

E-tags reveal the secret lives of Australian critters

May 9 2014, by Luke Houghton

Across Australia, thousands of animals are divulging their deepest secrets about where they go and what they do while they think no-one is watching.

Using electronic tags (e-tags) and stalking [animals](#) as they roam the continent, scientists are assembling a comprehensive database that reveals the secret life of Australian fauna in unprecedented detail.

The national tagging effort includes cassowaries, shearwaters, koalas, dingos, feral cats, bats, lungfish, bees, whale sharks, camels, [saltwater crocodiles](#), freshwater and sea turtles and many more animals, both native and introduced.

Brought together in a single resource, this wealth of information is allowing researchers to better manage and conserve animals in the wild, say Dr Hamish Campbell and Dr Ross Dwyer of the Australian Centre for Ecological Analysis and Synthesis (ACEAS) Working Group for advancing the application of animal telemetry data in ecosystem management.

At the ACEAS Grand Workshop being held at the Shine Dome in Canberra today, Dr Campbell of The University of New England and Dr Dwyer of The University of Queensland discuss how Australia can compile, share and re-use tracking data to improve monitoring techniques, both to benefit the animals and drive scarce conservation dollars further.

"Advanced technology has given us smaller, lighter and cheaper [electronic tags](#), which allow us to track more animals at more locations, over longer time periods and at more of their life stages," says Dr Dwyer.

"For instance, we can now follow the foraging and migratory movements of birds and bats, or even attach tiny radio tags to small flying insects such as bees and dragonflies."

The researchers say their group is currently tracking fish, sharks and rays in the ocean, and saltwater crocodiles in waterways throughout Queensland. "We use a combination of acoustic tags and underwater hydrophones to follow these animals through long stretches of rivers, estuaries, reefs and coasts over many years," says Dr Campbell.

Dr Campbell stresses that with tens of thousands animals tagged, it's crucial that the results are accessible to everyone. "Between 2000 and 2013 alone, 12,000 individual animals were tracked, amassing more than 81,000 tracking days.

"However, only half of the discoveries have been revealed, and unpublished findings remain inaccessible. This means we risk wasting funds on work that has been done already, as well as stressing the animals unnecessarily."

To avoid these problems, Dr Dwyer and Dr Campbell are part of a team creating a national online database that enables visitors to access all the tracking studies carried out on any recorded species.

Dr Campbell explains "Conservation funds are always scarce, and tagging animals can be incredibly costly. The creation of a national database is a major investment which will ensure that the information gathered across Australia is used as efficiently as possible.

"Our site, by providing links to published studies, empowers scientists to assess what has previously worked in the field, and how we can improve these methods."

"It also encourages collaboration and data sharing, which has been shown repeatedly to lead to better science, better conclusions and more informed decision making," says Dr Dwyer.

More information: The project overview is available online:
www.aceas.org.au/index.php?option=com_content&view=article&id=101&Itemid=103

Provided by Australian Centre for Ecological Analysis & Synthesis

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