FORCES

Friends of Recreation, Conservation and Environmental Stewardship

Fall 2016 Newsletter Vol. 1 Issue 3

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Chittenango Falls State Park. Photo Credit: Patricia Shulenburg.

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

A Partnership Approach

Tom Hughes, NRS Biologist Central Region FORCES Program Manager

One of the things that I absolutely love about our FORCES program is how it brings together partners and communities with common enthusiasm and interest for enhancing and conserving our State Park facilities and natural environments. I know that this thought is echoed by many of our collegiate participants. Students and faculty often provide comments for how FORCES has expanded their professional and personal networks (see Dr. Z's Faculty Spotlight on page 8). For our current FORCES Stewards and alumni, these networks have undoubtedly been significant for securing post-graduate employment and educational opportunities.

When we started the FORCES program several years ago, we knew then and still believe today that partnering with collegiate institutions, community organizations, other agencies, and the public is critical to implementing and sustaining our very ambitious work agendas. However, while achieving our agency's mission and programmatic objectives is imperative, we feel that contributing to the goals and mission of our many partners is equally important. In order to accomplish and celebrate these mutual relationships, we are



It takes a partnership to pull water chestnut at Selkirk Shores State Park. Pictured are partners from the Excelsior Conservation Corps, OPRHP Boat Stewards, FORCES Stewards, and Oswego County Soil and Water Conservation District. Photo credit: Matt Brincka, NYS OPRHP.

constantly seeking creative and effective ways to engage our FORCES participants. Our *Community Conservation Stewards* working both inside and outside of our park borders are a perfect example of this. By working alongside and partnering with our communities, FORCES is able to promote our parks and resources to a much larger audience. This audience becomes the next generation of FORCES enthusiasts, and we are then united stronger than ever.

"I feel prepared and exponentially more qualified for a job with parks. The knowledge I gained from this experience has influenced my career path by revealing new opportunities." - Chloe Miller

"I greatly increased my leadership skills and made many friends. FORCES helped grow my resume and led me to my summer internship as a wilderness ranger." - Ryan Colling

Central Region Update

Patricia Shulenburg, FORCES Program Specialist

NY Works Stewards were hard at work this summer removing invasive species including pale swallow-wort and honeysuckle at the Green Lakes State Park Bird Conservation Area. We took a break from this restoration work to host a summer camp group, Project Explore, from Exceptional Family Resources. We taught these campers how to fish and hosted interpretive nature hikes. Also, FORCES stewards partnered with OPRHP Boat



FORCES steward Alden Morris fishes with Project Explore camper Zachary M. at Green Lakes State Park. Photo credit: Kathryn Meyer, Le Moyne College.

Stewards, Oswego County Soil and Water, and the Excelsior Conservation Corps to remove water chestnut at Fair Haven Beach and Selkirk Shores State Parks. To kick off the fall semester, FORCES hosted the second annual Membership Gathering on October 2nd. Stewards and staff attended workshops and networked together in a social setting at Chenango Valley State Park. There were representatives from 9 academic institutions.

Finger Lakes Region Update

Becky Sibner, FORCES Program Specialist



Chloe Miller and Sara McNamara collect water samples for E.coli, nitrates, and turbidity testing. Photo Credit: FORCES OPRHP.

Summer 2016 flew by with 8 awesome stewards and seasonal staff from Ithaca College, SUNY Cortland, SUNY Geneseo, and SUNY ESF. During the summer, we helped the Water Quality Unit by collecting water samples from the Buttermilk Falls and Robert H. Treman watersheds and testing

them for nitrates and turbidity. We also partnered with the Community Science Institute (CSI) out of Ithaca to collect benthic macroinvertebrate samples at Watkins Glen using both the Izaak Walton League's method, and CSI's protocol. The summer ended with tree climbing, water chestnut pulls, and celebratory ice cream. Our fall stewards jumped right in and joined CSI staff to sort and quantify the macroinvertebrate samples. We're now focusing on seed collection of native species, surveying and mapping invasive species, and continuing research on swallow-wort control.

Ganondagan Historic Site

Brigitte Wierzbicki, Lead Cons. Steward

With the blooming of witch hazel and the falling of leaves, Ganondagan is in the middle of a beautiful autumn. The Environmental Field Team has been busy with raptor surveys, seed collecting, and soon; plant propagation, with our new partnership with Sonnenberg Gardens in Canandaigua.

Now is the perfect time of year to check in with our overwintering raptors. Alexis VanWinkle, Supervising Conservation Steward, Amy Kahn, Conservation Chair Rochester Birding Association, and our volunteers have spotted a short-eared owl and northern harriers. It's exciting to know that Ganondagan provides critical habitat for these rare grassland birds, considered state endangered and state threatened, respectively.

We are preparing to assist Kyle Webster, Supervising Conservation Steward, to seed the Oak Unit Restoration Area. The team has been collecting pounds and pounds of grass seed. Ganondagan has received the unique opportunity to collect at Rush Oak Openings, the last remaining Oak Opening in New York State. Seeding local remnant species in a restoration area is invaluable. Brigitte Wierzbicki, Lead Conservation Steward, has been leading this effort and is also collecting additional species to be grown in the greenhouses at Sonnenberg Gardens. These species will be used in restoration across the Finger Lakes Region.



FORCES staff meet with David Hutchings, Executive Director of Sonnenberg Gardens, to partner in plant propagation. Photo credit OPRHP.

Upcoming Events

12/3/16	Glimmerglass State Park	
12/3/16	First Saturday Hike Buttermilk Falls State Park	

12/4/16 HWA Snowshoe Hike Location TBA

12/5/16 Christmas at Lorenzo Lorenzo State Historic Site

12/8 - Christmas by Candlelight 12/9/16 Lorenzo State Historic Site

12/12/16 Bird Walk with Audubon Rockefeller State Park

12/24/16 Evergreen Walk Letchworth State Park

1/1/17 First Day Hike: Find an event near you on our website

2/2/17 Project Feeder Watch Letchworth State Park

2/5/17 Snowshoe 5k Selkirk Shores State Park

2/11 - Binghamton Pond Fest2/12/17 Chenango Valley State Park

2/18/17 Environmental Persp. and Community Collaboration Ganondagan State Historic

For more information email Patricia.Shulenburg@parks.ny.gov or visit www.nysparks.com/events

"I love volunteering at State Parks and the opportunity to learn more about conservation." - Sam Hollister

Coordinator's Corner

Amy Kochem, FORCES Program Coordinator

As we conclude the third year of funding for the current expansion of the FORCES program, we have a network of 28 affiliated collegiate institutions within the Central, Finger Lakes, Genesee, Taconic, and Niagara Regions. Over the last year we've hosted stewards from SUNY Oswego,



FORCES partners with OPRHP Boat Stewards, NYS DEC, and The Eastern Lake Ontario Dune Coalition to transplant dune grass. Photo credit FORCES OPRHP.

Binghamton and Brockport to name a few of our newest additions. Most recently we met with Jefferson Community College and we look forward to working with students in the spring semester. Attending career fairs, providing classroom presentations, hits to our website, and word of mouth have allowed us to gain a foothold at these institutions.

We've added several new partners to our ever growing cadre. Establishing new partnerships with agencies and organizations not only strengthens the FORCES program, but also significantly increases our student's networking base. The Eastern Lake Ontario Dune Coalition held a beachgrass transplant workshop at Sandy Island Beach SP for our summer Dune Restoration Stewards. We were trained on how to properly transplant the existing dune grass to increase dune stabilization and provided many benefits to the habitat. St. John Fisher College has been working with Ganondagan's environmental staff by writing letters of support for an oak savannah restoration, working with students to complete projects on site, taking on interns through the careers office, and supporting the outdoor club. We are always networking new partnerships to enhance the FORCES program and the experiences we can provide to our stewards and our partners. Thank you for all of your meaningful contributions to State Parks.

Affiliated Institutions	Pace University	SUNY Plattsburgh
Cazenovia College	Rochester Institute of Technology	SUNY Purchase
Columbia University	SUNY Binghamton	St John Fisher College
Cornell University	SUNY Brockport	Syracuse University
Finger Lakes Community College	SUNY Cobleskill	Tompkins Cortland
Hartwick College*	SUNY Cortland	Community College
Hobart & William Smith Colleges	SUNY ESF*	University of Rochester
Ithaca College	SUNY Geneseo*	Wells College*
Le Moyne College*	SUNY Morrisville	_
Niagara University	SUNY Oneonta*	
Onondaga Community College	SUNY Oswego *Den	otes active FORCES Clubs

Taconic Region Update

Susan Antenen, Park Manager, Rockefeller State Park Preserve

We continued active ecological stewardship to conserve the mosaic of forest, fields, lake, wetlands, and streams and native flora and fauna of Rockefeller State Park Preserve. On-theground stewardship was implemented by our new Natural Resource Specialist, Steven DiFalco, who joined the staff in April. He previously coordinated habitat restoration in Prospect Park. Before that, he was a natural resource assistant for Scenic Hudson, an invasive intern at Saguaro National Park, volunteer for Bob O'Brien at Minnewaska, and a student researcher at SUNY New Paltz.

Steven trained and managed two summer FORCES stewards, two high school interns, and numerous community volunteers. Over the spring and summer, they focused on strategic invasive



FORCES stewards and interns remove invasive species at Rockefeller State Park Preserve. From L to R: Mike Brereton, James Cotter, Steven DiFalco, Lucas Malhotra, and Frazer Winstead. Photo credit: NYS OPRHP.

control and planting and caring for native wildflowers, grasses and shrubs in designated wildflower areas. They dug and pulled oriental bittersweet, porcelain-berry, aralia, burning bush, and other invasives growing amongst native wildflowers and forest along 5 miles of "green zone" trails, removed multiflora rose blocking site lines at trail intersections, and managed mile-a-minute vine and black swallow-wort, two top priority invasive species which have potential to spread far and wide in the Preserve. The stewards and volunteers planted hundreds of native wildflowers in vicinity of Peaceful Path, the wetland swale behind the office and entrance, Overlook field, the Meadow Entrance off Sleepy Hollow Road, and several locations along Swan Lake.

The stewards' experiences were enriched by participating in annual deer density monitoring with the NYSDEC, deer browse monitoring with USDA Forest Ecologist Thomas Rawinski, field trips to Cranberry Lake Preserve and Wave Hill, vegetation monitoring with Dr. Elijah Goodwin for the wood thrush study, sedge meadow habitat restoration at John Jay Historic Homestead, and on-going natural history lessons throughout the summer.

The stewards and high school interns say they felt good about giving back to a place that has significance to them and liked learning about the forest's ecological processes. One steward, Michael Brereton, wrote at the end of the summer:

"I know that this job has prepared me to face whatever environmental tasks I'm going to tackle. Over the course of the summer, my knowledge of invasive species management and botany increased exponentially thanks to the work we did and the questions you guys answered for me. It was a hard and hot summer, but I will truly miss this job. Thank you for giving me the opportunity to use my skills and work in a great environment."

This year Steven expanded relationships with Pace University, Columbia University, local gardening clubs, Girl Scouts groups, and an increasing number of community volunteers. We facilitated many student projects and events for Pace University, including a "Bird and Bagel" walk, coyote diet research, a study of how park patron perceive the Preserve, vegetation monitoring, and a culvert assessment. One of our paid Stewards was a Pace student. We also were a site for Pace's "Make a Difference Day", which is how they give back to the community through volunteering; they helped us cut vines around the Rockwood Hall foundation. Multiple professors used the Preserve as a learning lab for classes, such as a photography class and a plant ecology course.

Growing Frond of Fieldwork

Shannon Fabiani, Conservation Steward

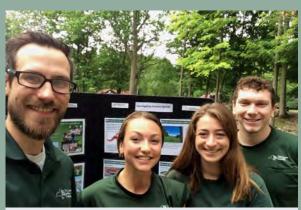
This summer, FORCES was hard at work at Clark Reservation State Park protecting one of the rarest plants in New York State, the American hart's-tongue fern (AHTF).

Tracking and removing invasive species throughout the park was a large part of the work the 'Fern Crew' did this summer. Pale swallow-wort negatively impacts AHTF by taking over the habitat and altering the soil composition. The crew focused on removing these plants from areas that significantly threaten the AHTF.

We supported the research of fellow member, Mike Serviss, who is studying population augmentation and reintroduction of these ferns. The crew conducted censuses to track the health of the lab-propagated AHTF that had been planted at Clark in summer 2015. The crew found low survival rates. This was expected given the fragile nature of the species. However, they also found dozens of ferns survived their first full year in the field and are even reproducing!

The crew also had the opportunity to work with numerous local summer camps that visited the park. They led guided tours, educational games, and interpretive programs. The crew also organized and ran community outreach events to engage park goers in the conservation efforts going on in the park.

Overall, the FORCES crew was able to gain valuable experiences while contributing to the success of various projects and programs at Clark Reservation this summer.



New York Works American hart's-tongue fern conservation crew: Mike Serviss, Shannon Fabiani, Kelsey West, and Stephen Garney. Photo Credit FORCES OPRHP.

FORCES Club SUNY Geneseo



SUNY Geneseo FORCES removes *Vinca sp.* along the Wolf Creek restoration site at Letchworth State Park. Photo credit: FORCES SUNY Geneseo.

SUNY Geneseo FORCES was active throughout the summer season. Projects included invasive species removals, native plantings, and vegetation surveys. Brandyn Balch, FORCES Club President and Conservation Steward, mapped and removed invasive species throughout a wetlands complex at Seneca Lake State Park.

The summer began with removing *Vinca minor*, or common periwinkle, at the Wolf Creek restoration site at Letchworth State Park. Native to Europe, this invasive ornamental flower will form a carpet on the forest floor and outcompete native vegetation. The club also removed pale swallowwort from sites in Letchworth, and participated in a scenic hike and litter cleanup.

Meg Janis, Natural Resources Stewardship Biologist, also trained the FORCES Club in monitoring vegetation in deer exclosures. She is looking to establish deer browsing habits and their impact on natural plant communities.

Lastly, Geneseo FORCES assisted Ganondagan State Historic Site in removing pale swallow-wort and planting native species. Over 1,500 native plants including St John's wort, big blue stem, little blue stem, asters, and iron weed were donated to the restoration project.

SUNY Geneseo looks forwards to continuing these projects and many more through the upcoming semester!

FORCES

Piping Plover Conservation

Patricia Shulenburg, FORCES Program Specialist

On an April morning, I made the hour drive to Sandy Island Beach State Park. I went for a hike on the beach for over a mile to reach the Bird Sanctuary and began our 2016 piping plover monitoring



Nesting adult piping plover. Photo credit: Nina House, SUNY Oswego.

season. The wind off the shore was cold and brisk. I spent the winter months attending steward trainings at Jones Beach State Park on Long Island, putting together a volunteer manual, and networking with partners including the Eastern Lake Ontario Dune Foundation, NYS DEC, Audubon NY, and US Fish and Wildlife Service. Our stewards worked alongside these professionals to protect this federally listed species. Our monitoring efforts paid off when we spotted 6 birds foraging and wading at our State Park in mid May.

For over 28 years, piping plovers were regionally extinct from Lake Ontario. They were last seen in 1986 and made their return to the eastern Lake Ontario dune and wetland system in 2014. This migratory bird has three populations; the Atlantic and Great Plains populations which are threatened, and the Great Lakes population which is federally endangered.

Over 20 partners and volunteers spent their summer installing and maintaining protective string fencing, educating beachgoers, transplanting beachgrass to control dune erosion, and writing data reports on the birds.

I want to thank each and every steward, partner, and volunteer for their tremendous work in protecting the plovers this summer. Over 325 volunteer hours were spent on piping plover protection at the State Park.

There were 5 nests found on Lake Ontario during the 2016 season. The nest at Sandy Island Beach State Park had four eggs, however this nest did not survive predation. April isn't too far away! We expect the piping plovers to return next year and we are preparing for the 2017 monitoring season.

If you are interested in volunteering for this project please email me at: Patricia.Shulenburg@parks.ny.gov.
Thank you for your time and consideration for conserving this beautiful and rare shorebird.

Contact Us

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"FORCES is a great program and I love the interconnectedness between internship positions. The students and professionals have equal input."

- FORCES Summit Participant





Top: Zach, Angela (Wells College), and Patricia install string fencing. Left: Cam (SUNY Brockport) and Ben (Le Moyne College) learn boating safety. Photo credit: FORCES OPRHP.

Steward Spotlight

Jake Barney, Invasive Species Management Steward, Ithaca College Campus Ambassador

It's four o'clock Friday afternoon, and we've been searching the park for Japanese knotweed and *Phragmites*. Since most every plant has begun to recede for the season—there are no bright yellows left on the goldenrod and most of the trees have dropped their leaves—it's not hard for us to identify the feathery tops of *Phragmites* that sort of sway in the wind. The knotweed has turned to a mid-November orange, and there's so little of it anyway.

This week is not about pulling out invasive plants or putting native plants back into the earth. Today we trek slowly around Allan H. Treman State Marine Park, with a watchful eye, camera, and GPS at the ready to record as many sites as we can. It is rhythmic after a while: walk the edge of the forest, spot the culprit off in the distance, snap a photo, jot down the coordinates, and repeat. The sun is bright and hot for a few minutes, and then the clouds and wind abruptly return and I have to put my hands in my pockets; it's a lot harder to record longitude in a pair of gloves.

Every Friday is a new experience, even if I am just going back out to Buttermilk Falls to try and finish removing swallow wort from the patch I started last week. The previous Friday stays with me, a tiny building block of experience, as I navigate the next week's adventures. This happens for a month, a semester, now a year and a half, and I know that the following week I'll be back in a park and I'll learn something completely new.

School is frantic late night studying and trying to stay awake through a lecture on statistical reasoning. Monday through Friday, and the weekends are too short. But when I start driving out to a place like Taughannock Falls or the Community Science Institute to identifying macro invertebrates we had collected to monitor water quality, I can begin to decompress. It's Friday again, and I finally get to work outside. If I'm lucky I'll get a shovel and a pair of clippers, and by the end of the day my hands and jeans will be covered in dirt. I forget about grades for a bit.

Back at the marina the sun is low in the sky, and it is really getting cold. We call it a day, and start to pack up our gear, only to barely catch a glimpse of one last patch of knotweed off to the right. It's okay though, because there's still three more sport on the bottom



Jake Barney and Paula Merkle of Ithaca College work to remove autumn olive and multiflora rose at Two Rivers State Park Recreation Area. Photo credit: FORCES OPRHP.

of the observation form, and the camera still has some battery left. The sky has streaks of red, and I can see the white-capped waves on Cayuga Lake.

The car is warm and it's a relief to sit down. Back home, I'll have dinner and unwind, but my weekend really started when I took that first breath of fresh air and squinted at the sycamores and box elders, ready for another day at the park.

For more information about 2016 FORCES Stewards see the *Who's Who* publication coming soon to our website.



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2015 FORCES STEWARDS: THE FORCE BEHIND FORCES



Chad's stewardship position brought him to Ganondagan State Historic Site. He received an associate's degree in Natural Resources and Conservation at Finger Lakes Community College, Class of 2014, When Chad is not battling invasive plants he enjoys hiking, bike riding, and riding his motorcycle.



Jake attends (flace College majoring in Environmental Studies, He is originally from Vestal, New York, Jake's interests include hiking, camping, comic books, and new experiences. His goals include graduating college.

Faculty Spotlight: Dr. Zsuzsanna Balogh-Brunstad

Associate Professor of Geology and Chemistry, Hartwick College

I am Dr. Zsuzsanna
Balogh-Brunstad, a
biogeochemist, and the
club advisor to the
Hartwick College
FORCES group in
Oneonta, NY. In this note
I would like to tell you my
story with FORCES. A
few years ago Jenna
Rodrigues, a biology
student, introduced



Dr. Zsuzsanna Balogh-Brunstad

FORCES to me through an invasive species removal event at Robert V. Riddell State Park that she organized. A year later a couple of students under Jenae Withey's leadership started the formal organization of a FORCES group, which evolved into a student senate recognized club in 2015. Many of the students, who were involved in the initial club, took my courses such as hydrogeology, global environment, geochemistry or environmental chemistry, and knew about my interest in water and soil quality assessment and management, and other environmental issues. Thus, they asked me to be their advisor for the club, which I accepted without any hesitation even though I was already co-advising two other clubs at the college. Advising FORCES seemed like a good fit for me, because of my general interest and I already had a connection to Tom Hughes during park-college partnership meetings and some educational activities in the region.

FORCES, as any other student organizations at the college, is run by the students, and the advisor's role is overseeing the activities, provide help navigating the rules, regulations and processes, when needed, and of course s/he can also participate in any of the activities of the club. I attend the club executive board meetings and some of the regular club meetings. I also participate in as many events as I can possibly fit into my busy schedule, about two to three events per semester. This year Hartwick FORCES have been doing well and it was named as the Club of the Month for October 2016.

Being the faculty advisor for the FORCES club has provided me with networking opportunities and also helped me to build new partnerships and strengthen existing ones. The Hartwick FORCES club has been working in four nearby state parks, Gilbert Lake, Glimmerglass, Robert V. Riddell, and Mine Kill.

While I have been conducting research about the indirect effects of hemlock woolly adelgid on soil water chemistry in Mine Kill State Park for three years. I was also able to build a new partnership with the education and outreach staff at the park during invasive plant removal events. Robert V. Riddell State Park is right next door to Hartwick College's Pine Lake Environmental Campus, thus, I have been taking advantage of the college's existing partnership with the park and using it in class and thesis research projects. However, FORCES has helped to involve larger student bodies in maintenance of the park trails and in the management of invasive plant species. I am also an avid hiker and I welcomed the improvements of the trails in the park. In addition, Hartwick FORCES has participated in potluck meetings with the FORCES club of SUNY Oneonta, and other colleges, and organized educational outreach events for middle and high school students. These events allowed me to network with faculty at other colleges or universities, who share the same passion as me, and connect with the science programs at our local schools.

Overall, I have been enjoying my involvement as a faculty advisor to the club, it "forces" me to go outside despite my busy schedule, and I have found rewards both professionally and personally. I would like to encourage other faculty to be involved with this club and help us to educate people about the importance of solving environmental problems, resource management and stewardship.



Hartwick College FORCES Club participates in Earth Fest 2015. Photo Credit: FORCES Hartwick College.

The Force Behind FORCES Picture Page









Above: Jake, Paula, (Ithaca College) and Becky pause to take a selfie after a day of projects. Left: Conservation Steward Ben Rodgers (Le Moyne College) assists in sand dune restoration planning at Sandy Island Beach State Park.

Above: Sara McNamara (SUNY Cortland) participates in a tree climbing workshop to monitor for hemlock woolly adelgid. Right: Stewards and staff join for a day of networking in a social setting at The FORCES Membership Gathering.



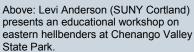




Photo credits: FORCES NYS OPRHP



Above: Alivia Sheffield (SUNY ESF) builds eastern bluebird nest boxes at the NYS Fair. Left: Hobart and William Smith Colleges students tour the oak restoration unit at Ganondagan State Historic Site





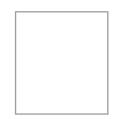
Above: Alexis Pike (Suny Geneseo) and Adriana Del Grosso (Ithaca College) conduct an ash tree inventory. Left: Central Region summer stewards weed bio-swales at Verona Beach State Park.



Above: Conservation stewards work with partners to conduct Chittenango ovate amber snail population surveys.



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Jamesville, NY 13078

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Clark Reservation State Park

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