

# UPDATE FROM THE CENTER FOR THE ENVIRONMENT

Addressing the science, policies, culture and economics of the natural environment in northern New England through collaborative research and education

Plymouth State University

Spring 2005

Vol. 1, No. 1

## From the Director



Welcome to the first update from the Center for the Environment. The Center was founded to support the new regional research, graduate education and outreach mission of Plymouth State University, so we will report to you regularly as this develops. This first issue describes the enhanced way that the Center plans to engage the regional community. Our goal is to collaborate with internal and external partners, and/or to facilitate as needed within the region. The role includes regional research and is more active than traditional "outreach," so we call it *external engagement*.

An example of *external engagement* is the Lake Waukewan project described in this newsletter. We are collaborating with the Town of Meredith, NHDES and local consultant Rick Van de Poll on a project to protect the Meredith drinking water source. Our future laboratory will provide analytical services, and PSU graduate student Melissa Greenawalt-Yelle will write a thesis on Lake Waukewan and tributaries. NHDES is funding the project and Meredith's Town Planner John Edgar sees this as the start of a long term relationship between PSU and Meredith. Is this project applied research? Outreach? Graduate education? Stewardship? Collaboration? The answer is "all of the above," and it is an early example of the *external engagement* mission of the Center for the Environment.

Your feedback and project ideas are helpful, so please stay in touch. Enjoy the rest of this newsletter, and stay tuned for more!

*Steve Kahl*



## Center Opens in Sept 2004

The new Center for the Environment at PSU became a reality in September with the hiring of Dr. Steve Kahl as director. To enhance integration with the social sciences, Dr. Brian Eisenhauer, Assistant Professor of Sociology, has been appointed Associate Director. Administrative Assistant Shaughn Piper and Outreach and Development

Coordinator June Hammond Rowan were hired this winter. Well-known New England science educator Dr. Mary Ann McGarry is also serving as adjunct staff in the Center.

The seeds for the Center were sown in 2001 with conversations among PSU administrators, the Squam Lakes Natural Science Center, and the Squam Lakes Association. The opportunity to address local and regional environmental issues for the benefit of the whole region was the focus of these discussions. As others joined in, the idea of the Center developed, culminating in a kick-off event at the Minary Conference Center in Holderness in June 2004.

The goals of the Center for the Environment are to address the science, policies, culture and economics of the natural environment in northern New England through collaborative research and education. The Center has a special commitment to the North Country and lakes region of New Hampshire, and PSU is geographically situated to serve this role. The Center will focus on applied environmental problems and engage local communities and organizations in environmental demonstration projects that integrate the natural and human environments. The work of the Center is intended to enhance the North Country economy and foster regional environmental understanding and literacy.

## Projects & Partnerships

The Center for the Environment will be a facilitator and a focal point for innovative research, education, and training with a sustainability ethic, reaching out to a variety of partners, including towns and the business community. Currently, the following projects and partnerships are being developed:

- ☞ **Waukewan Watershed Project:** The Center is working with the **Town of Meredith** and the **N.H. Department of Environmental Services (NHDES)** on biomonitoring in the Waukewan watershed and implementation of a watershed management plan to help protect the town's drinking water supply.
- ☞ **Outreach for the Baker River Watershed Association:** The Center is working with the BRWA to coordinate their outreach activities through development of a Web site.

- ☞ **Squam Lakes:** The Center is organizing a workshop for the **Squam Lakes Association (SLA)** to determine future research needs of the watershed. We are also co-funding an Environmental Research Associate position at SLA.
- ☞ **Research & Monitoring in the White Mountain National Forest:** Discussions are underway with the WMNF on how the Center can support research and monitoring in the White Mountains.
- ☞ **Hydrologist:** The Center is currently in the process of hiring a hydrologist who will work both at PSU as a faculty member and at the **Hubbard Brook Experimental Forest**.

The Center is located in the recently renovated Boyd Science Center at PSU. A laboratory to support the needs of the region is being developed.

For more information on the Center, visit our website at: [www.plymouth.edu/cfe](http://www.plymouth.edu/cfe)

## Travel Study Courses Offered

The Center for the Environment is offering travel study opportunities for students and community members to different locations in the United States and internationally. Exploring the natural sciences of regions globally helps us better understand and appreciate our home ecosystems.

### SEA TURTLE TAGGING IN COSTA RICA

This July, Mary Ann McGarry will be co-teaching a Sea Turtle Tagging



course in Costa Rica. Participants will work alongside scientists from the Caribbean Conservation Corps—the leading authority on sea turtle conservation—to monitor green sea turtles on their famed nesting grounds at Tortuguero National Park. Biodiversity, sustainable development, rainforest ecology, conservation biology, field data collection, and stewardship in the Internet age are concepts and skills that will be integrated into the course.

For more information, visit [www.plymouth.edu/cfe/conferences.html](http://www.plymouth.edu/cfe/conferences.html)

## Recent Publications

To read these articles, visit: [www.plymouth.edu/cfe/publications.html](http://www.plymouth.edu/cfe/publications.html)

Steve Kahl is the lead author of **“Have U.S. surface waters responded to the 1990 clean air act amendments?”** the cover article for the December 15, 2004 issue of *Environmental Science and Technology*. The article addresses policy-relevant results of long-term acid rain research on lakes in the northeast, including his work on New Hampshire lakes since 1991. Sulfate and nitrate concentrations along with pH are common means of evaluating surface waters in relation to acid rain. Research results indicate that reductions in emissions required by the Clean Air Act have led to reduced acidity and lower sulfate concentrations region wide. These signs of recovery indicate that the Clean Air Act has had a positive environmental effect, but uncertainties over the rate of recovery and the role of nitrogen in the environment remain. Sulfur emissions have been greatly reduced from power plants, but nitrogen emissions from vehicles are still high.

**“Discover Your Watershed Address”** is an article by Mary Ann McGarry published in this winter’s volume of the *Lessons from the Bioregion*, a publication of the Bioregional Outdoor Education Project—a program of the Four Corners School of

Outdoor Education in Colorado. Mary Ann serves on the Advisory Board of this National Science Foundation funded project.

**“Tadpole Patrol,”** written by Mary Ann McGarry and her daughter Sydney Kahl, appears in the winter issue of the Maine Congress of Lakes Association Publication. The story describes how an annual poster contest for young people encourages reflection on lake stewardship.

## Conferences

As part of its outreach mission, PSU and the Center for the Environment will be hosting and sponsoring conferences. This spring the Northern Forest Center Leadership Exchange and the Annual Meeting of the New England Chapter of the North American Lakes Management Society were held at Boyd Science Center. Future conferences involving the Center include the Squam Lakes Association Workshop in June and the Gordon Research Conference (at Colby College) in July.



For more information, visit [www.plymouth.edu/cfe/conferences.html](http://www.plymouth.edu/cfe/conferences.html)

## **WISH LIST!**

As a start-up enterprise, the Center for the Environment has many needs. For example, we are looking for a four-wheel drive vehicle for students and faculty to reach remote research sites, and a high gas mileage automobile for when we don’t need 4WD. We are also working on developing an endowment to fund permanent graduate student fellowships, and seeking a lake front location for a field research station. If you are interested in helping us with these initiatives, or if you have a vehicle that you would consider donating for a tax deduction, please contact Steve Kahl or June Hammond Rowan ([jskahl@plymouth.edu](mailto:jskahl@plymouth.edu) or [jhammondrowan@plymouth.edu](mailto:jhammondrowan@plymouth.edu)).



**Did you know?** Last year, 830,000 vehicles were donated to organizations such as the Center for the Environment. A tax deductible gift will make you feel good about helping your local environment and fostering the research and careers of deserving graduate students!

Yes, I’d like to help!

\_\_\_\_\_ Please send me more information about the Center and its programs.

\_\_\_\_\_ I may be interested in a tax-deductible donation of a vehicle.

My main concerns are:

\_\_\_\_\_ N.H. forests    \_\_\_\_\_ N.H. lakes    \_\_\_\_\_ N.H. rivers    \_\_\_\_\_ N.H. mountains  
\_\_\_\_\_ drinking water    \_\_\_\_\_ land development    \_\_\_\_\_ toxics in the environment    \_\_\_\_\_ Other (please specify)

My primary geographic interest is in the following region:

\_\_\_\_\_ Squam Lakes    \_\_\_\_\_ White Mountains    \_\_\_\_\_ Other (please specify)

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

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

E-mail Address: \_\_\_\_\_

*If you would prefer to receive this newsletter electronically in the future, please let us know.*



### **Center for the Environment**

Boyd Science Center, MSC 63  
17 High Street  
Plymouth, NH 03264