



NEWS FROM NOAA

NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION • US DEPARTMENT OF COMMERCE

Contact: Teri Frady, NOAA
(508)495-2239
David Munson, University of Maine
(207) 581-3777

NERNR-06-08
FOR IMMEDIATE RELEASE
June 21, 2006

Rare Fish Tagged and Tracked in Penobscot River

University of Maine researchers have placed acoustic tags inside five rare shortnose sturgeon on the Penobscot River in eastern Maine, and documented the presence of even more. Fish with the acoustic tags can now be tracked by both portable receivers and a series of moored receivers already operating on the river. The fish are the first recorded catch of shortnose sturgeon in the river since 1978.

Graduate student Steve Fernandes caught the fish near Winterport last week during a scientific gillnet survey. "Our research is actually designed to find Atlantic sturgeon, but what a bonus," said Fernandes. The river is believed to encompass important habitat used by both Atlantic and shortnose sturgeon, and to have historically supported populations of both species.

Fernandes' project is funded by NOAA's Fisheries Service as part of the agency's effort to learn more about the presence and seasonal abundance of the Atlantic sturgeon in Penobscot River. Atlantic sturgeon are not presently listed under the federal Endangered Species Act, but are a species of concern, and the subject of an ongoing biological status review. The shortnose sturgeon has been designated as endangered since 1967.

"The rediscovery of shortnose sturgeon is good cause for optimism about prospects for recovery and the likelihood that Atlantic sturgeon are currently using similar habitat in the river," said Kim Damon-Randall, NOAA project manager for sturgeon recovery in the northeast.

The first shortnose sturgeon was captured last Wednesday. "When I saw it, I was ecstatic, really, going crazy," said Fernandes. Over the next four days, Fernandes and his team captured 10 more individuals, ranging from 30 to 42 inches in length.

"One or two fish could represent strays from another river system, but the numbers we are now encountering bodes well for a remnant shortnose population that spawns somewhere in the Penobscot. It's great!" said Dr. Mike Kinnison of the Department of Biological Sciences at the University of Maine in Orono. Kinnison co-directs the project with Dr. Gayle Zydlewski of the university's School of Marine Sciences, in collaboration with local NOAA and USGS personnel.

Thomas Squiers directs the Resource Management Stock Enhancement Division of the Maine Department of Marine Resources. In the mid-1990s, he conducted the last directed survey for shortnose sturgeon on the Penobscot River, around a proposed bridge crossing location near Bangor. "It is really great news that shortnose sturgeon have been confirmed in the Penobscot," he said. "The next step will be to locate where these fish are spawning, and to confirm the presence of eggs and larvae."

Signals from the acoustic tags can be detected through both portable receivers used from small research boats, and through the extensive acoustic receiver array that covers the Penobscot River and Penobscot Bay. Transmitter signals are unique to each fish, making it

possible to match the fish's location at particular time with water depth, temperature, and tide stage, as well as with the extent and timing of upstream and downstream movements.

Dr. John Kocik, leader of the NOAA/NMFS Maine Field Station, said the acoustic receiver array network is proving more valuable in each field season. "It's exciting that one of the most primitive fish in the world has been rediscovered in this river, and five are now carrying around high-tech hardware that will help scientists understand habitat use and movements," he said.

The marine and estuary portion of the array network is maintained by the NMFS Maine Field Station, and freshwater reaches by the University of Maine researchers and USGS Cooperative Fish and Wildlife Research Unit Assistant Unit Leader Dr. Joseph Zydlewski. Each group releases acoustically tagged fish in the area for various independent studies.

Shortnose sturgeon generally stay within a river system throughout their lives, moving into the estuary seasonally to feed. Atlantic sturgeon spend more of their lives in ocean waters, returning to their natal rivers every one to five years for spawning. It's still early for Atlantic sturgeon in the areas where Fernandes is working. "We'll have a higher chance of getting some as the water warms, and then in the estuary late in the summer," he said.

Fernandes' project is in its first year, using gillnets to sample for sturgeon in parts of the river where good sturgeon habitat has been located during times of the year when the fish would most likely be present. The hope is to capture individuals, take samples, tag them with external markers, implant electronic transmitters into a few, and release them for tracking.

Next up for Fernandes and his team are more weeks of intensive net sampling and, they hope, tagging. That's followed by an equally grueling period of listening for the fish carrying transmitters. "If we get upward of 20 tagged," said Kinnison, "then there will be many busy days of tracking the fish this year, and a better chance of following some on their way to potential breeding grounds next spring."

NOAA Fisheries Service is dedicated to protecting and preserving our nation's living marine resources and their habitats through scientific research, management and enforcement. NOAA Fisheries Service provides effective stewardship of these resources for the benefit of the nation, supporting coastal communities that depend upon them, and helping to provide safe and healthy seafood to consumers and recreational opportunities for the American public.

NOAA, an agency of the U.S. Department of Commerce, is dedicated to enhancing economic security and national safety through the prediction and research of weather and climate-related events and providing environmental stewardship of the nation's coastal and marine resources. Through the emerging Global Earth Observation System of Systems (GEOSS), NOAA is working with its federal partners, 61 countries and the European Commission to develop a global network that is as integrated as the planet it observes, predicts and protects.

###

On the Web:

NOAA Fisheries Service: www.nmfs.noaa.gov

NOAA: www.noaa.gov

University of Maine School of Marine Sciences: www.marine.maine.edu

USGS Maine Cooperative Research Unit: www.wle.umaine.edu/temp_unit/unitpage.html