaking in December
Years between breeding	Three to four years
Age at first female breeding	25 to 30 years
Identification	A large turtle (shell up to 110 cm) with a broad, triangular head and powerful crushing jaws. The shell is heart-shaped with five large scales down either side. Reddish brown.
Nesting female weight	99kg (range from 76 - 149kg)
Clutch size (number of eggs)	127 eggs (range from 89 - 151 eggs)
Hatchlings emerge	December to April
Hatchling success	80 per cent
Hatchling weight	19.2g (range from 17 - 20.4g)
Predators of hatchlings	Foxes, kookaburras, crows, raptors, gulls, reef egrets, ghost crabs, goannas and fish such as trevally and sharks

Student research and discussion questions

1. Loggerhead Turtles have structural and behavioural adaptations that enable them to survive in their marine environment. Explain some of these adaptations and how they would assist the turtle to survive.
2. Describe the habitat of the Loggerhead Turtle.
3. Predict the environmental considerations that need to be taken into account so that the turtles will hatch.
4. Create a food chain and food web involving the Loggerhead turtle.
5. Why are Loggerhead Turtles listed as an Engendered Species? What are some of the things we can do as individuals to try to 'protect' the Loggerhead Turtles?

²<http://www.gbrmpa.gov.au/about-the-reef/animals/marine-turtles/loggerhead>