Student Watershed Watch Report

Our Gk-12 fellows, teachers and their high school students were out in the field in October for Student Watershed Watch, analyzing and collecting ecosystem data from local streams. The students organized and presented their results at the SWW Summit, held at UT in November. Many of our Gk-12 groups won awards for their creative and informative presentations.

The SWW program teaches area teens about stream ecosystems through hands-on fieldwork and classroom learning. For the students and their teachers, the hands-on component is a unique and highly valuable learning experience.

(continued p. 3)

Coastweeks at the Lake Erie Center

With water levels low in the Western Basin due to a storm the previous day, LEC and UT volunteers spent Sept. 24 cleaning up trash along Maumee Bay and Bayshore Road. It was part of International Coastweeks, sponsored locally by the Ohio Lake Erie Commission. Coastweeks is part of a celebration of our nation’s waters and shorelines, held in all 50 states and across the globe. Ohio’s 2010 program focused on the theme, “I Can Help Lake Erie.” Participants recorded debris collected and submitted the data to the Ocean Conservancy for study. At the LEC’s cleanup, the items we found the most were food wrappers/containers (77), beverage cans (65), plastic beverage bottles (47), and plastic bags (39). The largest item we found was an old tire. We will be participating in Coastweeks again in early fall 2011. Stay in touch via our website (http://www.utoledo.edu/as/lec) or join our e-mail list (contact meredith.gray@utoledo.edu) to get the details in early summer.

Table of Contents

Student Watershed Watch Report; Coastweeks; Upcoming Events ............. 1
2010 Photo Contest Winners ............................................................................ 2
Ask a Lake Erie Center Scientist; Our Changing Lake ......................... 3
LEC research labs in brief; FOLEC; Graduate studies at the LEC; NSF Gk-12 Fellowship Opportunity .......................................................... 4

Upcoming Events

Public Lectures

Dr. Julie Wolin, Cleveland State University, “From Burning River to Blooming River: Habitat Restoration in the Lower Cuyahoga.” Thursday, February 17, 2011, 7:00 p.m.

Dr. Christine Mayer, University of Toledo, “Maumee Bay ecosystem function: effects of the Bayshore power plant and other environmental variables.” Thursday, March 24, 2011, 7:00 p.m.

Gail Hesse, Ohio EPA, “The Phosphorus problem in Ohio Lake Erie waters.” Thursday, May 5, 2011, 7:00 p.m.

New for 2011: Naturalist Tuesdays!

Announcing a new public program for 2011 – “Naturalist Tuesdays.” These family-friendly events will feature a talk by a local naturalist and an outdoor nature walk or activity. Our first event will be January 25, 6:30 p.m., with Greg Links presenting: Owls of Northwest Ohio. A Master Owler, Mr. Links will teach us about these remarkable creatures with a 30-minute presentation, and then we will take a walk and look for them in the wild! Dress for the weather and bring a flashlight if you’d like. We hope to see you there! Check our website throughout the year for other Naturalist Tuesday events.

Enter our 2011 Art Contest!

Artists of all ages, backgrounds and skill levels are invited to submit a piece of 2D or 3D art that fits our contest theme, “The Nature of Maumee Bay.” Prizes will be given in five age categories: adult, special needs adult, teen, youth and junior youth. Winners and their families will be invited to an awards reception! To enter, submit a digital photo of your artwork to meredith.gray@utoledo.edu. For rules and complete details, visit our website, www.utoledo.edu/as/lec. Please contact Meredith by e-mail or phone (419-530-8361) with questions.

Stay Connected with the LEC!

Twitter: twitter.com/lakeeriecenter
Facebook: facebook.com/lakeeriecenter
Web: www.utoledo.edu/as/lec
2010 Photo Contest Winners: On Display Now at the Lake Erie Center

Winners of the 2010 "Nature of Maumee Bay" photo contest and their families were recognized at an awards reception in November. Contest participants submitted original photos, competing in four age categories: youth (age 12 and under), teen (ages 12 - 18), adult, and photographers with special needs. The winning photos are on display at the Lake Erie Center through March 2011, and may also be viewed on our Facebook page: http://facebook.com/lakeeriecenter. Get your cameras ready for our 2011 contest! Entries will be due in September.
Student Watershed Watch, continued from pg. 1

TMACOG’s Matt Horvat, coordinator for SWW, writes, "I believe that much of the value of the SWW program is connecting the student to their community and the environment. I like seeing the change in their perceptions when they realize that what they do has an effect on water quality...it’s that connection...that something is alive in there that makes them care and want to make a change."

Working in their schoolyard streams, students tested the water temperature, turbidity, dissolved oxygen, pH, and many other parameters to determine overall quality. Benthic samples were collected from the stream bottoms so the students could examine macroinvertebrate communities. Many of the students were excited and surprised to find so many creatures living in the streams. The groups assembled and analyzed their results in their classrooms.

At the SWW Summit, hosted by Lou Hebert from NBC 24 News in Toledo, students gave poster and oral presentations and debuted creative movies detailing their findings. Our Gk-12 groups won many of the awards:

- **Most Informative Presentation:** Toledo Early College High School (teacher: Tim Bollin; Gk-12 fellow: Nate Manning)
- **Most Creative Presentation:** Start High School (teacher: Wendy Wilson; Gk-12 fellow: Hannah West)
- **Best Overall Presentation:** Central Catholic High School (teacher: Ann Hajibrahim; Gk-12 fellow: Chris Barr)
- **Most Informative Display:** Clay High School (teacher: Caine Kolinski; Gk-12 fellow: Justin Chaffin)
- **Most Creative Display:** Central Catholic High School (teacher: Ann Hajibrahim; Gk-12 fellow: Chris Barr)
- **Special Recognition for Scientific Inquiry:** Senior David Stewart, Bowsher High School (mentor: Hull & Associates; teacher: Dave Bourland; Gk-12 fellow: Brad Anderson)

Our Changing Lake

The images below capture Maumee Bay across the street from the LEC before and after a storm event. The strong winds that accompanied the major winter system pushed the water out of the shallow Western Basin, exposing the bottom of the Bay. Known as a seiche, Lake Erie is quite prone to this shifting of water due to its shallow nature and west-to-east elongation. The image on the left is from 12-2-09, before the storm; the image in the middle is post-storm, on 12-10-09. The right image is the surface weather map from the morning of 12-9-09, as the storm was pushing through our region. Keep an eye on Lake Erie and Maumee Bay; the often-rapid shifts and changes are fascinating and fun to watch!
In addition to our regular public programs, the LEC continues to host meetings each month with partnering organizations and outside groups. This past fall we hosted the Western Lake Erie Basin Leadership team, the Maumee RAP Advisory Committee, the Toledo Port Authority, the Wolf Creek/Berger Ditch Committee, and other groups. In addition, Dr. Stepień and the GLGL hosted a Lake Erie Fishery Genetics and Stock Structure Workshop for Managers.

The LEC’s Lance Olsen, Kris Barnswell, Justin Chaffin, Jon Bossenbroek and Meredith Gray will participate in the Glass City Marathon in April as a marathon relay team.

Friends of the Lake Erie Center program

Please support undergraduate and graduate research at the LEC by joining or renewing your FOLEC membership today! Membership is $15 for students, $30 for individuals, and $40 for families. Contact Meredith Gray for more information (419-530-8361 or meredith.gray@utoledo.edu).

Graduate Studies at the Lake Erie Center

The LEC is a great place to pursue your graduate education! Students work in state-of-the-art laboratories at our lake-front facility, under the guidance of our outstanding faculty and with the support of our dedicated staff. Enjoy easy access to Lake Erie on the LEC boats, free parking year-round, great office space, up-to-date computer and laboratory equipment, as well as use of our full kitchen and patio with tables and grill. LEC grad students come from a variety of academic disciplines. Assistantships are available; some students join our NSF Gk-12 program, which pays a $30K annual stipend (see below). More: www.utoledo.edu/as/lec/graduatestudies.

NSF Gk-12 Fellowship opportunity

Our NSF Gk-12 program, Graduate Fellows in High School STEM Education: An Environmental Science Learning Community at the Land-Lake Ecosystem Interface, partners advanced graduate students in STEM disciplines at UT with area high school teachers and their students. Graduate fellow benefits include: $30,000 annual stipend, plus tuition, fees, and insurance paid. Fellows develop teaching competence, mentoring, communication, and team building skills. More info and applications: www.utoledo.edu/as/lec/gk12_grant or contact Rachel Lohner, Education Program Manager: 419-530-8364 or rachel.lohner@utoledo.edu.