

# SWEEP

## Get all the Dirt

*"Nothing Under the Rug"*

NEWSLETTER OF THE VERMONT STATE-WIDE ENVIRONMENTAL EDUCATION PROGRAMS • WINTER 2008

### Inquiry Science with ECHO and Wheeler School



**I**wonder if it burps? I wonder what those sharp toenails are for? I wonder if he can take his shell off? These "I wonder" questions were posed by Kindergarten students who went nose-to-nose with a

painted turtle at ECHO Lake Aquarium and Science Center as part of a year-long Inquiry Science Project with Wheeler Community School in Burlington's Old North End. Over 225 students and their teachers in Kindergarten through Grade 5 are taking part in multiple field trips to ECHO, classroom science experiences, assessment activities and professional development to help them meet the key Vermont Science Standard: Inquiry Science. ECHO is using the lens of the Lake Champlain Basin to teach "big ideas" in science and the skills that help students "think like a scientist".

The students at Wheeler Community School were starting near ground zero in science. This year, with commitment from the Burlington School District through science kits, science consultants and the ECHO Inquiry Project partnership, the school is banking on significant student gains in science performance. Inquiry science skills also drive

multi-disciplinary learning by encouraging nonfiction reading, organizing and writing ideas, gathering data and making math calculations and using observations to make scientific drawings.

Science is no longer only about learning facts and principles; it's about systems, relationships and making clear relevance to a child's world. The Inquiry Science Project taps into the natural curiosity of each student to capture a science question – the starting point of any scientific investigation. ECHO's project goal is to both teach and reinforce science process skills: making predictions, forming hypotheses, designing experiments, capturing results and communicating what they have learned. "A students' prediction may not hold true, but that's the nature of science investigations – they challenge the learner to ask more questions, to dig deeper into the topic", says Tracy Truzansky, ECHO's Senior Education Manager who initiated the partnership with Wheeler. Since ECHO wants to be specifically aligned with district science content goals and more intentional about teaching the inquiry process, classroom teachers will participate in regular focus groups with ECHO staff. Burlington School District science consultants will also provide guidance.

The Inquiry Science Project ends in April during ECHO's public festival, "Earth Weeks." The students will create environmentally themed presentations providing teachers a key opportunity to assess student performance and understanding. "It's been an exciting fall", says Truzansky, "The potential of this partnership to support inquiry science learning for students and teachers throughout the Lake Champlain Basin is tremendous."



## Letter from the Chair

### Vermont Statewide Environmental Education Programs (SWEEP)

is a coalition of individuals and organizations promoting environmental education in Vermont since 1975. SWEEP's purpose is to foster environmental appreciation and understanding to enable people to make responsible decisions affecting the environment. For membership information, see p. 10.

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"SWEEP: Get all the Dirt" is produced twice a year. We welcome your contributions. Contact: Barry King <kinglet@together.net>

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Dear SWEEP Members,

Seasons Greetings to you all! As we welcome in 2008 there is much to celebrate. 2007 was an exciting year for Environmental Education especially with regard to building bridges. That was the name of the New England Environmental Education Association (NEEEA) conference and it reflects NEEEA's efforts to promote EE in New England and the US. Our own biannual SWEEP meetings are always a good chance to advance our collective work here in Vermont. It was great to see many of you this past fall at the North Branch Nature Center where we learned about the center's programs and enjoyed a walk on the property.

At the international level, 2007 was the 30th anniversary celebration of the Tbilisi declaration of 1977. The International Conference on Environmental Education was held in Ahmedabad, India with over 1200 participants from around the globe. Conference themes ranged from livestock management to climate change to youth yet primarily focused on education's role in

sustainable development. The Ahmedabad 2007 declaration is at: <http://www.tbilisiplus30.org/Declaration.pdf>

As we enter 2008 there will be more emphasis on environmental education. A focus of the EE community this year will be the No Child Left Inside (NCLI) Act. See the brief article (p.3) for an update and what you can do. In Vermont, SWEEP hopes to work with the Department of Education to create Grade Expectations for the Natural Resources and Agriculture Standard 7.16. Having GE's would let teachers use the standard better to inform their curriculum and teaching. The development of GE's will also support teachers who aren't familiar with the concepts of natural resources and agriculture and for those that are already teaching them, it will be a place to see their work reflected in the standards. Stay tuned!

I look forward to seeing you at SWEEP's next membership meeting on April 30, 4-6:30, at the USFS office in Rutland. Until then have a healthy and happy new year!

Cheers,

Jen Cirillo, Board Chair

### NEEEA Update

Nancy Notterman

**T**he New England Environmental Education Alliance has taken some dramatic steps in the last year. To better support SWEEP's organizations and those of the other NE states, NEEEA hired an Administrative Manager, Meg Edstrom of Ferry Beach Ecology Center, to maintain our states' databases and the NEEEA web site, act as liaison between the six states' EE boards, and serve each individual state's needs as requested. Meg will provide tremendous help for NEEEA's annual conference, in addition to providing continuity and "institutional

memory" for the hosting state. The NEEEA board believes the Administrative Manager position will help coordinate and expand EE's impact across New England.

If you missed the last few NEEEA conferences, you have missed some valuable professional development. Each year's conference theme has built on the one before it, encouraging EE'ers to think about environmental education in new and different ways. THE DEATH OF ENVIRONMENTALISM's author Michael Schellenburger in his 2005 keynote encouraged us to promote a positive message of hope, collaboration and creativity in addressing critical environmental concerns.

*continued on p.9*

## State Center for Environmental Communication and Education proposed

Last May, the Vermont Agency of Natural Resources began a process, referred to as the “Vermont Way Forward” in which ANR Secretary Crombie stated that he wanted to transform the Agency into the next generation of environmental stewards - and into a national model of how state natural resources agencies should be run. It began by establishing a cadre of task forces charged with creating a new ANR. The agency will be reorganized into a series of centers that will be cross-disciplinary teams of agency professionals who will look at the full range of environmental issues facing them in a holistic manner and reach out to their business, municipal, residential and academic partners.

Like the other task forces, the Environmental Education & Communication Task

Force recently submitted its final report containing a number of recommendations, among them the Center for Environmental

Communication & Education. The Center is envisioned to be the clearinghouse and coordinator for all educational activities conducted by ANR. It will provide technical educational and communication expertise to all ANR staff, and will serve as the key link between ANR and its multitude of external partners. Anyone interested in environmental education in Vermont should take the opportunity to read the report and consider its recommendations.

For the full report of the Vermont Environmental Education & Communication Task Force, visit [www.anr.state.vt.us/imaging/ANRdocs/secoffice/TVWF/CECE/report/CECE%20Task%20Force%20Final%20Report.pdf](http://www.anr.state.vt.us/imaging/ANRdocs/secoffice/TVWF/CECE/report/CECE%20Task%20Force%20Final%20Report.pdf).

## No Child Left Inside Update

Congressional action on the bill amending the No Child Left Behind Act has been pushed back to the 2008 legislative session, putting it into an election year. The good news is that the “No Child Left Inside Act” now has 34 House cosponsors and 7 Senate cosponsors although it appears that Bernie Sanders is alone among the VT delegation as a cosponsor. NCLI “amends the Elementary and Secondary Education Act of 1965 to authorize states to use federal funds for the development of kindergarten through grade 12 plans for environmental education and teacher training to ensure that high school graduates are environmentally literate.” Last summer, the bill was referred to committee in both houses. It is still there in the Senate while the House Committee on Education and Labor’s released

a reauthorization draft bill in the fall. That version included some of the key provisions of NCLI (e.g., the EE Capacity building and teacher training grant programs) but not others (development of state environmental literacy plans, a national plan, voluntary national standards, a national model curriculum, include EE in the subjects to be assessed under the National Assessment of Educational Progress, and offer priority funding status for environmental magnet schools). Efforts remain underway to get a few of these missing elements included in the final bill to come out of this House committee. The upside of these delays is more time to build support.

To find out how you can help support the NCLI bill, visit [www.fundee.org/campaigns/nclb/](http://www.fundee.org/campaigns/nclb/). To follow the bill’s progress (or lack thereof), go to [www.thomas.gov](http://www.thomas.gov) and search for HR 3036 or S 1981.

## National Sustainability Education Standards

The US Partnership is the group spearheading the US response to the UN’s Decade for Education for Sustainable Development, 2005-2014. The K-12 sector team of the US Partnership, with input from educators in public, private, and pre-service fields, has generated a draft set of national sustain-

ability education standards and now seeks feedback on them. Download the draft sustainability education standards, then click on “submit your comments” to provide feedback online. <http://eelink.net/cgi-bin/ee-link/newclick/2287412>



## Peer-to-Peer Sustainability Outreach

Christina Erickson



UVM Eco-Reps conduct a waste sort in front of the Davis Student Center.

Campus sustainability is on the rise. Evolving from the campus greening movement's focus on recycling and energy conservation programs, colleges and universities across the globe are joining the

sustainability bandwagon. More than thirty campuses across North America have started a peer-to-peer outreach program, Eco-Reps. Eco-Reps are residential students who are peer educators for green living practices in their buildings. Armed with compact fluorescent light bulbs, green living guides, and a contagious optimistic attitude, these students encourage their peers to recycle, conserve energy and water, eat locally produced foods, and in general, waste less.

It has been found that students respond well to other students who thoughtfully

engage them in making positive changes in their living practices. Broader student outreach is the common motivation behind many of the Eco-Reps Programs, as it was at the University of Vermont. By targeting students in residence halls, the program aims to reach beyond Environmental Studies majors and students already engaged in student environmental organizations, to show that these issues are critical to everyone, not just the already "eco-minded" populace. Modeled after a similar program started at Tufts in 2000, the UVM Eco-Reps Program began in 2004 and now acts as a resource for other campuses. The thirty student Eco-Reps are able to reach UVM's 5,000 residential students. By conducting trash sorts, students can see what items that could have been recycled or composted wind up in the trash. Going door-to-door exchanging energy efficient compact fluorescent light bulbs for incandescent bulbs literally opens the door for conversations about energy conservation.

The desired result? An educated and empowered student populace who will continue to conduct these practices when they leave campus and can help others make informed choices. Are we there yet? Perhaps not fully, but the conversations have certainly begun.

## Audubon Vermont Receives Community Outreach Grant

Kim Guertin

Audubon Vermont is proud to announce that it has received a two-year community outreach grant from the Institute of Museum and Library Services. The grant will develop the Green Mountain Audubon Center's (GMAC) capacity to engage more community members and new, targeted audiences in bird and habitat conservation education. GMAC in Huntington has been an invaluable resource to the community for more than 40 years. It is known in the community for its 5 miles of hiking trails, popular swimming holes and environmental education programs.

The grant will help the Center better serve the local community in three ways: 1) it will become a bird and habitat conservation demonstration site: signage and on-site, educational programming will allow habitat

improvement projects taking place at the Center to serve as hands-on, outdoor "exhibits" for community education, 2) GMAC will become a community resource center connecting individuals, organizations and community groups, and offering a wealth of information and resources on bird and forest habitat conservation and, 3) as a community outreach center, GMAC will develop a number of educational programs on forest birds and habitat to reach people of all ages and backgrounds. The goal of this outreach is to create widespread community education and collaboration supporting sustainable, ongoing community-based habitat conservation efforts. So, keep your eyes peeled for upcoming programs and events at the Center and visit soon to check out what's new!



Larry Clarfeld, an AmeriCorps member, installs a StoryWalk station along a walking path at the North Branch Nature Center in Montpelier in November.

## StoryWalk at North Branch Nature Center

Combining physical activity and chronic disease prevention with literacy may seem like an odd mix but that's what StoryWalk is all about. This innovative approach to get people of all ages outside walking can make a significant impact on our state's struggle with the serious health problems associated with being overweight. The brainchild of Anne Ferguson, StoryWalk involves the purchase of children's books, laminating individual pages, and setting them out at regular intervals along bike paths, park walkways, and in neighborhoods. Parents, teachers, and caregivers bring children out for walks, pausing along the way to read, discuss, and enjoy the pages of the book while benefiting from physical activity and fresh air. A Gardener's Alphabet by Mary Azarian was up at the North Branch Nature Center in October and November. StoryWalk is sponsored by the Kellogg Hubbard Library and the VT Bicycle and Pedestrian Coalition, and made possible through a grant from the Vermont Humanities Council.

## BioBlitzing Montpelier

By Larry Clarfeld, AmeriCorps Member,  
North Branch Nature Center

If there was ever an opportunity to discover and celebrate the diversity of wildlife in our own backyard, it is surely the BioBlitz.

A BioBlitz is a gathering of biologists, naturalists and ordinary folks who spend 24 hours identifying every living organism they can find within a designated area, in this case, our state capital. North Branch Nature Center (NBNC) is organizing a citywide BioBlitz, July 11-12. But why go through the effort to organize this large-scale event?

"Bioblitzes are part science, part education, part celebration, part discovery," says Bryan Pfeiffer, coordinator of a 2004 BioBlitz in Queechee. A BioBlitz can generate important scientific data about the species that inhabit a particular area. Knowing the organisms that inhabit our city parks may inform us of proper management practices to protect them. In addition, the event serves as an opportunity to bring together experts from varying disciplines who may not otherwise collaborate.

The value of the BioBlitz to the scientific community is second-tier to its value to the community at-large. There are opportunities for community members to be involved throughout the day, helping experts to collect and catalogue information on every organism imaginable, from lichens and sphagnum mosses to bats and birds. According to Chip Darmstadt, NBNC's executive director, "The BioBlitz is as much about raising awareness about biodiversity as it is about rigorous science. It's a great experience when someone sees their first Baltimore Checkerspot butterfly in a small wetland that no one ever seemed to notice before." Not only will we make discoveries like this, we will celebrate them. So we invite you to celebrate with us next summer. Mark your calendars, and prepare to BioBlitz!

## North Branch Nature Center Joins VT eBird

NBNC has joined Vermont eBird, an online project where birders can submit observations to an international database. This data can then be used by the general public to learn more about the birds that inhabit our state and beyond.

For information on BioBlitzing, go to [www.NorthBranchNatureCenter.org](http://www.NorthBranchNatureCenter.org), or contact Chip Darmstadt at 802-229-6206, [chip@NorthBranchNatureCenter.org](mailto:chip@NorthBranchNatureCenter.org).

To learn more, log onto VT eBird: <http://ebird.org/content/vt/index.html>

## Four Winds and Audubon Vermont Collaborate on Forest Birds Program

Chris Runcie

Reaching from Maine across northern New Hampshire, Vermont, and New York, the Northern Forest covers some 26 million acres. It is a place where three major forest types intersect and overlap -- the northern boreal (spruce-fir) forest, the northern hardwood (birch-beech-maple) forest, and the more southerly oak-hickory forest. Such a diversity of plant species makes it an especially rich area for birds and other wildlife. The number of migratory bird species breeding in the Northern Forest is greater than anywhere else in continental North America. In early spring, forests of the northeast come alive with birdsong, increasing in volume and variety as birds return to the Northern Forest to breed.

Raising awareness about the importance of the Northern Forest is crucial for its protection and preservation. Its importance for songbirds is the theme of a new Nature Program workshop developed by Four Winds Nature Institute and Audubon Vermont. The new "Forest Birds" unit includes a variety of fun activities designed to get adult volunteers and school children outside, looking and listening for forest birds. Some of the activities, such as "Life in Layers" and "Forest Bird Foray", will be part of bird programs at the Green Mountain Audubon Nature Center this spring. The full unit will be taught in ten Four Winds' schools in May, and will become a regular part of the Nature Program curriculum, which reaches over 100 communities in the Northeast every year.

## News from Four Winds Nature Institute

Lisa Purcell

With more than 100 schools enrolled in the Nature Program, Four Winds staff are busy each month leading natural science workshops for 1,500 volunteers, preparing them to take children outside to explore nature on the school grounds. And a lot of other Four Winds programs -- from preschool through college -- are also taking place.

Knee High Nature is a new nature-study curriculum for childcare providers and early childhood educators working with pre-school age children. Deb Parrella and Kris Kristensen presented a workshop on it at the Vermont Association for the Education of Young

Children conference in October. There will be professional development trainings each season in communities around Vermont, beginning with three regional programs this spring. Knee High Nature increases young children's awareness and curiosity about the natural world through investigation, fun interactive play, and direct outdoor experiences.

Four Winds educators Chris Runcie and Lisa Purcell are teaching a Winter Term '08 course at Middlebury College on community-based environmental education. Their students will investigate a range of natural science topics on or near campus, and will consider how well different approaches to environmental education promote science literacy.

In addition, Four Winds Nature Institute invited schools enrolled in the Nature Program to apply for mini-grants for schoolyard improvement projects that would make it easier for children to engage in nature study. Four schools were selected; each will receive a \$500 Schoolyard Habitat Improvement Grant. Projects included a composting center and butterfly garden, an educational bird and butterfly garden, a school weather station, and schoolyard habitat repairs and maintenance. These projects will make nature study a richer experience for everyone at the schools. Because of the enthusiastic response to this program and the improved outdoor learning opportunities for the children, we plan to make these grants available annually.



## Volunteer Monitoring in Vermont Runs Deep

Amy Picotte



**C**lean, healthy lakes and rivers contribute greatly to the high quality of living in the Green Mountain State. Vermonters understand the connection between healthy local waters and healthy people and communities. Volunteer citizen monitoring is a critical component in understanding and educating Vermonters about water quality issues. Vermont has a long history of volunteer monitoring including the nation's fourth oldest lake monitoring initiative, the Vermont Lay Monitoring Program. Volunteers have taken an active role in monitoring Vermont waters since the mid 1970's whereas nationally, volunteer monitoring became widespread

only in the last 15 years. As the photos below show, water quality monitoring is now a multi-generational effort.

In recent years, as methods improved, volunteer monitoring programs gained attention from state and federal agencies. Volunteer data (and only volunteer data) was used to set the numerical phosphorus standards on Lake Champlain, the standards that we are trying to meet today through the collaborative Lake Champlain Basin clean-up effort. Data from other citizen efforts are currently being used to track and locate sources of E. coli and to warn the public of any human health risks; to establish baseline conditions; to track nutrient enrichment; and many others. Volunteer monitoring and data lead to better watershed protection, such as improved roadway drainages, riparian re-plantings, and even town zoning regulations.



For more information, contact Amy Picotte at [Amy.Picotte@state.vt.us](mailto:Amy.Picotte@state.vt.us)



## New PLT Biodiversity Module

Rebecca Gies

**A**s the diversity of living organisms on earth declines, we need to foster greater understanding of the complexity of ecosystems and the variability

of plant and animal life. According to the Living Planet Report, published by the World Wildlife Fund (October 24, 2006), the number of terrestrial species present on earth declined by 31 percent from 1970 to 2003. A new Project Learning Tree (PLT) secondary environmental education module helps foster a greater understanding of biodiversity.

The module, Exploring Environmental Issues: Biodiversity was developed by PLT in partnership with the World Wildlife Fund. It allows educators and students to move beyond the microcosm of specific issues to explore and examine broader and more

complex issues with applications across many disciplines. The choices we make are often based solely on our immediate needs, rather than careful consideration of the long-term consequences of our actions. Through close examination of issues associated with biodiversity, individuals will discover how the decisions they make will affect their communities and beyond.

This self-contained module has everything an educator needs, including detailed background information, three lessons, eight activities, as well as extension and enrichment ideas. All materials are correlated to the National Education Standards for Science and Social Studies. Although these materials were prepared specifically for the secondary student, they can be easily adapted to use with middle school students or adults.

For more information about the Biodiversity module, other PLT programs or to schedule a workshop, contact Rebecca Gies at [rebecca.gies@state.vt.us](mailto:rebecca.gies@state.vt.us) or 802/241-3651.

## VEI's Eco-Extravaganza, a Model for "Friend-raising"

Barbara Duncan

On a beautiful fall afternoon, Vermont Earth Institute's first Eco-Extravaganza attracted about 80 guests for delicious, local, organic food; an array of Chittenden County environmental non-profits; and an inspiring talk by Professor Tom Hudspeth of UVM's Rubenstein School of Environment and Natural Resources. Since the event was a friendraiser, not a fundraiser, guests weren't asked to make a contribution however we did generate interest in VEI and the other non-profits.

This event required a generous host; a highly motivated, organized event chair, committee and volunteers; nice invitations; and the support of VEI's board. We also needed to explain to the nine non-profits that there would be a good crowd who would be interested in their organizations' programs.

Here are some things I particularly liked about the day:

- We had an activity for participants (including the many families with kids) - a scavenger hunt to learn about all the great nonprofits present.
- The event was during the Localvore challenge so all the food was local, including pizza made in NOFA's portable pizza oven.
- There was a lot of getting acquainted, rather than talking with just friends and neighbors.
- There were a lot of special touches -flowers, tablecloths decorated by a talented teen, a parking squad.
- Tom's talk was short, informative, and inspirational. It was another example of generosity. All components of the event were donated!

We'd hate to saturate the market with such events. But if you are interested, please take this idea, rename it, and be creative in ways that make your events unique.

## Finding Your Tribe — Farm Based Education Association Symposium

Johanna Liskowsky-Doak

In November, the Farm Based Education Association (FBEA) held its 3rd Educational Farm Symposium, co-hosted by Shelburne Farms. Only five years old, FBFA's mission is to inspire, nurture, and promote farm-based education and it provides a strong support network for professional development and farm education growth. Over 175 farmers, educators, and lovers of the land and food from Italy and across North America participated.

Keynote speaker Peter Forbes of The Center for Whole Communities, shared his reaction when asked to speak to a group of farm educators. Having never spoken to this audience, he wondered what he would say. Upon reflection he came to realize that he "had finally found my tribe." It is a tribe who shares passions for the land and for community. It is a tribe who believes that through connecting with soil, plants and animals, people will become conscious of the origins of their food, clothing and other material goods. It is a tribe who believes these connections can be a means to deepening the

spirit of individuals and deepening the meaning of community.

While Forbes' address was a highlight for many, the symposium as a whole was a success. There was an array of workshops including: seed saving techniques, using the farm as a classroom, the art of listening, managing a healthy board, how to work with children and animals, managing the land and much more. Energetic evening entertainment, a diversity of pre-conference field trips, delicious food, and active, engaged participants all created a fabulous program.

Forbes' inspirational words can motivate all environmental education tribes and remind us of the positive work done everyday: Americans today really want something to believe in, but they need to feel it in their bones and it needs to taste like truth... Farm-based education helps people to define themselves by what we care about as opposed to what they fear. Your work helps people to relate to land and to one another with a moment of care and attention. You remind people what they believe in.

## Building a Network for Farm to School Programs

Dana Hudson

**F**arm to School programs are popping up all over Vermont as a way to sustain farming while connecting schools with local farms. The objectives of these programs are to serve healthy meals in school cafeterias, improve student nutrition, and provide agriculture and nutrition education opportunities, while supporting local family farms.

The Farm to School movement has grown across the country, with the impetus coming not just from the food and farming sectors, but from public health, education, natural resources, and economic development perspectives as well. In an exciting development, the National Farm to School Network recently received a three-year, \$2.4 million grant from the W.K. Kellogg Foundation to establish a viable and sustainable mechanism to coordinate, promote, and expand the farm to school movement at the state, regional, and national levels.

The National Network has created regional organizers (called Regional Lead Agencies, or RLAs) as part of this mechanism. Vermont FEED (Food Education Every Day) and FARMS (Focus on Rural Maine Schools) are the RLA's for Northeast region (NY and New England.) RLAs help develop the farm to school network and, in the words of Jeff Beach (Repositioning Northeastern Agriculture: [www.csgeast.org/pdfs/Repositioningreport.pdf](http://www.csgeast.org/pdfs/Repositioningreport.pdf)) promote the "sense of regional unity, solidarity and reliance on the region's diversity that is needed to renew the strength and pur-

pose" of agriculture, as a way to improve health, stimulate economic vitality, and celebrate tradition, culture, and innovation. As RLA's, VT FEED and FARMS will work with the National Network in areas of policy, information, media, and networking as well as training and technical assistance for individuals working on farm to school issues.

The National Farm to School Network has an updated website, [www.farmtoschool.org](http://www.farmtoschool.org). It offers extensive content and easy access for submitting information about programs, upcoming events, news, funding opportunities and online discussion forums for farm to school related issues. There is a profile for each of the 34 states with active farm to school programs. Click on any state to search for policies, farmers, funding opportunities, and involved groups.

The Northeastern states have had to think creatively and innovatively in recent years to sustain their farms, a significant and valuable part of the landscape and economy. Farm to School is yet another way to sustain farming, fend off "sprawl," and satisfy consumer demand. But it is more than that. Farm to School work is an example of a holistic community economic development strategy, one that celebrates and maintains working landscapes as educational destinations and as employment opportunities to preserve culture, tradition, and innovation.



For more information, contact Dana Hudson at [dhudson@shelburnefarms.org](mailto:dhudson@shelburnefarms.org) or 802-434-3202

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*NEEEA Update continued from p. 1*

2006 keynote speaker Dayna Baumeister of the Biomimicry Guild highlighted using the natural world as inspiration in addressing human needs through design and engineering. Last September's keynote addresses by Tom Wessels of Antioch University and Alisa Gravitz of Coop America highlighted the need for action and called for environmental educators to lead this charge. You can read some of Tom's ideas on the NEEEA website. And check there, too, for specifics on the NH 2008 conference, Oct 3-5: "A Journey Home: Fostering Ecologically Centered Communities."

NEEEA also sponsors a yearly professional development retreat. 2007's "Expanding the EE Community: Inviting and Support-

ing Diversity", examined the motivations and implications of becoming more inclusive so

that we select approaches that foster relationship building. Participants examined how their own value systems have shaped their views and approaches and developed skills to become more inclusive of others' ideas and attitudes to expand the reach of EE.

Like SWEEP, NEEEA has a listserv, a wonderful resource for job postings, announcements, and information. It's also a great place to post questions, share stories and seek ideas.

To join NEEEA's listserv, go to [www.neeea.org](http://www.neeea.org), click the purple Yahoo Groups button at the bottom and follow the instructions. Questions? Contact moderator Shareen Knowlton: [sknowlton@rwpzoo.org](mailto:sknowlton@rwpzoo.org).

# Book Reviews

## Green Reading

By Peg Goldman

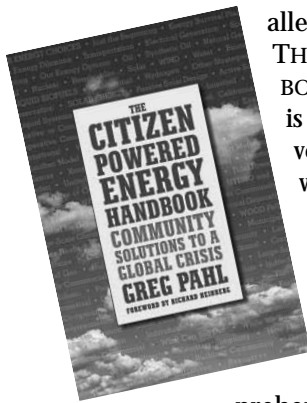
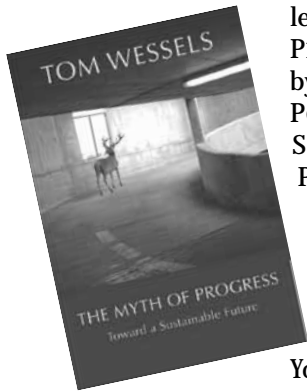
Would you like some help minimizing your carbon footprint? Two books that lead you in that direction are *THE MYTH OF PROGRESS: TOWARD A SUSTAINABLE FUTURE* by Tom Wessels (2006) and *THE CITIZEN-POWERED ENERGY HANDBOOK: COMMUNITY SOLUTIONS TO A GLOBAL CRISIS* by Greg Pahl (2007).

Wessels narrates a story close to his heart; indeed he is taken very seriously as a professor at Antioch College which now offers an MBA in sustainability. The overwhelming theme of *The Myth of Progress* is entropy. You become an expert in understanding the second law of thermodynamics as it applies to living organisms and the universe as well.

I was fortunate to listen to Tom speak about his latest book at the 2007 NEEEA Conference. From a childhood vignette in the prologue to an epilogue entitled "From Consumption to Connection", the reader begins to think twice — at least. A scientific glossary is included. This book is well worth reading.

If you are interested in specific ways to alleviate the peak oil crisis, Greg Pahl's *THE CITIZEN-POWERED ENERGY HANDBOOK* is a great resource book for you. It is a highly researched and educational volume on energy choices: solar, wind, waterpower, biomass, liquid biofuels and geothermal.

I first met Greg carpooling to the 2007 Vermont Envirothon; if peak oil was not part of my working vocabulary at the time, it certainly was by the end of the day. His book is comprehensive and answers lots of questions you may have, as well as giving many sources for more information. This is one more volume well worth reading.



## Mammal Tracks and Scat: Life-Size Tracking Guide

by Levine and Mitchell

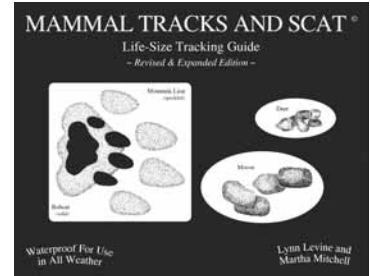
Lisa Purcell

Along with my binoculars, topo map and compass, there are a few field guides that

remain in my backpack all year long. I rely on these resources as I try to read the woods around my home and get a sense of the plants and animals that live with me. This year I will replace one of my old favorites with a newly revised and expanded edition.

Co-authored by Lynn Levine and Martha Mitchell, *MAMMAL TRACKS AND SCAT: LIFE-SIZE TRACKING GUIDE*© is a wonderful, waterproof field guide, designed to be carried through brush, bramble and snow. The easy-to-follow track section guides the reader through a series of questions to help identify the tracks of 29 animals that are commonly encountered in the field. The scat identification process starts by sorting first by basic shape: round or cylinder. Then the categories are divided into more detailed descriptions (pointed, twisted, broken, etc.), and finally the species is identified using additional clues such as habitat, den construction, teeth marks, etc.

Each page is packed with detailed information, illustrations and measurements. But the book is more than just a study guide; it also reflects the deep connection the authors have with the natural world, "Following wildlife tracks is often a magical experience... 'Become' the animal you are following by imagining you are its size. Picture your hands as the animal's front paws and your feet as the animal's hind paws." I am eager to bring this 2nd edition into the field with me this winter.



## Get Swept Away!

Vermont StateWide Environmental Education Programs (Vermont SWEEP) is a coalition of individuals & organizations promoting environmental education in Vermont

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Town/State/Zip: \_\_\_\_\_

Email: \_\_\_\_\_

Organization: \$40    Individual: \$15

Please make check payable to SWEEP, and mail to: SWEEP 9 Bailey Avenue, Montpelier, VT 05602. Thanks!

### MEMBERSHIP BENEFITS:

- Twice-annual membership meetings; periodic development workshops & conferences
- Representation to the six-state New England Environmental Education Alliance (NEEEA)
- Inclusion in SWEEP's directory, listing members' environmental education services and is distributed to VT teachers and educators.
- SWEEP's newsletter

# Resources & Opportunities

**New VINS Fellowship Program**  
The Vermont Institute of Natural Science (VINS) announces a new program to support and expand environmental science research through the Environmental Science Research Fellowship Program. Fellowship awards of up to \$5,000 will be made to qualified applicants and supporting institutions engaged in environmental field research in New England. This program is open to high school and undergraduate students as well as teachers and teaching teams. Go to [www.vinsweb.org](http://www.vinsweb.org) or contact VINS for a full program description and application criteria.

## 2009 Celebrate Champlain Quadricentennial

Applications are now being accepted for events, exhibits, and projects that explore one or more of the themes set by the Vermont Lake Champlain Quadricentennial Commission:

- The long and rich cultural heritage of Lake Champlain and the Champlain Basin of Vermont.
- The natural history of Lake Champlain and the Champlain Basin of Vermont.
- Environmental and other challenges currently confronting Lake Champlain.
- Samuel de Champlain's 1609 exploration of the lake basin.
- Particular focus on one or more of the following: Franco-American, French-Canadian and Native American history and culture in the region; and groups of people contributing to the contemporary cultural history of the Lake Champlain basin.

Visit [www.celebratechamplain.org/events\\_intro.html](http://www.celebratechamplain.org/events_intro.html)

## Sterling College Sustainable Agriculture Semester

Sterling College is currently accepting applications for the 2008 Sustainable Agriculture Semester, June 8 to August 15. This 8-11 credit program of work and study explores ecological

management of plants, animals, and land. Classroom instruction, hands-on training, and work on the farm are combined to teach sustainable practices and to foster discussion about agricultural issues. Farm includes certified organic gardens, greenhouse, movable hoophouse, small orchard, solar and wind powered barns, and a variety of livestock including sheep, goats, pigs, cattle, poultry, and draft horses. Enrollment limited to ten. **Application deadline: April 14.**

For more information go to [www.sterlingcollege.edu/sas](http://www.sterlingcollege.edu/sas).

## Vermont Herps Posters

The Vermont Reptile and Amphibian Atlas Project (VRAAP) has printed two new informational posters: Vermont frogs and Vermont salamanders. The posters contain color photographs of all Vermont amphibians along with distribution maps, identification information, and basic natural history. Each 23"x16" poster is printed on durable, glossy, heavyweight paper. In 2006, two Vermont reptile posters were printed; all four posters can be seen at the VRAAP website. All proceeds help fund VRAAP.

VRAAP is coordinated by Jim Andrews, a research herpetologist at Middlebury College. Its goal is to gather and disseminate data on VT's reptiles and amphibians to involve and inform people and organizations so they become more informed and effective stewards of wildlife habitat. Since the Atlas began, more than 3,000 individuals, organizations, and agencies have provided over 60,000 records of local reptiles and amphibians.

Additional information on the posters, how citizens can contribute to the survey effort, and resources on identification and natural history of these species can be found at <http://community.middlebury.edu/~herpatlas/> or contact [jandrews@middlebury.edu](mailto:jandrews@middlebury.edu)

# Calendar

APRIL 30

**SWEEP Membership Meeting**  
USFS Office, Rutland,  
4:00-6:30 PM. Potluck dinner; BYO plates, mug, cutlery, napkin.

OCTOBER 3-5

**NEEA NH 2008 Conference**  
"A Journey Home: Fostering Ecologically Centered Communities"

OCTOBER 15-18

**37th NAAEE Conference**  
in Wichita, Kansas.



Two new posters from the Vermont Reptile and Amphibian Atlas Project (VRAAP): Vermont frogs and Vermont salamanders. 23"x16"; \$9.43 each (\$10 with VT sales tax) + \$3 shipping. Order at <http://community.middlebury.edu/~herpatlas/>

## Online Courses

**Applied EE Program Evaluation**  
February 18 – May 9

Designed to assist environmental educators and natural resource professionals in evaluating their programs, providing the opportunity to develop and apply skills in designing evaluation tools. <http://eelink.net/cgi-bin/ee-link/newclick/2287396>

**Environmental Communication for Behavior Change**

January 15 – February 24  
Duke Environmental Leadership (DEL) Program course provides environmental professionals with an intro to the strategies and tools of environmental communication that effectively lead to changes in behavior. For more information and to register: [www.nicholas.duke.edu/del/continuing/courses.html](http://www.nicholas.duke.edu/del/continuing/courses.html) or contact [del@nicholas.duke.edu](mailto:del@nicholas.duke.edu)

**Free Astronomy Workshops for EE Educators**

February 21 – March 20  
Astronomy From the Ground Up's online workshop for science, nature center, and museum educators. Thanks to support from NSF, the workshop is free. Course is via e-mail, videochat, and phone. <http://eelink.net/cgi-bin/ee-link/newclick/2287402>

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# ***SWEEP People***

**Arianna Collins** recently accepted the Education Director position at the Northeast Sustainable Energy Association in Greenfield, MA and has left her position as School & Camp Programs Coordinator at BEEC.

**Kim Guertin**, Audubon's Program Manager and SWEEP Board member, has been promoted to the position of Green Mountain Audubon Center Director. **Kristen Sharpless** has been hired as a new full-time Teacher/Naturalist at the Green Mountain Audubon Center in Huntington. Kristen will coordinate Audubon's school programs and will develop a series of new community outreach programs focused on forest birds.

Another SWEEP board member, **Caitrin Noel** has left her position as Coordinator of the UVM Watershed Alliance to become the new watershed coordinator of the Friends of the Mad River.

**Rebecca Gies** is the new Conservation Education Coordinator for the VT Dept. of Forests, Parks and Recreation. This is the post that was held by **Ginger Anderson**, who is now the department's Chief of Forest Management. Rebecca holds her Vermont

K-8 general classroom teacher certification; her 7-12 Life Science certification is pending. She has been a classroom teacher, a Park Ranger and a VYCC Park Manager, has worked for VINS, Maine Audubon, National Audubon and The Nature Conservancy.

**Nicole Ballinger** has transitioned to part-time with the Lake Champlain Basin Program in order to expand her own communications business. She specializes in website design, graphic design and creating content for communications projects. Visit her website, [www.nicoleballinger.com](http://www.nicoleballinger.com) for more information.

## **SWEEP Listserv**

Any SWEEP member who wants to join the SWEEP listserv can go to: <http://tech.groups.yahoo.com/group/VermontSweep/>. Click on the blue box (right side of page) that says, "Join This Group!" If you don't already have a yahoo ID, you can easily create one. SWEEP's Webmaster will make sure you are a SWEEP member and then you can post messages to the group by emailing: [vermontsweep@yahoogroups.com](mailto:vermontsweep@yahoogroups.com)

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## ***Vermont SWEEP***

Statewide Environmental Education Programs

9 Bailey Avenue  
Montpelier, VT 05602

Save the Date!

NEXT SWEEP MEETING:

**APRIL 30, 2008** • 4:00-6:30 PM

USFS OFFICE, RUTLAND, VT