



April 2002

*info note*

## Alberta Mountain Pine Beetle Management Strategy

The strategy to manage the mountain pine beetle in Alberta is both long-term and short-term in nature. The short-term strategy includes an initial phase of detecting and destroying new infestations, and a second phase of containing outbreak populations from further spread. The long-term strategy is to reduce future threats of mountain pine beetle outbreaks by replacing susceptible contiguous mature lodgepole pine stands with less susceptible stands of mixed species and age classes.

### Operational Management Tactics

To implement the mountain pine beetle strategy the following tactics are being employed.

#### Detection and Monitoring

Aerial surveys are annually carried out in areas where beetle activity is either detected or suspected. During aerial surveys, the exact locations of suspected beetle-killed trees are recorded for ground surveys. Ground surveys are carried out for various objectives, including the confirmation of

aerial survey findings, identifying all current year's infestations for single-tree treatment, assessing over-wintering beetle mortality, and demarcating sanitation cutblock boundaries.



Adult mountain pine beetle

Pheromone baits are used to monitor presence of mountain pine beetle populations and changes in beetle activity in a given area. Objectives of the pheromone bait program are to establish priority and intensity of aerial survey programs, and monitor effectiveness of control operations. Therefore, once active infestations are persistent in an area, this program loses its value. All baited trees and surrounding pine trees are inspected and the beetle population at each bait site must be destroyed prior to beetle emergence in the following season. Sustainable Resource Development

strictly controls the use of pheromone baits in forested Crown Land.

### Control

In the early stage of an infestation trees are individually treated. On a tree with few attacks, beetles may be manually destroyed. When the number of beetles per tree is too great, control is most often accomplished by felling the tree and then debarking or burning it to destroy the beetles.

When the number of infested trees is too large for single tree treatment, sanitation harvesting can be implemented to harvest a large number of infested trees and possibly surrounding susceptible trees. The infested trees harvested must be processed before the beetle emergence in the following summer. Sustainable Resource Development may authorize use of pheromone baits to contain and concentrate beetles in sanitation cutblocks scheduled for harvest.

Despite all control efforts, beetle infestations may reach outbreak levels. Sustainable Resource Development may then determine that infestations cannot be brought under control, and shift the operations to contain the outbreak. Then control will focus on the leading edge of the outbreak to minimize beetle spread to adjacent susceptible pine forests.

### Prevention

Regulatory action reduces the probability of introducing mountain pine beetle from outside the Province. The *Forests Act, Timber Management Regulations* prohibit imports into or movement within Alberta of coniferous logs or other coniferous forest products with bark attached. Pine logs and pine products with bark attached originating from BC, the western United States and Cypress Hills in Saskatchewan are not allowed to enter Alberta from June 1 to September 30, i.e., during the period of mountain pine beetle activity.

Through lodgepole pine forest management, the prevention of outbreaks can be accomplished by reducing stand susceptibility to create a “beetle-smart” landscape. Objectives include desirable age and species mix over the landscape; maintaining existing accesses to high-risk areas; and reducing the pine component of high-hazard stands. Introducing fires into the landscape is an option to be considered, especially in protected areas and other areas where commercial forestry operations are not permitted.

## **Emergency Preparedness and Response Plan**

In pest emergency situations, preparedness and quick response are key factors in the success of control. In partnerships with stakeholders, emergency preparedness and response plans are being developed by Sustainable Resource Development for specific areas designated as beetle management units. Some of the key elements of the plans will be to describe key decision making processes and communications plan, and to identify available resources, potential stakeholders, access to potential infestations and management restrictions in the beetle management unit. ■

*Hideji Ono*

## **Nursery Pests Beware**

**F**orest nursery industry is a major contributor towards maintaining a sustainable forest resource in Alberta. Nearly 75% of the annual reforestation requirement of 80 million forest seedlings are produced locally, and the balance of the seedlings are imported. Pest problems are bound to occur from time to time at some of the forest nurseries. As well, exotic pests can “hitch rides” on seedlings. Compared to the

other jurisdictions, Alberta has only limited information on the occurrence of forest nursery pests within the province. Exercise caution to keep pests from being introduced with seedlings. ▣

*Sunil Ranasinghe*

## Northeast Co-operative Weed Management Working Group

The Northeast Region Co-operative Weed Management Working group will hold its first meeting of 2002 on April 24<sup>th</sup>, in Athabasca. We have had positive responses from all of the existing group members as well as a handful of new invitees to the meeting notice sent out this spring. Favourable word of the group seems to be spreading rapidly throughout the stakeholder community, as we

have been contacted by several organizations who have inquired about joining the group. Hopefully this group will help to foster future co-operative weed control ventures among the stakeholders and help to raise awareness of the growing invasive species problem in the Green Area. ▣

*Janet Kamelchuk*

## Alberta-British Columbia Forest Health Workshop

On April 15-16, 2002, the 10th annual Alberta-British Columbia Intermountain Forest Health Workshop will be held in Jasper National Park. The attendees will include representatives of provincial government agencies from British Columbia and Alberta, federal government and interested forest companies. Topics will include pest conditions, bark beetle management and new forest health technology. Mountain pine beetle will be the main topic of discussion. ▣

*Christine Kominek*

## Mountain Pine Beetle Status in Alberta

Currently, the only known mountain pine beetle infestations of concern are in Banff National Park and Willmore Wilderness Park. Figure 1 illustrates the number and proximity of green-attacked trees in Banff National Park in relation to the Green Area boundary. Banff National Park has agreed to fall and peel 1000 trees starting at Carrot Creek and heading west. Control operations are scheduled for late March and early April. This should help to reduce the number of beetles spreading into the Green Area, however, there will undoubtedly be some trees that are missed and the potential for spread into the Canmore area is still high.

### Bugs & Diseases



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Tel: (780) 427-8474; Fax: (780) 427-0085

**Editor:** Mike Undershultz

**Assistant Editor:** Sunil Ranasinghe

**Technical Support:** Linda Joy

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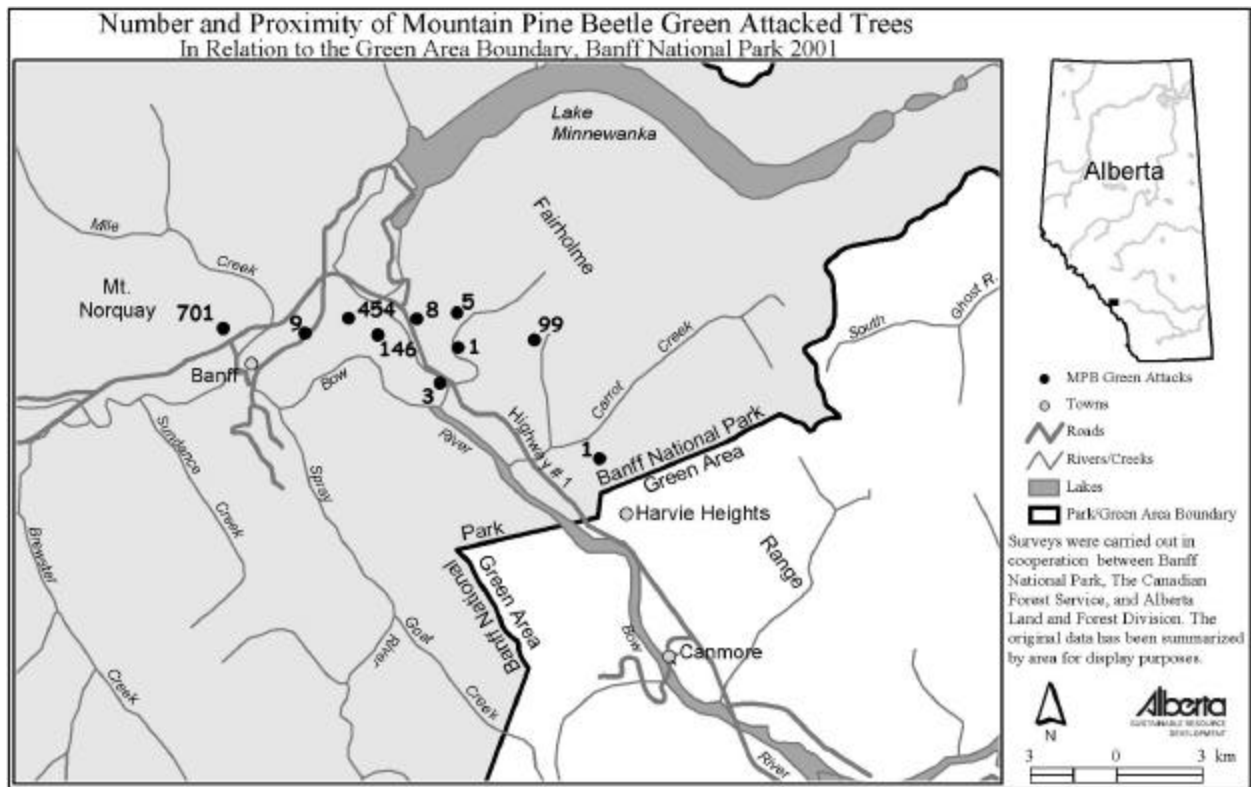


Figure 1.

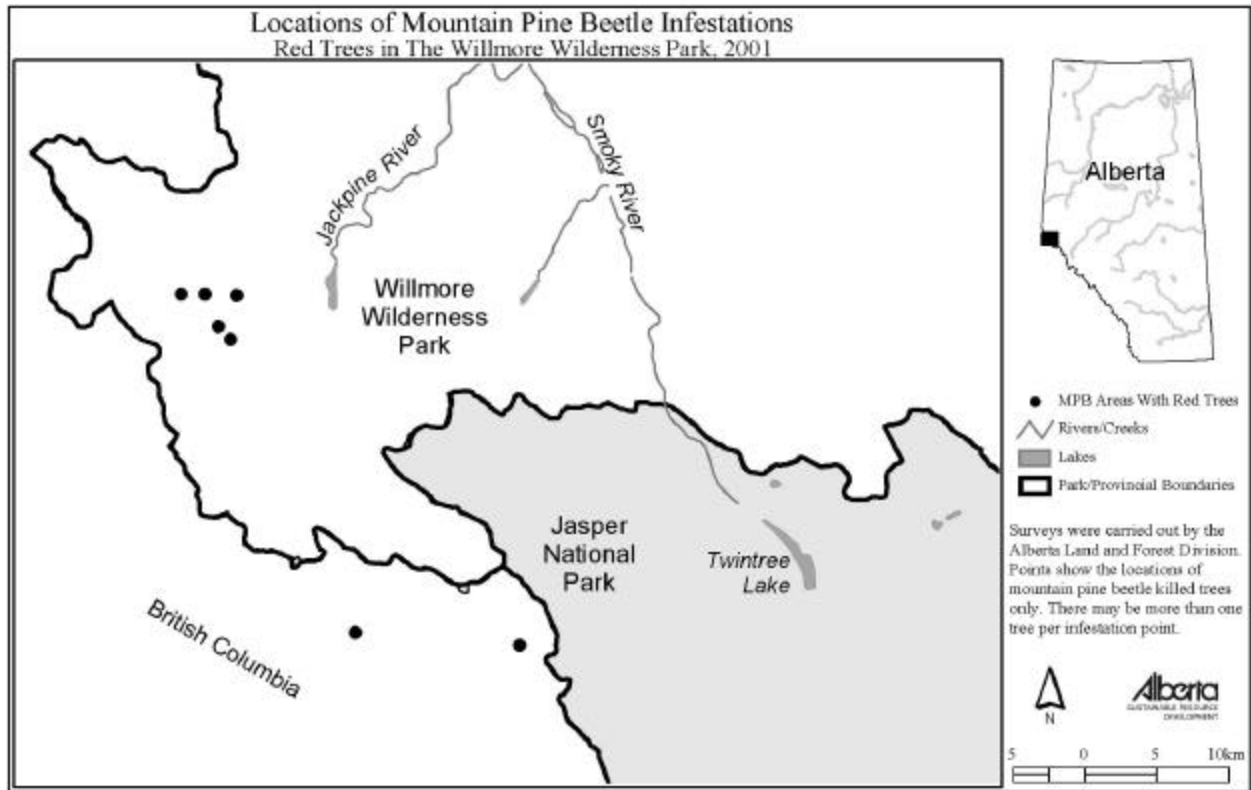


Figure 2.

A preliminary ground survey conducted near Meadowland Creek in Willmore Wilderness Park identified 53 dead attacked trees and 33 live attacked trees. Figure 2 illustrates locations of mountain pine beetle-killed trees in Willmore Wilderness Park and in adjacent areas in British Columbia. ■

*Daniel Lux  
Erica Mueller*

## National Forest Week Around the Corner

Throughout communities in Alberta, forest-related topics will be highlighted in workshops and open houses during National Forest Week, May 5-11. The 2002 theme is “Canada’s Forests: All Things Big and Small”.

On May 5, Alberta Environment and Alberta Sustainable Resource Development will have an informative National Forest Week insert in the *Edmonton Sun* and *Calgary Sun* that will include such topics as forest health, forest protection, and forest management. Check it out! ■

*Christine Kominek*

## Forest Health Online

The long-awaited revised forest health website should be launched within the next few weeks. The new and improved website includes enhanced navigation and graphics. Users are now able to download forest health data and publications. Information on seed and cone pests, exotic pests, weeds and pest alerts (including up-to-date mountain pine beetle information) has been added. Please Visit us at: [www3.gov.ab.ca/srd/forests/fmd/health/fh.html](http://www3.gov.ab.ca/srd/forests/fmd/health/fh.html) ■

*Christine Kominek*

## Forest Health Annual Report

The *Forest Health in Alberta, 2001 Annual Report* is now available. The report describes current forest pest conditions and predictions, forest health research and development, and training and awareness initiatives. If you would like a copy of the report, or want your name or organization added to the annual report mailing list, contact the Forest Health Section in Edmonton at (780) 427-8474. Keep in mind that the forest health annual report will soon be available for viewing and/or downloading on the revised forest health website. ■

*Sunil Ranasinghe*

## Woodborer Poem

Woodborers gnawing on a dead tree’s  
bole.  
Munching on, crunching on,  
making a hole.

Plenty of time  
for harvesting wood.  
Yet barely months later,  
find out it’s no good.

Woodborers chewing in a dead tree’s bole.  
Munching on, crunching on,  
making a hole.

Vector for fungi,  
packer of stain,  
increasing decay,  
a salvager’s bane.

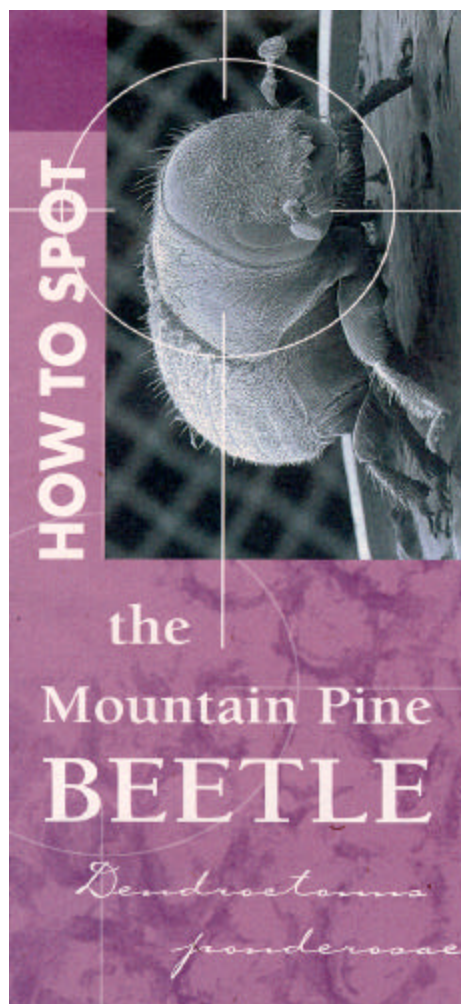
Woodborers chomping in a dead tree’s bole.  
Munching on, crunching on,  
making a hole. ■

*Tom Hutchison*

## Mountain Pine Beetle Poster and Pamphlet

Keep your eye out for the new mountain pine beetle poster and brochure set titled *How to Spot the Mountain Pine Beetle*. They provide information on the mountain pine beetle life cycle, hosts, damage, impacts, symptoms of attack, management strategies and tips on what you can do to help save Alberta's forests from the beetle. ■

*Linda Joy*



## Western Forest Insect Work Conference

The 53rd annual Western Forest Insect Work Conference is scheduled for April 23-25 in Whitefish, Montana. For more information visit their website at: <http://www.fsl.orst.edu/wfiwc/next/meeting.htm> ■

*Cody Crocker*

Forest Health Officers:

Mike Maximchuk  
Peace River  
780-624-6221  
Mike.Maximchuk@gov.ab.ca

Tom Hutchison  
Athabasca  
780-675-8168  
Tom.Hutchison@gov.ab.ca

Erica Mueller  
Hinton  
780-865-8267  
Erica.Mueller@gov.ab.ca

Dan Lux  
Rocky Mountain House  
403-845-8360  
Daniel.Lux@gov.ab.ca