

# CRISP



## Catskill Regional Invasive Species Partnership

### 2015 Annual Report



Prepared by Molly Marquand  
CRISP Coordinator  
And Daniel Snider  
Field Projects Manager

CRISP is the Catskill Partnership for Regional Invasive Species Management (PRISM) and is hosted by The Catskill Center for Conservation and Development, Arkville, NY

[www.catskillinvasives.com](http://www.catskillinvasives.com)

## Mission

To promote education, prevention, early detection and control of invasive species to limit their impact on the ecosystems and economies of the Catskills.

## Background

The Catskill Regional Invasive Species Partnership (CRISP) made a serious impact in 2015. The program's biological control program continued to grow and expand with an increased focus on the spread of hemlock woolly adelgid throughout the region. CRISP's flagship early detection rapid response (EDRR) network with Cornell Cooperative Extension (CCE) collected hundreds of new invasive species data points and continued to educate the public on the threats of invasive species. The CRISP watershed steward program with SUNY Oneonta entered its fourth season, covering the major lakes, reservoirs and rivers across the Catskills. Additionally, outreach, education, and control projects by led CRISP staff and partners bolstered important activities taking place throughout the region. Forest pests remained a priority for the partnership this year as infestations of hemlock woolly adelgid (HWA) and emerald ash borer (EAB) continued to spread.

Many programs successfully undertaken in 2015 will continue into the future. As CRISP enters a second interim 'extension' year between five year contracts CRISP partners have the opportunity to think strategically about future efforts. Despite the closure of the first five year contract, CRISP will continue to connect with new partners and seek effective ways to work on the gamut of invasive species issues. As we look ahead we can expect to see an increased awareness among our citizenry, a greater level of protection from new introductions, a decrease in spread of existing species, and more effective management of problem populations as a result of CRISP efforts.

## CRISP Partners

<i>Affiliate Organizations and Agencies</i>	<i>CRISP Executive Committee Members</i>
<div>SUNY College at Oneonta</div> <div>SUNY ESF</div> <div>New York Forest Owner Association</div> <div>Trout Unlimited</div> <div>NYS Department of Parks and Recreation NYS Department of Environmental Conservation</div> <div>Catskills Native Plant Nursery</div>	<div><b>2014 -2015</b></div> <div><b>Ethan Angell</b> New York State Department of Agriculture and Markets</div> <div><b>Meredith Taylor</b> New York City Department of Environmental Protection</div> <div><b>Kris Gilbert</b> New York State Department of Transportation</div> <div><b>Karen Rauter</b></div> <div><b>Tom Pavlesich</b></div>

Mountain Top Arboretum	Watershed Agricultural Council
Upper Delaware Council	<b>Ryan Trapani</b>
Society of American Foresters	Catskill Forest Association
Hartwick College	<b>Donna Vogler</b>
Frost Valley YMCA	SUNY Oneonta
New York New Jersey Trail Conference	<b>Jeff Senterman</b>
Catskill Mountain Club	The Catskill Center for Conservation and Development
Farm Bureau	<b>Jeff Wiegert</b>
Institute of Ecosystem Studies	New York State Department of Environmental Conservation
Olive Natural Heritage Society	<b>Marilyn Wyman</b>
NRCS County Staff	Cornell Cooperative Extension of Greene County
Delaware River Basin Commission	<b>Chris Zimmerman- Chair</b>
Friends of the Beaverkill	The Nature Conservancy
Sullivan County Master Gardeners	<i>CRISP Staff</i>
Delaware Highlands Conservancy	
Callicoon Creek Park Committee	<b>Molly Marquand</b>
Upper Susquehanna Coalition	CRISP Coordinator
Otsego Lake Association	
Catskill Watershed Corporation	<b>Daniel Snider</b>
USGS	Field Projects Manager
US Forest Service	
USDA APHIS, ARS	
Catskill Landowners Association	
Ulster County Department of the Environment	
Delaware County Planning Department	
Catskill Clean Water Fund	
Mine Kill State Park	
Catskill Forest Association	
Ashokan Stream Management Program	

## Accomplishments

### Prevention

#### CRISP Watershed Stewards

In May 2012, CRISP and the Biological Field Station at SUNY Oneonta launched a pilot Watershed Steward Program (WSP) to prevent the introduction and spread of aquatic invasive species in the CRISP region. This program entered its fourth season in 2015 and included boat steward teams on Lake Canadarago, Lake Otsego, and the Delaware River at the Delaware River National Scenic Recreation Area. Over 35 watershed stewards were trained by the Biological Field Station staff to greet boaters and anglers, discuss invasive species spread prevention, and collect watershed use data throughout the summer at high-use water body access sites. In just three and a half months, stewards interacted with over 5,000 waterbody users. Utilization of a data collection app on android tablets facilitated the gathering of consistent, complete data, and also dispensed with the need for a lengthy data sheet-to-excel spreadsheet transfer.

### Early Detection Rapid Response

#### Early Detection Rapid Response Network

In partnership with Cornell Cooperative Extension, CRISP expanded EDRR efforts in 2015. Each extension office within the CRISP region participated in a field season training for volunteers and staff on the region's highest priority early detection species in addition to providing free ID of invasive species to the public, manning an invasive species hotline, and recording over 300 new invasive species data points in the imap invasives database. Particular focus was given to Mile a Minute for education and outreach events. The first observation of this problematic early detection species was discovered in the CRISP region last fall. The EDRR network will play an integral role in raising awareness of this species and increasing the likelihood that any satellite populations are identified and appropriately addressed.

#### Top 25 Early Detection Plant Species List

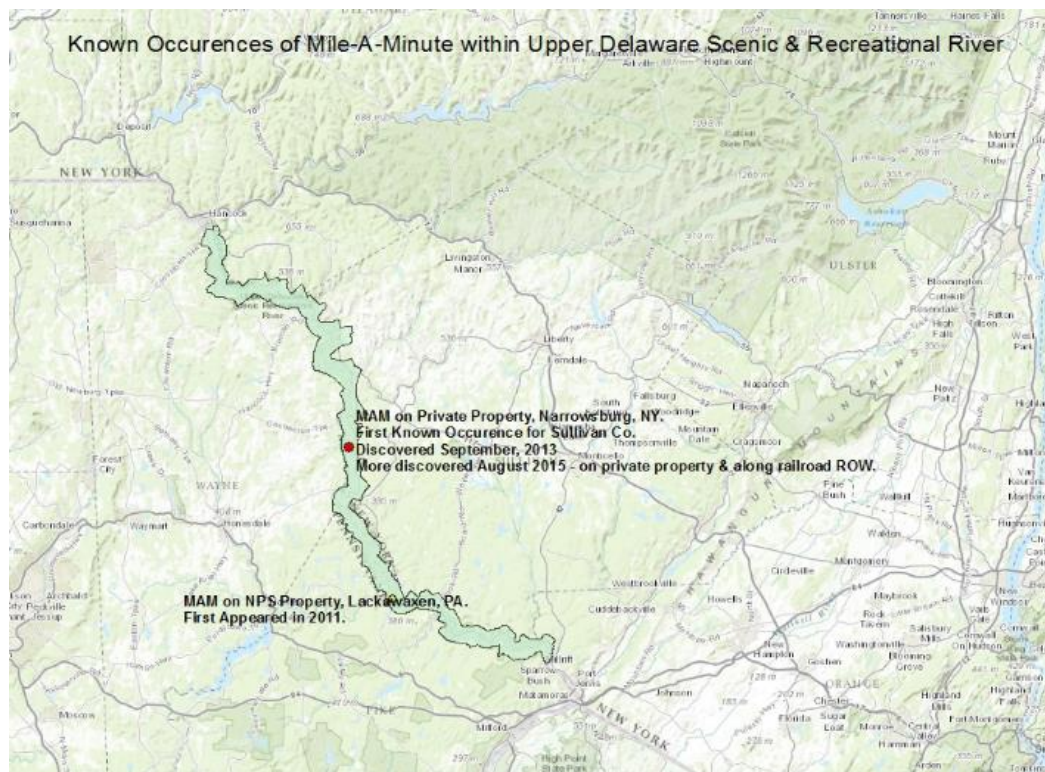
In an attempt to prioritize survey, management, and education and outreach efforts relating to EDRR species, CRISP contracted with Paul Harwood, a local botanist in the Catskills region, to create a prioritized list of the 'top 25 EDRR plant species'. Drawing on previously existing lists from PA, NJ, and the surrounding PRISMs, each candidate species on the CRISP EDRR list was scored according to the Brooklyn Botanic Garden ranking system. High scoring species were then assessed for their ability to invade the habitats and ecosystems present in the Catskills. The highest scoring species meeting these requirements were added to the list. Mile a minute (*Persicaria perfoliata*), policeman's helmet (*Impatiens glandulifera*), and Japanese angelica tree (*Aralia elata*) are all on the list. The full version will be available on the website, March 2015.



## New Detections

### **Mile a Minute**

In August of 2015, a new infestation of mile a minute was discovered in Sullivan County, on the northeastern shore of the Delaware River by CRISP partner and National Park Service employee Jamie Meyers. This occurrence is less than a mile from a handful of plants discovered in the summer of 2013 and confirms suspicions that the plant has spread from dense populations already present on the PA side of the river. As mile a minute continues to push northward, from PA, and westward from the Hudson Valley CRISP will launch surveys to delineate accurate infestation radii and manage occurrences where possible. This work will begin in the field season of 2016.



### **Hogweed**

Throughout the summer CRISP continued to control infestations of giant hogweed within Otsego, Ulster and Sullivan Counties. Populations were controlled using root cutting and flower head removal, depending on the stage of infestation. Two new infestations were found and controlled at Russel Brook trail and Russel Brook campsite. No populations of hogweed in CRISP were determined to be eradicated this year, but CRISP plans to have all known hogweed infestations within the region eliminated by 2018, as according to the region's giant hogweed management plan. This plan is available upon request.



## Control and Management

### Hemlock Woolly Adelgid

CRISP continued monitoring three hemlock stands previously selected as potential biological control release sites for *Laricobius nigrinus*. These three stands are all in good health, with burgeoning populations of hemlock woolly adelgid. To date, only one release has been successfully made in the Catskills, at Mine Kill State Park in November 2013 due to low availability of the beetle. This year, CRISP also assessed hemlock regeneration within these three stands, as well as five others selected for inclusion based on health characteristics. These stands will continue to be monitored for HWA presence, stand health, and hemlock regeneration to determine the optimal time for *Laricobius nigrinus* release.

Additionally, CRISP contacted private landowners regarding use of cultivated hemlock hedges as possible biological control release sites. These hedges have the advantage of being trimmed yearly, which contributes to constant new needle growth, allowing the hedge to support high populations of hemlock woolly adelgid- and as a result- high populations of the biological control. This circumvents the natural



boom-bust cycle that hemlock woolly adelgid exhibits in wild populations, and can allow for heavier and



more frequent harvesting of the biological control.

In 2016 CRISP plans to expand HWA survey efforts to the Schoharie basin utilizing citizen science and trained volunteer surveyors.

### **EAB Biocontrol**

Working once again with USDA APHIS and The New York State Department of Agriculture and Markets, CRISP staff monitored 7 sites in the Saugerties, Lake Katrine and Catskill areas for emerald ash borer biological control. Recaptures of the parasitic wasps (*Spathius agrili*, *Tetrastichus planipennisi*, and *Oobius agrili*) this year are again tentatively positive at 6 of the 7 sites, potentially bolstering the case for successful establishment of the biocontrols.



Photo courtesy of the Watershed Post

In 2016 CRISP plans to revisit biological control efforts of EAB, and all other EAB management efforts. The rate of spread of EAB is so rapid within the CRISP region ash forests are experiencing mortality beyond the remedy of CRISP management tools.

## **Japanese Knotweed**

Following up on work funded in 2013, the Rondout Neversink Stream Program continued to treat patches of Japanese knotweed along the Rondout and Chestnut creeks. Early detection of a new JKW infestation site was made in spring 2015 consisting of 20+ emergent stems brought in with fill to repair Ulster County Road 47. Rapid response began with the installation of 'NO MOW' signs to prevent further spread by DPW. Spray treatment was conducted in August. Stem injection treatments continued for the third year on 17 sites along Chestnut and Rondout Creeks. One site was eliminated from stem injection plots at landowner's request (this is not a riparian site) and will remain on the monitoring plan.

## **Awareness**

### **Training sessions and workshops**

CRISP continued to prioritize education and outreach in 2015 and trained approximately 850 participants in topics ranging from EAB identification to reporting procedures for early detection species observations.

### **Outreach Events**

**Festivals** - 620 people

Minekill Snow Fest, 1/31 - 40 people

Earth Day invasive training, Stamford, 4/22 - 150

Schoharie County Conservation Field Day, 6/2 - 200 people

Minekill Nature Tents, 7/10 - 120 people

Summer Hoot, Ashokan Center, 8/22 - 150 people

Challenges to the Catskills conference, 11/13 - 60 people

### **Workshops and Trainings** - 235 people

Hemlock health and HWA survey training, Boiceville, 1/19 - 6 people

HWA presentation and instructional survey, Minekill, 2/6 - 10 people

HWA Workshop, Kingston, 2/15 - 10 people

HWA survey and training day, Minekill, 3/9 - 6 people

ALB and HWA ID training, Kingston, 3/12 - 5 people

BioBlitz, Thorn Preserve, Woodstock, 4/24-25 - 69 people

HWA history, management, ID training, Kingston, 4/30 - 9 people

ED/RR workshop, Sullivan, 5/5 - 20 people

BioBlitz findings presentation, Woodstock, 6/27 - 16 people

ED/RR workshop, Hamden, 7/17 - 25 people

HWA/iMaps training, Minekill, 9/16 - 35 people

ED/RR presentation, CCE Ulster, 12/8 - 25 people



## Development of Outreach materials

As part of a diverse working group, CRISP helped develop New York's Plantwise brochure- an educational pamphlet containing native alternatives to commonly sold invasive species popular in the horticultural trade. This brochure was timed to be released along with the state's Part 575 regulations banning the sale of certain invasive species such as non-sterile cultivars of Japanese barberry.



CRISP distributed the brochures to garden clubs and centers throughout the region and plans.

## Mile-a-minute mailing

Sent to households in close proximity to the observed infestation in Esopus, NY, this mailing was a collaboration between many CRISP partners including Scenic Hudson, the Lower Hudson PRISM, and Trillium Invasive Species Management.



### Get Involved!

Volunteers and home owners are especially important to slowing the spread of this aggressive invasive plant. Each year, volunteers help remove Mile-a-Minute from select sites in the Hudson Valley. We also depend on your eyes to spot and report new patches of Mile-A-Minute.

If you think you have Mile-A-Minute on your property or would like to volunteer to help with control projects, please contact the **The Catskills Regional Invasive Species Partnership (CRISP) Coordinator** at (845) 586 2611

The Mile-a-Minute Project of the Hudson Valley, and other organizations like CRISP and the National Park Service have mounted an early detection and rapid response effort to address the invasive mile-a-minute vine. Many partners have collaborated to set up this system. The ultimate goal of this project is to eradicate mile-a-minute wherever possible and to halt the expansion of the vine in New York State.

For more information about mile-a-minute please visit our website [www.catskillinvasives.com](http://www.catskillinvasives.com)

or contact us at:

**Catskill Regional Invasive Species Partnership**

**The Catskill Center**

**43355 state route 28**

**Arkville, NY**

**(845) 586 2611 Ext. 103**

**[catskillinvasives@gmail.com](mailto:catskillinvasives@gmail.com)**



## Other Programs and Outreach Efforts

### Thorn Preserve BioBlitz

Partnering with the Woodstock Land Conservancy, CRISP helped run a comprehensive identification of the flora and fauna at one of the Catskill Center's preserves in Woodstock NY. Identification experts surveyed the property with trained volunteers to take location and ID species as specifically as possible. This information will be used to inform future stewardship efforts on the preserve, including invasive species control days. This BioBlitz took place in the spring - future BioBlitzes are planned for summer 2016 and fall 2017 to offer a comprehensive list of flora and fauna at the property.

### National Ash Tree Seed Collection Initiative

Partnering with the US Forest Service and the Greenbelt Native Plant Center, CRISP joined a national effort to save the genetic diversity of the ash genus, *Fraxinus*, through seed collection. Participants of the training program, which took place at the Mountain Top Arboretum in Tannersville, were taught how to identify different ash species and collect seeds following US Forest Service collection protocols. Seeds from over twenty ash trees within the CRISP region

were collected and sent to the national laboratory in Colorado for long term storage.



### **Plans for the future and ongoing planning**

In 2016, CRISP plans to reassess past goals in order to set better targeted priorities in anticipation for a new five year contract.

#### **Spring 2016**

- Continue assessing sites throughout the region and in Schoharie basin for HWA biocontrol releases
- Prepare for field season with completion of mile a minute and HWA action plan

#### **Summer 2016**

- Conduct mile a minute surveys of areas surrounding known infestations in Sullivan and Ulster Counties
- Hone and rank list of 'Top 25 priority early detection plant species' to better inform survey efforts