

# RESEARCH DIRECTIONS

## Needle in a Haystack

**Associate Professor Shelley Burgin from the Ecology and Environment Research Group is collaborating with Geoffrey Ross from the NSW Department of Environment and Climate Change to provide an indicator for a worldwide pest species.**

'A North American turtle, the red-eared slider *Trachemys scripta elegans* is traded internationally. Escaped animals form the basis of feral populations with subsequent disastrous impacts on aquatic biodiversity.' explains Associate Professor Burgin. 'Although established within Sydney, their distribution is unknown. Surveys, even within 'known' slider sites are costly and 'hit and miss'. I have encountered a blood parasite *Perhemocytion chelonurum* in native species known only from a few North American species including the red-eared slider, however, data on Australian turtle parasites are limited. In this research I will explore the use of this blood parasite as a rapid assessment tool for sliders to underpin efficient pest management.'

The project team will collect data on the blood parasite to determine if it could be used as a measure for slider presence in rivers and wetlands. This would require evidence that the parasite occurred in the feral slider and in the native turtles in the same water body. In addition, it is necessary to confirm that it does not occur naturally in the native turtles in the region. All turtles captured will be measured, weighed and native species will be uniquely marked. Blood smears will be obtained from all turtles captured. If found parasites length/width and appearance will be recorded and quantified for each species. Native turtles will be released at their point of capture.



The outcome has the potential to be significant internationally as a tool to support management in areas where red-eared sliders have been introduced. Through the catch the team will also provide data on the aquatic biodiversity of urban streams, where there is a lack of information.

**Project Title:** Looking for a needle in a haystack: An investigation of an indicator species for the emerging aquatic pest species *Trachemys scripta elegans*, the red-eared slider turtle  
**Funding has been set at:** \$10,964  
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