

## Bellinger River Snapping Turtle (*Myuchelys georgesii*)

The Bellinger River Snapping Turtle is endemic to a 60km stretch of the Bellinger River in New South Wales, Australia. In 2015 a severe mortality event, most likely caused by the recently identified Bellinger River Virus, previously not known to science, reduced the population from an estimated 1,600 to 4,500 individuals, to its current size of approximately 200 to 300 animals, predominantly juveniles. Other potential threats to the species are considered to be their limited distribution and specialized habitat requirements, predation, water quality, and hybridization and competition with Murray River Turtles (*Emydura macquarii*).

The BRST's IUCN Red List assessment has not been updated since the mortality event but it is currently listed as Critically Endangered under the NSW Threatened Species Conservation Act 1995 and the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.



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### Priority Goals

In November 2016, the NSW Office of Environment and Heritage brought 16 experts from eight organizations to Taronga Zoo in Sydney, to discuss and recommend next steps in the recovery of BRSTs, based on their agreed interpretation of the information gathered to date. The immediate priorities for action (1-5 years) are listed below. Longer term priorities (5-20 years) were also agreed, and emphasized reducing the impact of fox predation and an integrated program of riparian rehabilitation and in-stream health.

#### Disease hazard investigation

- Investigation of modes of transmission
- Establish a serological test for BRV with high sensitivity and specificity
- Explore treatment options for and associated biosecurity methods

#### Murray River Turtle investigation

- Investigate competition and hybridization with Bellinger River Snapping Turtles
- Explore management options

#### Build the captive breeding program

- Collect founders for a second captive group
- Establish a sex determination technique for juveniles
- Develop a studbook, captive management plan and husbandry manual

#### Engage and mobilize the community

- Develop and implement a communications plan
- Implement a public engagement program

#### Prepare for experimental releases

- Continue population surveys and monitoring
- Prepare translocation proposal for the release and monitoring of hatchlings/juveniles

#### Plan for long-term hazard mitigation

- Establish fox control

More details can be found in the full workshop report available at:

<http://www.cbsg.org/content/bellinger-river-snapping-turtle>.

Workshop sponsors/organizers: New South Wales Office of Environment and Heritage, Taronga Conservation Society Australia, IUCN SSC, IUCN SSC Conservation Breeding Specialist Group and Auckland Zoo.