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New net timer could save sea turtles from drowning

By JAY LINDSAY

BOURNE, Mass. (AP) — Fishery managers trying to protect rare sea turtles from dying in fishing nets have tapped a Cape Cod company to build a device they think can help balance turtle protection with profitable fishing.

The "tow-time logger" is a 7-inch, silver cylinder that attaches to fishing nets and records how long the net stays underwater.

That time is crucial if a turtle gets snared in the nets dragged behind fishing trawlers. Federal research indicates the vast majority of sea turtles survive entanglement — but only if the net is pulled up in less than 50 minutes.

With the logger, regulators can avoid other, potentially more onerous, restrictions on perpetually struggling fishermen — such as shutting down fishing areas or requiring turtle-saving gear that doesn't work well in all nets. In fisheries where they decide time limits would work best, they wouldn't have to depend on an honor system to make sure nets are pulled up in time.

"Turtles have also been around since the time of the dinosaurs," said Elizabeth Griffin of the environmental group, Oceana.

"They're cool animals that I think most people want to see continue to exist."

The logger was built under a \$25,000 federal contract with the National Oceanic and Atmospheric Administration by Onset Computer Corp., a Bourne-based supplier of data loggers for energy and environmental monitoring. It starts recording water depth every 30 seconds once the net drops below two meters. If the net stays under beyond a preset time limit, the logger records it, and the infraction can be discovered when regulators download its data.

The device's early tests at sea have been successful, and work is ongoing to toughen it for the real-life rigors, such as being banged on fishing boat decks. The company expects it to cost between \$600 and \$800, an expense that would fall to fishermen.

Even when the logger is perfected, regulators know limiting how long the nets stay underwater is no cure-all as they devise rules, which they hope to propose for public comment by 2010, to meet a new federal requirement to protect sea turtles from trawler fishing nets.

Some environmentalists say turtles shouldn't be kept underwater at all because even relatively short times of being trapped underwater without oxygen hurt them.

Griffin says there's also not enough data on how trapped turtles fare in colder waters, so no one really knows how long they can be kept under and survive.

The data logger at least makes briefer tow times a feasible way to protect turtles, if researchers can sort out what's safe, she said.

Fishermen are skeptical. They say short tows aren't practical in most fisheries, such as those in deeper waters, where a worthwhile catch is impossible if the nets must constantly be pulled up.

"It's a bad idea," said James Fletcher, a veteran fisherman and now head of the North Carolina-based United National Fisherman's Association.

"Nobody's going to love the idea," acknowledged Henry Milliken, a biologist with the National Marine Fisheries Service, which is part of NOAA. But he added fishermen might prefer limits on how long the net can be underwater to harsher alternatives, such as closing fishing areas.

"The idea is that we're looking at providing options to the managers in the future," Milliken said.

As the NMFS tries to determine which steps will or won't work, it's held public meetings this spring from New York to Georgia.

The turtle most frequently caught in trawl nets in the Atlantic is the loggerhead, the threatened 250-pound giants named for their relatively large heads. In U.S. waters, every sea turtle is listed as either endangered or threatened, so any turtle deaths in fishing nets hit the populations hard.

The most common way to protect turtles right now is the Turtle Excluder Device, often a circular, barred frame attached near the front of fishing nets. The bars are big enough for fish and other sea life to slip through, but too narrow for turtles, which bounce out of the net before they get caught.

The excluder devices have had success in some fisheries, including the Southeast's shrimp trawl fishery, but bigger species, such as horseshoe crab, monkfish and flounder, can bounce out along with the turtles and make the nets far too inefficient.

Greg DiDomenico of the Garden State Seafood Association, a New Jersey trade group, said since the new rules will apply to fisheries from Cape Cod to Florida — where the turtles swim — whatever shakes out is bound to be felt industry-wide. That includes "huge negative impacts on some fisheries," he said.

But with regulations coming, DiDomenico said his best hope is that regulators don't broadly force a turtle-protecting solution, including the time logger being developed, on a diverse fleet.

"It's not one-size-fits-all," he said.