



NOAA FISHERIES

Key Species

- Atlantic salmon
- Shortnose sturgeon
- Atlantic sturgeon
- Alewife
- Blueback herring
- American shad
- Rainbow smelt
- Atlantic herring

Key Collaborations

- Maine Department of Marine Resources
- Penobscot Nation
- University of Maine
- U.S. Fish & Wildlife Service
- U.S. Geological Survey
- Penobscot River Restoration Trust
- Atlantic Salmon Federation
- The Nature Conservancy
- North Atlantic Salmon Conservation Organization

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Maine Field Station - Orono

17 Godfrey Drive, Orono, ME

Researchers at the Maine Field Station are working to recover wild populations of Atlantic salmon and other fish that migrate between fresh and salt water (diadromous). Gulf of Maine Atlantic salmon and shortnose sturgeon are listed as endangered under the federal Endangered Species Act. NEFSC and Greater Atlantic Regional Fisheries Office staff form Northeast Atlantic Salmon Team, which promotes the recovery and future sustainability of Atlantic salmon, other diadromous fish, and their associated ecosystems. The team's mission is to identify, quantify, and minimize threats to Atlantic salmon; conserve and enhance habitat; and evaluate progress toward recovery by assessing the viability of these populations at critical life history stages.

Our Strengths

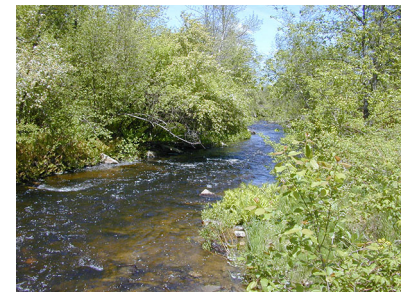
- Salmon population assessment
- Telemetry and tagging
- West Greenland Fishery monitoring
- Fish migration and habitat use
- Hydroacoustics
- Support threat analysis and minimize risks
- International collaborations

Our Place in the Region

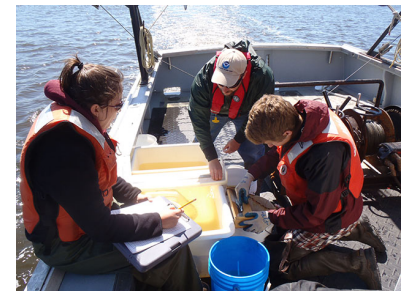
- **History** - The Maine Field Station was established in 2000 to promote more direct involvement by NOAA Fisheries in conserving living marine resources in Maine, particularly Atlantic salmon.
- **Location** - The station is in Orono, in proximity to the central Gulf of Maine and its largest watershed, the Penobscot. This provides access to commercial fishery and habitat specialists across the region, and more than a dozen estuary systems key to sea-run and coastal fish in the Gulf of Maine.
- **Community** - Close collaborations with regional academics; federal, tribal, and state agencies; public and private partners; and international collaborators.

New Directions

- **Changing environmental conditions:** How are changing spring wind patterns, warming sea surface temperatures, and new predators along altered migration routes affecting salmon survival?
- **Geography:** While stable numbers of smolts enter the ocean, few are returning. Where are they going, and what is happening to them at sea?
- **Technology:** Can satellite tags and telemetry studies provide clues to where salmon go while at sea and how they find their way back to their natal rivers?
- **Modeling:** Continue to develop models to integrate habitat access and population dynamics for salmon and other sea-run fish, and better understand marine migration routes.
- **Restoration:** Improving access to historic habitat for sea-run fish through dam removal and installation of fish ladders
- **Food habits:** Are diadromous fish prey for Gulf of Maine groundfish, and if so, which species, when, and where?



Small rivers and streams are home to many sea-run fish species.



Researchers deploy telemetry gear in several estuaries and throughout the Gulf of Maine ocean observing system.



Scientists prepare to remove fish from live well of surface trawl in Penobscot Bay.