



EARS IGERT newsletter

Volume III, Issue 2



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EARS IGERT Newsletter



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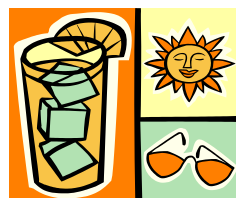
Greetings!

We hope that you are enjoying the Ohio summer and finding ways to beat the heat! The IGERT program is preparing for its fourth year and welcomes the new trainees from Kent State and Miami Universities. KSU trainees are Leighannah Akins, Thomas Ballinger, Nicholas Bonini, Jonathan Gray, Steve Hastings, Jakub Kolacz, Alescia Roberto, Ryan Schoeneman, and Joseph Taura. Miami University trainees are Ashley Dunithan and Elizabeth French. The trainees are getting settled in and preparing for upcoming fall activities. Welcome, everyone!

Welcome 4th Cohort KSU IGERT Trainees	
<u>Leighannah Akins</u> Biology Area of Interest: Freshwater Community Ecology	<u>Jakub Kolacz</u> Chemical Physics Area of Interest: Nanobiotechnology
<u>Thomas Ballinger</u> Geography Area of Interest: Polar Climatology	<u>Fred Minkowski</u> Chemical Physics Area of Interest: Nanosciences
<u>Nicholas Bonini</u> Geology Area of Interest: Environmental Studies	<u>Alescia Roberto</u> Biology Area of Interest: Aquatic Microbiology
<u>Jonathan Gray</u> Biology Area of Interest: Aquatic Ecology	<u>Ryan Schoeneman</u> Biology Area of Interest: Limnoecology
<u>Steve Hastings</u> Biology Area of Interest: Insect Behavior	<u>Joseph Taura</u> Biology Area of Interest: Freshwater Systems



EARS IGERT is funded by NSF



MEET OUR TRAINEES KSU - 4th COHORT

Leighannah Akins

Leighannah 's primary academic and research interests are freshwater community ecology and the effect of climate change and nutrient loading on aquatic food webs. Her MS thesis focused on the effects of temperature on population growth rates for diatoms. She hopes to expand that as a doctoral student and look at how temperature and nutrient concentrations affect the composition of aquatic communities. She is also interested in the ecological role of spatial structure within an environment, including habitat fragmentation, macrophyte-rich areas as refuges, and differences in benthic vs. planktonic algal communities. Her main hobby is reading (and occasionally writing) fiction. She also enjoys swimming and making beaded jewelry.



Ryan Schoeneman

Ryan is specifically interested in the Great Lakes environment and aquatic ecology in general. His academic interests are harmful algal blooms in eutrophic lakes. His goal is to become a professor in ecology and environmental ecology.



His hobbies include boating and grilling.

He has two parrots and enjoys photography. He has recently relocated from Mt.

Gilead, Ohio to Kent to participate in the IGERT program.

Steve Hastings

Steve 's academic interests consist of insect behavior broadly. Most recently, he 's been working on understanding how insects' visual perception of the world around them influences their behavior. He continually seeks out ways to integrate technology and mathematics into his research; for instance, in the past he 's used computer vision techniques to automatically track insect movements in the lab.

Until recently, he was working for a company which develops and sells insect pest traps under the brand name RESCUE. During his time with RESCUE, he worked out colors for traps which would maximize catch efficiency for the target insects.

In his spare time, he enjoys swimming as well as building and maintaining computers.



MIAMI UNIVERSITY MEET 4TH COHORT TRAINEES IGERT 2012 ANNUAL MEETING

Ashley Dunithan

Ashley Dunithan is a doctorate student in Dr. David Berg 's lab at Miami University of Ohio. She received her undergraduate degree from Ball State University and her Master 's at the University of Texas at Tyler. Her general research interests include ecology, evolution, and conservation

Elizabeth French

Elizabeth completed her Bachelor 's degree at the College of Wooster, where she conducted research investigating the presence and transfer of pathogenic bacteria on and between farms in Ohio. She joined the Miami University IGERT program in the fall of 2012, where she has been a graduate student in the lab of Annette Bollmann at Miami since the fall of 2007. Her research interests include the ecophysiology of ammonia-oxidizing bacteria and archaea, with a focus on factors that influence niche differentiation among and between these two groups.

Her previous research in this field has included laboratory-based growth experiments with ammonia-oxidizing bacteria ammonia-oxidizing archaea enriched from freshwater lakes in the Netherlands and Ohio. She is planning to further the work that she has started by transplanting the enrichment cultures in lake Acton in dialysis tubing, which will allow diffusion of nutrients into the tubes while keeping the cells contained.

Elizabeth French, continued

By combining these data with data collected from sensors in the lake, she hopes to be able to correlate environmental conditions with ammonia-oxidizer growth to further our understanding of factors that affect niche differentiation between these two groups of phylogenetically distinct microorganisms.

She hopes to complete her PhD within the next year and find a post doc position in the field of environmental microbiology or disease ecology. In her spare time she enjoys playing broomball and being outside.



IGERT 2012 Annual Meeting In Washington, DC

The Annual IGERT PI meeting was held May 30 to June, 1, 2012 at the Capital Hilton in Washington, DC. Invitees from each IGERT included a principal investigator, trainee and program coordinator. Dr. Jon Scaffidi and Nicole Hayes (3rd cohort) from Miami University, and Margaret Nagella, program coordinator from KSU, attended the event.

Nicole presented a poster entitled, "Sensing Climate Change: Using Sensors to Identify Drivers of Climate Change in Aquatic Ecosystems."

The event featured six technical sessions covering interdisciplinary research themes. The program agenda included:

1. Keynotes: Dan Mote, University of Maryland and Griffin Weber, CTO, Harvard University
2. Emerging Science and Engineering: Findings from IGERT - Technical Sessions
3. Post Session and announcement of 2012 Video and Poster Competition Winners



IGERT LEOW Workshop at Lacawac Sanctuary Lake Ariel, PA June 2012



LEOW group at the Lacawac lodge

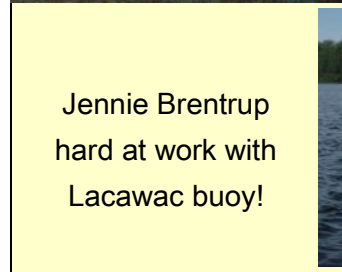
The “Lacawac Ecological Observatory Workshop” (LEOW) was held at Lacawac Sanctuary June 11-12, 2012. Dr. Lesley Knoll, Director of Research and Education at Lacawac, organized the event with the assistance of Jennie Brentrup (3rd cohort, Miami U), Margaret Gaglione (3rd cohort, KSU), Kevin Rose (1st cohort, Miami U), Bruce Hargreaves and Dr. Craig Williamson, Co-PI from Miami U. Participants included trainees from KSU and Miami Universities and other invited guests.

Topics for discussion included:

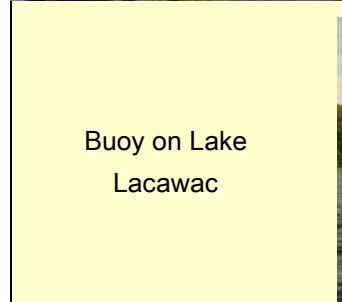
- Introduction to the EON framework
- Sensors: how sensors work/sensor selection
- Buoys platforms
- Interfacing: dataloggers and sensors
- Why collect so much data: case studies
- Data streaming: case studies
- Data management and QA/QC
- Data analysis of large datasets: case studies
- Field Demonstrations



Guests and
KSU trainees
at Lake
Lacawac



Jennie Brentrup
hard at work with
Lacawac buoy!



Buoy on Lake
Lacawac





Want more information? Contact us at the address , phone number or e-mail below. You can also go to the web page to get contact information for our faculty participants and find links to our participating

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Environmental
Applied in Research
Sustaining

[http://
bioweb.biology.kent.edu/
igert/](http://bioweb.biology.kent.edu/igert/)

Upcoming events - 2012

~ First day of Responsible and Effective Conduct - August 30 in A108 in Biology Annex , 11 am to 12:40 pm

(Trainees are to contact Margaret Nagella at 330-672-7828 for access to Annex)

~ Lacawac Sanctuary field experience in PA - September 6-9

IGERT trainees from the 3rd and 4th cohorts from KSU and Miami U are preparing for the first EARS IGERT event for 2012-2013, which will be held at the Lacawac Field Station in Pennsylvania. The event will start on the evening of September 6 and end the morning of September 9. Transportation, lodging, and food will be provided. In preparation for this event, KSU and Miami U trainees will meet in Kent the evening of Sept. 5 for a casual gathering, then depart from the KSU campus the morning of Sept. 6 for Lacawac. Trainees are reminded that they must travel light. Additional information regarding the workshop will be communicated over the next few weeks.

IGERT FALL COURSE OFFERINGS AT KSU

Responsible and Effective Conduct of Research

BSCI-50195-70195-ST: RESP/EFFECTIVE CONDUCT

All KSU and Miami U trainees from 3rd and 4th cohorts need to ensure their access to the course by August 30. KSU trainees must have access to the KSU Biology Annex. Miami U trainees must have online access.. Please contact KSU IGERT office with any questions or concerns (330-672-7828 or mlnagell@kent.edu).

**"We ourselves feel that what we are doing is just a drop in the ocean.
But the ocean would be less because of that missing drop."**

~ Mother Teresa



Please feel free to share information about IGERT with your colleagues and friends.

Copies of the newsletter can be downloaded from our web page at <http://bioweb.kent.edu/igert/>.

Ask us about marketing materials, too!

As always, thanks to the members of the **EARS INTERNAL COMMITTEE!** We've got one representative in each of the participating departments in Kent State and Miami.



Miami

Chemistry, J. Scaffidi
Geography, W. Renwick
Geology, H. Dong
Microbiology, R. Morgan-Kiss
Zoology, C. Williamson

Kent

Biology, A. Leff
Chemical Physics, Q. Wei
Chemistry, R. Twieg
Geography, M. Munro-Stasiuk
Geology, A. Smith