How is this information used?

Water quality concerns us all, not only because it is essential to our health but for the life that our rivers and streams support. Macroinvertebrates are a true measure of the integrity of our aquatic ecosystems as they represent the living component. When used in conjunction with water chemistry testing, macroinvertebrates enables us to evaluate the effects of activities such as forestry on the diversity of life in our rivers and streams.

Is my stream polluted?

Macroinvertebrates respond not only to chemical pollution but also to habitat destruction. Habitat destruction can result in increased sedimentation and higher water temperatures, which eliminate more sensitive species. The absence of all sensitive species should be taken seriously and investigated further. However, the presence or absence of any one species may not be significant in itself.

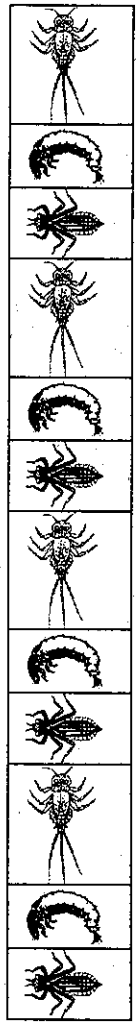
How can I find out more?

Contact the Fundy Model Forest for information on recent activities and available publications. The New Brunswick Department of the Environment can also help you get in touch with the various water quality monitoring groups in the province. By joining one of these groups you can participate directly in improving water quality in New Brunswick. Alternatively, you can establish your own volunteer group in your area.

FUNDY
MODEL FOREST NETWORK
RÉSEAU DE FORÊTS MODÈLES

Fundy Model Forest
701 Main St., Suite 2, Sussex
N.B. Canada E4E 7H7
Ph: 506-432-7575 Fx: 506-432-7562
info@fundymodelforest.net

MACROINVERTEBRATES AS INDICATORS OF WATER QUALITY IN THE FUNDY MODEL FOREST



What bugs tell us about water quality and biodiversity

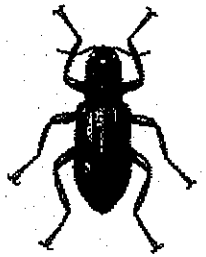
A quick visual guide to identifying common macro-invertebrates

Macroinvertebrates **are aquatic organisms that live in the sediment and gravel of streams, rivers and lakes. They can be divided into three main groups: 1) those that are very sensitive to pollution, 2) those that show moderate tolerance and 3) those that are very resistant. In order to find them, turn over some larger rocks or stir up some gravel. You can catch the drift into a small dip net of the type available at local aquarium shops. Some of these insects bite, so be careful.**

Sensitive organisms
Good water quality

Stonefly

Caddisfly



Riffle Beetle

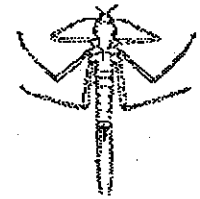
Mayfly

Dobsonfly

Water Penny

Somewhat tolerant organisms
Good or fair water quality

Alderfly

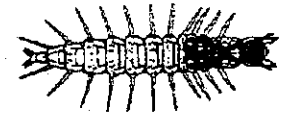


Damselfly

Crane Fly

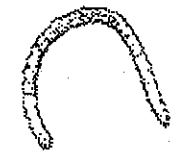
Beetle Larvae

Dragon Fly

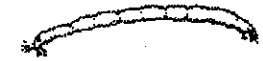


Fishfly Larva

Tolerant organisms
Any quality water

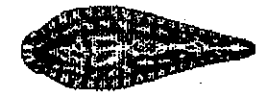


Aquatic Worm



Midge Fly Larvae

Blackfly Larvae



Leech