

April 13, 2011 11:17am [Make us your homepage](#)

Science tags along for study

MERYL NAIDOO | March 16, 2011 12:01am

SATELLITE tracking of animals was increasingly important in scientific research, an international conference in Hobart heard yesterday.

CSIRO Marine and Atmospheric Research program leader Campbell Davies said southern blue fin tuna were tagged on their migration from the Great Australian Bight to the Indian Ocean or the Tasman Sea.

They had now been tracked further south of fishing grounds than previously believed, he said.

"A big advantage of electronic tagging is we get information of where the fish has gone in between release and recapture," Dr Davies said.

"With conventional tagging we only had release and recapture data."

Dr Davies said Tasmanian scientists had used tagged tuna, swordfish, seabirds such as the fleshy-footed shearwater, seals, penguins and whales to explore the deep ocean while recording the distribution, behaviour and physiology of animals.

Electronic tagging helped scientists understand how species and populations used and moved through habitats, their resource needs and their capacity to adapt to a changing environment.

The week-long conference heard tracking was essential to guiding the management of biodiversity and living resources.

Dr Simon Goldsworthy, of SARDI Aquatic Sciences, told the conference sea lions were endangered because they were dying in gill nets.

Information collected from tagging would help develop protocols to inform fisheries on how to reduce the accidental catches, he said.

He said this was significant for the future of the sea lions and other marine wildlife as well as commercial fisheries and aquaculture.

Scientists had learned many quirks of nature by fitting animals with electronic recording and transmitting devices and setting them free, the conference was told.

European eel which were tracked showed how they navigated to ocean currents and made deep dives to dodge predators on their 5000km migration from Ireland to Bermuda to breed.

King penguins in the Indian Ocean rode ocean currents to eddies rich with fish before returning to their chicks.

More than 250 specialists are attending the Fourth International Science Symposium on Bio-logging at the Wrest Point Convention Centre. It is the first time the conference has been held in the southern hemisphere.

Dr Davies, one of fewer than 20 Hobart scientists attending the conference, said tags differed according to the species and information required.

They could be put inside or on animals to record and transmit sound, light, temperature, water properties, speed and even vision.

The information was relayed via satellite or retrieved directly from tags or recording stations and could help scientists understand how environmental conditions affected animals.

The conference heard that research challenges now included expanding the lifetime and sensory capacities of tags, reducing their size, managing and analysing data and linking the physiology, behaviour and distribution of animals with environmental cues.



CSIRO marine and atmospheric research program leader Hobart scientist Campbell Davies with a Wildlife Computers Splash Tag, which were used extensively for seal tracking in the Gulf of Mexico oil spill. Picture: SAM ROSEWARNE