

Fishery Region C

Stream studies of wild brook trout

Wild brook trout populations, the perennial favorite of Maine anglers, were the featured species in 2007 fieldwork carried out by fisheries staff in the Downeast Regional Headquarters (Region C) in Jonesboro.

Maine's participation in the Eastern Brook Trout Joint Venture provided funds and staff for the first year of a large-scale two-year electrofishing project for assessing trout populations and habitat at selected sites chosen from more than 3,900 miles of brooks, rivers, and streams located in Hancock and Washington Counties. In 2007, we electrofished 215 streams, representing a giant step forward in collecting valuable trout and habitat information in Downeast Maine. Our regional staff of 3 permanent biologists worked with three additional contract workers. The enthusiasm level was high as crews sampled different streams throughout the summer. Crews found wild brook trout in about 75% of all streams sampled, validating the reproductive success and importance of wild brook trout in eastern Maine. We compiled a complete list of fish species from each site, including global positioning system coordinates, water temperatures, water chemistry, culvert assessments, habitat, and crayfish samples.



Trout ages will be determined by scale reading this winter, providing valuable information on age and growth.

As part of the overall project, numerous coastal streams were also sampled, and some of the trout obtained were undoubtedly sea-runs. A cooperative three-year sea-run brook trout research project began in spring 2006 between the Department of Inland Fisheries & Wildlife and Acadia National Park to identify anadromous populations of brook trout on Mount Desert Island. Much of the work involves assessment of population numbers and stream movements in Stanley Brook in Seal Harbor, which has direct access to the ocean and is believed to have historical migrations of sea-run brook trout. During 2007, trout movements in Stanley Brook were again monitored and immigration nets were placed near the head of tide to detect migrations of trout from the ocean. Additional immigration nets were set at the mouth of Hunter's Brook, Little Harbor Brook and Little Long Pond's outlet to assess migrations of incoming sea-run trout. Results indicated migrations of sea-run trout occurred at Hunter's, Stanley, and Little Harbor brooks.

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We will continue to sample another 200+ streams in 2008 as the second year of this 2-year intensive project.

West Grand Lake's Fish Populations

o Landlocked salmon

The year 2007 marked the 34th consecutive year of collecting lengths, weights, and ages of a large sample of landlocked salmon at West Grand Lake, one of Maine's original homes of this important species. Stocking rates have increased slightly since 2005 in an attempt to improve catch rates. As expected, salmon on the fall 2007 spawning run were slightly shorter and lighter when compared to fish stocked at lower rates during the previous 25 years. However, fish condition in



terms of robustness was very similar to long-term historic values. Anglers should be experiencing improved catch rates during the upcoming fishing seasons.

- **Lake Trout**

A study of 62 lake trout obtained from West Grand Lake provided valuable information on this important togoe population that is highly popular with anglers. Togue ranged in length from 10-29 inches with a maximum weight of 7+ pounds. Thirty-five percent of all togoe had food in the stomach, primarily composed of smelts, which occurred in 25% of all stomachs. Fish condition (fatness) did not reach desired levels. Male:female sex ration was 50:50. Togue display great longevity; most fish in the sample ranged in age from 3 to 10 years old, with a few older individuals.



- **Lake Whitefish from West Grand Lake**

West Grand Lake represents Washington County's primary lake whitefish fishery. Although winter anglers typically target landlocked salmon and togoe, catches of whitefish represent a welcome addition, and the action can come fast when a group of whitefish moves through the area. Biologists examined a sample of 58 lake whitefish for length, weight, stomach contents, excision of otoliths for future age determination, and sex and maturity. Whitefish ranged from 8.7 – 18.2 inches long, with most being from 15-18 inches. With one exception, all fish larger than 13 inches were sexually mature. Due to their small mouths, anglers know that whitefish are generally caught on small bait. An interesting observation was that thirty-eight percent of whitefish stomachs contained very small round bivalve shells ranging in size from that of a grain of sand up to 3/8". Condition of the whitefish was very good.

Access

The Department of Inland Fisheries and Wildlife purchased a parcel of land for angler access on Billings (First) Pond in Blue Hill this year. Billings is one of the area's best wild brook trout ponds.

New Opportunities for Fishing

A midsummer survey of Blunts Pond in Lamoine showed potential to create a new opportunity to establish a fishery for legal fall yearling brook trout. The pond has now been stocked, and is expected to become popular with local anglers and their families.

By Rick Jordan