GARDNER LAKE

East Machias, Marion, and Whiting Twps., Washington Co. U.S.G.S. Gardner Lake and Machias, Maine

Fishes

Salmon Smallmouth bass White perch Yellow perch Chain pickerel Hornpout (bullhead) Smelt Alewife Eel White sucker Minnows Fallfish (chub) Golden shiner Banded killifish Pumpkinseed sunfish

Physical Characteristics

Area - 3886 acres

Temperatures Surface — 71°F 51 feet — 68°F

Principal Fishery: Salmon, pickerel

Maximum depth — 56 feet

Gardner Lake is located adjacent to U.S. Route 1 in East Machias. The town maintains a public boat launching facility and swimming area immediately above the outlet. Although the beach area is very limited, the spot is nonetheless quite popular with swimmers.

An unusual feature of the lake is that it is homothermous. In July, 1971, the surface temperature was $72^{\circ}F$ while the temperature at the 58 foot level was $66^{\circ}F$. Dissolved oxygen levels in the deepest water are adequate to sustain salmon.

Experimental stockings of salmon initiated in the late 1960's revealed that the lake was capable of supporting a moderate fishery for the species. Although the lake produced some 3-4½ pound salmon for several years, fishing quality has fluctuated widely over the years. Data collected in the late 1970's showed that although survival of stocked salmon to older ages was satisfactory, their growth rate was poor. Accordingly, stocking was eliminated for 2 years and will resume in 1982 at a level of nearly 2,000 spring yearlings. This reduced stocking rate together with a fairly abundant smelt population will enhance the lake's potential to produce some large salmon. Although some wild fish are produced in the outlet (Chase Mill Stream), approximately 90-95 percent of the salmon fishery is based on hatchery-reared fish.

The lake receives light-moderate fishing pressure in the winter and light pressure in the open water season. Ice fishing data from the past 5 years indicates that salmon provide 65 percent of the fishery with pickerel accounting for the remaining 35 percent. Winter-caught salmon average 15.8 inches in length while the average size pickerel measures 20.3 inches which is considerably above the statewide average for the species. During the open-water season, a sizeable number of local anglers prefer to fish for Atlantic salmon on the East Machias River during May and June instead of trolling for landlocks at Gardner Lake. Smallmouth bass are continuing to increase in abundance in the lake, and certain anglers make fair catches of this sportfish in June and July.

The Department of Marine Resources was instrumental in the construction of a Denil-type fishway adjacent to the outlet dam in 1976. This fishway enables substantially increased numbers of anadromous alewives to gain access to the lake which is one of the most important alewife spawning and nursery waters in the East Machias drainage. The alewives are fished commercially each spring as they move through the fishway. Young alewives which hatch in the lake constitute an important forage item in the diets of both bass and pickerel, and to a lesser extent, salmon.

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