



February 2013

Our grads rock: three first years awarded coveted NSF fellowships

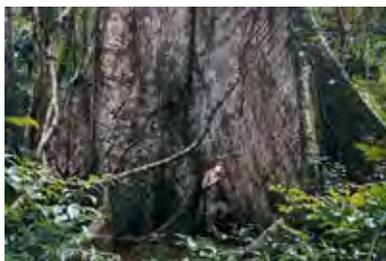


Jeff Shi studies the evolutionary history of bats.
Benjamin Miller

investigates carbon dioxide and methane dynamics throughout freshwater lakes and hydropower complexes. **Celia Miller** researches the evolution of ecological niches using green algae. These three first year students have each been awarded a National Science Foundation Graduate Research Fellowship.

[Read more »](#)

Research feature: climate warming unlikely to wipe out ancient Amazon trees



A new genetic analysis has revealed that many Amazon tree species are likely to survive human-

caused climate warming in the coming century, contrary to previous findings that temperature increases would cause them to die out.

However, the authors of the new study warn that extreme drought and forest fires will impact Amazonia as temperatures rise, and the over-exploitation of the region's resources continues to be a major threat to its future.

The study by evolutionary biologist **Christopher Dick** and his colleagues demonstrates the surprising age of some Amazonian tree species – more than 8 million years.

[Read more »](#)

Alumni profile: Joseph works to improve Native Americans' dental



"Like" us on Facebook

What's up in EEB

Early Career Scientists Symposium 2013: Macroevolution: fossils, frameworks, and phylogenies



The ninth annual international seminar will be held March 16, 2013, in East Hall on the U-M Ann Arbor campus.

We are pleased to announce our keynote speakers: Dr. **Douglas H. Erwin**, Santa Fe Institute and Smithsonian National Museum of Natural History and **Robert E. Ricklefs**, University of Missouri at St. Louis. Early career speakers are currently being selected and will be announced soon.

[Read more »](#)

Shutterbug splendor: Photographer at Large Photo Contest 2012 winners



Hats off to our new Honorary Photographer at Large, **Sara Fortin**, who came in first place with "Bold Ridge Summit" taken near Eklutna Lake, Alaska. Fortin is a research lab technician in the lab of Professor George Kling. View all beautiful entries from around the world at the link just below.

[Read more »](#)

Science fun fact

health in California

Aley Joseph (M.S. EEB 2010, M.P.H. Epidemiology 2011)

was hired as an epidemiologist in January 2012 for the California Indian Health Board, a health research and consulting company that was founded by and serves rural Native American tribes in California. "I am coordinating an NIH-funded dental health intervention study right now. It has been great so far," said Joseph.



[Read more »](#)

EEB in first round of MCubed

Three EEB professors and their colleagues were selected for the first round of **MCubed**, a first-of-its-kind, real-time research funding initiative at U-M that puts \$15 million into the hands of professors to jump start new projects they believe in.



Two projects involving EEB faculty have been funded as one of 50 pilots, one on **algal fuel and biodiversity** and the other on **optimizing resource allocation across multiple interventions for cost-effective malaria prevention and control**.

[Read more »](#)

Video: Gross anatomy lesson at UMMZ

This time-lapse video from the U-M

Museum of Zoology takes the bat species *Artibeus*

jamacanensis from specimen to display. The process might be a little stomach-churning, but then again, good science isn't always mess-free.



[Read more »](#)

From humble beginnings: redesigned ADW reaches millions worldwide



Professor **Philip Myers** was preparing to teach a

new animal diversity course for nonmajors, but he couldn't find a textbook that contained the right mix: detailed information about individual species, lots of

What do you see in wasp faces?



"Animals are communicating with each other all the time," said Professor **Elizabeth Tibbetts**, who studies the behavior of paper wasps.

She looks at what the spots on wasps' faces "say" to each other. Tibbetts found that the size and shape of the spots can tell other wasps how strong or wimpy that wasp is. She found that other kinds of paper wasps get to know each other by looking at the different patterns on their faces, much like people know each other by how their faces look. Sometimes she finds spots that look like things we might recognize.

So, what do you see in these wasp faces



[Read more »](#)

Alum news EEB buzz . . .

We love to hear about your latest and greatest! Photos are encouraged. Feedback on our e-newsletter is welcome. What articles did you like reading? What would you like to hear about in future issues?

[Read more alumni news and send yours »](#)

Giving opps

We are currently seeking long-term support for **various diversity initiatives (PDF)** that are underway within EEB that aim to strengthen and diversify students in the biological sciences.

[More info »](#)

Ecology and Evolutionary Biology
2019 Kraus Natural Science Building
830 North University
Ann Arbor, MI 48109-1048

photos, and material about ecology and conservation.

So Myers and a few U-M colleagues created a new learning tool called the [Animal Diversity Web](#), a searchable database and multimedia encyclopedia of animal natural history that was launched on the fledgling World Wide Web in 1995.

[Read more »](#)





Home



EEB UM

About EEB ▶

Home > News Events > News : Miller and Shi awarded NSF Graduate Research Fellowships

For Undergraduates

For Graduates

Directory ▶

Research ▶

News & Events ▶

Alumni & Friends ▶

Useful Links

Contact Information

Department of Ecology and Evolutionary Biology
2019 Kraus Nat. Sci. Bldg.
830 North University
Ann Arbor, MI 48109-1048
Ph: (734) 615-4917
Fax: (734) 763-0544

Giving online

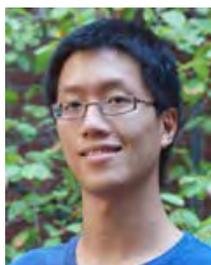
EEB news

Miller and Shi awarded NSF Graduate Research Fellowships

Thursday, December 06, 2012

First year EEB graduate students Celia Miller and Jeff Shi, have been awarded [National Science Foundation Graduate Research Fellowships](#). The awards have a long history of recipients who achieve high levels of success in their future academic and professional careers. They will receive \$30,000 a year for three years and an additional \$12,000 annually for healthcare and tuition.

Celia Miller is a Ph.D. student in the lab of Professor [Brad Cardinale](#). She graduated with her B.S. from the University of Alaska Fairbanks in 2011, where she spent four years doing research on lichen systematics. "With my background in evolutionary biology, I've become fascinated with the feedback between ecology and evolution," Miller said. "I plan to investigate the relationship between phylogeny and the coexistence of competing species. I'm particularly interested in the evolution of ecological niches (which evolves first – resource differences or climatic differences?), and the evolution of rare and abundant species. The Cardinale lab does (among other things) experimental ecological work in freshwater systems, and I will work with green algae communities." During upcoming summers, she will do fieldwork in freshwater lakes in Michigan, at the E.S. George Reserve or other field stations.



Jeff Shi is a Ph. D. student working with advisors Professors [Catherine Badgley](#) and [Dan Rabosky](#). "By nearly any metric, bats encompass a broad spectrum of mammalian diversity," Shi said. "What evolutionary and ecological factors drive and limit this unparalleled radiation of diversity? I am particularly interested in the breadth of feeding behaviors within bats, which include insectivores, frugivores, sanguivores, and other specializations. This ecological diversity, importantly, is not uniformly distributed across bats. With my advisors Catherine Badgley and Dan Rabosky, I intend to investigate bat macroevolution, using a combination of field work, morphologic and genetic data, and computational phylogenetic techniques. My research will highlight the interactions of bats with other organisms and their environment as factors that have shaped their evolutionary history."

The NSF GRF Program (GRFP) recognizes and supports outstanding graduate students in NSF-supported disciplines who are pursuing research-based master's and doctoral degrees in the U.S. and abroad. As the oldest graduate fellowship of its kind, the reputation of the GRFP follows recipients and often helps them become life-long leaders that contribute significantly to both scientific innovation and teaching. Past fellows include numerous Nobel Prize winners.

Benjamin Miller, a first year master's student also received an NSF GRF that was announced earlier this year. See previous [EEB web news](#).

In this article:

[Miller, Celia](#); [Shi, Jeff](#)

[More info »](#)

Department of Ecology and Evolutionary Biology

About EEB
For Undergraduates
For Graduates

Directory
Research
For Alumni & Friends

News & Events
Contact Information
Useful Links

EEB Internal
EEB Admin



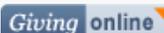
U-M links

Museum of Zoology
Herbarium





Department of Ecology and Evolutionary Biology
2019 Kraus Nat. Sci. Bldg.
830 North University
Ann Arbor, MI 48109-1048
Ph: (734) 615-4917
Fax: (734) 763-0544



EEB news

On U-M Gateway: climate warming unlikely to wipe out ancient Amazon trees

Wednesday, December 19, 2012

A new genetic analysis has revealed that many Amazon tree species are likely to survive human-caused climate warming in the coming century, contrary to previous findings that temperature increases would cause them to die out.

However, the authors of the new study warn that extreme drought and forest fires will impact Amazonia as temperatures rise, and the over-exploitation of the region's resources continues to be a major threat to its future. Conservation policy for the Amazon should remain focused on reducing global greenhouse-gas emissions and preventing deforestation, they said.

The study by University of Michigan evolutionary biologist Christopher Dick and his colleagues demonstrates the surprising age of some Amazonian tree species – more than 8 million years – and thereby shows that they have survived previous periods as warm as many of the global warming scenarios forecast for the year 2100.

The paper was published online Dec. 13 in the journal [Ecology and Evolution](#).

Watch for a EEB research feature. Read the U-M News Service [press release](#).

Caption: This enormous kapok tree provided some DNA for the genetic study by University of Michigan evolutionary biologist Christopher Dick and his colleagues. The species, *Ceiba pentandra*, was the youngest species found in the study, less than 1 million years old. Photo by Robin Foster, the Field Museum.



In this article:

[Dick, Christopher](#)

[More info »](#)

Department of Ecology and Evolutionary Biology

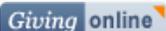
[About EEB](#)[Directory](#)[News & Events](#)[EEB Internal](#)[For Undergraduates](#)[Research](#)[Contact Information](#)[EEB Admin](#)[For Graduates](#)[For Alumni & Friends](#)[Useful Links](#)

U-M links

[Museum of Zoology](#)[Herbarium](#)



Department of Ecology and Evolutionary Biology
2019 Kraus Nat. Sci. Bldg.
830 North University
Ann Arbor, MI 48109-1048
Ph: (734) 615-4917
Fax: (734) 763-0544



EEB news

Shutterbug splendor: photo contest winners announced

Wednesday, December 19, 2012

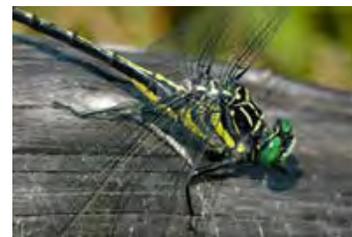
Hats off to our new Honorary Photographer at Large, [Sara Fortin](#), who came in first place with "Bold Ridge Summit" taken near Eklutna Lake, Alaska. Fortin is a research lab technician in the lab of Professor George Kling.



Second place goes to [Mark O'Brien](#) for "Dragon hunter" shot at the U-M Biological Station in Pellston, Mich. O'Brien is collections manager in the Insect Division at the Museum of Zoology. [Alison Gould](#) captured third place for "Puffer," an underwater photo taken in Okinawa, Japan. Gould is a Ph.D. student with her advisor, Professor Paul Dunlap.

Honorable mentions go to [Jingchun Li](#) for "A different kind of flower," taken underwater in Hong Kong. Li is a Ph.D. student with her advisor, Professor Diarmaid Ó Foighil. [Jason Dobkowski](#) shot "Springtime reflections" in North Slope, Alaska. Dobkowski is a research lab technician and master's student with his advisor, Professor George Kling. Mark O'Brien took "Mosquito Falls" in Alger County, Mich. Sara Fortin photographed "Liquid ice" near Galbraith, Alaska and [Alex Wenner](#) shot "Spider web revealed" in Pinckney, Mich. Wenner is facilities manager at the E.S. George Reserve.

Fortin receives the honorary title for the year of "Photographer at Large" in memory of David Bay who was the self-described "photographer at large" for EEB and its predecessor departments for 34 years. He touched the lives of hundreds of faculty, students and staff with his humor, good nature and expertise.



Kudos to the winning photographers and thank you to everyone who submitted a photo and/or voted in the contest. Sixteen people submitted 40 stunning photos. Over 300 votes were cast (pick top five) by 68 people. There's a whole year ahead to get creative behind your lenses for the photo contest when it returns next fall.

Watch for an LSA Today feature on EEB's photo contest winners coming in 2013! LSA's coverage will include further details about the winning entries.

[View all photo entries](#)

Photo captions (from top): Bold Ridge Summit, Sara Fortin; Dragon hunter, Mark O'Brien; Puffer, Alison Gould.



In this article:

[Dobkowski, Jason](#); [Gould, Alison](#); [Li, Jingchun](#)

[More info »](#)

Department of Ecology and Evolutionary Biology

About EEB
For Undergraduates
For Graduates

Directory
Research
For Alumni & Friends

News & Events
Contact Information
Useful Links

EEB Internal
EEB Admin

U-M links

Museum of Zoology
Herbarium





Department of Ecology and
Evolutionary Biology
2019 Kraus Nat. Sci. Bldg.
830 North University
Ann Arbor, MI 48109-1048
Ph: (734) 615-4917
Fax: (734) 763-0544

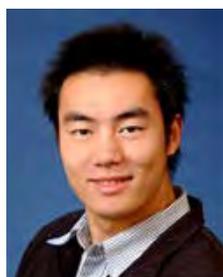
[Giving online](#)

Archived alumni news

[Archive 2009 - 2011](#)

EEB buzz -- alumni news

Send your news to eeb-webinfo@umich.edu. We're interested in where you're working, your contact information, new publications, awards, honors. If you have a good story to tell, we'd like to hear your latest adventures. We'll publish some of this information on our website. Don't forget photos!



Zhi Wang

(Ph.D. EEB 2010)

Zhi Wang is an assistant professor at Arizona State University. He is teaching undergraduate genetics, and some graduate level genomics courses. "My major research area is computational genomics and evolutionary medicine, including network biology, and cancer genomics," Wang said. Wang's advisor at U-M was Professor Jianzhi Zhang.



Javier Ruiz

(Ph.D. EEB 2008)

Javier Ruiz is director of the [Biodiversity Project, Nicaragua](#), a research initiative conducting research in Eastern Nicaragua, and a visiting scholar at Bluefields Indian and Caribbean University (2008 to present).

Ruiz is collaborating with Professor John Vandermeer, U-M EEB, and Dr. Íñigo Granzow-de la Cerda (University of Barcelona, Spain, a former assistant research scientist at U-M EEB) on the study of the regenerating hurricane forests of Eastern Nicaragua.

[Continue](#)



Undine Jost Zengel

(B.Sc. Biology 1984)

We heard from Undine Jost Zengel who wrote this about an article on the Museum of Zoology move in the September 2012 EEB e-newsletter: "Thank you so much for this newsletter! The article on moving the collection is particularly interesting to me as my student job was to check both the fluid and bone collections against the old volumes of data. I also worked on numbering bat bones (they have a lot, and very tiny!) as a student and spent many, many hours in the field museum."

[Continue](#)



Ryan Bebej

(Ph.D. EEB 2011)

Ryan Bebej accepted a position as assistant professor in the Biology Department at his alma mater, Calvin College in Grand Rapids, Mich. He'll be teaching courses in anatomy, physiology, and evolution beginning in the fall of 2012. "I plan to continue collaborating with folks in the Museum of Paleontology at U-M and will be getting undergraduate students at Calvin involved in those research projects," Bebej said.



Aley Joseph

(M.S. EEB 2010, M.P.H. Epidemiology 2011)

Aley Joseph graduated from the University of Michigan [School of Public Health](#) in December 2011 (MPH Epidemiology). She was hired as an epidemiologist in January 2012 for the [California Rural Indian Health Board](#), a health research and consulting company that was founded by and serves rural Native American tribes in California.

"I am coordinating an NIH-funded dental health intervention study right now. It has been great so far," said Joseph.

The California Rural Indian Health Board was formed to provide a central focal point in the Indian health field in California for planning, advocacy, funding, training, technical assistance, coordination, fundraising, education, development and for the purpose of promoting unity and formulating common policy on Indian health care issues.



Alumnus feature on Sophia Holley Ellis

(B.A. Biology and German 1949, M.S. Botany 1950, M.A. German 1964)

Sophia Holley Ellis retired in June 2006 after 56 years as a biology and German teacher in the Detroit Public Schools. Over the years, she has privately funded several students' college education. Now, through a \$25,000 gift creating the Sophia Holley Ellis Scholarship endowment, Ellis will extend her support to students with financial need in the [College of Literature, Science, and the Arts](#) – with priority given to students from the Detroit Public Schools. The scholarship was established in June 2009 with the first one awarded during academic year 2011-2012.

[Continue](#)



Prosanta Chakrabarty

(Ph.D. EEB 2006)

[Prosanta Chakrabarty](#) recently wrote a book called, "A Guide to Academia: Getting into and surviving grad school, postdocs and a research job," published by Wiley. It is now available on [Amazon](#).

"I started writing the book as a little side project without much intention of it being anything but a little pamphlet reference to give to undergrads and grad students," Chakrabarty said. "I wanted to put all the advice I was given by lots of good people (mostly at Michigan) onto paper. I had about 50 or so pages when I was approached by an editor for Wiley at a scientific conference who wanted to know if I had any ideas for books. (He sought me out because of some of the press I was getting during the oil spill in Louisiana.)

[Continue](#)



Mindy (Greenblatt) Stroom

(B.S. Biology 2001, B.M.A. Voice Performance 2001, M.S. Rackham Orthodontics)

After her graduation from the University of Michigan, Mindy Stroom attended the Harvard School of Dental Medicine and graduated with a D.M.D. in 2005. She then returned to U-M for her residency in orthodontics through the Rackham Graduate School. In 2008, she got her M.S. in orthodontics from Rackham. Since that time, she moved to Solon, Ohio, where she started an orthodontic practice called [Stroom Orthodontics](#). She lives in Solon with her husband, Jason, (a 2005 graduate of U-M Dental School and a periodontist), and her son, Sam, who was born in October 2010. She is due with her second child in July 2012. ([email](#))



Richard T. Hanlin

(Ph.D. Botany/Mycology 1961)

After completing his doctoral dissertation in August 1960, Richard Hanlin, professor emeritus, accepted a position as mycologist in the Department of Plant Pathology of the Georgia Experiment Station in Griffin, a unit of the University of Georgia College of Agriculture. Hanlin conducted research on plant pathogenic ascomycetes. In 1967, he moved to the main campus in Athens and added teaching and mentoring graduate students to his research duties. Later in his career, he developed collaborative research projects in Venezuela, Brazil, Mexico and other countries. Hanlin retired in June 2001 after 41 years' service. Since that time he has continued to work as a volunteer in the Mycological Herbarium of the [Georgia Museum of Natural History](#) and he regularly attends the [Mycological Society of America](#) meetings.



Maggie Morris

(B.S. Biology 1995)

Maggie Morris received a Junior Faculty Award from the American Diabetes Association for her grant entitled "The role of macrophage 12/15-lipoxygenase in the innate autoimmune responses of type 1 diabetes" in the summer of 2011. "I received this news just one week before the birth of our second daughter," said Morris. "It's been an exciting summer for me, to say the least! All the best as you lead the EEB into its second decade!" she wrote to Professor and Chair Deborah Goldberg.

Dr. Morris is an assistant professor of research in the [Department of Internal Medicine at Eastern Virginia Medical School](#).



Jonathan Nelson Wu

(M.S. Biology 1990)

Jonathan Nelson Wu is assistant dean for academic programs at [Temple University, Japan Campus](#). He teaches introductory courses in biology and mathematics.



Gail L. McCormick

(B.S. Biology/EEB concentration 2010, B.T.A. Theatre Arts)

Gail McCormick is a Ph.D. candidate in the ecology program at Penn State. She also has an unusual artistic flair for [paper cutting](#) and all things paper.

According to a [blog post on All Things Paper](#) by Ann Martin, McCormick began making collage-like birthday cards while in college and was hooked. This led to more complex designs. "I think it's pretty incredible Gail can capture so much expression by layering cut pieces of paper," writes Martin.

[Continue](#)



David Alonso

(former postdoctoral fellow with Professor Mercedes Pascual)

Dr. David Alonso, former postdoctoral fellow in Professor Mercedes Pascual's lab, was awarded a Ramon y Cajal Fellowship from the Spanish Government in 2010. Alonso is an assistant research professor at the Institute for Advanced Studies of Blanes (CEAB), part of the Spanish Institution of Scientific Research (CSIC). He moved back to Spain in July 2011 to start the five-year position. The CSIC has several ecology centers across Spain; the Biological Station of Donana in Sevilla is best known worldwide. "Blanes is a smaller center with potential to grow," he said. "I am looking forward to contributing to the findings and research of this center."

[Continue](#)



Judith Bronstein

(M.S. EEB 1981, Ph.D. EEB 1986)

Dr. [Judith Bronstein](#) has been selected as a University Distinguished Professor in the Department of Ecology and Evolutionary Biology at the University of Arizona. This is the highest honor awarded by the university to faculty members with outstanding records of creative scholarship and exceptional contributions to teaching, advising and mentoring of undergraduate students. Bronstein's Ph.D. dissertation was titled "Coevolution and constraints in a neotropical fig-pollinator wasp mutualism." Her advisor was Professor Beverly Rathcke.

Department of Ecology and Evolutionary Biology

[About EEB](#)

[Directory](#)

[News & Events](#)

[EEB Internal](#)

[For Undergraduates](#)

[Research](#)

[Contact Information](#)

[EEB Admin](#)

[For Graduates](#)

[For Alumni & Friends](#)

[Useful Links](#)



U-M links

[Museum of Zoology](#)

[Herbarium](#)





Department of Ecology and
Evolutionary Biology
2019 Kraus Nat. Sci. Bldg.
830 North University
Ann Arbor, MI 48109-1048
Ph: (734) 615-4917
Fax: (734) 763-0544

[Giving online](#)

EEB news

EEB in first round of MCubed with two projects

Friday, December 14, 2012

Three EEB professors and their colleagues were selected for the first round of [MCubed](#), a first-of-its-kind, real-time research funding initiative at U-M that puts \$15 million into the hands of professors to jump start new projects they believe in.

Two projects involving EEB faculty have been funded as one of 50 pilots, one on [algal fuel and biodiversity](#) and the other on [optimizing resource allocation across multiple interventions for cost-effective malaria prevention and control](#).



Partners for the algal fuel project are Professors Vincent Deneff, Brad Cardinale (EEB/School of Natural Resources and Environment) and Nina Lin (Chemical Engineering).

"We propose to examine mixed algae cultures for biofuel production, by integrating methods and tools spanning from engineering to ecology and genomics," states the project summary.

"Developing renewable energy resources is a national priority and algae represents one of the most promising feedstocks for sustainable production of transportation fuels. To date, most research on algal biofuel has focused on identifying, creating, and utilizing a 'super-species' for maximum production of lipids. This monoculture oriented approach has delivered very limited success due to challenges associated with scaling-up economics. In this project, we hypothesize, based on the ecological theory of 'transgressive overyielding', that certain naturally diverse groups of green algae have evolved to express complementary genes, metabolic pathways, and biological traits that enhance the efficiency and stability of algal biofuel yield beyond what any monoculture can accomplish alone. At the initial stage, we will focus on identifying promising algae mixed cultures using high-throughput microfluidic co-cultivation and screening. Our research in this new area will make use of an existing extensive algae collection and a recently developed droplet co-cultivation technology. In addition to examining algae species combinations, we will also study bacterial communities which interact with algae and might play an important role in determining properties of the mixed culture."

Partners for the malaria prevention and control project are Professors Mark Wilson (School of Public Health/EEB), Ravi Anupindi (Ross School of Business), and David Hutton (School of Public Health).

The project summary states, "Prevention and treatment of malaria in underdeveloped countries is being pursued through multiple actions that include insecticide-treated nets, indoor residual spraying, environmental modification, anti-malarial drugs, and other interventions. These efforts, usually undertaken in contexts where product availability and cost are uncertain, are often subsidized by high income countries or philanthropic organizations that are increasingly interested in more efficient allocation of multiple interventions. Such optimal strategies, however, are complicated by the complex, even counter-intuitive interactions among different types of simultaneously implemented anti-malaria interventions. This project will develop data-driven, simulation and analytical/mathematical models to analyze the system dynamics of multiple interventions, evaluate the cost effectiveness of alternative treatment and prevention strategies, and evaluate supply chain uncertainties that hamper the effectiveness and efficiency of interventions. Analyses should help to optimize decisions concerning the types and amounts of anti-malaria interventions that will have the greatest impact on people's health."



According to an article in the University Record, to qualify, three researchers from different disciplines just need to come up with an idea and agree to work together. A modern alternative to the traditional yearlong government grant review process, the new MCubed program puts university professors in charge of divvying research dollars in a pure form of peer review.

MCubed is designed to encourage bold research at the interfaces of academic fields, where big breakthroughs tend to happen, according to the designers of the grassroots program.

Beginning in fall 2012, departments, schools and colleges will allot a \$20,000 token to each participating faculty member. Once three researchers decide to "cube," they register the project online on a first-come, first served basis. They immediately receive \$60,000 to hire one graduate student, undergraduate student, or postdoctoral researcher, and work



can begin.

MCubed, a two-year pilot itself, aims to fund pilot studies that could eventually lead to larger traditional grants. It will give researchers new opportunities to follow their instincts, program designers say. A total of 250 projects will be funded in this pilot phase. Funded projects will present findings next year at an innovations showcase symposium.

MCubed is the first program of U-M's Third Century Initiative, a \$50 million, five-year plan to develop innovative, multidisciplinary teaching and scholarship.

Watch a MCube video and read more in the [University Record](#)

Captions from top: Vincent Deneff, Brad Cardinale, Mark Wilson.

In this article:

[Cardinale, Brad](#); [Deneff, Vincent](#); [Wilson, Mark](#)

[More info »](#)

Department of Ecology and Evolutionary Biology

[About EEB](#)

[Directory](#)

[News & Events](#)

[EEB Internal](#)

[For Undergraduates](#)

[Research](#)

[Contact Information](#)

[EEB Admin](#)

[For Graduates](#)

[For Alumni & Friends](#)

[Useful Links](#)



U-M links

[Museum of Zoology](#)

[Herbarium](#)





Home



e-news



RSS

EEB

UM

About EEB ▶

Home > News Events > News : On U-M Gateway: Gross anatomy, Museum of Zoology video

For Undergraduates

For Graduates

Directory ▶

Research ▶

News & Events ▶

Alumni & Friends ▶

Useful Links

Contact Information

Department of Ecology and Evolutionary Biology
2019 Kraus Nat. Sci. Bldg.
830 North University
Ann Arbor, MI 48109-1048
Ph: (734) 615-4917
Fax: (734) 763-0544

Giving online

EEB news

On U-M Gateway: Gross anatomy, Museum of Zoology video

Thursday, November 08, 2012

This time-lapse [video](#) from the [U-M Museum of Zoology](#) takes the bat species *Artibeus jamaicanensis* from specimen to display. The process might be a little stomach-churning, but then again, good science isn't always mess-free. The video is titled "Anatomy of Preservation: A Journey from Specimen to Object of Study."

As one of the largest university museums in the world, the Museum of Zoology is a crucial resource for use in research, conservation, and education. Studying animals such as *Artibeus jamaicanensis* allows scientists to craft a tangible record of life on Earth.

Here, museum research assistant and LSA alumnus Michael Schmidtke (2011) carefully disassembles our specimen, preparing it for life as a research sample.

Watch the [video](#) now appearing on the [LSA website home page](#) and on the [U-M Gateway](#). *Video production by Natalie Condon.*



[More info »](#)

Department of Ecology and Evolutionary Biology

[About EEB](#)

[Directory](#)

[News & Events](#)

[EEB Internal](#)

[For Undergraduates](#)

[Research](#)

[Contact Information](#)

[EEB Admin](#)

[For Graduates](#)

[For Alumni & Friends](#)

[Useful Links](#)



U-M links

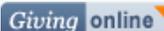
[Museum of Zoology](#)

[Herbarium](#)





Department of Ecology and
Evolutionary Biology
2019 Kraus Nat. Sci. Bldg.
830 North University
Ann Arbor, MI 48109-1048
Ph: (734) 615-4917
Fax: (734) 763-0544



Science fun facts

Archived funfacts

[funfacts archive 2](#)

Send your fun fact ideas to eeb-webinfo@umich.edu and we'll research as needed and post them here. Please include your name (as you'd like it to appear) and city, state and/or country. Submissions may be edited. Thank you to our contributors!

The EEB fun facts page was in the news! See the [Ann Arbor News article](#).



Some buzz on bees

- In the course of her lifetime, a worker bee will produce 1/12 of a teaspoon of honey.
- To make one pound of honey, workers in a hive fly 55,000 miles and tap two million flowers.
- In a single collecting trip, a worker will visit between 50 and 100 flowers. She will return to the hive carrying over half her weight in pollen and nectar.
- A productive hive can make and store up to two pounds of honey a day. Thirty-five pounds of honey provides enough energy for a small colony to survive the winter.
- Theoretically, the energy in one ounce of honey would provide one bee with enough energy to fly around the world.
- Bees do not create honey; they are actually improving upon a plant product, nectar. The honey we eat is nectar that bees have repeatedly regurgitated and dehydrated.

Source: Nova Online [The Buzz About Bees](#)

Submitted by Diana Hirsch



A puma by any other name

The pumas have returned, flanking the entrance to the [U-M Exhibit Museum of Natural History](#) in new bronze glory, [an event recently celebrated at the museum](#). In their honor, we share with you some puma facts.

[Continue](#)



What do you see in these wasp faces?

Elizabeth Tibbetts, a U-M professor and researcher, studies the behavior of paper wasps. "Animals are communicating with each other all the time," she said.

[Continue](#)



Northern American ground squirrels have lowest known mammal hibernating temperature and more arctic animals of Alaska

Many arctic ground squirrels, known as Siksiriks, live in northern Alaska. They are the largest and most northern of the North American ground squirrels. Their body temperatures dip below freezing—the lowest known temperature for mammals—when they hibernate.

Toolik Lake Research Station (where Professor [George Kling](#)'s lab team works on the northern slope of the Brooks Range in arctic Alaska) is named for "Tuulliq" which in the Inupiaq language refers to the yellow-billed loon, the largest and rarest of all the loons. Two yellow-billed loons nest on lake at the research station most years.

Over 180 species of birds have been spotted in the north slope and Arctic National Wildlife Refuge (ANWR) regions. Caribou, arctic foxes, wolves, barren ground grizzlies, and the occasional polar bear or musk oxen also frequent the region.

Submitted by Heather Adams, Ph.D. student, photos: Heather Adams



Some wonders of Brazil

There are over 40 types of common [fruits in Brazil](#). The names of just a few are monkey pod, fruit for wolves, bully tree and armadillo fruit! Who knew eating fruit could be so much fun?

Although Brazil is known for its biodiversity-rich Amazon Rainforest, the highly threatened and heavily deforested Atlantic Rainforest holds what may be the record for tree biodiversity.

In the Una Region in the state of Bahia, over 450 tree species were found within one hectare! That's more tree species than are found in all of Germany, and more than three times as many as are found in the U.S. state of Vermont, all in an area about the size of two football fields.

[A hectare is a metric measurement equal to 10,000 square meters or 2.47 acres. This is the principal unit of land measurement in most of the world.]

The bridge pictured [above right] through the rainforest is about 30 feet up in the air.

Submitted by Michael Jahi Chappell, Ph.D. student, photo (right): M. Jahi Chappell



Mighty mite

The fastest animal is the trap-jaw ant. Its jaw movement has been clocked at 78 to 145 miles per hour - an action researchers say is the fastest self-powered predatory strike in the animal kingdom.

The average strike lasts just 0.13 milliseconds – that's 2,300 times faster than the blink of an eye!

As far as extreme animal movement goes, this ant is in league with the great white shark and the spotted hyena.

See [video](#) here.

[MSNBC](#) story on trap-jaw ants.

Submitted by Professor L. Lacey Knowles, photo copyright [Alex Wild](#), used with permission

Which is more evolved: human or chimp?

Put a human and a chimpanzee side by side, and it seems obvious which one has changed the most since the two split off from a common ancestor millions of years ago. The obvious physical differences, along with human speech, language and brainpower, have led many people to believe that natural selection has acted in a positive manner on more genes in humans than in chimps.



New research by University of Michigan Professor [Jianzhi \(George\) Zhang](#) challenges that human-centered view.

When the U-M team of geneticists compared corresponding sections of the human and chimp genomes they discovered more evidence of adaptation in chimps than in humans! Following their announcement, headlines read "Chimps are ahead of humans in great evolutionary race" and "Chimps have the jump on us in evolution." Looking more closely at the science behind the headlines explains much more than these headlines can.

Read more about their surprising findings here: [Understanding Evolution feature](#).

U-M News Service [press release](#).

Press release by Nancy Ross-Flanigan. Photo: John Mitani



Explore the Museum of Zoology's Animal Diversity Web

A virtual museum of natural history, evolution and conservation biology

The [Animal Diversity Web \(ADW\)](#) is a multimedia natural history database at the University of Michigan. Unique in its global coverage of animal groups, ADW is one of the largest and most actively used natural history databases worldwide. The audience ranges from academics to schoolchildren, writers and natural resource planners, and more.

ADW's companion site [BioKIDS](#) provides animal information for elementary schoolchildren in the Great Lakes region.

ADW has information on more than 3,300 animal species, families, orders, and other groups, 16,000 images and 784 sound files. ADW continues to grow so be sure to check back regularly.

In April 2007, about 6.3 million pages were viewed from the ADW site. The site has been online since 1995, in the early days of the World Wide Web. It serves more than 200,000 pages of content every day. 15 percent of visitors are from outside the United States.

Over 3,100 students from 32 North American colleges and universities have contributed their research and writings to the ADW.

Submitted by George Hammond, logo: John Megahan

Department of Ecology and Evolutionary Biology

[About EEB](#)

[Directory](#)

[News & Events](#)

[EEB Internal](#)

[For Undergraduates](#)

[Research](#)

[Contact Information](#)

[EEB Admin](#)

[For Graduates](#)

[For Alumni & Friends](#)

[Useful Links](#)



U-M links

[Museum of Zoology](#)

[Herbarium](#)



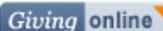


INITIATIVES TO PROMOTE DIVERSITY IN THE BIOLOGICAL SCIENCES

| Education Stage | Program | Description |
|--|--|--|
| 5th - 6th grade | BioKids | <ul style="list-style-type: none"> Students from Detroit area schools research a selected organism and present at a poster session held at U-M A field trip hosted by EEB allows them to see and learn about the organisms in their natural habitat |
| Undergraduate: transition from high school and 1st - 2nd year | M-Bio | <ul style="list-style-type: none"> Provides programming, support, and funding for students who have high potential for success but are inadequately prepared to study science at the college level Includes a summer bridge program to improve upon students' background in chemistry, math, physics, and communication skills |
| Undergraduate: 1st - 2nd year | ED-QUE²ST Enhancing Diversity, Quality, and Understanding the Ecological and Evolutionary Sciences for Tomorrow | <ul style="list-style-type: none"> An NSF-funded REU (Research Experience for Undergraduates) especially for underrepresented minority students Participants spend the summer working on an independent research project under the guidance of a faculty or Ph.D. student mentor of their choice |
| Undergraduate: 3rd- 4th year | SROP Summer Research Opportunity Program | <ul style="list-style-type: none"> An intensive summer program designed to prepare undergraduates for graduate study through intensive research experiences with faculty mentors and enrichment activities Students conduct research with a faculty mentor, then present their results at a regional conference |
| Undergraduate: 4th year | Preview Weekend | <ul style="list-style-type: none"> Several students from specific institutions are personally invited to visit U-M for a weekend in September They meet faculty and current students, and participate in the Field Ecology course at the E.S. George Reserve |
| Graduate | Frontiers Master's | <ul style="list-style-type: none"> Two-year, NSF-funded master's program targeted to underrepresented minorities Students obtain experience in a broad range of research approaches and topics before selecting an advisor and completing a thesis, preparing them to enter a Ph.D. program |



Department of Ecology and Evolutionary Biology
2019 Kraus Nat. Sci. Bldg.
830 North University
Ann Arbor, MI 48109-1048
Ph: (734) 615-4917
Fax: (734) 763-0544



EEB news

Picture perfect

Monday, December 12, 2011

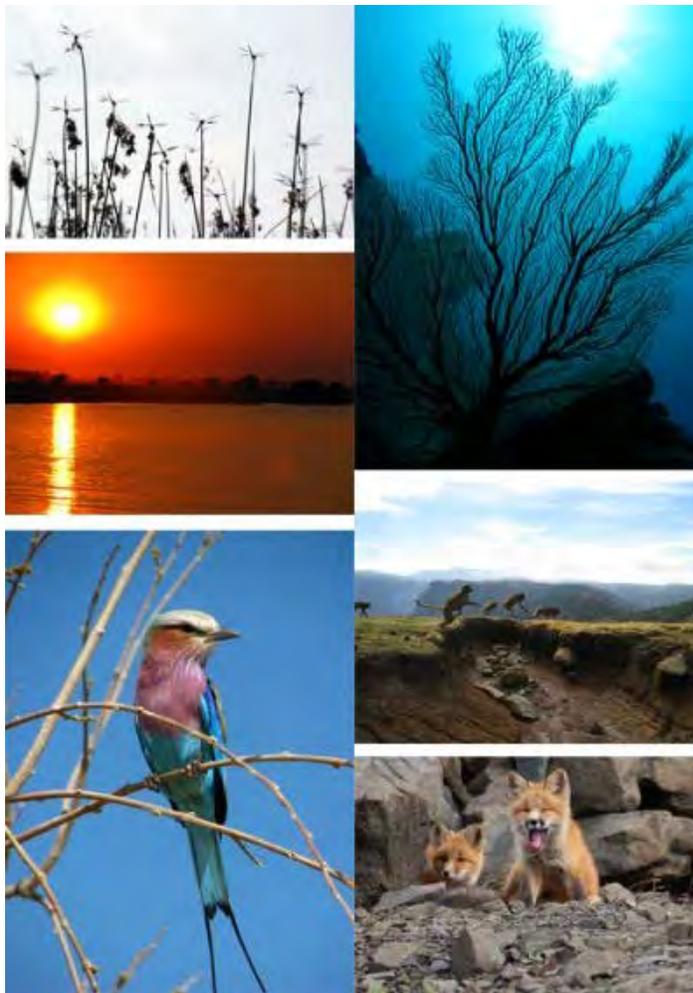
Honorary Photographer at Large Photo Contest winners

Congratulations to our new Honorary Photographer at Large, Susanna Messinger, who came in first place with "A fleet of dragonflies."

Second place goes to Alison Gould for "Gorgonian." Third place goes to Kevin Bakker for "Sunset on the Okavango Delta, Botswana" Honorable mentions go to Rachel Cable for "Geladas in flight," Jason Dobkowski for "Sleepy kit" and Kevin Bakker for "Lilac breasted-Roller, Kalahari Desert."

Messinger receives the honorary title for the year of "Photographer at Large" in memory of David Bay who was the self-described "photographer at large" for EEB and its predecessor departments for 34 years. He touched the lives of hundreds of faculty, students and staff with his humor, good nature and expertise.

Congratulations to all of our winning photographers and thank you to everyone who submitted a photo and/or voted in the contest. As usual, there were so many beautiful photos that voting was difficult. The photo contest will return next fall. [All of the photos can be viewed here.](#)



In this article:

Cable, Rachel; [Dobkowski, Jason](#); [Gould, Alison](#); Messinger, Susanna

Department of Ecology and Evolutionary Biology

About EEB

Directory

News & Events

EEB Internal

For Undergraduates

Research

Contact Information

EEB Admin

For Graduates

For Alumni & Friends

Useful Links



U-M links

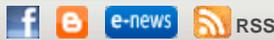
Museum of Zoology

Herbarium





Home



EEB UM

About EEB ▶

Home > News Events > News : On U-M Gateway: revamped ADW reaches millions worldwide

For Undergraduates

For Graduates

Directory ▶

Research ▶

News & Events ▶

Alumni & Friends ▶

Useful Links

Contact Information

Department of Ecology and Evolutionary Biology
2019 Kraus Nat. Sci. Bldg.
830 North University
Ann Arbor, MI 48109-1048
Ph: (734) 615-4917
Fax: (734) 763-0544

Giving online

EEB news

On U-M Gateway: revamped ADW reaches millions worldwide

Thursday, December 20, 2012

Professor Philip Myers was preparing to teach a new animal diversity course for nonmajors, but he couldn't find a textbook that contained the right mix: detailed information about individual species, lots of photos, and material about ecology and conservation.

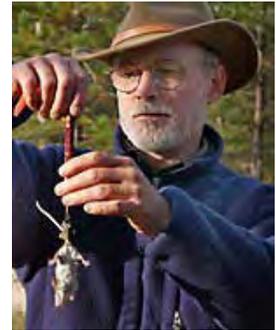


So Myers and a few U-M colleagues created a new learning tool called the [Animal Diversity Web](#), a searchable database and multimedia encyclopedia of animal natural history that was launched on the fledgling World Wide Web in 1995.

From modest beginnings, ADW has steadily grown to become one of the world's largest and most widely used natural history websites. During busy months, more than five million pages of content are provided to more than half a million users worldwide, said Myers, who added that the popularity and global reach of his brainchild was "totally unexpected."

And now, thanks to the first top-to-bottom site redesign in more than a decade, ADW has a fresh new look, with more graphics, new navigation tools that provide quicker access to information, and added features such as daily "animal headlines." The ADW was redesigned by U-M's Michigan Creative.

"The original and continuing goal has been to use this for educating students," said Myers, curator of mammals at the U-M Museum of Zoology. "We had no way of knowing, at the start, what the real potential of this project was. I could see that it had a great deal of potential for my personal use here at the University of Michigan, but the fact that somebody in Argentina would be using it in 2012 just never occurred to me."



Read full U-M News Service [press release](#). Currently on the U-M News Service [home page](#) and the [U-M Gateway](#).

In this article:

[Myers, Philip](#)

[More info »](#)

Department of Ecology and Evolutionary Biology

[About EEB](#)

[Directory](#)

[News & Events](#)

[EEB Internal](#)

[For Undergraduates](#)

[Research](#)

[Contact Information](#)

[EEB Admin](#)

[For Graduates](#)

[For Alumni & Friends](#)

[Useful Links](#)



U-M links

[Museum of Zoology](#)

[Herbarium](#)

