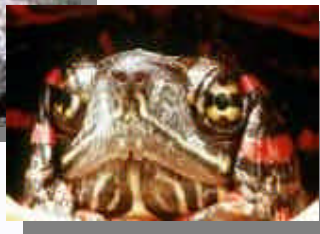
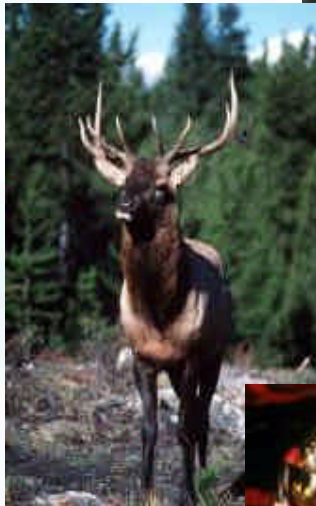


Learning from the Land

- Canada's Living Laboratories -



Back to Nature



Before the time of concrete and steel, when classrooms and science labs were non-existent, we learned by experiencing the world around us. By sight, smell, touch and taste.

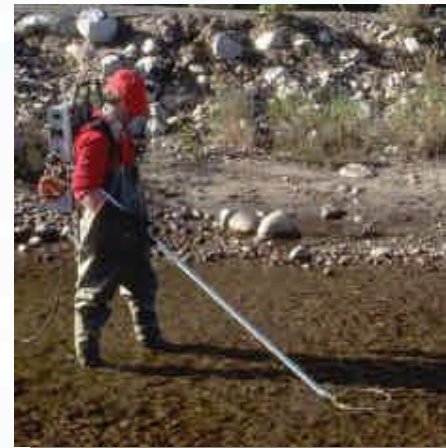
Canada's national parks are home to a vast array of animals, plants, insects, birds and aquatic life from which we can learn. To truly appreciate and understand these ecosystems, and their inhabitants, there's nothing like getting back to nature!

A Canadian Tradition

Several federal departments and agencies, like Parks Canada, Environment Canada, Fisheries and Oceans Canada, the Canadian Museum of Nature and Natural Resources Canada, observe, chart and monitor our flora and fauna in their natural habitats.



Canadian scientists and researchers work right down on the forest floor, knee-deep in lakes and streams, on ice floes and in caves and craters to learn about their subjects in their own environment.



Our National Parks

Our national parks serve as some of the best laboratories in the world. Why? Because they contain a variety of protected plants and wildlife in their given ecosystem, and because parks represent an excellent cross section of our country's natural areas.

Further, they are maintained in their natural state for us to experience, enjoy, learn from and appreciate with minimal impact on the park ecosystem.



Park Research

Research conducted in Canada's national parks can identify and monitor stresses like air pollution, the invasion of destructive insects and the effects of climate change. This information helps guide the management of park ecosystems.

For the scientific community at large, park research helps further our knowledge of the natural world and its reaction to human and natural activities.



Going “Batty” in New Brunswick

Although there are over 1,000 species of bats worldwide, little is known about these mysterious creatures. Even less is known about the forest bats of the greater area of Fundy National Park, so researchers in New Brunswick embarked on a study of the park’s local bat species.

The project set out to record the various species, along with their population sizes, behaviours and ecological needs. With that knowledge, the effects of current and future land use could be gauged against the species’ viability in the area.



Cause for Further Study

Using trapping, ultrasonic monitoring and radio telemetry, researchers were able to identify and track two species common to the park.

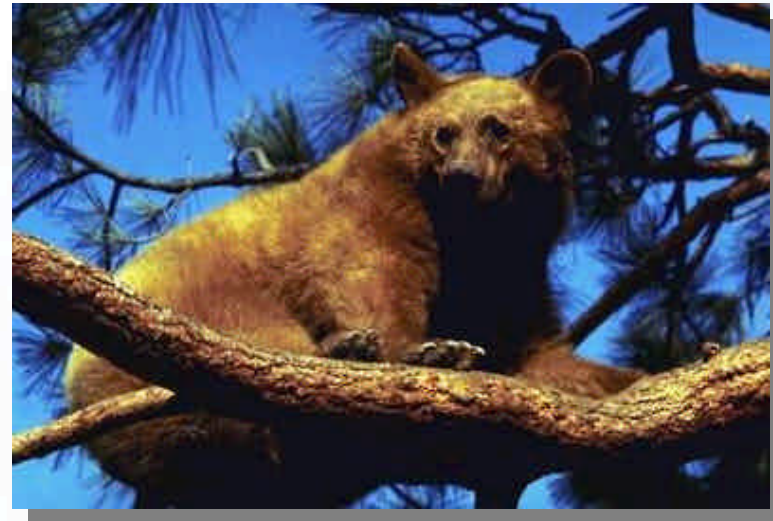


Little brown bats were associated with areas containing a high number of coniferous tree stands. Female northern long-eared bats were found to roost together in shade-tolerant hardwood stands and forage in the forest interior.

Based on these findings, forest industry activities in the area and their impact on local bat species should be subject to further study.

Tracking Grizzlies in Alberta

Four years ago, in the Foothills Model Forest, a research team embarked on a program to study the grizzly bears of west-central Alberta. The approach used has been large-scale scientific field research over a 10,000 km² area.

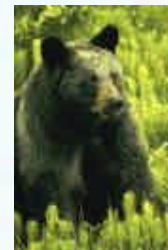


The study is assessing bear populations in the model forest and evaluating their response to human activities and habitat changes. To date, 34 bears of both sexes and various ages have been radio collared to monitor their movements.

Just the Bear Facts

Other research methods – from scat collecting to satellite imagery – have also been employed to collect and analyze data.

The Foothills Model Forest Grizzly Bear Program currently holds the most comprehensive and extensive database on grizzly bear movements in North America. This information is a valuable resource for bear conservation and resource management strategies, as well as timber industry forest management planning.



Don't Forget to Add Water

Bodies of water are also a rich source of life in and around our national parks and forests. Canada is home to over 3,000,000 lakes and countless rivers, streams and marshes.

Studying aquatic life can provide important information about the state of their habitat, as well as present a wider picture of the health of the surrounding environment.



Getting Our Feet Wet

Human activities like pesticide use, urban development and forestry can have a significant impact on the growth, development and reproductive capabilities of various aquatic species.



Other factors, like drought and soil erosion into surrounding waters can also wreak havoc with water habitats. Various studies in Canada's parks and forests have focused on aquatic research in recognition of its importance to surrounding ecosystems.

Something's Fishy

Fish trapping was the main activity in the Foothills Model Forest in Alberta during the summer of 2001. Researchers trapped mountain whitefish and bull trout in the MacKenzie creek to learn more about their population status.



MacKenzie creek has experienced minimal industrial development and is largely untouched, which allows researchers to collect data on these fish populations for future comparisons.

Catch and Release

While in holding traps, the fish were counted, measured and – in the case of the bull trout – tagged to monitor their future movements.

After sampling, the fish were released to continue their journey upstream. The information collected will be used to guide forestry practices like road building and harvesting, as well as to manage fish populations.



Contact Information

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