



# FINGER LAKES INSTITUTE

## August 2008 Happenings

### Education Outreach

#### Finger Lakes Ecology Workshop

The diversity of habitats in and around the Finger Lakes region creates an ideal environment for learning field-based ecology. In July the FLI hosted a group of middle and high school teachers from a variety of school districts and disciplines for a 3-day workshop focused on Finger Lakes region. During the workshop the teachers were introduced to lessons on invasive ecology referring to the impacts of the quagga and zebra mussels on the food web and water quality conditions of Seneca Lake. While on the Hobart and William Smith research vessel, *The William Scandling*, the teachers learned how to identify the mussels and how scientists quantify densities from sediment samples. On a trip to the Montezuma National Wildlife Refuge the teachers honed their plant identification skills using field guides for invasive terrestrial plants.

During the workshop teachers took a trip to the Finger Lakes Community College's Mueller Field Station at the southern end of Honeoye Lake to capture and identify common aquatic insects, fish and amphibians and learn how the physical and chemical properties of ponds and streams differ. The final day of the workshop was spent at the Audubon Center's Montezuma site canoeing the Seneca River where teachers spotted a Bald Eagle. The day was capped off with a session on common migrating birds at the wetland complex.

For the teachers, the experience was fun as well as informative. "First off, all of the ideas are fantastic. If I can incorporate a few each year I would be an awesome teacher. The pond and stream experience was the most educational and most useful because it is an activity that students can get involved in. Also, it is nice to have someone with experience "show" you the ropes." mentioned one participant.

#### Teachers Learn About the Lakes

Both Sheila Myers and student intern Emma Cochran WS '09 led sessions for over fifty Agriculture and Environmental Science teachers as part of the "Cultivate New York" annual conference in June. The conference, sponsored by Cornell University, was held at the Canandaigua Inn on the Lake, the perfect setting for teachers to learn about the lake environment using the FLI's limnologic field equipment. Stations were set up for teachers to use equipment such as plankton tows, sediment samplers, aquatic rakes, and field microscopes. All of this was to introduce teachers to some of the field work conducted as part of the [Science on Seneca](#) program on the HWS research vessel, *The William Scandling*.

#### Student Interns Survey FL Stream Sites

Three FLI student interns, Emma Cochran WS '09, Cameron Avelis H'11, and Sarah Holland WS '09 conducted stream surveys of area sites to see if they were compatible with criteria for a regional school stream monitoring program. Out of the eleven sites visited this summer about half proved accessible and safe for youth as well as having enough water and habitat to support aquatic life. Once these sites are mapped out by FLI GIS Specialist Nate Burtch, the regional committee: and Marion Balyszak, FLI, Bruce Gilman, Finger Lakes Community College, Susan Cushman, Hobart and William Smith, Sharon Bassage, Wayne-FL BOCES, and Matt Webber, Izaak Walton League, will reconvene to determine the next steps in setting up a stream monitoring protocol and training for school teachers in the region.

## **GIT Ahead Summer Institute, 2008**

For the third consecutive summer, secondary school science teachers from central New York have gotten immersed in mapping technology through the GIT Ahead Project. This summer eight interns have been placed with local agencies that use GIT (Geospatial Information Technology) extensively in their work, giving the students hands-on experience in exciting career paths in this broad and rapidly-evolving field.

Twenty teachers are involved in the 2008 GIT Ahead Summer Institute. In their schools, they teach a broad range of courses including environmental science, living environment, chemistry, and earth science. Over the course of the first five days of the Summer Institute held in Auburn and Geneva, teachers worked individually and in teams, learning mapping technologies that included Google Earth, ArcView, and other web-based applications. All participating teachers are eligible for complimentary licenses for ArcView software, and also receive their own Garmin GPS units. During the time between the first week of the Summer Institute in July, and the second session when the group reconvenes in late August, the teachers are formulating ideas about specific ways to build these technologies into their lesson plans. The August Institute will be dedicated primarily to the details of creating these lessons. Teachers in the program will also meet regularly throughout the school year in person and via web conferencing to work on their projects during full-day Saturday workshops, also sponsored by GIT Ahead.

We're looking forward to an exciting year ahead with this fabulous and innovative group of educators.

*GIT Ahead is a collaboration among the Finger Lakes Institute, Hobart and William Smith Colleges, and Cornell University, in partnership with Cayuga Community College, the New York State GIS Association, and IAGT in Auburn, NY. We receive our funding through the National Science Foundation with additional support this year from the Rochester Area Colleges Center for Excellence in Math and Science (RAC-EMS). The GIT Ahead Project provides training for teachers to integrate geospatial information technology (GIT) such as geographic information systems computer mapping and GPS into their curricula. Job opportunities for GIT-savvy professionals are on a steep climb, so GIT Ahead also coordinates summer internships for high school students.*

## **Community Outreach and Public Service**

### **FLI Outreach Reaching the Nation**

Sarah Meyer, FLI Community Outreach Coordinator since the FLI's inception in 2004, has been accepted to present at the 4<sup>th</sup> Annual Alliance of Natural Resource Outreach & Service Programs (ANROSP) Conference taking place in New Braunfels, TX in September. The Alliance of Natural Resource Outreach & Service Programs is a national network of diverse environmental outreach and service programs working to promote citizen stewardship of natural resources through science-based conservation- education- and service programs.

The conference agenda, focused on diverse practices for natural resource outreach and service programs, will include Meyer's presentation on the Finger Lakes Institute's history as an example of a program from inception to successful institutionalization. Since 2004, the Institute's Community Outreach and Public Service Program has made significant strides to provide educational experiences pertaining to the Finger Lakes environment that benefit the communities of Finger Lakes region. Programs, like conferences, guest lectures, college student programs, and symposia, have focused on such topics as water quality, invasive species, global climate change, alternative energies, wildlife management, regional planning, watershed management, tourism and recreation, forest management, green home design, gardening and landscaping, wine and viticulture, and other regional environmental issues. In addition to outreach, the FLI sponsors public service opportunities that include Finger Lakes beach cleanups, water quality monitoring days, educational field trips to regional natural areas, HWS Alternative Spring Break Trips, and presentations for regional interest groups, for example garden clubs, schools, research groups, senior living communities, and home owner associations.

At the conference Meyer plans to share the experiences she has had through establishing the FLI's Community Outreach Program but also hopes to obtain valuable tools and information to enhance and continue to develop the program.

### **4<sup>th</sup> Annual Research Conference Call for Abstracts**

The Finger Lakes Institute's 4th annual Finger Lakes Region Research Conference, scheduled for Saturday, October 18 at Hobart and William Smith Colleges, will highlight scientific research pertaining to the Finger Lakes environment. Faculty, students, and independent scientists are encouraged to submit abstracts for either 15 minute oral presentations or a poster session to the Finger Lakes Institute by September 5 for the day-long conference agenda. The annual conference will

highlight **ALL** aspects of Finger Lakes research- **terrestrial and aquatic**. Presentations on land-based sciences, such as terrestrial ecology, invasive species, atmospheric sciences, wildlife biology, botany, agronomy, wetland resources, geology and more are welcome.

The conference, part of the FLI mission to disseminate scientific knowledge to the general public, will provide opportunities to meet others interested in environmental science and scholarship, particularly related to topics on the Finger Lakes of western and central New York State. College students (grad and undergrad) participating in the conference have an opportunity to compete for *Best Oral Presentation*, recognized with a \$100 award. Past award recipients were students of Keuka College, Cornell University, and Hobart and William Smith Colleges. Conference funding provided by NYS through the advocacy of Senator Michael F. Nozzolio.

Stay up to date with 2008 Finger Lakes Research Conference announcements or read past conference abstract volumes, at <http://fli.hws.edu/conference.asp> . **2-page abstracts are due September 5** to Sarah Meyer ([smeyer@hws.edu](mailto:smeyer@hws.edu) or (315) 781-4382). Participation is open to researchers as well as the public and conference registration closes on October 10.

## Geocaching: A Techie Treasure Hunt

Geocaching is a great way to explore your surrounding environments, or to learn about a new place you are visiting. Last November, the Finger Lakes Institute organized a one-day geocaching event at the Seneca Lake State Park in Geneva, New York. This fall, the FLI will hold another geocaching event September 13<sup>th</sup> at Mendon Ponds Park in Mendon, New York.

Geocaching is a new activity that has been slowly building in popularity since its founding in 2000. In that year, the US Government disabled the Selective Availability protocol that effectively scrambled Global Positioning Systems (GPS) signals to erode accuracy for non-military uses. Within days of freeing the system to private users, Dave Ulmer of Beaver Creek, Oregon hid a plastic bucket and posted the coordinate location on the Internet for others to find. By 2008, more than 800,000 caches of varying sizes have been placed worldwide.

The purpose of a geocache is to use a GPS unit to load coordinates and locate these hidden caches. The caches contain logbooks and often small treasures and trinkets. In general, finders are required to record their visit in the logbook (and online), and to leave an item if they choose to take an item from the cache. In the United States, [geocaching.com](http://geocaching.com) is the go-to place online to hide and seek caches.

## Upcoming FLI Events!

All events are free and open to the public unless indicated otherwise.

**Registration requested by calling (315) 781-4382 or email [fli@hws.edu](mailto:fli@hws.edu).**

If you would like to view past FLI event presentations, visit <http://fli.hws.edu/pastworkshops.asp>

### August 4-8, Finger Lakes Institute

#### *Explore the Finger Lakes! Summer Day-Camp*

The HWS Kids College program, *Exploring the Finger Lakes*, is a summer day-camp for youth ages 12-14 (grades 6-8 grade). Throughout the week campers will be take a canoe trip, explore a bog, hike to area waterfalls, and examine the aquatic life in Seneca Lake. The cost for one week of camp is \$250.00 per camper and includes all field trips and lunch. For more information and an application visit the [Kids College website](#) at or contact Sheila Myers at [smyers@hws.edu](mailto:smyers@hws.edu) or call (315) 781-4380.

### September 5

#### *4<sup>th</sup> Annual Finger Lakes Region Research Conference -ABSTRACTS DUE*

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The conference will provide opportunities to meet others interested in environmental science and scholarship, particularly related to topics on the Finger Lakes of western and central New York State. College students (grad and

undergrad) participating in the conference have an opportunity to compete for *Best Oral Presentation*, recognized with a \$100 award.

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**September 13, 10 am -4 pm, Mendon Ponds Park- Algonkian Shelter ([More Info](#))**

***Explore the Finger Lakes Geocache***

A family fun event! A GPS unit is an electronic device that determines your approximate location on the planet and is used to navigate from your current location to another location. This geocache event incorporates the use of a GPS unit to explore and learn about the natural history of the Finger Lakes region. Participants in this event will use a GPS unit to find their way through an outdoor, trivia-filled scavenger hunt while learning about invasive species, geologic features, wildlife, insects, recreation, wetlands, and more! Beginners are welcome! Lunch Provided.

**September 16, 7:00 pm, Finger Lakes Institute**

***Ecology of Fishes of the Finger Lakes***

Robert G. Werner has published two books, *Fishery Science: The Unique Contribution of Early Life Stages* and *Freshwater Fishes of New York State: A Field Guide*. Bob will discuss his ichthyologic research and provide instruction on Finger Lakes fish identification, life history, and distribution. Participants will gain an awareness of how changes in aquatic habitat can impact fish and their historic population dynamics.

**September 20, 10 am, Seneca Lake State Park**

***Seneca Lake Beach Cleanup -VOLUNTEERS WANTED!!***

A family event and group effort! Join the Finger Lakes Institute in public service to clean the shores of Seneca Lake of trash and debris. Lunch will be provided. Volunteers are asked to wear closed toed shoes and work gloves (not provided).

[Directions](#) Call (315) 781-4382!

**September 27, 10am -2:30 pm, Meet at the Finger Lakes Institute at 8:30 am and return at 4:00 pm**

***Plant a Tree, Restore a Stream! VOLUNTEERS WANTED!!***

Vegetation along a stream stabilizes its banks and provides fish habitat and shade. Participants in this volunteer opportunity will plant trees into pre-dug holes along Virgil Creek, which flows into Fall Creek in Tompkins County. Transportation from the Finger Lakes Institute (601 S. Main St.) provided, leaving at 8:30 am. Lunch Provided by Tompkins County SWCD. Children must be supervised by an adult at all times. Space is limited if using transportation from Geneva. Participants should dress to get dirty –closed-toed shoes, bug spray, sunscreen, gloves, etc. Call (315) 781-4382 to sign up!

**September 27, 9:00 am -3:00 pm, Finger Lakes Institute**

***2nd Annual My Place In the Finger Lakes Conference***

The *My Place in the Finger Lakes (MPIFL) Conference* is for regional middle school teachers to learn of multidisciplinary topics and curriculum ideas for teaching youth about the Finger Lakes environment. Interested in developing curriculum for the [My Place In the Finger Lakes Project](#) or participating in the *MPIFL Conference?*, call (315) 781-4380 or email [smyers@hws.edu](mailto:smyers@hws.edu). [Registration Form](#)

**October 18, Hobart and William Smith College Scandling Center-Vandervort Room **NEW LOCATION!****

***4th Annual Finger Lakes Region Research Conference***

The 4th Annual Finger Lakes Region Research Conference will highlight **ALL** aspects of Finger Lakes research -**terrestrial and aquatic**. Presentations on land-based sciences, such as terrestrial ecology, invasive species, human impact, atmospheric sciences, wildlife biology, botany, agronomy, wetland resources, geology and more are welcome. Both 15-minute oral presentation and poster displays are scheduled during the day-long conference. A \$100 cash award honors the best student (undergraduate or graduate student) oral presentation. Funding for the conference is provided by NYS through the advocacy of Senator Michael F. Nozzolio. All those attending the Conference will receive **FREE registration**, which includes the extended abstract volume, refreshments, snacks and lunch. Visit <http://fli.hws.edu/conference.asp> to learn more.

**October 30**

### *Land Use in the Finger Lakes – A One Day Symposium*

Sponsored by the Finger Lakes Institute at Hobart and William Smith Colleges

Water quality in the Finger Lakes is related to land use. Local decision making related to comprehensive planning, zoning, and protection legislation by communities surrounding the Finger Lakes will be critical to the future protection of the lakes and continued economic viability. The Finger Lakes Institute will sponsor a full-day symposium featuring a training workshop on land use decision-making by the Pace University Land Use Law Center, a panel discussion on regional approaches to land use and a demonstration of how geospatial technology can be applied in local settings to effect sound land use decisions presented by the Institute for the Application of Geospatial Technology (IAGT) in Auburn. Symposium details and registration information will be announced later this month.



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