CONSERVATION NEWS 2007

take action

NEW ENGLAND WILD FLOWER SOCIETY

OCTOBER 2007 • VOLUME 9, NUMBER 2 New England Wild Flower Society Native Plant Conservation News

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New England's sole population of green milkweed *(Asclepias viridiflora)* clings to survival in south central Connecticut.

"WHEN IT'S REALLY IMPORTANT, WE JUST HAVE TO DO IT ..."

Ailene Kane

Former Plant Conservation Volunteer Administrative Coordinator

Society in Action: CONSERVATION ACROSS NEW ENGLAND

Every year, New England Wild Flower Society volunteers and staff climb the highest mountains, slide down valley slopes, and wade chest deep in muddy water to protect New England's native plants and their habitats in all six New England states.

We don't do all this alone; our collaborators include federal and state government agencies, sister conservation organizations, professionals, and citizens' groups. Some of our projects are supported fully or in part by sources as varied as the U.S. Department of Agriculture Forest Service and the Massachusetts Environmental Trust, while others depend on the generosity of individuals and private foundations. **And some receive no outside funding at all**—like the drive to protect the only population of green milkweed *(Asclepias viridiflora)* in New England.

We count on your support to continue and expand our conservation activities. Read on to learn how you can help defend our native plant heritage.

Life on the Edge in Connecticut

FUNDING NEEDED

In 1899, an intrepid botanist found and described a single population of green milkweed *(Asclepias viridiflora)* in south central Connecticut. After a gap of more than 100 years, green milkweed was recently discovered in much the same area. ***This is the only known location for green milkweed in New England.*** The plants there today are probably descendants of those first recorded in the 19th century, and the species may have been there for much longer. They have survived near a railroad line and a major freeway, but now their longevity in New England is seriously threatened.

Green milkweed grows in dry, open areas, and suitable habitat at this location has dwindled to about 225 square feet. The area has been reforested, predominantly by Norway maple, so the green milkweed is reduced to living in the small remaining open area at the edge of a steep dropoff. The spot is a veritable poster for invasive species, with oriental bittersweet *(Celastrus orbiculatus)*, common barberry *(Berberis vulgaris)*, Norway maple *(Acer platanoides)*, multiflora rose *(Rosa multiflora)*, garlic mustard *(Alliaria petiolata)*, wineberry *(Rubus phoenicolasius)*, and, most threatening, pale swallowwort *(Cynanchum rossicum)*.

Pale swallowwort grows very quickly in the same sunny locations favored by green milkweed. This twining vine is very difficult to remove by hand, and roots left in the ground readily resprout. For the past four years, New England Wild Flower Society staff have worked with volunteers to keep the open habitat open, by cutting back the swallowwort and composting the seed heads on site, and by cutting back or removing the shrubby invasives that threaten to enclose the space. The Society is committed to preventing this hardy population of green milkweed, which survived everything the 20th century could throw at it, from being forced "over the edge" in the 21st century.

Plants like these, existing at the extremes of their species' range, may hold the key to survival for the entire species—sometimes for entire habitats, with all the wildlife that depend on them—in the event of climate change. That's why we won't give up on green milkweed and similar projects, even when outside funding isn't available. ●

By Jessica Korecki, New England Plant Conservation Program (NEPCoP) Administrative Coordinator

HOW YOU CAN HELP

Support Conservation

The work is important—and so are YOU. We count on your support to help us protect native plants across New England. To make a contribution, call Dianne Butt at 508.877.7630, ext. 3104.

We Welcome Volunteers

Conservation volunteers work at locations throughout New England, or support the activities of fieldworkers through administrative tasks. Join a remarkable, dedicated community and receive full training—no previous experience required. To volunteer, contact John Burns at 508.877.7630, ext. 3204. ●

Learn about efforts to protect Jessup's milkvetch *(Astragalus robbinsii* var. *jesupii)* on page 4.

Surveying the Wild in New Hampshire's White Mountain National Forest

Early this year, New England Wild Flower Society entered into a cooperative agreement with the White Mountain National Forest in New Hampshire to conduct botanical surveys in three areas: Rumney Rocks, the Sandwich Notch Wilderness Area, and the Wild River Wilderness Area. Survey objectives included rare plant searches, floristic inventories, natural community surveys, and invasive species documentation. From May through August, Society conservation staff and volunteers devoted 16 field days to this effort. The results will help guide management decisions in the forest, especially for minimizing the impact of recreational activity on the forest's natural communities and rare plants.

Rumney Rocks is a popular rock climbing area on Rattlesnake Mountain in the southwestern part of the national forest. The setting includes a long wall of sheer cliff faces and steep, forested slopes below the cliffs. Nutrients washing off the cliffs and collecting at their bases have created patches of remarkably rich soil with outstanding plant diversity. Staff and volunteers searched for rare plants, compiled a comprehensive catalogue of the area's flora, classified the natural communities, and investigated the effect of climbers on Rumney Rocks' flora and forests. The terrain is steep and difficult, but our volunteers clambered up and down the slopes with enthusiasm.

By August we had identified a total of seven rare plant species, including several that had not been documented in decades. We categorized the area's diverse natural communities: from dry pine-oak forests at the top of the cliffs (with some impressive stands of red pine on sparsely vegetated cliff faces), to rich talus slope communities below the cliffs, and northern hardwood-hemlock forests on lower slopes.

Thousands of climbers visit this area every year and their passage has had a profound effect on the forest, in one instance posing a threat to fragrant cliff-fern *(Dryopteris fragrans),* one of the site's rare plant populations. Non-native plants have also migrated into the forest along trails—official and unofficial—that lead to the cliffs. The most disruptive of these are Japanese knotweed *(Polygonum cuspidatum)* and bittersweet nightshade *(Solanum dulcamara)*. We have mapped these occurrences and are recommending that they be removed from White Mountain National Forest before they spread more widely.

Staff and volunteers spent four days in July documenting invasive plant populations in the Sandwich Notch Wilderness Area of the White Mountain National Forest, focusing on trails, trailheads, old logging roads, and clearings. Many of the trails and forests in this area are still pristine, but invasive plants are starting to appear in certain places, especially in and near trailheads and in areas that have been recently logged. Reed canary grass *(Phalaris arundinacea)* is by far the most widespread and abundant invasive plant in the area, sometimes occurring in patches of a half acre or more in old logging sites. Other invasive plants include Japanese barberry *(Berberis thunbergii)*, oriental bittersweet *(Celastrus orbiculatus)*, Japanese knotweed *(Polygonum cuspidatum)*, and sheep sorrel *(Rumex acetosella)*.

In mid-August, as this article was being written, we were beginning to survey the Wild River Wilderness Area near the Maine border for invasive species, concentrating on trails, trailheads, campgrounds, and stream corridors. ●

By Ted Elliman, Vegetation Management/IPANE Coordinator

THANK YOU!

We thank Mary R. Fenn for the generous gift that allowed us to buy our new truck (shown with Conservation, Nursery, and Horticulture staff), which carried workers and equipment into the field all season long.

Stopping Stiltgrass in Massachusetts

FUNDING NEEDED

Japanese stiltgrass *(Microstegium vimineum)*, an insidious invasive grass, well-established in the Mid-Atlantic states, entered Connecticut more than 20 years ago. Recently it was discovered in several Massachusetts towns, and staff and volunteers from New England Wild Flower Society and the Invasive Plant Atlas of New England (IPANE) are determined to find and eliminate this plant while the invasion here is still in its early stages. A central tenet of invasive control is **EARLY DETECTION** *(find it before it becomes too prevalent)* and **RAPID RESPONSE** *(control it while numbers are still small)*. "ED/RR," for short, is the most effective and economical way to repel a new invader.

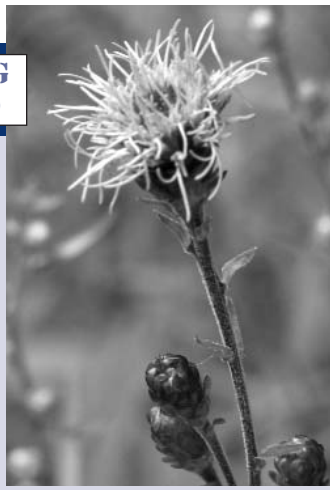
Japanese stiltgrass, an annual species often found along roadsides, stream banks, and wetland edges, can be distinguished from some of the native grasses by a characteristic white stripe down the middle of the leaf. First introduced to Tennessee around 1920, the species spread northward during the 20th century, reaching Connecticut—where it is now widespread and considered ineradicable—in 1984. In 1998, Japanese stiltgrass was first documented in West Springfield, Massachusetts. Over the next several years, outbreaks were noted in East Longmeadow and in Blackstone and Millville in southern Worcester County. In 2006, during a wetland survey project funded by the Massachusetts Environmental Trust, New England Wild Flower Society staff found a stiltgrass population in the Town of Bedford, the northernmost site known for the plant in New England. Because it is an annual species, control methods include pulling, cutting, or herbicide applications, but the seed can remain in the soil for many years. Constant vigilance is the key with Japanese stiltgrass.

With generous funding from the Massachusetts Environmental Trust, the U.S. Department of Agriculture Forest Service Forest Health Protection program, the BASF Corporation, and the Silvio O. Conte National Fish and Wildlife Refuge, we are now completing the first year of an intensive two-year Early Detection/Rapid Response project to control Japanese stiltgrass. Citizen-volunteers in all five Massachusetts towns on the "battle-front" will receive training to identify, flag, and control infestations by herbicide application along more than 50 miles of powerlines, roadsides, and rights of way in Millville and Blackstone, while continuing to pull the species in the other towns. We're off to a good start and, with additional funding to train more volunteers, let's hope we can stop Japanese stiltgrass before it's too late. ●

By William Brumback, Conservation Director

NORTHERN BLAZING STAR GETS A HAND IN RHODE ISLAND

FUNDING NEEDED



Nowhere have I seen a site that needed our help more than the University of Rhode Island's Graduate School of Oceanography campus in Narragansett, Rhode Island. Here, on a cobblestone beach overlooking the bay, northern blazing star *(Liatris scariosa* var. *novae-angliae)* struggles to survive, not because of the salt water or lapping waves, but because of the threat of invasive Oriental bittersweet *(Celastrus orbiculatus)* and black swallowwort *(Cynanchum louiseae)*.

Northern blazing star is a state- and regionally listed rare species, with fewer than 20 current occurrences in New England and only four in Rhode Island (*Flora Conservanda: New England*, 1996). In 1994, a few individuals were found growing on the edge of the university's campus. Since that time, New England Wild Flower Society has been monitoring the population and developing a management plan to protect this beautiful native species from encroaching invasive plants.

Some people still use highly invasive Oriental bittersweet's red and yellow berries in wreaths and floral arrangements, while others struggle to remove the vine, which is capable of enveloping trees, shrubs, and just about anything that will support it. The brittle berries (including those from discarded wreaths), are readily spread by wildlife. Black swallowwort, too, is a successful colonizer of fields, waste places, and any open areas with sufficient nutrients. Like bittersweet, swallowwort relies on the support of the plants around it and has been very successful at establishing itself to the exclusion of other species. The deep purple flowers of the vine quickly develop into pods, much like milkweed, releasing many light seeds to be carried by the wind. This reproductive strategy makes it particularly difficult to extirpate.

This year, funded by a grant from the Rhode Island Coastal and Estuary Habitat Restoration Program and Trust Fund, a team of nine convened to reduce the invasive bittersweet and swallowwort and give the blazing star better odds of survival.

We were pleased to find more than a dozen healthy blazing star plants. After marking the locations of these populations with orange flags, the volunteers set out to cut, pile up, and remove the bittersweet and swallowwort vines. Conservation staff members followed close behind spraying the cut stems with a wetland-appropriate herbicide to ensure that no sprouts will grow next year. By the end of a hot day, the treated section of the beach was clear of unwanted plants and fourteen orange flags stood alone, signaling a hopeful and blossoming future for northern blazing star. ●

By John Burns, Plant Conservation Volunteer (PCV) Corps Administrative Coordinator

RARE & INVASIVE PLANT SURVEYS

FUNDING NEEDED

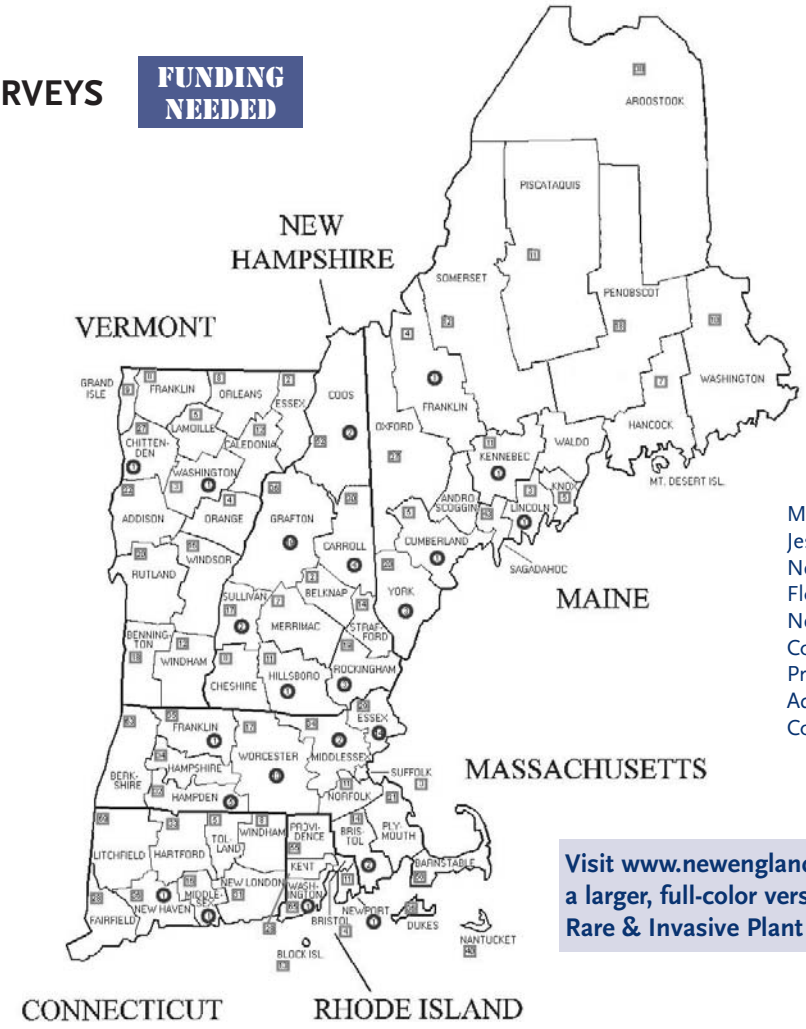
New England Wild Flower Society's Conservation staff and many extremely dedicated volunteers have been busy in the field again this year. This map, freshly updated for 2007, shows our rare plant population surveys in all the counties of New England.

To see a large, full-color version of the map, go to our Web site at www.newenglandWILD.org.

Squares on the map indicate the number of rare plant population surveys scheduled in each county. The Conservation staff contacts landowners to obtain permission for the volunteers and staff to go to the rare plant sites and update the population record information, including population size and overall health. This data then goes to the Natural Heritage Program in the appropriate state.

Circles on the map indicate the number of work days the Conservation staff has scheduled in that county. Work days include invasive plant management days and botanical inventory days.

The enormous amount of work we manage to accomplish on these days would not be possible without our volunteers!



Map prepared by Jessica Korecki, New England Wild Flower Society's New England Plant Conservation Program (NEPCoP) Administrative Coordinator

Visit www.newenglandWILD.org for a larger, full-color version of the Rare & Invasive Plant Survey map.

SUCCESS IN NORTHERN NEW ENGLAND

Invasive Plants in Retreat in New Hampshire and Vermont

For the past several years, along a 16-mile stretch of the Connecticut River, the New England Wild Flower Society and its partners, the New Hampshire Natural Heritage Bureau and the Vermont Nongame and Endangered Species Program, have monitored Jessup's milkvetch *(Astragalus robbinsii* var. *jesupii)*. This plant, which is federally listed as endangered ***and known from only three sites in the world***, is threatened by invasive black swallowwort *(Cynanchum louiseae)*. This year we treated the swallowwort at two of the sites, applying herbicide one stem at a time to avoid affecting any of the Jessup's milkvetch. With funds from the U.S. Fish and Wildlife Service, we are now applying two treatments each year, and it appears that the swallowwort, while still a threat, is in retreat. ●

By William Brumback, Conservation Director

Making Progress in Maine

FUNDING NEEDED

On a sweltering day in mid-July, I joined five volunteers pulling Himalayan jewelweed *(Impatiens glandulifera)* from two sites where it has invaded riparian habitats in the town of Farmington, Maine. This was our third consecutive year of removing this tall purple-flowered invasive species in Farmington. Himalayan jewelweed, which grows in the same moist soil conditions as the native spotted touch-me-not (*Impatiens capensis*), is far more common in Maine than in any other New England state. Last year, volunteers and staff removed a total of twenty-five 42-gallon trash bags stuffed with jewelweed from the same site. As a measure of success, this year we needed only four bags to hold all (or almost all!) of the plants from the same area. We're looking forward to a similar order-of-magnitude reduction for this invasive species in 2008. ●

By Ted Elliman, Vegetation Management/IPANE Coordinator

2007 ANNUAL MEETING

Celebrate exceptional achievements with us at New England Wild Flower Society's Annual Meeting.

November 4, 1:30–5:00 p.m.

Garden in the Woods, 180 Hemenway Road, Framingham, MA

R.S.V.P. before November 1 to 508-877-7630, ext. 3001, or cbennett@newenglandWILD.org.

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