



Community Profile: Christina Sharma and Project CHIRP



Christina's yard in
Etobicoke

***"A bird does not
sing because it
has an answer. It
sings because it
has a song."
-Chinese Proverb-***

***"There is nothing in
which the birds
differ more from
man than the way
in which they build
and yet leave a
landscape as it
was before."
-Robert Lynd-***

In childhood, Christina Sharma developed a special affection for animals on the family's sheep farm. Inspired by the beauty of local and migratory birds, Christina has gone on to create her own urban-based, native woodland oasis in her backyard and one that has been certified by the Canadian Wildlife Federation (CWF). She acknowledges this as her greatest achievement to date.

In this extraordinary garden in an ordinary neighbourhood, Christina has restored her patch to a wondrous place where caterpillars morph into butterflies, tadpoles into frogs; where birds feed and raise their young. Her initial hope was to draw people in to see the birds and show how this backyard habitat had become a critical refueling and rest stop in songbird migration. Much to Christina's delight, this small yet successful refuge is now hosting 36 goldfinches as they over-winter. Not only successful in attracting songbirds, even a local turtle has become a frequent visitor to the garden. Committed to educating the public on how to preserve biodiversity, Christina uses her backyard as a teaching tool. Richard Joos, the avian ecologist at the Toronto Bird Observatory says, "If native bird species

live and breed in a given place, that space has an ecological soundness about it. We call this good habitat. Because habitat loss has been identified as a principal cause in songbird population declines, we have an enormous opportunity to contribute to bird populations through habitat restoration."

Inspired by visiting the Toronto Bird Observatory's bird banding station in High Park, Christina founded Project CHIRP (Creating Habitat In Residential areas and Parklands). The purpose of Project CHIRP is to assist homeowners in using native flora on their properties to restore songbird habitat from the Lakeshore to the Oak Ridges Moraine.

Project CHIRP invites you to attend a workshop or speaking event or to take a guided tour of Christina's backyard in Etobicoke. Attendees will receive resource materials from CWF including a step-by-step garden planner called *Creating Habitat for Wildlife*. Visit the [CWF's](#) website to learn how to begin the process of making your property songbird friendly by using native species which encourage the re-establishment of indigenous flora and fauna. To buy native trees, shrubs and perennials, check [LEAF's](#)

offerings for the spring season. LEAF offers backyard consultations with experts that can help you get started.

Christina identifies one of her challenges is getting through to the most urbanized of city dwellers. The experience of visiting the bird banding station can teach inner-city children the beauty and importance of nature. This fall will find Christina bringing her message to school classes. She and Richard have also been speaking at Toronto Zoo and Toronto Regional Conservation Authority workshops on restoring natural habitat with CWF certification. Documenting CWF properties on a map of corridors from the waterfront to the Moraine is a significant tool in measuring the impact of songbird conservation efforts in this area.

Another challenge for Christina is manpower. If you want to help or to attend any event, call: 416 236 7234 or email: projec-tchirp@rogers.com. Every Saturday morning from now until the end of May, Christina invites you to visit the [Toronto Bird Observatory](#). Also, check the event listings at the end of this newsletter for upcoming workshops. Learn how to get your garden wildlife friendly.

Research Forester David Nowak Documents the Effects of Urban Forests on Air Quality



Dr Nowak addresses a full house on March 7th

“By means of trees, wildlife could be conserved, pollution decreased and the beauty of our landscapes enhanced. This is a way to spiritual, moral and cultural regeneration.”

-EF Schumacher-

“He plants trees to serve another age.”
-Cicero-

A packed room with standing room only greeted American research forester David Nowak at Toronto’s Metro Hall earlier this month. Speaking in the city on behalf of LEAF and Ryerson University’s Geography Department, Dr. Nowak’s expertise is in understanding urban forest structure and its effect on air quality and greenhouse gases. An eminent scientist with the US Forest Service, David Nowak is the recipient of the American Forests Urban Forest Medal recognizing his outstanding contributions in urban forest research.

Our urban forests provide myriad benefits that both improve the environment and save money and Dr. Nowak has the research that verifies this. As project leader of Syracuse NY’s Northeastern Research Station, his team’s work includes the development of the Urban Forest Effects (UFORE) computer model, a user-friendly tool designed to help managers and researchers quantify their local urban forest’s structure, function and needs. By using standardized structural data and field statistics, UFORE can be used by cities across the world. It quantifies data such as urban forest structure by land mass

type (species composition, tree density, health and diversity, leaf and tree biomass, etc.); the hourly amount of pollution removed by the urban forest with its associated percent air quality improvement; the effects of trees on building energy use and the relative impact of tree species on net ozone and carbon monoxide formation. In addition, the model evaluates the compensatory value of the forest as well as the value of air pollution removal and carbon storage; tree transpiration and the potential impact of Gypsy moth, Asian long horned beetle infestations and other pests. Using this tool over the past decade, Dr. Nowak and his team have measured the benefits of trees growing in a number of North American cities on urban climate, air quality, water quality, energy use and ultraviolet radiation. The astonishing results confirm that trees remove hundreds of tonnes of pollution from the air each year. They save cities millions of dollars by reducing demand for energy and decreasing the need for new infrastructure.

Understanding and quantifying the impact of urban trees is a critical prerequisite to managing their health and optimizing their benefits. In generat-

ing and collecting field data from across the world, scientists can collaborate with colleagues from a number of institutions to better understand urban forest ecosystems. Dr. Nowak’s research is investigating how and why urban forests change through time so as to develop better monitoring systems to sustain this vital resource. His research program is developing sensing methods and tools to produce digital cover maps that can be integrated with urban forest models and geographic information systems (Landsat) to improve urban forest management and human health.

“The solution to pollution is dilution” was Dr. Nowak’s enduring message. Although planting trees is important, conserving the ones we have is paramount. No new tree can replace the value of one that has been part of the urban landscape for decades. An older tree adds health benefits and aesthetic value that younger trees cannot do for decades.

For more information on [Dr. Nowak](#) and his outstanding contributions in urban forest research, visit [USDA Forest Service](#).

Take Action-Make Your Land a Legacy

Most of us are aware that our natural habitats, including many of Canada's most biologically diverse ecosystems, are under considerable strain. The loss of wetlands, woodlands and grasslands is of great concern to Canadians particularly in landscapes dominated by private land ownership. The [Ecological Gifts Program](#) (EGP) has been designed to engage private landowners in stewardship and conservation. Under this program an ecogift is a donation of private land that has been certified as ecologically sensitive or having ecological value. The donation must be made to a qualified recipient who will be responsible for protecting in perpetuity, the biodiversity and natural state of the gifted lands. The EGP provides income tax incentives to Canadians and a means to protect nature by creating a legacy for future generations. Introduced in the federal Income Tax Act in 1995, the EGP is administered by Environment Canada which works in cooperation with dozens of partners and environmental charities working in land conservation. Tax advantages include eliminating capital gain on the disposition of property, no income limit for calculating tax credit/deduction and donation value is certified by the government of Canada. Most ecogifts to date have been donated to land trusts and nature conservation charities which operate on all levels, from local to nationally known organizations. Recipients of ecogifts can offer the donor various options. For example, the donor can choose between donating full-title or a servitude depending on their needs and as recommended by professional legal and tax advisors. Conservation objectives are defined by the recipient and the donor based on the ecological features of the property and the donor's wishes. Any future disposal of land or changes to land or servitudes donated under the EGP must be approved in advance by Environment Canada even for changes that are perceived as beneficial. Should you want to learn more about the EGP, contact Andrea Kettle at 416 739 4286.

Take Action - Protecting Wildlife in Trees

Spring is a particularly risky time for wildlife as squirrels and raccoons often have young in tree cavities and/or leaf nests. By taking a few simple measures, we can avoid injuring or orphaning wildlife while doing tree work.

To avoid injury to squirrels, avoid removing trees or major branches from March to mid-May. If necessary however, be sure to inspect tree cavities before proceeding and remove a nest with babies in it intact. Keep the nest and babies warm in your house or in a vehicle, then place the nest back in the exact spot on the ground where the tree stood. Watching from a distance, you should see the mother fetch her babies and begin the process of relocating them. It is important to give the mother squirrel as much daylight time as possible to carry out the relocation. Squirrels have two litters annually. The first is between late February and early June and the second between late July and early October. The ideal time for tree work with respect to the least risk is between mid-October as the squirrels have an easier time making new nests than in early spring. The birthing season for raccoons can start as early as mid-March and extends into late June. Any tree with a cavity large enough to create a den should be inspected, although care should be used during the winter months when raccoons semi-hibernate and are slow to respond. Use caution during the birthing season as successfully reuniting babies with their mother is a more difficult task.

For assistance with injured or orphaned wildlife, contact:

[Toronto Wildlife Centre](#), [Toronto Humane Society](#) or [Toronto Animal Services](#)

Generally, all of these organizations are overstressed and do not have the capacity to provide long-term care for orphaned urban wildlife. Prevention is definitely the best option.



Dendro Devotion

By Marc Willoughby, M.L.Arch., O.A.L.A.,
I.S.A. Certified Arborist

Match the leaf type with the tree species:

LEAF TYPE

- 1) cordate (heart-shaped)
- 2) ovate (egg-shaped)
- 3) spatulate (widest near end)
- 4) denticate (fine teeth)
- 5) lanceolate (spear-shaped)
- 6) palmate (hand-shaped)
- 7) trifoliate (three leaflets)
- 8) pinnate (featherlike)
- 9) scale-like
- 10) orbicular (circular)

TREE SPECIES

- a) black willow
- b) hop-tree
- c) white ash
- d) chokecherry
- e) eastern white cedar
- f) northern catalpa
- g) trembling aspen
- h) paw paw
- i) eastern sycamore
- j) speckled alder

Answers at the bottom of page 5 of the newsletter.

Science Bite: Mountain Pine Beetle threatens Boreal Forest

Since 1993, the population of mountain pine beetles in BC's Central Interior has been exploding. Now numbering in the trillions, no bigger than a mosquito, the beetles nest in live pine trees during the summer. Digging trenches until she reaches the phloem, the living tissue that conducts food up and down the tree, the female beetle sends out pheromones that invite other beetles to join her in her burrow. In response to the onslaught, the pine will send in sap in an attempt to force the invaders out. The beetles counter this with a mixture of bacteria and fungus (a blue stain that persists through most of the milling process) that plugs the phloem and stops the tree from producing the sap it needs leaving it ready to be overwhelmed by its attackers. By the time of the departure of beetle offspring a year later, the host tree is dead.

To date, BC's mountain pine beetles have nested in an area twice the size of the UK, killing enough trees to build a modest-sized house for every person in Western Canada. The BC Forest Service estimates 90% of the province's pine trees could die by 2016. Why is this happening now? The bugs have been around for about 2000 years having been held in check by persistently cold winters something now that appears to be a thing of the past. By 2070, average temperatures across Canada are expected to rise by another 2 to 7 degrees C. The flora and fauna that have lived in the relatively stable post ice age climate for the past 10,000 years will be forced to migrate, adapt or die.

Mountain pine beetles migrate within tree stands. About 30 million of them have hitched a ride on winds swirling above BC's canopy to land in new stands on the east side of the Rockies. With the last persistently cold temperatures in the winter of 1985, Canada saw the last large scale kill-off of the beetle. This pest is set to vault itself into the Jack pine stands of the Boreal Forest and that means the beetle will creep right across this country destroying all pine trees in the way. For more information visit http://www.for.gov.bc.ca/hfp/mountain_pine_beetle/

Just in Passing - Resources for the Curious

If you are surfing the net for information on urban trees, check out this site which is a [radio series](#) on how trees are impacting our cities. If you are interested in the viability of teaching urban forestry online, this [blogspot](#) offers some insight and a platform for getting your thoughts out.

Green City: People, Nature & Urban Places by Mary Soderstrom is an important and meticulously researched book on a panorama of urban realities from ancient Babylon to modern India. *Green City* examines both the romance and reality of human settlement. It embarks on the exploration of what Soderstrom calls the "green paradox" namely that so many people love gardens and greenery but when each of us tries to claim a bit for our own, we end up paving over nature. From California's suburban sprawl to compromised savannahs at the edge of cities in East Africa, the book examines the perennial issues of how to deal with sewage, toxic emissions and green house gas. In the end it is humankind's intrinsic desire for nature that the author sees as a positive force for change.

Events and Announcements

Canada's Forests: Exploring Our Connection Faculty of Forestry - Centennial Lecture Series.

Thursday, April 5, 2007

7pm at the [Isabel Bader Theatre](#). This lecture will explore the Canadian connection with forests, with an emphasis on the spiritual, inspirational and ecological values of our forest resources. This lecture features acclaimed author Margaret Atwood.

\$20 / \$10 students (limited availability - reserved seating) For additional information visit the [Lecture Series website](#)

High Park Volunteer Stewardship Program (VSP) is dedicated to promoting the use of native plants and in restoring the Black Oak savannah in High Park. They meet on alternate Sundays from January to November, from 10:30 am to 1:00 pm. (meet in front of the Grenadier Café). They also meet on alternate Tuesday evenings between May and September at 6:30 pm.

Sunday, April 8: Burn Preparation or Trail Restoration

Sunday, April 22: Prepare for the Native Plant Sale

Tuesday May 1: Spring Clean Up

Visit www.highpark.org and check the Events Calendar page for more information or email vsp@highpark.org

LEAF Volunteer Orientation Session

Tuesday, April 10, 2007

Metro Hall, John Street, Room 302, Toronto
7 - 8:30 pm

Want to be part of the solution? Learn how you can help LEAF help Toronto's urban forest. Take part in special events, host LEAF's educational display or promote tree planting programs in your neighbourhood. Come out and learn more. Free

Backyard Naturalized Habitat Workshop

Saturday, April 14, 2007

9am - 3pm

North York Civic Centre, 5100 Yonge St., Rm. 1 & 2

NANPS members: \$20 Non-members: \$30

Hosted by Dan Bissonette [NANPS](#) 2206 Conservation Award winner, this session blends the best of traditional gardening concepts with proven approaches to naturalization. Discussions will focus on key definitions, natural heritage soil health and water conservation and an interactive exercise on planning and design. Space is limited. Register by calling 416-631-4438 or via email at nanps@nanps.org

Friends of the Don East Annual Spring Fling

Saturday, April 14, 2007

10 am - 1 pm

Toddmore Mills, 67 Pottery Road

Kick off the season with a clean-up followed by organic BBQ and interpretive walk of the Wildflower Preserve. Visit www.fode.ca for details and info on more FODE events. Free

Community Planting near Willowfield School

Sunday, April 15, 2007

10am-12pm

The Taylor Massey Project (TMP), the Terraview Willowfield regeneration committee, and Councillor Norm Kelly invite local residents and others to plant 250 trees and shrubs, provided by the City of Toronto. Meet at Willowfield Public School, 95 Pacino Blvd, running east off of Pharmacy, north of Ellesmere. Rain or shine - dress appropriately. Visit www.thetmp.org for details and info on more TMP events. Free

Phin Park Tree Tour (near Danforth and Jones Ave)

Saturday, April 21, 2007

12 - 2pm

Join the Toronto Tree Tours and the Pocket Residents' Association for a tree tour of the park and surrounding neighbourhood. Learn about the urban forest and the many revitalization efforts of local citizens. The tour will be led by LEAF's certified arborist Todd Irvine and local expert Jeff Otto. PWYC. Suggested donation \$5 per person. Pre-registration required. Contact: LEAF at tours@leaftoronto.org

Get Involved with the UFN!

We want to hear from you! Email your stories, suggestions, announcements, photos, and ideas to info@leaftoronto.org

Dendro Devotion Answers:

1f, 2j, 3h, 4d, 5a, 6i, 7b, 8c, 9e, 10g

Events and Announcements

Earth Day Tree Planting Eco Fair

Sunday, April 22, 2007

12-4pm

Downsview Park (SE corner of Sheppard and Keele)

Show your commitment to the environment and have fun with your family and friends. Plant a tree, see environmental displays, meet Earth Rangers Ambassador Animals and participate in free interactive children's crafts and activities. Visit [Earth Day Festival](#) for more information or call 416-952-2227

Songbird Conservation and Project CHIRP (Creating Habitat in Residential areas and Parkland)

Monday, April 23, 2007

7pm

Metro Hall, 55 John St, Toronto

The objective of this new, songbird conservation initiative is to inspire, educate, encourage and assist homeowners in incorporating native flora into their properties to support songbird conservation. For more information contact Toronto Green Community at 416-781-7663 or info@ntgc.ca

MNR Stewardship Project Tracking System

Tuesday, April 24, 2007

#220—350 Sparks St. Ottawa

The Ontario Ministry of Natural Resources, Oak Ridges Moraine Foundation, local Conservation Authorities, Ontario Stewardship and the Eastern Ontario Forest Model are guiding an organization called the Centre for Community Mapping to develop a web site that will allow users to map the location and track specific projects concerning stewardship. This workshop will help to streamline data entry, generate informative maps and gain local insight in managing restoration and stewardship programs. For [info](#), contact Mark Rowsell at mrowsell@eomf.on.ca or 613-258-8400. Free

Emerald Ash Borer Workshop

Wednesday, May 2, 2007

London, ON

Presented by the [Canadian Food Inspection](#)

[Agency](#), the focus of this workshop is on the biology and background of the pest in context with relevant management policies and regulations, survey methodologies, and on-going research conducted in Canada regarding the Borer. This is a one-day session with presentations and a field trip. Spaces for 30 on a first serve basis. For reservations contact kimotot@inspection.gc.ca

The 4th Annual Underwriters' Corporate Community Celebration, Sunday, May 6, 2007

9:30–11:30am

Help us add another 325 trees and shrubs to the 850 planted in the last three years! Join Toronto Hydro, Underwriters' Laboratories Canada, Cadbury-Schweppes, and LEAF, with support from Councillor Michael Thompson and the City of Toronto. Please arrive before 9:30, meeting near the parking lot of the Cadbury plant on the north side Bertrand, 150 m west of Birchmount. Rain or shine; dress appropriately; bring gloves; and wear boots or heavy running shoes.

High Park Volunteer Stewardship Program

Native Plant Sale, Sunday, May 6, 2007

12-4:30 pm

Purchase native plants grown in High Park and support the Volunteer Stewardship Program's Black Oak Savannah and other restoration initiatives. Located next to Colborne Lodge at the South end of the Park near the Queensway entrance.

Shade for Good Health and a Green City

Friday, May 11, 2007

8am- 4pm

5100 Yonge Street (North York Civic Centre)

Sponsored by the Toronto Cancer Prevention Coalition, this workshop intends to inform and strengthen community-based initiatives in the GTA that advance shade policy and standards. Please contact Adele Bonofiglio Martins to register (\$30. fee) at 416-338-1604 or email abonofi@toronto.ca