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OUR P.A.P.E.R

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Introduction

Summer time is always a busy time for New York State Parks and this season has been no different for the natural resource stewards and the rest of the crew from the Environmental Management Bureau (EMB).

This issue of *Our Paper* will share about the various habitat protection projects, natural resource surveys, invasive species public outreach programs, and other work completed by EMB in the past several months.

Green Lakes State Park partners with Sisters of St. Francis for Invasive Species Workshop

On Friday April 17th, Green Lakes SP and the Sisters of St. Francis at Alverna Heights hosted nearly 40 people for their 1st Annual Invasive Species Workshop. The idea for the workshop emerged from a winter meeting between Sister Caryn Crook, the Ecology Coordinator at Alverna Heights, and NRS Biologist Tom Hughes.

The goal of the workshop was to provide natural resource professionals and the local community with the latest information and resources to manage invasive species posing threats to Green Lakes and the surrounding area. Caryn and Tom were pleased to see a diversity of attendees and presenters

for the workshop, including NYSDEC foresters, park managers, private landowners and researchers from Cornell, Syracuse University and SUNY-ESF. Bob O'Brien and Alyssa Reid from the EMB invasives team presented on restoration and monitoring in NYS Parks and beyond.

- Tom Hughes, NRS
Central and Finger Lakes

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Other presenters included Steve VanDermark, Mark Whitmore and Holly Menninger from Cornell Coop Ext and University, Jason Fridley from Syracuse University and Sandy Bonanno, MS, SUNY-ESF.

Alverna Heights also hosted an Earth Day Fair on Saturday, April 18th that featured displays, crafts, food and kid's activities. The focus was again on invasive species.



Managing Pine Barrens to Benefit Shrubland Birds

Just minutes from the Empire State Plaza, the Albany Pine Bush Preserve protects over 3,000 acres of inland pine barrens. This globally rare ecosystem supports a variety of unique plants and animals, including a distinctive suite of breeding birds. In particular, numerous shrubland-dependent birds breed within the pitch pine-scrub oak barrens at the Pine Bush. While most shrubland birds are declining throughout the northeast, their populations appear stable within the Pine Bush. This spring Tray Biasioli from OPRHP, along with collaborators from the Albany Pine Bush and the NY State Museum, initiated a long-term research project to understand how to better manage pine barrens habitat for the benefit of shrubland bird populations.

In spite of their name, Prairie War-

blers are the most common birds breeding in the pine barrens of the Pine Bush. Because of their close association with pine barrens habitat, Prairie Warblers were chosen as the focal species for this research. These small migrants began returning from their Caribbean wintering grounds in early May, and researchers soon began catching birds, giving them unique color band combinations, and locating their nests.

Unfortunately, an intense hail-storm in mid-June destroyed virtually all of the nests located by researchers. However, in spite of the loss of these nests, there were successes in this initial year of research. This year's experience will leave researchers more skilled at catching Prairie Warblers and locating their nests in sub-

sequent field seasons. More importantly, researchers documented that earlier estimates of Prairie Warbler density at the Pine Bush were too low by 50%, indicating that the Pine Bush provides even better shrubland bird habitat than had been previously thought.

- Tray Biasioli, Bird Conservation Area Program Specialist



Prairie Warbler

Blanding's Turtle (*Emys blandingii*) Research and Protection



Nesting female Blanding's turtle

A population of Blanding's turtles (*Emys blandingii*), a NYS Threatened Species, has been studied annually at James Baird State Park since 2002. This work, coordinated by NYS Parks Environmental Management Bureau staff, has primarily been conducted by Student Conservation Association interns and volunteers each season. Data gathered from this research, which includes live-trapping turtles in park wet-

lands, radio-telemetry of the female segment of the population to their nesting areas, and nest protection efforts, takes place each year and helps inform management decisions at the park. The final phase of this research is being conducted this year by the Natural Resource Steward and others, with the expectation that research efforts will continue on a multi-year basis and as additional information on the population is needed. Eleven adult female Blanding's turtles were radio-tracked during the June 2009 nesting season, resulting in protection of six turtle nests in park uplands. Nest protectors (i.e., wire cages buried around the turtle nests), are placed immediately after nesting to prevent nest predators (e.g., raccoons, skunks) from preying on eggs and hatchling turtles. Beginning in mid-August, protected nests are monitored daily for hatchling emergence. As the hatchlings make their way out of their nests, data on the turtles is collected and they are released in a nursery wetland located near the nesting area. Subsequent to this year's field work, an annual report on the project

will be prepared. Additionally, a review of all annual reports and the current draft management plan will take place with the expectation of finalizing the draft management plan. This plan will include recommendations on the frequency of future trapping, radio-tracking, and monitoring, as well as habitat management and protection guidelines to ensure the continuation of this species into the future at this important location.

- Jesse Jaycox, NRS
Palisades and Taconic Regions



Protected Blanding's turtle nest

Karner Blue Butterfly Habitat Restoration at Saratoga Spa State Park

It's that time of year again; the federally endangered Karner blue butterflies (*Lycaeides melissa samuelis*) have emerged. NRS Biologist Casey Holzworth has been surveying their habitat at Saratoga Spa State Park on an almost daily basis.

The Karner blue is a small butterfly that requires the wild blue lupine plant for survival. Current populations also exist in Indiana, Michigan, Minnesota, New Hampshire and Wis-

consin. In 1993, one year after the Karner blue was added to the federal endangered species list, OPRHP entered into a cooperative agreement with the NYS Department of Environmental Conservation (DEC) to help better protect and expand the population of Karner blue butterflies at Saratoga Spa. Unfortunately, despite OPRHP efforts to date, the numbers of butterflies at Saratoga Spa have declined.

As part of a renewed effort to protect and expand the population at Saratoga Spa, a stewardship project has been developed that will re-establish approximately 3.5 acres of habitat. Projected to commence this summer with the backing of the DEC and the U.S. Fish and Wildlife Service, this project will be a positive step in the recovery of the Karner blue butterfly.

-Casey Holzworth, NRS
Saratoga and Thousand Islands



Karner blue butterfly habitat at Saratoga Spa State



Male Karner blue butterfly perched on a blue lupine



Wild blue lupine patch at Saratoga Spa State Park.

National Geographic Explorer Records Rare Plant Protection in the Niagara Gorge

This summer rock scaling work began on the cliff faces of the American side of the Niagara River gorge. This work was initiated due to safety concerns of falling rocks on the numerous trails through the state parks within the gorge. As this work started with the international rock scaling contractor, CAN, and environmental consultants, Ecology and Environment, measures were taken to protect the three different rare plant species that grow on the calcareous cliff slopes and seeps.

In early August, National Geographic Explorer videotaped the work done on these slopes as part of their World's

Toughest Jobs television program. They taped a segment on the various methods used to prevent damage to the elk sedge and lesser fringed gentian as the loose rocks were scaled off the cliff faces above their seep habitat.

With the avid work of the contractor and consultant, more occurrences of these plant species were discovered and their locations will be sub-

mitted to the Natural Heritage Program for future reference in any additional work to be done within the Niagara gorge. Natural Resource Steward, Meg Janis, and Environmental Program Specialist, Evyn Costanzo, had the opportunity to work with Ecology and Environment with the separate stages of the plant surveying work and also the rock scaling work. The protocol used to prevent and mitigate any plant loss is hoped to be useful as a template on any work done in the future in other gorges across the state.

-Meg Janis, NRS
Western District Regions



Gentianopsis procera (lesser fringed gentian)



CAN rock scaler on cliff face above Whirlpool trail



Plant protection above elk sedge and lesser fringed gentian

Restoring grasslands at Ganondagan State Historic Site

This past spring was a very busy time out at Ganondagan State Historic Site (SHS) in Victor, NY. NRS Biologist Tom Hughes led a team of dedicated OPRHP staff and community partners to initiate an effort to restore native grassland communities at two land parcels, ranging in size from 27 to 34-acres (61 acres total). The restored 'oak opening' communities will be composed primarily of native warm season grasses - big bluestem (*Andropogon gerardii*), little bluestem (*Schizachyrium scoparium*) and Indian grass (*Sorghastrum nutans*). Native wildflowers were added to the project by species and amounts that are both characteristic to oak opening community types and historically present to the region in which Ganondagan SHS is located.

The goals of this project are to (1) Restore grassland communities that are representative in both composition (e.g., native grasses, forbs and woody species) and spatial arrangement of grassland communities; (2) Enhance the interpretive value of the site; (3) Increase biodiversity of plants and animals and their habitats and (4) Foster partnerships with agencies and academic institutions that promote research and understanding of historic and current sustainable landscape management practices.



Site Manager Peter Jemison loads native grass seed into the hopper of the Truax drill.



Genesee Valley Pheasants Forever and local farmers provided the special Truax drill and expertise to plant the fields



Planting was completed on May 15th, and much welcomed rains followed soon thereafter. The grasses and wildflowers are expected to grow well at the site and establish themselves within 2-3 years. The grasslands will be monitored for seed germination success, plant growth, and invasive species threats. In addition, a mowing regime and a burn management plan are being developed.

This project's initial success is due, in part, to the valuable contributions of many, including Peter Fry, Finger Lakes region; Paul Salon, USDA; Mark Keister, NYSDEC; Kevin Long, Genesee Valley Pheasants Forever; Mark Fiely & Hillary Buchanan, Ernst Conservation Seeds and many others from OPRHP and NY Natural Heritage Program.

- Tom Hughes, NRS
Central and Finger Lakes Regions

Council of Park Friends (CPF) Contributes to Glacier Lake Fish Survey

Article as it originally appeared *The Polypodium* — News from the Council of Park Friends

Volume XXIX, Number 2—Fall 2009

Contributed by Gordon Heisler, CPF Board Steward

Some of our members will remember the interesting talk on mercury in the environment by Dr. Charles Driscoll of Syracuse University at our CPF annual meeting in January 2008. In another talk on the topic at SUNY ESF this spring, Dr. Driscoll described some of their laboratory testing of fish. A light-bulb came on. "If we get some fisher people to donate their catch from Glacier Lake in Clark Reservation, would you be able to test them for mercury?" I asked. "Yes." said Dr. Driscoll.

We discussed the possibility of fish testing at the June Board of Stewards meeting, and the idea was on the back burner until the next board meeting, when Ken Showalter mentioned that OPRHP Natural Resources Steward Tom Hughes was working with Aquatic Biologist Dave Lemon of DEC on a fish survey for Glacier Lake. The survey was to be done mostly on July 29 with some preparations on July 28. This was better than recruiting fishermen! After a flurry of emails that included Tom Hughes, Dr. Driscoll, SU lab manager Mario Montesdeoca, and Dave Lemon, the plans were in place.

On the morning of July 29th I stopped by Clark Reservation, intending to stay just a few minutes and perhaps take a few pictures. Finding survey headquarters on the west shore of Glacier Lake, I chatted with Dave Lemon about the survey techniques

while Tom Hughes and CPF Intern, Robert Alexander, paddled a canoe to haul the first of three large gill nets they had placed earlier. I mentioned to Dave that many years ago I had heard rumors of large walleye pike being caught in Glacier Lake. “Oh,” said Dave, “that’s interesting, because we really have no official records of the fish in this water. That’s why we are doing the survey. We know walleye fry were stocked in the past, but we don’t know the success.”

Then the fun began. When Tom and Robert returned with the first net, indeed there were large walleye, along with chain pickerel, large sunfish, and some shiners. Soon a group of teenagers and their leaders from SUNY ESF who were participating in the Stewards of Syracuse (SOS) program (<http://www.esf.edu/outreach/esfscience/sos.htm>) appeared. Tom Hughes had arranged for them to remove invasive vegetation in the park that day and to help with the fish survey. As Dave measured and weighed the fish, attached number tags, and collected a few scales for aging, one of the SOS teens recorded the information in Dave’s notebook, while our Intern, Robert Alexander, carefully put the scales of each fish in a separate numbered envelope. Before long, yet another group appeared with more equipment. This was Edward Mason, Quality Control Coordinator of the SU mercury lab, along with some SU students and equipment to do a demonstration of biopsy sampling of live fish right there on the shore of Glacier lake! The demo held the rapt attention of all the students.

As I was tearing myself away about noon, Mario was arriving with another dozen students in an SU summer program and with videographers. It was a great day for environmental research and education in Clark Reservation!

A few days later some results were available. Dave Lemon reported that the total tally of fish caught included 6 walleye from 12 to 19 inches, 7 pickerel from 16 to 20 inches, and 21 sunfish, the largest of which was 8.5 inches and weighed a half pound. Dr. Driscoll reported the mercury levels in a report to DEC for the incinerator permit renewal. Highest mercury values were in the walleye and pickerel. This is expected because these species are at the top of the food chain, and mercury builds up in fish that eat other fish. Also, for the same reason, the larger the fish, the higher the mercury levels.

The implications of the survey for the future remain to be seen. Dr Driscoll cautions that it is up to health departments to decide whether advisories against consumption of fish are in order. However, 86% of the pickerel and 33% of the walleye had levels of mercury higher than the recommended level by the US EPA for mercury consumption advisories. Dr. Driscoll’s previous report on mercury in Glacier Lake sediments may already have had an effect on management of the incinerator—the draft of the new permit calls for large reductions in allowed emissions of mercury.



Dave Lemon, Aquatic Biologist with DEC Fisheries—7, holding a walleye pike caught in the Glacier Lake survey (left). Tom Hughes unloads the nets while Rob Alexander passes up gear (above).

Discovery of new rare plant populations in New York State Parks

During the summer of 2009, botanical inventory and rare plant surveys have occurred in many state parks throughout the state. Rare plant surveys often involve returning to a location and updating the status of a known rare plant population. However, there are also many areas that have not been surveyed in the past, and 'de novo' surveys of state parks have been revealing many populations of rare plants that were not previously identified. In particular, sedges (*Carex spp.*) are often overlooked because there are so many species, many of which are small and

difficult to identify.

Two new sedge populations have been discovered in state parks this summer. At Hudson Highlands State Park, a sizeable population of Davis' Sedge (*Carex davisii*) was found. Davis's Sedge is a state-threatened species that is typically found in floodplain forests and is known from only twelve other locations in the state. At Harriman State Park, a new population of the state-threatened False Hop Sedge (*Carex lupuliformis*) was discovered. This species is frequently observed growing in vernal pools and is

threatened by invasive species such as Common Reed (*Phragmites australis*).

Another notable find this field season was a population of Virginia snakeroot (*Aristolochia serpentaria*) at Sterling Forest. Virginia snakeroot is a southern species that is rare in New York because it is on the edge of its range. Although they are not globally rare, it is still important to monitor these species as they can be important indicators of shifting distributions or rangewide declines that may be resulting from global climate change or other broad-scale factors.



Carex_lupuliformis



Pycnanthemum_muticum



Carex_davisii

Finally, a de novo survey of Amsterdam Beach, a new state park on Long Island, resulted in the identification of a new population of Blunt Mountain Mint (*Pycnanthemum muticum*), known from only eleven other sites in the state. Overall, these surveys have revealed that there is still much to be discovered in New York's state parks, especially off the beaten path!

- Kim Smith, Botanist
Natural Heritage Program

Green Conservation Corps Weeds Out Invasive Species at Connetquot River State

Connetquot River State Park Preserve is New York's first Invasive Species Prevention Zone (ISPZ), a distinction given to areas of over 500 acres that have less than 5% coverage by invasive plants. With the help of the Green Conservation Corps (a Student Conser-

vation Corps group), State Parks was able to implement the invasive species removal plan for the preserve. Japanese barberry, wineberry, and other invasives were removed by 28 Corps members from the natural areas of the preserve. This removal will maintain

the biodiversity, preserve rare plant communities, and ensure quality habitat for wildlife.

- Ariana Breisch, NRS
New York City and Long Island Regions



Corps members removing barberry from the park.

Meet the Biologist -Casey Holzworth (Saratoga & Thousand Island Regions)



Casey pulling swallow-wort at the shore of Sackets Harbor SHS. Swallow-wort control is only one of many projects that Casey is involved in.

I grew up on a farm in Waynesburg, PA, on the West Virginia border south of Pittsburgh. I like to say it's as far from here (Eastern New York) as you can get and still be in Pennsylvania. My wife Kelly and I currently live in Saratoga Springs. I ended up in New York when I followed my future wife home from college. We both attended Bucknell University where I received my BA in Animal Behavior. Believe it or not, my undergraduate thesis involved teaching capuchin monkeys how to count. After moving to New York, I enrolled in SUNY Albany's Biodiversity, Conservation and Policy Master's Program. While there I began interning with the DEC in Albany. From there I began working as a Fish and Wildlife Technician in Warrensburg and eventually became DEC's Wetlands Biologist for Region 5. In the interim I also had the privilege of working for Warren County Soil and Water District where I learned a lot about erosion control, construction operations, and water quality protection.

As the Natural Resource Steward for the Saratoga-Capital District and Thousand Islands Regions I am involved in a multitude of projects from restoring endangered butterfly habitat and streambank erosion restoration to swallow-wort and buckthorn removals and trail siting and modification for erosion control. I also recently worked with the Saratoga regional staff to secure nearly \$600,000 in funding for stormwater improvements including porous pavement for a parking lot and the creation of a stormwater wetland.



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EMB Mission Statement

The mission of the Environmental Management Bureau is to assist OPRHP in the responsible stewardship of its valuable natural, historic and cultural resources, as well as in providing safe and enjoyable recreational and interpretive opportunities for all New York State residents and visitors.