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# NEW YORK-NEW JERSEY TRAIL CONFERENCE

## INVASIVE SPECIES PROGRAMS

### 2015 YEAR IN REVIEW:

- INVASIVES STRIKE FORCE
- LOWER HUDSON PARTNERSHIP FOR REGIONAL INVASIVE SPECIES MANAGEMENT (PRISM)

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*DIRECTOR OF LAND STEWARDSHIP*





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## INVASIVE SPECIES PROGRAMS: 2015 AT A GLANCE

2015 marked the fifth year of the New York-New Jersey Trail Conference's **Invasives Strike Force (ISF)** and the third year of the **Lower Hudson Partnership for Regional Invasive Species Management (PRISM)**. Both programs continue to grow, providing education about invasives, surveying for invasive species, and making strides at managing invasive species across the northern New Jersey and southern New York region. The programs are not run independently, but as a coordinated whole with volunteers and projects serving both programs.

The **Invasives Strike Force** is comprised of volunteers whom we have trained to identify 14 common invasive plants. The ISF also includes advanced volunteers who can identify 11 additional invasive plants that are just emerging as problems in our area.

These surveying volunteers hike our trails and report where these invasive plants are located. While most of this work is done by individual volunteers, we also organize and run ISF Trail Crew workdays, during which invasive plants are removed. In addition, we recruit a dedicated ISF Summer Crew under the federal AmeriCorps program that performs surveys and removals throughout the summer.

The Trail Conference is under a five-year contract with the New York State Department of Environmental Conservation (DEC) to host the **Lower Hudson PRISM**. Funding for the contract is through the Environmental Protection Fund. As the host organization and coordinator of the Lower Hudson PRISM, we are responsible for engaging partners, conducting partner meetings, and developing and implementing a region-wide invasives strategy that includes education, training, recruitment of volunteers, fundraising, and the management of invasive species. Our contractual obligations include participating in monthly statewide conference calls, quarterly meetings with the other New York State PRISM leaders, and the annual N.Y. invasive species conference. We are required to develop an annual work plan, file quarterly progress reports, and write an annual report.

At the end of this fifth year of the Invasives Strike Force program, some of our major milestones include:

- Over 1,000 miles of trail surveyed for invasive species
- Over 400 volunteer surveyors trained
- In 2015, removed over 50,000 invasive plants and improved over 100 acres

This year marked the end of the third contract year of the Lower Hudson PRISM. The partnership now includes 42 partnering organizations and continues to grow.

### 5 YEARS OF INVASIVE SPECIES ACTION

**2011**  
INVASIVES STRIKE  
FORCE FOUNDED

**2013**  
LOWER HUDSON  
PRISM CONTRACT  
AWARDED



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# INVASIVES STRIKE FORCE: 2015 ACCOMPLISHMENTS

## VOLUNTEER CONTRIBUTIONS

Volunteer contributions dramatically increased the scope and impact of our work. Volunteers contributed time in the office helping with presentations, data processing, and map-making, and time in the field helping with removal efforts, surveying for invasives along trails, and general surveying as part of Lower Hudson PRISM programs.



### ISF TRAIL CREW

We held 17 volunteer work days that involved 86 volunteers (Figure 1). Volunteers who helped remove invasive species during our work days donated 745 hours of work in 11 parks.

Volunteer work days were led by Dr. Rohleder in the early part of the season and by the Summer Crew for the rest of the season. Having the ISF Summer

Crew lead volunteer work days has allowed us to increase the number of work days offered compared to previous years.

Volunteer workdays were held in parks throughout the region.

- **In western N.J.:** Delaware Water Gap NRA, Stokes State Forest.
- **In eastern N.J.:** Ramapo County Reservation, Norvin Green, Wawayanda SP.
- **In N.Y. west of the Hudson:** Bear Mountain SP, Schunemunk Mountain SP, Harriman SP.
- **In N.Y. east of the Hudson:** Old Croton Aqueduct SP, Westchester Wilderness Walk/Zofnass Family Preserve, Frederick Rose Preserve (Westchester).

### ISF BY THE NUMBERS

#### IN 2015

**51,626**

INVASIVE PLANTS  
REMOVED

**\$95,590\***

DOLLAR EQUIVALENT  
OF VOLUNTEER  
HOURS GIVEN TO  
PARKS

#### SINCE 2011

**401**

VOLUNTEERS  
TRAINED

**63,300**

OBSERVATIONS  
COLLECTED

**101**

PARKS IN WHICH OUR  
VOLUNTEERS HAVE  
SURVEYED

**1,042**

MILES OF TRAIL  
SURVEYED

**12,630**

ACRES SURVEYED

\* Using \$26.00 per hour value as a midpoint of NY and NJ rates. (independentsector.org).



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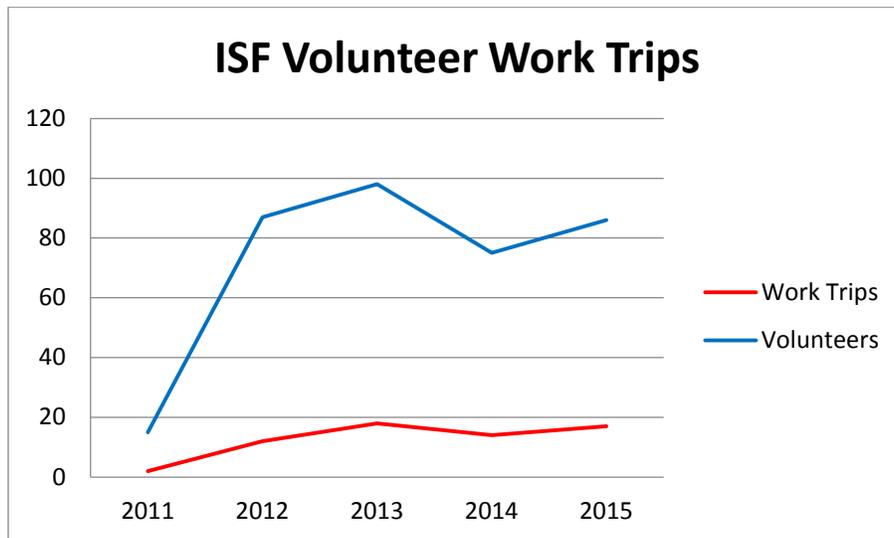


Figure 1

There were a couple of standout individual efforts by our volunteers in 2015.

- Two volunteers working separately removed invasive plants along hiking trails in Harriman State Park and Sterling Forest with a primary focus on young barberry plants. Collectively, they removed more than 1,600 plants over 61 hours.
- Eagle Scout, Zachary Kunow, of Boy Scout Troop 21 completed an invasive species project for his Hornaday award. He had Dr. Rohleder give a training session to his troop and then led the troop to remove over 350 invasive shrubs and large amounts of garlic mustard and Japanese stiltgrass from the trail they maintain in Sterling Forest. Zach had 59 volunteers who donated over 254 hours.





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Overall, in 2015 the ISF Summer Crew and the ISF Trail Crew volunteers together removed 51,626 invasive plants, plus patches of Japanese stiltgrass and garlic mustard.

The total time spent by our volunteers and AmeriCorps crew removing invasive species under supervision by the Trail Conference was 3,094 hours equating to over \$80,440\* donated.

## SURVEYORS

In 2015 we had 71 volunteer surveyors who scouted 114 miles of trail for common invasive species (Phase 1 surveys) and 74 miles for emerging invasive species (Phase 2) (Figure 2). This equates to 2,278 acres of land surveyed. Volunteers who surveyed trails donated 583 hours of time, a monetary equivalent of just over \$15,150\*.

We also engaged a handful of volunteers for special project surveying, including the Bradford pear surveys in April and the Lower Hudson PRISM Block Buster survey in July.

Since its inception, the ISF program has now collected over 63,300 observations in 101 parks and preserves in northern New Jersey and the Lower Hudson Valley and has surveyed 1,042 miles of trail (12,630 acres). This trail mileage covered is almost at our original five-year goal of 1,340 trail miles.

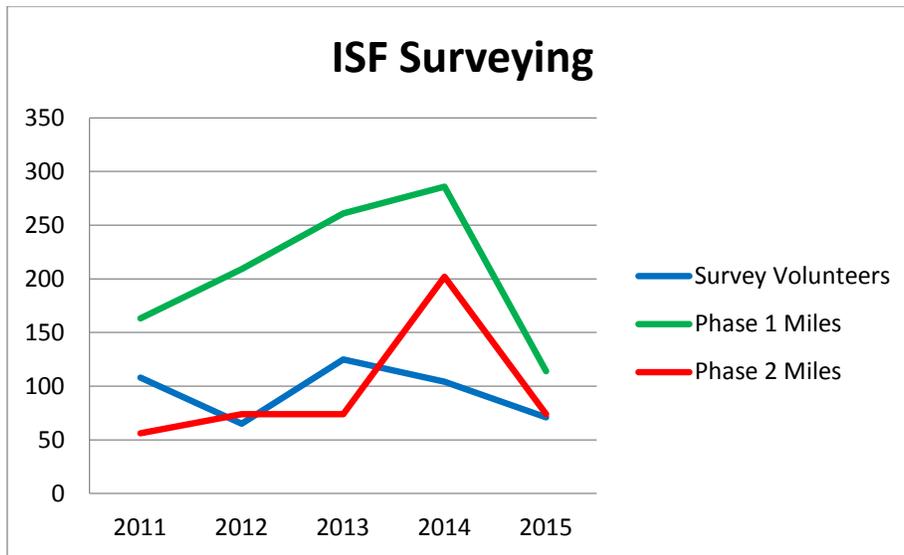


Figure 2

The fact that we are nearing completion of the trail surveys means that trail segments that were available to survey in 2015 were more distant from parking and more difficult to access. Most parks in Bergen County and Rockland County have been completed; since a high ratio of our volunteers come from these counties, they are now driving farther to access the remaining trails that need surveying. These constraints, along with the lower number of volunteers this year, explain the drop in miles surveyed in 2015 compared to previous years.

\* Using \$26.00 per hour value as a midpoint of NY and NJ rates. (independentsector.org).



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## OFFICE VOLUNTEERS

Cliff Berchtold volunteered in the office to help process data and make maps for ISF surveying volunteers. He volunteered 196 hours equivalent to \$5,096\* of work.

## INTERNS

We supported seven interns in 2015. In the early part of the year, Samantha Epstein served as program assistant and helped write final reports, process data, organize Lower Hudson PRISM meetings, and designed an aquatic invasive species monitoring and volunteer surveying program. She was able to get this program funded and adopted by Hudson River Sloop Clearwater and is currently there working full-time as the aquatic invasive species coordinator.

Our summer crew of four recent college graduates served through AmeriCorps, receiving education credits to apply toward college tuition or student loans. See additional details in the "Seasonal Crew" section above.

This fall we brought on two interns. GIS intern Adam Taylor is gaining professional experience making maps from ISF data; some of these maps have been published in the Friends of Old Croton Aqueduct's newsletter. Matt Simonelli is processing volunteer data and reports from the seasonal removal crew and will be assisting with Lower Hudson PRISM work.

## TRAINING WORKSHOPS

In 2015 we held six training workshops for volunteer surveyors. We trained 74 volunteers during these workshops. The total number of volunteer ISF surveyors trained since the beginning of the program in 2011 has now reached 401 volunteers. (Figure 3)



Three of the workshops were introductory plant identification for new surveyors (held in Mahwah, N.J.; Stony Point, N.Y.; and Rye, N.Y.) and two were advanced invasive plant identification (Mahwah, N.J. and Ossining, N.Y.).



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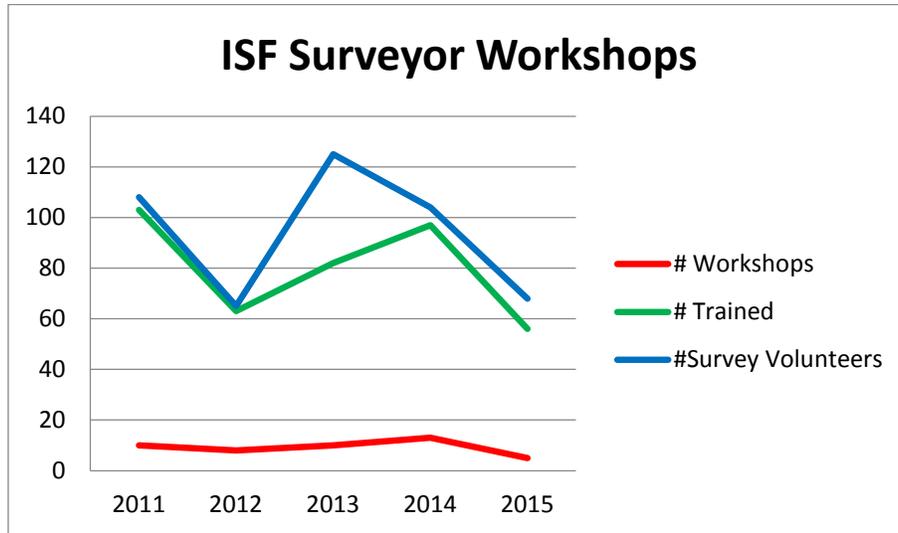


Figure 3

Based on previous years' numbers, we see that the number of volunteers trained through our workshops typically correlates to the number of surveying volunteers engaged for the season.

In addition, one workshop was given to a trail maintaining crew, the Westchester Trail Tramps, to teach strategies for invasive species management for maintainers (in Ossining, N.Y.). This workshop was done as a pilot to begin educating maintainers about what they can do to control invasive species during their routine work trips. The workshop was well received and the intent is to develop it into a regular offering via Trail U to trail maintainers.

All workshops were taught by Dr. Rohleder.

## SPEAKING ENGAGEMENTS

We gave 14 talks to various groups on invasive species. Director Linda Rohleder gave 12 talks and volunteer Cliff Berchtold gave two talks including locations such as the Bergen-Passaic Native Plant Society, an invasive species forum at the Cary Institute for Ecosystem Studies, and the Trail Conference Grand Opening. In total, 885 people were reached by these educational lectures (Figure 4).

In the spring of 2015, a new policy was instituted for engagements presented to groups that are not currently partners of the Trail Conference or Lower Hudson PRISM, requiring an honorarium to be charged. This money is placed in a general fund for invasives work; this year, a total of \$1,525 was raised for the program in this manner.



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**Figure 4: 2015 LECTURES**

DATE	DESCRIPTION	LOCATION	# ATTENDEES
1/22	Bergen-Passaic Native Plant Society	Ridgefield, N.J.	20
2/10	Overview of Lower Hudson PRISM for Black Rock Forest Consortium mtg	New York City	25
2/27	Presentation to Kent Highway Dept.	Carmel, N.Y.	25
3/15	Boy scout Troop 21, Invasive ID and removal	Suffern, N.Y.	10 adults 25 children
3/17	Orange and Dutchess Garden Club	Newburgh, N.Y.	35
3/21	Invasive Species in the Lower Hudson forum at Cary Institute for Ecosystem Studies	Millbrook, N.Y.	125
3/22	Presentation on Native Plants for Wildlife Habitats at TIP-PR mtg	Pound Ridge, N.Y.	35
4/11	NJ Botanical Garden Volunteer Luncheon Keynote speaker	Ringwood, N.J.	100
4/18	Invasive Species in NY at Jay Heritage Center	Rye, N.Y.	10
9/12	Trail Conference Grand Opening	Mahwah, N.J.	10
10/2	Central Pennsylvania Conservancy Invasive Species Strategies	Warriors Mark, P.A.	8
11/6	LHPRISM Summit - Opening Address	Bronx	402
11/6	LHPRISM Summit - Current and Emerging Threats	Bronx	40
11/7	Trail Conference Volunteer Appreciation	Mahwah, N.J.	15



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## ISF SUMMER CREW

Our four-person seasonal crew, the ISF Summer Crew, completed its second year in 2015 (Figure 5). This year's crew worked from mid-May through early August, helping to plan and run volunteer workdays to remove invasives, and removing and treating invasive species at more than 20 parks throughout the region. The crew has been invaluable in expanding the scope of our removal work and freeing up Dr. Rohleder's time during the season. The crew also serves as the Lower Hudson PRISM's response team.

The crew leader served a 675-hour AmeriCorps term (April 30 - Sept. 1) while the three crew members served 450-hour terms (May 16 - August 16). Three crew members stayed on an extra week as hourlies to continue work at a partner property; one crew member stayed on through the end of November helping to manage ISF volunteer data.



**FIGURE 5: 2015 CREW - SHELBY TIMM, JUSTIN DENNIS, CODY MENDOZA, BRIAN MIGLORINO**

In 2016, the crew term of service will be expanded so that the leader serves a 900-hr AmeriCorps term while the crew members serve 675-hr terms.



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## **FUNDING**

Funding for the 2015 crew came from a New Jersey Recreational Trails Grant; the New York State DEC (via the Lower Hudson PRISM contract); Orange & Rockland Utilities; partner contributions from the Westchester Land Trust, Henry Morgenthau Preserve, and Mianus River Gorge; and ISF speaker's honoraria.

## **TRAINING**

The crew was trained in Wilderness First Aid and in environmentally sensitive invasive species removal techniques, including manual methods and targeted chemical methods with herbicides.

In order to legally apply herbicides in N.Y. and N.J., each crew member attended an 8-hour New Jersey training course and took an online course for New York apprentices. As the supervising licensed pesticide applicator, Dr. Rohleder trained all crew members for the required 40-hour, on-the-job training period. All crew members received their N.J. Pesticide Operator license and served as N.Y. pesticide apprentices working under Dr. Rohleder's license. At the end of their term, two crew members took the N.J. Certified Pesticide Applicator exams and successfully earned their professional licenses.

## **WORK PERMITS**

Invasive species removal work requires permission from each landowner or manager. Individual parks and different park systems have different permitting processes. Some are able to simply give permission in an email while others require an extensive review process that may take as long as 90 days. Most advance planning work to obtain the appropriate permissions was done by Dr. Rohleder in advance of the summer season, but some also occurred during the season and was facilitated by having the crew leader start prior to the rest of the crew.

## **REPORTING**

The crew documented their work in spreadsheets, databases, and GIS mapping software. They also created detailed project reports for each park partner which were delivered in August. Copies of these reports were also shared with the Trail Conference volunteer Trail Chair for each park.

Reporting and documentation is challenging due to the multiple formats and recipients for the information. Pesticide usage must be reported annually to the state and meticulous records kept. Site records for invasive species populations that we are attempting to eliminate require reporting of details that can be correlated with previous and future years. New records of population in New York are reported to iMapInvasives on-line database. Treatment information for all species including area treated and numbers of individuals must be recorded in one location so that summaries can be produced by park, by state and overall total.



**Figure 6: 2015 ISF SEASONAL CREW ACCOMPLISHMENTS IN NEW JERSEY**

PARK	DESCRIPTION OF WORK
Abram Hewitt State Forest	Rechecked trails to make sure no invasives had returned. Through our efforts over the past two years here, <b>virtually all of the invasives along the trails have been removed.</b> There are still patches of Japanese stiltgrass remaining.
Delaware Water Gap National Recreation Area	Began invasive removal efforts in this park this year. Virtually all invasive plants were removed from along the Appalachian Trail between Mohican Outdoor Center and the Kaiser Trail and along the Kaiser Trail in the southern part of the park. Some barberry remains in isolated patches and there are still patches of Japanese stiltgrass. <b>More than 1,800 plants removed over 2.4 acres.</b>
Fanny State Park	Visited all reported Japanese angelica populations along the trails and <b>treated over 350 stems.</b>
High Mountain Preserve	Worked with The Nature Conservancy to treat a population of black swallowwort. Helped hold a volunteer work day to remove invasives along the trail in the less-invaded southeastern part of the park. <b>Removed over 550 plants of various species affecting 6.6 acres.</b>
Norvin Green State Forest	Revisited some previously treated Japanese angelica tree populations. Held a volunteer work day to remove various invasives along the trail. <b>Removed over 1,600 invasive plants and improved 1.8 acres of land.</b>
Ramapo Valley County Reservation	Led a corporate volunteer work day to remove invasives from along the trails. <b>Removed more than 680 invasive plants improving 1 acre of land.</b>
Stokes State Forest	Cleared invasives along several trails and held a volunteer work day. <b>Overall, 1,278 plants were removed and 1.5 acres of land improved.</b>



Wawayanda State Park	Rechecked previously treated populations of Japanese angelica: last year, there were 57 plants to treat; this year, only 5. Held a volunteer work day to begin clearing invasives along the trails in the lightly invaded eastern part of the park. <b>Overall, more than 600 invasive plants impacting about 8 acres removed.</b>
Worthington State Forest	Trained several park staff on identification of park-specific invasive species and removal techniques. <b>Removed a mile-a-minute population over 0.7 acres.</b>

**Figure 7: 2015 ISF SUMMER CREW ACCOMPLISHMENTS IN NEW YORK**

PARK	DESCRIPTION OF WORK
Appalachian Trail	Worked with the National Park Service Exotic Plant Management Team to <b>treat <i>Saliva glutinosa</i> along the Appalachian Trail</b> in Dutchess County.
Bear Mountain State Park	<b>Surveyed a new invasive species, pygmy bamboo, and piloted treatment methods for it.</b> Invasive plant removal at the Trails For People exhibit near Bear Mountain Inn. Barberry removal at Perkins Tower. Japanese angelica treatment along trails. Monitored scotch broom populations. Led several volunteer work days.
Dutchess County	The crew stayed at the Bard College Field Station and <b>surveyed various areas in Dutchess County</b> for invasive plants.
Giant Hogweed in Putnam County	On behalf of NYS DEC, the crew worked with Trillium Invasive Species Management and NYC DEP to monitor and remove giant hogweed, a state and federal priority invasive plant, at 14 locations in Putnam County. <b>Removed 439 hogweed plants.</b>
Harriman State Park	With the NYS Parks Invasive Plant Management Team, began work on removing a large linden viburnum population and removed some scotch broom populations. Worked with the American Canoe Association and Adirondack Mountain Club camps to lead volunteer work days removing barberry from camps. <b>Over 6,000 scotch broom plants were removed in Harriman-Bear Mountain over 5 acres.</b>



Henry Morgenthau Preserve	Removed various invasive species along the roadside in the preserve and within deer enclosures. <b>Over 500 plants removed improving about 0.7 acres.</b>
High Tor State Park	Treated over 1,500 black swallowwort plants threatening a rare native plant.
Mianus River Gorge Preserve	Helped control Japanese stiltgrass using several manual methods over 8.5 acres.
Old Croton Aqueduct State Park	Supported “I Love My Parks” invasives removal day by leading a volunteer group on one of the sections and treating stumps of bushes cut by another crew.
Pound Ridge Municipal properties	Worked with The Invasives Project-Pound Ridge to <b>treat 370 Japanese angelica trees on municipal properties</b> and plant native plants along trails and roadsides, improving 0.3 acres.
Frederick Rose Preserve	Removed various invasive plants at high-priority sites throughout the preserve and led a volunteer work day. <b>Over 3,700 plants were removed improving 5.5 acres.</b>
Schunemunk Mountain State Park	Led a volunteer work day removing invasive species from along the trails. Checked a previously treated population of Japanese angelica: last year there were 122 plants to treat; this year, only 5. <b>Over 1,100 invasive plants were removed along about 1 mile of trail.</b>
Sterling Forest State Park	Worked with NYS Parks Invasive Plant Management Team to remove hardy kiwi vine. This is the second year of work on this population. <b>Over 830 vines were removed; 90% of the site has now been treated.</b>
Storm King State Park	<b>Checked previously treated populations of Japanese angelica: only 12 plants found this year.</b> Removed invasives from along the trails. Over 4 acres improved.
Westchester Wilderness Walk / Zofnass Family Preserve	Led one volunteer work day and spent multiple additional days <b>removing over 17,000 invasive plants over 9.5 acres.</b>



## FUNDRAISING

Fundraising this year was conducted primarily to raise enough money to support the ISF Summer Crew. The Lower Hudson PRISM contract covers Dr. Rohleder's salary and expenses as well as providing some funding for seasonal work. Only about 20% of the crew funds come through the Lower Hudson PRISM contract. All other funds must be raised annually. In 2015, funds were raised via four mechanisms: 1. grant applications; 2. PRISM partner contributions; 3. honoraria from speaking engagements; and 4. Giving Tuesday appeal in November 2015 for funding the 2016 crew. Most of the funds required for 2016 Summer Crew have been pledged with 21% unfunded (Figure 8 and Figure 9).

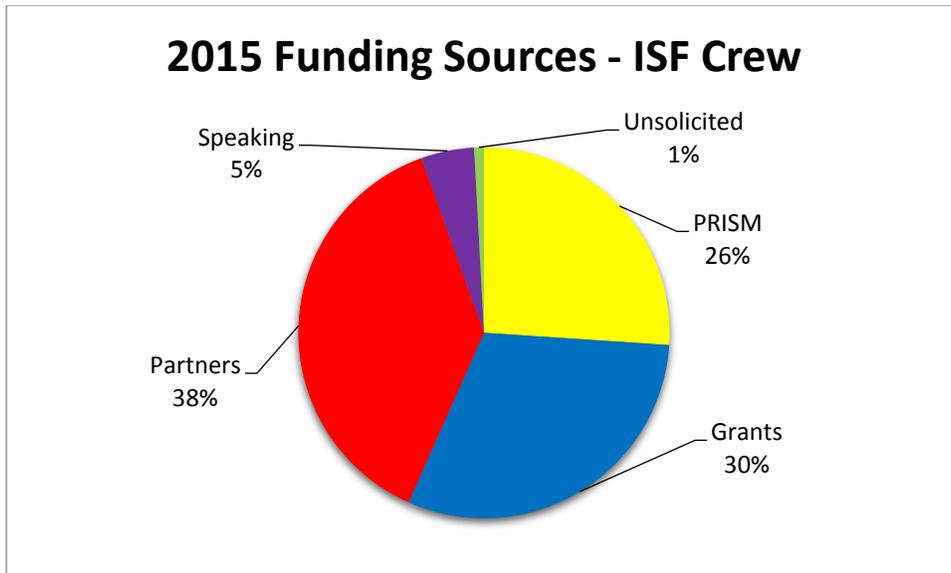


Figure 8

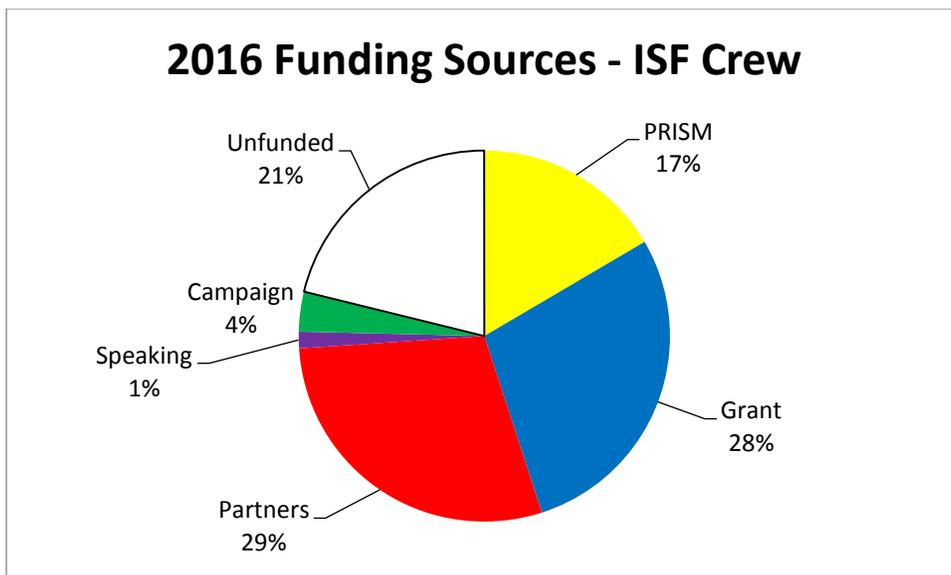


Figure 9



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## LOWER HUDSON PRISM: 2015 ACCOMPLISHMENTS

### PARTNERS

There are currently 42 partners that have signed the Lower Hudson PRISM partner agreement (Figure 10). One new partner was added in 2015. Several partners who signed on in 2014 have not met their obligations under the partner agreement (attend 50% of the meetings; provide information for the annual report) and therefore may lose their partnership status. This fall we have been actively trying to engage new partners, and the 2016 annual work plan calls for increased efforts to recruit and retain partners.



Figure 10

LOWER HUDSON PRISM PARTNERS MEETING, JANUARY 2015



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## MEETING COORDINATION

Dr. Rohleder planned and conducted five partner meetings for the Lower Hudson PRISM this year with average attendance of 35.

MEETING	LOCATION	ATTENDANCE
January	Teatown Lake Reservation, Ossining	50
March	Black Rock Forest, Cornwall	37
July	Trail Conference, Mahwah, N.J.	18
September	Jay Heritage Center, Rye	39
November	Scenic Hudson's River Center, Beacon	31

## REPRESENTATION AT MEETINGS

Dr. Rohleder represented the Lower Hudson PRISM at quarterly meetings of the PRISM leaders. The January and July meetings were via conference call, while the April meeting was an in-person conference in Sherburne, N.Y., and the October meeting was an in-person gathering in the Adirondacks. Dr. Rohleder developed the agenda and hosted the January conference call.

Dr. Rohleder represented the Lower Hudson PRISM during monthly, statewide Invasive Species conference calls, during which she reported on status and events for the Lower Hudson prior to the regularly scheduled webinar presentations held during these calls. Dr. Rohleder served as host for the February call.

Dr. Rohleder represented the Lower Hudson PRISM at statewide Invasive Species Priority Setting workshops held at Cornell University April 22-23 and November 2. These workshops brought together leaders from across New York to develop goals and parameters for setting statewide priorities for invasive species, projects, and target areas.

Dr. Rohleder also represented the Lower Hudson PRISM at the annual invasive species conference held at Cornell University as part of the Cornell Cooperative Extension In-Service conference November 3-5.



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## **LOWER HUDSON PRISM SUMMIT**

The Lower Hudson PRISM contracted with the New York Botanical Garden to plan and host our first Summit this year. Most of the work was done by NYBG with very little assistance required from us. The Summit drew over 400 attendees and featured a world-renown speaker on invasive species, Daniel Simberloff. Dr. Rohleder was tapped to give the welcoming address introducing the Lower Hudson PRISM and its goals and accomplishments. She also co-moderated one of the afternoon sessions and gave a talk on current and emerging threats in the Lower Hudson region.

The morning plenary session talks, including Dr. Rohleder's address, are recorded and posted on NYBG's YouTube channel: [youtube.com/watch?v=iPoiXyEbGus&feature=youtu.be](https://youtube.com/watch?v=iPoiXyEbGus&feature=youtu.be)

## **ONLINE PRESENCE**

### **WEBSITE**

The Lower Hudson PRISM website, [lhprism.org](http://lhprism.org), launched in 2014. The Trail Conference hosts the website on the same server as [nynjtc.org](http://nynjtc.org). Walt Daniels, who serves as the Trail Conference's webmaster, also oversees the Lower Hudson PRISM site. Dr. Rohleder has administrative privileges on the site and can create content and create and modify user accounts. Lower Hudson PRISM partners have accounts that allow them to post events and documents and view information tagged for partners only.

Dr. Rohleder led the Lower Hudson PRISM website working group in a visioning session in the spring of 2015, however, due to other priorities, there was no follow-up on this meeting.

Content for all the species on the New York prohibited list was added to the website by one of our interns.

Events throughout the season were added to the website by Dr. Rohleder. The Lower Hudson PRISM had 107 events listed on our website in 2015.

### **FACEBOOK**

The Lower Hudson PRISM Facebook page was created in July 2014. At the end of 2014, the site had 66 likes. At the end of 2015, we have increased the number of likes to 96. We posted 37 status updates to our Facebook page this year. The most viewed post was regarding the Trail Conference's Giving Tuesday fundraising campaign, in which we asked others to help get the word out. That post reached over 600 people. Posting to the Facebook page is managed by a small group of PRISM partners.



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## LOGO DESIGN

Dr. Rohleder led a small group of Lower Hudson PRISM partners to work with designers to produce candidate logos for the Lower Hudson PRISM. The four best designs were presented to partners at the well-attended January partners meeting, and written votes and feedback were collected. The working group continued to refine the selected design.

Based on the votes at the meeting, the top two designs were put before the Steering Committee, which advised to select the design that had the most votes. The new logo was announced at the end of January. In November, a partner version was added.



## STEERING COMMITTEE

There is a six-person steering committee made up of representatives elected from partners of the PRISM. Each year, two seats come up for election, and candidates must be found to run for election.

Dr. Rohleder serves as the seventh member of the steering committee and the only permanent, non-elected member. She sets and conducts the meetings. In the fall, when Steering Committee elections occur, Dr. Rohleder leads the Nominating Committee to recruit candidates. Voting happens at the fall partners meeting.

2015 STEERING COMMITTEE	
Brenda Bates	Westchester County Parks
Kali Bird	Hike New York
Michael Fargione	Cary Institute for Ecosystem Studies
Erik Kiviat	Hudsonia
Jonathan Rosenthal	Ecological Research Institute
Meredith Taylor	New York City Department of Environmental Protection
Linda Rohleder	New York-New Jersey Trail Conference

The Steering Committee oversees the Lower Hudson PRISM operations and decides on the awarding of sub-contract funds. In late winter, a Request for Proposals (RFP) is issued and proposals are evaluated and selected by the Committee. This process was led by Dr. Rohleder. The proposal selection occurs during a day-long, in-person meeting of the Steering



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Committee. In 2015, two Steering Committee members could not participate in the selection process and Dr. Rohleder had to recruit alternates from the partners to replace them.

Dr. Rohleder convened and conducted Steering Committee meetings, including several conference calls and five day-long meetings.

2016 STEERING COMMITTEE	
Brenda Bates	Westchester County Parks
Kali Bird	Hike New York
Michael Fargione	Cary Institute for Ecosystem Studies
Tom Lewis	Trillium Invasive Species Management
Jonathan Rosenthal	Ecological Research Institute
Jen Stengle	Cornell Cooperative Extension - Putnam County
Linda Rohleder	New York-New Jersey Trail Conference

## ANNUAL WORK PLAN

By contract, the Lower Hudson PRISM must publish an annual work plan. The action plan details tasks to be accomplished during the year for each of our six strategic goals. In order to develop the 2015 annual work plan, the Steering Committee reviewed the 2014 action plan and presented a revised plan for further work to partners at the September and November 2014 meetings. Dr. Rohleder was responsible for documenting the plan. The action plan was approved at the January 2015 partner meeting. The action plan must be approved in advance of issuing the RFP at the beginning of each year since the proposals must accomplish tasks called for in the action plan.

In August and September, the Steering Committee reviewed the 2015 plan and drafted a plan for 2016, which was documented by Dr. Rohleder. The partners worked on this plan at the September and November meetings. Dr. Rohleder incorporated the changes from the partners, and the 2016 plan was approved at the November 2015 meeting.

## ANNUAL REPORT

The Trail Conference is required by contract to produce an annual report for the Lower Hudson PRISM. This report is due in January. The 2014 annual report was produced in draft form by April and shared with NYS DEC, but was not posted to the Lower Hudson PRISM website until September.

Reports and statistics are collected from the PRISM partners on their activities in the late fall. These reports are used to help develop the annual report. In November and December, Dr. Rohleder solicited reports from each of the 42 partners for the 2015 Annual report and we hope to deliver this one in a more timely fashion.



## SUB-CONTRACTS

Dr. Rohleder managed the contracting process for the sub-contracted projects selected by the Steering Committee during the RFP process, ensuring properly signed contracts and receipt of required insurance or waivers. Each quarter, reimbursement invoices were received from sub-contractors, along with progress reports. Dr. Rohleder validated the requests and approved them for submission to NYS DEC.

**Figure 11: 2015 LOWER HUDSON PRISM SUB-CONTRACTED PROJECTS**

CONTRACTOR	PROJECT
Hudsonia	Assessment of invasive species threats to rare and endangered plants in freshwater tidal marshes along the Hudson River from Piermont to Saugerties, includes field surveys. Partnering with New York Botanical Garden and Hudson River National Estuarine Research Reserve.
Trillium Invasive Species Management	Follow-up treatment (year two) of hardy kiwi population in Pound Ridge. As part of this project, a BMP(Best Management Practices) of hardy kiwi will be produced. Partnering with The Invasives Project - Pound Ridge, Pound Ridge Land Conservancy, and the Pound Ridge Conservation Board. (Subsequent years will be monitored by partners at no cost.)
Trillium Invasive Species Management	Treatment of a large infestation of mile-a-minute in Esopus. Partnering with land owner who is providing forestry equipment and labor, Scenic Hudson, and CRISP. Scenic Hudson will control MAM on their properties and all will conduct and support education and outreach to neighbors. The goal of this project is to prevent spread into the CRISP region for which mile-a-minute is an early detection species.
Trillium Invasive Species Management	Treatment of three large patches of hardy kiwi in Croton on Brinton Brook Sanctuary Audubon property. Partnering with Consolidated Edison, Saw Mill River Audubon, and Hudson National Golf Club. Con Ed and the Golf Club have committed to control populations on their properties. Audubon volunteers will manage smaller populations at Brinton Brook. As part of this project, a 2(ee) recommendation for hardy kiwi will be obtained, and there will be education and outreach to local communities.
Geospatial and Ecological Services	Development of infrastructure, web interfaces, protocols, and procedures to support a grid-based survey system of the entire LH PRISM region, extending the NY Metropolitan Flora Project grid and including boundary areas in NJ, CT, CRISP and Cap/Mo. Includes some field testing, engagement of partners to complete other surveying, training partners and contracted botanists, and submission of records to iMap.



New York Botanical Garden	Planning and conducting an Invasive Species Symposium at New York Botanical Garden focused on efforts to manage invasives, conserve biodiversity, and educate the public in the Lower Hudson region. One day in early November, keynote speaker (confirmed) Daniel Simberloff. Budget includes discounted registration for LH PRISM partners, free parking and discounted lunch for all attendees, and publication of proceedings. 250-300 attendees.
New York City Parks	Pilot control project and survey of <i>Corydalis incisa</i> along the Bronx River. Partnering with Westchester County Parks, Bronx River Alliance, and New York Botanical Garden. (This project is expected to lead to a larger effort next year.)
Hudson River Sloop Clearwater	Boat launch steward program at three launches along the Hudson River, AIS Education and Outreach programs, volunteer AIS survey program. Majority of funding covers full-time program coordinator and boat launch stewards. Partnering with NY Sea Grant.

## BLOCK BUSTER SURVEY

In 2015, the Lower Hudson PRISM sub-contracted with Geospatial and Ecological Services to help develop the infrastructure for a region-wide survey program modeled after the Breeding Bird Surveys, where survey participants are responsible for surveying within a specific grid square. Dr. Rohleder worked extensively with the contractor to guide the development of materials and protocols for the survey. She also helped recruit volunteers and conduct the initial training sessions.

## EXPANDING MANAGEMENT OPTIONS

New York State is one of the stricter states in terms of herbicide use. An herbicide must either list the species it is being used for on the label or have what's known as a 2(ee) recommendation written by the state, which effectively serves as a label addition allowing that herbicide to be used for that species. Since many invasive species are not listed on labels, professionals are limited in the tools they have to control them. General-use herbicides—such as those sold to the general public at hardware stores that have generic statements such as “kills all weeds”—are one of the few options.

A small working group of experienced applicators from the Lower Hudson, New York City, and the Adirondacks selected species and herbicides to work on and drafted 2(ee) requests to the state. We were successful in having most of these approved and 2(ee) recommendations issued. We now have herbicides that have been approved for use on nearly all of the prohibited terrestrial plant species in New York (Part 575 regulations effective March 2015).

Dr. Rohleder helped lead and participated in this working group, which researched control techniques and herbicide rates in use for our targeted species by managers outside of New York.



# APPENDIX A: PARKS AND PRESERVES WHERE ISF VOLUNTEERS HAVE SURVEYED

## NEW JERSEY

### Bergen County

- Campgaw Mountain County Reservation - *Phase 1 Completed*
- Closter Nature Center - *Phase 1 Completed*
- DeKorte Environmental Center
- Flat Rock Brook Nature Center - *Phase 1 Completed*
- Franklin Lakes Nature Preserve
- Lost Brook Preserve - *Phase 1 Completed*
- Palisades Interstate Park - *Phase 1 Completed*
- Ramapo Mountain State Forest
- Ramapo Reservation County Park
- Ringwood State Park
- Rockleigh Woods Sanctuary/Lamont Reserve - *Completed*
- Tenafly Nature Center - *Phase 1 Completed*
- Thielke Arboretum - *Completed*

### Essex County

- Eagle Rock - Lenape Trail - *Phase 1 completed*
- Mills Reservation - Lenape Trail - *Phase 1 Completed*
- South Mountain Reservation - Lenape Trail

### Hunterdon County

- Highlands Trail - multiple parks

### Morris County

- Allamuchy State Park
- Farny State Park
- Dismal Harmony Natural Area
- Mahlon Dickerson Reservation - *Completed*
- Morristown National Historic Park

- Mountainside Park (Pequannock Twp) - *Completed*
- Mount Hope Historical Park - *Completed*
- Pequannock/Newark Watershed
- Pyramid Mountain Natural Historic Area
- Rockaway River Wildlife Management Area - *Completed*
- Silas Condict County Park - *Completed*
- Stephens State Park
- Tourne County Park
- Wildcat Ridge Wildlife Management Area
- Highlands Trail - multiple parks
- Patriots Path - multiple parks

### Passaic County

- Abram S. Hewitt State Forest - *Completed*
- Apshawa Preserve - *Phase 1 Completed*
- Garret Mountain Reservation - *Phase 1 Completed*
- High Mountain Park Preserve - *Phase 1 Completed*
- Long Pond Ironworks State Park
- Norvin Green State Forest
- Pequannock/Newark Watershed
- Ramapo Mountain State Forest
- Ringwood State Park
- Wanaque Reservoir
- Wawayanda State Park - *Phase 1 Completed*
- Highlands Trail

### Sussex County

- Allamuchy State Park
- Delaware Water Gap National Recreation Area
- High Point State Park



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- Pequannock/Newark Watershed
- Sparta Mountain Wildlife Mgmt Area
- Stokes State Forest
- Swartswood State Park - *Phase 1 Completed*
- Wawayanda State Park - *Phase 1 Completed*

### **Warren County**

- Allamuchy State Park
- Delaware Water Gap National Recreation Area
- Jenny Jump State Forest - *Phase 1 Completed*
- Worthington State Forest - *Completed*
- Appalachian Trail

## **NEW YORK**

### **Dutchess County, NY**

- Appalachian Trail
- Hudson Highlands State Park
- Mount Beacon Park - *Phase 1 Completed*

### **Orange County, NY**

- Appalachian Trail
- Bear Mountain State Park - *Phase 1 Completed*
- Black Rock Forest
- Goose Pond Mountain State Park - *Completed*
- Harriman State Park
- Highlands Trail
- Long Path
- Schunemunk Mountain State Park - *Phase 1 Completed*
- Sterling Forest State Park
- Storm King State Park - *Completed*

### **Putnam County, NY**

- Appalachian Trail
- Castle Rock Unique Area - *Phase 1 Completed*
- Fahnestock State Park
- Glenclyffe Park - *Phase 1 completed*
- Hudson Highlands State Park
- Manitou Point Preserve
- Wonder Lake State Park

### **Rockland County, NY**

- Appalachian Trail - *Phase 1 completed*
- Bear Mountain State Park - *Phase 1 completed*
- Blauvelt State Park - *Phase 1 completed*
- Buttermilk Falls Park - *Phase 1 completed*
- Clausland Mountain - *Completed*
- Cheesecote Mountain Town Park - Long Path - *Phase 1 completed*
- Gurnee County Park - *Completed*
- Harriman State Park
- High Tor State Park - *Phase 1 Completed*
- Hook Mountain State Park - *Phase 1 Completed*
- Long Path - *Phase 1 Completed*
- Mountainview Nature Park - *Completed*
- Nyack Beach State Park - *Completed*
- South Mountain Park - Long Path - *Phase 1 completed*
- Stephen Rowe Bradley Town Park - *Phase 1 Completed*
- Tallman Mountain - *Phase 1 Completed*

### **Sullivan County, NY**

- Wurtsboro Ridge State Forest



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### **Westchester County, NY**

- Hemlock Brook Preserve - *Phase 1 completed*
- Hunter Brook Preserve - *Phase 1 completed*
- George's Island County Park - *Phase 1 completed*
- FDR State Park
- Granite Knolls/Yorktown Heights - *Phase 1 Completed*
- Hudson Highlands Gateway Park - *Phase 1 Completed*
- Kitchawan Preserve - *Phase 1 Completed*
- Montrose Point
- Jay Heritage Center
- John Hand County Park - *Phase 1 completed*
- Old Croton Aqueduct State Historic Park
- Sylvan Glen - *Phase 1 completed*
- Teatown Lake Reservation
- Ward Pound Ridge Reservation
- Westchester Wilderness Walk (Pound Ridge) - *Phase 1 completed*
- Westmoreland Sanctuary
- Woodlands Legacy Field- *Phase 1 completed*

### **Ulster County, NY**

- Mononk Preserve



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## Appendix B: Lower Hudson PRISM Partners

Allied Biological, Inc.  
Andrew P. Thompson  
Bedford Audubon Society  
BioBoat  
Black Rock Forest Consortium  
Bronx River Alliance  
The Bronx River Parkway Reservation  
Conservancy  
Cary Institute of Ecosystem Studies  
Consitution Marsh Audubon Center &  
Sanctuary  
Cornell Cooperative Extension - Dutchess Co.  
Cornell Cooperative Extension - Orange County  
Cornell Cooperative Extension - Putnam County  
Cornell Cooperative Extension - Rockland Co.  
Ecological Research Institute  
Friends of the Great Swamp  
The Friends of the Old Croton Aqueduct  
Hike New York  
Housatonic Valley Association  
Hudson Highlands Land Trust  
Hudsonia  
Hudson River Sloop Clearwater  
Jay Heritage Center  
John Mickelson of Geospatial & Ecological  
Services  
Mianus River Gorge, Inc.  
Mohonk Preserve  
The Native Plant Center, a program of  
Westchester Community College  
Foundation  
Natural Areas Conservancy  
The New York Botanical Garden  
New York City Department of Environmental  
Protection  
New York City Department of Parks &  
Recreation  
New York-New Jersey Trail Conference  
The Pound Ridge Land Conservancy Inc.

Saw Mill River Audubon  
Scenic Hudson, Inc.  
Teatown Lake Reservation  
The Invasives Project - Pound Ridge  
Trillium Invasive Species Management, Inc.  
Village of Tuxedo Park  
Walter Daniels  
Westchester County Parks, Recreation,  
Conservation  
Westchester Land Trust

