

Coldwater Respite for Sheepscot River Migratory Fish

Midcoast Conservancy and Maine Department of Marine Resources staff have been braving the cold waters of the Sheepscot river planting Atlantic salmon eggs this month. These eggs will hatch and turn into small fish, called parr, which will spend one to two years in the river before they journey to the ocean. These efforts are all part of the larger goal of restoring the river to its natural state, where migratory cold water fish can access the spawning grounds they have returned to for thousands of years.

Atlantic salmon travel thousands of miles from their feeding grounds off the coast of Greenland to return to their native rivers to spawn, including the waters of Midcoast Maine. They endure challenges along the way that lower their survival at sea, including pollution, over-harvesting, and impacts of warming waters on their food sources. When they return to freshwater rivers in Maine they stop feeding and rely on only their energy reserves to navigate to their spawning grounds. At this point they require well-oxygenated, cold waters, as do their eggs.

Midcoast Conservancy staff and volunteers have captured seasonal water quality trends within the Sheepscot River Watershed since 1994, first as Sheepscot Valley Conservation Association, and now as Midcoast Conservancy. By installing temperature data loggers that remain in the water throughout the year, staff are able to collect information continuously and track conditions that may cause added stress on spawning salmon and their eggs. Temperature loggers were placed in the West Branch of the Sheepscot, Finn Brook, Weaver Brook, Chamberlain Brook, and in the mainstem of the Sheepscot. Funding from a Maine Outdoor Heritage Fund grant made purchase of the continuous temperature and dissolved oxygen data loggers possible.

“These data loggers are amazing because they allow you to track temperature changes every thirty minutes over the course of a year, so that we can determine whether federally endangered Atlantic salmon can survive or thrive in the temperatures they are exposed to in the Sheepscot River, and whether they may be impacted by heat stress”, says Midcoast Conservancy Senior Watershed Manager Cara O’Donnell.

Atlantic salmon need access to cool water temperatures in order to thrive. Water Resources staff are using the information collected as part of a larger inter-agency collaboration with Maine Department of Marine Resources and Department of Interior’s United States Fish and Wildlife Service, to restore the Sheepscot River. Impoundments and human-made barriers, such as dams, can cause water to slow down and in turn, warm up. These barriers also prevent migratory fish like salmon fish from reaching important spawning and rearing grounds.