inspire curiosity and build knowledge about plants and wooded landscapes

in order to enhance life, preserve nature and advance sound stewardship practices

To the Members and Friends of Highstead

Interns and partnerships – these terms fill this newsletter's pages and they represent key parts of Highstead's effort to advance conservation across New England. Intriguingly, the two are intertwined in the region's conservation history and the inspiration that gave rise to the Wildland and Woodland (W&W) vision. Importantly, both underscore a fundamental characteristic of conservation: individuals make the critical difference and regional conservation depends on collaboration.

In 1990, an undergraduate intern from Hampshire College undertook a relatively straightforward thesis project, to

map and interpret the history of conservation in a characteristic chunk of southern New England. Through interviews with the more than two dozen land trusts, local boards, state and federal agencies, and large conservation groups that owned protected lands in central Massachusetts, Alisa Golodetz compiled a detailed database of the date and motivation for each

land acquisition and created a digital map that captured each parcel of land. The conclusions that she laid out, in a thesis reviewed by her professors and a subsequent article in Conservation Biology, an international journal, were straightforward, inspiring and also a bit troubling. Astonishingly, across the 26 towns and more than 400,000 acres comprising her study region, greater than 30% of the land had been protected from future development. Collectively these lands provided clean water, wood, research opportunities, recreation and more for humans and supported a broad array of natural processes and habitats. However, the varied agendas and a lack of coordination among the different conservation groups produced a haphazard patchwork of conserved land. Consequently, Alisa advanced a single forward-looking recommendation in her publication: the twenty groups should meet and coordinate, using their varied strengths and connections to the region's landowners to advance an even more aggressive and effective effort to conserve the region's landscape.



Remarkably, a large audience read the paper, recognized this undergraduate's compelling message and responded: by year's end the



North Quabbin Regional Landscape Partnership (NQRLP) had formed. Comprised of more than twenty groups, it continues to meet and collaborate to this day and is a major partner in W&W with Highstead. With a strong regional land trust at its core (Mount Grace Land Conservation Trust) and a full-time coordinator, the NQRLP, its member groups and the region have attracted the interest of landowners and public and private funders and have been able to advance

> coordinated land protection at a remarkable rate. Through a series of multiple-parcel or aggregated land deals the region is headed towards adding 46,000 acres of protected land to the 158,000 that Alisa documented in her 1990 conservation map.

Individuals do matter – in this case, the intern who undertook

that simple study and the many landowners who chose to protect their land. The connection among these individuals is the regional partnership of groups – large and small, public and private, volunteer and well staffed – that choose to combine their energies and efforts to advance a conservation future for New England. Motivated by this history, and similar lessons elsewhere, Highstead is supporting this effort through interns and partnerships, as described inside.

To learn more about the NQRLP and Alisa's paper please visit <u>http://www.nqpartnership.org/</u> and <u>http://harvardforest.fas.harvard.</u> <u>edu/publications/pdfs/Golodetz ConservationBio_1997.pdf</u>.



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

From the Director

Bill Toomey Director



Dear Highstead Members and Friends,

The Value of Conservation Partnerships

New England has a long and rich history of protecting its important natural resources. This tradition of land conservation began in many New England towns with the creation of early town commons, continued with the establishment of town forests, and blossomed into an active land conservation movement consisting of hundreds of local and regional land trust and conservation organizations. In fact, New England has the highest concentrations of local land trusts and conservation groups in the nation. This tremendous capacity has been used to protect some of the region's most special places.



above:

Highstead is working in partnership with others to help protect the forested landscape of New England. One of the conservation challenges we face today is that many of the landscapes and natural features that have been identified as high priorities for conservation span town, state, and even national boundaries. To effectively achieve conservation at these larger scales, it is necessary for organizations to think beyond their traditional geographic and organizational boundaries. While there are many examples of local and regional land trusts working collaboratively across boundaries over the past decade, the increasing threats of development and climate change are challenging conservation groups to work at increasingly larger scales.

While the desire to work together is strong, many groups do not necessarily know how best to organize themselves

or work most effectively together towards common goals. Through our research into existing conservation partnerships and by working directly with existing and emerging partnerships over the last several years, Highstead has been able to offer assistance, support, and guidance to the growing network of partnerships, thereby greatly increasing their chances of success.

A major focus of Highstead's work is to help existing conservation organizations work together in regional partnerships in an effort to realize the conservation of New England's forests and farms embodied in the Wildlands and Woodlands vision. Highstead's talented team is working hard to advance the strategic use of science, research, policy, communications and partnership building to help these collaborations achieve lasting conservation results. I believe that you will find this work compelling, and I hope that you will continue to support Highstead in achieving our conservation goals

Bill Toomey Director

Regional Conservation

Bill Labich Regional Conservationist



right:

Looking east across a bend in the Connecticut River at the wooded hills of Stratford, New Hampshire. Highstead is a member of the Friends of the Silvio O. Conte National Fish and Wildlife Refuge, which is comprised of the 7.2 million-acre Connecticut River Watershed.

Regional Conservation Partnerships

How do we make conservation more efficient and assist the many hundreds of small land trusts across New England to advance their missions with volunteer staff and supporters? One approach, recommended in the Wildlands and Woodlands Vision of 2005, was to form and support partnerships that bring land trusts together with local boards, state agencies, watershed councils, and individuals that share similar visions concerning a common region and geography. It is believed that such regional conservation partnerships increase the pace of land protection and conservation management across large regions in a number of ways including: building relationships; exchanging information; coordinating outreach, education, and fundraising; and enhancing the overall effectiveness of many individual organizations.

Recognizing the success of existing partnerships and the potential for this approach to operate more broadly across the region, Highstead has worked over the past three years to develop an effective program to support the individual and collaborative efforts of more than 25 of these partnerships. Under the leadership of Bill Labich and Bill Toomey, Highstead has advanced this work in the following ways: researching regional, national and international examples of effective partnerships; supporting the formation of new partnerships and increasing the effectiveness of existing ones; and facilitating the sharing of information and experience among partnerships in New England.



Researching regional conservation partnerships

In collaboration with faculty at the University of Massachusetts, Bill Labich is studying 20 partnerships across New England and Eastern New York. His efforts seek to identify the characteristics of successful groups and to share these findings with emerging and established groups throughout the region and beyond. Early results from this study, which will be completed later this fall, indicate that the grassroots and self-organizing characteristics of these partnerships enable their members to help many more landowners and communities achieve their conservation goals. They appear to do so in part by serving as a bridge to the resources and large programs that are available through state and federal conservation and funding programs.

Regional Conservation



- 1. Fairfield County Regional Conservation Partnership
- **2.** Litchfield Hills Greenprint Collaborative
- **3.** The Borderlands Project
- 4. Mass-Conn Sustainable Forest Partnership
- **5.** Taunton River Coalition
- **6.** *Pioneer Valley Land Trust Group*
- **7.** *Quabbin to Cardigan Conservation Collaborative*
- 8. Chateugay Notown Conservation Project
- 9. Orange County Headwaters Project
- **10**. The Chittenden County Uplands Conservation Project
- **11.** Great Bay Resource Protection Partnership
- **12.** Mt. Agamenticus to the Sea Conservation Initiative
- **13.** Portland North Land Trust Collaborative
- **14**. *Twelve Rivers Collaborative*
- **15.** Mahoosuc Initiative
- **16**. *High Peaks Initiative*
- **17.** Upland Headwaters Alliance
- **18.** *River Link*
- **19.** North Quabbin Regional Landscape Partnership
- **20.** Highland Communities Initiative
- **21.** West Suburban Conservation Council
- **22.** Nashua River Watershed Association
- **23.** The Lower Connecticut River and Coastal Region Land Trust Exchange
- **24**. *Rensselaer Plateau Alliance*
- **25.** Lower Penobscot Watershed Coalition
- **26.** Cold Hollow to Canada Forest Link Project
- **27.** Newfound Land Conservation Partnership

Helping new regional conservation partnerships consider their first steps

Bill has been working with 10 regional conservation partnerships to provide support that advances local interests and the broader goal of increasing the pace of land conservation in New England. For example, Bill has shared information from his research and experience with many partnerships seeking to collaborate with neighboring groups. Bill also serves on the steering committee for the Mass-Conn Sustainable Forest Partnership and as the coordinator of the ten-town Fairfield County Regional Conservation Partnership.

Fostering exchange and learning among regional conservation partnerships

Over the course of Bill's research and engagement with these groups, many partnership members and their coordinators have expressed interest in learning more directly from their peers. In response to this interest, and in collaboration with three partnership leaders, Bill has organized a workshop to bring numerous coordinators together. Scheduled for November 15 at the Wells National Estuarine Research Reserve in Southern Maine, the event will provide 20 or more groups the opportunity to share experiences, learn from one another, highlight key successes and strategies, and consider opportunities for collaboration. Increased communication and shared effort among these organizations may yield yet another avenue for increasing conservation success across New England and beyond.

left:

Partnerships made up of land trusts, towns, landowners, foresters, state agencies, and environmental groups coordinate activities to increase the pace of conservation in regions that range from 10,000 to 2 million acres in area.

Map information courtesy of Highstead and the Harvard Forest. 9/9/2010

A Big Partnership for a Big Idea:



The Wildlands and Woodlands Partnership

Being a trusted convener of conservation, planning, and forest stewardship interests is a role that Highstead takes very seriously. Nowhere is that trust more plainly evident than Highstead's continued participation in the Wildlands and Woodlands Partnership. The Wildlands and Woodlands Partnership is an informal network of individuals, conservation organizations, government agencies, businesses, and regional partnerships. Partnership members share information on best practices and opportunities, coordinate activities, and collaborate on initiatives in order to double the pace of forest conservation across New England. Since the fall of 2007, the Partnership's members have steadily relied on Highstead's assistance and support. Bill Labich coordinates quarterly Partnership meetings, distributes updates about new and ongoing initiatives, and helps partner groups collaborate more effectively.

Regional Conservation Partnerships: Success in Leaps and Bounds

Despite their informal structure, 26 regional conservation partnerships exist in New England today. Some of these groups have been active for over ten years, one since 1994. Twelve have emerged over the past three years. Many have achieved successes that their members believe would never have been possible without their partnership. Here are just four examples:

- The Orange County Headwaters Project (VT), established in 2003, developed a conservation easement program that enabled 27 landowners in two years to protect their forestlands with no out-of-pocket costs.
- The Mt. Agamenticus to the Sea Conservation Initiative (ME), established in 2002, raised \$17 million in four years to protect 2,600 acres through a local capital campaign (see map below).
- The Great Bay Resource Protection Partnership (NH), established in 1994, secured \$53 million over 16 years in federal funds to protect 38 properties totaling 5,000 acres of rare coastal waterfowl habitat.
- The North Quabbin Regional Landscape Partnership (MA), established in 1997, worked with partners to protect 3,614 acres and assisted six towns in passing a local tax surcharge matched with state monies for open space, historic preservation, and affordable housing projects.



Forest Ecology

Ed Faison Highstead <u>Ecologist</u>



Highstead Ecology: Forging New Collaborations in the Study of Large Herbivores and Long-term Forest Change

Much as collaboration advances Highstead's conservation mission, it is proving to provide a great boost to our ecological research and educational activities as well. In 2010, Highstead's Ecology program established new partnerships with Great Mountain Forest in Norfolk, CT; Yale University's Research Forest in Union, CT;



and the Smithsonian Institution in Washington, D.C., while continuing to work closely with existing partners at the Harvard Forest and the University of Massachusetts. Highstead also maintained its commitment to training undergraduate interns, as ecologist Ed Faison supervised two students from the Harvard Forest Summer Research Program (one funded by Highstead) and two students from the University of Massachusetts' **Environmental Conservation** Program. Finally, Highstead began to expand its leadership role in training town land

trusts, conservation commissions, and other groups in the monitoring of their forestlands. This effort, part of the Wildlands and Woodlands Forest Monitoring Program, was discussed in the Spring 2010 newsletter.

above: Moose browsing in regenerating harvest at the Harvard Forest in Petersham, Massachusetts.



Update: Regional Moose and Deer Browsing Experiment

In 2007, Ed and collaborators from the University of Massachusetts, U.S. Fish and Wildlife Service and the Harvard Forest recognized that an important new forest disturbance (moose) had returned to southern New England about which little was known. A longterm experiment to evaluate browsing by moose and deer and its influence on forests in southern New England was subsequently initiated. The experimental design included five recently logged forests with three "treatments" at each site : (1) a full exclosure with an eight foot tall fence that excludes both moose and deer, (2) a partial exclosure with a two foot high gap at the bottom of the fence that excludes the longlegged moose but not deer, and (3) an unfenced open plot. Since that time, four more sites have been added, giving us nine "replicates" - one of the most powerful large exclosure studies in North America. The two most recent additions completed in June of 2010 were at the 6000 acre Great Mountain Forest, a private, non-profit forest preserve in northwestern CT and the second at Yale University's 7800 acre Yale-Myers forest in the Northeastern corner of Connecticut. Both organizations make ideal partners for Highstead, as they practice sustainable forestry and have rich traditions of ecological research.

Early results highlight the remarkable changes that large herbivores can have on forests after only 2-3 years of browsing. Large tree seedlings are three times more abundant in the full exclosure than in the control, and small seedlings are generally more abundant in the unfenced control. In other words, browsing by moose and deer has not eliminated tree seedlings from these regenerating forests, but has prevented many seedlings from growing into the larger class, thereby slowing down the process of forest development.

Ungulates and Long-term Forest Change in Southern New England

As results from our exclosures begin to reveal the impacts of deer and moose on our forests, Ed's historical research in southern New England has highlighted the important effects that large herbivores may have had on tree species in the past. Working closely with David Foster and Jonathan Thompson, a researcher from the Smithsonian Institution, Ed compared colonial "witness tree" abundance (trees marked and recorded by original land surveyors in the 17th and 18th century) to modern Forest Inventory Data from the USDA Forest Service. Among the many interesting changes to the region's forest, this study shows that our two dominant coniferspine and hemlock - have increased, despite being logged heavily and suffering from a suite of introduced pathogens. What might explain these increases? At the peak of the 19th agricultural period, almost 70% of the southern New England landscape was cleared. As these farms were abandoned in the latter half of the 1800s, domestic cattle were often allowed to graze in the old pastures. Cattle selectively grazed grasses and browsed deciduous tree seedlings and generally avoided the pines and hemlocks. As the forests grew back on these abandoned fields, they were often dominated by white pine, particularly in more sandy soils. On cool, north-facing slopes of abandoned hill pastures, hemlock often proliferated.

Studying the past invariably informs us of current conditions. As we continue to monitor our forest exclosures, one of the questions we'll be looking at is whether an increased abundance of conifers will be associated with intensive browsing by moose and deer.



Large seedlings
Small seedlings

Full Exclosure Unfenced

Forstead Fall 2010

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

203.938.8809 www.highstead.net







printed on recycled paper



Peter Del Tredici on Wild Urban Plants of the Northeast



David Foster