



Harvard Forest-LTER Schoolyard Ecology

Frequently Asked Questions

FAQ



1. Why take valuable class time to engage my students in field ecology?

Yes, time in the classroom is ever tight, we know! Our teachers still tell us it's worth taking the time to engage students in authentic science, aligned with state and federal science and math standards. One teacher said it all when she provided this simple description of HF Schoolyard Ecology:

“Real Science; Real Scientists; Real Issues”

If you want to prepare your students to become scientists or even to understand science in a way they can make informed decisions as world citizens, you need to have them practice real science. As teachers, you cannot be experts in every aspect of your field, so we offer you the opportunity to be mentored directly by a real expert; a professional Ecologist.

2. I have seen a variety of field science experiences available through other organizations. What makes the Harvard Forest Schoolyard program unique?

a. Experience and Focus: As an ecological research institution affiliated with Harvard University for over one hundred years, Harvard Forest is a globally known center for research and education. Our Ecologists are experts in their areas of study and are talented educators in their own right.

b. Regional Scale: Our location in central New England allows us to provide direct in-person or email based communication with each school we work with in New England. For many, our workshops are within a reasonable drive.

c. Topics: Our selection of project topics spans an array of contemporary ecological issues and suits a variety of educational goals and natural features available outside a given classroom. Take a look at our offerings and decide if these topics fit well with your objectives and location. See below for more on topics.

d. Real Data! - Teachers and students participating in our projects have access to an easy to use, extensive online database. So what? This means your students will be participating in of the most important and overlooked aspects of science at the elementary through high school levels: Data analysis. Many online field studies lack this element, although it is the whole reason scientists collect data in the first place! Not only do Schoolyard program students have access to their own data, but they can compare their data with other classes who have submitted data for 3-9 years, across latitudinal, longitudinal, elevation gradients that make for interesting cross site analysis. We know that the task of data analysis can sound intimidating, but workshops with Harvard Forest Staff mentorship help make data management easy and accessible. Read more about our online graphing tools and special workshops below.

e. Year-round support- Any time throughout the year as questions and challenges arise, you can contact the Schoolyard Ecology Coordinator and ask for help.

f. Project Materials are provided. Our field project materials are fairly simple but can be costly and time-consuming to purchase. We provide all the materials you will need to set up your field site and get students collecting data.

3. How do I choose which project to sign up for?

Please look over the project introduction/overview for each project on our website at: <http://harvardforest.fas.harvard.edu/research-projects>. Pay attention to:

- a. How many field visits are required at what time of year? Will that fit into your class schedule?
- b. Note what natural features are needed for this study. For example, you will need to have hemlock trees in walking distance to your school in order to participate in the Woolly Bully project. For the Our Changing Forests project, you will need to set up a 10 meter by 10 meter plot, and obtain permission to place small permanent corner markers at the site. For the Buds, Leaves and Global Warming study, you will need to have 10 or more deciduous (drop their leaves in winter) trees with branches in reach of your students.
- c. Clearly, you will want the subject matter to relate to your curriculum.
- d. Note that all projects correlate with some state and national frameworks, but it is worth looking them up and deciding which frameworks are most important for you to align with. Finally, which one inspires you the most? Teacher

enthusiasm is a very important part of what makes a project successful or not. If possible, choose the theme that interests you the most, personally.

4. Is the Summer Institute designed to be a one-time professional development workshop, or are we expected to then participate in a field study during the year at our school?

At our Summer Institute, we are specifically training teachers to set up a year-long, simple field site in walking distance to your school. The Harvard Forest Schoolyard program invests substantial time, energy, and materials in each teacher we train, with the understanding that you will directly involve your students in the important experience of field study. This is not the kind of training to attend if you are simply looking to gain content knowledge to incorporate into your general teaching.

5. How much of a time commitment will leading a schoolyard project involve throughout the school-year?

This will vary depending on the following:

a. Which project you choose: The project involving the least time is the Woolly Bully project, which requires a minimum of 2 field visits a year. Being that these field visits should be in walking distance to the school; this may mean a 20-60 minute visit depending on how you structure the experience for your students. We then ask that you submit data on our online database which will require about 1 hour or less for each of the 2 seasons you enter data. The fewer times you go into the field, the less time it takes to enter data, and vice versa. The Buds, Leaves and Global Warming study involves the most time with a minimum of 4 field visits in the fall, and 4 in the spring. Many teachers choose to bring their students out more often and collect more data to tell a more complete story.

b. How much class time you want to dedicate: Some teachers do extensive preparation for their projects. They do pre-assessments and post-assessments. They might choose to lead practice sessions, introducing the field data sheets in the classroom prior to going outside. Some teachers have their students work on related classroom projects and activities. All of this is totally at the discretion of individual teachers.

c. Optional Harvard Forest workshops: All Schoolyard teachers are invited to attend a data workshop in the fall and a spring workshop in April, led by Harvard Forest staff. These workshops provide opportunities for you to learn from our data manager, project Ecologist and education staff, at no additional cost to you. Again, these workshops are optional. If one chooses to attend the 6- hour workshops, PDPs are issued for each hour of training.

- i. Data Workshop: While the Schoolyard database is simple to use, we find some teachers like to receive support in person the first time they enter project data online. We provide detailed, hands-on support during our data workshop.
- ii. Spring Workshop: Teachers who attend the spring workshop benefit from Ecologist-led field walks to look at seasonal changes related to project themes. New teachers are able to pick up ideas, inspiration, and wisdom offered by experienced teachers who share what they've learned and developed over years of leading these projects in their schools.

6. Am I able to choose which project to participate in *after* the Summer Institute? Can I be trained in more than one project in a given year?

You must choose one project to participate in at the time of Summer Institute registration. Part of the workshop is spent in break-out groups by project, and we only order project materials for the number of teachers registered for each project group. As a result, teachers are only trained in one project in a given year.

7. Which schools are currently participating in HF-LTER Schoolyard projects?

See our Schoolyard Ecology Schoolyard Map, and interactive project-based maps that connect with classroom data at: <http://harvardforest.fas.harvard.edu/participating-schoolyard-field-site>

8. How many students are currently involved in HF-SLTER projects?

Over 3,500 students participated in schoolyard projects in 2013-14.

9. How many teachers are likely to attend the Schoolyard Ecology Summer Institute on August 21st?

20-30 teachers will be accepted into the Summer Institute. Each project group will have anywhere from 4-15 teachers depending on registrants' interest and manageable group sizes.

10. How are the participants selected?

Registrations are confirmed on a first come-first served basis. Priority will be given to classroom teachers who know they will be able to implement projects with their students in the fall. We do often allow environmental educators to attend the workshop as long as they see potential for implementing these projects with students in some capacity.

11. What are the costs?

The registration fee for the Schoolyard Ecology program is \$50.00. This fee includes Summer Institute participation; project materials; a teacher notebook; participation in our optional follow-up workshops; access to online database; and ongoing email support throughout the year. Of course, delivering this level of program support takes a lot more than \$50 per participant. We depend on donations from private donors and the National Science Foundation to finance your participation.

12. How do I register?

Download and print our registration form from:

<http://harvardforest.fas.harvard.edu/sites/harvardforest.fas.harvard.edu/files/HF%20teacher%20registration%205-16-2014.pdf>

Mail it to Pamela Snow at Harvard Forest along with a check for \$50.00 made out to Harvard University.

13. How can I get an answer to my remaining question(s)?

Email your questions to Pamela Snow at psnow@fas.harvard.edu.