

HUBBARD BROOK ECOSYSTEM STUDY
61st ANNUAL COOPERATORS' MEETING
Plymouth State University, Merrill Place Conference Center, Plymouth, NH

Day 1: Wednesday, July 10, 2024

7:30 – 8:30		Breakfast (optional, pay-as-you-go), Prospect Dining Hall
8:30 – 8:45		Welcome & Announcements
8:45 – 9:37	SESSION 1: FORESTS	Moderator: Lindsey Rustad
8:45 – 8:55	Kea Rutherford	Measuring above ground biomass for Hubbard Brook Experimental Forest: a modern synthesis
8:55 – 9:00	Darby Bergl	Trends in decadal-scale ecosystem fluxes at the Bartlett Experimental Forest
9:00 – 9:10	Garrett Higgins	A comparison of phenology measurement methods at Hubbard Brook
9:10 – 9:15	Stephen Peters-Collaer	Situating Hubbard Brook's forest structure and stand development in a regional context
9:15 – 9:20	Kyla Savino, Peter Manos, Alejandro Asencio, & Wilson Deng	Tree radial growth across a climate gradient
9:20 – 9:25	Khanh Ton	Prescribed fire and red oak regeneration in northern New Hampshire
9:25 – 9:27	Yihong Zhu	Wildfire risk monitoring
9:27 – 9:37		Questions & Discussion, Session 1
9:37 – 9:47		Introductions
9:47 – 10:17		Break
10:17 – 11:09	SESSION 2: CLIMATE	Moderator: Jeff Garnas
10:17 – 10:27	Joanna Ridgeway	Introducing the DeFROST experiment: How will forest soils respond to winter climate change?
10:27 – 10:29	Caitlin Pries	Changes to soil organic matter storage with winter climate change
10:29 – 10:34	Alix Contosta	Growing season soil carbon fluxes are higher and soil water availability is lower following warmer winters and longer springs in temperate forests
10:34 – 10:44	Emerson Conrad-Rooney	Effects of a decade of growing season warming and winter freeze/thaw cycles on radial growth of trees in a northern hardwood forest
10:44 – 10:49	John Sanders	Red Maple - dendroclimatology challenges and opportunities
10:49 – 10:59	Catalina Mejia	New insights on denitrification and climate change
10:59 – 11:09		Discussion, Session 2
11:09 – 12:08	SESSION 3: SOILS	Moderator: Caitlin Hicks Pries
11:09 – 11:14	Sophie von Fromm	Changes in soil organic carbon dynamics - insights from modeling 14C timeseries at Hubbard Brook Experimental Forest
11:14 – 11:16	Matthew Monroe	Temporal changes in soil organic carbon and oxalate-extractable metals at Hubbard Brook Forest
11:16 – 11:21	Farrar Ransom	Unique fungal communities under white ash and other trees
11:21 – 11:26	Amey Bailey	New HB FS ongoing data stream: groundwater wells and soil moisture
11:26 – 11:36	Matt Vadeboncoeur	Ingrowth core results from drought experiments at Hubbard Brook and Thompson Farm
11:36 – 11:46	Chikae Tatsumi	Responses of soil microbial biogeochemical functions to warming temperatures and shrinking snowpack
11:46 – 11:56	Mark Green	An estimate of long-term soil temperature change at HBEF
11:56 – 11:58	Ayanna Peterson	Evaluation of enhanced mineral weathering as a negative carbon emission strategy
11:58 – 12:08		Discussion, Session 3
12:08 – 1:15		Group Photo, then Lunch – Prospect Dining Hall

1:15 – 2:20	SESSION 4: NITROGEN	Moderator: Michelle Wong
1:15 – 1:20	Pamela Templer	Changing seasonality and changing nitrogen in the northern hardwood forest
1:20 – 1:25	Stephen Caron	HB Nitrogen Oligotrophication Project: Snowmelt Timing & Nitrate Supply
1:25 – 1:35	Peter Groffman	HB Nitrogen Oligotrophication Project: overwinter nitrogen mineralization
1:35 – 1:40	Angela Possinger	HB Nitrogen Oligotrophication Project: organic soil C and N composition
1:40 – 1:50	Nat Cleavitt	HB Nitrogen Oligotrophication Project: take it back or leaf it – resorption patterns
1:50 – 2:00	Christy Goodale	It's time for WiN-UP: Winter Nitrogen Uptake by Plants
2:00 – 2:10	Charley Driscoll	Long-term trends and spatial patterns in emissions and deposition of nitrogen forms in the U.S.
2:10 – 2:20	Discussion, Session 4	
2:20 – 3:50	SESSION 5: MULTIPLE ELEMENT LIMITATION	Moderator: Jenny Bhatnagar
2:20 – 2:30	Ruth Yanai	MELNHE'S Greatest Hits: Back on a Shoestring
2:30 – 2:35	Sara Sternick	The next threat to our forests: Beach Leaf Disease
2:35 – 2:40	Lainey Faulkner Brown	Life's a Beech and then you die
2:40 – 2:50	Erica Albertson	Beech after death: decomposition under N and P addition
2:50 – 2:55	Sofi Arreaga	Mapping the way: improving our tree maps for future research
2:55 – 3:05	Jake Beidler	The Silica Glass Slipper: How are those calcium plots doing anyways?
3:05 – 3:10	Rachel Gao	Isn't it pHunny that we haven't measured soil pH lately?
3:10 – 3:20	Caroline Plecki	Let's talk about our deep-rooted issues
3:20 – 3:30	Felix Grimberg	Micro-Resp: microbial community profiling under N and P addition
3:30 – 3:40	Hyatt Green	What rhymes with nitrification? Plots of things
3:40 – 3:50	Discussion, Session 5	
3:50 – 3:55	Announcements	
6:00 onward	Dinner & Entertainment – USFS Hubbard Brook Barn	

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Day 2: Thursday, July 11, 2024

7:30 – 8:30	Breakfast (optional, pay-as-you-go), Prospect Dining Hall	
8:30 – 8:40	Announcements	
8:40 – 9:40	SESSION 6: ANIMALS	Moderator: Chris Neill
8:40 – 8:50	Richard Holmes	55-year trends of bird populations at Hubbard Brook: an update and new analysis
8:50 – 9:00	Nicholas Rodenhouse	Skewed, convex and consistent: long-term bird community dynamics at Hubbard Brook
9:00 – 9:02	Brian Hofstetter	Parental investment and paternity in the Black-throated Blue Warbler
9:02 – 9:07	Bridget Tweedie	Using machine learning algorithms to identify individual singers
9:07 – 9:12	Miranda Zammarelli	The effects of arrival time and food availability on the territory size and reproductive success of Ovenbirds
9:12 – 9:17	Lynn Christenson and Isabelle Hartman	Wildlife monitoring update - where have all the moose gone?
9:17 – 9:27	Jessica Jones	Summarizing 10 years of bat monitoring at Hubbard Brook
9:27 – 9:32	Eric Lyons	Survival and movement of salamanders
9:32 – 9:40	Discussion, Session 6	
9:40 – 10:00	Break	
10:00 – 10:55	SESSION 7: HYDROLOGY & PRECIPITATION	Moderator: Chris Solomon
10:00 – 10:10	Jeremy Johnston and Adam Hunsaker	Measuring snow water equivalent with UAVs at Hubbard Brook
10:10 – 10:15	Myriam Benkirane and Ryan Reed	Winter in Hubbard Brook's Watershed 3 — a summary of snow arrival, melt, stream response, and interesting events
10:15 – 10:25	Nina Lany	More, longer-duration precipitation events at the Hubbard Brook Experimental Forest
10:25 – 10:30	John Morgan	Influence of depth-to-bedrock on where headwater streams dry up
10:30 – 10:32	Logan Flanagan	Intermittency and variability in headwater stream networks
10:32 – 10:42	Ammara Talib	Examining drivers of increasing evapotranspiration across New England long-term sites
10:42 – 10:47	Ian Halm	Snow Scale update
10:47 – 10:55	Discussion, Session 7	
10:55 – 12:00	SESSION 8: OUTREACH, INFORMATION, AND ART	Moderator: Alix Contosta
10:55 – 11:05	Anthea Lavallee	HBRF at the science-society interface: connecting Hubbard Brook to policy, practice, and current events
11:05 – 11:10	Geoff Wilson	Some gratifying fun engaging with communities of faith
11:10 – 11:20	Dayna De La Cruz	Community Relations at Hubbard Brook
11:20 – 11:25	Brendan Leonardi	HBRF's Young Voices of Science Program: past, present and future
11:25 – 11:30	Mary Martin	Highlights from Hubbard Brook Information Management
11:30 – 11:35	Andrew Cassel	Foundation Communications
11:35 – 11:40	Raisa Kochmaruk	Growth of Communications initiatives at HBRF
11:40 – 11:45	John Besley	Update on advancing public engagement with science across the LTER Network
11:45 – 11:50	Lindsey Rustad	Art meets Science: celebrating a decade of ArtSci at the Hubbard Brook Ecosystem Study
11:50 – 11:52	Carolyn Lambert	Climate Equity in New Hampshire
11:52– 12:00	Discussion, Session 8	
12:00 – 1:00	Lunch – Prospect Dining Hall	

1:00 – 2:11	SESSION 9: WATERSHEDS	Moderator: John Morgan
1:00 – 1:10	Emily Bernhardt	Mineral mining supports forest recovery in severely nutrient-depleted watersheds
1:10 – 1:15	Chris Solomon	Changing watershed exports of organic and inorganic carbon
1:15 – 1:20	Heili Lowman	Investigating controls on aquatic insect emergence phenology
1:20 – 1:25	Danielle Hare	Examining watershed-level controls on changing winter stream solute fluxes
1:25 – 1:30	Lindsey Carlson	Diatom community composition in Hubbard Brook Experimental Forest
1:30 – 1:35	Jason Demers	Mercury in streams of the Hubbard Brook Experimental Forest?
1:35 – 1:37	Colin Fuss	Nitrogen and phosphorus dynamics in W4 and W6 during precipitation events
1:37 – 1:47	Nicholas LoRusso	Long-term carbon fluxes in calcium-treated and reference watersheds
1:47 – 1:57	Mary Margaret Koppers	Temporal changes in biogenic silica content of watershed 1 and 6 soils
1:57 – 1:59	Samantha Fernandez	Evaluation of enhanced mineral weathering as a carbon negative emission strategy
1:59 – 2:01	Hennecys Perez Castro	How phosphorus and nitrogen as limiting nutrients have affected W1 vs W6
2:01 – 2:11	Discussion, Session 9	
2:11 – 2:15	Closing Announcements	
Afternoon	Field Trips, Hubbard Brook Experimental Forest	

**Meeting location: Merrill Place Conference Center at Plymouth State University
14 Merrill St., Plymouth, NH**

The meeting will be held at the Merrill Place Conference Center, shown with the red marker below. Those with cars will be required to park at Hyde Parking Lot #304. Lunches will occur at the Prospect Dining Hall, where breakfast will also be available for purchase.

