



Making the Grade

Manitoba kids encouraged to make active transportation part of their school day

By Shoni Litinsky, Resource Conservation Manitoba – Active and Safe Routes to School Program



PHOTO COURTESY OF: ASRTS

Students at Selkirk's Ruth Hooker School.

THE RESULTS CAME IN LAST MONTH; our children are not getting the exercise needed for happy, healthy bodies and proper growth and development.

The 2010 Active Healthy Kids Canada Report Card came out with some troubling grades . . . grades I'd definitely have been grounded for if I'd brought them home to my parents! Canada received an "F" because only 12 percent of Canadian children are getting the recommended amount of physical activity daily. Manitoba fared slightly better than the national average at 13 percent and it received praise for being the only province with mandated physical education up to grade 12.

Interestingly, the report card showed that Manitoba children are not using active transportation (cycling/walking) to get around, which means there is a simple way to boost the number

of children who get the recommended 90 minutes of physical activity each day. The report found that challenges in our communities and built environments limit accessibility to safe routes — barriers that Resource Conservation Manitoba's Active and Safe Routes to School (ASRTS) program has been working to address since 2002 so that more children can use active means of travel to school.

There are many benefits of active school travel, which include:

- increased physical activity for children and youth
- a healthier lifestyle for the whole family
- less traffic congestion around schools
- safer, calmer streets and neighbourhoods
- improved air quality and a reduction in greenhouse gas emissions

Inside this Issue:

Executive Director's Letter	2
Eco-Events in Manitoba /	
MEN Remembers Garry Raven.....	3
Bringing Children Back to Nature.....	4
Death Becomes Life	5
A Truly Green Lawn	6
Paddling the Manigotagan	7
Winnipeg Water Conservation?.....	8
Composting is Not Yet the Norm	9
Saving One Wild Life at a Time	10
Book Review: Science as a	
Contact Sport.....	11
New In the Library	11
Farmers' Markets Take	
Over the World.....	12

What is School Travel Planning?

School Travel Planning brings together community stakeholders to identify barriers to active transportation for each school and develop a written action plan for addressing those barriers. The flexibility of the School Travel Plan framework allows communities to customize their approach to fit local circumstances.

Through a five-step process, each school writes a School Travel Plan, with assistance from community stakeholders that includes an action plan describing steps they plan to implement such as:

- Engineering improvements at or near school sites, for example: pedestrian crossings, repairs/upgrades to sidewalks, signage.
- Introduction of school infrastructure: bike shelters, bike racks, lockers.
- Education: traffic safety education for pedestrians and cyclists, education about personal security.
- Community mobilization: walking school buses, walking buddies, ride sharing.
- Encouragement: celebrations of physical activity and environment, event days, recognition and rewards for walking/biking.

continued on page 4 >>

is published five times per year by the
Manitoba Eco-Network/
Réseau Ecologique du Manitoba Inc. at
3rd Floor, 303 Portage Avenue
Winnipeg, Manitoba, R3B 2B4
Phone: 204-947-6511 / Fax: 1-866-237-3130
info@mbeconetwork.org
www.mbeconetwork.org

Editor: Joel Trenaman
editor@mbeconetwork.org

CONTRIBUTORS THIS ISSUE:

Kaitlin Alexander, Kyrie Axford, Sheldon Birnie,
Curtis Bouvier, Jennifer Heinrichs,
Jan Kushnier, Anne Lindsey, Shoni Litinsky,
Dale Overton, Regan Sarmatiuk,
Jen Syrowitz, Joel Trenaman,
Tessa Vanderhart, Marilyn Walker, Binudith
Warnakulasooriya

Design & Layout: Tracey Shillington
www.simpliflivedesigns.ca

**MANITOBA ECO-NETWORK
STEERING COMMITTEE:**

Jim Chapryk, *Bike to the Future, Chairperson*

John Coombs, *Nature Manitoba, Vice-Chair*

Sandra Madray, *Chemical Sensitivities
Manitoba, Treasurer*

Liz Dykman, *Member at Large, Secretary*

Julie Fine, *Organic Food Council of Manitoba*

Nicole Lahaie, *EcoPIA*

Kisti Thomas, *University of Winnipeg
Campus Sustainability Office*

Alec Stuart, *Member at Large*

Manitoba Eco-Network is affiliated with
the Canadian Environmental Network.

*EcoCentre groups gratefully acknowledge the
contributions of Mountain Equipment Co-op.*

Individual subscriptions to *Eco-Journal*
are available as part of a supporting
membership to the Manitoba Eco-Network at
a cost of \$30. Group membership dues are
\$50. Associate membership dues are \$60.

The opinions expressed by contributors
are their own and do not represent
the views of the Manitoba Eco-Network
or its member groups.

**For advertising rates, please contact
Lise Smith at info@mbeconetwork.org,
or 947-6511. The advertising deadline
for the October 1 edition is Sept. 7, 2010.**



Executive Director's Letter

OVER THE PAST FEW MONTHS, I've been involved in an interesting initiative in my neighbourhood. Called the CLER program (Community-Led Emissions Reduction), it was started by the provincial department of Local Government (formerly Intergovernmental Affairs). The basic idea is that a number of communities and municipalities around Manitoba are putting together Community Action Plans to reduce the greenhouse gas emission inventories attributable to them. The plans are built around broad community input, and focus on the key emission areas of transportation, energy and home heating, landscaping and waste management.

In Riverview/Lord Roberts, the project is under the sponsorship of the local community centres. As I write, we are just getting ready to submit our plan for approval and funding. It's been an interesting experience in developing a community-based project. I've met some really nice folks who I didn't know before, heard some terrific ideas, and more important — participated in neighbourhood conversations about sustainability. Doing that every day at work is one thing, but it's pretty cool to be doing this with the neighbours as well!

Our area already has a number of initiatives such as community gardens, and by modern standards, we'd probably be considered quite a cohesive community as well — but there is always room for improvement. At the end of the day, hopefully we'll have some great new programs in our neighbourhood — increased composting, a carpool system, maybe even our own version of the bike dump, to name a few — plus a more aware and active group of people. The neat thing is that through this process people have been linked with ongoing and existing projects as well.

Could all this have happened organically without the impetus of a government program? Maybe it would have — it's hard to say. It's a pilot program, so there are bugs to be worked out. But I think it's safe to state that those of us engaged in this project — at least in our part of Winnipeg — feel grateful for the catalyst that the program provided.

It's a positive community-builder but will it make a significant dent in our greenhouse gas emissions? In the short term, probably not, and for some that is an issue for concern. Should resources be allocated to these smaller-scale projects in the name of climate change mitigation?

I'm going to argue yes. (As long as major resources and effort are allocated to the "big ticket" items). These small projects may start modestly in terms of emissions reductions, but building social capital through interactions, communication, knowledge sharing and trust is essential to our task of getting to a more sustainable future. If small amounts of funding can assist this process, let it happen!

At the back end of the CLER program, the Eco-Network has been involved in assisting the communities (which include Thompson, Virden, Crestview and Daniel McIntyre/St. Matthews) with their community consultations and their project planning. It has been rewarding to see just how much organizations like ours and Resource Conservation Manitoba have to offer in the way of resources and ideas to assist in this process.

A food note

As summer approaches and planting gets underway, our thoughts turn to locally produced veggies — imagine those wonderful early salads of lettuce, dill, spinach, green onions and radishes — yum! If you don't grow your own, check out the Farmers' Markets Association of Manitoba website (manitobafarmersmarkets.ca) to find a market close to you, or contact us for a list of Community Shared Agriculture opportunities.

All of us here at the Eco-Network wish you a happy and safe summer!



Anne Lindsey
Executive Director, Manitoba Eco-Network



Printed by Kendrick Quality Printing on 100%
chlorine-free, post-consumer recycled paper with
vegetable based ink.

JUNE

5 International Trails day. The Winnipeg Trails Association is hosting multiple events celebrating new trails in Winnipeg. For more info: www.winnipegtrails.com. The MB Recreational Trails Association is having an adventure Hike-a-Thon fundraiser at Whiteshell Provincial Park. For more info: www.mrta.mb.ca.

5 World Environment Day. Join the Eco-Network in celebrating World Environment Day at Kildonan Place Mall from 9:30-6:00 p.m.. Find us in the community booth to answer your environment questions and for a chance to win a prize! Call 947-6511 for more information.

6 Run With Porter. An annual, eco-friendly 5 km and 10 km run/walk held at Bird's Hill Park to support the Run with Porter Seedling Foundation. For more info or to register: www.runwithporter.com.

13 Edible Landscapes. The Urban Eatin' Gardeners' Co-op is willing to help you create an edible urban space, 1:00 p.m. at FortWhyte Alive. Wild about Bees? Join our resident bug expert and find out how to attract bees to your garden. 2:30 p.m. at FortWhyte Alive. Free for Naturescape members, or \$10 for both talks. For more info and to register: www.fortwhyte.org.

25 Bike to Work Day. Ride your bike to work this day to help celebrate the bicycle as a safe, fun and healthy mode of transportation. Visit one of five oasis locations between 6:30 and 8:30 a.m. for food, drinks and prizes. Visit www.biketoworkdaywinnipeg.org/Welcome.html for more info.

27 Paddlefest. Paddlefest is a celebration of kayaking and canoeing in Manitoba, and the people and places that make it happen. Sign up for introductory paddling clinics, check out the latest boats and gear, take a ride in a voyageur canoe, and see seasoned paddlers show off what is possible. Free! 10 a.m. – 4 p.m. at FortWhyte Alive. For more info: www.paddle.mb.ca.

JULY

21-23 Teaching and Learning with Monarch Butterflies Workshop (Winnipeg). For description see page 4. Cost \$95 per participant, space is limited. For more info: www.monarchteacheretwork-westerncanada.com or call Jan Kushnier at 204-338-4571.

24 Nature Manitoba Fundraiser 2010: Natural Garden Tour. The new tour will take place in St. Vital. Victoria Crescent's lovely woodland spaces and several riverside properties along beautiful Kingston Row are just two of the areas being showcased. Tickets are \$15. For more info: 943-9029 or naturemanitoba@mts.net.

24 Dragonfly Festival. Discover the fascinating world of these creatures. Participate in a dragonfly safari, create dragonfly art with food, see dragonfly nymphs up close and more! 10 a.m. – 4:30 p.m. at Oak Hammock Marsh. For more info: 467-3300.

Native Orchid Conservation Inc. is once again offering exciting nature field trips. Participants must be NOCI members, and you can join the day of the trip. Cost is \$10 per adult, \$5 per child. For more info or to register: www.nativeorchid.org or 222-7188.

June 12 – Mt. Nebo

June 26 – Brokenhead Wetlands

July 10 – Tall Grass Prairie Preserve

July 17 – Wildflower Festival at Senkiw

Manitoba Eco-Network's free Organic Lawn Care workshops. Please visit www.mbeconetwork.org for dates and information.

Resource Conservation Manitoba's free Composting workshops. Please visit www.resourceconservation.mb.ca for dates and information.

Please email your event notices to info@mbeconetwork.org.

ECO-NETWORK REMEMBERS

RESPECTED ELDER GARRY RAVEN passed away on Saturday night, January 16, 2010 at his home in Raven's Creek, Hollow Water.

Raven was an Elder and Traditional Pipe Carrier. He was committed to teaching all nationalities the traditions and values of his cultural knowledge in the belief that the sharing of this knowledge would promote greater understanding amongst peoples. He regularly taught sessions through the University of Manitoba and at other Winnipeg schools and secondary institutes. He also hosted groups of students and visitors to Canada at Raven's Creek.

Raven worked hard to stress the importance of an intact east side boreal eco-system by presenting his views to government officials. He hosted and co-hosted numerous retreats and gatherings, including an annual working campaign retreat with the Boreal Action Project called Camp Manitowabi (Where the Creator Sits). The Boreal Forest Network always worked closely with Raven.

At the time of his death, Raven was working toward the establishment of an East Side Cultural Interpretive Centre, where



Elders will set the tone and content of exhibits and field trips to expose tourists to the past and present ways of life for indigenous peoples there. The project will no doubt create a legacy of his work.

The Boreal Forest Network has started a Garry Raven Memorial Fund to help the family with the unexpected costs. We're about halfway to our goal of raising \$5,000. Donate online through PayPal: borealforestnetwork.com or by cheque to The Boreal Forest Network. Call (204) 297-0321 for more information.

<< continued from page 1


Making the Grade cont'd...

School Travel Planning gets more kids moving

The ASRTS program spent the past year working with three Winnipeg schools (Brooklands School, École Howden and Carpathia School) on a new community-driven approach called School Travel Planning that addresses the issues of sustainability, safety, and health associated with school travel (see sidebar). The process has proven to be successful and the momentum has continued to grow. The ASRTS program has just signed on to an exciting national pilot project to take School Travel Planning nationwide — and the Active Healthy Kids Canada Report Card shows it couldn't be timelier!

Resource Conservation Manitoba has been engaged by Green Communities Canada on this exciting pilot project called Children's Mobility, Health and Happiness: A Canadian School Travel Planning Model. This is part of the Coalitions Linking Action and Science for Prevention (CLASP) initiative funded through the Public Health Agency of Canada (see information on all seven CLASP initiatives at Partnershipagainstcancer.ca). The initiative will allow Resource Conservation Manitoba to work through the School Travel Planning process with 12 schools throughout the province. The project partners for Manitoba include:

- Mystery Lake School Division – Thompson, MB (7 Schools)
- Winnipeg School Division 1 & Daniel McIntyre – St. Matthews Community Association – Greenway School – Winnipeg, MB
- Hanover School Division – Steinbach, MB (Woodland School)
- Pembina Trails School Division – Winnipeg (3 Schools)

For more information, visit www.saferoutestoschool.ca. 

Bringing Children Back To Nature

Two-day workshop helps teachers connect with kids through butterflies


By Jan Kushnier

WITH THE TECHNOLOGICAL AGE

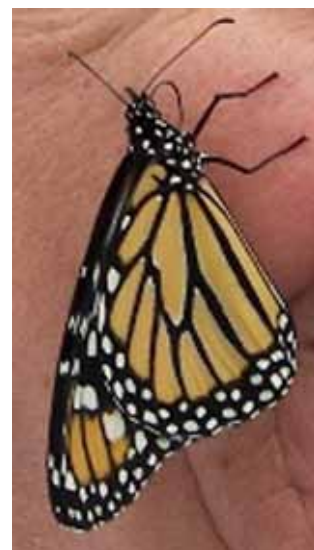
upon us and at times consuming us, children today have less and less direct contact with their natural surroundings. This is happening at the same time that our planet is experiencing alarming changes in our climate, loss of biodiversity and irreversible environmental damage. Children need more opportunities to make connections to the world around them.

Teaching and Learning with Monarch Butterflies is a workshop developed by Monarch Teacher Network (MTN), which facilitates these important connections. MTN is a growing network of Canadian, American and Mexican educators from many grade levels, content areas and backgrounds who are bringing the story of the Monarch Butterfly to children, schools and communities.

MTN will be holding its fifth Manitoba workshop in Winnipeg, July 21-23, at Prince Edward School. Teaching and Learning with Monarch Butterflies is an intensive two-day workshop that combines hands-on activities, lectures, videos, make-and-take activities, aboriginal connections, opportunities to share, and strategies to build a school/community butterfly garden. These activities and the countless resources supplied at the workshop provide the participants with the knowledge, experience and confidence to use monarch butterflies as a tool to make connections to all curriculum areas (language arts, math, science, social science, art, technology and more).

Since the migratory journey of the monarch passes through three countries — Canada, the United States and Mexico — monarchs have become a symbol that connects learning about the past, present and future of North America, its people and the land that sustains us all. 

www.monarchteacheretwork-westerncanada.com



The true story of
Someone who was
inspired.*

Christine found her dream home in a 104 year-old house...just like her grandmother owned. She's planning **green** renovations, so that her welcoming character  will also be kinder to the .

We're inspired to link you with resources that will help you buy, build or renovate green.

assiniboine.mb.ca
(1-877) 958-8588

 Christine
AGU Member

Assiniboine
CREDIT UNION
*Good things happen here.



Death Becomes Life

Eco-friendly burial options growing

By Sheldon Birnie

WITH EVERYTHING FROM diapers and toilet paper to motor vehicles and insulation for your home available as eco-friendly options, it is hardly surprising that there are people looking to the past and developing green alternatives to current burial and cremation practises.

At the bottom of this new trend is the simple belief that all aspects of burial should be as natural as possible: no embalming fluid, no expensive non-biodegradable caskets, and no pesticides used or carbon burnt in landscaping. Based on the idea that nature creates no waste, proponents of green burial encourage the planting and growth of natural trees, flowers, and grasses above

“Cremation was the original eco-friendly (and cheap) form of interment.”

an interment site, reconnecting the deceased with the natural cycle of life, death, and regeneration, rather than attempting to preserve a body against it.

In accordance with today's traditional burial practices, cemeteries in the United States alone bury over 800,000 gallons of embalming fluid in the earth annually, a chemical mixture that includes solvents such as formaldehyde, ethanol, and methanol, among others. Creating this mixture for the sole purpose of preserving a body for a few days before burial is far from sustainable, and poses the risk of leaching from the body as the casket decays. In addition, burying a body six feet under the ground means it will decompose anaerobically, emitting methane — 21 times more potent than carbon dioxide as a greenhouse gas.

Cremation was the original eco-friendly (and cheap) form of interment, but even today's best new burning chemicals, and double-burn system still releases dioxin, hydrochloric acid, hydrofluoric acid, sulphur dioxide and carbon dioxide, according to GreenBurials.com. The materials of the coffin and even mercury teeth fillings all contribute to air pollution.

You can also choose to be buried at sea, but your loved ones will need to get a permit from the Canadian government.

In a Slate.com article, the U.S. the Green Burial Council estimated that “Americans bury more metal each year than was used to make the Golden Gate Bridge and enough concrete to build a two-lane highway from New York to Detroit.” In places where a casket is required by law or desired by the deceased, one made locally from natural, untreated products and designed with biodegradability in mind could be manufactured, creating a new market for sustainable skills and products.

Better yet, biodegradable boxes or cloth shrouds are becoming more available.

In Manitoba there are no sites for green burial, but no laws against it either. The first green cemetery in Canada started in 2008, an acre-size section of the Royal Oaks Burial Park in Victoria, B.C.. According to executive director Stephen Olson, “The area where people will be interred will look like a meadow in the middle of the forest. After people are buried there, trees will be planted over top. Instead of traditional gravestones, there will be a common marker, likely a boulder where names can be marked.”

The MacCoubrey Funeral Home in Cobourg, Ontario offers green burial — no cremation — and due to local laws, the body must be interred in a container. The price of burial is quite similar to traditional services: \$1050 for a lot, and complete green burials starting at \$2,265.

The *Ottawa Citizen* reported that “Pleasant Hill Cemetery in Lower Sackville, N.S., dedicated 100 plots for green burials last June, but so far only one person, still living, has signed up.” That's despite more than 200 sites being in operation in the U.K., and 20 large sites — including one in a Florida conservation area — open in the U.S..

And with exciting new technologies like liquefying and freeze-dried shattering (promession) of corpses being developed for those who want to leave the world in the greenest possible way, it may be worth discussing your green-burial wishes with your family. 🌱

Resources

www.thevillagecasketmaker.com

Disturbing Ground: A Socio-environmental Model for the Green Cemetery in Manitoba, by Anastasia Hodych (Master's thesis)

www.cbc.ca/news/goinggreen/green-burials.html

www.greenburials.org/Naturalburial.coop/canada/

Manigotagan River

Colourful, durable, portable, and frameable...makes a great gift or resource for any outdoor enthusiast!



A Project of the
Manitoba Eco-Network's
GIS and Mapping Centre

**River History • Access Points • Official Campsites
Rapids and Portages • Canoe-Camping Tips**

Purchase a map today for only \$10.00

Call 204-947-6511

CANOE MAP

A Truly Green Lawn

Exploring sustainable lawn and garden maintenance

By Dale Overton

THERE'S A COMMON MISPERCEPTION that ecologically sustainable lawn and garden care is expensive, complicated and inefficient. I would like to take a moment to discount some of these myths.


First off, it is a myth that organic fertilizers and amendments are more expensive than any other types of fertilizer on the market. Organic fertilizers will last much longer in the soil, becoming available to plants as they require them, providing that the soil contains adequate organic matter. Up-front costs may be higher, but over time your lawn and garden will require less inputs and maintenance.

Secondly, transforming to an ecologically sustainable management program is not complicated. The program is simple: add oxygen and organic matter to fuel aerobic soil microbes. Many chemically oriented management programs create poor soil conditions by killing beneficial

soil microbes. Organic programs help to alleviate these problems by increasing the amount of organic matter in the soil, creating a more suitable habitat for soil microbes. Further, there are many organic amendments available, such as humic and fulvic acids, that help to stop nutrients from leaching out of the soil (amongst other things).

Finally, ecologically sustainable programs create a balanced ecosystem within the soil and this concept is simple. In a balanced ecosystem there are very few plant pathogens and outbreaks are rare or of no great consequence. Furthermore, soil organisms help to improve soil structure and increase the soil's water-holding capacity, helping to conserve water over time. This means you have to water plants less often, conserving time and money while increasing yields and overall plant health.

How does this process work?

In order to understand how ecologically sustainable programs work we have to look at the soil food web, which is comprised of bacteria, algae, fungi, protozoa, nematodes, and on a larger scale, earthworms, insects and mammals. When chemical fertilizers and pesticides are added to your soil, many of these organisms will either die or migrate to more suitable habitats. In contrast, an organically oriented nutrient program will stimulate microbial activity by introducing beneficial microbes and feeding them. In turn, these organisms release nutrients locked up within the soil organic matter. Further, many aerobic microbes will feed on plant pathogens, keeping populations at bay. The soil ecosystem is dynamic and robust and if we work with it we can save time and money on turf and in the garden. 



**LIVING FUEL FOR YOUR
LAWN AND GARDEN**

ECO-TEA

Biological Soil Amendment (100% Organic)

Complete or Custom Organic
Lawn Care Packages

Compost and Humic Acid Topdress
Corn Gluten and ECO-TEA

Lawn Maintenance and Aeration
Reel Cutting (upon request)

Used by Professionals

**NO SYNTHETIC CHEMICALS
ARE USED IN ANY OF
OUR PROGRAMS**



LOCALLY PRODUCED
SAFE AROUND KIDS & PETS

(204) 612-8121
www.eco-tea.ca

Organic Lawn Care Tips

- Fertilize naturally and top-dress with organic materials (see above).
- Recycle your grass clippings.
- Aerate once a year.
- Over-seed with hardy grass varieties.
- Mow high (leave your grass at least 2 in/5 cm high) and keep your blades sharp.
- Water deeply in the early morning, no more than 1 in/2.5 cm per week. (rainwater is the best option).
- Weed with tools or organic alternatives. (corn gluten meal is a safe pre-emergent herbicide).

Manitoba Eco-Network offers free Organic Lawn Care workshops - call 947-6511 for more info.



Paddling the Manigotagan

Canoe map and website open historic river to sustainable travel

By Jennifer Heinrichs

MANIGOTAGAN RIVER PROVINCIAL PARK has the distinction of being Manitoba's youngest provincial park, having begun as a park reserve in 1997. Back then it was the subject of intense public education and campaigning by the Manitoba office of the Western Canada Wilderness Committee, so in response the Manitoba government expanded the park reserve, establishing it as a provincial park in 2004.

In the summer of 2006, to mark the river's new park status, volunteers with the Manitoba Eco-Network embarked on three canoe trips to collect data and create a map of the area. Northern Soul Wilderness Adventures provided guidance. The goal was to gather enough information for the map and website that visitors and people planning camping or canoeing trips in the area would know about safety and responsible use, as well as the natural and cultural history of the river and ecosystem.

The volunteers hoped to inspire people to learn about and explore the area since it was so accessible and had a long human history, while increasing awareness of the river's importance to all Manitobans since its clean waters nourish Lake Winnipeg.

Manigotagan River Provincial Park is about 200 km northeast of Winnipeg, beginning at the northwest edge of Nopiming Provincial Park and ending 100 km downstream at the community of Manigotagan, on Lake Winnipeg.

The communities of Manigotagan and Hollow Water First Nation both gave their consent for protection of the area because it was developed in a manner that respected their treaty rights and the goals and values of the communities, and their continued support is helping ensure the natural, cultural, and recreational heritage of the area is preserved.

The park contains all the features of the Canadian Shield along the park corridor, which stretches 750m from each bank of the river. The landscape is diverse and spectacular, with sheer rock faces covered in jack pine and lichen, stands of balsam poplar, green ash and elderberry, prickly pear cactus, and the only Canada yew found in Manitoba. Area wildlife includes moose, black bear, wolf, eagles, and woodland caribou.

The park is composed of two land-use categories, with 99 percent designated as backcountry use, forever protected from mining, logging and hydro-electric development. Archaeological surveys have revealed thousands of artifacts, indicating the area was used by Blackduck and Laurel cultures as far back as 2,200 years. More recently the Manigotagan has been used by trappers, loggers, and miners, as attested by rusting log boom anchor bolts, an occasional trapper's cabin, and mining equipment scattered along portage routes.

Three years after the initial volunteer trips, the Manigotagan River Canoe Map and interactive website became available online and in stores



PHOTO COURTESY OF: MANITOBA ECO-NETWORK

and libraries across Canada. The weatherproof, full-colour map is attractive, compact, and full of interesting information. It includes information on the history of the river, photos taken along the route, details on vegetation and wildlife, clearly marked rapids and campsites, points of interest, and tips for responsible camping practices.

The digital interactive website provides more specific information about the rapids, along with tips to navigate them, in the form of downloadable pdf files and videos. Trip videographer and photographer Ron Thiessen notes that "we wanted to bring the place into people's homes."

At the official map release in 2009, Anke Kirch, former GIS manager at the Eco-Network and the leader of the Manigotagan Project, said, "We believe this unique online map and trip planner is the first of its kind in the world. People can log on to the map from anywhere to get a taste of a trip on the river — complete with photos and videos, plus lots of information about the river environment, its heritage, and natural history."

While presenting MEN's Manigotagan River Canoe Map and interactive GIS website at the Canadian River Heritage Conference in Ottawa last June, MEN's display received a great deal of interest and inspired a couple of groups to look into it in their own regions. The interactive digital website proved unique in Canada (and the world) for the scope and depth of its content.

The pioneering work of the Manitoba Eco-Network's GIS and Mapping Centre is turning a new generation of outdoor enthusiasts across Canada onto this river. To purchase paper copies of the Manigotagan River Canoe Map or use the interactive website please visit www.mbeconetwork.org/canoemap.



No Plan For Winnipeg's Water

Comparing local water conservation across Canada

By Marilyn Walker

WATER CRISIS? Ask a Winnipegger and the likely response will be “not here.”

It is, however, a reality for some Manitobans and many Canadians, and unless the City of Winnipeg initiates a serious conservation and protection strategy now, the city could face serious consequences. Infrastructure and water and waste treatment are costly and energy-intensive, and the threat of pollution and drought is a concern for the Prairie region, especially in light of the predicted local effects of climate change. The average Canadian uses 329 litres per day and water use in Winnipeg is currently 330 l/d.

Conservation efforts since 1990 in the City of Winnipeg have been effective in decreasing water withdrawal from 300 million litres per day to 212 m/l/d. How does our city compare to others in Canada for water conservation and long-term planning?

Contemporary research shows that cities need to manage water de-

“It is extremely cost-effective to implement water saving measures in new construction, and retrofitting can also provide substantial savings.”

mand by “back-casting” — determining a sustainable limit to withdrawals and working backwards, changing habits, regulations, technologies, and infrastructure, to meet that cap. Winnipeg education campaigns like Slow The Flow provide tips on household water conservation and sells low-flow home kits. Conservation efforts and the reduction of industries with intensive water demands, such as breweries and processing plants, have contributed to the reduction of consumption to 45 percent of licence capacity even as Winnipeg's population increased by 30,000 residents since 1990. If we become adept at conserving water, increase innovation in water “production” through rainwater harvest or greywater recycling, and set a realistic water budget target, the decrease in water demand could guarantee an adequate water supply for up to 2.2 million people.

Rather than finding new supply, in Barrie, Ont. the water conservation program supplied the city's water needs at 7.5 percent of the cost of a new

water treatment plant. The Mississauga/Brampton district saved approximately 66 percent of the cost of civic wastewater infrastructure expansion through conservation. The City of Winnipeg is repairing water mains to reduce loss through leakage and has forecasted a five-year budget (2010-2015) of \$87 million for water main renewal. However, \$183 million is earmarked for road expansion to Winnipeg's newest suburb for 2010. Expanding infrastructure is counterintuitive to a sound water conservation plan and Winnipeg appears to be heading in the wrong direction.

It is extremely cost-effective to implement water saving measures in new construction, and retrofitting can also provide substantial savings. Calgary's Pre-Spray Valve program for restaurants realized an average water savings of 358 l/d, which also provided additional savings on water heating costs. Toronto recently added a new construction bylaw that restricts ground run-off to pre-development levels and offers free residential landscape audits to create water-efficient landscapes. Water audits and soil assessments used to identify waste and increase water productivity are available in Kelowna, B.C., and have reduced pumped water for irrigation in the first year by 15 percent. Minimum square footage bylaws for water-efficient landscapes created by xeriscaping or naturscaping are found across Canada. Toronto leads Canadian cities in conservation programs and now offers an eco-roof incentive of up to \$100,000 for new construction or retrofitting. In comparison, Winnipeg offers a rainwater-harvesting barrel at the cost of \$50.

Water used for toilet flushing accounts for up to 30 percent of pumped water use; by using greywater (recycled household water from laundry, dishes or bath) for toilet flushing along with rainwater harvesting for irrigation, potable water demand could be reduced by 50 percent.

Brandon uses treated wastewater to irrigate municipal gardens; Calgary's parks department has irrigation bylaws and has reduced their pumped water use for irrigation by 15 percent; Vancouver uses wastewater for firefighting; Winnipeg dumps its wastewater into the river.

According to the Winnipeg Water and Waste Department a study to review water rate structures is presently underway. Perversely, Winnipeg water pricing uses a declining-block structure that reduces cost per cubic metre as water use increases. Alternatively, inclining-block structure water rates would rise with increased water use, creating a much-needed incentive for water conservation.

Water use reduction targets range from 10 percent to 50 percent in Ottawa, Abbotsford, Calgary, Toronto, Guelph, Canmore, Vancouver and Brandon; no target could be found for the City of Winnipeg. Without a reduction target, the water conservation program that started almost 20 years ago in Winnipeg has fallen far behind other Canadian cities that have progressed beyond education programs and low-flow toilet rebates.

Canadian cities of all sizes are moving toward aggressive measures in water conservation and innovation. Winnipeg is failing to match the commitment of other municipalities that have recognized water is not infinitely renewable and must be protected. Restoring wetlands for water treatment, greywater recycling, and decentralizing water infrastructure are just some of the solutions seen around the world, and our city also needs to take action to plan for water security.



Composting is Not Yet the Norm

But Fort Richmond Collegiate students are taking on the challenge

By Binudith Warnakulasooriya and Kyrie Axford

WHILE MANY HIGH SCHOOLS have added recycling bins to cafeterias as the practice of recycling has become the norm, the idea of the cafeteria compost bin has a way to go, at least in south Winnipeg high schools.

Composting is the most natural way of recycling, returning your organic wastes back to nature. It has become a significant part of the green movement in homes and communities across Canada, but currently only a handful of South

overs home to compost,” said a Grade 11 student.

We wanted to find out if the situation at our school was part of a trend, so we contacted teachers from several high schools — in the Pembina Trails, Winnipeg, Louis Riel and St. James Assiniboia



Composting is the most natural way of recycling.

PHOTO COURTESY OF: KYRIE AXFORD

“I usually chuck everything into the garbage bin because I am used to it.”

Winnipeg high schools have a composting program, while the majority are still in the planning stages. A few schools have disregarded the idea of having a composting program altogether.

As two interested Grade 12 students from Fort Richmond Collegiate’s Environmental Sustainability Club, we conducted a study on the success of high school composting programs in South Winnipeg. We began this past February by gathering data on our own trial composting program, then conducted a survey on various other high schools.

Our school’s composting program began in February with a one-month trial period: a composting bin was placed next to the regular trash and recycling bins in our school cafeteria. The program was well-advertised from the beginning, and the content of the composting bin was analyzed at the end of each day. We observed throughout the trial that students put organic material into the bins, but in low quantities.

We then surveyed a sample of our school’s student body with a questionnaire on composting at home and school. The majority of students indicated that they are aware of the basics and the purpose of composting, but only a very small percentage of students had a composting program in their homes.

“I usually chuck everything into the garbage bin because I am used to it,” said one Grade 12 student, whose response was typical of the majority, although a few surveyed students were very excited about the new bin.

“Having a composting bin at the (cafeteria) is so convenient. Now I don’t have to take my left-

school divisions — to inquire about their composting programs, if any, and their success. Of the nine high schools we spoke with, only four had composting programs in place, with the program at J. H. Bruns being the most successful.

“The students initiated our composting program even though the school division didn’t want it. But our students worked hard to put together a presentation and get the approval,” said Ms. Burton, a teacher in charge of the Earth Stewardship Program at J.H. Bruns.

Ms. Burton added that the students in Bruns’ Earth Stewardship Program and school staff are very enthusiastic about the project, which translates into effective programming.

Ultimately, an effective high school composting program requires three key components. First, compostable materials must be properly sorted to ensure that all things placed in the bins are organic waste.

The next component deals with the systemic necessities of composting: a permanent compost dump site for the South Winnipeg high schools would be required for programs to be truly effective. This would also require prearranged transportation of compost from the school to the dump site.

Finally, a set maintenance schedule which clearly states who is responsible for emptying and cleaning the bins would be a key requirement.

Fort Richmond Collegiate’s Environmental Sustainability Club is putting together a proposal towards a permanent composting program by 2012. We hope to have more bins and we plan to educate students and teachers on composting. 🌱

Composting factoids

- Nearly half of your waste stream can be compostable.
- Soil produced from composting contains more nutrients like nitrogen and carbon that are essential for plant growth.
- Scientists estimate that styrofoam can take at least 1 million years to biodegrade.

Ways to encourage composting in your school

- Go to classes and talk to students about the composting program.
- Have clearly labelled and visually appealing composting bins.
- Mention the program at common school gatherings such as assemblies.

Compost Infoline

Resource Conservation Manitoba operates a free Compost Infoline for Winnipeg (204-925-3777) and Manitoba (1-866-394-8880)



Saving One Wild Life At A Time

Local group helps injured wildlife return to their native habitats

By Jen Syrowitz, Education Program Coordinator – Prairie Wildlife Rehabilitation Centre Inc.

AS ONE OF MANY WAYS to preserve and protect our natural environment, wildlife rehabilitation provides unique insights into issues affecting populations, species and habitats, and contributes to wildlife conservation and protection worldwide. Here in Manitoba, a new organization is improving the care of injured and orphaned wildlife — the Prairie Wildlife Rehabilitation Centre Inc. (PWRC).

Wildlife rehabilitation is the process of providing professional care to injured, orphaned, displaced, or distressed wild animals in such a way that they may survive when returned to their native habitats. Activities range from the direct care of wildlife to enclosure construction and grant writing. It also involves being proactive to prevent problems with wildlife and humanely resolving mounting human-wildlife conflicts. Wildlife rehabilitation is part science, part education, part problem solving, and part care giving. It is a quickly developing field with a rapidly expanding base of knowledge and ever-increasing professional standards.

Founded in 2007 by Manitoba's first Certified Wildlife Rehabilitator, Lisa Tretiak, PWRC maintains an ever-evolving vision that uses effective, state-of-the-art rehabilitation techniques to maximize survival rates and ensure integration once in the wildlife population. This includes the use of both conventional and homeopathic medications, naturalized enclosures, and environmental enrichment techniques. In order to continually improve wildlife rehabilitation and conservation initiatives in Manitoba and elsewhere, PWRC practices



Perry the Peregrine Falcon, a PWRC wildlife ambassador.

PHOTO COURTESY OF CURTIS BOUVIER

ongoing research activities including the tracking of released animals, documenting the success of natural treatments, and also attending current wildlife courses and conferences.

PWRC's first passion is to give injured and orphaned wildlife a second chance to survive in the wild. Sometimes, however, rehabilitated animals are unable to be released back into their natural habitats due to the nature and extent of their injuries. A few of these individuals are then trained to become education ambassadors which help to take the important message of wildlife stewardship and conservation to members of the community — many of whom have lost that irreplaceable connection with nature.

Our desire is to ignite the bond between humans and their furry and feathered neighbours, and nothing accomplishes this better than a visit from our wildlife ambassadors themselves — Nasha the Great Gray Owl, Perry the Peregrine Falcon, Tao the Great Horned Owl, Kele the American Kestrel and Onyx the lop-eared rabbit. PWRC operates interpretive displays and performs educational workshops with our education ambassadors throughout

the year at Manitoba schools, children's festivals, and community events.

As a relatively new organization, PWRC is currently located in Winnipeg, with a temporary centre located south of the city near St. Adolphe. There is a process underway to build a state-of-the-art facility on the outskirts of Winnipeg.

Manitoba's free-ranging wildlife is a natural resource that the public is charged with protecting. Thereby, in part, PWRC performs a public service. Wildlife is brought to PWRC because humans have caused injury either directly or indirectly. The efforts of PWRC simultaneously serve wildlife species and public interests by giving back to nature. Wildlife educators are proactive advocates of healthy human-wildlife relationships while rehabilitators work to repair damage that has already been done. The animals we see tell us what the environment around us is doing. PWRC staff and volunteers are some of the first wildlife specialists to see problems in our local habitats.

If you find Manitoba wildlife that you think may be injured or orphaned please phone (204) 510-1855 or visit www.pwildlife.ca for more information. If you are a school or community group in search of exciting education alternatives, or if you are interested in various volunteer opportunities with PWRC, please contact Jen at: ruchjl@gmail.com or (204) 416-8676.

Touring, Biking or Camping around the lovely Pembina Escarpment?



Open 7 days a week, in Roseisle, next to the big wild rose, off highway 245, 5 mi. w. of Stephenfield Park

www.roseislegrocerycoop.blogspot.com

We have:

- organic, natural, locally-grown foods
- environment-friendly cleaning and body-care products
- PABA-free sunscreen
- Bison steaks, burgers & jerky
- cool natural sodas
- gluten-free foods.
- gas, diesel & propane
- ice
- coffee
- deli & snacks



New In the Library

All of the materials in the Alice Chambers Memorial Library may be loaned out free of charge. There is no-charge postal delivery outside Winnipeg. Please contact Erica Young, Resource Assistant, at 947-6511 for more information. www.mbeconetwork.org/library.php

New Books:

Knit Green: 20 Projects & Ideas for Sustainability

By Joanne Seiff
Wiley Publishing, Inc., 2009

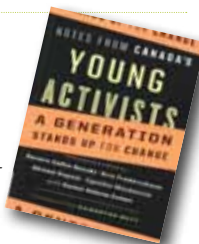
Through their fiber and project choices, knitters can support biodiversity, help maintain indigenous traditions, facilitate a low impact lifestyle and much more. Projects in this book range from beginner to intermediate but the information on how fibers are manufactured or where to source green products is relevant to knitters of all skill levels.



Notes from Canada's Young Activists: A Generation Stands Up for Change

Compiled and edited by Severn Cullis-Suzuki, Kris Frederickson, Ahmed Kayssi, Cynthia Mackenzie with Daniel Aldana Cohen
Greystone Books, 2007

Twenty-five young Canadians, each with an impressive résumé, share their stories in this collection. From founders of international organizations to celebrated artists, they represent a diversity of backgrounds, perspectives and approaches to making change. Each story explores their motivation for taking bold actions and the challenges and successes that have marked their evolution as activists.



The Organic Lawn Care Manual: A Natural, Low-Maintenance System for a Beautiful, Safe Lawn

By Paul Tukey
Storey Publishing, 2007

When Paul Tukey developed health problems linked to his job in the lawn care industry, he stopped using synthetic pesticides and has been on a mission to promote organic lawn care ever since. His book has great illustrations of lawn 'thugs' and weeds and how to deal with them, as well as step-by-step instructions on everything from starting your lawn from scratch, to sharpening your mower blade.



Featured Book Review

Science as a Contact Sport: Inside the Battle to Save Earth's Climate

By Stephen Schneider
National Geographic, 2009

STEPHEN SCHNEIDER IS A PIONEER of climate modelling and a top climate scientist of our day. Throughout his career, he has also been dedicated to communicating of one of the most pressing issues of our day: climate change. There is a long-standing stigma in the scientific community against public communication, and climate change deniers are more than willing to misquote and ridicule anyone who dares to spread accurate science. Stephen Schneider has encountered all these obstacles and more during his career, but it hasn't stopped him from reaching the public in every way that he can. There are too many people spreading confusion about climate change to let accuracy go unheard.

That's why I was so excited to read *Science as a Contact Sport*, the memoir of this role model of mine. It certainly did not disappoint. Usually books about climate change take a fair amount of time and energy to get through, but Schneider's memoir wasn't like that. It didn't read like a textbook; it was simply the story of the bizarre opposition from politics and the media that one man encountered during his extraordinary career. I absolutely whizzed through *Science as a Contact Sport*, and can't wait to read it again.

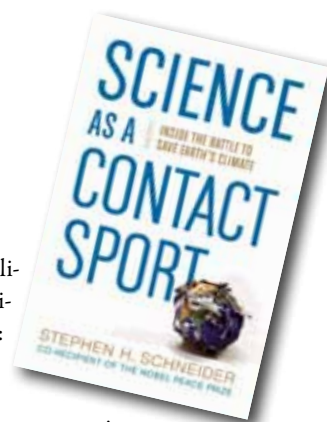
Climate science enthusiasts will relish the first few chapters, which describe the early days of Schneider's career. In the 1970s, the frontier of climatology was the struggle to understand aerosols, pollution suspended in the atmosphere, reflecting sunlight and in turn cooling the planet. Scientists weren't sure which would win out in the end — human emissions of aerosols (causing cooling) or greenhouse gases (causing warming). Reading an insider's account of how climatologists learned that greenhouse gases would win, and realized that global warming was coming, was absolutely fascinating.

However, being a climate scientist in the 1970s was very different than the way it is now. In the early '70s, Schneider and his colleagues filled their minds with purely analytical questions. Those who talked to the media about their work were reprimanded, and some scientists even questioned the integrity of creating assessment reports for the government.

Today, climate scientists create major international assessment reports every few years, while politicians try to sabotage the process. They are morally obligated to communicate their work, in an effort to keep the misconceptions surrounding climate science at bay. And even so, climate change deniers and sympathetic media outlets are more than willing to twist whatever they say in the hope of damaging the credibility of the entire field.

Once you step outside of the insulated world of the scientific community, beyond all the peer-reviewed articles, research departments and conferences, climate science truly is a contact sport. Scientists can no longer just do science; in order to prevent vested interests from walking all over them, they also have to practise communication. Prepare to be angered, bewildered, and fascinated by this window into the life of one scientist who is devoted to both.

—By Kaitlin Alexander, a high-school student and aspiring climatologist. She blogs at Climatesight.org.





BLUESTEM WILDLIFE

DAN SOPROVICH, M.Sc
Wildlife Ecologist



Box 1442
Swan River, MB
R0L 1Z0

Phone/Fax: (204) 734-3054
e-mail: dsop@mts.net



Farmers' Markets Take Over The World

Winnipeg is no exception — get it while it's fresh!

By Tessa Vanderhart

THROUGHOUT THE WORLD, farmers gather at markets to sell their fresh produce to locals. It may well be the oldest form of commerce, and for many devoted weekly farmers' market customers, the best. It's as close as you can get to your food without actually growing it yourself — getting to know the people who grow, prepare and sell it every week practically renders worry over “food security” obsolete.

The newest generation of farmers' markets began to pop up in North America during the

to artisanal crafts, honeys and preserves, and of course, a huge variety of produce. And it's open as of June 5.

The first group of produce available includes asparagus, salad greens, tomatoes, kohlrabi, rhubarb, cucumbers, and maybe even — it has been a hot spring — strawberries.

For all those reasons, most food-lovers consider themselves incredibly lucky that it's finally time for summer and the local food season. But if local business CentreVenture has their way,

“If local business CentreVenture has their way, farmers' markets could become a year-round part of Winnipeg.”

'70s, and have recently blossomed — in the U.S. the number of markets has grown from 1,755 in 1994 to 4,385 in 2006 to 5,274 in 2009. In New York City, there are 107 farmers markets in operation and people flock to get “contraband” like raw milk and cheeses, rare vegetables and more.

In Manitoba, there are 47 markets — 41 of them outside of the Winnipeg area. Near the city, the St. Norbert market, Wednesdays and Saturdays, is one of the biggest and best-publicized. It has 78 permanent members and a variety of casual members each year, from a variety of ethically farmed meats to baked goods

farmers' markets could become a year-round part of Winnipeg. In a new condominium development in the St. James Avenue Pumping Station in the Exchange, plans are underway to create a year-round indoor market. The development had hit a snag when Peak of The Market introduced rules prohibiting small farmers to sell potatoes year-round, but the law was never formally passed and Peak assured customers that farmers with less than five acres of potatoes will be able to sell their crops year-round.

So bring on the blue, purple, red, baking and golden potatoes — well, in July. Until then, happy asparagus! 🌱



Winnipeg Farmers' Markets

For a complete list of markets, including outside of Winnipeg, visit the Farmers' Market Association of Manitoba:
www.manitobafarmersmarkets.ca

FortWhyte Alive

July 13 to Sept. 28, Tuesdays
July 8 to Sept. 31, Thursdays
Noon to 6 p.m.
FortWhyte Alive Centre 1961 McCreary Rd.

Le Marché St. Norbert

June 30 to Sept. 29, Wednesdays, 1-7 p.m.
June 5 to Oct. 30, Saturdays, 8 a.m.-3 p.m.
3514 Pembina Hwy – 1 km (.6 mile) South of Perimeter on Hwy 75

Osborne Village Market

June 24 to Sept. 23
4 p.m. to 8 p.m., Thursdays
At River Avenue and Osborne Street

The Forks

See www.forks.com to confirm dates
July and August, Wednesdays (select)
3 p.m. to 7 p.m.

Transcona BIZ Market Garden & Crafters / Flea Market

July 22 to Sept. 9, Thursdays
11 a.m. to 4 p.m.
Parking lot at the Transcona Christian Reform Church (131 Victoria Avenue W)

Red River Ex Grounds

July 24 to Sept. 25, Saturdays
9 a.m. to 2 p.m.
Red River Exhibition Park,
3977 Portage Avenue and Perimeter Hwy.



Complimentary copy

Please consider subscribing at
204-947-6511 or
www.mbeconetwork.org