



Fertile Woods, Taconic Mts., NY, 3-5 May



Cedar Swamp, N. VT, 30 May-1 June



Rich Fens, N. VT 30 May-1 June



Granite Hills, Marshfield-Peacham VT, 27-29 June



Poor Fens and Marshes, Paul Smiths, NY, 25-27 July



Raised Bog, , Altamont, NY, 25-27 July



Beaver Country, Somerset, VT, 22-24 Aug



Delta and Marshes, Ausable, NY, 19-21 Sept



West Champlain Hills, Essex, NY, 19-21 Sept

NORTHERN FOREST ATLAS TRAVELING SCHOOL OF BOTANY AND ECOLOGY ♦ ADIRONDACKS & VERMONT
SIX WEEKENDS, MAY TO SEPTEMBER ♦ BRETT ENGSTROM, GRACE GLYNN, JERRY JENKINS, MATT PETERS, PATTI SMITH
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GENERAL INFORMATION

North Branch Nature Center, Montpelier, Vermont, and the **Northern Forest Atlas Project**, Lake Placid, New York, are pleased to announce a Traveling School of Botany and Ecology, to take place in Vermont and northern New York, on six weekends between May and September, 2025.

The school will be part course and part seminar: We will teach plant identification through classes and field work, and study ecology as a group by exercises and discussions. Our field sites will be about a dozen wild Northern Forest habitats: rich woods, ledges, fertile coves, rich and poor fens, cedar swamps, boreal forests, granite hills, a large acid bog and a giant raised one, a river delta and swamp forest, and a dry-rich ledgy hill. It will be staffed by a rotating pool of five instructors, plus a course manager, a volunteer artist, and a volunteer diarist and roustabout.

We will meet one weekend a month from early May to late September at six different field bases, three in Vermont and three in New York. At each field base we will have tent sites, a classroom, a kitchen and bathrooms. We will travel with our own library, microscopes, field kitchen, pizza oven, and living collection of plants to study. We will use teaching methods for ID and ecology developed in Atlas courses over the last ten years, and use the Atlas photo guides, a new field guide to woody plants, and draft chapters from a new guide to ecological patterns for texts.

Format: Six two-day meetings, each at a different field base, within 115 miles of Burlington, Vermont and 125 miles of Lake Placid, NY. Staff will set up and do reconnaissance on Friday. We will serve dinner on Friday and Saturday and buffet breakfasts and lunches on Saturday and Sunday. Classes will start with laboratory problems at 8:30 Saturday and Sunday, followed by field work and ecological exercises through the day. There will be ecology discussions after lunches and Saturday dinner.

Subjects: Field identification of woody plants, sedges, mosses, grasses, and characteristic herbs. Functional characters of dominant species. Ecological comparisons of soils, diversity, life forms, biostructures, and topographic patterns.

Goals: To teach plant identification, which we know pretty well. To work on observational ecology, which I am writing about but still learning, as a group. To document what we find out, and incorporate this into a book on ecological patterns I am writing. To bring a batch of smart people together in beautiful places and turn them loose to see what they discover.

Instructors: Jerry Jenkins for ecology and geography, all weekends; Brett Engstrom, Grace Glynn, and Matt Peters, plant ID & ecology, two or three

weekends each. Patti Smith, beaver and wetland history, weekend 5. **Staff:** Braden DeForge, Course Manager and Field Foreman, all weekends. John Davis, Diarist and First Roustabout. Susan Sawyer, School Artist, Fen Leader, and Top Drawer.

Food: Vegetarian, fresh-made, and local: grains, eggs, dairy, fresh veggies from Mighty-Foods farm in Shaftsbury, breads from local bakeries, including the famous Sunniness Studios sourdough from White Creek. Soups, salads, pizza, tortillas, chapatis, naan, made on site. Kitchen work to rotate among the group.

Quarters: We should have indoor lab and kitchen space for all weekends. Students and staff will camp or commute. We will be at state parks for two weekends, and at North Branch Nature Center, Paul Smith's Visitor Interpretive Center, Bonnyvale Environmental Education Center, and my own White Creek Field School for the other four.

Lab equipment: We will have a traveling library and a fleet of about a dozen microscopes—classy old German M5s and RAs, American Magiscopes—and lights that will travel with us, plus drawing and dissecting stuff, plus lots of jars to set up our classroom libraries of fresh plants to study.

Students, Prerequisites, Costs: We have room for 10 students. The level will be approximately upper undergrad or beginning grad; some experience with plant ID will be a great asset. We will start at the beginning with ID, but won't stay at the beginning for very long. **Cost** will be \$2,000 for six weekends, including food. We can offer scholarships through the Northern Forest Atlas Foundation. If you are interested, we will find a way for you to attend.

Physicality: We will be out much of the day, but not going very far, or very steep, except if we do N. Bouquet, and there is a trail there. We will likely use boats at Ausable and maybe at Paul Smith's. Figure on a mile or two most days, at botanist's pace, on or off trail.

Commitment: We are looking for students who can work as a group and apply what they learn one month to interpreting what they see the next month. **We thus will give preference, especially for scholarships, to students who will do all or most of the weekends. If we have openings, we can take some students for single weekends, but would only recommend this if you have a strong botany background.** Said another way, we are going to try to create a group who can start together with the spring flowers in May, work as a group and build up a body of knowledge, and stay together to the late sedges and flowers in September.

CALENDAR

Schedule:

Weekend 1, 3-5 May, White Creek Field School, White Creek, N.Y. Brett Engstrom, Jerry Jenkins. Rich woods, glades, ledges of the Notch, Taconic Mountains. Sedges, mosses, woodies, herbs.

Weekend 2, 30 May-1 June, North Branch Nature Center, Montpelier, VT. Grace Glynn, Matt Peters, Jerry Jenkins. Rich peatlands: a rich fen and cedar swamp in Calais and S. Woodbury. Sedges, mosses, woodies, herbs.

Weekend 3, 27-29 June, Groton State Forest, Vermont. Brett Engstrom, Jerry Jenkins. Granite hills, ledges, and summits. Large bog complex at Peachem Bog. Sedges, mosses, woodies, herbs.

Weekend 4, 25-27 July, Paul Smith's VIC, Paul Smith's, N.Y. Grace Glynn, Jerry Jenkins, perhaps Matt Peters. Boreal lowland forests, poor fens at Paul Smith's. Then either a giant raised-peatland complex at Spring Pond Bog or fens along the Osgood River by boat. Sedges, sphagnum, woodies.

Weekend 5, 22-24 August, Bonnyvale Environmental Education Center, Brattleboro, Vermont. Patti Smith (Bonnyvale staff), Brett Engstrom, Jerry Jenkins. Streams and wetlands in the southern Green Mountains; beaver flows and shore-line marshes along Harrisville Brook in Marlboro and the East Branch of the Deerfield in Somerset. Grasses, sedges, herbs, including asters and goldenrods.

Weekend 6, 19-21 September, Ausable Point State Park, N.Y. Grace Glynn, Matt Peters, Jerry Jenkins. Beaches, marshes, and river shores in the Ausable Delta on the west side of Lake Champlain; fall plants in dry-rich forests in the West Champlain Hills in Essex. Grasses, sedges, herbs, including asters and goldenrods.

The field bases and dates are fixed. Where we go from base may depend on weather and water levels.



Alluvial woods at Ausable Point, N.Y., Weekend 6.



Boulder in rocky woods in the Notch, White Creek, N.Y., Weekend 1.



Poor fens at Barnum Pond, Paul Smiths, NY, Weekend 4

PLACES AND PLANTS

Weekend 1, 3-5 May, White Creek Field School, White Creek New York. We will be in the Notch, with steep ledge woods, fertile talus and ravines, medium fertility upper slopes, sub-acid summits and glades. Diverse primary woods, wet and dry ledges, three oaks, two hickories, four maples, four birches. We will focus on woodies, mosses on boulders and ledges, early sedges and grasses, and spring herbs. Nothing really rare, but some you won't know and will be pleased to meet.



Carex plantaginea,
beech bud and flower,
dutchman's britches,
rhodobryum, *Tortella*.

Weekend 2, 30 May-1 June, Rich peatlands in Calais and S. Woodbury, Susan and Matt's back yard. Will do a cedar swamp one day and a rich fen the next. Emphasis will be on woodies, sedges, mosses, and peatland herbs. Ecological question will be how peatlands differ from minerotrophic swamps, how wooded and open peatlands differ from each other, and why the open ones are open at all. This is ordinary stuff in north Vermont, but exotic pretty much everywhere else in the Northeast.



From Chickering Fen: *Sphagnum subsecundum* group, *Campylium stellatum*,
Arethusa growing in *Sphagnum recurvum* group, Elfin Skimmer *Nannothemis bella*.

Weekend 3, 27-29 June, Groton State Forest, Vermont. The Granite Hills, led by Brett Engstrom, who has lived in and explored them for thirty years. Granite ledges, boulders, rubble fields, bog ponds, a large acidic bog; hill slopes with calcareous inclusions, fancy plumbing, and surprising bands of moist-rich species where you won't expect them.



Rocky woods,
Porella platyphylla,
Brachythecium rivulare, botanists napping.

Weekend 4, 25-27 July, Visitor Interpretive Center, N.Y. A spectacular facility with an extensive trail system, direct access to two large peatland complexes, and others nearby via boat. Our focus will be low and medium fertility boreal peatlands: sedges, grasses, woodies, and mosses, especially sphagnum.



Above, Heron Marsh, a partly flooded poor fen. Below, the intact upper part of Heron Marsh, a medium fen with bad birches (which is a characterization, not a judgment), beaver, bog and balsam willows.

Weekend 4, 25-27 July, Visitor Interpretive Center, Paul Smith's, N.Y. On Sunday we will either paddle down the Osgood River to several large river-shore fens, or drive to Spring Pond Bog, the largest open peatland in N.Y., and walk in. Both are wild and spectacular places. Here is the the Osgood, looking north, with its large peatlands in the distance.



And Spring Pond Bog, a raised bog with a forested crest and three ponds with mist over them on the crest; lightly frosted, in mid-September, looking SW.



Weekend 5, 22-24 August, beaver flow. In the south-flowing watersheds of southern Vermont there are few natural marshes or peatlands, but extensive wetland complexes initiated by beaver flooding. These wetlands are new and shallow, and provide a fascinating contrast to the postglacial peatlands of Weekends 2 and 4. Patti Smith, who has been studying these wetlands for 20 years and is a godmother to half the beaver in them, will lead.



The East Branch of the Deerfield: Old beaver meadows below Flood Pond, and a rocky section of the branch from the footbridge.

Weekend 6, 19-21 September, Ausable River delta and marsh. The least developed and most intact of the Champlain Deltas, with extensive beaches, alluvial forests and swamps, and deepwater emergent marshes. Interesting late-summer exposed-shore flora on both sandy and muddy shores when the lake is low. Reworked deltaic sands laced with small grains of magnetite and slag from 19th century forges upstream.



Top, Brett Engstrom on the north shore of the delta. Bottom, two local specialties, the tall sedge *Scirpus heterochaetus*, and the low annual *Schoenoplectus smithii*.

Weekend 6, 19-21 September, West Champlain Hills in Essex, NY. Dry, rocky, often cliffy hills with calcium-rich meta-igneous rocks, tending to have moist rich ravines, dry-rich south slopes and benches, and not-rich-at-all north slopes and summits. Fascinating high-diversity flora, unexplained floral patterns. We will either go to North Bouquet, below, or Split Rock, shown on the cover.



Top row, North Bouquet; middle and lower rows, *Dicranum scoparium*, *Aulacomnium heterostichum*, *Rhytidium rugosum*, *Polytrichum piliferum*.



John Davis, Essex, NY, son of a literature teacher and an old-growth researcher; climber, paddler, skier, cyclist, editor, cat-lover, conservationist, and legendary long-distance trekker. Diarist, editor, and roustabout for the TS25.

Braden DeForge, Burlington, VT. UVM grad in plant science and studio art; naturalist and photographer; formerly conservation technician at North Branch, and currently programs director for Burlington Wildways. Course manager and field foreman.

Brett Engstrom, Marshfield, Vermont, from the sand country of central Florida, thirty years in the Granite Hills, skier, hiker, birder, Field Naturalist alum, master botanist and teacher. Will teach grasses, sedges, woodies, and ecology. And mosses, but he doesn't know that yet.



Grace Glynn, Barre, VT; Field Naturalist alumna, botanist, runner, soon to be paddler. Startlingly good plant finder, lightning photographer, finds things not seen for years, others never seen. *Crepidomanes*, *Floerkea*, *Neottia*, *Riccia cavernosa*, others. She will teach woodies, herbs, and sedges. Also liverworts, whatever they are.



Jerry Jenkins, White Creek, N.Y., photographer, book maker, lapsed physicist and dance musician, former survey biologist; old guy but still skis, paddles, teaches, explores; too late to quit now. Creator, with Peter Zika, of the first Vermont Traveling School in the 1980s. Author of the Atlas publications. Will teach ecology and mosses.

Left, at Branch Pond, Green Mountains; right, probably looking at liverworts.





Matt Peters, Calais, Vermont, from Minnesota, Field Naturalist graduate, woodsman, climber, hunter, explorer, consulting botanist and ecologist, and, with Grace Glynn, one of the most talented students of the Vermont flora since Cyrus Pringle and Nelly Flynn were in their primes. Will teach woodies, grasses, sedges, and herbs.

As an art teacher, I want students to practice some new skills, learn from observing their subjects, from their experiments, from their fellow students as well as me, and go away encouraged to continue. Working out in the field is focused on responding to a place and a day by spending time in it watching and drawing, getting some sense of it on the page from multiple scales and viewpoints. Style is less important than spirit! ... I'm interested in making pictures, often very close up, of native plants and invertebrates (and some with backbones, too). My aim these days is to make art that appeals to scientists, and science that appeals to artists.

Susan Sawyer, South Woodbury, Vermont, with many relations and almost-relations there. Former apple-picker and dancer; degrees in natural history, graphics, visual art, and botanical art; founding board member of and long-time trainer for the Four Winds Nature Institute; artist, illustrator, art teacher, botanist, master pond-water naturalist; the widow of one green-wood woodworker, mother of two more. Power of tradition and family. She will teach sketching, drawing, and a lot of other things.



Patti Smith, Marlboro Vermont, native Vermonter, horsewoman and goatherd once; skier, explorer, tracker, conservationist, teacher, wild-animal rehabber, beaver scholar and advocate, and master naturalist since. Foster mother to about 950 squirrels, 150 opossums, a dozen porcupines, one mink, and three-too-many beaver. Will lead the beaver-flow trips in Marlboro and Somerset on weekend 5.