

## Local Students Certify Vernal Ponds for The Trustees of Reservations

by Nick Taormina

Last spring two 7th graders at the Manchester Essex Regional Middle School certified two vernal pools as an extra credit project for their science class. Julia Camille and Kelly Finnerty worked together to locate ponds, document obligate species, and present their report to their peers. Julia's experience with vernal ponds has been fostered by over six years of involvement with the Cape Ann Vernal Pond Team.



Julia, left, with Kelly, right

Julia thought it might be fun to introduce her classmate Kelly to vernal pools and their inhabitants. She had volunteered at a CAVPT certification workshop sponsored by The Trustees of Reservations. There she learned of uncertified pools at Agassiz Rock. In their certification report, Julia and Kelly provided a description of the pools, their GPS coordinates, photographs of wood frog and spotted salamander egg masses, and the name of the property owner. They then submitted the form to the Natural Heritage and Endangered Species Program at the Massachusetts Division of Fisheries and Wildlife.

Along with certifying the pools, Julia felt that sharing the process with Kelly and her school was very rewarding. Students were fascinated by the live vernal pond critters Julia and Kelly included with their presentation. Adults who attended the event were enthusiastic and interested in learning more about vernal pond habitat.

Julia became more aware of how interconnected people are with the natural world and how people's actions directly affect the lives of animals, especially those who benefit from vernal pond habitat. Kelly cited how prior to this experience she had taken for granted those things beyond her immediate surroundings. Both girls thought it was great that the vernal pools were easily accessible so that others could visit them.

It was inspiring to see the conservation efforts of Julia and Kelly. Their actions make a statement regarding the next generation's commitment to protecting this temporary wetland.

**Fun Fact:** Elsewhere in this newsletter look for a candid photo of a younger Julia enjoying her very first CAVPT snake show.

## DID YOU KNOW...

by Nathan Mineo

Did you know that driving your SUV for one hour consumes up to 390,000 liters of air? That's about as much air as one person consumes in 40 days! And during that hour, about 40 pounds of carbon dioxide (CO<sub>2</sub>) are produced and released into the atmosphere. By now we should all be very well aware of the "greenhouse effect," "global warming," and what role CO<sub>2</sub> plays in all of it. Back in 1998, paleoclimatologist Michael Mann used tree rings to compile temperature data for the past 1000 years.



Photo by Cheryl Briscoe

The now famous "Hockey Stick" graph produced by that data shows a relatively stable global temperature until around 1900 (just after the industrial revolution), when the average global temperature starts a sharp and dramatic continuous increase. Since the "Hockey Stick," mountains of global climate studies have been done, not only confirming the validity of the original study, but also clearly linking the increase in temperature to the increase in atmospheric CO<sub>2</sub> concentrations caused by humans.

So how does CO<sub>2</sub> increase temperature? That's the infamous "greenhouse effect." Essentially what happens is that short wavelengths of sunlight pass through the atmosphere and are absorbed by Earth. The resulting heat is released back toward space as longer wavelengths of infrared radiation. Some of that infrared radiation is deflected back to Earth, mostly by water vapor, but also by other gases in the atmosphere, such as CO<sub>2</sub>. This isn't a bad thing. The greenhouse effect is, after all, why Earth is habitable. The problem that has been building since the turn of the 19th century is the accumulation of other greenhouse gases, predominantly CO<sub>2</sub>, which are amplifying the greenhouse effect by reflecting more infrared radiation back to Earth; literally, trapping more heat.

So what, doesn't everyone like warmer weather? Well it's not that simple. In fact, climate modelers trying to predict the repercussions of global warming are finding the task to be immensely complex. Global warming doesn't mean everyone will experience warmer weather. For example, the Gulf Stream current brings warm tropical water from the Caribbean, up the east coast of the US, and then over to England. That warm water moderates England's climate, which would otherwise be much harsher and colder. Adding more heat to the oceans could disrupt ocean currents like the Gulf Stream. If the Gulf Stream stops, England's climate will become colder and harsher, even while the planet gets warmer. But even that scenario is grossly oversimplified. Climatologists are uncovering new layers of complexity with every new discovery. In particular, carbon sinks (systems that absorb CO<sub>2</sub>), and feedback loops (systems caused by warming that reduce absorption of CO<sub>2</sub>, produce more CO<sub>2</sub>, or absorb CO<sub>2</sub>) make predicting the repercussions of global warming a daunting task. Even with all the uncertainties, however, models seem to agree that if we don't reduce our CO<sub>2</sub> production the global average temperature will continue to increase.

There are things we can do to reduce our own CO<sub>2</sub> production. Simple things like unplugging appliances while not in use can cut your electrical use by as much as 40% and cut as much as 1200 lbs of CO<sub>2</sub> production a year! You can even purchase carbon offsets (see [terrapass.com](http://terrapass.com)). The money you spend on the offsets goes to building green energy sources. Even just planting a tree can help. The forests are one of the largest carbon sinks on Earth. Protecting existing trees and planting more are crucial to offsetting our CO<sub>2</sub> production. And don't forget to support your local conservation organizations. If everyone does their small part at home and in their community, it will have a huge effect globally.

Multiple sources.



# Kestrel Educational Adventures Update

by Shannon McHone, Kestrel Program Director

Kestrel Educational Adventures was founded by CAVPT members in 2002 in an effort to introduce vernal-pond ecology programs to area schools. Kestrel is now an independent, incorporated non-profit offering a variety of place-based programs. We maintain a close affiliation with CAVPT. Kestrel Educational Adventures served approximately 1,600 students on Cape Ann during the 2010-2011 academic year.

Kestrel instructors partner with teachers to ensure programming supports in-class learning. We develop curriculum that reinforces concepts being taught, providing authentic learning experiences in the classroom and outdoors. Whether the topic is ecosystems, the water cycle, or Cape Ann geology, we ensure that students learn through real experiences and hands-on activities.

Kestrel's outdoor programs follow the rhythm of the seasons, and spring is the perfect time to explore life cycles. Students are given the opportunity to observe different habitats and witness the life stages of plants and animals including: salamanders, frogs, insects, birds, snakes and turtles! Our goal is to connect students, teachers, and chaperones to the local wildlife in a way that is fun and meaningful. For example, when they

learn about local vernal pond amphibians, such as spotted salamanders and wood frogs, our creative structure enables students to create their own stories about these animals. They are encouraged to use all of their senses and to share what they notice as we hike. The billowing cattails and the jewel weed "touch me not" seeds inspire students to look and touch. Because each season offers unique discoveries, we ask students for predictions about what they might see from season to season.

The Kestrel team continues to provide an opportunity for students to get close to nature using activities that are both challenging and fun, while providing time for observation and reflection. They collect data, leaves, insects, and rocks, then record their discoveries. Instructors are as excited as the children about what they find during programs. When we found a woolly bear caterpillar with the children right outside their school doors, the teacher asked, "Did you put that there?" Of course we hadn't but we were happy to find one for the children to see. It is through experiences like these that connections are made and learning happens naturally.



## Second Annual Benefit Concert and Silent Auction

Check out this line-up of incredible musicians: **James Montgomery, Jon Butcher, Charlie Farren, George McCann, Ted Armstrong, Peter Hackel and David Hull.** They rocked the house!

We'd like to thank everyone for their generosity and support, making this a successful and fun event. Special thanks to Peter Hackel, phproductions.net, for all his help including lights, sound and the fabulous band.

Our concerts  
have it all...



Music!



Fun!



Hatching!



Unbelievably, our albino Nelson's milk snakes, seen here, actually decided to hatch DURING the concert!

Dancing!

DEBORAH COULL AVEDA SALON CHEF CHRISTIAN COLLINS HESS CYNTHIA CURTIS HAM DELIGHT CASHI BAKERY BURBANK & LUCAS DELANEY'S PIZZA COMMON CROW PASSPORTS RESTAURANT PHIL PALMENTERI SAGE FLORAL EAST COAST TIRE LIZ BISH DRESS CODE REG EDMONDS ATOMIC CAFE CELIA KNIGHT PETER HACKEL NOR'EAST CLEANERS RYAN & WOOD DISTILLERY

AUDREY'S FLOWER SHOP PALAZZOLA'S SPORTING GOODS WOLF HILL PLEASEANT ST. TEA CO. CAPE ANN CINEMA FORT SQUARE CAFE NEW ENGLAND SMALL CRAFT CABOT STREET CINEMA HOMETOWN ACE JOE SETA CRACKERJACKS SEAN HURLEY CHRIS WILLIAMS SUGAR MAGNOLIAS MIKE CLAY VICTOR TAORHINA BETH WILLIAMS JEWELRY KAREN LOHNER POTTERY GRILL STORE TOMI LOU VIDALIAS CAFE MARITIME GLOUCESTER JALAPENO'S 2 SISTERS ROKHAYA WARING CHRIS WOOD

### JAMES MONTGOMERY & FRIENDS

With VERY SPECIAL SURPRISE GUESTS from the Legendary Boston Music Scene! And a rare acoustic performance by David Hull

#### A Benefit Concert & Silent Auction

For THE CAPE ANN VERNAL POND TEAM and Kestrel Educational Adventures

**Thursday, September 8, 2011**  
**Cruiseport Gloucester**  
Six Rowe Square, Gloucester, MA  
Admission \$30 • Doors Open 7 pm • Cash Bar

Tickets Available at:  
ShowClix.com • 888-718-4253  
Gloucester Music, Gloucester  
Toad Hall Bookstore, Rockport  
For more info go to:  
[www.capeannvernalpond.org](http://www.capeannvernalpond.org)

Sponsored in part by:

All proceeds benefit the conservation & educational programs of Cape Ann Vernal Pond Team and Kestrel Educational Adventures  
[www.capeannvernalpond.org](http://www.capeannvernalpond.org) • [www.kestrel.org](http://www.kestrel.org)

CAPE ANN BREWING HALIBUT POINT RESTAURANT CAPT. BILL & SONS WHALE WATCH ROKHAYA WARING  
GLOUCESTER MUSIC BLUEWATER GRAPHICS TOAD HALL BOOKSTORE GREAT ESCAPE RESTAURANT  
ORGANIC GARDEN CAFE & JUICE BAR

Auction!



## Last Year We...

- Led our usual nighttime vernal pond field trips
- Worked on vernal pond certification
- Presented "Intro to Vernal Ponds" at:
  - Rockport Public Library for the Rockport Conservation Commission
  - Parker River Wildlife Refuge for the Essex National Heritage Commission, Newburyport
  - Pathways for Children, Gloucester
  - Cape Ann Discovery Center for The Trustees of Reservations, Gloucester
- Presented "Vernal Ponds" at:
  - Sawyer Free Library, Gloucester
  - Toad Hall Bookstore, Rockport
- Held a Vernal Pond Certification Workshop at:
  - The New England Wildlife Center for the New England Herpetological Society
- Presented "Snakes of New England and the World" at:
  - Plainville Public Children's Library
  - Townsend Public Library
  - Earthfest at Lynn Woods
  - Harvard Public Library for the Harvard Lecture Series
  - Rockport Elementary School
  - Manchester Memorial School Summer Program
  - Halibut Point State Park, Rockport
  - Camp Spindrift, Gloucester
  - Sawyer Free Library, Gloucester
  - Beeman Memorial Elementary School, Gloucester
  - New England Wildlife Center, South Weymouth
  - Cub Scout Pack 30, Manchester Memorial School
- Presented Vernal Pond Exhibits at:
  - Massachusetts Reptile Expo, Rockland
- Presented Vernal Pond/Snake Exhibits at:
  - Gloucester Pride Stride - had walkers too
  - Maritime Gloucester
  - Essex Clamfest for the Manchester/Essex Conservation Trust
  - Magnolia Historical Society Roadshow
  - Science Club, Leonard School, Lawrence
  - Career Day, O'Maley School, Gloucester
  - Sidewalk Bazaar, Gloucester
- Presented Snake Exhibits at:
  - Manchester Public Library for the Manchester/Essex Conservation Trust
  - Cape Ann Farmers' Market, Gloucester
- Snakes on Cape Ann TV with Heidi Dallin
- Had a wicked-scary pumpkin-carving event at the Red Barrel Pub in Essex



Strider drawing by Ollie Balf

## Field Trips

### Rainy nights and flashlights

Every spring CAVPT members lead nighttime field trips to the ponds to see the amphibian-breeding activity. Check your flashlights, get new batteries, and put your rain gear on the hook by the door. To avoid habitat destruction and critter disturbance, we limit the number of participants on each trip. We also ask that you leave your dog at home. Interested? Email us at [cavpt@yahoo.com](mailto:cavpt@yahoo.com).

## FEATURED CREATURE

### Blue-spotted Salamander

**SCIENTIFIC NAME:** *Ambystoma laterale*

**SIZE:** Adults average 2" from snout to vent. (4-5" tip to tip)

**RANGE:** Northeastern U.S. and southeastern Canada, more or less.

**DIET:** Earthworms, sowbugs, and centipedes.



Photo by Sharon Cohen

Raise your hand if you're a blue-spotted salamander.  
Or alternate caption: Hey! We're the Featured Creature. Gimme a high four!

### DESCRIPTION:

- Habitat: Wooded, swampy or moist areas. Ponds or semi-permanent water, including vernal ponds, for breeding.
- Breeds: During early spring rains when the temperatures are above freezing.
- Reproduction: Eggs laid in March and early April. Hatch in about one month.
- Larval period: Extends from late June to mid-August.
- Comments: Acid precipitation and habitat loss are major threats to this species. Massachusetts vernal pond obligate species. State-listed as a species of concern.

Reference: *Amphibians and Reptiles of New England, Habitats and Natural History*. DeGraaf and Rudis

**Don't miss any of our exciting upcoming events!**

**check out our website at:**

**[www.capeannvernalpond.org](http://www.capeannvernalpond.org)**

## The Whale Center of New England

Thanks to The Whale Center of New England for use of their bulk-mailing permit. Started as part of the Fishermen's Museum, they have been proud to be a part of Gloucester's rich maritime culture for over 30 years. The Whale Center is recognized world-wide for their research on humpback and other whales in the Gulf of Maine. [www.whalecenter.org](http://www.whalecenter.org)



## In Memoriam

This newsletter is dedicated to the memory of our friend, Isabel Natti. Isabel, who passed away December 12, 2011 surrounded by family and friends was a crusader for human rights, nature, and the environment. She was a founding member of the Clamshell Alliance and an active member of the Rockport Conservation Commission for many years.



Many of you knew Isabel from her participation in CAVPT. She brought plenty of ideas to meetings, volunteered for events, and joined us on our field trips. She also led us on walks into the woods of Cape Ann to introduce us to new

vernal ponds and worked on certifications.

Isabel was an accomplished linoleum block printer, working out of the Sarah-Elizabeth Shop in Rockport. Often she could be found in the shop carving blocks and printing on her beloved vintage Acorn press. We have been using her vernal-pond-themed prints in our educational materials for many years. Look for them in this newsletter.

She leaves her companion, Italo Cannone, also a CAVPT volunteer, her son Nathaniel Tuck, and many other relatives and friends.

Thank you Isabel for your dedication and commitment, the honor was truly ours.

## Press News & Awards

### **Roth Honored**

Rick Roth was among 13 individuals honored with a Community Recognition Award by the Gloucester Unitarian Universalist Church. Recipients, who are nominated by the public and voted on by the church's Social Justice Committee, are recognized for their volunteer efforts to improve the quality of life on Cape Ann. The awards were presented in May in front of a large crowd of friends, family, and well-wishers.

Rick was recognized for helping to found CAVPT, for certifying more than 100 vernal ponds in Gloucester and Rockport, and for leading dozens of vernal pond field trips every year as well as offering vernal pond and snake presentations to thousands of people statewide. CAVPT also got nods for our award-winning "Vernal Ponds" video and for the Vernal Pond Scout patch. Thanks to Holly Tanguay for the nomination.

For more information about the 2012 awards, please contact the church at [gloucesteruu@earthlink.net](mailto:gloucesteruu@earthlink.net).

### **Cape Ann Magazine**

Sara Martel wrote a great article about CAVPT for the Spring 2011 issue of the Cape Ann Magazine. It featured lovely photographs and great information about us. Thanks Sara!

## **Grants & Donations**

### **In 2011 We Received Grants From:**

- Toad Hall Bookstore, \$500
- New England Herpetological Society, \$500
- New England BioLabs Corp., \$1000
- New England BioLabs Foundation, \$500
- The Bellevue Fund, \$1000
- Anonymous, \$1000
- Thanks to all who responded to our annual appeal with your generous donations, and thanks to those who donated anyway. We especially like those matching workplace donations.

## With a Little Help From Our Friends...

This past August CAVPT and Kestrel Educational Adventures held a joint-venture yard sale at the Gloucester Unitarian Universalist Church. Thanks to the generous donations of friends and families it was a rousing success. Many thanks to the church for their hospitality.

We are planning our 2012 yard sale for the end of May. Please set aside your stuff and we'll put it to good use! Ask friends, neighbors, and businesses for donation items too. Don't forget, even little things mean a lot, but we'll also graciously accept big-ticket items such as time-shares, yachts, and luxury automobiles.

## And With a Little Help From People We Just Met...

Essex County Community Foundation offers practical and financial support to area non-profits of all types and sizes. This winter Nick Taormina, Tori Rosatti, and Tracy Bowen were happy to take advantage of their excellent workshops. We learned how to research grant opportunities and write a successful application. In the months ahead, we'll spend some time at the Foundation's offices using their state-of-the-art database to research grant possibilities. Later this month, Executive Director, Rick Roth and at least one board member, will attend their "Institute for Trustees", a full-day conference focusing on board development, fundraising, strategic planning, and more. The conference is perfectly timed with our current visioning work.

## Vision This

On February 19th, 2012, CAVPT held a Visioning Meeting in the Cape Ann Discovery Center at Ravenswood Park. A collection of 17 team members and friends of CAVPT came together to share their thoughts and ideas for the future of our organization. In the upcoming months those thoughts and ideas will be evaluated by a committee in order to generate some action items and goals that CAVPT will achieve in the next five years. The idea is to organize and focus CAVPT in one direction so that we can better utilize our limited valuable resources. Thank you to all the participants for their GREAT ideas and thoughts; and thank you to Ramona Latham of The Trustees of Reservations for graciously hosting the meeting.



Photo:  
Steven Ziglar,  
copyright  
New England  
Wild Flower  
Society

Photo taken in summer, 2011, Garden in the Woods, Framingham  
Used with permission of Steven Ziglar and NEWFS.

*The pitcher plant is classified as carnivorous, rather than insectivorous. Consumption includes not only insects but also isopods, mites, spiders, and the occasional small frog. This spring peeper is probably being opportunistic for insects and is not in danger of being digested.*

*Digestion of these creatures is the plant's only source of nitrogen.*

## Certification Update

Currently we have certification reports for 17 Cape Ann pools on review at the Natural Heritage and Endangered Species Program (NHESP), part of the Massachusetts Division of Fisheries and Wildlife. These pools were found on both private and public lands. Thanks again to those landowners interested in certifying pools on their property. These certification reports were funded through The EnTrust Fund. We are also in the process of finalizing reports on an additional nine pools, eight found on Cape Ann and one in South Weymouth at the New England Wildlife Center.

For people interested in certifying pools on their own we are holding a certification workshop sometime this spring. Check our website for details. [www.capeannvernalpond.org](http://www.capeannvernalpond.org)

# *If we value wildlife, we must protect vernal ponds.....*

## What a CAVPT membership offers:

- A really neat CAVPT car decal
- Subscription to our annual newsletter
- Email updates of vernal pond activities and events
- Guided field trips to local vernal ponds
- The satisfaction of knowing you are helping preserve these unique and vital habitats

## Our programs & activities include:

- Vernal pond certification
- Exhibits & presentations
- Daytime & nighttime field trips
- Certification workshops
- Posters
- "Vernal Ponds" video
- Website: [capeannvernalpond.org](http://capeannvernalpond.org)
- Scout patch program
- Snakes of New England & the World

Salamander linoleum cut by Isabel Natti

For school programs, including Ponds in the Classroom, contact our sister organization, Kestrel Educational Adventures: [www.kestreleducation.org](http://www.kestreleducation.org).



Wood Frog

Photo by Chris Wood

The funding for our programs is provided by:

- Corporate gifts
- Grants
- Sale of our merchandise
- Donations from community members like you
- Memberships

CAVPT thanks the following organizations and foundations for their generous support:

The EnTrust Fund • The Norcross Wildlife Foundation • New England Herpetological Society • Sweetwater Trust • GoodSearch • Toad Hall Bookstore Gloucester Cultural Council • The Bellevue Fund • Sam Park & Company New England BioLabs • New England Grassroots Environment Fund • TD Bank

## Support the Cape Ann Vernal Pond Team. Become a member or renew today!

*The Cape Ann Vernal Pond Team is a non-profit volunteer organization dedicated to vernal pond conservation and education since 1990. Our focus is vernal ponds. The issue is the preservation of wildlife habitat, which ultimately is about the health of the planet.*



Photo by Nathan Mineo

*Darn. I think I dropped my keys in here...*

Name \_\_\_\_\_

Street \_\_\_\_\_

City, State, Zip \_\_\_\_\_

(address required if paying by credit card)

Phone \_\_\_\_\_ Email \_\_\_\_\_

☐ Send me email updates about field trips and events

☐ Yes! I'd like to be a volunteer

☐ Lifetime Membership \$200

### Annual Membership

☐ Individual \$20 ☐ Family \$35 ☐ Junior (under 16) \$10

☐ Additional donation \$ \_\_\_\_\_

☐ Check enclosed: \$ \_\_\_\_\_ Payable to: Cape Ann Vernal Pond Team

☐ Charge my credit card (Visa, MC, Amex, Discover)

CC # \_\_\_\_\_

exp date \_\_\_\_/\_\_\_\_ CVV code (on back of card) \_\_\_\_\_

Signature \_\_\_\_\_

(required if paying by credit card)

CAVPT is a 501(c)(3) non-profit organization.

Your contribution is tax deductible.

[www.capeannvernalpond.org](http://www.capeannvernalpond.org)

Please detach this form and mail with your donation to:

Cape Ann Vernal Pond Team

P.O. Box 12, Rockport, MA 01966



Cape Ann Vernal Pond Team  
P.O. Box 12  
Rockport, MA 01966

Return Service Requested

Non-Profit Organization  
U.S. Postage  
**PAID**  
Gloucester, MA  
Permit No. 257



Block print by Isabel Natti

## ***The Need for Protection...***

The temporary nature of vernal ponds often belies their importance. Countless plants and animals live in vernal ponds. Insects, amphibians, reptiles, birds and mammals visit to drink, feed, breed and nest. Some species, such as spotted salamanders, wood frogs and fairy shrimp are totally dependent on this habitat.

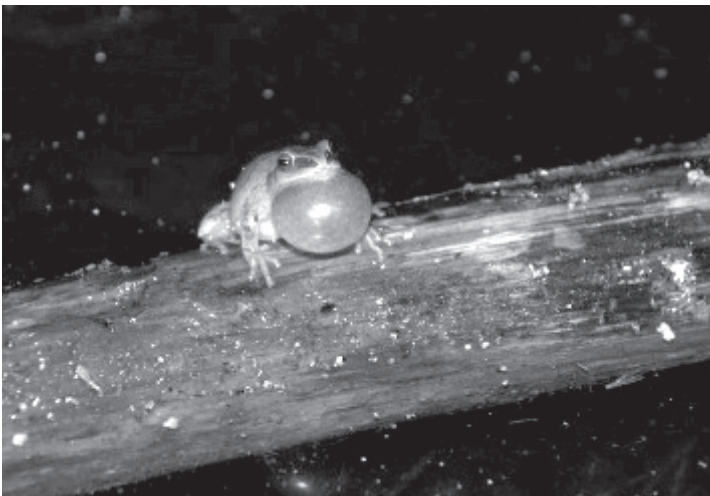


Photo by Nathan Mineo

## ***How to Protect...***

The best way to protect vernal ponds is to own the property. The next best way to protect them is to certify ponds with the Natural Heritage & Endangered Species Program. Certification application reports include photographs, maps and field observation forms. To learn more go to [www.capeannvernalpond.org](http://www.capeannvernalpond.org) or check out the Vernal Pool Association's website at [www.vernalpool.org](http://www.vernalpool.org)



Monarch print by Isabel Natti

Come see us this spring! CAVPT leads nighttime field trips to witness the annual migration and breeding of wood frogs and spotted salamanders...see inside, or our website, for more details.

