



## Friends of Recreation, Conservation, and Environmental Stewardship

Fall 2024 Newsletter

Vol. 9 Issue 3

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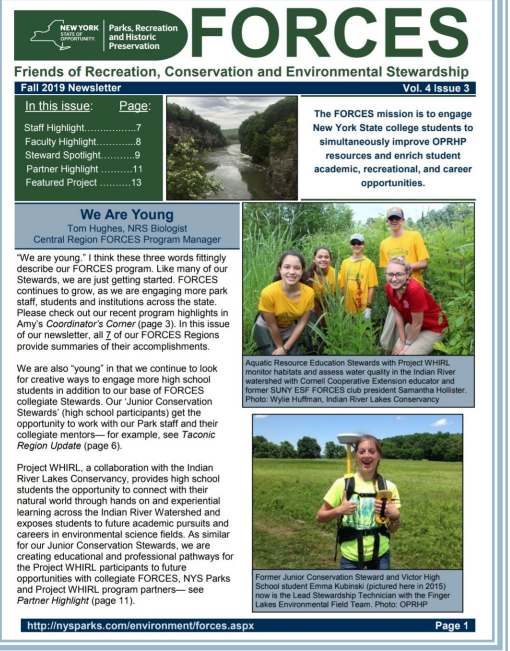
The FORCES mission is to engage New York State college students to simultaneously improve OPRHP resources and enrich student academic, recreational, and career opportunities.

### FORCES Flashback ~ We Keep Growing

Tom Hughes, Environmental Stewardship Biologist  
Central Region FORCES Program Manager

Every now and then, I like to reflect on the FORCES program, with particular focus on seeing where our people and projects started and where they are now. As we put this fall's issue of our newsletter together, I felt compelled to look back a little bit as something seemed familiar to me. As it turns out, 5 years ago in our Fall 2019 Newsletter (pictured right), we featured a cover photo of Emma Kubinski, formerly a Junior FORCES Steward and Victor High School student. We invite you to check out an update from Emma in our 'Alumni Spotlight' (page 2). It's awesome to see that Emma started her educational and professional journey with us nearly 10 years ago, and now she is a PhD student at Montana State University. Way to go Emma!

In that same Fall 2019 issue, we also featured a cover photo and article for Project WHIRL—a summer FORCES program for high school students interested in environmental sciences and the outdoors. Please learn more about Project WHIRL, now in its 6th year, in this current issue (page 10). Also, check out how Project WHIRL inspired Project WET NETS—Watersheds Engaging and Teaching Nottingham's Environment & Technology Students—with the Syracuse City School District.



Rosebelle Ines visits State Parks for possible sites to plant wildflowers. Photo: OPRHP



2024 Fern Crew at Clark Reservation. Photo: OPRHP

While our programs and projects keep growing, we keep growing too...plants that is! Learn about an amazing new project with Binghamton University in our 'Featured Project' (pages 4-5). Thank you Rosebelle (photo left) for introducing yourself to us at the NYS Fair. Oh, and don't forget, our Fern Crew (photo left) keeps growing and making frond memories (see update page 6).



## Alumni Spotlight: Emma Kubinski

PhD Student, Land Resources and Environmental Science Department, Montana State University



I first connected with NYS Parks in 2014 at a restoration-focused camp for high school students at Ganondagan State Historic Site when I was 15. I was immediately inspired—and still am—by the dedication and enthusiasm of Whitney Carleton, Kyle Webster, and others at FORCES and NYS Parks. Their commitment to providing me with opportunities, combined with their patience and eagerness to teach, laid the foundation for many of my achievements.

Following this first experience, I began volunteering throughout high school, which solidified my love for plants and the environment. These experiences also gave me a strong knowledge base and letters of recommendation, helping me confidently apply to college.

During my undergraduate studies at SUNY ESF and Cornell University, I continued working with NYS Parks and FORCES, engaging in restoration projects across Ganondagan State Historic Site and other parks in the Finger Lakes Region. These hands-on projects reinforced my classroom learning and helped me build technical skills in plant identification, invasive species management and mapping, and plant community surveying. I also

gained invaluable insights into effective scientific communication, teaching, and leadership. The support from NYS Parks enabled me to secure roles in multiple research labs, where I worked on projects like emerald ash borer biocontrol, the impact of deer browse on the soil seed bank, weed management with carbon inputs, and weed-crop competition—experiences that further strengthened my career path.

After graduating, I moved across the country to pursue a Ph.D. in Ecology and Environmental Science at Montana State University, focusing on weed ecology. My research examines optimal timing for weed management, shifts in weed communities under varying practices and environments, and the potential impacts of climate change on weed-crop competition. In addition to research, I've had the opportunity to teach courses at Montana State University, including Weed Ecology and Management, where I frequently draw on my experiences with FORCES—bringing a part of NYS Parks to Montana! I also conduct outreach and education throughout the state, engaging local stakeholders in weed ecology. In every classroom and field session, I bring the same enthusiasm and inspiration that NYS Parks and FORCES instilled in me, aiming to spark curiosity in others just as the organization did for me.

I couldn't be more grateful for the role that NYS Parks and FORCES played in my journey. Much of my professional growth and success traces back to the experiences and remarkable people who shaped my path.

*"I feel as this position has helped me to understand what a job with the state in an environmental position would look like. This experience has not only reinforced my commitment to conservation, but it has also equipped and prepared me with skills and knowledge that I will carry forward in my future. I am thankful for the support and collaboration with the FORCES team, and I look forward to continuing my journey in environmental advocacy."*

~Angelina Gorman, SUNY ESF

## Coordinator's Corner

Amy Kochem, FORCES Program Coordinator

The 2024 summer FORCES crew consisted of 18 Stewards that completed projects ranging from fisheries management to environmental education to plant propagation to working in endangered species habitats. We always encourage our Stewards to take advantage of the many different field experiences offered during their time with us—you never know what you might find an unexpected passion for or what potential networking connection you'll meet! Many shouts of gratitude to each Steward for their hard work and dedication towards their projects.

Our 9th Annual Trainapalooza was held in early June at Watkins Glen State Park. Over 35 Stewards, NYS Parks Corps SCA members, and Park staff from across the state joined together for a two-day training. The days were filled with educational workshops including and a scenic gorge hike.

Be sure to check out our FORCES webpage in January for the *Who's Who* publication that will highlight all of our 2024 Stewards.



Trainapalooza attendees in Watkins Glen State Park. Photo: OPRHP

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**\*Denotes active FORCES Clubs**

Baker High School  
Fayetteville-Manlius High School  
Honeoye Middle/High School  
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Nottingham High School  
Orleans/Niagara BOCES  
Ossining High School  
Pittsford Mendon High School  
Pittsford Sutherland High School  
Sandy Creek High School  
Scarsdale High School  
Waverly Central School

## Featured Project: Science Beyond The Lab: Wildflower Augmentation Project

Rosebelle Ines and Kirsten Prior, PhD Candidate and Associate Professor,  
Dept. of Biological Sciences, SUNY Binghamton University

Understory plant communities harbor much of the plant diversity in eastern North American deciduous forests, providing key ecosystem functions and services. In this region, about 1/3 of forest understory plants are “myrmecochores”, adapted to seed dispersal by ants. Myrmecochores include many beloved and showy wildflowers (trilliums, violets, bloodroot, wild ginger), which possess seeds with fatty tissue appendages (elaiosomes) that act as a food reward for ants. When seed pods open, ants find these seeds and bring them to their nests, use the elaiosome as food for growing colonies, and then place intact seeds outside of nests. This interaction is a mutualism, providing benefits to both ants and plants. Ants gain food, and seeds are protected from predators and deposited in locations favorable for growth. Due to these benefits, seed dispersal by ants plays an important role in plant population growth and distribution.

In eastern deciduous forests, ants in the genus *Aphaenogaster* are dominant and effective dispersers of myrmecochores. Research from our research group and others finds that understory plants are negatively impacted by various kinds of anthropogenic change, including land-use change, invasive species, and climate change. These stressors affect seed dispersal and understory plant communities by altering the presence or abundance of *Aphaenogaster*, and their interactions with seeds.

Previous clearing of eastern deciduous forests for agriculture and timber harvesting have contributed to the decline of myrmecochores. The vast majority of present-day forests in the Northeast are secondary or regenerated forests, previously cleared. Recent studies, including those performed in New York State Parks (NYSP), found that myrmecochores have not recovered from previous clearing, with low diversity and cover in secondary forests. The lack of recovery is likely due to myrmecochores not having seed banks and seed dispersal by ants occurring over short distances within (but not between) forest patches.

Dispersal by ants is essential for seed dispersal within forest patches, plant population growth, and in supporting the recovery and restoration of myrmecochores. Recent work from our research group found that *Aphaenogaster* is present in secondary forests and varies in abundance. Seed dispersal and the cover and diversity of myrmecochores is higher in forest locations with high densities of *Aphaenogaster*. Given the impacts of previous land-use history, restoring or augmenting myrmecochores in secondary forests is warranted, and we need to determine best practices for restoring myrmecochores, in the context of seed dispersal.



Kirsten shows the group how to plant bloodroot. Photo: Ines

This summer, we partnered with the NYS OPRHP FORCES program, and a class at Binghamton University to embark on an augmentation and restoration project. Our goals are to develop best practices for enhancing or restoring myrmecochore populations, especially examining if and how ant seed dispersal facilitates restoration. We are also using this opportunity to educate the public about this essential mutualism and the biodiversity in the understories of eastern deciduous forests, and how vulnerable this mutualism is to anthropogenic change. Our partnership with NYSP and the FORCES program allows for collaboration among NYSP interns and staff, and Binghamton researchers and students with combined goals of conservation, research, and education.

The first step in our project was finding a suitable site for augmentation and picking plants that would be suitable for planting. Together with State Park biologists, botanists, and FORCES Stewards, we visited a few sites to identify a location(s) where augmentation or restoration would benefit plant populations or diversity. With NYSP management goals and other considerations in mind, we identified Buttermilk Falls State Park (BFSP) as an ideal site for transplanting bloodroot (*Sanguinaria canadensis*) plants (that we grew and originated from a neighboring region) as this site already contained patches of bloodroot (so we know the conditions are conducive to plant establishment) and healthy populations of *Aphaenogaster* (cont'd p. 5)

## Featured Project: Science Beyond The Lab: Wildflower Augmentation Project (Cont'd)

Rosebelle Ines and Kirsten Prior, PhD Candidate and Associate Professor,  
Dept. of Biological Sciences, SUNY Binghamton University



Kirsten shows the group how to plant bloodroot. Photo: Ines

In June 2024, alongside FORCES Stewards, our research group planted 80 adult bloodroot plants in plots inside and outside the Three Gorges Project restoration fence area at BFSP (see photos below). We have 10 plots, 5 inside the fence area and 5 outside, in the open area across the fence. We planted each plant 0.5 m apart, in plots that are 2 m x 0.5 m. During out-planting, we also scattered bloodroot seeds (collected from the same plants prior to planting) around each individual transplant and witnessed a lot of seed dispersal by *Aphaenogaster* ants! We monitored the plants following out-planting and later in the summer, and they were establishing well. To track out-planting success over time, our research group, together with FORCES, will monitor the growth and survival of the bloodroot plants next summer and beyond, along with measuring ant nest density, and monitoring new seedlings and their distribution – likely influenced by ants.

This augmentation project complements an ongoing restoration project at Binghamton University (BU) in collaboration with students

enrolled in the First-year Research Immersion (FRI) program, a three-semester course where students engage in authentic research. The Nature Preserve at BU is another secondary forest lacking myrmecochores and with high deer pressure. Here, we planted 60 adult wild ginger (*Asarum canadense*) plants inside and outside deer exclosures. We have closely monitored the plants since out-planting in May and the plants appear to have established. We look forward to tracking their survival and the distribution of seedlings in relation to ant nests over time alongside our collaborators in FRI.



A plot with 8 bloodroot plants marked with tags, flagging, and plot number. Photo: Ines



The Prior Lab research group and FORCES Stewards transplant 80 bloodroot plants in plots inside and outside the Three Gorges Project restoration fence area at Buttermilk Falls State Park. The group poses to commemorate completion of planting! Photo: Ines

Involvement of students through FRI, or other classes in these projects will introduce BU students to the FORCES program. We also want to engage in other educational outreach alongside FORCES. We have created a graphic novel about ant-mediated seed dispersal and myrmecochores called “Phoebe’s First Forage”, and plan to use materials from this book for outreach about this key mutualism in NY State Parks. More information about this book can be found at [priorecologylab.com](http://priorecologylab.com).

We hope that our efforts will inspire other researchers to take their science beyond the lab and be open to the idea of collaborating with various stakeholders so that we can all collectively make this world a better place for the next generation.

## Central Region Update

Jon Repp, AHTF Conservation Technician, Kennedy Sullivan, Piping Plover Project Coordinator,  
Cara Gannon, Assistant Environmental Educator

The field season in 2024 at Clark Reservation State Park focused on maintaining the habitat of the threatened American hart's-tongue fern (AHTF) and other native plants in the park. Throughout the years, Stewards have removed large numbers of invasive species encroaching on the threatened fern's habitat, and returned the land to its natural state through removal and restoration. Garlic mustard, pale swallow-wort, European buckthorn, glossy buckthorn, Asian honeysuckle, privet, and other invasives were removed by Stewards, and the summer 2024 Stewards focused on maintaining these locations, removing regrowth of these invasives to maintain pristine habitat and prevent further encroachment.

With the invasive species removed, the soil has potential to grow anything from native species to the newly removed invasives. In order to avoid invasives taking back over, native plants are carefully selected and planted. This year, Parks planted bladdernut, spicebush, maidenhair spleenwort, marginal woodfern, and lady fern. The plants have been monitored throughout the summer and have survived! The continued effort of invasive management will continue to ensure that the native plants can recover and reclaim their home territory.



AHTF transplant at Three Falls Woods. Photo: OPRHP



AHTF transplant growing at Chittenango Falls State Park. Photo: OPRHP

Keeping track of the AHTF growth is important as well. During the field season, Stewards carefully traverse the talus slopes that the fern thrives on, careful to not disturb the loose rocks. Each planted fern is numbered, recorded, checked for sori presence, and assessed on a vigor scale of 1-5, 1 being nearly certain death, and 5 being a bright and strong fern! These records can be compared to previous years to see how the ferns are doing.

Throughout summer 2024, Stewards have worked closely with the ferns. They transplanted more ferns into various populations, removed invasives to allow these ferns to grow comfortably, and have taken part in data collection and censuses. Ferns have been transplanted at Three Falls Woods, along with locations throughout Clark Reservation State Park, both of which are located in Jamesville, NY. Transplanted ferns have also been placed at Chittenango Falls State Park in Cazenovia, NY.

Throughout the summer, Stewards routinely checked on these ferns and have done the data collection stated before. While Stewards are out checking up on the health of AHTF, invasive removal has been set forth. This has allowed the ferns, along with native plants to grow within their desired habitats. Censuses have also taken place for a few of our populations distributed within Clark Reservation State Park, where they have found hundreds of healthy ferns, more so than expected! It is safe to say that the dedication and hard work has

given AHTF a safe and comfortable place to thrive (Cont'd p. 7).

~Jon

## Central Region Update (Cont'd)

Jon Repp, AHTF Conservation Technician, Kennedy Sullivan, Piping Plover Project Coordinator, Cara Gannon, Assistant Environmental Educator

Our summer felt different without a nest this season. Hawkeye and Poppi Seed, father and son, decided to keep each other company on the beach until it was time to migrate on June 28<sup>th</sup>. They spent their June defending territory from gulls and killdeer, but felt that without any females, it was time to go back south. Poppi Seed was reported in Florida on Gulf Islands National Seashore soon after he left New York.



Hawkeye and Poppi Seed. Photo: OPRHP

After saying goodbye to our boys, good news arrived on our shores in early July when X,O/B:Of, bb appeared.

They are a captive-reared chick that was released in our state last season, giving the program hope for a better season in 2025. Fingers crossed "bb" is a female!



Hunter Parise reading a story to Sandy Creek students. Photo: OPRHP

The team continued to outreach about piping plover conservation. We tabled at the Oswego County Fair, speaking to 295 people! From there, we traveled to Sandy Creek Central School District where the local students created signage for us to use next year. Our staff took several visits to Southwick Beach State Park where we read storybooks, created our own piping plover chicks, and painted a plover to beach patrons. Even in the absence of plovers, our team continues to spread the word about these endangered birds to prepare for 2025.

Our next steps are to restore habitat for piping plovers, in hopes we can get back to where we were in 2022 with 3 pairs in our state. Lots of hard work ahead!

~Kennedy

The summer of 2024 was a huge success for the Central Region Environmental Education Team and Green Lakes State Park Environmental Education Center. This Summer was the biggest team of FORCES Stewards we've had in a long time! Thanks to our dedicated Stewards, we were able to keep the education center open 7 days a week from 11am – 6pm and increase programming at Green Lakes SP.

This summer season we welcomed four SUNY ESF Stewards, Kathryn Resanovich, Gillian Pineau, Helen Dibra, and Ivy Penree. We had one Steward from SUNY Binghamton, Sarah Fettig, and one returning Steward, Michaela Germain, who attends Paul Smith's College. We had a busy summer with over 11,000 visitors at the Education Center and over 1,000 patrons participating in programming! Many of our Stewards were able to gain great experience with assisting in environmental education programming. Others had the opportunity to get creative and provide daily crafts and weekly scavenger hunts to patrons visiting the park. Almost all our Stewards had the chance to come on a kayak lesson with our American Canoe Association (ACA) certified environmental educators Katie and Cara, and even learn kayak rescues (Cont'd p. 8).



Kat and Cara collecting water samples in Green Lake. Photo: OPRHP

## Central Region Update (Cont'd)

Jon Repp, AHTF Conservation Technician, Kennedy Sullivan, Piping Plover Project Coordinator,  
Cara Gannon, Assistant Environmental Educator

We began a new roving interpretation project to try and protect the freshwater marl reefs around Green Lake. FORCES Steward Kathryn Resanovich's summer project was to research Deadman's Point and create an interpretive program about it. Many visitors do not realize that Deadman's Point is a rare reef, so education is important to teach visitors about this rare natural resource. People we interacted with have been coming to the park for a long time and were excited to see someone educating people and keeping people off the reef. To encourage visitors to stay off and become a "reef hero" they could pick up and touch a piece of marl, compare pictures of healthy and unhealthy marl reefs, and earn a reef hero pin to take home.

As the summer began to wind down and Stewards started heading back to college, a few were able to help at our bluebird box building tent at the NYS Fair. This presented another great opportunity to engage and educate the public in a different setting. We thank all of FORCES Stewards for such a fun and successful summer season. The Environmental Education Center at Green Lakes offers volunteer experience, internship credit, and work study opportunities every season. We'll see you out there!

~ Cara

## Finger Lakes Update

Carlin Shew, FORCES Program Specialist, Finger Lakes Region

What a great summer for the FORCES Program here in the Finger Lakes! We had an excellent group of 5 dedicated Stewards. Ben Newsome returned for a second semester, obtaining 3 more academic credits from Ithaca College. Additionally, we welcomed two new Ithaca College Conservation Stewards, Amonette Sellers and Lily Marks. The fourth and final Conservation Steward this summer was Madison Syrmanske, a Port Byron native and student at Niagara University who received both academic credit and a stipend from NU for her work with our program. Finally, Invasive Species Steward, Ivy Penree from SUNY ESF joined the team. Ivy lived in Central Region but commuted out to the Finger Lakes Region this summer because she was intrigued with our parks and the opportunities FORCES provided within the Finger Lakes. Our five students, across three institutions, contributed just over a total of 570 service hours toward our parks!



Giant stonefly found during Robert H. Treman BMI Train the Trainer Event. Photo: OPRHP

Season's highlights included our bi-annual check of our salamander cover boards which were placed to monitor specifically for eastern red-backed salamanders, and our wildlife camera trap project which turned up some exciting finds this season including black bear, river otter, porcupine, and bobcat! Check out our FORCES Instagram Reels for highlights of this season's wildlife captures. Another highlight was our 3<sup>rd</sup> Annual Pollinator Bioblitz at Taughannock Falls Overlook Garden where Stewards helped engage patrons to participate in a bioblitz, give out 'Bug Bingo' with prizes and educated about important NY native pollinators. We also hosted another annual multi-region event at Robert H. Treman State Park for Benthic Macroinvertebrates (BMI). This train-the-trainer event brought

students from Niagara, Central, Finger Lakes and Thousand Islands Regions together to learn about biological assessments of water quality and the diversity of organisms that live in our NYS waterways.

Another awesome highlight of this season was working with Dr. Kirsten Prior and PhD candidate, Rosebelle Ines, from Prior Lab at SUNY Binghamton with their research on myrmecochory (seed dispersal) within the *Aphaenogaster* group of ants. Certain native plants like bloodroot (*Sanguinaria canadensis*) and wild ginger (*Asarum canadense*) produce seeds that contain a white, oily appendage called elaiosomes. Elaiosomes are a food reward for the *Aphaenogaster* ants who in turn disperse the seeds and spread the plant populations. This ant and plant mutualism is exactly what Rosebelle and Kirsten are studying. FORCES Stewards and staff helped transplant over 80 specimens of bloodroot into a floodplain at Buttermilk Falls State Park and created study plots for the folks at Prior Lab to return and continue this great research (Cont'd p.9).



## Finger Lakes Update (Cont'd)

Carlin Shew, FORCES Program Specialist, Finger Lakes Region

In each plot, seeds were placed alongside the transplants and Stewards saw *Aphaenogaster* ants carry off the seeds in real time. Overall, a very cool project and we are excited to continue our work with their team.

Ivy Penree, our one and only Invasive Species Steward was a great help this summer across a variety of different projects like early-detection surveys for glossy buckthorn at Robert H. Treman State Park and removals of the buckthorn saplings along Enfield Creek near the upper park. Ivy also assisted Dr. Andrea Davalos from SUNY Cortland and Cornell University in her survey of invasive jumping worms at Taughannock Falls State Park. This is part of an ongoing research project with Cornell and Yale looking at Asian jumping worm species: *Amyntas agrestis*, *Amyntas tokioensis*, *Metaphire hilgendorfi*, all which are present at Taughannock Falls in abundance. Ivy worked on collections of the worms which were brought back to Dr. Davalos' lab for genetic testing.

Ganondagan State Historic Site this semester included tending to the Three Sisters Garden and taking a tour of the Seneca Art and Culture Museum where Stewards learned about Haudenosaunee history, culture and presence in the Finger Lakes Region. Stewards also assisted the Environmental Stewardship Team with preparations for the 2024 Fall Prescribed Burn.

Stewards assisted the team in removal of woody brush on Fort Hill and creating control lines through the Earth Is Our Mother Trail woodland. Stewards also assisted Plant Materials Program (PMP) Manager, Asmamaw Damtie, with weeding, watering, and up-potting at the new PMP location in Sampson State Park.



Conservation Stewards at the Three Sister's Garden at Ganondagan State Historic Site. Photo: OPRHP

Lastly, we assisted Stewardship Project Coordinator, Dan Hughes, with release of Emerald Ash Borer (EAB) biocontrol at Taughannock Falls and Fillmore Glen State Parks. Conservation Stewards helped release three species of parasitoid wasps (*Tetrastichus planipennis*, *Oobius agrili*, *Spathius galinae*) which will aid in the control of EAB and save ash trees throughout the Finger Lakes Region.

All in all, it was a great summer with a dedicated and hard working group of Stewards. Thanks to our Finger Lakes Region staff, co-supervisors, and all who assisted in getting these important projects done.



Conservation Stewards at the Plant Materials Program at Sampson State Park. Photo: OPRHP

### Send us your Selfies!

We are always looking for great pics for our FORCES photo album. We know you are out there working hard, having fun, and taking some amazing shots of our beautiful State Parks. Please share them with us. It is through your collective lens that we see all of us together as a FORCES family.



*"Interning with Niagara's FORCES program was a wonderful and beneficial experience. I met some amazing people, and learned quite a bit about our surrounding environments! I'm grateful to the entire FORCES program for everything."*

*~ Jimi Wiggins, University at Buffalo*

# Project WHIRL

Protectors of Water and Habitat  
In The Indian River Lakes



In 2019, FORCES partnered with the Indian River Lakes Conservancy (IRLC) to debut Project WHIRL. This partnership and program were featured in our Fall 2019 Newsletter—page 11. We are excited to share that this program is still going strong, and Project WHIRL celebrated its 6th year in 2024!



Based in Redwood, IRLC and Project WHIRL continue to engage high school students from school districts across the north country. When we started the program, one of the goals was to connect these students to educational and professional opportunities in the environmental sciences. We are pleased to see this happening!

Even more exciting—one of our WHIRLERS is now a 1st year SUNY ESF student and member of ESF FORCES. Cecilia Stewart first started with Project WHIRL in 2021 (photo right top), and she has been involved every year since, including this past summer (photos right bottom and below left). Cecilia tells us that Project WHIRL was the “main reason she got involved with environmental science and decided to attend SUNY ESF.” Now at ESF, she is connected to our NYS Parks conservation projects in our Central Region, including volunteering some time in the COAS Lab with Chittenango ovate amber snails (photo bottom right). In addition, Cecilia is interested in helping out with Project WET NETS.



Project WHIRL participants and educators in 2021. This was the first year for Cecilia Stewart (pictured above in overalls) and the start of her WHIRL, SUNY ESF and FORCES journeys. Photos: OPRHP

Please see the next page (p.11) to learn more about the Project WET NETS program and its debut year.



Project WHIRL was the first of several summer programs FORCES and our partners are planning for high school students in central and northern New York. We are glad we gave it a whirl:)



Cecilia completed her final season of Project WHIRL in summer 2024, and now she participates in the ESF FORCES club. Photos: OPRHP (left) and ESF FORCES (right)



# Project WET NETS

## Watersheds Engaging and Teaching Nottingham's Environment & Technology Students



This summer, our FORCES Program partnered with Syracuse City School District to host ten Nottingham High School students to three weeks of informal science learning and environmental stewardship. The summer program included field visits to six NYS Parks and a trip to SUNY ESF campus. The students worked alongside NYS Parks staff and community & agency partners to explore the Lake Ontario watershed while learning about invasive species management, forest & wildlife ecology, and aquatic resources. For example, Project Wet Netters surveyed for hemlock woolly adelgid (HWA) with NYS Hemlock Initiative, sampled fish with NYS DEC biologists, assessed stream water quality with the CNY Chapter of the Izaak Walton League and monitored vegetation plots with SUNY ESF professors to study deer herbivory.



*"I definitely want to enter the field of forestry, and now I've had some experience in doing field work and going out somewhere to study the environment. I'm so grateful to have this opportunity. I love science and collecting data... this has been an incredible experience!"*

*~ Sophia, Nottingham HS Junior*

Environmental Education Steward and former Nottingham HS student Matias Romano assists NYS DEC biologists with deploying nets at Glacier Lake at Clark Reservation (photo left). NYS Parks Corps member Nicole Jeung and FORCES Program Specialist Anyka Cerminaro ready kayakers for a water chestnut pull at Fair Haven Beach (photo right). Photos: OPRHP

From SCSD Good News -

<https://www.syracusecityschools.com/districtpage.cfm?pageid=14515>

## Steward Spotlight: Madison Srymanske

Conservation Steward, Finger Lakes Region



I joined the FORCES crew for the summer of 2024. I just finished my junior year at Niagara University and was going to be starting my senior year in the fall. It was required of me, by my degree, to finish an internship to be able to graduate. With that pressure of needing an internship and already approaching my senior year, I was in full blown stress mode. Thankfully, my college advisor pointed me in the direction of FORCES, which at first I was pretty nervous about it and not too sure on what to expect. But, as I was shown all of the different positions and types of work they did, I knew I would have an awesome summer with them.

Over the summer, I worked in the Finger Lakes Region as a Conservation Steward with Carlin Shew. Our group would go out and work on multiple projects all around the region, sometimes even going outside of our region. We did salamander surveying, landscaping at various locations, invasive species work, cleanups, and some educational work. We had such a variety of projects, it allowed me to try a little bit of everything. One project that remained constant was the Plant Materials Program. For this project, I would do some weeding, de-mulching, watering and up-potting.

I always loved being outdoors, going to different parks, and connecting with my environment. This passion of mine is what made me pursue a degree in environmental science. Going into my internship with NYSP FORCES, it just added to my passion. I was able to understand different factors that went

into working in the environment. Some things I realized that I wasn't a fan of, but a lot of other things we did I loved very much. FORCES helped me make my future career path more narrow. I was able to make connections, work hands-on, and try different things. I was truly upset when the summer started to come to an end. This position wasn't just a requirement for me to graduate, it was such a learning experience. It was my source of fun while technically working.

I am extraordinarily grateful for everyone that has helped me in FORCES and for being able to have these types of experiences. I am eternally grateful for Carlin Shew (Finger Lakes Region Program Specialist), she is such an inspiring leader and is one of many FORCES staff that helped me get to where I want to go in my career. The FORCES team is truly outstanding. So, I encourage everyone, students or volunteers, to take a chance and don't be afraid to let yourself explore different options because if it truly wasn't for FORCES, I wouldn't know what my future could look like.

*"This experience has undoubtedly helped me to acquire new skills and strengthen old ones. FORCES encouraged me to talk with new people and work on connection building, strengthened my ability to try new things and be open and curious, and built confidence in physical and hands-on tasks. I also gained a lot of knowledge in the areas of plant identification, ecosystem conservation, and historical background of some NY sites. These skills I have gained through my time as a Steward are ones I will carry into future academic and professional experiences, and have helped build my confidence in seeking those new experiences in general. I am tremendously excited to continue more work with FORCES in the future and am very thankful for the opportunities it has given me thus far!"*

*~Lily Marks, Ithaca College*

# The Force Behind FORCES Picture Page



Trainapalooza 2024!



Ivy Penree and Carlin Shew after glossy buckthorn removals at Robert H. Treman SP.



FORCES Steward emptying a net after BMI sampling.



SCA members hanging out at Trainapalooza.



FORCES Steward Kat Resanovich and SCA Member Brooke Stratton tabling at Green Lakes State Park.



FORCES Stewards encountering bulblet fern at Clark Reservation State Park.



Water chestnut pull at Fair Haven Beach State Park.



SCA Member Spencer Van Epps tabling during Invasive Species Awareness Week.



FORCES Stewards, Staff, and SCA members at the Finger Lakes Bio Blitz.



FORCES Staff and Stewards celebrating the end of summer at the Finger Lakes FORCES Project Expo.



FORCES Stewards at Sandy Island Beach assisting in the piping plover habitat.



**New York State  
Parks, Recreation and  
Historic Preservation**

New York State  
Office of Parks, Recreation and Historic Preservation  
Central Region  
Lorenzo State Historic Site  
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FORCES Newsletter  
Fall Edition 2024

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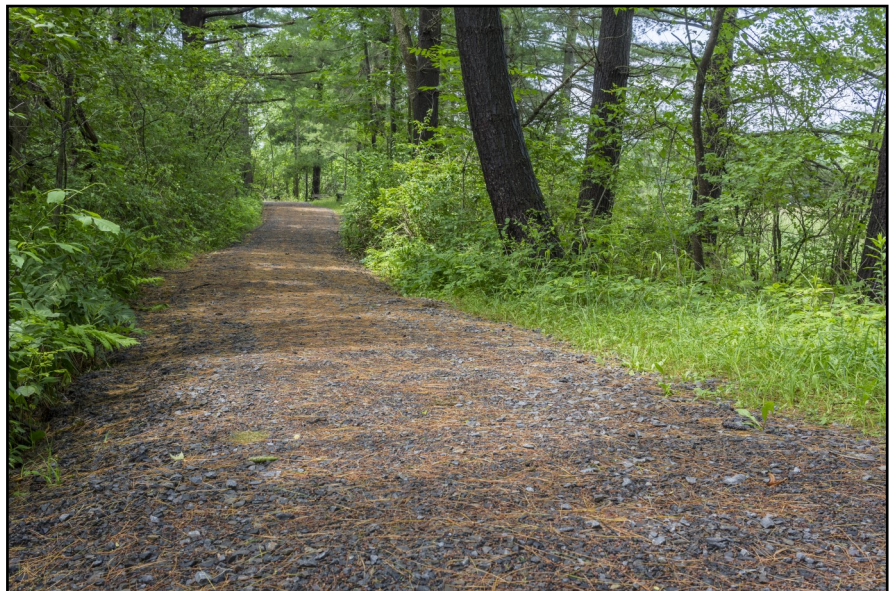
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FORCES Program Manager, Central Region

**Josh Teeter**

Environmental Educator  
FORCES Program Manager, Finger Lakes Region

**Carlin Shew**

FORCES Program Specialist, Finger Lakes Region



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**The FORCES mission is to engage New York State college students to simultaneously improve OPRHP resources and enrich student academic, recreational, and career opportunities.**

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