**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-Dávíla)

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