



# These Weeks in Biology

October 19th, 2006 - November 9th, 2006

## Dissertation Defenses

Brooke Byerley successfully defended her dissertation "Patterns and consequences of floral formula variation in Phlox (Polemoniaceae)" on October 27. Congratulations to Dr. Byerley and to her adviser David Steingraeber! Dr. Byerley is also coordinator for laboratories in introductory biology, botany, and other upper division courses.

## Thesis Defenses

Congratulations to Graduate student Colin Quinn (Pilon-Smits lab) who successfully defended his M.S. thesis.

## Welcome

The Pilon-Smits lab welcomes visiting researchers Ninad Gujarathi and Prafulla Shede from Pune, India. Dr Shede will do research at CSU for several months in the coming two years as part of a joint Phytoremediation center. Dr Gujarathi is a project coordinator.

## Research Funding and Grants

Professor Pat Bedinger successfully led a consortium of researchers to funding from the National Science Foundation for "Using Genomic Tools to Identify Interspecific Reproductive Barriers in the Tomato Clade". The team was awarded \$3.9 million over 4 years to conduct a study of the highly evolved mechanisms flowering plants use for controlling mating between genetically dissimilar plants (i.e. different species). Genomic and proteomic tools combined with a long tradition of biological, genetic and biochemical studies of the tomato family now make it possible to address the mechanisms controlling interspecific pollination in new ways.

Assistant Professor Cameron Ghalambor joins a group of researchers funded by the National Science Foundation to examine "From Genes to Ecosystems: How Do Ecological and Evolutionary Processes Interact in Nature?". The team is led by the exemplary and otherwise overwhelmingly outstanding David Reznick, evolutionary biologist extraordinaire at the Univ. California, Riverside. The award is \$5 million over 5 years. The study will examine how ecology and evolution interact to mold the life history of the Trindadian guppy, a small fish whose evolution is driven by one of its main predators, Hart's killifish. Further studies will relate evolution in the fishes to ecosystem changes in the streams where they are found.

## On the Road

Assistant Professor Debbie Garrity presented a seminar entitled "Developmentally Dynamic Voltage-Gated Calcium Channels in Zebrafish" on Nov. 30, at CSU's Animal Reproduction and Biotechnology Laboratory.

Marinus Pilon traveled to Europe to give invited seminars at Wageningen University, Department of Genetics, The Netherlands (Oct 9); Utrecht University, Institute for Biomembranes, The Netherlands (Oct 10); and Cambridge University, Dept of Plant Biology, UK (Oct 12). Next, M Pilon attended and gave an oral presentation (Oct 17) and chaired a session (Oct 18) at the 5th Intl. Copper Meeting "Copper and Related Metals in Biology" which was held in Alghero, Sardinia - Italy (Oct 14-18, 2006).

Associate Professor LeRoy Poff traveled to Beijing, China to attend the Open Science Forum of the Earth System Science Partnership on November 7-9 and to give an invited presentation in a special session on "Environmental Water Allocations: Conserving Ecological Goods and Services."

## New Publications from Biology

Former Postdoc Jeff Achter and Assistant Professor Colleen Webb have a new paper coming out. Achter, J.D. and C.T. Webb. 2006. Mixed dispersal strategies and response to disturbance. *Evolutionary Ecology Research* 8: 1-16.

Graduate student Christine Bacon published this month in *Annals of Botany*: "Taxonomy and conservation: a case study from *Chamaedorea alternans*".

Derner, J.D., J.K. Detling and M.F. Antolin. 2006. Are livestock weight gains affected by black-tailed prairie dogs? *Frontiers in Ecology and the Environment* 4: 459-464. (This study was supported in part by the Shortgrass Steppe Long Term Ecological Research project, and is a collaboration with the USDA Agricultural Research Service, Central Plains Experimental Range, located 35 miles northeast of Fort Collins near Nunn, Colorado.)

Bono, J.M., M.F. Antolin, and J.A. Herbers. 2006. Parasite virulence and host resistance in a slave-making ant community. *Evolutionary Ecology Research*. 8: 1117-1128. This paper resulted from Jeremy Bono's Ph.D. work; he was co-advised by Mike Antolin and Joan Herbers. Jeremy is now a post-doc at the University of Arizona, Joan Herbers is now Dean of Biological Sciences at The Ohio State University.

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