



# BIOSPHERE

## The Weekly Bulletin of Biology

Biology Colloquium: Friday, 11 May 2012, 2:00 pm, in Noski Auditorium  
(next to the Business College, near the corner of Plummer and Etiwanda)

### “Evolution of Gender and Sexuality”

Joan Roughgarden, Ph.D.

Department of Biology, Stanford University

### Evolution-for-All Talk

The final colloquium of the year is co-sponsored by the Interdisciplinary Evolutionary Studies Network. Notice the unusual Room. The talk will be by Dr. Joan Roughgarden, a world-renowned critical thinker on various biological topics. Her most recent books are *The Genial Gene*, *Evolution and Christian Faith*, and *Evolution's Rainbow*.

### Tropical Semester Presents

Please join the party for the poster session presented by students from our tropical semester Thursday 10 May from 11 am–2 pm on the 3<sup>rd</sup> floor of Chaparral Hall.

### Grad Promise Fellows Symposium

The College of Science and Mathematics sponsors a few graduate students each year as Grad Promise Fellows. In the year drawing to a close, all four were Biology students: **Gregory Avellis**, **Christopher Nosala**, **Jesse Tootell**, and **Jason Warner**. On Thursday 10 May, from 12–1:30 pm they will present

research talks in EH 2131. Members of the campus community and the public are encouraged to attend.

### Profs Get Funds

**Dr. Cheryl Van Buskirk** was awarded a Beck grant of \$5764 to work on a new version of BIOL 447/L Full Immersion Research Experience, which will be taught in spring 2013.

Two Biologists received CSUPERB grants. **Dr. Sean Murray** received \$15,000 to study lipid biosynthesis in *Caulobacter*.

**Dr. Randy Cohen** received \$25,000 to study stem cells in ataxic rats.

### New Publication

**Dr. David Gray** and colleagues from the National Evolutionary Synthesis Center have published a paper in *Current Zoology*. It describes a new metric for estimating phenotypic distances among multiple traits and populations.

## Lynn Margulis Remembered

Biology majors learn that the mitochondria were once free-living bacteria that became endosymbionts. We also entertain the possibility that our planet is composed of not only localized ecosystems, but of an interconnected planetary ecosystem called "Gaia." Dr. Lynn Margulis, who died on 22 November 2011, championed these propositions.

Dr. Margulis was recently memorialized with a celebration of her life and achievements at the University of Massachusetts-Amherst. **Dr. David Bermudes** attended the service and presented a reflection on the many years that he knew her.

Bermudes studied spirochetes with Dr. Margulis for his Ph.D. "There are many wonderful things that I could say about Lynn, but when people ask me what it was like to work with her, the first thing I tell them is that she was extraordinarily generous." A brilliant scientific mind, her controversial work ultimately revolutionized our understanding of eukaryotic cells.

Dr. Margulis had several other ties to CSUN. She worked with **Dr. Daisy Kuhn**, whose studies on *Cristispira* (the unusually large spirochete that lives in bivalves) served as a model for a formal description of the large spirochetes of termite guts. Dr. Margulis also led a Planetary Biology and Microbial Ecology summer course held in Santa Clarita, at which CSUN's **Dr. Larry Baresi** linked satellite-based global scale observations with the microbial ecology of methanogens.

"Many of those who know of Lynn's work are unaware of the struggles she endured to gain acceptance for the endosymbiosis hypothesis," said Bermudes, "and she never fully received acceptance for her work on the Gaia hypothesis." In his reflection on Dr. Margulis, Bermudes closed with a line from Darwin's *Origin of Species*, which he

discovered as a student in Dr. Margulis's evolution course that applied so aptly to her struggle for acceptance, "Any one whose disposition leads him to attach more weight to unexplained difficulties than to the explanation of a certain number of facts will certainly reject my theory."

### *Biosphere: The Weekly Bulletin of Biology*

Department of Biology  
California State University, Northridge  
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