CHAPTER 18

RECREATIONAL FISHERY CATCH & EFFORT: CREEL SURVEYS

Creel surveys are used to estimate angler catch and effort on a particular body of water. In addition, creel survey information can be utilized to develop catch curves, estimate mortality and population size (if marked or tagged fish are in the population), evaluate stocking programs, determine age structures, develop stock production models, and assess angler attitudes, behavior and needs.

Occasionally, aerial flights to obtain counts of anglers may be combined with creel surveys to estimate the percent of anglers a creel survey samples. Generally the creel survey is aimed toward specific questions, problems or issues for a particular fishery within a specific time period, e.g. one or two years.

The New Brunswick Department of Natural Resources and Energy and Fisheries and Oceans Canada collect creel survey information. Creel survey information is available for various Atlantic salmon rivers from 1966 to 1986, plus numerous trout and bass lakes from 1965 to 1982, including: Antinouri Lake (1965, 1968, 1971-1973); Arnold Lake (1972); Chamcook Lake (1973); Indian Lake (1972); Little John Lake (1973); Loch Alva (1973); Big Nictau Lake (1972-1977); First Nepisiguit Lake (1972-1977); and California Lake (1972-1973).

Creel surveys performed by the New Brunswick Department of Natural Resources and Energy until 1992 were periodically undertaken without a systematic random sampling design although for some waters most angling catch and effort was censussed. This information is useful for identifying angling quality, angling success, grilse-salmon ratios, and catch frequencies.

Fisheries and Oceans creel survey data for Atlantic salmon involves a stratified random design to measure angler catch and effort at these locations on the Southwest Miramichi River at Quarryville Pool (1994-1995) and Doaktown (1994) and Hydro Pool on Renous (1994).

All creel census data is in paper form and has not yet been incorporated within the Data Warehouse.