Fall 2012

Highstead

Working to conserve the forested landscape of New England through science, sound stewardship, and collaborative conservation

To the Members and Friends of Highstead

What difference can a single person make? In a world of many people it is tempting to feel powerless to effect change. Nonetheless, the consequences of voting in recent years and the acts of people aiding others across the northeastern seaboard after Hurricane Sandy remind us that individuals can make significant and occasionally life-changing impacts.

David Foster *is Director of the Harvard Forest at Harvard University and President of the Board of Highstead Foundation.*

The power of individuals also lies at the heart of Highstead's conservation mission. The landscape of the eastern US is comprised largely of small private landholdings of individuals and families. What each of these landowners chooses to do – what each of us, our families, neighbors, and friends choose to do – with the woods, meadows, streams and wetlands in backyards and vacation spots will determine the fate of our favorites landscapes, our hometowns, and New England.

The Wildlands and Woodlands (W&W) vision embraces this critical role of individuals. It sees a future in which New England is a conserved landscape of forests, farms, and well-conceived and sustainable populated areas. And W&W argues that conservation will fail if only promoted through government purchase or regulation.

The fate of every acre of land makes a difference in our eastern landscape.

With this newsletter celebration of individuals advancing conservation, I invite you to join us in a collective mission. Share this newsletter and these messages. Spread the word that individual decisions matter -- to your neighbors, close friends, workmates, and families. Work to conserve your woods, farm, vacation landscape, and your favorite places to hike, bike or paddle. And let us know how we can help advance this mission that is the key to conserving New England and part of the solution to sustaining nature and life.

From the Conservation Director

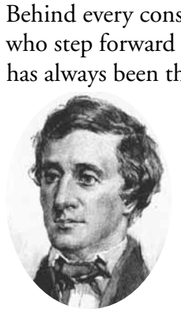
Emily M. Bateson

Dear Highstead Members and Friends,

In the past several decades, the scale of land conservation has changed dramatically as our understanding of natural systems has grown. Land trusts that were protecting individual species began to focus on conserving the habitat the species relied on, and then started expanding and connecting those conserved lands. The goal of ecological resiliency in a time of climate change added new urgency to this work. Today land trusts are increasingly banding together to work in diverse, collaborative partnerships to achieve conservation at both the community and the landscape scales.

Highstead supports regional conservation partnerships (RCPs) in New England through an RCP Network that provides services including skill-building workshops, fundraising assistance, and information exchange, as described at www.wildlandsandwoodlands.org/rcpnetwork. The 30-plus conservation partnerships in New England now cover more than 55 percent of the regional landscape, and in recent newsletters we have celebrated this burgeoning conservation trend.

Behind every conservation collaborative are dedicated individuals—the people who step forward or stay committed to ensure that good things happen. This has always been the case in New England, where we have not only a deeply engrained sense of community identity and civic engagement but also a proud history of individual leadership. Baxter State Park, Acadia National Park, and the White and Green Mountain National Forests were all protected thanks to people with both foresight and relentless determination. Conservation visionaries George Perkins Marsh and Henry David Thoreau were both New Englanders.



However:

'That we are the lucky beneficiaries of this earlier generation's principled activism is no excuse for us to rest on their laurels.'

Char Miller and V. Alaric Sample, in Northern Woodlands, June 24, 2011.

In this issue we celebrate the many individuals who step forward every day to make conservation happen on their own land, in their community or at the larger collaborative scale, including the volunteers who monitor the bobolinks in Highstead's meadows and the ecology interns who collect data in our woods; the individuals who spearhead the Mount Agamenticus to the Sea Conservation Initiative in Maine; and the artists who come to Highstead and inspire us anew with a sense of place and fuel some relentless determination of our own.

Emily M. Bateson,
Conservation Director

banner: Fairfield County Regional Conservation Partnership leaders spend an evening at Highstead refining their Strategic Conservation Plan

Here at Highstead

Geordie Elkins
Operations Manager

Highstead Yesterday and Today

After being away from Highstead for 12 years, I am thrilled to return in my new role as Operations Manager. The development and direction of Highstead are intriguing, and I am proud to play a part moving forward. I believe that Highstead is poised to succeed in its mission to inspire people, build knowledge, and conserve woodlands.

My first full-time job was as a horticulturist here at Highstead. In that position, I had the opportunity to maintain and map the grounds and collections; take care of the trails and boardwalk; and plant many of the trees and shrubs that are now around the barn and pond. Wow, have things grown!

Highstead Barn circa 1995

Highstead Barn today

The organization itself has also matured, developing into a strong force for regional conservation in our role as a Wildlands and Woodlands strategic partner.

As Operations Manager, my goal is to steward the Highstead grounds and facility in ways that they exhibit our conservation mission and inspire guests to join us in that pursuit.

Telling stories about the landscape can help connect individuals to the land and further encourage conservation. This fall we hosted some wonderful storytellers. We presented an art exhibit and conservation program titled, 'Habitats - Flora and Fauna in Natural Settings.' The Guild of Natural Science Illustrators hung a beautifully rendered and inspiring show that displayed wildlife in its natural habitat. And Susan Morse, Director of Keeping Track, gave a presentation of stunning photos and animal calls that captured the essence of her work teaching wildlife tracking and monitoring to local communities. Instilling people with an understanding and respect for wildlife needs inspires enduring conservation interest.

Our desire is for you to visit Highstead and enjoy our beautiful location, hear the stories our landscape holds, and leave inspired to join us in conserving the natural places that make New England special.

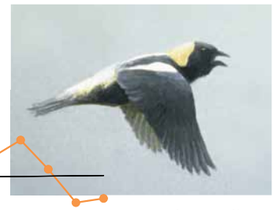
Stewardship Science

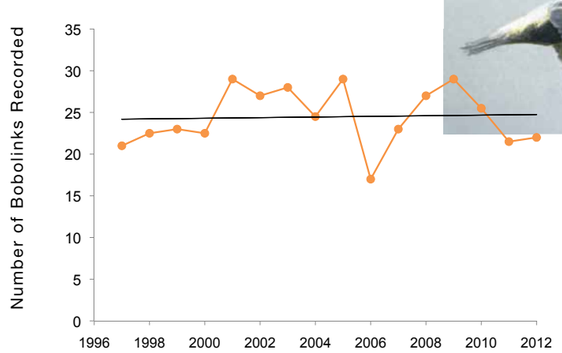
Ed Faison
Highstead Ecologist

Highstead long-term ecological monitoring: 15 years of stability, complexity and change

Four decades ago, Yale and Connecticut College ecologists Frank Egler and William Niering referred to the woodlands of southwestern Connecticut as 'a dynamic unstable environmental complex,' shaped by a myriad of historical and contemporary factors. Change, in other words, is a defining feature of our natural areas. One of the cornerstones of Highstead's ecology program is to track and interpret this 'dynamic instability' over time through long-term studies.

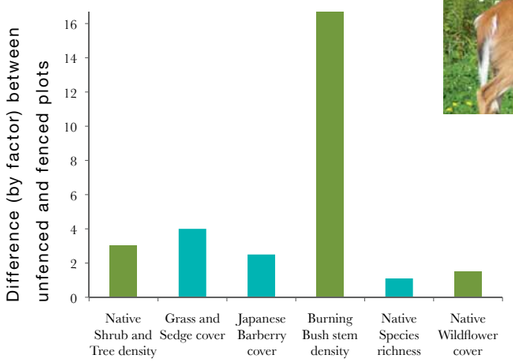
Bobolink Population in Highstead's Hilltop Meadows





Highstead's oldest continuous monitoring project, counting bobolinks in our hilltop meadows, reached the 15-year mark in 2012. Identified by Partners in Flight as a species of continental concern, bobolinks migrate 5,000-6,000 miles each year from the grasslands of South America to nest in Highstead's meadows and other suitable grassland habitat in the region. Counts conducted since 1997 reveal that Highstead's bobolink population, despite considerable fluctuations over the years, has remained stable overall. These results, in turn, indicate that our annual mowing of the meadows has been largely successful in maintaining suitable habitat for these birds.

Vegetation Changes Due to Deer Browsing



A second monitoring project that has reached 14 years of age is the comparison of vegetation inside and outside of our woodland deer exclosure. The changes caused by deer browsing have been dramatic, the most visible being a sharp increase in grass cover and an equally sharp decrease in the density of native shrubs and tree seedlings and saplings. Invasive Japanese barberry cover is higher by a factor of two and burning bush stem density lower by a factor of seventeen in areas browsed by deer. Wildflowers such as red trillium and jewelweed are also notably smaller in size. These and other results (see bar chart) indicate that removing deer browsing from a forest can have significant and sometimes unexpected consequences on the vegetation.

left:
Vegetation differences at Highstead's woodland deer exclosure after 14 years. Blue bars represent greater values in unfenced areas and green bars greater values in fenced areas.

Dedicated People Conduct the Field Work and Gather Data

right:
Amanda and Olivia sampling vegetation on Redding town conservation land.

One of the reasons that long-term ecological monitoring is uncommon among non-profit conservation groups is that it requires dedicated people to conduct all of the field work and gather data each year. Highstead's ability to report 15 years of bobolink population trends and detailed vegetation comparisons between deer browsed and unbrowsed plots reflects an extraordinary amount of work by both local volunteers and ecology interns over the years.

Since 1997, Ben Olewine, Fred Schroeder, Ben Oko, and others have spent several mornings a year in the Highstead meadows counting bobolinks. These same volunteers along with Renee Baade and David Babbington have monitored the breeding bird community in Highstead's woodlands since 2005. With the continued help of these volunteers, we look forward to reporting on a decade of woodland bird population trends at Highstead in a future newsletter.

For the past seven years, Highstead's highly competitive ecology intern program has supported and trained two budding field ecologists each summer in woodland research techniques in order to extend on-going research projects. Amanda Pachomski, a 2012 graduate in environmental science from SUNY Binghamton, and Olivia Zukas, a 2011 graduate of Sterling College in conservation ecology, were the 2012 ecology interns.

Amanda and Olivia contributed to a variety of projects through their summer's experience. They sampled vegetation at both the 14-year-old woodland deer exclosure and the 5-year-old deer exclosure in our oak forest, and they established baseline monitoring plots in giant reed (*Phragmites*) patches along the Highstead pond. Finally, they also contributed to projects in the greater Redding landscape, including a 5-year-old study on the response of vegetation in hunted and unhunted properties and a first year study of tree regeneration in canopy gaps created by recent storm damage.

Our interns and volunteers keep the data accumulating both at Highstead and from the broader community. We thank them for their dedication. With each successive year, long-term data only become more valuable.

We cannot expect our woodlands to be the same as those of our childhood;
nor can we expect our woodlands today to be the same decades hence.

But if we keep our natural landscapes undeveloped,
we can expect their ever changing components to flourish.

Regional Conservation

Bill Labich
Regional Conservationist

The people behind Mount Agamenticus to the Sea

Conservation groups are increasingly teaming up in regional conservation partnerships (RCPs) to coordinate land protection across town and even state boundaries. Until recently, many were unaware of other partnerships, even within their own state. Now, through the New England RCP Network convened by Highstead, they are getting together more often to share and build upon each other's successes.

One of these conservation partnerships is the Mount Agamenticus to the Sea Conservation Initiative (MtA2C) in Maine, which has raised more then 17 million dollars and protected almost 2,600 acres in the last 10 years. By 2032 their goal is to conserve another 6,000 acres to ensure that 19,000 priority acres of their 48,000-acre region are permanently free from development.

Beyond the investments of partner organizations, MtA2C's activities continue to be advanced by the contributions of many committed individuals, three of whom we profile and celebrate below.

Doreen McGillis, Executive Director, York (ME) Land Trust.
Involved in the Initiative since the beginning, Doreen chairs monthly meetings of the Lands Committee, where partners continue to coordinate on-the-ground projects and discuss funding sources. 'We have been able to accomplish so much…way more than any one group could have done alone…we've gotten more funding, more publicity, more community support, more credibility.'

Keith Fletcher, Southern Maine Program Director, Maine Coast Heritage Trust (MCHT).
For more than a decade Keith has been encouraging investments of both TNC and MCHT in the form of conservation mapping, funding, and development expertise. The coalition recently celebrated its 10th anniversary. For Keith, that alone as well as their funding success speaks to why they partner for conservation.

Ward Feurt, Refuge Manager, Rachel Carson National Wildlife Refuge.
While Cutts Island provides the 'to the Sea' anchor for this 48,000-acre landscape, Ward's leadership on an early strategic planning process led to broad consensus among the 10 coalition members on their vision, goals, strategies, and objectives. The Partners' solid agreement and shared ownership of the initiative is seen as the foundation for the ensuing capital campaign and land acquisition successes.

With similar combinations of individual leadership and synergistic organizational collaboration,

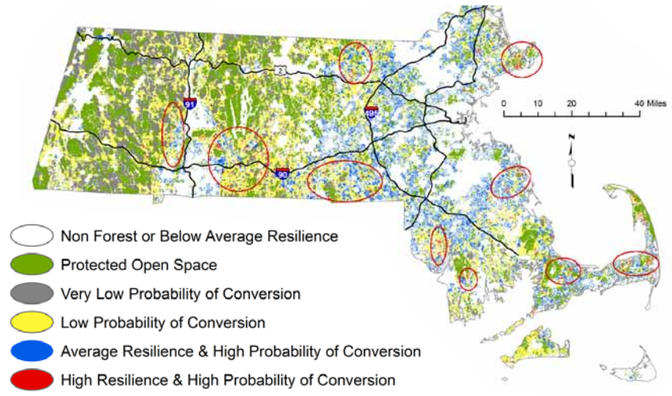
regional conservation partnerships are rapidly changing the conservation maps in their own communities and across all of New England.

Science-Policy Bridge

Kathy Fallon Lambert
Senior Fellow

Scientists and Conservationists Join Forces for Forests

As part of its conservation research program, Highstead is joining with Harvard University and the Smithsonian Conservation Biology Institute to evaluate how current trends and future scenarios of climate change, development, agriculture, and timber harvesting are likely to affect New England forests over the next fifty years. The approach begins by using historic information on land use to create a current trends scenario. We then contrast this with three alternative scenarios generated by knowledgeable stakeholders— free market future, green investment future, and resource limited future— each of which has specific land use and land management characteristics. We then model these scenarios and climate change to examine their consequences on important ecosystem services: wildlife habitat, forest carbon, and timber production. In this way, we infuse scientific research and modeling with the valuable experience and insights of policymakers and practitioners on the ground to create a more informed picture of our possible forest futures.



above:
The Future Scenarios Initiative map identifies areas in Massachusetts that are resilient to climate change (Anderson 2012)) and also under the most development pressure (circled in red).

One major motivation of this work is to assess the implications of large-scale environmental change for conservation. In a recent analysis, we combined a map of sites identified by The Nature Conservancy as resilient to climate change with our map of areas likely to be developed by 2060. The resulting map helps to identify important areas to consider for conservation. Given the concern about fragmenting intact natural areas with a high likelihood of resilience, we can then expand this type of analysis to examine projected development within a certain radius of a resilient site. In addition, other threats, such as the impacts of increasing pest outbreaks and violent storms with a changing climate, can be evaluated.

Currently we are expanding our work to northern New England and sharing our results widely with policymakers, land managers, conservation organizations, and scientists. Conservation in a time of environmental change calls for new ways of integrating information and action. And it calls for new ways to bring people together to harness their individual and collective wisdom and work together toward enduring landscape conservation in a changing world.

Kathy Fallon Lambert is the Science & Policy Integration Project Director at the Harvard Forest and has been a Highstead Fellow since 2010.

Highstead conserves

Highstead
127 Lonetown Road
P.O. Box 1097
Redding, CT 06875

203.938.8809

www.highstead.net

Printed on recycled paper.

a New England forest

a research laboratory for … Wildlands and Woodlands, a visionary campaign to retain at least 70 percent of New England in forestland

combines cutting-edge forest science and more than two miles of trails.... Just reading the trail brochure is a quick study in forest history and science, peppered with insightful detail

wants you to understand and appreciate New England forests and forest preservation

from:
Steve Grant, Hartford Courant
June 8, 2012