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# Protected Habitat is a Legacy of Generations

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# Protected Habitat is a Legacy of Generations:

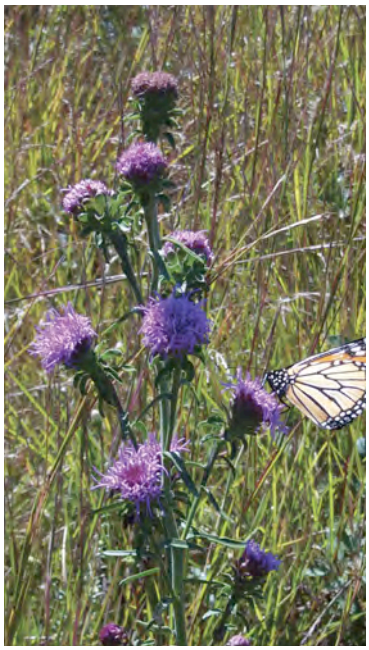
## *helping land stewards plan for the present and the future*

*by Nancy C. Balcom*

A few years ago, Juliana Barrett, Louise Harrison and I walked through a coastal meadow, or rather, what had once been a coastal meadow. We were looking for stalks bearing the tell-tale narrow stem leaves of a state-listed rare plant called the New England Blazing Star. Once completely forested, this four-acre site in Old Saybrook had been cleared and farmed, and then left as open meadow. Over time, shrubs marching to the tune of vegetative succession had overgrown the meadow. The lack of openness threatened the sustainability of the Blazing Stars, and the property stewards, the Lynde Point Land Trust, had sought Barrett's advice on how to protect them.

"If we start mowing and treating the shrubs with herbicides seasonally, this meadow will open up in two sor three years," said Barrett, an extension educator with Connecticut Sea Grant and the Department of Extension at the University of Connecticut. "Grasses and perennials will re-colonize the site once it is opened up."

Fast forward a couple of years and that same coastal meadow is awash in a sea of orange, purple and green. Colorful butterflies flit from crown to crown of vibrant orange Butterfly Weed plants, while the frilly, button-like purple heads alternating up the Blazing Star stems face skyward, waving gently in the breeze. It is a beautiful sight to behold.



J. Barrett

New England Blazing Star

"And yet, while we may be winning the battle with the shrubs and the invasive plants at the moment, now Eastern Cottontails are nipping the Blazing Star stems at ground level," remarks Barrett.

"An unexpected setback like this can be discouraging in the short term.

N. Balcom

Louise Harrison and Juliana Barrett hail the presence of New England Blazing Star plants in a coastal meadow.

However, it's important to remember that managing an open space property is really a multi-generational task. It's important to adapt and change management techniques as new problems arise. Having a plan in place can make the process easier."

### *Effective stewardship relies on planning*

Open space protection…farmland preservation …conservation easements. News stories describe efforts by the State, municipalities, non-profit groups, and local land trusts and conservancies to acquire pieces of property and legally protect them from further development. Once the daunting task to secure one of these properties is successful, then the responsibilities of stewardship kick in. Whatever the property is—tidal marsh, prime farmland, coastal meadow, or upland forest—proper management is needed to ensure its sustainability over time. Invasive plants and animals, development pressures from surrounding properties, climate change, and land fragmentation (reducing its suitability as habitat for certain wildlife species) are among the challenges that can adversely affect a particular parcel of protected land. What types of activities will be allowed, if any? Which are the most important natural resources? Does the property

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hold any particular cultural or historical significance? What should be done first, and how?

Tackling these different considerations can be overwhelming, especially to the volunteers who often comprise land stewardship groups. Barrett believes habitat management planning can play an important role in helping land stewards identify what they envision for a particular property, and prioritizing the steps that must be taken to achieve that vision. As part of her Sea Grant extension work in coastal habitat management and restoration, Barrett developed an educational tool to aid land stewards in planning how to manage their protected properties based on the habitat(s) present. The tool blends parts of a management plan outline developed by former Connecticut Department of Environmental Protection employee, James Murphy, with the four-step planning approach used by The University of Connecticut's Center for Land Use Education and Research (CLEAR) to assist towns in developing their local plans of conservation and development.

The planning process begins with a catalog of basic information about the site, such as its size, when it was acquired and why, and an outline of goals for the site. Then, an inventory of the site is taken and all natural and cultural resources are described and mapped. Four categories of natural resources are used: forests/ woodlands, shrublands, grasslands/meadows, and "special habitats" (such as vernal pools, bedrock ledges, or other habitat types that do not fit into the three vegetative categories but are nonetheless important). Cultural resources include stone walls, old foundations and wells, and dams. The next two phases, analysis and planning, document any recreational,

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The foundation of an old ice house, located on the Hammer preserve in Branford, is an example of the cultural resources found on land trust properties.

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*Vincent DeLuca, Stewardship Coordinator for the Branford Land Trust and Ann Hundt, steward for the Lucy Hammer Woodland Preserve in Branford, tour the Hammer property.*

commercial, educational and/or research uses of the site, outline problems and concerns regarding the site, articulate a vision for the site going forward (based on the previously agreed upon goals), and identify specific recommendations for moving forward to achieve that vision. The implementation or "where the rubber meets the road" section of the plan addresses the critical details of what, who, how, when, and how much. The final product with its identified priorities, measurable goals, and determined management actions serves as the blueprint for moving forward over the long term. More information on this outline and planning process is available at:

http://clear.uconn.edu/tools/open_space/index.htm .

## From planning to practice

"It is my belief that Land Trusts are good at acquiring land but do poorly at meaningful land management. Juliana's work… should guide and encourage Land Trusts to undertake this difficult responsibility," says Vincent DeLuca, Stewardship Coordinator for the Branford Land Trust. Founded in 1967 with the goal of protecting Branford's natural resources, the Land Trust currently owns more than 800 acres in 104 parcels ranging in size from tiny rock islands in Long Island Sound to 100 acres. Diverse habitats in these parcels include salt marshes, woodlands, ponds, meadows and traprock ridges.

DeLuca is an advocate of planning. In addition to leading the development of management plans for several of the Branford Land Trust properties, he takes his message on the road to encourage other land trusts to

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A walkway was recently installed by local Boy Scouts to facilitate the crossing of hikers and to protect the stream banks from eroding (Balcom)

go beyond basic property monitoring and upkeep to the next level by developing habitat management plans for some or all of their properties. Typically, land trusts assign volunteer stewards to individual or groups of parcels; the Branford Land Trust has one to three individuals assigned to about 40 percent of their properties. Each steward is responsible for walking the property several times a year to make sure that no unauthorized use of the property occurs and that no safety hazards or encroachment problems exist. Stewards also maintain trails, assess how the property is being used, and conduct biological/ecological monitoring to assure that the property is being kept in its natural state and no environmental degradation is occurring.

While snow and rain stymied our attempts to meet for more than a month, DeLuca shared copies of habitat management plans for two of the Land Trust's properties, Short Beach Preserve and the Lucy T. Hammer Woodland Preserve. In each plan, the property is divided into "management units" which are described individually and for which specific recommendations are made. For example, one unit might require trail improvement, control of invasive plants, and the removal of poorer trees for firewood, while another unit may be left alone as a forest preserve. The plans include notations for the strategic placement of bird boxes or signage, or indicate a need for a special work party to install a walkway over a wetland area. Part of each plan includes a table to track when and how each action item is addressed.

Finally catching a break with the weather, DeLuca and I met Ann Hundt, land steward for the Hammer preserve, for a late afternoon tour of the property. Located off Cherry Hill Road in Branford, the preserve has wetlands, three ponds, woodlands, and a traprock ridge, and is also used for a variety of passive recreational activities including hiking, birding, cross-country skiing and horseback riding. As we wandered along the trail, DeLuca and Hundt talked about what had already been done to the preserve and what actions they hoped to complete in the future. They acknowledged the importance of volunteers such as the local Boy Scouts, who have built a walkway over a section of stream and are starting to blaze a new trail in one section.

As we crossed over the old earthen dam at the end of one pond, Hundt pointed out the remains of the foundation of an old ice house. Ascending the spine of the traprock ridge, we saw wild flowers poking up through the leaves determined to bloom, and soon, and noted the shift in tree species from firs to hardwoods. On our way down the other side of the trap ridge, we entered a section of old growth forest that DeLuca called a "refugia". Here very old and stately shagbark hickories, beech, and ash trees intermingled with younger saplings. Nearing the end of our loop, we observed the heavy splashdown of a mute swan in one of the ponds. Hundt remarked that "Last year, the swans built their nest right in the middle of the trail between the two ponds, in that relatively protected section." The remnants of sticks from the nest were still evident. Back at our cars, Hundt and DeLuca spoke of the responsibility of the land stewards, and the importance of making sure they are made aware of, and involved in, any maintenance on "their" property. Listening to them both, it was obvious they are both deeply engrained with a sense of stewardship for these lands. People like DeLuca and Hundt are the life blood of land trusts.

Over in southeastern Connecticut, members of the Avalonia Land Conservancy share the responsibility of managing 80 properties acquired over 42 years. About a year ago, Barrett met with the Land Conservancy's Stewardship Committee to discuss the idea of habitat-based management plans. Rick Newton, co-chairman of the Stewardship Committee says, "We are just getting into writing management plans now," an effort which will also help this Land Trust to come into closer compliance with standards and procedures of the Land Trust Alliance, a national umbrella organization for the land conservation community that administers an accreditation program for land trusts. Fellow Committee Co-Chairman Mike Goodwin outlined 27 land stewardship principles as guidance for developing management plans for individual properties held by Avalonia. One of the first steps they have

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taken is to rank their properties: "A" properties are those currently being managed, for which the most in-depth plans will be developed; "B" properties are ones that Avalonia would like to actively manage, and for which plans will also be developed; "C" properties are those left unmanaged so that nature can take its course; and "D" properties are those available for resale.

Newton and Goodwin are currently writing management plans for two of Avalonia's "A" properties, Avery Preserve in Ledyard and Knox Preserve in Mystic. Even though existing reports for both properties will help inform the management plans, Newton notes, "The paperwork alone takes a good deal of time. The habitat / plant inventories…take a huge amount of time and will be ongoing. Much of the basic work should have been done (ideally) at the time of acquisition but wasn't." Their plan is to prioritize efforts for each property, and review the plans every five years.

"In addition to moving towards Land Trust Alliance accreditation, the management plans will allow future Avalonia volunteers to have a history of the properties and know what was desired by the donor and Avalonia at the time of acquisition," says Newton. "As more and more of the original founders of Avalonia Land Conservancy become less involved in the management of the conservancy, some of that history may slowly disappear if it isn't documented." He continues, "Another benefit of having management plans is that it shows Avalonia is actively managing its properties…as we are entrusted to hold the properties in perpetuity. Government regulators want to see that properties that land trusts own or hold conservation easements on are being adequately cared for."

The Duck River is a tributary of the Connecticut River located in Old Lyme, south of Interstate 95. Here the Old Lyme Conservation Trust serves as the land steward for the Elizabeth B. Karter Watch Rock Preserve. This 25-acre "living jewel" located at the mouth of the Duck River is contiguous with the state-owned Great Island Wildlife Management Area, one of Connecticut's largest brackish marshes. Recently, the Conservation Trust acquired some funds through the US Fish and Wildlife Service to help support the development of a habitat-based management plan for the Preserve. Among the habitat types identified were coastal moist and dry forests, conifer grove, open fields, tidal marsh, and rocky shoreline. This popular preserve is open daily for passive recreational activities such as hiking, birding, and leashed dog walking. The plan draws information from a wide variety of resources available to land trusts, including soils maps produced by the US Department of Agriculture Natural Resources Conservation Service (NRCS), Community Resource Inventory, Natural Diversity Database, and FEMA regulated floodplain maps available through the UConn CLEAR web site (http://nemo.uconn.edu/tools/cri/). The plan even addresses the need to recycle used monofilament from fishing activities by including instructions for the construction of PVC fishing line recycling containers.

There are a lot of people volunteering to help preserve land as open space in Connecticut. According to the Connecticut Department of Environmental Protection web site, 115 land trusts in Connecticut have a total membership of more than 39,000 individuals. These land trusts collectively protect more than 62,000 acres of valuable open space property. They are joined by the State of Connecticut and many local municipalities in preserving and managing open space properties.

"Towns are also beginning to show interest in this type of planning for their open space properties, but have little time to put into it," says Barrett. "The habitat-based management planning approach is flexible—use whichever parts of the outline that work for a particular property and adapt the rest. By putting everything into a framework, you can manage your efforts accordingly. "

"To be good stewards of the lands everyone has worked so hard to preserve, we need [these] plans of action," says Louise Harrison, a US Fish and Wildlife Service biologist currently serving as liaison to the EPA Long Island Sound Office. "Otherwise, choosing the most important tasks ahead can be overwhelming, or, perhaps even worse, impossible to undertake because the short- and long-term needs aren't even known." Harrison adds further, "The methodical approach offered in habitat management planning can give land stewards what they need to understand their landscape and develop measures that address particular habitat needs. It anticipates and allows for the flexibility often required in the face of new information, unexpected financial circumstances, and unforeseen threats or landscape changes."

For more information on New England Blazing Stars, read "A Tale of Two Flowers" by Juliana Barrett in Wrack Lines 7:1, 2007:

http://web2.uconn.edu/seagrant/publications/magazines/wracklines/springsummer07/flower.pdf.

Nancy C. Balcom is Associate Director of Connecticut Sea Grant, Extension Program Leader, and a faculty member of the UConn Department of Extension. She enjoys tromping about in the woods.