ESAC · ACÉE

Environmental Studies Association of Canada

l'Association canadienne d'études environnementales

2025 ANNUAL CONFERENCE

Program and schedule

June 1st to June 3rd 2025

George Brown College, Toronto

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CONFÉRENCE ANNUELLE 2025

Programmation et horaire

1er au 3 juin 2025

George Brown College, Toronto

congress 2025
OF THE HUMANITIES AND SOCIAL SCIENCES
Reframing togetherness

congrès 2025
DES SCIENCES HUMAINES
Redessinons le vivre-ensemble

environmental & urban change

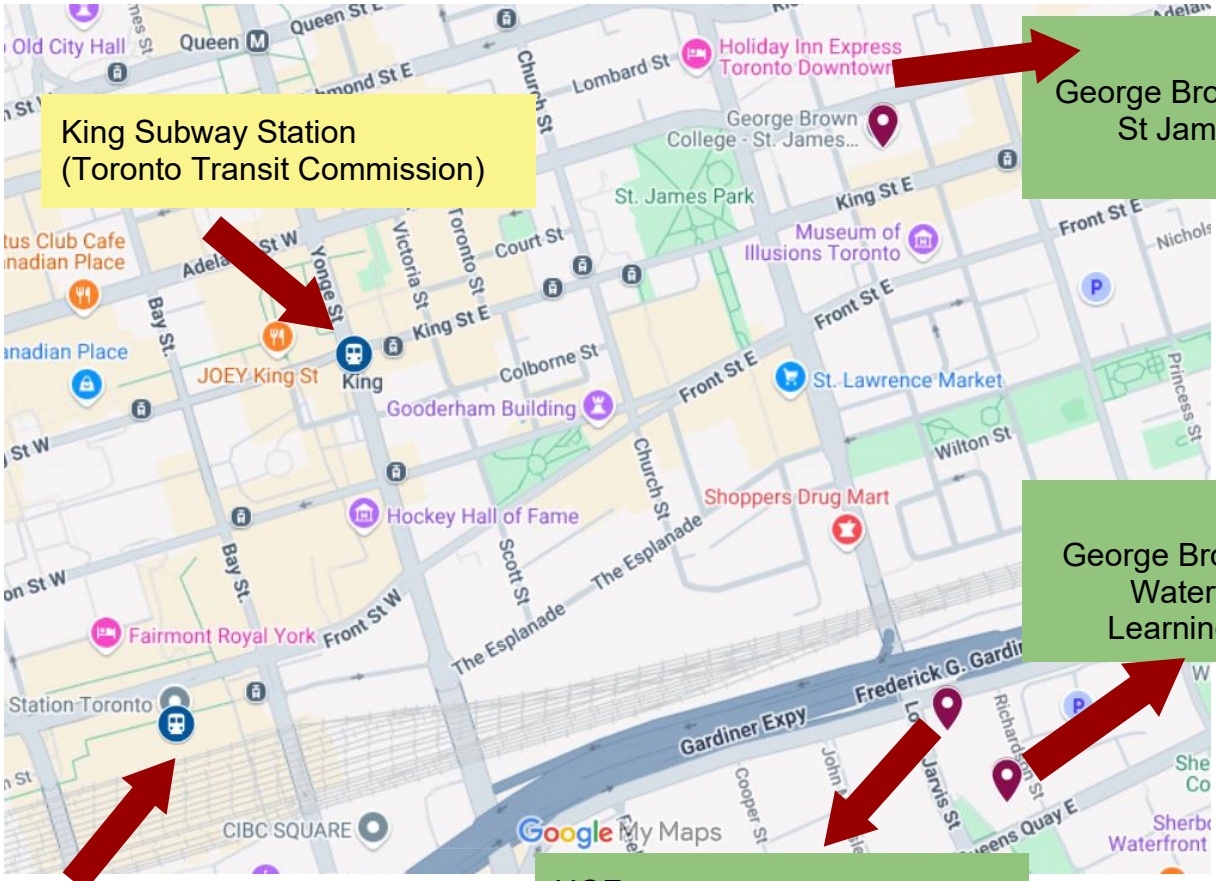
YORK UNIVERSITÉ UNIVERSITY

Université de l'Ontario français

Schedule at a glance | L'horaire en un clin d'œil

Time	DAY 1 – JUNE 1st			DAY 2 – JUNE 2nd			DAY 3 – JUNE 3rd	
	SJA-611	SJA-609	SJA-613	SJA-611	SJA-613	UOF – 229B	SJA-611	WFL-808
9h-10h	Keynote: Ashoke Mohanraj: Caring is Cool: Reframing Togetherness for a New Generation			Keynote Patricia Elaine Perkins: Canada, the IPCC, and Climate Justice			Keynote Sharon Stein: Gesturing Towards Decolonial Futures Collective	
	BREAK			**BREAK**			**BREAK**	
10:30h-12h	Technology in Sustainability: Video Games, Remote Sensing, Apps, and Entrepreneurship	Housing, Ecological Footprint and Environmental Inequality	Communities of Care, Ecotheology and Transdisciplinarity in Environmental Studies	Thinking Agriculture: Urban farming, Energy and Climate in Agroecological Transformation	Workshop: Cultivating Inner Sustainability in an Age of Global Disruption		Thinking Agriculture: Waste Management, Taxes and Data Ownership	Joint Session ESAC-CSA: Biodiversity and Society *At WFL-808, 11h to 12h30
12h-13h	**LUNCH**			**LUNCH**			**LUNCH**	
13h-14h30	Co-Creation and Innovation in Participatory Research	Public Knowledge, Resilience, Drivers and Exclusion in Climate Change	How are we doing? Eco-grief, anxiety and climate change	Virtual Workshop: Climate Circle Host Training	Educating and Educators: Violence, Participant Experiences and Land-Based Learning		Editing Your Own Work: A Five-Step Approach	
	BREAK			**BREAK**			**BREAK**	
14h40-16h10	Theory in Practice: Wisdom, Change, and Values	Thinking Politics: Environmental Management, Cooperation and Scales of Justice	Theory in Practice: Planetary Thought, Nature, and -Isms	Climate Circle Host Training	Setting the Scenery: Environmental Health, Aesthetic and Memory	Environnement et Innovation Sociale *At UOF 229B	Special Panel: Fortaleciendo el bienestar social y ambiental a través de colaboración e innovación interdisciplinaria en el estado de Sinaloa, México	
	BREAK			**BREAK**			Keynote events	
16h20-17h50	The Multicrisis Requires MultiSolving (And That Means Working Together)	Information and Regenerative Farming: Understanding Sustainability	Co-Working Space	Energy Transition: Challenges, Impacts, and Implementation in Canada and Abroad	Meatspeak: Mapping Animal Agriculture's Global Disinformation Campaign	Espaces publics et Écocitoyenneté *At UOF 229	Off-site events Special sessions Networking event	
18h-19h				**BREAK**				
19h-20h	Networking night *Room SJA-246E, 18h to 19h30			Annual General Meeting *At UOF 229B, 19h to 20h				

- Most events are at the GBC St James Campus.
- All keynotes will be in SJA-611.
- Events at UOF will be in room 229B, at 9 Lower Jarvis Street.
- The Joint ESAC-CSA session will be at the GBC Waterfront Campus.



Congress Plan Your Trip: https://www.federationhss.ca/en/congress/plan-your-trip

Estimated Walking Time:

- King subway station to SJA: 8-10 mins walk
- SJA to UOF: 11-13 mins walk
- SJA to WFL: 15 mins walk

Public Transit:

King Station on the Yellow Line is the closest subway station to the conference. Union Station is also nearby. You can use Google Maps to see additional Toronto Transit Commission bus routes connecting the subway stations to the conference locations.

- Toronto Transit Commission (local to Toronto): https://www.ttc.ca/
- GO Transit (travel within the Greater Toronto Area): https://www.gotransit.com/en
- Via Rail (travel across Canada): https://www.viarail.ca/en

Except when otherwise stated, events at the conference in English. Sauf quand d'autres langues sont précisées, les événements de la conférence sont en anglais.

Keynote presentations | Plénières

Day 1 June 1st – 9am | Jour 1 1er juin – 9h
SJA-611 (in person/hybrid)

Keynote Ashoke Mohanraj: Caring is Cool: Reframing Togetherness for a New Generation

In a time of deep division, how do we bring people back together? Ashoke Mohanraj, environmental storyteller and advocate, explores how we can tackle polarization not by arguing harder, but by connecting deeper. Through universal themes like friendship, courage, and caring, and using accessible mediums like animation, film, and children's books, Ashoke shows how we can reach across generations, cultures, and ideologies. His work, including the upcoming animated series, Dolphin Dude, reminds us that everyone, from kids to policymakers, can find common ground when we speak to what makes us human. This keynote is a call to reframe togetherness as something joyful, creative, and powerfully unifying.

> *Ashoke Mohanraj is the author of Pollinator Man and is an instructor and law student. He was also named Top 25 Environmentalists Under 25 by Starfish Canada.*

Day 2 June 2nd – 9am | Jour 2 2 juin – 9h
SJA-611 (in person/hybrid)

Keynote Professor Patricia Elaine Perkins: Canada, the IPCC, and Climate Justice

Canada is the world's ninth-largest economy, and is generally ranked as one of the world's best countries to live in. Canada's GDP per capita is 22nd in the world. But Canada's greenhouse gas emissions per capita and our carbon footprint per capita are among the highest in the world. From a climate justice perspective, reducing our emissions is a moral imperative.

Some Canadian academics participate in the Conferences of the Parties (COPs) of the United Nations Framework Convention on Climate Change (UNFCCC), or work with the Intergovernmental Panel on Climate Change (IPCC) to distil climate science, mitigation and policy research for policy-makers worldwide. Others are mobilizing for stronger and more effective climate policies here in Canada, to reduce both consumption-related and production-related emissions. Canadian scholars produce outstanding research on the diverse impacts of climate change, from melting ice, permafrost and methane releases to droughts, wildfires, floods, extreme weather events, changing biomes and habitats, food and health impacts, and climate models. Grassroots movements are laying the political-ecology groundwork for stronger public commitment to an equitable post-fossil fuel transition. Indigenous activism stopped or delayed greenhouse gas pollution equivalent to at least one-quarter of annual US and Canadian emissions between 2011 and 2021.

All this and more, within and beyond academia, is symbiotic and necessary -- especially as political chaos and economic harms draw attention away from the ongoing climate multi-crisis.

> Patricia Elaine Perkins is Professor at York University in the Faculty of Environmental and Urban Change.

Day 3 June 3rd – 9am | Jour 3 3 juin – 9h
SJA-611 (recorded)

Keynote Professor Sharon Stein: Gesturing Towards Decolonial Futures Collective

This keynote invites an inquiry about the fractured relations at the root of the climate crisis, and how we might begin to repair them. Grounded in the work of the Gesturing Towards Decolonial Futures Collective, it asks: What would it take for us to compost the inherited separations between human and more-than-human worlds that have led us to breach the Earth's biophysical boundaries – and to threaten our own futures in the process? How might we move away from top-down, technical climate "solutions" and instead learn to coordinate responses informed by multiple forms of intelligence –

human, more-than-human, and machine? And what meta-relational dispositions and capacities could enable us to meet the complexities and uncertainties of the climate crisis in ways that fulfil our intergenerational and interspecies responsibilities?

Sharon Stein is Associate Professor and Professor of Climate Complexity at the University of British Columbia and Co-Founder of Gesturing Towards Decolonial Futures Collective.

Special sessions | Sessions spéciales

Day 1 June 1st – 1pm | Jour 1 1er juin – 13h
SJA-611 (virtual/in person)

Co-Creation and Innovation in Participatory Research

Participatory research has been at the forefront of equitable and ethical research. This session brings forward the experiences of three scholars and practitioners in Indigenous participatory research: Prof. Smiles, University of Victoria, Dr. Ducharme, Centre for First Nations Governance, and Dr. De Wildt, Queen's University. From planning research projects to establishing meaningful partnerships, the discussions will delve into the intricacies of the academic world in shaping the future of collaborative research.

Participants: Dr. Niiyokamigaabaw Deondre Smiles, University of Victoria ; Dr. Mason Ducharme, Rebuilding First Nations Governance Project ; Saskia De Wildt, Queen's University

Day 1 June 1st – 4:20pm | Jour 1 1er juin – 16h20
SJA-611 (in person/hybrid)

The Multicrisis Requires MultiSolving (And That Means Working Together)

We are unequivocally in tumultuous times due to the many complex systems that are braking down. Our ecological, economic, social and political systems are each failing - and exacerbating the strain on one another. When dealing with this kind of complexity there is very little certainty about how to most effectively intervene. One thing we do know for certain is that we must work together and try to solve multiple problems at once. Join us for this interactive workshop on how to identify areas of high leverage and the allies you will need to start multisolving - regardless of what problems you are tackling.

This special session will be hosted by Olivia Gonzalez of Common Earth.

Day 2 June 2nd – 10:30am | Jour 2 2 juin – 10h30
SJA-613 (in person)

Cultivating Inner Sustainability in an Age of Global Disruption

This panel explores how personal resilience, emotional intelligence, and spiritual grounding are essential components of sustainable responses to global crises. Speakers will share insights from psychology, contemplative practices, and systems thinking to show how inner development can support outer transformation. Together, we'll examine how nurturing inner sustainability can help individuals and communities navigate uncertainty with clarity, compassion, and purpose.

This special session is hosted by Dr. Kira Cooper, University of Waterloo; Prof. Leslie Jeffrey, University of New Brunswick Saint John

Day 2 June 2nd – 1:00pm | Jour 2 2 juin – 13h
SJA-611 (virtual/hybrid)

Climate Circle Host Training

A Climate Circle provides a safe virtual space for individuals taking action to address climate change and environmental degradation. It gives a chance to offload some of the emotional weight we may take on during our daily activities, and cannot talk about in the workplace or with our friends and relatives. It provides an opportunity to share openly about injustice, exhaustion, frustration, grief, but also joy, hope and critical experiences, within a supportive community of purpose. Circles gather climate-conscious citizens, climate workers (e.g. students, professionals, activists) from various generations, any parts of the world and from fields as diverse as arts, science, education, tech, industry, finance, community organizing, as well as social and humanitarian work.

Please note that this is a 3-hour training event hosted from 1pm to 4pm. In order to receive certification, you must attend the full 3 hours. The training will be hosted by Laureline Simon of One Resilient Earth.

Day 3 June 3rd – 1pm | Jour 3 3 juin – 13h
SJA-611 (in person/hybrid)

Editing Your Own Work: A Five-Step Approach

It's hard to edit your own writing, especially when your deadline is looming. This session introduces a step-by-step approach that will enable you to see your own words through a series of lenses that bring a fresh perspective to your writing. You'll learn to use x-ray vision—that is, a way to look through the content of your own text, to see

through to its structure. By editing at a structural level, you'll be able to see what you've actually written—not what you think is on the page—and make strategic choices about the 'rules' you want to follow and the ones you want to break. Participants will leave this session with a set of concrete actions that they can take to effectively edit their own work and make it tighter, more efficient, and more readable.

> *Letitia Henville (she/her), PhD, is a book nerd, a bad swimmer and editor of academic writing. She writes the monthly academic writing advice column "Ask Dr. Editor." Her resources for academics can be found at shortishard.com; in June 2022, she launched writingwellishard.com, a free comparative text analysis tool to empower academic writers to make informed choices about how they convey their ideas.*

Day 3 June 3rd – 2:40pm | Jour 3 3 juin – 14h40
SJA-611 (in person/hybrid)

Fortaleciendo el bienestar social y ambiental a través de colaboración e innovación interdisciplinaria en el estado de Sinaloa, México | Strengthening social and environmental well-being through interdisciplinary collaboration and innovation in the state of Sinaloa, Mexico

Este panel especial reúne a cinco académicos del estado de Sinaloa, México para discutir los retos y oportunidades de abordar problemáticas socio-ambientales de manera colaborativa en la región. La discusión integrará las diferentes áreas de especialidad de los participantes, incluyendo la degradación de terrenos agrícolas, contaminación de áreas costeras y pesqueras, y desechos tóxicos de la minería. Los panelistas concluirán la conversación compartiendo su experiencia trabajando juntos en proyectos de investigación que reúnen diversas disciplinas para crear soluciones ambientales.

This special panel gathers five scholars from the state of Sinaloa, México to discuss the challenges and opportunities of addressing regional socio-environmental issues collaboratively. The discussion will integrate the different areas of expertise of the participants, including agricultural land degradation, contamination of coastal areas and fisheries, and toxic releases from mining. The panelists will conclude the conversation by sharing their experience on working together on research projects that bring together diverse disciplines to create environmental solutions.

> *This session will be chaired by Ignacio Aguilar Vargas with participation from Prof. Magdalena Elizabeth Bergés Tiznado,* Universidad Politécnica de Sinaloa*; Prof. Jesús Armando León Cañedo,* Universidad Autónoma de Sinaloa; *Prof. Arturo Alfonso Fernández Jaramillo, Universidad Politécnica de Sinaloa; Prof.*

Marcela Guillermina Fregoso López, Universidad Nacional Autónoma de México; and Prof. Carmen Cristina Osuna Martínez, Universidad Autónoma de Sinaloa.

Networking event | Évènement de réseautage

Day 1 June 1 – 6pm | Jour 1 1er juin – 18h
SJA-246E (in person only)

Networking event (Bilingual)*

ESAC is proud to host our 2025 Networking Night. This event is an opportunity for our members and the wider Congress community to come together, exchange, and meet one another over food and drinks. Join us for opportunities to network in French and English. Thank you to York's Faculty of Environment and Urban Change for supporting this event.

Évènement de réseautage (Bilingue)*

L'ACÉE est fière d'organiser sa soirée de réseautage 2025. Cet événement est l'occasion pour nos membres et la communauté élargie du Congrès de se réunir, d'échanger et de se rencontrer autour d'un repas et de boissons. Rejoignez-nous pour des opportunités de réseautage en français et en anglais. Merci à la Faculty of Environment and Urban Change de l'Université York pour son soutien.

Annual General Meeting | Assemblée générale annuelle

Day 2 June 2 – 7pm | Jour 2 3 juin – 18h
229B at UOF (in person/hybrid)

Annual General Meeting (Bilingual)*

ESAC Members are invited to attend this year's Annual General Meeting. The AGM will be hybrid (Zoom). We will report on ESAC's activities in the past year and look forward to hearing from members! You must be an active ESAC member to attend the AGM. Registration is mandatory:
https://docs.google.com/forms/d/e/1FAIpQLSfY6ySS_qZAD79iDNjgamNn9m7PFKngIRH6Usz0PzkkVw6xoQ/viewform?usp=dialog

Assemblée générale annuelle (Bilingue)*

Les membres de l'ACÉE sont invités à participer à l'assemblée générale annuelle de cette année. L'AGA se déroulera de manière hybride (Zoom). Nous présenterons un rapport sur les activités de l'ESAC au cours de l'année écoulée et nous attendons avec impatience les commentaires des membres ! Vous devez être un membre actif de l'ACÉE pour assister à l'AGA. L'inscription est obligatoire :
https://docs.google.com/forms/d/e/1FAIpQLSfY6ySS_qZAD79iDNjgamNn9m7PFKngIRH6Usz0PzkkVw6xoQ/viewform?usp=dialog

Panel sessions | Panels de présentations

DAY ONE – JUNE 1st

Technology in Sustainability: Video Games, Remote Sensing, Apps, and Entrepreneurship
Day 1 June 1st, 10:30am – SJA-611

Chair : Kira Cooper

Cynthia Wing Nga Lam	"Congratulations! You Unlocked 'Nature'!": Exploring Ecological Learning in Video Games
Alissa Gallizzi; Weltha. E. Grant, Savannah Spring	Digital Nature or Nature Disconnect? The Potential and Limitations of Biodiversity Apps in Nature Connection During Adolescence
Victoria MacKay-Coutu	The UNLEASH Innovation Hack: Impacts on Youth and Purpose-Based Entrepreneurship

"Congratulations! You Unlocked 'Nature'!": Exploring Ecological Learning in Video Games Cynthia Wing Nga Lam (Western University)

While many video games are intentionally designed to teach sustainability or climate crises, some games, even without an explicit ecological focus, can still promote ecological learning. Using video games from various platforms, such as Animal Crossing, Natsu-Mon, Afrika, Ecosystem, and Flower as primary sources, this paper explores how video games can promote environmental awareness and appreciation in unexpected and meaningful ways. By categorizing these games into three layers of ecological engagement, the research reveals their potential to deepen the gamers' connection to the natural world. The first layer examines games that provide informative knowledge, introducing players to diverse species and ecosystems while encouraging curiosity about biodiversity. The second layer considers interaction with nature, highlighting how gameplay mechanics immerse players in ecological systems, albeit often from an anthropocentric lens. Finally, the third layer focuses on games that allow gamers to momentarily embody nature itself with a non-anthropocentric mindset. This paper argues that, through analysis, video games can act as powerful tools for cultivating ecological literacy, even when not intentionally designed for such purposes. By leveraging immersive narratives and interactive environments, these games enable players to develop a greater understanding of nature, thereby contributing to a reframing of togetherness with the environment.

Digital Nature or Nature Disconnect? The Potential and Limitations of Biodiversity Apps in Nature Connection During Adolescence Alissa Gallizzi (University of Waterloo); Weltha. E. Grant (University of Waterloo) and Savannah Spring (University of Waterloo)

My MES research explores how biodiversity apps, like iNaturalist, influence adolescent engagement with local flora and fauna. With youth experiencing fewer traditional nature interactions, these apps offer accessible nature knowledge but may also mediate direct experiences. This study investigates how technology affects nature connection, focusing on identification, care, and curiosity about local species.

I aim to understand the emotional and experiential impacts of biodiversity apps on adolescents and provide recommendations for enhancing meaningful connections without replacing real-world interactions. Using a mixed-methods approach, I will collect quantitative data through the Environmental Identity (EID) Scale and the Inclusion of Nature in Self (INS) Scale, measuring emotional and cognitive connections to nature. Additionally, a qualitative photovoice method will capture participants' interactions with local species, explored further through photo-elicitation interviews.

Approximately 200 adolescents (ages 10-19) will be recruited from outdoor education centres and youth organizations in the Greater Toronto Area. This research will offer actionable insights into balancing digital and real-world nature experiences, informing environmental education practices. Findings will be shared through presentations, a co-authored academic article, and contributions to educational curricula, supporting meaningful human-nature relationships and promoting sustainability.

The UNLEASH Innovation Hack: Impacts on Youth and Purpose-Based Entrepreneurship

Victoria MacKay-Coutu (Algoma University)

Significant research has been conducted on various methodologies and processes for advancing progress towards sustainability from both local and global lenses occurring in a controlled academic or institutionalized setting. One of the overlooked yet imperative challenges is to consider how physical spaces influence the emergence of novel innovations across scales; specifically, how solutions are limited, influenced, or supported by specific institutional narratives and frameworks. To inform this theoretical gap, we conducted a case study analysis at a scholarly research symposium. Our research explored the impacts of academic settings for fostering transdisciplinary innovations, collaborations, and shared learning. We employed ethnographic and participant observation research methods to guide the study. Semi-structured conversations between symposium attendees were captured using audio recording devices and then later transcribed to analyze themes, quotes, ideas, and proposed solutions to social and ecological issues. Insights that emerged from this study illustrate the importance of non-conventional settings for nurturing rich discussions and innovative solutions for sustainability primarily as a result of reduced social and institutional barriers that exist in conventional academic settings. We conclude this study by offering implications and lessons learned for future offerings to reduce systemic barriers that hinder innovative solutions for local sustainability challenges.

Housing, Ecological Footprint and Environmental Inequality
Day 1 June 1st, 10:30am – SJA-609

Chair : Tara Wood

Cheryl Green; Ian Rolston	Housing as Reconciliation: Building Climate-Resilient Futures in Canada's Arctic
Kaitlin Pal	Ecological Footprint and Biocapacity in Canada’s Protected Areas: A Case Study of Ontario’s Greenbelt
Kevanya Simmons; Stephanie Rutherford, Michael Classens	Examining Environmental Inequality in Peterborough/ Nogojiwanong through Photovoice
Asana Farshchi; Michael Classens	Mapping Environmental (In)Justice Together: Participatory GIS and Community-Driven Knowledge in Nogojiwanong/Peterborough

Housing as Reconciliation: Building Climate-Resilient Futures in Canada's Arctic

Cheryl Green (OCAD University) and Ian Rolston (OCAD University)

This study explores the intersection of environmental justice, sustainable livelihoods, and climate resilience in the context of housing in Canada’s Arctic. The research examines how climate change exacerbates existing housing crises in Inuit communities, highlighting systemic inequities and barriers to sustainable development. Using a foresight-driven approach, the study applies scenario planning methodologies to envision alternative housing futures in Nunavut by 2043. The research question focuses on how Inuit communities can achieve resilient, culturally informed housing solutions despite accelerating climate change and governance challenges. Key objectives include assessing the impact of permafrost

thaw on housing infrastructure, evaluating Indigenous self-determination in housing policies, and identifying sustainable, community-led solutions.

Findings reveal that without urgent intervention, climate-induced infrastructure collapse will deepen housing precarity, further marginalizing Inuit populations. However, scenarios of resilience emphasize the potential for Indigenous-led governance, sustainable architecture, and policy shifts that support self-determined housing futures. The study underscores the need for immediate investment in climate-adaptive infrastructure, co-governance frameworks, and culturally responsive housing policies. By integrating foresight and Indigenous knowledge systems, this research advocates for a transition toward equitable, sustainable housing that supports both environmental resilience and social justice.

Ecological Footprint and Biocapacity in Canada's Protected Areas: A Case Study of Ontario's Greenbelt Kaitlin Pal (York University)

This study investigates Biocapacity and economic frameworks (I=PAT) as tools for assessing the ecological significance of protected areas in Canada, specifically Ontario's Greenbelt. Biocapacity quantifies biological productivity within an area and is measured in global hectares (gha). The I=PAT framework illustrates the pressures that Ontario's Ecological Footprint exerts on the Greenbelt's ecosystems as it relates to population, affluence, and technology. By making future projections of economic indicators and Ecological Footprint, this project seeks to inform land-use policy and decision-making regarding protected areas.

To calculate Biocapacity, geospatial data from the Southern Ontario Land Resource Information System (SOLRIS) v. 3.0 was used to map land classifications within the Greenbelt's boundaries. From this, the hectares of land and corresponding Biocapacity were calculated based on the parameters outlined in the Ontario Ecological Footprint and Biocapacity Report. By combining Ontario's Ecological Footprint with the I=PAT components derived through secondary data collection, the framework projects future scenarios, highlighting potential impacts.

The results of this case study highlight the Greenbelt's biological productivity, with 2.2 million gha of Biocapacity distributed across 820,000 hectares. Cropland contributes 64% of this Biocapacity, supporting the food needs of 2.2 million Ontarians.

Examining Environmental Inequality in Peterborough/ Nogojiwanong through Photovoice Kevanya Simmons (Trent University); Stephanie Rutherford Trent University and Michael Classens (University of Toronto)

My research, as part of the project entitled Mapping for Change: Environmental Inequality and Resilience in Nogojiwanong/Peterborough, seeks to understand how communities experience environmental risk. As such, my research is animated by the following question: How do marginalized residents of Peterborough understand and experience environmental risk in their community? Photovoice was used as the primary research method to provide a forum for participants—residents of the Peterborough community—to document and reflect on the elements of the community that influence health and well-being, to promote critical dialogue and knowledge about community issues, and to develop a grounded theory of socio-environmental factors that facilitate or hinder a healthy community environment. This study has contributed to the Peterborough community and the academic field by documenting the lived experiences of those facing environmental and social vulnerabilities through a photovoice project.

Mapping Environmental (In)Justice Together: Participatory GIS and Community-Driven Knowledge in Nogojiwanong/Peterborough Asana Farshchi (University of Toronto); Michael Classens (University of Toronto)

Environmental justice research has increasingly embraced participatory approaches to foreground community knowledge and lived experiences. This study integrates Participatory GIS (PGIS) as a community-engaged tool to map environmental harms and benefits in Nogojiwanong/Peterborough, Ontario. Over the course of a year, our research team facilitated four seasonal workshops where residents, including racialized, Indigenous, and working-class community members, collectively mapped their perceptions and interpretations of environmental (in)justices. Participants used shared digital mapping tools to document environmental concerns and valuable places, followed by group discussions that provided deeper social and emotional context.

This research critically examines the tensions and possibilities in using digital mapping within a Participatory Action Research (PAR) framework. While GIS has been critiqued for reinforcing technical and epistemic barriers, our findings highlight how co-production of spatial knowledge can challenge exclusionary narratives and create opportunities for collective action. By reframing GIS as a tool of togetherness, this project demonstrates how participatory mapping can foster new alliances, empower communities, and inform policy interventions aimed at addressing environmental inequities.
Through this work, we offer insights into the challenges and potentials of reframing spatial technologies as inclusive, collaborative, and action-oriented tools in environmental justice research.

Communities of Care, Ecotheology and Transdisciplinarity in Environmental Studies
Day 1 June 1st, 10:30am – SJA-613

Chair : Simon Appolloni

Alan Weber	What Can Ecotheology Do for the Environmental Sciences?
Eric Miller	Demography in a Canadian context of environmental studies
Cole Swanson	Such Beautiful Skeins: Toward a Performative Research-Creation Methodology for Knowing (with) Cormorants

What Can Ecotheology Do for the Environmental Sciences? Alan Weber (Weill Cornell Medical College – Qatar)

Ecotheology, which explores the relationships between theology (or spiritual beliefs) and the natural environment, can offer valuable insights and frameworks that enrich and guide the environmental sciences. While the environmental sciences frequently focus on empirical data, systems, and natural processes as viewed through the lens of science and the hypothetic-deductive method, ecotheology on the other hand examines the moral, philosophical, and spiritual dimensions of nature that can influence how humans relate to and care for the environment. Ecotheology can synergistically augment scientific approaches to nature by: 1) explaining and understanding human orientation towards plants, animals and natural resources; 3) developing deeper relationships between human and natural systems; 4) elucidating ethical principles in human—environmental interactions, i.e. ethics of care; 5) encouraging holistic understanding of nature and its full complexity, leading to awareness of human impacts; 6) fostering concern for conservation and species extinction through the ethics of stewardship, which appear in most religious traditions.

Retreating to Nurture Our True Nature: How Academic Writing Retreats and Experiential Opportunities Can Foster Communities Of Care For Human And

Demography in a Canadian context of environmental studies Eric Miller (York University)

Demography is the study of human population statistics and their change over time. Intuitively, demography is highly relevant to environmental studies. Any yet demography tends to be underrepresented in the teaching of environmental studies and its application to environmental issues. This presentation will showcase important demographic statistics which relate humans to “the environment” in recent history and with an exploration of future scenarios. Statistics to be presented include the age structure of the population and age-specific patterns of consumption and non-consumptive uses of nature, population cohorts which can be associated with shifts in age-specific relationships, changes in the size of households and how this affects per-person energy use and demand for housing, and changes in the size of the population (from natality, mortality, fertility, and migration). Data about the Ecological Footprint of production and consumption in Canada will be related to recent trends, and future demographic forecasts, with conclusions differentiating variables that relate to growth or decline in the total or per-capita Ecological Footprint.

Such Beautiful Skeins: Toward a Performative Research-Creation Methodology for Knowing (with) Cormorants Cole Swanson (York University)

Very little is known about double-crested cormorants (Nannopterum auritum) and their relationality within expansive earthly assemblages. Most discourses on the often-maligned, colonial waterbirds emerge through settler-capitalist regimes seeking political gains, land ownership, and resource extraction. In 2020, the Government of Ontario passed an unprecedented, open season legislation authorizing the public to exterminate substantial numbers of the native species. Cormorants in Ontario are now subject to militant forms of monitoring and population control brought forth by fear mongering, intense othering, and persistent flows of misinformation. Alternative forms of scholarship are required to resist the persecution of cormorants and the incidental suffering of their kin. Situated in relation to North America’s largest colony, I engage in art-science research alongside behavioural ecologist Dr. Gail Fraser, whose practice contributes significantly to the scholarly and political dimensions of contemporary cormorant relations. From within our interdisciplinary partnership, I present a performative research-creation methodology capable of navigating existing science infrastructures toward critical and co-constitutive modes of knowledge generation. Drawing on engagements from the field and in the studio, I present onto-epistemic alternatives to anthropocenic and antecedent worldviews, and call for situated, affective, reflexive, and non-representational modes of scholarship in pursuit of disciplinary reforms and multispecies justice.

Public Knowledge, Resilience, Drivers and Exclusion in Climate Change
Day 1 June 1st, 1:00pm – SJA-609

Chair : Saeedeh Nazari Booghabi

Vladimir Díaz-Cuéllar	Socio-economic drivers of climate change
Tara Wood	Public Knowledge of Climate Change in Canada - A Study of Canadian Climate Academics' and Science Communicators' Perspectives
Nasir Khan; Atahrul Chowdhury	Climate Change and Social Inequality: How Social Exclusion Shapes Vulnerability and Adaptation in Marginalized Rural Communities of Pakistan
Juan Andres Luchsinger; Leona Humchitt, Debra J. Davidson	Building climate resilience and Indigenous food sovereignty through agroecology

Socio-economic drivers of climate change Vladimir Díaz-Cuéllar (Carleton University)

It has been decades since, as historians of science and climatologists themselves have argued, the fundamentals of the physical basis of anthropogenic climate change have been understood and widely accepted in the research community. In contrast, the social sciences, excluding some specialized fields, have substantially lagged in their inquiries relative to the societal aspects pertaining global warming, and the ecological crisis more broadly, due to a number of factors including the focus and scope of dominant theoretical paradigms. As the climate crisis progressed and extreme weather events have become more frequent, with attribution studies being increasingly more robust, the social sciences have turned their attention to the societal processes and factors related to climate change.

This paper explores some of the possible economic drivers of climate change. It does so by connecting greenhouse emissions directly to economic production, circulation and consumption, using four manufactured goods as examples: clothing, cellphones, plastic, and cars. I survey the existing literature on life cycle emissions, alongside expert review from the latest IPCC Sixth assessment, but also indicators for economic activity, particularly, production, consumption, stocks and lifespans. In looking at these intersections from a multidisciplinary perspective, I explore some of the tensions between the ever-expanding industrial production, per capita consumption with declining goods' lifespans, and the implications for the carbon cycle. I purport that these junctures may not be confined to a few manufacturing sectors but instead may speak of tensions that may be characteristic of the capitalist economic system as a whole.

Public Knowledge of Climate Change in Canada - A Study of Canadian Climate Academics' and Science Communicators' Perspectives Tara Wood (Concordia University)

Effective public science communication supports achievement of climate adaptation strategies. This research explored perspectives of Canadian climate academics and science communicators about communication methods and practices, comparing it to research about climate communication shortcomings, specifically political, religious, and cultural affiliation barriers.

Data was obtained between May and July 2024 from climate change science academics and science communicators through an electronic survey (n=109) and interviews (n=15). Findings revealed consensus on the urgency of addressing climate change and concerns over communication strategies regarding public understanding impeded by political beliefs, mistrust in science, and misinformation. Results

showed respondents attuned to factors impacting public understanding of climate science: political beliefs, trust in science, misinformation/disinformation, and economics. Contrary to literature emphasizing religious or cultural barriers, participants considered these factors less impactful.

Understanding what climate academics view as barriers and discovering whether there is a disconnect between their perceptions and previous research, is advantageous for developing communication strategies that bridge the gap between scientific consensus and public perception. This research underscored the need for an interdisciplinary approach to climate science communication that involves scientists and engages communities, to tailor communication strategies to lived experience shaping climate science acceptance.

Climate Change and Social Inequality: How Social Exclusion Shapes Vulnerability and Adaptation in Marginalized Rural Communities of Pakistan

Nasir Khan (University of Guelph); Atahrul Chowdhury (University of Guelph)

Climate change affects all individuals, regardless of wealth, social class, or religious background, though its impacts and adaptation strategies vary. While existing literature examines climate change adaptation based on farming categories, geographic regions, and cropping systems, limited research explores how social class shapes adaptation responses. For instance, In Pakistan, like other south Asian nations, there is social ranking of castes/tribes in rural areas, affecting low-caste communities' social inclusion and resilience to threats like climate change. This study investigates how social positioning influences climate change understanding, vulnerability, and adaptation.

Using a mixed-methods approach, guided by the theoretical Model of Proactive Private Adaptation to Climate Change, we conducted research in a socially marginalized and highly climate-vulnerable region of Pakistan. Data were collected through household surveys, focus group discussions, and key informant interviews, analyzed using descriptive statistics, regression models, and thematic analysis.

Our results indicate that social inquality intensify climate change vulnerability by impairing accurate risk perception and limiting adaptation capacity. Specifically, Social exclusion and marginalization increase vulnerability and negatively impact individuals' ability to recognize and respond to climate risks. We also found access to credible information also play a key role in supporting adaptation and reducing vulnerability.

Building climate resilience and Indigenous food sovereignty through agroecology

Juan Andres Luchsinger (University of Alberta); Leona Humchitt (Climate Action Coordinator for the Haiłzaqv Nation) and Debra J. Davidson (University of Alberta)

In the struggle to adapt to climate change supporting Indigenous sovereignty and the multiple difficulties that environmental hazards impose upon coastal communities, supporting Indigenous sovereignty and the application of Indigenous knowledge systems is essential. Traditional Indigenous foodways, for example, are in close alignment with the principles of Agroecology, which have received increasing attention for their climate-adaptive benefits, including: recycling biomass, minimizing loss of energy, promoting biodiversity and enhancing biological synergies. Our purpose is to bring light, promote and validate agroecology as a tool that could enhance both climate resilience and Indigenous food sovereignty, with focus on the Heiltsuk Nation in coastal British Columbia. The benefits include locally adapted agriculture and revitalization of Indigenous traditional knowledge and foodways. Through the question ¿How can traditional knowledge and foodways of West Coast Indigenous communities inform a climate-resilient agro-ecological transition? and a desk-based research including documentary and academic literature review, we aim to organize and evaluate the existing literature about Indigenous foodways in the west coast of Canada, evaluate agroecology as an approach to climate adaptation and community resilience and identify the intersections between Indigenous foodways and agroecology. The principles of agroecology have important benefits for climate adaptation. Indigenous agricultural knowledge can make an important contribution to envisioning agroecological transitions. Engaging

Indigenous knowledge holders can thus contribute to both climate adaptation and Indigenous food sovereignty.

How are we doing? Eco-grief, anxiety and climate change
Day 1 June 1st, 1:00pm – SJA-613

Chair : Kira Cooper

Lauren Smith	Placing death-care, eco-grief, and emotions in planetary care
Simon Appolloni	What are we doing? An investigation and analysis of how instructors teaching courses on the environment at Canadian universities are addressing eco-anxiety among their students
Breanna Boissonneault	Climate Anxiety: How is climate change affecting those living in Canada?
Mallory Furlong	The Intersection of Autism Spectrum Disorder and Eco-Anxiety in Youth: A Narrative Review
Laurence Butet-Roch	Practicing attunement: creative methodologies for representational and environmental justice

Placing death-care, eco-grief, and emotions in planetary care Lauren Smith (Royal Roads University)

Emotions are often ignored or avoided in sustainability decision-making. Those in power fall for homo economicus myths and other human rationality narratives. On the contrary, emotions play important roles in decision-making, evident in climate communication. Threatening climate crisis messaging evokes paradoxical psychosocial defense mechanisms, often to assuage death anxiety. Such defenses can reinforce and exacerbate sociocultural “othering.” Scholars argue that care and empathy are instead necessary for effective climate responses.

I argue that accepting and acknowledging emerging eco-grief and existential anxieties, rather than denying their existence, are critical to fostering compassion and building communities-of-care. Importantly, gender dynamics must be included as women continue to be the predominant caregivers in society, including the less explored dimensions of death-care. Prosocial, communal emotions are also often interpreted as inherently feminine, but we cannot justly place planetary care responsibilities on women alone.

My postdoctoral research examines gender dynamics of paid (e.g. resource managers, policymakers, analysts) and unpaid (e.g. climate activists, volunteers, death doulas) planetary care work and emotional motivators for these care-workers. This interdisciplinary research combines social psychology, feminist care ethics, and emotional geographies with an approach that recognizes climate fears, anxieties, and other emotions in working toward sustainable planetary care and resilient communities-of-care.

What are we doing? An investigation and analysis of how instructors teaching courses on the environment at Canadian universities are addressing eco-anxiety among their students Simon Appolloni (University of Toronto)

1) Recent research points to an increasing number of youth across the globe experiencing eco-anxiety. This phenomenon is likely particularly manifest among students at universities across Canada studying environmental issues who, by dint of their subject area, are inescapably exposed to the disturbing data surrounding climate change. Studies show that such anxiety, if not addressed, can lead to physical,

emotional and cognitive impairment. Based on the assumption that the higher education these students receive ought to prepare them fully, which includes building psychological resilience and fostering some form of hope to provide them with the wherewithal to confront an uncertain and difficult future, a survey was conducted among five Canadian universities to ascertain if this is indeed the case. The survey asked those who teach courses related to the environment what, if anything, they are doing to address eco–anxiety among their students and, if not doing so – or to the extent they feel necessary – why not.
2) The findings suggest that these students are not being fully prepared and that some instructors, by only focusing on the negative aspects of climate change, perpetuate feelings of hopelessness among their students.
3) Notwithstanding, my study finds that most instructors are concerned and would likely do more with institutional support.

Climate Anxiety: How is climate change affecting those living in Canada? Breanna Boissonneault (Laurentian University)

With climate change and its consequences dominating the 21st century, related anxiety issues are on the rise. Current research demonstrates the surfacing anxiety, depression, post-traumatic stress disorder (PTSD) and more. Previous research often looks at if and/or how someone is experiencing climate anxiety, focusing on how they are feeling, often incorporating age as their only relational factor. The incorporation of other factors, such as region, culture, perceived threat, climate-related behaviour and more are rare if not nonexistent. That being said, the following climate anxiety survey data seeks to explore these factors, answering questions such as the psychological and emotional effects of climate anxiety, differences throughout various age groups and/or genders, cultural and regional variations and more. Factors such as gender, age, threat perception, climate change affection and solution perception all showed some degree of climate anxiety affection. Specifically, sample-based results showed that females experience more climate anxiety than males, as did younger age groups, compared to their older counterparts. Also, those who have been affected by the repercussions of climate change experience higher levels of climate anxiety as do those with solution perception on climate solutions compared to those who answered ‘maybe’ and no in regards to solution feasibility.

The Intersection of Autism Spectrum Disorder and Eco-Anxiety in Youth: A Narrative Review Mallory Furlong (University of Toronto)

As eco-anxiety continues to rise globally, this study aims to understand how this phenomenon will uniquely affect autistic youth. Considering the gap in the literature on this topic, a narrative review was conducted for over 103 sources in both the eco-anxiety, and autism and anxiety literature. There is no significant overlap between the two bodies of literature. The shared themes across the literature point to a perceived loss of control, experiences with burnout, and the detrimental effects of interconnected autistic traits on anxiety. This points to the possibility of a positive feedback loop between the way that eco-anxiety and autistic traits may exacerbate one another. From this, we can deduce that autistic youth will likely struggle with eco-anxiety more than their neurotypical peers, with specific concern over Intolerance of Uncertainty, Insistence on Sameness, Cognitive Inflexibility, Hyper Empathy, and Emotion Regulation. Further research is encouraged to collect primary data on how autistic youth might experience eco-anxiety, which will provide great insights for educators, clinicians, caregivers, and parents. In conducting more research on this topic, we can create more inclusive climate action plans that strive for the resilience of all communities in the face of our changing world.

Practicing attunement: creative methodologies for representational and environmental justice Laurence Butet-Roch (York University)

In spring 2024, elevated levels of benzene in the air above Aamjiwnaang First Nation led the Anishinabek community to declare a state of emergency, renewing media attention. Images of warning signs and the offending industrial facility abounded. The focus on petrochemical infrastructure at the detriment of depictions of the community cements perceptions of the area as a pollution sink, obscuring its enduring

role as a home. Given that the discursive erasure of Indigenous realities usher their material destruction, combatting exposure to environmental harms involves making visible and valuable what is at stake: the lives, the ecosystem, and the kinship between the two. Or, put another way, care for representational justice is the antidote to an extractive scopic regime which depreciates certain lives in order to render them available for injury. With this in mind, in this paper, I explore the potential of creative methodologies that center attunement—understood as a deepened and intentional listening practice, one that is generous, grounded, relational, multisensorial, accountable and reflexive—to advance both representational and environmental justice.

Theory in Practice: Wisdom, Change, and Values
Day 1 June 1st, 2:40pm – SJA-611

Chair : Kevanya Simmons

VIRTUAL Amber Mckay; Jody-Lynn Rebek, Ahmed Aziz	Anji inaashkawun - Waves of Change
Martina Jakubchik-Paloheimo	Anentaim-Sa-Tin-Nunka (Thinking Earth) for Planetary Health: Listening to Mother Earth's Wisdom through Shuar Science
Jody-Lynn Rebek	Leading from the Inside Out - to Make a Meaningful Collective Impact

The Role of Cultural Differences and Oppositional Opinions on the Development of Discrepancies Between Inner and Outer Values Taylor Barker (Algoma University); Arthur Perlini (Algoma University)

Sustainability progress requires that people cultivate mindsets that are supportive to collective wellbeing and live in alignment with their internal values. Studies show that people change their values and mindsets (socially conform) when facing social pressures. Further, difference of opinion, cultural values, and specific personality traits have been shown to influence social conformity individually. The aim of this study was to examine the role of both difference of opinion and cultural values on social conformity while considering specific personality traits. In doing so, the specific social and psychological factors that explain the discrepancies between inner and outer values that are integral to sustainability can be determined, illustrating the underlying concepts that hinder progression towards collective flourishing. Results showed that participants significantly changed their opinion of various hypothetical concepts after reading the incongruent (opposite) opinions of others in an online discussion forum. The personality traits measured had no effect on change in opinion while virtual interaction resulted in lower levels of conformity than observed with in-person contact. Implications for sustainability progress suggest that virtual interfaces may reduce the impact of social factors that cause discrepancies between inner and outer values, allowing for the cultivation of more sustainable mindsets.

Anji inaashkawun - Waves of Change Amber Mckay (Algoma University); Jody-Lynn Rebek (Algoma University) and Ahmed Aziz (Algoma University)

Water-conscious communities guided by Indigenous knowledge and voices are integral to fostering a circular and Blue Economy. This transdisciplinary, community-based participatory research aimed to investigate the challenges and opportunities for nurturing the health of waterbodies in the Algoma region, utilizing social, economic, and cultural skills. By integrating scientific knowledge with local stories, we explore innovative ways to create a sustainable, Indigenous-based Blue Economy that addresses freshwater stewardship, climate action, and community well-being. This project engages academics, policymakers, and community members to develop a better understanding of and processes for overcoming barriers to freshwater rehabilitation and sustainability. We collected data on freshwater

perspectives and the Blue Economy through online surveys, interviews, workshop artifacts, and community events. The research design adheres to the principles outlined in the Assembly of First Nations Ethics Guide on Research and Aboriginal Traditional Knowledge, including OCAP guidelines. Phase one of our project revealed locals are concerned about the deteriorating physical conditions of aquatic ecosystems, which they attributed to the climate crisis and human actions. Phase two builds on these findings, acknowledging that freshwater health requires new narratives and systems, and addressing climate crises requires Indigenous leadership and shifts to more circular approaches for ecology, economy, and health.

Anentaim-Sa-Tin-Nunka (Thinking Earth) for Planetary Health: Listening to Mother Earth's Wisdom through Shuar Science Martina Jakubchik-Paloheimo (Queens University)

This paper identifies the critical connection between Indigenous place-based knowledge and the relationships with the more-than-human world embedded in the Shuar landscape of the Ecuadorian Amazon. Our findings speak to those potential more-than-human beings for knowledge production within Shuar science. We highlight Shuar's relational epi-ontology of the Ecuadorian Amazonian landscape by drawing from a conceptual framework that includes the more-than-human and framing of interconnect-ed Indigenous theoretical determinants of planetary health. By examining the interrelations between human and non-human nature, Indigenous Knowledge systems understand how to listen to the wisdom of Mother Earth. This communication can aid in biodiversity conservation and restoration. Based on in-formant interviews, we explore the current crisis of the Shuar Peoples' dispossession from their lands and concurrent dispossession of Shuar science. The term 'Thinking Earth,' from the Shuar phrase Anen-taim-sa-tin-Nunka Spanish 'Pensamiento de la Tierra,' untangles this idea of embodied knowledge within ancestral territories and articulates the web of relationships with the more-than-human world for the Shuar. We conclude that the disruption of this knowledge is detrimental to the health and well-being of the Shuar

Leading from the Inside Out - to Make a Meaningful Collective Impact Jody-Lynn Rebek (Algoma University)

The world continues to evolve unexpectedly with distractions and crises on many fronts. Modern humans also often expend considerable time and effort ruminating on trivial concerns (i.e., appearance or social standing), engaging in dualistic thinking or harboring negative thoughts (Dewey, 1934; Ferguson, 2019). Harmful societal attention and values gives rise to greed, and the relentless chase for wealth, power, and status.This paper explores the critical role higher education plays in shaping students' character through a holistic, integrative pedagogical approach. Our collective reality is based on individual thoughts, choices, and behaviors, and thus, higher education and faculty have a responsibility to develop students' self-awareness, a foundation of character and many leadership theories (Bass, 1985; Goleman, 1995). By employing a 'seed' metaphor, I illustrate how nurturing students' self-awareness and agency mirrors the growth of a seed in a carefully cultivated learning ecosystem. Contemplative practices (character development) intertwined within this environment of leadership development (competence development), elicits strong leadership outcomes, and life-long development (Crossan et al., 2021). A case study inspired this metaphor, advocating for prioritization of ethical leadership and well-being (Rebek, 2019). Educators must foster environments that encourage profound personal transformation without compromising mental health, (by providing proper support).

Thinking Politics: Environmental Management, Cooperation and Scales of Justice
Day 1 June 1st, 2:40pm – SJA-609

Chair : Anna Soer

Megan Devoe	Scales of Justice: Exploring the Just Transition Concept in Different Contexts
Anderson Assuah VIRTUAL	Municipal Solid Waste Management Among Northern Manitoba Municipalities – Exploring Partnerships and Collaborations
Hok Yau Tim Pit	Defective Response-ability and Natural Thoughtlessness: A Story Analysis of Chinese White Dolphin, Stray Cattle, and Racehorse in Hong Kong
Arlana Redsky	Re-assessing the Hunt: Why it's Important to Consider an Indigenous and Gender-based Lens on the Management of Wildlife.

Scales of Justice: Exploring the Just Transition Concept in Different Contexts

Megan Devoe (McMaster University)

Climate change is, arguably, the most pressing issue of our time. Yet, international climate policy, which is mainly administered through the United Nations Convention on Climate Change (UNFCCC) is largely voluntary and not legally binding. The idea of a just transition, which began in the North American labour movement during the 1990s, has been proposed as an overarching strategy and policy to achieve net zero emissions in a timely manner. In essence, just transition refers to the idea of minimizing the adverse socioeconomic effects that climate policies, including transitioning to renewable forms of energy, may have on vulnerable groups and communities such as developing countries and fossil fuel dependent economies. This paper will use the concept of just transition to demonstrate that climate policy largely happens at the national and local levels by focusing on the transition policies operationalized by the UNFCCC, Canada's federal government agencies, and the province of Nova Scotia. Using a combination of document analysis, semi-structured interviews with fossil fuel workers and key informants, and my personal experiences at the 29th Conference of Parties (COP) in Azerbaijan, this paper offers unique insight into how local, national, and international governing bodies are approaching the climate crisis through just transition efforts in different but intersecting ways. Without different scales, the just transition is at risk of being just talk.

Municipal Solid Waste Management Among Northern Manitoba Municipalities – Exploring Partnerships and Collaborations

Anderson Assuah (University College of the North)

In Canada, northern and rural municipalities face many challenges regarding managing municipal solid waste (MSW). This is because these jurisdictions often have inadequate facilities, infrastructure, diversion programs, and funding to properly manage the waste they generate. This research explored how northern Manitoba municipalities are partnering and working together to improve MSW management in the face of all the challenges they are confronted with. Solid waste managers and or those who assume such positions in the municipalities were interviewed. The results show that some municipalities provide services to neighboring and smaller communities, as a way of helping them deal with the lack of infrastructure, facilities, and management of waste. There is evidence of learning between solid waste managers in some municipalities; however, there has not been collaborations between or among them. Participants attributed this to isolation or long distances between municipalities, lack of time to work together, and not prioritizing such collaborations. These factors notwithstanding, participants agree that collaborations and partnerships with other municipalities, external organizations, and stakeholders can be important for them. The research therefore recommends that municipalities deliberately and purposely

work together to help reduce cost of operations, share knowledge, and take advantage of economies of scale.

Defective Response-ability and Natural Thoughtlessness: A Story Analysis of Chinese White Dolphin, Stray Cattle, and Racehorse in Hong Kong Hok Yau Tim Pit (University of British Columbia)

The ways humans treat animals are socio-culturally influenced, and stories play an important role in mediating humans' response-ability to animals, "the capacity to respond, and so to be responsible" (Haraway, 2008). Anchoring on Haraway's concept, this article examines the prevailing stories of three animals in Hong Kong, including Chinese white dolphin, stray cattle, and racehorse, to understand how response-ability towards the species is tarnished. By examining the stories of the three animals from 1998 to 2023 in four newspapers (n=244), this article proposes that while mainstream literature attributes "failure to respond" as the dominating factor for animals' plight, "failure of response" or "defective response-ability," enactment of responses that seem or attempt to care about animals' well-being but do not result in responsible actions eventually, is also contributing to exploitation and indifference. In particular, "natural thoughtlessness," a trait of narratives that mobilizes ecologically intuitive yet scientifically unsubstantiated knowledge, often leads to defective response-ability. To show the applicability of the theoretical frameworks for animal liberation and beyond the cases of Hong Kong, I end the article with another example of animal exploitation—Buddhist animal release—where corresponding justifications instantiate defective response-ability and natural thoughtlessness.

Re-assessing the Hunt: Why it's Important to Consider an Indigenous and Gender-based Lens on the Management of Wildlife. Arlana Redsky (University of Alberta)

By overlooking Indigenous women's contributions to community harvest, their knowledge of subsistence practices and seasonal variation, important information that may be relevant to community-based assessments on wildlife health and social-cultural linkages may be ignored. This research provides a more comprehensive definition of hunting activities. Using the broader definition of community harvest, this research intends to bring to attention the contributions and relationships Indigenous beaders (women and 2SLGBTQIA+ peoples) have with cervids (deer, moose, elk, and caribou). The findings of this research contribute to the perspective that Indigenous women and 2SLGBTQI+ people offer a more expansive set of concerns likely not identified or considered by existing CWD management regimes. Participants in this research engaged with deer, moose, elk, and caribou in ways not visible to or accounted for by current wildlife management regimes. Issues raised by Indigenous beaders consulted in this research included concerns about safety protocols for hide tanning, transportation of animal remains across jurisdictions, intergenerational transmission of local knowledge of animals, food security, and community sovereignty. Continuing to ignore Indigenous women and 2SLGBTQIA+ peoples, who are increasingly engaging in the resurgent practices of beadwork and hide tanning, risks further enacting colonial disparities against Indigenous communities and may lead to diminished capacity to manage a wildlife epidemic.

Theory in Practice: Planetary Thought, Nature, and -Isms
Day 1 June 1st, 2:40pm – SJA-613

Chair : Laurence Butet-Roch.

Mauricio Collao	The Two Lives of the Anthropocene: Earth System Science and the Geology's Intervention in Planetary Thought
Jennifer Carmichael	Unnatural Responses: The Necessity of Paradigm Shifts in Conceptions of Nature

Alex Wellington	Contrasting Discourses of Legal Personhood for Rivers
Zachary Gan	Between Marxism and New Materialism: More-Than-Human Agency, Monism, and an Ecological Critique of Capital

The Two Lives of the Anthropocene: Earth System Science and the Geology's Intervention in Planetary Thought Mauricio Collao (York University)

The IPCC's Sixth Assessment Report (AR6) adopted the concept of the Anthropocene in its chapter titled 'Framing, Context, and Methods'. The report cites the work of Earth System Scientists (ESS) Paul Crutzen and Will Steffen in its conceptualization of the Anthropocene, indicating the incorporation of another ESS concept into the work of the IPCC (which has formally championed ESS since the publication of its First Assessment Report (AR1) in 1992). The incorporation of the Anthropocene into AR6 was released while the concept was still being hotly debated within the Anthropocene Working Group (AWG), which officially voted against the formalization of the Anthropocene as a new geologic epoch in the Spring of 2024.

The IPCC and AWG's conflicting attitudes towards the notion of the Anthropocene point to widely different conceptualizations of the nature and scale of planetary transformations advanced by ESS and 'classical' or 'conventional' geology (e.g., stratigraphic geology). This paper refers to these two visions of earth state transformations as the 'two lives' of the Anthropocene that have informed much debate and scholarship about the trajectory of earth state transformations and corresponding socio-political responses. By examining the different visions of planetary change advanced by ESS and classical geology, this paper argues that institutions like the IPCC and the UNFCCC would benefit from relying less on ESS framings, context, and methods, and more from finding ways to incorporate insights from classical geology, whose insights have been generally excluded from the work of the IPCC.

Unnatural Responses: The Necessity of Paradigm Shifts in Conceptions of Nature Jennifer Carmichael (McMaster University)

In order to meet the inevitable challenges that the changing climate will pose for humanity, two fundamental paradigm shifts are necessary. First, we must re-evaluate our "natural" response to nature. Our seemingly innate response varies with the aspect of nature being encountered, but it is almost always an analytical relationship: we evaluate the risk of harm from nature, the potential for benefit, and the potential of preserving it in a stable pattern. What might it look like if, instead of analysis, we encountered nature with a sense of wonder? This paper will argue that positioning the climate/planet as something to be controlled and nature as a static system of competition (rather than one of dynamic cooperation) has led to Western culture considering itself as separate from and threatened by the world. It is difficult to encounter something with a sense of wonder if we also feel threatened by it; thus, we must also let go of the idea of species resilience against climate change and embrace instead a view that we are antifragile in relation to it to allow for wonder. My research suggests that narrative literature can serve as an experiential medium for facilitating these kinds of paradigm shifts.

Contrasting Discourses of Legal Personhood for Rivers Alex Wellington (Toronto Metropolitan University)

Advocacy of legal rights for nature, an Indigenous led initiative, has been gaining increasing traction around the world. Inspiring successes in recognition of legal personhood for rivers have been achieved in New Zealand (Whanganui River), Bangladesh (Turag River), Columbia (Atrato River), and the province of Quebec (Magpie River, known as Mutehekau Shipu). Examples of specific legal rights include: respect for natural cycles; evolving naturally, being preserved and protected, including from pollution; maintaining biological diversity, regeneration and restoration. The focus of my ongoing research is on articulating, explicating and analyzing the conceptual framework for legal personhood for nature reflected in the

Universal Declaration of Rights of Rivers, and theorizing about ways to overcome significant challenges in bringing about meaningful change. Animating champions of legal rights for nature are visions of nonanthropocentrism, ideas of intrinsic value and inherent worth for nonhuman nature, giving consideration to nature's interests and rights in laws, policies and everyday decision making. It still remains to be figured out how to fruitfully and productively fit that vision within contexts of legal systems that have been, for far too long, rooted in anthropocentric conceptions of nonhuman nature existing for the benefit of humans, objects to be exploited and commodified.

Between Marxism and New Materialism: More-Than-Human Agency, Monism, and an Ecological Critique of Capital Zachary Gan (McMaster University)

In recent years, ontological and methodological tensions between eco-Marxism and new materialism have constituted an increasingly permanent fixture in the theoretical terrain of the environmental social sciences and humanities. These tensions have been exacerbated by polemical texts from eco-Marxists, including Andreas Malm's The Progress of This Storm (2018) and Kohei Saito's Marx in the Anthropocene (2023), that have argued that the relational ontologies of new materialism are ill-suited to theorize and critique the role of capitalism in perpetuating the climate crisis. While recent scholarship has responded to various aspects of these eco-Marxist challenges, especially regarding the role of critique in a time of ecological collapse, eco-Marxists have also employed a more ontological tactic that has remained unaddressed: the charge of monism. The ontological critique of the eco-Marxist challenge hinges on a construction of "absolute monism;" in this way, the charge of monism is employed as a reductive rendering of new materialism. However, I argue that the eco-Marxist construction of "monism=holism" is a theoretically inaccurate depiction of the relational ontologies of new materialism. Instead, I suggest that the Deleuzian concept of "monism=pluralism" functions as a more accurate depiction. By operating from a "monism=pluralism" perspective, the link between new materialism and "relational" forms of Marxism can be more rigorously established through their shared theoretical background of dialectical ecology, demonstrating how, contrary to the claims of eco-Marxists, new materialist ontologies can be and have been engaged in critiques of capital.

Information and Regenerative Farming: Understanding Sustainability
Day 1 June 1st, 4:20pm – SJA-609

Chair : Loreleil Hanson

Chelsea Rozanski	From Soil to Society: Growing Resilient Communities Through Regenerative Farming
Marie Saydeh; Jean-François Bissonnette, Jérôme Dupras	Interpretation of social representations of biodiversity amongst stakeholders involved in Quebec's agri-environmental management
Saeedeh Nazari Nooghabi, Ataharul Chowdhury	Analysis of Economic and Social Characteristics and Environmental Vulnerability of Saffron Farmers in Iran: A Case Study Based on Descriptive Statistics

From Soil to Society: Growing Resilient Communities Through Regenerative Farming Chelsea Rozanski (University of Calgary)

This paper explores how regenerative farming fosters resilient communities by cultivating meaningful social, economic, and ecological relationships. Drawing on multi-year research collaborations with three Albertan rural regenerative farms, this study examines how producers integrate practices that prioritize economic viability, ecological sustainability, and social connections. Through experiential learning (EXL) and storytelling, a pattern of relationality emerged, revealing that these farmers grow not only food but also networks of trust, collaboration, and mutual support.

The concept of "meaningful connections" in this context transcends transactional interactions, embodying relationships characterized by mutual respect, shared values, and reciprocity. These connections extend across diverse stakeholders, including fellow producers, institutions, consumers, and the broader community, creating a web of interdependence that strengthens the social fabric. By investing in engagement, empathy, and honesty, regenerative farmers contribute to a sense of belonging that fosters community resilience in the face of contemporary challenges.

This presentation will highlight the role of relational farming in addressing pressing global issues such as food security, environmental sustainability, and social cohesion. It will also provide insights into how regenerative farming practices serve as a model for building adaptive, connected, and thriving communities, offering valuable lessons for broader societal contexts.

Interpretation of social representations of biodiversity amongst stakeholders involved in Quebec's agri-environmental management Marie Saydeh (Université Laval); Jean-François Bissonnette (Université Laval) and Jérôme Dupras (Université du Québec en Outaouais)

"In Quebec, several policies aim to manage biodiversity in agricultural areas. In addition, following COP15, authorities have communicated their commitment to meet conservation targets by 2030, which complexifies agricultural land management. To meet such goals, several agri-environmental stakeholders, from federal to local scales, are called to work together. Amongst challenges, one is to communicate and grasp each other's roles and visions for biodiversity management in agricultural lands.

Our research interprets and typologizes social representations of biodiversity of these stakeholders, to eventually delineate governance networks. Through our qualitative approach, we conducted individual semi-structured interviews, surveys and conceptual mapping with 70 strategically selected stakeholders. By triangulating results from our discourse and content analyses, we put forward a conceptual framework to deconstruct and analyze social representations of biodiversity. We also develop a typology of social representations identified with our participants.

Using our framework, we take notice of misconceptions stakeholders have of others' representations of biodiversity. Not only there's a contrast of conception between people that operate in agriculture and in environmental management, but stakeholders sometimes misunderstand the knowledge someone with different expertise have of biodiversity. These misconceptions revolve around understanding others' accountability and agency in biodiversity management networks."

Analysis of Economic and Social Characteristics and Environmental Vulnerability of Saffron Farmers in Iran: A Case Study Based on Descriptive Statistics

Saeedeh Nazari Nooghabi (University of Guelph) and Ataharul Chowdhury (University of Guelph)

This study examines the characteristics of saffron farmers and their environmental vulnerability using descriptive statistical analysis. A farm household survey was conducted in 2023 with 394 saffron growers selected through a stratified random sampling technique. The results indicate that the average age of saffron farmers is 48 years, with an illiteracy rate of about 3%, and most holding a high school diploma. The majority have cultivated saffron for 10 to 20 years on less than one hectare of land. Communal land tenure is predominant, and yield variability is significant, ranging from 4.3 to 17 kg per hectare. Over 75% of farmers lack proper storage facilities, and more than 80% do not use certified saffron bulbs. Farmers show moderate to high acceptance of modern agricultural innovations, yet participation in cooperatives or NGOs remains low. While over 90% have access to local markets, only 12.9% can reach global markets. Weed infestations affected 74.4% of farmers, and pest issues were reported by 52.8%. Among abiotic stresses, summer heat (3.84 ± 1.03) had the highest impact, followed by drought (3.77 ± 0.96) and uneven rainfall (3.62 ± 1.15). Nearly 50% of farmers sought peer consultation, and one-third considered adaptive changes. To enhance saffron farming sustainability, improving storage facilities, increasing access to certified bulbs, promoting market expansion, and strengthening extension services are recommended.

DAY TWO – JUNE 2nd

Thinking Agriculture: Urban farming, Energy and Climate in Agroecological Transformation
Day 2 June 2nd, 10:30am – SJA-611

Chair : Balie Walker

Lorelei Hanson	What do the mission and vision statements of Urban Farms across Canada and the United States indicate about the functions and promises of urban farming?
Pamela Courtenay-Hall	Civic Education about Agriculture and Collaborative Teaching with Farmers in Prince Edward Island
Md. Idris Ali; Brian Ceh	Assessing the effect of agricultural production and decomposed energy consumption on environmental quality in Canada
Omamuyovwi Gbejewoh	Understanding the role of seed saving and on-farm agrobiodiversity conservation for agroecological transformation in southeastern Ontario.

What do the mission and vision statements of Urban Farms across Canada and the United States indicate about the functions and promises of urban farming?

Lorelei Hanson (Athabasca University)

Over the past two decades urban farms have sprung up across Canada and the United States. Much of the research on these initiatives initially highlighted their multifunctionality, and be they academic analyses or otherwise, celebrated these food initiatives as addressing food insecurity. However, scholars such as Julie Guthman and Nathan McClintock introduced more critical analyses by tracing the contradictory motivations and outcomes of alternative food production projects and initiatives, identifying how they typically fall short of significantly advancing food security and food justice, and are limited in creating a pathway to transforming food system production and provision processes.
In this this presentation I'll discuss the mission and vision statements of urban farms across Canada and the U.S. My sample consists of 140 urban farm mission and vision statements from cities with populations of 500,000 or more. I apply a theme analysis to interrogate both the alignment between the mission and vision statements posted by these urban farms and the food system "solutions" they outline or imply. Specifically, I examine the degree to which these urban farm aspirations and profiles for transforming the food system highlight and address structural and systemic challenges.

Civic Education about Agriculture and Collaborative Teaching with Farmers in Prince Edward Island Pamela Courtenay-Hall (University of Prince Edward Island)

Canadian agriculture will soon be under greater pressure than ever before ... pressure from tariffs, pressure from cheap US imports, pressure to dismantle the supply management systems that, despite their flaws, keep several farming sectors strong.

For the past 5 decades, researchers were concerned about policy development to support the growth of ecological agriculture. That need remains. But it has suddenly become adjunct to the overarching need to support the economic viability of Canadian agriculture broadly.

Where will that mandate come from? Education about agriculture has played such a small role in Canadian schools that many citizens are unaware of the challenges farmers face.

Yet teachers and professors can help build a critical mass of citizen understanding. This session will share the methods, results, and epistemic challenges of 20 years of teaching community-based ethical inquiry in agriculture and globalization in collaboration WITH farmers ... in, of all places, a philosophy department. Students travel to a diverse range of farms – from small-scale organic to industrial scale conventional -- to learn about ethical and policy issues from the farmers themselves. They then do an hour of volunteer work on the farm in reciprocity for the transformative learning they walk away with.

Assessing the effect of agricultural production and decomposed energy consumption on environmental quality in Canada Md. Idris Ali (Toronto Metropolitan University); Brian Ceh (Toronto Metropolitan University)

Agricultural production is a significant driver of environmental degradation, contributing to global warming and exacerbating the frequency of natural disasters. While recent research has largely focused on carbon dioxide (CO2) emissions as a measure of environmental degradation, the critical roles of methane (CH4) and nitrous oxide (N2O) emissions from agricultural activities have received comparatively less attention. Therefore, this study aims to examine the impact of agricultural production, along with non-renewable and renewable energy consumption, economic policy uncertainty, and technological innovation, on carbon, methane, and nitrous oxide emissions within the Canadian context. Using annual time series data from 1990 to 2022, this study employs the advanced autoregressive distributed lag (ARDL) model to explore both short- and long-term relationships between the variables. The findings indicate that agricultural production, non-renewable energy consumption, and economic policy uncertainty significantly degrades environmental quality by contributing to carbon, methane, and nitrous oxide emissions. In contrast, renewable energy use and technological innovation enhance environmental performance by reducing these emissions over the long term. The results of the Toda-Yamamoto causality test indicate a bidirectional causal relationship between agricultural production and all emission parameters. On the contrary, the remaining variables exhibit a unidirectional causal relationship with these emission

parameters. Based on the findings, this study suggest that Canada should prioritize renewable energy, technological innovation, and coordinated federal-provincial policies to reduce emissions from agriculture and non-renewable energy, ensuring long-term environmental sustainability.

Understanding the role of seed saving and on-farm agrobiodiversity conservation for agroecological transformation in southeastern Ontario Omamuyovwi Gbejewoh (Queen's University)

Agroecology as a practice and movement is gaining prominence in the global North. As a result, there is potential for traditional varieties of food crops to play an important role in promoting diversity within agroecological systems. Using aspects of photovoice with producers and semi-structured interviews with key policy actors, this presentation will share emerging results from my doctoral research about the agronomic, socio-cultural, and institutional context of agrobiodiversity conservation with a focus on southeastern Ontario. The results indicate that producers' motivations for conserving agrobiodiversity (for example, for subsistence, conservation, culture, or trade) shape the types of crops they decide to grow. While differences in growing practices and knowledge emerged among seed growers, market growers, gardeners and Indigenous growers, they also experience a common set of challenges. Seed policies often pay limited attention to small-scale producers and Indigenous growers who are significant holders of agrobiodiversity and biocultural knowledge. Results demonstrate that there may be opportunities for greater collaboration among producers who conserve agrobiodiversity and that seed policies may need to be reformed to ensure that they are producer-led and producer-focused.

Educating and Educators: Violence, Participant Experiences and Land-Based Learning
Day 2 June 2nd, 1:00pm – SJA-613

Chair : Eric Miller

Ann Lévesque	Agroecosystem Living Labs: Participant Experiences and Innovation Dynamics in Canada
Molly Dea-Stephenson	Never Too Late to Blow Up a Pipeline
Eric Schofield	Food-Skilling Their Way to A Sustainable Future: A Phenomenological Study on Food Educators and Their Place in the Climate Education Movement
Anissah Rajpatee	Land-Based Learning: Reimagining Environmental Education in Ontario

Agroecosystem Living Labs: Participant Experiences and Innovation Dynamics in Canada Ann Lévesque (Agriculture and Agri-Food Canada); Margaret Bancerz (Agriculture and Agri-Food Canada), Caroline Thivierge (Agriculture and Agri-Food Canada, Université du Québec en Outaouais) Madeleine Arseneau (Agriculture and Agri-Food Canada), Albana Berberi (Agriculture and Agri-Food Canada, Carleton University) and Chris McPhee (Agriculture and Agri-Food Canada)

Agroecosystem living labs represent a new approach to addressing complex agri-environmental problems with the involvement of farmers, scientists, and other partners. The approach is characterized by high levels of participant engagement and long, seasonal cycles of innovation due to cropping seasons and fluctuating meteorological conditions. Informed by scientific research, agroecosystem living labs aim to generate knowledge tailored to farmers' needs to maximize sustainability and resilience in agroecosystems. This study uses the case of Agriculture and Agri-Food Canada's Living Laboratories Initiative (2018–2023) to better understand participant experiences in the four LLs (Atlantic, Quebec,

Ontario, and Prairies) developed under the Initiative. Based on semi-structured interviews, this study explores the characteristics of agroecosystem living labs in greater depth, examining opportunities and challenges from the perspective of participants' experiences, as well as the innovation process in the living labs more broadly. In addition, the study outlines some key lessons learned in the application of the living lab approach, including how collaborations influenced successful innovation projects.

Never Too Late to Blow Up a Pipeline Molly Dea-Stephenson (McGill University)

Multiple philosophers have recently argued that ecotage, the sabotage of environmentally destructive property, should be justified through the logic of defensive harm (Arridge, 2023; Manson, 2024). Providing adequate justification of ecotage is an important and timely project. Moreover, given that significant threats are posed to life by GHG-emitting property, defensive justifications may look promising. However, there is near consensus within the literature that defensive harm cannot be justified unless it has at least a reasonable chance of success (cf. Statman, 2008). At the same time, we are beginning to see a rise in climate fatalism: the view that catastrophic climate change is now inevitable and that, as a result, attempting mitigation is now futile. Climate fatalism is misguided and politically deleterious (cf. McKinnon, 2014; Malm, 2021). But whatever we may think of it, we should prepare for its popularity to continue to rise in the offing.

Given that ecotage of GHG-emitting property often aims at defending life precisely by mitigating climate change, I argue that this projected rise in climate fatalism tells against justifying at least this class of ecotage using the standard logic of defensive harm. Justification that relies on quickly faltering hopes risks becoming no justification at all.

Food-Skilling Their Way to A Sustainable Future: A Phenomenological Study on Food Educators and Their Place in the Climate Education Movement Eric Schofield (Lakehead University)

My Master's of Education research at Lakehead University (under Dr. Ellen Field and Dr. Charles Levkoe) is rooted in systems change in education, looking at the roles that food education has within climate education in public schools. I am using a phenomenological inquiry to interview food education leaders across so-called Canada. As a culinary arts teacher, I am passionate about food-skilling education. I use food as a way to model systemic change both in our food system and in the community. Our program prioritizes using rescued food, making plant-based products accessible, acting proactively toward food security in our community, and making sustainable actions a foundation of practices and policies. I am in the process of getting approval for my thesis proposal, and I will then apply for ethics approval and later conduct my research. I intend to be in the data collection phase by spring. Please get in touch with me if you require more details about this process.

Land-Based Learning: Reimagining Environmental Education in Ontario Anissah Rajpatee (Trent University)

Reimagining environmental education (E.E.) is a necessary step needed to address rising concerns regarding climate change. The current vision of E.E. is for students to develop the skills needed to be environmentally responsible community members who understand the interconnectedness between all living beings in the natural world (Bondar, 2007). Long-term care of our environment requires consideration of the role that education has in environmental decision making because of the way it informs our relationships with the land. However, there is currently a lack of focus on land-based relationships and land-based learning in the current E.E. policy framework. An approach to E.E. that encourages land-based relationships could enable students to become environmental stewards in their communities (Wildcat et al., 2014). My research argues that a stronger focus on students' relationships with the land is a necessary component that should be implemented into the

E.E. policy framework in the Ontario curriculum. My research asks, how can reimagining E.E. through the lens of reciprocity and respect support students' land-based relationships? Through semi-structured interviews with educators and participant observation, qualitative data will be gathered to compile a list of actionable insights that can be integrated into a revision of the current E.E. policy framework.

Setting the Scenery: Environmental Health, Aesthetic and Memory
Day 2 June 2nd, 2:40pm – SJA-613

Chair : Kira Cooper

Christopher Burton	The Origins of the Soviet Science of Environmental Health
Colin Tucker	Mapping the Aesthetic's Complicities with Plantation Logics
Karl Petschke	Passing Scenery: A Critical History of Views Along the Way

The Origins of the Soviet Science of Environmental Health Christopher Burton (The University of Lethbridge)

The project of which this paper is a part begins with the paradox of the Soviet Union as a health and environmental disaster alongside the sophistication of the Soviet science of environmental health. I analyze the science itself: for some time, Soviet scientists were the most advanced in the world in their understanding of the "safe" level of concentration of toxins in air, water, and soil. This science was also very one-sided: by the 1980s Soviet specialists had identified "safe" levels for over a thousand substances but at the exclusion of other approaches to environmental health.
This Soviet approach owes much to the long prominence of chemistry among the Russian sciences, as exemplified by Dmitrii Mendeleev. While this prominence was suppressed in the experimental 1920s, in the health sciences with a turn to sociological approaches, it was partially reasserted from 1929, as social hygiene fell out of favour. A vacuum in medical research formed precisely at the time that the Soviet committed itself to Big Science. Communal hygiene (Soviet environmental health), informed by chemistry rather than sociology, was politically "safer" and able to move into that vacuum, gaining a nation-wide network of the research institutes and laboratories in the 1930s.

Mapping the Aesthetic's Complicities with Plantation Logics Colin Tucker (Independent artist)

While environmental humanities has widely considered how art's subject matter (e.g. landscape) has enabled and contested racializing regimes of extraction, this field has yet to attend to how art's discursive and institutional underpinnings relate to racializing extraction. My paper asks how the Western post-Enlightenment Aesthetic is entwined with extractive plantation logics. I trace how plantation logics are foundational to the Aesthetic: by reading Friedrich Schiller's watershed Aesthetic Letters through the analytics of Black study scholar Denise Ferreira da Silva, I show how this text enacts a self-determined, racially-unmarked spectator through the extractivist displacement of the Exteriority of matter onto the Black(ening) figure of the Slave. I then map how, conversely, the Aesthetic is foundational to the (re)production of the plantation: by interpreting 18th century British plantation "owners'" art collecting through Strike MOMA's decolonial analytics of "artwashing," I demonstrate how institutionalized Aesthetic practice has played an integral role in rehabilitating the status of extraction profiteers within metropolitan society. In conclusion, through a close reading of seemingly marginal aspects of Aesthetic practice, this paper reveals unprecedented insights on the Aesthetic's deep and unexpected entwinements with extractive plantation logics.

Passing Scenery: A Critical History of Views Along the Way Karl Petschke (York University)

While the build-out of modern road and rail networks afforded travellers sweeping new views of vast and varied landscapes, the scenes that they were treated to often presented a distorted picture of environments in the midst of rapid and often violent political, economic, and ecological change. Drawing on a range of historical, scholarly, and literary sources, this paper explores some of the ethical and aesthetic complexities arising out of the modern popularization of transport-mediated environmental experiences. The early days of Canadian railway tourism provide a particularly instructive case study into how modern transport infrastructures not only left indelible marks on the lands through which they passed, but also fundamentally altered how everyday people understood, experienced, and related to environments along the way. Piecing together a critical environmental history of sceneries glimpsed in transit, this paper calls attention to those aspects of bypassed landscapes that have tended to elude the traveller's gaze. In doing so, it offers clues as how contemporary travellers might learn to practice care and attentiveness towards the lives and landscapes we encounter only in passing.

Energy Transition: Challenges, Impacts, and Implementation in Canada and Abroad
Day 2 June 2nd, 4:20pm – SJA-611

Chair : Megan Devoe

VIRTUAL Jiaojing Ding	The Effects of A Clean Heating Policy on Air Quality in China
Ravi Prakash; Satyajit Malode	Prospective Challenges and Opportunities in Solar Energy Utilization
Brett Dolter	Affordability in the Energy Transition
Balie Walker; Warren Mabee	From Fossil Fuels to Renewables: How Political Regimes Shape Energy Pathways in Alberta and Ontario
Karl Abian	Cascading Dishonour: The Site C Hydroelectric Dam and the Duty to Consult

The Effects of A Clean Heating Policy on Air Quality in China Jiaojing Ding (University of Georgia)

This paper estimates the impact of the winter clean heating pilot (WCHP) project on air quality in northern China using staggered models. The primary findings indicate an overall reduction in air pollution levels in northern China attributed to the WCHP. Moreover, the WCHP exhibits heightened effectiveness particularly during the heating period, resulting in a reduction of PM2.5 level by 13.29 μg/m3 (18.2%), and PM10 level by 20.22 μg/m3 (16.0%). Additionally, the study reveals unintended consequences of the WCHP in mitigating historical disparities in air pollution levels between northern and southern China due to the Huai River policy (HRP). Following the implementation of the WCHP, there is a notable decrease in air pollution levels in northern regions compared to southern areas. Specifically, PM2.5 and PM10 in northern China exhibit a substantial and greater decrease than in southern China, with reductions of 13.07 μg/m3 (23%) and 21.31 μg/m3 (21%), respectively.

Prospective Challenges and Opportunities in Solar Energy Utilization Ravi Prakash (Motilal Nehru National Institute of Technology) and Satyajit Malode (Bharat Institute of Engineering and Technology)

This study discusses three major challenges associated with ambitious growth in solar energy: net energy availability, a significant ecological footprint, and mineral resource constraints. In the context of COP 28 and 29 targets, necessitating an annual growth of 17% in renewable energy, our study suggests a critical growth rate of 20% beyond which, a solar PV program becomes an energy sink! Hence, an ambitious growth rate of solar energy will hurt net energy output, resulting in a reduced GDP. The life cycle ecological footprint of rooftop solar electricity generation is calculated as 1.49 × 10−5 gha per kWh, significantly lower than the ecological footprint of grid electricity in India. However, a very large-scale solar program would result in a significant ecological footprint, along with a shortage of critical materials essential for solar technology. This study points out opportunities for effective solar energy utilization through decentralized systems using a 'prosumer' approach, to reduce grid electricity demand. Such opportunities are highlighted as (i) solar PV driven aircooling (ii) rooftop solar PV for the food industry. In conclusion, this paper highlights the prospective challenges with large utility-scale solar power, while pointing out feasible opportunities in decentralized solar energy use with multiple advantages.

Affordability in the Energy Transition Brett Dolter (University of Regina)

Addressing climate change means finding a path to net-zero greenhouse gas emissions throughout all sectors of the economy, including personal transportation and home heating. While investments are required to achieve net-zero emissions, several reports have found that households in Canada could reduce their overall expenses when they transition to cleaner options such as electric vehicles and electric heat pumps (Canadian Climate Institute, 2022; Electrifying Canada, 2024; Clean Energy Canada, 2024). I test the results of these studies using data on household expenditures from the Survey of Household Spending. I impute current energy usage by dividing household energy expenditures by local energy prices. I then conduct a Monte Carlo analysis to determine the likely proportion of households that will see reduced energy wallet expenditures because of adopting electric vehicles and air-source heat pumps. In this analysis I vary assumptions around future energy prices (e.g. natural gas, gasoline, and electricity), the capital cost differential between electric and non-electric technologies, and rates of technological improvement. I find that the proportion of energy wallet "savers" varies across provinces. Governments can increase the affordability of the energy transition through policies such as carbon pricing and purchase subsidies, as well as targeted research and development.

From Fossil Fuels to Renewables: How Political Regimes Shape Energy Pathways in Alberta and Ontario Balie Walker (Queen's University) and Warren Mabee (Queen's University)

Canada's energy sector faces challenges in achieving rapid decarbonization while balancing economic reliance on natural resources and sustainable development. This study investigates how subnational energy transitions are influenced by shifting political circumstances, with a focus on Alberta and Ontario, two provinces with different political and energy landscapes. The current investigation analyzes how shifts in leadership affect the progression of energy transitions by integrating governance changes with energy data analysis. An evaluation of energy demand, end-use demand, and electricity generation from 2005–2023 is utilized. The four-part analysis includes mapping energy system evolution, assessing political impacts on energy strategies, identifying disruptions in energy metrics from leadership changes, and evaluating causal relationships between governance and energy outcomes. Findings highlight that various political and policy shifts have unevenly impacted the level of non-emitting sources being incorporated into the provincial energy systems. An assessment of the rate of change in energy data shows Alberta's primary energy demand composition is relatively consistent with the exemption of the coal phase-out. In contrast, Ontario has seen promising growth in renewables in addition to the coal phase-out. Insights from this study inform policymakers on advancing energy transitions and environmental policy while addressing regional variations.

Cascading Dishonour: The Site C Hydroelectric Dam and the Duty to Consult Karl Abian (University of Toronto)

Hydroelectric Dams in British Columbia have been advertised as a source of “Green” energy. For the benefit of Provincial interest, BC Hydro has marketed that the Site C Hydroelectric Dam near Fort St. John would secure British Columbia’s energy production for the future. What is not talked about is how the construction and operation of Site C would harm primarily First Nations both around the Dam and downstream, but also farmers who rely on the Peace River for their livelihoods. Due to BC Hydro being a crown corporation, they are bound by the constitution to consult with affected First Nations near the project, which would be primarily Treaty 8 First Nations. Looking at the affidavits provided by the Impact Assessment Agency of Canada, this essay will dive into the questions of aboriginal rights, treaty rights, and meaningful consultation, and see if the Environmental Impact Assessment process is being used as a bureaucratic tool to rubber stamp the project or if it is being used as a tool to gather substantial evidence as to whether or not Site C should be built.

VIRTUAL Meatspeak: Mapping Animal Agriculture’s Global Disinformation Campaign
Day 2 June 2nd, 4:20pm – SJA 613

Chair : Anderson Assuah.

Jason Hannan	Grass-Fed Lies: The Theology of Regenerative Grazing
Howard Nye; Maddie Youngman	Overcoming Challenges in Responding to Misinformation About Animal Agriculture
Karen Levenson	Betraying the Public Trust: How Canada Uses Tax Dollars to Prop Up a Destructive Food System

Grass-Fed Lies: The Theology of Regenerative Grazing Jason Hannan (University of Winnipeg)

In 2021, Do Good Foods introduced “carbon-reduced” chicken, calling themselves “the first domestic chicken brand actively combating climate change.” In 2022, Manitoba Pork claimed that Canadian hog farmers were leading the way to “sustainable pork.” In 2023, Tyson Foods and Schweid & Sons introduced their “Brazen Climate-Friendly Ground Beef Burger,” a product of Tyson’s Climate-Smart Beef Program. These initiatives are part of a massive PR response to growing concern over the climate impact of animal farming. Allan Savory, a celebrity rancher and proponent of “regenerative” grazing, has even claimed that cattle ranching can “reverse” climate change by reducing atmospheric CO2 to preindustrial levels. The solution to climate change, he says, is simple: eat more meat. As Savory puts it, “Only livestock can save us.” The idea of regenerative animal farming has taken the food industry by storm. Notable industry giants, including Cargill, General Mills, Maple Leaf, and McDonald’s, have rushed to embrace the “regenerative” label. The problem is that “climate-friendly,” “sustainable,” and “regenerative” meat is a myth, one that threatens to derail urgent efforts to address the climate crisis. The popular fantasy of regenerative is clouding public opinion with pseudoscience and undermining climate action by encouraging the false idea that we can eat our way out of the climate crisis. How do we explain the persistence and popularity of this fantasy? Is it merely the outcome of aggressive industry marketing and public misunderstanding of climate science? Or is there perhaps a deeper reason, one tied to European culture, theology, and colonial history? This paper explores the intimate link between Christian theology, the history of settler colonial animal farming, and the meat industry’s marketing campaign today to rebrand meat as “carbon-neutral,” “climate-friendly,” and “sustainable.” It argues that the myth of regenerative grazing is rooted in 18th and 19th century Christian agrarianism, in which the animal farmer enacts the will of God, civilizes the “heathen,” and spreads the message of salvation through Christian stewardship of the land.

Overcoming Challenges in Responding to Misinformation About Animal Agriculture Howard Nye (University of Alberta); Maddie Youngman (University of Alberta)

There is a clear scientific consensus that a shift to a more plant-forward food system, which produces and consumes fewer animal products, is necessary to keep food production within planetary boundaries and improve public health. Animal agriculture industries and their allies have, however, been extremely successful in obscuring this consensus by spreading misinformation about the environmental and health impacts of animal products and alternatives to them. We review a variety of solutions have been proposed to address this kind of problem of misinformation that serves industry interests, including informational campaigns that spread accurate information and counter misinformation; measures to improve media-literacy and science-literacy; corporate, legal, and policy campaigns against misinformation and in favour of accurate disclosure; and efforts at normalizing plant-forward eating independently of directly confronting misinformation.

We argue that, unfortunately, each of these solutions faces significant challenges in light of individuals' limited motivational and temporal resources on the one hand, and the dynamics of trust networks, polarization, and affective and identity based messaging on the other. Drawing on recent literature in social and political epistemology and moral psychology, we examine how individuals depend heavily on their networks of trusted sources, which tend to affirm their motivated reasoning. Against this background, campaigns that seek to educate audiences about the importance of plant-forward dietary patterns, as well as efforts at plant-forward transition which do not directly confront misinformation about animal agriculture, face significant obstacles, as they go against strong social and psychological attachments to animal product consumption that stem from the current food environment, as well as gender and cultural identities.

We conclude that while each of the solutions to the problem of misinformation about animal agriculture review has an important role to play, they need to be deployed in ways that are informed by best practices for dealing with the dynamics of trust, polarization, and affective- and identity-based considerations.

Betraying the Public Trust: How Canada Uses Tax Dollars to Prop Up a Destructive Food System Karen Levenson (University of Alberta)

While the public is the largest stakeholder in Canada's agriculture and food networks, it is also the chief victim—left to shoulder the environmental, social, and health costs imposed by unsustainable practices and shortsighted policies. Scientific consensus increasingly highlights the need for wealthy nations, including Canada, to transition toward a more plant-based food system. Such a shift could significantly improve dietary health, mitigate antimicrobial resistance and zoonotic disease risks, reduce ecological footprints, help meet net-zero targets, and feed an increasing global population. In its 2022 report, the Intergovernmental Panel on Climate Change emphasized that diets high in plant protein and low in animal products are associated with lower greenhouse gas (GHG) emissions. The report suggests that shifting to diets with a higher share of plant-based foods could lead to substantial decreases in GHG emissions, reduced land use, and decreased nutrient losses to the environment, while also providing health benefits and reducing mortality from diet-related non-communicable diseases.

This paper investigates Agriculture and Agri-Foods Canada's (AAFC) commitment to aligning its policies and programs with the prevailing scientific consensus and public interests in advancing health and sustainability by examining two publicly funded communications programs-the AgriCompetitiveness Program (2018-2024) and the AgriCommunications Program (2018-2023). These programs were designed to build capacity and increase public trust in Canada's food system. The recipients were selected based on their ability to increase consumer knowledge about the sustainability of Canada's agricultural sector and build trust in Canadian agriculture through nationwide outreach activities that bring farmers and the public together. Findings reveal that program recipients were largely in support of animal agriculture, and promoted animal-based production as solutions to public concerns about food safety and sustainability.

ESAC x UOF : Environnement et Innovation Sociale
Jour 2 2 juin,14h40 – *UOF 229

In French only, en français seulement.
Présidence : Anna Soer, Fatma Zohra Lamri

Imen Ben Jemia; Youssef Zorgati, Hajer Tebini	La réhabilitation de l'environnement naturel et de l'héritage culturel comme catalyseur de l'innovation sociale : Cas du GDA Sidi Amor en Tunisie
Christine Beaudoin; Sarah Choukah, Sarah Halwany	Repenser le laboratoire: pratiques (re)productives et spéculatives du care
Gratia K.Keza	La réduction de la pollution à l'embouchure de la rivière Humber

La réhabilitation de l'environnement naturel et de l'héritage culturel comme catalyseur de l'innovation sociale : Cas du GDA Sidi Amor en Tunisie Imen Ben Jemia (Université de l'Ontario Français), Imen Ben Youssef Zorgati (Université de Montréal) et Hajer Tebini (HEC Montréal)

Dans un contexte de changements climatiques et d'une urbanisation galopante qui contribue à la dégradation des milieux, l'engagement communautaire est crucial surtout dans les pays du Sud en proie à des pressions socioéconomiques et dont la vulnérabilité aux facteurs environnementaux est plus importante. Le cas du Groupement de Développement Agricole (GDA) Sidi Amor en Tunisie se présente comme un laboratoire d'innovations sociales visant la réhabilitation de l'environnement naturel et la réactualisation de l'héritage culturel local. À l'initiative de citoyens, un site périurbain délabré s'est transformé en un lieu de d'expérimentation, de partage de connaissances et de savoir-faire agricole, artisanal, architectural local durable restaurant la biodiversité tout en offrant de l'emploi et de la formation. Les initiatives telles que l'agroforesterie, la gestion durable de l'eau, l'écoconstruction et la valorisation des savoir-faire traditionnels, illustrent la créativité des acteurs locaux et leur engagement social et environnemental.

En Tunisie, l'histoire coloniale a généré des bouleversements sociaux, culturels et économiques majeurs. Le changement des modes de vie et des modes constructifs par une modernité importée des pays du Nord et pas toujours adaptée aux conditions climatiques et sociales locales a contribué à l'appauvrissement des communautés. Le cas de SidiAmor démontre la pertinence de la décolonisation des pratiques constructives et de la réactualisation des savoirs faire locaux en harmonie avec le contexte climatique et socioéconomique. Face au défi de la transition socio-écologique, la présentation propose une réflexion sur les opportunités et les enjeux de l'innovation sociale dans la réhabilitation de l'environnement naturel et de l'héritage culturel à travers l'étude de cas du GDA Sidi Amor en Tunisie. Les données ont été collectée grâce à des rencontres avec différents acteurs du projet en plus de la documentation qui a été fournie.

Repenser le laboratoire: pratiques (re)productives et spéculatives du care Christine Beaudoin (Université de l'Ontario Français), Sarah Choukah (Université de l'Ontario Français) et Sarah Halwany (Université de l'Ontario Français)

Le « laboratoire » est composé de relations en constante (ré)émergence. Prenant une diversité de formes, de compositions et de niveaux de porosité, le laboratoire est à la fois un lieu reproductif des traditions techno-scientifiques (ex., laboratoire de microbiologie), un regroupement de citoyen·nes cherchant à remettre en question ces traditions (ex., laboratoire d'artistes), un terrain en milieu ouvert (ex., laboratoire d'écologie), parmi d'autres.

Ces laboratoires accueillent un large éventail de gestes qui (ré)actualisent et (re)produisent les pratiques

du care entre humains, disciplines et plus qu'humains (ex., entre humains et slime molds, entre humains et bactéries). Le care crée des mondes et n'est pas simplement une vertu que l'on « possède ». Les notions du care nous encouragent à interroger les modes de (re)production des savoirs, des rapports de genre et race ainsi que des logiques marchandes qui sont, semble-t-il, inhérentes à la production scientifique. Avec réflexivité, nous explorerons les limites ontologiques et épistémologiques de ce concept et nous nous situerons par rapport à nos terrains de recherche. Dans un contexte de crises socio-écologiques, les moments de tension nous permettent de spéculer avec des méthodes relationnelles pour mieux retracer les effets et les opportunités liés au care comme pratique qui matérialise nos mondes.

Le lien entre travail et environnement dans les politiques d'insertion professionnelle des jeunes au Brésil et au Canada Stéphanie Ferreira Bexiga (Insitut National de la Recherche Scientifique)

L'indissociable dégradation du travail et de l'environnement conduirait à une crise à la fois climatique, du travail et de l'emploi, où l'intervention de l'État serait un impératif. Des politiques intégrant l'emploi et l'environnement permettraient d'y faire face, comme celles visant l'insertion professionnelle des jeunes dans le domaine environnemental. La jeunesse, acteur majeur dans le débat écologique international et l'un des groupes les plus vulnérables aux changements climatiques et au chômage (OIT 2018; Cenacchi et coll. 2020), y serait une cible importante. Cette recherche s'intéresse aux politiques d'insertion professionnelle des jeunes dans le domaine de l'environnement. À travers la comparaison et l'analyse documentaire de deux programmes déployés par le Brésil et par le Canada, nous interrogeons les façons dont l'environnement et l'insertion professionnelle des jeunes sont conçues. Nous constatons que (1) dans le cas canadien, une jeunesse qualifiée serait le point de départ du programme, alors que dans le cas brésilien la qualification serait le point d'arrivée; (2) dans chaque cas, les occupations ciblées diffèrent selon le niveau de scolarité et (3) également, distinctes visions entourent le lien entre travail et environnement dans chaque programme, allant de l'économie verte à l'économie solidaire.

La réduction de la pollution à l'embouchure de la rivière Humber Gratia K.Keza (Université de l'Ontario Français)

L'urbanisation croissante et les changements climatiques aggravent la pollution de l'eau et intensifient les risques d'inondation, en particulier dans les villes fortement imperméabilisées comme Toronto. Ceci finit alors par impacter négativement les écosystèmes naturels ainsi que la santé des populations et des animaux, en les exposant à des contaminants toxiques. Or, les infrastructures traditionnelles de gestion de l'eau se révèlent souvent insuffisantes pour répondre efficacement à ces enjeux. Cette recherche vise donc à explorer l'intégration des infrastructures vertes comme solution durable pour améliorer la qualité de l'eau et renforcer la résilience urbaine de la rivière Humber. Par une approche combinant une étude de cas portant sur l'analyse de l'ensemble des stratégies mises en place ainsi qu'une analyse comparative avec d'autre sites similaires, nous identifions les principaux polluants ainsi que les opportunités d'intervention. Cette approche permettrait (1) de proposer des stratégies adaptées aux réalités locales pour réduire la pollution et (2) d'optimiser la gestion des eaux pluviales afin d'atténuer les impacts des inondations dans un contexte urbain.

Espaces Publics et Écocitoyenneté
Jour 2 2 juin, 16h – *UOF 229

In French only, en français seulement.

Présidence : Christine Beaudoin, Samuela Bielo Mwambabu

Vital N. Kasongo	Comment équilibrer les besoins écologiques et sociaux dans le parc Bluffer ?

Lili Arcand	Partage des espaces publics : Enjeux liés à la diversité des besoins de la population et négociations pour une cohabitation favorable dans les espaces publics.
Justine Leclerc	Cohabitation intergénérationnelle et écocitoyenneté : Les relations parent-enfant et la consommation d'énergie

Comment équilibrer les besoins écologiques et sociaux dans le parc Bluffer? Vital N. Kasongo (Université de l'Ontario Français)

Mon travail de fin d'études, intitulé « Comment équilibrer les besoins écologiques et sociaux dans le parc Bluffer ? », s'intéresse à la manière dont les espaces urbains peuvent répondre à la fois aux exigences environnementales et aux attentes des citadins. L'objectif principal de cette recherche est d'explorer des stratégies d'aménagement durable permettant de préserver la biodiversité tout en favorisant le bien-être des usagers.

Le parc Bluffer, un lieu emblématique de Toronto, est à la fois un espace naturel riche en biodiversité et un lieu fortement fréquenté par les citadins pour des activités récréatives. Face aux pressions croissantes liées à l'urbanisation, la question centrale de cette étude est : comment peut-on concilier conservation écologique et accessibilité sociale dans un tel espace ?

Pour aborder cette problématique, j'ai conçu une approche méthodologique mixte : elle repose sur des recherches documentaires approfondies, des entretiens exploratoires avec des acteurs clés, et des enquêtes auprès des usagers pour mieux comprendre leurs attentes.

Bien que l'étude soit en cours, elle vise à fournir des recommandations pratiques pour des aménagements inclusifs et respectueux de l'environnement, en contribuant au dialogue sur les parcs urbains comme piliers du développement durable.

Partage des espaces publics : Enjeux liés à la diversité des besoins de la population et négociations pour une cohabitation favorable dans les espaces publics Lili Arcand (Institut National de la Recherche Scientifique - Centre Urbanisation Culture Société (INRS-UCS)

L'usage des espaces publics favorable à la qualité de vie et répondant aux besoins de tout.e.s les membres d'une communauté est primordial pour sa durabilité sociale. L'étude présentée vise à mieux comprendre les enjeux de cohabitation dans l'espace public, par l'étude de cas de la Ville de Sainte-Julie, dont l'administration perçoit plusieurs difficultés en lien avec l'utilisation des parcs (p.ex.: vandalisme et attroupements de jeunes), créant préjudice à sa population.
L'étude s'appuie sur l'analyse quantitative de données fournies par le service de police (RIPRSL, infractions et cartes d'appel) et par la Ville de Sainte-Julie (plaintes et requêtes des résident.e.s, ainsi qu'interventions de l'agence de sécurité). Les perceptions des différents acteurs est considérée par la collecte et l'analyse des données de groupes de discussion et d'entretiens individuels avec des intrevenant.e.s, des résident.e.s et des jeunes.
Les résultats révèlent que les difficultés de cohabitation évoluent dans un climat de tension entre les différents groupes d'usager.ère.s, attribuable à de l'incompréhension, des préjugés et une absence de communication. Les comportements problématiques appellent à être pris en charge dans une approche basée sur la prévention et sur l'accompagnement, permettant d'encourager des interactions positives et améliorant la durabilité et la pérennité de l'environnement social.

Cohabitation intergénérationnelle et écocitoyenneté : Les relations parent-enfant et la consommation d'énergie Justine Leclerc (Université Laval)

Mon mémoire explore les significations et les pratiques de consommation d'énergie dans des cohabitations entre adultes autres que des conjoints, dans des maisons appartenant à des personnes âgées de 45 à 65 ans, vivant ensemble sans changement de dynamique relationnelle depuis au moins une année.

L'objectif central de ma recherche est d'analyser l'impact des dynamiques relationnelles sur les pratiques écocitoyennes. À travers dix-sept entretiens semi-dirigés, j'observe deux dynamiques relationnelles entre les participants et leurs cohabitants, en majorité leurs enfants, : l'hospitalité, où les parents hébergent l'enfant sans contribution domestique, et l'entraînement, où l'on apprend des parents le soin de la propriété. Ces dynamiques influencent l'implication dans les tâches domestiques et la gestion de l'énergie. Dans l'hospitalité, les parents gèrent les espaces communs et les routines, tandis que dans l'entraînement, les routines impliquent la participation de tous.

J'exposerai donc des constats de mon rapport de faits saillants de l'enquête par entretiens, à commencer par le fait que la participation aux routines, influencée par la dynamique relationnelle, est liée aux représentations de la transition à l'âge adulte et du confort nécessaire à une cohabitation harmonieuse. Cette participation varie selon la localisation du logement (banlieue ou ville) et façonne les pratiques écocitoyennes.

DAY THREE – JUNE 3rd

Thinking Agriculture: Waste Management, Taxes and Data Ownership
Day 3 June 3rd, 10:30am – SJA-611

Chair : Pamela Courtenay-Hall

Angelica Ramoutar	Environmental governance in the service of scale: Investigating the challenges of waste management in industrial livestock production in Ontario
Laure Gosselin	Climate-resilience narratives and corporate capture in agri-food systems: the case of plant-genetic resources for food and agriculture
Md Mahatab Uddin	Climate-Smart Agriculture and Farm-data Ownership under Intellectual Property Law

Environmental governance in the service of scale: Investigating the challenges of waste management in industrial livestock production in Ontario Angelica Ramoutar (The University of Western Ontario)

Livestock production across Canada is increasingly industrialized, a trajectory that is characterized by fewer and much larger operations. One of the central managerial challenges associated with industrial livestock operations relates to the enormous volumes of feces and urine produced by the large and dense animal populations, which require continual supplies of freshwater and chemical disinfectants to decontaminate enclosures. The ensuing slurry that is generated from this combination of biowastes, water, and chemicals cannot be immediately spread across agricultural landscapes and is instead stored in large cesspools and must be processed before it is applied to fields. There is a significant and underappreciated burden associated with the storage and processing of these animal bio-wastes that includes noxious fumes (which carry a powerful stench), heightened respiratory illnesses for neighbouring communities, greenhouse gas emissions, and water pollution risks. This paper examines how this multidimensional burden is governed in Ontario, reviewing the key policies that determine how cesspools are managed along with the primary environmental and public health harms and risks that are expressed in this governance.

Climate-resilience narratives and corporate capture in agri-food systems: the case of plant-genetic resources for food and agriculture Laure Gosselin (Université Laval)

Preserving genetic diversity is widely regarded as crucial for the development of agri-food systems that are resilient to climate change. Yet, contestation persists about the conservation of crop genetic diversity, the role of gene banks for agricultural research and development, and the fair and equitable redistribution of benefits arising from utilizing plant genetic resources. This study explores the discursive strategies employed by stakeholders —farmers' groups, NGOs, agricultural think-tanks, and agribusinesses—to influence the global discourse and international norms applying to plant genetic resources for food and agriculture. Drawing on critical discourse analysis of reports and interviews, the paper examines narratives about climate-resilient seeds and how they align with the plant genomics industry' interests. Advocating for "diversity-in-use", actors controlling extensive gene banks, such as the CGIAR, blur the line between scientific research and the commodification of genetic data. Conversely, smallholder farmers criticize the centralization of knowledge in seed banks, the privatization of traditional and indigenous knowledges, and the inadequacies of intellectual property seed laws that tend to criminalize seed saving and community-governed plant-breeding programs. This paper contributes to discussions on the discursive and epistemic dimension of corporate capture, by critically assessing who profits from discourses about the preservation of traditional and indigenous knowledges.

Climate-Smart Agriculture and Farm-data Ownership under Intellectual Property Law Md Mahatab Uddin (University of Guelph)

The expansion of climate-smart agriculture necessitates the integration of digital technologies, including AI-driven systems powered by big data, machine learning, and deep learning. These advancements rely on extensive data sharing between farmers and agricultural technology providers. However, this digital shift raises critical concerns about data ownership, privacy, and potential misuse. Farmers contribute both personal data and farm data, encompassing sensitive information such as crop details, livestock records, and machinery specifications. This paper addresses the legal complexities surrounding farm data ownership, focusing on its treatment under intellectual property (IP) law frameworks.

Through a critical analysis, the paper evaluates the applicability of patent law, copyright, and trade secrets in establishing ownership rights over farm data. Other IP laws, such as trademarks and geographical indications, are deemed irrelevant due to their focus on product authentication rather than data ownership. Furthermore, the paper explores farmers' apprehensions about data misuse, including the unauthorized sharing of data with regulatory agencies, which could lead to penalties and restrictions.

By examining these issues, the study aims to provide a comprehensive understanding of the legal challenges farmers face and offer recommendations for balancing innovation, data protection, and farmers' rights in AI-powered, climate-smart agricultural practices.

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Biodiversity and Society. Joint ESAC-CSA Session.
Day 3 June 3rd, 11am – WFL-808

This session is organized in collaboration with the Environmental Sociology Research Cluster of the Canadian Sociological Association.

Chair : Christine Beaudoin and Lisa Seller

CSA: Claire Burnel	Quantifying nature in Québec: Actors, political scales and local stakes around biodiversity indicators
CSA: Christine Beaudoin; Karen Vanderwolf, James Pagé, Emily Becker	Surveying Participants of the Canadian Bat Box Project
ESAC: Lisa Seiler	Tick Talk: Black-Legged Ticks as Actants in Outdoor Nature Activities
ESAC: Peri Dworatzek	One Goes Up and One Goes Down: Can Ecological Footprint be used to Measure Human Impacts on Biodiversity?

Quantifying nature in Québec: Actors, political scales and local stakes around biodiversity indicators CSA: Claire Burnel (Université de Montréal)

This PhD project aims to study the socio-political processes at play in biodiversity conservation in Quebec, by observing the current production and development of biodiversity indicators in the province. The idea is to propose an ethnography and a socio-history of the development of indicators for protected areas and endangered species, in order to understand the actors at play in these two examples, and the power relationships between them. Who is and isn't considered a legitimate expert in biodiversity conservation in Quebec? What political intentions might these experts claim? What kinds of controversies and debates take place between the stakeholders who do have a seat at the table? What is the influence and importance of the different juridical scales in the choice of indicators? This last point is particularly important as indicators are pushed into national and local political agendas by international political arenas such as the Convention on Biological Diversity. Moreover, Quebec has its own particularities regarding its policies on biodiversity which must be put into perspective with federal policies. Indigenous input must also be investigated to see if and how Indigenous communities are heard when developing these technical tools to manage biodiversity. As quantitative tools which are seen as paramount to policymaking and decision-making, biodiversity indicators sometimes hide whatever debates and controversies preceded their use in policymaking behind a "black box", which is difficult to put into question once they're institutionalized. They also crystallize the power relationships and local stakes when focusing debates on what should and should not be taken into account when measuring biodiversity health, all the while some actors are absent from these debates. As such, looking into their production allows us to understand how and by whom the indicators are measured, and how these actors might normatively affect representations and management of biodiversity.

Surveying Participants of the Canadian Bat Box Project CSA: Christine Beaudoin (Université de l'Ontario français); Karen Vanderwolf (University of Waterloo), James Pagé (Canadian Wildlife Federation(and Emily Becker (Canadian Wildlife Federation)

Supporting bats throughout their life cycle is a conservation priority, as bats provide many benefits such as pollination and control of insect pests. Unfortunately, the disease white-nose syndrome, among other threats, have had devastating effects on bat and three bat species are now endangered in Canada. The purpose of bat boxes is to replace habitat destroyed by humans to help conserve bat populations. From 2020 to 2023, the Canadian Bat Box Project was a citizen science that gathered data on bat boxes owned by people in Canada (e.g. styles, dimensions, number of chambers, mounting conditions), the microclimates of different boxes, the presence of pathogens in the boxes, and the number of bats of different species that use bat boxes. Approximately 1500 people from across Canada participated in the project, generating ecological data about bat boxes. Yet, we have more to learn about the environmental attitudes and behaviors of these citizen scientists. We will present preliminary results of a post-project survey with people who participated in the Canadian Bat Box Project. By surveying participants about their experiences with the Canadian Bat Box Project, we explore engagement with the citizen science project, opportunities and barriers to participating in citizen science as well as attitudes and behaviors towards bats. The project has three objectives: (1) Describe engagement in the Canadian Bat Box Project, (2) Understand how participants of the project view environmental issues and how they behave in relation to the environment and (3) Use the results to write practical and policy recommendations for bat conservation in Canada and for future citizen science projects. We aim to inform practice, policy, and decision-making relating to bat conservation in Canada, thus supporting organizations with a mission to conserve biodiversity such as the Canadian Wildlife Federation, key partner in the citizen science project and post-project survey.

Tick Talk: Black-Legged Ticks as Actants in Outdoor Nature Activities ESAC: Lisa Seiler (York University)

With a warming climate, black-legged ticks have moved into and spread across much of Ontario, bringing the threat of Lyme disease and other serious diseases with them. Their presence has caused changes in the behaviour of hikers and other outdoor nature enthusiasts. It has also affected the behaviour of the clubs that support them and the parks where they spend their time. Taking an actor-network theory approach (Latour 2005), my research traces the arrival of ticks in Ontario and their subsequent effect on outdoor nature enthusiasts, as mediated by parks, nature-related clubs, and other organizations. My research question is: How does the consideration of non-human actants improve our understanding of outdoor nature enthusiasts' response to climate change? My primary sources of data are in-depth interviews with representatives of nature-related organizations as well as social media posts from those organizations, supplemented by other textual material.

One Goes Up and One Goes Down: Can Ecological Footprint be used to Measure Human Impacts on Biodiversity? ESAC: Peri Dworatzek (York University)

An enormous impact of climate change is loss of biodiversity around the world, including a catastrophic loss of wildlife. For decades there have been debates about how to measure biodiversity and human impacts on biodiversity. One metric that has been identified as measuring human impacts on the environment and biodiversity is ecological footprint.

Ecological footprint measures human production and consumption of the Earth's renewable resources, while comparatively biocapacity measures the regenerative capacity of lands and waters and their capacity to absorb waste generated by humans. This accounting system measures flows of biomass from ecosystem services, which provides the ability to monitor pressures on the environment caused by humans. Ecological footprint and biocapacity data is produced on an annual basis for all countries around the world from 1961 to the last present year – thereby an extensive, reliable, and updated source for assessing impact.

In this paper the ecological footprint, not biocapacity, was found to be a suitable and valuable measurement of human pressures on biodiversity, however, it should not be used alone. Additionally,

through statistical analysis a significant negative correlation was found between ecological footprint and vertebrate species loss on a global scale.