



A NEWSLETTER

from the

CAPE ANN VERNAL POND TEAM

Winter/Spring 2005 : Website: capeannvernalpond.com E-mail: cavpt@yahoo.com

THE CAVPT IS A HOPELESSLY NON-PROFIT VOLUNTEER ORGANIZATION DEDICATED TO VERNAL POND CONSERVATION AND EDUCATION SINCE 1990

I Saw this ad online ...

"We have an immediate opening for a short term, full-time Assistant Field Herpetologist. Duties will include: vernal pool identification and egg mass counting, turtle trap checking and radio telemetry at various locations in eastern Massachusetts. Qualifications: experience with vernal pool ecology and wildlife biology. Contact Hyla Ecological Services, Inc."

I thought this might be for me and picked up the phone. After a brief conversation with field biologist Dan Wells, I found myself employed with Hyla Ecological for a month.

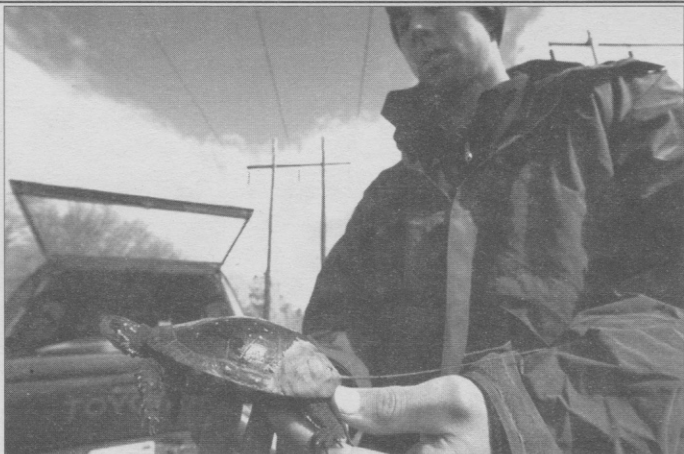
My first day on the job I brought chest waders (the cumbersome rubber kind, soon to be replaced by the lightweight comfortable gortex kind), frog net and a backpack filled with a Global Positioning System (GPS) receiver, dip nets, notebook, camera, and lunch.

I met Dan and his crew in Essex where Hyla was hired by the Manchester/Essex Conservation Trust to survey vernal pool and rare species habitat. On this day we headed into the woods to begin some V.P. certification.

The Manchester/Essex Conservation Trust

hired Hyla, as well as other experts in the field to comb the woods for rare species habitat and Vernal pools.

They received funding from the Massachusetts Environmental Trust and the Bruce J. Anderson Foundation for this ambitious project, spearheaded by our good friends Helen Bethel and Martha Hoar. What a good idea! We wish more towns had organizations like this.



Dan Wells from Hyla Ecological Services holding a spotted turtle, fitted with a radio transmitter. The antenna is super flexible and does not impede the turtle's progress, even in heavy brush.

Vernal pool certification requirements

- *Photos of wood frog and/or spotted salamander egg masses or fairy shrimp document the existence of a vernal pool.*
- *Fill out the form from Natural Heritage & Endangered Species Program of the MA Division of Fisheries & Wildlife, which includes location, description of pool, size and depth.*
- *Pool must be located on required maps, including U.S. Geological Survey. This is made much easier if you have a GPS and the right mapping software on your computer. (There are other methods not mentioned here.)*

Our first pond was relatively close to the path. We spent about a half an hour photographing, counting egg masses, and writing field notes. We then moved on to the next pool, often encountering those kind of thickets that look pretty much impenetrable. Dan just walked right through these and we followed him. We visited twelve ponds that day, sometimes finding over a hundred egg masses in a single pool.

In the following weeks, in Manchester and Essex, as well as some other nearby towns, the crew performed similar field work. We spent one day carefully lifting the sphagnum moss in those little hummocks that protrude from wetlands, to look for four-toed salamanders and their eggs. This is not easy, but with some direction and practice you can actually find these three inch salamanders in a three acre swamp.

On another day, we followed a stream through the woods into a large marshy area that Dan said was prime spotted turtle habitat. Hyla had already fitted eight turtles with radio transmitters here in order to determine the limits of their habitat. We carried a receiver and listened for the beep, and tried to zero in on the turtle's location. Dan made this look much easier than it was. He found twelve, I only found two—yes we discovered some new ones that had not yet been radioed. By the end of the day we also saw many frogs, garter snakes, an osprey, and a black throated blue warbler. This was a really great day in the field.

Working as an assistant field herpetologist was educational. I learned quite a bit about streamlining the vernal pool certification process, got to participate in some rare species habitat surveys, met great people along the way, and had a lot of fun.

Hope to do it again. *By Rick Roth*

Ponds In The Classroom Update

By Jessica Kagle

Ponds in the classroom, a popular vernal pond ecology workshop for local school groups, is offered through the non-profit, Kestral Educational Adventures. Kestral was founded by CAVPT members and is still closely affiliated with the team.

In the spring of 2004, Ponds in the Classroom programs reached outside of Cape Ann for the first time. In addition to returning to many public and private schools in Rockport, Gloucester, Manchester, and Essex, we established new relationships with the Bowditch School in Salem and the Hannah School in Beverly. Because we are now working with a wider variety of student ages and more closely with classroom curriculums than we have in the past, Kestral staff are developing new activities to teach this broader audience. The first grade groups from Fuller School in Gloucester did an excellent job of forming a "frog call chorus", and the West Parish School students played "The Adaptation Matching Game". In 2004, in response to teacher requests, we began focusing our field trips more tightly on data collection. Giving the student groups field guides and clipboards for recording all the species they find has proved successful in engaging students in learning about specific animals utilizing the accessible ponds closest to their schools. At the Hannah School, students found salamander larvae in a pool not yet known to be a vernal pond.

During the spring of 2004, we were fortunate to have Chris Wood as a new teacher. He helped develop new activities, and with his natural curiosity and enthusiasm for getting muddy, he insisted on rolling logs with many of our student groups. Under the logs near vernal ponds, students found several kinds of salamanders, as well as many of the invertebrates that make up strands of the food web supporting vernal pond amphibians. We have already received some requests for Ponds in the Classroom programs this coming spring. As founders Nathan and Jessica are both unavailable to teach Ponds in the Classroom this year, we have advertised a job opening for instructors and have already interviewed some excellent candidates. As for funding, our favorite topic, we still need more money to pay our staff. Thankfully, we received an excellent review from the Gloucester School Connection, and were assured continued funding from them. We have also just completed a grant application to the KeySpan Energy Foundation. If anyone would like to volunteer to help us write grants, raise funds, or if you are interested in contributing to Kestrel, please contact us!

Please call Jessica @

Kestral Educational Adventures 617-290-2258

Field Trips

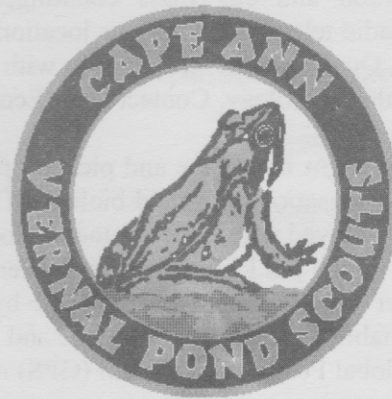
Rainy Nights & Flashlights

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.

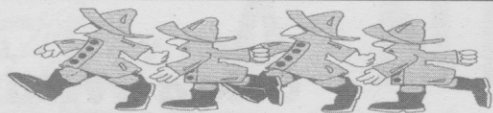
We also ask that you leave your dog at home.



Girl Scouts: Over a year ago Jessica, Ileen and Rick met with Gloria Parsons and her Girl Scout leaders. We gave them some info and ideas. They developed guidelines and requirements for a Vernal Pond Patch Program. They did a great job too! CAVPT charter member H.A. Lind designed the patch—beautiful job. Now, 13 Girl Scouts in Lanesville have already earned their patches. This is so cool. If you are a scout leader and are interested in this please contact us at cavpt@yahoo.com



Spring Peeper photo by N. Mineo



Upcoming Events

Appleton Farms, Saturday, April 9th, 2005, 2-4pm. Vernal pond certification. Appleton Farms, 219 Country Rd. Ipswich. Info: Ramona Latham 978-356-5728.

Gloucester Pride Stride, Sunday, April 24th, 2005. For the past two years, Jenn & Maria Mineo have led the fundraising walk for CAVPT. Thanks to all who contributed. We'll be there this year with some snake buddies. To participate or pledge for CAVPT this year please contact Maria Mineo: 978-239-2376. Forms are also available at various participating businesses in the Gloucester area.

Earth day, Saturday, April 30th at Lynch Park, Beverly, MA , 10 AM. CAVPT members will present Snakes of Massachusetts and the World.

Earth Fest, Saturday, April 30th at Lynn woods, Lynn MA. Snakes of MA and the World. Starts about 12:30-1pm.

Look for us at: Riverfest and Halibut Point State Park. For latest updates, check our website: capeannvernalpond.com

Last Years Events

We did our Vernal Pond Exhibit (with critters) at Halibut Point State Park and Earth Day at Beverly Common.

Team members presented Snakes of Massachusetts and the World at: Halibut Point State Park, Coolidge Point Reservation, Appleton Farms in Ipswich, Rockport Elementary School, Earth Fest at Lynn Woods and the Gloucester Seafood Festival with Kestral Educational Adventures.

We led our usual nighttime field trips and led a daytime field trip to a vernal pond for Essex County Greenbelt. We also raised almost \$1,000 at our annual yard sale.

CAVPT Yard Sale Fundraiser

Sat. May 28th from 10AM-2PM (rain date June 4th)
Commercial Street, next to St. Peter's Square

We are starting to collect items now, so
if you have stuff to donate we can pick it up!
Please no TVs or computers. Call 978-281-3480



A black-crowned night heron waits in a tree for us to finish our photo-shoot and go away, so he can resume wading and feeding in a vernal pond. Photo by N. Mineo

New Book

Vernal Pools, Natural History and Conservation

By Elizabeth Colburn Leo Kenney says:

"I would outright recommend it for anyone who wants to know more about vernal pools and their organisms than might be found in The Field Guide to Vernal Pools."

Available at Toad Hall Bookstore in Rockport, MA.



A spotted salamander emerges from his subterranean home just in time for the early spring vernal pond breeding activity. Photo by N. Mineo.

Thank you to all CAVPT members and friends who participated or helped out last year.

Toad Hall Bookstore
The Trustees of Reservations
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Return Service Requested

Cape Ann Vernal Pond Team
P.O. Box 12
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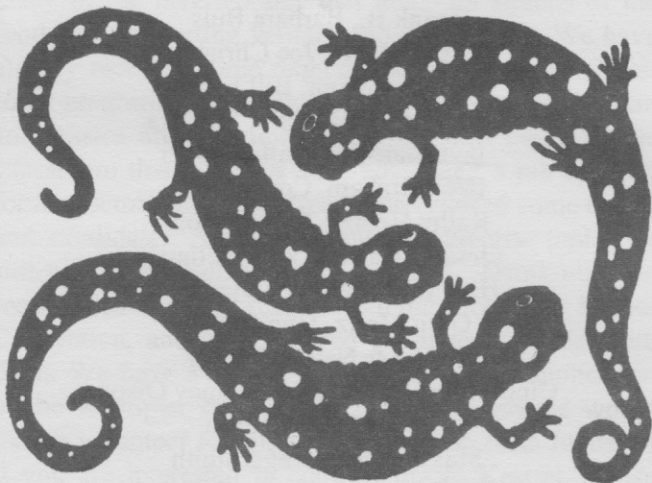
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This newsletter is dedicated to the memory of CAVPT member Sam Hoar who passed away on Sept. 13th, 2004. He is survived by his wife Martha (also a team member). Sam was a great friend of the environment.



Did You Know?

Did you know that wood frogs (vernal pond obligate species) can freeze solid in the winter? This amazing adaptation is found only in a few select vertebrates around the world. Most amphibians spend their winters hibernating deep underground or underwater so they don't freeze, however the wood frog is content with a shallow burrow well within the frost zone. So how is it that freezing doesn't kill wood frogs? The answer, in short: glucose and water distribution. Glucose is a sugar which is pumped into the cells of the wood frog thereby decreasing the freezing point of the fluid within. It also increases the pressure within the cells to prevent them from shriveling up and dying. Water within the tissues of the wood frog is redistributed into the lymph system where it can safely freeze without damaging vital tissues. For more info on this marvelous topic just type "wood frog freezing" in any search engine and you'll come up with thousands of informative web sites. (Main Source: Laboratory for Ecophysiological Cryobiology, www.units.muohio.edu)



Spotted Salamander block print by Isabel Natti. Cards available at Sarah Elizabeth's Block Printers at Whistlestop Mall, Rockport, MA.