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McGill



Director's Message

Sylvie de Blois

Interim Director

McGill School of Environment

The MSE has had the immense privilege to be led from 2008 to 2013 by Professor Marilyn Scott. Marilyn worked relentlessly to make the MSE a unique and inspiring interdisciplinary academic unit at McGill. Her commitment to the School, and particularly to our fantastic students, was and remains outstanding. Under her guidance, the School expanded its pool of expertise by hiring new professors, laid the foundation of an innovative graduate program, and extended its undergraduate teaching into the spring semester with MUSE, the Montreal Urban Sustainability Experience, among other countless initiatives led by Professor Scott's enthusiasm and dedication for the MSE remain truly inspiring and the School cannot thank her enough. The MSE community will no doubt continue to benefit from her expertise and wisdom as one of our most committed Associate Members. Congratulations on being appointed Associate Dean, Academic, at the Faculty of Agricultural and Environmental Sciences.

Although Marilyn's shoes were hard to fill, Professor Nancy Ross accepted the challenge with much determination. Nancy came into her new role as Director with a clear vision for the future of the School. Although we can still count on her for helping the School move forward, Nancy had to step down as MSE Director.

What is that saying again: "Challenges are what make life interesting, overcoming them is what makes life meaningful"?



Focus on MSE Alumni



Andrew Stiffman

BA granted May 2012, Interfaculty Program, Ecology and Earth's Environmental Domain

Andrew Stiffman, who graduated from the McGill School of Environment in 2012, has taken his passion out West to Vancouver, where he has recently begun working in the Research and Energy Group at RDH Building Engineering Ltd, not to mention exploring the region's beautiful outdoors.

After graduation from McGill, Andrew spent two exciting years working at SUSTAINABLE.TO Architecture + Building in Toronto. At S.TO, he had the opportunity to learn the nuances of virtually every aspect of designing, building, and analyzing sustainable buildings, participating actively on the designs of award-winning projects ranging from disaster relief homes in Southeast Asia, resilient and Passive housing in New York and New Orleans, and resource-efficient buildings of many scales across Canada. He also played a central role in starting-up what is now a Building Science division within the organization, dedicated first to scientifically analyzing and improving the sustainability impact of architectural designs and construction projects, and secondly to monetizing this work in an ethical manner for the organization.

In concert with his work at S.TO, Andrew completed his Master's in Building Science at Ryerson University in the Sustainable Buildings Group, focusing his research towards understanding and improving the durability of energy-efficient buildings, as well as publishing a paper on energy-efficient enclosure design for Toronto houses with the Canadian Society for Mechanical Engineering's (CSME) International Congress. He was also fortunate to receive the Norman Esch Engineering Innovation and Entrepreneurship Award for an original business concept leveraging many of the central learnings from his work and studies.

Now, he is thrilled to have begun working in the Research and Energy Group at RDH Building Engineering Ltd, learning and growing under renowned leaders in the field and contributing his creative, systems-based approach gained at the MSE. Andrew developed a deep appreciation for the role that the building sector plays in our environment, objectively contributing more annual GHG emissions than any other, and representing perhaps the most cost-effective in which to achieve dramatic improvements.

Andrew strongly recommends that current MSE students explore connections between their scientific training and the design fields, particularly the rapidly growing market for exploring these links through ethical business structures. "The linkages between environment and building science have given me the chance to help turn altruistic concepts of what sustainability can and should be into tangible spaces that people can enjoy without consuming an excessive amount of resources. It's been great to learn how marketable these skills are, and the influx of talented, passionate graduates into this field serves to benefit us all. The sustainable buildings field has taken me around the world and provided me with the beginnings of an exciting career, and I've barely scratched the surface of what I hope to learn and accomplish."

Bioblitz!

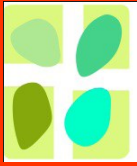
Knowledge, Ethics and Environment at Macdonald Campus had a special opportunity to apply new concepts outside of the classroom. Teaming up with the Redpath Museum, students registered in ENVR 203 joined a BIO BLITZ tour at the Morgan Arboretum that was guided by McGill experts in Biology and Ecology, such as the team from the Québec Centre for Biodiversity Science, the Lyman Entomological Museum, and the Redpath Museum. They spent a lively morning exploring the Arboretum and identifying species, contributing to a baseline inventory of flora and fauna. Students then were challenged to apply philosophical arguments of biocentrism and the implications of extending moral consideration to non-human life. It was a quintessentially interdisciplinary day, and a great opportunity to link abstract thinking to concrete (and sometimes muddy!) experience.

Dr. Julia Freeman, Faculty Lecturer, McGill School of Environment & Coordinator of the Montreal Urban Sustainability Experience (MUSE)



Photos taken by :
Julia Freeman, MSE Faculty Lecturer
Alexandre Farmsworth-Philogene, B.Eng., Year 2, Electrical





McGill Net Positive Initiative

A living hub for sustainability

Alan Chen, Bachelor of Arts and Science, Year 3, Interfaculty Program in Sustainability, Science & Society, Minor in Geography (Urban Systems)

Sustainability at McGill has grown to resemble an overflowing river: It's made its way from an initial trickle of infectious enthusiasm into a flood of new initiatives and projects led by students, staff, and faculty alike. Though it may be tempting to sit back and go with the flow, emerging conversations are prompting us to ask ourselves a critical question: "Where are we going now?"

When asked about what green groups there are to join on campus, students immersed in the sustainability community at McGill often find themselves at a loss for a comprehensive answer. Between the transience of student populations and a dynamic institution of needs and opportunities, pinning down individual groups and entry-points to get involved has grown to become more of a chore than a reason for excitement. It can be unreasonably difficult to break into existing circles of people and efforts, not only for newcomers but for those in the mix as well.

2013-2014 saw the first faculty-led program that sought to bring community members to the table in an effort to build a collective vision of a more connected sustainability narrative. The Net Positive initiative, championed by McGill School of Environment professor Elena Bennett, framed the need for a physical sustainability hub that would naturally bring people and their initiatives together. By providing a central space that supports the day-to-day sharing of company and ideas, the resulting synergies between well-placed enthusiasm and well-connected members of the sustainability community would do well to push sustainability at McGill to a higher level.

As a first step towards this vision, McGill Net Positive organized a series of conferences at which 4 prestigious speakers shared their experiences with audiences of students, staff,

administration and faculty engaged with sustainability around the community. Amongst these keynotes were John Robinson (the Associate Provost of Sustainability at UBC) Leith Sharp, (the Director of Executive Education for Sustainability at Harvard), David Orr (Paul Sears Distinguished Professor of Environmental Studies and Politics at Oberlin College), and Daniel Pearl (Founder partner L'Ouef Architects, MOAQ, LEED AP, professor at the Université de Montréal). Each presented a discussion around a different facet of sustainable campuses and green buildings from the concept of regenerative design to the role of change capacity in sustainability change-making at institutions like McGill. The momentum and excitement cultivated through these conversations over the year culminated in a final design charrette, in which a group of McGill's sustainability champions were invited to participate and synthesize what we had learned from the speakers and each other.

Ultimately, McGill Net Positive has a physical green campus building in its sights. The unfortunate reality is that space at McGill comes at a premium. Our campus spaces are confined to the existing infrastructure of downtown Montreal, so every negotiation around land use and real estate ends in a compromise. Upon reflecting on the talks I attended as well as the final design charrette, I found McGill Net Positive to be unexpectedly true to its vision despite the overtly difficult challenges ahead. Though the conversations we had represent only baby steps, the process of having come together to discuss these challenges as a connected community has already provided a snapshot of what's possible for sustainability at McGill. We've laid the first few bricks of our new home, and together we'll continue to work with great anticipation for the day we get to move in.

Ever wonder what McGill professors do while on sabbatical?

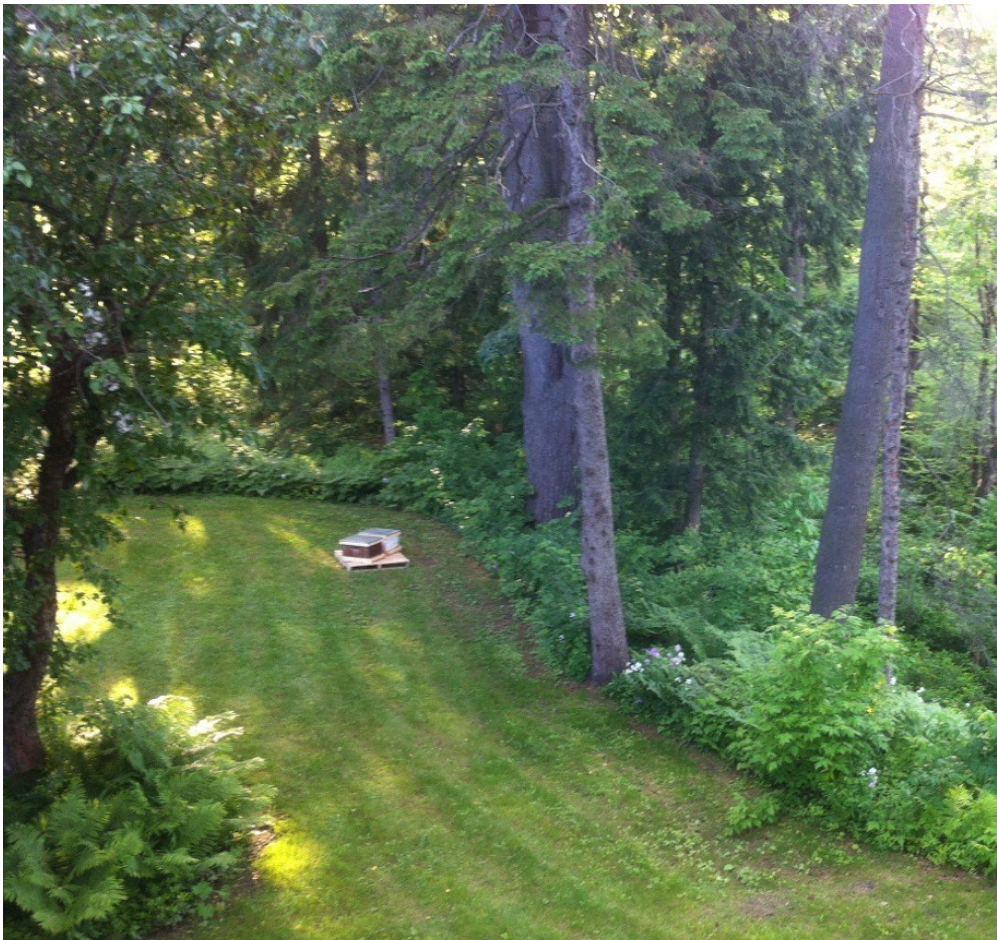
Some of us travel to work with colleagues far away or to learn new methods or concepts. Others stay home to focus on writing or learn how to be better teachers or to recharge.

Along with a lot of reading and learning about how to model ecosystem services, I am recharged by working on my homesteading skills. I learned how to keep bees and produce honey, and I did quite a bit of gardening and canning.



Elena checking out her hive with Alex McLean, co-founder of Alveole, who taught her how to be a beekeeper. (<http://www.alveolemtl.com/>)



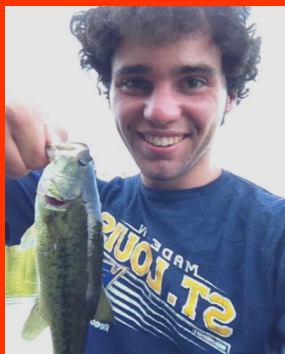


**Elena Bennett,
Associate
Professor, MSE,
and Natural
Resource Sciences**

Backyard hive and honey yield this summer!
Photos by: Chris Buddle, Associate Professor in the Dept. of
Natural Resource Sciences



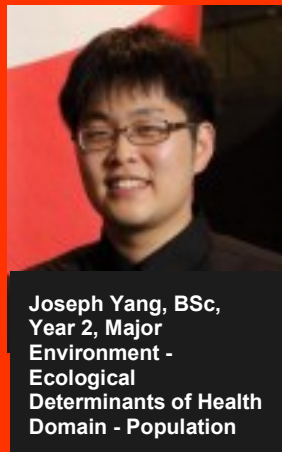
Student Kudos



Jacob Lerner, BSc
Agriculture and
Environmental
Sciences, Year 3, Major
Environment -
Biodiversity and
Conservation, Minor in
Anthropology

Congratulations to Jacob Lerner on having been awarded the **Murray and Eleanor McEwen Clean Water Scholarship**, for outstanding students who have a strong interest in the protection, development or restoration of clean water resources.

This summer I worked with Professor Chris Solomon's Aquatic Ecology Lab, under his graduate student Nikki Craig, on lakes in Northern Wisconsin in the Upper Peninsula of Michigan. A major part of my summer was helping Nikki complete her research on the effects of dissolved organic carbon (DOC) on the ecology on the lakes of the region.

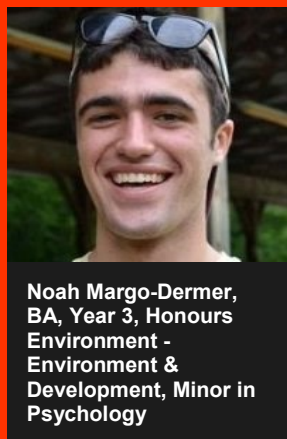


Joseph Yang, BSc,
Year 2, Major
Environment -
Ecological
Determinants of Health
Domain - Population

Congratulations to Joseph Yan on winning first prize in the Cellular and Molecular Biology category at the McGill Faculty of Science **Undergraduate Research Conference (URC)**.

Abstract: Knee Deep in Water: the Role of Aquaporin 9 in Osteoarthritis

Supervisor: Dr. Benjamin Alman, Hospital for Sick Children



Noah Margo-Dermer,
BA, Year 3, Honours
Environment -
Environment &
Development, Minor in
Psychology

Congratulations to Noah Margo-Dermer who is our recipient of the MSE **Vivian Lewin Field Study Endowment Award 2014-15**. The award supports students who take a McGill recognized field study program.



The McGill Undergraduate Environmental Research Journal

We are honoured to present Branches' third issue, the first printed publication from the McGill Undergraduate Environment Journal. This year's issue is very special to us as we have rebranded our journal's design, adding creative arts elements and promoting the diversity of the field of Environment and its multidisciplinary components. Papers were written by some of the McGill School of Environment's undergraduate students from the faculties of Arts, Science, and Agricultural and Environmental Sciences. Photographic art and poetry are also presented in this issue, in an effort to inspire you to convey environmental issues through your creativity.

We particularly strived to gather pieces that focused on issues of sustainability that spark conversations on untraditional topics relating to the environment. Aside from originality, an important criterion in the selection for this publication was the manifestation of the interdisciplinary nature of the McGill School of Environment, exposing issues ranging from environmental justice at local and international levels, as well as undergraduate research pertaining to urban landscapes and food security.

In the end, the success of our new journal would not have been possible without the thorough dedication and collaboration from our exquisite team of editors. We would also like to express our deepest gratitude to the many students who submitted their work for this publication—it was an honour to read through such a great body of work. We hope that this production will encourage more students to share their work for future issues of Branches, further revealing the extent of quality work that exists within the McGill School of Environment.

Bonne lecture!

Nessa Ghassemi & Sarah Fioravanti
Editors-in-Chief

To read the issue: www.issuu.com/mcgillbranches

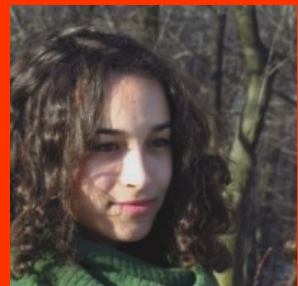
BRANCHES

*McGill
Undergraduate
Environment
Journal*

Editors-in-chief



Nessa Ghassemi-Bakhtiari, BA, Year 3,
Interfaculty Program in Ecological Determinants of Health in Society, Minor in Social Studies of Medicine, and Minor in Anthropology



Sarah Fioravanti, BSc
Agriculture and Environmental Sciences granted in May 2014, Honours Environment - Food Production & Environment

Peter G. Brown
Professor, MSE,
Geography and
Natural Resource
Sciences

E4A is supported by a \$2.5 million (CAD) partnership grant from Canada's Social Sciences and Humanities Research Council (SSHRC), along with generous support from its partners and private donors such as the Lintilhac Foundation and Peter Rose, University of Vermont Class of 1955.

The core partners McGill and York Universities and the University of Vermont together have committed over \$2 million (CAD) to the six-year project.

Staff Kudos



Madhav Badami,
Associate Professor,
MSE, School of Urban
Planning



Economics for the Anthropocene

Regrounding the Human-Earth Relationship

"Economics for the Anthropocene", or E4A, is a diverse partnership of 25 academic, government, and NGO partners designed to improve how the social sciences and humanities connect to scientific realities about the human-Earth relationship. It aims to articulate, teach and apply a new understanding of human-Earth relationships grounded in and informed by the insights of contemporary science.

The E4A partnership will draw on the strengths of McGill University, the University of Vermont and York University in ecological economics, creating a concentration of research and teaching expertise. "Economics for the Anthropocene", or E4A, is a diverse partnership of 25 academic, government, and NGO partners designed to improve how the social sciences and humanities connect to scientific realities about the human-Earth relationship. It aims to articulate, teach and apply a new understanding of human-Earth relationships grounded in and informed by the insights of contemporary science.

The E4A partnership will:

- Create a vibrant international research network.
- Train future leaders for the Anthropocene.
- Engage on-the-ground actors to help solve transnational problems that exemplify the Anthropocene.
- Reconcile disciplines

<http://e4a-net.org/>

Congratulations to Madhav Badami who has been chosen as this year's Bartlett Visiting Research Fellow at University College, London England (theme: Human Well-Being). Following this stay, he goes on to the University of Manchester as a Visiting Senior Research Fellow in the School of Environment, Education and Development.

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.

Change is Possible

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

On line: www.alumni.mcgill.ca/aoc/online-giving

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Or, at 514 398-5000

By mail: payable to
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Website: www.mcgill.ca/mse

If you would like to receive this newsletter electronically, please email secretary.mse@mcgill.ca .

The MSE is:

Director - Sylvie DeBlois

Faculty Members

Madhav Badami (School of Urban Planning)

Chris Barrington-Leigh (Inst. for Health & Social Policy/Economics)

Elena Bennett (Natural Resource Sciences)

Peter G. Brown (Geography)

Jeffrey Cardille (Natural Resource Sciences)

Colin Chapman (Anthropology)

Jaye Ellis (Faculty of Law)

Frédéric Fabry (Atmospheric and Oceanic Sciences)

Iwao Hirose (Philosophy)

Nicolas Kosoy (Natural Resource Sciences)

Brian Leung (Biology)

Kevin Manaugh (Geography)

Gregory Mikkelson (Philosophy)

Anthony Ricciardi (Redpath Museum/ Biology)

Raja Sengupta (Geography)

Renée Sieber (Geography)

Ismael Vaccaro (Anthropology)

Faculty Lecturers

**Julia Freeman
George McCourt
Kathy Roulet**

Staff

**Danielle Lefebvre
Shannon Scott
Christina Zhu**

Cover photos taken by: **Dr. Julia Freeman, MSE Faculty Lecturer**
Coordinator of M.U.S.E. (Montreal Urban Sustainability Experience)
Macdonald Campus, Ste. Anne de Bellevue

Research Themes:

Health in a Changing
Environment

Ecosystems,
Biodiversity and
Conservation

Citizens, Communities,
Institutions and the
Environment

Rethinking Social-
Ecological
Relationships

