

# HUBBARD BROOK ECOSYSTEM STUDY 45<sup>th</sup> ANNUAL COOPERATORS' MEETING

**Tuesday, 8 JULY 2008**

8:15 Chris Eagar Welcome

## **Session I: Biogeochemistry**

**Moderator: Chris Johnson**

8:30 Don Buso Still hysterical after 45 years

8:40 Ruth Yanai Hubbard Brook, Sleepers River, and Cone Pond: Comparison of nutrient budgets

8:50 Michael Pennino Measuring long-term changes in forest soils: Do quantitative methods make a difference?

9:00 Afshin Pourmokhtarian Predicting the consequences of climate change on soil and surface water chemistry at Hubbard Brook, NH using a biogeochemical model (PnET-BGC)

9:10 Youngil Cho Soil and soil solution chemistry at watershed 1 prior to and after the Ca application

9:20 Introductions

## **STRETCH BREAK**

9:40 Madhura Kulkarni Two ways to lose a lot of weight (in nitrogen)

9:50 Susana Bernal Tracing nitrate sources in runoff and N transformation during snowmelt in the HBEF

10:00 Melany Fisk Limitations to microbial growth in Hubbard Brook soils

10:10 Colin Fuss Fluxes of oxidized and reduced iron at Hubbard Brook

10:20 Charles Driscoll Mercury transport in relation to DOC quality in Watershed 6

## **BREAK**

## **Session II: Forest Dynamics**

**Moderator: Melany Fisk**

11:00 Natalie Cleavitt Beeches and sons of beeches: Role of seedlings in beech ecology

11:10 John Battles How well does a general purpose growth and yield model (Forest Vegetation Simulator) predict biomass accumulation in Hubbard Brook?

11:20 Tim Fahey Paper birch decline: Pattern and hypothetical cause

11:30 Matthew Vadeboncoeur Changes in foliar and litter N:P ratios on Watershed 6 suggest a shift toward P limitation

11:40 Dana Warren Wood accumulation in northeastern US headwater streams

11:50 Eun-Shik Kim Issues on radial growth of tree species at Hubbard Brook

12:00 Chris Johnson Collaborative Research Opportunities at the Warra (Tasmania) LTER Site

12:10 Chris Eagar Announcements

## **LUNCH BREAK & PHOTO**

## **Session III: Heterotroph Dynamics**

**Moderator: Winsor Lowe**

1:40 Richard Holmes Bird abundance and demography at Hubbard Brook: the 40-year record

1:50 Scott Sillett Source-sink dynamics in black-throated blue warblers along an elevational gradient

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|------|---------------------|---|
| 2:00 | Pete Marra          | Seasonal interactions and carry-over effects in migratory birds                       |
| 2:10 | Nicholas Rodenhouse | Bioaccumulation and biomagnification of mercury in upland food webs of the Northeast  |
| 2:20 | Will Yandik         | The effects of low-density exurban housing on avian communities in Grafton County, NH |
| 2:30 | Mason Cline         | Breeding dispersal in the Black-throated Blue Warbler                                 |
| 2:40 | Erik Stange         | Are caterpillar population fluctuations influenced by forest nutrient dynamics?       |
| 2:50 | Winsor Lowe         | Linking movement behavior to dispersal and divergence in plethodontid salamanders     |
| 3:00 | Chris Eagar         | Announcements   |

**6:00 Dinner and Barn Dance**

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**Wednesday, 9 JULY 2008**

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|------|-------------|---------------|
| 8:25 | Chris Eagar | Announcements |
|------|-------------|---------------|

**Session IV: Miscellaneous**

**Moderator: Ellen Denny**

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|------|---------------|---|
| 8:30 | Geoff Wilson  | The new undergraduate research program at Hubbard Brook   |
| 8:40 | Steve Hamburg | Making 25 years of C biogeochemistry data relevant to society: RGGI, Wal-Mart, CNN and low income households? |
| 8:50 | Celia Riechel | Socio-demographic drivers of land use change on non-industrial private forestland                             |
| 9:00 | Ellen Denny   | An introduction to the Northeast Regional Phenology Network   |

**STRETCH**

**Session V: Watershed 1 Studies**

**Moderator: Ellen Denny**

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|-------|----------------|---|
| 9:20  | Joel Blum      | Watershed 1 Ca addition: Long-term record of Ca uptake by vegetation and export by streamflow     |
| 9:30  | Sara Worsham   | Watershed 1 Ca addition: Are changes in foliar chemistry reflected in throughfall chemistry?      |
| 9:40  | Sam Werner     | Effects of calcium addition on stream DOC levels during storm events                              |
| 9:50  | Will Kessler   | Measuring spectral effects of calcium fertilization in red spruce ( <i>Picea rubens</i> ) foliage |
| 10:00 | Peter Groffman | Microbial response to calcium additions   |

**BREAK**

**Session VI: Soil Frost and Hydrology**

**Moderator: Joel Blum**

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|-------|--------------------|---|
| 10:40 | Joel Detty         | Topographic controls on shallow water table dynamics and implications for hydrologic connectivity between discrete landscapes |
| 10:50 | John Campbell      | Determining watershed transit times using stable isotopes of water  |
| 11:00 | Christopher Barton | Watershed travel time distributions at Hubbard Brook  |
| 11:10 | Scott Bailey       | Pattern and process of soil variation at multiple scales  |

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|-------|------------------|--|
| 11:20 | Lynn Christenson | Soil freezing impacts on decomposition   |
| 11:30 | Pamela Templer   | Potential impacts of winter climate change on forest nutrient retention, phenology and productivity in northern forest ecosystems. |
| 11:40 | Anne Socci       | Comparing measures of nutrient uptake by fine roots of mature trees: Applications for climate change research                      |
| 11:50 | Chris Eagar      | Announcements  |

## **LUNCH**

### **Posters**

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|-------------------|--|
| Scott Bailey      | Pattern and process of soil variation at multiple scales   |
| Mary Ann McGarry  | 2008 REU Projects  |
| Stephen Sebestyen | A century of Experimental Forest and Range research: Recent synthesis efforts and opportunities for cross-site collaboration |
| Jamie Shanley     | Hydrology and biogeochemistry during snowmelt – perspectives from a long-term research catchment in Vermont                  |

## **WORKING GROUP AND COMMITTEE MEETINGS**

### **7 July 2008 (Monday)**

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|------------------|---|-----------|
| 9:30am – 11:00am | HBRF Committee Meetings (Science & Policy; Finance & Development) (Sleeper)                     |           |
| 11:30am – 2:30pm | Board of Trustees Meeting   | (Sleeper) |
| 3:00pm – 5:30pm  | HBES Tours  | (Sleeper) |
| 5:30pm – 7:30 pm | HBRF annual reception and dinner  | (Sleeper) |
| 7:30pm           | Address by Ann Bartuska, Deputy Chief/Research, USDA Forest Service, Pierce Lab, Open to Public |           |

### **8 July 2008 (Tuesday)**

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|----------------|--|
| 8:15am – ~ 3pm | Cooperator's Meeting Scientific Sessions |
| 6:00pm – late  | HBRF sponsored dinner and barn dance     |

### **9 July 2008 (Wednesday)**

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|---------------|--|-------------------|
| 8:25am – noon | Cooperator's Meeting Scientific Sessions |                   |
| 1:30pm – 3pm  | Information Oversight Committee (IOC)    | (Fahey, Groffman) |
| 3:30pm – 5pm  | Education Committee (EOC)                | (Weathers)        |

### **10 July 2008 (Thursday)**

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|-----------|---|--|
| 8:30am –? | Committee of Scientists (COS) meeting (Fahey)                   |  |
| 2pm – 5pm | HBES Scientific Coordinating Committee (SCC) Meeting (Groffman) |  |

### **11 July 2008 (Friday)**

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|-----------------|------------------------------|---------|
| 9:00am – 3:00pm | Carbon Science Links Meeting | (Fahey) |
|-----------------|------------------------------|---------|

<b>Speaker</b>	<b>Affiliation</b>	<b>E-mail Address</b>
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