

INTERNATIONAL TUNDRA EXPERIMENT (ITEX) MEETING
April 7 - 10 2024

Location: Loon Lake Resort, Maple Ridge, Canada

Sunday April 7

15:00	Start of registration - Bentley Dining Hall
17:00-18:00	Greetings + Snow Melting - Koerner Kitchen
18:15-19:15	Dinner - Bentley Hall
20:00- 22:00	ITEX Film night - Koerner Classroom

Monday April 8

7:30 - 8:30	Breakfast - Bentley Hall
8:30 - 8:45	Welcome - Organizing committee - Outline of meeting Highlights of recent work (Robert Hollister and Kari Klanderud) - Koerner Classroom
8.45 - 10.30 Plenary Session: Completed syntheses (20 min talks), Chair Christian Rixen - Koerner Classroom	
8:45 - 9:05	1 Hidden diversity as the source of biodiversity and trait change in the tundra (Gergana Daskalova - <i>online</i>)
9.05 - 9.25	2 What 'sets the clock' on above and below-ground tundra phenology? A synthesis of phenocam and in-growth core data (Elise Gallois - <i>online</i>)
9:25 - 9:45	3 Does earlier = more? Exploring the links between phenology and productivity (Sarah Elmendorf)

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9:45 - 10:05	4 ITEX+ Database and the next phase of tundra data synthesis. Introduction to Github, Google Scholar and Slack (Anne Bjorkman, Cassandra Elphinstone et al)
10:05 - 10:30	Lightning talks session 1, 3 min talks (Posters 1-9) Chair Cassandra Elphinstone
10:30 - 10:45	LATE TIME
10:45 - 12:35 Plenary Session: Completed syntheses (20 min talks), Chair Sarah Elmendorf - Koerner Classroom	
10:45 - 11:05	Coffee break - Koerner Kitchen
11:05 - 11:25	5 Plant diversity dynamics over space and time in a warming Arctic (Mariana García Criado)
11:25 - 11:45	6 Plant abundance drives beta-diversity changes in the Arctic (Robert Björk)
11:45 - 12:05	7 Warming differentially affects vegetative and reproductive phenology and drives reproductive fitness in a changing Arctic (Courtney Collins)
12:05 - 12:20	8 Genome-wide changes induced by long term warming in tundra plants (Cassandra Elphinstone)
12:30 - 13:30	Lunch - Bentley Hall
13:30 - 14:00	Lightning talks session 2, 3 min talks (Posters 10-17) Chair Courtney Collins
14:00 – 15:20 Plenary Session: Completed syntheses (20 min talks), Chair Alessandro Petraglia - Koerner Classroom	
14:00 - 14:20	9 Ecosystem respiration responses to warming across the tundra: magnitude, environmental drivers, and future needs (Ellen Doorepaal)
14:20 - 14:40	11 Arctic soil labile nitrogen changes: A meta-analysis on the responses of soil labile nitrogen pools to experimental warming and snow addition (Kim You Jin)
14:40 - 15:00	12 Arctic methane dynamics under warming: Evidence of decreased fluxes in non-permafrost areas (Jan Dietrich)
15:00 - 15:30	Coffee break - Koerner Kitchen

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15:30 -15:50	13 Intraspecific trait variation in alpine plants relates to their elevational distribution (Christian Rixen)
15:50 - 16:20	Lightning talks session 3, 3 min talks (Posters 18-24) Chair Noémie Boulanger-Lapointe
16:20 - 18:00	Poster presentations - Johnson Rooms
18:00 - 19:00	Dinner - Bentley Hall
19:30 - 21:00	Plenary Talk. Cease Wyss-Local ethnobotany - Koerner Classroom

Tuesday April 9

7:30 - 8:30	Breakfast - Bentley Hall
8:30 - 8:45	Introduction to the organization of the day - Koerner Classroom
8.45 - 9:15	Lightning talks session 4 (3 min talks, Posters 25-34) - Koerner classroom Chair: Cassandra Elphinstone
9:15 - 10:45 Workshop Sessions- Part 1: Ongoing syntheses (Parallel workshops)	
Johnson Arbutus	Tundra thermophilization 2.0 (Isla Myers-Smith & Anne Bjorkman)
Johnson Yew	Tundra bryophytes - functional diversity and responses to warming (Signe Lett and Ingibjörg Svala Jónsdóttir)
Koerner Classroom	Plant functional traits and experimental warming (Katrín Björnsdóttir)
Johnson Middle Rm	Maintenance of long-term ITEX sites (Ellen Dorrepaal)
10:45 - 11:00	Coffee break - Koerner Kitchen

11:00 - 12:30	Workshop Sessions - Part 2: New and ongoing syntheses (Parallel workshops)
Koerner Classroom	Data and code repository management (Anne Bjorkman, Mariana García Criado, Cassandra Elphinstone, Sarah Elmendorf, Isla Myers-Smith)
Koerner Classroom (starts here)	Phenocam and phenology syntheses (Isla Myers-Smith, Sarah Elmendorf, Craig Tweedie, Katherine Young et al.)
Johnson Yew	Arctic plant borealization synthesis (Mariana García Criado)
Johnson Middle Rm	The phylogeny of phenology: Is Arctic plant phenology evolutionary conserved? (Zoe Panchen)
12:30 - 13:30	Lunch - Bentley Hall
13:30 - 14:30	Break - explore, walk, canoe
13:30 - 14:30	Phenocam (continued) - Koerner Classroom
14:30 - 15:45	Reports from Workshop Sessions- Part 1 and 2: Ongoing syntheses - Koerner Classroom (reminder: checkout from rooms at 10:00 am tomorrow) Chair: Robert Björk
15:45 - 16:00	Coffee break - Koerner Kitchen
16:00 - 16:30	Lightning talks session 5 (3 min talks, Posters 35-46) - Koerner classroom Chair Cassandra Elphinstone
16:30 - 18:00	Poster presentations and cash bar - Johnson Rooms
18:00 - 19:00	Dinner - Bentley Hall
19:30 - 22:00+	Music night / visiting / stargazing / fire pits - Koerner Great Room / Classroom

Wednesday April 10

7:30 - 8:30	Breakfast - Bentley Hall
8:45 - 9:00	Organization of the (last) day- Koerner classroom (Check out of rooms by 10:00)
9:00 - 10:30	Workshop Sessions - Part 3: New syntheses (Parallel workshops)
Johnson Arbutus	Pan-Arctic diversity of mycorrhizal fungi (Robert Björk & Lisa Pinkiton)
Johnson Yew	Incorporating adaptation and genomic studies in ITEX (Cassandra Elphinstone)
Koerner Classroom	Extreme weather and extreme events (Mats Björkman)
Johnson Middle Rm	Remote sensing from drones to satellites and ITEX (Isla Myers-Smith et al.)
10:30 - 10:45	Coffee break - Koerner Kitchen
10:45 - 11:30	Summary from Workshop Sessions - Part 3 - Koerner Classroom, Chair Ingibjörg Svala Jónsdóttir
11:30 - 12:30	ITEX Business + end of meeting - Koerner Classroom
12:30 - 13:30	Lunch - Bentley Hall
13:30 - 17:00	Afternoon excursion - Golden Ears Park and return to Vancouver

List of posters

	Author	Title	Lightning talk session
1-2	Ingibjörg Svala Jónsdóttir	Ambient and experimental warming caused stronger changes in tundra plant communities in Iceland than grazing exclusion And Increased biocrust cover and activity in the highlands of Iceland after five growing seasons of experimental warming	Session 1: Monday 10:05 - 10:30
3	Joel White	The missing methane sink: Arctic methane consumption responses to future vegetation regimes	Session 1: Monday 10:05 - 10:30
4	Siri Lie Olsen	Three decades of environmental change studies at alpine Finse, Norway: responses across ecological scales	Session 1: Monday 10:05 - 10:30
5	Ji Young Jung	Changes in soil organic matter characteristics under warming in Arctic tundra	Session 1: Monday 10:05 - 10:30
6	Sarah Schwieger	Macro-environment strongly interacts with warming in a global analysis of decomposition	Session 1: Monday 10:05 - 10:30
7-8	Kari Klanderud	Plant sex expression, but not experimental warming, affects the pollination success of <i>Silene acaulis</i> And Heating the heath: 23 years of experimental warming in an alpine biodiversity hotspot	Session 1: Monday 10:05 - 10:30
9	Tabatha Fuson	Assessing terrestrial Lidar precision in an Arctic tundra setting for use in detecting fine-scale permafrost subsidence	Session 2: Monday 12:05 - 12:35
10	Nicola Rammell	Effects of longterm experimental warming on plant community traits in a High Arctic shrub tundra ecosystem	Session 2: Monday 12:05 - 12:35
11	Shengwei Zong	Vegetation change in the alpine tundra of the Changbai Mountains, Northeast China	Session 2: Monday 12:05 - 12:35
12	Mats P. Björkman	The continuation of ITEX carbon synthesis – The hunt for GPP and NEE data.	Session 2: Monday 12:05 - 12:35
13	Teagan Maclachlan	Plant species and communities respond differently to human trampling disturbance	Session 2: Monday 12:05 - 12:35

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14-16	Sergio Vargas	Spatiotemporal variability in plant community phenology revealed from decadal phenocam time series on the north slope of Alaska Arctic tundra microtopographic variability: comparing remote sensing approaches for change detection analysis Examining Tundra Greening from Ground-based to Satellite Observations	Session 2: Monday 12:05 - 12:35
17	Mikel Moriana Armendariz	Effects of subalpine species on community composition of alpine ecosystems. A transplant experiment	Session 3: Monday 15:30 - 16:15
18	Xiaoyi Wang	The role of intraspecific trait variability in Arctic plant productivity	Session 3: Monday 15:30 - 16:15
19	Zoe Panchen	No problems only opportunities: Cape Bounty vegetation cover changes with snow and warming treatments	Session 3: Monday 15:30 - 16:15
20	Karen Beard	A decade of climate change research in the Yukon-Kuskokwim Delta, Western Alaska	Session 3: Monday 15:30 - 16:15
21	Minna Rolfson Berghorn	Influence of experimental warming and wetting on methane and carbon dioxide fluxes in an Arctic tundra landscape	Session 3: Monday 15:30 - 16:15
22	Hannah Lee	Warming and permafrost degradation stimulates above and belowground processes to affect greenhouse gas exchange	Session 3: Monday 15:30 - 16:15
23	Elisabeth Cooper	Timing of the end of plant growth season is influenced by snowmelt and soil moisture on Svalbard	Session 3: Monday 15:30 - 16:15
24	Taylor Doorn	Using seasonal NDVI to predict plant cover in tundra ecosystems	Session 3: Monday 15:30 - 16:15
25	Jenna Boelkins	Documenting mycorrhizal infection of plant species in Atqasuk, Alaska	Session 3: Monday 15:30 - 16:15
26	Cole Brachmann	Phenology and reproductive effort in Arctic tundra plant species exposed to passive warming	Session 4: Tuesday 8.45 - 9:15
27	Kathy Kelsey	Flooding and warming alter summer land-atmosphere gas exchange in a high latitude coastal wetland	Session 4: Tuesday 8.45 - 9:15
28	Abbey Serrone	Occurrences and consequences of extreme weather events in the terrestrial Arctic	Session 4: Tuesday 8.45 - 9:15
29	Matteo Petit Bon	Experimental flooding and warming rapidly increase graminoid biomass in high-latitude coastal wetland	Session 4: Tuesday 8.45 - 9:15

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30	Tyler Williams	Effects of warming, flooding, and herbivory on plant communities and greenhouse gas emissions: a mesocosm study in the Yukon-Kuskokwim Delta, Alaska	Session 4: Tuesday 8.45 - 9:15
31	Kai Sattler	Warm Pockets in cold places: Landscape heterogeneity and plant adaptation	Session 4: Tuesday 8.45 - 9:15
32	Marcel Carita Vaz	The mechanism driving leaf senescence in <i>Eriophorum vaginatum</i> is maladaptive under the fast climate warming of the Alaskan Arctic	Session 4: Tuesday 8.45 - 9:15
33	Claire Czadzeck	Changes in the frequency of flowering in forbs over time	Session 4: Tuesday 8.45 - 9:15
34	Justin Blough	Outreach, interactivity, and the Arctic Ecology Program at GVSU	Session 4: Tuesday 8.45 - 9:15
35	Katlyn May	Vegetation community change at Toolik Lake, Alaska	Session 4: Tuesday 8.45 - 9:15
36	Scott Branham	Using ArcGIS Pro Raster Classification Tools to map <i>Salix</i> patches and plant communities	Session 5: Tuesday 16:00 - 16:15
37	Victoria Villagomez	Exploring HSV Color Space Indices for tracking Arctic Tundra vegetation phenology	Session 5: Tuesday 16:00 - 16:15
38	Ciara Norton	Mapping the spatial distribution of alpine plant communities in Garibaldi Park, BC, Canada	Session 5: Tuesday 16:00 - 16:15
39	Filippo Grillo	Plant species richness, stability and homogenization of two alpine snowbed communities in response to summer warming	Session 5: Tuesday 16:00 - 16:15
40	Harshavardhini Bagavathyraj	Multi-modal segmentation of tussock cotton grass (<i>Eriophorum vaginatum</i>) in UAV imagery using deep learning approach	Session 5: Tuesday 16:00 - 16:15
41	Jeremy May	Effects of winter warming events on dry heath tundra vegetation mortality and community productivity near Toolik Lake, Alaska	Session 5: Tuesday 16:00 - 16:15
42	Esther Frei	Three decades of vegetation change at the alpine ITEX site Val Bercla	Session 5: Tuesday 16:00 - 16:15
43	Christian Rixen	Warming underpins community turnover in temperate freshwater and terrestrial communities	Session 5: Tuesday 16:00 - 16:15
44	Lisa Pilkinton	Exploring the role of mycorrhizal associations in shrub expansion across the tundra biome	Session 5: Tuesday 16:00 - 16:15
45	Bjorn Larson	Expanding the range of phenology measurements with low-cost phenocams	Session 5: Tuesday 16:00-16:15