

Newsletter

Fall 2019



McGill

School of  
Environment

École  
d'environnement

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[mcgill.ca/mse](http://mcgill.ca/mse)

[twitter.com/mcgillmse](https://twitter.com/mcgillmse)



## Meet our Grads



**Mariana Lebrija**

Bachelor of Arts, Year 2  
Major Concentration International  
Development Studies  
Minor Concentration Social  
Entrepreneurship  
Minor Concentration Environment

## “An Immense Hope in my Own Generation...”

### Smith School of Enterprise and the Environment

#### Oxford University, England

I recently spent two weeks at the Smith School of Enterprise and the Environment, a summer school offered by Oxford University in England, learning about the challenges and opportunities presented by today’s climate crisis and the move towards a more sustainable system of living.

My time at Oxford taught me the importance of questions: when faced with issues as challenging as climatic change and environmental crisis, many of us feel pressed to find a solution. Of course, this was and remains one of my main motivations in both coming into Oxford and after leaving it. However, to approach such a huge question will likely require many sub-sectional answers, meaning collaboration across fields and countries alike. The summer school at Smith School of Enterprise and the Environment represented the value of coming together, regardless of nationality and expertise, to consider different avenues that could be taken towards universal progress.

I could not have anticipated is how much I would learn outside of the classroom walls and from the other students themselves; participants came from all over the world and with widely ranging interests, making the cohort highly diverse in terms of both academic and cultural experiences.

For all the differences we had in persona and background, however, I quickly realized that we shared many core values. By nature of the summer school’s focus, we had all come together in pursuit of the same broad goal: to gain an understanding of the planet we live on and to discover how we can take care of it as we enter the professional world.

Sustainability isn’t just about being “eco-friendly.” It’s also about good governance and social equity. Within these three broad labels lie myriad topics of study and possibilities for action. Business, law, public policy, science...the sectors represented by each student spoke for themselves. Each one of us had a different voice, shared a new perspective, and brought forward unique concerns.



**Evan Henry**  
Co-Founder, Nectar

**Bachelor of Science in Agricultural and Environmental Sciences** Granted: February 2015

Major Environment - Biodiversity and Conservation  
Minor Concentration Philosophy

**Master of Science** Granted: May 2016  
Bioresource Engineering

**Nectar helps beekeepers raise more productive bees to secure our food supply.**

#### **Why Beekeeping Matters?**

A global yield of \$200B of crops such as almonds, blueberries, and canola seed depend on the pollination services provided by managed bees.

#### **The Demand for Honey Bee Pollination is Rising**

Research demonstrates that insect decline may lead to the extinction of 40% of the world's insect species over the next few decades. With wild pollinators disappearing, the demand for managed honey bee pollination has dramatically increased in the past 15 years.

#### **Beekeeping is Less Sustainable**

Honey bees are not immune to the challenges faced by their wild pollinator peers. Approximately 40% of American bee hives die each year, up from a historic average of 15%. Raising honey bees is increasingly more expensive, as they require additional inputs to cope with an increasingly hostile environment.

#### **Beekeeping Needs to Move Forward**

With an increased demand for honey bee pollination in agriculture, and an ever growing list of challenges faced by beekeepers to raise healthy bees, we need to find solutions. The lack of innovative tools accessible to the beekeeping industry is holding back its potential.

Nectar has produced a wonderful video on "How Close are We to Saving the Bees?". We invite you to view it here: <https://www.youtube.com/watch?v=B7QHnlpWsBk>



**Evan Henry , Co-Founder, CSO, Nectar**

Prior to Nectar, Evan built his own in-hive sensors while completing his Masters in Bioresource Engineering at McGill. At Nectar, he merges his passion for bees and data science by leading the development of Nectar's honey bee health algorithms.



**Marc-André Roberge , Co-Founder, CEO, Nectar**

As a beekeeper, Marc was struggling to decode his bees' language...so why not start a company to figure that out? His role is to lead Nectar towards its hefty goals while ensuring its people have everything they need in order to get there.



# nectar

#### **Let's Give Bees a Voice**

Nectar equips beekeepers with data-driven tools that help give their bees a voice in an agriculture system that sometimes can't hear them. Our goal is to disrupt conventional agriculture and build a sustainable food system where biodiversity is considered an essential factor to feeding our planet.

Some of Nectar's existing solutions include the Beecon, a wireless, bee-friendly sensor capable of measuring a hive's temperature, relative humidity, audio, and movement; the BeeHub, which transmits hive data online and services as an on-site weather station while tracking yard location; and the BeeTag is the visual representation of hives. Other features of the portal include a tool to detect if the queen bee is present in a hive, a digital map of yards, population trends, hive security, and mortality rates.

The company is currently working on providing growers key analytics to measure the impact of honey bee pollination on their crops and secure their pollination supply chain, and is currently looking to expand its team in order to improve its offering.



**Clementine Mattesco,**  
 Permaculture Design Certificate  
 (PDC), Ecological Design  
 Regenerative Entrepreneur and  
 Project Manager, Ferme  
 l'Alpakiade, Wakefield Quebec  
**BSc Agricultural and Environ-  
 mental Sciences Granted:  
 May 2019**  
 Major Global Food Security -  
 International Agriculture,  
 Distinction



**Audrey Wagner**  
 President and Founder  
 BSc Agricultural and Environ-  
 mental Sciences Granted:  
**May 2019**  
 Honours Environment -  
 Food Production & Environment  
 Minor International Agriculture,  
 Distinction  
 First Class Honours in Environment

Pursuing this academic path has allowed me to develop my passion for agroecology, sustainability and global food security. These interests have led me to become the founder and president of the McGill Permaculture Club, the co-founder of the Macdonald Permaculture Showcase Garden and the Mac Regenerative Food Hub, and of "Sprouting Minds: For The Food Revolution", an organization that facilitates interactive workshops for youth on food-related issues. As well, I am carrying out research as part of my honours thesis, analyzing data for a world-renown pioneer project in Panama on carbon sequestration and multiple ecosystem service valuation, and will be publishing a scientific article on the topic in the coming year.

## The McGill Permaculture Club and the Macdonald Permaculture Showcase Garden

The students of the McGill Permaculture Club have been up to some very interesting and amazing things over the course of this academic year. The start of this year was marked with a more involved and active executive team that has gone above and beyond to immerse permaculture into the culture of both the MacDonald and downtown campuses. Every year we kick off things with McGill Permaculture Week. This last October was our most fruitful Permaculture week to date. Whether it be workshops, panels, socials, or keynotes we received our largest turn out and support.

One workshop that we hosted was a tea making and blending event that took place in the Permaculture Garden itself. The event saw a nice mix between both downtown and Mac campus students. It was a beautiful sunny day where our resident tea and herb specialist presented different flowers, leaves, and stems that were previously processed alongside their freshly picked counterparts. The medicinal, flavor, and scent profiles were all explored, showcasing what each plant can do by itself as well as in the presence of other herbs. At the end of the workshop everyone had a general picture of how to assemble the most aromatic, flavourful, and medicinally targeted tea blends from the garden. Probably our most successful event was our market and speaker that we held in Chancellor Day Hall on the downtown campus. It was an event that provided a space for student and local artisans to showcase their jewelry, tea, food, and other natural products. After a beautiful period of conversation and socializing our panel was spearheaded by Graham Calder, the founder of the Montreal P3 Permaculture company. To cap off such a wonderful week of events, we held a potluck in the Permaculture Garden. We cooked a lot of things using all ingredients from the garden as well as the community sharing food and conversation into the evening. We were also lucky enough to have the Mac campus music club bring out a plethora of instruments for all of us to jam out and enjoy the ending of the autumn season.



## Meet our Undergrads

This past spring, three U1 students, Cordelia Dingle, Dasha Gousseva, and Megan Kern funded and planned a sustainable development agroforestry project in Costa Rica in May and June 2019. The McGill students worked with four different farmers in San Gerardo de Rivas region to plant diverse food forests. They planted over 30 species of trees, mixing local species, fruit bearing trees, and nitrogen fixers to reforest coffee plantations and land previously used by cattle. The project taught them about community outreach, animal corridors, and the importance of long-term thinking. They spent the majority of their time in Costa Rica researching local plant species, conducting interviews at farms and local markets, and – of course – tree planting. They planned and funded the project with the help of McGill’s Borderless World Volunteers and worked with the organization Cloudbridge Nature Reserve to find contacts in the area. The majority of the funding to purchase trees was through generous donations on GoFundMe.



Left to right: Cordelia, Oscar, Dasha and Megan

### **Cordelia Dingle**

Bachelor of Arts, Year 2  
Major Concentration Geography (AR) -  
Urban Studies  
Faculty Program Environment -  
Environment & Development

Hi! I’m Cordelia Dingle and I ran the documentation and media for our agroforestry project with Cloudbridge Nature Reserve and Borderless World Volunteers along with Megan and Dasha. I am a student at McGill University. I am majoring in Geography: Urban Systems with a minor in computer science and environmental studies.

Originally American, I grew up and went to school in both Montreal and Toronto. I’ve been a part of my school’s robotics team and blockchain hackathon, and well as leading Model UN and being a provincial level archer. I was originally interested in planning and being part of this project because of my interest in learning how to run, execute and document/share sustainability initiatives. I can definitely say that working directly in a community was one of the most rewarding experiences of my life.

### **Dasha Gousseva**

Bachelor of Science, Year 1  
Honours Earth System Science

My name is Dasha, and I was an agroforestry project volunteer at Cloudbridge. I am majoring in Earth Systems science at McGill University. In my hometown of Saratoga, California, I’ve spent a lot of time volunteering for environmental and educational causes: tree planting organizations, nature camps for children, tutoring, a donkey sanctuary, an ocean cleanup organization.

My most valued time is time spent away in nature, and I am highly passionate about any and every opportunity to give back to the planet! Working in the San Gerardo community on the agroforestry project was an incredibly exciting experience given the community’s openness to sustainability initiatives and our opportunity to plant so many food-providing trees!

### **Megan Kern**

Bachelor of Arts and Science, Year 1  
Interfaculty Program Cognitive Science

My name is Megan, and I’m one of three girls that worked on an agroforestry project as a volunteer while living at Cloudbridge Nature Reserve. I’m currently studying cognitive and neurosciences at McGill University, with my hometown being Cooperstown, New York where I am an active volunteer in the medical and environmental communities.

My house is set on a 30 acre apple orchard where I got my first taste of planting and caring for trees, and I jumped at the opportunity to help plant more diverse food forest systems with local farmers who will cherish them. I am passionate about causes such as this that not only give to people but also to the world around us, and I can’t wait to watch the success and developments of our project in future years!



## “Powershift: Young and Rising”

### Lucy Everett

Bachelor of Arts, Year 3

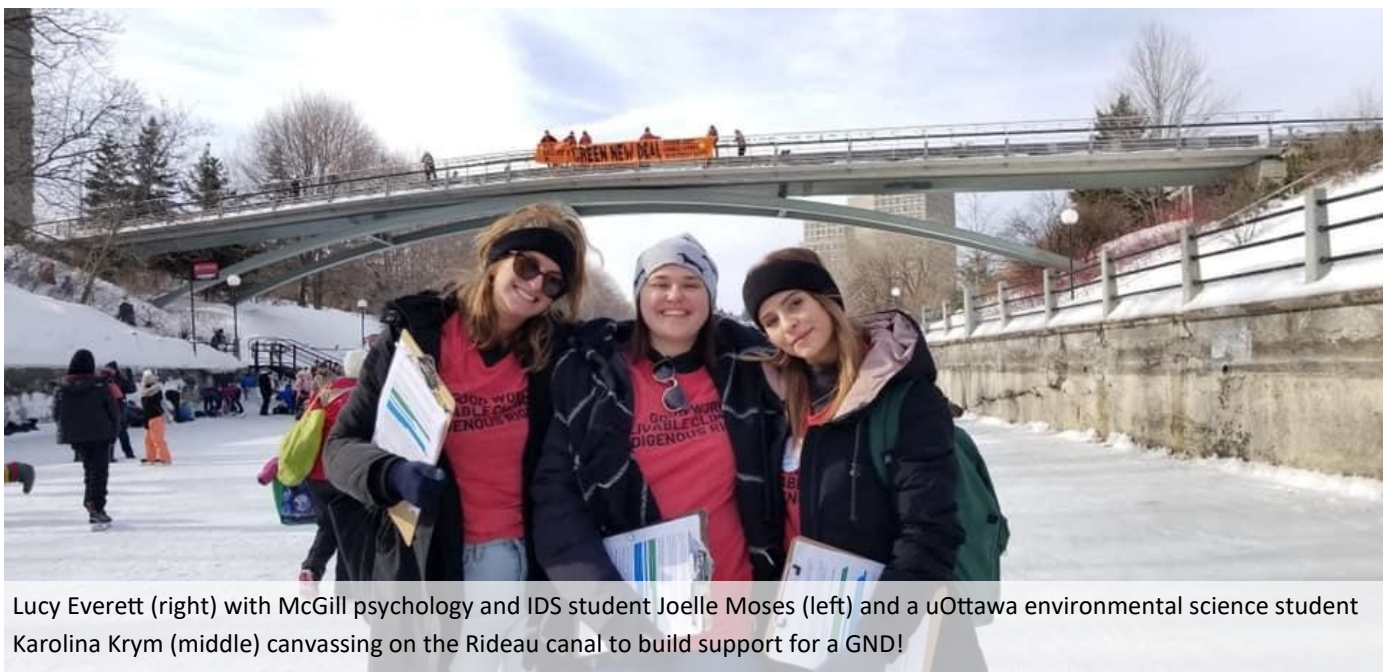
Faculty Program Environment - Environment & Development

Minor Concentration Geography (Urban Systems)

Minor Concentration Indigenous Studies

I attended a conference in Ottawa called “Powershift: Young and Rising” with other MSE and McGill students, as well as students and activists from across the country. Powershift was a youth-led conference, workshop, and rally for climate justice, Indigenous rights, and a Green New Deal in Canada. It included streams like organizing and mobilizing, non-violent direct action, digital media and storytelling, intersectional movement building, indigenous perspectives, and movement art.

We learned about the undeniable links between climate change and racism, settler-colonialism, capitalism, and imperialism, and in doing so we emerged with a more realistic understanding about what climate action and climate justice needs to look like in Canada and how we can get to that point. We discussed strategies to mobilize youth for the upcoming 2019 federal election and to ensure that our leaders actually take on climate change at the scale that the crisis now warrants. The take-



Lucy Everett (right) with McGill psychology and IDS student Joelle Moses (left) and a uOttawa environmental science student Karolina Krym (middle) canvassing on the Rideau canal to build support for a GND!

home message was that mobilizing at the appropriate scale will require organizing and action on behalf of those that care about the future of our planet, because vested interests in keeping the fossil-fuel status quo are too powerful for any meaningful change to happen without us demanding it.

And, if you’re reading this newsletter, I assume you know what’s at stake. Climate change will cost Canadians between \$21 billion and \$43 billion PER YEAR by 2050. In extreme scenarios, that cost is closer to a staggering \$90 billion. Billion, with a B. Refusing to act at scale won’t eliminate these costs, but transfer them onto the shoulders of cities, provinces, Indigenous communities, small businesses and everyday people all across Canada.

Preventing climate catastrophe will require “rapid, far reaching and unprecedented changes in all aspects of society”. The transition isn’t just from fossil fuels to renewables; we must remove the economic incentives and structures that got us to this crisis point so that we don’t fall back into the same trap in the future, while putting people over profit and making sure that everyone benefits from the necessary transition.

This conference was full of motivated people who were hungry to make this change happen. Canada’s version of the Sunrise Movement thus far is [350.org](https://350.org), so a good place to start if you want to know more or get more involved is to subscribe to their email list.

# What Will World Happiness Look Like in 2050?

**Chris Barrington-Leigh**, Associate Professor, McGill School of Environment, Institute for Health and Social Policy

It seems as though people these days are increasingly ashamed about the legacy that current generations are leaving for the future. In the face of climate change and other challenges, parents seem to question whether life will be any good for their children and grandchildren. Some say this will be a century of conflict, of desperate migration, and of increasing scarcity.

As we devote more attention to all of these concerns, and work to ensure that other species and natural systems can flourish (or just survive), I also think that it's of utmost importance to think about how life will be for humans.

So, how good will life be in 2050? Even without the huge uncertainties in environmental changes that will beset us, the scope of possible changes in biotechnology, artificial intelligence, and politics makes for an impossibly complex prediction task. It is not possible to predict the details of how life will have changed, or how happy we will be, that far in the future. Instead, this past year, Eric Galbraith and I set out to do the next best thing.

Rather than provide country-by-country predictions of whether well-being will increase or decrease over three decades, and by how much, we asked, "What is the feasible range of changes in life satisfaction by 2050?" and "What kind of policies might be responsible for those changes?" Using data on happiness from around the world over the last 13 years, we found some remarkable patterns.

Using those data, we considered two kinds of policy objectives: (1) improving only material outcomes, represented by income and life expectancy, and (2) improving only the quality of social interactions, as represented by whether people have friends and family to count on, whether they trust their government, whether they feel a sense of freedom, and whether they help others.

It turns out that policies in the future can only make a modest difference in our happiness if they are focused on increasing material outcomes.

By contrast, policies that affect our social engagement, belonging, and community have the potential to radically determine our future quality of life. If we do well at these domains, life could be as good (on average) around the world as it is now in the happiest 20 countries. On the other hand, if we let these domains erode, average life satisfaction could end up as low as it is now in countries facing severe challenges.

One way to let these supports to a good life erode is to keep talking about progress and development in terms of economic growth, rather than human experience. Economists and policymakers commonly assume that boosting economic productivity is the most effective way to make societies happier. But our analysis is able to separate the material supports for happy lives from the non-material ones, using all the changes observed in 150 countries over the last decade. What we find is that the non-material parts are where the real action is likely to be between now and 2050.



**Chris Barrington-Leigh**  
Associate Professor  
McGill School of Environment  
Institute for Health and Social Policy

If we want life for the ten billion humans living in 2050 to be as fulfilling on average as currently in the happiest 15% of countries, rather than those currently in least happy 25%, policies must focus on how we treat each other rather than how much we consume.

Our children and future generations deserve a world in which outcomes centered around humans' own experience of their lives are taken seriously, with income growth being only one useful tool to achieve them. This is attainable.

If we put dignity, self-efficacy, and community first, we'll also have a much easier time leaving behind a less battered, or even restored, natural world.

## Congratulations go out to: Elena Bennett has been named to the One Earth Advisory Board.

One Earth is the home for high-quality research that breaks down barriers and encourages collaboration in environmental change and sustainability science.

### ESs (Ecosystem Services) to Reconnect People to Nature

Elena Bennett, Associate Professor of McGill School of Environment and Department of Natural Resource Sciences, McGill University

People obtain many benefits from nature, including those we are quite aware of (such as food, water, or recreation) and those we might be less aware of (such as the fact that nutrient cycling helps maintain agricultural productivity or stores carbon to mitigate climate change).

The ES concept helps to ensure that we notice not only the services that are obvious but also the less obvious services and ecological processes that underlie the provision of these services. That is, we might appreciate the ability to swim in a cool, clear lake on a summer's day, and recognition of that, plus knowledge about where that clean water comes from, could lead to appreciation for wetlands' role in cleaning the water on its way to the lake. One way to foster deeper connections between people and nature is through experience and education - getting into nature to see with our own eyes and feel with our own bodies how ESs are provided to us is a great start. Add to that cognitive knowledge about where services come from and how they are linked together, and we start to build a system that fosters a deeper connection to nature - one that moves from material and experiential connections to deeper cognitive, emotional, and philosophical ones.

Education to promote greater awareness of the role that both nature and people play in the provision of ESs is an important first step toward helping people build the connection between the lake they love and the wetlands they need.

*One Earth 1, September 20, 2019, Published by Elsevier Inc.*

## \$5.5M Support for New Canadian Ecosystem Service Network (NSERC ResNet)

*By Meaghan Thurston, Senior Communications Officer, McGill Office of Research and Innovation, partial reprint McGill Reporter, September 2019*



*"I'm thrilled that NSERC has given me the opportunity to work with this truly exceptional and diverse team of academic, government, and industry scientists," said Bennett. "By working together in a series of landscapes across this vast country, we will be able to find the common threads that link Canada's working landscapes to improve their resilience and sustainable management."*

Protecting Canada's vast wealth of natural resources, which contribute significantly to our national economy, will depend on our ability to manage ecosystems and all the services they provide for human well-being now and in the future. Leading sustainability scientist, **Elena Bennett**, Associate Professor in the McGill School of the Environment and Department of Natural Resource Sciences, **has assembled a network of researchers** to ensure that Canada's working landscapes - land actively used for production of resources such as food - remain biologically diverse, resilient, and adaptive.

The Natural Sciences and Engineering Research Council of Canada (NSERC) has announced \$5.5 million for **NSERC ResNet**: A network for monitoring, modeling, and managing Canada's ecosystem services for sustainability and resilience, to conduct research through a partnership between academics, industry and government organizations. Funded by the Strategic Partnership Grant Program, contributions from McGill and partners bring the total investment to more than \$9 million over five years. NSERC ResNet brings together 26 co-applicants from 11 universities, 30 collaborators, and 17 partner organizations.

"McGill is very proud to lead this vital network, which will ensure Canada pioneers the adoption of technologies and policies that allow humans to thrive while protecting the ecosystem services of global landscapes," said Martha Crago, Vice-Principal, Research and Innovation. "Thank you to the Government of Canada for this significant investment and congratulations to Professor Bennett."

Bennett's network of researchers will monitor and model ecosystem services – the benefits people obtain from nature – in six working landscapes across Canada, including Quebec. In addition to food, energy and timber, Bennett's research will focus on ecosystem services such as carbon storage, flood regulation, recreation and spiritual enhancement. In each landscape, NSERC ResNet will launch a series of investigations, co-designed with local industry, government, NGO, and Indigenous partners and other stakeholders, into the provision, modelling, and governance of multiple ecosystem services in Canada's important working landscapes.





**Kevin Manaugh**, Associate Professor, McGill School of Environment and the Dept. of Geography, for obtaining the status of “Associate Professor” at McGill University. Kevin studies the environmental, economic, health, and safety impacts of transportation systems. He is particularly interested in how cities can plan for increased use of active modes of travel with a focus on how infrastructure and policy decisions impact different members of society. He co-leads the McGill Sustainability Systems Initiative (MSSI) *Adapting Urban Environments for the Future*, a multi-disciplinary effort to understand urban sustainability.

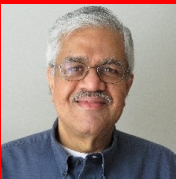


**Iwao Hirose**, Professor, McGill School of Environment and the Dept. of Philosophy, for obtaining the status of full “Professor” at McGill University.

Iwao is also a recipient of the Kitty Newman Memorial Award and an inductee into the Royal Society of Canada’s College of New Scholars, Artists and Scientist.

**The Kitty Newman Memorial Award** was endowed by Dr. Jay Newman, FRSC, in 2007 to be awarded to an outstanding emerging Canadian scholar in the field of philosophy. The award is given for excellence in the field, which is broadly understood to include philosophy of culture, religion, law, ethics, and logic, or any other branch of philosophy deemed appropriate by the committee.

**The College of New Scholars, Artists and Scientists** is Canada’s first national system of multidisciplinary recognition for the emerging generation of Canadian intellectual leadership. The Members of the College are Canadians and Permanent Residents who, at an early stage in their career, have demonstrated a high level of achievement. The criteria for election is excellence, and membership is for seven years.



**Madhav Badami**, Associate Professor, McGill School of Environment and the School of Urban Planning, was recently invited to serve on the Advisory Council for the WRI Ross Prize for Cities (<http://www.wrirosscities.org/prize/advisory-council>) for the inaugural prize 2019.

With the generous support of visionary business leader and philanthropist Stephen M. Ross, WRI Ross Center is awarding \$250,000 to a transformative project that has ignited citywide change.

Transformative projects change the form and function of urban economies, environments and communities. They open our eyes to new possibilities by overcoming bottlenecks, leveraging investments, or offering new and scalable approaches to solving well-known problems. They impress hope and excitement. And their impact extends beyond the initial site or intervention, catalyzing positive change throughout a neighborhood or city.



**George McCourt**, lecturer at the McGill School of Environment, has been awarded the Catalyst Award for Distinguished Contribution to Sustainability 2019 . The Distinguished Contribution Award recognizes an administrative and support and/or academic staff member who has made a profound, sustained, and cumulative contribution to advancing sustainability in the larger McGill community.

"George is a senior faculty lecturer at the McGill School of Environment and in the Faculty of Agricultural and Environmental Sciences and has served as an original member of the Sustainability Projects Fund working group. He has provided guidance to many applied student research projects and integrated investigating on-campus sustainability case studies into course curriculums. Along with being well-known for bringing humour and unique perspectives to teaching, he has been recognized in the past with accolades such as the 2007 Principal’s Award for Excellence in Teaching, the 2013 Faculty of Agricultural and Environmental Science Outstanding Teaching Award, and the 2013 Catalyst Award for Staff Contribution to Sustainability."

*Reprinted from the Mac Connections, April 2019.*

## Renée Sieber, Associate Professor, McGill School of Environment and the Dept. of Geography, for being named a “Fellow” by the American Association of Geographers.

The [AAG Fellows](#) is a program, started in 2018, to recognize geographers who have made significant contributions to advancing geography.

In addition to honoring geographers, AAG Fellows will serve the AAG as an august body to address key AAG initiatives including creating and contributing to AAG initiatives; advising on AAG strategic directions and grand challenges; and mentoring early and mid-career faculty. Similarly to other scientific organizations, the honorary title of AAG Fellow is conferred for life. Once designated, AAG Fellows remain part of this ever-growing advisory body.

Renée researches the use and value of information and communications for social change. Over the past two decades, she has made a major contribution to the field of Geography through her sustained interest in participatory and collaborative applications of Geographical Information Systems and Science. Sieber examines applications in geographic information systems for and by poor communities, social movements (particularly the environmental movement), and indigenous groups. Renee has been active in introducing Participatory GIS to an international audience. She was a founding committee member of the AAG Digital Geographies Specialty Group and recently served as co-chair of the international GIScience 2016 conference.

Renee’s publications span a range of GIS applications including tourism, the humanities, rural economic development, semantics, and crowdsourcing data. She has received grants from NASA/Goddard Institute for Space Studies, numerous grants Social Sciences and Humanities Research Council of Canada, and Canadian Foundation for Innovation, among others.

For her excellence in the discipline, she received the Canadian Association of Geographers (Geographic Information Systems and Science Special Interest Group): Lifetime Achievement and GIScience Excellence Award.

We are therefore pleased to bestow upon Renee Sieber the title of AAG Fellow.



## Dare2Wear

McGill Students for UNICEF

By **Jeanne-Armelle Uwiringiyimana**

B.Sc. Agricultural and Environmental Sciences, Year 2

Major Life Sciences (Biology & Agricultural Sciences) - Life Sciences (Multidisciplinary)

Minor Psychology

UNICEF does a fundraiser every year called Dare2Wear. This is where professors dress up as a character to raise funds for different causes. It is usually a fun-filled affair where students enjoy seeing their Professors in a different light.

This year Dare2Wear was fundraising for Rohingya refugees whose plight has been dominating newspapers, as we know. Together, with professors downtown, we had our very own Prof. McCourt participate.

When approached about this he agreed to willingly participate and pulled together an amazing Dumbledore costume; his ENVR 200 students donated towards the cause as they enjoyed Dumbledore giving them a lecture.

It would be great to have more professors participate in this fundraiser as I believe it is great way to enjoy Halloween and is certainly fun for the students.



# Congratulations to the 2018 Science Undergraduate Research

## Conference Prize Winners!

### Jed Lenetsky

U3 student in the Bachelor of Arts and Science degree

Honours Environment with a Minor in Geographical Information Systems & Remote Sensing

Earth System Science  
1st prize: Jed Lenetsky

Project: The inter-annual variability and predictability of the Bering Strait heat flux and sea ice extent in the Chukchi Sea

Supervisor: Prof. Bruno Tremblay  
Nominated by: McGill School of Environment



### Jayden Rae

U3 student in the Bachelor of Arts degree

Faculty Program Environment - Environment & Development domain with a Minor Concentration in Political Science

Behavioural Sciences, Psychology, & Social Sciences  
1st prize: Jayden Rae

Project: Public Policy Reforms to Reduce Pollution and Waste from Plastic Bags in the City of Toronto

Supervisor: Prof. Julia Freeman  
Nominated by: McGill School of Environment



There was a third MSE student who submitted a poster presentation. Although she did not win a prize in her category, her work/poster was excellent and deserves a special mention.

### Miranda Hunter

U3 student in Bachelor of Science degree

Honours Environment – Water Environments & Ecosystems (Physical) domain with a Minor in Atmospheric Science

Supervisor: Prof. Nigel Roulet, Dept. of Geography



**Kabisha Velauthapillai**  
Bachelor of Science Granted:  
May 2018

Honours Environment - Ecological Determinants of Health Domain - Population  
Minor Interdisciplinary Life Sciences Distinction  
First Class Honours in Environment  
**Master of Science**  
Epidemiology (Thesis) , Year 2

### Library Undergraduate Research Awards

The McGill Library Undergraduate Research Awards were established in 2018 to promote the use of library services and resources in undergraduate research projects.

The awards are presented to undergraduate students who best demonstrate their use of library services and resources in the creation of a research project or creative work and who demonstrate an excellent understanding of the connection between research and library services and resources.

#### **Congratulations go out to Kabisha for winning the Sciences and Engineering First Prize**

Kabisha Velauthapillai, Environmental Studies, for her Honours Thesis entitled "*Environmental concerns within Montréal's Ilankai Tamil community: A tentative report*"



**Cover Photo: Victoria Brigitte Lean, Film Producer**  
**2017 Donald Brittain Award For Best Social/Political**  
**Documentary Program: After the Last River**

**Bachelor of Arts Granted: October 2008**

Joint Honours Component English - Cultural Studies  
Joint Honours Component International Development Studies  
Minor Concentration in Environment

Dean's Honour List

First Class Joint Honours in English

First Class Joint Honours in International Development Studies

*(in Polar Bear Provincial Park)*



**The MSE is:**

**Director - Sylvie de Blois (Plant Science)**

**Faculty Members:**

**Madhav Badami (School of Urban Planning)**

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

**Elena Bennett (Natural Resource Sciences)**

**Peter G. Brown (Geography)**

**Jeffrey Cardille (Natural Resource Sciences)**

**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)**

**Raja Sengupta (Geography)**

**Renée Sieber (Geography)**

**Ismael Vaccaro (Anthropology)**

**Hamish van der Ven (Political Science)**

**Faculty Lecturers:**

**Julia Freeman**

**George McCourt**

**Kathy Roulet**

**Staff:**

**Danielle Lefebvre**

**Shannon Scott**

**Christina Zhu**

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