Rice Creek Associates Newsletter

Spring 2017

Science at Rice Creek:

Rice Creek: The Inception of my Ecological Career

My passion for science and desire to study the natural world started at a very young age. Science was always my favorite class throughout grade school. I started my time at SUNY Oswego with a plan to study zoology. One of the most valuable assets that Oswego had to offer, which I did not fully realize or appreciate at first, was having access to wetlands at the Rice Creek Field Station (RCFS) and adjacent Fallbrook property.

When I started at SUNY Oswego, I was drawn to the beauty and possibilities available at Rice Creek Field Station. I would go there just to walk around, find a quiet place to study, or just to relax and listen to the birds. I started to realize how much the field station was utilized for research after assisting with some fieldwork for my work study job. Once I started taking more specialized zoology classes, RCFS started to become more important for me personally. As my ecological interests developed, I started to view RCFS as more of a resource in addition to being a place of retreat.

As a senior, I took a capstone independent research class (BIO 492 Field Ecology Research) with **Dr. Eric Hellquist**. Our group conducted a study on the competitive ability of purple loosestrife (*Lythrum salicaria*) and hybrid cattail (*Typha* x *glauca*), using one of Rice Creek's marshes as our study site. My partner and I continued this research as an independent study the following year, trying to take a closer look at the bacterial communities living in the root systems and substrate of purple loosestrife and hybrid cattail. Our independent research project was funded through the Rice Creek Small Grants program. In October 2011, we presented our research as a poster at the fall meeting of the Rochester (NY) Academy of Science. This was my first scientific conference and it really opened my eyes to the possibilities of science beyond Oswego. It was at this meeting that I met my eventual graduate advisor, **Dr. Christy Tyler**, a wetland ecologist at the Rochester Institute of

Technology. The experience of conducting an ecological study, writing a grant that was supported by the Rice Creek Associates, and conducting laboratory analyses inspired me to continue studying wetland ecosystems with a focus on invasive species ecology.

When I started working on my Master's Degree with **Dr. Tyler** at the Rochester Institute of Technology, one of my first instincts when I began my Master's research was that I wanted to continue to use RCFS as one of my study sites. Using RCFS for my research was extremely beneficial because of its accessibility for research and because of its management history. In addition, the field station is home to a diversity of wetland plants (invasive and noninvasive). One thing I figured out very quickly during the course of my research was that sometimes the biggest initial obstacle to research was figuring out where to find wetlands which were ecologically diverse and accessible for study purposes. Knowing that Rice Creek was available made the planning of my project straightforward.

Briefly, the focus of my Master's research was 1) to see if there was a difference between the foliar phenolic content (FPC) of noninvasive and invasive emergent wetland plant species, 2) to evaluate how environmental conditions influenced FPC, and 3) to experimentally compare FPC responsiveness to environmental cues between congeneric species (*Typha latifolia* and *T. angustifolia*). We surveyed 19 plant species from ten sites in New York State and examined the effects of soil nitrogen, soil phosphorus, herbivory, neighboring plant cover, and sampling date on FPC. In addition, we investigated the effects of nitrogen addition and herbivory on the FPC of *T. latifolia* and *T. angustifolia*. Overall, we found no consistent difference between noninvasive and invasive FPC. Noninvasive species' FPC was not predictably influenced by the environmental factors examined; however, invasive species' FPC was greatly variable between sites. A combination of sampling date, soil nutrients, and herbivory was an important predictor of FPC for most of the invasive species examined. We did not find any significant effects of nutrient addition or herbivory during the field experiment for the *Typha* species. Our research, recently published in Aquatic Botany, is now available to the scientific community as a foundation for future manipulative studies.

Currently, I work as an Environmental Scientist for GHD, Inc.; the majority of my responsibilities include conducting wetland investigations for various infrastructure projects (replacement/construction of water/sewer lines, well stations, commercial developments, etc.) and preparing permit applications for submission to local, state, and federal agencies such as the Pennsylvania/New Jersey Department of Environmental Protection, New York State Department of Environmental Conservation, Army Corps of Engineers, and various County Conservation Districts.

The Rice Creek Field Station and the Rice Creek Associates have, in no small part, made an incredible impact on my development as a student, scientist, as well as on my career as an Environmental Scientist. As I continue on and pursue my PhD in the near future, I hope to again incorporate RCFS into my research. The faculty and students of SUNY Oswego are so fortunate to have Rice Creek at their disposal for classes and research.

As I look back at my time at SUNY Oswego, I hope that faculty will please continue to incorporate Rice Creek into their classes in any capacity. The value of having class outside, and seeing ecology in the field can really capture an aspiring scientist's attention. The value of these experiences cannot be emphasized enough.
I would also encourage any students to consider research as part of their undergraduate studies at SUNY Oswego. Ask around to different professors and learn about their diverse projects.

If you want to pursue a research project of your own, find a professor that shares your interests and apply for a grant through the Rice Creek Small Grants program to support your endeavors. Take advantage of everything at your disposal, and don't hesitate to explore unfamiliar territory, you never know what may pique your interests. Were it not for my studying wetlands during my senior research course, I would have never figured out that I have a deep interest in the ecology of wetland invasive species. My time working and learning at Rice Creek began what I believe will be a fulfilling career as a wetland ecologist.

Melissa Harrison
Environmental Science MS
Rochester Institute of Technology '14

The Environmental History of Lake Ontario: A Rice Creek Reflection Presentation

In front of an audience of 38, **Susan Gately** gave a presentation titled "The Environmental History of Lake Ontario" on January 14.

Although primarily concentrating on Lake Ontario with the energy-water connection most illustrative in Oswego, Susan's discussion included the Great Lakes water system from Lake Erie to the St. Lawrence Seaway to create greater perspective of this great natural resource. Some of the highlights in her presentation included:

- Buffalo's position once as the top grain milling location in the world and location of the first hydroelectric plant in 1875
- Industrial pollution and nuclear waste's effect on Lake Ontario
- 16 commercial reactors operating on Lake Ontario
- St. Lawrence Seaway and the American Eel, including the power dam's effect on its migration
- Effects of zebra mussels on lake ecology
- Fracking
- Renewable energy- wind and solar
- Cattail biomass as superior to corn's for heating
- Resiliency of nature

Susan was available afterward for questions and the sale of her publications on Lake Ontario.

Susan Gately

Nature and environmental book sale held at Rice Creek Field Station

River's end bookstore shared a selection of books ranging from astronomy, bees, Appalachian Trail, trees, and camping to bird sounds and hermits in the woods on March 4. Many displayed were specifically for children. **Bill Reilly** and his son **Emile** took turns describing some of the books in a way that made one feel like purchasing them all. This presentation marks about the 4th time through the years that ***river's end*** has been invited to share recent selections covering all and any aspects of nature.

Jack-in-the-pulpit

Save the dates! Upcoming celebration and Reflection speakers at Rice Creek

Rice Creek Associates has scheduled the following events for this spring:

April 15. "Earth Day: Awareness, Education and Celebration"

1:00 - 2:15
Susan Gately, Lake Ontario Video, Q & A

12:30 – 3:30
Andrew McElwain, viewing organisms of Rice Pond/Creek through microscopes

Children's activities and treats

Music provided by **Denise Knight** and **Dick Drake**

Saturday, May 13, 1 p.m. "Birds of Rice Creek"

This "talk and walk" will be lead by SUNY Oswego Visiting Assistant Professor **Dr. Michael Schummer**. He will speak on the natural history of Rice Creek Field Station and how the area meets the migration and nesting needs of birds.

TBD. "Walking the Appalachian Trail"

Emile and Megan Christmann discuss their five and one-half month hike along the Appalachian Trail. This will include the equipment they used as well as stories of their encounters and experiences along the way.

2017

SUNY Oswego's Rice Creek Field Station

Since program size is limited, we are not able to accommodate groups to these family friendly free Saturday programs. An adult needs to accompany children under age 17.

Rice Creek Rambles

Saturdays 11:00 am

April 1, 8 & 22 May 13 & 20 June 3, 10, 17 & 24

Spring is in the air. Join us for these family friendly free naturalist-led walks at Rice Creek. Come dressed for the weather. Those planning to attend are asked to call 315-312-6677 on the morning of the hike to check trail conditions. Since program size is limited, we are not able to accommodate groups. An adult needs to accompany children.

Story Hour Saturdays 11:00 am

April 29

As the seasons change it is time to gather 'round the warmth of a good story. Join us as we share tales of nature, animals' wild ways, and how we relate to our world around us. Since program size is limited, we are not able to accommodate groups. These programs are designed for elementary aged children though all are welcome. An adult must accompany children.

Registrations are now being accepted for *Exploring Nature* summer program for children. For information and forms visit www.oswego.edu/exploringnature. Registration deadline is June 5.

Celebrate Alumni Reunion Weekend 2017

Rice Creek welcomes Alumni, family and friends to Reunion Weekend 2017. Check the Reunion Weekend schedule for Rice Creek information or stop by between **9 and 4:30 on June 9 and 9 and 3 on June 10**.

- The building hours are:
  Monday to Friday 9:00 am to 4:30 pm
  and most Saturdays 9:00 am to 3:00 pm
  Closed Saturday May 27 and Monday May 29
- FREE programs most Saturdays
- Trails are open during daylight hours.
- Parking is available by the main building and near the gate.

Programs administered by Dr. Diann C Jackson

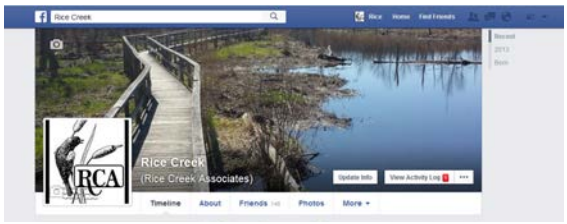
OSWEGO
STATE UNIVERSITY OF NEW YORK

www.oswego.edu/rice-creek 315-312-6677

Rice Creek
FIELD STATION

Rice Creek Associates (RCA) is on Facebook

To connect with RCA on Facebook, sign up for Facebook by visiting www.facebook.com/ or sign in using your existing account. When linking to RCA as an added friend, search for Rice Creek like you would search for a new friend. You will know you have the right link to add RCA when you see this RCA logo as a profile picture along with the Green Trail's boardwalk as its cover page, like so:



Memorable moments at Rice Creek

Please share with us a special experience you've had at Rice Creek. It will appear in a future newsletter. Send it to **Mike** at fordlep@yahoo.com.

Help us improve our newsletter!

There are many things that you as members can do to assist us in improving the quality of our newsletter.

- **Share** your experiences of Rice Creek with us.
- **Write** a short review on a nature book that you enjoyed.
- **Send** a digital picture you took at Rice Creek that you think we may enjoy.
- **Suggest** ideas that we may include, or programs that you would like to see offered to our members and public.

Send these and any other ideas to **Mike Holy** at fordlep@yahoo.com, or call him at 315-622-1774. We look forward to providing information that would inform and entertain our members. Additionally, when responding to any of our specific articles, please contact **Mike** at the above email or phone.

Current RCA board members

Robert Foster, President
Peter Rosenbaum, Vice President
Don Artz, Secretary/Treasurer
Michael Schummer, Small Grants Chair
Paulia Bates
Alan Harris
Michael Holy
Pat Jones
Dick Kaulfuss
Andrew Mcelwain
Sheri Morey

Rice Creek Field Station Staff

Kamal Mohamed, Director
Diann Jackson, Assistant Director
Wendy Fragale, Secretary
Alan Harris, Groundskeeper

Rice Creek Field Station

Rice Creek Field Station is a part of the State University of New York at Oswego. While its primary function is to provide facilities for field-oriented research and courses in the natural sciences taught at the college, facilities are also available for public education and recreation.

The field station houses superb collections, field equipment, and laboratories. It is surrounded by several hundred acres of forest, fields, trails and wetlands, including Rice Pond. School children visit the field station and many individuals and groups use the area for hiking and cross-country skiing.

Rice Creek welcomes dogs. However, to protect sensitive natural features and as a courtesy to other visitors, dogs should be on a six foot leash. Also, please be kind and clean up after your pet. Thank you.

Directions: To get to Rice Creek Field Station take Route 104, turn south on Thompson Rd., located 100 yards west of the College's main entrance. The field station is 1.4 miles on the right.
Hours:
Monday to Friday 9:00 am -- 4:30 pm
Saturday 9:00 am -- 3:00 pm
Trails are open dawn to dusk daily.
When visiting Rice Creek, please sign in and out at one of the brown registration boxes.

Rice Creek Associates

(RCA) is a support group that was formed in 1986 for the purpose of furthering the goals of Rice Creek Field Station (RCFS). It is the intent of RCA to expand the scientific, educational, and recreational opportunities at the station through community involvement. Over the years, RCA has continued to increase its membership making it possible to fund improvement projects that benefit the station and the community at large.

Friendly reminder

If you have not yet renewed your membership for 2017, please do so as soon as possible. Not sure if you are up-to-date? Contact **Mike Holy** at fordlep@yahoo.com or call him at 315-622-1774.

Join Rice Creek Associates

Name _____

Address_____

City_____

State _____ Zip _____

Email _____

Phone _____

____ New Membership (Calendar year)
____ Membership renewal
Level:

___ Student	5.00
___ Individual	10.00
___ Family/Couple	15.00
___ Contributing	25.00
___ Sustaining	50.00
___ Life	250.00
___ Corporate	500.00

I/We would like to make a tax-deductible contribution to the
___ General Fund
___ Trail improvement
___ Exploring Nature Program for Children
in the amount of $ _____.

Total enclosed (membership + contribution)
$ _____. Date _____

Please make checks payable to:
Oswego College Foundation/RCA
Return to:
Rice Creek Field Station #23
SUNY Oswego
Oswego, New York 13126

Rice Creek Associates
RCFS #23
SUNY Oswego
Oswego, NY 13126

TO: