New England Botanical Club

"Away Meeting" – Saturday, October 13th, 2018
Harvard Forest, Petersham, Massachusetts

The meeting will include options for a field trip or workshop during the day (10 AM – 4 PM), a tour of the *Hemlock Hospice* installation in the late afternoon (4 – 5:30 PM), and a research presentation by Dr. Aaron Ellison on environmental change and the loss of foundation tree species in New England forests at 7:00 PM+ in Harvard Forest's Fisher Museum.

Harvard Forest is located at 324 North Main St. in Petersham, MA. From Route 2, take Exit 17 and proceed 3 miles south on Rt. 32 toward Petersham. Harvard Forest is on the left. Park in the main parking lot at the front of Shaler Hall and the Fisher Museum. Additional directions.

This event requires pre-registration. Please submit your completed registration form by email to Jesse Bellemare (jbellema@smith.edu**) by Friday, October 5th.** Please include "NEBC October 2018 Away Meeting Registration" in the email subject line. The $20 registration fee can be paid via PayPal on the NEBC Upcoming Meetings page.

OR a check can be mailed to: Jesse Bellemare, Dept. of Biological Sciences, Clark Science Center, 44 College Lane, Northampton, MA 01063.
Online payment via PayPal is preferred, if possible.

Scholarships are available to cover the cost of registration for undergraduate and graduate students – email jbellema@smith.edu to inquire.

Full detailed schedule on next page.

SCHEDULE OF EVENTS
NEBC at Harvard Forest - Saturday, October 13th, 2018

10:00 AM-4:00 PM

***Option 1*. Botanical field walk to Soapstone Hill and the Gorge in Petersham** led by field botanist Matthew Charpentier. Once part of the town of Dana (now lost to Quabbin Reservoir) and the site of a soapstone quarry, Soapstone Hill provides one of the best views of the Quabbin Reservoir in the region. The walk will explore the edge of a small stream at the base of a talus slope with some nutrient enrichment, and areas around the margins of an extensive boulderfield. The field trip group will convene by 10 AM in the parking lot at Harvard Forest (Rt. 32 in Petersham) before carpooling to the site. This foray will entail about 3 miles of walking roundtrip, with some uneven terrain, so please come prepared. *Please also bring a bagged lunch and water.*

***Option 2*. Dendroecology and Tree-Coring Workshop** with Dr. Neil Pederson, a Senior Ecologist at Harvard Forest. If a tree falls in the woods and no one is around to hear it, does it make a sound? Of course. Better yet, the event gets recorded in the rings of neighboring trees. Tree rings can provide precise, annual and seasonal details of climate, ecology, and competition (and so much more) over the past several centuries. As a part of the Dendroecology Workshop, participants will learn the methods that tree-ring scientists use to learn the language of trees. By the end of the day, participants will begin teasing out the stories some trees at the Harvard Forest have to share over the past century of their lives. Be prepared for some outdoor hiking. *Please bring a bagged lunch and water.* Convene by 10 AM in the parking lot at Harvard Forest (Rt. 32 in Petersham).
Between 10 AM-4 PM, participants will:

- Visit a forest in the Slab City Tract at Harvard Forest where a fabulous mix of canopy trees include shagbark hickory, sugar maple, white oak, and eastern hemlock [among many others]
- Core representatives of these trees so participants will be exposed to the main wood anatomies of trees living in the transitional forests at the Harvard Forest
- Learn the laboratory techniques used to process tree cores
- Hear a presentation on the how-to and the things that can be interpreted from tree rings
- Conduct lab work where we will age the trees and interpret their stories
- *PLEASE NOTE*: Space is limited for this workshop – register soon if you would like to participate!

4:00-5:30 PM Tour of the *Hemlock Hospice* installation with Dr. Aaron Ellison of Harvard Forest. From the Harvard Forest website: "*Hemlock Hospice* is an art-science collaboration between David Buckley Borden, 2016-2017 artist and designer-in-residence at the Harvard Forest, and Harvard Forest Senior Ecologist Aaron Ellison. It features innovative art installed in the Fisher Museum and along a new interpretative walking trail, focused on eastern hemlock, a foundation tree in eastern forests that is slowly vanishing from North America as it is weakened and killed by a small insect, the hemlock woolly adelgid. *Hemlock Hospice* blends science, art, and design in respecting hemlock and its ecological role as a foundation forest species; promoting an understanding of the adelgid; and encouraging empathetic conversations among all the sustainers of and caregivers for our forests—ecologists and artists, foresters and journalists, naturalists and citizens—while fostering social cohesion around ecological issues." More info and photographs are on the Hemlock Hospice web page.

5:30-7:00 PM Dinner. *Bring-your-own-dinner* to eat at Harvard Forest, or head to nearby restaurants in Athol for take-out or a quick sit-down dinner. Participants are encouraged to bring food and join an informal picnic dinner outside, if weather permits, or use seating in the Common Room area inside Harvard Forest's Shaler Hall. However, please note that kitchen facilities and supplies will not be available at Harvard Forest – plan to bring food that is self-contained and does not require you to use a stove, microwave, or refrigerator to store or prepare.

7:00-8:00 PM Presentation by Dr. Aaron Ellison of Harvard Forest: "*Things Fall Apart: Land-Use History, Non-Native Insects, Climatic Change, and the Decline of a Forest Foundation Species*". Foundation species create and define particular ecosystems, control in large measure the distribution and abundance of associated flora and fauna, and modulate core ecosystem processes. In forests, foundation species are large, long-lived, late-successional trees whose ecological characteristics and functions rarely co-occur in other species. In New England, eastern hemlock (*Tsuga canadensis*) is the foundation species, but it is declining and dying throughout its range because of additive and interactive effects of climatic change, the nonnative hemlock woolly adelgid (*Adelges tsugae*), and anthropogenic activities. In this talk, I describe aspects of eastern hemlock's unique ecological characteristics that contribute to its foundational role and discuss data from historical reconstructions, ongoing observations, and manipulative experiments at Harvard Forest and throughout southern New England aimed at understanding the structure and dynamics of the forests of our future.

8:00 PM+ Refreshments and Dessert. Join NEBC members and guests for refreshments and a sampling of desserts after the talk. If you are so inclined, please bring a dessert to share.