

## AGENDA

### Hubbard Brook Quarterly Project Meeting

January 4-5, 2023

Vassar College – Environmental Cooperative at the Barns

#### Day 1 - Wednesday, January 4, 2023

##### Critical Ecology

- 12:00 - 1:00 Lunch - by Bon Appetit (build-your-own deli sandwiches)
- 1:00 - 1:15 Welcome and introductions  
(Lynn and Christy)
- 1:15 - 1:45 Introduction to Critical Ecology  
(Sue Pierre)
- 1:45 - 2:05 Introduction to energy generation and air quality work for the U.S. and Hubbard Brook  
(Charles Driscoll)
- 2:05 - 2:20 Synthesis dialogue  
(Facilitated by Sue Pierre and Peter Groffman)
- 2:20 - 2:45 Soils and Critical Geography (tentative title)  
(Dr. Salvatore Engel-Di Mauro, SUNY New Paltz)
- 2:45 - 3:10 Nitrogen fixation, species change and biotic functions (tentative title)  
(Michelle Wong, Cary Institute / Yale)
- 3:10 - 3:25 Break
- 3:25 - 4:15 Breakout group discussions:
- Proposal writing/tractable questions - What would be a useful/exciting project?
  - Who should be involved in this effort?
  - Can Critical Ecology work help to diversify our research group?
- 4:15 - 4:30 Group reports and final discussion
- 4:30 - 5:00 COS meeting  
(Lynn and Christy)
- 5:00 onward Reception and Pizza Dinner at Vassar College Barn

## Day 2 - Thursday, January 5, 2023

### Forest Structure: Present and Future

8:00 - 9:00 Continental Breakfast/yogurt/oatmeal/coffee/tea

9:00 - 9:10 Forest Structure session overview  
(Nat Cleavitt)

#### **Measuring components of Forest Structure:**

##### **Aboveground**

9:10 - 9:25 Terrestrial Laser Scanning (TLS) projects currently at Hubbard Brook  
(Nat Cleavitt, Bob Fahey, and Tara Seeley)

9:25 - 9:45 Combining field- and LiDAR-based measurements to understand crown structure  
(Jack Hastings)

##### **Belowground**

9:45 - 10:00 Belowground ecosystem structure in northern hardwood forests  
(Matt Vadeboncoeur)

10:00 - 10:20 Root system structure and dynamics in a northern temperate forest undergoing  
prolonged drought stress  
(S. Joseph Tumber-Dávila)

10:20 - 10:30 Break

#### **Causes of change in forest structure**

10:30 - 10:45 Possible implications of climate change and extreme events for forest structure  
(Matt Vadeboncoeur and Alix Contosta)

10:45 - 11:00 Short- and long-term changes to forest structure in the wake of the Emerald Ash Borer  
invasion  
(Jeff Garnas)

11:00 - 11:15 A case study of the impact of Beech Leaf Disease in northeast Ohio  
(Mark Green)

#### **Modeling change and implications of change**

11:15 - 11:30 Modeling forest structural disturbance  
(Jackie Matthes)

- 11:30 - 11:50 Experiments with TLS data: empirical modeling and simulation approaches to better understand drivers and implications of forest and canopy structural change  
(Brandon Alveshere)
- 11:50 - 12:05 Implications of forest structure for caterpillars and birds  
(Nick Rodenhouse)
- 12:05 - 12:20 Forest structure and water and energy at Hubbard Brook  
(Mark Green and Eric Kelsey)
- 12:20 - 1:20 Lunch
- 1:20 - 1:40 How does forest structure interface with your research?  
What aspects are you most interested in pursuing at Hubbard Brook and why?
- 1:40 - 1:50 Group discussion and formation of interest groups for second thought question
- 1:50 - 2:20 Formulate research proposal questions related to aspects of and/or impending changes in forest structure
- 2:20 - 2:45 Discussion and formation of proposal working group(s)
- 2:45 - 3:00 Final announcements and wrap-up