

Smolt Trapping

Understanding the Threats to Atlantic Salmon Populations in Maine Rivers

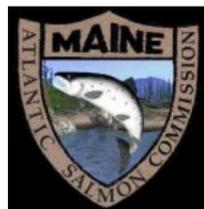


Why Scientists Study Smolts

Atlantic salmon have a complex life history that begins in rivers and includes a one-to-three year phase in the open ocean. To understand why Atlantic salmon populations are declining, scientists need to know where the most significant losses are occurring.

Using smolt traps such as the one pictured above, scientists can make a good estimate of how many smolts (two-year-old salmon) head down river in the spring migration to the ocean. Because smolts are transitioning from the river to the ocean, they provide a unique opportunity to learn about the total production of the river system and to measure marine survival more accurately.

The smolt trapping project on the Sheepscot River is a collaboration between federal scientists from NOAA Fisheries and scientists from Maine's Atlantic Salmon Commission.



How Smolt Traps Work

The smolt traps used on the Sheepscot River go into the water in early April, when the ice disappears from the river but before the smolts begin their journey to the ocean. Scientists check the traps every morning. At first, they find no salmon, but when the water temperature rises to 41-46 degrees F, smolts begin showing up in the traps.

These traps are called Rotary Screw Traps. They are passive, water-powered devices that do not harm the salmon and other fish that swim into the holding containers. The biologists tending the traps weigh and measure the smolts. They also take small tissue and scale samples from some of the salmon. All smolts – and other fish or creatures caught in the trap – are released on the down river side of the trap, unharmed.

The tissue samples provide important genetic information and the scale samples help the scientists determine the age and growth rate of the fish. Because Atlantic salmon in the Sheepscot are protected under the Endangered Species Act, the scientists operating the smolt traps have research permits that allow them to trap and handle the fish.

It is illegal for anyone without a permit to trap, capture, pursue, or in any way harass the salmon in this river.



Gilbert Ryckevorsel www.salmonphotos.com

For More Information

Information about Atlantic salmon and smolt trapping is available online at:
www.nero.nmfs.gov/atsalmon/

If you would like to help conserve Atlantic salmon, contact: John Kocik,
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