Floating robot helps track great white sharks

Alister Doyle, Reuters

(Reuters) - A floating robot has been deployed to track great white sharks in the Pacific as part of efforts to understand the giant predators.

The "wave glider", which from above looks like a yellow surfboard, picks up signals from tagged fish up to 1,000 feet away in the ocean and then sends their positions to researchers via a satellite transmitter.

Scientists have only a hazy understanding of where great white sharks, portrayed as ferocious killers in films like "Jaws", swim in the oceans. The new robot will give insights into their movements.

"Here we are in the 21st century and scientists have just put a rover on Mars. And we don't understand what is going on in the oceans," said Barbara Block, a marine sciences professor at Stanford University in California in charge of the project.

"We will send a wave glider out to follow the sharks," she told Reuters. In one eight-day test, the glider, made by California-based Liquid Robotics and which moves at less than walking speed, made 200 detections of 19 individual sharks.

The glider, about 7 feet long with solar panels above and a wave-power system below, could also give clues to other tagged creatures ranging from mako sharks to tuna and salmon.

It can only notice creatures that have been previously tagged by scientists with tiny battery-powered acoustic transmitters that bleep once every two minutes. Thousands of creatures carry the tags, Block said.

The glider, and listening buoys in fixed positions chained to the seabed, are building on a previous project for the tagging of Pacific predators, which was part of an international census of marine life from 2000-10.

Block said that scientists already knew that great white sharks wandered across the Pacific from North America, often all the way to Hawaii.

There were also mysterious gatherings, including in one mid-ocean area dubbed the "white shark cafe". Unlike the fixed buoys, the gliders can monitor such "ocean wi-fi hotspots".

The researchers are setting up an app, "Shark Net" allowing people to track the fish.

Block hopes to extend the ocean observing network down the west coast of the United States, likening the region to a "blue Serengeti" as rich in wildlife as Tanzania or Kenya.

(Editing by Robin Pomeroy)

Source URL (retrieved on *09/20/2014 - 10:09pm*):
http://www.ecnmag.com/news/2012/08/floating-robot-helps-track-great-white-sharks