

# CRISP

Catskill Regional Invasive Species Partnership

## 2013 Annual Report



Prepared by Molly Marquand  
CRISP Coordinator

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)

## Table of Contents

Mission.....	2
Background .....	2
CRISP Partners .....	3
Accomplishments.....	4
Prevention .....	4
Giant Hogweed Prevention Outreach .....	5
Early Detection / Rapid Response .....	5
Education and Outreach.....	7
Other programs and outreach efforts .....	12
Control .....	13
Biological Control of Forest Pests .....	14
Ongoing Planning .....	16

## 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 2013. Several key projects were completed including the commencement of a biological control program, the continued development of an early detection rapid response network with Cornell Cooperative Extension (CCE), and the second full season of the watershed steward program with SUNY Oneonta. Additionally, outreach, education, and control projects by CRISP staff and partners continued to expand. 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 2013 will continue into 2014. Several new, proactive initiatives will be starting as well including exciting expansions within the early detection rapid response program. CRISP continues 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>
<p>SUNY College at Oneonta  SUNY ESF  New York Forest Owner Association  Trout Unlimited  NYS Department of Parks and Recreation  NYS Department of Environmental Conservation  Catskills Native Plant Nursery  Mountain Top Arboretum  Upper Delaware Council  Society of American Foresters  Hartwick College  Frost Valley YMCA  New York New Jersey Trail Conference  Catskill Mountain Club  Farm Bureau  Institute of Ecosystem Studies  Olive Natural Heritage Society  NRCS County Staff  Delaware River Basin Commission  Friends of the Beaverkill  Sullivan County Master Gardeners  Delaware Highlands Conservancy  Callicoon Creek Park Committee  Upper Susquehanna Coalition  Otsego Lake Association  Catskill Watershed Corporation  USGS  US Forest Service  USDA APHIS, ARS  Catskill Landowners Association  Ulster County Department of the Environment</p>	<p><b>2012 -2013</b></p> <p><b>Ethan Angell</b>  New York State Department of  Agriculture and Markets</p> <p><b>Meredith Taylor</b>  New York City Department of  Environmental Protection</p> <p><b>Kris Gilbert</b>  New York State Department of  Transportation</p> <p><b>Karen Rauter</b>  Sullivan County Soil and Water Conservation District  Rondout Neversink Stream Program</p> <p><b>Tom Pavlesich</b>  Watershed Agricultural Council</p> <p><b>Ryan Trapani</b>  Catskill Forest Association</p> <p><b>Donna Vogler</b>  SUNY Oneonta</p> <p><b>Alan White</b>  The Catskill Center for  Conservation and Development</p> <p><b>Jeff Wiegert</b>  New York State Department of  Environmental Conservation</p> <p><b>Marilyn Wyman</b>  Cornell Cooperative Extension of  Greene County</p> <p><b>Chris Zimmerman</b>  The Nature Conservancy</p> <p><i>CRISP Staff</i></p>

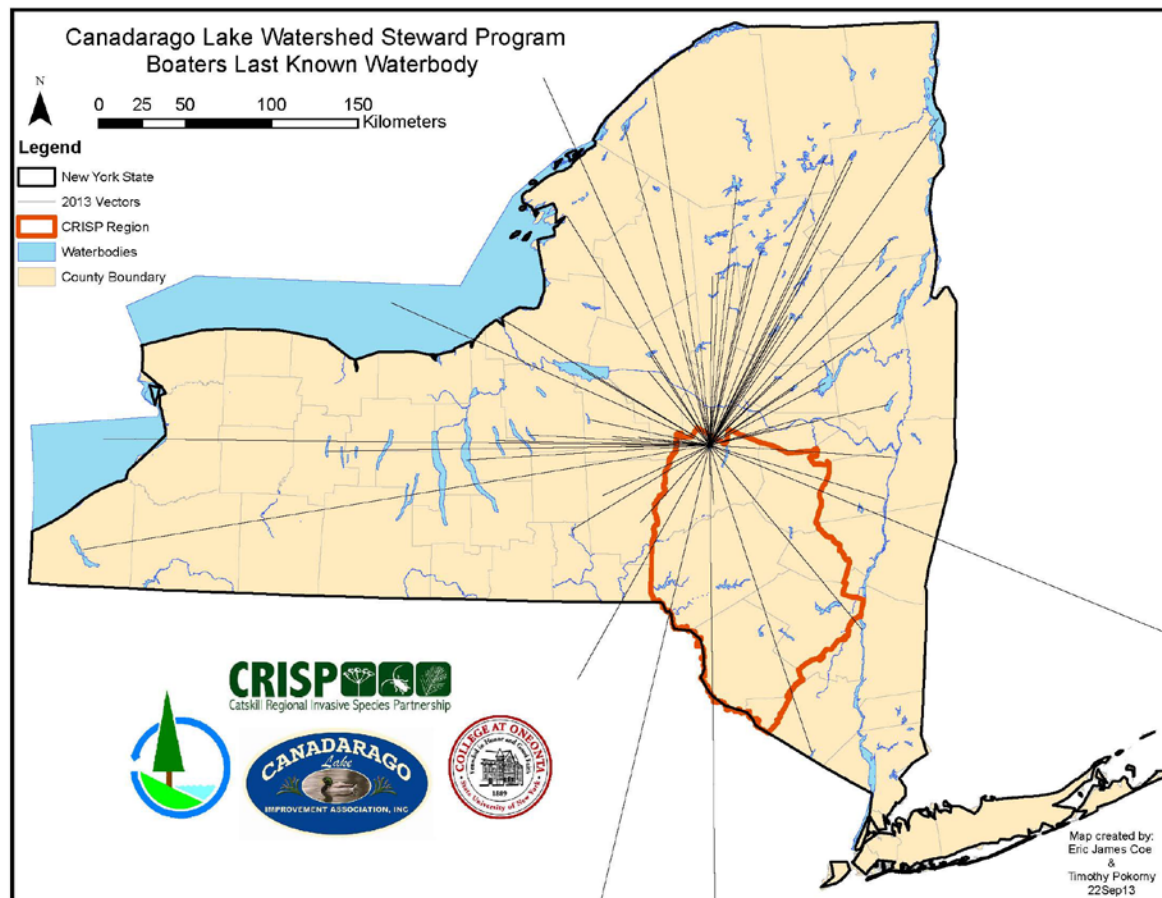
Delaware County Planning Department Catskill Clean Water Fund Mine Kill State Park Catskill Forest Association Ashokan Stream Management Program	<b>Molly Marquand</b>  CRISP Coordinator   <b>Theresa Murphy</b>  Biological Control Assistant (SCA/AmeriCorps)   <b>Samira Dere</b>  Invasive Species Outreach Assistant (SCA/Americorps)
--	---

## 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 introduction and spread of aquatic invasive species in the CRISP region. This program continued and expanded to include Lake Canadarago and the Neversink and Pepacton reservoirs: two of the region's six DEP reservoirs. Over 30 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 1900 waterbody users. Successes from 2013 include prevention of a waterchestnut introduction into Lake Canadarago by CRISP Watershed Steward, Eric Coe. Plans for next year include piloting a newly launched digital data collection app, and incorporation of additional waterbodies in Sullivan County into the program.



## Giant Hogweed Prevention Outreach

CRISP's 60-second giant hogweed public service announcement was aired nearly 400 times on four different radio stations throughout the late spring-early summer flowering season. The radio PSA contained information on identification, the impact of giant hogweed and contact information for reporting a sighting. In addition to the PSA, CRISP coordinator Molly Marquand facilitated a 30 minute Q and A session on giant hogweed on local radio station WIOX.

## Early Detection / Rapid Response

### Early Detection Rapid Response Network

In partnership with Cornell Cooperative Extension, CRISP greatly expanded EDRR efforts in 2013. Each extension office within the CRISP region participated in a field season training for volunteers and staff on the County's highest priority early detection species in addition to completing additional work outlined in the 2013 contract, including providing free ID of invasive



species to the public. Trainings were also delivered to other groups including the DEC rangers, DEP stream program managers, several garden clubs and campers at Mine Kill State Park. Additionally, over 232 new observations of 25 different invasive species from 21 different observers were recorded in 2013.

### Rapid Response Policy

CRISP partners finished drafting a rapid response policy to guide users through new invasive species detections.

### New Detections

#### **Mile-a-Minute**

Mile-a-minute was discovered on the NY side of the Delaware River in September, 2013 by National Park Service staff. The plant has long populated the southwestern banks of the river and periodic summertime surveys have attempted to assess its spread. A small population measuring approximately 12 square feet was identified above the water's edge in the town of Cohecton, NY. Rapid response assessments will be conducted by CRISP staff in the spring of 2014, after which NPS will control the population according to best management practices. Subsequent monitoring visits and survey areas have yet to be determined and delineated. This occurrence will serve as a case study through which the newly drafted CRISP rapid response policy will be tested.

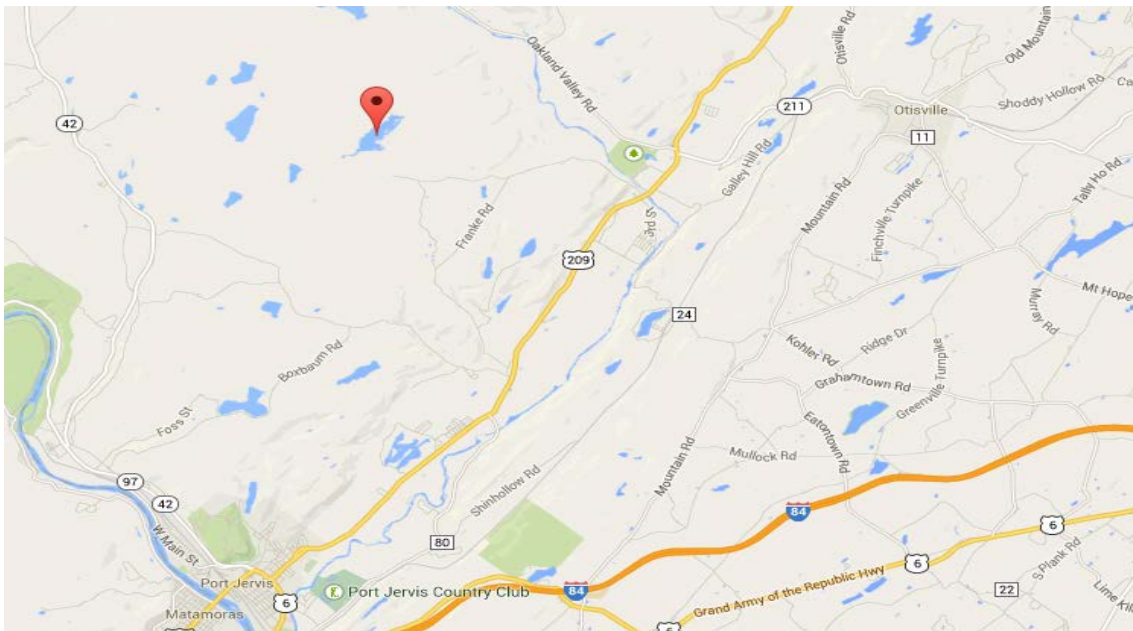


#### **Pestilence Wort**

Previously unknown in NYS, pestilence wort is listed as invasive in several neighboring states, including PA. Sighted by executive committee member Donna Voegler on a tributary of Wharton creek in Otsego County, a rapid assessment was conducted by CRISP staff in October 2013. According to the CRISP rapid response policy, consultation of an expert panel will determine whether this observation will be controlled, or solely monitored in the coming years.

## Waterwheel

Waterwheel is a carnivorous emergent aquatic plant native to Japan. On the verge of extinction in its native range, the plant is currently thriving in several locations on the east coast, including Big Pond, just north of Port Jervis. Although a rapid assessment survey revealed the plant is not currently creating a monoculture and outcompeting other vegetation within Big Pond, the original occurrence and neighboring waterbodies will be resurveyed in 2014.



## Education and Outreach

### Development of Outreach Materials

#### **Biological Control Brochure**

Blazing the way for CRISP's new biological control program, this trifold brochure was designed to be consistent with our 'priority plants' trifold. The brochure provides information on CRISP's work with HWA and EAB as well as detailing important background information on the process and history of biological control.


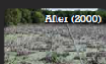


### Purple Loosestrife a success story!

Purple loosestrife is an invasive plant that out-competes native wetland plants. When traditional management strategies failed, scientists started looking for an effective biological control agent for purple loosestrife. *Calocuccia* beetles, leaf eaters from the plant's native home in Europe, emerged as top contenders.



After rigorous scientific testing demonstrated that *Calocuccia* beetles are host specific to the purple loosestrife the USDA approved their release in the United States. Since 1992 the beetle has been released in several states and is helping to manage purple loosestrife infestations. In many cases the beetles have successfully knocked back purple loosestrife populations by 80%. The small amount of purple loosestrife that is left is able to support a small population of *Calocuccia* beetles that will continue to feed on it. (See photos below).


Purple loosestrife control by *Calocuccia* beetles in a wetland near Wisconsin, Minnesota. ©2013 Minnesota Department of Natural Resources.



Three types of beneficial insects are being released to help control EAB. If established these insects will work in ways to help control the burgeoning population of invasive ash borer in NY state.

## CRISP

Catskill Regional Invasive Species Partnership



### Who are we?

CRISP is one of eight Partnerships for Regional Invasive Species Management (PRISM) located across New York State. We are comprised of agencies and organizations local to the Catskill region and are hosted by the Catskill Center for Conservation and Development in Arkville. Our region's boundaries are shown to the left.

Our aim is to protect our ecosystems and industries, including forest products, recreation and tourism, from invasive species. Highly destructive invasive forest insects and invasive plants, such as mile-a-minute and giant hogweed, are a priority for us here at CRISP. We also assist with local stewardship programs throughout the region to help prevent the spread of aquatic invasives. For more information on invasive species in the Catskills contact us or visit our website.


#### How to contact us

[mmmquand@catskillcenter.org](mailto:mmmquand@catskillcenter.org)  
(845) 586-2611  
[www.catskillcenter.org/crisp](http://www.catskillcenter.org/crisp)

### BIOLOGICAL CONTROL AND THE CATSKILLS



Can this beneficial insect...



stop this forest pest?





conservation creates opportunity

## CRISP

Catskill Regional Invasive Species Partnership

C/O THE CATSKILL CENTER • P.O. BOX 504 • ARKVILLE, NY 12405

## ‘How to Manage Your Ash’ Mailing

During the early spring months, prior to flight season, CRISP targeted the communities in Ulster County hardest hit by EAB with a mass mailing. The two sided trifold was sent to over 8,000 residents in 12 zip codes and provided step by step recommendations on how to manage infested ash, and where to turn for more help and informational resources.

### 5 Steps for Ash Management


**Step one:** If you need help IDing ash or an EAB infestation visit The New York Invasive Species Clearinghouse at: [www.nyis.info](http://www.nyis.info)

**Step two:** Determine how close you are to confirmed EAB infestations. Proximity will determine how much time you have to plan a course of action. If you reside within the black core area (see map on front of fold) assume your ash trees have EAB. NYIS info provides information on the current spread of EAB on their website: [www.nyis.info/infestationmap](http://www.nyis.info/infestationmap)

**Step three:** Determine how much ash you have on your property. For landowners with only a few ash, chemical treatment or removal for personal firewood use are both viable options. If ash are located in an area where they may safely remain as snags, no action may be required. For landowners with numerous ash, a planned harvest and careful replanting of non-ash species will likely be necessary. For more tips: [www.nyis.info/index.php?action=management](http://www.nyis.info/index.php?action=management)

**Step four:** Begin the planning process now! Felling trees takes time and chemical treatment should be done before canopy dieback occurs. For woodland owners with 5+ acres the New York State Department of Environmental Conservation provides free forest stewardship recommendations upon request. Contact Mike Callan at DEC for Ulster and Sullivan Counties at (845) 256-3156. For Delaware and Greene Counties call (807) 860-7365. Alternatively, get in touch with a professional certified forester or arborist. These professionals can help any landowner to plan a best course of action for their trees. View contacts at [www.forestconnectinfo](http://www.forestconnectinfo) and [www.nyarborists.com](http://www.nyarborists.com)

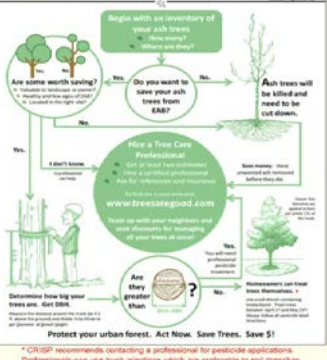
**Step five:** Be vigilant! Watch for signs of EAB infestation including increased woodpecker activity on ash, ash canker, dieback, and small 'D' shaped exit holes 1/8 inch in diameter. To report a sighting call the EAB hotline at (866) 645-6662 or contact our CRISP coordinator Molly at [mquand@catskillcenter.org](mailto:mquand@catskillcenter.org)



**THANK YOUR TREES ACT NOW, BEFORE IT'S TOO LATE**

Photos Courtesy of Dr. David Roberts, Michigan State University. If you see dieback it's time to act now! If you want to preserve your ash with insecticide treatments researchers recommend treating your tree before it has 10 to 20% crown dieback on the treatment will not be successful. Don't wait, dead trees are problematic and expensive to cut down so if your trees have dieback it's time to take action.

### Managing Emerald Ash Borer: Decision Guide



**Protect your urban forest. Act Now. Save Trees. Save \$!**

**Urban Slow Ash Mortality** is a concept developed by Deborah McCullough & Rodrigo Marzader of Michigan State. Their modeling has shown that a community working together can effectively manage their ash and EAB through an innovative solution of treating 20% of ash trees at random every year with a two year pesticide. In the model, treatment of 20% of ash trees annually protected 95% of trees after 10 years, and the cumulative costs of treatment were substantially lower than removal costs for dead or declining ash trees. Research shows Urban SLAM can help save trees which is good news, keeping ash on the landscape is beneficial for human health. If your community is interested in this method contact CRISP at [mmmquand@catskillcenter.org](mailto:mmmquand@catskillcenter.org) for more information. You can also check out [www.slowash.info](http://www.slowash.info)

### Management Resources

Catskill Regional Invasive Species Partnership: Our website has additional links and guides to help you plan how to manage your ash. Visit us at [catskillinvasives.com](http://catskillinvasives.com) or call (845) 586-2611

Cornell Cooperative Extension: CCE provides a wealth of resources concerning forest pests to Catskill residents. The Agroforestry Resource center in Arns, NY offers a Master Forest Landowner course covering topics related to forest ecology and silviculture. CCE also maintains a list of certified foresters who can help write your management plan. View information at [www.forestconnect.org](http://www.forestconnect.org)


New York Invasive Species Clearinghouse: For information on forest pests including EAB, signs and symptoms of infestation, up to date population maps, and help for woodlot owners go to: [www.nyis.info](http://www.nyis.info)

New York State Department of Environmental Conservation: DEC maintains useful information such as answers to FAQs, explanations on quarantines and regulations concerning EAB, tips on woodlot management, and how to market ash trees. Visit: [www.dec.ny.gov/animals/7253.html](http://www.dec.ny.gov/animals/7253.html)

Ulster County EAB Task Force: The Ulster County EAB Task Force was created to address the needs of its communities in responding to the impacts of the emerald ash borer. Communities are invited to participate in the task force to find out the latest information and how they can begin preparing for the loss of their ash trees. [www.uccvnmnt.org/emerald-ash-borer-information](http://www.uccvnmnt.org/emerald-ash-borer-information)

Watkins Agricultural Council: WAC facilitates a Forestry Program geared towards teaching professionals sustainable forestry management practices, and can help create a forest management plan for private lands within the NYC watershed. [www.nyccatfish.org](http://www.nyccatfish.org)

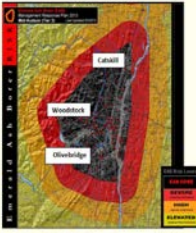

How can I help slow the spread of EAB?



Enter our online mobile app to report more than 100 invasive species from 1000+ locations.


### How to Manage Your Ash

The invasive Emerald ash borer (EAB) has arrived in Orange, Ulster, and Greene Counties. This insect can quickly kill ash trees, causing widespread damage. Act now to manage your ash, save money, and slow the impact of this invasive insect on our forests.

Adult Emerald Ash Borer Photo credit: David Cappelletto, Michigan State

**Brought to you by:**



Catskill Regional Invasive Species Partnership CATSKILL CENTER



## Beetle Busters Tee-shirts

Gifted to participants of the CRISP 'Beetle Busters' training, these t-shirts serve to raise the level of awareness where Beetle Buster trainees serve as repositories of knowledge within their communities.



## Festivals/Tabling

CRISP staff attended many events and festivals in 2013 and interacted with over a 1000 people



- 50 people, 2/2 Winter Hoot, Olivebridge, NY
- 50 people, 4/13 Earth Festival, Cooperstown, NY
- 75 people, 4/27 Earth Day, Cobleskill, NY
- 40 people, 5/4 Woodsman Festival, Meredith, NY
- 50 people, 5/11 Trailfest, Kingston, NY
- 75 people, 7/20 Mine Kill Summerfest, Gilboa, NY
- 200 people, 8/3 Schoharie County Sunshine Fair, Cobleskill, NY
- 75 people, 8/10, Blueberry Festival, Ellenville, NY
- 75 people, 8/24 Catskills Forest Festival, Margaretville, NY
- 75 people, 9/28 Cauliflower Festival, Margaretville, NY
- 200 people, 10/12-10/13 Taste of the Catskills, Delhi, NY

## Training sessions and workshops

CRISP continued to prioritize education and outreach in 2013 and trained over 900 participants in topics ranging from EAB identification to reporting procedures for early detection species observations.



Dr. Mike Kudish leads a monitoring hike to a high elevation ash grove to check for signs of EAB.

- March 13<sup>th</sup> 'EAB ID, signs, symptoms and survey', Catskill, 13 participants
- March 14<sup>th</sup> 'EAB preparedness for municipalities', Woodstock, 16 participants
- March 29<sup>th</sup> SUNY Oneonta boat stewards training, Arkville, 16 participants

- April 1<sup>st</sup> Stream Invasives Blitz, performed outreach to anglers at fishing access points across the region, 38 anglers reached, 17 volunteers
- April 12<sup>th</sup> ‘Ash management options for homeowners’ workshop, Woodstock, 8 participants
- April 21<sup>st</sup> ‘Early detection species of the Catskills’ Olivebridge, 40+ participants
- April 25<sup>th</sup> Earth week, ‘Invasive Species of the Catskills’ Oneonta highschool 45+ participants
- May 2<sup>nd</sup>, ‘Early detection species of the Catskills’, Liberty, 30 master gardener participants
- May 4<sup>th</sup>, ‘EAB Awareness Day’, Woodstock, 10 participants
- May 5<sup>th</sup>, ‘Early detection species of the Catskills’, Olivebridge, 16 participants
- May 8<sup>th</sup>, ‘Early detection species of the Catskills’, Cooperstown, 15 participants
- May 10<sup>th</sup>, ‘Ash management options for homeowners’, Stone Ridge, 8 participants
- May 11<sup>th</sup> ‘Invasives 101’ workshop, Acra, 8 participants
- May 15<sup>th</sup>, ‘Invasive Species Woods Walk’ Acra, NY 8 participants
- May 31<sup>st</sup>, SUNY Oneonta boat stewards training, Upper Delaware National Scenic and Recreational Area 31 participants
- June 1<sup>st</sup>, ‘Early detection species of the Catskills’, Olivebridge, 23 participants
- June 7<sup>th</sup>, ‘Invasives 101’ workshop and games, Boiceville, 150 participants
- June 8<sup>th</sup>, Remote isolated ash grove monitoring hike, Big Indian, 10 participants
- June 19<sup>th</sup>, ‘EAB and biocontrol’ Woodstock, 7 participants
- June 29<sup>th</sup> ‘They’re Here, This Year, let’s Deal With It!’ EAB workshop, Tannersville, 6 participants
- July 16<sup>th</sup>-18<sup>th</sup> Beetle Busters at Mine Kill State Park, Gilboa, 150 participants
- July 17<sup>th</sup>, ‘Plant this, not that’ Woodstock Garden Club, Woodstock, 18 participants
- August 9<sup>th</sup>, ‘Go Native! Native Willow Walk’, Fleischmans, 7 participants
- August 27<sup>th</sup>, ‘Invasives 101’ hike, Fleischmans, 10 participants
- August 28<sup>th</sup>, ‘Early detection species of the Catskills’, Oneonta, 17 participants
- September 13<sup>th</sup>, ‘Knotweed ID’ workshop, Grahamsville, 3 participants
- September 16<sup>th</sup>, Boat cleaning demo, Saugerties, 3 participants
- September 20<sup>th</sup>, ‘Forest Pests: Id’ing signs and symptoms’ Hike, West Shokan 6 participants
- Oct 1<sup>st</sup>, Ash seed collection workshop with Mid Atlantic Seedbank, Acra, 18 participants
- Oct 5<sup>th</sup> ‘Invasives 101’ hike, Roxbury, 18 participants
- October 8<sup>th</sup>, ‘Early detection species of the Catskills’, Liberty, 21 participants
- October 10<sup>th</sup>, remote ash grove monitoring hike, Woodland Valley, 2 participants
- October 15<sup>th</sup>, Stilt grass survey, Woodstock, 6 participants

- October 17<sup>th</sup>, ‘Invasives 101’ presentation and weed pull, Mine Kill State park, 35 participants
- October 23<sup>rd</sup>, ‘Beetlebusters’ training, Acra, 15 participants



Two volunteers help monitor the Catskill Center’s newly acquired Thorn Preserve for invasive species.

- November 4<sup>th</sup>, ‘EAB: signs, symptoms, and surveys’, workshop, Cobleskill, 65 participants
- November 13<sup>th</sup>, ‘CRISP/PRISM’ presentation, Oneonta, 9 participants
- November 16<sup>th</sup>, ‘EAB: signs, symptoms and surveys’, workshop and ash tagging, Gilboa, 10 participants

## Other programs and outreach efforts

### Beetle Busters/First Detectors

In 2013 CRISP continued to spread the word about forest pests like emerald ash borer and Asian longhorned beetle throughout the region. Streamlining information with Cornell’s ‘First Detectors’ training, CRISP ensured consistent messaging and information pertaining to forest pests were dispersed throughout the Catskills. Participants of the program were trained to act as repositories of forest pest knowledge for their communities and received a certificate of completion, an identifying tee-shirt, and a plethora of helpful literature to distribute.

### 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 fall training program were taught how to identify different ash species and collect seeds following US Forest Service collection protocols. Seeds from six ash trees within



the CRISP region were collected and sent to the national laboratory in Colorado for long term storage, and the Greenbelt Native Plant center for midterm storage. Next year, CRISP plans to expand the program and begin collecting within the Catskill forest preserve.



## Control

### Giant Hogweed

Throughout the summer CRISP continued to control infestations of giant hogweed within Otsego, Ulster and Sullivan Counties. Populations were controlled using root cutting, with the exception of a single site in Sullivan County which was controlled using flower head removal. Five additional sites were monitored during the summer to ensure previous control efforts had been effective. CRISP plans to have all known hogweed infestations within the region eliminated by 2018.



A site in Sullivan County where flower head removal is being utilized to control the population (left). A case of mistaken identity: CRISP staff explore a reported sighting of giant hogweed on the Susquehanna River and find angelica (right).

### Rondout Neversink Knotweed Control Project

Contracting with the Rondout Neversink Stream Program in Grahamsville, over 40 small stands of Japanese knotweed were chemically treated on the Chestnut and Rondout Creeks in September of 2013. Additionally, local highway crews, and landowners were trained in knotweed identification and proper reporting procedures. Educational signage was erected at town and County garages.



### **Biological Control of Forest Pests**

#### **Emerald Ash Borer**

In partnership with the NYS Department of Agriculture and Markets and USDA-APHIS, CRISP launched its newly minted forest pest biological control program in 2013. From May to September, CRISP staff performed nine releases of three species of parasitoid wasps in four ash stands heavily infested with EAB. Additional work included assembling pan traps in four control



sites to monitor local insect populations and check for establishment of released species. CRISP also participated in a long-term ash health monitoring study, measuring the rate of decline of ash at each site.



### Hemlock Woolly Adelgid

CRISP performed its first release of *Laricobius nigrinus*, a beetle from the Pacific Northwest, to target hemlock woolly adelgid (HWA) in the fall of 2013. Released at Mine Kill State Park in a newly infested stand of hemlocks the beetles will be monitored in subsequent years to check for successful establishment. Plans are underway to grow the program and number of releases with help from The Nature Conservancy, among other partners, in 2014.



## Ongoing Planning

### Winter

- Finalize the CRISP cooperative agreement
- Official adoption of rapid response policy

### Spring

- Establishment of HWA biocontrol program
- Expansion of EAB biocontrol program

### Summer

- Rapid assessments of all 2013 early detection findings
- Expansion of CRISP boat stewards program

### Fall

- Finalize extension budget for 2015