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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 Is Family—It's FAIR to Say

Tom Hughes, NRS Biologist
Central Region FORCES Program Manager

As we roll out our Summer Newsletter, we celebrate our FORCES family—past, present and future. Please check out our first 'Alumni Spotlight' (page 2) featuring former SUNY Oneonta FORCES Club Founder & President and OPRHP employee Brandon Panensky. As usual, you can read all about our current Stewards and their many projects in our Regional Updates (pages 7-13). Don't forget about our future FORCES Stewards. We have Jr. FORCES Stewards (high school students) participating more and more each season. Our 'Partner Highlight' (page 6) provides a great opportunity to learn more about the Walden Project, and how students are getting involved with the Plant Materials Program and the FL Region.



SAVE THE DATE—come join our FORCES family at the 7th Annual FORCES Membership Gathering at Niagara Falls State Park on **October 2, 2022**. Photo: OPRHP



Speaking of families, we are not just celebrating our FORCES Stewards within this issue. FORCES Conservation Steward Ana Maria Arroyo captured a family of wood ducks with her trail cameras near Jennings Pond, Buttermilk Falls State Park (page 5). Families of endangered Great Lakes piping plovers are taking off at Sandy Island Beach State Park (page 9). American hart's-tongue ferns and many families of native plants are thriving at the Plant Materials Program at Sonnenberg Gardens and Mansion State Historic Park (pages 10 & 13).



I invite you to build a bluebird nesting box with FORCES at our Environmental Stewardship tent at the Great NYS Fair—this year from **August 24th through Labor Day, September 5th**.



Trainapalooza 2022—where spring turned to summer for our FORCES family! Photo: OPRHP

FORCES Alumni Spotlight: Brandon Panensky

Trails and Service Leader, City of Richmond Parks and Recreation (Indiana)



From late 2013-2015 I was the SUNY Oneonta FORCES Club President/ Conservation Steward at SUNY Oneonta. I actually became a Steward after Googling environmental internships and randomly stumbled across a phone number for a Natural Resource Stewardship Biologist, Tom Hughes. It was actually a bit of an accident that it happened the way that it did. My internship consisted of various things, like conducting environmental education, rebuilding bluebird trails in Glimmerglass State Park and at SUNY Oneonta, and conducting wildlife surveys at Glimmerglass State Park. The SUNY Oneonta FORCES Club had about 40 student members by the time I graduated. Between my Junior and Senior year, I had my first seasonal position with State Parks. I was the Invasive Species Strike Team Lead, and with four team members, removed invasive species in multiple parks while leading a team of four around The Hudson Valley.

After graduating, I immediately got another seasonal position as a Conservation Steward at Rockefeller State Park Preserve (RSPP), which is a park that I had visited while working with the Invasive Species Strike Team. I led a seasonal team of four and removed invasives throughout RSPP, as well as a couple of neighboring parks. While there, I also recruited 15-20 FORCES volunteers from nearby Pace University to assist with projects at RSPP. In 2016, I went to eastern Washington through

AmeriCorps National Service and the Student Conservation Association (SCA). I worked at Turnbull National Wildlife Refuge as an environmental education intern conducting large field trips and outreach events, as well as occasionally assisting the biology staff in plant surveys and bird banding. In 2017, I took a seasonal position as a Fisheries Technician with the Region 3 DEC. We traveled around the region conducting electro fishing surveys at headwaters to the Hudson River looking for brook trout. In 2018, I went to western Montana through AmeriCorps and the SCA again, to the National Bison Range. There, I served as a Visitor Services Technician that would not only assist visitors but also hosted field trips and upper level lecture courses. I was able to help in a variety of unusual situations including vehicles getting stuck in precarious areas and needing to be stabilized before help could arrive; helping guide people out of the refuge who were in vehicles that could pose a danger to them because of the temperament of the wildlife there; as well as helped the biologist conduct various surveys including a big horn sheep capture. I was lucky enough to end my internship by helping with the annual bison roundup. After I left the National Bison Range, I bounced around a few different states though 2018-2019 conducting environmental restoration and mitigation. In Pennsylvania, West Virginia, and in a portion of New York, I did invasive species removal, fixed and rebuilt streams and flood plains, and planted native species. In Cape Cod, I did more landscaping, as well as invasive species removal, native planting, and beach restoration and stabilization. Come 2020, like many other people, I was out of work. Just after the new year in 2021, I got a job as an Aquatic Invasive Species Technician for the State of Arizona at Lake Powell and Glen Canyon National Recreation Area. I inspected outgoing watercraft for various invasive species, as well as conducted high and low pressure decontamination of said watercraft. While on the job, I would regularly do environmental education for the obvious topic of watercraft spreading aquatic invasive species. There were many times that I would have to deal with very difficult and unpleasant people with their equally difficult boats. I recently got hired to work as the Trails and Service Leader for the City of Richmond, Indiana Parks Department. I moved from Arizona to Indiana just before the year turned over to 2022. The job itself started in January, and so did my time once again brush cutting invasives in the snow. For the past several months I have been working to improve the volunteer program, with some success, including replicating the FORCES model here. I have spent the majority of my time fixing the current trails, building new ones, as well as creating various conservation projects. As of right now, my position is limited to a 2-year term, with a strong probability of extension. But honestly, it's just nice to not have to move around every few months.

After all of this, if there is one piece of advice that I could give to anyone trying to go into the environmental and conservation field - you need to be prepared to move around a lot. It's a very competitive field, with very limited opportunities, and if you are not willing to go where the jobs are, you won't be getting a job. On average, it's said that it takes between 6 to 10 years of seasonal positions to obtain a long-term/permanent job in the environmental field. Though there are other ways that can help cut that time down if you can find them. If you are passionate about this field, you need to stay committed and keep working hard, no matter how hard it gets. Good luck!

Coordinator's Corner

Amy Kochem, FORCES Program Coordinator

What an incredible spring of project happenings! So many tasks completed and such valuable, hands-on experience gained. Stewards participated in unique project work including camera trapping, vernal pool surveying, bird banding, and Canada goose egg oiling. 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!

Our 7th Annual FORCES Leadership Summit was held on April 17th at SUNY Oneonta's Biological Field Station on Otsego Lake. Dr. Dan Stich, Associate Professor with the SUNY College at Oneonta Biology Department and Biological Field Station welcomed the group sharing his vast knowledge of the Otsego Lake Watershed.



FORCES Staff and Stewards at the FORCES Summit. Photo: OPRHP

Be sure to mark your calendars for the 7th Annual FORCES Membership Gathering on October 2nd at Niagara Falls State Park. This is open to all current and past FORCES Stewards and club members interested in networking, learning, and celebrating FORCES. We hope to see many of you there!

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Featured Project: Adventure in Camera Trapping at Jennings Pond

Ana Maria Arroyo, Conservation Steward, Finger Lakes Region



Ana Maria poses with one of her camera traps. Photo: OPRHP

As one of my projects as the spring Conservation Steward in the Finger Lakes Region I focused on wildlife monitoring in Buttermilk Falls State Park. The goal of the project was to identify presence-absence of the North American river otter (*Lontra canadensis*) at Jennings Pond, a site where four river otters were released as part of a reintroduction program in 2000. Unfortunately, we did not find any track or sign of river otters this spring. That said, we discovered that Jennings Pond is home to a variety of other incredible animals, from squirrels and mice to bobcat and fisher. Check out the highlights!

The eastern coyote (*Canis latrans*) visited our camera traps occasionally. The majority of camera traps were placed in the vicinity of a game trail that runs roughly north-south from Jennings Pond into Danby State Forest. This coyote probably utilizes



Eastern coyote. Photo: OPRHP

the trail on a regular basis and stopped by our baited cameras to see what was going on! Coyotes are one of the apex predators on the east coast. In NY, they are one of the only animals that can kill white-tailed deer, though they are also avid scavengers. They can be solitary or live in small family groups of mated pairs and their offspring.



Bobcat. Photo: OPRHP

Another amazing visitor to my camera traps was this stunning bobcat (*Lynx rufus*). I had actually tracked it walking on logs in the area a few months before this photo was taken, when there was snow cover. The bobcat was completely uninterested in any baited cameras, and seemed to be attracted to this particular trap solely because of the convenient log!

Even though we were unable to find any evidence of river otters at Jennings this spring, there were a variety of other mustelids present in the area. At one of the first camera traps, an American mink (*Mustela vison*) investigated a mix of dog food and sardines smeared on this hemlock tree. This incredible weasel is semi-aquatic and can usually be found hopping in and out of creeks hunting fish. While we were hoping to attract river otters with the pungent bait, a mink was a fun capture! I had been seeing mink trails all over the Jennings swamp, so I was pleased to have some photos to match with my tracks.

Mink are not the only small weasels occupying the hemlock forest. This long-tailed weasel (*Mustela frenata*) came home along this log carrying a small rodent and stopped to take a look around before disappearing behind the stump. While mink are active day and night, long tailed weasels are almost entirely nocturnal.

Though I was really hoping to check out some river otters this spring, I was overjoyed to find pictures of the elusive fisher (*Pekania pennanti*) on almost all of my trail cameras. The fisher is the largest arboreal carnivore in NYS (continued on page 5).



Mink. Photo: OPRHP

Featured Project: Adventure in Camera Trapping at Jennings Pond (cont'd)

Ana Maria Arroyo, Conservation Steward, Finger Lakes Region



Fisher. Photo: OPRHP

It is a true dietary generalist that will hunt small mammals, scavenge carcasses, find bird eggs, and even eat mushrooms! I had actually tracked this fisher to the log and decided not to bait it in the hopes of getting footage that did not interfere with their natural behavior. Of course, a trail camera is still an intrusion to any animal.



Wood ducks. Photo: OPRHP

Mammals weren't the only animals to visit my cameras. This family of wood ducks (*Aix sponsa*) passed my trail camera on the way to the water. These babies likely just left their nest in a secluded tree hollow and are following their mother to Jennings Pond for their first taste of swimming!

In total, I captured 12 mammal species on my trail cameras this spring. Some of the birds were more challenging to identify due to the low camera resolution, but there were at least five bird species that triggered cameras. Mammal species photographed: *Canis latrans*, *Lynx rufus*, *Procyon lotor*, *Odocoileus virginianus*, *Sciurus carolinensis*, *Tamiasciurus hudsonicus*, *Tamias striata*, *Mustela vison*, *Mustela frenata*, *Pekania pennanti*, unidentified small rodent. I am so grateful to my phenomenal supervisor, Carlin Wakefield, and the FORCES team for guiding me through this project. I plan to continue working with FORCES to monitor Jennings Pond for river otter and recording the other amazing species that call it home!

Staff Highlight: Dr. Dan Stich

Associate Professor of Biology, SUNY Oneonta, SUNY Oneonta Biological Field Station



Dan at the Cooperstown boat wash doing his best to clean-drain-and-dry. Photo: BFS

Dr. Dan Stich is an Associate Professor with the SUNY College at Oneonta Biology Department and Biological Field Station (BFS). Dan earned a bachelor's degree locally from SUNY Cobleskill in Fisheries and Aquaculture before completing a master of science degree in Fisheries and Wildlife at Virginia Tech and a PhD in Wildlife Ecology at the University of Maine.

He teaches undergraduate and graduate classes in general biology, ecology, resource management, and biological statistics. Dan also conducts research with both undergraduates and graduates in the Biology and Lake Management programs. During the summer, he works with high school and college interns at the Biological Field Station (BFS) to teach them about research and help continue long-term monitoring through the BFS on Otsego Lake and in the surrounding watershed.

The research that Dan and students do varies widely, but usually is focused on quantifying environmental change and population dynamics in aquatic organisms such as fish. Student projects have ranged from studying long-term climate trends, to estimating growth and mortality in populations, to creation of local lake management plans. To do this, Dan and students collect data in the field, conduct lab experiments or analyses, and then use computers to make population models or do statistics.

Finally, Dan is actively involved in professional organizations such as the American Fisheries Society (AFS) and the North American Lake Management Society. He teaches statistics programming workshops for both societies and has served a number of roles locally in the New York Chapter AFS.

Partner Highlight: The Walden Project—NY

Carlin Wakefield, FORCES Program Specialist, Finger Lakes Region



Walden student at work in the greenhouse at Sonnenberg Gardens. Photo: OPRHP

The Walden Project-NY is an outdoor educational program for high school and gap year students (ages 14-19), where students explore the three fundamental questions that guided Henry David Thoreau during his sojourn to Walden Pond: What is my relationship to myself? What is my relationship to my culture? What is my relationship to the natural world? Located at the Rochester Museum and Science Center's Cumming Nature Center, in Naples NY, students have class outside around a campfire three days a week (reading texts, having large chunks of philosophical conversation, doing hands-on workshops, etc.), visiting Finger Lakes Community College each week to focus on individual research projects, and spending one day a week at their service learning placements. The service learning component of Walden is what led to our partnership with FORCES.

As a society, and even more so in educational programs, we spend a lot of time looking at the problems of the world and discussing how things could be- but most programs stop there. Walden has intentionally structured service learning into our program so that students can contribute to their communities and help repair some of the problems they talk about over the course of their studies. For six weeks at a time, students commit to one organization that is actively helping our world shift for the better. After six weeks, students can choose to partner with a different organization or stay at their current placement. This lets them choose to stay in one place and learn all the ins and outs of it, or provide help to several different places and do a wider variety of things over the course of the year. This past year, one Walden student asked

to partner with FORCES through Sonnenberg Gardens & Mansion State Historic Park so that she could help with environmental stability, learn more about plants, and play in the dirt—all in the name of making this corner of our world a better, greener, more biodiverse space! We hope this is the first of many such partnerships with FORCES.

Through Walden, students have been able to do service for people, animals, and the environment wherever they are. Since our students come from all over the region (from Hammondsport to Greece to Geneseo to North Rose), we strive to connect students with organizations in their home communities as much as possible. With FORCES working in multiple locations, Walden will hopefully be able to continue to partner with them for a long, long time!

Many thanks to FORCES for this new partnership! If you want to learn more about Walden, check out our website at rmsc.org/walden



FORCES at Sonnenberg Gardens. Photo: OPRHP

"This experience gave me a lot of experience and hands-on knowledge that you can't achieve in a classroom. Furthermore, I think I learned how to better work with individuals even if I don't necessarily agree with their way of doing tasks."

~Dallas Brummer, Conservation Steward, University at Buffalo

Niagara Region Update

Alexandra Tillman, FORCES Program Specialist

This spring, the Niagara FORCES Stewards set a record and visited every park within the region! This season's group was a great mix of students earning academic credit and volunteering, as well as young professionals gaining experience to build their resumes. There were two working groups this season- Group A on Mondays and Wednesdays, and Group B on Tuesdays and Thursdays. The groups both contributed to ongoing environmental stewardship projects, often using the opposing groups' results from the previous day to continue the work, which is not always the easiest task. However, these young professionals did a great job of working together and completing many successful projects throughout the region.

Zoe Dobo, a student at the University at Buffalo, and Ian Holway, a recent graduate of Canisius College, united to form Group A. Group B was comprised of three University at Buffalo students Dallas Brummer, Cassidy Jimenez, and

Dephil Jones. Each group began their season conducting surveys for hemlock woolly adelgid (HWA). There are known hemlock stands at Knox Farm, Wilson-Tuscarora, and Evangola State Parks. Here in the Niagara Region, we are lucky to have only been dealing with HWA for the last year or so with only one known population...until this spring. Fortunately, our FORCES Stewards (with their eagle-eyes!) found a singular branch with woolly egg masses along Twelvemile Creek at Wilson-Tuscarora State Park. Thankfully, since it was caught early, Environmental Stewardship Team (EST) staff will actively monitor the stand and revisit treatment options within the next couple seasons. I commend both groups for their thorough searching and ability to adjust to the "spring" weather- often trekking through a foot of snow in freezing temperatures to get to the stands!

Another large project the Stewards executed was surveying our parks for active bird nesting boxes. Shockingly, our region has never kept official tabs of the nesting boxes installed in our parks, often leading to forgotten nesting boxes in great need of repair and maintenance. Both groups of spring Stewards hiked the many miles of trail systems throughout the region and used a GPS to record current box locations and suitable habitat for future locations. The data collected will be used to create a regional map and spreadsheet that can be updated and referred to for years to come as nesting boxes get maintained annually for our feathery friends and replaced when needed.

During this season, there were plenty of unique, single-day projects for both groups to work on. Group A worked alongside Interpretive Staff to search for key species in the vernal pools at Evangola State Park. Group B spent time maintaining a known turtle nesting site at Beaver Island State Park in hopes that the same reptile will return to use the habitat the shoreline provides there. Both groups learned to use the ArcGIS FieldMaps application to map Japanese knotweed at multiple parks, possibly being used for research in partnership with SUNY Brockport. Group A mechanically removed two different invasive ornamental species from the Old Growth Forest at DeVeaux Woods State Park and evaluated the success of lesser celandine smothering plots from a previous FORCES project.

One of Group B's favorite projects was the installation of anti-collision window decals at the regional office in DeVeaux Woods State Park. The decals reflect ultra-violet light to birds and in turn warns them there is a structure present and to avoid flying in that direction; and to the human eye is just a simple window decoration. Being one of the few natural areas in the city of Niagara Falls, the park serves as a haven for birds in the area, and these decals will help protect them during their stay at the park (continued on page 8).



Zoe, Alex Chimiak (EST staff, FORCES alumni, '21) Ian and Matt Nusstein (Evangola SP Env. Educator), using D-nets to find amphibian egg masses in vernal pools at Evangola State Park. Photo: OPRHP

Niagara Region Update (cont'd)

Alexandra Tillman, FORCES Program Specialist



Dephil, Cassidy, and Dallas at the Whirlpool Gorge Staircase construction site. Photo: OPRHP

Both groups were fortunate to be in the region while rare staircase construction was happening in the Niagara Gorge at Whirlpool State Park. They were able to visit the job site, talk with the contracted crew and see first-hand the “old school” techniques being used to fly in huge slabs of granite on a series of tripods and pulley systems; preserving the integrity of the gorge while allowing the crew to install those slabs as the new stairs. This is a unique project, that only occurs in our region every 25 years or so, making it a great experience for the Stewards.

In total, the five spring Stewards donated approximately 600 hours of their time to our local parks. It always amazes me the quantity and more important *quality* of work our Stewards give to our region. Not only did they complete all the field work mentioned above, both groups also presented their work at our Spring Project Expo to peers and OPRHP

Staff. We are very fortunate to have had such a great group of Stewards this past season, and I look forward to continuing the momentum with a new group into the summer season.



Are you interested in building your own bluebird nest box or assisting others? If so, then please plan on joining us at this year’s NYS Fair: August 24 to September 5, 2022.

FORCES Staff and Stewards construct over 1,200 boxes at The Fair each year, so we could use your help!



Central Region Update

Claire Nellis, Piping Plover Project Coordinator; Delaney Kalsman, COAS Project Coordinator; Mike Serviss, Regional Conservation Project Coordinator; Alex Brown, Stewardship Specialist

Greetings from Sandy Island Beach! As of this spring nesting season, there are some exciting updates on the Piping Plover Project. At the end of the last summer season, Stevie Nicks had stopped by Sandy Island to peek her head around. This spring, her timing was perfect, and she met up with Dr. Bronner's, Ajax, and Arlene's chick from 2021. This lucky pair have nested at the DEC Lakeview property and are currently incubating a full clutch of four eggs! The parents of this couple are also back again this year. Ajax and Arlene nested at Sandy Island for a second year in a row and already have a full clutch of chicks. Our brilliant crew decided on M*A*S*H* character names for our four chicks: Klinger, Radar, Hot Lips, and Hawkeye. These names will definitely be a talking point this summer!

We cannot forget our veteran piping plover pair, Arwen and Aragorn. They are experts at nesting at Sandy Island Beach and quickly laid a full clutch. They had a 'sole surviving' chick, named Hatch for the first 'survivor' winner and this chick was the first wild piping plover chick to hatch in all of the Great Lakes! Aragorn is being a protective parent as always, and teaching Hatch how to forage. The current chicks for the season were banded this past week as well as Stevie and Dr. Bronners who were upgraded from their 'brood marker' bands to easily identifiable adult bands including the Great Lakes marker of an orange flag. Stevie received one light blue like her mom and the only violet colored band in NY. Dr. Bronners now sports a beautiful dark blue band as well as an orange and yellow just like his papa. We hope the best for all of them and hopefully other pairs will join them this season or in seasons to come. Our 2019 chick 'Chewie' has been making waves in Lake Ontario and an update on her can be heard on the birds Canada podcast "The Warblers".



Alison (left) bands a chick while Jordyn Dala and Meghan Rahner record data. Photo: OPRHP



Mike Serviss and Billy Sullivan work together to haul supplies for the Protected Bird Nesting Area. Photo: OPRHP

Many members of the Environmental Field Team worked to install both Protected Bird Nesting Areas (PBNA) and predator exclosures around all three nests with help from our FORCES Stewards, Alison Kocek and various members of the NYS DEC Regions 6 and 7. It is always a big job but many hands make light work. This fencing and signage helps to give the birds a fighting chance. It also requires regular maintenance as the lake levels fluctuate. In May, we also had two dune restoration days where volunteers from SUNY ESF, FORCES, and even members of the public, got their hands dirty digging up beach grass and replanting in areas that have suffered erosion. Thank you to everyone who helped –your hard work will aid in protecting the plovers and their habitat for years to come!

This spring, we took a step back and reassessed our education plan. If you have been following this project, you know that our approach to public education has changed drastically over the years. Last year we switched our education tactics from just tabling to roving education and tabling. This allowed us to reach twice as many people with our plover conservation message. This year, our SCA Meghan Rahner has worked to evolve our roving plan to make it more fun and even a little bit eccentric. We are using colorful props like bird skulls and feathers to demonstrate adaptations for flight, bangles to show how banding works, and even tossing in a dad joke or two just to keep people interested. The more relatable and enjoyable we can make the plovers the more support we can raise for this project. Our crew has also had the opportunity to help on other projects throughout the winter and spring season including Hemlock Woolly Adelgid (HWA) surveys, Bird Conservation Area (BCA) songbird and owl surveys. We aided in the education of patrons at the Green Lakes Fishstock event and screen-free week where the Central Region SCAs Meghan and Kelly Punch organized multiple events!

Finally, we are saying goodbye for now to the Piping Plover Project Coordinator, Claire Nellis, who is moving on to a new position outside of Parks. But with that change we are excited to announce that we will have Jordyn Dala as the crew leader for the project managing the schedule and day to day tasks with part time help from four more Parks technicians and multiple FORCES Stewards (but we always accept help if you are reading this and are interested in monitoring the plovers and educating patrons!). In addition to the continued support of the programs there are many, many partners that provide guidance.

~Claire



Stevie Nicks released after getting her fresh bands. Photo: Matt Brown

Central Region Update cont'd

Claire Nellis, Piping Plover Project Coordinator; Delaney Kalsman, COAS Project Coordinator; Mike Serviss, Regional Conservation Project Coordinator; Alex Brown, Stewardship Specialist;

April showers bring May flowers and the COAS project focused on removing those flowers that don't belong. The spring season was primarily spent managing for various invasive species including dame's rocket (*Hesperis matronalis*) and garlic mustard (*Alliaria petiolata*). Spring invasive species pose a threat to native spotted Joe-pye weed (*Eutrochium maculatum*), COAS favorite food species, by sprouting early and taking up available space. COAS Steward Orchid Kinzie-Middleton was instrumental in removing these invasive species. In total, 1,670 invasive stems were removed during the spring season.



Tree swallow sitting on their nest in one of the nest boxes at Chittenango Falls State Park. Photo: OPRHP

Additionally, the COAS project focused on the side project of putting up bluebird nest boxes throughout Chittenango Falls State Park. Twelve bluebird nest boxes were posted in October of 2021 and have been monitored throughout the spring. Seven native nests have been established throughout the park, including one eastern bluebird (*Sialia sialis*), one tree swallow (*Tachycineta bicolor*), and five northern house wren (*Troglodytes aedon*) nests. As of June 1, 2022, four bluebirds successfully fledged, and there were a total of five tree swallow and 30 house wren eggs.



Eastern bluebird fledglings in one of the boxes at Chittenango Falls State Park. Photo: OPRHP

~Delaney



An AHTF transplant at Clark Reservation. May 2022. Photo: OPRHP

We've got plenty of updates to provide on the American hart's-tongue fern (AHTF) conservation project for the first part of 2022. We said a fond farewell to our AHTF Propagation Technician, Elizabeth Padgett, in January as she went on to pursue new opportunities after three years working on the project. We readily filled the position and welcomed Colton Ratey onto the team in March! Shortly thereafter, we brought on our seasonal AHTF field crew (the Fern Crew) headed by returning AHTF Crew Leader Stephanie Minarik. The Fern Crew quickly got to work on managing woody and early season invasive plants, performing censuses of AHTF transplants across four different sites, and jumping in to assist with other regional projects where help was needed.

While all that was happening, I was busy coordinating a trip to Alabama with the US Fish and Wildlife Service (and many others) to re-establish an extirpated population in the state- which has only one remaining AHTF population. Stay tuned for a report on that trip in the next newsletter!

Lastly, a quick update on hemlock woolly adelgid (HWA) in the Central Region. We finished up HWA surveys in early March and, unfortunately, found HWA in a few new parks in the region. However, we also coordinated HWA chemical treatments with our statewide contractor at three parks- including Green Lakes, Selkirk Shores, and Robert V. Riddell State Parks. More treatments and a possible biocontrol release are in store for the fall season as we work to protect all of the currently healthy hemlock forests in our region.

~Mike

Central Region Update cont'd

Claire Nellis, Piping Plover Project Coordinator; Delaney Kalsman, COAS Project Coordinator; Mike Serviss, Regional Conservation Project Coordinator; Alex Brown, Stewardship Specialist;

Sentinel Red Oak Project @ Green Lakes

In May, Central EFT Staff and Stewards (Alex Brown, Kanika Jakhmola, Gillian Smith, Amy Kochem, Peter Sterbak, and Gina Sciarra) transplanted 120 red oak seedlings in Green Lakes State Park (GLSP), as a part of the GLSP Deer Management Plan monitoring program. Seedlings were planted in 6 different plots, distributed between 3 locations in the park. For each location there are two - 15m X 15m plots, one plot enclosed with 8ft deer fencing as the control, and one plot left open as the variable. 20 seedlings were planted within each plot. Each seedling was marked with a brass number tag and a piece of flagging tape. During the growing season, browse incidence and seedling growth of the oaks will be measured monthly. Each year new seedlings will be planted and monitored in addition to those that were planted in previous years. The data collected from this method over time can be evaluated to see if differences in deer management approaches, and changes in deer abundance affect the growth and transition from seedling to sapling. Planting propagated oaks allows us to standardize our approach of assessing deer impacts in the park. Red oak was chosen for this study due to the species widespread abundance in North America and because it serves as an important timber species and food source for wildlife species, including deer. Our method was modeled after Cornell University Professor Bernd Blossey's research on "Red oak seedlings as indicators of deer browse pressure: Gauging the outcome of different white-tailed deer management approaches". We would also like to give Dr. Andrea Davalos (SUNY Cortland) a special thank you for guiding and supporting us in our efforts to get this project up and running.



Tagged oak seedling.
Photo: OPRHP

Salamander Coverboard Monitoring @ Selkirk Shores and Robert V. Riddell

This spring, Central EFT shadowed the Finger Lakes Region in their efforts to monitor potential non-target effects of pesticide use on eastern-red-backed salamanders. Central EFT Staff and Stewards (Alex, Kanika, Noah Roche, and Gillian) placed coverboards in Selkirk Shores and Robert V. Riddell State Parks. Both parks have been chemically treated for hemlock woolly adelgid (HWA). In our study we will analyze how these chemical treatments affect the population and vigor of red-backed salamanders. We implemented methods established by the Salamander Population and Adaptation Research Collaboration Network (SPARCnet). At each park, two - 5m x 10m plots were selected, each consisting of 50 wooden coverboards (50 cm X 50 cm X 1 cm) spaced 1m apart. For each location, half of the coverboards were placed within the treated areas and half were placed at least 20m outside of the treated areas. These plots will be surveyed in intervals during the spring and fall. Biological data including species, sex and morph will be collected, as well as other environmental data. These plots will be surveyed annually. Long term monitoring of species like the eastern red-backed salamander can help identify changes to an ecosystems health and provide insight to how our management techniques influence other natural communities.



Amy and Claire showing a poster example of teamwork! Photo: OPRHP

Canada Goose Management

This spring, Central EFT Staff, Stewards, and SCA (Alex, Gillian, Amy Kochem, Claire Nellis, Billy Sullivan, Delaney Kalsman, Jordyn Dala, Meghan Rahner) monitored Battle Island, Chenango Valley, Glimmerglass and sections of the Old Erie Canal State Parks for Canada goose nests as a part of our agencies Canada Goose Management Plan. Canada geese can pose as a nuisance and a public health concern in our parks. Some common nuisance goose issues in our parks include aggressive behavior when protecting nests or young, large flocks gathering near waterbodies, golf courses, and playgrounds resulting in substantial amounts of droppings and feathers, as well as contaminating ponds and lakes due to the bacteria and viruses that can be found in their feces. In order to keep local Canada goose populations down and to reduce nuisance situations, NYS Parks has put a Canada Goose Management Plan in place. Egg Oiling is just one of the various management techniques that are utilized in our parks. Central EFT monitored for goose nests from mid-March to mid-May. As nests were identified, multiple surveys were conducted to determine the productivity of the nest and incubation status. Coordinates for each nest were recorded, as well as the number of eggs in each nest (continued on page 12).

Central Region Update cont'd

Claire Nellis, Piping Plover Project Coordinator; Delaney Kalsman, COAS Project Coordinator; Mike Serviss, Regional Conservation Project Coordinator; Alex Brown, Stewardship Specialist

Canada Goose Management (cont'd) Oiling took place once incubation had begun (eggs were warm to the touch). Eggs can be oiled up to 28 days of incubation, but we aimed to oil in the first 14 days of incubation. We used a float test to determine how far along incubation was. Before oiling, each egg was marked with sharpie to declare that it was treated, then each egg was soaked with sprayed with vegetable oil making sure all surfaces were covered. The act of oiling eggs blocks the eggshells pores and prevents continued development. The reason we use this method is because the presence of undamaged eggs allows for the goose to continue to sit on the nest, reducing the potential of re-nesting. In total 3 active nests were found and 5 scavenged nests. If nests that were found did not pose a likely risk to interfere with patron health and safety, oiling was not carried out. Overall, only 1 of the 3 nests that were found were oiled. In General goose populations within the parks seemed to be low - average which could be associated with effective goose management from previous years. Due to the Highly Pathogenic Avian Influenza (HPAI) circulating, our staff made sure to take proper precautions to protect ourselves and the birds from cross contamination. Disposable gloves, face masks and eye protection were worn during the process of oiling, and we thoroughly disinfected our equipment after any contact. We also sanitized our boots with a diluted bleach solution at the maintenance building.



Canada Goose nest found at Chenango Valley State Park. Photo: OPRHP



Beaver dam breach at Verona Beach State Park. Photo: OPRHP

Dam Breach @ Verona Beach In May, Central EFT Staff and Stewards (Alex, Kanika, Noah, Peter, and Gina) worked with the park manager at Verona Beach State Park to complete a beaver dam breach. Increased water levels from the dam were causing significant flooding to surrounding trails and presented itself as an opportunity to lower water levels and create habitat diversity. Our team chipped away at the dam until level ground was hit. Within 2 hours of working on the dam, water level within the waterbody had dropped at least a foot. Needless to say, it was very rewarding. Lowering water levels will promote a variety of plant growth and in turn diversify the species of wildlife that inhabit the area. Park staff at Verona Beach will continue to clear debris from the dam location, as well as implement other alternate methods for keeping their culverts clear, as the beaver will instinctly try to re-dam the area. Once the growing season is over, they will allow the beaver to dam the waterbody back up, which will create habitat for migrating waterfowl.

Glimmerglass/Hyde Hall Block Party In June, Central EFT Staff (Alex, Kanika, Stephanie Minarik) participated in the Block Party event Held at Glimmerglass/Hyde Hall State Parks. Stewardship Staff shared the stage alongside many different organizations and vendors. Central's Stewardship Staff represented NYS Parks Environmental Team by providing patrons with the opportunity to build their own Blue Bird Nest boxes to take home and information on proper installation and care. Stewardship staff also had a macroinvertebrates display and educated the public on their lifecycle and their importance in indicating stream quality.



Alex, Steph and Kanika ready for a day of bluebird nest box building at the Glimmerglass/Hyde Hill Block Party event. Photo: OPRHP

Finger Lakes Region Update

Carlin Wakefield, FORCES Program Specialist, Finger Lakes Region

We had a busy spring here in the Finger Lakes with plenty of fun projects to share! In a new and exciting partnership, FORCES was able to assist at DEC Reynold's Game Farm in early February. We had the opportunity to learn about their pheasant propagation program and assist in transitioning several flocks from their winter area to their breeding season pens. We look forward to more opportunities to assist and further collaborate with our colleagues at the Department of Environmental Conservation.



SCA and FORCES Staff assisting at DEC Reynold's Game Farm in February. Photo: OPRHP



Ana Maria baiting her camera trap at Jennings Pond. Photo: OPRHP

Conservation Steward, Ana Maria Arroyo, worked on many different projects this semester including winter raptor surveys at Long Point State Park, invasive spotted lanternfly (SLF) surveys and bluebird nest box monitoring around the Ithaca area, and turtle nesting habitat cleanup on the Catherine Valley Trail near Mark Twain State Park. Most of Ana's time and focus, however, went toward wildlife tracking and camera trap surveys around Buttermilk Falls State Park at Jennings Pond. The focus of her surveys was initially to detect the presence of river otter, and while we found no river otter presence, she amassed incredible footage of many charismatic species like fisher, mink, and bobcat! To learn more about this exciting project, check out Ana's Featured Project article on Page 4 and check out our Instagram page @FORCESNYS to watch trail camera footage! Ana also hosted Finger Lakes FORCES first Wildlife Weekend education event. This event involved games and activities about tracking and wildlife, and a guided tracking hike led by Ana herself. We look forward to continuing these programs into future seasons to get the community excited to learn about wildlife in our parks!

Jr. FORCES Steward, Jewel Olsen, worked at the NYS Plant Materials Program (PMP) which propagates native plants for restoration projects at NYS Parks. The PMP is located at Sonnenberg Gardens and Mansion State Historic Park in Canandaigua, NY. Jewel assisted with seeding, propagation, and greenhouse maintenance as part of a service-learning opportunity with The Walden Project, a program for High School and gap-year students based in Naples, NY. To learn about our partnership with The Walden Project and their organization, check out our Partner Highlight article on Page 6.



Jewel and Hannah Smith seeding native species at Sonnenberg Gardens and Mansion State Historic Park. Photo: OPRHP



Raquel and Megan at Chimney Bluffs State Park. Photo: OPRHP

Chimney Bluffs Trail Stewards, Raquel Mennella and Megan Joyce, worked hard to maintain trails and educate patrons about best practices and safety measures on the Bluff Trail at Chimney Bluffs State Park under the direction of Finger Lakes Trails Coordinator, Zac Ballard. Their efforts helped protect this important wetland on the coast of Lake Ontario from accelerated erosion due to foot traffic on closed trails.

Last but certainly not least, Environmental Field Team (EFT) Steward, Steven Campbell, assisted EFT Project Manager, Kyle Webster, and Invasive Species Management Technician, Charlie Ippolito, with vegetation surveys at Ganondagan State Historic Site and Harriet Hollister

Spencer Recreation Area. Steven also conducted camera trap surveys where he got some great footage of several species including red fox, also highlighted on Instagram. Steven and Ana will be continuing on with FORCES to volunteer throughout the summer alongside a new group of Stewards!

As the days, weeks, and months of 2022 fly by, we are grateful as ever for our amazing Stewards, partners, and agency staff who continue to uplift this program and community. Cheers to a great summer season!



The Force Behind FORCES Picture Page



Finger Lakes' first ever FORCES Wildlife Weekend at Buttermilk Falls.



Dallas, Dephil, and Cassidy cleaning the office windows at DeVeaux Woods State Park before applying anti-collision window decals.



Meghan Rahner guides a participant in how to start a fire with a bow drill during her screen-free week program at Selkirk Shores State Park.

Photos: OPRHP



FORCES Conservation Steward, Ana Maria Arroyo, teaching SCA and Environmental Field Team technicians about garter snakes on the Catherine Valley Trail at Watkins Glen State Park.



Earth Day 2022 Trash Cleanup of the cobble shoreline and beach at Sampson State Park.



Zoe & Ian taking the DBH of a hemlock tree at Wilson-Tuscarora State Park.



Trevor Hanson repairing the string line of the Protected Nesting Bird Area at Sandy Island Beach State Park.



Utilizing kayaks to access islands for Canada goose nest scouting on the Susquehanna River.



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FORCES Newsletter
Summer Edition 2022

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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.
