



[CUTTING FOR WILDLIFE]

FOREST HARVEST AND THE GREAT GRAY OWL





“ We look forward to doing more of these cuts. We’re just as interested in owls as the biologists are. ”

RENE LEVESQUE.
Woodlands Manager, Southeast Forest Products



A HISTORY OF COOPERATION



Logging and Great Gray Owls have had a long relationship. Manitoba owl research pioneer Robert Nero remembers his early work. "Initial contacts were often with loggers who took me to nest-trees and showed me Great Grays. Loggers have always been involved. They are the ones who are on the land."

Great Gray Owl biologist James Duncan continues to explore this relationship, stating: "Over 30 years of forest harvest and owl studies at the Spruce Siding Study Area in southeast Manitoba and at the Roseau Bog in northern Minnesota prove that logging and owls can coexist."

Great Gray Owls and other boreal forest wildlife have adapted to disturbance. Fires and beaver floods, for example, sustain an ever-changing mosaic of forest and clearings. Today, sustainable forest management is part of this cycle of change with benefits to wildlife.

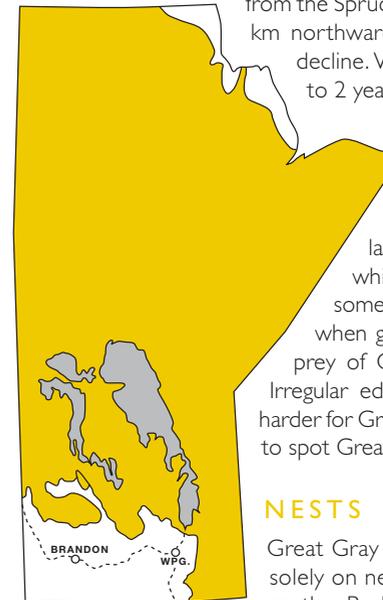


HOW GREAT GRAY OWLS USE THE BOREAL FOREST



FOOD

Great Gray Owls specialize in hunting small field mice called meadow voles by listening and watching from perches overlooking forest openings. Vole populations decline abruptly every 3 to 5 years. Owls are then forced to migrate to regions with more abundant voles. Some radio-marked owls from the Spruce Siding Study Area moved up to 700 km northwards following a local vole population decline. When local vole numbers rebound 1 to 2 years later, many owls return, sometimes to the same nest.



SHELTER

Although Great Gray Owls are the largest of the owls, Great Horned Owls, which are heavier and more aggressive, sometimes kill them. This is especially so when grouse and snowshoe hares, the usual prey of Great Horned Owls, become scarce. Irregular edges left on forest openings make it harder for Great Horned Owls and other predators to spot Great Grays.

NESTS

Great Gray Owls do not build nests, depending solely on nests built by other birds of prey such as the Red-tailed Hawk, Broad-winged Hawk, Northern Goshawk and also the Common Raven. These birds readily build nests in suitable clumped or forked branches of tamarack, jack pine and poplar trees.

■ MANITOBA GRAY OWL BREEDING RANGE

■ LAKES / RIVERS



CUTTING FOR OWLS



SAVE NESTS AND NEST-TREES

Protect nest-trees with a surrounding buffer zone of 20-50 m in order to prevent blow-down and to help hide nests from passing predators. Vacant nests are as valuable as those occupied by Great Gray Owls. Owls may not be using a nest in a given year owing to a cyclic vole decline.

CREATE IRREGULAR CUT-BLOCK EDGES

Along cut-block edges create irregular, odd-shaped boundaries to limit line of sight to reduce the likelihood of Great Horned Owl predation.

LEAVE PERCHES

In cut-blocks, leave 5 to 10 trees or snags per hectare to serve as owl hunting perches. These trees can be healthy or dead, but must not be taken later for fuel wood or some other use.

LEAVE TREE ISLANDS OR CORRIDORS

Create a more productive boreal forest mosaic for Great Gray Owl and other wildlife by leaving tree islands or corridors in cut-blocks to serve as hunting perches and trees for nest-builders.



SUCCESS STORY



In 1993, Southeast Forest Products harvested a 3 hectare cut-block in the Spruce Siding Study Area. Another 4 hectare cut-block was harvested in 1998. These cut and skid operations left a corridor strip with irregular edges (see photo map) as well as snags and live trees in each cut-block.

The two cut-blocks and the surrounding forest are now productive habitat for Great Gray Owls and other wildlife.

The nest-builders have been active. Since 1993, Northern Goshawks and Common Ravens have built nests in the buffer strip.

One year after the second cut, Great Gray Owls raised two chicks in a man-made nest 40 m from the cut-block. Although this particular nest had been constructed 15 years earlier, it failed to attract nesting owls until these cut-blocks provided suitable nearby hunting habitat.

That same man-made nest was unoccupied for the next 2 years (vole numbers had crashed in 2001), but in 2002, the original female returned and she and her mate raised another 2 chicks.

Biologists expect that Great Gray Owls will continue to use this nest for as long as 20 years or until regeneration of the cut-blocks alters vole habitat and reduces owl hunting opportunities.

VOLUNTARY NEST REPORTING

Timber operators will continue to be important partners in Great Gray Owl conservation and research. Please report the locations of nests either to a local Natural Resource Officer, Regional Wildlife Manager or the Wildlife & Ecosystem Protection Branch at 204-945-7775.

Nest site information provides research data that helps foresters and wildlife biologists manage for both timber harvest and wildlife.

For information on cut-block design and multiple forest use contact the Regional Forestry Staff in your area.

FURTHER READINGS

Duncan, J.R. 1997.
Great Gray Owls (*Strix nebulosa nebulosa*) and forest management in North America: A review and recommendations. *J. Raptor Res.* 31 (2):160-166.

Manitoba's Provincial Bird Emblem
The Great Gray Owl Website:
www.travelmanitoba.com/quickfacts/emblems.html

Nero, R.W. 1980.
The Great Gray Owl, phantom of the northern forest.
Smithsonian Institution Press, Washington, D.C.

