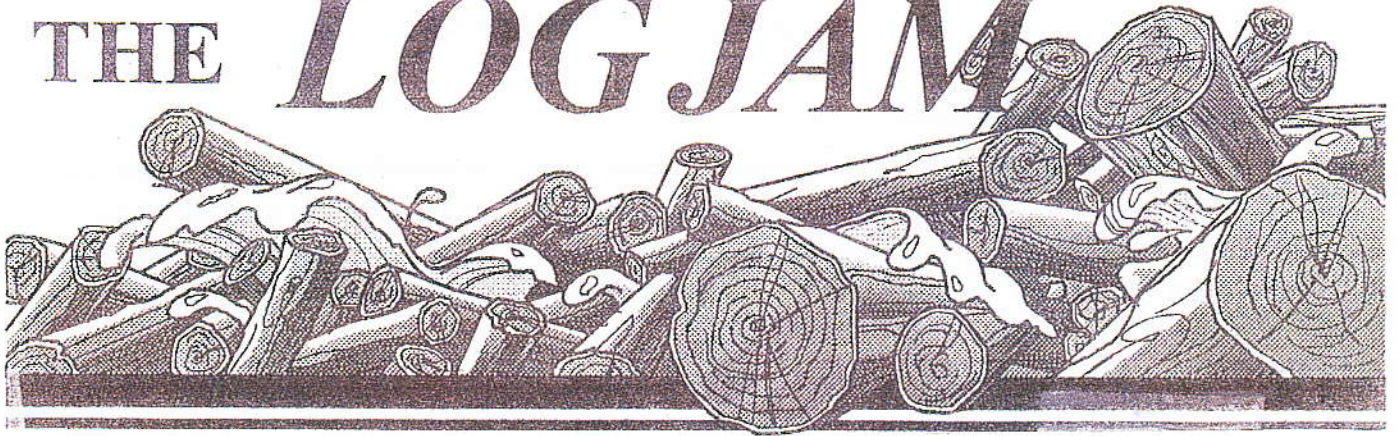


# THE LOG JAM



Published by the Woodlot Association of Alberta (WAA)

March 2012



*Clean Water Our Greatest Resource*

**Our Mission Statement :**

---

**"The Woodlot Association of Alberta's purpose is to promote leadership in sustainable forest management by encouraging the development of private forest by increasing awareness of their inherent social, economic and environmental values."**

---

Advertisements in the News Letter may be purchased at the following rates:  
**Full page - \$100.00; One half page - \$50.00; Quarter page - \$25.00**

To place an advertisement - write, draw, etc. how you want it to appear in the News Letter, and fax or e-mail to the editor.

---

**Contact - E-Mail, Address's and Phone**

**Woodlot Association Office**  
#104-14020-128 ave. NW  
Edmonton, Alta.  
T5L - 4M8

=====  
E - Mail-----office@woodlot.org

=====  
Website-----www.woodlot.org

=====  
Phone ---- 1 - 800 - 871 - 5680

**News Letter Editor of "The Log Jam"**

E-Mail---jurgen.moll@xplornet.com

=====  
Phone-----1-780-778-4272

**Board of Directors**

**Peter Mills, Pesident**  
Beaverlodge (780)354 - 8226

**Jurgen moll, Vice President**  
Whitecourt (780) 778 - 4272

**Louise Horstman, Secretary**  
Morinville (780) 939 - 5858

**Bernice Cassady, Treasurer**  
Edmonton (780) 455 - 9727

**Dennis Quintillo, Director**  
Glenevis (780) 785 - 2732

**Warren Stewart, Director**  
Valleyview (780) 524 - 3178

**Herb Cerezke, Director**  
Edmonton (780) 435 - 6007

**Pieter van der Schoot, Past President**  
Breton (780) 696 2436

## Up Coming Events

Board of Directors - Teleconference - **March 25 / 12**  
**April 29 / 12**  
**June 24 / 12**  
**July 29 / 12**  
All calls are at 7pm

Board of Directors **meeting** at Whitecourt **May 26 / 2012**

Alberta Invasive Plants Council -- **2012 Conference and AGM**  
**April 19, 2012** -- In Red Deer @ Sheraton Hotel (for details see flyer)

Woodlot Management Seminar -- **July 14, 2012** (for details see flyer)

---

### \*\*\*\*\* Hybrid Poplars Available \*\*\*\*\*

Albert - Pacific Forest Industries (Al-Pac) have some surplus hybrid poplars for sale, which are the "Okanese" this poplar was named and released in 2007 by Agriculture and Agri-Food Canada after extensive evaluations and is one of the hardiest hybrids yet developed through the tree improvement program. Okanese tolerate a wide variety of climatic conditions including cold and drought and has resistance to insects disease. The tree is expected to have a lifespan of 60 years and can grow up to one meter per year to a mature height of 18 - 20 meters. It is a male clone so does not produce any seed fluff.

These "bare root" trees will be sold for \$120 per box of 200 trees with a minimum order of 1,000 trees. The trees are currently in controlled frozen storage and, following payment they can be picked up from Al-Pac site, in May.

To order contact **Dad MacPherson** at **1-780-576-3037** or e-mail at **danmacp@hotmail.com**

---

### Reminder

Just a reminder that the **fire season** started on March 1 , a month earlier due to dry conditions, a fire permit is now required, continue to use caution when in your woodlot either working or recreating ; by:

\*Carrying some fire fighting tools ie, axe, shovel, water bag, etc. \* **Keep the exhaust clean on quad or other motorized equipment** \* **Check the spark arrester on power-saw.** \* **Don't smoke , or sit down when having a smoke , make sure the butt is out cold.** \* **Carry a cell phone to ask for help if you have a fire.** \* **Get a fire permit for any burning.** \* **good Luck**

## News from Your Board

Your WAA Board of Directors held monthly meetings by teleconference in January and February.

### **Grant**

We have put forward a grant request for \$15,000 for three years to Alberta Sustainable Resource Development. This would go toward the following: \$5,000 for communication (primarily production and distribution of *The LogJam*) and \$10,000 for public educational services including seminars on woodlot-related topics, three summer woodlot demonstrations/year, and hands-on training sessions on such topics as silviculture, timber cruising, woodlot safety and marketing timber.

We are awaiting ASRD's decision.

### **Woodlot Management Guide on Ropin' the Web**

Alberta Agriculture and Rural Development's website contains a section called "Ropin' the Web" which will yield up the Woodlot Management Guide when one enters the word "woodlot" in the search area. Thanks Toso for putting it there.

**Postal Agreement:** We are pursuing a cheaper postal rate for LogJam mailout.

### **Hold a Local woodlot meeting**

Toso Bozic will be glad to come out to speak to a small group of people interested in learning about woodlots and woodlot management. If you want to get a group of your neighbours together for a woodlot seminar, phone him at 780-940-6107.

### **Advertise your business**

The LogJam will carry ads from business card size to full page. Contact Jurgen Moll.

## **298 million-year-old forest found in China preserved by volcanic ash**

Ancient trees have been found fossilised by ash from a volcanic eruption 298 million years ago.

The forest was burned to ash in days when a volcano erupted. But just like in Pompeii the remains of the forest were preserved in the ash.

The find near Wuda, China, has given scientists a unique glimpse into how the planet looked 300million years ago when the climate was similar to today.

The plants were preserved as they fell, in many cases in the exact locations where they grew.

"It's marvellously preserved," said University of Pennsylvania paleobotanist Hermann Pfefferkorn.

"We can stand there and find a branch with the leaves attached, and then we find the next branch and the next branch and the next branch.

"And then we find the stump from the same tree. That's really exciting."

The researchers also found some smaller trees with leaves, branches, trunk and cones intact, preserved in their entirety.

The study team were able to examine an area of one thousand square metres giving them a good idea what the forest looked like, the journal Proceedings of the National Academy of Sciences reports.

The scientists were able to date the ash layer to approximately 298million years ago.

That falls at the beginning of a geologic period called the Permian, during which Earth's continental plates were still moving toward each other to form the supercontinent Pangea.

North America and Europe were fused together, and China existed as two smaller continents.

All overlapped the equator and thus had tropical climates.

In all, researchers identified six groups of trees. Tree ferns formed a lower canopy while much taller trees—*Sigillaria* and *Cordaites*—soared up to 80ft above the ground.

The researchers also found nearly complete specimens of a group of extinct spore-bearing trees called *Noeggerathiales*.

These relatives of ferns had been identified from sites in North America and Europe, but appeared to be much more common in these Asian sites.

"It's like Pompeii: Pompeii gives us deep insight into Roman culture, but it doesn't say anything about Roman history in and of itself," said Dr Pfefferkorn.

"But on the other hand, it elucidates the time before and the time after. This finding is similar.

"It's a time capsule and therefore it allows us now to interpret what happened before or after much better."

---

## Presidents Message -

Pete Mills, President

Hello everyone;

Well it's not quite "officially" spring yet as I write this but after the mild winter and the water running down the street I think I'd venture to say that it has arrived "unofficially" at least. With that I'm sure everyone is now waiting to get back onto the land and do some of the things all of our woodlots need. Some good Rest & Relaxation for all concerned! That said try not to get too anxious as the soils are really subject to compaction with the spring moisture. I'm also sure that some of you are probably thinking about doing some planting. As the question says "When is the best time to plant a tree"? Answer "Ten years ago!" On that point the WAA does have a line on some Hybrid Poplar at a good price for spring planting. You'll see an add with the details further on in this issue. These take a lot more site preparation than do conifers but are very fast growing so if they are of interest give some thought to location and maintenance for the first few years. Then again there's cleanup of winter deadfall and trail clearing etc - always lots to do.

Hopefully you'll find something of interest in this issue to help you along with some of these chores however as I usually say - Should there be articles that you would like to see or better still that you would like to write please don't hesitate to contact our editor, Jurgen Moll, myself or any of the other board members.

In the meantime if there is anything that either I or any of the other directors can help you with please don't hesitate to contact us or the WAA office.

---

---

# Mountain Pine Beetle

*Erica Samis -- SRD*

Very few mountain pine beetles (MPB) were present in Alberta until large long-distance dispersal events in 2006 and 2009 spread beetles from British Columbia throughout forested areas of the province. They can now be found attacking and killing trees from Grande Cache, Grande Prairie, Peace River, and High Level to Edson, Whitecourt and Slave Lake. Each year Alberta Sustainable Resource Development conducts ground surveys and implements single-tree control in these areas. This year approximately 130,000 trees will be treated through falling and burning and more through harvesting.

Infestation levels vary across the province. The highest incidence of MPB is found in the Grande Prairie and Peace River areas. Populations become smaller and more scattered moving east. Only a few beetles have been detected in the Athabasca area.

As woodlot owners, some of you may already have MPB on your property or are looking for their presence. Identification of the actual beetle is difficult and requires a microscope, but identifying the signs of attack is easy. MPB attack lodgepole, jack pine and also ornamental pines such as Scots pine. When populations are very high they may attack a spruce or fir, but are generally unable to reproduce in these tree species.

The first sign of attack is the pitch tubes on the trunk of the tree where the beetle has chewed through the bark. The tree attempts to drown the beetle in resin. Pitch tubes look like globs of honey on the bark. Once a beetle gets into the tree, it creates a vertical 'J' shaped gallery just under the bark and lays eggs. Larvae create horizontal galleries perpendicular to the adult galleries. When a tree dies from MPB attack, the entire tree dies at once. Typically the needles turn red one year after attack.

If you do find MPB in your woodlot, the attacked trees should be treated to reduce the chance of more trees becoming infested the next year. Each beetle-infested tree may contain enough beetle brood to infest multiple healthy trees the following year. Therefore, it is extremely important to initiate control action on currently infested trees prior to mid-June when mature beetles begin to emerge and fly to new sites. Non-infested trees do not require any control action. Further, trees that were attacked more than one year ago will not contain live beetles and therefore do not require control action.

Options for controlling infested trees are to fall and burn the tree, fall and peel the tree or peel the tree while it is standing if all attacks are within reach. Because MPB can complete development in a tree that has been cut down and not burned, the bark must be removed to expose the larvae. Trees can be used for firewood, however, all the wood must be burned by mid-June of the following year. Do not move infested firewood from one area to another unless it is certain the wood will be burned by summer. If the tree is debarked, wood can be moved and stored. If infested wood with bark attached is to be moved off of the property, please refer to the MPB Log Management Directive (2011-04) for protocols to prevent spread. Link to directive:

<http://srd.alberta.ca/FormsOnlineServices/Directives/ForestryDirectives.aspx>

If there are few beetles in an area, small-scale tree protection may be achieved through the use of verbenone. Verbenone is a naturally occurring chemical that mimics a heavily infested tree and can cause MBP to avoid attacking healthy pine trees. It is specific to this beetle. Synthetic verbenone is deployed in small plastic pouches. There are different application rates and guidelines to protect single trees, patches of trees or small stands. Even with correct applications, 100 per cent protection cannot be guaranteed.

If you would like more information on mountain pine beetle in Alberta or in your area, contact your nearest SRD office or go to <http://mpb.alberta.ca/>

## DIVERSIFY YOUR WOODLOT ACTIVITIES



**How to Open and Operate a Bed & Breakfast Home** – Jan Stankus  
**Open Your Own Bed & Breakfast** – Barbara Notarius and Gail S. Brewer  
**Developing a Bed & Breakfast Business Plan** – R.D. Buchanan and R.D. Espeseth



**Keeping Bees** – John Vivian  
**Beekeeping: a Practical Guide** – Richard E. Bonney  
**Small Scale Beekeeping** – Curtis Gentry



**Backyard Sugarin'** – Rink Mann  
**Sweet Maple** – James M. Lawrence and Rux Martin  
**The Maple Sugar Book** – Helen and Scott Nearing



**The Potential of Herbs as a Cash Crop** – Richard Alan Miller  
**Shitake Growers Handbook** – Paul Przybylowicz and John Donoghue  
**Growing Gourmet & Medicinal Mushrooms** – Paul Stamets



**Fences, Gates, and Bridges: a Practical Guide** – George Martin  
**The Rustic Furniture Companion** – Daniel Mack  
**Income Opportunities in Special Forest Products** – M.G. Thomas and D.R. Schumann

For more titles search the online catalogue at [www.nrcan.gc.ca/libraries](http://www.nrcan.gc.ca/libraries)  
under the Forestry and Edmonton subfolders. Enquiries about the Woodlot  
Extension Library can be directed to Denise Leroy at 780-435-7324  
([dleroy@nrcan.gc.ca](mailto:dleroy@nrcan.gc.ca))

The Woodlot Extension Library is located at the Northern Forestry Centre,  
5320 – 122 Street, Edmonton, Alberta, T6H 3S5. Your local library can  
arrange for interlibrary loan delivery if you live out of town.



# Forests and Water.....

Rich Rothwell

## Introduction

This article is the first in a series of three to describe the value of ecological services provided by forested watersheds and the effects of land management activities on water flows and aquatic environments. This first article defines forest hydrology and introduces the water balance as a basic hydrologic concept and ecological services provided by undisturbed forest watersheds.

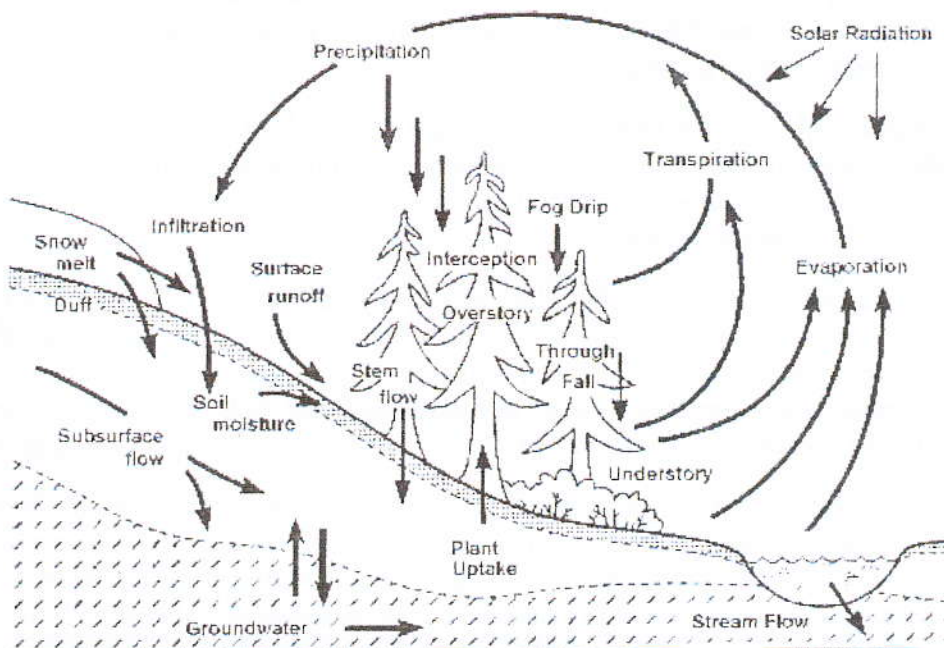
Rivers flowing from the East Slopes of the Rocky Mountains are primary sources of water for major cities and towns in Alberta. Snowmelt and summer precipitation on the East Slopes and in the Boreal Forest of Alberta sustain surface flows and groundwater systems. More than 80% of river flows at the Alberta-Saskatchewan border originate from snowmelt runoff on the East Slopes of the Rocky Mountains. Land management activities (e.g. forestry, agriculture, oil and gas, urban development) have the potential to affect streamflow and water quality.

## Forest Hydrology

Forest hydrology is a branch of hydrology that deals with the effects of land management and vegetation on the quantity, quality and timing of water yields, including floods, erosion and sedimentation.

## Water Balance

The water balance is a key hydrologic concept used by hydrologists to describe and predict and model hydrologic responses to natural and human disturbances. In hydrology, a water balance equation can be used to describe the flow of water in and out of a system. A water balance identifies the different mechanisms and flow paths of water as it moves through a forest.



[http://www.forrex.org/streamline/ISS24/streamline\\_vol7\\_no1\\_art1.pdf](http://www.forrex.org/streamline/ISS24/streamline_vol7_no1_art1.pdf)

Precipitation ( $P$ ) is the major source of water in a forest ecosystem, which is reduced when it lands on the forest canopy (interception-  $I$ ) and evaporates back into the atmosphere. Water that passes through the forest canopy and reaches the ground is called throughfall, which may flow over the soil surface (overland flow) or infiltrate into the soil (*storage-S*). Water stored in the soil may flow downwards to ground water ( $Q_G$ ), streams and rivers ( $Q$ ) or be absorbed by trees and other vegetation and evaporated from leaf surfaces to the atmosphere (transpiration- $ET$ ). The water balance can be expressed as a simple equation where streamflow ( $Q$ ) is equal to the difference between input ( $P$ ), and losses ( $ET, I, Q_G$ ) and changes in storage ( $\Delta S$ ).

OUTPUTS = INPUTS - LOSSES

$$Q = P - (Q_G + ET + \Delta S)$$

Q = annual streamflow

$Q_G$  = annual groundwater flow from watershed

P = annual precipitation

ET = annual evapotranspiration = T + I

$\Delta S$  = annual change in soil moisture

| Annual Statistics | Forest Region               | Area Depth mm |
|-------------------|-----------------------------|---------------|
| Evaporation       | East slopes into Boreal     | 400-500       |
| Runoff            | East slopes to Front Ranges | 100-500+      |
| Runoff            | Boreal Forest               | 50-100        |
| Precipitation     | East slopes to Front Ranges | 400-1000+     |
| Precipitation     | Boreal Forest               | 300-500       |

Runoff from an undisturbed forested watershed will vary from year to year depending upon the amount and timing of precipitation. Evaporative losses tend to be more stable from year to year as solar energy the driving force is relatively constant. The balance between water balance parameters is easily altered by natural and human caused disturbances.

#### Ecological Services: Forested Watersheds

Healthy forests and wetland systems provide a host of ecological services, including ground water and surface flow regulation, water purification, erosion control, and stream bank stabilization.

Regulation of surface flows is evident in the spring where shade from the forest canopy slows the rate of snowmelt resulting in a reduction of peak flows and extending flows into the summer. Maximum flow rates on the Athabasca and Bow Rivers (at Hinton and Calgary) on average occur in early July. Slower snow melt rates also can contribute to greater recharge of groundwater systems. The loss of forest cover (e.g. wildfire, forest harvesting) can be expected to increase the rate of snow melt and peak flows to downstream areas.

In the summer, evapotranspiration losses from trees and other vegetation reduces the volume of water stored in the soil. This increases the soil's capacity to store and delay the delivery of summer precipitation to streams which moderates peak flows and minimizes the potential for flooding. It should be noted that once soil storage capacity is exceeded the buffering of high flows by forest cover is lost.

The water flowing from forested watersheds is usually of high quality (i.e. can be used with minimal treatment). Trees and ground vegetation help filter sediment and nutrients from water before it enters streams and ground water systems. Streamside vegetation (riparian vegetation shades water flows regulating water temperatures which protects aquatic habitats for fish. Riparian vegetation is also a source of food and nutrients for aquatic ecosystems (e.g. insects, leaf litter). Retention of riparian vegetation is also important for the control of erosion and stream bank stabilization.

The importance of these ecological services will only increase as water quality becomes more important. Their financial value becomes particularly apparent when the costs of protecting an ecosystem for improved water quality are compared with investments in new or improved infrastructure, such as purification plants and flood control structures – in many cases it is often cheaper and more efficient to invest in ecosystem management and protection.

They who provide much wealth for their children, but neglect to improve them in virtue, do like those who feed their horses high, but never train them to manage .

--- Socrates --

## Editorial

As I was pulling on my old jeans the other morning, I noticed a thread - bare spot on one of my knees. That made me wonder why my jeans always wear out on the knee or upper - leg and never just below the back pocket. Then I realized I am a woodlot owner and spend more time in the woodlot than polishing a bench.

Therein lies the difference between a woodlot owner and an uptown computer jockey, in that we both do what makes us feel fulfilled. The computer guy gets excited when using a brand new program or game, Whereas the woodlot owner gets his tranquility when out in the woodlot, hearing a multitude of song birds in the spring, viewing the kaleidoscope of flowers in summer, the pungent odder of fall, or the silence of the winter. Then there are those physical jobs we may do such as, checking the growth of trees planted, estimating the volume and harvest of timber, planning some stand improvement, watching wildlife/ hunting or trapping and retaining wetlands for clean water for all Albertans.

This is an incomplete list of what we the woodlot owners are a collection of, owners experience that feeling of tranquility for several of these but not all of them, for some may want to harvest where others may want to retain old growth. Amongst us we are as divers as the woodlot owner compared to the computer guy, in some aspects, but in others we walk on the same path.

For that very reason of our divers wants, I try to have a variety of articles in this News Letter. In order to speak to every woodlot owner about his/her prime interests.

Therefore should you want to see articles on a given subject, let me know and I will try to find one on it .

=====

My wife was standing in her new pants looking in the bathroom mirror.

She was not happy with what she saw and said to me, " I feel horrible; I look old and fat. I really need you to pay me a Compliment."

I replied " Your eyesight's darn near perfect.

And then the fight started

## Climate Change Shrinking, Drying Out Western Forests

Researchers at the University of Montreal have found that the northern forests in the three prairie provinces are drying up and shrinking from drought caused by "climate change", while the eastern boreal forest is holding it's own.

The findings could over turn assumptions that "global warming" would improve growing conditions for trees in the north. They found that in both the East and West trees were dying sooner. But in the eastern forest, the surviving trees were growing faster which evened out the effect of increased mortality. Whereas in the West forest were growing slower as well dying younger. this results in them producing two tonnes of wood less per hectare in 2008 compared to the early 1970's.

The western forests are emitting more greenhouse gases that they absorb, but the eastern forests due to growing faster this evens out the gases released to those retained. These findings are bad news for those counting on forests to suck up more carbon than they omit as trees die and decompose.

---

## Logging Markets Being Gamed by Sneaky Canadians, U.S. Trade Officials Say

What's the upside of the mountain-pinebeetle infestation? U.S. trade official say it's the opportunity to use the bugs as a way to undercutting American lumber prices.

*The Douglas County News Review* reports that tensions over the multi billion dollar logging industry and price manipulation have reached a fever pitch. American loggers say that their Canadian counterparts are using the beetles as a reason to sell their lumber cheaper (and therefore sell more of it)even though the lumber often isn't damaged.

Mill owner Steve Swanson chairs an industry group, which argues Canada is violating the 2006 Softwood Lumber Agreement, which is intended to created free and fair trade. They charge that Canada is using a mountain pine beetle infestation as an excuse to underprice timber, giving Canadians an unfair advantage over U.S. competitors. Swanson puts the problem into simple terms saying "I can compete with any lumber company in the world, I can't compete with the government of Canada."

## Reasons for Red Leaves in fall

It's hard to miss signs of autumn in Ontario. It's often a kaleidoscope of oranges, greens, browns, yellows and reds as summer shifts to winter and verdant foliage makes way for the coming cold.

Just in time for this year's senescence, the controlled process of nutrient transfer or leaf death, researchers have answered a question that has stumped scientists for years: why some leaves turn red and not yellow or orange.

It's long been known — at least among the experts — that leaves turn yellow and orange as they die and chlorophyll levels in them lower with the temperature.

But plants also produce a pigment called anthocyanin at this time of year, according to a Sept. 29 article in *New Scientist Magazine*. Anthocyanin turns the leaves red. The plants expend energy to produce the pigment, which normally wouldn't make sense for them to do as they prepare for winter hibernation. Over the past few years, researchers have finally figured out why.

"There's a lot of excitement among geologists about this and the biologists are cautiously optimistic," said geologist Martha Eppes, who made discoveries that contributed to the understanding. "It's certainly been a mystery for centuries."

William Hoch of Montana State University laid the foundation from the biological side of things. In a 2003 study, he and his colleagues found that if they blocked the pigment's production, leaves became vulnerable to sunlight. The leaves in turn sent fewer nutrients to roots for winter storage. In other words the leaves turn red in the process of transferring nutrients to tree roots in preparation for winter.

Meanwhile, a series of studies by professor Eppes and her students at the University of North Carolina found that trees in nutrient-poor soils produce the pigment. They looked at the situation from the ground up. A student noticed that redder leaves were produced on hill slopes near the school and yellow leaves down in the plains.

From that observation they developed an experiment that found the pigment-producing trees survive better higher up on hills than non-anthocyanin producing trees. It's Darwinian in the sense that the ones able to produce anthocyanin are also the ones that can survive in less nutrient-rich environs.

"The pigment-producing trees are able to outcompete the non-pigment producing trees," said Eppes in a phone interview. Something about the pigment allows the trees to better thrive in nutrient-poor soils. At least that's the hypothesis her work is based on. She says there's a strong correlation between soil nutrients and anthocyanins in leaves.

From Hoch's perspective it's more a matter of "photosynthetic capacity," or a tree's ability to turn light into energy efficiently. In contrast to Eppes, he looks up at the leaves and what they do.

Hoch says pioneer tree species like paper birch, with its peeling white bark — the ones that don't produce anthocyanin — have a better capacity for photosynthesis than do their pigment producing cousins. So when the process slows down and trees begin to break down their leaves, pioneer species are more stable. They don't need the anthocyanin.

Simch Lev-Yadun, a researcher at the University of Haifa in Israel, and Jarmo Hopainen at the University of Eastern Finland, went back to the ice age for their part in solving the riddle.

The pigment, also an antioxidant, protects against damage caused by insects. They say this may be why autumn leaves are more often red in the United States and yellow in Europe.

Insects that attacked deciduous trees before and between ice ages in North America mostly died out during the European ice ages. Trees in Europe didn't need the added protection of anthocyanin.

Together the researchers' work helps answer a question that biologists have been working on for more than a century.

Next Hoch will attempt to understand the mechanics and genetics behind the process.

For those simply interested in seeing more red this month, Michelle Bourdeau with LEAF in Toronto says sugar maples, trees with leaves much like the one on the Canadian flag, are your best bet for seeing bright red leaves this fall.

They're found mostly in ravine areas and parks. The higher up on a slope trees are, at least according to Eppes' research, the more likely it is that they'll have red leaves in the coming weeks. So those parked on the Don Valley Parkway during rush hour need simply look up out of the valley to see the red among the green, oranges and yellows that will populate the province this fall.

## Why to Love a Dead Tree

They provide life and sustenance for many species



Many species of wildlife rely on dead trees for shelter, foraging and more.  
*Special to the Daily*

ENLARGE →

We bemoan all the dead lodgepole pines killed by the fungus introduced by the beetle in our area, but where there is death there is also life and sustenance. Dead trees provide vital habitat for more than 1,000 species of wildlife. Dead wood contributes to biological richness as substrate, cavity sites, foraging sites, shelter and cover. Last week I wrote about a lichen species (*Usnea*) that prefers to grow on dead trees. This lichen provides food for deer and nesting materials for birds.

There are terms used by wildlife biologists for dead wood. A "snag" is the name for dead trees that are left upright to decompose naturally. When a snag (or part of a snag) falls on the ground it becomes a "log."

Who uses dead wood? Birds are the most obvious creatures, as they use limbs, branches and logs for perching, foraging and nesting materials. Birds, such as ruffed grouse, will use logs for drumming and courtship displays.

In many forests, 30 to 45 percent of the bird species are cavity nesters. In North America alone, 55 avian species nest in cavities. Birds that use cavities in trees are divided into several categories. Cavity-nesting birds are classified as "primary excavators" – those which can excavate hard wood; "weak excavators" – those species which can excavate soft, dead wood; or "secondary cavity-users" – those which can utilize existing cavities. Another 80 animal species depend upon previously excavated or natural tree holes for their nests.

Snags are used for exterior nesting by birds of prey, and brown creepers. Interior or cavity nesters are song birds, woodpeckers and squirrels. Snags are used for hunting perches by birds of prey and flycatchers; for perching and singing by songbirds. Woodpeckers use large dead tree trunks to announce their presence during courtship, drumming their bills against the tree's resonating surface.

Snags are used for food storage by small mammals and for protection from weather by many species. In addition, dead wood which hosts insects, provide a feeding ground for some species of birds. Among larger excavators, sapsuckers feed primarily on sap and insects. Several woodpecker species feed primarily by flaking bark, probing after insect larvae or carpenter ants. Tree cavities and loose bark are used by many animals to store their food supplies.

Most bats roosts are in dead trees. Mammals, amphibians, reptiles, and many insect species seek refuge in natural cavities and dens provided by dead wood. Salamanders seek the security and dampness of soil found beneath a rotting log. Many small mammals find cover and relief from the hot midday sun in dead limbs and downed wood. Many animal species survive high summer and low winter temperature extremes in an insulated tree-trunk home.

Insects like spiders, beetles and worms feed within the decaying matter. Various microbial species, such as bacteria fungi and mushrooms, flourish on and around logs, breaking down the organic matter to release important nutrients back into the forest soil.

Dead wood can serve as a nursery and provide protection for new plant seedlings. Decaying logs retain moisture and nutrients that aid in new plant growth. Young trees may sprout from a single downed limb, called a "nurse log." The soft wood tissue of a nurse log offers growth medium for many young trees during their initial growth and development. Dead wood serves as a ground cover, lessening soil erosion and preventing animals such as deer from over-browsing plant seedlings.

Large snags (greater than 15 inches diameter at breast height and taller than 6 feet) are required for large animal species, whereas smaller animals may use snags or dead limbs from 4 inches in diameter. Wildlife research suggests maintaining 2 to 4 snags per acre will be an adequate number of snags and will lessen competition for nesting, foraging and roosting sites.

Each thing in nature has its place and part to play in the cycle of life and death. Often the process which creates the snag, such as death-dealing insect attacks, provides food for the wildlife species that eventually utilize the snag for a home. Over 30 snag-associated species of birds and mammals feed on insects, helping to keep them in check. Most birds of prey that utilize snags live on small mammals such as mice, rabbits and gophers, which are often destroyers of young trees. So the snag, often the result of destructive insects, plays a role in the control of the other animals in the fascinating cycle of life.

Although dead wood may be regarded as unsightly or expendable in a forest, it serves an important role in supporting wildlife and assisting ecological processes. If we recognize and understand the natural value of snags, dead limbs and logs, they become more appealing. Snags and logs are not signs of unkempt forest, nor are they waste materials to be discarded. Rather, dead trees should be regarded as home to many animals and storage for moisture and nutrients. Because so many animals rely on dead wood during some part of their lives, snag, limb and log retention is an essential component of any wildlife conservation or management program.

Dead trees may be thought of as a "wildlife condo!"

Breckenridge resident Dr. Joanne Stolen is retired from teaching microbiology at Rutgers University.

---

## Strengthening Measures to Protect Canada From the Asian Long-Horned Beetle



OTTAWA, ONTARIO, Feb 02, 2012 (MARKETWIRE via COMTEX) -- The Canadian Food Inspection Agency (CFIA) has introduced new requirements to prevent the introduction and spread of the Asian long-horned beetle, a pest that could seriously threaten Canada's forests and trees.

"The Government of Canada is committed to protecting Canada's plant resource base. This is another step towards protecting Canada's environment, forests and agricultural resources from harmful pests," said Agriculture Minister Gerry Ritz. "These new restrictions build on existing controls and are expected to lead to the eventual eradication of this pest in Canada."

Under the new rules, logs and dried branches of host trees, and firewood of all species, cannot be imported from areas of the United States where this beetle is present. Logs of host trees and firewood of all species cannot be moved from the regulated area located within the Greater Toronto Area. In Canada, this beetle has only been found in the Greater Toronto Area where it was last detected in 2007.

Lumber, wood and bark chips from tree species targeted by Asian long-horned beetles must be certified to be free of the insect when imported from the areas in the United States where this beetle is present or when moved out of the regulated area located within the Greater Toronto Area.

Trees affected by the Asian long-horned beetle include birch, elm, hackberry, horsechestnut, maple, mountain ash, plane (sycamore), poplar, white silk and willow. For more information on these new restrictions and Canada's efforts to combat harmful insects, please visit [www.inspection.gc.ca/pests](http://www.inspection.gc.ca/pests).



## "MY" WOODLOT

"MY" Woodlot is located some 10 miles from Whitecourt. We bought the land in 1987, which was an undeveloped 80 acres, the idea was to live on an acreage in the country and develop a small hobby farm.

We did indeed build our home and the hobby farm on these 80 acres of brush-land.

What the land/forest cover consisted of was :

- \* 25 acres had been cleared for cultivation but not broken, rather was allowed to regrow to willows and aspen some 10 feet in height.
- \* the small creek which through it was completely flooded by beaver dams.
- \* the remaining 55 acres were covered with pine, spruce and aspen, with several small muskegs in it, these trees were approximately 70 years old, when last a forest fire burnt over this area.

What we did :

To develop a hobby farm, we removed willows and aspen from the 25 acres by hand. The plan was to fence it and raise a few cows and maybe a horse. But my wife said that she didn't care for horses and was afraid of cows and that any animals must be smaller than she was (<5 ft.). So the idea of turning this into a woodlot was born, in that the entire 25 acres were covered with spruce and some pine that had naturally regenerated and were from 3 to 12 inches in height. Therefore having heard of sheep grazing in cut-blocks, we purchased a flock of sheep, which did exactly as expected, they killed all the deciduous regrowth and any pine leaving only the spruce.

Today these 25 acres consist of a mono culture of spruce some 30 feet in height, and an area of Christmas trees which are sold as a u-cut operation each year

As to the creek we had all the beaver dams removed and has since returned to a natural creek bed with a fine riparian area.

With respect to the 55 acres of mixed woods that were /are over stocked we did:

- \* developed an extensive trail system through-out it.
- \* logged several small areas of trees that were being damaged by wind.
- \* thinned some 30 acres, to increase growth and removing all damaged and diseased trees.
- \* purchased a small sawmill to manufacture the salvaged trees.
- \* planted several small areas with spruce, dug up from the road right-of-way.
- \* oh yes I did write a management plan.

\* the muskeg areas are to be left as are

What the future still holds:

- \* complete the stand - improvement (thinning) of the remaining area.
- \* salvage and manufacture any wind thrown trees.
- \*as the timber grows in size partially log it this in perhaps 15+ years in the future.

This woodlot has not earned a great deal, but then has not cost a great deal either. It does require a considerable amount of physical work, but when one get enjoyment from it the burden is lite.

I have found that the woolot has given me a great deal of enjoyment, had I to do it over again I think that I would change very little.

Jurgen Moll

**Notice :**

*The MY WOODLOT article of members individual woodlots. we want to continue having one of these articles in each issue of the Logjam, in order to do this we will need members to write a story of your woodlot. We feel that these will be of interest to all as every woodlot is different and managed for a variety of reasons. Please send me your woodlot story.*



1993



2010

The 25 acres then and now



## 2012 Conference & AGM

### *New Invasive Threats to Alberta: Meeting the Challenge*

#### Keynote

**The Montana Aquatic Invasive Situation**  
*Coming our way-Problems that demand answers*

Dr. Eileen Ryce

Montana Aquatic Nuisance Species Coordinator with Montana Fish, Wildlife & Parks

#### Other topics

*Stopping the spread of invasives in Idaho*  
*Equipment transporting invasive plants*  
*Horticulture and Media*  
*Alberta Update on flowering rush and others*  
*EDDMapS Alberta live*

**Thursday, April 19<sup>th</sup>, 2012**

9:00 am – 4:00 pm

**Sheraton Red Deer Hotel**

3310 – 50<sup>th</sup> Avenue

Red Deer AB

*Special room rates, BOOK before March 19<sup>th</sup>, 2012!!!*

*Call the Sheraton @ 1-800-662-7197 or reservations@sheratonreddeer.com*

#### REGISTER Now!!

Register by April 6th,  
2012

Members: **\$73.50**  
(\$70.00 + GST \$3.50)

Non-Members: **\$94.50**  
(\$90.00 + GST \$4.50)

Register after April 6th,  
2012

Members: **\$89.25**  
(\$85.00 + GST \$4.25)

Non-Members: **\$105.00**  
(\$100.00 + GST \$5.00)

#### Register Online:

[www.invasiveplants.ab.ca](http://www.invasiveplants.ab.ca)

#### Or by mail:

Alberta Invasive Plants  
Council

P.O. Box 869

OKOTOKS AB, T1S 1A9

*Lunch & Refreshments  
included.*

#### For information contact:

[aipc.executivedirector@  
gmail.com](mailto:aipc.executivedirector@gmail.com)

## Woodlot management Seminar

**Date and Time** ----- July 14, 2012, from 10 am to 5pm

**Where** ----- At Jurgen Moll's Woodlot 16 km south of Whitecourt on  
Hi-way 32 and 1.6 km west on Twp. Rd. 590

**Cost** ----- \$ 20.00 This also covers the cost of the B-B-Q

**Bring** ----- Dress in your out door woodlot cloths, such as - work  
boots, rain coat, Because part of the day will be spent  
outdoors, also a lunch for the [noon meal c/w drinks](#).

**Seminar Content** ----- The intent of this seminar is to introduce you to the first  
two initial phases of building your **Management Plan** of your  
woodlot.

These are, [building a map](#) of the woodlot, as without a map  
one can not make a plan, and [measuring the volumes](#) of  
timber on your woodlot, by introducing you to various timber  
cruise methods.

**Registration** ----- Dead line for registration is **July 6, 2012**, by contacting  
Jurgen Moll at 1-780-788-4272 or <[jurgen.moll@xplornet.com](mailto:jurgen.moll@xplornet.com)>

The seminar will be limited to the first 20 , [so register early](#).

**Fun Time**----- The seminar should end by 5pm, after which we will have  
a Bar- Bee -Que, some socialization, as every woodlot owner  
has a story worth listening to.

---

**Knowledge is of two kinds. We know a subject ourselves,  
or we know where we can find information upon it.**

[Samuel Johnson](#)