



New York State
Parks, Recreation and
Historic Preservation

NYS Office of Parks, Recreation and Historic Preservation

The Wildlife in Our Watersheds and Why They Matter



NYSFOLA CNY Regional Conference - *Caring for Our Lakes, Wetlands and the Life Within*
September 12, 2025

Tom Hughes, Environmental Educator
Division of Environmental Stewardship & Planning



A biologist's (and educator's) perspective for ...

Glimmerglass State Park, Otsego Lake
Photo: T Hughes



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... the life within our watersheds.

Harriet Hollister State Recreation Area, Honeoye Lake
Photo: T Hughes



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Overview

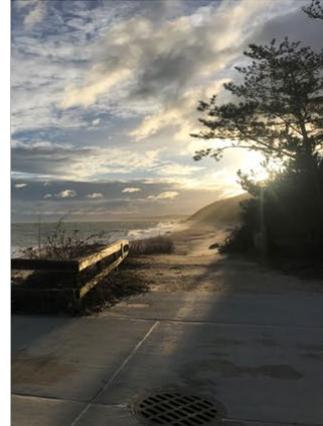
- **Intro to Environmental Stewardship in NYS State Parks**
- **Providing Perspective**
 - ❖ Observing and understanding wildlife
 - ❖ Considering our impacts on species and habitat connectivity
- **Conservation Projects – Native Biodiversity**
 - ❖ Conservation for the Chittenango ovate amber snail (*Novisuccinea chittenangoensis*) at Chittenango Falls State Park
 - ❖ Protecting eastern hemlock forests from HWA (hemlock woolly adelgid – *Adelges tsugae*)
- **Community Education Programs**
 - ❖ FORCES – *Friends of Recreation, Conservation & Environmental Stewardship*
 - ❖ Project WHIRL – *Water and Habitat on the Indian River Lakes*
 - ❖ Project WET NETS – *Watersheds Engaging and Teaching Nottingham's Environment & Technology Students*
- **Conclusion - how can we be better Stewards for wildlife?**



NYS Office of Parks, Recreation, and Historic Preservation (OPRHP) ...

Statewide:

- Over 80 Million Visitors
- 180 Parks
- 35 Historic Sites
- 67 Marine Facilities & Boat Launches
- Over 80 Beaches & Pools
- 29 Golf Courses
- Over 800 Rental Cabins
- Over 8,500 Campsites
- Over 1,650 Miles of Trails
- 24 Nature Centers
- 11 Regions



Photos: OPRHP



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NYS OPRHP...

- Over 350,000 acres of land with over 90% natural and undeveloped
- 140 miles of shoreline along the Great Lakes & St. Lawrence River
- 183 miles of shoreline along the oceanic coast & Hudson River
- Over 180 species of rare animals
- Over 240 species of rare plants
- 100 natural community types of statewide significance



Environmental Stewardship

Overarching Priorities

- Climate Change
- Partnership
- Diversity, Equity, Inclusion, Access

Goals & Select Strategies

- 1. Protect, Conserve, and Restore Native Biodiversity, Resilient Natural Communities, and Connected Habitats**
 - ❖ **Integrate recreational and educational opportunities with environmental stewardship in State Parks**
2. Integrate Environmental Stewardship Throughout The Agency and Enhance Communication and Information Sharing
3. Improve External Information Sharing and Communication
 - ❖ Increased public understanding and appreciation of environmental stewardship in State Parks
4. Demonstrate Leadership and Foster Employee Excellence in Environmental Stewardship



Providing Perspective



Thacher State Park, Voorheesville, NY
Photo: T Hughes



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Providing Perspective

From cityscapes



Central Park, New York City



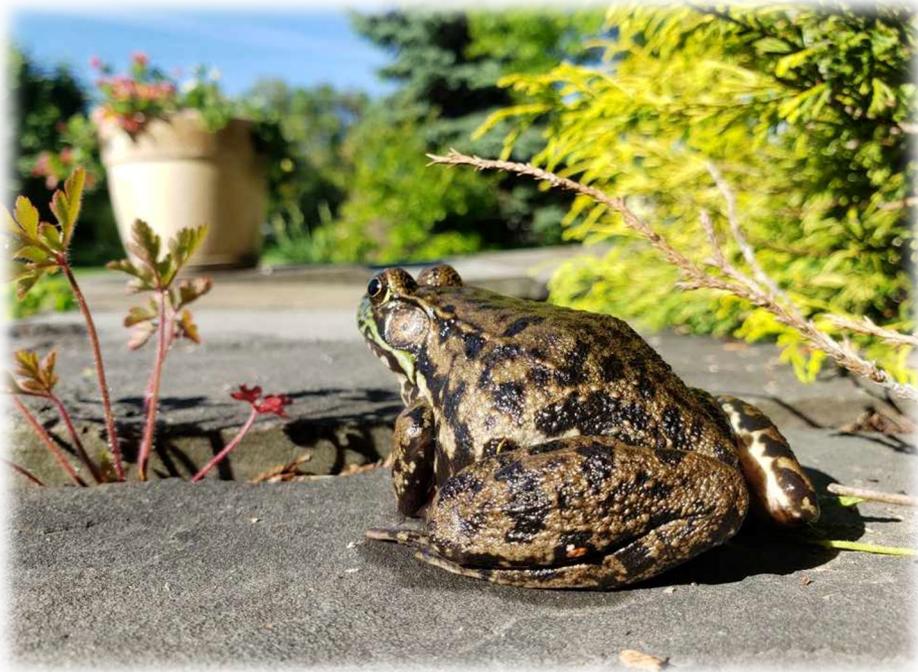
Robert H. Treman State Park

to landscapes.



Providing Perspective

From sidewalks



Navarino, NY



Lake Ontario

to beach walks.



Providing Perspective

From roadways



Hoffman Rd, Tully, NY



NYS Park at the Fair

to fair ways.



Wildlife is all around us.



Photos: T Hughes



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Why do wildlife matter?



Green Lakes State Park, Old Growth Forest
Photo: William Sullivan



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Ecosystem Services

There is a world of discovery at our lakefronts.



- Nutrient & energy recycling
- Maintaining species diversity and healthy populations
- Enhancing ecosystem resiliency

Photos: T Hughes

Ecosystem Services

Starting with the smallest species



- ❖ Contributing to primary production (e.g., pollinators)
- ❖ Food sources
- ❖ Indicators of ecosystem health (bioindicators)



Photos: T Hughes



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Ecosystem Services

To our larger charismatic species



- ❖ **Predators – creating balanced communities**
- ❖ **Often *keystone* species**
- ❖ **Intrinsic value**



Photo: Connor Jacobs



Ecosystem Services

To us



- ❖ Recreation (e.g., wildlife viewing, nature therapy)
- ❖ Top of the food chain
- ❖ Complex human-wildlife interactions
- ❖ We are the Managers and the Stewards.

Photo: OPRHP

Photos: T Hughes



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Importance of Habitat & Connectivity



How can we provide quality habitat for wildlife?

Canadarago Boat Launch, Richfield Springs, NY
Photo: OPRHP



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Habitat Connectivity

Protecting streams, wetlands, and shorelines



Selkirk Shores, Grindstone Marsh



Oquaga Creek State Park



Glimmerglass State Park, Shadow Brook

- ❖ **Maintaining wildlife corridors & establishing buffer zones**
- ❖ **Thoughtful wildlife management, as needed – e.g., beavers, Canada geese**
- ❖ **Preventing erosion - naturalizing shorelines with native plant materials**
- ❖ **Creating greater access opportunities, while minimizing impacts**

Photos: OPRHP



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Conservation Projects - Native Biodiversity



Chittenango Ovate Amber Snail, Chittenango Falls State Park

Photo: OPRHP



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Native Biodiversity

Conservation for the Chittenango ovate amber snail (COAS)



- ❖ Restricting access to sensitive habitats – the spray zone
- ❖ Monitoring water quality for potential upstream impacts – e.g., herbicide treatments in Cazenovia Lake
- ❖ Understanding climatic changes – e.g., increasing water temperatures and high precipitation flooding events
- ❖ Engaging community and youth with education & signage

Photos: OPRHP



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Native Biodiversity

Protecting eastern hemlock forests and watersheds from HWA



Photo: Becky Sibner



Photo: Mike Serviss



OPRHP biocontrol – silver fly release with NYS Hemlock Initiative at Mexico Point State Park.

- ❖ Loss of hemlock trees could have devastating effects on forest health, tributaries, and water quality in lakes.
- ❖ Loss of hemlock canopy creates increased sediment due to erosion and warmer stream temperatures impacting survival of trout and other fish and macroinvertebrates.
- ❖ HWA continues to spread northward in NY to Adirondacks.

Photos: OPRHP



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Community Education Programs



FORCES



Project WHIRL



Project WET NETS



NY State Office of Parks, Recreation, and Historic Preservation Friends of Recreation, Conservation & Environmental Stewardship (FORCES) Program



Reynolds Game Farm, NYS DEC
Photo: OPRHP



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FORCES

Friends of Recreation, Conservation
and Environmental Stewardship

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



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FORCES

Collegiate and high school Stewards for wildlife conservation



Monitoring for endangered piping plovers



Conducting water quality assessment in watersheds



Assisting with installation of beaver exclusion devices



Surveying for COAS



Performing annual salamander coverboard surveys



Projects WHIRL and WET NETS

Summer experiential learning programs for high school students



Photos: OPRHP



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Project WHIRL

Protectors of Water and Habitat on the Indian River Lakes



Partnership program initiated in 2019 –

“to bring together environmentalists of different ages and experiences to learn from one another and to grow a community of people principled around protecting water quality, especially within the Indian River Lakes Watershed.”



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Project WHIRL

Protectors of Water and Habitat on the Indian River Lakes



- **Watershed Exploration**
- **Stream Water Quality**
- **Lake Ecology**
- **Learn to Fish**
- **Invasive Species**

Photos: OPRHP



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Project WET NETS

Watersheds Engaging and Teaching Nottingham's Environment & Technology Students



- Established in 2024
- 10 days over three weeks
- 6 Parks & Historic Sites
- Visit to SUNY ESF campus
- Exploring watersheds
- Terrestrial ecology
- Aquatic ecology



Photos: OPRHP



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Project WET NETS

Watersheds Engaging and Teaching Nottingham's Environment & Technology Students



Department of
Environmental
Conservation



Photos: OPRHP



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Community Awareness Days



Photos: OPRHP



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How can we be better Stewards for wildlife?



Photo: OPRHP



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Stewardship



- Be strategic and creative for caretaking wildlife & habitats.
- Use native plant materials for enhancing or restoring vegetation.
- Identify non-native, invasive, and nuisance species and act as needed.
- Consult with NY PRISMs – Partnerships for Regional Invasive Species Management.

Photos: OPRHP



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Stewardship

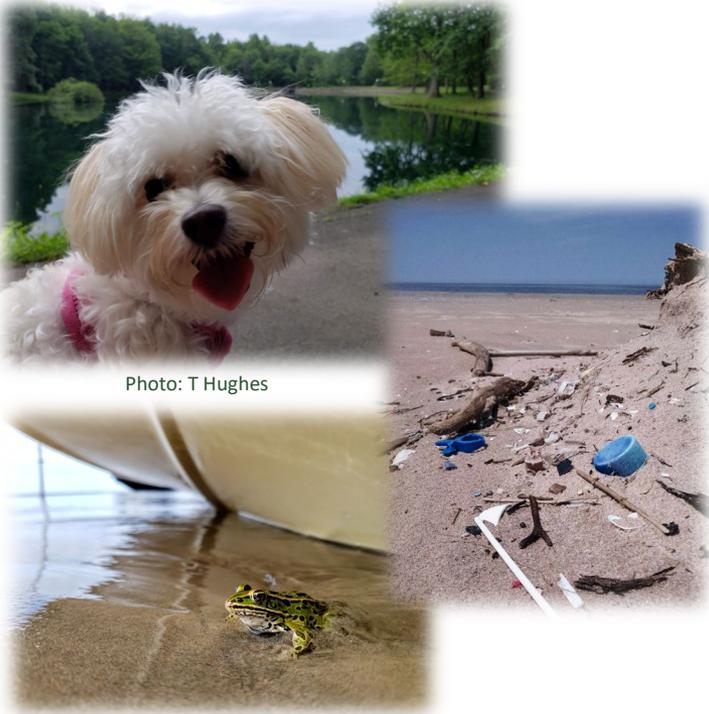
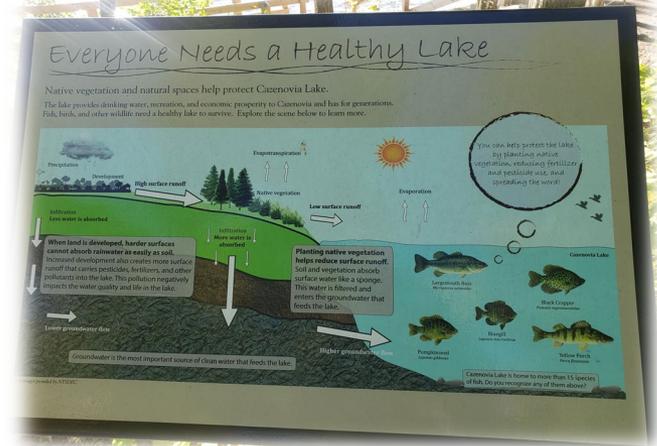


Photo: T Hughes



- **Preserve and protect natural environments.**
 - Be observant.
 - Recognize how, when, and where we put wildlife at risk.
 - Be responsible with pets.
 - Take out the garbage - any sized trash is “bad” trash.
- **Education ...education...education!!!**



Photos: OPRHP



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Your thoughts are welcome here

Photo: T Hughes



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Questions?

Contact...

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Friends of Recreation, Conservation and Environmental Stewardship @nystateparks
🔗 www.linkedin.com/groups/8... and 1 more

Professional dashboard
New tools are now available.

Edit profile Share profile

 Now Hiring!
 Get outside!
 (un)Wanted!
 Our stewards
 What is FC



NYS OPRHP – Environmental Field Office
Lorenzo State Historic Site
17 Rippleton Road, Cazenovia, NY 13035



FORCES NYS Parks, Recreation, and Historic Preservation



FORCES Roots Alumni Network

47 members

The **FORCES Roots Network** mission is multifold: preserve the legacy and connections of FORCES Alumni; connect past,...



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