HOW DO THE PROGRAMS PROTECT BIODIVERSITY?

**GENERAL MEASURES***

By applying some very simple measures when restoring the woodlots (preserving protective strips around lakes and along watercourses, conserving snags and trees that appear to be used by wildlife, etc.), it is possible to reduce the impact of the work on animal and plant species and their habitats, and also to contribute to the preservation of biodiversity.

**SPECIFIC MEASURES**

The most fragile elements of biodiversity require special measures. The purpose of considering biodiversity in ice damage programs is precisely to ensure that these elements are maintained in their environments.

As a first step, the forest advisor, who is responsible for drawing up recovery plans for heavily damaged forests, must check to see if the woodlot contains certain specific elements of biodiversity, such as a threatened or vulnerable plant or animal species, an exceptional forest ecosystem or a wildlife habitat. Where this is the case, the ministère des Ressources naturelles will stipulate the protective measures to be included in the recovery plan and applied when the work is carried out.

To be effective, the specific measures must take certain facts into account, including the requirements of the elements to be protected, the special features of the sector in which they are found, and the goals of the woodlot owner, whose cooperation is essential.

**AT THE HEART OF THE ACTION**

The ice storm severely damaged forests in the southern portion of Québec, considered to be the richest in terms of biodiversity. Most of these forests are privately owned.

Owners whose woodlots contain some of the most fragile elements of biodiversity can help maintain the wealth of our natural heritage. Indeed, without their cooperation, it is impossible to guarantee the survival of the species, habitats and ecosystems threatened by the combined impacts of the ice storm and salvage operations.

The special financial assistance programs for the owners of woodlots damaged by the ice storm could lead to the development of new forestry practices that protect biodiversity. The cooperation and participation of the individuals and organizations concerned (owners, forest advisors, regional agencies for private forest development, municipalities and government departments) is essential in achieving this goal.

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**Text:** Lise Deschénes  
**Front cover:** Louise Innes, MRN  
**This project was financed jointly by the Gouvernement du Québec and the Government of Canada.**
Biodiversity is defined as a set of life forms, the environments they inhabit and the interactions between all these elements. Our well-being and very survival depend on this natural wealth, which is a vital source of food, medications and raw materials.

Québec's forests contribute to the Earth's biodiversity. Those in the southern portion of the province are particularly rich, containing elements that are currently a source of some concern due to their rarity, the rate at which they are disappearing and the destruction of their habitats.

In damaging the woodlots, the ice storm altered the living environment of these remarkable plants, animals and forests, and restoration work will further disturb them. Measures are therefore needed to protect the special features of these forests.

**DAMAGE TO THE FORESTS**

In the weeks following the ice storm, the Direction de la conservation des forêts (ministère des Ressources naturelles) flew over the damaged sectors. Specialists estimated that slightly over 1,770,000 hectares of forests had been affected, and almost all the damage (92%) was concentrated in the private woodlots.

The severity of the damage varied from region to region. However, the most severely affected areas were located in the Montérégie/Centre-du-Québec sector, where 79% of all woodlots were severely damaged. The map below illustrates the extent of the disaster.

**SUPPORT PROGRAMS FOR WOODLOT OWNERS**

Aware of the extent of the damage caused by the ice storm and wishing to help woodlot owners with the task of restoring their forests, the government of Québec, in collaboration with the government of Canada, has created special financial assistance programs.

Thanks to these programs, woodlot owners receive advice on the management of ice-damaged stands and can also obtain financial assistance.

**A SPECIAL FEATURE OF THE SUPPORT PROGRAMS: PROTECTION OF BIODIVERSITY**

Restoration of the ice-damaged woodlots presents an interesting challenge, since they are among Québec's richest forests in terms of biodiversity. Indeed, they contain most of our threatened and vulnerable species, several exceptional forest ecosystems as well as numerous wildlife habitats. It is therefore vital that these special elements of biodiversity should be protected during restoration work.

**WHY BOTHER WITH BIODIVERSITY?**

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**SOME SPECIFIC ELEMENTS OF BIODIVERSITY DAMAGED BY THE ICE STORM**

- **THREATENED OR VULNERABLE PLANTS**
  - Squawroot: This rare plant can only survive by attaching itself to red oak roots.

- **THREATENED OR VULNERABLE WILDLIFE**
  - Four-toed salamander: The four-toed salamander lives in the south-west of Québec, and is one of the province's rarest salamanders.

- **EXCEPTIONAL FOREST ECOSYSTEMS**
  - The Boisé-des-Muir: This ancient forest has been disturbed very little since the beginning of the colony. It contains a tree that is 320 years old.

- **WILDLIFE HABITAT**
  - Heronry: A heronry is a nesting site occupied by great blue herons, black-crowned night-herons and great aigrets over a period of years. It can be distinguished by the large number of nests found in the crowns of tall trees.
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