

Title

COPPER LAKE BUFFER ZONE STUDY

Model Forest

Western Newfoundland Model Forest

From

April 1993

To

March 1998

Keywords

Buffer Zones, Salmonid Habitats, Brook Trout, Water Temperature, Sedimentation.

Objective

Quantify environmental perturbations to fish habitats resulting from forest harvesting activities. Determine the ability to ameliorate these perturbations through maintaining an unharvested strip of timber along the riparian zones of fluvial salmonid habitats.

- X Provide the scientific rationale and/or criteria to categorize habitat disturbances arising from forest harvesting activities. Determine both quantitative and qualitative measures of habitat disturbances and response of biological populations.
- X Develop a set of criteria and/or indices that would permit broader application (on spatial and temporal basis) of results of the Copper Lake Buffer Zone Study. This would permit evaluation of sensitivity of fish habitats to the effects of forest harvesting under a variety of biophysical conditions and in consideration of prevailing guidelines and practices.

Description

The Copper Lake Buffer Zone Study is a major multi-disciplinary research project that was initiated in 1993 under the auspices of the Western Newfoundland Model Forest in collaboration with government agencies, industry and academia. The major goal of this project is to determine the width of treed buffer needed to preserve biodiversity and recreational values within the riparian habitat.

The original proposed harvesting plan was altered over the course of the project due to unforeseen difficulties and the finalized harvesting was not completed until the summer of 1996. These changes meant that the first three years of the project were committed to the collection of baseline data. This has allowed researchers to develop extensive baseline data with some level of confidence concerning inter-annual variation. The fourth year was the harvesting year with year 5 being the first post harvest year. It is proposed that intense investigations continue for one more post harvesting year, after which a scaled down monitoring program be initiated.

Reports and Products

For a list of reports and products, refer to the WNMF list of publications, project 8-301.