Bugs & Diseases

April 2004

info note

The Bug Doctor Is In

The Forest Health Section is happy to announce that the Forest Pest Damage Diagnostic System (FPDDS) is making its debut on the external forest health website. This web-based system allows users to diagnose damage caused by common forest pests in Alberta.

To make the system more user-friendly, pest symptoms and signs of damage are separated into broadleaf and conifer categories. Once users narrow down the likely cause of damage, details such as importance, host(s), distribution, key symptoms, impact, biology and references are provided.

The FPDDS also allows users to search for pests by their common name, scientific name or pest code. Users can view a pest list for a selected host tree and vice-versa. For those who prefer pictures, a gallery of images of common pest symptoms is provided for quick screening. A users guide and glossary are included to provide additional help.

We're looking forward to receiving feedback from users. Just click on the link found on the system's opening screen to submit comments.

To check out the new system, visit www3.gov.ab.ca/srd/forests/health. ◘

Sunil Ranasinghe & Christine Kominek

MPB Control - Does it actually work?

Last year Sustainable Resource Development, Banff National Park, Three Sisters Mountain Village, Silvertip Golf Course, and the Town of Canmore implemented a mountain pine beetle control program in the Bow Valley. The aim was to slow down the growing beetle population and prevent a widespread outbreak. Throughout the course of the program, 4085 trees were logged and more than 4000 hectares of prime beetle habitat were burned in Banff National Park.

Were last year's control efforts effective? The answer is yes!

If you look at the number of trees attacked by MPB last year and estimate a 7:1 increase (based on the annual population growth since 1996), approximately 28,595 trees should have been infested this year. In reality, only 1,300 trees in the entire Bow Valley were infested. Those numbers represent a 95 per cent reduction in the

Alberta
SUSTAINABLE RESOURCE DEVELOPMENT

number of trees that would have been attacked if no control work was done.

The program is showing some great success, so lets keep up the great work!

Death to Beetle Infested Trees

A Sustainable Resource Development survey crew has completed extensive ground surveys in the Bow Valley Wildland Park and found 245 green-attack trees. On Feb 1, two crews began cutting and burning all of the infested trees. This control work was completed on March 31.

Other land managers in the Bow Valley have also committed to beetle control. Their programs are summarized below:

- Banff National Park – approximately 950 infested trees east of the "control Line" (450 hand fallen and burned, and 500 to be mechanically removed by April);
- Town of Canmore – approximately 50 infested trees found, which will be burned before June 1;
- Three Sisters Mountain Village – 25 infested trees burned;
- Silvertip Golf Course – 23 infested trees burned; and
- MD of Bighorn (surveying Harvie Heights) - 5 infested trees identified, and control plans are now underway. ◘

Dan Lux

Digitally Driven Aerial Surveys

Imagine viewing 1:250,000 scale maps while flying at more than 100 km/h and trying to record pest damage in the landscape below. That's today's reality, but to ease the burden, the Forest Health Section is going to try out a Tablet PC/GPS system in 2004 to map pest damage.

The mobile system uses digital maps integrated with a GPS receiver. It displays the real-time location of the aircraft overlaid on a map of the landscape below. The new system allows surveyors to sketch directly on the screen and improve the accuracy of the maps they produce. It'll also eliminate the painstaking task of digitizing hard copies of the maps. ◘

Sunil Ranasinghe & Cody Crocker

Beetles Found Near The Old Man River and Dutch Creek

In February, an employee from Spray Lakes Sawmills discovered a beetle-attacked tree near the Old Man River Road while laying out a cutblock. The adult beetle was discovered with a live, healthy brood and was later confirmed as a mountain pine beetle. This was the only MPB-attacked tree identified in the area and a Sustainable Resource Development crew has already moved in and destroyed the beetles.

Since then, Spray Lake Sawmills contractors have found another couple of MPB-infested trees near Dutch Creek. SRD crews are currently surveying the area and treating the colonized trees.

There are probably several small pockets of infested trees along the slopes in Southern Alberta. This summer SRD plans to double the number of aerial surveys to detect these small

pockets of trees as they fade in colour. SRD's goal is to treat any known infested tree before beetle emergence.

If anyone sees a suspected MPB-attacked tree, or a patch of red/fading pine trees please contact the local Forest Health Officer. ◘

Dan Lux

Teacher Resource for Envirokids

A teacher's guide to accompany the "Envirokids Investigate Forest Health" activity book has just been printed by the Forest Health Section. This guide, prepared by Inside Education, will allow grade 6 and 7 teachers to incorporate forest health activities into their classrooms.

Bugs & Diseases *info note*

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

Editor: Mike Undershultz
Assistant Editor: Sunil Ranasinghe
Technical Support: Linda Joy

Bugs & Diseases informs PLFD, Industry and other forestry-related personnel about current forest health issues. Articles and ideas are welcome! Submission deadline is the 15th of the month before publication.

Copies of the teacher's guide and the activity book can be ordered from the Alberta Information Centre at (780) 944-0313 or env.infocent@gov.ab.ca. ◘

Christine Kominek

Takin' Care of Beetles

During the 2003 mountain pine beetle fall aerial survey, seven red-attacked trees were detected in the Meadowland Creek Valley in Willmore Wilderness Park. Ground surveys detected the presence of 21 green-attack trees spread over approximately 40 ha. All trees were cut and slung to an open meadow and will be burned in May. The majority of the infested trees had eggs or larvae present.

Mountain pine beetles in successfully attacked pheromone-baited trees in and around Willmore Wilderness Park were left to over-winter to determine beetle survivability. These beetles will be destroyed before they emerge in 2004. ◘

Erica Lee

Invasive Plant Team Prepares For Battle in the South Eastern Slopes

SRD was pleased to welcome Marian Jones to the Clearwater and Southern Rockies invasive plant management team in January. Marian brings a wealth of knowledge to the program from her experience in British Columbia and with the Federal Government. Marian will help implement the Southern Rockies and Clearwater Management Program and work with stakeholders to co-ordinate operational plans.

The objectives, goals, targets and performance measures for the 2004 invasive plant management program have been determined.

They focus on:

- Eradicating restricted weed infestations;
- Reducing the abundance & density of noxious weed infestations;
- Eradicating isolated noxious weed infestations where feasible;
- Reducing herbicide costs and impacts on the environment;
- Maximizing stakeholder participation in prevention, treatment, and inventory;
- Increasing invasive plant awareness and stewardship of public lands; and
- Protecting economic and ecological values on public lands from the damage caused by invasive plant invasions.

We will achieve these objectives by:
1) Cooperating with stakeholders,
2) Supporting the Forest Protection program in managing invasive plants in burned areas, and
3) Educating recreation groups on the threat of invasive species on the ecosystem.

For a complete copy of the plan, please contact Dan Lux at (403) 845-8272. ◘

Dan Lux

Alberta Invasive Plants Council

The Alberta Invasive Plants Council (formerly the Eastern Slopes Invasive Plants Council) is an association of vegetation managers from federal, provincial and municipal governments. Members of the council are responsible for integrated invasive plant control in their respective agencies.

The vision of the council is: **Alberta's ecosystems will be protected from invasive plants**

The goals of the council include:

- Increasing Albertans awareness of the impact invasive plants have on the environment, economy and society;
- Fostering and facilitating cooperation amongst invasive plant stakeholders; and
- Providing guidance to government.

The Council hosted the successful "Invasive Plants: Understanding the Threat" Conference in Calgary in October of 2003. Conference proceeding and other invasive plant related material can be accessed through the Council's website at http://www.invasiveplants.ab.ca. ◘

Mike Undershultz

Good Seed is Sometimes Hard to Find

Over the past several seasons the northeast region has experienced periods of drought conditions. One of the effects of this can be seen on many of the region's spruce trees. Trees are so heavily laden with cones that their

tops are bending under the weight. With such a bounty of cones it should be a good time for the collection of seed for reforestation. However, it was reported last season that local forest companies had direct competition in utilizing much of the conifer seeds and cones. Conophyte insects, such as cone maggots and cone worms, had infested many of the cones collected last summer.

There are relatively few species of conophyte insects. Only about 100 of the approximately 50,000 insect species identified in Canada are conophytes. Members of this insect group can be extremely damaging, destroying a large portion of the cone crop in some years. Management options for these pests will also be a topic to be addressed by the Northeast Region's Integrated Pest Management Working Group.

Tom Hutchison

Winner of the Clearwater/Southern Rockies Survey Contest

The winner of the 2003 Forest Health Detection Contest for Clearwater/Southern Rockies is Trevor Scheers from Spray Lakes Sawmills. Trevor reported the single mountain pine beetle-infested tree from the Old Man River. His keen eyes have helped increase the awareness of other Spray Lakes Sawmill staff and contractors.

Thanks Trevor – your binoculars are in the mail!

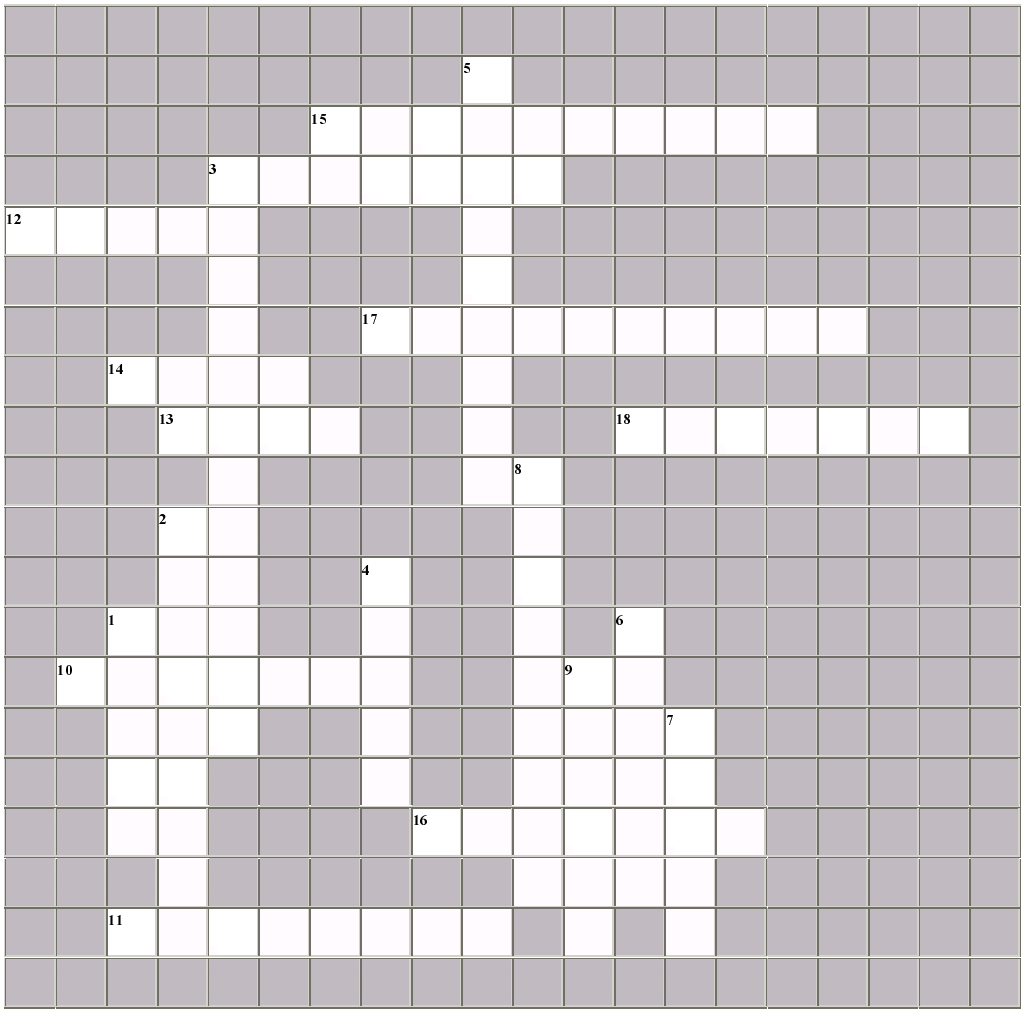
Dan Lux

A Simple Message

Simply put, you don't belong.
The threat you pose is very strong.
Our native species can't abide,
Plants that wreck where they reside.
There are many facing uncertainty,
Having you to thank to a great degree.
Everywhere you spread and grow,
Screws things more and more.
Perhaps you have some pretty flowers.
Research shows you have healing powers.
Even with such things - you see,
Alien to here you'll always be.
Do not choose to grow 'round here.
Native plants don't want you near.
Our ecosystems to you would say,
Weeds, weeds stay away!

Tom Hutchison

Forest Health Crossword Puzzle



Down

1. When it comes late, new shoots take it hard
2. Aspen canker
3. Latin bark beetle
4. Coniferous fastball
5. Electric tree killer
6. Dwarf mistletoe sticky seed coating
7. Blue stain build-up location
8. Cambium caverns
9. Forest health agent opposite the queen

Across

3. Wood packing in which aliens arrive
10. Affects forest health and farmers
11. Spotted, Russian, Diffuse
12. Stuck between larvae and moths
13. Shelf fungus
14. Decorative tree deformation
15. Disease that's all tied up with black shoestrings
16. The nosiest of all the beetles
17. Whitespotted and Northeastern
18. Brown caterpillar, paired white dots and black head

Check next issue for answers.

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 Lee
Edson
780-723-7963
Erica.Lee@gov.ab.ca

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