

Autumn 2014

# HUYOCK PRESERVE



Myosotis Messenger

## LETTER FROM THE EXECUTIVE DIRECTOR

As I sit on the porch of the Eldridge Research Center waiting for the sixth out of the twelve classes to visit the Huyck Preserve this October for investigations in community ecology and biodiversity, the weather is not cooperating. Despite the beautiful fall backdrop over Lincoln Pond and the surprisingly warm weather, it is pouring rain. Like most field research around the world, however, science at the Preserve does not stop for rain. With increases in testing, we have so few dates available to share the wonders of hands-on field based ecology research with our local schools, that only the most extreme conditions will cancel these precious field trips. However, three years in, I know that only the chaperones will complain about the wet weather. Even in the most ardent down pour, the students display all of the passion of seasoned field researchers, enthusiastic about the data they are collecting, the findings they will make, and the opportunity to be outdoors. A handful will even regale me with their dreams of going into a career in the sciences whether it be medicine, field biology, or paleontology. I also know from the stacks of thank you letters that come into the office after these trips (rain or shine) that the students retain information on identifying deciduous and coniferous trees, the perils of oriental bittersweet invasions, and how to make an educated guess about a population's size using a transect.



So it seems surprising that this enthusiasm for science and research somehow wanes as these bright young students become adults. The U.S. Department of Education is even trying to institute a national strategy to get students (re)interested in science, technology, engineering, and mathematics (STEM) fields. Their efforts include funding for increased training of teachers; the establishment of partnerships to be created between K-12 schools and post-secondary institutions to encourage students to pursue and be prepared for post-secondary education in STEM subjects; and the development of models to make STEM teachers effective community leaders and advocates for STEM education. The Preserve itself is involved in such efforts, partnering with our local schools for field trips like the one mentioned above to give students opportunities in field-based research.

While these efforts are certainly in the right direction and will likely have significant impact on STEM education for the better, are they enough? A recent article in the Proceedings of the National Academy of Sciences suggests that scientist and researchers are perceived as highly competent but untrustworthy in part because they are cold and aloof, characteristics that impart the need for further scrutiny or even outright suspicion. Meanwhile the Congressional Committee on Science, Space, and Technology is investigating the National Science Foundation and some of the researchers it funds for "wasting tax payer dollars." With all of this scrutiny and misconceptions, why would children today want to head off for rigorous training in the sciences only to be ridiculed later for pursuing something that wasn't worthy or characterized as aloof without even the benefit of an introduction? Further, why would parents encourage their children to enter fields filled with such conflict? Perhaps, it is this area where the staff and researchers at the Huyck Preserve hope to make the biggest impact.

If you've ever come to a Thursday Lecture or to a researcher led guided hike, you have certainly noted that not all scientists are aloof and cold and the research they conduct is far from wasteful. This year's Senior Research Fellow, Dr. George Robinson, called each Thursday Lecture to start with a tin horn, a relic of the 19th century Anti-Rent Wars in the area. All present couldn't help but laugh and note the sparkle in his eye as he burst forth with a loud "Whoo-uh" each week. Dr. Robinson studied carbon allocation in conifer trees while in residence this summer. Those who wonder about the relevance of this topic may be surprised to learn that a non-destructive biosensor to measure carbon in living plant tissues may be the outcome of this research. Such a sensor would help answer questions regarding the ability of trees to adapt to longer growing seasons associated with climate warming.

Anyone who has ever been on a fern walk can tell you that Huyck Grant recipient, long-time fern researcher, and hilltown local featured in these pages, Weston Testo, while a hardcore "fern-nerd" has quite the sense of humor. He has worked tirelessly to catalog the fern species at the Preserve in the past and continues to research "cryptic" fern species, species that look the same but are not related, at the Preserve and around the nation so that we can have a better understanding of global biodiversity. Any one of the 4th graders coming through our fall program will tell you, high biodiversity is good because it means more stable food webs (aka ecological communities), but you can't say anything about biodiversity until you go out and count the number of species making up that community.

*(continued on next page)*

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(letter from ED cont.)

Christina McLaughlin, the Preserve's Conservation and Outreach Coordinator, and I would certainly be taken aback to be described as aloof or cold. Overly enthusiastic about insects (see Christina's article on page 6) and birds respectively, as biologists and educators we are both dedicated to bringing field-based science to the people and encourage you all to join us on any of our research endeavors whether they be phenology or avian population monitoring.

Of course the Preserve is not alone in helping to change perceptions about scientists and researchers. If you haven't already, be sure to check out the "Secret Life of Scientists and Engineers" on PBS to hear about the research of astronauts/dancers, neuro-scientists/rock stars, and biologists/roller derby referees real people, like the rest of us, who happen to also love science. - *Dawn O'Neal, Ph.D.*

<sup>1</sup>Fiske, S.T. and Dupree, C. 2014. Gaining trust as well as respect in communicating to motivated audiences about science topics. PNAS 111 (Supplement 4) 13593-13597;

[www.pnas.org/cgi/doi/10.1073/pnas.1317505111](http://www.pnas.org/cgi/doi/10.1073/pnas.1317505111)

<sup>2</sup><http://science.house.gov/>

<sup>3</sup><http://www.pbs.org/wgbh/nova/blogs/secretlife/video-profiles/>

## Announcement



This past spring, the Preserve said goodbye to one of our most important and loyal supporters, Dr. Ogden Carter. Due to his extraordinary generosity, the Lincoln Pond Dam restoration project was completed successfully, and his loyal support over decades contributed to our ongoing educational programs and essential improvements to our buildings and grounds. Dr. Carter came to know the Preserve through his daughter-in-law, Laura Carter, the longest-standing Board Member from 1981-2014 and Board President from 1996-2004. His daughter Ginny Carter, founder and ongoing director of the Com.En.Art program served on the Board from 1994-2002, and again from 2005-2008. His son, Geoffrey Carter has been serving on our Board since 2008. In addition, his granddaughter Sarah Carter was an intern at the Preserve in 2008.

Dr. Carter will be terribly missed; he truly was one of the Preserve's angels, helping us in the background, never wanting or expecting recognition. Through the ongoing work of Geoff, Ginny and Laura, his love of nature and dedication to the environment and the Huyck Preserve will be carried on.

## Autumn and Winter Events at Huyck Preserve



### January 3<sup>rd</sup>, 2015: Christmas Bird Count Visitor Center, 8am-1pm

Each year thousands of people participate in Christmas Bird Counts in December across the country – so here's your chance to join in one of the oldest holiday science traditions in the country!

This is the Huyck Preserve's fourth Christmas Bird Count and we need new birders to continue the tradition. To participate, meet at the Visitors Center at 8am to get started and divide into teams with data sheets and guidebooks. We'll then meet back at the Visitors center at 1pm for a warm lunch and to compile data. For the hardcore birders, don't worry – you can keep counting until 5pm if you'd like, but we only ask volunteer scientists to stay from 8-1pm. Live within the boundary of our CBC circle? You can stay at home and count the birds that come to your feeder – contact us by email to get a data reporting form and information and then email us your counts! To participate in this event, please email [outreach@huyckpreserve.org](mailto:outreach@huyckpreserve.org) or call our office at (518)797-3440 with your name and phone number.

### January 31<sup>st</sup>: Winter Festival

Eldridge Research Station, 1-4pm

Warm up the winter blues with one of our most popular festivals! People of all ages are welcome to this free event to enjoy winter recreation. Be sure to dress warmly and bring your favorite winter gear: ice skates, sleds, ice fishing gear and an appetite for fun!

### February 21<sup>st</sup>: New Moon Night Hike

Visitor Center, 7-8pm

This hike, open to the public, gives the special opportunity to enjoy the serenity of the Preserve beneath the vast darkness of the New Moon. A limited number of snowshoes are available, snow permitting. Dress warmly for this winter hike.

# MEETING THE MYSTERIOUS MOONWORTS OF THE HUYCK PRESERVE

Weston Testo, University of Vermont

During the past few years, I have spent several hundred hours in the swamps and woodlands of the Huyck Preserve, enjoying the company of the birds, streams, browsing deer, birdwatchers and dog walkers. Certainly, the Preserve offers what its visitors have come to cherish it for — be it wildflowers, views of the falls, or the ever-expanding educational programs. Yet, for me, a Ph.D. student researching the evolution of ferns and related plants, the Preserve's cliffs, forests, and swamps (the swampier, the better) are as much an office as a place to disconnect (or is it reconnect?) and relax. Being fortunate enough to spend my workdays afield, chance encounters with even the more introverted residents of the Preserve's fields and forests occur with some frequency — bobcats, bald eagles, and rare orchids have all crossed my path there in the past year. But the most thrilling encounter of my time at the Huyck Preserve was neither with a wild cat nor our national bird but instead with moonworts, a group of diminutive and, put simply, bizarre plants.

I first encountered the Huyck Preserve's moonworts three years ago, while hiking near Lake Myosotis in early September. I was searching for late-season wildflowers in the open woods just north of the lake when I spotted the bright red fruits of one of the Preserve's rarer plants propped up on a stout stem near the side of the trail. As I crouched down to snap a photo, I noticed another plant growing underneath my subject. Scraping away the litter of decaying sugar maple leaves, I uncovered a single full-grown plant of *Botrychium angustisegmentum*, the triangle-leaved moonwort. Even for a botanist, this plant is an odd sight — a three inch tall fern with a yellow-green, fleshy stem and a single highly divided leaf armed with a modified spore-bearing arm which looks like it belongs on the head of an anglerfish. The triangle-leaved moonwort shares this basic body plan with the other sixty-plus species in its lineage, and all of them seem more fitting for a mid-Jurassic landscape than a forty year-old stand of sugar maples and beech trees that I was in.

Upon finding the plant, I stretched out into the moonwort-hunter's stance — on my hands and knees, face low to the ground like a hound dog, scanning from side to side in search of more plants. Plant enthusiasts and researchers who have spent time searching for these diminutive ferns are likely familiar with this pose; perhaps others have witnessed these uncomfortable-looking plant devotees during walks in the woods. Though admittedly odd-looking, this ground-level search method is the go-to for good reason — when you spot one moonwort, more are almost certainly nearby, but may be too small to spot from five or six feet up. Such was certainly the case on that late summer morning: after a few minutes of searching carefully, more than fifty plants appeared, each seeming to pop up from the leaf litter. Most were the same triangle-leaved moonwort as the first, but two other species were there, too: several plants of the slightly larger daisy-leaved moonwort (*Botrychium matricariifolium*) hid in the shade of a nearby crumbled rock wall, and a few specimens of the even-smaller and rarer least moonwort (*Botrychium simplex*) scattered amongst the rest. Though an unexpected surprise for me on that late summer

morning, it is not uncommon to find several species of these closely related ferns growing alongside each other, as moonworts often form “genus communities” comprised of multiple species with similar habitat preferences. This is thought to be due in part to their reliance of specific fungal symbionts which play a critical role in their nutrition — since the different moonwort species share the same fungal partners, the plants tend to show up in the same spots. Keep this in mind if you are lucky enough to stumble upon one of these peculiar plants growing in the woods or an overgrown field; a moment looking around will likely reward you with many more.

Making sure not to squash any moonworts underfoot, I took some photos and admired the plants for a while, trying to keep count of them as I slowly crept around the population's edge. In all, there were fifty-seven plants —not a bad find — though I managed to forget about the wildflowers and my camera's lens cover in the process (they were both still there the next day when I went looking for them).

So, why hold this chance discovery of the Huyck Preserve's moonworts in such high regard? Certainly they are not spectacularly rare, and they lack flashy flowers or handsome foliage of many of the other plants which we enjoy in the fields and forests of the Northeast. They are not orchids, nor sunflowers, nor autumn maple trees. Even so, the moonworts seemingly never fail to enchant those who are lucky enough to find them peering out amongst the grasses and mosses with which they grow. Perhaps it is something about their peculiar, almost otherworldly form or their evident reclusiveness. Either way, they have garnered our attention for a long time. Medieval Europeans believed that moonworts could unlock doors and even wriggle loose the shoes of a horse which passed too close by. Shakespeare himself evoked the powers of *Botrychium* in his late-16th century work *Henry IV*, in which Gadshill, a blundering brigand and otherwise forgettable character, proclaims to his partners-in-crime, “we have the receipt of [moonwort] seed; we walk invisible.” Apparently the hapless thief forgot that ferns produce spores rather than seeds, but perhaps he was on to something with the invisibility scheme — you ought to find out for yourself.



*Botrychium lunaria* — one of the best-known species of moonworts. This species is present in New York but is most common in Europe. Note its fan-shaped leaf segments and its highly modified fertile frond.



# Summer 2014 Events at Huyck Preserve



This summer, Huyck Preserve hosted a total of 23 public events including a Visitor Center Open House, Bird Festival, Science Symposium, Thursday Night Lecture Series, Illustrating Nature Program, MAPS bird-banding program, and various guided hikes. Peruse images of these great programs below, and stay up to date about upcoming events on our website at [www.huyckpreserve.org](http://www.huyckpreserve.org)



*Above and left:* This year marked the first ever Visitor Center Open House to showcase some new features and merchandise, while also giving some hands-on opportunities in aquatic biology to visitors.



*Left:* Wes Testo doing what he does best leading guests on a fern-identification hike during the Visitor Center Open House.



*Above:* Illustrating Nature provides students the opportunity to practice their art using natural history.



*Below:* A chilly but well-attended Bird Festival was celebrated this year in April. Included in the festivities were nature photography, bird-themed face painting, and of course, demonstrations with live birds!



Huyck Grant recipient and researcher, Ashley Ozelski holds a Blackburnian Warbler during a MAPS bird-banding session.



The 32<sup>nd</sup> Annual Science Symposium took place July 26<sup>th</sup> and welcomed Dr. Clifford Siegfried. *Above left:* a Wildlife Ecology Research (WER) Student explains her research to a Huyck Preserve Board Member at the WER poster session following the Symposium.





# BUG OFF! EXPLORING INSECTS AT HUYCK PRESERVE

Christina McLaughlin, Conservation and Outreach Coordinator



Whenever I lead a guided hike, people of all ages inevitably want to find wildlife on the trails. Aside from the occasional amphibian, finding wildlife when leading a group is difficult – we're not walking quietly, adults and children alike talk and chat, and I have stop to share information myself. All this noise and activity scares away all but the bravest wildlife such as chickadees, blue jays, and chipmunks. But there is one group of creatures that are always around with just a little bit of observational effort, and yet often overlooked – insects!

Stop hiking for a moment and peer closely at tree bark or flower petals, and you're sure to find some sort of insect. Large colorful butterflies and the fast darting dragonflies may be easy to spot, but smaller brightly colored beetles, ants, caterpillars and more can be found if you just stop and look.

A lot of people pass by insects, which is a little sad to me as a biologist – insects play important roles in our ecosystems especially as prey for many vertebrates and as decomposers. There are an estimated 200 million insects for each human on the planet! Identifying insects can be hard even with guide books, but there are great resources online for insect identification if you can snap a picture, including [www.bugguide.net](http://www.bugguide.net) and [www.reddit.com/r/whatsthisbug](http://www.reddit.com/r/whatsthisbug). Identifying individual species can be hard without a microscope, but you can usually get the Family down with just visual identification. I've picked a few neat insects I found this year, in hopes that you might slow down and look closer at the smaller creatures around us, and find a new appreciation for our insect populations – from the brightly colored to the oddly shaped and

## Stonefly adult – Order *Plecoptera*, possibly Family *Perlidae*, the Common Stoneflies

Students often catch the tiger-striped black and gold stonefly nymphs in Ten Mile Creek and Lincoln Pond when conducting lessons in aquatic ecology and water quality, but the adults are not seen as often. The nymphs are predators in aquatic ecosystems and a sign of good water quality – that is they have low tolerances for pollutions. Nymphs then crawl from the water

for their last metamorphosis into adult forms in which they gain wings to fly in search of a mate, but they fly poorly and don't go far from water.



## Blister beetle, Family *Meloidae*

Blister beetles are so named for a compound called cantharidin they secrete when disturbed, which can cause blistering and rashes on the skin akin to poison ivy. These fairly large beetles can range in color from plain black to spotted, and at first glance may remind you of an ant with a really large plump abdomen – but don't pick them up!

This one found on the trail is probably an oil beetle in the genus *Meloe*. They are mostly predators, feeding on other insects, and lack strong wings.



## Green stink bug nymph - *Chinavia hilaris*

Nymphs are the intermediate, young form of many insects that have incomplete metamorphosis, which means they only have 3 phases (egg, nymph, and adult) compared to the 4 phases (eggs, larva, pupa, and adult) of complete metamorphosis found in insects such as butterflies. This green stinkbug nymph has bright yellow striping on its body along with some orange around its otherwise black head that make it very noticeable against the green leaves. The adult green stink bug is sometimes called a green soldier bug, uses its needle-like mouthparts to pierce a wide variety of plants and suck the sap. When disturbed, both nymphs and adults will release a foul smelling liquid from a gland on their underside that gives them their name – so these are best watched but not touched!

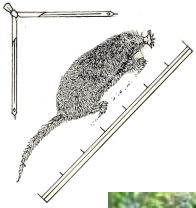


## Locust Borer Beetle – *Megacyllene robiniae*

This brightly colored yellow and black beetle is frequently seen on golden rod in late summer and early fall if you look closely. At a distance it can be confused with a hornet or bee of some sort, but closer inspection makes it clear it's a beetle. The adults feed



on flowers, with a preference for golden rod, and lay eggs in wounds on locust trees. The eggs then hatch and the larvae bore into the tree and feed on it until the next summer, when they reemerge and metamorphose into adults in late August and the cycle begins again.



## SUMMER 2015 EDUCATION AND RESEARCH OPPORTUNITIES



### Wildlife Ecology Research

This intensive 3-week residential course introduces rising junior and senior high school students to field ecology through hands-on research. This program aims to provide a significant academic experience that will help students prepare for courses and research experiences at the college level.

**2015 Program Dates:**

**Session I: July 5-26**

**Session II: August 2-23**

For more information on this program, visit our website: [www.huyckpreserve.com/WER](http://www.huyckpreserve.com/WER)



### Huyck Research Grants

Huyck Research Grants are awarded each year to regional, national, and international applicants that focus on natural systems of the Huyck Preserve. We support work in basic and applied ecology, conservation biology, taxonomy, animal behavior, evolution, earth sciences, land use history, and other areas of natural science.

*Applications are due by March 13<sup>th</sup>*

Find out more about this grant program as well as the online application by visiting:

[www.huyckpreserve.org/huyck-research-grants](http://www.huyckpreserve.org/huyck-research-grants)



### Odum Internship

This residential internship will be offered to four highly qualified undergraduate students interested in conducting ecological field research.

*Applications are due by Friday, March 13*

For application requirements and additional information about this opportunity, visit:

[www.huyckpreserve.org/odum-internship](http://www.huyckpreserve.org/odum-internship)



### Summer Research Fellowship

The Huyck Preserve and Biological Research Station is pleased to offer a summer research fellowship of \$10,000 plus residency (beginning in May and ending in August) and station fees for Ph.D. level researchers in any science discipline that can benefit from research station experience. Preference will be given to individuals and projects with the potential to develop into long-term research activities at the Preserve.

*Applications are due by February 6<sup>th</sup>*

Learn more about this position and how to apply by visiting our website:

[www.huyckpreserve.org/senior-research-](http://www.huyckpreserve.org/senior-research-)



# Summer 2014 Youth Education at Huyck Preserve

## WILDLIFE FAMILY HOUR



*Left:* This popular Tuesday morning program is run by the Preserve's own Wildlife Rehabilitator, Kelly Martin. Here, Kelly releases a Baltimore Oriole.



*Right:* While being led on nature walks, families and children learn about plant identification and native wildlife in a supportive, social setting.

## NATURE STUDY



Students have fun with catch-and-release to learn about insect identification.



*Above:* Nature Study students dip-net for amphibians and crayfish while learning about aquatic biology.

## SPRING SCHOOL FIELD TRIPS



This year, Huyck Preserve was able to welcome 5 local school districts to learn about aquatic and plant biology.



*Above:* Christina McLaughlin, Conservation and Outreach Coordinator, teaches students about invasive biology during their spring visit.





## NATURAL HISTORY DAY PROGRAM



*Above:* Insect pinning is part of the research Natural History Day Program students conduct as part of insect biology.



*Above:* Natural History Day Program students conduct water quality assessments as part of their hands-on research at the Huyck Preserve.



*Left and Right:* Students participate in the MAPS bird-banding session to learn about avian biology.



## WILDLIFE ECOLOGY RESEARCH

*Left:* Jessica Kobsa presents her research at the 32nd Annual Science Symposium poster session. Jessica studied the connections between roadside metal contamination and establishment and growth of garlic mustard. Read more about her research, as well as the other students, in the Huyck Preserve's Journal of Wildlife Ecology Research. ([www.huyckpreserve.org/WER](http://www.huyckpreserve.org/WER))



*Right:* Aiyang Wang looking scholarly as he notes his research on diet preferences of crayfish species at the Preserve.



*Above:* Wildlife Ecology Research students study macro-invertebrate ecology to determine water quality at Huyck Preserve.







## ASK THE BIOLOGIST

***I was Kayaking in the lake/hanging out at the Lake Myosotis Beach and came across this large gelatinous blob, can you shed some light on what this might be? –2014 Lake Myosotis Users***

We collected a sample, and with the help of Senior Research Fellow, Dr. George Robinson, and his trusty microscope, have identified this to be *bryozoan statoblasts*. Usually a marine species, one class, the Phylactolaemata, is found exclusively in fresh water. This specimen here is known as the magnificent bryozoan (*Pectinatella magnifica*), producing some of the largest colonies of the freshwater species.<sup>1</sup> These colonies are made up of microscopic invertebrates or zooids descending from a single animal as zooids are able to reproduce asexually and then sexually once colonies age and the number of individuals increases. In these colonies individuals are very resistant to extreme cold, heat, and drying making them ideal formations for overwintering.<sup>2</sup>



The magnificent bryozoan is native to freshwater systems east of the Mississippi, and can often be found in calm and shady water bodies.<sup>3</sup> As filter feeders, *P. magnifica* are often associated with good water quality in its native range. Outside of its range, this same filter feeding behavior can result in clearer waters which may promote increases in algae.<sup>4</sup>

***Every fall these beetle like bugs start congregating around doors and windows in my house eventually ending up inside. Everyone says that they are stink bugs but they don't look like the stink bugs I've seen in the past. What are they?***

While these bugs are in the same order as stink bugs (*Hemiptera*), are often pests of coniferous species like stink bugs and produce a funky smell when handled, they are not stink bugs. Belonging to the family Coreiidae, these bugs are either the southern pine seed bug (*Leptoglossus corculis*; also known as the leaf-footed pine seed bug) or the western conifer seed bug (*Leptoglossus occidentalis*). Similar in appearance, the two species are very difficult to tell apart. Furthermore, their habitat ranges overlap. With a closer look as well as some knowledge of their anatomy, the two species can be told apart by structures on their hind legs.

The southern pine seed bug is native to the eastern and

southeastern United States feeding in New York on white, pitch, shortleaf, and Virginia pines. In its native range, the western conifer seed bug is predominately found on douglas fir, scrub, lodgepole, knobcone, and ponderosa pines but it has been



expanding eastward and can be found on eastern hemlocks in the New York area. Strong fliers, the western conifer seed bug's eastern range expansion has mostly been attributed to dispersal following transcontinental shipping of its native tree species for landscaping.<sup>5</sup> The many bugs you see around your doors and windows as temperatures cool are a result of males releasing an aggregation pheromone as both species overwinter in large colonies. They likely congregate around your windows and doors as they are looking for entry into your warm house to set up for winter. Adults will become active again in the



spring feeding on the male flowers of host species. Females will then lay eggs on host needles with nymphs emerging to feed on cones and cone seeds throughout the summer.<sup>6</sup>

If you find you have a problem with seed bugs entering your

home, the best method of control seems to be shoring up loose screens, windows, doors, chimneys, and fireplaces against their entry.

<sup>1</sup>Wilcox, A.W. 1906. Locomotion in Young Colonies of *Pectinatella Magnifica*. Biological Bulletin. 11(5): 45-252

<sup>2</sup>Brooks, C. M. 1929. Notes on the Statoblasts and Polypids of *Pectinatella Magnifica*. Proceedings of the Academy of Natural Sciences of Philadelphia. 81: 427-441

<sup>3</sup>Davenport, C. B. 1899. Synopses of North-American Invertebrates. I. Fresh-Water Bryozoa. The American Naturalist, Vol. 33(391): 593-596

<sup>4</sup>Neck, R. and R. Fullington. 1983. New records of the freshwater ectoproct *Pectinatella magnifica* in eastern Texas. Texas J. Sci. 35:269-271.

<sup>5</sup>Mitchell, P.L. 2000. "Leaf-Footed Bugs (Coreiidae)." Heteroptera of Economic Importance. Carl W. Schaefer, C.W. and Panizzi, A.R. (eds). Boca Raton: CRC Press. 361-366.

<sup>6</sup>Coulson, R.N. and Witter, J.A. 1984. "Seed and Cone Insects". Forest Entomology: Ecology and Management. Hoboken: Wiley-Interscience. 495-497.





### 2014 Huyck Grant Recipients

Seth Bigelow, Ph.D., Independent Researcher  
*Applying ecological concepts to forest management*

Barbara Feldmeyer, Ph.D., Assistant Professor,  
University of Mainz  
*Contributions of Zoology: Effective age and behavior of  
caste differentiation of slave ant workers*

Andreas Modlmeire, Ph.D., University of Pittsburgh  
*State dependence of collective behaviors in temnothorax  
ants*

Ashley Ozelski, Ph.D. Candidate, CUNY, College of  
Staten Island  
*Affect of forest composition on lepidopteran biomass  
curves and the potential for climate change induced by  
phenological mismatches in migration*

Weston Testo, Ph.D. Candidate,  
University of Vermont  
*Resolving species boundaries and recognizing cryptic  
species in North American Asplenium trichomanes  
complex*

Radka Wildova, Ph.D., Post-Doctoral Associate,  
Cary Institute of Ecosystem Studies  
*Environmental and evolutionary aspects of viburnum  
leaf beetle invasion*

### 2014 Senior Research Fellow

George Robinson, Associate Professor of Biology,  
SUNY University at Albany

### 2014 Odum Interns

Skyler Gerrity, Misericordia University  
Alexandria Gutierrez, University of California  
Daves

Matthew Talbot, Boston University  
Naima Starkloff, Bennington College

### 2014 Com.En.Art Artist-in-Residence

Diana Marques  
Washington D.C.  
August 5-12



The 2014 Annual Benefit was a huge success! We are so grateful to all who came to this event, and a special thanks to the following individuals and organizations for their contributions:



Paul Baitsholts  
Marvin and Laura Bolotsky  
The Book House, Albany NY  
Josh Carlsen  
Virginia Carter  
Different Drummer's Kitchen, Albany NY  
Eastern Mountain Sports, Albany NY  
Jon Haines  
Heather Ridge Farm and Bee's Knee's Café  
Bente Hirsch  
Honest Weight Food Co-Op, Albany NY  
Crystal Keyes  
Barry Kuhar  
Bob Lynk  
Moe Pie  
Molly O'Neill  
Palmer House Café, Rensselaerville NY  
Dudley Reed  
Wendy Robinson, The Lady Gardener  
Richard Ronconni of Partridge Run Honey  
Melissa Rose  
Victor Schrager  
Susan Scrimshaw  
The Sewing Room, Greenville NY  
Deborah Trudell  
Sarah Nelson Weiss  
The Westerner, Greenville NY  
Ann Wolf  
Tyler Wren of the  
Rensselaerville Cycling Festival

C. McLaughlin

# HUYCK PRESERVE & BIOLOGICAL RESEARCH STATION

## 2014 Annual Fund Form

Annual Fund donations go to support  
programs and fulfill our mission - please  
consider donating today!



### Annual Fund Suggested Donation Levels

- ☐ \$ 50
- ☐ \$ 100
- ☐ \$ 250
- ☐ \$ 500
- ☐ \$ 1,000
- ☐ \$ 2,500
- ☐ Other \$ \_\_\_\_\_

Name \_\_\_\_\_

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How did you hear about Huyck Preserve? \_\_\_\_\_

Briefly explain your reason for donating: \_\_\_\_\_

Annual Fund Donation \$ \_\_\_\_\_

This gift is given in honor of/in memory of

\_\_\_\_\_

**Thank You!**

The Huyck Preserve is a registered 501(c)3 organization and all gifts are deductible to the extent provided by law.

*Connecting people to nature through conservation, research, education, and recreation*

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