

# Meeting Program



New England Society of American Foresters

## 99th Winter Meeting

March 27 - 29, 2019

South Burlington, Vermont

Hosted by the Green Mountain Division



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## **Thanks to our Exhibitors!**

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Leading Edge Geomatics  
Long View Forest  
New England Forestry Foundation  
Solenio  
USDA Natural Resources Conservation Service

## **Thanks to the Speakers, Moderators and Field Tour Leaders!**

## **And Thanks to all our Volunteers!, including**

Alex Bartlett  
Emily Meacham

Dan Kilborn  
Jack O'Wril  
Jas Smith

Bill Kropelin  
Gary Salmon

## **The Planning Committee**

Ginger Anderson  
Betsy Lesnikoski

Dr. Tony D'Amato  
Jason Nerenberg  
Mike White

Diana Frederick  
Ed O'Leary

# **KEYNOTE SPEAKERS**

## **David R. Foster**

David is an ecologist who investigates landscape history and dynamics with applications for conservation and author of *Thoreau's Country—Journey through a Transformed Landscape*. Since 1990 he has been the Director of the Harvard Forest, Harvard University's 4000-acre ecological laboratory in central Massachusetts and a board member at the Highstead Foundation.

In 2010 David and colleagues developed *Wildlands and Woodlands* a conservation vision for the region's forests, farms and communities. His latest book – *A Meeting of Land and Sea: Nature and the Future of Martha's Vineyard* (2017) explores the history, ecology, and conservation of New England's most diverse island.

## **Lloyd C. Irland**

Growing up in Chicago, Irland spent summers in northern Wisconsin on a scout camp staff. He earned his B.S. at Michigan State and an M.S. at University of Arizona. He served in the Army in Vietnam, then earned a Ph.D. at Yale. He was then a U.S. Forest Service economist in the South. During ten years in Maine state government he served as Forest Insect Manager, was Director of Public Lands, and then State Economist. Irland was a junior author of sections of both the global Millennium Ecosystem Assessment (2005) and the U.S. National Assessment on Climate Change. As a consultant, he has performed timber supply analyses and assessments of markets and industry trends across the U.S. and nearby Canada.

Irland has authored well over 300 publications. He has written 5 books, with one more in the works. Two of these concern ethics in forestry. His work on forests has brought him on study tours and lecture visits to Canada, China, India, Sweden, Denmark, Germany, Nicaragua, South Africa, Austria, Greece, Bhutan, France, Yugoslavia, Mexico, and Ukraine. He is a Fellow of the Society of American Foresters.

## **Amanda Mahaffey**

Amanda Mahaffey was once a student in Lloyd's forest economics class. She has been a member of SAF and the Forest Stewards Guild since her student days and has carried the ethics from both these organizations through her career in forestry in Maine. Currently, she serves as Northeast Region Director for the Forest Stewards Guild, where she:

- administers the national Women Owning Woodlands network,
- facilitates the spread of Vermont's Foresters for the Birds program,
- crafts impactful learning events for the North Atlantic Fire Science Exchange,
- partners with the Northern Institute of Applied Climate Science to help meet forest managers' scientific needs in a changing climate,
- and supports the community of boots-on-the-ground Guild members putting the forest first across the landscape.

**TUESDAY - MARCH 26<sup>th</sup>**

**2:00–5:00 pm – NESAF Executive Committee Meeting – Valcour Room**

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**WEDNESDAY - MARCH 27<sup>th</sup>**

**8:00 am –5:00 pm – Registration, Exhibits and Posters**

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**10:00 – Noon – General Session – Emerald Ballrooms I-III**

**10:00 – 10:45 am – Call to Order and Welcome**

Julie Renaud Evans – Chair, NESAF Executive Committee

Addison Kasmarek – Chair, Green Mountain Division

Mike White – General Chair, NESAF 2019 Winter Meeting

Michael Snyder – Commissioner, Vermont Department of Forests, Parks and Recreation

**10:45 am – Noon – Keynote Address 1**

***Legacies, Inertia, and Community. New England Conservation in Time***

**Dr. David Foster** – Director, Harvard Forest, Harvard University

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**Noon – 2:00 pm – Lunch – Lake Champlain Exhibition Hall**

**12:30 – 2:00 pm – NESAF Business Meeting – Emerald Ballroom III**

Attendance at the NESAF Business Meeting is highly encouraged. Get food from the buffet in the Lake Champlain Exhibition Hall and carry to Emerald Ballroom 3.

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**2:00 – 3:15 pm – Concurrent Sessions 1 – Emerald Ballrooms I, II, III and Amphitheater**

**Concurrent Session 1A – Emerald Ballroom I**

**Forestry impacts on hydrology and aquatic habitats**

Moderator: Scott Machinist, Vermont Department of Forests, Parks, and Recreation

2:00 Recent hydrologic trends in the northern forest

– Mark Green, Plymouth State University

2:25 Brook trout behavior and seasonal movement in a sustainably forested landscape

– Dianne Timmins, New Hampshire Fish and Game Department

2:50 Brook Trout Biomass Response to Strategic Wood Addition in the East Branch Nulhegan River Watershed

– Jud Kratzer, Vermont Fish and Wildlife Department

**Concurrent Session 1B – Emerald Ballroom II**

**Emerging and recent forest health issues affecting New England forests**

Moderator: Jennifer Santoro, University of Vermont

2:00 Findings from the current forest tent caterpillar outbreak in Vermont

– Josh Halman, Vermont Department of Forests, Parks and Recreation

2:25 Eastern white pine health status: Past, present, and future concerns

– Kara Costanza, University of New Brunswick

2:50 Resurgence of Gypsy Moth and Other Defoliators in Northeastern Hardwood Forests

– Kevin Dodds, U.S. Forest Service, Eastern Region-Forest Health

## Wednesday pm

### **Concurrent Session 1C - Emerald Ballroom III**

#### **Current and emerging markets for forest products: regional and global perspectives**

Moderator: Alex Barrett, Long View Forest

- 2:00 Emerging Markets for Forest Products in the Northeast
  - Charles Levesque, Innovative Natural Resource Solutions, LLC
- 2:25 Why I Think the Paper Industry is Sexy
  - Donna Cassese, SAPPI
- 2:50 US Log Exports, Where are my logs going?
  - Chris Casadei, Hull Forest Products

### **Concurrent Session 1D - Amphitheater**

#### **Changing dynamics for Family Forest ownerships in the northeastern US**

Moderator: Emma Sass, University of Massachusetts

- 2:00 Trees, Bugs, and People: Reactions of Family Forest Owners to Forest Insects and Potential Landscape Consequences
  - Meghan MacLean, Harvard Forest
  - Brett Butler, U.S. Forest Service Northern Research Station
- 2:25 Helping Landowners Make Informed Decisions about Carbon
  - Paul Catanzaro, University of Massachusetts
- 2:50 Why and How to Create Women-Centered Programming
  - Katherine Hollins, Yale University
  - Amanda Mahaffey, Forest Stewards Guild

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### **3:15 - 3:45 pm - Break - Emerald Ballroom Promenade/Diamond Ballroom Foyer**

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### **3:45 - 5:00 pm - Concurrent Sessions 2 - Emerald Ballrooms I, II, III and Amphitheater**

#### **Concurrent Session 2A - Emerald Ballroom I**

##### **Forest wildlife habitat management**

Moderator: Dan Kilborn, Vermont Land Trust

- 3:45 Integrating Wildlife Habitat-Silviculture: Managing New England Forest Landscapes and Creating Quality Bird Habitats
  - Mariko Yamasaki, U.S. Forest Service Northern Research Station
- 4:10 The importance of small mammals and mycorrhizal fungi in forest management
  - Ryan Stephens, University of New Hampshire
- 4:35 The Regional Young Forest Initiative - Working Like Beavers for the Bunny
  - Lisa Wahle, Connecticut Department of Energy and Environmental Protection

#### **Concurrent Session 2B - Emerald Ballroom II**

##### **Responding to market changes: Landowner behaviors and potential management improvements through diversification**

Moderator: Mindy Crandall, University of Maine

- 3:45 Landowner Harvest Behavior and Timber Supply in Maine
  - Jianheng Zhao, University of Maine
- 4:10 Carbon at the margin: break-even analysis for different landowners
  - Karin Bothwell, Appalachian Mountain Club
- 4:35 The sap buckets are half-full: Scale up of Maine's small- and medium-scale maple producers
  - Jessica Leahy, University of Maine

**Concurrent Session 2C - Emerald Ballroom III**

**Silvicultural strategies for addressing challenges posed by American beech**

Moderators: Laura Kenefic, U.S. Forest Service Northern Research Station

Nicole Rogers, University of Maine-Fort Kent

- 3:45 Resistance and Tolerance to BBD: Management considerations for restoring value in American beech?  
– Dave Houston, U.S. Forest Service Northern Research Station
- 4:10 Control of Consequence: The Plague of American Beech  
– Ralph Nyland, SUNY-ESF
- 4:35 Beyond the disease: the many values of beech  
– Stacy McNulty, SUNY-ESF
- 5:00 Extended discussion

**Concurrent Session 2D - Amphitheater**

**Boots-on-the-ground applications of emerging technologies to forest management**

Moderator: Emily Meacham, Vermont Department of Forests, Parks and Recreation

- 3:45 Using LiDAR to Improve Forest Management Planning  
– John Bryant, American Forest Management, Inc.
- 4:10 Using LiDAR Data when Implementing Water Quality Practices on Forestlands  
– Dave Wilcox, Vermont Forests, Parks and Recreation
- 4:35 i Forester, you Drone: Adding Value by Expanding the Forester's Toolbox  
– Chris Fife, Weyerhaeuser Co.,  
– Cullen Utermark, Weyerhaeuser Co.,  
– Sierra Giraud, Weyerhaeuser, Co.

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**5:30 – 7:00 pm – Ice Breaker Reception – Emerald Ballroom Promenade**

cash bar - free hors d'oeuvres

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**7:00 – 10:45 pm – shuttle service to and from downtown Burlington**

The DoubleTree shuttle will make a continuous loop between the hotel and the intersection of Main and Church Streets in downtown Burlington. The shuttle will first leave the hotel at 7:00 pm and last leave the intersection of Main and Church Streets at 10:45 pm.

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**THURSDAY - MARCH 28<sup>th</sup>**

**8:00 am – 5:00 pm – Registration, Exhibits and Posters**

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**7:00 – 8:00 am – Working Group meetings**

- Working Group A – Resources Measurements – Willsboro Room
- Working Group B – Forestry Systems – Kingsland Room
- Working Group C – Ecology and Biology – Valcour Room
- Working Group D – Management and utilization – Shelburne Room
- Working Group E – Decision Sciences – Emerald Ballroom I
- Working Group F – Social and Related Sciences – Emerald Ballroom II

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**7:00 – 8:00 am – Green Mountain Division SAF – Business Meeting – Amphitheater**

All Green Mountain Division members are encouraged to attend in order to review and plan Green Division Business.

## Thursday am

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### 8:30 – 9:45 am – General Session – Emerald Ballrooms I-III

#### 8:30 – 9:45 am – Noon – Keynote Address 2

##### *A Thinking Community: The Forestry Profession and the Land Ethic*

**Amanda Mahaffey** - Northeast Regional Director, Forest Stewards Guild

**Dr. Lloyd Irland** - President, The Irland Group

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### 9:45 – 10:15 am – Break – Emerald Ballroom Promenade/Diamond Ballroom Foyer

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### 10:15 – 11:30 am – Concurrent Sessions 3 – Emerald Ballrooms I, II, III and Amphitheater

#### **Concurrent Session 3A – Emerald Ballroom I**

##### **Collaborative models for forest management, land protection, and conservation finance at the regional scale**

Moderator: Hallie Schwab, Highstead Foundation

- 10:15 Cold Hollow Woodlots: Collaborative Management on a Landscape Level
  - Charlie Hancock, North Woods Forestry/Cold Hollow to Canada
- 10:40 The Rhode Island Woodland Partnership: Standing up for the Original “Green Infrastructure”
  - Christopher Riely, Providence Water/Rhode Island Woodland Partnership
- 11:05 Landscape-Scale Conservation in the MassConn Woods: Strategies to Conserve Natural Land and Working Forests in Central, Southern New England
  - Ed Hood, Opacum Land Trust/MassConn Sustainable Forest Partnership

#### **Concurrent Session 3B – Emerald Ballroom II**

##### **Status and management of emerald ash borer threat to New England’s forests**

Moderator: Nate Siegert, U.S. Forest Service, Eastern Region-Forest Health

- 10:15 Emerald Ash Borer in Northern New England: An Overview of the Infestation and Potential Impacts
  - Nate Siegert, U.S. Forest Service, Eastern Region-Forest Health
- 10:40 Putting the forest first: managing within the context of EAB
  - Tony D’Amato, University of Vermont
- 11:05 Panel Discussion on Current State Guidelines and Regulations associated with EAB
  - Bill Davidson, New Hampshire Division of Forests and Lands
  - Sam Lincoln, Vermont Department of Forests, Parks and Recreation
  - Stephen Lavalley, APHIS PPQ (NH & VT)
  - Renee Vicary, APHIS PPQ (Maine)

#### **Concurrent Session 3C – Emerald Ballroom III**

##### **Low Density White Pine—Management and Silviculture**

Moderator: Karen Bennett, University of New Hampshire Cooperative Extension

- 10:15 Comparing results of low density and B-line thinning: results from UMaine Demeritt Forest
  - Robert Seymour, University of Maine
- 10:40 Low density management and risk factors affecting eastern white pine health
  - William Livingston, University of Maine
- 11:05 Implementing low density management on private lands
  - Alex Barrett, Long View Forest



## Thursday am-pm

### **Concurrent Session 3D - Amphitheater**

#### **Changing moose dynamics in northern New England and New York**

Moderator: Ryan Kilborn, Meadowsend Timberlands LTD

- 10:15 Adirondack Moose: Population status and potentially limiting factors  
– Jacqui Frair, SUNY-ESF
- 10:40 Moose Decline and Associated Parasites in Northern Vermont  
– Jake Debow, University of Vermont
- 11:05 Tick, Tick, Moose: 5-Year Summary of NH-ME Research  
– Pete Pekins, University of New Hampshire

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### **11:30 am – 1:20 pm – NESAF Awards Luncheon – Lake Champlain Exhibition Hall**

Includes an address by **Terry Baker, CEO of the Society of American Foresters**

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### **1:30 – 2:45 pm – Concurrent Sessions 4 – Emerald Ballrooms I, II, III and Amphitheater**

#### **Concurrent Session 4A – Emerald Ballroom I**

##### **Herbivory impacts on regeneration**

Moderator: Pieter van Loon, Vermont Land Trust

- 1:30 Moose Browsing and Forest Regeneration in Northern New England  
– Haley Andreozi, University of New Hampshire Cooperative Extension
- 1:55 Want oak? Clearcut and hunt!  
– Jeff Ward, Connecticut Agricultural Experiment Station
- 2:20 Slash Walls to Protect Forest Regeneration: Contracts, Costs and Preliminary Effectiveness  
– Peter Smallidge, Cornell University

#### **Concurrent Session 4B – Emerald Ballroom II**

##### **Forestry Speed Networking: Connecting forestry's future with its present**

Moderator: Tony D'Amato, University of Vermont

- 1:30 Panel Discussion:
  - Emily Meacham, Vermont Department of Forests, Parks and Recreation
  - Jeff Tilley, USFS Green Mountain National Forest
  - Hannah Dallas, Vermont Department Forests, Parks and Recreation
  - Jennifer Fish, Massachusetts Department of Conservation and Recreation
  - Barrie Brusila, Mid-Maine Forestry
  - Eric Hansen, Ferrucci and Walicki, LLC
- 1:55 Student and Professional Speed Networking Session: Meeting the Forestry Community - Career Paths and Experiences
- 2:20 Student and Professional Speed Networking Session: Joining the Forestry Community - Employment and Professional Connections

#### **Concurrent Session 4C – Emerald Ballroom III**

##### **Low Density White Pine Management—Marketing and Utilization**

Moderator: Karen Bennett, University of New Hampshire Cooperative Extension

- 1:30 Managing and marketing white pine: a manager's perspective  
– Keith Kanoti, University of Maine
- 1:55 Managing eastern white pine stem quality – the premium solution  
– René Germain, SUNY-ESF
- 2:20 Low Density Thinning and Pine Lumber Quality – The Sawmills' Perspective  
– Jim Frohn, UNH Cooperative Extension

## Thursday pm

### **Concurrent Session 4D - Amphitheater**

#### **How do sugaring and forestry relate?: Modern sugaring techniques and their intersection with forestry**

Moderator: Mark Cannella, University of Vermont Extension

- 1:30 Intersection of forestry and sugaring  
– Mark Isselhardt, University of Vermont Extension and Proctor Maple Research Center
- 1:55 Forester discussion of approaches to managing forests for sugaring - facilitated by M. Isselhardt
- 2:20 Forester discussion (continued)

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### **2:45 – 3:15 pm – Break – Emerald Ballroom Promenade/Diamond Ballroom Foyer**

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### **3:45 – 4:30/5:30 pm – Concurrent Sessions 5 – Emerald Ballrooms I, II, III and Amphitheater**

#### **Concurrent Session 5A – Emerald Ballroom I**

##### **Regional efforts to conserve and sustain future forested landscapes**

Moderator: Nancy Patch, Vermont Department of Forests, Parks, and Recreation

- 3:15 Conserving the Stage: Mapping a Resilient and Connected Landscape  
– Jim Shallow, The Nature Conservancy
- 3:40 Vermont Conservation Design: A scientific vision for an ecologically functional landscape  
– Bob Zaino, Vermont Fish and Wildlife Department
- 4:05 Designing sustainable landscapes: a landscape conservation design for the northeastern US  
– Bill DeLuca, University of Massachusetts

#### **Concurrent Session 5B – Emerald Ballroom II**

##### **Managing for forest ecosystem services across New England ownerships**

Moderator: Jared Nunery, Vermont Department of Forests, Parks and Recreation

- 3:15 Filling the forest carbon sink: Forest management, GHG emissions, and offset markets  
– John Gunn, University of New Hampshire Cooperative Extension
- 3:40 Management for Ecosystem Services on Family Forests  
– Jesse Caputo, University of Massachusetts
- 4:05 Forest carbon project feasibility for private landowners: financial viability and spatially explicit co-benefits  
– William Keeton, University of Vermont

#### **Concurrent Session 5C – Emerald Ballroom III**

Note: This session runs until 5:30 pm

##### **Flash Talks**

Moderator: Tony D'Amato, University of Vermont

- 3:15 The impacts of terrestrial invasive plants on natural and restored riparian forests in northern New England  
– Chad Hammer, University of New Hampshire
- 3:26 Southern New England Stumpage and Price of Forestry Trends  
– Helena Murray, University of Massachusetts
- 3:37 Understory response to gap-based multi-aged silviculture  
– Maggie Mansfield, University of Maine

--- flash talks continued on next page ---

## Thurs. pm/Fri. am

### **Concurrent Session 5C – Flash Talks** – continued

- 3:48 Long-term Regeneration Dynamics in Northern Hardwood Forests of the Northeast United States  
–Nicole Rogers, University of Maine-Fort Kent
- 3:59 Mobilizing Continuous Forest Inventory Data for Regional Analyses of Patterns and Trends  
– James Duncan, Forest Ecosystem Monitoring Cooperative and University of Vermont
- 4:10 Northeastern Harvest Roads: How Topography, Prescription, and Extraction Impact Trail Network Extent  
– Rob Turnbull, Yale School of Forestry and Environmental Studies
- 4:21 Adaptive Silviculture for Climate Change: Examining transitional strategies for adapting northern forests to global change  
– Peter Clark, University of Vermont
- 4:32 Ecology and Management of Lowland Northern White-Cedar  
–Laura Kenefic, U.S. Forest Service, Northern Research Station
- 4:43 Learning from the past, managing for the future: Lessons from a 65-year study in forest management  
– Maren Granstron, University of Maine
- 4:54 New Hampshire Forest Clearing Inventory  
– Alexandra Kosiba, Forest Ecosystem Monitoring Cooperative and Univ. of Vermont
- 5:05 Fuel management approaches while harvesting northern mixedwood stands in Maine  
– Bethany Munoz Delgado, U.S. Forest Service, Northern Research Station
- 5:16 Growth and yield of hybrid poplar and white spruce in pure and mixed plantations in eastern Maine  
– Joshua Puhlick, University of Maine

### **Concurrent Session 5D – Amphitheater**

#### **Tools and tactics for managing forests for adaptation and mitigation**

Moderator: Caitlin Littlefield, University of Washington

- 3:15 Moving the Needle: Manager-Identified Needs for Advancing Climate Adaptation  
– Maria Janowiak, Northern Institute of Applied Climate Science
- 3:40 Strategies and Approaches for Managing Forest Carbon  
– Todd Ontl, Northern Institute of Applied Climate Science
- 4:05 Forestry with Birds—and Climate and Carbon—in Mind  
– Steve Hagenbuch, Audubon Vermont

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### **4:45 – 5:45 pm – NESAF Policy Committee Meeting – Carleton Boardroom**

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### **5:00 – 7:00 pm – Student Quiz Bowl – Amphitheater**

University of Vermont, University of Maine, University of Massachusetts and Paul Smith's College

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### **7:00 pm – Alumni Socials – hotel lobby**

University of Vermont, University of Maine, Paul Smith's College and Yale University

--- Friday's schedule is on next page ---

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**FRIDAY - MARCH 29<sup>th</sup>**

**8:30 am – 1:00 pm Workshop and Field Tours**

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**Workshop – Valcour Room, DoubleTree Hotel**

**8:30 am – 12:00 pm – Practical Ethics Workshop**

- Marianne Patinelli-Dubay, State University of New York College of Environmental Science and Forestry

**Field Tours – various locations - \*\*\*transportation is on your own\*\*\***

**Tour #1 - 9:00 am – 11:00 am – Burlington Electric McNeil Station - wood chip plant**

Leaders: Bill Kropelin, Betsy Lesnikoski

Meeting Location: McNeil Plant, park at flagpole. 111 Intervale Rd, Burlington, VT

Meeting Time: 9:00 am

Suggested Departure time from the DoubleTree: 8:45 am

**Tour #2 - 9:00 am – 12:00 pm – A. Johnson Company – hardwood sawmill**

Leaders: Paul Frederick, Tom Yager, Rob Fields

Meeting Location: DoubleTree Conference entrance to caravan to A. Johnson Co. (995 South 116 Road, Bristol, VT)

Meeting Time: 7:50 am

**Tour #3 - 9:00 am – 12:00 pm – University of Vermont - Proctor Maple Research Center**

Leader: Mark Isselhardt

Meeting Location: St. Thomas' Church parking lot - 6 Green St, Underhill Center, VT.

Carpool in as few cars as possible to PMC at 58 Harvey Rd, Underhill, VT.

Meeting Time: 8:40 am

Suggested Departure time from the DoubleTree Hotel: 8:00 am

**Tour #4 - 9:00 am – 1:00 pm – Low Density Pine Silviculture**

Leaders: Russell Barnes, Alex Barrett, Karen Bennett, Jim Frohn, Robert Seymour

Meeting Location: 218 Archer Road, Reading, VT. The house is at the end of Archer Road. There are no other houses on Archer Road.

Meeting Time: 9:00 am

Suggested Departure time from the DoubleTree Hotel: 6:45 am

**Tour #5 - 9:00 am – 12:00 pm – Local Silviculture**

Leader: Ethan Tapper Meeting Location: 1400 Economou Road, Huntington, VT

Meeting Time: 9:00 am

Suggested Departure time from the DoubleTree Hotel: 8:15 am

**Tour #5 - 9:00 am – 12:00 pm – Marsh-Billings-Rockefeller National Historic Park**

Leaders: Ben Machin, Kyle Jones

Meeting Location: Billings Farm and Museum Parking Lot, 69 Old River Rd, Woodstock, VT

Meeting Time: 9:00 am

Suggested Departure time from the DoubleTree Hotel: 7:15 am

Questions/problems during Field Tours can be addressed to Mike White – 802-345-7342.