

**Title**

MEASURING AND MONITORING BIOLOGICAL AND CHEMICAL RESPONSES TO STRESS IN RIPARIAN AND AQUATIC ECOSYSTEMS

**Model Forest**

Western Newfoundland Model Forest

**From**

April 2001

**To**

Current

**Keywords**

Aquatic and Terrestrial Ecosystems, Disturbance, Inventory

**Objective**

The project extends current research on the aquatic and terrestrial ecosystem defined by the Hughes Brook water system. Monitoring studies are underway to inventory biological species, including mapping and photogenic inventory of plants within riparian and river zones. A counting fence will determine the numbers of returning salmon and trout populations.

**Description**

The project represents applied research designed to assess the current condition of the Hughes Brook watershed and identify stressors affecting its condition. Key biological, chemical and physical processes affecting the ecosystems integrity will be examined through time to elucidate the effects of clear cutting and other disturbances on water bodies of Hughes Brook and the Upper Humber.

**Reports and Products**

**Survey of the Aquatic and Riparian Habitats for Hughes Brook.** Bailey, E., September 2001. WNMF Reports # 8-307-001.18pp.

**The Riparian and Physical and Chemical Attributes of Hughes Brook up to 4980 metres, and its Relation to The Atlantic Salmon Habitat.** Burrige, P., Carroll R., Jones E., Pye C., 2002. WNMF Report #8-307-002. 36 pp.

**Measuring and Monitoring the Biological, Physical and Chemical Attributes in the Riparian and Aquatic Ecosystems of Hughes Brook,** Carroll, R., Jones, E., McLean, M., Parsons, A., Saunders T. 2003 NL. WNMF: 8-307-003. 25p.