



# Bugs & Diseases

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*Alberta's  
eye on forest  
health*

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## Mountain Pine Beetle in the Northeast?

Only a few years ago it was an extremely remote possibility that mountain pine beetle (MPB) would pose a threat to pine stands in the Waterways and Lac La Biche Areas. However, last year saw an unprecedented, massive influx of beetles from BC into northern Alberta's forests. Aided in their dispersal by high winds, it is difficult to say just how far east these insects spread. With the discovery of MPB in the Lesser Slave Area in 2006, the possibility of infested trees being found in the northeast is no longer so remote.

The goal of the provincial MPB program is to limit the spread of MPB eastward into the boreal forest and along the eastern slopes of the Rocky Mountains. Early detection of, and rapid response to, MPB infestations is critical for accomplishing this goal.

SRD staff in the northeast will be ac-

tively engaged in the following activities to limit the eastward spread of the beetles: training to recognize infested trees; ground surveys of susceptible stands; monitoring long-range dispersal with pheromone baits and barrier traps; early detection overview flights; and follow-up on provincial beetle hotline reports.

*“the possibility of infested trees being found in the northeast is no longer so remote”*

This beetle invasion poses a very serious threat to pine stands throughout northern Alberta, and perhaps across Canada.

*(Continued on next page)*



*Pine cones expressing traits commonly seen in the jack-lodgepole hybrid pine zone of Alberta.*

For the first time in recorded history MPB have attacked hybridized jack pine, and are poised to attack pure jack pine in the boreal forest.

To have any chance of containing the current MPB invasion and to prevent it from steadily

moving eastward, we cannot treat this situation as “business as usual.” SDR staff in the northeast will be doing their best to respond to this “most unusual business” in 2007.

*Tom Hutchison*

## What is Cooperative Weed Management?

To cooperatively manage weeds, you first identify the boundaries of a large weed infestation. Next you identify all of the leaseholders within the area, and convince them to treat the weeds on their respective lease areas in the same season. These groups aim to bring together oil, gas and forest industry, Agricultural Fieldmen and SRD staff to collectively tackle the invasive plant problems in specific areas/regions.

*“...partial treatments of large infestations are not effective...”*

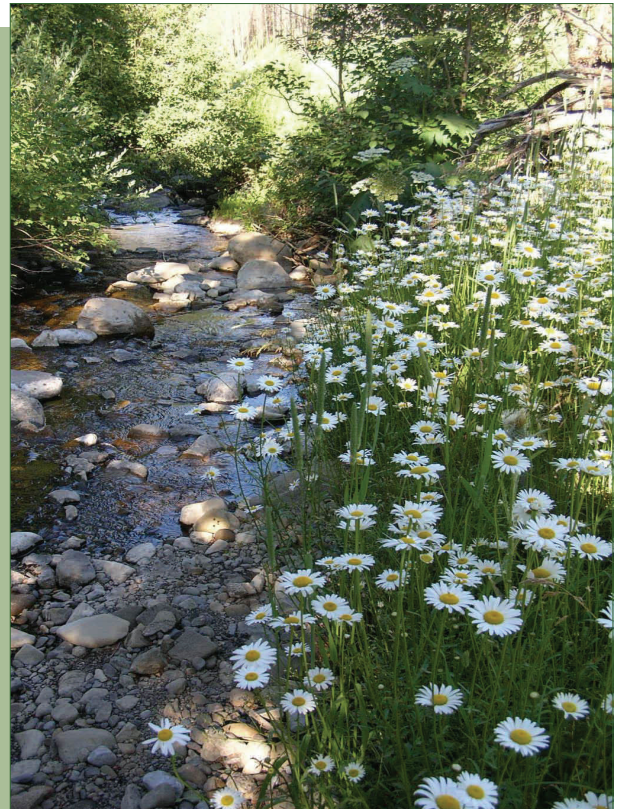
Because partial treatments of large infestations are not effective, co-operative weed management aims to treat entire infestations.

Benefits of this include a reduction in control crew travel/time costs with contractors working for multiple parties, and significant reductions in control over subsequent years. This benefits the environment by eliminating invasive alien plants and by reducing the use of herbicides on the landscape.

SRD began the formation of cooperative working groups in 1999. Over the years, cooperative working groups have come and gone and the goal of cooperative management has been met with varying success. Some groups that struggled with operational planning have carried on, but now function in an education/awareness and networking capacity.

Cooperative weed management has been SRD's first spending priority in the Clearwater and Southern Rockies forest areas, and has fast become an effective approach to securing multi-stakeholder participation.

*Marian Jones*



*Ox-eye daisy infesting Lynx Creek, south of Crowsnest Pass in the Castle multiple use area.*



## Mountain Pine Beetle in the Woodlands Area

“There are a wide variety of knowledge levels about mountain pine beetle, its biology, consequences and management tactics. It is a challenge communicating with those in affected communities whom are totally unaware of the beetles’ existence - period,” states Seena Bentley, Forest Health Officer.



*Mountain pine beetle eggs beneath the bark of an attacked pine tree.*

*“Currently it is estimated that there are 40,000 - 75,000 MPB - infested trees in the Woodlands Area”.*

Currently it is estimated that there are 40,000 - 75,000 mountain pine beetle (MPB) - infested trees in the Woodlands Area.

Bentley has been working hard to educate the public about MPB and

how SRD plans to control it. This includes information presented to affected stakeholders – from elementary school students and journalists to town council members and industry representatives.

“Single tree fall-and-burn operations will continue as long as burning conditions permit,” explains Bentley. “This summer our crews will establish pheromone monitoring and containment bait sites. We’ll also be conducting population forecast surveys and surveys of previously known and newly identified MPB sites.”

The Forestry Division in the Woodlands Area is working closely with industry to carry out control operations by harvesting stands likely to produce very successful MPB populations. Beetle-infested wood will be processed in a timely and an appropriate manner in an effort to prevent the spread of MPB.

Beetle control coupled with prioritizing the harvest of highly-susceptible stands will take place to reduce to overall hazard in the area.

*Dana Kroetsch*

## Exotic Pests: Banded Elm Bark Beetle

The banded elm bark beetle (*Scolytus schevyrewi*), indigenous to temperate regions of eastern Asia, was first detected in the US in 2003; recently it was detected in Medicine Hat, Alberta.

The beetle is small (average 3.6 mm long), reddish-brown with a black head. This pest could kill stressed ornamentals such as Russian olives, willows and elms. More importantly, this beetle could be another vector of Dutch elm disease that has devastated elms stands in other prairie provinces.



*The banded elm bark beetle (Scolytus schevyrewi); exotic pest recently detected in Medicine Hat.*

Tree trunks/branches >5 cm in diameter are attacked. Wilting and unusual fading of leaves are the first symptoms of attack. Brown boring dust on the trunk and occasional sap flow at the gallery entrance hole are other symptoms. Affected bark peels off easily. Exit holes are round and 1.6 to 2.0 mm in diameter.

These insects are weak fliers and are distributed long distance by transportation of infested wood. Maintaining healthy trees and sanitation are the best methods to control this pest.

*Sunil Ranasinghe and Chris Saunders*

## Invasive Plant Program Update

A prescribed burn is planned this spring to control invasive plants on an island in the Athabasca River. The Woodlands Area of SRD is collaborating with Woodlands County and Barhead County on this project.



*Tall buttercup flower*

In addition, the Area's invasive plant program will be adding a seasonal Weed Technician to its arsenal.

This summer the program will see a database for tracking infestation locations through Global Information Systems (GIS) and increased efforts to encourage land owners and occupants to prevent the establishment and spread of invasive plants.

*Dana Kroetsch*



## May Invasive Plant Workshop in the Waterways / Lac La Biche

Alfred Lord Tennyson wrote “In the spring a young man’s fancy lightly turns to love.” Well, this may or may not always be true. What is certain is that with spring many a resource manager and/or planner thinks of invasive plants and their associated management issues. The flowers that bloom

Perhaps, in time, such activities will raise the level of awareness for invasive plant issues such that truly effective management can be achieved.

*Tom Hutchison*

*“The date of this  
spring’s workshop is  
May 31<sup>st</sup>.”*

in the spring often belong to these undesirable species of plants.

Control of invasive plants entails a multitude of social, economic and environmental costs - costs which are better off being avoided by preventing the establishment and spread of invasive plants during activities occurring on public lands.

The key to preventing establishment and spread of invasive plant species is to promote education and awareness of these species and how to manage them. As part of SRD’s education and awareness initiatives, spring workshops are held in Athabasca. Members of the area’s Co-operative Invasive Plant Management Working Group as well as SRD staff are invited. The focus is on having as many field staff as possible attend. The date of this spring’s workshop is May 31<sup>st</sup>.



*Scentless chamomile infestation along forest edge.*



## Signs

You've heard it said that "red means dead."  
But just what has caused the demise,  
Is not always as clear,  
As what first might appear,  
Before your very eyes.

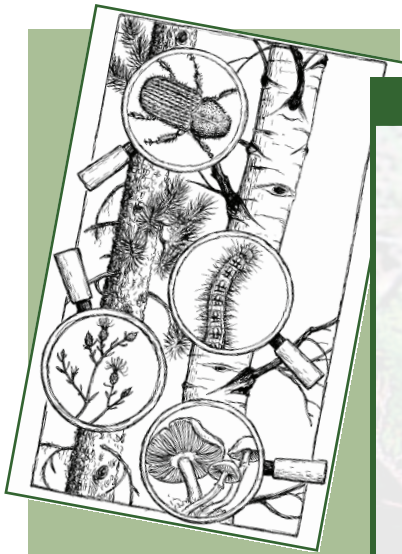
If a tree is red, and you think it is dead,  
And you want to know the reason.  
You first must deduce,  
If it's pine, fir, or spruce,  
Or one that changes with the season.

Say you do know the species, but not its disease.  
Some sort of external expression,  
Of a symptom you see,  
Can quite easily,  
Give you hints to its fatal regression.

But a symptom is not in itself a prognosis,  
Though a symptom is all well and fine.  
You need evidence irrefutable,  
Something quite indisputable.  
In short, you will need a sign.

So, a tree is red and you know its dead,  
And there's symptom of something causative.  
Keep looking, don't relent,  
Find some piece of the agent,  
With the sign you will have your proof positive.

*Tom Hutchison*



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