

Spring 2010



The World-Class

McGill School of Environment

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photo courtesy Veronique Buisseres, ENVR-401/Wemimjij Project 2003



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Director's Message

by Marilyn Scott, Director of the MSE



April 1st, no snow to be seen anywhere, robins on the lawns, bulbs already a few inches out of the ground. I know that we can't attribute any single unusual weather event to "climate change", but it sure is tempting!

Things at the MSE sure are hopping. Students are scurrying to finish term papers and get ready for final exams that start in a couple of weeks. As some draw their attention to the next step in their career, post graduation, others are focused on the first steps. It is great fun talking to the freshman students who now have to select an undergraduate Major, and explaining what a Major in the McGill School of Environment would be like. A bit difficult to be unbiased, but we try!

Over the past few months, the MSE has been able to initiate a few special awards, thanks to your generosity! We awarded a small research grant to four of our undergraduates who proposed exciting research ideas for the summer. We will be awarding a small recruitment award to a graduate student who is entering the Graduate Option in Environment in September. We have increased the value of our New Initiatives Grants that we provide as seed money to teams of professors who want to start a new collaboration. We will have our first Visiting Scholar at the MSE for six months, Juan Carlos Serio Silvas. Dr. Serio Silvas is a very active researcher from Mexico who focuses his studies on conservation of mammals.

Finally, we have received our first Endowed Chair, thanks to an extraordinarily generous gift from Dick and Val Bradshaw. We have just begun the process of searching for an internationally recognized environmental researcher who works at the intersection of the natural or applied sciences and the social sciences or humanities, who has experience in engaging colleagues in academia with those in the public and private sectors, and whose research at the MSE will inform Canadian public policy responses to critical environmental problems.

All in all, I would say that 2009-2010 has been a GREAT year, and next year promises to be even better! I hope you all have a wonderful summer, and keep in touch!



Wes Jackson makes a fresh start for agriculture.

February 10, 2010, MSE Annual Environment Public Lecture

by Melanie Lefebvre, MSE Reporter

Imagine agricultural production that gives back to the earth with food production that helps bind nutrients in the soil; that lets root systems live long and reach deep into the soil; that doesn't require chemical inputs to feed our massive population, and self-regenerates.

Wes Jackson is the president and founder of The Land Institute in Selina, Kansas. He is also the recipient for the Right Livelihood award in 2000. Life magazine named Jackson one of 18 individuals it predicts will be among the 100 "important Americans of the 20th century." He was named one of Smithsonian magazine's "35 who made a difference" in November 2005. He also established and served as chair for one of America's first environmental studies programs at California State University-Sacramento, and is the author of several books.

Five minutes into our conversation, Wes took out a life-sized photograph of a Kernza™ plant that he and the scientists/farmers at The Land Institute have been working on for the last several decades. It was an impressive sight, which Wes also demonstrated during his presentation later that evening. Beside the Kernza™ is a standard wheat plant. The perennial Kernza™ is allowed to grow and reach deep into the soil and get nutrients that are naturally unavailable to the wheat plant.

"We're plant breeders perennializing the major crops", Dr. Jackson said. "We're interested in saving the soils and water." The Institute employs what Dr. Jackson refers to as the Natural System Agriculture. He describes it as a system that uses the ecosystem's natural processes in order to produce a perennial, harvestable, edible plant.



Wes Jackson holding a Kernza™ plant

"We're saying we want to build an agriculture based on the way natural ecosystems work." Traditional agriculture, Dr. Jackson explained, does the opposite of this by tearing up and poisoning the ground. "This has validated the idea that nature has to be subdued or ignored. Large scale agriculture is dependent upon human cleverness. "If you have as your goal high bushels per acre, you can get that goal, but what about the pesticides and fertilizer that you have to put on; the irrigation from a finite aquifer that you have to apply; the soil erosion and so on. When you have met your goal, who wants to listen to soil erosion and chemical contamination of the land and water? We've undercut the very basis of what is possible". Learning from the mistakes of industrial agriculture, Jackson and his team have decided to mimic the vegetative

structure of a prairie ecosystem.

The plants that Dr. Jackson and The Land Institute are developing are not yet ready to be released to the public. "We're not there yet. We won't be releasing Kernza™ for another ten to twelve years. There's no quick fix" he said. "We have a motto at the Institute – If you're working on something you can finish in your lifetime, you're not thinking big enough. We have to deepen our discussion."





Rev. Sally G. Bingham with Obi2

The Faculty of Religious Studies and the McGill School of Environment are pleased to announce a public lecture, “*Shared Purpose: A Religious Response to the Climate Crisis*”, to be given by the **Rev. Canon Sally G. Bingham, President and Founder of *The Regeneration Project*** and the ***Interfaith Power and Light Campaign***, of San Francisco, California.

September 28 at 6:00pm., Moyses Hall

Open to the public, but registration is required.
Email Danielle Lefebvre (danielle.lefebvre@mcgill.ca), or phone 514-398-7559.

Rev. Bingham is a major mover and shaker in getting the green power movement going in the US through founding Interfaith Power and Light in many states. We see her as an inspiration to us all as someone who can bring real, important and sweeping change to society.

Rev. Bingham has brought widespread attention to the link between religious faith and the environment through her work on The Regeneration Project and the Interfaith Power and Light campaign. As one of the first faith leaders to fully recognize global warming as a core moral issue, she has mobilized thousands of religious people to put their faith into action through energy stewardship. Sally serves as the Environmental Minister at Grace Episcopal Cathedral and chairs the Commission on the Environment for the Diocese of California where she was installed as Canon for Environmental Ministry. More information will be available closer to the event.



Website for The Regeneration Project: <http://theregenerationproject.org/>

Website for the Interfaith Power and Light Campaign: <http://interfaithpowerandlight.org/>



World Congress of Environmental
and Resource Economists

4th Edition

Montréal, Canada June 28 - July 2, 2010



4th World congress of Environmental and Resource Economists to be held June 28 through to July 2, 2010, on the campus of the Université du Québec à Montréal (UQAM) at Pavillon Judith-Jasmin, 405 St. Catherine Street East , Montréal, Quebec.

For more information see the website: www.wcere2010.org



The Missing Ingredient: When Fields Collide

Carli Halpenny and the MSE Graduate Option

by Melanie Lefebvre, MSE Reporter

Carli is a PhD student, under the supervision of Dr. Marilyn Scott in the Institute of Parasitology and has spent the better part of the past two years doing research in Panama. Her thesis title is, “A Holistic Scientific Investigation on the Impact of Conditional Transfer Programs on the Cycle of Poverty – Malnutrition – Gastrointestinal Parasite Infection”. Having done pre-med, Carli was very familiar with looking at health at an individual scale. Having the MSE graduate option has opened up several avenues for a more interdisciplinary approach. “I gravitated to thinking more globally. You can look at health at the individual level, but you can also look at each system and how it is connected to other factors, such as how agriculture changes the diet”, Carli said when asked to describe what a holistic scientific investigation entailed.



Carli in the community of Alto Caña, Emplanada de Chorcha, Panama

She is also one of the first students to have enrolled in the MSE graduate option, which Marilyn suggested to her about 3 years ago. The option was incorporated into Carli’s degree after her first year, when it was still a very new program in the MSE. She describes it as a very human approach to research, and an opportunity to meet a great diversity of people. “There were five of us in the program: a geographer, a philosopher, an anthropologist, an ecologist, and me (a parasitologist). It was great and there was some really constructive debating, and is also really great for networking, both academically and in the field.”

The MSE grad option is a great opportunity, but it isn’t for everybody. The option of doing the MSE graduate program depends on the interests and skills of each student. It is available to both masters and PhD students, depending on the 16 departments that now offer it at McGill, with more joining every semester.

There is a strong networking component, and the opportunity to make connections in faculties that would otherwise have not been possible without the diverse backgrounds that the MSE graduate option presents. This can help further research opportunities, and allow students to think deeply about the

definition of interdisciplinary studies. “It helps the students re-think how we look at the world, and how it can shape the research students are undertaking,” said Dr. Marilyn Scott.

Carli’s background is in fish parasitology, and earned a master’s degree from the University of Toronto in 2006 (An epidemiological survey of a conservation hatchery: BC Living Gene Bank (Dept. of Zoology, University of Toronto)).

While exploring her options for a PhD in Parasitology, she discovered Marilyn. “Carli had a background in fish parasitology and nutrition with an environmental perspective”, Dr. Marilyn said. “Her diversity of experiences and her interests were quite broad. She was more concerned about the ecology of the fish rather than just the biology.

Having Carli jump on board with the MSE grad option was good timing. The option was just getting started, and I was looking at which students it might fit.”

Carli enthusiastically recalls when Marilyn suggested the MSE option and the field of ecological health while working in northern BC forests one summer, “I was up in my tent alone pouring over eco-health journal articles and thinking ‘I found what I’ve always been looking for!’ and Marilyn had contacts in Panama. It was a wonderful combination of coincidences and things falling into place.”

So, why would a graduate student willingly decide to add a 9-credit option to their workload? “Marilyn recognized my interests, and I realized that this is what I’ve been missing. I always had the idea that, I’m interested in health, therefore I should be working in med school, or, I’m interested in conservation therefore I must become a conservation biologist. Both of these fields always had something lacking in it for me, and with the MSE, I am able to mix these two fields together.” The MSE graduate option is great for people, like Carli, who do not find themselves fitting into just one academic box. “The MSE is something I couldn’t find anywhere else, and it made me feel more at home and validated in what I was doing. I felt like a jack of all trades-master of none, and this program helped to recognize that there are other people like that”, said Carli.

To find out more about the MSE graduate option, please consult your department, and the MSE web-page:

http://www.mcgill.ca/mse/graduate/envr_option/.



The new 3 R's: Reuse, Resole, Rerun.

It's good for your sole - and the environment! Sydney Smith, U2, BA&Sc - Interfaculty Program in Environment, put her environmental management skills to good use.

I am an Environment major and last semester I worked on a group project for GEOG 302, Environmental Management. We basically had to choose a case study focusing on some aspect of life in Montreal, analyze it, and design a management plan for it. My group and I, in conjunction with Jill Barker, the Sustainability Coordinator at the Athletics Department, ended up designing a pilot shoe reuse-recycle program to be implemented at the McGill gym. We have since been developing the details of the project, and we are expecting to initiate the program at the beginning of March.

Running Towards Sustainability

When it comes to the environment, small initiatives can make a big impact – especially if everyone does their part. That's exactly what McGill Athletics and Recreation had in mind when it teamed up with a group of McGill students from an environmental management class to implement a shoe recycling initiative. Working off of the premise that most athletes have a supply of worn or outdated athletic shoes sitting in their closets, the idea was to stop these shoes from finding their way into a landfill.

The **Reuse, Resole, Rerun** program collects unwanted athletic shoes from the McGill community and local athletic groups and helps them find a new life somewhere else. In collaboration with Yes Inc's Shoes for Africa (and more recently Haiti) and Nike's Re-use-a-Shoe program, all donated shoes will either be re-worn by those in need or broken down into workable raw materials for reuse.

The campaign is on-going with special "blue boxes" tailored to accept gently used and worn out shoes. The receptacles are available at the McGill Sports Centre and are easily accessible to all gym users. To encourage even more participation, additional campaigns will be added throughout the year and may include free admission to varsity games in exchange for a pair of shoes and a drive to collect shoes from the children attending our summer sports camps.

To help defray shipping costs, donations of a toonie or loonie will be accepted during specific drives and by individuals dropping off shoes at our Sports Complex location. The "donate a shoe and a dollar or two" campaign will kick off this spring with the intention of becoming a continuous, long term initiative.

For more information about the **Reuse, Resole and Rerun**

program, please contact:

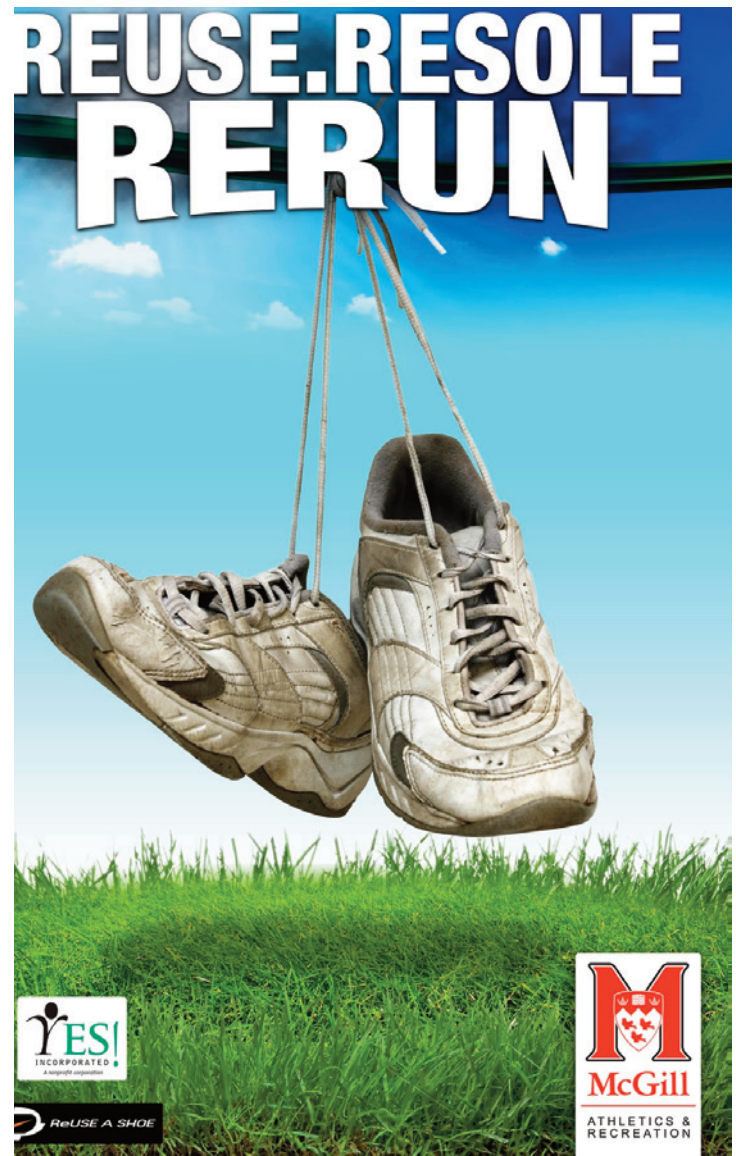
Jill Barker

Communications Manager

Athletics and Recreation

McGill University

jill.barker@mcgill.ca



Your donations can help us support awards and grants such as:

McGill School of Environment Visiting Scholar Award

The McGill School of Environment Visiting Scholar Award enables tenured professors and senior scholars the opportunity to work at McGill on a yearly basis.

This new position attracts influential environmentalist to conduct interdisciplinary research and contribute to and enrich the intellectual endeavours of the MSE. Through donations we are able to fund this award and bring exceptional researchers to McGill who will further the quality of education programs and innovative research during their time with us.

The MSE is pleased to announce our first Visiting Scholar, Dr. Juan Carlos Serio-Silva from the Instituto de Ecologia in Mexico.

Dr. Serio-Silva's research centres on wild primates in southern Mexico for the past 20 years and has several mutual interests with MSE Faculty and Associate Members in the areas of habitat fragmentation and wild primate populations and strategies for their conservation; he hopes to refine an International Training Field Course in Conservation Biology and Primatology with MSE's Prof. Sylvie de Blois; he is spearheading a formal collaborative research program between McGill and Instituto de Ecologia and Juan Carlos is also taking the lead on the Mexican component of the IDRC Climate Change Proposal that will be looking at contrasting patterns and adaptation of both animal and human populations to climate change. Mexico will be a critical location as the Calakmul area is where intense drying is predicted by the global climate change model.

Of interest is Dr. Serio-Silva's development of children's workshops which he hopes to present at kindergartens and primary schools during his visit and wants to engage McGill students and faculty to further develop the workshop in which kids play and learn about endangered primates and tropical rain forests through interactive toys and games.



The MSE is:

Director—Marilyn Scott

Faculty Members

Madhav Badami (School of Urban Planning)

Elena Bennett (Natural Resource Sciences)

Peter G. Brown (Geography)

Colin Chapman (Anthropology)

Sylvie de Blois (Plant Science)

Jaye Ellis (Faculty of Law)

Frédéric Fabry (Atmospheric and Oceanic Sciences)

Iwao Hirose (Philosophy)

Brian Leung (Biology)

Gregory Mikkelson (Philosophy)

Jeanine Rhemtulla (Geography)

Anthony Ricciardi (Redpath Museum)

Raja Sengupta (Geography)

Renée Sieber (Geography)

Ismael Vaccaro (Anthropology)

Faculty Lecturers

George McCourt

Joan Marshall

Kathryn Roulet

Staff

Danielle Lefebvre

Shannon Scott

Christina Zhu

We welcome Dr. Serio-Silva and his family to McGill and Montreal this July and we are excited to begin our research collaborations with him.

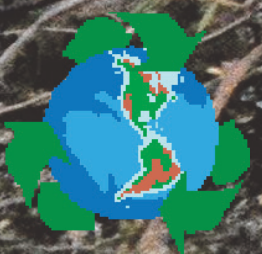




McGill School of Environment

Interdisciplinary Studies in the
Natural Sciences
Two Campuses, M

photographs courtesy of MSE staff



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*"Your support
helps us to address
the environmental
challenges
of our time"*