



BIOSPHERE

The Weekly Bulletin of Biology

Biology Colloquium: Friday, 14 October 2011, 2:00 pm in CR 5125

“Predator–prey Signaling between Rattlesnakes and Small Mammals: Dynamics of Antagonistic Communication”

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Alum to Speak on Aliens

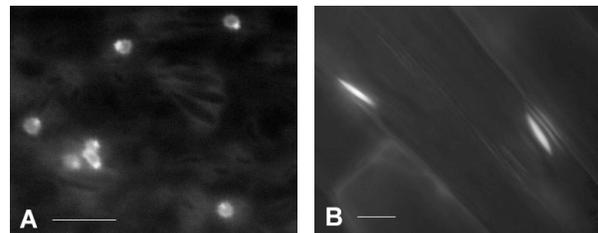
Former student **Jolene Moroney** (B.S. Environmental Biology 2003, M.S. Biology 2006) will be speaking to **Dr. Polly Schiffman’s** Conservation Biology class on Thursday, October 13th. Jolene is currently finishing her Ph.D. in Ecology and Evolutionary Biology at UCLA and will discuss differences in the ecology of an invasive alien plant, *Centaurea melitensis*, in its native habitat (Spain) and in two invaded regions (California and Chile). If you would like to attend, this presentation will begin at 3:15 pm in CR 5335.

Organelle Grant Awarded with Student Research Opportunities

Dr. Ernest Kwok was recently awarded a 3-year \$428,000 grant from the National Institutes of Health as part of their program called *Support for Competitive Research Pilot Projects*. The work revolves around basic cell biology in plants that could have major applications in agricultural and medical biotechnology.

Kwok is investigating a collection of genetically modified *Arabidopsis thaliana* plants that express green fluorescent

protein (GFP). Through fluorescence and confocal microscopy, Kwok and his students have identified what appear to be membrane-bound organelles that have never been described before—either in plants or any other organism.



The important roles of mitochondria, chloroplasts, and many other organelles in the cell are well understood. What might these novel compartments be doing? Kwok’s lab is trying to find out by using a combination of microscopy, biochemistry, and molecular biology. Their ultimate goal is to determine the identity and function of these new structures by proteomic analysis. These new organelles may be factories or storage compartments for transgenic proteins important for growing food or producing drugs in plants.

Kwok is looking for motivated students to join his research group. If interested, please contact him directly.

Presentations Given in Europe

Dr. Steve Dudgeon gave a talk titled, "Mussels in patches and under canopies: variability in patch size-dependent rates of predation" at the 9th International Temperate Reef Symposium in Plymouth, England.

Dr. Janet Kübler gave a talk titled, "Evidence for diploidy in asexual life histories of *Mastocarpus papillatus*" at the 5th European Phycological Congress in Rhodos, Greece.

Faculty Speak on Teaching

This last week, **Dr. Gini Vandergon** gave an overview of how CSUN is involving middle school students in active-learning science experiences using a service-learning model whereby CSUN students learn by providing a valuable service to the community.

The week before **Dr. Paul Wilson** gave a talk on using podcasts to supplement in-class instruction. It was part of the university's Teaching and Learning Bytes series.

Love those Herps!

The Los Angeles County Museum of Natural History hosted its annual *Reptile and Amphibian Appreciation Day* (RAAD) Sunday October 9th. **Dr. Robert Espinoza** was invited to man the "Ask the Herpetologist" table, where he answered questions ranging from, "What is the most dangerous snake?" to "How do you care for tadpoles?"

New Publication

Dr. Peter Edmunds, Dr. Vivian Cumbo, and T. Y. Fan have a new paper, "Effects of temperature on the respiration of brooded larvae from tropical reef corals" in *Journal of Experimental Biology*.

Directed Studies with Oppenheimer

Interested in taking three units of Directed Studies (BIOL 495D) for the upcoming spring semester? **Dr. Steve Oppenheimer** will be directing a group of students studying a cancer-cell anti-clumping model.

It is well known that cancer cells in the bloodstream have a better chance of escaping immune destruction if they are clumped rather than single. Students will test the effects of various reagents on clumping and unclumping of yeast. A reagent that unclumps yeast may serve as a basis for development of a cancer-cell anti-clumping drug. Students graph and statistically analyze their data, then report on what their findings may mean.

To apply, get a spring 2012 495D sign-up sheet in the Biology office, fill it out, and have the office put it in Oppenheimer's mailbox. Students whose spring form has been approved may start their work this semester and during intersession.

If you would like a copy of articles on cancer research that Oppenheimer considers to be good for beginning research students, email him at: steven.oppenheimer@csun.edu.

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