



Parks, Recreation and Historic Preservation

FORCES

Friends of Recreation, Conservation, and Environmental Stewardship

Spring 2020 Newsletter

Vol. 5 Issue 1

In this issue: Page:

- Featured Project.....4
- Staff Highlight.....7
- Faculty Highlight.....8
- Steward Spotlight9
- Partner Highlight11



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

We Are Growing

Tom Hughes, NRS Biologist
Central Region FORCES Program Manager

On these cold winter days as we anticipate the coming of spring and the next “growing” season, I can’t help to both reflect and look forward to FORCES’ many great accomplishments for protecting, preserving and propagating our native biodiversity and habitats. In this issue, we continue to highlight how FORCES stewardship projects and partnerships enhance our ability to expand as a program, while at the same time our program is growing the plants and animals we have pledged to conserve and protect. For example, our Stewards are making significant contributions to pollinator projects and native plant propagation at the Plant Materials Program and the Western District Nursery—see photos & pages 4-5!



FORCES Stewards in the Niagara Region work with the Western District Nursery to raise native plants for restoration projects and pollinator gardens, including project collaborations with Orleans/Niagara BOCES and Monarch Watch. Monarch butterfly (photo above) populations have declined about 90 percent over the last 20 years! For more info, visit MonarchWatch.org or fws.gov/savethemonarch Photos: OPRHP



Brigitte Wierzbicki, Plant Materials Program Coordinator, provides a tour of the Plant Materials Program (PMP) at Sonnenberg Gardens & Mansion Historic Park (photo left). Mike Serviss, Conservation Project Coordinator, and his “Fern Crew” (photo right) work with PMP to propagate the rare American hart’s-tongue fern. Photos: OPRHP



Central Region Update

Mike Serviss, AHTF Project Coordinator, Alivia Sheffield, Piping Plover Project Coordinator & Tom Hughes, Natural Resource Steward Biologist



Sandy Island Beach in October. Photo: OPRHP

Our Great Lakes piping plovers have been long gone since the end of summer. Our adult female was seen stopping over on her way south at Presque Isle State Park in Pennsylvania, and our chick, Yoda, was seen in Clear Water, Florida in September. The federally and New York State listed endangered species can winter from Georgia south to the Bahamas, and west to Texas. As the breeding season winds down, the project transitions to end of season organizing, data compilation from the summer, and outreach in the community.

As classrooms started back up, we participated in large environmental events in Jefferson, Oswego, and Onondaga



Environmental Awareness Days, Jefferson County. Photo: OPRHP

counties with students who hear the recovery story of the Great Lakes piping plovers of New York and play a challenging game – putting them in the piping plovers pigeon-toed shoes! We've held events where people of the area come and learn about the piping plovers habitat, migration, conservation status, and what the people in the community can do to help! We said goodbye to the project's 10-month NYS Parks Corps member, and started looking for our next that will come on in January and stay throughout the season with the project! Winter will fly by, and our plovers will be back ready to nest before we know it!



AHTF sporlings in a shade tunnel at Sonnenberg Gardens. Photo: OPRHP

The fall was an especially busy season for American hart's-tongue fern conservation! To start, we transplanted a few dozen greenhouse-propagated ferns at Clark Reservation with the members of the SUNY ESF AXS Honor Society in September- all of the ferns survived their first month in the field! The ferns were supplied by Dr. Danny Fernando at SUNY ESF. In October, we presented details of our invasive species and conservation work at the North American Invasive Species Management Association's Annual Conference in Saratoga Springs, NY. Shortly thereafter, we teamed up with Dr. Andrea Davalos (SUNY Cortland) and Audrey Bowe (Cornell University) on a long-term project to study the effects of Asian jumping worms on hart's-tongue ferns. As the weather grew colder, we worked on woody invasive shrub management at Clark Reservation near two hart's-tongue fern populations and started early detection HWA surveys.

We recorded a podcast with the US Fish and Wildlife Service on our hart's-tongue fern propagation work that was released in December (link to podcast: <https://www.fws.gov/northeast/nyfo/podcasts.html>). Lastly, but not leastly, we built custom shade tunnels with automated misting systems to house our baby hart's-tongue fern sporelings at the Plant Materials Program at Sonnenberg Gardens and Mansion State Historic Park. In total, we propagated a staggering 10,000 hart's-tongue fern sporelings that are now acclimating to their new custom homes until they are ready to transplant in the coming years!

In October, we partnered with Dr. Thad Yorks to host a YARE (Youth Aquatic Resource Education) workshop in Cazenovia, NY. Several of Dr. Yorks' students participated in the two-day "train the trainer" workshop where they learned Izaak Walton League of America's *Creek Freaks* curriculum along with the fundamentals for teaching fish ID, lake ecology and sportfishing to kids. Many of our FORCES Stewards have used these YARE trainings in the past to organize and plan their own youth events. We are planning another YARE workshop for spring of 2020!



October YARE workshop with Cazenovia College. Photo: Dr. Thad Yorks

Coordinator's Corner

Amy Kochem, FORCES Program Coordinator



6th Annual FORCES Gathering at Taughannock Falls State Park. Photo: OPRHP

The 6th Annual FORCES Gathering was held in September at Taughannock Falls State Park. As always, it was a great day for networking with each other and Park staff as we celebrated our program accomplishments. Our 2019 FORCES *Who's Who* highlights 102 FORCES Stewards from the Allegany, Genesee, Niagara, Finger Lakes, Central, Taconic, and Saratoga/Capital Regions! FORCES' institutional relationships are strengthening at SUNY Cortland with a possible club establishment soon, see page 16.

We said goodbye to Rebecca Policello, former Natural Resource Specialist at Rockefeller State Park Preserve in the Taconic Region. Rebecca hosted many stewards over the last few years and established relationships with Columbia College and SUNY New Paltz while increasing a FORCES presence at Pace University and SUNY Purchase. We congratulate Andy Damon, former Conservation Coordinator, as he accepted the Stewardship Specialist position in Saratoga/Capital Region. Andy worked to establish FORCES relationships with Siena College, Hudson Valley Community College and rejuvenated our FORCES efforts at SUNY Cobleskill. We wish Rebecca and Andy the very best and commend their FORCES accomplishments!

In November, we welcomed Conservation Coordinator Phil Corney to the FORCES Team (see page 7)! Phil comes to us with lots of experiences and skills that will continue the FORCES momentum in the Saratoga/Capital Region!

We look forward to the spring semester with many new projects and eager stewards to take them on!

For more information about 2019 FORCES Stewards, see the *Who's Who* publication coming soon to our website!

FORCES

Friends of Recreation, Conservation and Environmental Stewardship

Parks, Recreation and Historic Preservation

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2019 FORCES STEWARDS: THE FORCE BEHIND FORCES

<p style="font-size: 8px; margin: 0;">Sydney Alberico Finger Lakes Trail Steward</p>	<p style="font-size: 8px; margin: 0;">Sydney majors in Environmental Studies at SUNY ESF. She is from Holland Patent, NY and enjoys hiking, camping, road tripping, swimming, and adventuring with her dog Mylo! While she interned with the Finger Lakes Trails Crew, her goal was to learn new skills involving trail maintenance and restoration.</p>
<p style="font-size: 8px; margin: 0;">Angelica Arocho Native Wildflower Steward</p>	<p style="font-size: 8px; margin: 0;">Originally from Monroe, NY, Angelica attends Pace University where she studies Environmental Science. Her interests include plant cultivation, sculpting, crocheting, and map making. Her goal is to graduate and get involved with forest restoration and to pursue a career in the environmental field.</p>

Affiliated Institutions

SUNY Alfred
SUNY Binghamton
SUNY Brockport
SUNY Cobleskill
SUNY Cortland
SUNY ESF*
SUNY Genesee*
SUNY Morrisville
SUNY New Paltz
SUNY Oneonta*
SUNY Oswego
SUNY Purchase

Alfred University
Cazenovia College
Columbia College
Cornell University
Finger Lakes Community College
Hartwick College*
Hobart & William Smith Colleges
Houghton College
Hudson Valley Community College
Ithaca College
Le Moyne College*
Mercyhurst University
Niagara Community College
Niagara University

Onondaga Community College
Pace University
Paul Smith's College
Rochester Institute of Technology
St. Bonaventure University
St. John Fisher College
Siena College
Syracuse University
University of Buffalo
University of Rochester
Vassar College
Wells College*

*Denotes active FORCES Clubs

Featured Project: Plant Materials Program

Elizabeth Padgett, Endangered Plant Conservation Steward and Plant Materials Program Technician

To support environmental stewardship projects across several regions of New York State Parks, the Plant Materials Program collects and propagates seed from a variety of native species. Plants are grown in dedicated space in the historically-significant greenhouse complex at Sonnenberg Gardens & Mansion State Historic Park. Many plants in state parks are genetically distinct and in need of conservation – which is where the Plant Materials Program comes in.



Hart's-tongue fern sporelings in a shade tunnel at Sonnenberg Gardens.
Photo: OPRHP

Teaming up with the American hart's-tongue fern (AHTF) project, led by Mike Serviss (AHTF Project Coordinator, NYS Parks) in partnership with the US Fish and Wildlife Service, has been an exciting new experience for the Plant Materials Program. Last summer, FORCES stewards helped harvest fertile fronds from this federally-threatened species and prepared 750 spore cultures, which were placed in the newly-constructed fern propagation chamber at Sonnenberg Gardens. The spores produced many gametophytes, which were flooded with water in late summer to facilitate fertilization. By December the developing sporelings had grown large enough to be transplanted into a special growing mix meant to simulate the soil found on the talus slopes that are the fern's preferred habitat in New York State. The sporelings are currently housed in shade tunnels in the greenhouse where light and humidity levels can be tailored to their needs. Eventually, these ferns will return to Clark Reservation as part of the long-term conservation plan for that species.

Another project highlighting the need for local genetic conservation took place this fall. The Plant Materials Program teamed up with Parks staff to collect cones from pitch pines at the beautiful Sam's Point overlook in Minnewaska State Park. Hank Alicandri, the Park Preserve Director, has requested pitch pine for use in planting for trail closures and restoration. The population at Sam's Point is genetically distinct, so collecting from the population there is important to maintaining that population's genetics. Pitch pine cones are serotinous and only release their seeds in response to fire. Once the cones were harvested, they were heated in order to melt the resins sealing the scales shut and thereby extract the seeds. They will be planted in the greenhouse at Sonnenberg this spring to begin a three-year cultivation period, after which the saplings will be planted at Sam's Point.

If you are interested in supporting these and other projects, please reach out to the FORCES program! This work would not be possible without the assistance of our enthusiastic FORCES Stewards.



Pitch pine cones. Photo: OPRHP



FORCES stewards working with Mike Serviss and Elizabeth Padgett to prepare spore cultures. Photo: OPRHP

Niagara Region Update

Alexandra Tillman, FORCES Program Specialist



OPRHP Staff and Conservation Steward Dave Stillinger with the Orleans/Niagara BOCES Conservation Students at the Fort Niagara Nature Center pollinator garden project site. Photo: OPRHP

The Niagara Region FORCES program continued to flourish well into the fall season. We welcomed 5 Stewards- two *Trails*, two *Conservation*, and one *Pest Management*.

Jaimie Moore served as our resident tick-drag surveyor this fall. She surveyed at multiple parks throughout the region but focused her work mainly at Evangola State Park. She completed drags in many different types of areas, including around the disc golf course, hiking trails, and play areas. Fortunately, she only found 2 ticks throughout the whole season- neither of which carried any diseases. Once the weather turned, Jamie created a document evaluating the risks of ticks present in State Parks and recommendations for control. She also presented her results and research to her classmates at Niagara University.

Michael Streicher and Sean Colby from the University at Buffalo started their time as Conservation Stewards off with a bang. They were immediately thrown into a huge buckthorn removal project at Whirlpool State Park. There they worked directly with WNY PRISM, the Aquatic Invasive Species Strike Team, and The Western Terrestrial Strike Team. This was a great opportunity for them to network and see how important it is to build and maintain relationships with partner organizations.

Most of their time was spent doing important surveying throughout parks in the region. Ranging from invasive and rare species identification along the West River Parkway, surveying and flagging rare species at Woodlawn Beach State Park to stratified random sampling at Beaver Island State Park in areas that had never been observed before; these guys were always on the go. Kudos to them for sticking it out through all the adverse weather we had, especially once the snow started to fall!



Kevin McNallie gives a tour of the Western District Nursery where hundreds of native plants used for restoration efforts within the Niagara Region are grown. Photo: OPRHP



TJ & David releasing pheasants on a designated small game hunting trail system at Wilson- Tuscarora State Park. Photo: OPRHP

Trails Stewards David Stillinger and TJ Clark worked to help revamp some of our most underrated trail

systems at Joseph Davis State Park and Buckhorn Island State Park. Working mainly on maintenance, identification and removal of hazardous structures, they also created recommendations for trail improvements. There was plenty of work to be done, and always plenty more to go! A unique aspect of David and TJ's internships was the incorporation of multiple field technologies with their assigned projects. This included Garmin 360- degree videos of the trails, used for GPS tracking and visuals, and using the computer program Xmind to plan out all aspects of their projects.

To say the Niagara Region Stewards were a bunch of busy bees this fall would be an understatement. While working on all those projects, the stewards also found time to help with regional events and programs such as installing a pollinator garden with the Orleans/Niagara BOCES Conservation students at Fort Niagara SP and a restoration project at Beaver Island SP. After a brief winter break for the holidays, I look forward to continuing this momentum this spring!

Taconic Region Update

Rebecca Policello, Natural Resource Specialist



Looking back over the past two years, I'm amazed at all the incredible work that the Rockefeller State Park Preserve FORCES stewards have accomplished. With their help, we've planted over 300 tree saplings, cleared hundreds of acres of invasive plants, saved trees from strangling vines, improved pollinator habitats, surveyed for spring ephemeral emergence, protected hundreds of trees from deer browse and buck rubs, reduced erosion along renovated trails, rescued injured raptors, hosted 200+ kids for Girl Scouts Love State Parks Day, coordinated volunteers, and so much more. The list feels endless!

My favorite part about coordinating FORCES stewards was seeing how students transformed over such a short period of time. Lauren Tannenbaum, really sticks out. On her first day we jumped right into invasive control by cutting Japanese Angelica tree at chest height. Most of the other stewards had been with us for a few months, but Lauren had never held a hand saw before, let alone cut down a (small) tree. Everyone was cheering her on as she sawed, finally cutting it all the way through. Later on, she admitted that she felt out of place that day but by the end of her internship, she was cheering on our new wave of stewards and she became so much more confident in her skills. It was so inspiring to work with stewards like Lauren that were eager to make a difference, and willing to push through the discomfort to get there.

I leave OPRHP with a full heart. Thank you to the staff and stewards that gave it their all. The people in this agency make it difficult to leave, but I'm excited to become a park patron again so I can engage with the beautiful landscape with fresh eyes and wonder.

Saratoga/Capital Region Update

Andy Damon, Stewardship Specialist

Last fall, Owen McGivney volunteered as a Trails Steward at Max V. Shaul State Park, a park of roughly 70 acres, that borders Schoharie Creek and has seasonal camping and a trail system. Owen is an Environmental Management student at SUNY Cobleskill. He helped work on trail drainage issues, installed stepping stones, and completed general brushing and clearing of the trail system. Owen was a great help to the park and his work was very appreciated!



Owen at Max V. Shaul State Park. Photo: OPRHP



SUNY Cobleskill's Society for Conservation Biology members at Minekill State Park. Photo: OPRHP

A pollinator garden was constructed this past year at Minekill State Park, and plants were installed in the spring with the help of park staff and members of the Student Conservation Association. With decreasing numbers in our insect populations, these can be a great way to provide aesthetics to any landscape/park, while also proving a food source for many insects, that in turn can benefit entire ecosystems. Follow up weeding is necessary to allow for growth of the desired nectar species.

SUNY Cobleskill's Society for Conservation Biology chapter worked along park staff to help weed out the undesired species. This is very important early on in pollinator gardens, as some nectar species may take up to a few years to establish themselves and flower. Their club has been partnering with Minekill on projects in the past, and we always are so lucky to have them. We can't thank them enough for their continued support!

FORCES Staff Highlight: Philip Corney

Philip Corney, Conservation Coordinator, Saratoga/Capital Region



Hi, I'm Philip Corney, the new Conservation Coordinator in the Saratoga Capital/District Region. I received my Associate's Degree in Fisheries & Wildlife Technology and my Bachelor's Degree in Wildlife Management from the State University of New York College of Agriculture and Technology (SUNY Cobleskill).

In my position, I will be working with the Natural Resources Department to develop, implement, and track the natural resource projects within the region while directly overseeing and working with our regional summer trail crew, invasive species/forest health technicians and FORCES program stewards. I will be working on the further development of the FORCES program within Saratoga Region; creating and promoting opportunities for college students to get involved

with FORCES; and additionally working in partnership with our regional SCA, Excelsior Conservation Corps, and other environmental groups.

I am both excited and thrilled to now be a part of NYS PARKS with the mission of protecting and preserving our valuable natural, historic and cultural resources!



I LOVE
MY PARK
days
www.ptny.org

Saturday, May 2nd is *I Love My Park Day*
Register to give your park some love at
<https://www.ptny.org/events/i-love-my-park-day>

Attention FORCES Alumni

What is your legacy? We want to hear your stories and learn what you are now up to. Please send us an update!
Contact: Amy.Kochem@parks.ny.gov

Contact Us

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FORCES Program Coordinator
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Faculty Highlight: Ann Stork

Ann Stork, Assistant Professor, Environmental Studies and Science, Ithaca College

Working with FORCES last fall gave my Conservation Biology students at Ithaca College opportunities to not only meet professionals that are working in conservation biology locally, but to also get to contribute to on-going work that is promoting the protection of biodiversity right in our backyards. We worked with Carlin Wakefield and Chenga Drury on multiple FORCES projects. As part of our study of invasive species and how they can wreak havoc on biodiversity, we helped FORCES map and clip seed pods of pale swallow-wort in Buttermilk Falls State Park. Before working in the field with FORCES, students had done their homework to understand some of swallow-wort's life history that helps it be such a potent invader. We had even visited a new patch of swallow-wort in the Ithaca College Natural Lands. But, students were stunned at the extent of the plant's invasion in the park. They helped map and clip seed pods with gusto and were thrilled to have the opportunity to help reduce the swallow-wort invasion in the park. One of the highlights of the afternoon was seeing the Asian jumping worm, a recent invader of local state parks, and Carlin showing us how the invasive worms were transforming the soil into a texture similar to coffee grounds.



Ithaca College students and OPRHP staff. Photo: OPRHP

We encountered the Asian jumping worm again at Robert H. Treman State Park when we collected benthic macro-invertebrates (BMIs) with FORCES from the stream right above Lucifer Falls. We collected the BMIs to assess stream water quality as part of the Three Gorges Project. We preserved our samples in alcohol and in November Carlin and Chenga visited us in the lab at Ithaca College where we all identified all of the organisms to family. Our analysis, using the Hudson Basin River Watch Guidelines, was that the BMIs reflected a non-impacted stream.



OPRHP's Kyle Webster teaches about native plants. Photo: OPRHP

We also helped Kyle Webster, along with Carlin and Chenga, monitor a restoration project in a swallow-wort management in the upper section of Buttermilk Falls State Park. Kyle, Carlin and Chenga were wonderful teachers and taught us all how to look more closely at our native plants.

In addition to projects involving invasive species, as part of our classroom investigation of amphibian decline, we helped monitor salamander boards in Jennings Pond, Buttermilk Falls State Park. The students loved finding the red-backed salamanders and



Students observing a red-backed salamander. Photo: OPRHP

shining a light to their abdomens to see if they had found male or female salamanders. They were fascinated by the tiny piles of red-backed salamander eggs that they found under the salamander boards.

Thank you FORCES for a wonderful fall of collaborations! The FORCES staff were patient, cheerful and knowledgeable project leaders and we all learned so much from you on each project!

Steward Spotlight: Zachary Campbell

Zachary Campbell, Wildlife Steward, Finger Lakes Region



During my internship with the FORCES program, I was an active team member working on hemlock surveys, macroinvertebrate sampling, salamander surveys, native plantings, pollinator collections, and various tasks around the office. In addition to these team-based projects, I was able to work on a project of my own design. For this internship, I decided to set up trail cameras in Watkins Glen State Park and survey for active wildlife near the main trails. My findings were as expected for a forested habitat in the given region. In addition to using the trail cameras, I developed a small scale tracking guide and studied some history of the Watkins Glen gorge. I was able to use this knowledge to inform tourists and hikers as I walked through the park while working on my tracking project.

This project in particular was especially rewarding and dear to me. I grew up less than fifteen minutes from the Watkins Glen State Park, and have hiked the park countless times, but never took the time to realize and appreciate the work that takes place behind the scenes to manage the park and trails for all to enjoy. I never truly understood the history of the park or the wildlife that were present either. I only valued the beauty of the park as I saw it at the most basic level. However, my first visit to the park as a FORCES Steward changed everything. Taking place less than a year after I made the change to a conservation major from a pre-med student I had much to learn. We hiked the park looking for hemlock trees to survey but were given identification tips and made frequent stops to learn about some of the history of the park. I was mind blown, I had overlooked so much in the past, the park took on a whole new level of grandeur and I just had to keep learning more! This was not only the turning point in my internship, but a turning point in my life. I realized that through education and deeper level observation the true value of the parks can be realized by everyone. I made this the focus of my FORCES project and have continued to express my desire to continue learning and I have found great joy in educating others.

I encourage all outdoor enthusiasts, especially those who aspire to be environmental stewards, to participate in at least one volunteer event with the FORCES program, it is sure to be a rewarding and valuable use of your time! I truly fell in love with this program and the work that I was able to be a part of. I have learned unbelievable amounts of information from plant identification skills to understanding the unique history of each park. I am certain I will be able to apply all that I have learned to my career in the future. Now that I am at the conclusion of my internship, it is hard to believe how much I have experienced in so little time. I plan on remaining an active member with FORCES through volunteer and outreach events in the future.

I would like to give thanks to Dr. Andrea Davalos for helping me find this internship opportunity and to Carlin Wakefield, Chenga Drury, and the rest of the FORCES staff I had the pleasure to work alongside for providing me with a great wealth of knowledge through this internship and helping me realize my passion for education and environmental stewardship. Finally, I would like to give a shout out to the FORCES club at SUNY Cortland, this is a new club that is being started to help individuals interested in environmental studies become actively involved and discover the numerous opportunities that are available through the FORCES program. I hope this club is highly successful and other college institutions throughout New York develop their own FORCES clubs to provide students with ample opportunities to become active environmental stewards.

Finger Lakes Region Update

Carlin Wakefield, FORCES Program Specialist



Invasive Species Management Steward, Brooklyn Saliba, and Stewardship Corps Member, Jennifer Skala, at Taughannock Falls State Park. Photo: OPRHP

As the growing season wrapped up, we said our goodbyes to the 2019 FORCES Stewardship Corps and Summer FORCES Stewards. We appreciate their amazing work and dedication! Jennifer Skala, one of the stand-out Stewardship Corps members, stayed on with Parks until November. She worked directly under Three Gorges Project Coordinator, Chenga Drury, on a variety of tasks for the Three Gorges Project. She also assisted FORCES by collaborating with Fall Stewards on conservation and invasive species control projects. Stewardship Corps Lead, Jesse LaRose, also stuck around to help with Three Gorges data entry. His work was based closer to his home, out of the Central Region Headquarters in Jamesville, NY.

FORCES Fall Stewards included Brooklyn Saliba and Nina Ng from Ithaca College, as well as Zachary Campbell and Christie Rechin from SUNY Cortland. Invasive Species Management Steward, Brooklyn,

worked on a variety of projects including Japanese stiltgrass and honeysuckle removal at Buttermilk Falls State Park, hemlock wooly adelgid phenology checks in collaboration with New York State Hemlock Initiative Lab at Cornell University, monitoring and research for the Three Gorges Project, and more. Christie worked primarily under Josh Teeter as an Education Steward, providing outreach to patrons on the Gorge Trail at Taughannock Falls State Park.

Conservation Stewards, Zach and Nina, worked on a variety of projects including collecting and pinning desired pollinator species for the Natural Heritage Program to study, assisting Forest Health Tech, Josh Vogel, in flagging and measuring hemlock trees for in-house hemlock wooly adelgid treatments, monitoring eastern red-backed salamander cover boards, and collaborating with the Excelsior Conservation Corps to build ten boot brush stations that will be placed at trailheads throughout the region. These stations will give vital information about how to stop the spread of invasive species and provide a spot for patrons to scrub their shoes of seeds and dirt. Zach and Nina also each contributed an independent project; Zach researched wildlife tracking and camera trap surveys. Nina researched the Black Diamond Trail and designed an interpretive panel with detailed background notes on the natural and cultural history of the site.



Conservation Stewards, Zach Campbell and Nina Ng at Buttermilk Falls State Park. Photo: OPRHP



Ithaca College Conservation Biology Students at Buttermilk Falls State Park. Photo: OPRHP

We had the pleasure of collaborating on five unique field days with Ithaca College professor, Anne Stork's Conservation Biology lab group. Our field outings allowed her students to enjoy the beauty of Finger Lakes State Parks, contribute data to our projects, and learn about a variety of conservation topics. These included benthic macroinvertebrate surveys at Robert H. Treman State Park, salamander monitoring at Jennings Pond, pale swallowwort mapping and control, and native species community monitoring for Three Gorges Project at Buttermilk Falls State Park. We look forward to more collaborations come Spring!

Partner Highlight: WNY Partnership for Regional Invasive Species Management

Emily Thiel, Education and Outreach Program Manager



WNY Partnership for Regional Invasive Species Management, or PRISM, is an organization solely devoted to minimizing the damage caused by invasive species, including that done to the environment, economy and human health. We are one of eight PRISMs that cover the entire state of New York and we specifically focus on the eight westernmost counties of the state (Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans and Wyoming Counties). While our region is often recognized for Niagara Falls and Letchworth State Parks, western New York is home to so much more than these two natural landmarks. It includes many unique natural features and endemic species.

To help protect these natural resources, WNY PRISM was founded in 2014 and has since created a network of remarkable professionals throughout our region dedicated to invasive species management. Some of the initiatives we work on include our education and outreach programming, to

teach the public about invasive species and the importance of preventing their spread; our Watercraft Inspection Program, to help boaters adopt Clean, Drain, Dry practices; early detection monitoring, to find and manage populations of newly introduced invasive species; and our Invasive Species Management Crew who work to manage invasive species in ecologically significant natural areas.

Each part of our work can be extremely time-intensive, so we often turn to members of our partnership network to lend a hand. This of course includes FORCES Stewards who helped us on several projects in 2019 such as our Slender False Brome Working Group research. This research focused on the early detection species Slender False Brome (*Bracypodium sylvaticum*) in Letchworth State Park. The FORCES crew stationed there helped manually remove and cut plants, allowing us to gain an invaluable insight into the most effective way to manage this invasive species that has only recently invaded New York State. Later that season, FORCES Stewards helped our Invasive Species Management Crew manage common buckthorn (*Rhamnus cathartica*) at Whirlpool State Park, part of the Restore the Gorge effort to enhance the ecological diversity of the Niagara Gorge. FORCES has also helped us with our early detection work by helping us survey for and remove European frog-bit (*Hydrocharis morsus-ranae*) at Buckhorn Island State Park.

We look forward to continuing to work with FORCES Stewards in 2020 on these projects and more!

To learn more about WNY PRISM, visit our [website](http://wnyprism.org) (wnyprism.org), and follow us on [Facebook](#) (@wnyprism) and [Instagram](#) (@wnyprism8) for exciting behind the scenes snapshots of our work.



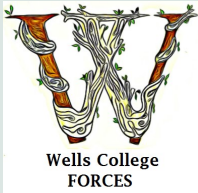
FORCES Stewards assist with the survey and removal of an infestation of European frog-bit at Buckhorn Island State Park. Photo: WNY PRISM



FORCES Stewards help remove common buckthorn from Whirlpool State Park. Photo: WNY PRISM

Wells College

Shannon Simmons, Club President



Wells FORCES has had a lot of educational projects this semester around the Wells College campus. We conducted a hike to show students what some invasive plant species looked like and ended the hike at the waterfall on campus.



We also hosted a winter wilderness fair to teach students property winter survival techniques. We had the honor of helping researchers at Cornell University to release the *Laricobius* beetle on our campus to help fight the HWA invasion in NYS.

SAVE-THE-DATE: 4/19/2020

6th Annual FORCES Leadership Summit
SUNY Oneonta Biological Field Station
Cooperstown, NY



A full day of networking, discussions, strategic planning, food and fun! Open to FORCES Club officers, future FORCES Club officers, and FORCES Ambassadors.
Location: SUNY Oneonta Biological Field Station

Le Moyne College

Haley Synan and Luke Guinta, Club Co-Presidents



Le Moyne FORCES started off the 2019-2020 year on the right foot by prioritizing on aspect of campus sustainability, recycling. At the beginning of the semester, the club established a cooperative relationship with Le

Moyne College's physical plant to work on these efforts. Working with Mr. Eric Foertch of the physical plant, the club coordinated two campus cleanups. The first was held in September in one of the wooded areas on campus. Roughly 40 pounds of trash and recyclable material was collected. The second cleanup was held in October in the Le Moyne Woods, a space used by both students and the surrounding community. Here, students disposed of more than 100 pounds of garbage and recyclable material. To further improve recycling efforts at Le Moyne College, club leaders are currently working with physical plant, campus life, and the communications department to recreate recycling guide posters instructing students, faculty, and staff how to dispose of their waste properly according to Onondaga County standards.



In the upcoming semester, club leaders plan to organize a campus wide celebration called Earth Jam. There will be music, games, flower planting and more. Unlike years past, FORCES will organize a large-scale campus cleanup on Earth Day before festivities and will work with student government and other organizations.

"This experience has been a great resume builder which will help me to pursue a future career or potentially graduate school." ~Nina Ng, Ithaca College

SUNY Geneseo

Christina Morrow, Club President



This past semester was very productive and fun for the SUNY Geneseo FORCES chapter. As we have

done for the past three or four years, we kicked off the school year by swimming in the natural pool in Stony Brook State Park and hiking in the gorge. It was a great way to reconnect after the summer and make the most of the warm weather.

We had several events at Letchworth State Park, including collecting monarch caterpillars at the Humphrey Nature Center; removing the invasive Tree of Heaven from the Mount Morris dam area; and learning about white-tailed deer with a local after school enrichment program called "R-Kids."



As always, our camping trip was also in Letchworth, and in addition to eating delicious food cooked on the campfire and a fun night-time hike to Middle Falls, we pulled the invasive groundcover vine *Vinca* at Wolf Creek, touching up removal that has occurred over the last few years. At the Genesee County Park and Forest, we trimmed their trails to increase safety for their annual 5k, and helped clean up their outdoor nature area. With the Genesee Valley Conservancy, we planted native trees at two of their nature preserves.

We also had some miscellaneous recreation events including visiting the Naples Grape Festival, hiking at Grimes Glen, and hiking in Mendon Ponds park. We had another fundraiser selling delicious cookies from the Finger Lakes Cookie Company. We co-hosted a documentary viewing with the Sierra Club. We wrapped up the year with a lovely potluck in the midst of finals.

We're looking forward to this upcoming semester!

SUNY ESF

Emily Link, Club President



ESF FORCES started its semester off with a club hike, during which new and returning members were able to socialize as well as meet the new officers. Throughout the semester, the club members participated in several trail

cleanups, Wicked Woods at Green Lakes State Park, and the FORCES Summit at Taughannock

Falls State Park. There were also monthly meetings, with attendance doubling throughout the semester. At one of the meetings, we welcomed a speaker, who



presented on invasive species, specifically buckthorn, and the importance of managing and removing it. ESF FORCES formed partnerships with other ESF clubs and the ESF honors college, and there will be joint events in the spring semester. We also co-hosted an event with Centennial Hall, during which students painted tree cookies. The event was very successful, with high attendance and many new members recruited. We are excited to see what next semester holds and plan to get involved with more events.



"My favorite experience during my internship was the FORCES Fall Gathering. It was fun, informative, and it helped me to see where FORCES may take my career one day."

~Jamie Moore, Niagara University

Hartwick College

Max Pizarro, Club President

Hello from Hartwick! In recent semesters due to lots of graduating seniors, our club took a step back to build our base back up. I am happy to say that we are back stronger than ever! In order to appeal to incoming freshmen, we have been doing lots of informational hikes. On each hike one of the executive board members would teach hikers about something from their major. This year we have geologists, biologists, and environmental scientists on our executive board who can bring many different disciplines together to foster an understanding of how we can all make a positive impact on our environment!



Finger Lakes Environmental Field Team

Chenga Drury, Three Gorges Stewardship Project Coordinator

The Environmental Field Team (EFT) welcomed fall Stewards Andrew Copenhagen, Ian Leonard, Nesa Rampersad, Elizabeth Padgett, Carolyn D'Aprix, Andrea Centola and Jennifer Skala.

Andrew, Ian, and Nesa (Stewardship Project Technicians), supervised by Lydia Martin (Lead Stewardship Technician) assisted with ongoing restoration projects at Ganondagan State Historic Site, including invasive species control, native plant restoration, and native seed collections. Elizabeth (Endangered Plant Conservation Steward), supervised by Mike Serviss (Conservation Project Coordinator), continued greenhouse tasks related to American Hart's-tongue fern (AHTF), including plant propagation, maintenance, data collection, and interpretive educational programs for greenhouse patrons. Carolyn and Andrea (Plant Materials Program Technicians), supervised by Brigitte Wierzbicki (Plant Materials Program Coordinator), assisted in the propagation of native plant species from various materials including cuttings, seeds, and divisions. They assisted David Rutherford (Plant Materials Program Lead Technician) with collections of native plant materials, surveying and mapping native populations, and data collection.



Benthic macroinvertebrate sampling with Ithaca College Conservation Biology class at Robert H. Treman State Park. Photo: OPRHP

Jennifer (FORCES Stewardship Corps member), continued invasive species mapping, surveying, and manual removals at the three Ithaca parks. She also assisted with five field days with Anne Stork, a Conservation Biology professor at Ithaca College. Our field outings allowed Ithaca College students to sample for benthic macroinvertebrates in Enfield Creek at Robert H. Treman State Park, monitor for eastern red-backed salamanders at Jennings Pond (Buttermilk Falls State Park), learn native plant ID, and practice invasive species mapping and removals.

Please email the Environmental Field Team if you are interested in an internship or volunteer opportunity:

EnvironmentalFieldTeam@parks.ny.gov

2019 FORCES Stewards

Canisius College

Mark McKenna, Water Quality Steward

Columbia University

Olivia Card, FORCES Stewardship Corps Member

Cornell University

Iriel Edwards, Invasive Species Management Steward
Matthew Janson, Bird Steward

Finger Lakes Community College

Elizabeth Padgett, Plant Materials Program Technician
Nesa Rampersad, Environmental Field Team Steward

Hartwick College

Tyler Forhan, Dune Restoration Steward
Rebecca Nathan, FORCES Club President
Max Pizarro, FORCES Club President

Hudson Valley Community College

Emily Dupuis, Kameer Blue Butterfly Steward
Zoe Gliosco, Avian Survey Steward
Thomas Kelafant, Avian Survey Steward

Ithaca College

Garrett Boleslav, Forest Health Steward
Anna Bornstein, FORCES Stewardship Corps Member
Cheyenne Carter, Conservation Steward
Mark Hassett, Environmental Education Steward
Meaghan McElroy, Communication Steward
Nina Ng, Conservation Steward
Patrick Robertson, FORCES Stewardship Corps Member
Brooklyn Saliba, Conservation Steward
Isabel Schulman, FORCES Stewardship Corps Member
Jennifer Skala, FORCES Stewardship Corps Member
Robert Swiss, FORCES Stewardship Corps Member

Le Moyne College

Luke Giunta, FORCES Club President
Haley Synan, Environmental Education Center Host Steward
Kylee Wilson, FORCES Club President

Mercyhurst University

Trey Fahsel, Dune Restoration Steward

Niagara County Community College

TJ Clark, Conservation Steward
Zachariah Glaspy, Supervising Conservation Steward
David Stillinger, Conservation Steward

Niagara University

Kevin Brown, Invasive Species Management Steward
Thomas Devantier, Pollinator Steward
Matthew McDonald, Invasive Species Management Steward
Jamie Moore, Conservation Steward

Oberlin College

Lauren Tannenbaum, Conservation Steward

Pace University

Angelica Arocho, Native Wildflower Steward

Rochester Institute of Technology

Nick John, Invasive Species Management Steward

St. Bonaventure College

Evan McCabe, Environmental Interpretation Steward

Siena College

Ali Liguori, Environmental Interpretation Steward

Smith College

Camille Butterfield, Land Mgmt./ Art Gallery Assistant Steward

SUNY Binghamton

Elizabeth Balzani, Conservation Steward
Ava Glasser, FORCES Stewardship Corps Member
Michael Kennedy, Trails Steward

SUNY Brockport

Jessica Harling, Conservation Steward

SUNY Cobleskill

Kali Oaks, FORCES Campus Ambassador Steward
Jordan Hayes, Environmental Interpretation Steward
Owen McGivney, Conservation Steward

SUNY Cortland

Zachary Campbell, Wildlife Conservation Steward
William Caston, Conservation Research Steward
Angela McEnerney, Conservation Research Steward
Christie Rechin, Conservation/Environmental Interp. Steward

SUNY ESF

Sydney Alberico, Trails Steward
Emily Baxter, American Hart's-Tongue Fern Technician
Chris Bodie, Environmental Education Center Host Steward
Dylan Chorny, Conservation Steward
Erin Cocca, Environmental Education Center Host Steward
Cristen Crew, Environmental Education Center Host Steward
Alisha (Fern) Crossway, Environmental Interpretation Steward
Bryan Dandaraw, Conservation Steward
Chris Danforth, Conservation Steward
Lucy Enders, Conservation Steward
Caprice Genniger, Conservation Steward
Miranda Gregory, Conservation Steward
Ben Hart, Natural Resource Management Steward
Delaney Kalsman, Environmental Education Center Host Steward
Daniel Klimkowski, Invasive Species Management Steward
Aaron Krinsky, Natural Resources Management Steward
Giana Losquadro, Environmental Education Center Host Steward
Rebecca Miller, Dune Restoration Steward
Miles Neidorf, Invasive Sp. Mgmt. Steward
Saadiya Sheekn-Nuur, Env. Education Center Host Steward
Emily Link, FORCES Club President
Mary Luellen, Conservation Steward
Haley O'Brien, Rare Species Conservation Steward
Maggie O'Brien, Stewardship Project Technician
Emily Purce, Environmental Education Center Host Steward
David Rojek, Environmental Education Center Host Steward
Grace Trentini, Environmental Education Center Host Steward
Jake Vitale, Environmental Education Center Host Steward
Leo Wahl, Conservation Steward
Hannah Whalen, Conservation Steward
Emma Wilson, Environmental Education Center Host Steward

SUNY Geneseo

Christina Morrow, Conservation Steward
Miranda Neyerlin, FORCES Club President
Alec Ritter, Conservation Steward

SUNY Oneonta

Miguel-Angel Castillo, FORCES Club President
Sophie Millar, FORCES Club President

Tufts University

Jordan Claman, Conservation Steward

University of Buffalo

Ryan Anello, Invasive Species Management Steward
Chris Bolt, Invasive Species Management Steward
Sean Colby, Conservation Steward
Chris Freer, Pest Management Steward
Bianca Gonzalez, Conservation Steward
Jenna Hoffman, Water Quality Steward
Torey Kouril, Invasive Species Management Steward
Michael Streicher, Conservation Steward

Wells College

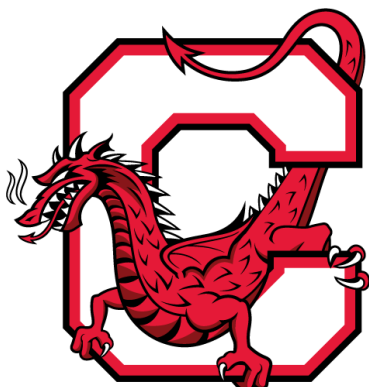
David Balcer, FORCES Stewardship Corps Member
Shannon Simmons, FORCES Club President

Non-Collegiate Stewards

Ashlee Boughton, FORCES Project Steward
Amanda Cooper, Environmental Education Center Host Steward
Jesse Larose, FORCES Stewardship Corps Lead
Nicole Sheffler, Environmental Interpretation Steward

FORCES Club at SUNY Cortland - Regaining Momentum!

Alexandra Tillman, FORCES Program Specialist, Niagara Region



Will SUNY Cortland be the next college campus hosting a FORCES Club? We sure hope so! Our staff has been hard at work on the establishment of a student-led club on campus. The last update we had for you all was in the summer of 2019, when we had hit a road block with student involvement. As a team we made it our goal for the Fall '19 semester to create and implement a plan for another shot at a Cortland Club.

In the beginning of November our staff attended the annual SUNY Cortland Recreation Conference. Where we not only presented the program to other attendees, but also met with a handful of Professors that are eager to aid us with the club. They stemmed from multiple departments, such as Biology, Geology, Outdoor Pursuits and Recreation & Leisure Studies, which allows us to reach a very diverse student group. During those meetings we discussed what a club on campus would look like and the institutional buy-in and community effort it needs to survive. We also discussed examples of service projects, agency activities they can attend as members, resume building workshops, and we even got as far as establishing a timeline for future outreach events on campus.

By the first week of February we will have visited about a dozen classes, in all the involved departments, where we will give them a 5-minute snippet on FORCES and what a club on campus could look like. On Thursday February 6th, we will be hosting the on-campus Interest Meeting, where we will go into much more detail about the program and the goals we would like to help the students reach. There we will also be looking for E-Board volunteers, a necessity to club establishment on campus.

We are planning a "tester trip" for Saturday, February 29th where we will take interested students and faculty to Robert H. Treman State Park for a fun-filled winter day. We hope to snow shoe, setup trail cams, and do some team-building exercises. This would be a great example of an event the club could host once fully running. After the trip, we will work with the students and the SUNY Cortland Student Government Association (SGA) on officially making it a sanctioned club on campus.

The prospect of establishing a FORCES club on another college campus is very exciting. Being a SUNY Cortland alumnus myself, I know firsthand the need for a club like this. If there were a FORCES club when I was a student, I would have joined, and I know a lot of others that would have as well. I believe that there are many students, currently on campus, that feel the same way and our staff can't wait to provide them with the opportunity. Stay tuned for more updates!

"I encourage all conservationist and those who aspire to be environmental stewards to participate in at least one volunteer event with the FORCES program, it is sure to be a rewarding and valuable use of your time! I have learned unbelievable amounts of useful information from plant identification skills to the history of each park. I am almost certain I will be able to apply all that I have learned to my career in the future."

~Zachary Campbell, SUNY Cortland

The Force Behind FORCES Picture Page



Conservation Steward Emmeline pruning porcelain berry off of spicebush.



Rockefeller State Park Preserve's Kimberly Castaldo and FORCES Conservation Steward Lauren Tannenbaum looking for macroinvertebrates after pulling a dip net from the Pocantico River.



AHTF Project Coordinator Mike Serviss with American hart's-tongue fern gametophytes.



Rebecca Policello showing Emmeline and Remi how to set up a camera trap along a deer trail.



Conservation Steward Adam Ross hiding in Japanese knotweed.



Plant Materials Program technician Dave Rutherford extracting seeds from pitch pine cones.

Photos: OPRHP



Conservation Steward Christie Rechin surveys for HWA.



FORCES Stewards enjoying lawn games at the 6th Annual FORCES Gathering at Taughannock Falls State Park.



Friends of Recreation, Conservation
and Environmental Stewardship

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FORCES Newsletter
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Stewardship Specialist, Genesee Region

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Environmental Educator, Allegany Region

Tom LeBlanc

Naturalist, Allegany Region



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