

CANADIAN INSTITUTE OF FORESTRY
SOUTHERN ONTARIO SECTION
NEWSLETTER

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SUMMER, 2006

YOUR SECTION'S ANNUAL GENERAL MEETING, SEPTEMBER 21.

Our annual meeting will be on September 21. Apart from the business meeting we will be hosted by the MFC (Master in Forest Conservation) students. One of them, Julia Hancock, e-mailed me as follows:

Good morning Mack! I have attached a small piece I wrote about our recent field trip to Czech Republic and Slovakia that you may wish to include in your newsletter. (See below).

Our presentations will take 40-60 minutes, and we would like to show some pictures and highlight some of the forestry aspects of our trip that might be of interest.

I plan to organize a small dinner to go with the presentations where members of our class would prepare some traditional Czech cuisine.

Of course, dinner is optional, the new MFC s will also be attending our presentations and probably some other folks from the faculty so I thought it would be a nice evening.

The rest of the time would be at your discretion for your annual meeting, and any other business you need to take care of.

Julia Hancock *Forestry Summer Student* Natural Spaces Program Ministry of Natural Resources
300 Water St. 4th Floor South Tower
Peterborough, ON K9J 8M5

The attachment to Julia's e-mail read:

AHOJ FROM PRAHA!

The 2005 class of MFC students recently returned from their annual international field course in the Czech Republic and Slovakia.

The trip began in Prague on May 1st, a chilly spring afternoon. We walked around the old town, had lunch in a pub and then loaded our gear into our yellow Mercedes-Benz Sprinter.

Over the next 10 days we were taken on a whirlwind tour of UNESCO biosphere reserves, historical sites, nature reserves, hunting reserves, and Protected Landscape Areas. We observed flooded forests, alpine forests, state forests, community forests, commercial forests, forests on karst landscapes, and sandstone forests. We drove from 2000 metres asl to 150 metres asl in one day! We covered over 3000km's, and we met foresters, geologists, resource managers, and scientists. The rivers were all still running high as it was a record-breaking flood year, and watched the seasons change and the trees bloom.

The course offered us a perspective on forestry in Slovakia and the Czech Republic that few people would ever have the opportunity to learn. We had great tour guides who translated every question we had, and showed us the most amazing places, off the beaten trail, that most tourists never see. We stayed at the cutest little penzions (bed and breakfasts), ate delicious meals, and tasted some of the best pivo (beer) in the world! We feel very fortunate to have experienced so much of these two beautiful countries' culture and countryside in such a short period of time.

Plans are in the works for the MFC '05 Class to host a meeting of the Southern Ontario Section where we can tell you about our field course and forestry in the Czech Republic and Slovakia. We hope this will also include a Czech inspired dinner! Stay tuned for more information!

-Julia Hancock

Mack's note: Students on this trip included, besides Julia: Devlin Fernandes, Vanessa Hayward, Erin Kennedy, Lucia Frndova, Franklin Suh, Brenna Lattimore, Tyler Peet, Behzad Rahgoshai, Sarah Lamon, Ricardo Toledo, Kris Gardner.

YOUR SECTION COUNCIL MET

Council met on Saturday, May 20 at Kortright Centre. Present were Chairman Bruce Ferguson, John Nolan, Terry Schwan, Mack Williams, and new Council member Albert Hovingh, who is

employed with the Regional Municipality of Waterloo. In the absence of Secretary Mike Clarke on family business Mack took minutes.

Previous Council meeting minutes (Sept. 17, 2005, also at Kortright), were adopted. The main items discussed were the 2007 annual meeting, and the forthcoming section meeting, October 15, 2005 also at the Kortright Centre.

Treasurer's Report Treasurer Terry Schwan reported. After the bill is paid for the Spring Newsletter, the bank account will be \$1,680; a cheque from National Office covering section dues will bring it close to \$3,200.

Main expenditures over the past year include: \$250 toward Director's expenses to attend the CIF AGM in Prince Albert; \$600 for four issues of the Section Newsletter; \$280 for printing a brochure for use at the Kortright Centre.

The display case at Kortright was paid for the previous year, \$500 from a FACT (Forestry Awareness in Canada Trust) grant, \$800 in a grant from York Region (as part of its Greening Strategy), and \$700 from our own treasury.

Bruce noted that section dues vary considerably among sections, ours likely being the highest at \$20. This is understandable, given that each section runs its own program. But it is a significant headache for National Office, who as a long-standing service has collected section dues. National Office therefore asked that each section charge the same \$15. It was agreed that this is a reasonable request, that our section can probably operate on \$15 dues, with charges for events for any budget shortfall.

CIF National. Bruce provided updates on the CIF National, including marketing and communication strategies, an environmental scan, the national e-newsletter, a desire to recruit more students, the value of technologists, and an increase in aboriginal forestry, lack of public awareness of forestry and the CIF,

Bruce noted that so far there is one nomination for the position of 2nd Vice President on the National Executive.

2006 CIF AGM The Boreal Conference Oct. 1-4 will be in Cochrane, jointly hosted by CIF and the Lake Abitibi Model Forest. The CIF Directors' meeting will be in Timmins Sept 30-

Oct.1. The CIF AGM will be in Cochrane Oct. 1. Bruce will attend on behalf of our section.

The 2007 Conference. Bruce reported on preparations for the 2007 conference Forestry in the Settled Landscape, jointly hosted by CIF and the U of T Faculty of Forestry. It will be part of the Faculty's 100th anniversary celebration. It will coincidentally be the Section's 70th anniversary. (It will be the CIF's 99th).

The 2007 CIF Board of Directors' annual meeting will be August 17-19, the conference will start Sunday, August 19. On Aug 20 (Monday) will be awards banquet, commemorative tree planting, a reception, and plenary sessions. On Tuesday and Wednesday will be concurrent sessions. There will be three main streams, regional landscape planning, private land forestry and land stewardship, and urban forests and trees.

On Tuesday evening a barbecue is planned at Doug Drysdale's Tree Farm, and also an alumni event. On Wednesday the incoming CIF President will be installed. On Thursday there will be a choice of 2 to 3 field tours.

The Faculty of Forestry is able to access meeting facilities and services, as well as University residence accommodation during the University's off-season. So a good conference can likely be offered in this downtown Toronto setting for \$300, or \$100 for students, a rate for retirees, and a single day rate.

There will be close liaison with the Committee organizing the Faculty of Forestry's 100th anniversary celebration, which is chaired by David Balsillie.

The Conference Committee at present includes co-chairs Bruce Ferguson and Andy Kenney, as well as Rod Carrow, Mike Rosen, Dave Martell, Adrina Ambrosii, John Wilson, CIF Executive Director Roxanne Comeau, Mike Clarke.

(In a leaflet "A Year to Celebrate" being developed by the Faculty, are listed several items that form part of that celebration: Updated directory of Graduates; Faculty History; CIF Conference and Annual Meeting August 17-23; "Homecoming Event;" Lecture Series; International Congress, Sept. 30-Oct.3; Centennial Wall.).

U OF T FORESTRY ALUMNI MEET

The U of T Forestry Alumni Association (FAA) has been inactive for the past decade. The Centennial seems to be a good time to revitalize it, and renew contact between the Faculty and its alumni, notably its older ones. This would let alumni know some of the good things that have been happening at the Faculty in the past decade, during difficult times, show that the Faculty is worthy of alumni interest and support, and to promote dialogue that would further the interests of forestry.

Since last fall a small committee of alumni, led by Rod Carrow has explored various aspects of, and reasons for, revitalizing the FAA. This led to a meeting of Alumni on June 8, with about 15-20 present, at which an interim president and vice-president of FAA were named, with the idea that an executive would be more formally elected and installed during the Faculty's centennial.

Meanwhile FAA members can be supportive of and act as ambassadors for the Faculty, help in any way possible with the centennial preparations, and serve on the Faculty council.

It is strongly felt that a new Graduate Directory would be warmly welcomed by alumni and useful to the Faculty. (I contacted members of my own class, 5T0, of pre-1948 classes, and of several other classes, I know that many, esp. older alumni, warmly welcomed the prospect of renewed contact, after so many years).

In the discussion at the June 8 meeting, a number of points came up. Dean Smith has spent much of his first year as Dean meeting with many alumni, and also with the OPFA, with the idea of having the strongest possible ties between the Faculty and the professional organization, so that everyone is as well grounded as possible for the multitude of challenges to 21st century forestry.

Alumni now fall into four main categories: the BScF's, by far the most numerous; the MScF's and PhD's, the Master in Forest Conservation, the Diplomas in Resource Management

ERIC BOYSEN'S E-MAIL ABOUT FOREST BIOMASS. AND ENERGY.

Mack: the Renewable Energy Section (of OMNR) is a newly created section that focuses on making crown land and resources available to

help the government meet its commitment of 1,350 new megawatts of energy from renewable sources by 2007. This is mostly focused on wind power (large installations) and new hydro power. To a lesser extent we are also involved in small scale proposals but Ministry of energy has the lead on that through its Net Metering plan.

We are involved in forest biomass, both as a direct energy source of fuel, but also to extract diesel and other products (fuels?) from it.

ONTARIO TREE MARKING COMMITTEE AT SIR SANDFORD FLEMING COLLEGE

The info I have from the Ring Ceremony at Sir Sandford Fleming College in March, and which I received after the last issue, mentions the Ontario Tree Marking Committee and Westwood Forest Stewardship Inc. A note from Steve Munro of Westwood to Mike Clarke, who attended the ceremony for our Section, notes that:

The Ontario Tree Marking Committee were pleased to provide Janine MacDonnell with a tree-marking bursary at SSFC's Forestry Ring Ceremony. The tree-marking bursary went to the student with the highest marks in silviculture and had on his/her own applied to the tree-marking course. Janine will attend the course in May and the bursary, \$800, is to cover the cost of the course and to contribute to cost of lodging.

For information about Westwind I went to their web site www.westwoodforest.ca

WHAT IF

In May, the Toronto Star ran articles, inviting readers' ideas on things they think would help make Toronto a better place to live. Below is my attempt. I cannot tell you if it got published. I think a similar letter could be written about any S Ont urban (or rural) municipality.

Dear (Toronto Star):

I'm a forester, long retired, and have lived most of my adult life in North Toronto.

Toronto is a city of trees; it could become even more so, and Torontonians and others could benefit richly.

Toronto, like most large cities, is a major heat island, and so the summer heat and the smog levels are much more intense and unbearable than they need be. And just as seriously we contribute to global warming.

It need not be so. Greening more rooftops, especially flat ones exposed to the sun, with vegetation, or at least with a coating that reflects sunshine and does not turn it into intense heat, would help. Placing vines that protect building walls from intense summer sunshine, winter wind chill, or both, would also help. These would lead to significant savings in the cost to heat and cool such buildings--especially those that are kept cool in the summer. A number of buildings in Toronto demonstrate that this is so.

Trees that shade buildings from summer heat and shelter them from winter wind chill also make a significant difference to the building's comfort and to its energy needs. Those same trees benefit the resident and the city in many other ways. They are aesthetically pleasing, nice if they line the sidewalk and street and shade them from the summer heat. They help filter some of the ever-present air pollutants, and help buffer some of the city noise. In all, a multiple benefit for all.

The city knows all of this, and is moving ahead as fast as it can, with its tree planting programs, and the work of its forestry department and its tree advocate (who is a city councillor and deputy mayor). What would help is to give that effort as much support and promotion as is possible, as well as to groups like the Toronto Atmospheric Fund and its various partners, volunteer groups like LEAF (Local Enhancement and Awareness of Forest) who do so much to promote awareness and positive action, and local groups like the Toronto Green Community.

Many school properties are heat islands, with large paved areas, devoid of trees, shrubs, and other green material. Many of their buildings are neither comfortable nor energy efficient.

That, too, need not be; there are signs that that may change dramatically. There are some Toronto schools that with the help of highly dedicated staff, volunteers, students and parents have made some remarkable transformations in their grounds, even in the heart of downtown. A small group, the Board's Department of Environmental Education, has been at work since 1996 to advance environmental education and to make the schools environmentally friendly, a decade

when such activity was not highly popular with those who hold the purse strings.

And what remarkable things are in some of their reports. Building what they call Ontario's first high-performance green school. An Eco-Schools program certifies schools for meeting certain standards. Promoting a range of energy conservation measures. Reducing waste.

One item reported is the greening of school grounds. Such greening has immense benefits for the community, and for the learning and play experience and the security of the students and staff. Quite a number of schools have had good greening programs for years; the number is now dramatically improving.

The Board has 2,500 hectares of property across the city, and now speaks of the Toronto District School Board Urban Forest, and has programs to care for its trees and other natural features, to expand and protect what it has, and more. (I'd guess school boards across S. Ont. have 8-10 times that area of school grounds). I presume its Urban Forest includes its outdoor education centres, several within the city, which offer rich programs for Toronto students and in my view the potential, given the resources, to do much, much more. (Imagine, making maple syrup within the city that draws honours at places like the Winter Fair!!). The board properties, by their very nature, are dispersed across the city's geography, so the Board's urban forest is very much a part, and a very special part, of the City of Toronto's urban forest, which, in turn, is part of an urbanizing S Ont forest. (I'd think the same could be said of all boards in S. Ont.).

What next? I think that boards need to be supported and actively encouraged, morally, financially and otherwise. They can be a big help in making this the kind of Toronto we would want for our great grandchildren, and in making sure that we all have a better appreciation of trees and the rest of nature. Your writers could do wonders by becoming thoroughly familiar with this and continuing to spread the word.

FROM A LETTER TO SUPPORTERS AND MEMBERS FROM TORONTO GREEN COMMUNITY (formerly North Toronto Green Community).

This amazing city is full of forests, parks, wildlife, rivers and other natural areas that do not

know boundaries. With your help (and support) we can help build the understanding and respect to help in their protection.

Toronto needs more environmentally aware and active residents to help build more green spaces for children to learn and play in, eco-gardens and green energy for cleaner environment we will all help create a healthy beautiful Toronto.

And

A cleaner, greener Toronto would benefit everyone and by working together we can achieve this goal.

WOODLOTS AND THEIR OWNERS IN YORK REGION.

In the past few months a York Region landowner, John Hicks, through contacts with regional staff and fellow landowners, attempted to organize a woodlot owners' meeting in June. He gave up when the response proved to be too small. I wrote him, roughly as follows:

Hi John: Your experience with your fellow York Region woodland owners is sad, but it seems you have given it your best shot. It further reinforces my feeling, based on 60 years with my own forest property, and being in MNR-Lands & Forests for 33 years and then an ex-MNR person for 22 years. I feel that this kind of experience will happen again and again, until/unless certain things happen.

I'm unsure that it is your fellow landowners that are at fault. I'll bet 99% of them haven't a clue of the value of their holdings, except, as you suggest, as development potential, apart from a small handful you and/or regional staff people may have been able to reach individually. They don't know the economic, environmental or social benefits of well looked-after forest, to themselves or to society. They've no idea that owning such an asset just might be properly seen as a sacred trust. And all the courses and best efforts stewardship councils and others could put on from now to doomsday may not make much difference--the task is overwhelming. (But that does not mean we should stop trying).

I think that society (not just any or all levels of government, not just conservation authorities, not just stewardship councils, not just NGO's, but all

of us collectively) must invest some serious thought on questions such as:

1. What kind of future landscape do we want for a rapidly populating Southern Ontario, from the large city centre to the most rural areas, where our grandchildren and theirs will WANT to live?

2. How much forest/how many trees will there be? What kinds? Where will it be located, from the densest forest to the least treed urban or rural areas? On what parts of the landscape will it be most or least concentrated?

3. What will those trees or forests do for us or for the landscape? Producing tree crops to sustain a much expanded wood using industry can be done in ways that also enhance or maintain all the other forest values landowners and society should hold dear. Perhaps at least a portion of that forest will be used for purposes and in ways we've scarcely yet dreamed of; agroforestry, permaculture, stands managed intensively for timber or other crops may be among them.

On my own place, each thinning has been much better than those before, in economic terms, and in terms of enhancing or maintaining the other values. It was a pleasant place to be in 20 years ago; it is MUCH more pleasant now.

4. The great bulk of the S Ont forest will continue to be owned by over 100,000 rural landowners and several times that many urban owners. What will it take to ensure that collectively, all those privately owned forests taken together add up to the desired forest.

5. It is in the interest of both society and landowners collectively that that forest continue to be there, in the right places, for the right uses, and in good health. Will society recognize the benefits it derives from the forest, and see a moral obligation to carry a share of the burden? Will it recognize that certain parts of that burden may best be carried by society at large. Will it try to make sure that landowners are aware of the asset that is their forest? Will owners and society both see clearly enough to include "doing the right thing" among their collective objectives.

Over the past century numerous programs have come and gone, intended as incentive or help to owners to promote sound forestry. The awakening before 1900 to the rapid loss of trees and forests led to encouraging farmers to plant trees along their fencelines and roadsides. The

county forest program was established, as were tree nurseries across Southern Ontario, which for decades provided tree seedlings to landowners, free at first, then at a nominal charge. A little known item: in the 1930's after my parents planted some 60,000 trees in the Oro Hills, the County paid a small bounty for trees that made it past the first three years.

In the 1940-50's, the start of a forest extension service, and the formation of conservation authorities who did a lot of good work and encouraged a lot more, many had their own landowner incentive programs. The Woodlands Improvement Act from 1966 through the 1980's. Property tax rebate. The present Managed Forest Tax Incentive Program. Each designed I'd think so that society would assume a part of the burden of establishing and looking after a forest. To my knowledge none ever attracted more than 10-15% of landowners. And there have been times when the assessment and taxation system was applied in ways that did anything but encourage good forestry.

In my view no one has ever taken the S. Ont forest seriously beyond a small handful of very dedicated people. Until we do, things won't improve.

So, despite your discouragement, I think you should persist. To anyone who wonders if York Region with its rapidly growing population is a suitable place for forestry, I'd suggest that many much more populated parts of the earth than York Region (e.g. parts of India, parts of Europe) have quite respectable forests. And it may not be a bad comparison to note that Food Share Toronto has noted that if we put our minds to it, 20% of Toronto's food needs could be produced within Toronto's borders.

For whatever it may be worth, I'd note that the Huronia Woodland Owners Association has around 100 members (including me). They extend across an area that has many, many times that number of woodland owners. They would welcome expansion, and to me they could be the nucleus of an expansion, should society ever take it seriously enough.

One final thought: society collectively and owners individually must recognize the long term view. They should not be in it just in hope of making a quick gain. It was because someone in the 1920's had the long term view that today we

have York Region forest instead of a bunch of expanding sand dunes.

Mack.

THE FUTURE OF THE WORLD?

In a short space of time in late May and early June I happened to do 6 things.

1--Began to read Stephen Lewis' recent book, *A Race Against Time*, about appalling economic, social and environmental conditions in much of Africa; 2. Briefly scanned Tim Flannery's recent book *The Weather Makers*, pulling together some of the science and politics regarding climate change; 3. Briefly scanned Al Gore's book (and saw the movie) *An Uncomfortable Truth*, about our collective unwillingness to face up to the realities of climate change; 4. Listened to Dr. Thomas Homer Dixon, author of the book *The Ingenuity Gap*, on how well society might cope if a number of crises happen at once. 5. Attended an all-day conservation summit held by the Conservation Council of Ontario.

At the CCO summit, Gord Miller, Environment Commissioner for Ont. in a keynote address noted the increasing threat of social disruption over time. These may be driven by 3 C's: compound growth in consumption; climate change; and the cumulative effect of all these. He notes society's obsession with compound growth, at 3% it means doubling every 23 years. Peak oil is upon us; peak water is not far off.

He noted the disappearance of the buffalo, passenger pigeon, atlantic cod. Not all due to over-harvesting, but a combination of many stresses that included that plus loss of habitat, and which operated for a while then led to sudden collapse.

Ontarians are experiencing stresses over energy supply (will there be gas, electricity, will we have all those new nukes with their benefits and dangers), water(all those new big pipes, changes in stream flow due to water-taking, quality of both drinking water and ground water), consumption vs. conservation, environmental health problems (allergies, asthma, cancer, cardiopulmonary stresses. All these stresses add up to the possibility of a huge superstress. How will we react to these, as a society and as individuals? (Think of the big blackout in 2003,

and imagine what it might have been like if the 1998 ice storm and the 2002 SARS crisis and perhaps a possible future flu pandemic, or a heat wave or a blizzard had come at the same time,)

Stephen Lewis was Canada's ambassador to the UN in the 1980's, and then served in various senior roles at the UN having to do with Africa. In his book *A Race Against Time*, a series of five lectures, he portrays a continent under the mother of all superstresses, a combination of political and social turmoil, deep poverty (people living on under \$1/day), widespread illiteracy, circumstances in which gender inequality has devastating effects, widespread HIV/AIDs that wipes out entire families, families of orphans that have buried their parents and are now on their own, unless they are lucky enough to have aging grandmothers still able to care for them, agriculture devastated by many workers being too sick to look after the crops and their sick families, impossible conditions for effective help imposed by those around the world who could help, lack of political will of those who could help.

He does not mention the prevalence of small arms in Africa, and of armed forces made up of children so trained in brutality that they cannot ever return to their communities. Nor is there much mention of conditions in war-torn Sudan.

But Stephen Lewis does not give up. He offers ten suggestions that he feels would help to turn things around. Suggestions like shaking up certain key UN agencies, getting serious about gender equality, tackle the scourge of HIV/AIDs, malaria, tuberculosis with effective treatment and prevention; reducing hunger, addressing the huge numbers of households headed by young children or aging grandmothers, addressing the psychological scars left on most of the population by all this.

And there are good things happening that may provide the seeds of a new dawning. I mentioned in a previous issue the Green Belt Movement in Kenya. A number of charitable organizations I know of are doing good work in tackling one or more of these problems in one or more countries.

Thomas Homer-Dixon, of the U of T's Peace and Conflict Studies Program, addressed a breakfast meeting on May 31 on some of the complex and interacting economic, political, technological and ecological stresses threatening modern society,

what might be done to limit their severity and how we might benefit from them.

Random thoughts from his presentation. It helps to maintain a link with nature. Environmental stress has led to social violence, genocide, civil wars. There are two ways to react to the stress: figure it out and benefit from it, or collapse under its pressure. We can let things slide, or rebel, or rise to the occasion.

Some well-known modern day stresses. 1. Large and widening gap between our richest and poorest, be it locally or globally. 2. Energy—transition from cheap to costly energy, the seriousness of future supply is not appreciated. 3. Environmental degradation, especially in poor countries. 4. Climate change, and our emerging awareness of its seriousness. 5. Economic structures. He wonders: what happens if crises arise in two or more of these at once. How can we be prepared for crisis. Can we take the right actions that will lead to our benefiting in the long run. Will we wake up in time.

What has all this to do with forestry in Southern Ontario? It all illustrates that if we in forestry can summon the foresight, vision and backing, we may be able to develop a forest on our landscape with ecological, economic and social values that might well soften the impacts of some of the kinds of crises these authors have described.

As a tiny example, a day relaxing in my woodlot is a helpful break from the often overheated city environment. Well managed forests may provide wood and other forest products that could help offset a host of economic and other impacts. The Green Belt movement in Kenya means that at least a few women in that country do not have to walk long distances in search of wood for cooking, or their families do not have to do without the food they need but which requires cooking. Reforestation in Northern China may yet keep the desert sands from overwhelming the cities. Had the mangroves still been present in many places of the Indian Ocean, the effect of the 2004 tsunami might have been somewhat lessened. The large tree dominating my tiny North Toronto lawn has meant that I could get away (albeit uncomfortably on occasion) without air conditioning. Lots of trees around buildings would increase their comfort and lessen their heating and cooling energy needs. Reforestation here in S Ont helped reverse some of the really bad land use practices that had developed.

The main thrust of the CCO summit was to identify a number of problems and a number of approaches to solutions for Ontario's tightening energy supply.

KIDS IN THE WOODS

In 1988 at a conference, I first heard about a study finding hospitalized patients recovering faster and more fully, and with less treatment, if they were located where they could see trees or forests, than if they could not.

I have sat in a treatment room, and if nothing else it helped me reflect on nature and creation to look out at a lone Austrian Pine in a courtyard, at the time when the buds had just opened and each one had formed an upright "candle". And knowing that it would tell the story in 12 different ways if seen for a year at monthly intervals.

I've known (well, anyone can see) that that relationship or contact works well with kids as well (once the inner city kids who've never been in a forest get over their apprehension).

The Toronto Star in June had a series of articles in support of its Fresh Air Fund, which sends many city kids for a few days in summer camp.

In its June 11 article Richard Louv, a US scientist, has some startling things about the benefit to kids of exposure to the woods or otherwise to nature.

"The calmness of the woods brought me the sense of connection to something larger than myself, the sense of connection to wonder."

Scientific support for this connection is now growing. Kids that enjoy a green view can better handle stress. Kids with attention deficit disorders benefit directly from exposure to nature. Being at a week-long camp caused kids to have science marks substantially higher than those of their peers. (And I'll bet in other subjects as well).

(And I wonder if meaningful exposure of young people to the forest, or other aspect of nature, might not help ease the tendency of the modern cities to outbreaks of weapon-related violence).

Richard Louv says there is evidence that exposure improves cognitive skills, learning

ability, attentiveness, and may help counteract obesity (that 21st century epidemic).

Louv favours outdoor classrooms, nature centres that engage kids, and transit that gets kids from the inner city to the inner forest.

He notes that if a week in the woods is not possible, a day or two, or even a couple of hours, is a help. For any kid a scruffy ravine, patch of tall weeds, or a tiny bog beside the railway tracks is far better than nothing. They may not look like much to adults, but to a kid they may be a university.

BOREAL

In their web site www.forestethics.org is the paragraph about the Canadian Boreal Forest:

If you care about clean air and water you care about the Boreal Forest. It stretches across Canada with an area 13 times that of California. It holds more fresh water than anywhere else on earth. It plays an essential role in cleaning the air we breathe. And it is home to rare species of wolves, bear and woodland caribou, as well as to half of America's song birds.

SEED FOR THE URBAN FOREST

On June 17 the Ontario Urban Forest Council (OUFC) held a workshop on "Land Restoration: Role of the Urban Seed Orchard" given by foresters Barb Boysen and Marshall Buchanan. It was for individuals, communities, municipalities and many others wanting to be involved with heritage trees, a new generation of urban forests, and the seed for establishing that forest.

A booklet was discussed "Tree from Seed: A Community Forest, a Guide to collecting seed and growing seedlings, by Haldimand and area Woodlot Owners Ass'n, 2000. It was also noted that MNR's Tree Seed Manual is available for \$25.

In the workshop, Barb and Marshall discussed the importance of genetic diversity in selecting seed. The seed should come from the right seed zone or ecodistrict, of which Ontario has 55. If a suitable source cannot be found within the seed zone, an adjacent zone, preferably the one that is most similar, may be chosen. Allowance for continuing climate change may be made by

choosing a seed source in the warmer part of the seed zone. Plantations are suitable seed sources if their seed source is known (seems unlikely) or if the trees are mature and healthy.

The species chosen should meet the desired objective on the site where it is planted. A group of trees is often chosen for seed collection, and seed is collected from many of these, to maximize both diversity and fitness. Poorer trees are not necessarily excluded, for they may have some valuable trait not as well represented in the better trees. (e.g. there may be future medicinal products for which that trait is useful, and of which we have not yet dreamed). It is good to collect from stands with many trees of the desired species, for a broad genetic base, to minimize the risk of inbred seed.

The right mix of species is as important as the right species. Exotics may have a place, less in the undisturbed forest than a severely disturbed area. Those with invasive tendencies, like the Norway maple, should be avoided or used with extreme care, lest they escape, say, the front yard and wind up doing serious ecological damage to nearby natural areas.

There are about 100 woody species in Southern Ontario, 20 (4 shrub, the rest tree) of which might be suitable for planting, depending on ecology and demand.

The role of sex (well, sexual reproduction in many plants and animals) was pointed out. The genetic characteristics of both parents may be combined in various proportions in the offspring, making it different from either parent. Along with circumstances, and chance, it has profoundly influenced the rate and direction of evolution. Many new combinations are produced, most of which are eliminated through natural selection.

Inbreeding retains certain characteristics, and can be good or bad. Introgression, or interbreeding with other species, may also be good or bad.

Each tree species has its own perhaps unique reproductive strategy, which needs to be known by those who would gather seed for tree seedlings.

One risk of having isolated forest areas, is that most tree pollen will normally travel only a few hundred metres. So stands or groves of trees, both in the city and country, may be isolated

enough to become genetically limited. One implication of isolation is that the separated populations may evolve in different ways. In the extreme case, the fauna and flora of, say, Australia, may be quite different from anything else in the world. More locally, small isolated areas mean limited ability to adapt to change, to the point that a species may die out and either just be missing from the forest, or its place in the ecosystem taken over by another species.

It is useful for people involved in seed collection to know things about the species, such as when, how often and how abundantly a seed crop occurs, and whether the species is a desirable one for the planting project—if it is a natural part of the ecosystem, as well as whether it has economic or social value. Some species tend to have bumper crops of seed at intervals of a few years. In some, the cones or other fruiting bodies are present for the two or more years it takes them to produce ripened seed. Seed from a bumper crop is likely to be better quality than that from other years; the earliest seed in a bumper crop is of lesser quality, and so on.

The interval between bumper crops seems to be extending, quite possibly in ways attributable to changing climate, land use, or both.

A data base or register was demonstrated that as it develops would greatly facilitate the location of seed trees as needed. Marshall's draft "The Urban Seed Orchard" describes how field information might be gathered. It could include sites already well known and those discovered from time to time—even by a knowledgeable person on a hike.

A single tree, or a group or cohort of any size, might have information recorded as to location, type of forest (woodlot of known size or riparian buffer, grove, windbreak, cemetery, street tree, and so on).

For the cohort and for each individual tree would be recorded site description, whether planted or naturally growing, and a rating based on tree health, trunk diameter, crown size, dominance in the canopy, age, how many trees, and any info about social value (e.g. in an ANSI, a memorial tree, etc).

Information about seed sources can be updated from time to time, and new sites added, giving a growing body of information to assist those interested in seed collection.

Planning for seed gathering is helped by watchfulness ahead of time. Watching the seed potential months ahead, or farther in trees like the pines, whose cones develop over 2 years. Test to see whether seed is likely to be viable. Keep a watch, because a promising crop can fail due to frost, rain, drought, insects, and more.

CLIMATE CHANGE AND FORESTS.

Tim Flannery's book *The Weather Makers: How we are changing the climate and what it means for life on earth*, is an information treasure house explaining how climate change is working and its effects, and the urgency of global action. (As is Al Gore's recent book "An Inconvenient Truth" and the movie by the same name.).

In one chapter Flannery notes that global warming changes climate in jerks, a bit, he says, like gently touching a light switch, and very gradually increasing the pressure, until there is a click and the room environment changes instantly from dark to light.

One of the effects is that since 1950 there has been a strong pattern of poleward shift of distribution of species of about 6 km. per decade, a shift up mountains of 6 m. per decade, and advance of spring activity of about 2.3 days per decade. The change is so abrupt and so consistent with the scale and direction of temperature increases, that "it's as if the researchers had caught CO₂ in the act of driving nature polewards with a lash."

This has been observed in widely different ecosystems, e.g. in several species of migratory butterflies, lowland birds in Costa Rica, and more. Birds are laying their eggs earlier. Migrating birds migrate earlier.

But not all species react similarly to the changes. Some migrate, others stay put, so that species that used to exist together may no longer do so. A key food item may arrive at the wrong time or be unavailable for the predator that depends on it. Caterpillars of a kind of moth eat oak leaves when they first open and are tender; the caterpillar's emergence is triggered by warm days and comes earlier, before the oak leaves are open; the caterpillars may starve, and the moth becomes endangered.

Even the regions of the Amazon forest that are far from human activity have undergone changes in species composition, with fast-growing species responding to increased CO₂ and crowding out the slower growers. This in turn diminishes the area's biodiversity, as animal life dependent on the slower growing vegetation tend to disappear. Rain forest plants used by herbivores are tending to grow faster, but are lacking in other important nutrients, and therefore lead to a loss of leaf-eating mammals.

MORE FOREST PRODUCTS

A May 31 Toronto Star article mentions the wild leek in the hardwood forest. A restaurateur in Collingwood uses them for some of his dishes. He also finds, and uses, morels. Or along forest edges can be found wild strawberries, raspberries, and blackberries. Another delicacy is the puffball. Another, whose habitat is being lost to development is the wild ginger. Milkweed pods, if harvested early, make a tasty appetizer. A photo with the article shows fiddleheads and mushrooms being used in soups.

Many people are familiar with maple syrup, but fewer of us know about syrup from white birch, which has a different flavour and has different uses. . It takes 100 litres of sap to make a litre of syrup, compared with 40 to 45 with maple.

More can be found at www.wildfoods.ca and at www.simcoecountyrestaurants.ca

Ubuntu!, a newsletter fro the Nelson Mandela Children's Fund Canada quotes Winston Churchill: We make a living by what we get; but we make a life by what we give.