

RE3 2023

CONFERENCE

RECLAIM
RESTORE
REWILD

June 11-15, 2023

•

QUEBEC CITY

•

CANADA

CONFERENCE PROGRAM



SOCIÉTÉ POUR LA
RESTAURATION
ÉCOLOGIQUE
EST DU CANADA



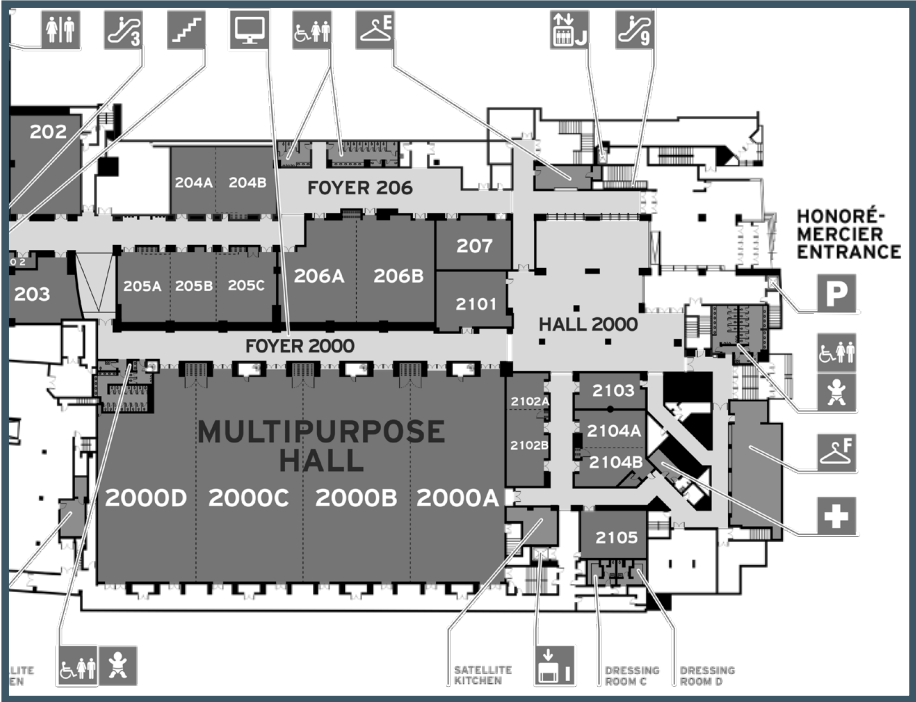
SOCIETY FOR
ECOLOGICAL
RESTORATION
EASTERN CANADA



Canadian Land Reclamation Association
Association canadienne de réhabilitation des sites dégradés



MEETING FLOOR PLAN



LEGEND

REGISTRATION AND SPEAKER READY DESK	HALL 2000
PLENARY ROOM	2000A
PARALLEL ROOMS	202, 204AB, 205AB, 205C, 206A, 206B, 2101, 2104AB, 2105
LUNCH ROOM	2000B
COFFEE BREAKS, POSTERS AND EXHIBITION HALL	2000CD
SOCIETIES MEETING	2102B & 2103

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SATURDAY, JUNE 10, 2023

08:30 - 16:30	Global Peatland Initiative (GPI) Workshop (1 of 2)	See program
08:30 - 16:00	Training Courses	See program
12:00 - 17:00	IPS Executive Board meeting	Hotel Chateau Laurier

SUNDAY, JUNE 11, 2023

08:00 - 16:00	IUCN Youth Academy	Université Laval
08:00 - 17:00	Pre-Conference Field Tours	
08:30 - 16:30	Training Courses	See program
08:30 - 16:30	Global Peatland Initiative (GPI) Workshop (2 of 2)	See program
14:30 - 16:30	Walking Tour of Old Quebec, a World Heritage Site	Meeting point: Hall 2000
16:00 - 20:00	Registration	Hall 2000
17:00 - 18:30	Welcoming Speech: Chair of RE3 & Opening Lecture - Edward Struzik	2000AB
19:00 - 22:00	Evening Ice-Breaker	Espace Urbain

MONDAY, JUNE 12, 2023

07:00 - 19:00	Registration	Hall 2000
09:30	Exhibit Hall opens	2000CD
08:30 - 08:45	Opening	2000AB
08:45 - 09:30	Rewilding Plenary Speaker: Gary Pritchard	2000AB
09:30 - 10:15	Rewilding Plenary Speaker: Marie-Eve Marchand	2000AB
10:15 - 10:45	Health break & Press Conference Launching of the Global Peatland Assessment - North American Chapter	2000CD
10:45 - 12:15	RE3 Oral Sessions / Symposia - ISHS oral presentations	See program
12:15 - 13:30	Lunch	2000B
12:15 - 13:30	Women in Restoration Luncheon	2000A
13:30 - 15:00	RE3 Oral Sessions / Symposia - ISHS oral presentations	See program
15:00 - 15:30	Health break	2000CD
15:30 - 17:00	RE3 Oral Sessions / Symposia - ISHS oral presentations	See program
17:00 - 18:30	Poster session 1	2000CD
17:00 - 18:00	IPS Commission Meeting	2102B
18:00 - 19:00	SER Chapters Meeting	2103
19:30	Happy Hour for students and professionals	Murphy's Pub

TUESDAY, JUNE 13, 2023

08:00 - 18:00	Registration	Hall 2000
09:30	Exhibit Hall opens	2000CD
08:30 - 08:45	Welcoming words	2000AB
08:45 - 09:30	Reclamation Plenary Speaker: Carla Wytrykush	2000AB
09:30 - 10:15	Reclamation Plenary Speaker: Jacynthe Dessureault-Rompé	2000AB
10:15 - 10:45	Health break	2000CD
10:45 - 12:15	RE3 Oral Sessions / Symposia - ISHS-IPS one-day joint symposium - ISHS oral presentations	See program
12:15 - 13:30	Lunch	2000B
12:30 - 13:30	CLRA Annual General Meeting	206B
12:30 - 13:30	SER-EC 2nd Annual Assembly of Members	2102B
13:30 - 15:00	RE3 Oral Sessions / Symposia - ISHS-IPS one-day joint symposium - ISHS oral presentations	See program
15:00 - 15:30	Health break	2000CD
15:30 - 17:00	RE3 Oral Sessions / Symposia - ISHS-IPS one-day joint symposium - ISHS oral presentations	See program
17:00 - 18:30	Poster Session 2	2000CD
17:00 - 19:00	IPS Annual Assembly	2102B
17:30 - 22:30	Evening at Huron-Wendat site	Meeting point: Hall 2000
18:30 - 23:30	Sugar Shack Dinner at Sucrierie Blouin	Meeting point: Hall 2000
19:00 - 20:30	ISHS Business Meeting	204AB
19:00 - 21:00	IPS National Committee Dinner	Hotel Le Concorde Québec

PROGRAM AT A GLANCE

WEDNESDAY, JUNE 14, 2023

07:30 - 18:00 Mid-Conference Field Tours (including ISHS tours)

THURSDAY, JUNE 15, 2023

08:00 - 16:00	Registration	Hall 2000
08:45 - 09:30	Restoration Plenary Speaker: Tina McCaffrey	2000AB
09:30 - 10:15	Restoration Plenary Speaker: Eric Higgs	2000AB
10:15 - 10:45	Health break	2000B
10:45 - 12:15	RE3 Oral Sessions / Symposia - UN Decade event - ISHS oral presentations	See program
12:15 - 13:30	Lunch	2000B
12:30 - 13:30	SWS Meeting	2102B
13:30 - 15:00	RE3 Oral Sessions / Symposia - UN Decade event - ISHS oral presentations	See program
15:00 - 15:30	Health break	2000B
15:30 - 16:45	Closing ceremony	2000A
18:00 - 01:00	Banquet & Dance evening	Voltigeurs de Québec Armoury

FRIDAY, JUNE 16, 2023

08:00 - 10:00 Post-Conference Field Tours (3 days)

SECRETARIAT QUÉBEC RE3

Tel.: +1 418 522 8182

Email : re3quebec-info@conferium.com



All funds for offset emissions is funding the Carbon Boréal forestry sequestration program. Learn more at www.carboneboreal.uqac.ca

Tous les fonds pour les émissions compensatoires servent à financer le programme de séquestration forestière de Carbon Boréal. Pour en savoir plus, consultez le site www.carboneboreal.uqac.ca



Canadian Sphagnum
Peat Moss Association

Association canadienne
de la tourbe de sphaigne

AS OF TODAY, THE CANADIAN HORTICULTURAL PEAT INDUSTRY HAS **RESTORED 3,450 HA OF PEATLANDS**

through the Moss Layer Transfer Technique and
Active Rewetting, in addition to 4,700 ha
naturally regenerated.

À CE JOUR, L'INDUSTRIE CANADIENNE DE LA TOURBE HORTICOLE A **RESTAURÉ 3 450 HA DE TOURBIÈRES**

par la méthode de transfert de la couche muscinale
et le remouillage actif, en plus des 4 700 ha
régénérés naturellement.

Photo A. S. Khan

www.peatmoss/restoration

www.tourbehorticole.com/restauration

WELCOMING WORDS

Welcome to the RE3 Conference!

We are proud to host a joint conference between the Society for Ecological Restoration – Eastern Canada (SER-EC) and the Canadian Land Reclamation Association (CLRA) from June 11th to 15th, 2023, at the third year of the UN Decade of Ecosystem Restoration (2021-2030). We are also excited to cooperate with the Ontario chapter of SER (SER-O), the Midwest Great Lakes Chapter of SER (SER-MWGL), the Canadian chapter of the Society of Wetland Scientists (SWS Canada), the International Society for Horticultural Science (ISHS), the International Peatland Society (IPS) and the American Society of Reclamation Sciences (ASRS) to provide an enlarged scientific and field program.

The theme of the RE3 Conference is “From Reclaiming to Restoring and Rewilding”. It aims to stimulate discussions about the range of environmental management approaches advocated by the hosting societies. Reclaiming is recognized and practised by many industries, including mining and petrol extraction. Restoring is recognized most broadly around the world. Rewilding, or bringing back to nature, allows us to dream. These terms also imply ideas of industry, science, practice, society and imagination.

Since 2000, economic development and climate change have accelerated in temperate, boreal and arctic regions of North America, and nature-based mitigation solutions, including ecological restoration, are in full expansion. As the boreal biome comprises close to 20% of wetlands in North America, we believe it is important to bring together, experts from SWS Canada and IPS to join members from CLRA and SER, for stimulating exchanges of knowledge, best practices and new ideas. The conference will provide an excellent opportunity for all members, whether academic, private-sector or governmental stakeholders, to interact and to present the latest developments for reclaiming, restoring or rewilding diverse ecosystems, and to promote the understanding, the science-based management and the sustainability of organic soils use (wetlands, peatlands) in agriculture and soilless cultivation.

Most of the conference will be held in English, but there will also be sessions in French.

Thank you for being a part of the RE3 Conference – we are excited to have you join us!

The Organizing Committee

MOT DE BIENVENUE

Bienvenue à la Conférence RE3!

Nous sommes fiers d'accueillir une conférence conjointe entre la Society for Ecological Restoration – section de l'Est du Canada (SER-EC) et l'Association canadienne de réhabilitation des sites dégradés (ACRSD/CLRA), du 11 au 15 juin 2023, à l'occasion de la troisième année de la Décennie des Nations Unies pour la restauration des écosystèmes (2021-2030). Nous sommes également ravis de coopérer avec la section ontarienne de SER (SER-O), la section Midwest et Grands Lacs de SER (SER-MWGL), la section canadienne de la Society of Wetland Scientists (SWS Canada), l'International Society for Horticultural Science (ISHS), l'International Peatland Society (IPS) et l'American Society of Reclamation Sciences (ASRS) pour fournir un vaste programme scientifique et de nombreuses excursions.

La Conférence RE3 a pour thème « De la réhabilitation à la restauration au réensauvagement ». Ce thème vise à stimuler les discussions sur l'évolution des approches de gestion préconisées par les sociétés hôtes. La réhabilitation est reconnue et pratiquée par de nombreuses industries, y compris celles de l'extraction minière et pétrolière. La restauration est davantage connue dans le monde entier. Le réensauvagement, ou le retour à la nature, nous permet de rêver. Ces termes impliquent également des idées d'industrie, de science, de pratiques, de société et d'imagination.

Depuis 2000, le développement économique et les changements climatiques s'accélérent dans les régions tempérées, boréales et arctiques d'Amérique du Nord, et des solutions d'atténuation axées sur la nature, dont la restauration écologique, sont en pleine expansion. Comme le biome boréal comprend près de 20 % des milieux humides en Amérique du Nord, nous pensons qu'il est important de convier des experts de SWS Canada et de l'IPS à se joindre aux membres de la SER et de l'ACRSD/CLRA afin de stimuler les échanges de connaissances, de meilleures pratiques et de nouvelles idées. La conférence offrira une excellente occasion à tous les participants, qu'ils soient du monde universitaire ou qu'ils proviennent d'organismes privés ou gouvernementaux, d'interagir et de présenter les derniers développements en matière de réhabilitation, de restauration et d'ensauvagement pour divers écosystèmes, et de promouvoir la compréhension, la gestion scientifique et la durabilité de l'utilisation des sols organiques (zones humides, tourbières) en agriculture et en production hors-sol.

La conférence se déroulera majoritairement en anglais, mais des sessions en français font également partie du programme. N'hésitez pas à feuilleter les pages qui suivent pour choisir

Merci de participer à la conférence RE3! Nous sommes ravis de vous compter parmi nous!

Le Comité organisateur

COMMITTEES

ORGANIZING COMMITTEE:

Chair: Line Rochefort (Université Laval, SER-EC)

Co-chair: Maria Strack (University of Waterloo, SER Ontario Chapter)

Co-chair: Fannie DesRosiers (CLRA)

SCIENTIFIC COMMITTEE:

Chair: Maria Strack (University of Waterloo, SER Ontario Chapter)

Co-chair: Alison Munson (Université Laval, SER)

- | | |
|-------------------------------|------------------|
| ▪ Daniel Campbell | ▪ Sabine Jordan |
| ▪ Dave Cloutier | ▪ Lucie Labbé |
| ▪ Jacynthe Dessureault-Rompré | ▪ Chris Lenhart |
| ▪ Nigel Finney | ▪ Rocky Smiley |
| ▪ Susan Glasauer | ▪ Justin Straker |
| ▪ Ellie Goud | ▪ Julie Talbot |
| ▪ Mélina Guêné-Nanchen | ▪ Meng Wang |
| ▪ Kate Hayes | ▪ Bin Xu |

EXCURSION COMMITTEE:

Chair: Luc Bélanger (SER-EC)

Co-chair: Charles Gignac (SER-EC)

ISHS SCIENTIFIC COMMITTEE:

- | | |
|-------------------------------|-----------------------|
| ▪ James Atland | ▪ Brian Jackson |
| ▪ Beatrix Alsanius | ▪ Jean-Charles Michel |
| ▪ Stephanie Boudreau | ▪ Jim Owen |
| ▪ Tommaso Barbagli | ▪ Steeve Pépin |
| ▪ Chris Blok | ▪ Line Rochefort |
| ▪ Jean Caron | ▪ Gerald Schmilewski |
| ▪ Jacynthe Dessureault Rompré | ▪ Graeme Smith |
| ▪ Martine Dorais | ▪ Stefania De Pascale |
| ▪ Jeb Fields | ▪ Bart Vandecasteele |
| ▪ Guillaume Grégoire | ▪ Youbin Zheng |



Sustainable future

We aim to shape a sustainable future by making a difference in every way we can.

For our planet. For our people. For our customers and communities.

RESPONSIBLE-MANAGEMENT.BERGER.CA



RESPONSIBLE PEATLAND MANAGEMENT IS IN OUR NATURE

KEYNOTE SPEAKERS



Jacynthe Dessureault-Rompré

Professor in soil conservation and health, Université Laval (Québec, Canada)

Keynote for Reclamation Session

Jacynthe Dessureault-Rompré is currently a professor in soil conservation and health at Université Laval (Québec, Canada). She completed her bachelor's degree in agronomy and master's degree in soil chemistry at Université Laval and obtained a PhD degree from the ETH Zurich in Switzerland, working specifically on the soil-plant relationship. She has done several years of post-doc, studying nitrogen cycling in soil in collaboration with Agriculture Canada and Dalhousie University (Canada). She specialized in the conservation and restoration of cultivated peatlands from 2014, her work being focused on carbon equilibrium through biomass production and soil amendment. Her scientific interests include soil conservation in general and that of cultivated peatland in particular, the soil-plant relationship and climate change, the optimization of N and C cycle in soils for sustainable agriculture and the regeneration of degraded soils using phytotechnology.



Eric Higgs

Professor, University of Victoria (British Columbia, Canada)

Keynote for Restoration Session

Eric Higgs is fascinated by ecological restoration in all of its forms, including participation, social justice and equity, historical ecology for understanding change and reference conditions, and emerging ecological novelty. He is Professor at the University of Victoria's School of Environmental Studies, past chair of the Society for Ecological Restoration, and director of the Mountain Legacy Project (mountainlegacy.ca). He is author of *Nature By Design: People, Natural Process and Ecological Restoration*, and co-editor of *Novel Ecosystems: Intervening in the New Ecological World Order*.



Marie-Eve Marchand

Executive director of the International Buffalo Relations Institute (Alberta, Canada)

Keynote for Rewilding Session

Marie-Eve Marchand is a system entrepreneur who dedicates her life to bring culture, conservation sciences, communications, and policy together for a better relationship between Peoples and Nature. Over the last decade, she has successfully coordinated the Bison Belong Initiative to bring back Bison in Banff National Park and is actively supporting The Buffalo: A Treaty of Cooperation, Renewal and Restoration as the Executive Director of the Indigenous-led International Buffalo Relations Institute. She is also a member of IUCN World Commission on Protected Areas (WCPA) and of the Species Commission, Bison Specialist Group and was the Business and Strategies Manager for the IUCN WCPA Post-2020 Task Force to support an ambitious Global Biodiversity Framework. She is the Chair of the IUCN Green List Expert Assessment Group in Quebec, the first in Canada to improve effective management and conservation in protected and conserved areas. She previously received the national Golden Leaf Award for her work on protecting the last undammed river in Southern Quebec, Dumoine River and played a key role in the Quebec government's commitment to protect at least half of Northern Quebec. She is from St-Bruno, Lac-St-Jean and she lives with her husband Harvey Locke in Banff National Park.



Tina McCaffrey

Supervisor of Regreening with the City of Greater Sudbury (Ontario, Canada)

Keynote for Restoration Session

Tina McCaffrey, B.Sc has been the Supervisor of Regreening with the City of Greater Sudbury since 1994. She is a graduate of Laurentian University's Biology Program and a native Sudburian, who has experienced the regreening transformation first-hand. In her years with the City, she has supervised nearly 1500 temporary job positions involved in Regreening as well as the planting of over 8 million tree seedlings.



Gary L.J. Pritchard

Conservation ecologist & Indigenous engagement/placemaking specialist (Ontario, Canada)

Keynote for Rewilding Session

Gary Pritchard ~Giniw (Golden Eagle) is Conservation Ecologist & Indigenous Engagement/Placemaking Specialist from Curve Lake First Nation, Ontario.

Gary has had the privilege to work on behalf of Indigenous peoples throughout Ontario and Canada. He has travelled and worked in almost 300 Indigenous communities throughout Canada and the northern United States. He has brought a wealth of knowledge to both his Indigenous and non-Indigenous cliental performing a wide variety of services including: Indigenous Community Planning, land-use/traditional knowledge studies, Indigenous lead conservation and restoration, Ecological Monitoring using Two-eyed Seeing, Indigenous Place-making, capacity building, expert testimony, mediation between western science and traditional science and subject matter expert on behalf of Indigenous communities.

Gary loves to connect and educate people through nature. He does this through several mediums. His favourite way is through his wildlife photography and storytelling. He believes that if individuals especially youth can form a connection with nature then all people can make conscious decisions on how we impact Mother Earth and the next seven generations. Gary likes to spend much of his free time educating the youth about "All Our Relations," with his most favourite students being his two children.

One of Gary's greatest strength is that he is often able to be the one who acts as the bridge between the Indigenous Community and the western style of governance. Gary has successfully collaborated with many stakeholder groups, researchers, institutes, government agencies, Indigenous communities, and political organizations to address environmental concerns and identify practical solutions to environmental related issues.



Edward Struzik

Writer, Rapporteur, Public Speaker, Fellow at Queen's Institute for Energy and Environmental Policy (Ontario, Canada)

Opening Keynote

Edward Struzik is a writer, rapporteur, public speaker, fellow at Queen's Institute for Energy and Environmental Policy, School of Policy Studies, Queen's University and the 2022 Jarislowsky Fellow at the University of Waterloo. He is a regular contributor to Yale Environment 360, an international on-line magazine published by the Yale School of the Environment. His articles and photographs appear in journals, magazines and newspapers such as the Los Angeles Times, Scientific American, Natural History, Policy Options, Foreign Policy Review, Canadian Geographic, National Geographic, Maclean's Magazine, the Globe and Mail, Toronto Star, and the National Post.

Mr. Struzik has earned more than thirty national and international awards for his writings. Among them are several national newspapers and national magazine awards, numerous awards from the Canadian Association of Journalists, the U.S. based Grantham Prize, the Atkinson Fellowship in Public Policy, the Southam Fellowship, the Knight Science Journalism Fellowship at MIT, and the Sir Sanford Fleming Medal, which honours an individual who have made an outstanding contribution to the understanding of science. He has won the Science in Society award from the Science Writers and Communicators of Canada eight times. Two of those were for books.

His latest book, *Swamplands: Tundra Beavers, Quaking Bogs and the Improbable World of Peat* was made a "top pick" by the Wall Street Journal. *Sierra Magazine* included it in its list of four "must read" books. *Library Journal* described it as a "powerful, impressive feat of popular science." In "wholeheartedly" recommending the book, the *Oryx*, *International Journal of Conservation* described it as "love letter to a landscape so little thought of. . . "packed with expedition anecdotes, scientific facts and insights into human history.

Mr. Struzik is often called to speak about his books in wide-ranging locales, from UCLA and the Los Angeles Times Book Festival in California to smaller, more remote places such as Whitehorse in the Yukon, Campbell River and Salt Spring Island in B.C and Portland, Maine. In 2018 he briefed Congressional staffers on his book on wildfire. He has been a keynote speaker at the meeting of the Canadian Council of Forest Ministers, the Conference Board of Canada, the Insurance Bureau of Canada, the Wildfire Summit in California, The Centre for Social and Environmental Accounting Research at Ryerson University, the Mountain Festival in the Yukon, the Festival of Ideas in Winnipeg and the University of Trento in Italy. He was recently featured in the National Geographic documentary "The Last Ice" and in "Frozen Obsession" which was aired on PBS throughout the United States in 2021.



Carla Wytrykush

Ecologist, Syncrude Canada Ltd. (Alberta, Canada)

Keynote for Reclamation Session

Carla Wytrykush is an ecologist working to understand ecological structure and function in the oil sands post-mining landscape. At Syncrude Research and Development her work informs landscape design, reclamation operations, performance monitoring, and Indigenous Community engagement. This guides decision making processes contributing to the achievement of landscape outcomes which support wetlands and lakes that are integrated with the surrounding area, have characteristic biodiversity, yield water suitable to return to the natural environment, and support Traditional Land Uses. Her focus recently has been the development of a reclaimed wetland monitoring program built on 3 key pillars: water, ecology, and community engagement.



GRO +
MORE
GOOD

CULTIVEZ
PLUS LE +
BONHEUR

Bien enraciné Our Roots Run Deep

En tant qu'entreprise bien établie dans l'industrie du jardinage, Scotts Canada est engagée dans la gestion responsable des tourbières et la protection de l'environnement, ce qui se reflète à la fois dans les produits que nous fabriquons et dans la façon dont nous fonctionnons. Nous contribuons à faire de notre monde un endroit plus beau, plus sain et plus nourrissant grâce à des solutions horticoles novatrices et efficaces.

As a company deeply rooted in the gardening industry, Scotts Canada is committed to continued responsible peatland management and environmental protection, reflected in both the products we make and how we operate. Helping make our world a more beautiful, healthy and nourishing place with innovative, and efficacious growing solutions.



En savoir plus

scotts.com/fr-ca/apprendre/our-purpose.html



Learn more

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17th International Peatland Congress
4 - 9 August 2024, Taizhou China



Join the International Peatland Society!
www.peatlands.org/join-us

GENERAL INFORMATION

CONFERENCE VENUE

Québec City Convention Centre
900 Boulevard Honoré-Mercier
Québec, QC G1R 5H9 Canada

PARKING

There are many underground parking spaces close to the Centre. More specifically, Marie-Guyart complex, Place Québec, Delta Hotel and finally the Place D'Youville parking lot all linked by underground connections. These lots operate 24 hours a day, 7 days a week.

REGISTRATION DESK

All participants should register at the Registration Desk to receive relevant Conference materials. The Registration Desk is located in the Hall 2000 of the Convention Centre. It will be open at the conference venue at the following times:

Sunday, June 11	16:00 to 20:00
Monday, June 12	07:00 to 19:00
Tuesday, June 13	08:00 to 18:00
Thursday, June 15	08:00 to 16:00

EXHIBITION HOURS

Monday, June 12	09:30 to 19:00
Tuesday, June 13	09:30 to 19:00

MEALS AND COFFEE BREAKS

Coffee breaks are located in the exhibition hall and lunches are located in the 2000B.

NAME BADGE

Please wear your name badge at all times. This will ensure your access to the conference rooms and the Exhibition Hall.

CERTIFICATE OF ATTENDANCE

An official certificate of attendance will be provided upon request. Come to ask for it.

INTERNET ACCESSMOBILE PHONE

Free internet facilities are available to all participants in the conference venue. During the meetings, please turn off your mobile phone or set it to mute.

Wifi: Centre des congrès

No password needed

SPEAKER PRESENTATION UPLOAD

All speakers must check in the presentation room to upload their presentation 15 minutes before the start of their session. The volunteer will be available to answer your questions and to help you upload your presentation from your USB memory stick. Before your session, you can also stop by the registration desk and test your presentation at the Speaker Ready Desk, where two computers identical to the one in the presentation room will be available for testing.

DISCLAIMER

The Québec RE3 Conference secretariat and organizers cannot assume liability for personal accidents, loss of or damage to private property of participants, and accompanying persons, either during or directly arising from the Québec RE3 Conference. Participants should make their own arrangement with respect to health and travel insurance.

SECURITY

Please do not leave bags and luggage unattended at any time, whether inside or outside session rooms.

SHOW YOUR BADGE

Exclusive offers for event attendees! Take advantage of incredible discounts at top attractions and restaurants in the Québec City area. The Québec City Convention Centre's Show your badge program is the perfect opportunity to discover the best of Québec City while enjoying exclusivities in some of the most popular spots.

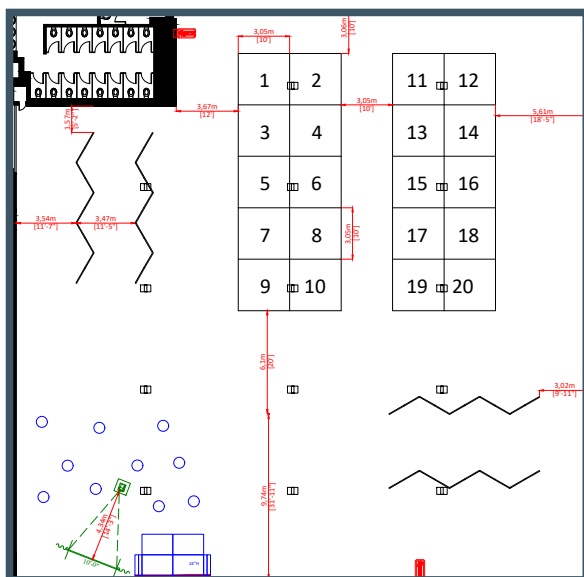
Visit our website today to learn more!

www.convention.qc.ca/badge-program

LIST OF EXHIBITORS

EXHIBITORS	#
Northern Wildflowers	1
Trace Associates inc.	2
PeatHub (CSPMA, Berger, SunGro et Premier Tech)	3,5,7,9
Fondation de la faune du Québec	4
Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs	6
Ministère des ressources naturelles et des forêts Québec	8
Pêche et Océans	10
AGAT Laboratoires	11
Soleno	12
Organizing Societies	13, 15, 17
Turftech International Limited	14
Terra Motion Canada	16
Pathway Alliance	18, 20
Ducks Unlimited Canada (DUC)	19

EXHIBITION PLAN



ACKNOWLEDGEMENTS

The Québec RE3 Conference Organizing Committee would like to express its gratitude to and acknowledge to the following partners for their generous support:

PARTENAIRE DE LA RÉCEPTION DE BIENVENUE / WELCOME RECEPTION



Canadian Sphagnum
Peat Moss Association

Association canadienne
de la tourbe de sphagne

DIAMANT / DIAMOND



PLATINE / PLATINUM



OR / GOLD



ARGENT / SILVER

Pathways
AllianceAlliance
Nouvelles voies

BRONZE



PARTENAIRES GOUVERNEMENTAUX / GOVERNMENT PARTNERS



COOPERATING ORGANIZATIONS



TRAINING COURSES

TC-01 BECOMING A BETTER ENVIRONMENTAL CONSULTANT - IMPROVING OUTCOMES

Sunday, June 11, 2023, from 08:30 to 16:30, Université Laval

Lead organizer: Tom Hilditch, Colucent Environmental Inc.

Summary: We are entering a period of transformation in the environmental consulting industry that if embraced, can accelerate positive ecological restoration outcomes on the ground. We need to shift the inordinate amount of energy invested in growing firms and profitability, towards accelerating ecological restoration and rewilding outcomes.

This workshop will inspire those in the consulting industry to create genuine change in business practices that will lead to:

- Stronger teams who are aligned with meaningful ecological restoration outcomes
- More authentic and meaningful business growth
- More inspired teams and leaders
- Improved trans-disciplinary technical analyses
- A better understanding of industry trends
- An awareness of emerging restoration and human-nature markets
- The more effective use of business resources in favour of our planet

TC-02 GATHERING SEEDS AND SHARING STORIES: TWO-EYED SEEING TOWARDS AN INDIGENOUS SEED COLLECTION PROGRAM

Saturday, June 10, 2023, from 08:30 to 16:30, Wendake

Lead organizer: Mary Knockwood, Natural Resources Canada

Summary: This outdoor, interactive short course will discuss and build on lessons learned from a 2022 cross-Canada Indigenous Seed Collection program initiative. Dr. Andrew Judge will share stories and a toolkit for designed to support Indigenous communities in sharing and saving seeds of species important to them.

TC-03 PEATLAND RESTORATION: MOSS LAYER TRANSFER TECHNIQUE AND ALTERNATE METHODS

Sunday, June 11, 2023, from 08:30 to 16:30, Université Laval

Lead organizers and Instructors: Marie-Claire LeBlanc, CPSMA, Peat and Substrates Cluster & François Quinty, WSP

Summary: In a global context where climate change and biodiversity loss are increasingly present concerns, the ecological restoration of wetlands appears as an essential element given the importance of these ecosystems. More specifically, the restoration of disturbed peatlands could lead to the return of the carbon sequestration and other peatland ecosystem functions including biodiversity.

In Canada, peatland restoration focuses on cutover bogs used for horticultural peat extraction. As of today, more than 1,800 hectares of post-extracted peatlands have been restored across Canada, mostly with the Moss Layer Transfer Technique (MLTT). More recently, the technique has also been adapted and applied to other types of peatlands (fens) and other types of disturbance (oil and gas roads and well pads, powerlines).

This Training Course will present the various ecological restoration methods developed for peatlands in Canada. The course will focus on the restoration of cutover peatlands used for peat extraction: each step of the MLTT will be examined and discussed, from project planning to conducting and assessing the success of restoration. Additionally, other types of peatlands (fens) and disturbances (mines, linear features, wetland management) will also be discussed. Through numerous examples and case studies, participants will learn how to plan, carry out, and monitor peatland restoration projects. The course will also be an opportunity to exchange about lessons learned and new ways of achieving cost-efficient and ecologically-sound peatland restoration projects. Participants to this Training Course will be invited to submit pictures of their own restoration projects (planned or realized), which will be discussed during the course.

TC-04 TAXONOMY AND KEY BRYOPHYTE AND LICHEN SPECIES USEFUL IN ECOSYSTEM RESTORATION (1.5 DAY COURSE)

Saturday, June 10, 2023, from 08:30 to 16:30, Université Laval AND

Sunday, June 11, 2023, from 08:30 to 12:00, Université Laval

Lead organizer: Aamir Shehzad Khan, Université Laval

Summary: A laboratory and lecture course which is design to train and describe the techniques and tools useful in the identification of some important species of bryophytes and lichens suitable in different ecosystem restoration.

The course will be given in two sub-groups (lichen and bryophyte lab) and the labs will be spatially organized by the identification group of interest. The formula of training will be relaxed and individualized in parts with information points. The short lectures will include the infield characters and ecology of species followed by microscopic methods, which will consist of some short, guided laboratory techniques with the instructors, helping and guiding the participants during the session. The training will be offered in two languages (English and French) and it will be hosted by the joint collaboration of Peatland Ecology Research Group and Louis-Marie Herbarium (Université Laval) along with Quebec Bryological Society.

For this course, the following books are strongly recommended. They are not compulsory, but you can buy them now and they will be given to you on site :

- Les sphaignes de l'Est du Canada - Clé d'identification visuelle et cartes de répartition (2019). Auteurs : Gilles Ayotte, Line Rochefort. ISBN: 9782924651995. En français (In French). Price: \$ 60.00
- Sphagnum Mosses of Eastern Canada – Visual identification key and distribution maps (2021). Authors: Gilles Ayotte, Line Rochefort. ISBN: 9782897990930. In English. Price: \$ 60.00 Price: \$ 60.00Price: \$ 60.00
- À la découverte des mousses et autres bryophytes du Québec (2022). Auteurs : Société québécoise de bryologie, Éditions NaturAT, 226 pages. En français (In French). Price: \$ 39.00

GLOBAL PEATLANDS INITIATIVE 2-DAY WORKSHOP

Saturday, June 10, 2023 AND Sunday, June 11, 2023, from 08:30 to 16:30, Université Laval

Lead organizer: Maria Stack, GPI

Summary: Organized by the Global Peatland Initiatives (GPI), Peatland Ecosystem Restoration Group (PERG), and Can-Peat project, the workshop “Building collaborations for effective peatland management in Canada” aims to bring together peatland experts across Canada and disciplines to compile and consolidate knowledge, data, and experience on peatlands in Canada. The workshop opens on June 10th with a field trip to a local peatland, Saint-Henri. In addition, over the two-day workshop, there will be panels on peatland policies, leveraging multilateral environmental agreement synergies, and monitoring and measuring in peatlands. Each panel will include time for discussion and collaboration on the topics to ensure actions are planned to follow up on the lessons learned. The workshop aims to include all voices interested in peatlands and will have representatives from government, industry, academia, NGOs, and Indigenous knowledge holders.

IUCN FUTURE LEADERS ACADEMY

Sunday, June 11, 2023, from 08:30 to 16:30, Université Laval

Convenor: Liette Vasseur, IUCN

Summary: For young professionals (defined by IUCN as 35 years old and younger) from Canada, early career or studying in the RE3 fields

Objective: To empower a new generation of professionals representing diverse backgrounds. Sixteen young professionals interested or studying in the RE3 fields will be invited to attend the Academy. The curriculum is designed to prepare participants to engage fully in the discussions during the RE3 Conference and support the Plenary session that will follow the Academy. The content will emphasize governance in the context of the three themes: reclamation, restoration, and rewilding. The other theme considered are related to working in the field in practice such as project management, importance of engaging with communities (especially Indigenous communities), etc. The training faculty will be drawn from the invited participants to the Conference, and from amongst the IUCN membership. Small seminars and discussion groups will be the primary means for sharing knowledge and understanding of the issues.

FIELD TRIPS

FIELD TRIPS PRE CONFERENCE

FT PRE 4B - GRANDE PLÉE BLEUE PEATLAND, A POOL-COVERED NATURAL BOG IN AN URBANIZING LANDSCAPE

The magnificent Grande plée Bleue bog (1,500 hectares) is one of the last large bogs in the St. Lawrence Lowlands. The site will soon become a provincial ecological reserve protecting a large proportion of this exceptional wetland. You will discover techniques for restoring scars made in a natural bog (path and drainage channel). You will see effects of dams on the drainage channel. Participants will also have the chance to visit an entirely natural portion of the bog with pools and learn more about their formation and other features of this ecosystem.

Field trip leader(s): Sylvain Jutras (Université Laval) and Julie Talbot (Université de Montréal)

Departure/Return: Québec City Convention Centre

Duration: Half-day

Date: Sunday June 11, 2023, from 8:30 to 13:15

FT PRE 5 - DISCOVERY OF THE GRANDE PLÉE BLEUE BOG AND INTRODUCTION TO THE TAXONOMY OF BOG PLANTS AND MOSSES

You will discover the beautiful Grande-Plée-Bleue bog (1,500 hectares), one of the last intact peatlands of the St. Lawrence Lowlands. The site will soon become a provincial ecological reserve protecting a vast proportion of this exceptional wetland. Participants will stroll the educational boardwalk that zigzags through ponds and Sphagnum hummocks to learn more about this unique ecosystem. Participants will have the chance to have an introduction to peatland taxonomy by learning typical bog plant names and learning how to identify peatland bryophytes such as Sphagnum mosses.

Field trip leader(s): Michel Michaud of the Société de conservation et de mise en valeur de la Grande plée Bleue and the Peatland Ecology Research Group (Université Laval)

Departure/Return: Québec City Convention Centre

Duration: Half-day

Date: Sunday June 11, 2023, from 8:30 to 13:15

FIELD TRIPS MID CONFERENCE

FT MID 6 - MARAIS-LÉON-PROVANCHER NATURE RESERVE NEAR QUÉBEC CITY (ST. LAWRENCE TIDAL MARSH, ARTIFICIAL INLAND MARSH, AND VARIOUS ONGOING RESTORATION PROJECTS)

This half-day excursion will allow you to visit the Marais-Léon-Provancher Nature Reserve. This 125-hectare natural site is dedicated to the protection of flora and fauna. The visit will be led by managers and scientists who will explain the history of the territory as well as conservation, restoration, and education objectives. Located in Neuville, 30 km west of Quebec City, this area, one of the best bird watching hotspots near Quebec City will allow you to discover several different habitats of the fluvial estuary of the St. Lawrence River (Scirpus tidal marsh; artificial inland marsh; sugar maple, eastern white cedar, and alder stands; idle lands). Various ongoing interventions of restoration and rewilding of the habitat (creation of a freshwater marsh) will be showcased as well as the control of invasive exotic plant species (common reed).

Field trip leader(s): Société Provancher d'histoire naturelle

Departure/Return: Québec City Convention Centre

Duration: Half-day

Date: Wednesday, June 14, 2023, from 8:30 to 12:00

FT MID 7 - VISIT OF A RESTORED PEATLAND AND A NATURAL BOG NEAR QUEBEC CITY

This tour offers you the chance to visit a multitude of peatland landscapes ranging from mined and restored to natural. The first part of the tour will take place at the Saint-Henri peat bog, an industrial peat extraction site. You will be able to discover different types of bogs: rewetted bog, bog restored by the Moss Layer Transfer Technique and a natural bog used as a donor site for restoration. In the afternoon, you will have the chance to discover the Grande plée Bleue bog (15 km²), one of the last sizeable ombrotrophic peat bogs in the St. Lawrence Lowlands. A project to create an ecological reserve aims to protect most of this wetland (61% or about 900 ha). The excursion will take place in the portion of the bog that has been developed for educational purposes and is characterized by the presence of numerous pools.

Field trip leader(s): Peatland Ecology Research Group, Université Laval), Premier Tech Horticulture and Canadian Sphagnum Peat Moss Association

Departure/Return: Québec City Convention Centre

Duration: 1 day

Date: Wednesday, June 14, 2023, from 9:00 to 17:00

FT MID 8 - RESTORATION OF SAND AND GRAVEL PITS IN BOREAL CLIMATE: AN OVERVIEW OF FIELD TRIALS FOLLOWED BY A CANOE/KAYAL EXCURSION OR A GUIDED TREK IN THE TAIGA

During this one-day excursion, you will have the opportunity to visit gravel and sand pits that were restored using the Rough and Loose technique (creation of micro-topography). The team of Dr. Line Rochefort and the Centre for Northern Studies will guide you through various types of borrow pits: naturally regenerating (for about 40-50 years), restored by the transfer of organic matter (5-10 years post-restoration) or restored by Rough and Loose technique (3 years post-restoration).

Field trip leader(s): Sandrine Hogue-Hugron (Centre d'études nordiques) and Peatland Ecology Research Group - Université Laval

Departure/Return: Québec City Convention Centre

Duration: 1 day

Date: Wednesday, June 14, 2023, from 7:30 to 18:30

FT MID 11/21 - VISIT TO WETLAND AND WATER RESTORATION SITES IN THE SAINT-CHARLES RIVER WATERSHED AND IN THE QUEBEC CITY AREA

Agiro, the "Ministère des Transports et de la Mobilité durable" (MTMD), the Huron-Wendate Naon (Wendake) and the "Ville de Québec" are joining forces to offer you an excursion that will allow you to visit several wetland and water restoration sites in the Saint-Charles River watershed and beyond. Coming from very different backgrounds, these four partners are committed to conserving and restoring wetlands and waterways. The tour includes visits to several restored sites, including the marais du Nord, the marais du Moulin and a restored section of the banks of the St. Charles River. The tour will also include a stop in Wendake to visit an American eel restoration site.

Field trip leader(s): Agiro, Ministère des Transports et de la Mobilité durable, Nation Huron-Wendate and Ville de Québec

Departure/Return: Québec City Convention Centre

Duration: 1 day

Date: Wednesday, June 14, 2023, from 8:00 to 17:00

FT MID 14 - MARINE HABITAT, CONSERVATION OF ENDANGERED SPECIES, AND WHALE WATCHING IN THE ST. LAWRENCE ESTUARY AND THE SAGUENAY FJORD

This one-day field trip will give you the chance to visit the majestic Saguenay-St. Lawrence Marine Park, the perfect destination for whale and marine mammals watching on the St. Lawrence. At the junction of three different but interrelated ecosystems (Upper Estuary, Lower Estuary and Saguenay Fjord), we find a great diversity of marine habitats marked by variations in temperature, salinity, sea-bottom types and depth. This crucial sector of the St. Lawrence is a real pantry for a multitude of species of whales, seals and aquatic birds. But the challenges of conservation of habitats and species are numerous and diverse.

OPTION A: During this excursion, you will have the chance to visit the Marine Mammal Interpretation Centre (CIMM). It is managed by the Marine Mammal Research and Education Group, a non-profit organization dedicated to scientific research on St. Lawrence whales and education for the conservation of the marine environment. This centre, which welcomes more than 35,000 visitors each year, will help you discover the adaptations to the whales' marine world, the threats they face and the scientific research efforts on them. You may even be able to see belugas and minke whales from the Centre's terrace! Located in the picturesque village of Tadoussac, whose bay is renowned as one of the most beautiful in the world, you can enjoy free time to visit the surroundings and enjoy the local cuisine.

OPTION B: But what better than to observe all these species in their habitat, to appreciate their natural behavior while learning about the best conservation approaches and best practices to adopt to minimize their disturbance and increase their survival. You will be able to navigate for three hours in the Saguenay-St. Lawrence Marine Park on a comfortable and specially designed boat for eco-responsible observation of the 13 species of whales and marine mammals, while benefiting from the interesting information provided by a naturalist guide. An expert from the Marine Mammal Research and Education Group, a non-profit organization dedicated to scientific research on St. Lawrence whales and marine conservation education, will be on board during the excursion to answer your questions. Finally, an incursion into the majestic Saguenay Fjord will allow you to admire its magnificent landscapes.

Field trip leader(s): Groupe de recherche et d'étude sur les mammifères marins (GREMM)

Departure/Return: Québec City Convention Centre

Duration: 1 day

Date: Wednesday, June 14, 2023, from 7:00 to 17:30

FT MID 18 - VISIT TO THE MONTMORENCY FOREST RESEARCH STATION IN NORTHERN QUEBEC'S BOREAL REGION

This one-day excursion will give you the chance to visit the Forêt Montmorency experimental station located in the boreal forest north of Quebec City, whose mission is to be a laboratory and a host environment for teaching, research and education in relation to boreal territories. To this end, this territory is developed in such a way as to aim, through experimentation, at excellence and exemplarity for the advancement of forest sciences.


During this excursion, you will have the chance to discover some of the natural features of this teaching and research forest, as well as to discover various demonstration sites for innovative silvicultural and management practices and experimental sites aimed specifically at research on boreal forests and climate change.

Field trip leader(s): Evelyne Thiffault from the Faculté de foresterie, de géographie et de géomatique - Département des sciences du bois et de la forêt

Departure/Return: Québec City Convention Centre

Duration: 1 day

Date: Wednesday, June 14, 2023, from 8:00 to 17:30



Questionner le présent *Imaginer le monde de demain* Créer le futur

We integrate nature-based solutions
to protect and restore biodiversity,
ensuring project success.



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FT MID 20 - REMEDIATION AND RESTORATION OF THE LAC-MÉGANTIC (QUÉBEC) OIL TRAIN TRAGEDY

A rail disaster occurred in the town of Lac-Mégantic, Québec, on July 6, 2013, when an unattended 74-car freight train carrying Bakken Formation crude oil derailed in the downtown core, resulting in the fire and explosion of multiple tank cars, as well as a major spill of petroleum hydrocarbons and 300,000 m³ of contaminated soil and killing 47 residents.

This site visit will bring you to the City of Lac-Mégantic to show you the following areas:

- Where the train was parked overnight of to examine the general landscape down slope toward Lac-Mégantic;
- Impacted zones and how they were restored;
- Migration of contaminants toward the shore of Mégantic Lake, marina wharf and Chaudière river areas;
- Soil storage and treatment areas (no more piles);
- The social impacts and challenges face by the municipality to rebuilt and General redevelopment of the municipality and; of this tragedy.

In the afternoon, the visit will continue toward Black Lake mining site where most Lac-Mégantic treated soil were transported and reused, so you'll be able to see:

- The soil and organic residuals reception area and where they were mixed with other materials to create a fertile substrate for the vegetation;
- The seedlings and the evolution of vegetated areas on the slope and plateau of the waste rock piles;
- The impressive mine pit.

Field trip leader(s): Lucie Labbé from the CLRA Quebec Chapter, AECOM, Englobe (Daniel Deschênes), Ville de Lac Mégantic (France Bergeron)

Departure/Return: Québec City Convention Centre

Duration: 1 day

Date: Wednesday, June 14, 2023, from 8:00 to 17:30

FT MID 22 - RESPONSIBLE PEATLAND MANAGEMENT: FROM PEAT EXTRACTION TO PEATLAND RESTORATION

This one-day tour will bring you from the peat production to peatland restoration and management.

The participants will stop at Premier Tech headquarters and will visit a peat-processing plant where peat and growing media are prepared. The importance and characteristics of peat as a substrate as well as the industry sustainability initiatives (such as the Veriflora Responsibly Managed Peatlands certification) will be presented. If the weather permits, we will also visit peat harvesting fields to show the process of vacuum-harvesting. This will also be the opportunity to discuss about greenhouse gas (GHG) emission from peat extraction, peat use, and end-use with researchers from McGill University.

Next, participants will visit Bois-des-Bel, a restored peatland. This peatland was partially peat harvested from 1972 to 1980, leaving a peat deposit of approximately 2 m deep. The peatland was restored in 1999-2000, with the goal to promote the return of ecosystem functions, especially peat accumulation and carbon sequestration. The peatland restoration technique that had been tested on small-scale plots was tested for the first time on an ecosystem scale. Research carried out at this experimental station over the last 23 years has allowed to better understand how a restored ecosystem evolves in terms of vegetation patterns, hydrology, biodiversity and carbon cycles over a long period of time.

Field trip leader(s): The tour will be led by the Canadian Sphagnum Peat Moss Association (CSPMA) and Peat and Substrates Cluster, along with peat-producing companies and researchers from various universities

Departure/Return: Québec City Convention Centre

Duration: 1 day

Date: Wednesday, June 14, 2023, from 8:30 to 18:00

FT MID 23 - VISIT ISHS USE OF GROWING MEDIA IN DIFFERENT CONTEXTS

This tour will allow visitors to familiarize themselves with different projects or companies using growing substrates ranging from the production of cannabis berries, to green roofs and biofiltration through emerging environments such as the production of cannabis and the production of berries.

Field trip leader(s): Jean Caron, Guillaume Grégoire and Martine Dorais from Université Laval and ISHS

Departure/Return: Québec City Convention Centre

Duration: 1 day

Date: Wednesday, June 14, 2023, from 8:00 to 17:00

FIELD TRIPS POST CONFERENCE

FT POST 5 - FROM HORTICULTURAL PEAT EXTRACTION TO PEATLAND RESTORATION: A JOURNEY IN THE ST. LAWRENCE VALLEY

During this three-day field trip, participants will learn more about the peatland restoration method developed by the Peatland Ecology Research Group (PERG), called the Moss Layer Transfer Technique. This method has been applied to over 100 restoration projects across Canada in the past 20 years. The tour will stop at eight different peatland sites: a pristine peatland, rewetted peatlands, peatlands that have been restored for 2 to 20 years, a restored site that was affected by a fire and a Sphagnum farming site. A regenerating fen will also be visited. Additionally, a visit of a peat production site peat where growing media is prepared will be offered. The importance and characteristics of peat as a substrate as well as the peat industry's responsible management initiatives (such as the Veriflora Responsibly Managed Peatlands certification) will be discussed.

The tour will take place mainly in Rivière-du-Loup, located 200 km east of Québec City in the coastal Lower St. Lawrence region. The program also includes a visit to the Kiskotuk Coastal Park, a renowned bird-watching area, as well as Kamouraska, one of the most beautiful villages in the province.

Practical details: Since peatland terrain is often wet and sometimes muddy, bring rubber or hiking boots. A raincoat, sun protection, a hat, a water bottle and insect repellent are also highly recommended. This 3-days tour includes accommodation and all snack and meals.

Field trip leader(s): Line Rochefort and Kathy Pouliot (Peatland Ecology Research Group, Université Laval), Stéphanie Boudreau and Marie-Claire LeBlanc (Canadian Sphagnum Peat Moss Association (CSPMA) & Peat and Substrates Cluster)

Departure/Return: Québec City Convention Centre

Duration: 3 days

Dates: From Friday, June 16, 2023, at 8:30 to Sunday, June 18, 2023 at 16:30

FT POST 6 - MAKING ORGANIC MATTER - COME

Join our hosts -- *The Compost Council of Canada and Englobe* -- for a visit to Englobe's composting facility in Saint-Henri-de-Lévis. In operation for over 40 years, this composting facility – a member of the Compost Quality Alliance (CQA) – processes organic residuals from citizens and businesses, transforming them into nutrient-rich organic matter – compost – for return to Canadian soils. Combined with other Englobe facilities, over 470,000 tonnes of organic residuals were processed in 2021, creating 170,000 tonnes of compost. We'll go for a tour of the facility as well as enjoy a visit to the surrounding area, with a light lunch provided by our hosts.

Field trip leader(s): Susan Entler from the Compost Council of Canada and Englobe

Departure/Return: Québec City Convention Centre (An option exists to have a drop-off at the airport)

Duration: 1 day

Date: Friday, June 16, 2023, from 9:00 to 14:30

TOURISTIC ACTIVITIES

WALKING TOUR OF OLD QUEBEC, A WORLD HERITAGE SITE

Sunday, June 11, 2023, from 14:30 to 16:30 - 35\$ CAD

Meeting point: Québec City Convention Centre, 900 Boulevard Honoré-Mercier

First a visit to the Québec Parliament and its flourishing gardens. A unique structure of architectural style inspired by the expansion of the Louvre in Paris. The tour stops onto Place d'Armes to enjoy its grandiose fountain statute. Close by, the tour continues to the Château Frontenac and its Dufferin Terrasse, a magnificent boardwalk overlooking the St. Lawrence River and offering a breathtaking view. Then is the Seminary of Québec, founded in 1663. Now occupied by the Architecture School of Laval University, this institution is a remarkable collection of buildings erected around enclosed courtyards. Following is the spectacular interior of the Notre-Dame-de-Québec Basilica-Cathedral. Then continuing to the Lower Town, finding ourselves in the middle of Place Royale where Samuel de Champlain founded Québec in 1608. Discover the restored houses of merchant families from the New France era. Let's wander into cobblestone streets and historic houses and take a peek at the Royal Battery facing the river for the defense of the city. A ride in the Funicular will bring you back to the upper part of the city. Time to appreciate the St-Lawrence River's panorama and a spectacular view of the lower town from a 45-degree angle.

EVENING AT WENDAKE

Tuesday, June 13, 2023, from 17:00 to 22:30 - 120\$ CAD

Meeting point: Québec City Convention Centre, 900 Boulevard Honoré-Mercier

Located on the Huron-Wendat reservation, the Huron-Wendat Museum is a unique opportunity to discover the history, the culture and the lifestyle of Hurons of the past and of today.

Schedule:

17:00 Departure from the Québec City Convention Centre

17:30 Visit of Huron-Wendat Museum

19:00 Dinner at La Traite Restaurant

22:30 Return at the Québec City Convention Centre

SOCIAL ACTIVITIES

EVENING ICE-BREAKER

Sunday, June 11, 2023, from 19:00 - Free for all participants with confirmation of attendance

The Welcome Reception provides an excellent opportunity to network, meet old friends and colleagues, as well as meet new people as the program begins. A light cocktail will be served during the event.

STUDENT AND YOUNG PROFESSIONNELS MIXER

Monday, June 12, 2023, from 19:00 to 21:00 - 20\$ CAD

Looking forward to the RE3 Restore-Reclaim-Rewild Conference in Quebec City to connect with fellow students and young working professionals? Take your networking game to the next level and kick off this conference by joining us on Monday evening at the Murphy's Pub to discuss your studies and latest research with other participants, while snacking on delicious finger foods and enjoying a glass of locally brewed beer.

For Students and Young Professionals from 18 to 35 years old ONLY

BANQUET RECEPTION

Thursday, June 15, 2023, from 18:00 - 98\$ CAD for registered participants and 125\$ CAD for guests

We are able to offer a special rate of 50\$ CAD for students thanks to financial support of our partners!

Join us for an evening of fun and surprises at the Voltigeurs de Québec Armoury!

On the program:

- A welcome cocktail
- A multi-course menu with local flavour from a renowned chef
- Dance

Blending the very best of Quebec's heritage with the latest design trends, featuring re-invented cutting-edge local cuisine, a great mix to create a unique and memorable evening.

The Painchaud Family group members are all multi instrumentalists and they all have perfect pitch. They will delight you with their highly creative versions of popular and traditional songs, they also bring a wonderful sense of humour that makes them irresistible.

MAJOR EVENTS

WOMEN IN RESTORATION LUNCHEON

Tuesday, June 12, 2023, from 12:00 to 13:00
Room 200D

The Women in Restoration Luncheon will highlight the contributions of remarkable female scientists or practitioners involved in reclamation, restoration or rewilding. Their efforts have been targeted to better understand the ecosystems and how to restore for future generations.

ISHS-IPS ONE-DAY JOINT SYMPOSIUM: PRINCIPLES AND PROCESSES IN CONSERVING AND RESTORING PEATLANDS AND ORGANIC SOILS USE

Tuesday, June 13, 2023

Objective: To present the latest developments about principles and processes in conserving and restoring peatlands and organic soils use. Following the RE3 morning plenaries, a first session will address the processes involved in cultivation on organic soils: degradation (wind erosion, drainage and compaction), conservation and reconstruction. The second session will focus on peatland restoration application and results at the industry scale. Finally, the last session will present data supporting the responsible management nature and circularity of growing media use.

FORUM: UN DECADE OF RESTORATION: ADVANCING THE CANADIAN AGENDA

Thursday, June 15, 2023

Summary: The United Nations Decade on Ecosystem Restoration (2021-2030) calls to action to “prevent, halt and reverse the degradation of ecosystems on every continent and in every ocean.” Through ambitious ecological restoration goals that include nature-based solutions for climate adaptation, and the support of human livelihood, we can ultimately achieve the 2030 Agenda for Sustainable Development. Canada needs to be at the forefront of this movement. Celebrating the launch of this UN Decade and under the themes Reclamation, Restoration and Rewilding of the RE3 Conference, this high-profile event promises to enlighten and inspire. We all have the capacity to contribute. Constraints to ecosystem restoration and priorities need to be identified and actions implemented for the Canadian agenda.

A high segment Plenary Session (in English) will convene experts from high level global secretariats (IUCN, UN Decade, CBD, UNEP, Ramsar, SERI, IPCC) to present short allocutions about how ecological restoration, rewilding, and reclamation can assist in reaching their specific international mission goals. Canadian politicians are also invited to interact with participants.

Immediately following the plenary speakers, we invite interested conference delegates to join a forum where small participatory groups will discuss the role of ecosystem restoration in the Canadian agenda, especially in the context of both climate mitigation and adaptation and biodiversity conservation (Target 2 of CBD). Forum tables will be organised by themes.

Please, do register under which theme you would be interested to participate in the discussions:

- Forest Ecosystems
- Wetlands, freshwater bodies
- Peatlands
- Urban areas
- Agricultural ecosystems, farmlands, grasslands, shrublands
- Mines, borrow pits, road impacts
- Coastal zones and oceans
- Tundra - Arctic

Although most of the discussions will be held in English, there will be the possibility of grouping the participants around a French-speaking table as well.

A document (report) on the results of the discussions will emerge from this forum, in English and in French.

C'est avec fierté que le ministère des Transports et de la Mobilité durable encourage la restauration écologique et participe aux échanges tenus à l'occasion de la conférence RE3 à Québec.



Notre objectif : assurer la mobilité durable tout en contribuant à la préservation de la biodiversité au Québec.

- Restauration des écosystèmes et maintien de leur connectivité.
- Bonification des fonctions écologiques de nos aménagements.



SCIENTIFIC PROGRAM

SUNDAY, JUNE 11, 2023

WELCOMING SPEECH: CHAIR OF RE3

ROOM: 2000A

17:00 - 17:45 Welcoming Speech: Chair of RE3

OPENING LECTURE - EDWARD STRUZIK

ROOM: 2000A

17:45 - 18:30 The Past and Future Arctic. A Geography of Hope and Despair
Edward Struzik, Queen's Institute for Energy and Environmental
Policy, Canada

MONDAY, JUNE 12, 2023

OPENING

ROOM: 2000AB

8:30 - 8:45 Opening

REWILDING PLENARY SPEAKER: GARY PRITCHARD

ROOM: 2000AB

8:45 - 9:30 Is Western Conservation still harming Indigenous Peoples?
Gary L. J. Pritchard, Curve Lake First Nation, Canada

REWILDING PLENARY SPEAKER: MARIE-EVE MARCHAND

ROOM: 2000AB

9:30 - 10:15 Bison Belong: Rematriating a keystone species in the heart of North America
Marie-Eve Marchand, Buffalo Relations Institute, Canada

CONTRIBUTED SESSION: PEATLAND MANAGEMENT (1 OF 2)

ROOM: 205C

Chair: **Kathy Pouliot**, Peatland Ecology Research Group - Université Laval, Canada

10:45 - 11:00 Decomposition response of two Sphagnum sub-genus to phenolic addition in Sphagnum farming
Talal Asif, Université Laval, Canada

11:00 - 11:15 Environmental controls on actual ET in a peatland altered by a seismic line
Maryam Bayatvarkeshi, University of Waterloo, Canada

11:15 - 11:30 Best practice for establishing fen paludicultures - Establishment methods, vegetation and yield development
Tim Eickenscheidt, Hochschule Weihenstephan-Triesdorf, IÖL, Peatland Science Centre, Germany
Matthias Drösler

11:30 - 11:45 Integration of restoration within the industrial process at Premier Tech
Jacques Gagnon, Premier Tech Horticulture, Canada
Frederic Caron

11:45 - 12:00 Mapping the hidden peat: converted peatlands and shallow peat soils in Ireland
Louis Gilet, Trinity College Dublin, Ireland
John Connolly, Lisa Coleman, Terry Morley

CONTRIBUTED SESSION: VEGETATION

ROOM: 2105

Chair: Laura Hjartarson, Université Laval, Canada

10:45 - 11:00 Spread of Reed Canary Grass (*Phalaris arundinacea*) across eastern North America documented in herbarium and community science data
Amanda L. Loder, University of Toronto, Canada
Michael Ghodrati, Sarah Finkelstein

11:00 - 11:15 Experimental analysis of the altitudinal distribution limit of the Ghost Antler Lichen at Parc national du Mont-Mégantic in Québec, Canada
Christina Rinas, Université de Sherbrooke, Canada

11:15 - 11:30 Revegetating Recently Deglaciated and Disturbed Landscapes
Shan Seahra, ERM Consultants Canada, Canada
Jessica Lowey

11:30 - 11:45 Riparian vegetational biodiversity and environmental gradients in Southern Ontario created wetlands
Rose Simard, Great Lakes Institute for Environmental Research, Canada
Catherine Febria

11:45 - 12:00 A NEW EMERGING INVASIVE THREAT TO NORTHEASTERN RICH MESIC FORESTS: MANAGING THE HARDY KIWI VINE (*ACTINIDIA ARGUTA*)
Jessica Toro, Native Habitat Restoration, United States

12:00 - 12:15 Ex situ propagation and reintroduction to areas of origin of plant species
Ricardo Vinicio Abril Saltos, Universidad EStatal Amazonica, Ecuador

CONTRIBUTED SESSION: MEETING SPECIFIC RESTORATION CHALLENGES

ROOM: 2000A

Chair: Martin Beaudoin-Nadeau, Viridis Terra International, Canada

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| 10:45 - 11:00 | <p>Sandusky Bay restoration using a landscape scale approach to restoring lost ecological functions
 Tom Denbow, Biohabitats, United States
 Joseph Berg</p> |
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| 11:00 - 11:15 | <p>Protecting, restoring and connecting: learning through habitat rehab
 Rejean Dumas, Fiducie de conservation des écosystèmes de Lanaudière, Canada</p> |
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| 11:15 - 11:30 | <p>"Hedging" your bioengineering designs why you should be using hedge brush layers
 Mike Gallant, Kerr Wood Leidal, Canada
 Pierre Raymond, André Evette, Kathryn Hull, Alan Dodd, Norma Posada, Delphine Jaymond, Marie-Anne Dusz</p> |
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| 11:30 - 11:45 | <p>Combined effects of inorganic soil multi-contamination and drought on ecological restoration dynamic in a Mediterranean scrubland
 Alma Heckenroth, Aix Marseille Univ, IRD, LPED, France
 Lorène Tosini, Hélène Folzer, Manuel Cartereau, Pascale Prudent, Laura March, Laurent Vassalo, Marie-Dominique Salducci, Yoan Labrousse, Isabelle Laffont-Schwob</p> |
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| 11:45 - 12:00 | <p>Can Removing Topsoil Help with Restoration of Forests and Native Grasslands? An Exploration on a Novel Approach to Ecological Restoration
 Chris Tenszen, Trace Associates Inc., Canada</p> |
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ISHS SESSION: YOUNG MINDS SESSION

ROOM: 204AB

10:45 - 11:00	Introductory remarks Jean Caron , Université Laval, Canada
11:00 - 11:15	Root growth and development in soilless culture – A review Kristopher Criscione , Louisiana State University, United States of America Jeb Fields
11:15 - 11:30	Performance of perennial plants in two growing substrates for stormwater management in bioretention cells Vincent Lachance , Université Laval, Canada Ann-Catherine Laliberté, Charles Goulet, Guillaume Grégoire
11:30 - 11:45	Compost from pruning residues: nutrient dynamics and influence on the microbiological community, an in-depth study Marco Lucchetta , Free University of Bolzano, Italy
11:45 - 12:00	Peat shrinkage during drying according to particle size Stan Durand , Linstitut Agro Rennes Angers, France Pascal Boivin, Jean-Charles Michel
12:00 - 12:04	Evaluating the soil block method and growing media in organic vegetable transplant production Anne Carey , Iowa State University, United States of America Ajay Nair
12:04 - 12:08	Impact of growing media components on the mineralization of nitrogen from a plant-based and an animal-based organic fertilizers Laura Thériault , Berger, Canada Steeve Pepin, Martine Dorais
12:08 - 12:12	Development of substrates made of recycled materials for horticultural production on green roofs Florence Carrier , Université Laval, Canada Ann-Catherine Laliberté, Martine Dorais, Guillaume Grégoire
12:12 - 12:16	Engineered substrates to improve nitrogen, phosphorus, and water retention in nursery container production Henry Gonzalez , Michigan State University, United States of America Rodney T. Fernandez, James Owen, Jacob Shreckhise

PROJETS DE COMPENSATION ET CRÉATION DE MILIEUX HUMIDES

ROOM: 205AB

10:45 - 11:00	Le REM: l'occasion de réaliser des projets de compensation intégrés Elizabeth Boivin , CDPQ infra, Canada
11:00 - 11:15	Approche environnementale intégrée pour compenser-restaurer les milieux naturels à proximité d'un projet d'infrastructure majeur : l'étude de cas du REM Éric Léger , Hatch, Canada
11:15 - 11:30	La restauration et la mise en valeur des milieux naturels au profit de la préservation de la qualité de l'eau potable : initiatives dans le haut bassin de la rivière Saint-Charles Anne-Marie Cantin , Ville de Québec, Canada
11:30 - 11:45	Création de deux grands milieux naturels sur l'île Tekakwitha et restauration de la baie Recreation, à Kahnawà:ke Lucie Labbé , AECOM, Canada
11:45 - 12:00	La naturalisation des bassins de rétention des eaux pluviales en contexte routier : l'expérience du MTMD Marilou Hayes , Ministère des transports et de la mobilité durable, Canada
12:00 - 12:15	Restaurations des habitats aquatiques et terrestres du marais Miller Anaïs Boutin , Éco-Nature Parc de la Rivière-des-Mille-Îles, Canada

SYM-03: CAN-PEAT: CANADA'S PEATLANDS AS NATURE-BASED SOLUTIONS TO CLIMATE CHANGE

ROOM: 2101

Chair: Maria Strack, University of Waterloo, Canada

10:45 - 11:00	Introduction to Can-Peat: Canada's peatlands as nature-based solutions to climate change Kimberly Kleinke , University of Waterloo, Canada Maria Strack
11:00 - 11:15	Boreal forest carbon, water and energy fluxes across North America: from eddy covariance observations to long-term simulations Bo Qu , Université de Montréal, Département de géographie, Centre d'études nordiques, Canada Alexandre Roy, Joe Melton, Oliver Sonnentag
11:15 - 11:30	A compilation of greenhouse gas flux data from restored Canadian peatlands to reduce uncertainty in the potential of peatland restoration as a natural climate solution Kayla Martin , University of Waterloo, Canada Maria Strack
11:30 - 11:45	Using the Canadian Model for Peatlands (CaMP) to understand changes in boreal and temperate peatlands C sink strength: Insights and knowledge gaps Kara Webster , Canadian Forest Service, Canada
11:45 - 12:00	Impacts of fire management practices on forested peatland carbon pools and fluxes in boreal Canada Marissa Davies , University of Waterloo, Canada Kelly Bona, Dan Thompson, Sophie Wilkinson, James Waddington, Maria Strack
12:00 - 12:15	Discussion

SYM-04: DETERMINING THE SUCCESS OF RESTORATION ACTIONS: BEST PRACTICES FOR MONITORING

ROOM: 2104AB

Chair: Mélina Guêné-Nanchen, Université Laval, Canada

10:45 - 11:00	Assessing restoration success under conditions of rapid change Eric Higgs , University of Victoria, Canada
11:00 - 11:15	Measuring Success of Ecological Restoration Projects the Use of Species Diversity and Richness Indices and Other Quantitative Measures Michael Toohill , SER New England, United States

11:15 - 11:30	From bare peat to bog: What is the most relevant set of ecological criteria to assess the restoration of Canadian horticultural peatlands? Gwendal Breton , GRET/PERG Université Laval, Canada Méline Guêné-Nanchen, Line Rochefort
11:30 - 11:45	Evaluation of Peatland Restoration Outcomes in Alberta's In-Situ Oil Sands Regions Bin Xu , NAIT Centre for Boreal Research, Canada Melanie Bird, Rebekah Ingram, Sarah Darling
11:45 - 12:00	Seeing the Forest for the Trees & the Ecosystems for the Indicators: Comparative Approaches to Measuring Restoration Outcomes Stephen Murphy , University of Waterloo, Canada
12:00 - 12:15	Discussion

SYM-08: PLANNING RESTORATION IN URBAN, AGRICULTURAL AND BOREAL LANDSCAPES IN ORDER TO OPTIMIZE ECOSYSTEM SERVICES AND BENEFITS TO PEOPLE

ROOM: 202

Chair: Monique Poulin, Université Laval, Canada

10:45 - 11:00	Applying the systematic conservation planning approach to restoration: basic concepts for considering spatial flow of ecosystem services Monique Poulin , Université Laval, Canada
11:00 - 11:15	An application of the Ecosystem ServiceShed concept to systematic conservation planning considering equity Jean-Olivier Goyette , Université Laval, Canada Poliana Mendes, Jérôme Cimon-Morin, Jérôme Dupras, Stéphanie Pellerin, Monique Poulin
11:15 - 11:30	Vacant lot restoration and vegetation management to improve people's access to ecosystem services: a case study in Quebec City Poliana Mendes , Université Laval, Canada Jean-Olivier Goyette, Jérôme Cimon-Morin, Stéphanie Pellerin, Monique Poulin
11:30 - 11:45	From marginal crop fields to natural areas: A framework to support decisions on restoration sites location in agricultural landscapes Gabriela Torchio , Université Laval, Canada Jérôme Cimon-Morin, Stéphanie Pellerin, Poliana Mendes, Jean-Olivier Goyette, Monique Poulin
11:45 - 12:00	Spatial prioritization of habitat restoration efforts for an endangered species: a case study of boreal caribou Pierre-Alexandre Labranche , Université Laval, département des sciences du bois et de la forêt; CEF, Canada Monique Poulin, Jérôme Cimon-Morin
12:00 - 12:15	Discussion

SYM-21: HUMAN AND NATURAL DIMENSIONS OF GREEN INFRASTRUCTURE

ROOM: 206B

Chair: Alison Munson, Université Laval, Canada

10:45 - 11:00	The Human Dimensions of Green Infrastructure Vidya Anderson , University of Toronto Scarborough, Canada
11:00 - 11:15	Mosses for minimalist green roofs: the effects of rooftop exposure, species selection, and lab-grown vs wild-harvested propagule sources Sean Haughian , Nova Scotia Museum, Canada Jeremy Lundholm
11:15 - 11:30	Functional Diversity in Specific Trait Values Enhances the Provision of Key Green Roof Ecosystem Services Amy Heim , Université de Montréal, Canada
11:30 - 11:45	Assessing land-use legacy effects on soil physico-chemical properties in urban parks Michael Paulauskas , Concordia University, Canada
11:45 - 12:00	Learning from Maguire Street: An Experiment on Tree Pit Design in Quebec City Janani Sivarajah , Université Laval, Canada
12:00 - 12:15	Carbon sequestration in the soil-plant system in urban areas Vincent Poirier , Université du Québec en Abitibi-Témiscamingue, Canada Vincent Poirier, Élise Beauregard, Alison Munson

WS-06: SCALING UP ECOLOGICALLY-APPROPRIATE SEED SUPPLY IN CANADA 2.0: TWO-EYED SOLUTIONS TOWARDS 2030

ROOM: 206A

Chair: Donnie McPhee, National Tree seed Centre, NRCAN, Canada

Mary Knockwood, CFS/NRCAN, Canada

Melissa Spearing, National Tree Seed Centre NRCAN, Canada

10:45 - 12:15	WS-06: Scaling Up Ecologically-Appropriate Seed Supply in Canada 2.0: Two-Eyed Solutions Towards 2030 This workshop will follow up and seek input on next steps for two major initiatives by Canada's National Tree Seed Centre, 1) results from a 2021-2022 National Native Seed Supply Assessment and 2) stories heard from a cross-Canada Indigenous Seed Collection Program road trip.
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SYM-14: RESTAURATION ÉCOLOGIQUE DES TOURBIÈRES À SPHAIGNES NORD-AMÉRICAINES (PROGRAMME EN FRANÇAIS)

ROOM: 205AB

Chair: Gwendal Breton, Université Laval, Canada

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| 13:30 - 13:45 | <p>Les communautés végétales des tourbières restaurées au Canada : Une approche comparative avec l'écosystème de référence
 Gwendal Breton, GRET/PERG Université Laval, Canada
 Mélina Guéné-Nanchen, Line Rochefort</p> |
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| 13:45 - 14:00 | <p>Restauration de tourbières avec réintroduction de sphaignes : La diversité en bryophytes suit-elle?
 Camille Boucher, Groupe de recherche en écologie des tourbières, Université Laval, Canada</p> |
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| 14:00 - 14:15 | <p>Biodiversité des mares des tourbières : des écosystèmes à restaurer
 Laura Catalina Riano Pena, Groupe de recherche en écologie des tourbières, Université Laval, Canada</p> |
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| 14:15 - 14:30 | <p>Restauration hydrologique d'une tourbière ombrotrophe par le blocage d'un canal de drainage de grande dimension
 Sylvain Jutras, Université Laval, Canada</p> |
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| 14:30 - 14:45 | <p>Restauration d'un fen affecté par un déversement d'hydrocarbures
 Francois Quinty, WSP Canada, Canada</p> |
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| 14:45 - 15:00 | <p>Discussion</p> |
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CONTRIBUTED SESSION: NOVEL TOOLS FOR RESTORATION PLANNING AND MONITORING

ROOM: 2105

Chair: Anna Dabros, Natural Resources Canada - Canadian Forest Service, Canada

13:30 - 13:45	Growing a Network of Seed Orchards in Southern Ontario Ryan Godfrey , World Wildlife Fund Canada, Canada
13:45 - 14:00	Can ecotones be compositional-based in situ vegetation conservation areas in changing climate? Befkadu Mewded Habtamu , Ethiopian Biodiversity Institute, Ethiopia
14:00 - 14:15	Leveraging novel tools for content analysis and knowledge representation for restoration ecology Tina Heger , Leibniz Institute of Freshwater Ecology and Inland Fisheries (IGB), Germany Cook Steven, Catherine Febria, Eric Higgs, Jonathan Jeschke, Johannes Kollmann, Daniel Mietchen, Stephen Murphy, Sandra Rojas-Botero, Leonardo H. Teixeira, Bruno Travassos-Britto
14:15 - 14:30	Assessing the Quality of Non-Direct Data Used in Ecological Restoration Project Planning and Monitoring Timothy Lewis , General Dynamics Information Technology, United States Cynthia Collier, Brick Fevold, Craig Palmer, Molly Middlebrook, Louis Blume
14:30 - 14:45	RECOVERY OF THE KIRTLANDS WARBLER: The need for multi-stakeholder partnerships, volunteerism, and seed-based restoration for actioning Species at Risk habitat restoration projects Laura Williamson , GEI Consultants, Canada
14:45 - 15:00	Science at the service of wetland conservation planning in the City of Quebec Julie Deslandes , Ville de Québec, Canada

CONTRIBUTED SESSION: PEATLAND MANAGEMENT (2 OF 2)

ROOM: 205C

Chair: Mélina Guêné-Nanchen, Université Laval, Canada

13:30 - 13:45	Simulating greenhouse gas exchanges and ecohydrology for peat extraction and restoration Hongxing He , McGill University, Canada
13:45 - 14:00	Influence of hydrological connectivity and ditch substrate on nutrient transformations and export during peat harvesting phases in a sub-humid, glaciated, boreal landscape Mika Little-Devito , University of Alberta, Canada Kevin Devito, William Shotyk

- 14:00 - 14:15 Development of peatlands in the increasingly aeolian environment of subarctic Iceland
Susanne Claudia Möckel, University of Iceland, Iceland
Egill Erlendsson, Elva Björk Benediktsdóttir, Joshua Ratcliffe, Róbert Ívar Arnarsson, Kristín Embla Gu_jónsdóttir, Hlynur Óskarsson, Rattan Lal, Gu_rún Gísladóttir
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- 14:15 - 14:30 International Peatland Society - Contributing Knowledge for Peatland Restoration, Policy and Planning
Örjan Berglund, SLU Swedish university of agricultural sciences, Finland
John Rieley, Bernd Hofer
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- 14:30 - 14:45 Vegetation recovery and management after wildfire in an ombrotrophic bog in Western Canada
Thomas Munson, Munson Ecological Services Metro Vancouver, Canada
Markus Merckens
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- 14:45 - 15:00 Peatland pools: bodies of water of major ecological importance
Laura Catalina Riano Pena, Groupe de recherche en écologie des tourbières, Université Laval, Canada
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ISHS SESSION: NEW AND CURRENTS COMPONENTS IN GROWING MEDIA

ROOM: 204AB

- 13:30 - 14:00 Roundtable - The future of peat and alternate resources of growing media: resilience and vulnerability of resources, economical and ecological cost and performances.
Pierre-Marc De Champlain, Les Tourbières Berger Ltée, Canada
Ka Yeon Jeong, Brian Jackson, Remi Naasz
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- 14:00 - 14:15 Peat-free and peat-reduced growing media for greenhouse petunia (*Petunia _ hybrida* Vilm.) production
Trond Knapp Haraldsen, NIBIO, Norwegian institute of bioeconomy research, Norway
Siv Mari Aurdal, Tomasz Leszek Woznicki
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- 14:15 - 14:30 Sustainable and bioactive substrates to enhance nutrient delivery in soilless production systems
Kee Woei Ng, Nanyang Technological University, Singapore
Xiaoyong Pan, Jason White, Xiao Hu, Philip Demokritou, Kee Woei Ng
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- 14:30 - 14:45 Stratified Substrates: A four-year review
Jeb Fields, Louisiana State University Agricultural Center (LSU AgCenter), United States of America
James Owen, Jr.
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SYM-01: MAPPING WETLAND CARBON STOCKS I: FROM MEASUREMENTS AND MODELS TO MAPS

ROOM: 2101

Chair: Michelle Garneau, Université du Québec a Montréal, Canada

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| 13:30 - 13:45 | National peatland mapping coupled to hydrological, carbon reporting, and wildfire vulnerability schemes: the Canadian Model for Peatlands (CaMP) approach
Dan Thompson , Canadian Forest Service, Canada
Kara Webster, Kelly Bona |
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| 13:45 - 14:00 | Mapping Peatland Carbon and Fluxes in National Parks in Canada
Tara Sharma , Parks Canada Agency, Canada
Gary Zhang, Kelly Bona, Werner Kurz, Alex MacDonald |
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| 14:00 - 14:15 | SIIGSOL project: Automating soil mapping in Quebec Province
Jean-Daniel Sylvain , Direction de la recherche forestière, Ministère des ressources naturelles du Québec, Canada
François Anctil, Évelyne Thiffault, Guillaume Drolet |
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| 14:15 - 14:30 | Machine Learning Applications in Peatland Analysis
Jade Skye , Environment and Climate Change Canada, Canada
Joe Melton |
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| 14:30 - 14:45 | Hidden Carbon: Mapping Soil Organic Carbon in Canada's Boreal Wetlands
Kristyn Mayner , Ducks Unlimited Canada, Canada |
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| 14:45 - 15:00 | Discussion |
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SYM-09: PLANT TRAIT APPROACHES IN RESTORATION ECOLOGY

ROOM: 2104AB

Chair: Anna Dabros, Natural Resources Canada - Canadian Forest Service, Canada

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| 13:30 - 13:45 | Characterizing peatland restoration success using Sphagnum functional traits
Tasha-Leigh Gauthier , University of Waterloo, Canada
Maria Strack, Jonathan Price |
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| 13:45 - 14:00 | Graminoids vary in functional traits, carbon dioxide and methane fluxes in a restored peatland: implications for modeling carbon storage
Ellie Goud , Saint Mary's University, Canada
Sabrina Touchette, Ian Strachan, Maria Strack |
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- 14:00 - 14:15 How can trait-based ecology enhance the restoration of ecosystem functions and services?
Isabelle Aubin, Service canadien des forêts - Centre de foresterie des grands lacs, Canada
Élise Deschênes
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- 14:15 - 14:30 Assessing changes in peatland plant community functions following seismic line disturbance
Christina Bao, University of Waterloo, Canada
Goud Ellie, Dabros Anna
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- 14:30 - 14:45 Water level drawdown increases sensitivity of boreal peatland vegetation to climatic variation
Eeva-Stiina Tuittila, University of Eastern Finland, Finland
Egle Köster, Anna M. Laine-Petäjäkangas, Aino Korrensalo, Janna Barel, Jack Chapman, Harri Vasander
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- 14:45 - 15:00 Evaluating restoration success using a dark diversity approach
Élise Deschênes, Centre de Foresterie des Grands Lacs, Canada
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SYM-24: URBAN AND NEAR-URBAN ECOLOGICAL RESTORATION: FROM PLANNING TO IMPLEMENTATION

ROOM: 206B

Chair: Kelly Jamieson, Toronto and Region Conservation Authority, Canada

- 13:30 - 13:45 Wetland Restoration in the Watershed: Strategic Planning and Implementation
Patrick Esson, Toronto and Region Conservation Authority, Canada
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- 13:45 - 14:00 Integrated Restoration Prioritization: A Multi Discipline Tool for Achieving Natural Resource Planning Objectives
Andrew Ramesbottom, Toronto and Region Conservation Authority, Canada
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- 14:00 - 14:15 Integrated Watershed Planning for Building Resilient Urban Ecosystems
Melanie Randolph, Toronto and Region Conservation Authority, Canada
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- 14:15 - 14:30 Implementing Effective Compensation Restoration in a Rapidly Urbanizing Landscape
Kelly Jamieson, Toronto and Region Conservation Authority, Canada
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- 14:30 - 14:45 Determining Key Performance Indicators of Wetland Restoration in the Greater Toronto Area
Caitlin Fortune, Toronto and Region Conservation Authority, Canada
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- 14:45 - 15:00 Restoration Tree Planting in Urban Environments: Challenges and Lessons Learned
Ryan Stephenson, Toronto and Region Conservation Authority, Canada
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SYM-26: WOMEN IN ECOSYSTEM RESTORATION

ROOM: 2000A

Chair: Asha Hingorani, Canadian Sphagnum Peat Moss Association (CSPMA), Canada

13:30 - 13:45	The road to rebuild peatland after resource extraction? Line Rochefort , GRET/PERG Université Laval, Canada
13:45 - 14:00	Women in Ecosystem Restoration Marieka Chaplin , Nashwaak Watershed Association, Canada
14:00 - 14:15	Julie's Ecological Restoration Journey Julie Pelc , Nature Conservancy of Canada, Canada
14:15 - 14:30	The winding journey of an applied forest ecology researcher Amanda Schoonmaker , Northern Alberta Institute of Technology, Canada
14:30 - 14:45	(Root) Tips for Career Pathways in Ecological Restoration Jenise M. Bauman , Western Washington University, United States of America

WS-01: APPROACHES TO WORKING TOGETHER FOR A SEED STRATEGY ROOTED IN ETHICAL SPACE

ROOM: 206A

Chair: Amy Hall, Carolinian Canada, Canada
Sam Whiteye, Carolinian Canada Coalition, Canada
Michelle Kanter

13:30 - 15:00	Approaches to working together for a seed strategy rooted in ethical space Join us to discuss building a seed network within an ethical and safe space framework. We will discuss approaches to building an ethical seed network, opportunities and barriers to scaling up healthy habitat, and our path forward. Amy Hall , Carolinian Canada Coalition, Canada Amy Hall, Jennifer Nantais
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ATELIER - RESTAURATION ET CONSERVATION DU CAPITAL NATUREL AU QUÉBEC AVEC LES MARCHÉS DU CARBONE ET BIODIVERSITÉ (PROGRAMME EN FRANÇAIS)

ROOM: 205AB

Chair: Martin Beaudoin-Nadeau, Viridis Terra International, Canada

15:30 - 17:00 Restauration et conservation du capital naturel au Québec avec les marchés du carbone et biodiversité (Workshop)
Martin Beaudoin Nadeau, Viridis Terra International, Canada

CONTRIBUTED SESSION: REMOTE SENSING FOR RESTORATION AND RECLAMATION PLANNING AND MONITORING

ROOM: 205C

Chair: Stéphanie Boudreau, Créneau d'excellence Tourbe et substrats and CSP-MA, Canada

15:30 - 15:45 Multi-scale geospatial tools for monitoring restoration activities on wetland ecosystems in Ireland
John Connolly, Trinity College Dublin, Ireland

15:45 - 16:00 Predicting Boreal Forest Reclamation Outcomes Using Disturbance Recovery Models and Remote Sensing
Dean Mackenzie, Vertex Resource Group Ltd., Canada

16:00 - 16:15 Multidimensional remote sensing monitoring of manmade restoration and natural evolution by the northwest Mediterranean coastline ecosystem
Liyuan Qian, Southwest Jiaotong University, China
Sixiang Zhou, Huan Wu

16:15 - 16:30 Use of Small Unmanned Aircraft Systems (sUAS) For Wetland Restoration Monitoring and Vegetation Cover Type Mapping
Tom Touchet, AECOM, United States

16:30 - 16:45 Use of high-density LiDAR derived point clouds to monitor vegetation recovery
Dani Degenhardt, Canadian Forest Service, Canada
Angeline Van Dongen

16:45 - 17:00 A Remote, Cost-Effective Carbon MRV System for Peatland Re-Wetting
Kevin Porter, Terra Motion, United Kingdom
Andrew Sowter, Ken Chadder

CONTRIBUTED SESSION: SOCIAL, CULTURAL AND PHILOSOPHICAL ASPECTS OF RESTORATION, RECLAMATION AND REWILDING

ROOM: 2105

Chair: Laurence Turmel-Courchesne, Université Laval, Canada

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| 15:30 - 15:45 | Reclaim, Restore and Rewild our Relationship with Nature: Implementing Rights of Nature in Wetlands
Gillian Davies , BSC Group, Inc. and Tufts University Global Development & Environment Institute, United States |
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| 15:45 - 16:00 | The Rights of Nature Movement: Challenging the Cultural Context for Ecological Restoration, Landscape Design and Land Management
Ann Kearsley , Ann Kearsley Design Landscape Architect, United States |
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| 16:00 - 16:15 | "What Does this Place Need?" How Ecological Restoration Contributes to Positive Place-Making for Student Practitioners
Trevien Stanger , Saint Michael's College, United States |
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| 16:15 - 16:30 | Benefits and challenges of urban stream restoration during the COVID-19 pandemic
Miranda Virtanen , Junction Creek Stewardship Committee, Canada
Daniel Campbell |
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| 16:30 - 16:45 | Growing Future Forests
Blaine Pearson , Wilder Climate Solutions, Canada
Julian Caspari |
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CONTRIBUTED SESSION: URBAN SYSTEMS

ROOM: 206B

Chair: Janani Sivarajah, Université Laval, Département des sciences du bois et de la forêt, Canada

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| 15:30 - 15:45 | NovelEco: citizen perceptions of informal urban wild spaces
Marcus Collier , Trinity College Dublin, School of Natural Sciences, Ireland |
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| 15:45 - 16:00 | Greener as We Grow: Edmonton's Strategy to Preserve and Expand their Urban Forest and Natural Areas
Katelyn Dunning , O2 Planning and Design, Canada |
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| 16:00 - 16:15 | Restoring Natural Ecosystem Processes for Species at Risk Habitat in an Urbanized Landscape of the Saskatchewan Grassland Ecosystem
Renny Grilz , Meewasin Valley Authority, Canada |
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- 16:15 - 16:30 Montreal's riverbank restoration program: an opportunity to adapt to changing conditions while improving biodiversity, ecosystem services and safe access to water in the city's large riverside parks
Mélanie Lapointe, Ville de Montréal, Canada
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- 16:30 - 16:45 Water availability and landscape connectivity influence terrestrial plant and macroinvertebrate communities in urban stormwater infrastructures
Matisse Petit-Prost, INRS-ETE, Canada
Monique Poulin, Isabelle Lavoie
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- 16:45 - 17:00 Winnipeg's National Urban Park: A Grassroot Proposal Where no Roots Grow
Jean Trottier, University of Manitoba, Canada
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ISHS SESSION: NEW AND CURRENTS COMPONENTS IN GROWING MEDIA

ROOM: 204AB

- 15:30 - 16:00 Keynote address: Circularity of different growing media use: is there a role for biochar?
Bart Vandecasteele, Flanders Research Institute for Agriculture, Fisheries and Food (ILVO)), Belgium
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- 16:00 - 16:15 Overview and Characterization of Some North American and European Wood Substrate Components
Brian Jackson, NC State University, United States of America
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- 16:15 - 16:30 Influence of Substrate pH on Coleus Growth
Brian Whipker, North Carolina State University, United States of America
David Logan, Patrick Veazie, Matthew Ballance, Kristin Hicks, W. Garret Owen
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- 16:30 - 16:45 Characterization of selected growing media for greenhouse-grown strawberries
Francois-Simon Robert, Berger Peat Moss, Canada
Laura Thériault, Mathieu Allaire, Charland Marc
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- 16:45 - 17:00 Evaluation of Biochar as a Sustainable Aggregate in Horticultural Growing Media for Greenhouse Production
Patrick Veazie, North Carolina State University, United States of America
M. Seth Ballance, Kay Yeon Jeong, Brian Whipker
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SYM-10: PLANTS AS FRIENDS, FOES, TOOLS AND KIN: INDIGENOUS PERSPECTIVES ON THE ECOLOGICAL ROLES OF PLANT SPECIES IN RESTORATION

ROOM: 2104AB

Chair: Christine Luckasavitch, Waaseyaa Consulting, Canada

15:30 - 17:00	SYM-10: Plants as friends, foes, tools and kin: Indigenous perspectives on the ecological roles of plant species in restoration
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SYM-30: ASSESSING THE STATE OF ECOLOGICAL RESTORATION KNOWLEDGE IN CANADA

ROOM: 202

Chair: Sonia Voicescu, University of Victoria, Canada

15:30 - 15:45	Synthesizing restoration knowledge in Canada Eric Higgs , University of Victoria, Canada
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15:45 - 16:00	Ecological Restoration Research in Canada: Who, What, Where, When, Why and How? Tim Alamenciak , University of Waterloo, Canada Dorian Pomezanski
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16:00 - 16:15	Deconstructing restoration success: reflections from practitioners and policy makers in Canada Sonia Voicescu , University of Victoria, Canada
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16:15 - 16:30	Yelling into the void: barriers to knowledge exchange for restoration Alina Fisher , University of Victoria, Canada
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16:30 - 16:45	Global restoration tools: How effective are we at disseminating knowledge that practitioners need? Nancy Shackelford , University of Victoria, Canada Emma Ladouceur
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16:45 - 17:00	Knowledge Synthesis: Thinking through Evidence and Principles Sarah Jacobs , University of Victoria, Canada
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WS-02: DEVELOPING A COLLABORATIVE FRAMEWORK FOR A NATIONAL NATIVE SEED STRATEGY (NNSS)

ROOM: 206A

Chair: Tracey Etwell, Canadian Wildlife Federation, Canada

Stefan Webber

Carolyn Callaghan

15:30 - 17:00

WS-02: Developing a Collaborative Framework for a National Native Seed Strategy (NNSS)

In this workshop, we will discuss priority issues to be considered for a National Native Seed Strategy (NNSS) for Canada such as: strategy development, barriers faced by native seed growers, what is needed to increase the capacity of native plant growers, ways to broaden support for a seed strategy, and recommendations for how to frame it.

WS-04: MAPPING WETLAND CARBON STOCKS II: ESTIMATING AND UPSCALING CARBON STOCKS

ROOM: 2101

Chair: Michelle Garneau, Université du Québec à Montréal, Canada

Nicole Sanderson, Université du Québec à Montréal | Geotop, Canada

Gabriel Magnan, Centre Geotop, UQAM, Canada

15:30 - 17:00

WS-04: Mapping Wetland Carbon Stocks II: Estimating and Upscaling Carbon Stocks

TUESDAY, JUNE 13, 2023

WELCOMING WORDS

ROOM: 2000AB

8:30 - 8:45 Welcoming words

RECLAMATION PLENARY SPEAKER: CARLA WYTRYKUSH

ROOM: 2000AB

8:45 - 9:30 Title coming soon
Carla Wytrykush, Syncrude Research and Development, Canada

RECLAMATION PLENARY SPEAKER: JACYNTH DESSUREAULT-ROMPRÉ

ROOM: 2000AB

9:30 - 10:15 Sustainable vegetable crop production on agricultural peatland:
 mission possible?
Jacynthe Dessureault-Rompé, Université Laval, Canada
 Jean Caron

ATELIER - BESOIN URGENT DE LA RESTAURATION DURABLE DES ÉCOSYSTÈMES NATURELS ET PRODUCTIFS POUR LUTTER CONTRE LES CRISES CLIMATIQUES ET ÉCOLOGIQUES DANS LES PAYS EN VOIE DE DÉVELOPPEMENT (PROGRAMME EN FRANÇAIS)

ROOM: 205AB

Chair: **Martin Beaudoin-Nadeau**, Viridis Terra International, Canada

10:45 - 12:15 Besoin urgent de la restauration durable des écosystèmes naturels et productifs pour lutter contre les crises climatiques et écologiques dans les pays en voie de développement (Workshop)
Martin Beaudoin Nadeau, Viridis Terra International, Canada

CONTRIBUTED SESSION: ECONOMICS OF RESTORATION AND RECLAMATION

ROOM: 2105

Chair: Nigel Finney, Ontario Society of Ecological Restoration, Canada

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| 10:45 - 11:00 | Restoring degraded land by connecting investors to farmers all over the world: the Integrated Forest Landscape Restoration (IFLR) approach
Leonie Cote , Viridis Terra International, Canada
Benoit Limoges |
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| 11:00 - 11:15 | What is holding up progress in countering ecosystem decline and infrastructure service failure with natural asset management?
Sawroop Sandhu , University of Waterloo, Canada
Michael Drescher |
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| 11:15 - 11:30 | Linking natural asset management and ecological restoration
Margot Ursic , Grounded Solutions Services Ltd., Canada |
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| 11:30 - 11:45 | A Proposed Framework for a Regenerative Ecological Restoration
Christopher Streb , Biohabitats, United States |
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| 11:45 - 12:00 | Wetland Restoration Costs Analysis: Findings, Challenges, and Recommendations for Refinement
Alexandra Wolfe , Massachusetts Department of Fish and Game, United States
Aisling O'Shea |
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CONTRIBUTED SESSION: RESTORATION, RECLAMATION AND REWILDING IN CANADA'S OIL SANDS REGION

ROOM: 206B

Chair: Marissa Davies, University of Waterloo, Canada

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| 10:45 - 11:00 | Planning for Reclamation, Restoration and Rewilding isn't random, the Canadian Oil Sands Experience
Jack O'Neill , Pathways Alliance, COSIA, Canada |
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| 11:00 - 11:15 | The impacts of oil and gas development on boreal peatland carbon emissions and removals
Kelly Bona , Environment and Climate Change Canada, Canada
Lyna Lapointe-Elmrabti, Daniel Aydalla, Douglas MacDonald, Gary Zhang, Werner Kurz |
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| 11:15 - 11:30 | Vegetation recovery on low impact seismic lines over eight-year period in boreal uplands of northern Alberta
Anna Dabros , Natural Resources Canada - Canadian Forest Service, Canada
Kellina Higgins |
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| 11:30 - 11:45 | Impacts of soil mounding on ground microtopography along seismic lines in boreal peatlands of Alberta (Canada)
Jaime Pinzon , Natural Resources Canada - Canadian Forest Service, Canada
Anna Dabros, Philip Hoffman |
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CONTRIBUTED SESSION: RIVER AND WETLAND RESTORATION

ROOM: 2104AB

Chair: Christian Lenhart, University of Minnesota and The Nature Conservancy, United States Of America

10:45 - 11:00 Reclaiming the River: Tekakwitha Island and Bay Restoration Project
Cole Delisle, Mohawk Council of Kahnawa:ke - Kahnawake
Environment Protection Office, Canada

11:00 - 11:15 How much space does a river need? Concepts and Approaches
from Floodplain Restoration and Management in the Pacific
Northwest, USA
Nick Legg, Wolf Water Resources, United States

11:15 - 11:30 Restoration of 1,000 Acres of Columbia River Floodplain - Scaling
Up to Implement Complex, High-Risk, Climate-Resilient
Restoration at Steigerwald National Wildlife Refuge
Curtis Loeb, Wolf Water Resources, United States
Chris Collins

11:30 - 11:45 Restoration and Ecological Uplift of Teaneck Creek Park within
Bergen County's Overpeck County Park - From an Abandoned
Rubble Fill to a Sand Seepage Wetland
Joseph Berg, Biohabitats, United States

11:45 - 12:00 Impacts on wetland hydrology of human activities that induce
lower groundwater levels - A review
Marie Larocque, Université du Québec à Montréal, Canada
Sabrina Bruneau

12:00 - 12:15 The effects of long-term drainage and short-term restoration on
DOC concentrations and optical properties in the Baijianghe Peatland
Zucheng Wang, Northeast Normal University, China
Zhiwei Xu

ISHS SESSION: CIRCULARITY OF GROWING MEDIA USE: RECYCLING OF COMPONENTS, REUSE OF GROWING MEDIA

ROOM: 204AB

10:45 - 11:15 Keynote address: Developments in the compost manufacturing
industry in Canada and Globally
Susan Antler, Compost Council of Canada, Canada

11:15 - 11:30 North American and European Conifer Species Evaluated for Use as
Wood Components in Growing Media: A mini review
Jackson Bobo, North Carolina State University, United States of
America
Brian Jackson

- 11:30 - 11:45 Effects of compost fertility on the growth, yield, and nutrient content of container grown lettuce (*Lactuca sativa*)
James Altland, United States Department of Agriculture (USDA) - Agricultural Research Service (ARS) - Application Technology Research Unit (ATRU), United States of America
 Melodie Floom, Fred Michel, Uttara Samarakoon, Peter Ling
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- 11:45 - 12:00 Characterisation of Peat-Free Growing Media to Facilitate The Transition to Peat-Free Horticulture
Raghavendra Prasad, Royal Horticultural Society, United Kingdom
 Marc Redmile-Gordon, Mark Gush, Alistair Griffiths
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SYM-07: OLD PEAT, NEW VOICES: FRONTIERS IN GLOBAL PEATLAND RESEARCH FROM EARLY CAREER RESEARCHERS

ROOM: 2101

Chair: **Meike Lemmer**, Peatland Science Centre (HSWT); Peatland ECR Action Team, Germany

- 10:45 - 11:00 Wetland reclamation through the lens of coexistence theory
Ellie Goud, Saint Mary's University, Canada
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- 11:00 - 11:15 Peat extraction in Canada: understanding the effect of sector age and hydrological conditions on carbon emissions
Miranda Hunter, University of Waterloo, Canada
 Laura Clark, Rebecca Frei, Ian Strachan, David Olefeldt, Nigel Roulet, Maria Strack
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- 11:15 - 11:30 Impact of birch encroachment on carbon- and water cycling in a rewetted peat extraction area
Carla Welpelo, Thünen-Institute of Climate-Smart Agriculture, Germany
 Bärbel Tiemeyer, Maren Dubbert, Alexander Knohl, Arndt Piayda
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- 11:30 - 11:45 Paludiculture as a nature-based solution for peatlands results of GHG mitigation potentials in fen peatlands of southern Germany
Carla Bockermann, University of Applied Sciences Weihenstephan-Triesdorf, Germany
 Tim Eickenscheidt, Matthias Drösler
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- 11:45 - 12:00 Paludiculture supports biodiversity and conservation in rewetted peatlands
Hanna Martens, Paragon Soil and Environmental Consulting, Canada
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SYM-18: ROAD DECOMMISSIONING: STEP BACK TO LIMIT OUR IMPACTS

ROOM: 2000A

Chair: Alison Munson, Université Laval, Canada

10:45 - 11:00	Best management practices for low-use forest roads decommissioning Sylvain Jutras , Université Laval, Canada
11:00 - 11:15	End of the road: How forest road characteristics and decommissioning shape road use by large mammals Martin-Hugues St-Laurent , Université du Québec à Rimouski, Canada Rebecca Lacerte, Fabien St-Pierre, Mathieu Leblond, Pierre Drapeau
11:15 - 11:30	Restoration of tree cover on forest roads for caribou conservation in Quebec- Overview of two research trials Clémentine Pernot , Université Laval, Canada Julie Barrette, Alison Munson
11:30 - 11:45	Tested approaches to restore mineral roads in post-production peatlands Marion Tétégan Simon , Valores - Research Institute, Canada Laurent Daou
11:45 - 12:00	Various techniques for road decommissioning in peatlands Kathy Pouliot , Peatland Ecology Research Group - Université Laval, Canada Line Rochefort
12:00 - 12:15	Discussion

SYM-23: TIDAL WETLAND RESTORATION: NATURE BASED SOLUTIONS AND BLUE CARBON

ROOM: 205C

Chair: Jeremy Lundholm, Saint Mary's University, Canada

10:45 - 11:00	<p>Tidal wetland restoration in the upper Bay of Fundy Tony Bowron, CB Wetlands and Environmental Specialists, Canada Danika van Proosdij, Jennie Graham, Jeremy Lundholm</p>
11:00 - 11:15	<p>The role of sediment accretion in rapid carbon input during tidal wetland restoration Jeremy Lundholm, TransCoastal Adaptations, Saint Mary's University, Canada Danika van Proosdij, Tony Bowron, Jennie Graham, Kendra Sampson</p>
11:15 - 11:30	<p>Mapping sediment accretion patterns during tidal wetland restoration Samantha Lewis, CB Wetlands and Environmental Specialists, Canada Tony Bowron, Danika van Proosdij, Jeremy Lundholm</p>
11:30 - 11:45	<p>Predicting organic carbon concentrations across tidal marshes: effects of mycorrhizal colonization, vegetation type and substrate depth Kayla Williams, TransCoastal Adaptations, Saint Mary's University, Canada Kendra Sampson, Danika van Proosdij, Allison Walker, Jeremy Lundholm, Tony Bowron</p>
11:45 - 12:00	<p>Analyzing ecological and sociological process among restoration of dyked marshes, the DPM project Sébastien Gallet, Université de Brest, France Julien Pétillon, Alexandre Carpentier, Aurélien Ridel, Manuel Salugueiro Simon, Marion Bourhis, Régis Gallais, Anthony Sturbois, Guillaume Gélinaud, Célia Dèbre, Sébastien Gallet</p>

SYM-29: INTERNATIONAL SYMPOSIUM ON GROWING MEDIA, COMPOST UTILIZATION AND SUBSTRATE ANALYSIS FOR SOILLESS CULTIVATION (1 OF 3)

ROOM: 202

10:45 - 11:15	<p>Principles and processes in conserving and restoring cultivated organic soils: promising avenues Jean Caron, Université Laval, Canada Alexis Gloutney, Alain Rousseau, Geneviève Montminy, Raphaël Deragon, Carole Boily, Diane Bulot, Karolane Bourdon, Mathieu Rémy, Vincent Grégoire, Félix L'Heureux Bilodeau, Soumaila Kanga Idé, Yelena Esther Gomez Lara, Andrés Felipe Silva Dimaté, Saba Daeichin, Claude Bernard, Nicolas Shooner, Cedrick Victoir Guedessou, Charles Frenette-Vallières, Josée Fortin, Nicholas Lefebvre, Christophe Libbrecht, Moranne Béliveau, Renel L'Hérisson, Jacynthe Dessureault-Rompré</p>
11:15 - 11:30	<p>Saltation and aerosol suspension over cultivated histosols in southern Quebec Charles Frenette-Vallières, Université Laval, Canada Jean Caron, Daniel Campbell</p>
11:30 - 11:34	<p>Discriminating stratigraphic layers of cultivated organic soils using proximal sensors Raphaël Deragon, Université Laval, Canada Nicholas Lefebvre, Budiman Minasny, Jean Caron</p>
11:34 - 11:38	<p>The impact of biomass additions on a cultivated organic soil for the development of a comprehensive soil management model Keegan Smith, Université Laval, Canada</p>
11:38 - 11:42	<p>Evolution of physical properties of a cultivated organic soil drained by drainage trench Yelena Esther Gomez Lara, Université Laval, Canada Jean Caron, Jonathan Lafond, Silvio Jose Gumiere</p>
11:42 - 11:46	<p>Erodibility of an organic soil: the case in Montérégie, Quebec, Canada Soumaila Kanga Idé, Université Laval, Canada</p>
11:46 - 11:50	<p>Assessing the Local Impact of Windbreaks on Reducing Organic Soil Loss by Wind Erosion Saba Daeichin, Université Laval, Canada</p>
11:50 - 11:54	<p>Carbon dioxide emission from organic soil amended with straw and wood chips Félix L'Heureux Bilodeau, Université Laval, Canada</p>
11:54 - 11:58	<p>Aggregate size distribution of organic soil eroded by wind Andrés Felipe Silva Dimaté, Université Laval, Canada Alain Rousseau, Jean Caron</p>

SYM-31: LEARNINGS FROM AND OPPORTUNITIES FOR INDIGENOUS-ORIENTED ECOLOGICAL RESTORATION AND REHABILITATION IN SE CANADA AND NE USA

ROOM: 206A

Chair: James Aronson, Ecological Health Network, United States

Darren Ranco, University of Maine, United States Of America

10:45 - 11:00	Landback and rematriation across Wabanakik: Towards care-taking and restoration Darren Ranco , University of Maine, United States
11:00 - 11:15	Wabanaki plant gathering in Acadia NP: Mobilizing Indigenous Knowledge to restore traditional sweet grass harvesting Suzanne Greenlaw , University of Maine, United States Michelle Baumflek
11:15 - 11:30	Spirit of Ratinonsaunee Agriculture Terrylynn Brant , Mohawk First Nation, Canada
11:30 - 11:45	Sacred Hoop Equestrian Centre: An ecocultural restoration project of the Kichesipirini Algonquin First Nation Paula LaPierre , Kichesipirini Algonquin First Nation, Canada
11:45 - 12:15	Discussion

CONTRIBUTED SESSION: NATURE-BASED SOLUTIONS

ROOM: 2105

Chair: Guillaume Grégoire, Université Laval, Canada

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| 13:30 - 13:45 | <p>Carbone boréal: approaches to restore the carbon sink ecosystem service of boreal lichen woodlands</p> <p>Patrick Faubert, Université du Québec à Chicoutimi, Canada</p> <p>Sylvie Bouchard, Olivier Fradette, Charles Marty, Maxime Paré, Claude Villeneuve</p> |
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| 13:45 - 14:00 | <p>Rethinking the potential of wetlands as nature-based climate solutions using different CO2 equivalent metrics and models</p> <p>Shizhou Ma, University of Saskatchewan, Canada</p> <p>Irena Creed, Pascal Badiou</p> |
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| 14:00 - 14:15 | <p>Peatland Restoration in MN as a state-level climate mitigation strategy</p> <p>Kristen Blann, The Nature Conservancy, United States</p> <p>Christian Lenhart, Maya Swope, Anna Kottkamp, Ailene Ettinger, Mark Felice</p> |
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| 14:15 - 14:30 | <p>CO2 accumulation in restored peatlands reporting from Northern Europe</p> <p>Anna-Helena Purre, Tallinn University, Estonia</p> <p>Mati Ilomets</p> |
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| 14:30 - 14:45 | <p>Mitigation of greenhouse gas emissions from German bog peatlands</p> <p>Bärbel Tiemeyer, Thünen-Institute of Climate-Smart Agriculture, Germany</p> <p>Christian Brümmer, Ullrich Dettmann, Dominik Düvel, Sebastian Heller, Liv Offermanns, Jan Oestmann, Arndt Piayda, Carla Welpelo</p> |
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CONTRIBUTED SESSION: RESTORATION OF COASTAL WETLANDS

ROOM: 205C

Chair: Jeremy Lundholm, Saint Mary's University, Canada

13:30 - 13:45	Eelgrass : phytoremediation and blue carbon potential in coastal sediments Cloé Falcoz , UQAR-ISMER, Canada Richard Saint-Louis, Julie Carrière, Mathieu Cusson
13:45 - 14:00	Watson Park Shoreline Erosion Mitigation and Coastal Resiliency Project - Expanding the State of Salt Marsh Restoration in Massachusetts Adam Finkle , Woods Hole Group, United States
14:00 - 14:15	Phytohormonal control of mangrove root growth response to variation in soil bulk density Anne Ola , Université Laval, University of Queensland, Canada Ian C. Dodd, Catherine E. Lovelock
14:15 - 14:30	How does texture of added sediment affect carbon sequestration of restored coastal salt marshes? Madeleine Meadows-McDonnell , University of Connecticut, United States Nicolette Nelson, Ashley Helton, Madeline Kollegger, Franco Gigliotti, Chris Elphick, Beth Lawrence
14:30 - 14:45	Coastal Restoration Challenges: Considerations for decision-making and investment of funds Aisling O'Shea , Massachusetts Department of Fish and Game, United States Elisabeth Cianciola
14:45 - 15:00	Cutting Edge Resiliency for Salt Marsh Restoration: From Construction Methodologies to Strategic Design Considerations from a Certified Ecological Restoration Practitioner's Perspective Seth Wilkinson , Wilkinson Ecological Design, United States

CONTRIBUTED SESSION: RESTORATION PLANNING AND MONITORING

ROOM: 206B

Chair: Jacynthe Dessureault-Rompré, Laval University, Canada

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| 13:30 - 13:45 | <p>Building Your Restoration Team: How Teamwork, Connection, and Collaboration Lead to Success</p> <p>Chris Tenszen, Trace Associates Inc., Canada</p> |
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| 13:45 - 14:00 | <p>How practice and research create the theoretical building blocks of ecological restoration</p> <p>Bruno Travassos-Britto, University of Sao Paulo, Brazil</p> <p>Tina Heger, Jonathan Jeschke, Leonardo H. Teixeira, Sandra Rojas-Botero, Johannes Kollmann, Daniel Mietchen</p> |
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| 14:00 - 14:15 | <p>Function-based Wetland Assessment to inform Restoration</p> <p>Jessica Lowey, ERM Consultants Canada, Canada</p> |
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| 14:15 - 14:30 | <p>Development of a Freshwater Wetland Restoration Site Identification and Prioritization Approach for Massachusetts, USA</p> <p>Elisabeth Cianciola, Massachusetts Department of Fish and Game, United States</p> <p>Aisling O'Shea</p> |
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| 14:30 - 14:45 | <p>The Interagency Ecological Restoration Quality Committee (IERQC) - Advancing Applications of Quality Assurance in Ecological Restoration Across the Laurentian Great Lakes</p> <p>Brick Fevold, General Dynamics Information Technology, United States</p> <p>Louis Blume, Timothy Lewis, Craig Palmer, Molly Middlebrook</p> |
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| 14:45 - 15:00 | <p>Demonstrating the Importance of Indicator Thresholds for Wetland Restoration Monitoring. Applying International Standards to Provincial Policy.</p> <p>Joelyn Kozar, Barr Engineering and Environmental Science Canada Ltd., Canada</p> |
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ISHS SESSION: ANALYTICAL METHODS GROWING MEDIA (BIOLOGICAL, CHEMICAL, PHYSICAL) AND MANAGING BENEFICIAL AND HARMFUL ORGANISMS IN GROWING MEDIA

ROOM: 204AB

13:30 - 14:00	<p>Keynote address: Concept based mapping as a tool to disentangle biological properties and interactivities in research on growing media and hydroponics</p> <p>Beatrix Waechter Alsanus, Swedish University of Agricultural Sciences (SLU), Sweden</p> <p>Sammar Khalil, Anna Rosenberg</p>
14:00 - 14:15	<p>Plant and microbial growth as affected by growing media interacted with spent mushroom compost</p> <p>Samar Khalil, Biosystem och teknologi, Swedish University of Agricultural Sciences, Sweden</p>
14:15 - 14:30	<p>Application of Microbiological Knowledge in Growing Media based Cultivation Systems</p> <p>Chris Blok, Wageningen UR Greenhouse Horticulture, Netherlands</p> <p>Marta Streminska, Annelein Meisner, Alexander Boedjin, Karel de Bruijn</p>
14:30 - 14:45	<p>Establishing optimal nutrient solution compositions for watermelon cultivation in open or closed soilless crops</p> <p>Dimitrios Savvas, Agricultural University of Athens, Greece</p> <p>Eirini Xaxiri, Andreos Georgiou, Evangelos Giannothanasis, Georgia Ntatsi</p>

SYM-02: BRIDGING THE KNOWLEDGE GAPS IN TEMPERATE PEATLAND SWAMPS: PAST, PRESENT, AND FUTURE

ROOM: 2104AB

Chair: Megan Schmidt, University of Waterloo, Canada

Oluwabamise Afolabi, University of Waterloo, Canada

13:30 - 14:00	The value of northern swamps as natural climate solutions Scott J. Davidson , University of Plymouth, United Kingdom
14:00 - 14:15	The developmental history and peat accumulation of the largest swamp in southern Ontario, Canada Eunji Byun , Yonsei University, Korea, Republic of (South Korea) Emily Dazé, Sarah Finkelstein
14:15 - 14:30	Secrets of the swamp: A synoptic study of carbon cycling in southern Ontario swamps Megan Schmidt , University of Waterloo, Canada Oluwabamise Afolabi, Veronica Santia, Kristen Olazo, Samantha Price, Harry Kumbhani, Isabelle Marincic, Maria Strack
14:30 - 14:45	The carbon dynamics of temperate swamps under a changing climate Oluwabamise Afolabi , University of Waterloo, Canada Hongxing He, Maria Strack
14:45 - 15:00	Progress and next steps restoring forested peatlands in the Great Dismal Swamp National Wildlife Refuge, Virginia and North Carolina, U.S.A Frederic Wurster , U.S. Fish and Wildlife Service, United States

SYM-13: RIVER ECOSYSTEM RESTORATION DES OUTILS ET RÉFLEXIONS VERS UNE MEILLEURE RESTAURATION DES COURS D'EAU ? (1 OF 2) (PROGRAMME EN FRANÇAIS)

ROOM: 205AB

Chair: Stéphane Valois, MELCCFP, Canada

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- 13:30 - 13:45** Trajectoire et défis de l'hydrogéomorphologie au Québec / On the trajectory and challenges of hydrogeomorphology in Québec
Thomas Buffin-Bélanger, Université du Québec à Rimouski, Canada
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- 13:45 - 14:00** Développement d'un indice automatisé pour évaluer l'état hydrogéomorphologique des cours d'eau du Québec / Development of an automated index for assessing the hydromorphological state of Quebec's watercourses
Maxime Boivin, Université du Québec à Chicoutimi, Canada
 Johan Bérubé, Véronique Simard, Buffin-Bélanger Thomas, Pascale Biron
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- 14:00 - 14:15** Restauration des processus hydrogéomorphologiques 25 ans après la crue majeure du déluge du Saguenay, Québec / Mise en place d'un suivi régional dans l'Est-Du-Québec / Hydrogeomorphological processes restoration 25 years after the major Saguenay flood event, Quebec - Implementation of regional monitoring in Eastern Quebec
Maxime Boivin, Université du Québec à Chicoutimi, Canada
 Janie Vin-Deslauriers, Bouchard Marianne, Simon Tremblay, Johan Bérubé, Thomas Buffin-Bélanger, Guillaume Fantino
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- 14:15 - 14:30** Enjeu de restauration d'un lac fluvial : le cas particulier du lac Saint-Pierre (fleuve Saint-Laurent) / The restoration issue of a large fluvial lake: the case study of Lake Saint-Pierre (St-Lawrence River)
Philippe Brodeur, Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs du Québec, Canada
 Marianne Théberge
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- 14:30 - 14:45** Restauration de prairies alluviales: enjeux conceptuels et opérationnels pour modéliser les trajectoires de restauration de la végétation / Restoration of floodplain grasslands : conceptual and operational issues for modelling vegetation trajectories
Didier Alard, Université de Bordeaux, France
 Marie-Lise Benot, Emmanuel Corcket, Lilian Marchand
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- 14:45 - 15:00** FLAG : Un projet sur les freins et leviers pour le développement du génie végétal au Québec / FLAG: A project on the brakes and levers for the development of soil water bioengineering in Quebec
André Evette, Université Grenoble Alpes, INRAE, LESSEM, F-38402, France
 Monique Poulin, Marylse Cottet, Clémence Moreau
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SYM-16: RESTORATION OF BOREAL PEATLANDS IN THE IN-SITU OIL SANDS REGIONS IN ALBERTA

ROOM: 2101

Chair: Bin Xu, Northern Alberta Institute of Technology, Canada

13:30 - 13:45 Restoration of a padded well site using complete pad removal with donor moss transfer: site progress after seven years
Melanie Bird, NAIT Centre for Boreal Research, Canada
Bin Xu

13:45 - 14:00 Creating fen vegetation initiation conditions on a remnant in-situ well pad: Early trends in environmental and vegetation dynamics
Murdoch McKinnon, University of Waterloo, Geography & Environmental Management, Canada
Felix Nwaishi, Bin Xu, Melanie Bird, Richard Petrone

14:00 - 14:15 Restoration of a Sphagnum-dominated peatland disturbed by a mineral road
Christine Isabel, Écogénie inc., Canada

14:15 - 14:30 Restoration of a plant community with potential for peat accumulation on the mineral substrate of a peatland disturbed by a road
Pascal Guérin, WSP Canada Inc., Canada

14:30 - 14:45 Alternative Road Construction to Reduce Peatland Water Flow Obstruction
Terry Osko, Circle T Consulting, Inc., Canada

14:45 - 15:00 Linear Feature Restoration in Boreal Peatland: Seismic Lines
Ba Thuong Le, Northern Alberta Institute of Technology, Canada

SYM-29: INTERNATIONAL SYMPOSIUM ON GROWING MEDIA, COMPOST UTILIZATION AND SUBSTRATE ANALYSIS FOR SOILLESS CULTIVATION (2 OF 3)

ROOM: 202

13:30 - 14:00 The ecological restoration of Canadian peatlands
Line Rochefort, Université Laval, Canada
Claire Boismenu, Line Rochefort

14:00 - 14:15 How ecologically similar is the vegetation of a restored Sphagnum-dominated peatland from that of a natural bog? A comparative approach with reference ecosystem
Gwendal Breton, GRET/PERG Université Laval, Canada
Mélina Guêné-Nanchen, Line Rochefort

14:15 - 14:30 The Return of Peatland Greenhouse Gas and Carbon Function a Measure of Restoration Success
Ian Strachan, Queen's University, Canada
Maria Strack, Kelly Nugent, Scott MacDonald, Nigel Roulet, Line Rochefort

14:30 - 14:45 Peatland restoration with Sphagnum reintroduction: Does bryophyte diversity follow?
Camille Boucher, Groupe de recherche en écologie des tourbières, Université Laval, Canada

14:45 - 15:00 Improving the carbon sequestration and biodiversity potential of vegetated post-industrial peatlands
Pierre-Olivier Jean, Premier Tech Horticulture, Canada
Jacques Gagnon

SYM-32: HOLISTIC ECOLOGICAL RESTORATION. FOUR KEY ELEMENTS AND THE WAY FORWARD.

ROOM: 206A

Chair: Katherine Lawless, Huron University College, Canada

13:30 - 13:45 Soil Health is Human Health: Implications for Restoration and Rewilding
Katherine Lawless, Huron University College, Canada

13:45 - 14:00 Restoration seed and plant material supply chains are complex social networks
Eve Allen, Ecological Health Network, United States of America

14:00 - 14:15 Ecological restoration as a social movement in time of overshoot: seeking critical collaborations
Matthew Burke, University of Vermont, United States

14:15 - 14:30 The trouble with rewilding: a need for holistic ecological restoration
James Aronson, Ecological Health Network, CCSD, Missouri Botanical Garden, United States
Adam Cross, Eve Allen, Laura Orlando, Neva Goodwin, Matthew Burke, Andre Clewell

14:30 - 15:00 Discussion

WK-27: APPLIED RESEARCHERS TOP FIVE LIST OF PRACTICES THAT SUPPORT THE RETURN OF FORESTS IN INDUSTRIALLY DISTURBED SITES

ROOM: 2000A

Chair: Amanda Schoonmaker, NAIT, Canada

Chibuike Chigbo

Mark Baah-Archeamfour

13:30 - 13:45	Best practice honorable mention: cluster planting as a technique to getting the high-density benefits without busting the bank Amanda Schoonmaker , Northern Alberta Institute of Technology, Canada
13:45 - 14:00	Best practice 5: plant as much as you can afford Schoonmaker Amanda , Northern Alberta Institute of Technology, Canada
14:00 - 14:15	Best practice 4: stop picking at it, why less is more when it comes to weed management Amanda Schoonmaker , Northern Alberta Institute of Technology, Canada
14:15 - 14:30	Best practice 3: don't let the grass run wild Amanda Schoonmaker , Northern Alberta Institute of Technology, Canada
14:30 - 14:45	Best practice 2: rough and loose all the time Amanda Schoonmaker , Northern Alberta Institute of Technology, Canada
14:45 - 15:00	Discussion

CONTRIBUTED SESSION: LOCAL AND TRADITIONAL KNOWLEDGE FOR CONSERVATION AND RESTORATION PLANNING

ROOM: 205C

Chair: Thomas Munson, Munson Ecological Services, Canada

15:30 - 15:45	Generate, Explore, Consolidate: developing a systems-thinking visioning approach for tropical peatland restoration in Indonesia Andrea Rawluk , University of Melbourne, Australia Tessa Toumbourou
15:45 - 16:00	Blueberry River First Nations' Restoration Framework Mae Whyte , Blueberry River First Nations, Canada Darian Weber

- 16:00 - 16:15 A Journey Towards Reclaiming Homelands after Oil Sands Extraction in the Fort McKay First Nation Traditional Territory, Treaty 8, Alberta
Christine Daly, University of Calgary, Canada
Christine Daly, Bori Arrobo, Gillian Donald, Clara Mercer, Marie Boucher, Gabe Desjarlais, Joe Grandjambe, Martha Grandjambe, Ryan Grandjambe, Dora L'Hommecourt, James Ladouceur, Douglass Mercer, Edith Orr, Audrey Redcrow, Scotty Stewart, Alexandra Davies Post, Dan McCarthy, S. Craig Gerlach, David A. Lertzman
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- 16:15 - 16:30 Working together to recover native trout in Alberta; a case study on the Alberta Native Trout Collaborative's habitat restoration program
Amy McLeod, Alberta Riparian Habitat Management Society, Canada
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CONTRIBUTED SESSION: WETLAND BIOGEOCHEMISTRY

ROOM: 2105

Chair: Anne Ola, Université Laval, Canada

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- 15:30 - 15:45 CONSTRUCTED WETLANDS AS A SUSTAINABLE SOLUTION FOR RECLAIMING SUGAR MILLS EFFLUENT
Safia Ahmed, Quaid-i-Azam University, Pakistan
Babar Ali, Mahwish Ali, Safia Ahmed
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- 15:45 - 16:00 Plant-plant interaction modifies boreal peatland vegetation dynamics under warmer and elevated nitrogen: a case study in eastern Canada boreal bog
Ba Thuong Le, Northern Alberta Institute of Technology, Canada
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- 16:00 - 16:15 Ecosystem services of European wetlands and their indicators
Liisa Maanavilja, Geological Survey of Finland, Finland
Anna M. Laine-Petäjäkangas, Tiina Törmänen, Camilla Bertolini, Eva-Stiina Tuittila
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- 16:15 - 16:30 Carbon Alchemy in Pocosin Peatlands as Drivers of Climate Change Services
Curtis Richardson, Duke University Wetland Center, United States
Neal Flanagan, Mengchi Ho, Hongjun Wang
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- 16:30 - 16:45 Influence of the water table and drainage on nitrous oxide fluxes in a tropical Andean peatland
Yeraldin Roa Medina, Pontificia universidad javeriana, Colombia
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- 16:45 - 17:00 The geography of peatland pool biogeochemistry
Julie Talbot, Université de Montréal, Canada
Julien Arsenault, Jean-François Lapierre
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ISHS SESSION: ANALYTICAL METHODS GROWING MEDIA (BIOLOGICAL, CHEMICAL, PHYSICAL)

ROOM: 204AB

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- 15:30 - 16:00 Keynote address: Gold standards for substrate characterization
Ryan Stewart, Virginia Tech, United States of America
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- 16:00 - 16:15 Quantifying functional pore sizes in pine bark growing media
Caroline Wolcott, Virginia Polytechnic Institute and State University, United States of America
Ryan Stewart, James Owen
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- 16:15 - 16:30 Water retention properties of wood fiber based growing media and their impact on irrigation strategy
Ruediger Anlauf, Osnabrück University of Applied Sciences, Germany
Hadi Hama Aziz Muhammed, Tobias Reineke, Diemo Daum
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- 16:30 - 16:45 RHP pH Buffer Test on Growing Media Constituents
Hans Verhagen, Stichting RHP, Netherlands
Ine Geuijen
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SYM-06: FEN RESTORATION IN NORTH AMERICA: CHALLENGES AND RESEARCH GAPS

ROOM: 2101

Chair: Pete Whittington, Brandon University, Canada
Aamir Shehzad Khan, Peatland Ecology Research Group, Canada
Mélina Guêné-Nanchen, Université Laval, Canada

- 15:30 - 15:45 Ecohydrologic challenges of restoring fens
Rod Chimner, Michigan Tech, United States
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- 15:45 - 16:00 Restoration of a degraded fen in Minnesota, U.S.A: Lessons learned
Christian Lenhart, University of Minnesota & TNC, United States
Anna Kottkamp, Lucy Gregersen, Kristen Blann
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- 16:00 - 16:15 Hydrological targets and lessons learned of rewetting experiments at the eastern edge of the Canadian prairies
Pete Whittington, Brandon University, Canada
Line Rochefort, Marie-Claire LeBlanc
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- 16:15 - 16:30 Boreal Fen Restoration in Alberta's In-Situ Oil Sands Region
Bin Xu, NAIT Centre for Boreal Research, Canada
Melanie Bird, Sarah Darling, Ba Thuong Le
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- 16:30 - 16:45 Restored fen vegetation following in situ well pad disturbances
Meike Lemmer, CEN, Université Laval; Peatland Science Center (HSWT); Peatland ECR Action Team, Germany
Bin Xu, Maria Strack, Line Rochefort
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- 16:45 - 17:00 Fen plant communities, 13 years post-restoration: A case study from the largest restored fen of Quebec (Canada)
Aamir Shehzad Khan, Université Laval, Canada
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SYM-13: RIVER ECOSYSTEM RESTORATION DES OUTILS ET RÉFLEXIONS VERS UNE MEILLEURE RESTAURATION DES COURS D'EAU ? (2 OF 2) (PROGRAMME EN FRANÇAIS)

SALLE: 205AB

Chair: Stéphane Valois, MELCCFP, Canada

15:30 - 15:45	<p>Développement de courbes de géométrie hydraulique adaptées à différents contextes physiographiques au Québec implications pour la restauration des cours d'eau</p> <p>Development of hydraulic geometry curves adapted to various physiographic contexts in Quebec: implications for stream restoration</p> <p>Maxime Boivin, Université du Québec à Chicoutimi, Canada</p> <p>Maxime Boivin, Pascale Biron</p>
15:45 - 16:00	<p>Les défis de la conception de cours d'eau à deux niveaux au Québec: Concilier restauration écologique et production agricole</p> <p>Designing two-stage channels in Quebec: Reconciling ecological restoration and agriculture</p> <p>Félix Riopel, Rivières HGM, Canada</p>
16:00 - 16:15	<p>Un méandre à la fois : un projet de restauration de cours d'eau en milieu agricole</p> <p>A meander at a time: challenges and opportunities of restoring a small degraded agricultural stream</p> <p>Jean-Philippe Marchand, Université Concordia, Canada</p> <p>Pascale Biron</p>
16:15 - 16:30	<p>Petits cours d'eau en milieu agricole; gisement sous-exploité de potentiel de restauration?</p> <p>Small streams in agricultural landscape : an under-exploited source of restoration sites?</p> <p>Renée Gravel, Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs du Québec, Canada</p>
16:30 - 16:45	<p>Projet de création d'un guide technique de restauration et méthodes alternatives à l'entretien des cours d'eau au Québec</p> <p>Manual of river restoration and alternative management practices of stream in Québec, AGRCQ project</p> <p>Martin Mimeault, L'Association des gestionnaires régionaux des cours d'eau du Québec, Canada</p> <p>Claire Michaud</p>
16:45 - 17:00	<p>Discussion</p>

SYM-22: THE INTENT AND IMPLEMENTATION OF WETLAND OFFSETTING IN THE MITIGATION HIERARCHY

ROOM: 2104AB

Chair: Susan Glasauer, University of Guelph, Canada

Shari Claire, Fiera Biological Consulting Ltd., Canada

Nicole Wright, Ecofish Research Ltd., Canada

15:30 - 15:45	Wetland offsetting: What is it and where is it going? Dave Poulton , Alberta Land Institute and Poulton Environmental Strategies, Inc., Canada
15:45 - 16:00	Trading wetlands, habitats, and services in environmental markets Morgan Robertson , University of Wisconsin - Madison, United States
16:00 - 16:15	An Overview of Wetland Management in Canada Nicole Wright , Ecofish Research Ltd., Canada
16:15 - 16:30	The enduring challenge of implementing wetland offset policies Shari Clare , Fiera Biological Consulting, Canada
16:30 - 17:00	Discussion

SYM-29: INTERNATIONAL SYMPOSIUM ON GROWING MEDIA, COMPOST UTILIZATION AND SUBSTRATE ANALYSIS FOR SOILLESS CULTIVATION (3 OF 3)

ROOM: 202

15:30 - 15:45	CanRePeat: A collaborative program to restore historically extracted peatlands in Canada Daniel Campbell , Canadian Sphagnum Peat Moss Association, Canada
15:45 - 16:00	Revised CO2 emission accounting for peat extraction and use, and implications for policy Hongxing He , McGill University, Canada
16:00 - 16:15	Carbon balance in two different horticultural plants grown in peat-based substrate Bidhya Sharma , McGill University, Canada
16:15 - 16:30	Simulated net biospheric carbon emissions of managed peatlands, and implications for net-zero targets Alice Watts , McGill University, Canada

16:30 - 16:45 Precompetitive Collaboration and Third-Party Assurance as a Driver for Wetland Restoration and Management in the Canadian Peat Industry
Kevin Warner, SCS Global Services, United States

16:45 - 17:00 Peatland geoengineering: an approach to strengthen enzymic latch and impede carbon emissions in post-extracted peatlands?
Talal Asif, Université Laval, Canada

WS-03: HIGH SCHOOL STUDENTS AT CHARLES P. ALLEN HIGH SCHOOL TAKE CHARGE--RECLAIMING HABITAT BY REINTRODUCING NATIVE SPECIES THROUGH THE DEVELOPMENT OF A CAMPUS MEADOW

ROOM: 206A

Chair: Christopher Hall, Charles P. Allen High School, Canada

Jennifer Ryan

Stephanie Bird

15:30 - 17:00 WS-03: High school students at Charles P. Allen High School take charge--Reclaiming habitat by reintroducing native species through the development of a campus meadow

An interactive session between Charles P. Allen High School student leaders and participants on the journey taken by the CPA's Better With Bees club as they share the documented transformation of a high school campus from expansive lawn to a sustainable urban meadow.

WS-05: NATURAL CLIMATE SOLUTIONS IN CANADA AND CHALLENGES RESTORING TO REDUCE GREENHOUSE GAS EMISSIONS: WETLAND RESTORATION AND WOODLAND THINNING

ROOM: 2000A

Chair: Darcy Henderson, Environment and Climate Change Canada, Canada

Florence Daviet

Lyna Lapointe-Elmrabti, Environment and Climate Change Canada, Canada

15:30 - 17:00 WS-05: Natural Climate Solutions in Canada and challenges restoring to reduce greenhouse gas emissions: wetland restoration and woodland thinning

Canadian federal government staff will lead a facilitated discussion and breakout groups to address key scientific, policy, regulatory, and funding mechanisms to address Natural Climate Solution problems with wetland and open woodland restoration for greenhouse gas reduction.

WS-07: BRIDGING RESTORATION SCIENCE AND PRACTICE - A "TOOLKIT" WORKSHOP TARGETING THE FEEDBACK OF RESTORATION PRACTITIONERS

ROOM: 206B

Chair: Nancy Shackelford, University of Victoria, Canada

Tina Heger, Leibniz Institute of Freshwater Ecology and Inland Fisheries (IGB),
Germany

Leonardo Teixeira, Technical University of Munich, Germany

15:30 - 16:30

WS-07: Bridging restoration science and practice - A "toolkit"
workshop targeting the feedback of restoration practitioners

The workshop for the elaboration of the Toolkit for Restoration Knowledge (TReK) aims at the development of an interactive practical tool to support well-informed decisions on ecological restoration planning and execution. This tool aims at connecting restoration scientists and practitioners for the development and systematic implementation of evidence-based restoration.



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THURSDAY, JUNE 15, 2023

RESTORATION PLENARY SPEAKER: TINA MCCAFFREY

ROOM: 2000AB

8:45 - 9:30 From Moonscape to Living Landscape: The reclamation journey of the City of Greater Sudbury, Ontario, Canada
Tina McCaffrey, City of Greater Sudbury, Canada

RESTORATION PLENARY SPEAKER: ERIC HIGGS

ROOM: 2000AB

9:30 - 10:15 A Canadian Agenda for Restoration
Eric Higgs, University of Victoria, Canada

ATELIER - ASPECTS APPLIQUÉS DE LA RÉALISATION DE TRAVAUX - EXPÉRIENCES DES ENTREPRENEURS (PROGRAMME EN FRANÇAIS)

ROOM: 205AB

Chair: Nicolas Roy, Terraformex Canada inc., Canada

10:45 - 12:15 Rôles et expériences d'entrepreneurs dans les projets de restauration de sites dégradés
Nicolas Roy, Terraformex Canada inc., Canada
Gabriel Charbonneau, Pierre Raymond, Nicolas Roy

CONTRIBUTED SESSION: PEATLAND RESTORATION AROUND THE WORLD

ROOM: 205C

Chair: Maryam Bayatvarkeshi, University of Waterloo, Canada

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| 10:45 - 11:00 | Restoration as an afteruse option in Finnish peat cutaways
Oona Allonen , Geological Survey of Finland, Finland
Anna M. Laine-Petäjäkangas, Liisa Maanavilja, Tuija Vähäkuopus |
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| 11:00 - 11:15 | INFLUENCE OF HYDROLOGICAL RESTORATION AND CATTLE EXCLUSION ON CARBON FLUXES IN A COLOMBIAN ANDEAN PEATLAND
Ángela Natalia Cáceres Uribe , Pontificia Universidad Javeriana, Colombia |
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| 11:15 - 11:30 | Climate mitigation potential of forestry drained peatland restoration
Anna M. Laine-Petäjäkangas , Geological Survey of Finland, Finland
Liisa Maanavilja, Maija Lampela, Paavo Ojanen, Tomi Lindroos, Anne Tolvanen |
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| 11:30 - 11:45 | Characterization and Evolution of the Biogeochemistry of Pools Created via Peatland Restoration
Julie Talbot , Université de Montréal, Canada
Julien Arsenaault, Julie Talbot, Mahmud Mahmud Hassan, Line Rochefort |
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CONTRIBUTED SESSION: RESTORATION AND RECLAMATION IN AGRICULTURAL LANDSCAPES

ROOM: 2105

Chair: Meike Lemmer, Peatland Science Centre (HSWT); Peatland ECR Action Team, Germany

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| 10:45 - 11:00 | Groundwater discharge seeps are nitrogen removal hotspots in restored agricultural wetlands
Sarah Klionsky , University of Connecticut, United States
Christopher Neill, Beth Lawrence |
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| 11:00 - 11:15 | Accounting for the Natural Variation in Carbon Sequestration Potential of Freshwater Mineral Wetlands on Agricultural Landscapes
Purbasha Mistry , University of Saskatchewan, Canada
Irena Creed, Eric Enanga, David Lobb |
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| 11:15 - 11:30 | Peat degradation by agricultural land-use jeopardises peatland ecology and climate benefits on Terceira Island
Claudia Nielsen , Aarhus University, Denmark
José Azevedo, Jørgen Nielsen, Eduardo Dias, Cândida Mendes |
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11:30 - 11:45 Insights on the Use of the Social Filters and the Ecological Restoration Approach to Improve Ecological Value of Novel Ecosystems
Laurence Turmel-Courchesne, Université Laval, Canada

11:45 - 12:00 Establishing reed canarygrass perennial strips in a floodplain for wildlife and agriculture coexistence
Mathieu Vaillancourt, Université Laval, Canada
 Hada Damar, Béranger Bourgeois, Monique Poulin

12:00 - 12:15 Ecological and Cultural Recovery - Incorporating Western Science and Indigenous Traditional Ecological Knowledge into Ecosystem Restoration of Retired Agricultural Land in New England, USA
Nicholas Nelson, Inter-Fluve, United States
 Jason Steiding, Dale Oakley Jr

ISHSESSION: CONVENTIONAL AND ORGANIC PRODUCTION WITH GROWING MEDIA

ROOM: 204AB

10:45 - 11:15 Keynote address: Nitrogen cycling in organically fertilized growing media
Jacynthe Dessureault-Rompré, Université Laval, Canada

11:15 - 11:30 RHP Nitrogen Immobilisation Test on Growing Media Constituents
Hans Verhagen, Stichting RHP, Netherlands
 Ine Geuijen

11:30 - 11:45 Increasing the resource use efficiency of organic soilless production by using natural nitrogen from plasma activated water
Tommaso Barbagli, Wageningen Greenhouse Horticulture, Netherlands

11:45 - 12:15 Keynote address: A 2023 perspective on anthropogenic nitrogen in soilless culture
James Owen, USDA-ARS, United States of America

SYM-05: EMERGING PERSPECTIVES ON THE WORLD'S LARGEST REGREENING PROJECT: A 50-YEAR RETROSPECTIVE

ROOM: 206B

Chair: Kimber Munford, University of Guelph, Canada

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| 10:45 - 11:00 | Outcomes from 45 years of the Landscape Regreening Program in Sudbury, Ontario, Canada: a Synopsis
Peter Beckett , VETAC & Laurentian University, Canada
Graeme Spiers |
| 11:00 - 11:15 | Integrating mineral and organic residuals to reclaim industrially damaged lands
Jonathan Lavigne , Lakehead University, Canada |
| 11:15 - 11:30 | Sphagnum Re-establishment in Smelter-Impacted Peatlands in Sudbury, Ontario, Canada
James Seward , Laurentian University, Canada |
| 11:30 - 11:45 | Carbon cycling in restored upland forest sites in Sudbury, Ontario
Shaun Watmough , Trent University, Canada
Patrick Levasseur |
| 11:45 - 12:00 | Understory plant communities from the world's largest regreening program approaching that of 'healthy' sites
Kimber Munford , University of Guelph, Dr. Susan Glasauer's Research Group, Canada
William Humphrey, Patrick Levasseur, Shaun Watmough |
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SYM-15: RESTORATION ASSESSMENT AND MONITORING FOR SEISMIC LINE RECOVERY IN ALBERTA'S BOREAL FOREST (1 OF 2)

ROOM: 2101

Chair: Greg McDermid, University of Calgary, Canada

10:45 - 11:00	Restoration Assessment of Seismic Lines in Alberta's Boreal Forest Greg McDermid , University of Calgary, Canada Erin Bayne, Scott Ketcheson, Julia Linke, Scott Nielsen, Maria Strack
11:00 - 11:15	The Influence of Seismic Lines on Local Hydrology in the Boreal Region of Alberta, Canada Scott Ketcheson , Athabasca University, Canada Lelia Weiland, Maria Strack
11:15 - 11:30	The effect of seismic line disturbance on carbon cycling in boreal peatlands Maria Strack , University of Waterloo, Canada Percy Korsah
11:30 - 11:45	Thresholds, patterns, and interactions: assessing boreal bird recovery in revegetated oil and gas footprint Lionel Leston , Boreal Ecosystem Recovery Assessment University of Alberta Department of Biological Sciences, Canada Erin Bayne
11:45 - 12:00	Assessing Boreal Forest Disturbance Recovery Using Satellite Imagery Tanya Yeomans , University of Calgary, Canada Greg McDermid, Jiaao Guo, Hunter Jackson, Jennifer N. Hird
12:00 - 12:15	BERA Tools: A GIS toolset for mapping and attributing forest footprint features Greg McDermid , University of Calgary, Canada Richard Zeng, Maverick Fong, Erin Bayne, Scott Ketcheson, Julia Linke, Scott Nielsen, Maria Strack

SYM-17: RESTORING PERIPHERAL RESOURCE REGIONS IN QUÉBEC: CHALLENGES AND PRACTICES (1 OF 2)

ROOM: 2104AB

Chair: Simon Taurines, IRME/UQAT, Canada

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| 10:45 - 11:00 | <p>Pioneer moss regeneration for mine waste rocks revegetation
 Chao Liu, Peatland Ecology Research Group - Université Laval, Canada
 Kathy Pouliot, Line Rochefort, Sebastien Roy</p> |
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| 11:00 - 11:15 | <p>Out of site, out of mind: offsite effects of mines on biodiversity and their footprint in boreal forests
 Xiangbo Yin, Université du Québec en Abitibi-Témiscamingue, Canada
 Christine Martineau, Abdul Samad, Nicole J. Fenton</p> |
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| 11:15 - 11:30 | <p>25 years of plant successions and root mycorrhization following the ecological restoration of iron mine tailings of Fermont-Labrador city area in Northern Québec
 25 ans de successions végétales et de mycorrhization racinaire à la suite de la restauration écologique des résidus des mines de fer de la région de Fermont & Labrador city, à la frontière du Québec et du Labrador
 Christine Lethiellieux-Juge, Irrigation NORCO Inc., Canada</p> |
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| 11:30 - 11:45 | <p>One's trash is another's treasure
 Karelle Rheault, University of Copenhagen, Denmark</p> |
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| 11:45 - 12:00 | <p>Microtopography, physical structure, and organic matter effect on the spontaneous establishment of indigenous plants in borrow pits and mine tailing site in the boreal zone
 Joanie Tremblay, Université Laval, Canada</p> |
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| 12:00 - 12:15 | <p>Improving soil carbon storage by reclaiming industrial degraded lands through short rotation coppice of willow plantations in Abitibi
 Olivier Lalonde, Ramo, Canada
 Xavier Lachapelle-T., Francis Allard</p> |
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UN DECADE ROUNDTABLE

ROOM: 2000A

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| 10:45 - 12:30 | UN Decade Roundtable |
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CONTRIBUTED SESSION: CONSIDERING MICROBES IN RESTORATION, RECLAMATION AND REWILDING

ROOM: 2105

Chair: Miranda Hunter, University of Waterloo, Canada

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| 13:30 - 13:45 | <p>Effects of phenolic additions on microbial abundances and community structure in peat soils</p> <p>Hojeong Kang, Yonsei University, Korea, Republic of (South Korea)</p> <p>Jungeun Yun, Talal Asif, Line Rochefort, Himchan Park</p> |
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| 13:45 - 14:00 | <p>Novel indicators for microbial activity to assess early benchmark wetland restoration goals</p> <p>Carissa MacKenzie, University of Guelph, Canada</p> |
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| 14:00 - 14:15 | <p>Railroad ties: Can northern Fungi help clean creosote-treated wood?</p> <p>Bois créosoté : Est-ce que des champignons nordiques peuvent aider à dépolluer des traverses de chemin de fer?</p> <p>Kawina Robichaud, Biopterre, Canada</p> |
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| 14:15 - 14:30 | <p>Impacts of reclamation capping and vegetation type on structural and functional attributes of microbial communities in thickened oil sands tailings</p> <p>Abdul Samad, Natural Resources Canada – Canadian Forest Service, Laurentian Forestry Centre, Pakistan</p> |
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| 14:30 - 14:45 | <p>Does shift in vegetation abundance after nitrogen and phosphorus additions play a key role in regulating fungal community structure in a northern peatland?</p> <p>Meng Wang, Northeast Normal University, China</p> <p>Jingjing Huang, Leming Ge, Tong Li, Zhao-Jun Bu, Shengzhong Wang, Zucheng Wang, Ziping Liu, Shasha Liu, Meng Wang</p> |
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| 14:45 - 15:00 | <p>Mitigating decomposition in agricultural peatlands: copper and polyphenol influence on C N P dynamics and enzyme activities of contrasting soils</p> <p>Karolane Bourdon, Université Laval, Canada</p> <p>Josée Fortin, Jacynthe Dessureault-Rompré, Jean Caron</p> |
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CONTRIBUTED SESSION: MINES AND MINING IMPACTS: RESTORATION AND RECLAMATION

ROOM: 205C

Chair: Catherine Capkun-Huot, Université Laval, Canada

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- 13:30 - 13:45 Role of Historic Sediment Pond in Attenuating Impact of Surface Mine Site Base-Flow on Stream Water Quality
Amir Hass, West Virginia State University, United States
 Fernando Rojano, Mohammad Nazari-Sharabian, David Coleman, Robert Cantrell
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- 13:45 - 14:00 Are lichens an effective tool to reliably monitor emission reductions from Sudbury smelters?
Max Lakanen, Laurentian University, Canada
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- 14:00 - 14:15 Mongolia: Setting New Standards for Mine Closure and Reclamation
Rachel Noble-Pattinson, CPP Environmental Corporation, Canada
 Erdenechimeg Regjiibuu, Ankh-Amgalan Ganbat
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- 14:15 - 14:30 SNAP LAKE MINE: THE FIRST DIAMOND MINE IN THE NORTHWEST TERRITORIES TO ENTER FINAL CLOSURE AND REHABILITATION
Michelle Peters, De Beers Canada Inc, Canada
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ISHS SESSION: GROWING MEDIA FOR GREEN CITIES AND NEW MARKET FOR GROWING MEDIAS

ROOM: 204AB

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- 13:30 - 14:00 Keynote address: Principle and evolution of constructed soils in urban horticulture
Laure Vidal-Beaudet, Institut Agro , France
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- 14:00 - 14:15 Rooftop vegetable production using growing media with limited organic content
Guillaume Grégoire, Université Laval, Canada
 Martine Dorais, Guillaume Grégoire
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- 14:15 - 14:30 Current Status, Challenges and Future Research Directions of Soilless Cannabis Cultivation
Youbin Zheng, University of Guelph, Canada
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- 14:30 - 14:45 Use of licorice pulp (*Glycyrrhiza glabra* L.) as a organic mulch in order to reduce water use and its effect on grape yield
Mehdi Hosseinfarahi, Islamic Azad University, Department of Horticultural Science, Yasuj Branch, Iran
 Ehsan Fereidouni
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CONTRIBUTED SESSION: DIVERSES APPROCHES DE RESTAURATION POUR AUGMENTER LA BIODIVERSITÉ (PROGRAMME EN FRANÇAIS)

ROOM: 205AB

Chair: Lucie Labbé, AECOM, Canada

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| 13:30 - 13:45 | <p>La restauration de bandes riveraines herbacées en contexte agricole dans des conditions de sécheresse</p> <p>Laurie Chaisse-Leal, Université Laval, département de Phytologie, Canada</p> |
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| 13:45 - 14:00 | <p>INFLUENCE DES VARIABLES PAYSAGERES SUR LA SELECTION DU SITE DE NIDIFICATION DE L'DICNEME CRIARD (BURHINUS OEDICNEMUS) EN POITOU-CHARENTES</p> <p>Eric Niyongabo, Ligue pour la Protection des Oiseaux, France</p> |
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| 14:00 - 14:15 | <p>Développement d'un procédé de saine gestion des résidus de plantes exotiques envahissantes par biotransformation</p> <p>Emmanuel Caron-Garant, Biopterre, Canada</p> <p>Sébastien Lange, Habib Horchani, Salma Taktek, Julie Charbonneau</p> |
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| 14:15 - 14:30 | <p>La restauration de sites miniers abandonnés au Québec : défis et opportunités pour l'atteinte d'un état plus que satisfaisant!</p> <p>Sandra Trépanier, Ministère des ressources naturelles et des forêts, Canada</p> |
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| 14:30 - 14:45 | <p>Est-ce que les crédits biodiversité peuvent stimuler l'industrie de la restauration au Québec?</p> <p>Benoit Limoges, Viridis Terra International, Canada</p> |
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SYM-15: RESTORATION ASSESSMENT AND MONITORING FOR SEISMIC LINE RECOVERY IN ALBERTA'S BOREAL FOREST (2 OF 2)

ROOM: 2101

Chair: Greg McDermid, University of Calgary, Canada

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| 13:30 - 13:45 | Introduction |
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| 13:45 - 14:00 | Recovery trajectories for passive restoration of seismic lines in North American boreal forests
Colleen Sutheimer , University of Alberta, Canada
Angelo Filicetti, Scott Nielsen |
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| 14:00 - 14:15 | Silviculture treatments hasten seedling and sapling growth on seismic disturbances in boreal treed fens
Colette Shellian , University of Calgary, Canada
Julia Linke, Greg McDermid, Michael Cody, Scott Nielsen |
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| 14:15 - 14:30 | How mounds are made matters: implications for seismic line restoration in peatlands
Kimberly Kleinke , University of Waterloo, Canada
Scott J. Davidson, Megan Schmidt, Bin Xu, Maria Strack |
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| 14:30 - 14:45 | Role of mounding in ecological regeneration and carbon sequestration in peatlands affected by seismic lines
Nazia Tabassum , University of Waterloo, Canada |
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| 14:45 - 15:00 | Artificial Intelligence for Forest Restoration: An Automated Approach for Assessing Tree-regeneration Status on Industrial Disturbances
Irina Terentieva , University of Calgary, Canada
Greg McDermid, Julia Linke |
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SYM-17: RESTORING PERIPHERAL RESOURCE REGIONS IN QUÉBEC: CHALLENGES AND PRACTICES (2 OF 2)

ROOM: 2104AB

Chair: Simon Taurines, IRME/UQAT, Canada

13:30 - 13:45	Des chauves-souris et des mines, une contribution au maintien de la biodiversité Nathalie Desrosiers , Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs du Québec, Canada
13:45 - 14:00	Galeries minières désaffectées et biodiversité: Une deuxième vie pour les mines ! Marc Gauthier , WSP Canada Inc., Canada
14:00 - 14:15	Can the eggs and caterpillars of the endangered monarch butterfly survive on revegetated mine sites in Northwestern Québec? Shawna O'Flaherty , Université du Québec en Abitibi-Témiscamingue, Canada
14:15 - 14:30	The past, present and the potential future of metal-contaminated boreal lakes of the Abitibi-Témiscamingue region (Québec) Marta Gabriele , UQAT, University of Quebec in Abitibi-Temiscamigue, Canada
14:30 - 14:45	Modeling the influence of forest vegetation and climate change on the long-term performance of a cover with capillary barrier effects used to control acid mine drainage at the Lorraine mine site Yves-Dady Botula , Université du Québec en Abitibi-Témiscamingue, Canada Bruno Bussière, Marie Guittonny, Gwendoline Hotton
14:45 - 15:00	Discussion

SYM-19: THE DESIGN OF BIODIVERSE SILVOPASTORAL SYSTEM THRU APPLIED NUCLEATION: RESTORATION, LIVELIHOOD AND PROVISION OF MULTIPLE ECOSYSTEM SERVICES IN A MULTIFUNCTIONAL LANDSCAPES

ROOM: 206B

Chair: Abdon Luiz Schmitt Filho, Federal University of Santa Catarina, Brazil
Paulo Sinisgalli, Universidade de São Paulo, Brazil

-
- 13:30 - 13:45** Silvopastoral systems and ecological rehabilitation of agroecosystems
Jesús Manuel Iglesias-Gómez, Estación Experimental Indio Hatuey, Universidad de Matanzas, Cuba
 Abdon Schmitt Filho, Luiz Fernando Zin Battisti, Matheus Deniz, Andre de Almeida Silva, Olivia Marcon Borges
-
- 13:45 - 14:00** High Biodiversity Silvopastoral System (SPSnu), applied nucleation and habitat rehabilitation: The ecology of birds, ants, and bees
Paulo Antonio de Almeida Sinisgalli, Institute for Energy and Environment- IEE, University of Sao Paulo - USP, Brazil
 Abdon Schmitt Filho, Gisele Franciole Simione, Ana Heck, Givana Pittarelli Bento, Fernando Joner
-
- 14:00 - 14:15** Ecological rehabilitation and carbon dynamics above the soil on High Biodiversity Silvopastoral System (SPSnu): Biomass and carbon uptake
Abdon Schmitt Filho, Silvopastoral Systems and Ecological Restoration Lab. LASSre/UFSC, Universidade Federal de Santa Catarina UFSC, Florianópolis, Brazil
 Abdon Schmitt Filho, Andre de Almeida Silva, Stéfano Gomes Kretzer, Jesús Manuel Iglesias-Gómez
-
- 14:15 - 14:30** Applied nucleation, microclimate stability and ecological rehabilitation of agroecosystems
Abdon Schmitt Filho, Silvopastoral Systems and Ecological Restoration Lab. LASSre/UFSC, Universidade Federal de Santa Catarina UFSC, Florianópolis, Brazil
 Matheus Deniz, Stefano Gomes Kretzer, Daniele C. Kazama, Paulo Antonio de Almeida Sinisgalli, Joshua Farley
-
- 14:30 - 14:45** The Ecological Economics of an Agroecological Transition
Joshua Farley, University of Vermont, United States
 Abdon Schmitt Filho
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- 14:45 - 15:00** Discussion
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SYM-20: THE ENVIRONMENTAL BENEFITS OF USING BIOCHAR FOR ECOLOGICAL RESTORATION

ROOM: 206A

Chair: Patrick Brassard, IRDA, Canada

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| 13:30 - 13:45 | Biochar production from dedicated energy crops to mitigate climate change and to improve agricultural soil health
Patrick Brassard , IRDA, Canada
Stéphane Godbout |
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| 13:45 - 14:00 | PERFORMANCE OF BIOCHAR AND VARIOUS FILTERING MEDIA FOR THE TREATMENT OF COW MANURE LEACHATE FROM EXERCISE PENS
Elizabeth Alvarez-Chavez , Université Laval, Canada |
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| 14:00 - 14:15 | Microbial soil amendments that promote plant growth increase biomass in mine tailings and induce shifts in microbial community structure and function
Kimber Munford , University of Guelph, Dr. Susan Glasauer's Research Group, Canada
Nadia Mykytczuk, Raina Burke, Susan Glasauer |
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| 14:15 - 14:30 | Addition of biochar and phenolic compounds in peat to reduce decomposition of Sphagnum mosses
Éléonor Bergeron-de Pani , Université Laval, Canada |
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| 14:30 - 14:45 | Discussion |
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CLOSING CEREMONY

ROOM: 2000A

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| 15:30 - 16:45 | ISHS Young minds Awards
Jean Caron , Université Laval, Canada
Jacynthe Dessureault-Rompré |
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POSTER SESSIONS

MONDAY, JUNE 12, 2023 &

TUESDAY, JUNE 13, 2023

POSTER SESSION 1 & 2

Evaluating the soil block method and growing media in organic vegetable transplant production

Anne Carey, Iowa State University Department of Horticulture, United States

Ajay Nair

Impact of Growing Media Components on the Mineralization of Nitrogen from a Plant-based and an Animal-based Organic Fertilizers

Laura Thériault, Berger Peat Moss, Canada

Steeve Pepin, Martine Dorais

Impact of thermo-hydrolytically treated wood fibers as a substrate component on the growth of petunias

Tobias Reineke, Osnabrueck University of Applied Sciences, Germany
Hadi Hama Aziz Muhammed, Ruediger Anlauf, Diemo Daum

Suitability of differently treated broadleaf cattail for plant cultivation in peat-reduced growing media

Diemo Daum, Osnabrueck University of Applied Sciences, Germany
Andreas Halm, Christoph Budke, Christian Frerichs, Ruediger Anlauf

Peanut shell wastes as a culture medium for greenhouse tomato in soilless culture

Raheleh Ebrahimi, Islamic Azad University, Department of Horticultural Science and Agronomy, Science and Research Branch, Iran (Islamic Republic of)

Negin Ebrahimi

Culture medium volume and plant training method affect some traits of greenhouse eggplant in soilless culture

Mohammadreza Hassandokht, University of Tehran, Department of Horticultural Science, University College of Agriculture and Natural Resources, Iran

Mojtaba Jafarzadeh, Reza Salehi

Engineered substrates to improve nitrogen, phosphorus, and water retention in nursery container production

Henry Gonzalez, Michigan State University, United States

Rodney T. Fernandez, James Owen, Jacob Shreckhise

Evaluating crop productivity in growing media amended with wood fibers from three soft-wood tree species

Jeb Fields, LSU AgCenter, United States of America

Amanda Mizell, Maureen Thiessen

Biochar alone can maintain optimal pH in a bark-based substrate

James Owen, USDA-ARS, United States of America

Alexandra Espinoza, James Altland, Kay Yeon Jeong

A comparative study on some locally available organic materials for their potential utilization in sustainable growing media blends

Costantino Cattivello, ERSA FVG, Italy

Addressing threats in marine coastal ecosystems in eastern Canadian National Park

Victor Kafka, Agence Parcs Canada, Canada

Cristiane C. Albuquerque Martins, Gabrielle Beaulieu, Nadia Ménard, Daniel Sigouin

Economic potential of biochar for the production two tropical agroforestry species (*Eucalyptus grandis* and *Dacryode edulis*) used in reforestation

Gilles Raoul Lontsi Meli, FFG ulaval, Canada

Recovery of Moss Donor Sites Harvested to Revegetate Reclaimed In-situ Oil and Gas Features in Alberta

Melanie Bird, NAIT Centre for Boreal Research, Canada

Bin Xu

Using Great Lakes Open Data Resources

Cynthia Collier, General Dynamics Information Technology, United States

Timothy Lewis, Brick Fevold, Craig Palmer, Molly Middlebrook, Louis Blume

Altered CO₂, CH₄ and N₂O fluxes from Danish sandy soils 7-years after trophic rewilding

Frederik Philipsen, University of Copenhagen, Denmark

Designing Ecological Restoration Goals and Objectives to be Climate Smart

Brick Fevold, General Dynamics Information Technology, United States

Timothy Lewis, Cynthia Collier, Craig Palmer, Molly Middlebrook, Louis Blume

Evaluation of afforestation development in restored open-mined oil-shale quarries in Estonia

Eneli Põldveer, Estonian University of Life Sciences, Estonia

Henn Korjus, Diana Laarmann

Greenhouse gas (CO₂ and CH₄) fluxes of a wetland constructed on a peat cutaway site

Tuija Vähäkuopus, Geological Survey of Finland , Finland

Anna M. Laine-Petäjäkangas, Liisa Maanavilja

Greenhouse gas emissions during rewetting of formerly drained peat soil

Örjan Berglund, SLU Swedish university of agricultural sciences, Sweden

Sabine Jordan

Mass Balance of Sodium in Near-surface Peat of A Constructed Fen

Suyuan Yang, University of Waterloo, Canada

Eric Kessel, Owen Sutton, Jonathan Price

Restoration design and ecohydrological assessment of peatland overwintering habitat for reptiles

Rachel Fallas, McMaster University, Canada

Rewetting with integrated paludiculture and afforestation as after-uses for extracted peatlands in nemo-boreal Sweden: Assessing carbon-related ecosystem functions

Sabine Jordan, SLU Swedish university of agricultural sciences, Sweden

Eva Weber, Örjan Berglund

Synthesis of soil properties on seismic lines in northern Alberta, Canada

Marissa Davies, University of Waterloo, Canada

Scott J. Davidson, Kimberly Kleinke, Megan Schmidt, Maria Strack

An ounce of invasive species prevention is worth a pound of cure in Canada's western mountain national parks

Jane Devlin, Parks Canada Agency, Canada

Stephanie Crowshoe, Nico Magnan, Marie Veillard, Christopher

Waldinsperger, Jane Devlin

Canada's pledge to the Bonn Challenge: A pathway for advancing and promoting Canada's national and global restoration initiatives

Hyejin Hwang, Environment and Climate Change Canada, Canada

Christian Malouin, Renée Lapointe, Patrick Forest

Le propriétaire foncier: un acteur clé pour la restauration des tourbières en Suisse

Bastien Amez-Droz, Pro Natura, Switzerland

Hummock Transfer Technique and Upright Mounding for Seismic Line Restoration in Boreal Peatland

Bin Xu, NAIT Centre for Boreal Research, Canada

Sarah Darling

Mine ecological restoration - Comprehensive Governance
Technology of Ecological Environment of Mines Based on Similoam
Substrate @Reclaim, Restore, Rewild

Bo Zhang, Jiangsu Luyan Ecological Technology Co., China
Yi-feng Shen, Lu-er Zhang

Return of Sphagnum moss to forestry drained peatlands
Nina Kumpulainen, University of Eastern Finland, Finland
Eeva-Stiina Tuittila

Effects of Vegetable Residue Compost on Ginger Yield and Soil
Environment in Root Zone

Chaoxing He, Institute of Vegetables and Flowers, Chinese
Academy of Agricultural Sciences, China
Yan Yan

Overland Linear Stormwater Treatment: superior infiltration, water
quality treatment, connectivity, habitat creation, social/recreational
well-being, at a fraction of the cost to build and maintain

Cathy Blott, Contract field biologist, Canada
Anne Yagi, Gabe D'Aoust

Recovery of water quality from drained forested peatlands with biochar
Lipe Renato Dantas Mendes, University College Dublin, Ireland
Florence Renou-Wilson

Restauration de la tourbière des Pontins (canton de Berne, Suisse)
Bastien Amez-Droz, Pro Natura, Switzerland

Sphagnum Roll : A Tool To Mitigate Coastal Erosion

Andrea Lebel, Valores - Research Institute, Canada
Frédéric Haché, Thibaut Peterlini, Marion Tétégan Simon, Nadler Simon

Community Based on Peatland Restoration in Sebangau National
Park, Indonesia

Noviyanti Nugraheni, Sebangau National Park, Ministry of
Environment and Forestry Indonesia, Indonesia
Adhy Maruli, Ruswanto Ruswanto, Mark Harrison

Knowledge Exchange is Vital for Conservation: Establishing Hands-
On Training, Research, and Demonstrations at the Wetland Centre,
Treaty 8 Territory

Kylie McLeod, Ducks Unlimited Canada, Canada
Rick Murray, Catherine Brown, Chelsea Martin

Symbio(s)cene: Arts & sciences collaboration for an era beyond the
Anthropocene

Tina Heger, Technical University of Munich, Germany
Ingrid Rügemer, Oliver Szasz

Why Should You Become a Certified Professional Wetland Scientist?
Gillian Davies, BSC Group, Inc. and Tufts University Global
 Development & Environment Institute, United States

Suitability of Moss-Layer-Transfer Technique to Estonian excavated
 peatlands

Anna-Helena Purre, Tallinn University, Estonia

Mati Ilomets

How an innovative acrotelm-harvesting method impacts bog carbon
 fluxes

Samantha Price, University of Waterloo, Canada

Brian Newton, Maria Strack

Impact of road construction on vegetation and hydrology of boreal
 peatlands

Ariane Bouffard, GEOTOP, GRIL, Université du Québec à Montréal,
 Canada

Marie Larocque, Monique Poulin, Michelle Garneau, Jonathan Chabot-Grégoire,
 Mathieu Vaillancourt

Impacts of a national road (Route 138) construction on boreal
 peatland carbon dynamics in the Côte-Nord region, Eastern Canada

Chloé Giraud, Université du Québec à Montréal, Canada

Michelle Garneau, Didier Philippo, Marie Larocque, Monique Poulin

Metagenomics and Stable Isotope Probing Insights of Naphthenic
 Acids Degradation in Constructed Wetland Treatment Systems

Paula Reis, Institut national de la recherche scientifique, Canada

Xiangbo Yin, Julien Tremblay, Marie-Josée Bergeron, Jason Ahad,
 Jérôme Comte, Christine Martineau

Peatland depth estimation using random forests regression within
 the Oil Sands Region of Alberta, Canada

Daniel Aydalla, Environment and Climate Change Canada, Canada

Lyna Lapointe-Elmrabti, Nicholas O. Giles, Karlos Lao, Kelly Bona, Douglas
 MacDonald

Sharing Knowledge for Wetland Stewardship

Leanne Mingo, Ducks Unlimited Canada, Canada

Wetland Knowledge Exchange: Webinars, Newsletters and Tweets,
 Oh My!

Jessie Lavallee-Whiffen, Ducks Unlimited Canada, Canada

Leanne Mingo, Kylie McLeod

Carbon dioxide emissions from cultivated gyttja soils in Sweden
Kerstin Berglund, SLU Swedish university of agricultural sciences,
 Sweden

Örjan Berglund, Saila Vicente, Lisbet Norberg, Mattias Lundblad

Increasing seasonal moisture deficit in a warmer climate may limit bog restoration

Sarah Howie, City of Delta, Canada

Paul Whitfield, R. Dan Moore

Mapping forested peatland soil carbon stocks in boreal Quebec

Marie-Pier Ménard, Université de Montréal, Canada

Julie Talbot, Michelle Garneau, Évelyne Thiffault

Peatlands and associated oligotrophic habitats of the Armorican Massif: Link between conservation status, functionality and uses in the context of adaptation to global changes

Corentin Irien, Laboratoire Géoarchitecture - Université de Bretagne Occidentale, France

Servane Lemauiel-Lavenant, Sébastien Gallet

A high throughput method to evaluate new substrate components

James Altland, USDA-ARS, United States of America

James Owen, Alexandra Espinoza, Kay Yeon Jeong

Substrate Moisture Sensor Zone of Interference: Expanding Options for Enhanced Moisture Monitoring with Sensors in Close Proximity

Carolyn Krauss, University of Tennessee, United States of America

James Owen, Wesley Wright, Amy Fulcher

Use of growth promoter microorganisms in substrates in order to improve seedling quality and reduce transplant stress

Costantino Cattivello, ERS FVG, Italy

Impact of organic fertilizers and water content on microbial activity and the mineralization of nitrogen in wood fiber growing media

Thi Thuy An Nguyen, Université Laval, Canada

Laura Thériault, Philippe Vézina, Steeve Pepin, Martine Dorais

Development of substrates made of recycled materials for horticultural production on green roofs

Florence Carrier, Université Laval, Canada

Ann-Catherine Laliberté, Martine Dorais, Guillaume Grégoire

Emissions driven by controlled release fertilizers in bark-based substrates can significantly contribute to nitrogen use inefficiency

James Owen, USDA-ARS, United States of America

Forrest Brown, Alexander Niemiera

Biochar as an alternative aggregate component in soilless substrates

James Altland, United States Department of Agriculture (USDA) - Agricultural Research Service (ARS) - Application Technology Research Unit (ATRU), United States of America

Alexandra Espinoza, James Owen, Hannah Blice, Ka Yeon Jeong

Reusing organic substrates and plants increases irrigation water use efficiency without affecting plant yield in a day neutral strawberry pot production system

Horacio E. Alvarado-Raya, Universidad Autonoma Chapingo, Mexico
Armando Ramirez-Arias, Roberto Rivera-del-Río, Maria Eugenia Estrada-Chavira, Pablo Emilio Escamilla-Garcia, Guillermo Calderon-Zavala

Influence of Phosphorus Fertilization on Coleus Growth

Brian Whipker, North Carolina State University, United States of America

M. Seth Ballance, Patrick Veazie, Kristin Hicks, W. Garret Owen

Comparison of organic water-soluble fertilizers for container production of *Lactuca sativa* (lettuce)

James Altland, United States Department of Agriculture (USDA) - Agricultural Research Service (ARS) - Application Technology Research Unit (ATRU), United States of America

Melodie Floom, Fred Michel, Uttara Samarakoon, Peter Ling

Pentas Growth Response to Nitrogen Concentrations

Brian Whipker, North Carolina State University, United States of America

Patrick Veazie

Characterizing water movement and retention through the profile of soilless substrates

Carolyn Krauss, University of Tennessee, United States of America
James Owen, Wesley Wright, Brianna Alred, Amy Fulcher

Predicting robustness of growing media blends for horticultural crops created from renewable constituents

Thayna Mendanha, Aarhus University, Denmark

Rong Zhou, Aidan Mark Smith, Sandra Simone Schluttenhofer, Inge Ulsted Sorensen, Carl-Otto Ottosen, Soren Ugilt Larsen

RE-PEAT Reuse of growing media for a circular horticulture

Bart Vandecasteele, Flanders Research Institute for Agriculture, Fisheries and Food (ILVO), Belgium

Simon Craeye, Hanne Denaeghel, Christophe Pieters, Miet Poppe, Liesbet Blindeman

Agricultural peatland conservation: how straw and wood chips application affect N & P dynamics and vegetable yield?

Karolane Bourdon, Université Laval, Canada

Josée Fortin, Jacynthe Dessureault-Rompré, Jean Caron

Discriminating stratigraphic layers of cultivated organic soils using proximal sensors

Raphaël Deragon, Université Laval, Canada

Nicholas Lefebvre, Budiman Minasny, Jean Caron

Erodibility of an organic soil: the case in Montérégie, Quebec, Canada
Soumaila Kanga Idé, Université Laval, Canada

Carbon dioxide emission from organic soil amended with straw and wood chips
Félix L'Heureux Bilodeau, Université Laval, Canada

Assessing the Local Impact of Windbreaks on Reducing Organic Soil Loss by Wind Erosion
Saba Daeichin, Université Laval, Canada

Aggregate size distribution of organic soil eroded by wind
Andrés Felipe Silva Dimaté, Université Laval, Canada
 Alain Rousseau, Jean Caron

Evolution of physical properties of a cultivated organic soil drained by drainage trench
Yelena Esther Gomez Lara, Université Laval, Canada
 Jean Caron, Jonathan Lafond, Silvio Jose Gumiere

The impact of biomass additions on a cultivated organic soil for the development of a comprehensive soil management model

Best management practices for salvaged organic soil stockpiles at an in-situ oil and gas facility in northern Alberta
Sarah Darling, Northern Alberta Institute of Technology, Canada
 Melanie Bird, Ba Thuong Le, Bin Xu

Lessons learned: Reciprocal restoration of woodland caribou habitat in Canada's boreal forest
Mae Whyte, Blueberry River First Nations, Canada
 Mae Whyte

Substrate addition from anthropogenic disturbance increases respiration, demonstrated through incubation experiments on Canadian peatland soils
Nicole Balliston, University of Waterloo, Canada
 Marissa Davies, Isabelle Marincic, Kayla Martin, Kelly Bona, Lyna Lapointe-Elmrabti, Maria Strack

Well Pad to Peatland: Vegetation Status of an 11-Year-Old Restored Peat Surface with Transferred Donor Moss (MLTT)
Melanie Bird, NAIT Centre for Boreal Research, Canada
 Bin Xu

Assessing and enhancing wetland species in the Columbia Basin
Darcie Quamme, Integrated Ecological Research, Canada

Effects of a pipeline right of way on prairie wetlands six years after construction in southern Alberta, Canada
David Locky, MacEwan University, Canada

Evaluation of the restoration of formerly dyked marshes, using the recovery wheel 2.0

Sébastien Gallet, Université de Brest, France

Xavier Dauvergne, Julien Pétillon, Alexandre Carpentier, Manuel Salgueiro Simon

Strengthening evidence-based policy for peatlands: Potential applications and pitfalls of radiometrics to track peat erosion, restoration and accumulation

Nicole Sanderson, UQAM, Département de Géographie & Geotop, Canada

Michelle Garneau

The role of tree species and microbes for the development of net greenhouse gas fluxes from soils after afforestation of agricultural lands

Karelle Rheault, University of Copenhagen, Denmark

Back to Basics: Reclamation Equipment 101

Chris Tenszen, Trace Associates Inc., Canada

Landscape Connectivity Analysis for Conservation Planning in Southern Ontario

Sarah Marshall, University of Waterloo, Canada

Ground-truthing and data collection for woodland caribou habitat restoration initiatives

Victoria Frechette, Premier Tech Growers and Consumers, Canada

Pierre-Olivier Jean

Lake Saint-Pierre ecosystem rehabilitation : examples of habitat restoration and management adaptation in an agricultural context

Philippe Brodeur, Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs du Québec, Canada

Philippe Brodeur

Retained Vegetation Improve Carbon Uptake Post-Seismic Line Restoration

Megan Schmidt, University of Waterloo, Canada

Scott J. Davidson, Maria Strack

River restoration in the world: strategies and monitoring

Bérenger Bourgeois, Université Laval, Canada

Jana Balzer, María Felipe-Lucía, Annie L. Henry, Verena Herrmann, Vanesa Martínez-Fernández, Supun Pawuluwage, Aziz Syammach, Eduardo González-Sargas

Feasibility Study on the Reintroduction of Beaver: Mitigating Climate Change Impacts to Peatlands on the Southern Kenai Peninsula

Esther Chiang, University of Michigan, United States

Linfeng Li, Nikita Hahn, Riley Glancy, Zhangyanyang Yao, Hannah Hicks

Restoration of low-productive drained peatlands - with well targeted site selection and good practices towards safeguarding of soil carbon storage and improved functional biodiversity

Eeva-Stiina Tuittila, University of Eastern Finland, Finland

Anna M. Laine-Petäjäkangas, Anne Tolvanen, Kari Minkkinen, Teppo Hujala, Nina Kumpulainen, Brunella Palacios Ganoza

The Return of Grasslands: Harnessing the Power of Soil Amendments for Achieving Ecosystem Reclamation in Closed Tailings Storage Facilities

Behnaz Bahroudi, Thompson Rivers University, Canada

Valorization of anthropogenic soil rich in sulfide mine tailing amended with chicken eggshell waste as a plant growing medium

Raghad Soufan, Université Laval, Canada

Antoine Karam, Ahmed Aajjane

Green Work Force Development in Landscape Restoration and Culture: A Case Study of Partnerships between Environmental NGOs and a New England University

Amy Seidl, University of Vermont, United States

Cheryl Morse

Present situation and application technology of vegetable waste resource utilization in China

Chaoxing He, Institute of Vegetables and Flowers, Chinese Academy of Agricultural Sciences, China (People's Republic of)

Chaoxing He

The use of biosolids to restore native plant communities in semi-arid grasslands of Southern British Columbia

Meiyi Xiao, Thompson Rivers University-Environmental Science-Master program, Canada

Characterization of microbial communities in a constructed wetland treatment system for the remediation of oil sand processed-affected waters

Aurélie Beaulieu-Laliberté, Centre Eau Terre Environnement, Institut national de la recherche scientifique, Canada

Paula Reis, Marie-Josée Bergeron, Christine Martineau, Jérôme Comte

Seasonally-varying wetland storage as a means of prioritizing wetlands for protection

Geoffrey Fouad, Monmouth University, United States

Terrie Lee

The impact of mine tailings dust on microbial community function in an ombrotrophic bog

Katie Hettinga, University of Guelph, Dr. Susan Glasauer's Research Group, Canada

Jordan Thakar, Kimber Munford, Susan Glasauer

The Influence of Mine Tailing Dust on Peatland Microbial
Communities and Element Availability

Jordan Thakar, University of Guelph, Dr. Susan Glasauer's Research
Group, Canada

Katie Hettinga, Kimber Munford, Susan Glasauer

Effects of a raised water table and management intensity on
greenhouse gas emissions from pre-alpine fen peatlands under
grassland use

Martina Schlaipfer, Peatland Science Centre, Weihenstephan-
Triesdorf UAS, Germany

Janina Klatt, Heta Meyer, Matthias Drösler

PeatPic Project: Understanding peatland green leaf phenology
using smartphones and community science

Scott J. Davidson, University of Plymouth, United Kingdom

Maria Strack, Avni Malhotra

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