This Conservation Advice was approved by the Minister / Delegate of the Minister on: 3/7/2008

# Approved Conservation Advice (\$266B of the *Environment Protection and Biodiversity Conservation Act 1999*)

# <u>Approved Conservation Advice for</u> <u>Elseya lavarackorum</u> (Gulf Snapping Turtle)

This Conservation Advice has been developed based on the best available information at the time this conservation advice was approved.

### **Description**

*Elseya lavarackorum* (previously listed as *Elusor lavarackorum*), Family Cheluidae, also known as the Gulf Snapping Turtle, is a brown to dark brown large short-necked turtle with a carapace (upper shell) reaching 350 mm in length and an undulating suture between the hemeral and pectoral shields in the plastron and white underbelly.

## **Conservation Status**

The Gulf Snapping Turtle is listed as **endangered**. This species is eligible for listing as endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act) as, prior to the commencement of the EPBC Act, it was listed as endangered under Schedule 1 of the *Endangered Species Protection Act 1992* (Cwlth). The Gulf Snapping Turtle is also listed as vulnerable under the *Nature Conservation Act 1992* (Queensland) and as Least Concern under the *Territory Parks and Wildlife Conservation Act 2000* (North Territory).

### **Distribution and Habitat**

The Gulf Snapping Turtle is restricted to rivers draining into the Gulf of Carpentaria (Georges & Adams, 1996). In the Northern Territory, this includes the Calvert to the Nicholson River systems (Cann, 1998; EPA, 2007; Woinarski et al., 2007). This species occurs within the Northern Territory and the Southern Gulf (Queensland) Natural Resource Management Regions.

The Gulf Snapping Turtle occurs within riverine habitats (Georges & Adams, 1996), however little is known about their key microhabitats (DEW, 2007).

The distribution of this species is not known to overlap with any EPBC Act-listed threatened ecological communities.

### **Threats**

The main identified threats to the Gulf Snapping Turtle include disturbance to nesting sites by feral animals, such as pigs (*Sus scrofa*); and trampling/degradation of habitat by grazing and watering cattle (Cann, 1998; Woinarski, 2006; EPA, 2007).

The main potential threats to the Gulf Snapping Turtle include changes to hydrology, habitat loss or disturbance, and climate change.

## **Research Priorities**

Research priorities that would inform future regional and local priority actions include:

- Obtain information on general biology and ecology of the Gulf Snapping Turtle.
- Undertake surveys to determine the species' distribution (Woinarski, 2006; EPA, 2007).
- Design and implement a monitoring program.

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## **Regional and Local Priority Actions**

The following priority recovery and threat abatement actions can be done support the recovery of the Gulf Snapping Turtle.

### Habitat Loss, Disturbance and Modification

- Monitor known populations to identify key threats.
- Monitor the progress of recovery, including the effectiveness of management actions and the need to adapt them if necessary.
- Identify populations of high conservation priority.
- Undertake survey work in suitable habitat and potential habitat to locate any additional populations/occurrences.
- Minimise adverse impacts from land use at known sites.
- Manage threats to areas of vegetation, such as riparian zones, that provide known or potential habitat for the Gulf Snapping Turtle.
- Ensure chemicals or other mechanisms used to eradicate weeds do not have a significant adverse impact on the Gulf Snapping Turtle.
- Manage any changes to hydrology that may result in changes to the water table levels, increased run-off, sedimentation or pollution.
- Rehabilitate river bank habitats.
- Investigate formal conservation arrangements such as the use of covenants, conservation agreements or inclusion in reserve tenure.

## Trampling, Browsing or Grazing

- Develop and implement a stock management plan for riparian areas to minimise stock impact on the species.
- Manage known sites on private property to ensure riparian zones important to the Gulf Snapping Turtle are not degraded by cattle trampling and grazing.
- Prevent grazing pressure at known sites on leased crown land through exclusion fencing or other barriers.

#### **Animal Predation or Competition**

• Develop and implement a management plan for the control and eradication of pigs in the local region.

### **Conservation Information**

- Raise awareness of the Gulf Snapping Turtle within the local community and landholders.
- Include information on threats to nests and rehabilitation of river bank habitats (EPA, 2007).

### Enable Recovery of Additional Sites and/or Populations

• Investigate options for linking, enhancing or establishing additional populations.

This list does not necessarily encompass all actions that may be of benefit to the Gulf Snapping Turtle, but highlights those that are considered to be of highest priority at the time of preparing the conservation advice.

### **Existing Plans/Management Prescriptions that are Relevant to the Species**

• Threat Abatement Plan for Predation, Habitat Degradation, Competition and Disease Transmission by Feral Pigs (DEH, 2005).

This prescription was current at the time of publishing; please refer to the relevant agency's website for any updated versions.

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#### **Information Sources:**

Cann, J 1998, Australian freshwater turtles, Beaumont, Singapore.

Cogger, H 2000, Reptiles and Amphibians of Australia - 6th edition, Reed New Holland, Sydney.

Department of Environment and Heritage (DEH) 2005, *Threat abatement plan for the predation, habitat degradation, competition and disease transmission by feral pigs*, viewed 2 January 2008, <a href="http://www.environment.gov.au/biodiversity/threatened/publications/tap/pig/pubs/feral-pig-tap.pdf">http://www.environment.gov.au/biodiversity/threatened/publications/tap/pig/pubs/feral-pig-tap.pdf</a>>.

Department of the Environment and Water Resources (DEW) 2007, *Elesya lavarackorum* in Species Profile and Threats Database, viewed 9 December 2007, <a href="http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon\_id=67197">http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon\_id=67197</a>.

Environment Australia (EA) 1999, *Threat Abatement Plan for Predation by European Red Fox*, Biodiversity Group, Environment Australia, viewed 16 January 2008, <a href="http://www.environment.gov.au/biodiversity/threatened/publications/tap/foxes/index.html">http://www.environment.gov.au/biodiversity/threatened/publications/tap/foxes/index.html</a>.

Environmental Protection Agency (EPA) 2006, Gulf Snapping Turtle, viewed 9 December 2007, <a href="http://www.epa.qld.gov.au/nature">http://www.epa.qld.gov.au/nature</a> conservation/wildlife/az of animals/gulf snapping turtle/>.

Georges, A & Adams, M 1996, 'Electrophoretic delineation of species boundaries within the short-necked freshwater turtles of Australia (Testudines: Chelidae)', *Zoological Journal of the Linnean Society*, vol. 118, pp. 241-260.

Wilson, S & Swan, G 2003, A complete guide to reptiles of Australia, Reed New Holland, Sydney.

Woinarski, J 2006, Threatened species of Northern Territory Gulf Snapping Turtle *Elesya lavarackorum*, Department of Natural Resource, Environment and Arts, viewed 9 December 2007, <a href="http://www.nt.gov.au/nreta/wildlife/animals/threatened/pdf/herps/gulf\_snapping\_turtle\_lc.pdf">http://www.nt.gov.au/nreta/wildlife/animals/threatened/pdf/herps/gulf\_snapping\_turtle\_lc.pdf</a>.

Woinarski, J, Pavey, C, Kerrigan, R, Cowie, I, & Ward, S (eds), 2007, *Lost from our landscape: threatened species of the Northern Territory*, Northern Territory Government, Darwin.