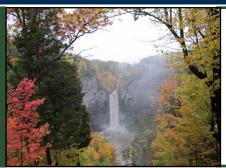
Parks, Recreation and Historic Preservation

Friends of Recreation, Conservation and Environmental Stewardship

Fall 2017 Newsletter Vol. 2 Issue 3

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

Getting to the Corps

Tom Hughes, NRS Biologist Central Region FORCES Program Manager

This is an exciting time in New York for the next generation of conservation leaders! In 2016, Governor Cuomo launched the Excelsior Conservation Corps (ECC) AmeriCorps. Beginning in 2017, the Student Conservation Association (SCA) NYS Parks Corps program expanded into several more regions of New York State. Through collaborative projects and events, our FORCES program and its participants have really benefited.

We have partnered with the ECC and SCA on so many great things over the past couple of years, including invasive species management, trail improvements, protection of rare plants and wildlife, and environmental education and interpretation.

I have enjoyed witnessing the passion and enthusiasm that these young professionals share for our parks, the environment and the service that they are providing. If you want to see this awesome marriage of our programs, come on out to the Great New York State Fair in August of 2018 and build a bluebird nesting box with us!



Left: Excelsior Conservation Corps member Dan Bellinger works alongside OPRHP FORCES Steward Shaina Johnson at the 2017 NYS Fair.

Right: Student Conservation Association member Leah Mould assists a young fair visitor with constructing a nesting box for NY State's official bird, the eastern bluebird.







FORCES

Friends of Recreation, Conservation and Environmental Stewardship



Central Region Update

Amy Kochem, FORCES Program Coordinator

It was a very busy summer with 2 project coordinators, 7 Federal Work-Study stewards from SUNY ESF, and 14 stewards. Work continued at Green Lakes in the Bird Conservation Area, at Clark Reservation in the American hart's-tongue fern colonies, and at Sandy Island Beach with habitat restoration/education of the federally listed as endangered piping plovers.

Stewards took a hiatus from the restoration work to host numerous summer groups of kids including, Project Explore, Camp Green Teen, ESF Science, Liberty Partnership, and the Town of Onondaga Summer Camp. Kids went fishing, were lead on interpretive nature hikes, and participated in environmental games.

Several Stewards partnered with OPRHP Boat Stewards, Oswego County Soil and Water Conservation District, and the Excelsior Conservation Corps (ECC) to remove water chestnut at Fair Haven Beach and Selkirk Shores State Parks.

We celebrated another successful year at the New York State Fair with 31 stewards and volunteers from eight different collegiate institutions. Over the 13 days of near perfect weather, our team helped to build just over 1,200 bluebird boxes, provided valuable bluebird education to thousands of fairgoers, and helped to create many treasured memories with people young and old.



Sarah Powers, Candace Schermerhorn, and Molly Elwood (SUNY ESF) and Jensen Porter (Le Moyne College), assist young fairgoers with bluebird nest box construction.

Environmental Field Team

Brigitte Wierzbicki, Plant Materials Program Coordinator

The Environmental Field Team's (EFT's) eight FORCES stewards have gone back to school after working on a diversity of projects, from ornithology to greenhouse work to vegetation surveys. We celebrated their efforts at our annual Growing Season Summary, where each steward presented about their summer work, joined by Finger Lakes Region environmental staff. A major accomplishment from Alexis VanWinkle and her FORCES ornithology stewards was the dedication of Ganondagan State Historic Site as a Bird Conservation Area.

This season, the EFT welcomed two of our stewards as Parks employees. Erika Ester started this spring as a Plant Materials Program Steward, and has ioined us as the Plant Materials Program Assistant through the end of November, We were also fortunate enough to add to our vear-round staff Kira Broz. After spending two



Supervising Conservation Steward, Kira Broz, is "toad"-ally excited to be assessing amphibian populations for the Riparian Corridors Project. Photo credit: OPRHP

seasons working on natural resource projects with the Environmental Field Team, she will be staying on to facilitate the completion of the Riparian Corridors Project with Kyle Webster at Ganondagan. As EFT staff, she will continue to work on natural resource projects with a focus on wildlife. Kira will be looking for wildlife stewards next season – stay tuned to learn more about her upcoming projects, and how you can get involved with our expanding team!

"I believe this experience benefitted both my future academic and professional careers. It was a nice way to gain experience in the field as well as to learn new things while being on a break from actual classes and a good way to meet a variety of people and to make connections that could help gain more opportunities."

- Ally Whitbread

Upcoming Events

11/16/17 Old Growth Forest Visit Letchworth State Park

12/6/17 Outdoor Adventure Series Allegany State Park

12/7- Christmas by Candlelight12/8/17 Lorenzo State Historic Site

12/11/17 Bird Walk with Audubon Rockefeller State Park

12/16/17 43rd Letchworth-Silver Lake Christmas Bird Count

12/23/17 Project Feederwatch Letchworth State Park

12/31/17 Beaver Island Blizzard Bash! Beaver Island State Park

1/1/18 First Day Hike: Find an event near you on our website

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

Coordinator's Corner

Amy Kochem, FORCES Program Coordinator

An impressive sense of pride washed over me as I collected seasonal updates from each region for this fall edition of the newsletter. The once two-region FORCES program has judiciously expanded to currently cover six regions throughout our State Parks agency. It is a joy to read about all of the exciting, hands-on projects and incredible opportunities that our Stewards are involved with. The establishment of FORCES in other regions not only strengthens the program, but also significantly increases the diverse experiences that Parks can provide for our Stewards. The student testimonials inserted throughout each newsletter reflects the sentiments of gratitude, excitement, and appreciation for FORCES.

I look forward to the path that FORCES will take as it continues to create experiences and memories for our Stewards.

I wish you all a peaceful season!



"This position taught me how to work with others and how to interact with people who may not understand as much about the environment as myself which will be a necessity for any future professional opportunities." - Mitchel Thomas

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 *Der	otes active FORCES Clubs

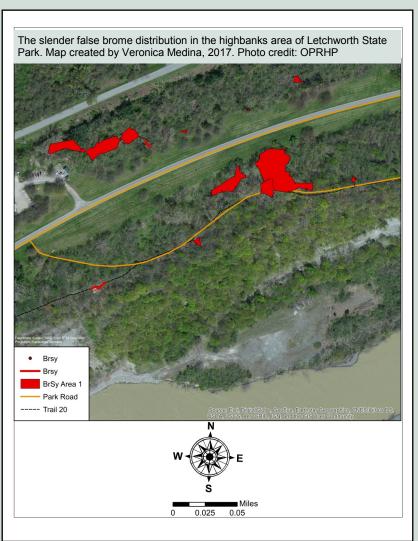
Genesee Region Update

Meg Janis, Natural Resource Steward Biologist

Spring of 2017 marked the first year that the Genesee Region of State Parks had the assistance of FORCES Stewardship Interns. The Stewards assisted with environmental stewardship projects at Letchworth State Park. From May until August, interns Curtis Davis and Travis Faber assessed fourteen vegetation monitoring plots and two deer exclosures to determine deer impact on vegetation and forest regeneration. This biodiversity assessment project began in 2009 and continues as an invaluable tool in monitoring the results of deer management practices.

Curtis and Travis also surveyed and mapped infestations of invasive mugwort for a pollinator meadow project. They researched methods to best control this invasive plant and replant with native plants and flowers to attract pollinator species. While working on this project they also discovered a previously unknown infestation of an early detection invasive grass, slender false brome (*Brachypodium sylvaticum*). This lead led to additional surveying and mapping of slender false brome over the summer.

The FORCES Stewards also mapped acres of another invasive plant, oriental bittersweet. They reached out to contractors regarding treatment in order to help prevent its spread in certain forest communities. The Stewards were able to assist with a variety of other projects, such as invasive species public outreach at the Humphrey Nature Center, surveying for and identifying rare plants, entering data on the iMap geodatabase and restoring an area with native species following an invasive species removal project headed by Geneseo's FORCES club. The work that Curtis and Travis conducted through FORCES was vital to maintaining native biodiversity and promoting environmental stewardship at Letchworth State Park.



"Overall, this was a great experience for me. I got to meet some amazing people, learned about things that I want to do in my life and things that will help me in my future, got to be outside for the whole summer, and had fun doing so." - Curtis Davis

"While I enjoyed being able to work with others, this experience taught me how to work independently and being able to complete tasks on my own time" - Travis Faber

Taconic Region Update

Steven DiFalco, Natural Resource Specialist

We had a very busy summer battling invasives, monitoring vegetation plots, helping researchers, and working with volunteers. At Rockefeller Preserve, our invasive control priority species were Black Swallowwort, Japanese Aralia, and Mile-a-Minute vine. Their tenacious reputation preceded them and they gave us a run for our money. To protect uncovered native trees during invasive removal projects, we put in about 50 tree tubes. We spent 5 months assisting local ornithologist, Elijah Goodwin, monitoring wood thrush.

In August, we collaborated with Groundwork Hudson Valley's Green Team, to remove innumerable invasive vines and shrubs. We were privileged to work with 15 bright and hardworking high school students from lower Westchester for a week.

As the summer wound down, we began focusing on replanting. Since the beginning of this fall, we have already planted over 200 wildflowers that were propagated from seeds collected in the Preserve. In the coming months, we will begin planting the seeds collected this year, continue vine cutting along trails, and hopefully finish a flora atlas of the park.



Steven DiFalco, Dylan Finley, and Brian Keating replacing invasive plants with native species. Photo credit: OPRHP



Groundwork Hudson Valley's Green Team. Photo credit: OPRHP

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Featured Project: Pale Swallow-wort Management

Lindsay Dombroskie, NYS OPRHP and Andrea Davalos, SUNY Cortland

NYS Parks Recreation & Historic Preservation, New York Invasive Species Research Institute, and SUNY Cortland have partnered to assess the success of invasive species management. The aim of this project is to develop standardized protocols for assessing ecological impacts and management effectiveness of terrestrial

invasive plants, specifically pale swallow-wort (*Cynanchum rossicum*). Pale swallow-wort was introduced in the 1800's, and is now spreading throughout Central New York State and considered a major threat to native ecosystems.

In conjunction with both FORCES Invasive Species Management and Conservation Stewards, sites were selected for this study at Taughannock Falls, Buttermilk Falls, and Green Lakes State Parks. Sites were selected in comparable habitat where pale swallowwort is being actively managed, and where it is not. This design will enable comparisons between sites to assess pale swallowwort management effectiveness.

However, there could be other factors at play influencing the abundance of pale swallowwort, such as earthworms or deer. The abundance of pale swallowwort and earthworms within study sites were quantified by FORCES Stewards and



Andrea Davalos (SUNY Cortland), Jenn Liao, and Hailey Aleman (Conservation Stewards) search for earthworms. Photo credit OPRHP

SUNY Cortland researchers during the summer sampling season. Future work will include erecting deer fences and using transplants of select native plant species to assess other environmental stressors (deer and earthworms) to avoid attributing impacts to the wrong causal agent(s).



The study will address the following questions: (1) What are the effects of *C. rossicum* on survival and growth of sentinel species? (2) What are the effects of *C. rossicum* management on survival and growth of sentinel species? (3) Are there interactive effects between *C. rossicum* and deer on survival and growth of sentinel species?

We expect negative effects of *C. rossicum* and deer on sentinel species and limited positive effects of *C. rossicum* management on native species. Furthermore, we expect synergistic effects between deer and *C. rossicum*, such that their combined negative effect would be higher than expected based solely on their single effects.

FORCES looks forward to continuing to support this research collaboration!

Left: Jeremy Collings (SUNY Cortland) and Nate Henderson (Invasive Species Management Steward) assess pale swallow-wort cover. Photo credit OPRHP

Steward Spotlight: Zachariah Glaspy

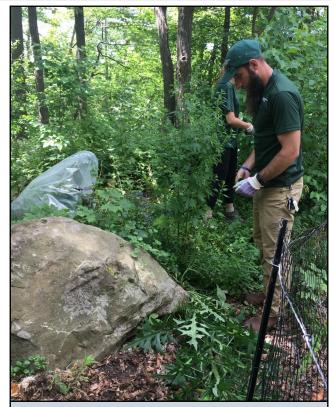
Invasive Species Management Steward

Throughout my eye opening experience working for the FORCES program, my project was to map and identify invasive terrestrial plant species, sometimes going back and removing the species if needed. I never realized how much of an impact an invasive plant species could have.

In one case another intern and myself went to Three Sisters Island State Park to evaluate and map the infestation of mugwort. As we mapped, it did not seem too bad until we started the removal. By the end of our 4th day there we pulled a total of 16 bags of mugwort!

We also went to Three Sisters State Park to map and remove garlic mustard. You just pull out the garlic mustard, unlike the mugwort where you have to cut it. The garlic mustard pull took about 3 days. We ended up pulling about 12 garbage bags of garlic mustard. While pulling garlic mustard, you have to be careful to try and not knock the seed pods off.

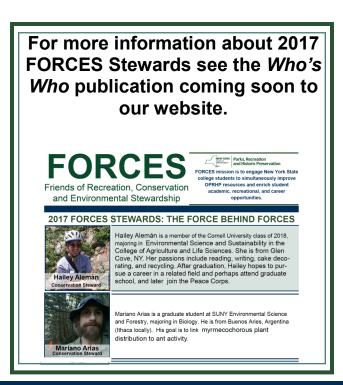
It was very important to be careful while removing these invasives because the Three Sister Islands were supposed to be all native species. Unfortunately, the site consisted mostly of garlic mustard and mugwort. I also found and mapped some invasive common reed (*Phragmites*).



Invasive Species Management Steward, Zach cutting a thistle plant in an area of garlic mustard. Photo credit: OPRHP



OPRHP



Allegany Region Update

Tom LeBlanc, Environmental Educator

This summer we had two artists join the FORCES team in assisting our landscape architect in developing 12 wetland boardwalk educational panels. Thomas Brooks and Lindsay Neubeck are both graduates of Alfred State (SUNY) and are very passionate with their nature illustrations. Most of their summer was spent painting in watercolors and using a digital paintbrush to make these original artworks. The images will be the centerpieces of Allegany State Park's new wetland boardwalk.

They also spent two days a week with the environmental education department implementing programs on nature sketching, wetland animals, birding, nature hikes, and many more. This is a unique internship opportunity for both our region and the FORCES Stewards. The park received some original art designs and the stewards can include this work in their resumes as published artwork. The panels are currently off to the printer and we anticipate installation happening before winter.



Thomas and Lindsay among their designs for the wetland boardwalk. Photo credit: OPRHP



"FORCES has given me helpful knowledge about ecosystem biology, conservation, and environmental impacts. It has also given me solid connections in a state department and positively contributed to my resume."

- Pat Macko

Faculty Spotlight: J. Rebecca Hargrave

Assistant Professor- Environmental Sciences, Morrisville State College

Morrisville State College (SUNY Morrisville) has a long history of applied-learning, conducting lab sessions that focus on hands-on, real-world applications. To that end, our partnership with FORCES has provided excellent opportunities to conduct meaningful work as well as networking and career opportunities. FORCES has also linked some of our students with summer internships as well as longer-term employment for our

graduates.

Working with FORCES, Morrisville State College students enrolled in Recreation Area Management and Invasive Species Management courses have removed invasive species to help preserve habitat and protect endangered species at Clark Reservation State Park and maintain the historic grounds at Lorenzo State Historic Site. Sites where common buckthorn and Eurasian shrub honeysuckle have been removed are showing less invasive regrowth. Arboriculture students have conducted tree inventories on the grounds at Lorenzo documenting the location, species, size and basic condition of trees around the mansion and the grounds. These inventories have helped staff and volunteers make management decisions about the trees. Invasive Species students have also conducted understory invasive species cover inventory projects at Helen McNitt State Park and have surveyed for hemlock woolly adelgid at Green Lakes State Park.

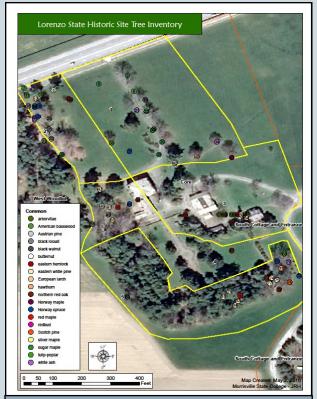
Opportunities like these allow for our students to hear from NYS Parks staff what it's like to manage the resources and the people at State Parks and Historic Sites, to see what that management looks like, and to participate in that management; all while providing some needed services to New York State. We look forward to continuing these projects in the future.



Recreation Area Management students removing honeysuckle, using a honeysuckle popper, at Lorenzo State Historic Site. Photo credit: SUNY Morrisville



Invasive Species Management students removing common buckthorn at Clark Reservation State Park. Photo credit: SUNY Morrisville



Map of Lorenzo Tree Inventory created from data gathered by Arboriculture students. Photo credit: SUNY Morrisville

Finger Lakes Region Update

Lindsay Dombroskie, FORCES Program Specialist

FORCES began the summer assisting with a variety of projects. We planted 50+ native trees and shrubs alongside OPRHP Landscape Restoration Specialists at Taughannock Falls and Buttermilk Falls State Parks. At Robert H. Treman, we collaborated with Cayuga Lake Floating Classroom to teach children about water quality through benthic macroinvertebrate surveys and also released native brook trout. Intensive deer herbivory leaves obvious signs on the landscape, so we enacted the AVID protocol to detect these potential impacts at Taughannock Falls and Buttermilk Falls State Parks in collaboration with Cornell University. Additionally, FORCES assisted the Environmental Field Team (EFT) with streambank stabilization at Buttermilk Falls State Park.



Left to Right: Invasive Species Management Stewards Jasmine Grewal and Nate Henderson, DEC Intern Chenga Drury, and Conservation Stewards Hailey Aleman, and Jenn Liao. The group is tabling for ISAW 2017. Photo credit: OPRHP

Throughout the summer, we completed a variety of invasive species mapping, monitoring, and removal activities. Often pale swallow-wort was our target, but garlic mustard, multiflora rose, honeysuckle, hemlock woolly adelgid and even earthworms were a part of our focus! We travelled to Two Rivers, Seneca Lake, Robert. H. Treman, Buttermilk, Fairhaven Beach, and Taughannock Falls State Parks. We often worked with partners such as The Nature Conservancy, the Invasive Species Management Strike Team, and OPRHP Boat Stewards. Our outreach table at Robert H. Treman State Park received positive feedback from park patrons during New York's 4th Annual Invasive Species Awareness Week (ISAW).

Some of our summer projects will continue past the season. We set up cover boards for salamander monitoring beginning in the fall. We confirmed that a wildflower garden at Sampson State Park is functioning to support both monarchs and other butterfly species during our mini butterfly bioblitz. We also collected data

for The Monarch Health Project based out of the University of Georgia, and this effort is ongoing. We documented breeding activity and/or successful fledging of eastern bluebirds at Robert H. Treman, Allan H. Treman, and Taughannock Falls State Parks, and erected new nest boxes to further encourage this species. Our bird point counts at Seneca Lake State Park could aid in achieving a Bird Conservation Area status for this park in the future.

Thank you FORCES Stewards for your great work during this busy season!

"My summer with FORCES has helped me gain the environmental knowledge, experience, and groundwork I need to get a job in the environmental field." - Nate Henderson

"The projects this summer have helped me learn more about what types of jobs are available in the environmental field as well as different techniques that can be used to carry out these jobs." - Jasmine Grewal



Nate and Lindsay sample a monarch butterfly using a sticker for Project Monarch Health. Photo credit: OPRHP

Partner Highlight: Federal Work-Study Program at SUNY ESF

Casey Duffy, Career Advisor

For the past 6 years, a collaborative partnership has existed with ESF students and the NYS Parks system where, during both the academic year and the summer, ESF students work at Clark Reservation exploring their environmental interests, pursuing their passions, and engaging with their local community. These students have been able to aide in the conservation, restoration (by invasive species ID and removal), and monitoring of several of the Central Region's threatened species, manage and archive field data, and assist in the office's education and outreach initiatives – all as part of our ESF work-study program – creating a unique experience unlike any other work-study opportunity on campus.

Many work-study opportunities are administratively based. However, our partnership with the NYS Parks allows students to earn their work-study allotment while also developing critical skills and participating in career-enhancing experiences. Tom Hughes, Amy Kochem and additional NYS Parks employees have worked diligently with ESF students, providing both an incredible experience for them to utilize their classroom knowledge in a real-world setting, and also serving as industry role models.

One student shared, "along with experience to write on your resume, you get to meet, learn, and build a mentor relationship with professionals who have



Andrew Randazzo and Radka Yang, ESF Work-Study 2015. Photo credit: OPRHP

great advice and knowledge to hand down. I can't speak for all the stewards but my favorite part was definitely meeting people who are so passionate about their environmental fields." Several ESF students who have actively participated in this partnership have indicated that they have found success in both future internships and jobs, directly because of their experience with NYS Parks.





Lydia Stewart, ESF Work-Study, 2017. Photo credit: OPRHP

"I learned that there are many levels of the NYS Parks organization and every level is important to the overall goals of the organization."

- Kaitlyn VanOrman

Niagara Region Update

Jillian Harris, FORCES Program Specialist

The 2017 summer season was jam packed with tons of projects being worked on! The featured project our two awesome summer stewards worked on was the removal and control of garlic mustard and mugwort at a previously restored area in Niagara Falls State Park. A total number of 80 hours was put into removing the invasives from the area!

Some other projects we worked on during the summer included: water quality sampling at Woodlawn State Park, partnering with Orleans Niagara BOCES to install a pollinator garden at Beaver Island State Park, partnering with the Invasive Species Strike team and PRISM crew to

remove invasives at Woodlawn State Park, and more!

Zach Glaspy and Angelina Presutti with 8 out of 16 bags of garlic mustard that were pulled from Niagara Falls State Park. Photo credit: OPRHP

Three new stewards are looking to come on for the fall season, with focus on outreaching to more students, native seed collecting, invasive species removal, and attending the annual Fall Gathering!



Angelina and Zach working on the pollinator garden at Wilson-Tuscarora during Pollinator Week. Photo credit: OPRHP



Zach and Angelina pulling garlic mustard at Niagara Falls State Park. Photo credit: OPRHP

"I learned to fully appreciate and respect the importance of field work. I recommend that all stewards have the opportunity to gain experience both in the field and in the park running programs. Mainly because research and interpretation go hand-in-hand and you cannot have one without the other." - Brenna Galligan

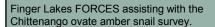
The Force Behind FORCES **Picture Page**





Josh Teeter leads a gorge hike during Trainapalooza at Watkins Glen State Park.

Niagara Region stewards planting in the Wilson-Tuscarora State Park pollinator garden.





Sierra Jech and Tom Hughes after snorkeling in Green Lake to observe rare microbial mats.

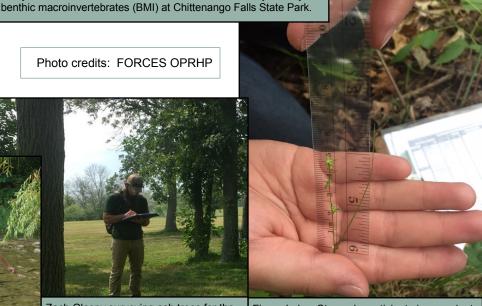
Top to bottom: Nate Henderson, Jasmine

Grewal, and Jenn Liao install cover boards for salamander monitoring at Taughannock Falls State Park

Photo credits: FORCES OPRHP



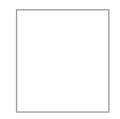
Zach Glaspy surveying ash trees for the Emerald Ash Borer at Beaver Island State Park.



Finger Lakes Stewards participate in rare plant surveys at Two Rivers State Park.



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FORCES Newsletter Fall Edition 2017

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3rd Annual FORCES Membership Gathering 2017, Fillmore Glen State Park. Photo credit: OPRHP

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