

# Branching out

from the Canadian Forest Service ■ Laurentian Forestry Centre

Number 60  
2010

## Exotic forest pests and forest certification

The globalization of markets and the expansion of international trade are increasing the risk of introduction of exotic species into Canada. Exotic forest pests are not averse to travel – far from it. They will take advantage of any opportunity to travel that comes their way. Wood is their preferred means of transport: pests can always find a place to hide in wood packaging, firewood or imported nursery stock. Should forest certification take this situation into account? Are these pests the subject of research?

### Deleterious travellers

Forty-three exotic forest pests have been introduced into Canada since 1882, including a number of pests that have wreaked considerable damage from an environmental, social and economic standpoint. The environmental impacts include the threat of extinction that hangs over some species affected by exotic pests (for example, butternut is seriously threatened by butternut canker<sup>1</sup>). These pests also cause changes in the landscape, with the most striking example in Quebec being the loss of 600,000 elm trees to Dutch elm disease between 1944 and 1960. Exotic pests can also affect stand composition. The European spruce sawfly outbreak that occurred around 1940 and birch dieback (1940-1950) have been linked to an increase in the balsam fir component of forests in the Gaspé Peninsula.

Job losses are the main social impact associated with exotic forest pests. The living environment in some cities has also been adversely affected by the loss of urban trees. Not only is there a decrease in aesthetic value but the trees can no longer have a mitigating effect on extreme temperatures.

The most direct economic impact related to the presence of exotic forest pests is the loss of timber volume and the decrease in wood quality. Substantial costs are associated with detection, control measures and research. Forest certification imposes requirements related to exotic pests on forestry stakeholders which entail costs. But what exactly are those requirements?

### Should exotic forest pests be considered in forest certification?

All forest certification standards require that managers of certified



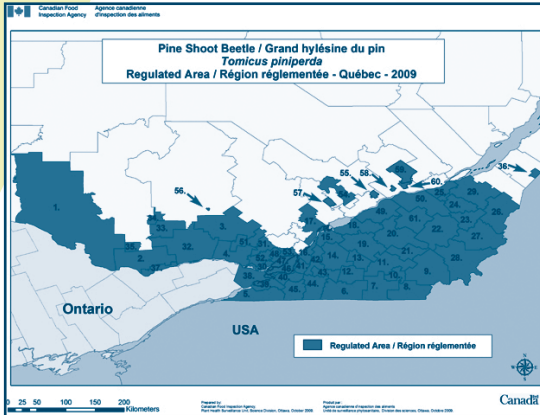
*Pine forest infected with scleroderris canker (European strain).*

Photo: G. Laflamme (CFS)

forest land be familiar with the applicable acts and regulations. With respect to exotic forest pests, certification stakeholders must be familiar with the International Plant Protection Convention, the International Standards for Phytosanitary Measures (ISPM) pertaining to forests and forest products, and the *Plant Protection Act*. Other important regulatory documents in Canada include the Plant Protection Regulations and the directives governing the importation and exportation of plant material and the

1. See *Branching Out* No. 47 (2009), <http://www.cfs.nrcan.gc.ca/news/640>.





Regulated zones in Quebec for the pine shoot beetle in 2009. The CFIA periodically updates these maps to help locate regulated zones for certain pests.  
Source: CFIA

domestic movement of such material, which establish regulated areas for specific pests. Certain provincial acts also apply to exotic pests<sup>2</sup>.

Managers of certified forest land are also required to establish a public participation or information process in connection with forest management planning, encompassing control measures for exotic pests. In addition, sustainable forest management calls for caution in carrying out activities in forests, and monitoring and control efforts are required to prevent or minimize the spread of exotic pests.

### Working together to better address the issues

The Canadian Food Inspection Agency (CFIA) is responsible for the development of forest policies and directives to help prevent the introduction and spread of regulated pests into Canada, and for the implementation of export programs for Canadian forest products. The Canadian Forest Service (CFS) collaborates with the CFIA in the development of advanced technologies, such as molecular diagnostic tools used for the rapid and precise identification of pests<sup>3</sup>. In addition, CFS researchers have developed computer-based models,

including BioSIM<sup>4</sup>, to predict the current or future impact of global warming on pest outbreaks and their geographic distribution.

### USEFUL LINKS:

International Plant Protection Convention:  
[https://www.ippc.int/index.php?id=1110589&no\\_cache=1&no\\_cache=1](https://www.ippc.int/index.php?id=1110589&no_cache=1&no_cache=1)

Canadian Food Protection Agency, Plant Health:  
<http://www.inspection.gc.ca/english/plaveg/plavege.shtml>

Forest invasive alien species in Canada:  
<http://www.exoticpests.gc.ca>

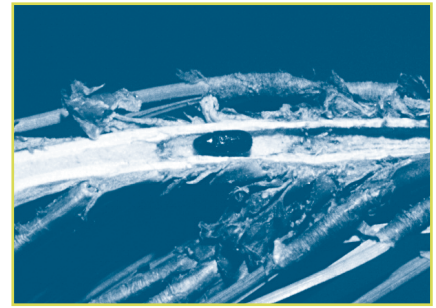
Forest Stewardship Council – National Boreal Standard:  
[www.fscCanada.org/docs/39146450F65AB88C.pdf](http://www.fscCanada.org/docs/39146450F65AB88C.pdf)

Canadian Standards Association – Z809-08:  
<http://www.csagroup.org/repository/group/Z809-08.pdf>

Sustainable Forestry Initiative:  
[http://www.sfi-program.org/files/pdf/sfi\\_requirements\\_2010-2014.pdf](http://www.sfi-program.org/files/pdf/sfi_requirements_2010-2014.pdf)

### FOR MORE INFORMATION, PLEASE CONTACT:

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Pine shoot beetle.  
Photo: E. Allen (CFS)

### CFIA hotline

You can help prevent the spread of exotic forest pests by reporting observations to the CFIA by telephone at **1-800-442-2342**.

### What is a regulated area?

A regulated area is a zone consisting of all or part of a property, a municipality, a county or a province in which the CFIA has prohibited or placed restrictions on movements of plant material in order to prevent the spread of undesirable pests. No one may move regulated pests or any regulated article (logs, firewood, wood chips, seedlings, pruning residues, etc.) out of the regulated zone unless they have been authorized to do so in writing by a CFIA inspector under the conditions provided in a movement certificate. Vehicles used to transport regulated pests are subject to the same conditions. As of September 2010, regulated areas are in effect for the following pests: emerald ash borer, scleroderris canker (European strain), pine shoot beetle, brown spruce longhorn beetle, Asian longhorned beetle, Dutch elm disease, hemlock woolly adelgid and gypsy moth (<http://www.inspection.gc.ca/english/plaveg/protect/listpespare.shtml>).

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2. See [http://www.exoticpests.gc.ca/reg\\_eng.asp](http://www.exoticpests.gc.ca/reg_eng.asp).

3. For an example of a diagnostic tool, see *Branching Out* No. 29 (2006), <http://www.cfs.nrcan.gc.ca/news/388>.

4. To learn more about this software, see <http://cfs.nrcan.gc.ca/factsheets/biosim>.