## The Sydney Morning Herald

Health & Science Oceans vibrate with the sounds of tagged fish Deborah Smith 384 words 22 May 2008 The Sydney Morning Herald SMHH First 18 English © 2008 Copyright John Fairfax Holdings Limited. www.smh.com.au [http://www.smh.com.au]

THE secret lives of whales, sharks and even fish that frequent Sydney Harbour will soon be revealed with a new national project to attach acoustic tags to marine life around the coastline and track their movements using receivers placed at one kilometre intervals along the ocean floor.

Some of the animals travel such vast distances underwater each year it has been very difficult for scientists to discover much about their habits.

Deep sea sharks are among the first to have been wired for sound. In March CSIRO researchers tagged 50 gulper sharks, swellsharks and green eye dogfish in South Australia, to help determine the best size and location of protected areas so they are not over-fished.

"We need to know how much time the sharks spend there, what the seabed habitats are like, and what role they play in the ecology of the sharks," says a CSIRO scientist, Dr Alan Williams. "For example, the sharks may rely on shelter in rough habitats and these are scarce."

The Australian Tagging and Monitoring System is part of a worldwide project, the Ocean Tracking Network, that will follow thousands of marine creatures - from fish to birds to polar bears - around the world.

It is also one of the 11 arms of the Australian Integrated Marine Observing System (IMOS), a federal government program using the latest technology to monitor the marine environment.

Floats that measure temperature and salinity down to 2000 metres every 10 days will be deployed along the coast, along with an autonomous underwater vehicle for detailed surveying, and a radar network to map surface currents.

A fleet of 10 gliders that can dive for periods from three weeks to six months, will be used to study ocean eddies and currents such as the East Australian Current, says Professor Iain Suthers of the Sydney Institute of Marine Science, which is the NSW headquarters for IMOS.

A research team working with Suthers has already tracked the movement of mulloway in Sydney estuaries, revealing that fish that swim out to sea for months return to the very same spot in the river.

Individual fish have different routes, homes and friends, he says. "It's a whole soap opera out there."

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