



THE BULLETIN

May / June 2008 No. 473

2007-2008 EXECUTIVE

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Events calendar

Saturday June 14, 2008. Richmond Hill Heritage Day

When: 9am to 5pm
Where: Along Yonge Street between Major Mackenzie Drive and Crosby Avenue

Executive Meeting September 9, 2008. 7:30pm

September 2008 Annual Corn Roast

Date: Saturday September 6, 2008. 6pm.
Location: Russ Tilt's, 25 Bridgeford St. S.

Our first General Meeting of the new season will be:

Thursday September 18, 2008. 7:30pm

Speaker: unknown

Topic: unknown

Location: Richmond Hill Presbyterian Church

Check for more Events and Outings on Page 2

On Tuesday May 13 [The UN Environment Programme](#) (UNEP) launched a campaign to plant trees worldwide. It set a goal of seven billion trees by late 2009 -- or just over one for each person on the planet -- to help protect the environment and slow climate change.



UNEP began the tree planting drive in late 2006 with an initial goal of a billion trees by the end of 2007, but it set a target on Tuesday of an extra five billion plantings by the time a UN climate conference in Denmark starts on Nov. 30 next year. In 2006 people wondered if a one billion tree target was too ambitious. Quite the opposite. The goal of two billion trees has proven to be an underestimate and the new goal of planting seven billion trees, equivalent to just over a tree per person alive on the planet, is likely doable.

UNEP said that safeguarding and planting forests were among the most cost-effective ways to slow climate change. Trees soak up carbon dioxide as they grow, but release it when burnt or when they rot. The campaign registers pledges of plantings on the Internet but does not check that all seedlings or saplings are actually planted or survive.

Regional and national governments organized the most massive plantings, with Ethiopia leading the count at 700 million, followed by Turkey (400 million), Mexico (250 million), and Kenya (100 million). Millions of individuals have also taken part, including schoolchildren or religious groups. One UN official said that seven billion trees would, as they grow, soak up roughly the same amount of carbon dioxide emitted by Russia in a year. Russia is the third largest emitter of greenhouse gases behind the United States and China.

Here at home, the Ontario government plans to plant 50 million trees, which is one of the most ambitious projects of its kind in North America and a significant commitment to the United Nations Billion Tree Campaign.

The Ministry of Natural Resources has set up a website at <http://ontario.ca/plantatree> where people can tell the world how they're fighting climate change by planting trees. They can send in stories and photographs of their tree-planting events, highlight how many trees they've planted, and find useful information about planting trees and its benefits.



The Bulletin is published 9 times per year, from September to May inclusive, by the **Richmond Hill Naturalists**, and is mailed free to members. The Bulletin is the official publication of the Richmond Hill Naturalists, a non-profit organization the objectives of which are to stimulate public interest in natural history and to encourage the preservation of our natural areas.

Address Correspondence to: **Richmond Hill Naturalists, P.O. Box 32217, RPO Harding, Richmond Hill, ON, L4C 9S3**

Deadlines: The editor encourages submissions from any member on any topic related to nature or conservation, and in particular, any issue that might be of interest or concern to members of this club. e-mail: editor@rhnaturalists.ca **Deadlines are the 2nd Thursday of each month.**

Bulletin Advertisers have been selected because of their relevance to member interests.

Members are encouraged to patronize our advertisers and please mention that you saw their ad in our Bulletin.

Change of Address: Any change of email or street address should be sent to Mike Turk who prints the envelopes for the Bulletin mailing. See the Executive List for contact information.

Editor: Lloyd Helferty

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Distribution: Athena Antiochos

Visit our Website at www.rhnaturalists.ca

MEMBERSHIP IN RHN

The *Membership Application Form*, is available at each General Meeting from Mike Turk, or in our club brochure, available from any executive member. You may also sign up or renew at <http://www.rhnaturalists.ca/membership/>

NEW MEMBERS:

Heidi DeBond – Chair of AstroNats

Kyle Potts

Meet new members at club events and say Hello!

EVENTS FUTURE

-  **Saturday, June 14, 21, 28, and July 5, 12, 2008.** 2pm – 4pm. **RHN Walk at David Dunlap Observatory.** Meet Joe Agg in front of the Observatory at 123 Hillsview Drive for an interpreted walk through the Dunlap property.
-  **Tuesday September 9, 2008.** 7:30pm. **Executive Meeting.** Robert Holland Centre , Phyllis Rawlinson Park.
-  **Saturday September 6, 2008.** 6pm. Our annual **Corn Roast!** Russ Tilt's, 25 Bridgeford St. South. Bring your own cutlery, plate, mug/glass and lawn chair. \$5 per person. Renew your Richmond Hill Naturalists membership at this time (\$20 for an individual or \$25 for a family membership). For those unable to attend the corn roast you may pay for your membership at the September general meeting. [Contributions to the dessert table would be appreciated.]
-  **Thursday September 18, 2008.** 7:30pm. **General Meeting.** The meeting will be held at the Richmond Hill Presbyterian Church, Wallace Hall. 10066 Yonge St., first block North of Major Mackenzie Dr., West side. For info contact Marianne Yake at 905-883-3047, or visit www.RHNaturalists.ca.
-  **Monday October 7, 2008.** 12:30pm. **Botany Group Meeting.**
-  **Wednesday October 8, 2008.** 7:30pm. **Bird Group meeting.** Information about the topic and location will be published in an upcoming issue of the Bulletin.
Please note: Richmond Hill Naturalists welcomes anyone to volunteer as an outing leader.
-  **Saturday June 7, 2008. Heritage Hike at Claireville Conservation Area.** Come celebrate International Trail Day and enjoy a walk with new and old friends through the West Humber River Valley where Spring flowers and budding trees will intermingle with the area's unique history. The walk will be about 4km (2.5 miles) to the Wiley Bowstring Heritage Bridge, and back. Recommended for adults, but children are welcome. A TRCA archeologist, an historian and an experienced guide will join the hike. The trail head is located in the Parking area on the south side of Queen St., East at Conservation Drive in Brampton. To register call 905-455-4395 or e-mail ACOBrampton@aol.com. Please register at least two days prior to the event.
-  **Saturday and Sunday June 7 & 8, 2008.** 10am+. **Windfall Ecology Festival** at Fairy Lake Park, Newmarket. Green exhibits and marketplace, Healthy cooking demo, World music stage, Kid's eco activities. Free admission, free parking, free bicycle valet parking.
-  **Saturday June 7, 2008.** 8am to 3pm. Evergreen Spring Plant & Garden Fair at the Don Valley Brick Works. Organic, heritage and native plants available. A great event for families: visit plant nurseries, talk to seed vendors and eco-businesses or join green gardening workshops, demonstrations and walks. Pay what you can. Suggested donation is \$5 each, or \$10 for day-long events. See <http://evergreen.ca/rethinkspace/?p=284> for info.



- **Sunday June 8, 2008.** 1:30pm-3:30pm. Rouge Valley Conservation Centre Canadian Rivers Day hike with Bill Lewis and Steve Gahbauer. Meet at 1749 Meadowvale Road. For more information call 416-282-8265. Free.



- **Saturday June 14, 2008.** 9am to 5pm. **Richmond Hill Heritage Day** along Yonge Street. The Richmond Hill Naturalists will be in booth #20 during this festival to celebrate our heritage. The heart of old Richmond Hill will be transformed into a festive pedestrian mall where artisans and community groups will tempt you, inform you and transform you as you enjoy arts, crafts, children's activities, horse wagon rides and delectable tasty treats. Yonge Street will be closed north of Major Mackenzie Drive to south of Crosby Avenue, and Centre Street street will be closed from the east side of Yonge Street to the west side of Church Street for this event, which normally attracts more than 10,000 visitors and features many of Richmond Hill's own arts and crafts artisans, community groups, music and dance groups, as well as participation from local street merchants. For more information, visit the Town's Website or contact Maggie MacKenzie, Heritage Service Coordinator, at (905) 787-1441, ext. 223. Free Admission. Heritage Village Day is organized by Arts Richmond Hill.



- **Saturday and Sunday June 14 & 15, 2008.** The second "**Moraine For Life" Adventure Relay.** 24 hour relay from Rice Lake to King City. Find out more at www.moraineadventure.com or 1-877-319-0285.



- **Thursday, June 19, 2008.** 5pm to 8pm. The final Public Consultation on the **North Yonge Street Corridor Public Transit** and Associated Road Improvements Municipal Class Individual Environmental Assessment. Oak Ridges Recreation Centre – Norm Taylor Room, 70 Old Colony Road, Richmond Hill.



- **Saturday June 21, 2008.** 10am - 5pm. **Oak Ridges Fair** hosted by The Oak Ridges Lions Club. Kiddie games, blow ups and the "biggest garage sale" ... among other attractions. <http://www.oakridgeslions.com/>



- **Sunday June 29, 2008.** 2pm-4pm. There will be a moderate-paced hike in the York Region Forest **Porritt tract** at Pangman Springs Conservation Area in Whitchurch-Stouffville. Meet at the Porritt Tract parking lot underneath the communications tower, west side of Kennedy, 300 m north of Aurora Rd. The hike will be 6 km. For more information call Harold at 905-853-3518.



- **Sunday June 29, 2008.** 1:30pm-3:30pm. Nature walk on the Little Rouge River with Robert Marshall. Meet at the Twyn Rivers Drive area parking lot (old ski hill) east of the Little Rouge River on the south side of Twyn Rivers Drive. For more information call 416-282-8265.



MEMBER SUBMISSIONS

The Caring for the Moraine Project (CMP) 2008

The project includes many proactive landowner contact activities including landowner workshops, a suite of Moraine related outreach materials, on-the-ground stewardship projects, a photo contest, landowner appreciation events and more.

This project brings together over 30 conservation organizations already working on the Oak Ridges Moraine. The CMP is about coordinating existing services and reducing duplication of stewardship activities on the Moraine. The CMP offers landowners free property visits to properties larger than 2 acres, access to financial and technical assistance, landowner information nights on a wide range of topics and in various locations across the Moraine as well as stewardship focused Moraine materials.

For more information contact Kate Potter, Project Coordinator at (905) 579-0411 ext.106 or kpotter@cloca.com. The CMP has been funded by the Oak Ridges Moraine Foundation. See www.moraineforlife.org

As part of the Caring for the Moraine Project, the 2nd annual **Moraine in Focus** Photo Contest, "The Moraine Through My Eyes" runs this year from Tuesday April 1st to Wednesday December 31st. Categories include amateurs, professionals and youth (under 16). Great prizes will be awarded and the winning imagery will be showcased at events across the Moraine in May 2009. see: <http://www.monitoringthemoraine.ca/moraineinfocus/>





Public access to the **David Dunlap Observatory** site has now been officially reduced.

As of April 30, 2008 *public evening tours of the observatory were cancelled*, by order of the University of Toronto. All daytime tours offered to school groups are also ending on June 16.

According to the University, the “de-activation” of the tours is due to the looming closure of the observatory and the need to save telescope time for researchers. Professor Tom Bolton called the issue a red herring and said “The tours do not interfere much with research. I know of no reasons to cancel the tours.”

When the university put the lands up for sale last October, they announced July 1st, 2008 as a closing date for the sale and for research, but things have not moved quickly, and now researchers only know their work is to end at some undetermined point this summer. The premature end of tours is disappointing given how many people will certainly want to see the site before it closes.

- David Fleischer, Staff Writer, YorkRegion.com via Diana Piche



COSEWIC has designated the Great Lakes / St. Lawrence - Canadian Shield population of **Western Chorus Frog** (*Pseudacris triseriata*) as a Threatened species. Ongoing losses of habitat and breeding sites for this small frog have been due to suburban expansion and alteration in farming practices. Losses of populations and isolation of the remaining habitat patches have caused populations in Quebec to decline at a rate of 37% over 10 years. And surveys of populations in Ontario have also indicated a significant decline in abundance of 30% over the past decade.

Protecting Canada's Boreal Forest for Birds: Update on the Save Our Boreal Birds Campaign

Ontario Nature and the **Boreal Songbird Initiative** have developed a nation-wide petition to protect the most significant bird nursery in North America, the Boreal Forest. Thanks to partners across North and South America and parts of Europe, signatories from around the world are demanding that the Canadian government protect the Boreal Forest, an international treasure and significant breeding ground for migratory birds.

Over 3,500 signatures have been received to date and thousands more before are anticipated before the petition will be submitted to provincial and federal elected officials. The **Save Our Boreal Birds** petition is intended raise political awareness about the importance of the Boreal Forest to breeding birds and that they will make conservation announcements.



Please encourage your friends and family to sign the petition and to pass it on to people they know.
Go to: <http://www.saveourborealbirds.org/>

If you have any questions please contact Jen Baker at jenniferb@ontarionation.org or 1-800-440-2366, ext. 224.

NATURE NEWS

Vaughan passes pesticide by-law

Joining the York Region municipalities of Georgina, Markham and Newmarket, Vaughan is the fourth to implement a pesticide bylaw. All municipalities allow for integrated pest management (IPM) on golf courses, and in the case of Vaughan, this is also being permitted on cemeteries and by Canada's Wonderland.

The Canadian Institute of Planners has chosen "**Listen to Your River: A Report Card on the Health of the Humber River Watershed, 2007**" as the winner of their 2008 Award for Planning Excellence in the category of Environmental Planning. Special thanks goes to the Humber Watershed Alliance especially those members who attended many committee meetings and provided valuable input throughout the process.

- Gary Wilkins, Humber Watershed Specialist, Toronto and Region Conservation

Parental concerns in maintaining germ-free homes for their children have led to an ever-increasing demand and the rapid adoption of **anti-bacterial soaps** and cleaning agents. But the active ingredients of those antiseptic soaps now have come under scrutiny by the EPA and FDA in the US, due to both environmental and human health concerns.

Two closely related antimicrobials, *triclosan* and *triclocarban*, are at the center of the debate. Triclosan (TCS) has a structural resemblance to dioxin, and triclocarban (TCC), presumably a harmless consumer product additive, is now one of today's top ten pharmaceuticals and personal care products most frequently found in the environment and in drinking water sources, notably estuaries, where bottom-dwelling organisms experience multi-generational, life-time exposures to these chemicals.



These substances have an extreme environmental persistence (antimicrobial ingredients used a half a century ago by our parents and grandparents are still present today at parts-per-million concentrations in estuarine sediments) and they function as endocrine disruptors in mammalian cell cultures.

Individuals should limit the use of antimicrobial personal care products. The compounds in these soaps have no measurable benefit over the use of regular soap and water for hand washing; the contact time simply is too short.

Last month the Ontario Liberal government set back the protection of Ontario's biodiversity by quietly proposing that the **logging industry** be exempt from the provisions of the [Endangered Species Act](#) [ESA]. The Ontario government's decision is a devastating reversal to last May, when Queen's Park unveiled its new ESA.

At that time Ontario Nature and a coalition of conservation groups applauded the law as a triumph of forward-looking legislation. It made Ontario a leader in North America in terms of protecting the most vulnerable plants and animals across a wide variety of ecosystems. The Act had boosted the number of protected species from 42 to nearly 200, granted automatic habitat protection for endangered and threatened species, required mandatory recovery efforts for those species and provided conservation incentives to private landowners.

A blanket exemption for the logging industry will do nothing less than defeat the purpose of the Act.

EVENTS PAST

On Sunday, May 25, 2008 the **Save the Oak Ridges Moraine** (STORM) Coalition and the **Windfall Ecology Centre** opened new offices at the **Sheppard House** within the Sheppard's Bush Conservation Area at 93 Industrial Parkway South in Aurora. An afternoon of festivities to celebrate the official grand opening of Sheppard's House took place with Aurora Mayor Phyllis Morris, along with representatives from the Ontario Trillium Foundation and the Ontario Heritage Trust. Visit STORM's web sites at www.stormcoalition.org or www.monitoringthemoraine.ca and the Windfall Ecology Centre's website at www.windfallcentre.ca.



May 22, 2008 was the **International Day for Biological Diversity** (also known as **International Biodiversity Day 2008**). This year's theme was "Biodiversity and Agriculture", which sought to highlight the importance of sustainable agriculture not only to preserve biodiversity, but also to ensure that we will be able to feed the world, maintain agricultural livelihoods, and enhance human well being into the 21st century and beyond. Events took place around the world that emphasizes the value of agricultural biodiversity for food security, human nutrition and improved rural livelihoods. These events highlighted the need for actions to halt the loss of agricultural biodiversity and to enhance the contributions that rural landscapes make to human well-being. See: http://en.wikipedia.org/wiki/International_Day_for_Biological_Diversity

On the morning of Saturday, May 17 at the The Richmond Hill Naturalists hosted a "**Bird Watching for Beginners**" outdoor event at the David Dunlap Observatory Park, led by avid birders Theo Hofmann and Tom Waechter. The event focused on spring migrants.



As part of a Class Environmental Assessment Study (Class EA) of **Bathurst Street** from Highway 7 to Teston Road, on Tuesday May 13th the Region of York held its 2nd public consultation meeting at the Richmond Hill Country Club in order to provide an overview of the design concepts that have been recommended for transit/HOV lanes, bike lanes, sidewalks, boulevards and landscaped medians.

On Saturday May 10th the Richmond Hill Naturalists gathered at The David Dunlap Observatory [DDO] to celebrate **International Astronomy Day** and the launch of our new and exciting Richmond Hill Naturalists Astronomy Group - The **AstroNats**!

The evening's events included a lecture and discussion in the main lecture room of the Administration Building entitled, "Amateur Astronomy - An introduction to the experience of a lifetime!" This introductory and detailed talk was given by AstroNat Chair Heide DeBond, one of the current operators of the 74 inch telescope at the DDO, as well as the DDO's Public Outreach Specialists Ian Shelton and Tuba Koktay. Karen Cilevitz also wore her Amateur Astronomer's Hat for this evening and helped to provide a very informative and fun hour. The lecture was followed by an open question period to answer "Everything you ever wanted to know" about amateur astronomy.

At the conclusion of the AstroNats talk, participants proceeded outside to commemorate the official launch of The AstroNats. Telescopes had been set up outside for a public viewing of Venus before the sun set, and after sunset a 'Sky Tour' of the night sky was provided, which included detailed explanations of the Spring and Summer night sky using select targets for observation.



The core of the amateur astronomy section of the club is drawn from the **DDO Defenders** group which together with the Richmond Hill Naturalists has undertaken to preserve and protect the entire DDO site at 123 Hillsview Drive in Richmond Hill. The Astronats will service southern York Region and the Greater Toronto Area.

With the formation of the AstroNats, the Richmond Hill Naturalists and the David Dunlap Observatory astronomers have come full circle: In 1955 Helen Sawyer Hogg and Ruth Northcott, both resident astronomers at the Observatory, helped found the fledgling nature group called the 'Naturalists', which was later called the "Richmond Hill Naturalists".

From astronomers forming a nature group, we now have that same nature group forming an astronomy group.

On April 22, 2008, [Ontario's Cosmetic Pesticides Ban Act](#) was introduced for first reading. Public comments and submissions to the Environmental Registry recently closed on May 22nd. It is hoped that the Ontario legislation and regulations, once passed, will effectively protect both human and environmental health.

GENERAL INTEREST

Environmental Laws Waived for Mexico Border Wall

In early April the Bush administration in the United States announced that it will waive more than thirty federal laws to finish building a wall along the Mexican border by the end of this year.

The Washington Post calls the move "the most sweeping use of the administration's waiver authority during the wall's construction". The waiver allows the Bush administration to bypass mandatory reviews on how the wall will affect ecological areas in California, Arizona, New Mexico and Texas. House Homeland Security Committee chair Bennie Thompson called the waiver "an extreme abuse of authority". Environmental groups have filed petitions challenging the waivers before the Supreme Court.



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Pollinators



One of the most important biological processes on our planet remains a mystery to many: Pollinators. Pollinators, like honeybees, butterflies, flies, wasps, beetles, bumblebees, hummingbirds and even some other insects that most people know nothing about, such as hemiptera and thrips which help to transfer pollen from the male part of a flower (anther) to the female part (stigma) inadvertently as they feed.

While the pollinator searches for sustenance, pollen from the anther sticks to body parts and as it moves to another plant the pollen is transferred to the stigma and fertilization occurs. This "service" that pollinators provide is essential for reproduction of nearly 80% of the seed-producing flowering plant species on earth. One in every three bites of the food we eat -- from fruits, berries, vegetables, nuts and seeds -- is the result of pollination. Insect pollination is responsible for about \$1 billion worth of fruits and vegetables in Canada alone every year.

Pollination creates fertile seeds that contain the promise of renewed life, year after year and generation after generation. Pollinators are often referred to as "keystone species" because many other species depend on them. They play a critical role in the function of ecosystems. Without pollination, many plants could not reproduce and food webs would collapse. Without pollination, the world would be a different place. We would not have apples, bananas, tomatoes, chocolate, fibres, fats and oils, or spices and condiments. All flowering plants include broadleaf trees and garden vegetables, rice, wheat and other grains, and most fruits need pollinators. Some ferns and mosses and many conifers like pines, spruces and firs are also seed producers.

Canada is home to more than 1,000 species of pollinators that have adapted, along with their favourite plants, which employ specific strategies to attract their benefactors. The plants use colour, patterns, shapes, scent and timing to lure pollinators, and so food and reproduction needs are both met.



Pollinators contribute to biodiversity by randomly transferring pollen from one plant to another helping to create diverse populations. A plant population with a diverse genetic make-up is better able to fight off diseases and parasites -- and can adapt more successfully to climate change. The success of the seed-producing plants also increases species diversity, resulting in healthier ecosystems.

But pollinators are facing numerous threats, mainly as a result of human activities. The use of pesticides, toxic chemicals, imported diseases, and fragmentation or outright loss of habitat are threatening pollinators. Pollinators need healthy habitats for foraging and nesting. Many do not travel great distances, so they need sites close to abundant sources of their life necessities.



In an industrial, urbanized and highly specialized culture such as ours, we tend to lose sight of the fact that the most basic activity of any living thing, including humans, is still the procurement of food. In the animal world, obtaining food is what absorbs most of the energy of wildlife. Air pollution from industrial plants, power generating stations and cars can destroy the fragrance of flowers and inhibit the ability of pollinators to follow scent trails to their food source. This could partially explain why wild populations of some pollinators are declining – especially bees, who are among the most important pollinators.

Can birds actually "see" the lines of the Earth's magnetic field?

[Klaus Schulten](#) of the University of Illinois, proposed forty years ago that some animals – including migratory birds – must have molecules in their eyes or brains which respond to magnetism. The problem has been that no one has been able to find a chemical sensitive enough to be influenced by Earth's weak geomagnetic field.

Now [Peter Hore](#) and colleagues at the University of Oxford have found one. Cryptochromes are a class of light-sensitive proteins found in plants and animals, and are thought to play a role in the circadian clock, in regulating plant growth, and timing coral sex. A few years ago, Henrik Mouritsen of the University of Oldenburg in Germany showed that they were present in the retinal neurons of migratory garden warblers, and that these cells were active at dusk, when the warblers were performing magnetic orientation.

Certain molecules made by [Devens Gust](#) of Arizona State University, when stimulated by light of specific wavelengths, will produce two free radicals, and the concentrations of each free radical in a solution could be controlled by applying an extremely weak magnetic field.

Birds appear to orientate at dusk, and cryptochromes form their pair of free radicals when "activated" by the blue light typical of dusk. Hore suggested that dusk might activate the birds' magnetic sense, producing the radical pair. The concentrations of each free radical would be controlled by the Earth's magnetic field, which is known to vary with latitude. As a result, he speculates, the radicals would bind in varying degrees with other signalling molecules, depending on how far north or south the animal is.

Some scientists believe that birds may have an additional layer to their vision, which when switched on allows them to visually "see" the Earth's magnetic field.

This was the first-ever demonstration of an earth-strength magnetic field effect on photochemical reactions.

BIRD OBSERVATIONS

Birding highlights from the David Dunlap Observatory and Mill Pond

At 6:30am on May 17, Tom Waechter, along with Paul and Anne saw some Black and White warblers and Female Grosbeak. At 8:30am Tom, Paul, Anne, Roberta, Katie, Anna, Mike and Theo also saw Great Blue Heron and a Cat Bird. At 9:45am at the Mill Pond we saw Tree Swallows, Mute Swan, Canada Geese, Baltimore Orioles, Kingbird, Sandpiper and Red Winged Black Birds. Other birds seen at the DDO include a Great Horned Owl perched in the trees just to the west of Elms Lea, a Pileated woodpecker in the woods near Bayview, a Turkey vulture flying low over the administration building and a Cooper's Hawk spotted (and photographed) late last year. In total, at least sixty-four (64) species of birds have been observed at the David Dunlap Observatory site since October 2007.



Tar Sands Tragedies

In April more than **500 ducks were severely oiled** when they landed on a toxic **Tar Sands** tailings pond in northern Alberta, leading not only to their death but also to renewed calls for a moratorium on new oil sands production. The migratory birds landed on a pond filled with toxic waste from the oil sands operation at Syncrude's Aurora North Site mine, north of Fort McMurray. At the time news of the bird deaths became public, Alberta government representatives were in Washington promoting the tar sands as "environmentally sustainable".

Syncrude's apparent failure to implement measures to prevent the birds from landing, required by provincial law, may also be in contravention of the federal [Migratory Bird Convention Act](#). Even with preventive efforts in place, tailings ponds continue to pose a danger to birds since these ponds can appear to be welcome places for migrating waterfowl and shorebirds to rest and feed.

Nearly a dozen tailings ponds line both sides of the Athabasca River and pose a serious threat to the entire Mackenzie River basin. Many are already leaking and creating their own tainted wetlands.

The ponds, which contain a thick mix of water, oil and clay, give off a strong aroma of hydrocarbons and rarely freeze. Fish, birds and other wildlife face death from swimming in or drinking from the ponds.

Of the twenty-five [25] chemicals found in every tailings pond, as studied by the U.S. Environmental Protection Agency, fourteen [14] are known human carcinogens.



The Committee on the Status of Endangered Wildlife in Canada ([COSEWIC](#)) has recently declared the **Canada warbler** a "threatened" species. Long considered common in our boreal forest, Canada warbler populations have plunged 45% over the past four decades.

Please submit Bird Observations using our electronic database, which can be found at: www.rhnaturalists.ca/bird_sightings_form.php

Submissions can be sent by e-mail to:
Sightings@rhnaturalists.ca or birds@rhnaturalists.ca

Written submissions can be sent by surface mail to:
Gene Denzel, 9 Idleswift Dr., Thornhill, ON L4J 1K8

Bird observations are viewable online or, if you prefer to receive a paper copy of this month's bird observations, contact Marianne Yake at 905-883-3047.

From the Editor

Biofuels are Not the Solution to Energy

According to a 2007 UN report called "Sustainable Bioenergy: A Framework for Decision Makers", the production of fuels from agriculture ('agrofuels') is expected to increase from 11 billion gallons in 2006 to **87 billion gallons** per year by 2020 – A nearly 8-fold increase.

To put this into terms with which most of us are more familiar:

87 billion gallons / 42 gal/barrel = 2.07 billion barrels of biofuels ('agrofuels') per year.
2.07 billion barrels per year / 365 days = 5.675 million barrels per day.

Our current (2008) **Global fossil fuel** use is now at a staggering **74 Million Barrels per day** (MMb/d). Beginning in 2010 world oil production is expected to decline by about a **3% per year**, indefinitely. This translates to a decline of about 26% by 2020, i.e., from 74 MMb/d to about 55 MMb/d.

Biofuels do **not** have the same 'energy density' as petroleum!

1 gallon of gasoline contains about 124,000 BTU's ; one gallon of diesel fuels contains about 139,000 BTU's.
But 1 gallon of ethanol only contains about 77,000 BTU's.

This means that ethanol only has about 62% of the energy of gasoline and 55% of the energy content of diesel. Translation: $5.675 \text{ MMb/d} \times 62\% = 3.52 \text{ MMb/d}$ of gasoline equivalents -- a paltry **4.75%** of our current global demand. Keep in mind that the global 'demand' for fuels in the year 2020 is expected to be *far higher* than today!

By any stretch of the imagination it is unlikely that Biofuels ('agrofuels') alone could ever come close to replacing fossil hydrocarbons in the quantities we are using them. Society is going to be compelled into becoming much more efficient regardless of how hard we try to press these alternatives into service.

Nevermind that many biofuels likely produce little or no net increase in energy output, can cause food shortages and have created conditions (through perverse economic incentives) for the worldwide destruction of forests – the ones we desperately need to help stabilize the climate.

Lloyd Helferty, Bulletin Editor editor@rhnaturalists.ca

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