

BIOrhythms

Washington University Biology Department Newsletter

April 2013

*Winner of 2013
Arts & Sciences
Webby Award
for Best News-
letter!*

Helpful Links

Biology Home Page
Biology Course Listings
Faculty Listings

*BIOrhythms is a publication of
the Washington University
Biology Department for
Undergraduate Majors*

*Contact Erin Gerrity to submit
articles/info*

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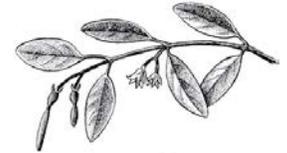
Featured in this issue:

Faculty Spotlight: Jonathan Myers

Course Spotlight: Summer Courses at University College

Summer Jobs: Career Center

Calendar: Biology Events and links to event listings



Faculty Spotlight: Jonathan Myers, Assistant Professor of Biology



*Canopy tower above lowland tropical rainforest,
Los Amigos Biological Station, Peru*

Jonathan Myers' interest in biology was piqued by his early outdoor experiences in the fields and forests of western NY. After completing a two-year program in natural resources conservation in high school, he went on to study forestry at Paul Smith's College, a small liberal arts college in the Adirondack Mountains of NY. While at Paul Smith's, he completed a field course in tropical ecology in Belize, which sparked his interest in tropical ecosystems. He went on to receive a bachelor's degree in ecology and evolutionary biology from Cornell University in Ithaca, NY, where he completed an honors thesis on long-distance seed dispersal by white-tailed deer and a summer internship in tropical forest ecology at the Smithsonian Tropical Research Institute in Panama. After graduation, he worked as a research assistant at the Luquillo Experimental Forest in Puerto Rico. His experiences in Belize, Panama and Puerto

Rico inspired him to pursue a master's degree at the University of Florida, where he studied the ecology of high-diversity tree communities in a tropical forest in Panama. For his PhD research at Louisiana State University, he studied the ecology of hyper-diverse herbaceous plant communities in the longleaf pine ecosystem of the southeastern United States, which bolsters similar levels of plant diversity as —*Cont'd on page 3*

WU CAREER CENTER SUMMER OPPORTUNITIES

Locations:

Danforth University Center, Suite 110 with satellite offices in Lopata Hall, Brauer Hall and Steinberg Hall

Main Office Hours in the Danforth University Center: Mon-Fri: 8:30-5:00

Contact Us

Phone: 314.935.5930

Fax: 314.935.5905

Email: careers@wustl.edu

Web: careercenter.wustl.edu

Have a Quick Question?

You can always stop by the Career Center's Quick Question hours in the main office Monday-Friday, 11am-5pm for assistance with CAREERlink, writing your resume and cover letters, or for quick guidance.

Upcoming Career Center Events

Report Your Plans – Win \$100:
Report your summer or post-graduate plans by June 1 for a chance to win \$100!

Whether you're traveling, taking classes, starting an internship or full-time job, or planning on attending graduate school, we want to know! Please take 30 seconds to *report your plans* for summer 2013 or after graduation before the contest ends June 1.

*****SEE NEXT PAGE FOR UPCOMING SUMMER & POST-GRADUATE OPPORTUNITIES**

Course Spotlight: Summer Courses at University College

Full time day school undergrads are allowed to take one course offered by U College per semester as part of their regular full-time course load. Students are charged for all summer courses, regardless of whether they are L or U courses. However, a large number of bio students, especially those in the pre-health program, take courses in the summer anyway because it's less expensive than during the fall and spring, they can focus on some of the more difficult courses, and they can take certain ones without the usual long waitlists. Both of these new 1-credit courses are only offered in the summer. Students should consult their advisors on whether or not these courses count toward their majors. To learn more about Summer School at University College, visit: <http://summerschool.wustl.edu/>.

L41 2656 Introduction to Health Professions: Occupational Therapy, Physical Therapy, and Audiology

This course provides students interested in Health Professions with an overview of Occupational Therapy, Physical Therapy, and Audiology. Students will gain a better understanding of the scope of practice, markets, and skills required to succeed in these professions. Students will learn about graduate and professional education options and how to build a competitive application for these programs. Finally, students will be introduced to field experiences in each area and culminate their study with an inter-professional education session illustrating the role of each of the professions in a single case. Students will finish the course with a better understanding of whether a career in health professions is right for them.

U29 380 Botanical and Medical Miracles: Plants that Changed the World

This course focuses on key aspects of botanical medicines, their history, development, and modern uses. "Modern day" drugs are traced to their origins, with examples drawn from Africa, Traditional Chinese Medicine (TCM), Ayurvedic Medicine, and the use of plants by American Indians. Specific topics include plants that became "botanical miracles": Madagascan Periwinkle, Chinese Cordyceps, Asian poppy, Arabian spices, ancient cereals, green tea and cocoa. This course is multi-disciplinary, integrating biology, chemistry, ethnobotany, and some history of scientific discovery and medicine.

Undergraduate Student Announcements

On our campus, we take food for granted. Particularly fresh, nutritious food. We have more than we know what to do with. This is far from the case in our city. Access to affordable, healthy food is severely limited for nearly 66,000 St. Louis residents. For a quick look at a true story that we have made into a video, <http://vimeo.com/62133944>.

St. Louis MetroMarket is poised to become St. Louis's newest social venture and nonprofit organization. We are working to launch a mobile farmers' market to serve areas of low access to healthy food, known as food deserts, throughout the city. We are currently competing to join the final round of the Dell Social Innovation Challenge and beginning to explore early-stage pilots of the market. For more information about the competition and St. Louis MetroMarket, quickly check out <http://www.dellchallenge.org/projects/st-louis-metromarket>.

If you are interested in public health, social entrepreneurship, or building an organization from the ground up, please email stlmetromarket@gmail.com.

—Cont'd on page 3

Jonathan Myers cont'd—tropical rainforests, but at smaller spatial scales (up to 40-50 species in a square-meter plot!). During his postdoctoral fellowship at Wash U's Tyson Research Center, he expanded this research to include comparative studies of biodiversity and community ecology across temperate and tropical ecosystems. Dr. Myers joined Wash U's Biology Department as Assistant Professor in September 2012.

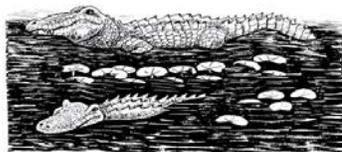
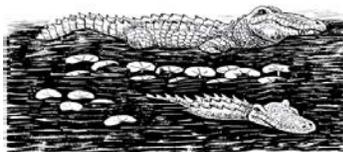
The overarching goal of the Myers research group is to understand biodiversity patterns across spatial and temporal scales. The group focuses on three complementary questions at the interface of ecology, biogeography and biodiversity science: (1) How do patterns of biodiversity and mechanisms of community assembly vary within and among biogeographic regions?; (2) How do communities and ecosystems respond to environmental change?; and (3) What are the ecological consequences of plant trait diversity across scales? To tackle these questions, the lab combines field experiments, large-scale and long-term observational studies, and modeling in plant communities spanning temperate and tropical ecosystems. Current field projects focus on: temperate forest ecosystems in the Ozark Ecoregion of Missouri and the Greater Yellowstone Ecosystem of Montana, with a strong emphasis on local oak-hickory forests at the Tyson Research Center; biogeographic comparisons with species-rich tropical forests (e.g. western Amazonia); and species-rich herbaceous plant communities in the long-leaf pine ecosystem (e.g. Florida and Louisiana). For more information on research in the Myers lab, visit <http://biology4.wustl.edu/faculty/myers/>.

Dr. Myers is excited to begin teaching Community Ecology (Bio 419) in spring 2014. This is an advanced course that covers basic principles of community ecology from both ecological and evolutionary perspectives, including patterns and mechanisms of biodiversity, biodiversity conservation and ecosystem function, and species interactions. The course will include a computer lab module focused on analysis, modeling and presentation of ecological data using the statistical program R.

Dr. Myers enjoys mentoring students in both lab and field research. As a research mentor for the Tyson Summer Undergraduate Research Program, he provides unique, field-based research opportunities for undergraduates and high school students to participate in large-scale, long-term projects. Participants in the summer program often go on to continue lab- or field-based research in the fall or spring and to develop independent honors thesis projects. For information on how to apply for the Tyson Summer Undergraduate Research Program, visit <http://tyson.wustl.edu/teaching-ugrad.php>.

In addition to exploring the natural areas where he conducts field research, Jonathan Myers documents the beauty of these areas through the art of photography:

<http://jonathanmyers.smugmug.com/>.



Undergraduate Student Announcements cont'd—

Biology major Samantha Hsieh is one of the 2013 Goldwater Scholars. The Barry Goldwater Scholarship and Excellence in Education Program was established by Congress in 1986 to honor Senator Barry M. Goldwater, who served his country for 56 years as a soldier and statesman, including 30 years of service in the U.S. Senate. The purpose of the Foundation is to provide a continuing source of highly qualified scientists, mathematicians, and engineers by awarding scholarships to college students who intend to pursue careers in these fields.

Upcoming Internship and Full-time Job Opportunities

Summer Position in Bioinformatics

Nestle Purina Pet Care Company; [Apply here](#) – Deadline May 27

Research – Single Molecule Super-resolution Microscopy

Washington University School of Medicine; [Apply here](#) – Deadline May 31

Scientist – Analytical Development

Gallus BioPharmaceuticals; [Apply here](#) – Deadline May 31

R&D Research Your Future in Science Seminar

Procter & Gamble Company; [Apply here](#) – Deadline June 1

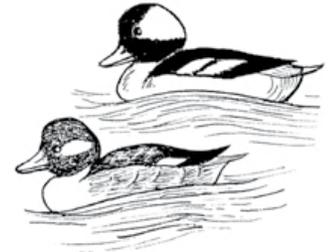
Urban Waters Program Internship

United States Environmental Protection Agency (EPA); [Apply here](#) – Deadline June 5

For more upcoming opportunities, visit [CAREERlink](#).



Biology Department Calendar



Links to General Calendars and Regular Events:

Washington University Record Calendar: <http://news.wustl.edu/Pages/Calendar.aspx>

Biology Department Seminars, Mondays, 4:00pm, Rebstock 322, check the website for topics/ schedule: <http://wubio.wustl.edu/events?tid=8>

Evolution, Ecology, & Population Biology Seminars, Thursdays, 4:00pm, Rebstock 322, check the website for topics/schedule: <http://wubio.wustl.edu/events?tid=3>

History & Philosophy of Science Seminar Series: <http://wubio.wustl.edu/events?tid=12>

Plant Lunches: most Tuesdays at noon (1st Tuesday of month @ DDSPC, others @ McDonnell 212): <http://wubio.wustl.edu/events?tid=10>

Donald Danforth Plant Science Center (DDPSC), Weekly Seminar Series—Wednesdays, 3:45pm, AT&T Auditorium, check the website for topics: http://www.danforthcenter.org/the_center/events/seminars_symposia/

Division of Biology and Biomedical Sciences (DBBS), all lectures and seminars: <http://dbbs.wustl.edu/Pages/Events.aspx>

April 2013

29th Spector Prize Reception 4:00pm, Rebstock 322

May 2013

2nd Final Exams Begin

16th Arts & Sciences Recognition Ceremony
Biology Major Graduates Celebration

17th  COMMENCEMENT

20th First Summer Session Begins

June 2013

7th Summer Session I Ends

10th Summer Sessions II and III Begin

