

HUBBARD BROOK ECOSYSTEM STUDY
60th ANNUAL COOPERATORS' MEETING
Plymouth State University, Merrill Place Conference Center, Plymouth, NH

Day 1: Wednesday, July 12, 2023		
7:30 – 8:30	Breakfast available for purchase, Prospect Dining Hall	
8:30 – 8:45	John Campbell et al.	Welcome & Announcements
SESSION 1: WATERWORLD (1995): Precipitation, Streams, and Groundwater		
8:45 – 9:50	Moderator: Jamie Shanley	
8:45 – 8:50	Geoff Wilson	Some surprising observations from a stream litter decomposition study
8:50 – 9:00	Scott Bailey	Soil distribution across the Hubbard Brook valley; the surprising role of streams in lateral soil development
9:00 – 9:05	Chris Solomon	Changes in dissolved organic (and inorganic?) carbon export in Hubbard Brook streams
9:05 – 9:07	Emily Bernhardt	State of the Watershed Report from HBWatER
9:07 – 9:12	Audrey Thellman	How dish sponges overturned our understanding of Hubbard Brook stream ecosystems
9:12 – 9:17	JP Gannon	Does the changing seasonality of snowpack affect groundwater storage and evapotranspiration?
9:17 – 9:22	Amanda Pennino	Catchment structure regulates hydrodynamic drivers of chemical weathering in shallow forest soils
9:22 – 9:27	John Morgan	Subsurface controls on flow permanence in headwater streams
9:27 – 9:32	Ian Halm	How we measure snow at HBEF
9:32 – 9:37	John Campbell	Paired watershed studies: How long do they last?
9:37 – 9:42	Tristan Coffey	Compartmentalization of fracture networks and groundwater flow in fractured bedrock beneath the Mirror Lake watershed, Woodstock, New Hampshire
9:42 – 9:50	Discussion, Session 1	
9:50 – 10:00	Introductions	
10:00 – 10:30	Break	
SESSION 2: MULTIPLICITY (1996): The MELNHE Project		
10:30 – 11:25	Moderator: Chris Neill	
10:30 – 10:40	Ruth Yanai	Still fertilizing after all these years: Results from the world's longest-running NxP experiment in a temperate forest
10:40 – 10:47	Kelley Gilhooly	Lose weight fast! The impacts of N and P on leaf litter decomposition over 3 years
10:47 – 10:54	Jacob Beidler	What's at stake with wood decomposition? Woodn't you like to know?
10:54 – 11:01	Erin Cornell	Fixated on N fixation! Free-living N fixation in soil, leaf litter, and dead wood
11:01 – 11:08	Erica Albertson	Living the wood life: Closing the N budget with N fixation in dead wood
11:08 – 11:15	Lindsay Holland	It's a beautiful day in the neighborhood: The power of knowing tree location
11:15 – 11:25	Discussion, Session 2	
SESSION 3: PAY IT FORWARD (2000): Engagement and Outreach		
11:25 – 12:10	Moderator: Catalina Mejia	
11:25 – 11:35	Dayna de la Cruz	Community-building at Hubbard Brook
11:35 – 11:40	Anneke Huynen	Preserving the past for the future: The Sample Archive at Hubbard Brook
11:40 – 11:50	Anthea Lavallee	Welcome to the Woods: Forest Outreach for Covid, Climate, and Political Migrants
11:50 – 11:55	Mary Martin	Highlights from Information Management at Hubbard Brook
11:55 – 12:05	Discussion, Session 3	
12:05 – 1:15	Group Photo, then Lunch – Prospect Dining Hall	

SESSION 4: HOW GREEN WAS MY VALLEY (1941): Trends in Forest Structure and Composition		
1:15 – 2:05	Moderator: Amey Bailey	
1:15 – 1:25	Nina Lany	Foliar chemistry at the Hubbard Brook Experimental Forest, 1992 - 2021
1:25 – 1:30	Matthew Vadeboncoeur and Zach Hooper	Salvage dendrochronology of white ash at Hubbard Brook
1:30 – 1:40	John Battles	Trends and drivers of biomass accumulation in response to an experimental replacement of soil Ca -- a 20 year summary
1:40 – 1:45	Christy Goodale	Contrasting long-term responses to calcium addition: Hubbard Brook W1 and Woods Lake, NY
1:45 – 1:55	Nat Cleavitt	Northern red oak seedling ecology at Hubbard Brook and beyond
1:55 – 2:05	Discussion, Session 4	
SESSION 5: DEADFALL (1968,1993,2012): Change and Disturbance in the Green Web		
2:05 – 3:06	Moderator: Nat Cleavitt	
2:05 – 2:15	Liz Studer	The ASH Project (1): Do tree species matter?
2:15 – 2:20	Farrar Ransom	The ASH Project (2): Fungi Frenemies
2:20 – 2:22	Tianxiao Wang	The ASH Project (3): Orcas of the brown food web
2:22 – 2:24	James Hardat	Exploring invertebrate abundance and nutrient impact on a changing forest landscape.
2:24 – 2:29	Frances Brubaker	Investigating drivers of Lepidoptera population fluctuation in the Hubbard Brook Forest
2:29 – 2:31	Wyatt Cummings	Insects in an aging forest: Causes of decline in the green food web
2:31 – 2:41	Sophie Harris	Identifying drivers of Beech Bark Disease in northeastern aftermath forests
2:41 – 2:51	Raquel de Castro Portes	Evaluating the impact of whole-tree harvesting on soil redistribution rates in the Hubbard Brook Experimental Forest using ²³⁹ + ²⁴⁰ Pu isotopes.
2:51 – 2:56	Lindsay Rustad	The Hubbard Brook Ice Storm Experiment: The Frozen Forest Chronicles
2:56 – 3:06	Discussion, Session 5	
3:06 – 3:36	Break	
SESSION 6: RUNNING ON NP (1988): Nitrogen and Phosphorus Dynamics		
3:36 – 4:23	Moderator: JP Gannon	
3:36 – 3:46	Garrett Higgins	Changes in watershed N retention during a period of low stream N export
3:46 – 3:56	Linda Pardo	Can we predict peaks in streamwater nitrate?
3:56 – 3:58	Colin Fuss	Do the dynamics of stream nitrogen and phosphorus export during high-flow events change as forests age?
3:58 – 4:03	Chris Johnson	Some preliminary observations on soil phosphorus at Hubbard Brook
4:03 – 4:13	Catalina Mejia	Temperature and denitrification at a Hubbard Brook climate gradient
4:13 – 4:23	Discussion, Session 6	
4:23 – 4:30	Announcements	
6:00 onward	Dinner, Games, and Entertainment – USFS Hubbard Brook Barn	

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Day 2: Thursday, July 13, 2023

7:30 – 8:30			Breakfast available for purchase, Prospect Dining Hall
8:30 – 8:40			Announcements
SESSION 7: THE BIRD[S] (1963): Black-throated Blue Warblers			
8:40 – 9:24			Moderator: Sara Kaiser
8:40 – 8:45	Braeden Thomson	Oxidative costs and constraints of territory quality on reproductive effort in male Black-throated Blue Warblers	
8:45 – 8:47	Grace Guo	Spatial patterns in perceived nest predator hotspots, nest site selection, and nest success in the Black-throated Blue Warbler	
8:47 – 8:49	Brian Hofstetter	Paternity and male nest defense in the Black-throated Blue Warbler	
8:49 – 8:54	August Davidson-Onsgard	Signaling function of the female supercilium in the Black-throated Blue Warbler	
8:54 – 9:04	Jackson Hutchison	Post-fledging survival, habitat use, and movement of migratory black-throated blue warblers in high- and low-risk habitat	
9:04 – 9:09	Amaya Bechler	Characterizing variation in gut microbiome composition and diet from breeding through molt in the black-throated blue warbler	
9:09 – 9:14	Alicia Brunner	The timing of breeding influences fall migratory behavior of the Black-throated Blue Warbler	
9:14 – 9:24	Discussion, Session 7		
9:24 – 10:00			Break
SESSION 8: ANIMAL KINGDOM (2010): Not Black-throated Blue Warblers			
10:00 – 10:49			Moderator: Kerry Yurewicz
10:00 – 10:10	Miranda Zammarelli	Annual variation in territory size and abundance of forest songbirds: 50 years at Hubbard Brook	
10:10 – 10:12	Hannah Pryor	Geographic song variation and subspecies recognition in the Yellow-rumped Warbler complex	
10:12 – 10:14	Todd Jones	Post-fledging ecology in a changing world	
10:14 – 10:19	denise burchsted	The multi-threaded Hubbard Brook	
10:19 – 10:24	Nick Rodenhouse	Atlantic Multidecadal Oscillation and Hubbard Brook	
10:24 – 10:29	Eric Lyons	Where do we go from here? Directional dispersal in the Northern Spring Salamander	
10:29 – 10:39	Winsor Lowe	Outbreeding reduces survival during metamorphosis in a headwater stream salamander	
10:39 – 10:49	Discussion, Session 8		
SESSION 9: THE FOUR SEASONS (1981): Effects of Changing Seasonality			
10:49 – 11:56			Moderator: Liz Studer
10:49 – 10:59	Andrew Reinmann	Effects of climate change across seasons on northern hardwood forest soil CO ₂ fluxes	
10:59 – 11:09	Emma Conrad-Rooney	Interacting effects of growing season and winter climate change on forest carbon sequestration	
11:09 – 11:19	Pamela Templer	Changing seasonality and changing nitrogen in the northern hardwood forest	
11:19 – 11:29	Peter Groffman	Overwinter mineralization and nitrogen oligotrophication in the northern hardwood forest	
11:29 – 11:37	Stephen Caron	Spring snowmelt timing and nitrogen cycling in the northern hardwood forest	
11:37 – 11:44	Ryan Shipley	Changing seasonality and nitrogen availability in the northern hardwood forests: Litter quality	

11:44 – 11:46	Alejandro Asencio, Wilson Deng, Peter Manos, Kyla Savino	Tree growth phenology across a climate gradient at Hubbard Brook
11:46 – 11:56		Discussion, Session 9
11:56 – 1:00		Lunch – Prospect Dining Hall
SESSION 10: LONG STORY SHORT (2021): Long-term Ecosystem Responses		
1:00 – 1:59		Moderator: Andy Reinmann
1:00 – 1:10	Connor Olson	Changes in organic soil mercury concentrations over 50 years at the Hubbard Brook Experimental Forest
1:10 – 1:15	Torsten Berger	Trends in soil and soil solution chemistry of sugar maple stands (1995-2022) manipulated by additions of Ca and Al
1:15 – 1:25	Charles Driscoll	Changes in atmospheric deposition and recovery of soil and surface waters from historical acidification at Hubbard Brook and the eastern U.S.
1:25 – 1:27	Faraz Gorginpaveh	Future projections of soil and stream chemistry under a changing climate at Hubbard Brook using the PnET-BGC model
1:27 – 1:32	Alix Contosta	Vanishing winters, lengthening springs, and growing-season soil carbon fluxes
1:32 – 1:37	Darby Bergl	Land-atmosphere carbon dynamics in a changing climate: Insights from two decades of eddy covariance data in the Bartlett Experimental Forest
1:37 – 1:47	Mark Green	Heat, water, and CO ₂ fluxes during the vernal windows of 2018-2020
1:47 – 1:49	Caitlin Pries	CO ₂ production throughout the soil profile with and without roots
1:49 – 1:59		Discussion, Session 10
1:59 – 2:05		Closing Announcements
3:00 – 5:00 or 6:00		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.

