NMFS Northeast Fisheries Science Center

Update



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Contact:

George Liles (508) 495-2378

or

Teri Frady Chief of Research Communications (508) 495-2239

Update of NR01-13

NOAA Fisheries Northeast Region news releases can be found online:

http://www.nefsc.nmfs.gov/ in.html

Progress Report On Penobscot Bay Smolt Trawling

Orono, Maine -- This week's smolt trawling experiment on Penobscot Bay has resulted in the capture of more young salmon in two days than the scientists expected to catch in two weeks. The team of scientists and fishermen caught 987 salmon smolts in ten tows Tuesday and Wednesday, according to the lead scientist, NOAA Fisheries biologist Russell Brown.

The project is a catch-and-release experiment that should help biologists understand how well stocked smolts survive the migration downriver and the transition to a salt water environment. Using a specially designed net, the biologists land the smolts alive and check the fish for tags. They take blood, scale, fin or gill samples from some of the fish, and then release them.

Little is known about how smolts fare as they leave fresh water and make their way through estauries and bays to spend their adult lives in the open ocean. Before the trawling experiment began Tuesday, the biologists would have been happy to find several hundred smolts in the two week experiment. But when they began fishing near the mouth of the Penobscot River on Tuesday, they found schools of smolts so dense that they had to shorten their tows to avoid catching more fish than they needed.

Although the data being collected this week won't be processed until after the fishing ends, Brown said it appears that most of the smolts – perhaps as many as 90 percent – are one-year-old,

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Smolt Trawl Progress Report

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hatchery raised smolts that were stocked 60-70 miles up river in April and May. Those fish were raised at the USFW's Green Lake hatchery. More than half a million were released, including 170,000 that carry tags (colored plastic markers under their skin).

The other smolts showing up in the trawl nets this week are either naturally spawned fish or hatchery fish that were stocked in previous years as fry (newly hatched salmon).

The project is being conducted aboard two commercial vessels under contract with NOAA Fisheries. The vessel crews consists of nine fishermen and four NOAA Fisheries scientists, including one marine mammal observer. The timing and location of the trawls were chosen to avoid encountering fishing gear.

Brown said the team has not encountered any lobster gear or any marine mammals. The fishing will continue this week in other areas of the bay further from the mouth of the river.

The data being gathered this week will shed light on the largely unknown estaurine and nearshore ecology of Atlantic salmon. It will help salmon experts evaluate the salmon stocking programs that are supporting salmon populations in the Penobscot and some other New England rivers. And it will help scientists understand how well the hatchery smolts are making the difficult physiological transition from fresh water to salt water environments – knowledge that may help restore some of the remaining wild runs.

Salmon in the Penobscot River were not among the Atlantic salmon that were listed as endangered in November, 2000.

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