



Rice Creek Associates Newsletter

Summer 2018

From the Director

President's message

Greetings fellow Rice Creek Associate members:

I hope you love our **color** newsletter as much as I do. Our **Michael Holy** works very hard getting out a quality quarterly product.

On July 7 at 2:00 Jeff Devine will be back to do more wilderness training. For those who love walks in the woods (or our well-marked trails here at Rice Creek) Jeff will have some wonderful tips to make your walk more enjoyable. And, a free survival kit will be given to 25 lucky attendants!

At the end of July Mars will be extremely visible in the night sky (Mars Opposition). We are planning an event here at the field station utilizing the college telescope! It will be in the evening and refreshments will be served. We will have two presenters, Ron Chaldou and Prof. John Zielinski. It will be 28 years before Mars is this visible again.

Rice Creek Associates awarded almost \$9,500 in research grants this past April. I hope you'll be able to attend our fall social where the grant winners present their research.

As you can see Rice Creek Associates has been having a very busy year. Please, these events do cost money. If you aren't up to date with your membership please do so now. And if you're able to make a donation we promise it will go to good use. All board members at Rice Creek are unpaid volunteers so 100% of your contribution goes to good use.

I look forward to seeing you at our Wilderness, Mars Opposition, and social events this year!

Robert B Foster

Board President, RCA

Rice Creek Environmental Education Programs

Rice Creek, in partnership with the Physics Department offers occasional astronomy programs. These programs are free and open to the public.

Experts will be on hand to guide you through a star watch, eclipse or special celestial event using the Rice Creek observatory telescope.

Come dressed for the weather. Bring a blanket or chair and your curiosity about the wonders of the cosmos.

Please follow parking instructions provided on site and requests for flashlights off.
Bathrooms will be available.

Mars Viewing Party

**Tuesday July 24 through Tuesday July 31
Nightly from 10:00 pm until 2:00 am**

Mars and Earth both orbit the sun, but at different distances, and thus, different speeds. Every two years or so, Mars, Earth and the sun form a straight line during the course of their orbits, with Earth in the middle — an event known as opposition. When Mars reaches opposition with the sun, observers on Earth will have their closest view of the planet since 2003.

source: <https://www.space.com/40588-mars-at-opposition.html> . Rice Creek Field Station will hold this viewing party, which will be conducted by Ron Chaldou and John Zielinski, both from the astronomy department as SUNY Oswego.

Rice Creek Field Station offers and hosts opportunities for children, adults and families to interact with and learn about nature. From Nature Education Programs for all ages to educating youngsters through the Exploring Nature summer programs, Rice Creek brings plenty of life to our campus and community. Upcoming events are listed at www.oswego.edu/rice-creek or call 315-312-6677.

Join us most Saturdays for naturalist led walks through the woods, fields and along the wetlands during **Rice Creek Rambles**. An adult must accompany children under 17 to these family friendly free programs.

Information about this year's **Exploring Nature** summer program for children can be found at www.oswego.edu/exploringnature.

The building hours are **Monday to Friday 9:00 am to 4:30 pm and Saturday 9:00 am to 3:00 pm**. Trails are open during daylight hours.

Before and after visiting the grounds, gardens and trails take precautions against Lyme Disease.

Information about Lyme Disease can be found at <https://www.oswego.edu/rice-creek/sites/www.oswego.edu.rice-creek/files/lymediseasebrochure.pdf> .

Come see what's changing with the season.

Book review

Some further comments: Inheritors of the Earth- How Nature is Thriving in an Age of Extinction

By Chris D. Thomas

In the Spring 2018 issue of our newsletter. I reviewed this book. It precipitated some response by a few members. I share with you one response in particular in the interest of an alternate perspective on the subject, including my reply. I suggest that anyone interested read both the book and the respondent's (whose name I decided to keep anonymous) reference to ensure a fair and objective perspective.

“My take is that the earth is not thriving very well in this "age of extinction" - instead I am afraid we are heading for even more extinctions. I strongly disagree with the idea that we should accept that whatever we do on this planet is natural. Maybe so, but! - when we allow invasive alien plants to take over from natives (e.g., wildflowers, shrubs) we make the environment hostile to the native animals - mammals, birds, and insects (if not other critters) mostly do not eat the alien plants - e.g., garlic mustard, Bishops weed to name a couple with which I have had experience. Birds do apparently eat berries of non-native shrubs - but from what I've been reading, non-natives are nutritionally not the same as natives - with which our birds have evolved and on which they rely. Birds also rely heavily on caterpillars to feed their nestlings, and most insects only lay

eggs on specific native plants - hence if we allow non-natives to take over, crowding out our native plants, we deprive our birds of food for their young...as well as butterflies and other animals I think we really ought to be making a big effort to get rid of as many invasive aliens as we can. (ref.: Tallamy, Douglas w. 2009. Bringing nature home: How you can sustain wildlife with native plants. expanded edition. Timber Press, Inc., Portland, Oregon)”

My response: In many respects, I think we agree more than disagree about our natural world. There are many changes I have observed, especially at Rice Creek, which sadden me. What the author was trying to relay I believe was to put the dynamics of species movement in a global perspective. He was not against local efforts to eradicate invasive species to the extent that they could be accomplished. At the same time, he noted that worldwide efforts to prevent species movement is impractical in terms of cost, manpower, human interest at various levels, and political will, more in terms of stopping a rolling locomotive with one's bare hands.

I do wish he had addressed extinction in the tropics, which at this time is a major concern of many. He did respond to concerns such as yours, stating that locally affected species will either successfully compete where they presently inhabit, move to more suitable environments to the extent possible, or (unfortunately) become extinct.

In our own yards and properties we can certainly eradicate these newcomers. For species that are enormously successful through larger territories, not so much. It comes down to the factors noted in the first major paragraph above. Is it morally responsible to spend money fighting an organism that will ultimately win the war when those funds might be better utilized in any number of worthy causes (rhetorical question)?

In any event, I read the book, wrote a review, and expressed some personal thoughts. That it elicited your response shows your interest and commitment to the preservation of our natural planet.

Lastly, his perspective regarding ourselves is that we are a part of nature. We have changed the planet more so than any other organism has. That is our way, and being another organism among all the others, that is how we live, just as all other organisms interact with their surroundings. In that sense, he is looking at the large picture to say this is how humans interact with nature. We can debate the good and the bad that our species has done, but as an inhabitant, that has been our way. As also a steward of this planet, our ultimate responsibility is to ensure that balance is preserved. That task is awesome indeed.

Climate change and organism movement in prehistoric times was also addressed in fairly good detail. His linkings of those with man's interference are aspects of the book that I could have done better at explaining, in retrospect.

- Mike

Rice Creek Reflections

Save the date!

On July 7 at 2 p.m., naturalist **Jeff DeVine** will do a Reflection on titled **Survival 101**. This will consist of an indoor presentation followed by a trip down a trail of the field station. Some limited survival aids will be distributed to random participants in this program to keep.

Peeps in Pools – Sat., April 14, 2018

Our latest reflection on April 14th, “Peeps in Pools,” was given by naturalist Pat Carney,

associated with Cornell Cooperative Extension of Oswego County, Oswego County 4-H program.

The peeps' (salamanders and frogs) life cycles are based on vernal pools. **Vernal pools**, also called **vernal** ponds or ephemeral **pools**, are temporary **pools** of water that provide habitat for distinctive plants and animals.



Pat Carney illustrates a Spotted Salamander for the audience

Pat told us you can find them where there is a place that will collect and keep water [usually less than 3' deep] for several months. Here at Rice Creek we have confirmed 4 and our grounds keeper, **Alan Harris**, believes we may have as many as 10

Some Factors that influence the pool size are soil, snow, temperature, open or closed canopy, and more.



Example of a vernal pond

Two amphibians that can be found in our area are Wood Frogs and Spotted Salamanders.

A Wood Frog's sound is similar to a raccoon's and females are larger than males. Their whole life cycle rests on vernal pools. They lay eggs early, and race from tadpoles to frogs quickly before the pools dry up.



The Spotted Salamander also depends on vernal pools to survive. With lengths up to 9" and life spans to 20 years, they have no claws or teeth and can regenerate their own tail. They are completely harmless. A group of salamanders is called a congress and spend the day in underground boroughs. They fertilize eggs externally. They have no vocal cords to call each other but they attract by odor. And if you get the chance to observe they do a wonderful underwater ballet!

Pat told us about a salamander that must have been brought into a family's basement clinging to fire wood. That salamander managed to survive there for 6-years. The family knew it was there but only when it became more brazen and wanted to climb the stairs, did Pat get the call to remove the "dangerous aggressive" salamander!



We also learned about Fairy Shrimp that don't have to migrate to the vernal pool. They are always there. Fairy shrimp eggs must go through a dry cycle to be able to hatch in the next year season and are about ½" to 1-1/2" in size.

Pat told us she goes out the day after the Easter migration takes place. At night hundreds and perhaps thousands of frogs and salamanders travel on their way to vernal pools. Bring your flashlight and enjoy the show.



Pat performs a demonstration.

For further information please see our Spring 2018 Rice Creek Associates Newsletter and read a wonderful detailed article by our own Prof. Peter Rosenbaum.

Submitted by **Robert Foster**

Interspecies rendezvous

Areas like the grounds of the Rice Creek Field Station are filled with the wonders of nature. One can visit an area over the years and become familiar with the changes and patterns of a given season. This brings about a certain degree of expectation (the less enthusiastic may call it boredom) as one revisits during a particular season.

As often as I have experienced this, I am especially delighted when I come upon a situation that is out of the ordinary. Such an occurrence happened on August 28, 2015, as I was following transects for the butterfly survey.

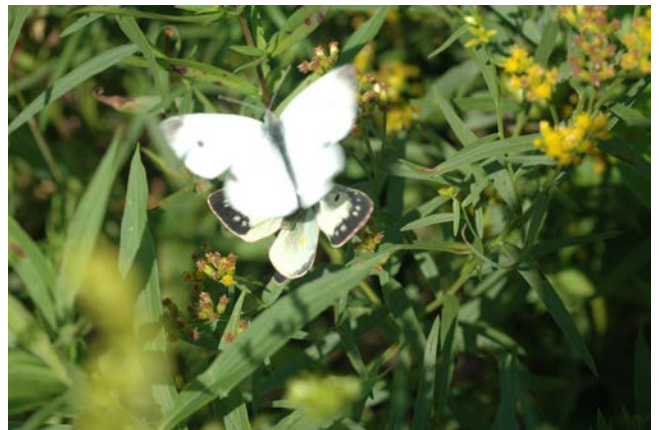
I have oftentimes encountered butterflies performing their mating rituals. Most of the time this provides me with opportunities to get some close photos that ordinarily would not happen (It is so great when butterflies are preoccupied with their procreative activities that they "allow" an observer a close approach!).

Without getting into lengthy detail, there are a number of factors involved with successful mating. Males are typically charged with finding a mate be it by perching at a suitable location in a field to examine all that goes by or by travelling to discover visual cues in a female's wings. A close encounter then ensues. Unreceptive females will flip their abdomens upward and flap their wings; receptive ones will keep abdomens level and wings at rest.

Visual cues and use of pheromones come into play. It is the female that ultimately decides

whether mating will take place, and these and other factors usually help her to decide.

Anyway, on this particular day, a male Cabbage White (*Pieris rapae*) decided to attempt a mating with an albino Sulphur (*Colias* sp.). Initially, these individuals encountered each other in the air. The female then decided to settle among the vegetation. As the series of photos show, the Cabbage White approaches the female, only to momentarily fly away and try another attempt. A close examination of the fifth photo will reveal that the female Sulphur clearly has extended her abdomen in an upright position, a clear sign of her rejection of the interspecific mate. The Cabbage White male continues to persist. A few more attempts were made before this male finally gave up and moved on.





Clouded Sulphur



Orange Sulphur

I am less intrigued by the encounter itself as I am by the reason(s) the attempt was made. If identification was made by wing pattern by this particular male (often in the ultraviolet range, which humans cannot detect), what went wrong here? These were relatively fresh individuals. Were their mate recognizing abilities not yet fully honed to determine that they were of different species? The visual evidence clearly shows that the female Sulphur ultimately regarded this male as unsuitable and acted accordingly. Why did the female settle in the field in the first place? While this normally would be the next step in any eventual mating, did she herself initially view the male as a potential mate, only to discover shortly later that this was not to be? Or was the rejection immediate, and by delving into the vegetation her way to avoid the mate?

As a matter of further discussion the two *Colias* Sulphurs inhabiting our region, the Clouded Sulphur (*Colias philodice*) and Orange Sulphur (*Colias eurytheme*) are closely related species that frequently hybridize. Both also have females that commonly appear as albinos, such as the individual in the photos above.

For both Sulphurs, pheromones and ultraviolet are factors in species recognition. Specifically, female Orange Sulphurs respond to ultraviolet reflectance and pheromones to select a mate. Clouded Sulphur females respond to pheromones only.

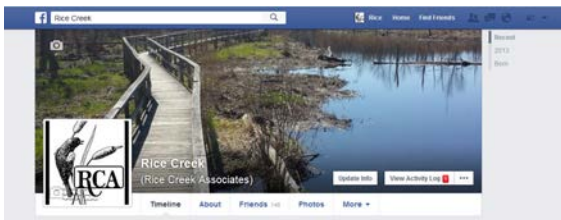
Research has indicated that newly hatched female Orange Sulphurs are more likely to hybridize with male Clouded Sulphurs than Yellow Sulphurs do with male Orange Sulphurs. It is theorized that young female Orange Sulphurs have not yet developed the perceptual ability to discriminate between the two male Sulphurs.

This is what I find so amazing about nature: a brief encounter followed by a number of interesting unanswered questions!

- Mike

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 a field station photo as its cover page, like so:



Membership renewal

Yearly membership renewals are now due every March. If you haven't already done so, a personal reminder has been included in this newsletter. Our Board of Directors thanks you for your support and looks forward to bringing you the best that Rice Creek has to offer.

We consider all member information confidential and will not share it with any other groups or businesses.

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.

Join/renew RCA membership

Name _____

Address _____

City _____

State _____ Zip _____

Email _____

Phone _____

All memberships are now Mar. 1 – Feb. 28

____ New Membership

____ 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

Current RCA Board Members

Robert Foster, President
Peter Rosenbaum, Vice President
Don Artz, Secretary/Treasurer
Alan Harris
Michael Holy
Pat Jones
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.



28August 2015

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.

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

TO: