McGill School of Environment

Spring 2016



Director's Message

Jaye Ellis
Acting Director
McGill School of Environment



It has been an exciting semester at the MSE. In January we hosted an event, Science and Policy, which brought together MSE faculty and associate members to discuss recent research at this intersection, which is so important for environmental scholarship in a range of disciplines. Not surprisingly, many people affiliated with the MSE work across the science-social science boundary in both scholarly and policy arenas, and collaborate across that boundary. It is important to continue to build bridges to foster better communication in the policy arena and better collaboration in research. We will continue to work with our associates in the coming months to continue the conversations that were begun at that event.

In March, we were very pleased to host Frances Westley, JW McConnell Chair in Social Innovation at the Faculty of Environment, University of Waterloo. Professor Westley's work on social innovation, sustainability, strategies for change, and resilience is ground-breaking, and highly relevant to a society whose members are generally very well-informed and concerned about environmental degradation, but unsure of how to contribute to change. She delivered the annual MSE public lecture, in which she provided many insights into strategies that have been used successfully to overcome inertia and transform their communities.

In April, we hosted a workshop on resilience in partnership with the Institute for Health and Social Policy, bringing together professors and graduate students from McGill and the University of Waterloo to discuss the relevance of this concept to environment and sustainability. Resilience is often regarded as a desirable property for both social and ecological systems, but, as Professor Westley's talk made clear, dysfunctional systems can also display a frustrating level of resilience. We will continue to work with the IHSP to foster collaborative research on this fascinating but highly ambiguous topic.

As the semester winds down and exams loom on the horizon, I wish every success to our students, and more in particular to those of you who will be receiving your diplomas in a couple months' time.

Dr. Frances Westley - MSE Public Lecture

J.W. McConnell Chair in Social Innovation, Waterloo Institute for Social Innovation and Resilience, University of Waterloo

Social Transformation through Social Innovation: How social innovators work to change the system that created the problem in the first place.



Dr. Westley is a renowned scholar and consultant in the areas of social innovation, strategies for sustainable development, strategic change, visionary leadership and inter-organizational collaboration.

She holds the JW McConnell Chair in Social Innovation at the University of Waterloo and serves on numerous advisory boards including Resilience Alliance Board of Science, World Conservation Union-Conservation Breeding Specialist Group, the Stockholm Resilience Center, the SARAS Institute and Evergreen Canada.

You can view Frances' lecture here: https://www.youtube.com/watch?v=Kd2Q TuXgrk&feature=youtu.be

MSE in Action

Experts weigh in on climate change, divestment.

By McGill Reporter Staff



Jaye Ellis, Associate Professor, Faculty of Law & School of Environment, McGill University

During her consultation with CAMSR, Jaye Ellis described the emergence of private actors (non-state entities which include corporations, citizens and not-for profit organizations) and other umbrella organizations, which work to promote change at the public policy or social level with regard climate change.

She described the role of these groups in seeking a voice within governments in hopes of having their messages heard at the national and international levels. She also spoke about the role of consumer and public interest groups which work to obtain certification in order to develop standards of sustainability that aim to be recognized by the public, and that could deny certain corporations access to the market. She then spoke about the growing sense of frustration with the lack of movement among states in relation to climate change, and mentioned that as a result of slow progress, members of civil society are exploring other avenues.

Overall, she noted that divestment could be a way to send a message or to signal and ethical position and expressed the belief that it is well within the University's authority to decide where and how to invest. In response to a question about research denying the impact of the fossil fuel industry on climate change, Professor Ellis expressed concern by the attention and support that climate change deniers have received, particularly in the US.







Sustainability Research Symposium

By Jeffrey Cardille, Associate Professor, MSE and Natural Resource Sciences

On March 9, 2016, I attended and presented at the McGill Sustainability Symposium at the Thomson House. The symposium, now more than 5 years running, is a showcase of student presentations, professor and industry presentations, and a healthy dose of socializing. The organizers did an excellent job organizing around their theme of "How can technology help improve environmental sustainability and bring about positive change?"

Student talks were the focus of the day, with graduate students from several departments presented their work. In addition to students, symposium attendees heard two professor presentations (from myself and Prof. Renée Sieber). These academic talks were complemented nicely with presentations about the big picture of sustainability research and practice at Future Earth, and the efforts at IBM Research from Jean -François Barsoum.

If we can judge from the laughter and loud, happy energy of the room, the Sustainability Symposium was a great success. In addition to the networking among students, faculty, and industry, it was great fun and the MSE can be proud to be a part of it.

Keynote Address

Jérome Dupras, Natural Sciences, Université du Québec

Growing Young Farmers at the Macdonald Student Gardens By Monica Allaby, Young Agrarians Blog, Nov. 25, 2015



Lorine Dargazanli, Matthew McCormick, Rebecca Phaneuf-Thibault, and Anna Lyon at the MSEG

MSEG was initiated in 2009 by a small group of McGill students who were seeking hands-on experience in ecological agriculture. The group was provided a minimal amount of funding and gained access to a plot in the MacDonald Campus Community Garden, where they began growing vegetables. The founding members began providing fresh produce to Happy Belly, a student group that prepares and serves healthy and locally sourced lunches to students and staff members on MacDonald Campus.

Throughout the next several years, students from both McGill campuses expressed a keen interest in getting involved with the project. MSEG received substantial funding from McGill's Sustainable Projects Fund, which allowed the team to expand its operations. MSEG acquired space in the Horticulture Centre and the team soon after initiated a CSA program to support the financial stability of the project. In 2013, MSEG was

granted its current plot of land on the MacDonald Campus Farm, which was made available for student use through partnerships with the Farm and local organic producers Les Jardins Carya and Ferme du Zephyr.

The majority of students who get involved with the project have little to no background in agriculture. Matthew had no experience in growing food when he joined the team last summer but was drawn to the project due to the unique opportunity it offered to learn outside of a classroom setting. "I realized that in my time at McGill, I had never been exposed to this type of experimental learning and saw this as an opportunity to get my hands dirty, while actually gaining real skills outside of the classroom," he said. "After realizing how much planning, critical thinking and resourcefulness goes into small-scale farming, and how delightful it is to see community members enjoy food that I helped grow, I became an advocate of local, sustainable food systems."



Student farmers Alex Daigle, Matthew McCormick, Marisa Lenetsky, and Anna Lyon sell their produce at the McGill Farmers' Market in downtown Montreal.

Hot off the McGill Reporter press!

The <u>Catalyst Award for Sustainability in Research 2016</u> went to the Kohlrabi Collective, a group that represents the unification of three student-run projects that produce and distribute local food at McGill: the Macdonald Student-Run Ecological Garden, the McGill Farmers' Market, and Organic Campus. Congratulations to you all!

For more information on the MacDonald Student-Run Ecological Gardens, please visit: http://youngagrarians.org/growing-young-farmers-macdonald-student-gardens/

Photos courtesy of the Young Agrarians.

Alexandre Daigle, Bachelor of Science, Major Environment - Renewable Resource Management, Minor Concentration World Religions

Lorine Dargazanli, BSc Agricultural and Environmental Sciences Granted: February 2016, Major Environment -Land Surf Proc & Environmental Change, Minor International Agriculture

Marisa Lenetsky, Bachelor of Arts and Science, Honours Sustainability, Science & Society - Honours, Minor Concentration Geography (Urban Systems)

Anna Lyon, Certificate in Ecological Agriculture, Major Ecological Agriculture

Matthew McCormick, BA, Honours International Development, Minor Economics

Rebecca Phaneuf-Thibault, BSc Agricultural and Environmental Sciences, Major Agro-Environmental Sciences Ecological Agriculture, Professional Agrology

The Real Food Challenge MSE Course



ENVR 480, Topics in Environment

Instructor: George McCourt

Amidst a sea of confusing labels, certifications, and claims about sustainability and ethical purchasing, The Real Food Challenge offers a comprehensive and decisive definition for 'real food'. Real Food sets a high standard upheld consistently among institutions; and supports campuses to set quantitative goals, while tracking their progress. Real Food meets third-party certifications and is based on criteria assessing the degree to which food is ecologically sound, local and community based, fair and humane. Currently established at 200 post-secondary institutions in the United States, McGill students have the opportunity to work with other Canadian universities and food-centered organizations to launch this project in Canada.

The Real Food Challenge was initially started in the U.S. as an initiative that is intended to use the institutional purchasing power of universities to shifts towards offering more fair, ecologically sound, community-based, and humane food on university campuses.

This year, the Real Food Challenge came to Canada as a pilot project at McGill and several universities in British Columbia. The project was introduced to our class as a step-by-step guide to auditing McGill's cafeterias and assessing what proportion of the food qualifies as "real." This semester, we have worked closely with Executive Chef Oliver De Velopi as we investigated McGill's food purchasing and learned about the larger food system in which it is situated.

We have had the opportunity to visit the warehouse of a food supplier, experience a food supplier trade show, and speak to many people who play a role in the food supply chain that leads to McGill. Throughout this process, one of our biggest challenges was the lack of transparency in the food system. The seasonality of food availability and the length of the supply chain make it difficult to trace any given food item from the farm to our plates, and difficult to gather standardized information on food items. As we are nearing the end of the semester, we have gained valuable feedback about the auditing process to offer the Real Food Challenge, as well as suggestions for how McGill can increase the amount of fair, ecologically sound, community-based, and humane food available in its cafeterias.

Participants:

Michael Adamson, BA, Environment, Faculty Program

Diane Beeharry, BA&Sc, Sustainability, Science & Society, Interfaculty

Program

Melanie Booth, BA, Environment, Faculty Program

Antoine Coudard, BA&Sc, Sustainability, Science & Society, Interfaculty

Program

Jessica Frattolillo, BA, Environment, Faculty Program
Annie Hamilton, BA, Environment, Faculty Program
Chelsea Kingzett, BA, Environment, Faculty Program
John Lindsay, BSc, Agricultural and Environmental Sciences, Environment
Emma Windfeld, BA, Environment, Faculty Program

Forces d'Avenir 2015 Congratulations to MSE Graduate Siobhan Lazenby

Bachelor of Arts and Science Granted: May 2015. Interfaculty Program Environment, Minor Concentration International Development Studies
Dean's Multidisciplinary Undergraduate Research List

Forces AVENIR aims to recognize, honour and promote the commitment of students in projects that contribute to the development of socially conscious, active and responsible citizens who are both dedicated to their community and open to the world. Forces AVENIR aims to recognize, honour and promote the commitment of students in projects that contribute to the development of socially conscious, active and responsible citizens who are both dedicated to their community and open to the world.

By Julie Fortier, McGill Reporter, Feb. 16, 2016

It was the height of the Ebola outbreak in West Africa and Siobhan "Chevy" Lazenby had a front-row seat to the deployment of Médecins sans frontières' vast efforts to contain the virus. Then a McGill student, she was working as a communications intern in the organization's Montreal offices, while completing her undergraduate studies in Environmental Sciences and International Development.

"Working for Médecins sans frontières had been a childhood dream of mine. I had no idea it was going to be such an intense time to work there," she recalls from Kigali, Rwanda, where she is spending this year as an OceanPath Fellow, a program that helps recent university graduates implement a community-focused social initiative.

In addition to working with a women's association for victims of violence, Lazenby is conducting research and working with local organizations to help develop eye-health resources for people with diabetes. Her interest in eye health dates back several years – to Grade 8, in fact – when she met one of Africa's first female ophthalmologists in Kenya. Her parents had taken Lazenby and her brother on a year-long trip around the world, introducing them to community work along the way. "I was very fortunate to have that experience," the Calgary native says. "All my future experiences were built on the seeds that were planted during that year."



Siobhan Lazenby (front) is spending a year in Kigali, Rwanda, where she is helping develop eye-health resources for people living with diabetes and working with the Tubahumurize Women's Association, which offers support to victims of violence.

After participating in McGill's Canadian Field Studies Program in Africa two years ago, Lazenby reconnected with the ophthalmologist she had met as a teen and who by then had moved to Kigali. She spent that summer working with Dr. Wanjiku Mathenge again. Last October, Lazenby was honoured for her work at the Forces AVENIR gala, where she was chosen as one of the three winners in the Personnalité 1er cycle (undergraduate) category, a title that comes with an \$4,000 prize. Forces Avenir is a Quebec-based competition open to students from high school to university and aimed at recognizing outstanding community service work.

Catalyst Awards for Sustainability 2016

The <u>Catalyst Awards for Sustainability</u> recognize students, staff, and faculty who have made meaningful and enduring contributions to the sustainability movement at McGill University.



Congratulations to Kristen Perry, BSc Agricultural and Environmental Sciences, Major Environment-Renewable Resources Management, Minor Management, who was awarded the Catalyst Award for Student Collaboration on Sustainability. She has been a proponent of green living and learning for as long as she can remember. Her current passions include climate justice, fossil fuel divestment, urban horticulture, green living and -perhaps most importantly-

working for positive change through creating collaborative communities. Since she came to McGill, she's gotten increasingly involved in the growing sustainability community on campus.



McGill BCom Major and Concentration in Managing for Sustainability (Catalyst Award for Sustainability in Education)

Traditionally, management education has emphasized economic value at the potential expense of ecological and social well-being. In a move toward a more holistic approach to management, the Desautels Faculty of Management, the McGill School of Environment, and the Department of Geography

collaborated to advance sustainability in management curricula.

The result is two new 'Managing for Sustainability' (MSUS) undergraduate programs for McGill Bachelor of Commerce students pursuing marketing, finance, accounting, operations, organizational behaviour, information systems, or strategy paths. The program's first graduates convocated in May 2015, entering the workforce with a strong understanding of what sustainability means and how it relates to their role within an organization. A unique aspect of the major is the inclusion of 21 credits from the McGill School of Environment and Department of Geography, leading to the development of graduates who can integrate traditional business skills with environmental knowledge and social sensitivities. Through diverse course offerings across different faculties, students acquire knowledge and skills that equip them to work across boundaries.



Congratulations to Amelia Brinkerhoff, BSc Agricultural and Environmental Sciences, Major Environment - Biodiversity and Conservation, graduating May 2016, who was awarded the Emerald Key Award for her "involvement in urban food systems, based on her belief that universities should practice what they're teaching".

She is passionate yet pragmatic about driving institutional change in sustainability at McGill, and her involvement in urban food systems is based on her belief that universities should practice what they're teaching. As the Sustainability Coordinator for McGill's Student Housing and Hospitality Services for three years, Amelia helped drive long-term commitments and collaborations, and has been a key force behind a culture of sustainable food engagement at McGill.



Olivia Monton Lives for the Cause

How many of our students can claim run their own very successful foundation?

Live for the Cause is a foundation established by U3 student Olivia Monton (Environment, Ecological Determinants of Health – Population) is making a difference! Olivia was recently invited by Rideau Hall and Governor General David Johnson to give a presentation on volunteering and philanthropy at Macdonald High.

Well done Olivia!

Read full story here:

- Susan Schwartz, Montreal Gazette
- Global TV, Focus Montreal interview: <u>http://www.liveforthecause.ca/media/</u>



Think Upstream - Expanding our Criteria for Healthy Living

Kate Morrison, B.Sc., Honours Environment - Ecological Determinants of Health Domain - Cellular

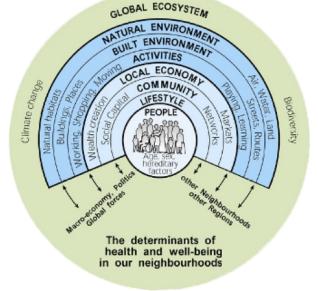
"The world is not a problem to be solved; it is a living being to which we belong. The world is part of our own self and we are a part of its own suffering wholeness." -Llewellyn Vaughan-Lee

As a child, my mother would wipe down and disinfect the doorknobs around our house throughout cold and flu season. The idea behind habitually cleaning the doorknobs was to avoid the exchange of germs on communal surfaces that people were touching each day, thus, proactively working to keep our family healthy. This is how I like to think about the environment. Every single person interacts with the environment every day, all day. These interactions are done in the shared space of our borderless environment. Keeping this space clean simultaneously keeps us healthy. However, it's not only about cleaning the doorknobs, it's about making sure people know why they have to wash their hands in the first place. Many parents will tell you that simply implementing a rule does not always result in compliance. It's the combination of both rules and an understanding of why the rules have been put in place that contribute to increased hand washing. This is similar to the government implementing laws and policies regarding the environment. People may comply, but not always.

To promote a healthier society, environmental policies must place health at the centre, while working to end environmental injustice and inequities. At the same time, public health messages must contribute to society's understanding of why these laws and policies are beneficial to their health. The ecological determinants of health are not separate from the social determinants of health, but rather are part of the social framing of health that is largely impacted by social policy. When citizens start expecting and demanding environmentally sensitive policies and when environmentally sensitive behaviour becomes the social norm (as opposed to radical behaviour), health benefits will follow.

The Canadian Public Health Association's report on <u>Global Change</u> <u>and Public Health: Addressing the Ecological Determinants of Health</u> states that, "Without changes in values and norms, there is little prospect for change in our:

- Social and economic activities and goals;
- Understanding of our relationships with and responsibilities for other people, other species and the Earth;
- Understanding of growth and development; and
- Openness to engage in what we may perceive today as radical change."



Environmental health, <u>The World Health Organization</u> states, "addresses all the physical, chemical, and biological factors external to a person, and all the related factors impacting behaviours." A key concept in environmental health is that natural processes are cyclical, not linear, such as the life *cycle* of a tree or person. As environmental analyst Lester Brown stated, "just as continually growing cancer eventually destroys its host, a continuously expanding global economy is slowly destroying its host – the Earth's ecosystem." Our economy relies on the natural resources of the Earth's ecosystem to function. Natural resources are not regenerating as quickly as our economy grows linearly, leaving a dearth of resources to fuel the economy. **This pattern is unsustainable.** It doesn't cultivate healthy relationships between humans and our environment – and undoubtedly this linear growth trajectory in a naturally cyclical system is making us sick.

....continued on page 9

Think Upstream ...continued...

I ventured into this environmental degree with the aim of expanding my own definition of health. I wanted to learn about how something so broad as the environment was impacting health outcomes. While interning at Upstream, an organization that works to reframe public discourse around addressing the social determinants of health in order to build a healthier society, I had the chance to share my ideas on how we can use our understanding of the environment to expand our definition of health. During this process, I came up with my own list of Ecological Determinants of Health:

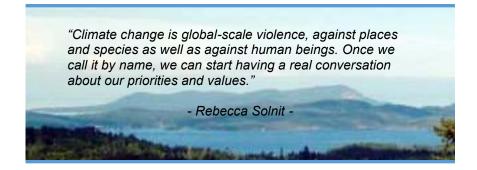
- 1. Climate Change
- 2. Indoor and Outdoor Air Quality & Pollution
- 3. Urbanization and the Built Environment
- 4. Water Security
- 5. Food Security
- 6. Ozone Depletion & Ultraviolet Light Radiation
- 7. Odour Pollution
- 8. Noise Pollution
- 9. Ecosystem Health
- 10. Animal Health
- 11. Energy Sources & Consumption

Learning about the environment and how it impacts our health has convinced me that as a society we need to advocate for environmental health policies in order to: a) protect the environment and b) protect our health. Understanding ecological determinants of health allows people to evaluate their own health and societal health based on a larger set of criteria. This generates proactive and preventative care, which stimulates a healthier society now and in the future. By understanding the ecological determinants of health, Canadian citizens are enabled to become advocates for a healthier society.

Recently, MetroVancouver adopted a <u>Healthy City Initiative (2014-2025)</u>. This initiative is an example of a policy decision to improve the social and environmental conditions of citizens in order to enable the highest level of health and wellbeing for the population. The initiative sets 13 goals that target early childhood development and education, housing, food security, income and poverty, social inclusion, social networks and engagement, access to nature, lifelong learning opportunities, personal expression, transportation, environment, and collaborative leadership initiatives that together will culminate in a healthier city.

Establishing healthier environments is part of the upstream solution to creating a healthier society. As the ecological determinants of health are a part of the broader set of social determinants of health, they too, allow for improvements to be made to human health, prior to reaching the traditional healthcare system setting. Therefore, working to improve the environment in which we live, work, and play, helps to create sustainable change that fosters health for generations. Ecological policies that advance water security, ecosystem health, and action on climate change simultaneously impact the social factors that impact health and peel away bandage solutions to get at the root causes of ill health in society.

Born and raised in Saskatoon, Kate Morrison is currently completing her Bachelor of Science (Honours) in Ecological Determinants of Health at McGill University. Kate is Upstream's summer student intern. She is very excited to be interning at Upstream and believes that upstream thinking is crucial to fostering a healthier society. With her focus on defining the eco-determinants of health, Kate hopes to broaden people's understanding and definition of health. During her free time, Kate enjoys spending time outdoors, walking and biking with friends and family.



Spring 2016 Honours Symposium

This year, honours students from the McGill School of Environment,

and the

Department of Geography, Sustainability, Science & Society

presented their research on April 15.

For more information, please contact Kathy Roulet, MSE Advisor, 514-398-4306.



Dassyn Barris, B.Sc. (Ag.Env.Sc.) Honours Environment (Ecological Determinants of Health – Population) Supervisor: Prof. Gordon Hickey (NRS) Governance systems and fisheries in the Great Lakes: analyzing the media?



Naomi Burns, B.A.&Sc., Honours Environment Supervisor: Prof. Kevin Manaugh (MSE & Geography) Investigating Barriers and Motivations to Sustainable Building at McGill University.

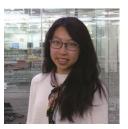


Stephanie Cotnoir, B.A.&Sc., Honours Environment Supervisor: Prof. Elena Bennett (MSE & NRS)

The Role of Green and Blue Water in Sustaining Ecosystem Services in Urban Systems.



Juliana Fanous, B.Sc., Honours Environment (Ecological Determinants of Health – Population)
Supervisor: Prof. Julia Freeman (MSE)
First Year Students' Experience with Respect to Sustainability at McGill University.



Yang Lan, B.A.&Sc., Honours Sustainability, Science & Society
Supervisor: Prof. Vedat Verter (Desautels Faculty of Management)
Crude Oil Transportation in Canada



Rebecca MacInnis, B.A.&Sc., Honours Sustainability, Science & Society Supervisor: Prof. Julia Freeman (MSE) Considering the Social Dimensions of Municipal Composting in the City of Montreal.



Kate Morrison, B.Sc., Honours Environment (Ecological Determinants of Health - Cellular)
Supervisor: Prof. Nancy Ross (Geography)
An Investigation of Montreal Neighbourhood Qualities from the Perspective of Older Adults: A Focus on Transportation.

MSE Honours Students



Katelyn Moyer, B.Sc., Honours Environment (Ecological Determinants of Health in Society)
Supervisor: Prof. Nancy Ross (Geography)
Public Transportation Investment and Neighbourhood
Change Across Five Canadian Cities (1995-2015).



research.



Margaux Sleckman, B.A., Honours Environment (Environment & Development)
Supervisor: Prof. Chris Green (Economics)
The prospect of Renewable Energy for Sustainable Growth in East Africa: A case study assessment of Ethiopia, Kenya, and Tanzania.



Valeriya Sokolenko, B.Sc., Honours Environment (Renewable Resource Management)
Supervisor: Prof. Anthony Ricciardi (MSE & Redpath Museum)
Spatial Variation in Fish Diets.



Eric Vaughan, B.Sc., Honours Environment (Biodiversity & Conservation) Supervisor: Prof. Raja Sengupta (MSE & Geography) Social Networks in Uganda.

ENVR 401 Research in Environment

Extending the Growing Season & Engaging the Community Montréal Community Urban Greenhouse: A How-To Toolkit

Client: Justice Alimentaire Montreal Supervisor: Dr. Julia Freeman

ENVR 401 is the MSE capstone course where students work in an interdisciplinary team on a real-world research project involving problem definition, methodology development, social, ethical and environmental impact assessment, execution of the study, and dissemination of results to the research community and to the people affected.

Professor Freeman's group worked on behalf of Justice Alimentaire Montreal and brought a proposal for their urban agriculture research to the city's consultation meetings for a new municipal food policy council. The group integrated feedback from city councillors, local experts, and citizens, and they produced a thorough, accessible, and beautiful resource guide for urban agricultural greenhouse projects in Montreal: A helpful toolkit to help communities navigate everything from organizing the process and finding funding, to the basics of greenhouse design and garden planning.



The students in this photo are, starting from the front: Chloe Logar-Henderson; Arianna Fisher; Vanessa Damiani; Lia Kurihara: Kate Morrison

Team member not shown: Jessica Frattolillo.

Executive Summary:

This research project centers around the construction of a community urban greenhouse that is intended to extend the growing season in Montréal and facilitate community empowerment. Although Montréal has made substantial progress in developing programs that support access to quality and desirable foods, many of these initiatives are consistently interrupted by Montréal's cold weather. Montréal's cold winters and short growing season add an element of stress to communities who benefit from outdoor urban agricultural programs during the growing season. The implementation of a community urban greenhouse has the potential to minimize this seasonally-imposed barrier to food accessibility.

Congratulations to MSE Faculty

Elena Bennett



Sylvie de Blois



Ismael Vaccaro



NSERC announced that Elena Bennett, Department of Natural Resource Sciences and McGill School of Environment, is the recipient of an <u>E.W.R Steacie Memorial Fellowship</u>. NSERC awards up to six of these two-year, \$250,000 fellowships annually to enhance the career development of outstanding and highly promising scientists and engineers.

Growing demands for food, fibre and fresh water are straining nature's ability to produce these and other essential services, with worrying implications for both people and the environment.

Dr. Elena M. Bennett develops approaches to measure, map and model these interconnected ecosystem services to ensure their long-term sustainability. Her work provides practical information and easy-to-use tools that governments, industries and communities need to understand the full ecosystem impacts of planning decisions. These tools help local governments develop land-use plans that, among other things, accommodate the need for development and connect fragmented forests to retain the region's rich biodiversity.

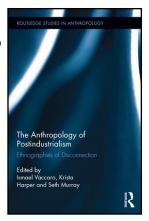
The goal is to balance humanity's need for a diverse mixture of ecosystem services (e.g., food, fibre, fresh water, recreation, spiritual fulfilment) with our reliance on functioning ecosystems to provide these services in the future.



Dominique Berteaux en collaboration avec Nicolas Casajus et Sylvie De Bois pour l'ouvrage "Changements climatiques et biodiversité au Québec" remporte le prix Hubert Reeves 2015, catégorie adulte. Les changements climatiques sont une question environnementale majeure de ce siècle. Afin de comprendre et de prévoir leurs effets sur la biodiversité au Québec, des climatologues, des biologistes , des naturalistes et des gestionnaires de notre patrimoine naturel ont collaboré durant cinq ans pour produire cet ouvrage.

Professor Vaccaro has published a new book, "<u>The Anthropology of Postindustrialism: Ethnographies of Disconnection</u>".

This volume explores how mechanisms of postindustrial capitalism affect places and people in peripheral regions and de-industrializing cities. While studies of globalization tend to emphasize localities newly connected to global systems, this collection, in contrast, analyzes the disconnection of communities away from the market, presenting a range of ethnographic case studies that scrutinize the framework of this transformative process, analyzing new social formations that are emerging in the voids left behind by the de-industrialization, and introducing a discussion on the potential impacts of the current economic and ecological crises on the hyper-mobile model that has characterized this recent phase of global capitalism and spatially uneven development.



Congratulations to MSE Faculty

Peter Brown Nicolas Kosoy Geoff Garver E4A has great news to share! The E4A Steering Committee was awarded the *U.S. Society of Ecological Economics, Bernardo Aguilar award* at the joint *CANSEE/USSEE conference* in Vancouver, October 1-4, 2015. USSEE students give this award to recognize the recipient's role in inspiring students through teaching, research, ideas, and mentoring in ecological economics. E4A Steering Committee members for 2014-15 are Peter Brown (McGill University), Nicolas Kosoy (McGill University), Ellie Perkins (York University), Peter Victor (York University), Jon Erickson (University of Vermont), Taylor Ricketts (University of







Vermont) and Geoffrey Garver (McGill University).

Iwao Hirose



Iwao Hirose was awarded a Lady Davis Visiting Professorship in 2015 at the Hebrew University of Jerusalem.

The Lady Davis Fellow is a program of The Lady Davis Foundation for scholars to carry out research in various areas on the campuses of the Hebrew University of Jerusalem and the Technion - Israel Institute of Technology in Israel. The Lady Davis Fellows are selected on the basis of demonstrated talent and promising ideas for their research. The Lady Davis Foundation also provide fellowships for visiting professors along with postdoctoral and doctoral researchers.

Renée Sieber



Have you ever wondered about the shortest path algorithms that are used to efficiently route delivery trucks? Colour theory behind map visualization? Motivations behind non-experts to volunteer geographic information? These varied questions are researched in the field of Geographic Information Science.

Renée Sieber has been awarded host and chair of the International GIScience Conference, September 27-30, 2016, in Montreal. GIScience is a field that crosses numerous academic domains, predominantly geography, computer science, information science, mathematics, software engineering, and psychology. She oversees a committee of ~120 people, with 350 attendees (expected), ~50 posters, and 10 pre-conference workshops/tutorials, a long paper publication in Lecture Notes in Computer Science (~25 papers), and soft paper proceedings (70-100 papers).

Raja Sengupta serves as its Local Organization Chair. He oversees another equally important aspect of the conference, which is to ensure the conference showcases to attendees the best of Montreal's environs, from both a heritage perspective as well as its aspirations for the future as a "ville intelligente et numérique". Additionally, his role includes planning the venue and scheduling (including plenary and regular session timings and placement), and co-ordinating with potential sponsors of the conference.

GIScience 2016 will be the ninth conference in the series. www.giscience2016.org

Raja Sengupta



THANK YOU for all your contributions to the McGill School of Environment. As we look to the future, we are excited about our strong interdisciplinary education and our innovative approaches to teaching and research.

We invite you to make a philanthropic investment for future generations.

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Frédéric Fabry (Atmospheric and Oceanic Sciences)

Iwao Hirose (Philosophy)

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Photo of Macdonald Campus, by Dr. Julia Freeman, MSE Faculty Lecturer Coordinator of MUSE (Montreal Urban Sustainability Experience)

