



**Eastern New York Chapter
Fall/Winter 2012**

Stewarding Our Future

One LEAF at a Time

Ask high school students, Jesse Guerro, Kendy Francois, and Shaquille Bryan how they spent their summer and they are likely to break into a smile as they talk about clearing trails and building foot bridges, pulling invasive plants, and conducting Karner blue butterfly monitoring. These activities are only a few of the challenges that these urban teenagers faced during their summer internship with The Nature Conservancy.

Since 1995, the Conservancy's Leaders in Environmental Action (LEAF) Program has partnered with environmentally themed high schools to provide hundreds of high school students interested in environmental studies with the opportunity to leave their urban areas to live, work, and play on nature preserves.

The interns were among the 100 students selected for a paid, residential career

internship on nature preserves around the country. The opportunity to participate in actual conservation projects complements the students' classroom learning and provides hands-on experience they may not otherwise get during the school year.

For many LEAF participants, the program offers a first experience in nature. "This summer I went electro-fishing," said Shaquille Bryan, "and it was fun to catch and chase so many fish." Using a compass and mountain climbing were also first time endeavors.

In addition to those first experiences in nature, students gain other important benefits such as living independently and learning new skills.

"Inspired by their experiences in nature, the students are excited to take their new-found knowledge home with them

and share their passion with others," said Stewardship Coordinator Matt Levy. "Our goal is to provide them with the skills and knowledge that will help them care for the environment now and in the future."

Nationally, only 6% of students receive bachelors' degrees in the life science fields. According to a recent alumni survey of LEAF participants, 34% have gone on to major in life science fields in college and 21% of those majored in environmental studies. Approximately 33% of LEAF alumni have secured budding careers in related fields.

The LEAF program has been able to expand nationwide thanks to a \$3.1 million donation from the Toyota USA Foundation.

For more information, visit <http://www.nature.org/leaf>.

Dear Friends,

It is with a sense of pride that we send you this newsletter to highlight some of our conservation achievements during the past year. Two key tenets – sound science and strong partnerships – continue to embody the work that we do just as they have for the past 61 years.



At the same time, we cannot keep working in the exact same ways that we have in the past. The environmental challenges of our day requires that we work differently and so our vision continues to evolve. Our work has expanded to include such things as public policy, using scientific planning to inform energy development decisions to fostering the next generation of conservation leaders.

You will find information about these realms of our work on these pages. You can also learn how climate change and energy development will put increased pressures on our water supplies and how the Conservancy and key partners are developing a tool to help managers measure new withdrawals from rivers and lakes.

While our vision continues to unfold, one thing remains certain. Through the hard work of our dedicated staff and volunteers and your ongoing support, we can ensure lasting, meaningful protection of our lands and waters for people and nature, now and in the future.

Thanks for all you do for conservation!

Sincerely,

Rick Werwaiss
Executive Director

Making A Difference

Do you want to experience nature and make a difference while doing so? Do you enjoy working outdoors?

The Conservancy offers preserve steward volunteer opportunities at over 30 preserves in the Hudson Valley, the Catskills and Capital District region. In fact, some people find their experience to be habit-forming – serving as volunteer stewards for more than fifteen years.

Stewards monitor preserve activity, maintain trails, remove invasive species, complete infrastructure safety reports, and more. An onsite orientation and ongoing support is provided for all volunteers.

Interested in joining us? Contact Matt Levy at mlevy@tnc.org or (518) 690-7851.

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Stopping the Spread of Invasives

New Law Abates Threats to New York's Lands and Waters

The new Invasive Species Prevention Act recently signed into law by Governor Cuomo creates a statewide regulatory system to prohibit or limit the sale and transport of known invasive plants and animals that threaten native ecosystems and industries which depend on natural resources.

Invasive species are non-native plants and animals that cause harm to the environment or human health and put at risk economically important industries including farming, forestry, tourism, and commercial and recreational fishing.

Invasive species are expensive to manage or eradicate, and their cost to taxpayers is staggering. Invasive plants such as dog strangling vine smother agricultural crops and aquatic invasive species like Eurasian water milfoil reduce water quality, property values and recreational boating opportunities. Nationally, the impact of invasive species is estimated at \$167 billion annually.

In the Hudson Valley, municipalities have spent millions of dollars removing the invasive zebra mussels from water intake valves. In many lakes, people can no longer enjoy walking barefoot as the



Fifth grade students inspect a boat for aquatic invasive plants © Caitlin Stewart/Hamilton County Soil and Water Conservation District

sharp shells from the zebra mussels are like glass.

“At a time when community resources are already being stretched to the limit, this bill will ease the burden of management costs by preventing new introductions of harmful invasives,” said Troy Weldy, The Nature Conservancy’s Director of Ecological Management and representative on the state Invasive Species Advisory Committee.

With more than a decade of collaborative work with local and statewide programs to address invasives through integrated approaches, such as early detection – rapid response, pathway mitigation, education, and strategic management, the Conservancy will continue to work with partners and state agencies as the bill is implemented to ensure the protection of our lands and waters.

How You Can Help

- Use only non-invasive plants in your garden and remove invasive species from your land.
- Clean your hiking boots and waders before and after use to help stop the spread of invasive pathways.
- Don't move firewood. Purchase your firewood within 50 miles from where you intend to burn it.
- Clean your boat thoroughly before, after and between launches.
- Voice your support for federal and state funding. Early detection and a rapid response are critical to invasive species prevention.

Ready, Set, Measure

A Tool to Guide Water Management Decisions

Although New York's waters may seem plentiful, they are a finite resource. Inadequate replenishment affects water levels and water withdrawals that are too large or taken at the wrong time can have negative impacts on New York's 52,000 miles of streams and lakes.

Without sufficient water levels, streams, lakes and ponds may be inhospitable to fish and other aquatic wildlife and may be unable to support recreational and

tourism activities critical to the state's economy. In addition, threats such as natural gas development and climate change will increase the pressures on New York's natural resources.

Recognizing a need for statewide standards to ensure that New York's water bodies have enough clean water to provide for nature and people, Governor Cuomo signed the Water Resource Management Act (WRMA) into law last August. The

law builds upon New York State's commitment to the Great Lakes Compact to have in place by 2013 the necessary systems to manage all waters that flow into the Great Lakes.

While a significant milestone, the passage of WRMA is just the first step in ensuring that New York's freshwater resources are managed sustainably. To ensure that the State has the tools to implement the law, The Nature Conservancy in partnership with New York State Energy Research and Development Authority and U.S. Geological Survey is working to develop a scientifically-sound decision support tool—the New York State Stream Estimator Tool (NYSET). NYSET will enable users to estimate daily mean-streamflow (statistics) at ungauged locations and evaluate impacts of hydrological withdrawals of water for various uses. In addition to assisting with permitting water withdrawals, these data can be used to assist with implementing habitat protection, estimating contaminant loads, or determining the potential impact from chemical spills.

“We are beginning to have the science-based criteria to define the streamflow standards or the amount of water rivers need,” said Director of Conservation Science and Practice George Schuler. “We can use this data to understand how water withdrawals affect the species and habitats found in our waters. This information is critical to helping stakeholders and decision-makers at all levels grapple with how we use our land and water resources in the future.”



Fly fishing on the Neversink River ©Jon Kornfeld/TNC

Adding Conservation Science to the Energy Equation

New York is truly at a crossroads in planning for a sustainable energy future. There are significant energy policy opportunities and challenges as New York weighs how to reduce carbon emissions and meet increasing needs for energy. Communications Director Ellen Weiss (EW) recently spoke with Cara Lee (CL), The Nature Conservancy's New York Energy Team Lead about the important role the Conservancy can play to assure that conservation science is part of New York's energy future.

EW: *The focus on energy development is relatively new for the Conservancy. Is there something in particular that prompted the attention on energy?*

CL: While hydrofracking has certainly drawn a lot of attention, it is one piece of a larger question, "How can we meet our energy needs and manage the associated impacts of 'energy sprawl' to our land, water and air resources?" We need to be thinking about not only gas, but also renewables, wind, solar, transmission infrastructure as well as traditional energy sources.

The "footprint" of future energy development is likely to be large and poses a threat to our conservation priorities. We want to infuse conservation science into energy policy and practice to achieve better outcomes and reduce impacts on our forests, freshwater and marine systems.

EW: *How can the Conservancy insure that conservation science is part of the energy decision-making process?*

CL: In two key ways – through our successful science-based approach and collaboration. We know that our science-based approach can be used to avoid and reduce energy impacts on conservation priorities and help drive smart energy policies. In addition, we are uniquely positioned to collaborate with stakeholders in the energy arena including government, business, utility companies, community leaders and our fellow conservationists to achieve outcomes that are better for nature and people.

EW: *The science-driven approach and partnerships are hallmarks of the Conservancy. Do you have an example of how these traits can inform energy planning decisions?*

CL: Yes. We already have good examples of this in New York.

We are currently working with partners to identify and map important ecological resources, such as sensitive habitats, large forest blocks, and bird and bat migration routes in order to develop the first statewide comprehensive maps of New York's biodiversity resources, particularly as they relate to development of wind resources.

For this project, we have an advisory committee made up of wind industry representatives, conservationists and state agencies. The end product will be a tool that can help decision-makers balance environmental concerns with energy infrastructure siting.

EW: *It seems that the Conservancy's conservation history and experience developing conservation science tools can play an important role in New York's energy future.*

CL: Absolutely. As New York considers its energy future, the opportunity to promote conservation science, tools, better energy policies and practices is very real. New York can provide models for sustainable energy planning and development that can be examples for other states and globally.



Hydrofracking © Cara Lee/TNC

Eye on Invasives

A Fight against Phragmites

The complex of tidal wetlands lining the Hudson River north of Poughkeepsie represent the greatest concentration of freshwater tidal wetlands on the Eastern seaboard. These freshwater tidal wetlands serve as a habitat for waterfowl, shorebirds, and fish species.

Phragmites (common reed) poses one of the largest threats to this exemplary tidal marsh habitat. Originally from Europe and Asia, this perennial grass aggressively spreads through wetlands primarily by vegetative growth. A small fragment can start a new plant. It grows up to fifteen feet tall and has extremely high stem density and out-competes native plants that are essential to the system's health and productivity. Often no other plant species are found in the center of a phragmites patch.

“Research shows that the dense growth and the accumulation of dead tissues that form an elevated mat from phragmites alter the habitat for wildlife,” said Conservation Ecologist Chris Zimmerman. “This damaging invasive reduces the diversity of native birds and insects and eliminates rearing areas important for some juvenile fish.”

The potential consequences of phragmites invasion are especially relevant to conservation of the Ramshorn-Livingston Sanctuary wetlands, some of the highest-quality freshwater tidal wetlands in New York State, which contain a number of globally rare plant species.

“While the use of herbicide treatments has been established as an effective method to suppress phragmites,” explains Zimmerman, “it is unclear if

the herbicide treatments can effectively eliminate a phragmites patch and the response of the native plant community to these treatments is not well understood in freshwater tidal wetlands along the Hudson River.”

A research project is currently underway to assess the feasibility of eliminating six phragmites patches at Ramshorn Marsh by 2015. While the initial study results are positive and show that one herbicide application has resulted in a significant decrease in stem density and cover, it is still too early to predict if the patches can be completely eliminated. Additional treatments are planned over the next two years.

Citing the importance of this research to the long-term management of tidal wetlands along the 153 miles of the

Hudson River, Zimmerman adds, “In order to sustain the rare plant species and the birds and other wildlife that thrive in tidal marsh systems, efforts such as phragmites control will require the commitment of agencies and other partner organizations towards the early detection of new infestations and a cost effective rapid response program.”



Conservation Intern Laura Lukas monitors *Phragmites* at Ramshorn Marsh. ©Chris Zimmerman/TNC

Speaking Up for Nature



Eileen Lindburg © Albany-Colonie Chamber of Commerce

Eileen Lindburg admits that a lot of people are surprised to hear that she was not always a fan of nature. “I did some horseback riding as a kid, but unlike some of my fellow trustees who kayak, hike and run, I am not an outdoors person,” she explains.

When a former trustee approached Eileen about becoming involved with the Conservancy, she did more than just listen to what he had to say. Eileen not only began to think differently about nature; she also joined the Eastern New York Board of Trustees.

Having served in a leadership capacity

for the past 11 years, Eileen says, “Once you start paying attention to the impacts man has on the environment, it becomes apparent that someone has to speak up for nature.”

Eileen not only speaks up for nature in her ambassadorship role for the Conservancy, but also in her career as a commercial real estate agent in the Capital Region for more than 20 years. “Through my involvement with the Conservancy, I have gained an understanding that there are better and worse ways for development to occur. It is important that we continue to look for improved ways that development can happen so that conservation is part

of the decision-making process.”

It is the Conservancy’s science-driven and collaborative approach that inspires Eileen to continue her long-term support for our work.

“I think the Conservancy’s work is so important and impacts all our lives,” she says. “For example, the recent flooding events in New York State underlie that flooding and water flow are important considerations that will need to be factored into future development decisions. The work that the Conservancy is doing around climate change adaptation can help to inform these types of decisions.”

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Sam's Point Preserve ©Cara Lee/TNC

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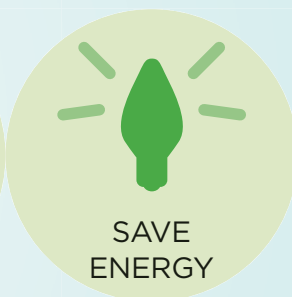
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