

Also see OFA  
and CIF inserts  
on last pages

CANADIAN INSTITUTE OF FORESTRY  
SOUTHERN ONTARIO SECTION  
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#### YOUR SECTION COUNCIL MEETS

Several members of Council: Bruce Ferguson, Mike Clarke, Terry Schwan, Mack Williams, as well as Andy Kenney, met with CIF President Fred Pinto and Exec. Director John Pineau, at the U of T, Faculty of Forestry on Monday evening Feb. 18. Fred and John updated the rest of us on their efforts to update and rejuvenate the CIF.

Their efforts to increase CIF membership are having some success. They have regained some of the lost membership. They have recruited more student members than ever before—237. (Question: will they stay as they enter careers? My Q: I wonder if a strong student representation on Council might inject youthful vigour and modern ideas into the section).

On the financial side the CIF Head Office from Ottawa to Mattawa is likely to save the CIF \$60k/year.

The awarding of rings is being reviewed. There are two classes of rings, one for those with degrees, one with diplomas. Rings will be awarded to both. They will cost \$40 to non-members, without charge to members. We presently award 700 rings a year; not many who are non-members become members.

CIF will increase its profile in a variety of ways, including its electronic newsletter, stronger ties with First Nations, publicizing efforts like Neil Stocker's idea for forestry in Afghanistan.

#### FOREST BIOMASS WORKSHOP

When I was young, the term forest biomass was unknown (to me anyway). Yet we cut it, split it, carried it into the house, and heated our house, and our water (most kitchen stoves had reservoirs, and constantly singing tea kettles on top). And of course we cooked our food. In a fireplace it gave a nice warm glow. We called it wood. And we knew that the wood you cut yourself (with hand tools of the day) would warm you repeatedly: when you cut then split it, when you carry it in to the kitchen; and when you burn it. (I don't think

the term conservation, of energy or anything else, existed either). And of course the woodshed was often where justice, possibly warming of another kind, was handed out for some youthful misdeed.

Then we got modern, and developed big appetites for things, and haven't looked back. .

Now there is growing interest in biomass left over from a logging, for energy or to add to feedstock for industry. I once heard of the meat industry that it could use every part of the pig but the oink. Now it seems we are at least looking at every part of the biomass produced in a forest, stem, bark, branches, twigs, leaves, roots, litter, all manner of dead trees standing or fallen. No, relax, I am reassured, not necessarily to use it all, but to learn more about it, who wants it, to know even a few of the ways this stuff fits into the forest ecosystem, what materials and values we sacrifice in order to have it, and how much we can safely and economically take, in a range of conditions, and not diminish biodiversity or soil productivity, or otherwise threaten or disrespect ecosystem integrity, and how equipment and systems might be modified to include its harvest.

We've long used sawmill waste as a fuel or as a raw material; it was also good waste management. Should we step up our use of forest biomass to help meet our growing demand for energy, or for feedstock (I think that means raw material) for all the things our industries make? Will using biomass become so important that its harvest should be a part—even a dominant part--of our logging methods, our management planning and operations, in everything from a large management unit to a small farm woodlot.

Such questions are important enough that on Feb. 18-21 over 140 people gathered at the University of Toronto, Faculty of Forestry, from across Canada and abroad, from government, industry, education, and others, and having a wide range of forestry and other expertise, at a workshop on forest biomass. .

It is an important enough matter to have attracted a dozen or more sponsors, including governments

of Canada and of 6 provinces, several institutions, and our own CIF Southern Ontario Section.

The workshop's purpose was "to identify what is known, and what needs to be known, to develop sustainable biomass removal guidelines and policies in different jurisdictions across Canada." It was designed so as to hear, not only from the experts, but also from everyone present. What does each of us think?

I attended the first day and the last half day of the 2 ½ days of sessions. I found things moved so fast my aging brain and writing hand were challenged to keep up with all the good stuff. So here are a few gems that I managed to capture; some may be repetitious. Hopefully I got some of the important things.

One area of interest is energy, particularly electricity. By 2014 Ontario will no longer use coal for electricity. In peak use periods we import costly electricity made from coal. Does it make sense to do this, or to use food-producing land to make ethanol, while at the same time burning (or just leaving) a lot of logging debris? Can we capture this energy in ways that make sense economically, socially, and environmentally (the three pillars of sustainability)?

A tree is renewable, a lot of C stays stored in it, and in many forest products, e.g. a piece of furniture. A forest of trees and other living things is a place for recreational and spiritual renewal, for conserving soil and water. It is home for vast numbers of creatures large, small and tiny that share the Earth with us. We also harvest it, for all the material things we use it for. And we're likely to continue to do so with growing efficiency. The pressure to use more of our trees to meet ever-growing demand is mounting. How far can this go on, and not risk compromising the forest's sustainability, mainly site productivity and ecological integrity.

It is important that Canadians ask the right questions and find the needed answers; Canada has 17% (I thought it was 10%) of the world's forest, our wood-using industry is important, we are a prosperous society by most world standards. So some people argue that Canada should be a world leader in this field; and doubt that this is yet the case.

Harvest and transport methods are rapidly evolving in Canada; they might be expanded or

modified to include such material as stumps, slash and small trees. Possible ways of harvesting this material, include: roadside chippers, bundles of slash delivered to mill; trucks like garbage trucks that pick up bundled material at roadside; machines that pull stumps; they are then stored outdoors to let earth wash off.

There are environmental concerns. What is the long term effect of biomass harvest on forest health, on site productivity, on biodiversity and on habitat? There are some poor or sensitive sites where this should be done with great care, if at all. And how does everything we do tie in with our concern with global climate change. (I would wonder: if nutrients are taken from the site, how quickly are they replenished). Throughout, do we have sufficient respect for nature?

Biomass science, policy and operations must be linked to forest management on the ground through the sustainable forest management plan. i.e. it's one more dimension to forest management and its planning. . The guy on the ground and the one writing the management plan should have all relevant info as readily available as possible.

In a sense the harvesting of biomass entails a whole review of forest management. What will be harvested? What differences will there be in the product mix. What are the limits to what can be removed without compromising long term forest health through effect on things like susceptibility to erosion, nutrient regimes, plant and animal populations, wildlife habitat, regeneration? Monitoring will be needed. Research is needed to provide helpful and reliable information on all of these. Nutrient budgets are needed to know how much biomass can be removed without depleting site. We may need to be especially careful on sites inherently low in nutrients. We should know how long it takes site to rebound if nutrients are depleted. How much leaching of nutrients occurs when a site is disturbed?

Studies show that these relationships are far more complex than simple cause-effect. In my own words, the web of life is highly intricate. Woody debris contributes in ways we don't begin to understand to processes on the forest floor and to forest productivity. What is role of shrub species, alder, etc., in the life of the boreal forest?

Studies over a rotation are needed; I'd wonder if a single rotation is a long enough time.

A management question: what is the merit of plantation forestry which gives far more biomass per hectare per year than some other systems? Red pine plantations offer a good example.

Biomass is raw material for habitat for many organisms, including many we don't yet know exist. Dead trees and fallen logs may contain amazing numbers of species of insects. Some soil fungi may be competitors with tree disease fungi like *Armillaria*.

Logging and fire have different impacts on balance between living and non-living biomass. An old growth forest will have lots of dead standing trees. So will a forest where pests have killed whole stands. Selective logging likely reduces the numbers of standing dead trees, unless provided for. If I have a management regime that greatly alters the numbers of standing dead trees, snags, and fallen logs in various stages of breakdown, how does this affect the populations of living things, and how should we react to that.

Species that have very exacting site requirements may suffer from biomass harvesting. For example, the brown thrasher requires sloughing bark of dead trees, as well as cut stumps, for its nesting.

When we talk wildlife we usually talk habitat, but do not research many of the features important to wildlife habitat.

Is it necessary to redesign new mills, transport systems, etc., to accommodate biomass harvesting.

From the abstract of one of the presentations, comes the following: Translating expert knowledge into effective policy and sound forest management operations can be a complex process. There is much valuable scientific research; this must be relevant and accessible to forest management to maximize its value to both policy and sustainable management, and to ensure the monitoring and feedback that lead to continual improvement.

I spent some time at the poster display; gave me some feel for the scope of biomass and its research. Titles included: Nutrient cation budget and removal through harvesting; implications for boreal sustainability. Sustainability concerns for forest bioenergy and fuel harvesting in the US. Managing forest for biofuels; tradeoffs. Incentives. Forest bioenergy perspectives in

North America. Index of forest site sensitivity to intensive biomass removal for commercial forests of Quebec. Wood ash and soil fertility. Arthropod response to ecosystem management and changes in deadwood in the Abitibi boreal. Importance of coarse woody debris to insect biodiversity. Harvesting impacts on chemistry of soils & lakes. Role of coarse woody debris in nutrient retention and cycling during early stand development. Deadwood retention and recruitment in managed forests of BC.

On the second day (which I missed), besides presentations there were discussions into which everyone was drawn, on things like: what lessons are being learned in Canada, the US, the Nordic countries and elsewhere related to site productivity and biodiversity that may have application in Canada.

On the last day there were no formal presentations, rather a discussion of a series of questions that might be summarized as

What are research priorities? How can (or should) Canada become a world leader in forest bioenergy research? What are the gaps in science? Is there a place for sustainable biomass harvesting?

We can be a leader with realistic goals and policy that are accepted by government, industry and others; by focus, by adequate funding and other support, and with a long term perspective. By building on what we have. By staying out of the silos of our individual disciplines and networking among related interests. By attracting good people to the field. By a common language understood by researcher, policy maker, and the person on the ground.

What are some research priorities? Some I heard include: better coordination of effort among research agencies; better funding and other (including moral) support of research efforts; step back and assess what we now have in Canada and abroad; applicability of research from, e.g. Europe; make use of information from sample plots established over the past century; a need to know more of the implications of biomass harvesting on the site's ecology, especially on site productivity and biodiversity. Are we making the best possible use of what is now known in making our management decisions?

I was thrilled to be there. My take on it is that biomass harvesting and research will be greatly

helped on that happy day when Canadians get to know, understand, appreciate and respect their forest, to the point of demanding that their government, industrial, academic and other leaders give it the support that it needs, when we reach the point of convincing the best and brightest of our young people that forestry is a calling worthy of them, and that from them sufficient numbers will choose research careers, and when society becomes convinced of the need for adequate financial and other support for the research that is needed, and for the institutions where it will be conducted. Whether or not we are world leaders, we can make a solid contribution to the global body of knowledge and wisdom.

We've come a long way from the woodshed and singing kettle of my day, and Tat Smith encourages us to continue to develop a collective wisdom, with all interested parties sharing in that knowledge and wisdom and in contributing to it, and in asking the questions that will lead to new learning.

## GREAT LAKES REGION

A few years ago I reported on some efforts to develop markets for Northern Ontario forest products as a way to stimulate the region's economy. In that work the US States bordering on the Great Lakes were seen as a principal market for our products.

On April 4 Carol Goar of Toronto Star, whose regular columns I very much respect and enjoy for their level of common sense, began her column with "The opportunity is real for the Great Lakes region to forge a new economic leadership position and serve anew as a model for world economic and social innovation."

She is quoting the Brookings Institution, a Washington, long respected for solid research, and a recent report that argues that Ontario, Quebec and the 12 US States in the Great Lakes basin could, if they can develop a positive outlook and recognize what they have going for them, build a bright economic future. Some assets:

A massive marketplace. A third of the combined Canadian and US population.

A massive concentration of talent, with more first class universities than any comparable

region in the world, producing a disproportionate share of North America's university grads.

The world's largest fresh repository of water for drinking, heating, cooling, providing energy, recreation, and facilitating transport.

A living lab for conservation, sound resource management and waste water treatment.

A concentration of medical and bioscience centres, teaching hospitals, labs, pharmaceutical firms and biotech research centres.

An industrial infrastructure well suited to developing green energy and technology

(My question, and the reason I chose to write this: is there any reason why forests, and forestry, should not make it to the list of things this region has going for it?)

The study suggests several possible things holding us back, such as reluctance to let go of the way we've always done things; growing global competition, energy price shocks, increasing US-Canada border security. It also suggests some ways of dealing with it such as stepping up equitable trade arrangements, developing research networks that utilize the region's best brains; finding ways to make this part of the Canada-US border safe, efficient and technologically advanced. Such things may not happen right away, in the current atmosphere of protectionism and reluctance to invest.

But, Carol concludes, the study is a useful antidote to the prevailing gloom in the region, and a reminder that the land of old factories and unwanted smokestacks has a lot more going for it than most of us realize.

## CARBON CAPTURE

Found this bit of wisdom somewhere: Of all the world's carbon capture techniques, none can ever hope to be as efficient as photosynthesis.

Indeed, one of David Suzuki's books notes that billions of years ago the atmosphere was very different from now: much more CO<sub>2</sub>, much less O<sub>2</sub>, that humans and many other living beings could not have lived. Those billions of years of photosynthesis led to an atmosphere we can breathe.

## SAVING THE PLANET.

In an article in Monitor, magazine of the Canadian Centre for Policy Alternatives, Susan George, Planning Board Chair of Transnational Institute based in Amsterdam, says that the global environment can be saved, but that it will take a level of collaboration among all interested parties not seen since World War II.

Increasingly people are aware of, and concerned about, climate change. She believes that the time is long past to tell people to change light bulbs and behaviour. Even if we all did, which is highly unlikely, it is not enough to stem climate change, any more than it would have won World War II.

She blames the continuing progress of climate change on the prevailing ways of doing things. She feels there is not time to change the system. Or to throw out governments. With few exceptions they would be replaced with other governments that would carry on as before.

The challenge, she feels, is to work with politicians at all levels to convince them that doing the right things can pay off handsomely. Activists and experts together could work with local, national, state and regional politicians and governments, bring the like-minded together, to formulate ambitious projects and encourage each to develop into shining examples.

Being old enough to have been a teen-ager when World War II began, I can well recall some of the things people did during wartime, both in England, which was right in the war zone, and here in Canada, more distant from hostilities.

Susan George's article reminds me so much of what we in forestry have been trying to do, at least to the start of this Section 70 years ago, when Dean Howe of the U of T Faculty of Forestry scolded section members over the lack of public awareness of forestry.

And it has a lot of similarity to Neil Stocker's suggestion of an afforestation program in Afghanistan as a means of rebuilding that nation and rebuilding genuine peace there.

On these pages I have suggested on occasion that since Politicians-Are-Us, we need somehow to convince ourselves as Canadians of the value of our forests that we start to demand the kind of

public support and funding that is needed to give them the care they need.

Susan George also notes that really saving the environment will call for collaboration among all, that no one NGO, profession, government, can do it alone. She notes that alone, ecologists cannot save the environment, farmers alone cannot save the family farm, unions alone cannot save good jobs (and working conditions), or public servants alone save public services. Broad alliances are the only way to go.

I recall a bit of how parties who would not normally have worked together (countries that later became cold war adversaries)—neighbourhoods, individuals, political parties, counties—came together in common cause, recognizing that it was THE way to win the war.

Maybe it would be good for Canadian forestry, and for Canada, (who could be a world leader in this and other fields), to have Susan George tell us more. And maybe Canadian forestry could be a leader in developing the kind of collaboration she talks about.

This is not unlike the comment of Dean Tat Smith about developing a collective wisdom, mentioned at the end of my report above on the Biomass Workshop.

Elsewhere on these pages is an article about the UN (and others) enlisting the world's faith communities in the climate change issue. A great idea, I think it might be even more helpful if all of us who belong to a Church or other faith community, or otherwise believe in the power of prayer, spent some time on our knees seeking Divine help and guidance. For if we believe that the universe around us is the handiwork of a Creator, we may also need to accept that for all our brave efforts we will not redress the mess we have made without that Creator's help and guidance. Who knows, we just could find that all we had to do all along is just ask.

Surely I need not mention that it is the lives of our grandchildren and theirs that is at stake here.

For much more on this, Google for Susan George in Policy Alternatives Monitor, December 2007.

## LONDON'S AGING TREES.

An article from London Free Press last July 28 notes that already facing a number of problems, London's trees must battle old age.

The Forest City's effort to protect its trees isn't just against the emerald ash borer. Thousands of street trees in London's older areas are reaching the end of their 75-100-year lifespan.

These trees make up about 10% of the city's tree cover. Many are now being lost during storms, large limbs come down. Because of age they are more susceptible to disease.

City Council has recognized this, and since 2004 has quadrupled its tree-replacement budget. They have set up a fund to purchase woodlands, and a budget to replace trees cut for small road projects, and to plant trees in parks, and for tree replacement in and around the core area. .

New measures include placing surplus funds from the previous year into a tree planting reserve to replace trees lost to the emerald ash borer—which could number in the thousands as this pest spreads.

It also includes a strategy for reducing the tree replacement backlog that has grown to an estimated 10,000 trees.

To deal with all this, City Forester Ivan Lister has a staff of about a dozen, and a contractor who maintains the city's tree stock.

They are trying to stretch the life of the older trees, some of which have little time left.

"We'll trim them back, if that will save a few extra years. If they're unsafe, we'll take them down. You can't predict when branches are going to fall or the trees are going to blow down." Listar said about 20 per cent of the city's tree stock is mature, or older than 24 years old. About 74 per cent of the trees are in good condition, 23 per cent in fair condition and three per cent in poor condition. As the old trees disappear, the treescape will be a mix of young and old.

London has an estimated 16% total tree cover, far below the province's recommended 30% cover, causing concern that the city could lose its Forest City brand.

"There seems to be a heightened awareness of the value of trees to the community, so we're maintaining what we have and reforesting where we can."

## MORE GREEN (TREES) FOR OTTAWA

In an article by Derek Puddicombe in the Ottawa Sun last July, Ottawa's City Councillor Clive Doucet is hoping for more trees to turn Ottawa back into a city of trees. He reminisces about the days when the City's streets were tree-lined and the surrounding forests dense. The Councillor would also like to see Ottawa's logo changed so it includes a tree, and for the city to be branded as the City of Trees.

When he moved into his present home 30 years ago he planted six small trees in his back yard. These have grown to provide both shade and peace of mind. He would like to see this kind of planting along many of the city's streets that have long since had trees removed.

The Rideau Valley and South Nation Conservation Authorities have been working with the City of Ottawa and its Green Acres program to reforest the rural parts of the City. Together they have planted 800,000 trees in the City since 2000, much of it along river banks, streams, and on old farms and in city parks.

## ALTERNATE LAND USE SERVICES

There is a movement in the farming community called Alternative Land Use Services, (ALUS). It allows farm owners to recognize and set aside for conservation purposes parts of a farm that may have limited capability for farm crops but have some special conservation value, e.g. wetland. It allows the owner to participate in restoring such land, while retaining ownership and without excessive regulation.

(Google some more for ALUS)

In Toronto Star, Dec 22/07, Cameron Smith's environmental column describes a pilot project in Norfolk County, in which federal and provincial approval/support is being sought. .

In this program, farm owners would be paid to turn up to 20% of their land into some form of

conservation. There is also a project going in Manitoba, and one in the works in PEI.

In the Norfolk example, the organizations leading the pilot project are the Norfolk Federation of Agriculture and the Norfolk Land Stewardship Council.

Brian & Cathy Gilvesy, who live near Tillsonburg, own the Y U Ranch and raise cattle.

With their ALUS project they will offer a glimpse of a landscape rich with plant and animal life, resilient in the face of climate change, and bolstered by more sustainable rural communities, should it develop into a more widespread federal-provincial program. .

At Y U Ranch a waterway has been fenced from cattle, and a solar-powered pump brings water to a cattle trough. A dam has been altered to let cold water escape from the bottom of the dam, making the creek downstream more suitable for cold-water brook trout. Mallard hen houses have been built downstream. A cattle crossing of the creek has been fenced off.

One interesting aspect is the planting of 8 acres of prairie tall grass, once common in the region but now largely wiped out. Cattle graze in this area, only after wildlife species that nest there have left, instead of growing two crops of hay.

The prairie tall grass proved its worth by thriving during the severe drought conditions of 2007. It has deep roots for tapping moisture; it also provides habitat for several bird species. More acres will be planted in 2008.

#### AND IN WESTERN EUROPE

To look across the rolling fields of Jean-Claude Thibert's Normandy farm is to see the past, present and future of the European countryside: a pig farm, and behind it fields of corn, and beyond that a recently re-established forest, an example of a recent European trend, for which he has been paid by the European Union, like many others like him.

Europe's accomplishment is not well understood even by its practitioners, and not greatly publicized, yet would seem to be important to fulfilling their commitment to the Kyoto

Protocol. And one wonders what lessons it might have, say, to the Canadian scene.

TREE ROOTS. (Written for the Ganaraska Trail Association's Newsletter, i.e. for hikers).

When you are on the trail, tree roots are the parts of the tree likely closest to you, yet unseen, many of them just a few centimetres below your feet. Generally they form a dense net in the upper layers of most forest soils, they are for the most part out of sight, yet a healthy, thriving root system is essential if the tree is to have the moisture, mineral nutrients and physical stability it needs. It is the part of the tree that is too often forgotten as we develop our urban and rural landscape; too often in the cities trees are planted without enough of the right kind of root space; too often roots of large trees may be seriously injured by excavation for say a basement, a sidewalk, or a parking stall, with the result that too many have lives that are too short.

Many decades ago (1958) I wrote my Master's Thesis on certain aspects of red pine tree roots and how they were affected by the soil, and how that in turn affected how well the tree grew. I learned some fascinating stuff, but knew I had hardly scratched the surface of what one might usefully learn about them.

So it is interesting a half-century later to see two columns by the Toronto Star's environmental journalist Cameron Smith. He drew attention to a Charles Darwin observation, that plant root behaviour has a degree of similarity to that of the brain of some lower animal. He also notes that plants are somehow able to monitor some conditions of their environment, such as weather conditions, nutrient availability, and location of other plants of their own or other species. They are also said to have some capability to communicate; a plant infected by a pathogen may be able to take defensive action and warn other plants.

Not long ago someone found that a fungus would expand to fill a maze, then figure out which is the most direct route to, say, nutrients, and having done so abandoned the rest of the maze, thus maximizing its capacity to forage.

Reputable scientists are suggesting that plants may have memory and capacity to make choices, enough suggestions, it seems, to fill a book

edited by European scientists large enough to sell for \$200 in Canada.

There is evidence of communication among plants of the same species, and of different species, that may influence the make-up and working of ecosystems. It may also provide an early warning of ecosystem breakdown in the face of advancing climate change, advancing forest fragmentation, and a host of other environmental conditions.

Interesting stuff! Reminds me of digging around in red pine plantations and other forest during my graduate study, and finding the bulk of roots extending out horizontally from the tree, with some vertical roots, that the laterals are usually in the top 10-15 cm. of the soil, that a few times I actually traced roots in young red pine plantations laterally for about 8 metres; I don't think they necessarily ended there, but I wasn't careful enough to prevent breaking them off after tracing them out for that distance. I did find reference in the literature to pine roots extending up to 20 metres from the tree.

I remember excavating roots horizontally from their tree, and finding places where they crossed paths with roots radiating out from a nearby tree. In red pine, these roots were frequently found grafted together where they had intersected and contacted one another. This raised the possibility that if there were a lot of such grafts, and the trees were all of one species, such as red pine in a plantation, there might in time develop a common root system serving many trees.

I also remember in young plantations, the horizontal tree roots would extend rapidly, so that by a decade or so they had radiated out about as far as they would in life. Development afterward would consist of a multiplying and branching of those roots. Almost as though the tree was staking out its rooting space, then in time more fully occupying it.

Though I did not actually observe this, there is fascinating stuff about a collaborative relationship between the tree's root tips and certain friendly fungi that penetrate the root tips. They extract mineral nutrients from the soil and supply them to the tree far more efficiently than the root itself could do, and they draw from the tree the carbohydrates they require to survive and thrive. Those fungi often make a world of difference to how well the trees thrive.

## FAITH GROUPS, U.N., & CLIMATE CHANGE.

A Toronto Star article in January noted that the U.N. is enlisting the world's major faith groups to join its crusade against global warming

In California, a group of environmentally concerned Jewish leaders, dubbed the "Redwood Rabbis," has successfully fought to preserve more than 2,000 hectares of redwood forest.

In Thailand, the "Thai Ecology Monks" helped instigate a ritual blessing of the Nan River, leading to the creation of nine fish sanctuaries along this ecologically vital watershed.

In Yemen, the Islamic Federation for Ecology and Environmental Sciences has sparked the retrieval of water conservation systems utilizing Islamic principles.

These are a few of the myriad green projects spearheaded by faith communities worldwide – plans environmentalists and policy-makers hope will persuade humans to combat climate change.

On the eve of the UN's climate change meetings in Bali, Indonesia, the UN announced an ambitious partnership with major faiths to help with climate change. In that partnership, Buddhist, Christian, Hindu, Jain, Jewish, Muslim and other leaders will be asked "to commit their faith and their followers" to actions that will address climate change and environmental protection, including forest conservation, organic farming, and the fostering and financing of alternative energy sources.

According to the Alliance of Religions and Conservation (ARC), a group established by Britain's Prince Philip in 1995, "The faiths offer stability in a world where too many good things fail through lack of continuity" and "bring a long-term perspective, which will be based more on optimism than fear." True, faiths can provide staying power and a hopeful outlook.

They also have tangible assets. Faiths are said to own over 7% of the world's habitable land. So what they do on that land leaves a significant footprint. Religions are also large investors, and they have vast education and media networks that can help raise ecological consciousness.

Moreover, each faith, in scripture and tradition, has teachings relating to the care of the earth.

A U of T student who went to the Bali conference felt both despair and hope. Despair at the negative stance of the Canadian delegation, but energized by the presence and positive influence of numerous grassroots networks, who felt that the climate emergency creates a great opportunity to develop a world consciousness.

And it is hoped that the world's faith communities will see and seize, this opportunity.

Meanwhile, back in Toronto, there is one Church (St. Gabriel's) I know of that has been built to the highest LEED standards; and a Synagogue (Darchei Noam) that has incorporated many "green" features.

(That takes in the faith communities, but does not mention that library shelves and web sites are full of literature on the power of prayer, almost regardless of which faith group one belongs to. For all the good work that is done on many fronts to make the world better, my hunch is that it will bear fruit only when more people believe in the power of prayer and start to really use it).

#### OFFICE CLUTTER.

A family member writes a weekly newspaper column. One time he wrote about housecleaning his office, how things get pulled out, put into new piles because they might be handy for another article, and so on. Until at the end of the day there are a few things in the recycle box, until a title on something he's thrown out catches his attention and—you can guess the rest. Here's the note I sent him on reading the article, somewhat edited.

Hi ----: I found the advent of the paper recycling box a great incentive to purge the office. All that stuff that goes into the paper box can be made into yet more stuff that will fill yet someone else's office. Not that it made a huge dint in the "stuff" -- maybe reduced it by 10%.

You can gauge progress in your housecleaning by the amount of stuff in the recycle box at the end of the day. If the box is too full or heavy, better watch. You may be getting carried away.

There is the conflict factor. When you are about to throw out that piece of paper, the efficient manager in you will say good riddance. The curator-historian-author in you will say "IDIOT! Throw out that bit of history--heritage?!!!"

Then there is revelation. If the purging process goes far enough, at some point the purger will exclaim "So that's what my desk looks like!"

But soon the desk will once again be covered over, and the purger will know he/she is in the right place, for the office at the end of the day will still look familiar.

The true bureaucrat or pack rat will want a copy of every piece thrown out. Is that why Staples' self-serve copiers are in such demand?

If the purger is doing the job right, at some point in the day, going through piles of paper, he/she will find the letter, clipping, report, etc., that had been put in a safe place as a reminder of something he/she really wanted to do in July, 1998. Good thing, too, for it will save the archaeological team in 2210 finding it and wondering how the heck it connects with other stuff found on this site.

Just a thought. From one who's pretty much given up trying.

#### RECYCLABLES.

I retrieved this from the recycle bin of my computer, & added a couple of things.

You know you're in 21<sup>st</sup> century when: 1. You enter your password on the microwave. 2. You've not played solitaire with real cards for years. 3. You have 15 phone numbers to reach your family of 4. 4. You e-mail the person at the next desk. (Or, with equal ease, a classmate in Australia or Nepal). 5. You lose touch with family members & friends who don't have e-mail. 6. You go home from work & still answer the phone in a business-like manner. 7. When making phone calls from home, by mistake you press "9" for an outside line. 8. You've sat at the same desk for 4 years and worked for three different companies. 10. You learn of your redundancy on the night news. 11. Your boss doesn't have the ability to do your job. 12. You pull up in the drive and use the cell phone to get someone to help carry in the groceries. 13. Each

TV commercial lists a web site. 14. To leave the house without your cell phone is now cause to go back in panic to pick it up. (I'm 84, 24 years retired, and I don't leave home without it!). 15. In the morning you go on line before making the coffee. 16. You tilt your head sideways to smile : ) 17. You nod and laugh as you read this. 18. You know exactly to whom you are going to send this. 19. You are too busy to notice there was no #9 on this list. 20. You actually scrolled back up to check that there wasn't a #9 up there.

#### DOES OUR FOREST REALLY SOAK UP C?

An Ottawa Citizen story in January raises some doubts about the effectiveness of our forests in storing carbon.

Last year some researchers reported that our forests are only a so-so defence against global warming, and not getting any better at it. It seems that as the climate continues to warm, the forests may become progressively less effective.

We have always argued that our forests strongly offset the effect of the fossil fuels we burn, and that should give us credit toward meeting our Kyoto commitments. However, studies reported in the journal Nature question that. Forests absorb less pollution than we'd hoped.

Even as Canada realized it had overstated the cleaning function, an apparent bit of good news emerged. Scientists noted that the warming trend is waking up trees earlier in spring, and keeping them awake later in the fall. The longer season might mean the trees work longer at building branches and leaves, and soaking up C from the air.

But that does not seem to capture any more CO<sub>2</sub> from the air, in fact some studies suggest that more is being released, cancelling out gains that might be made from longer growing season. It seems that both photosynthesis and respiration rates are increased.

#### AGROFORESTRY IN AFRICA

USC Canada is a Canadian charitable body active in humanitarian work since 1945. It has worked in many locations in Asia and Africa, as partners with local organizations.

In its work it emphasizes the need to conserve biodiversity.

It distributes an annual newsletter "Jottings" to supporters. The latest issue has two items of particular note. One is titled "Climate Change and Forests" and says (slightly edited):

Agroforestry—growing trees, crops and livestock together—has much to offer. Trees increase crop yields, providing income from fruits and nuts. They're used as livestock shelter. They can improve soil quality and thereby foster biodiversity. Livestock provide manure and grazing to regenerate new plant life.

Agroforestry can also help mitigate climate change. Forestry on its own can increase C sequestration—trees absorb CO<sub>2</sub> and forest soils store much C. But forests in the global South are often cleared as farmland, eliminating trees, disturbing forest soils and releasing C into the atmosphere. Those soils contain about 75% of the C found on land, however once cultivated, that amount drops by 20-50%. By combining trees and crops agroforestry helps prevent deforestation and reduces the release of C.

#### A ONE PERSON TREE NURSERY IN BURKINA FASO.

Burkina Faso is a country in the west part of Africa. In USC's newsletter is a story of Konfe Idrissa who runs a nursery, producing saplings of local tree species. He is recognized for commitment to biodiversity conservation and for promoting local crops.

Idrissa was trained in forestry and also as a nursery-farmer. He learned how to carry out an agro-biodiversity project and acquired equipment to enable him to produce local tree species that would benefit his village. Then the Association Pour la Protection de la Nature (APN Sahel), USC's partner in that country, put him in charge of a village nursery. He received further training in seedling production and nursery management.

In three years the nursery became self-sustaining. Idrissa harvests tree seeds and produces compost needed for the soil. He treats seedlings against pests using traditional materials produced from neem or millet cane.

He produces 5,000 plants a year, for farmers and for the reforestation work that APN Sahel is

doing in other villages. He sells the seedlings at prices based on the species' usefulness. Less expensive ones like Acacia Senegal are used as live barriers. Tamarind and Baobab are more expensive; they are used for food (leaves, seeds, and fruit) and for health care (bark, roots).

## BIRDS IN SOUTHERN ONTARIO

The recently released Breeding Bird Atlas for Ontario shows population trends varying tremendously. Some bird populations are up, mainly due to conservation activity. Many large birds are now more numerous than 20 years ago: bald eagle, peregrine falcon, merlin; related in part to recovery from effects of DDT. Canada goose & wild turkey numbers are sharply up.

Things are not as good for many other species, mainly grassland species, insect-eating birds. Birds like the nighthawk, whip-poor-will, chimney swift and species of swallow are becoming alarmingly scarce. Populations have declined 30-50% in 20 years; the nighthawk and swift have been designated as "threatened."

This atlas, for the years 2001-05, results from intensive research and collaboration by leading bird conservation organizations, the federal and provincial governments, and over 3,000 volunteers who gathered 1.2 million individual bird records collected in a grid covering the province, with unprecedented coverage of remote northern areas.

The atlas has over 900 coloured maps and 400 photographs of Ontario's 286 breeding bird species. It expands on the first atlas project, for 1981-85, published in 1987. It thus helps reveal what changes have occurred over 20 years.

A couple of highlights from the atlas:

Tree planting, conifer plantations, and natural forest regeneration are helping increase forest cover and provide needed habitat for forest birds in the south.

Landscapes like the Niagara Escarpment, Oak Ridges Moraine and The Land Between are seen as important areas.

Maps of relative abundance were created for the first time for many species, showing which areas

are important for each, and allowing better conservation planning.

Effect of climate change on bird species was not definite. The range edge of 15 species moved north in S Ont, that of 29 moved south. These 29 are mostly forest birds, and this may reflect increasing forest south of the Canadian Shield.

Top 10 increasing species in the province as a whole: Canada Goose House Finch Blue-headed Vireo Turkey Vulture Wild Turkey Merlin Eastern Bluebird Pine Warbler Bald Eagle Sandhill Crane

Top 10 decreasing species in the province as a whole: Common Nighthawk Chimney Swift Bank Swallow Blue-winged Teal Red-headed Woodpecker Barn Swallow Cliff Swallow Brown-headed Cowbird Spotted Sandpiper Killdeer

The extensive coverage of the atlas gives the best provincial population estimates ever, though they are still rough approximations. Below are the 10 most abundant species in the province; numbers of each range between 8 and 15 million. All but two, the American robin and the red-eyed vireo are mainly in the boreal, these two are in the south.

The ten most abundant species: Nashville warbler, Chipping Sparrow; Dark-eyed junco; golden-crowned kinglet; magnolia warbler; white-throated sparrow; yellow-rumped warbler; American robin; Swainson's thrush.

More information about the atlas is at [www.birdsontario.org](http://www.birdsontario.org)

## CUBA'S "ACCIDENTAL REVOLUTION"

Accidental Revolution is a story of how Cuba fed itself despite a massive economic crisis, and how this revolution in agriculture, science and medicine is having worldwide repercussions.

The crisis began as the Soviet Union collapsed in 1989. Cuba's agriculture had had a green revolution when the USSR supplied Cuba with massive chemical and mechanical "inputs." When the USSR collapsed Cuba lost 80% of its foreign trade. Factories collapsed, food supplies dried up. Cuba was unable to feed her people.

Cubans turned from fertilizers and pesticides to organic farming, from farm machines to oxen. Without fuel for transport they began growing food in cities where it is consumed. Urban gardens sprang up in vacant lots, school grounds, patios and back yards; this became part of the largest sustainable agriculture ever undertaken, so that by 1999 Cuba's production had recovered and in some cases exceeded historic levels.

Success was not just in agriculture; Cuba, which had been blockaded since 1961, and reliant on the USSR until 1989, has a high quality of life, high life expectancy and high literacy rates. Instead of expensive medicines, it uses drugs based on medicinal plants which can be grown on farms and processed in small labs and supplied to patients through a network of medical clinics. Cuban advances in alternative medicine could have benefits worldwide.

Cuba has a foremost bioscience laboratory for the developing world; its scientists are working on an HIV vaccine, a Hepatitis C vaccine, and other products.

There is some concern about what will become of all this as Castro's regime ends. Will it become a blueprint for sustainable agriculture, medicine and biotechnology or will it be swept away by the economic weight of the hunger of Cubans for a better life.

#### GREEN CROSS INTERNATIONAL. (GCI)

Green Cross International, with Mikhail Gorbachev its founding President, has as its mission: Recognition that we are guests, not masters, of nature, and must adopt a new paradigm for development, based on the costs and benefits to all people, and bound by the limits of nature rather than the limits of technology and consumerism. (I'd have said not that we are guests, but stewards, bound to good stewardship of nature). It is to help ensure a just, sustainable and secure future for all by fostering a value shift and cultivating a new sense of global interdependence and shared responsibility for humanity's relationship with nature.

GCI promotes legal, ethical and behavioural norms that ensure basic changes in values, actions and attitudes of government, the private sector and society to build a sustainable global community. It prevents and resolves conflicts

arising from environmental degradation and assists people affected by environmental consequences of wars and conflicts.

The Earth Charter is a declaration of principles for building a just society with special emphasis on environment. The Charter's vision recognizes that environmental protection, human rights and development, and peace, are interdependent and indivisible. In 1987 the UN World Commission on Environment and Development called for a charter that would set out principles for sustainable development. Drafting the Earth Charter was part of the unfinished business of the 1992 UN Rio summit. In 1994 Maurice Strong, Secretary General of the 1992 Earth Summit and Chairman of the Earth Council, and Mikhail Gorbachev, President of Green Cross International, launched a new Earth Charter.

The Earth Charter seeks to inspire in all people a new sense of global interdependence and shared responsibility for the wellbeing of the human family and the living world. It is an expression of hope and a call to help create a global partnership at this point in history.

#### DUTCH ELM DISEASE RESISTANT ELMS

A Globe and Mail article in December reported on a grove of young elms at the University of Guelph Arboretum that it is hoped are genetically resistant to the Dutch Elm Disease fungus.

About 9 years ago it was noticed by people at the Arboretum and elsewhere that among all the dead elms across Southern Ontario were a few that seemed to have survived. But of course they were so isolated from one another as to make it unlikely they would reproduce naturally and provide hopefully disease-resistant offspring.

So the Arboretum and others, led by Prof. Alan Watson and others, embarked on a program to locate surviving mature elms and to help them to reproduce. They so far have about 1,800 reports of such trees, and are taking cuttings from eligible trees and creating clones by grafting the cuttings to healthy root stock.

The clones will hopefully resist the fungus that normally chokes off the vascular system of the tree and shuts down circulation of water and nutrients.

The Dutch Elm Disease got its name because it was first identified in 1918 in Belgium by a Dutch pathologist. It came to North America in imported logs, and trees in the Ohio Valley were the first to be killed in the 1930's. By the 1960's it had devastated the elms across Eastern North America in both urban and rural settings.

The trees that survived were ones that seemed able to seal off infected branches.

The clones are grown for three years, and then turned over to Prof. Martin Hubbes at the U of T, who injects them with the disease to make sure that they are resistant. Some of the clones die; so far about 30 survivors have been used at the U of Guelph to establish a seed orchard. Others are expected to be added.

When they are old enough to flower, i.e. in about 10 years, they will be crossbred to create more seedlings, with the aim of making truly resistant seeds and seedlings available to the public within about 20 years.

The University of Guelph method of producing new trees is thought to be superior to methods used elsewhere in the possibility of creating trees more resistant to the disease than their parents. A genetic diversity is maintained, which will give greater protection against other environmental hazards, including climate change.

#### CHESTNUT RECOVERY PROGRAM

At the Burford Nursery (which I think is owned by the Grand River Conservation Authority) the chestnut recovery program continues, led by Ontario Soil and Crop Improvement Association, assisted by a number of farm organizations, environmental and wildlife groups, and of course the Conservation Authority, and a number of other organizations. .

The Canadian Chestnut Council and Norfolk Field Naturalists have put much effort into collecting and distributing scientific information about the American Chestnut.

Information on the program may be found the Canadian Chestnut Council.

#### AN ANNIVERSARY MEDITATION

(In the July 1997 issue of this Newsletter, as the Section observed its 60<sup>th</sup> anniversary. Offered here belatedly for our 70<sup>th</sup>!).

As our Section celebrates in this land of beauty & in God's presence, let us consider our blessings & duties. Lord, thank you for the riches & beauty of Your Creation, for its web of life for which You will hold us all responsible, & for its forests for which You will hold forestry practitioners especially to account. Thank You for colleagues who always strive to be worthy forest stewards. Thank You for our forests with their material, social, environmental and spiritual bounty. Thank You for this in a world where so many have so little and must struggle just to survive. Please keep us mindful of our skills, needs & duties, especially in these uncertain times. Instil in forest owners & in all who live in S. Ontario a keen sense of their forest & a sense of pride in good stewardship.

(I was inspired for this meditation by Phyllis Creighton, former President, Conservation Council of Ontario. It's adapted from a grace she once said at a CCO dinner).

#### EMERALD ASH BORER (EAB).

In a Globe and Mail article in January, provincial forestry officials are hoping for emergency federal approval of an insecticide derived from neem, a tree grown in India, that can protect against the Emerald Ash Borer (EAB).

Over the years ash of several species has been a great tree for the urban scene, it has been used in Toronto for years for re-establishing native forest, e.g. in Toronto's ravines.

To date, there has been no effective control for this beetle that is a mortal threat to ash in Ontario. It was first detected in Michigan in 2002, and has since made its way across SW Ont. It has recently been found for the first time in Toronto.

For Toronto this holds the prospect of losing a half million trees, 30,000 along streets and 425,000 in parks, naturalized areas, and on private property, and having to spend \$40 million just to remove dead trees on public property. Who should have to pay for this is a subject of debate between the Feds, who feel it is

a city responsibility, and the City, who feels that controlling the pest is a job for the feds. Property owners will have to pay for removal of trees on their properties. Removing a large tree from a site, e.g. close to a house, could cost \$2,000.

That is just the monetary cost, and does not count either the loss in aesthetics, the loss of property values, or the cost of replanting.

Toronto was placed under quarantine after the insect was found in a stand of 35 trees in the Sheppard Ave.-Hwy 404 area. It is now one of six regulated areas, the others being Elgin, Lambton and Middlesex Counties, the Municipality of Chatham-Kent, and Essex.

For these areas a ministerial order prohibits taking untreated ash products, nursery stock, trees, packaging material, or firewood of any species out of the city.

The MNR has applied for emergency registration for azadirachtin, a compound extracted from the neem tree seed that was tested on the borer in London, ON, last summer. As it is a new pest, there are no registered products for combating it, and the Federal Government must conduct a risk assessment before approving a new product.

The neem product was developed in the Canadian Forest Service laboratory in Sault Ste. Marie in partnership with BioForest Technologies, a private company based there. Once approved, the treatment of an average-sized tree would be in the \$100-300 range and would be repeated every couple of years.

Richard Ubbens, Toronto's city forester, said the product shows promise because it's injected directly into a tree, reducing the potential for adverse environmental effects. Treating each tree individually is expensive, but still cheaper than removal and replacement, which he estimated at \$37-million to \$40-million for the city's 30,000 street ashes.

He's unsure whether the city will be in a position to use the new insecticide this year, saying he's awaiting direction from the Canadian Food Inspection Agency on how to address the infestation of a clump of 35 trees on a condominium property at Highway 404 and Sheppard Ave.

Tree injections show promise for high-value trees in cities and on golf courses, but not for woodlot trees.

The insect has spread and become established very rapidly, and can do so without being detected until the trees start to die. To date little can be done, other than do whatever is possible to slow its spread.

The MNR has turned to Trent University professor Raymond March, an expert in mass spectrometry, who's trying to isolate the compounds ash trees generate when under attack.

Unfortunately they don't deter the alien invader. Instead, perversely, they attract the beetle in swarms. But this mechanism could be turned against the insect if the chemicals can be identified, because they could be used as a lure in a mechanical trap.

#### EAB DISCOVERED IN NORFOLK COUNTY LAST FALL.

In February the Simcoe Reformer told of an experienced logger working in red pine near Turkey Point coming across an ash tree full of holes. It was the first sighting of EAB in Norfolk, and as it turned out, every ash tree in the 10 acre woodlot was infected. A real shock, since it had been hoped the insect had been contained in the southwest, with some infected trees in London.

It seems the pest may have arrived in this area in firewood from elsewhere. So far sightings are confined to the one area, near a tent and trailer park, to which campers come from some distance.

High mortality is expected in Norfolk, where ash makes up about a quarter of its hardwood trees; it could be much worse in nearby Oxford County, which has much more ash, should the bug show up there.

#### NOTE:

I've received quite a number of items on our urban forests, and especially on the EAB, not all of which I could use. Hope I've got things reasonably straight.

## COMMUNITY CONSERVATION EFFORTS

In Heritage Matters, newsletter of the Ontario Heritage Foundation, is currently an article on how one might ensure a successful community conservation effort. It is a story about the efforts of a group called SOS-Eglises and its efforts to save two village parish churches in two French Canadian villages in Essex County.

From the group's experiences, the article discusses what is felt to be some ingredients that make it easier to protect architectural treasures at the community level.

A strong feeling in the community of attachment to its heritage buildings, especially its churches.

Willingness of one or two people to lead, to step up and light the fuse.

Strong leadership.

Information about the value of the buildings to be preserved, and the heritage conservation policies in place in the community.

A common goal to prevent the destruction of precious buildings.

Strong public opinion generated by good local media coverage. This requires a good level of public appeal.

Common sense positions, free of exaggerated claims.

Respect for rivals.

You may need the support of the whole community over the years to achieve your objectives.

Accept that if the effort extends over several years, some active supporters are likely to drop out; they must know their input is appreciated.

Support from the larger community, especially heritage agencies. Their support helps confirm the validity of the conservation claims.

Know the importance of what you are doing, especially if it is a daunting challenge, and that its success may depend on your efforts.

## BUILDING PEACE: THE OLIVE BRANCH

Jim Campbell, an Oakville writer, has an article in the Early Spring issue of Home Digest. While in Greece, from a hilltop he noticed that the valley below was a sea of olive orchards, and that some well cared-for olive trees may be up to 500 years old and still producing.

(Reminds me of my once-in-a-lifetime visit to the Holy Land. In the Garden of Gethsemane some olive trees were obviously old. Some said they were the same trees as were there when Christ spent some time the night before He died).

Seems it is very difficult to grow olive trees from seed; rather they plant healthy rooted cuttings.

Campbell wondered why the olive branch had for centuries been the symbol of those seeking peace during a conflict.

It seems that when an olive branch is rooted then planted, it then takes about 12-15 years before the tree starts to bear fruit. So it is a long term investment, and people are not going to plant the trees unless there is good prospect of continuing peace in the area. So offering an olive branch is a symbol of commitment to peace.

He notes that during armed conflict little thought may be given to what happens after the conflict, what is needed to build peace.

Peace is having confidence to plant trees that take 15 years to bear the first fruit, about knowing that families can grow and live in peace, about having time for resentments and wounds to heal, about building social structures, and rebuilding bridges, roads, houses, farms, and economies. He also notes that the lesson of the olive branch is that building peace, like building an olive orchard, is a long painstaking process.

## DOOMSDAY VAULT IN NORWAY.

A March 11 Associated Press news item I found on the internet notes that a "doomsday" seed vault built to protect millions of food crops from climate change, wars and natural disasters opened recently deep within an Arctic mountain in the remote Norwegian archipelago of Svalbard.

“With climate change and other forces threatening the diversity of life that sustains our planet, Norway is proud to be playing a central role in creating a facility capable of protecting what are not just seeds, but the fundamental building blocks of human civilization,” Prime Minister Jens Stoltenberg said.

European Commission President Jose Manuel Barroso and 2004 Nobel Peace Prize winner Wangari Maathai of Kenya were among the guests invited to the opening ceremony.

The Svalbard Global Seed Vault, about 130 metres deep inside a frozen mountain, will serve as a backup for hundreds of other seed banks worldwide.

Dubbed a Noah’s Ark for plant life, it has the capacity to store 4.5 million seed samples from around the world and shield them from man-made and natural disasters. Dug deep into the permafrost of the mountain, it has been built to withstand an earthquake or a nuclear strike.

Norway owns the vault in Svalbard, a frigid archipelago about 1,000 kilometres from the North Pole. It paid \$9.1 million for construction, which took less than a year. Other countries can deposit seeds without charge and reserve the right to withdraw them upon need.

The operation is funded by the Global Crop Diversity Trust, which was founded by the UN Food and Agriculture Organization and Biodiversity International, a Rome-based research group.

“Crop diversity will soon prove to be our most potent and indispensable resource for addressing climate change, water and energy supply constraints, and for meeting the food needs of a growing population,” said Cary Fowler, head of the Global Crop Diversity Trust.

Svalbard is cold, but giant air conditioning units have chilled the vault further, to -0.4 Fahrenheit, a temperature at which experts say many seeds could last for 1,000 years.

Stoltenberg and Maathai were set to deliver the first box of seeds to the vault during the opening ceremony — a container of rice seeds from 104 countries.

The seeds are packed in silvery foil containers — as many as 500 in each sample — and placed on blue and orange metal shelves inside three 10-metre-by-27-metre storage chambers. Each vault can hold 1.5 million sample packages of all types of crop seeds, from carrots to wheat.

Construction leader Magnus Bredeli-Tveiten said the vault is designed to withstand earthquakes — successfully tested by a 6.2-magnitude temblor off Svalbard last week — and even a direct nuclear strike.

Many other seed banks are in less protected areas. For example, war wiped out seed banks in Iraq and Afghanistan, and one in the Philippines was flooded in the wake of a typhoon in 2006.

## OLD GROWTH FOREST

An article in The Ark, newsletter of Nature Conservancy Canada, is called Old Growth Forest 101. ([www.natureconservancy.ca](http://www.natureconservancy.ca)). Asks why OGFs are important.

Dead, dying and diseased trees make up an essential part of any healthy forest ecosystem and a key characteristic of OGF.

OGF contains large and old trees, but all age classes will be present. The elders are protected and respected.

OGFs exist where they have not been disturbed significantly by events such as wild fire or heavy logging for over a century.

It is hard to define Old in OGF because what constitutes old depends on climate, geography, soil, the forest composition and other things.

What makes OGF unique and important? They contain trees in all ages, saplings to mature trees, dead standing trees, and trees rotting on the ground. This is home for many species of plants fungi, invertebrates, salamanders, snakes, etc. OGF is a hot spot for biodiversity and refuge for species at risk (like some of Southern Ontario’s small birds).

## MEDIA RELEASE

FOR IMMEDIATE RELEASE

*(La traduction française suit)*

### Afghanistan Afforestation Generates Interest

**Monday, April 7<sup>th</sup>, 2008, Mattawa, ON** - On Monday, March 31<sup>st</sup>, 2008 Canadian Institute of Forestry (CIF/IFC) member Captain Neil Stocker R.P.F. and the Institute's Executive Director John Pineau met with the Afghanistan Ambassador to Canada, His Excellency Mr. Omar Samad, to discuss the development and implementation of an Afghanistan Afforestation program. Captain Stocker first presented the idea for this initiative in an article that appeared in the September-October issue of *The Forestry Chronicle*, the professional journal of the CIF/IFC. Afforestation is the process of replanting trees in areas that have experienced long-term deforestation; as opposed to reforestation which is generally undertaken immediately following a sustainable harvest. During the meeting, the Ambassador expressed strong support and enthusiasm, and encouraged the Institute to work with the Canadian International Development Agency (CIDA) and other appropriate organizations to move the project forward.

"I would like to see afforestation in Afghanistan begin as soon as possible," said Mr. Samad. "Forestry can be a very important tool that will help to bring about positive change, including fighting poverty, increasing employment, restoring ecosystems and improving water retention in the soil. I want to see such a program become a priority."

Following the meeting with the Ambassador, Captain Stocker and Mr. Pineau met with representatives from CIDA, the Department of National Defence and Natural Resources Canada to discuss and obtain advice on a comprehensive Afghanistan afforestation proposal currently being developed by Captain Stocker. CIF/IFC President Fred Pinto was also able to participate by conference call.

"There is no doubt we are getting considerable interest in the project from many CIF/IFC members, several different non-profit organizations and from various departments in both provincial and federal governments," said Captain Stocker. "Although we want to move quickly to implement, there are many considerations and details that need to be worked out to ensure that we achieve success. I am confident we will see this happen."

The Canadian Institute of Forestry is one of Canada's oldest and most respected forest conservation organizations. CIF/IFC members work in government, industry, and academia, and include foresters, technicians, biologists, ecologists, educators, economists and many individuals with an interest and passion for our forests and the complex ecosystems that they support. Our members are dedicated to sound forest stewardship and sustainability across Canada and throughout the world. The Institute is celebrating its centennial in 2008.

**Photo:** [www.cif-ifc.org/en/resources](http://www.cif-ifc.org/en/resources)

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# Ontario Forestry Association's Nature Walk Series Register Now!



A series of six Nature Walks have been planned as a follow up to the very successful OFA conference, Our Forests: Exploring Biodiversity held on February 8 in Alliston. Three walks will be held this spring with another three scheduled for late summer/early fall.

Biodiversity is a term that can be used in many ways to mean many different things. Most simply put, it is the full range of diversity found in nature. Our series of walks will explore the diversity of six different ecosystems across southern Ontario.

The walks will be informal and fun, led by knowledgeable conservation and stewardship professionals who are eager to help us explore nature. The walks will provide you with knowledge and understanding to take back to your own woodlot.

More OFA Nature Walks are coming this fall! Dates are to be announced:  
Wellington County, Ganaraska Region Conservation Authority, and Durham Regional Forest.

**Full details will be posted on the OFA website [www.oforest.on.ca](http://www.oforest.on.ca). For more information or pre-registration (required), contact the OFA at 1.800.387.0790 or email us at [info@oforest.on.ca](mailto:info@oforest.on.ca).**

## Norfolk County Biodiversity Tour Weekend of May 3, 2008

Come celebrate Norfolk County's designation as the 2008 Forest Capital of Canada. Join us on a visit of the area. We have planned a full day tour on Saturday, May 3 with optional additional activities on the morning of Sunday, May 4.

The tour will start the day at St Williams Forest Centre, Ontario's first nursery and plantation site. We will visit the centre's natural forest stands and a natural prairie site including unique dwarf chinquapin oak trees.

A highlight of Saturday's tour will be a long guided walk through Backus Woods, to explore this diverse forest and the unique tree species of Ontario's largest intact tract of Carolinian forest.

Registration: \$20 Saturday activities (includes lunch); \$50 with evening meal at Anne & Dolf Wynia's home in Norfolk County. Optional Sunday activities in the area.

## Toronto Biodiversity Walk Sunday May 25 1:30 – 4:00pm

Come take a walk in our 'urban forest'. Toronto's Mount Pleasant cemetery has a tree collection that counts

among North America's finest arboreturns including impressive specimens of our native trees species such as sugar maple and red and white oak along with species rarely found in Canada, such as sweet gum, cucumber tree and Kentucky coffee tree. Learn more about our urban forests and the challenges of maintaining and conserving tree species diversity in our cities.

Registration: Free!

## Wye Marsh-Midland Biodiversity Walk Saturday June 14 10:00 – 2:30pm

Experience the biodiversity of an Ontario wetland and see why Wye Marsh is designated as an Important Bird Area of Canada. The marsh provides important nesting habitat for several uncommon bird species, such as Trumpeter Swans, as well as important habitat for a wide variety of plants, mammals, amphibians and reptiles. Our walk will include a wildflower and bird watching tour, along with a presentation and accompanying canoe trip focused on the area's amphibian and reptile populations.

Registration: \$20 (includes lunch)

The Ontario Forestry Association Nature Walk Series is sponsored by the Ontario Ministry of Natural Resources.