Newsletter

December 2nd, 2021

In this issue:

Board of Directors

Laval Bergeron (pres)
St-Isidore (780)618-6014)
laval@bergeronetfils.farm

Robert Cameron
Debolt (780)957-2292
southpeace@hotmail.com

Elton Kauffman
Bluesky (780)596-3845
eelk@telusplanet

Gordon Kerr
Edmonton (780)434-0512
gordonker@shaw.ca

Cathy Newhook
Beaverlodge (780)518-1560
cathy@nextgenreforestation.ca

Larry Nofziger (vice)
Elmworth (780)354-2710
larrynofziger@gmail.com

Tara Jamison
Edmonton (780)849-8818
tara@carsonintegrated.com

Linda Nagge
GP County(780) 538-0823
lindanagge@gmail.com

Jim Szpajcher
St-Paul (780)645-5511
mudman1@telus.net

Rick Keillor
Berwyn (780)597-2136
rkeillor@abnorth.com

Brian Mullen (secretary)
Sturgeon (780)939-2995
bpmullen@hotmail.ca

President's Report

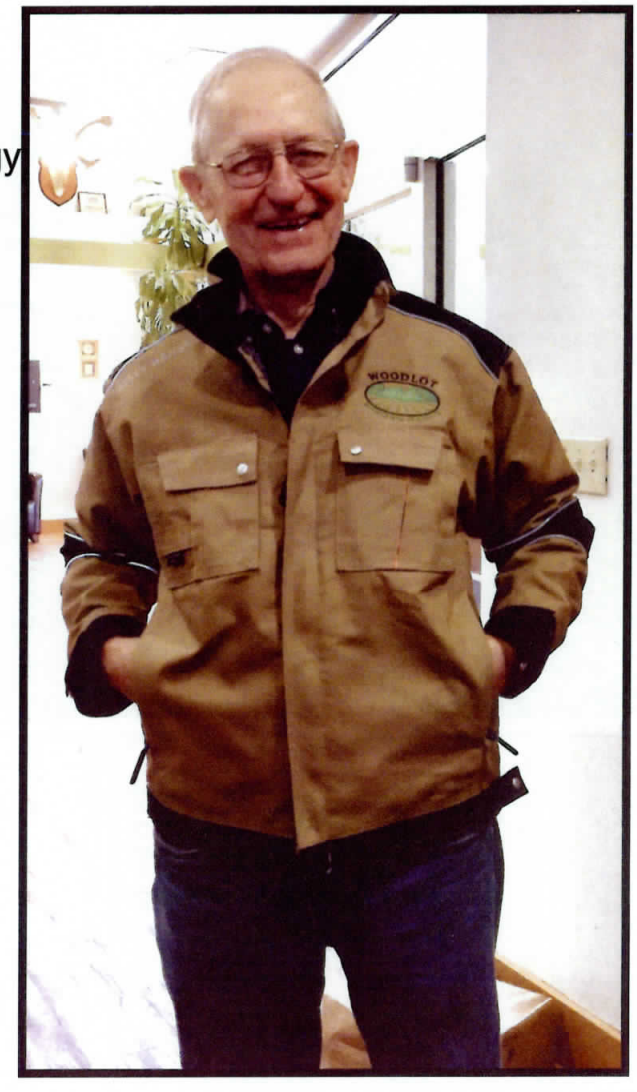
by

Laval Bergeron

Hello everyone,

Hope you are enjoying the weather..A total of 24 members attended the AGM which was held at the Whitecourt Forest Interpretive Centre and by Zoom. Very interesting meeting. More or less half of the people were by zoom and the other half were able to attend in person. The fact that we could meet in person brought the possibility for a presentation to Jurgen Moll for his 14 years plus as editor of the Logjam (free of charge) and for different positions on the Board of Directors. As you can see on the picture, Im sure Jurgen will wear his new jacket with pride. Thank you very much sir!

Thank you to Tara Jamison, Cathy Newhook and Rick Keillor for stepping up to be on the Board of Directors. We now have a complete committee, refreshed with a younger generation, full of energy and ready to work for you. We as members are very lucky to have such a divers representation.



With climate change becoming more a reality to everyone and everywhere, our association is poised to play a big role in the years to come. Although climate change is not so exciting, our role is!

Happy and Safe Holiday to all!

Enjoy your Woodlot!

TREMBLING ASPEN, A TREE WITH MANY ATTRIBUTES AND A COMMON WOODLOT SPECIES

Submitted by H. Cerezke

Trembling aspen (*Populus tremuloides)*, also commonly called quaking aspen, aspen and white poplar, is a tree species native to North America, and has the widest natural range of any tree species. In the three prairie provinces, trembling aspen forms over 40% of the forest cover. Within Alberta, it can be found throughout the province and is the predominant early successional tree species within the boreal forest. The growth of trembling aspen tends to be somewhat small and shrubby in the drier areas of the southeastern parts of the province, but grows to full tree status in the mixedwood forests farther to the western and northern reaches of the province. Trembling aspen is an important component of most private woodlots in Alberta. It is therefore important to point out the many interesting attributes that aspen trees contribute toward woodlot biodiversity as well as its important ecological and environmental functions. During the early years of settlement in the prairie provinces, it has been reported that trembling aspen was planted extensively as a component in farm shelterbelts during the period from 1903 to about 1965. After 1965, trembling aspen was replaced by hybrid poplars and other tree species.

Some General Characteristics: Trembling aspen are small- to medium-sized deciduous trees, mostly 20 to 25 m tall, rarely 30 m tall, and have a rounded crown. Its leaves are oval to nearly circular and 3 to 7.5 cm long with fine serrations at the edges. Unique to aspen is the long and flat leaf stem or petiole, that allows the leaves to tremble in the presence of the slightest breeze, hence the name "trembling or quaking aspen" (see Figure 1). It has been speculated that this adaptation helps to regulate leaf temperature and sunlight exposure for efficient photosynthesis. There is evidence also that the fluttering of leaves can serve to disrupt insect feeding behavior, thus reducing the risk of leaf damages. In the fall, leaves turn a beautiful gold color, often with tinges of oranges and reds, creating a spectacular display that contrasts with the dark green of conifers.

Aspen bark is typically smooth, white, greenish-white to gray-white and sometimes yellowish to brown. The bark becomes thickened and furrowed as the tree ages, especially toward the tree base. The bark is thin and easily wounded; healed over wounds along with old branch scars create an infinite variety of contrasting black patterns on the stem. Stems and branches have chloroplasts that enable them to carry on photosynthesis in the absence of leaves. This contribution of bark photosynthesis to the carbohydrate supply only amounts to about 1-2%, but may be sufficient to help trees recover from various stresses.

Trembling aspen trees are dioecious, in that male and female trees are separate and both produce brown catkins, 2.5 to 6.0 cm long, in the spring time. However, for sexual reproduction to take place, members of both sexes must be present within the same region. Seed production may occur annually, but abundant seed may only be produced every third or fourth year. Additionally, successful seedling establishment from seeds requires exacting conditions of a constantly moist and bare mineral soil, conditions which are not frequently present. Most existing aspen stands in the province have originated vegetatively, that is from root suckering. Two requirements to stimulate aspen suckering are free from intolerance to competition and increased soil temperature. Additionally, there are several controls over aspen suckering that can include growth regulators (auxins and cytokinins), root size, food reserves and moisture. Most root suckering occurs during the first growing season after a major disturbance such as fire or harvesting.

Root Systems of Trembling Aspen: The root system of aspen is somewhat unique in that roots typically spread widely and have strong vertically penetrating roots (sinkers) that arise from main lateral roots. Most lateral roots are concentrated in a zone between 5 and 20 cm below ground surface, and may spread laterally over 30 m while sinkers may extend downward up to 3 m. Root grafting is rare in natural stands, however the root system of a parent tree has interconnecting links between the stems within a clone. These interconnecting roots help facilitate translocation of moisture and nutrients for the benefit of the clonal stems.

Clonal Structure of Trembling Aspen Stands: Trembling aspen produce new trees via sexual (seeds) and asexual (suckering) reproduction. Seedlings produced by sexual reproduction provide diversity in an otherwise genetically identical colony of trees. In asexual reproduction, a single aspen stem, under the right conditions, can produce other erect stems via root suckering in which all stems are genetically identical to the original or parent stem, but behave as individual trees, eventually developing their own interconnected root system. The collection of multiple stems so produced form one single genetic individual termed a "clone". Trembling aspen clones can be either male or female and may vary in size from a few stems to several thousand. Female clones tend to have larger numbers of stems, have greater basal area and extend over a larger area, compared to male clones. Most natural aspen stands in Alberta exist as clones, and each may have individual identifying features. These features may include time of flowering, time of leaf flushing, and different traits of leaves, bark and stems. Clonal responses to insect and disease attacks may also vary. Individual clones are most easily identified visually during fall color change (see Figure 2), or during spring with leaf flushing. It has been suggested that future silvicultural management of aspen stands should take into account the various ecological and behavioral traits of clones for potential responses to drought, insect infestations and pathogen decay management.

Important Ecological and Behavioral Traits of Trembling Aspen: Trembling aspen is intolerant of shade and is a pioneer species that readily invades an area after major disturbance. It grows rapidly but is relatively short-lived and may show signs of decline after only 50 years. Stands of aspen occupy in a wide range of soil types and moisture conditions, but show greatest success on well-drained sandy and loam soils. Trembling aspen often grows in pure stands, but also in mixture with balsam poplar and birch, and in the mixedwood forests of the boreal forest region, stands are most often dominated by aspen-white spruce and pine mixtures. Aspen can act as "nurse trees" to help shade and protect understory white spruce. The aspen component in private woodlots can contribute substantially to enrich biodiversity through its natural attractance of a variety of plant,

insect and vertebrate species. Commercially, aspen provides a number of wood products including lumber, pulp, paper products, oriented strand board (OSB), firewood and even chop sticks. First Nations people used aspen leaves, bark, catkins and cambium as a food source. Aspen trees also contain salicylates, chemicals related to aspirin; this too was used by First Nations people to treat many ailments from burns to swollen joints. The phenolic glycosides (salicylates) have been implicated as the primary chemical defense mechanism against insect leaf-eating herbivores.Trembling aspen has been considered a "foundational species" due to its importance in community structuring and support of biodiversity of plant, insect and vertebrate species. Since aspen can serve as a fuel break in low- to moderate-intensity fires, it can potentially serve for strategic management to reduce forest fire risk.

Some Important Pests of Trembling Aspen: Trembling aspen and other *Populus* species rank among the highest of any native tree species with high numbers of associated insect, mite and fungal species that inhabit them. However, only a small proportion of these invertebrates and fungi become serious pests of aspen. Three well known insect defoliators that feed on aspen leaves include the forest tent caterpillar (*Malacosoma disstria*), large aspen tortrix (*Choristoneura conflictana*) and Bruce spanworm (*Operopht era bruceata*). Figure 3 illustrates stem damage caused by the poplar borer (*Saperda calcarata*), a large wood-boring beetle whose larvae mine the central part of the stem and cause considerable resin bleeding (Figure 3). A common leaf mining moth, the aspen serpentine leafminer (*Phyllocnistis populiella*), though not a major damaging pest, its outbreak numbers are more spectacular. At high infestation levels its mining activity can give entire tree crowns a silvery appearance (Figure 4)

Two prominent diseases of trembling aspen are illustrated in Figures 5 and 6. The diseased stem in Figure 5 is caused by hypoxylon canker (*Entoleuca mammata*) and is considered an important canker disease throughout the prairie provinces. Once infected, tree stems are usually killed within four to six years. The aspen stem in Figure 6 shows three conks, indicating within stem infection and that a column of rot in the heartwood likely extends some distance above and below the level of conk formation. This disease is caused by the fungus "aspen trunk rot" (*Phellinus tremulae*), also known as "false tinder conk". This fungal pathogen is known to contribute more volume loss than any other disease of trembling aspen, and is the most serious stem decay of aspen in North America. However, it should be pointed out the ecological importance of trees with varying stages of stem decays that are highly selected by woodpeckers as primary excavators of tree cavity nests. Several other secondary cavity-nesting birds and small mammals also use these cavities, serving for species habitats for a varying number of years. In a recent survey it was shown that up to 95 percent of cavities were in aspen trees and that stems infected by *P. tremulae* were commonly sought out for nest-cavity construction.Trembling aspen serves as a major food source for several mammal and bird species such as grouse, deer, moose and beaver.

Opinion

Biodiversity's future

by Jurgen Moll

Several weeks ago I happened to catch the tail end of a documentary in which a number of scientists were reviewing how we the humans are destroying the biodiversity world wide. Their theory was that if we continue to destroy the biodiversity we will end up destroying ourselves even more so than will global warming.

They started with explaining problems that we are causing to the oceans and so they should for that is where life first began. The oceans cover nearly two-thirds of the world, and produce from 50 to 80 % of the oxygen, from plankton, algae, and bacteria, and 93.2 million tonnes of fish per year. The problems these scientists find that we are doing to the oceans are multitude, from overfishing and habituate destruction caused by the factory ships, that drag miles of nets scooping up all aquatic life and destroying their habituate. Further more they find that the sewage pollution from ever larger cities some treated and some raw, this includes a varieties of chemicals. In addition there are the millions of tonnes of plastics that we send to third world countries to reuse but only a portion is made into a useable plastic much is burnt and the rest is hauled out into the ocean and dumped there. This plastic is now found floating in thousands of square miles in the Pacific this plastic slowly breaks down ever into smaller particles that the aquatic live consumes to their detriment and death. They also said that there are some dead zones in the oceans where no live exists because the habitat has been destroyed and poisoned by chemicals, oil and fertilizer.

We Canadians should quite well remember the disaster that happened to the Grand-Banks in the east that killed the cod fishery, even now 25 years later the cod are slowly returning but very -very slowly, the cause was over fishing and destruction of the habitat.

On land we are not doing much better world wide, in South America and some parts of Southeast Asia they are logging and burning the largest rain forests in the world to create farmland. There is a theory that if the entire Brazilian rain forest were to be removed there could be a dessert in the western part of it, that is to have rain in the far west end there must be trees to transpire water vapour that will drift further west to fall as rain again.

In the middle-east, much of Africa, parts of Asia, part of southwestern North America the forests have been decimated thousands of years ago, due to lack of rain and later the grazing of goats and sheep which consume all vegetation, this practice can create and enlarges deserts in dry hot climate zones. These deserts biodiversity has long since disappeared other than in an oasis or were irrigation is used, a case in point in parts of the middle east and California but both areas are finding their water supply is being exhausted, the Jourdan River is being pumped dry by Israel and Jourdan so much so that the Dead Sea is drying up and shrinking a metre per year as is the Colorado River and the ground water in California.

Meanwhile here in Alberta there is a great controversy over protecting our eastern slopes from strip-mining and other industrial activity. The eastern slopes have for the past 150 years been protected for the purpose of a water resource for the Saskatchewan river system that is the water source of our cities, towns and some irrigation in southern and central Alberta. Should these lands be given to industrial development we could loose most of the biodiversity in the eastern slopes.

Several days ago at the Cop 26 meeting there were close to 130 countries that signed on an agreement to stop deforestation, what this means and how it will be applied we must wait to see the fine print. The positive thing I see in this agreement is that the three countries that contain 85 % of the worlds forests, which are "Russia , Brazil and Canada" all signed.

They also committed some twenty billion dollars to increase forests world wide, I expect that little if any of this fund will come to us seeing that we have much forestland. It may well go to countries who have eliminated most of their forests, such as England that today has but 10% of their original forestland left, or Haiti that has almost 0 % left or others in a similar state. it will be interesting to see if this has any effect on the amount of harvest in Alberta in particular those who are exceeding their allowable harvest.

This is all part of reduction of carbon which is the cause of global warming, not so much for increase of timber production. It is very positive that the leaders have finally discovered that forests have a direct affect on global warming by sequestering carbon, cooling the planet, and retain water resources. (Most of the members of the WAA already knew this.)

The establishing more forestland will not increase the biodiversity for at least 20 years, therefore we must guard as much as we can in reducing actions that could damage our biodiversity. Which is the protection of our six inches of top soil

The towns and cities, industry, roads and other infrastructure, can and will totally destroy all biodiversity when they do a new development or expansion of their site. The first thing they must do is strip off all of the top soil. It is this six inches of top soil that gives us all our food from, grains, meats, fruit, flowering plants, grasses and timber, etc.

Wherever the top soil has been removed by either nature or humans it has turned into a desert. We have the means with which to destroy much of our top soil through the extensive use of chemicals and fertilizers which may kill the micro organisms that aid in supplying nutrients to the plants in order to do the photosynthesis by the leaves of the plants. Harvesting beyond a sustainable allowable harvest could result in soil washing away in a large rain storm.

The estimate of population increase is that by the end of this century there will be some ten billion people in the world, is this sustainable as we are ever decreasing land for agriculture. There are a number of countries that can not feed themselves, a case in point is England 2,000 years ago when the Romans occupied them it contained 85% forest cover today it has only 10% cover and they must import much of their food, this is a 1st world country just think of the 3rd world countries that are now going to bed hungry.

The destruction of the biodiversity as you see starts in those six inches of top soil, most people hear of the prediction of the number of species that are on the endangered list of extinction not the real danger of ever loosing our life giving top soil. We here in North America have totally made some species extinct the passenger pidgin there were millions of them but the last one died about 50 years ago, in the 18th century they were about 70 million buffalo they came within a hair of becoming extinct it was a few ranchers that saved them, the beavers were nearly trapped to extinction in the 1930's it took strong measures to save them. There was the acid rain that was killing the fish and birds in the lakes, this was repaired by cooperation of the USA and Canada. There once was the great White Pine forest in the Ottawa Valley that ranged well into the US these trees grew to more than 200 feet and up to 5+ feet on the but , all what is left of thjs forest are small amounts in parks and on some private land, new growth is slow and painful.

The loss of our topsoil is a problem that can not be repaired as easily the problem here is that many of our towns and cities are built on some of the best agricultural land in Canada's food basket (the parries), which continue to expand this means that each year 1,000 of acres of top soil is destroyed, this can not be repaired for once it is removed it is gone for good.

So if you have a woodlot keep it as it may be the only land for miles around that still has some of the original biodiversity and a healthy topsoil.

The Soils in our Woodlot

by ***Ivan Whitson*** *Ph.D, P. ag*

Forest soils differ from other kinds of soils. Forest vegetation has left a particular pattern on the developing soil profile. Because of a wetter climate, forest soils tend to become depleted of many of the minerals originally present in the soil parent material. In semi-arid and arid soil settings, minerals tend to accumulate in the soil profile. At the extreme, under wet tropical climates over long periods of time, all that remains of the original soil minerals are iron and aluminum oxides. The other elements were leached out, resulting in the loss of many metres worth of material, and not by erosion. In northern latitudes, especially drier ones such as ours however, soil profiles change very slowly.

Most of us will have some understanding of the soils in our woodlots. One way to know more about these is to locate a soil map for your area. Digital copies of these can be obtained free of charge from the federal government repository here: https://sis.agr.gc.ca/cansis/publications/surveys/index.html. Map in hand, you may still need to contact a soil surveyor to understand what the map is trying to say. In this article, I will explain three things that may help understand some of the soil pattern within the Boreal forest. They are climate, soil development, and the kinds of parent materials.

Climate

Climate is one of the five soil forming factors. I expect that many of our woodlot members are located in the Boreal forest, or more precisely, the Boreal Mixedwood natural subregion, and for those at higher elevations in western Alberta, the Boreal Foothills. Despite frequent wildfires, trees grow in the Boreal forest because the yearly amount of snow and rain are on average near the amount evaporated. In my woodlot (Boreal Mixedwood), the annual moisture deficit from 2011 to 2019 was on average 46 mm, but ranged from 157 mm (2015, annual precipitation 368 mm) to a surplus of 26 mm (2016, annual precipitation 550 mm). So, our moisture supply in these natural regions is just enough to allow forests to grow. Imagine if we had a moisture surplus of 500 or 1000 mm such as in some mountainous or tropical areas, the trees that would grow!

Now of course, I am only talking about uplands, not about our wetland or peatland soils. These too are limited by the climatic moisture deficit, but they have some strategies that upland forests don't to augment the amount of water available or make better use of what they receive.

Soil Development

The formation of distinct features in soil horizons is the subject of soil genesis and classification. The Canadian System of Soil Classification is a top-down system, with a few Orders at the top, many Subgroups in the middle, and thousands of individual Series and Phases at the most detailed end of the classification spectrum. I'm only going to discuss the Orders that dominate our Boreal Mixedwood and Foothills natural subregions.

Luvisolic soils

Luvisolic soils commonly support forests of aspen, white spruce, and lodgepole pine. In earlier times, we called these *Gray-Wooded*, or in academic circles back then, *Podzolic*. The term *luvic* was central - it denoted downward movement of soil particles (eluviation or leaching) within the profile. In short, clay particles, (less than 2 microns in size), unite with small organic molecules produced by forest litter decomposition and become mobile. Over thousands of years clay particles were carried downward through numerous soil fissures and cracks into the B horizon, in response to rain or snow melt. Clay particles accumulated on the outsides of these fissures. The overlying A horizon lost much of its clay, and took on a grayish color as silt became the dominant particle size. In contrast to the A horizons of grassland soils, A horizons of Luvisols tend to store relatively little organic carbon. The trees play an important role in both the organic carbon distribution, and to the downward movement of clay particles. First, organic carbon in forest soils remains mostly above the mineral soil surface, as opposed to accumulating within the mineral soil profiles. Second, compared to grasses, forest litter has many complex organic molecules (for example, lignin) that are relatively hard to decompose. Decomposition of the forest floor or litter layer (more by fungi, less by bacteria) produces organic acids that move with water, and these organic acids are one of the agents that helps move the clay particles.


Shallow peat

Organic soils

These are commonly associated with peatlands, which some people errantly consider to be *wastelands*. Nothing could be more wrong. Certainly trees don't grow as fast or to the sizes we find in our uplands, nor should they. Organic soils provide many ecosystem services, including helping to regulate the atmospheric carbon dioxide concentration. Peatlands store organic

carbon, for long periods of time. When, in the context of climate change, scientists talk about the enormous amount of soil carbon in Canada's Boreal, they are referring mostly to the Organic soils contribution. Organic soils consist in most cases of organic material derived from mosses or trees that is only partly decomposed. Low rate of decomposition is largely due to relatively low soil temperature and lack of oxygen in the soil profile. That lack of oxygen is due to the long durations of saturated conditions, since water doesn't hold or transmit much oxygen. Soil horizons in the Organic Order consist of layers that are differentiated most commonly on the amount of decomposition, ranging from least (fibric), to intermediate (mesic), to the most decomposed (humic). In the natural subregions referenced, organic soil horizons are often fibric in the top 20 or 30 cm to mesic in the remainder. And, there is commonly a mineral soil horizon within a few metres of the land surface.

Trees on Organic soils typically include black spruce, willow and tamarack. These tend to not be harvested commercially in western Canada. I toured sites in Ontario some years back where peatlands were the primary source of timber for some pulp mills. Imagine, making paper from trees that were 5 or 10 cm in diameter! There has been research in Alberta into improving rates of growth by peatland drainage, but fortunately that wasn't put into regular practice.

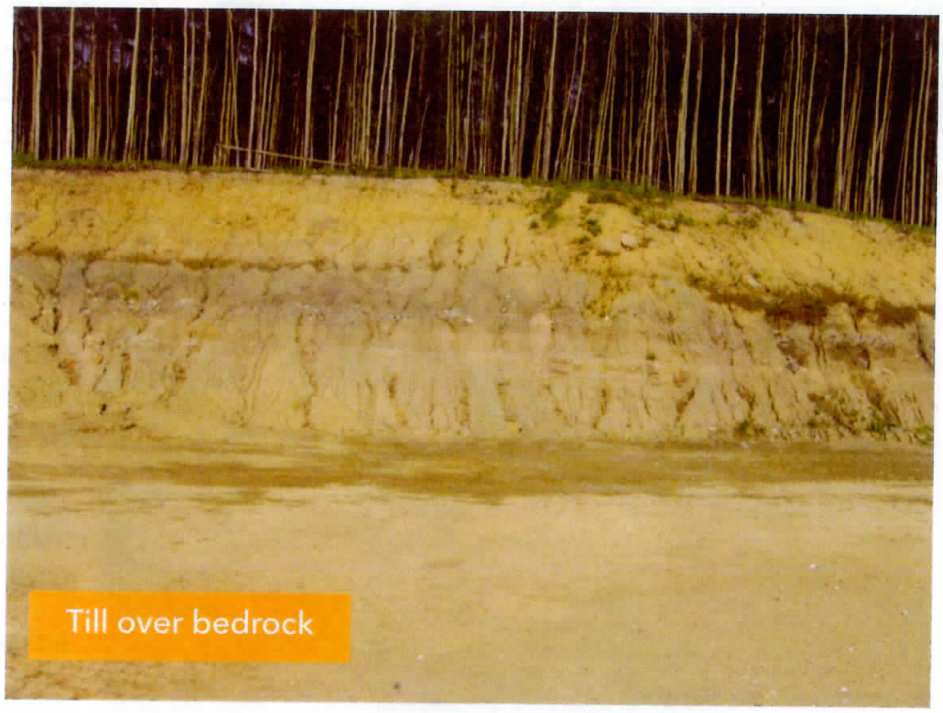
Peatlands aren't that different than glaciers. In a glacier, it is water that is stored, and the glacier expands or contracts based on climatic signals. In peatlands, organic carbon has been produced at a rate *on average* just slightly greater than the rate of decomposition. Peatlands can shift between carbon-gaining and carbon-losing, due to many natural and human-related causes. I would imagine the establishment of cutlines for oil and gas exploration did not benefit the carbon-storage function of our peatlands. If climate change continues such that peatlands become aerobic for greater periods than before and/or burn off with wildfire, they become yet another potential tipping point for our global climate. At the very least, do not interfere with groundwater levels in your peatlands!

Brunisolic soils

Brunisols take on great variety across Canada, but in the natural subregions referenced here they tend to be found in sandy textured parent materials. In northern and eastern parts of Alberta, Brunisolic soils are often associated with Jack Pine. Eluviation is present in these soils, but there is so little clay in the profile (either in the A or the developing B) that B horizons are not enriched with clay. Like those of Luvisols, the A horizons of Brunisolic soils are gray in color. The B horizons in Brunisolic soils are often a dark brown colour indicating that various forms of iron adhere to the outsides of the sand particles. The forest litter layer at the land surface is usually much thinner than for Luvisolic soils, reflecting the lower productivity of pine forests. A fourth order, Gleysolic soils, tend to occupy wetlands, but are rarely dominant over large areas. They become saturated to shallow depths but for shorter periods than Organic soils. A fifth order, Solonetzic soils, are present in areas that were saline sometime in the past.

Parent Materials

These matter because soil texture is usually a function of parent material and landform. Soil texture is the proportion of sand, silt and clay-sized particles. Glacial lake deposits display a wide range in textures, from sandy (former shorelines and deltas) to clayey, such as in glacial Lake's Peace and Edmonton. Tills reflect the underlying sedimentary bedrock, which in our interior plains, means intermediate levels of clay (often 20 to 40% clay particles). Deposits from glacial rivers tend to have a higher proportion of sand and a lower proportion of clay, because in moving water smaller particles remain in suspension. Loess (such as the tops of the Swan Hills, or the Alberta foothills near major rivers) is often enriched with silt-sized particles, the optimal particle size for long-distance transport. There are many areas of former sand-dunes (eolian) throughout the referenced natural regions. These dunes were active shortly after deglaciation, but were stabilized by forest vegetation as the climate became less arid.



There are also some uncommon but interesting parent materials. Weathered bedrock is the parent material in areas devoid of glacial deposits, more common in the Boreal foothills than in the mixedwood. Volcanic dust deposits from sources further west are occasionally found in western Alberta. The tops of the Swan Hills are blanketed by a thick layer of pre-glacial river gravels that were deposited millions of years ago.

Summary

This article covers off some of the basics of how forest soils came to be in our region, an origin story but for soil. Luvisolic soils form on the commonly medium to fine textured glacial parent materials that abound in the Boreal Mixedwood and Foothills natural subregions. Organic soils cover the extensive peatlands of the region, where water tables remain close to the land surface except during drought. Brunisolic soils tend to align with sandier soil parent materials. Despite these simple relationships, soil properties vary over short distances. One can often find Luvisolic and Organic soils present in the same hectare of land. Within a patch of otherwise uniform Luvisolic soils one can find differences in texture, horizon thickness and chemical properties. Similar to other attributes of terrestrial ecosystems, soils are complex.

Taste of the woods...

by Julien Schnegg

Hello,

Today on the « Taste of the wood » we will do a remastered black forest swiss roll. On our neck of the wood we have a lots of berries. Today we will do it with raspberries. Christmas is on the way! We can do this dessert and decorate it like a yule log for Christmas. This recipe requires a bit more technique.

first lets do the cream chantilly:

500 ml of 35% whipped cream
50gr of sugar
1/2 teaspoon of vanilla extract

Whip all ingredients until fluffy. Reserve this chantilly in the fridge.

lets make the raspberry coulis:

200 gr of raspberries

50gr sugar

1 lemon juice

Cook all ingredients and blitz them. Pass them trough a fine colander. Reserve the coulis in the fridge.

chocolate sponge cake:

5 eggs
150gr of sugar

67.5 gr of flour

67.5 gr of cornstarch

15 gr of cocoa powder

Pass flour, cornstarch and cocoa powder through a fine chinois (sieve) to remove all crumbs.

Turn on the oven at 390F.

Make a Sabayon: In a bowl stir eggs and sugar over a bain marie with a whisk until mousse texture. (It will take about 5 min.)

When it's fluffy put this sabayon in a kitchen-aid bowl and with a whisk mix at speed number 6 for another 7 min. When it doubles in size remove whisk and with a spatula add your flour, cocoa and cornstarch slowly. when it's totally incorporated, put this mass on a baking sheet covered with baking paper. Make a rectangle 1 cm high. Bake it for 8-10 min. While baking, grab a clean kitchen towel and make it wet. Take your wet towel and put it on a clean kitchen counter. Spread it flat. Take out your sponge cake and flip it over the towel. Remove the baking paper slowly. Roll the cake into towel and unroll right away. We do that to keep sponge cake moist.

Now take a bit of kirshwasser and spread on the sponge cake. Put your coulis in a fine layer all over the cake. Add Cream chantilly all over the cake and add a bit of raspberries. Roll it tight slowly. If the cake cracks, no big deal. Spread some cream chantilly over the swiss roll and decorate with chocolate sparkle or other Christmas decorations. Transfer that to a cutting board. Cut side ways. Garnish with remaining coulis and cream chantilly. Garnish your plate and deposit a slice of roll.

This one is a bit more difficult if you have question please text me or email me cuisto04@bluewin.ch or 587 834 8434.

Merry Christmas and Happy new year to all of you and your family.

If you have a woodlot or want to stay informed on issues about your woodlot like trees health, bug invasions, lumber, benefits of muskeg, etc. Or if you simply want to support our association because this is a good cause, Please fill the form below and send it to:

WAA

Olson Office Management

Box 303, Beaverlodge, AB

T0H-0C0

Yes! I want to join the Woodlot Association of Alberta.

Name_____

Mailing Address_____

Town/City_____

Province_____ Postal Code_____

Legal Land Description_____

Phone

_____email_____

Membership

1 Yr: $30

2Yrs: $50

Sustaining: $_____

Or

If you would like to offer to a friend, neighbour, or relative that are interested in topics mentioned above, please fill the form below and send it to WAA at the address above and we will send your candidate a certificate in your name that he/she is a member of the WAA for one year.

I _____ would like to buy a one year membership to the Woodlot Association of Alberta as a gift at the amount of: $25

For: Mr/Mrs _____

Mailing Address_____

Town/City_____

Province_____ Postal Code _____

Signature: _____

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Ivan Whitson, Ph.D, P.Ag
Senior Soil Scientist
35 years of experience in soil survey, research, interpretation, and evaluation

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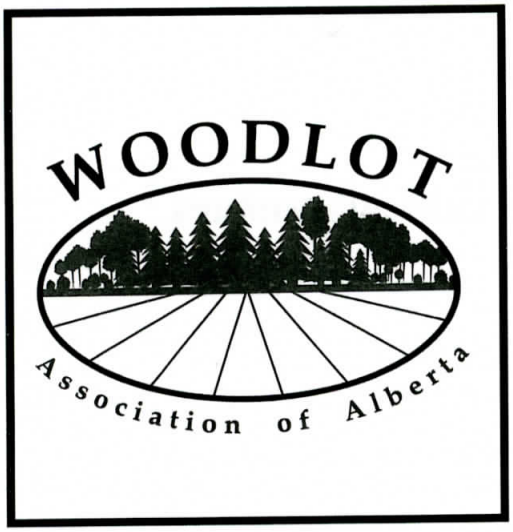
Privately Owned Mill

looking for timber

Willing to work with any size of privately owned woodlot and will consider any species of product. Willing to selectively harvest smaller or larger numbers, customize stump height, will consider any creative deal(cash, trade for lumber, with or without loading and transport etc). Will perform with utmost respect for the timber, surrounding environment and woodlot/land owners wishes.

Give me a call to discuss your vision.

Dan - 780-753-1544.



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.

Address of Beaverlodge office for renewal:

Woodlot association office
Box 303
Beaverlodge, AB
T0H-0C0

email: jess@olsonsbookeeping.ca
tel: 1-800-871-5680
Web: www.woodlot.org

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