

Harvard Forest Field Research* Checklist

*Find out about other Harvard Forest research resources including laboratories, greenhouses and experimental gardens, archives, herbarium, and field wireless here: <http://harvardforest.fas.harvard.edu/research-facilities-and-resources>

PLANNING AHEAD (for example, if writing a grant that includes Harvard Forest as a research site, go through this checklist *before* you submit)

- Complete a research Project Application (<http://harvardforest.fas.harvard.edu/conducting-research>)
- For assistance in identifying field sites that meet the project needs, contact the Site & Research Coordinator, Audrey Barker Plotkin – aabarker@fas.harvard.edu
- For work in the following research sites, contact the lead researchers directly and copy Audrey Barker Plotkin (aabarker@fas.harvard.edu)
 - a) Within a 1 km radius of the **EMS Tower** - Bill Munger – jwmunger@seas.harvard.edu
 - b) Within a 1 km radius of the **NEON Tower** – Cory Ritz - critz@neoninc.org
 - c) Within the 35 ha **SIGEO Forest Dynamics Plot** or the **Hemlock Tower area** – David Orwig - orwig@fas.harvard.edu
 - d) **Soil Warming Experiments** or **Hot Plants Experiment** – Jerry Melillo – jmelillo@mbl.edu
 - e) **Nitrogen Saturation (Chronic N Amendment) Study, Soil Warming x Nitrogen Addition Experiment** or **DIRT Experiment** – Serita Frey – serita.frey@unh.edu
 - f) **Warm Ants Experiment, Harvard Pond** or **Tom Swamp Bog** – Aaron Ellison – aellison@fas.harvard.edu
 - g) **Hemlock Removal Experiment** or **Hurricane Simulation Experiment** – Audrey Barker Plotkin – aabarker@fas.harvard.edu
 - h) **Hydrological** or **meteorological stations** – Emery Boose – boose@fas.harvard.edu
 - i) **Tower installations, field wireless network, or field electrical power**– Emery Boose – boose@fas.harvard.edu and/or Mark VanScoy - mvenscoy@fas.harvard.edu
- Plan for costs (http://harvardforest2.fas.harvard.edu/web/fees_byyear.php?parent=9&year=2012). Contact Edie Ellin (ellin@fas.harvard.edu) for major projects or grant sub-contracts
- Review Harvard Forest data policy (<http://harvardforest.fas.harvard.edu/data-archive/information-management-policy>)
- Research requiring shotgun use must have an approved Research Shooting Plan, and must follow all Harvard Forest research shooting policies and procedures (<http://harvardforest.fas.harvard.edu/site-and-facilities>).
- Studies using isotropic tracers require additional review and discussion.
- Secure additional permits if needed. For example, if work involves vertebrates, an Institutional Animal Care and Use Committee (IACUC) permit is needed from your home institution and in some cases, Harvard University as well – contact Edie Ellin (ellin@fas.harvard.edu) to discuss. Some manipulations or installations require permission from Massachusetts DEP or the Town of Petersham Conservation Commission – contact Audrey Barker Plotkin (aabarker@fas.harvard.edu) to discuss.

GETTING STARTED

- Have an approved RPA, and any other necessary permissions (IACUC, research shooting, etc.)
- Provide a detailed map of study site locations to Audrey Barker Plotkin (aabarker@fas.harvard.edu). GPS coordinates are preferred; please specify the coordinate system and datum used. Also please provide information about how plots will be marked in the field.
- If working on the Prospect Hill Tract, ask Mark VanScoy (mvenscoy@fas.harvard.edu) to put you on the EMS Site list (emssite@fas.harvard.edu) for notifications of road closings, power outages, etc.

Non-motorized transport within the Harvard Forest is preferred. If driving for research use is necessary:

- Be familiar with which woods roads are accessible by regular and 4WD vehicle, and be aware of changing conditions with weather and season
- Speed limit is 10 mph
- Using Harvard Forest vehicles: <http://harvardforest.fas.harvard.edu/vehicle-policy>
- Check out a gate key from Laurie Chiasson (chiasson@fas.harvard.edu) if needed

ALONG THE WAY

- Update RPA annually in the spring, or immediately for project expansion or major changes
- Keep the Site Coordinator informed of site impacts associated with a research project, and contact relevant research site leads to provide information and address any concerns. Sample removals, soil excavation, tree cutting, and installations or manipulations are examples of site impacts requiring notification and approval:
 - a) Within a 1 km radius of the **EMS Tower** - Bill Munger – jwmunger@seas.harvard.edu
 - b) Within a 1 km radius of the **NEON Tower** – TBD - email
 - c) Within the 35 ha **SIGEO Forest Dynamics Plot** and the **Hemlock Tower area** – David Orwig - orwig@fas.harvard.edu
 - d) **Soil Warming Experiments** or **Hot Plants Experiment** – Jerry Melillo – jmelillo@mbi.edu
 - e) **Nitrogen Saturation (Chronic N Amendment) Study, Soil Warming x Nitrogen Addition Experiment** or **DIRT Experiment** – Serita Frey – serita.frey@unh.edu
 - f) **Warm Ants Experiment, Harvard Pond** or **Tom Swamp Bog** – Aaron Ellison – aellison@fas.harvard.edu
 - g) **Hemlock Removal Experiment** or **Hurricane Simulation Experiment** – Audrey Barker Plotkin – aabarker@fas.harvard.edu
 - h) **Hydrological** or **meteorological stations** – Emery Boose – boose@fas.harvard.edu
 - i) **Tower installations, field wireless network, or field electrical power** – Emery Boose – boose@fas.harvard.edu and/or Mark VanScoy - mvenscoy@fas.harvard.edu
- Hunting is allowed on Harvard Forest land, except in small, posted research areas. Be aware of hunting season (http://www.mass.gov/dfwele/dfw/recreation/hunting/hunting_home.htm); blaze orange clothing is recommended, especially during deer hunting season.
- Have a field safety plan. Cell phone coverage is limited; Harvard Forest has a few radios available to lend.
- Remove superfluous plot markers and unused equipment from study sites annually.
- Data and metadata are due to the electronic archive within two years of collection (<http://harvardforest.fas.harvard.edu/data-archive/guidelines-for-submission>)
- Send copies of publications & press resulting from your work at Harvard Forest to aabarker@fas.harvard.edu

WRAPPING UP

- Plan permanent field marking of manipulations with lasting signatures (e.g. isotopic tracers) with Audrey Barker Plotkin (aabarker@fas.harvard.edu). Otherwise, remove all field markings unless arrangements for continued maintenance have been made.
- Data are due to the electronic archive within two years after collection; review & update metadata if needed
- Send copies of publications & press resulting from your work at Harvard Forest to aabarker@fas.harvard.edu

Harvard Forest Tracts & Roads



Legend

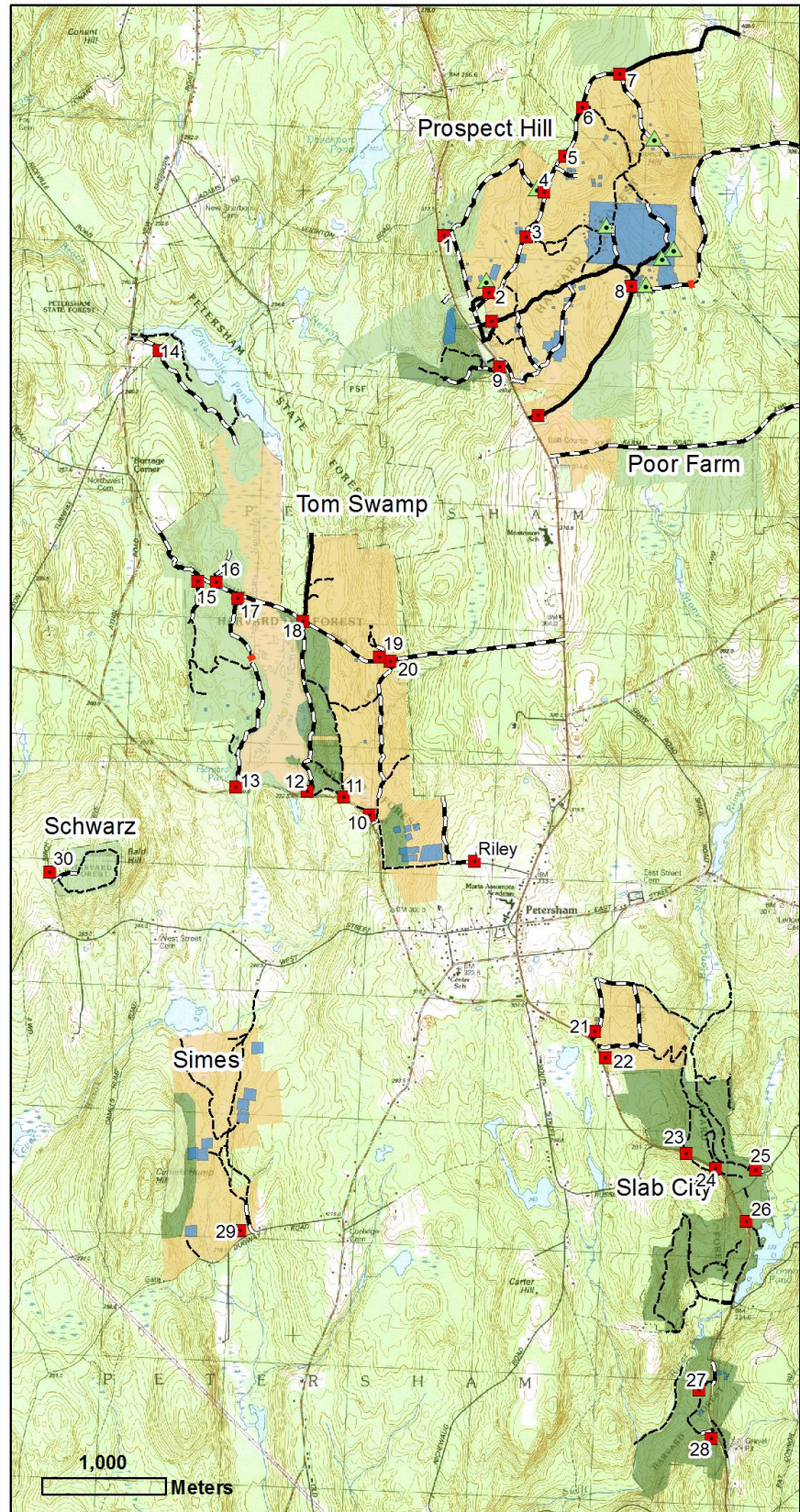
- Long-term plot
- Tower
- forest gates

Road Designation for Research

- R1, all research vehicles
- R2, 4-wheel drive with high clearance only
- R3, no vehicle access
- Road flooded

Land Use Zone

- Flexible Research: all research (including manipulations) compatible with existing studies
- Wildland: low-impact sampling, with approval
- Woodland: research compatible with forest management plan



Date: 7/24/2014