



# Biosphere

## The Weekly Bulletin of Biology

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**Biology Colloquium – Fall 2017**

**Friday Sep 08, 2-3pm, CR5125**

**“The Return of the Kelp Forest King”**

**Dr. Larry Allen**

***(California State University, Northridge)***

### **New publication...**

**Dr. David Gray** recently published “Describing mate preference functions and other function-valued traits” in the *Journal of Evolutionary Biology*, in collaboration with colleagues from University of Wisconsin-Milwaukee and other institutions.

### **... and new funding!**

**Dr. Gilberto Flores** was awarded a 3 year, \$435,000 grant from the NIH to study the commensal gut bacterium *Akkermansia muciniphila*. His lab is currently isolating new strains of this species and investigating the genomic content and transcriptional response to various stresses in this important lineage of bacteria, to understand how this potential probiotic organism promotes health in its human host

**Dr. Crystal Rogers** received a \$435,000 grant from the National Institute of Child Health and Human Development (NICHD-

NIH) to investigate cadherin interactions in ectodermal fate specification, and thus determine the role that these important cell adhesion molecules play when a cell is deciding what to become during early development.

### **Welcome New Matadors!**

The 2017 CSUN Freshman Convocation will take place on Thursday, September 14, at 6:00 p.m. on the Oviatt Library Lawn. All campus faculty and staff are invited to help celebrate the arrival of our newest Matadors. Visit the [Freshman Convocation Website](#) for more information and to RSVP.

### **Monies for students**

*To all students:* do not forget to check regularly the [Scholarships and Awards page](#) in our college’s website for various funding opportunities.

## 2017 Great Minds in STEM – HENAAC Conference Pasadena, CA - October 18-22, 2017

Register today and take advantage of early bird discount rates and consider showcasing your undergraduate or graduate research to STEM professionals and recruiters. Research Posters Competition abstract deadline: **September 22**.

For more information, visit the 2017 [HENAAC Conference website](#)

## NSF Graduate Research Fellowship Program (GRFP) Information Session – Tue, Sept 12, 10 am, Oviatt Library Presentation Room

Join us to learn about a unique fellowship opportunity (annual stipend of \$34,000) for graduate students in all STEM fields. The event is open to students, faculty, and staff.

Click [here to register](#) or contact Hedy Carpenter ([hedy.carpenter@csun.edu](mailto:hedy.carpenter@csun.edu), x2138) for more information

## Scholarships for Botanical Research

Students studying plants can apply for scholarships from various garden clubs. Follow this link to a [unified application form](#)

The next deadline for garden club scholarships is **October 15th**. The funding rate has been

## Research Spotlight

**Richard Rachman** participated in the 2017 National Dendroecological Fieldweek (NADEF), at the *A.L. Mickelson Field Station in the Shoshone National Forest* outside of Cody, Wyoming, thanks to the Outstanding Student and Tenured Faculty Collaboration Award that he had obtained with his mentor, **Dr. Paula Schiffman**. His training in dendrochronology will allow them to advance their investigation of big sagebrush mortality in Owens Valley.



Participants of the 2017 National Dendroecological Fieldweek (NADEF), at the A.L. Mickelson Field Station in the Shoshone National Forest, WY.

At NADEF, 6 groups collected tree ring samples and created deliverables to the Shoshone National Forest, including a 5 page paper and a powerpoint presentation. Richard worked on a project titled "*Comparing site specific chronologies of lodgepole pine and Engelmann spruce in the Shoshone National Forest, Wyoming*", in collaboration with foresters, undergraduates, graduate students and professors from several institutions.

The objectives of the project were to gain a working knowledge and familiarity of proper dendrochronology techniques, develop tree-ring chronologies from multiple co-occurring species, analyze data and understand how to use lab equipment and software, as well as develop tree ring chronologies for two species of conifers. We completed our objectives and

even began analyzing some of our data using climate data, finding record of increased growth with higher summer precipitation and lower temperature of the previous year, and a signal for severe reduced precipitation during the 1950s and 2000s. The project highlighted not only the information gained from multi-species tree ring chronologies, but also a method of educating introductory level researchers using intense, hands on teaching and group driven projects with academic level deliverables. Richard plans to present his work to CSUN Biology colleagues soon, and thanks the A.L. Mickelson Field Station staff, Dr. Paula Schiffman, Dr. Jim Hayes (CSUN, Geography and Environmental Studies) for the opportunity to be part of the next generation of top-trained dendrochronologists.