

24 September 2015

## CVO alert: Enhanced surveillance for disease in turtles

### Background

A disease syndrome affecting a unique turtle species on the NSW north coast- the Bellinger River Snapping turtle (BRST; *Myuchelys georgesi*) was first detected in February this year. Also called George's turtle, George's snapping turtle, Bellinger River Turtle) this species is only found in the Bellinger and Kalang rivers. Over 430 affected turtles have been affected.. Smaller numbers of other turtle species including *Emydura macquarii* (Macquarie River Turtle) are also present in the rivers but were not affected. For further details see: [http://www.dpi.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0011/553358/factsheet-bellinger-river-turtle-deaths.pdf](http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0011/553358/factsheet-bellinger-river-turtle-deaths.pdf)

### Epidemiology

Affected turtles were found dead or beached on banks or emaciated with swollen inflamed eyes and lids. On post mortem examination, there have been gross changes to the eyes, with extension in some animals into the sinus and brain. Changes have also been seen in the liver, kidney, heart and spleen, with varying degrees of inflammation. These effects appear to have occurred over approximately 4-10 days.

A novel virus has been isolated from some affected turtles by scientists at the Elizabeth MacArthur Agricultural Institute (EMAI). Work is ongoing to determine the role of the virus in the aetiology of this condition. This work also involves developing new tests to detect the virus in a range of tissues.

Turtles are inactive during the cooler months, so a preliminary survey to assess the turtle population is planned for mid-September. Dive teams will target specific areas moving downstream to check for extant turtles and evidence of disease. Further more detailed surveys looking at turtle health are planned in the coming months.

A small number of healthy BRST were removed from the river last autumn for a captive breeding program and have remained healthy.

### Biosecurity controls

When the disease was first detected the upper reaches of the river were closed, affected turtles were removed from the river and persons using canoes and kayaks given hygiene advice to minimise the possibility of transfer of disease transmission to other watercourses.

The general public have been advised to not handle turtles. Those handling affected turtles such as veterinarians and carers are advised to use gloves and take appropriate hygiene precautions when examining sick or dead turtles. See the [Factsheet - Keep a 'clean' routine: Bellinger River Snapping Turtle mortality](http://www.dpi.nsw.gov.au/biosecurity/animal/wildlife-and-feral-animals) at <http://www.dpi.nsw.gov.au/biosecurity/animal/wildlife-and-feral-animals>.

### Enquiries about sick or dead turtles

Veterinarians may be contacted by members of the public, government agencies or wildlife carers about sick or dead turtles. It is important that strict hygiene standards are maintained during any interaction with sick turtles. Now that temperatures are rising, turtle activity will increase and new cases may be found.

To date the disease has been confined to the Bellinger River and only involving Bellinger River Snapping Turtles. There are closely related species in other waterways so it is important to heighten surveillance across NSW for evidence of the disease in other turtle species.

- Namoi River Snapping Turtle (*Myuchelys bellii*) occurs in the upper reaches of the Namoi, Gwydir, Macdonald, and Severn Rivers in northern New South Wales, Australia.
- Manning River Snapping Turtle (*Flaviemys purvisi*) occurs in the Manning catchment
- Saw-shelled turtle (*Myuchelys latisternum*) ranging along rivers and streams and connected swamps and lagoons from coastal Cape York Peninsula to northern New South Wales (located as far south as Newcastle - Williams River Catchment site of the former Tilligra Dam).

### *Sick or dead turtles from the Bellinger River*

Callers should be advised to ring the environment hotline on 131 555. All calls will be forwarded on to Dorrigo Plateau Area NPWS office if west of Thora bridge, or Bellinger Council if East of the bridge for investigation.

### *Sick or dead turtles from other regions*

The local wildlife rescue group e.g. WIRES provides assistance with isolated sick or injured turtles from other regions.

Any reports of turtles with similar clinical signs to those seen in the Bellinger River or any mass illness or mortality event affecting wildlife should be reported to :

- The NSW Wildlife Health Coordinator, Greg Curran on 08 8088 9336 or [greg.curran@dpi.nsw.gov.au](mailto:greg.curran@dpi.nsw.gov.au), or
- The Emergency Animal Disease Hotline on 1800 675 888.

The DPI Veterinarian will assess the report and coordinate a diagnostic investigation if required.

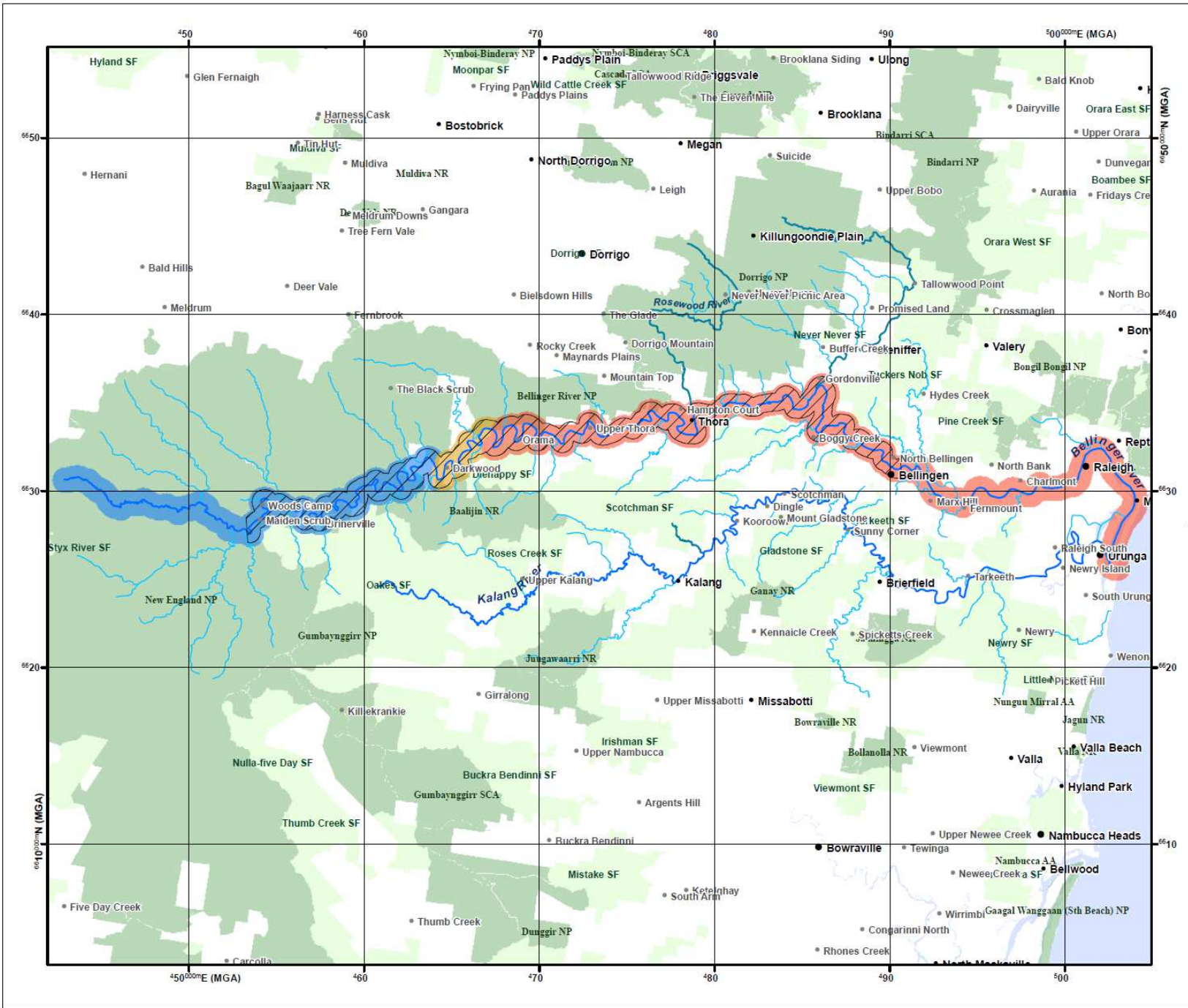
## **Protected Species warning**



Taking and keeping protected animals from the wild is against the law; heavy fines and possible imprisonment may result from unlawful possession of protected fauna. Wildlife rescue groups like WIRES have experience in the care of sick and injured wildlife and are the appropriate group to contact when dealing with protected species.

## **Ian Roth, NSW Chief Veterinary Officer (CVO)**


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Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (24 September 2015). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of NSW Department Primary Industries or the user's independent adviser.



Scale: 1 : 200,000



**LEGEND**

<ul style="list-style-type: none"> <li>■ City</li> <li>● Town</li> <li>● Village</li> <li>● Locality</li> <li>▭ Myuchelys Georgesi Distribution</li> <li>▭ Bellingen_Kalang_Rivers</li> <li>▭ Never Never and Rosewood</li> <li>▭ Minor_drainage</li> <li>▭ Cold Zone</li> </ul>	<ul style="list-style-type: none"> <li>▭ Warm Zone</li> <li>▭ Hot Zone</li> <li>▭ NPWS Estate</li> <li>▭ State Forest Estate</li> <li>▭ Ocean</li> </ul>
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**KEY MAP**