

# 2020 Annual Report



Skyler Susnick performing Giant Hogweed Treatment, Delaware County 6/18/20
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Dan Snider Field Projects Manager CATSKILLCENTER conservation creates opportunity

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Figure 1. Ashokan Rail Trail, Olive.

#### **Executive Summary**

During 2020 the Catskill Regional Invasive Species Partnership (CRISP) overcame the limitations resulting from the COVID-19 pandemic to safely perform Rapid Response, organize control efforts, lead trainings, and give prevention and awareness presentations. CRISP documented and treated 4 new infestations of high priority Early Detection species. CRISP provided 23 invasive species programs for 1,512 participants.

Three highly impactful invasives were found in CRISP for the first time in 2020, northern snakehead (*Channa argus*), quagga mussel (*Dreissena bugensis*,) and spotted lanternfly (*Lycorma delicatula*).

CRISP managed 105 invasive species infestations in 2020, working with the Catskills Strike Team. Removals of Tier 2 species (mile-a-minute, black jetbead, Japanese angelica tree) were performed over 4 acres. Two giant hogweed sites were eradicated in 2020. The Catskills Strike Team surveyed 822 acres of DEC Campgrounds and performed control over 15 acres of invasive species.

The CRISP Watershed Stewards Program interacted with about 21,500 people, and inspected 12,500 watercraft, submitting over 8,856 surveys. In addition,

953 angler surveys were completed. A total of 566 potentially invasive plants and animals were found and prevented from entering or leaving CRISP water bodies.

CRISP worked with Kelsey Parker and Andy Reinmann at CUNY on developing novel techniques of remote sensing to monitor hemlocks in the Catskills.

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Figure 2. Northern Snakehead (*Channa argus*) were caught in the Upper Delaware River this year.

#### Introduction

The mission of CRISP is to promote education, prevention, early detection and control of invasive species to limit their impact on the ecosystems and economies of the Catskills. CRISP performs this mission over a 3.3 million acre region, encompassing all of Otsego, Delaware, and Schoharie Counties; most of Greene, Ulster and Sullivan Counties; and part of Orange County. CRISP's vision is to protect the ecological integrity, water resources, recreational values and the economy from the devastating impacts of invasive species, working across a diverse landscape with both public and private landowners.



Figure 3. CRISP Watershed Steward at Portlandville

The CRISP region is an important for the biodiversity it supports and the work of CRISP and its partners help to protect that ecology. The CRISP region supports 78 state rare plants and animals and 22 state rare communities.

Three very impactful invasive species were first reported in CRISP during 2020, northern snakehead (Channa argus) was reported in the Upper Delaware River in late July, quagga mussel (Dreissena bugensis) and spotted lanternfly (Lycorma delicatula) was reported by the New York State Department of Agriculture and Markets in Port Jervis. In response, CRISP provided outreach to identify and report these species through eblasts, postings on the CRISP listserv, CRISP Partners Meetings and social media.

The COVID-19 pandemic required many adaptations by the CRISP PRISM. COVID-19 shut down much of New York in March, including activities in the Catskill Center. Funding was halted in many areas across many sectors across the state and stopped the implementation of the majority of CRISP subcontracts. CRISP released its Request for Proposals and received 9 complete proposals for 2020 subcontracts. Proposals were ranked by staff and the top 7 projects were selected. CRISP released a Request For Bids for CRISP Rapid Response and received three bids. Due to budget constraints during COVID-19, only two subcontracts were selected as being essential and approved to be funded: SUNY Oneonta for the CRISP Watershed Stewards Program and the Canadarago Lake Improvement Association Watershed Stewards Program.

During 2020, CRISP provided 23 Invasive Species programs for 1,512 participants. After the onset of the COVID pandemic, all programming was offered virtually. Popular virtual programs of 2020 included "Invasive Species Trivia" on Instagram on 6/4 with 362 participants and "Nature's Best Hope" by Doug Tallamy on 10/7 with 237 participants. The programs offered included Early Detection and Rapid Response trainings, control and management programs, prevention and awareness programs and citizen science trainings.

CRISP documented and treated infestations of high priority Early Detection species. CRISP managed 105 sites in 2020, working with the Catskill Strike Team. We removed 4,000 mile-a-minute stems across 7 sites. Eight sites were surveyed for giant hogweed and 192 hogweed stems were removed. Two giant hogweed sites were designated as eradicated in 2020. Removals of Tier 2 Early Detection Rapid Response species (mile-a-minute, black jetbead, Japanese angelica tree and Japanese hop) were performed over 4 acres.

The Catskills Strike Team surveyed 822 acres of DEC Campgrounds, and other public sites, and performed control over 15 acres of invasive species.

The CRISP Watershed Stewards Program interacted with about 21,500 people, and inspected 12,500 watercraft, submitting over 8,856 surveys. In addition, 953 angler surveys were completed. A total of 566 potentially invasive plants and animals were found and prevented from entering or leaving CRISP water bodies.

CRISP worked with Kelsey Parker and Dr. Andy Reinmann at CUNY on developing novel techniques of remote sensing to monitor hemlocks in the Catskills. CRISP completed surveys of 10 hemlock monitoring plots monitoring hemlock health and hemlock woolly adelgid.

#### **Prevention**

A major emphasis of CRISP effort and resources focused on preventing the introduction of invasive species into the CRISP PRISM. Toward that end, CRISP subcontracted with SUNY Oneonta to provide a Watershed Stewards Program (WSP) for the eighth consecutive year. The CRISP Watershed Stewards Program had another successful year, interacting with about 21,500 people, and

inspecting 12,500 watercraft. Over 8,856 surveys were submitted, a noticeable improvement from previous years. Additionally, 953 angler surveys were submitted. Canadarago Lake was still the top contributor and was the source of a third of total surveys. Overall, 566 potentially invasive plants and animals were found and prevented from entering or leaving CRISP water



Figure 4 Rylie Smith was recognized as a CRISP Super Steward by Paul Lord, SUNY Oneonta on 7/23/20.

bodies. Pondweeds and milfoils were commonly found on boats launching and retrieving, as was mud and debris. Elodea and eel grass were often cleaned from boats leaving Canadarago Lake and Cooperstown. Zebra mussels were also found, and, if not already dead, were brought to a boatwash to be killed and removed. No reports of Hydrilla or spiny water-flea were made.

In 2020, SUNY Oneonta trained 42 Watershed Stewards to interpret invasive species prevention and collect waterbody use data at high use access sites. Watershed Stewards provided information and boat inspections (in Otsego, Delaware, and Sullivan Counties) at Otsego Lake, Canadarago Lake, and along the Delaware River within the Upper Delaware River National Scenic and Recreation Area (a unit of the National Park Service). Due to COVID, trainings were shifted to an online format with some in-person training (following safety protocols and limited participants). Online training worked well, and many stewards were able to attend without the need for travel. The smaller inperson training allowed better focus on training four individuals at a time with more attention provided to coaching the nascent stewards and to answering questions. This training model may be continued into 2021. The first WSP

training session was held in late May due to the uncertainty of the WSP's essential status with regards to COVID. The program was deemed to be essential, by the State, and allowed to launch and continue through the 2020 season. The first training session consisted of 26 NYSDEC AIS stewards. A second day of training for Canadarago Lake and National Park Service (NPS) stewards took place a week later, with 13 stewards attending. Due to COVID, NPS did not have their intern program this year. They did send a few safety interns to attend. Lastly, in-person training was held for three Town of Springfield stewards that joined late in the season.

The CRISP WSP was expanded into Schoharie County and Greene County this year. Stewards were placed at Looking Glass Pond, North-South Lake, Green Lake, and several other locations. Unfortunately, there was a lack of stewards in Sullivan County. To mitigate this, a rotating schedule was implemented that had stewards travel to Sullivan County once every two weeks, but reimbursing for mileage was costly.

COVID eliminated the NPS intern program for 2020. The NPS safety intern program was deemed essential and several attended the trainings, however.

The Village of Cooperstown also limited their involvement with the WSP program. With NYSDEC AIS-funded stewards stationed at Lakefront on Otsego Lake, the Village did not feel the need to hire additional stewards

The 'Super Steward' Watershed Steward recognition program was a success, and hats and a framed certificate were awarded to each winner.

Thanks to input from CRISP stewards last year, an angler survey was developed and fully implemented this season. The survey was specific to anglers and was well received by stewards. Many stewards stationed on the West Branch of the Delaware River continually see walk-in fly fishermen with no boats. This new survey allowed the program to capture these missing data in 2020.

With the help of Otsego County Conservation Association (OCCA) and the Otsego Lake Association (OLA), more canoe and kayak signs were purchased. Most new signs were placed at launches and will help inform boaters of AIS spread prevention methods. 'It's the Law' signs were also distributed to WSP sites. Many stakeholders from sites without stewards have expressed interest in posting CRISP WSP signs. Language accessibility signage provided by NYSDEC was also posted at all launches. Lastly, COVID safety protocol signage was also provided to stewards from CRISP, Department of Health, and NYSDEC.

Watershed Stewards participated in common frogbit (Hydrocharis morsusranae) pulls in the Bashakill with OCCA while implementing social distancing and other safety precautions. A water chestnut (Trapa natans) pull was

conducted at Looking Glass Pond in Schoharie County, with several stewards present. These "pulls" are important opportunities for our Watershed Stewards because they provide them first-hand experience with eradication that they use in conveying information about AIS threats to the public.

## **Early Detection and Rapid Response**

Unfortunately, three very impactful invasive species were found in CRISP for the first time in 2020, spotted lanternfly (Lycorma delicatula) in Port Jervis, northern snakehead in the Upper Delaware River and quagga mussel in Otsego Lake. In New York State, spotted lanternfly infestations were first found in Staten Island in 2020 with other discoveries in Sloatsburg, Orangeburg, and Ithaca. CRISP was not spared, as the New York State Department of Agriculture and Markets reported that spotted lanternfly was found in Port Jervis.

Northern snakehead was first reported between Narrowsburg and Callicoon by a fishing guide. Several reports and photos followed. DEC Fisheries performed surveys and eDNA surveillance to determine how far upriver the population is.

Another aquatic invasive, quagga mussel (Dreissena bugensis) was found in Otsego Lake in late August. Short SCUBA surveys showed that they are numerous and competing with their congeners, the zebra mussel (D. polymorpha). CRISP Watershed Stewards trained in 2021 will be made aware of this new threat and encouraged to powerwash all boats leaving Otsego Lake.

Once an invasive species becomes established, the only remediation action possible is the partial mitigation of negative impacts of the invasive. The goal of Early Detection and Rapid Response (EDRR) efforts are to increase the likelihood that invasions will be detected and eradicated before they become established. This surveillance was performed by CRISP staff, Partners and volunteers.

Altogether, CRISP, working with the Catskills Strike Team, managed 105 sites in 2020. Due to budgetary constraints, CRISP could not subcontract with a

licensed applicator to perform rapid response. Therefore, CRISP staff, Partners, the Catskills Strike Team, and volunteers performed rapid response on Tier 2 species. Removals of Tier 2 Early Detection Rapid Response species (mile-aminute, black jetbead, Japanese angelica tree, Japanese hop and common frogbit) were performed over 4 acres. 4,000 mile-a-minute stems were removed across 10 infestations. COVID-19 protocols



Figure 5. Lesser celandine at Thorn Preserve.

were developed and were required in the field, to keep staff and volunteers safe during the pandemic.

Dan Snider, CRISP Field Projects Manager, performed treatment of Japanese angelica tree at one 0.06 acre site on private land.

Our Partner, Otsego County Conservation Association hired Greener World, LLC, to treat Japanese angelica tree at one 0.16 acre site in Springfield. A basal bark application of Pathfinder II herbicide was applied by basal bark application to trees on April 1, 2020.

Working with the Capital Region PRISM (our neighboring PRISM) and Otsego County Conservation Association and volunteers, common frogbit was targeted for surveys and rapid response along the PRISM boundary. Early detection surveys and removals were performed at Weaver Lake (Capital Region PRISM), Youngs Lake, Clarke Pond and Cripple Creek, with the goal to prevent spread into Otsego Lake.

Eight sites were surveyed for giant hogweed and 192 hogweed stems were removed by CRISP and the Catskill Strike Team. Two giant hogweed sites were designated as successfully eradicated in 2020. Only 7 sites remain under management, and only 2 of those have remaining plants. Unfortunately, one of those sites with giant hogweed plants was not treated because landowner permission could not be obtained either by CRISP or DEC staff. It is important to note that CRISP and its Partners annually work with more than 60 private landowners to arrange access for early detection and other surveys and discuss treatment options for invasives found on their properties.

CRISP staff and the Early Detection Working Group worked with Dylan Finley and the iMapInvasives program to re-prioritize invasive species using a datadriven approach. The list will be finalized in 2021.

The Invasive Species Tiers were developed between New York State iMapInvasive staff and the Partnership for Regional Invasive Species Management Coordinators. Each very high, or high, impact invasive species s assigned to the following tiers (See Invasive Species Tiers Table):

- 'Tiers 2-4': species with a 'high' or 'very high' NYS Ecological Impact rank or a 'very high negative' or 'significant negative' NYS socioeconomic impacts rank. Those with the lowest 33% population counts are designated Tier 2, the middle 33% Tier 3, and the upper 33% Tier 4.
- 'Tier 1a' species within a 100-mile buffer of the PRISM that are not already present within the PRISM.
- 'Untiered in PRISM'- Contains any species present in the PRISM that has neither a high ecological nor socio-economic impact.

• 'Untiered in Buffer' - species within a 100-mile buffer of the PRISM that are not already present within the PRISM.

The Early Detection Working Group will review this list annually, recategorizing species based on the best information available.

### **Control and Restoration**

The Catskills Strike Team, consisting of Skyler Susnick and Ryan Usai, surveyed 822 acres of DEC Campgrounds, and other public sites, and performed control over 15 acres of invasive species.

CRISP continued maintaining 2 acres of ecological restoration sites in 2020. CRISP had previously worked with the Catskill Stream Buffer Initiative to restore an area that was a white ash stand, that had been decimated by emerald ash borer at the Catskill Center's Catskills Visitor Center. A second restoration area is a Trees-For-Tribs Program native tree and shrub



Figure 6. Ryan Usai giant hogweed removal.

planting that restores a riparian area heavily infested with mugwort, Japanese knotweed and other invasives. CRISP staff, the Catskills Strike Team, and a private contractor shared in removing invasives at the restoration sites during the growing season to maintain the native plantings.

#### **Awareness**

In 2020, CRISP provided a total of 23 events for 1,512 participants. Trainings were offered to perform identification, reporting, early detection, control and prevention and awareness of invasive species and citizen science training. After the onset of the COVID pandemic, all programming was offered online. Popular virtual programs of 2020 included "Invasive Species Trivia" on Instagram on 6/4 with 362 participants and "Nature's Best



Figure 7. Spotted Lanternfly (photo taken in PA).

Hope" by Doug Tallamy on 10/7 with 237 participants.

## **CRISP 2020 Trainings**

Date	Title	# Participants
1/25	Spotted Lanternfly & iMap Training	9
2/29	Invasive Species Action Team IS and iMapInvasives Training	9
5/23	CRISP Watershed Stewards Program Training	26
5/30	CRISP Watershed Stewards Program Training	13
6/9	Finding and Reporting Key Catskills Invaders in iMapInvasives	17
6/13	CRISP Watershed Stewards Program Training	3
8/27	Old Growth Hemlock Monitoring	1
12/14	Master Gardener Invasive Species	40
Total (8)		118

# CRISP 2020 Awareness Programs and Events

Programs:	Title	# Participants
2/8	Minekill State Park Snowfest	55
2/19	Who's Doing What in Invasive Species Management Workshop	11
2/24	Pollinator Pathways Film Presentation	150
2/26	Ashokan Rail Trail Invasive Species Mgmt Stakeholders Mtng	12
3/24	Pollinator Pathway Webinar	110
4/21	CRISP Partners Virtual Meeting	79
6/4	Invasive Species Trivia on Instagram Live	362
9/2	CRISP Partners Virtual Meeting	21
9/16	All About Bees	45
9/17	"Elevate Your Knowledge of the Catskills" presented at the Delaware River Watershed Forum	21
10/3	Native Seed Swap	24
10/7	Nature's Best Hope	237
10/21	Implications of Climate Change for Invasive Species in the Northeast, Carrie Brown-Lima	144
11/13	Catskill Research Updates: Black Bears & Forest Pests, Kelsey Parker	99
12/17	CRISP Partners Virtual Meeting	24
Total (15)		1394

With no opportunity for in-person programs, CRISP staff shared information and events through its social media. The number of followers of the CRISP Facebook page (<u>www.facebook.com/catskillinvasives/</u>) increased by 12% during the year, from 599 to 671 followers. Twitter (<u>www.twitter.com/CRISP\_news</u>) followers increased by 11% to 411 during 2020.

### Science

CRISP worked with Catskill Science Collaborative Fellow, Kelsey Parker, and her CUNY advisor, Dr. Andy Reinmann to develop novel techniques of remote sensing to monitor hemlocks in the Catskills. This work has benefited other PRISMs in monitoring the spread of HWA.

The Catskill Science Collaborative (Cary Institute of Ecosystem Studies) released a Request For Proposals for 2021 Research Fellowships in the fall. Five of the Natural Resource Manager Research Needs involve the study of invasive species – illustrating the need for invasive species research.

The main citizen science opportunity offered by CRISP is through using iMapInvasives. Five iMapInvasives trainings were conducted in CRISP during 2020, with 91 people trained. The number of invasive species observations entered into iMaps was 857. Most of those records, 457, were entered by the mobile app and the remaining records were from bulk uploads and on-line data entry. The top reported species of 2020 were hemlock woolly adelgid, bush honeysuckle spp., and lesser celandine. Besides northern snakehead, quagga mussel and spotted lanternfly spreading into CRISP (as mentioned above), a report of Bradford pear (Pyrus calleryana) on the SUNY Cobbleskill campus was a new report of that species in CRISP.

CRISP began monitoring of hemlock stands in 2014 to assess Hemlock Woolly Adelgid, and other pests, and assess the health of the stands. Ten of these stands were re-surveyed. At each stand, data was collected on 30-45 hemlock trees. Hemlock health was assessed and hemlock woolly adelgid density data was collected at each tree. Due to COVID, old growth survey trainings and surveys were very limited.

## **Partnership**

CRISP Partner meetings were held on February 19<sup>th</sup>, April 21<sup>st</sup>, September 2<sup>nd</sup>, and December 17<sup>th</sup>. The February 19<sup>th</sup> meeting was the wrap up for the "Who's Doing What in Invasive Species Management in the Catskills" workshop series. Attendance was highest, 79 participants, for the April 21st meeting featuring Andy Reinmann who presented, "Mapping Invasive Species Across the Forests of New York: A View from Space." Partners Virtual Meetings were recorded and posted on the CRISP website and are available for subsequent viewing:



Figure 5. Title Slide for Paul Lord's 12/17 presentation.

https://www.catskillinvasives.com/crisp-presentations

Jessica Newbern began serving as Steering Committee Chair in 2020 and the CRISP Steering Committee met three times during the year: February 19th, April 18<sup>th</sup>, and August 25<sup>th</sup>.

## **CRISP 2020 Steering Committee**

Name	Position	Organization	
Jessica Newbern	Biologist	National Park Service	
Tthon Angoll	Senior Horticulture	New York State Department of	
Ethan Angell	Inspector	Agriculture and Markets	
lan Dunn	Forester 1	New York State Department of	
Idii Duliii	Totester	Environmental Conservation	
Kris Gilbert	Senior Landscape	New York State Department of	
KIIS GIIDEIL	Architect	Transportation	
John McNaught	Forest Program	Catskill Forest Association	
John McNaught	Manager		
Tom Pavlesich	Forestry Program	Watershed Agricultural Council	
TOTTI Paviesicii	Manager		
Jeff Senterman	Executive Director	Catskill Center for Conservation	
Jen Jenterman	Executive Director	and Development	
Catherine Skalda	CSBI Coordinator	Delaware County Soil and Water	
Odtricimo okaraa	COBI COOI amator	Conservation District	
Meredith Taylor	Invasive Species	New York City Department of	
Mereurin rayior	Biologist	Environmental Protection	
Donna Vogler	Professor of Biology	SUNY Oneonta	
	Environment and	Cornell Cooperative Extension of	
Connor Young	Natural Resources	Greene County	
	Team Leader	Greene County	
Chris Zimmerman	Conservation Ecologist	The Nature Conservancy	

The CRISP listsery was used frequently by CRISP staff, New York Invasive Species Research Institute, DEC, and other partners to share information, promote events and share the latest findings on invasive species. The CRISP listsery continues to have steady growth, adding 19 new members in 2020, and now reaches a total of 262 individuals.

The Early Detection Working Group met to update the CRISP Priority Species List. The Education and Outreach Working Group met during the year to plan online programming and prepare for New York State Invasive Species Awareness Week.

To identify the tactical outcomes of organizations working on invasive species management in our region, CRISP organized "Who's Doing What in Invasive Species Management in the Catskills" – a series of workshops from 2019-2020 that offered the opportunity for 38 people from 22 partner organizations to discuss their invasive species programs, their geographical area of work, and the areas of invasive species focus of each organization. The workshops identified which organizations are working on the same aspects of invasive species management in the Catskills. From those workshops, partners identified opportunities to collaborate, which has led to working together on developing strategies to better manage invasives across the region.

Catskill Center made the selection of proposals in response to the Request For

Proposals and Request For Bids. A total of ten complete proposals were received for the RFP. The selection was made based on a score card developed to rank the projects in order of highest priority for funding.

The highest priorities for funding included:



Figure 9.CRISP Watershed Steward, Jean Kosina washing pontoon boat at Canadarago Lake.

## 1.) Stop emerging invasive species infestations through

Rapid Response. All proposed control projects must outline project steps as defined in the CRISP Engagement Policy. Eradication and containment projects focused on Tier 2 Species (see CRISP Invasive Species Categorization) are preferred over suppression efforts. Proposals that address species other than Tier 2 Species will be considered, but need justification on the feasibility of containment.

- 2.) Surveys for Early Detection Species. Surveys for Tier 1 or Tier 2 Species beyond what is documented in iMapInvasives and EDDMapS. Surveys for Tier 1 Species; in areas where an introduction pathway exists. A survey methodology will be defined to determine Highly Probable Areas that could support target species.
- 3.) Raise public awareness of Tier 1 Early Detection/Prevention Species to address introduction pathways of forest pests, pathogens or species approaching the region. Programs that focus on Prevention or Early Detection, or have broad application, will be preferred.
- 4.) Improve the scientific understanding of the extent, ecological impact and effective controls of invasive species in the CRISP region.
- 5.) Develop or enhance a structured Citizen Science Program that engages and retains participants. A program that trains volunteers to become citizen scientists collecting significant information on invasive species, offers levels of training and recognition for participants are preferred.

Based on the ranking by the subcommittee, the following projects were chosen for funding:

- Canadarago Lake Improvement Association, "Aquatic Invasive Species Prevention Program"
- Cornell Cooperative Extension Sullivan, "Sullivan Spotted Lanternfly Patrol"
- Ecological Research Institute, "Monitoring and Managing Ash in the Catskills 2020: Building on a Platform for Citizen Science and Land Manager Engagement and a Source of Hope in the Fight AgainstEmerald Ash Borer"
- Mountain Top Arboretum, "Project to Control Ficaria verna"
- Otsego County Conservation Association, "Greater Otsego County Aquatic Invasive Species Response Team"
- Otsego Land Trust, "Public Awareness and Survey Programs at Brookwood Point, Otsego Lake"
- SUNY Oneonta, "CRISP Watershed Stewards Program"

Due to COVID budget constraints, only two projects were ultimately funded: Canadarago Lake Improvement Association and SUNY Oneonta for Watershed Stewards Programs.

CRISP also released a Request For Bids for Rapid Response to treat CRISP Tier 2 species including: mile-a-minute, Japanese angelica tree and black jetbead. Three bids were received and CGL Arbor Services was selected. As mentioned above, this project was not funded due to COVID budget constraints. The

CRISP Steering Committee decided that projects that were not funded in 2020, would be prioritized for subcontracts in 2021.

CRISP staff began Ashokan Rail Trail invasive species management planning with a group of invited rail trail stakeholders on February 26. Twelve participants discussed the attributes of the 11.5 mile trail and goals for invasive species management on the site. Vistas were identified as a culturally significant asset and it is important to keep vistas open along trail. It is a priority to control invasive trees, vines and tall shrubs (tree-of-heaven, oriental bittersweet) that may obstruct vistas. The group also highlighted the need to control Japanese barberry to minimize tick habitat. Volunteer coordination and training were highlighted as an important need to carry out this project. Due to the onset of the COVID pandemic, subsequent public meetings were canceled and the budget for the project was put on hold.

## Acknowledgements

The bulk of the Catskill Regional Invasive Species Partnership funding was provided from the Environmental Protection Fund as administered by the New York State Department of Environmental Conservation. Additional funding was provided by the New York City Department of Environmental Protection for Ashokan Rail Trail invasive species management planning.