

WGCIS(18)09

Recent efforts to conserve Atlantic salmon in the United States

Over many years, the United States, along with state and tribal authorities, has taken progressively more stringent actions to conserve Atlantic salmon populations:

- The last commercial fishery for Atlantic salmon in the United States was closed in 1947;
- Sustenance fishing by the Penobscot Indian Nation was suspended in 1988;
- The last recreational fishery for sea-run salmon ceased in 2008.

As it became evident that fishery management actions alone would not prevent further decline of the species, even more aggressive management measures and restoration activities began. Following are several examples:

- Atlantic salmon were recognized as endangered under the Federal Endangered Species Act (ESA) in 2000; the initial ESA-listing was revised to include a wider geographic area (over half the state of Maine) in 2009. The ESA-listing:
 - Prohibits activities which may result in the injury, mortality, harm, capture, collection, and harassment of the animals, including adverse modification or destruction of habitats that are considered critical to various life stages of salmon;
 - Requires that all federal activities (including issuance of permits or provision of funds) be analyzed for their potential effect on Atlantic salmon, and that the projects be adjusted to avoid or minimize adverse impacts to fish and their habitat, including:
 - Hydroelectric dam operations;
 - Road maintenance;
 - Dredging.
- In April of 2015, Atlantic salmon were designated as a “Species in the Spotlight” by the National Marine Fisheries Service. This campaign seeks to elevate awareness of the plight of eight critically endangered species at a national level.
- The U.S. Government has also taken important and costly management actions to improve habitat, reduce threats, and work toward the recovery of wild salmon including:
 - Dam removals and fish passage improvements;
 - Modifications to hydroelectric dam operations (e.g., turbine shutdowns);
 - Aquaculture regulations:
 - Site-specific marks;
 - Vaccination of farmed fish prior to stocking in sea cages;
 - Mandatory fallowing of stocking sites;
 - Single year-class stocking;
 - Vessel disinfection protocols;
 - Prohibition on the use of non-North American strain salmon in marine cages;
 - Required reporting of losses and potential losses and mandatory audits.
 - Funding, coordination and oversight of habitat protection and enhancements in collaboration with local conservation groups (*see below*).
- In cooperation with the U.S. Government, the community of non-governmental organizations (NGOs) has taken important steps to support the conservation of Atlantic

salmon in the United States, in particular, to improve and connect important habitats (*some examples below*):

- Dam removals:
 - In 2017/18, funded numerous feasibility analyses (approx. \$1M) for several dam removals. Permitting processes are underway;
 - Penobscot River Restoration Project removed two mainstem dams (Great Works Dam in 2012 and Veazie Dam in 2013 from the Penobscot River (home to roughly 75% of returns to the United States); NOAA has invested over \$21M; total public/private costs for implementation of this project are approximately \$64M);
 - Edwards Dam (mainstem of Kennebec River; over \$1M in public sector funds) removed in 1999;
 - West Winterport Dam (Marsh Stream; over \$100,000 in public sector investment) removed in 2010;
 - Fort Halifax Dam (Sebasticook River) removed in 2008.
- Installation of fishways:
 - Rock ramp at Fields Pond outlet (Penobscot tributary; over \$100,000 in public sector funds) installed in 2009.
- Road-stream crossing improvements:
 - Over \$1.5M in fish passage improvements in the Machias River alone.
- Habitat protection:
 - Machias River Corridor protects roughly 440,000 acres and nearly the entire mainstem of the Machias River (over \$7.8M in public and private sector funds to date).
- Furthermore, State Governments have:
 - Closed recreational fisheries for sea-run salmon, including catch and release fishing;
 - Regulated other recreational fisheries to minimize the potential for incidental catch of Atlantic salmon;
 - Implemented pollution control and monitoring measures;
 - Implemented surveillance and enforcement activities to limit poaching.