



These Weeks in Biology

June 18th, 2008 - August 22nd, 2008

Special Events

WELCOME BACK FOR FALL 2008!!!!

HERE ARE SOME HIGHLIGHTS FROM THIS SUMMER

Accolades

Brandon Bader, an undergraduate researcher with Prof. Don Mykles, was selected as one of six students presenting a talk on his research at the Beckman Conference in Irvine, CA in July. Brandon starts a MD/PhD program at the University of Rochester in August.

Postdoc John Paul won the Ernst Mayr Award in Systematic Biology for his paper, "Evolutionary Time for Dispersal Limits the Extent of Species? Ranges in the Neotropical Genus *Psychotria*." The award was presented at the annual meeting of the Society for the Study of Evolution in Minneapolis in June.

Congratulations to Lisa Axtman, an undergraduate student working with Prof. Don Mykles, who won third place for her poster at the NIH Minority Summer Conference in Honolulu.

Research Funding and Grants

Prof. Don Mykles was awarded a two-year grant from the National Science Foundation to continue his research on the hormonal control of molting in land and green crabs.

Professor Daniel Bush is a Co-PI on an successful IGERT grant from the NSF. The focus of the \$2,900,000 training program, entitled "Integrated Graduate Education in Biorefining and Biofuels", is training a new generation of scientists that understand the challenges facing biofuels development that cut across disciplinary boundaries from chemical engineering to plant biotechnology.

Professor Daniel Bush is a Co-PI on a DOE/USDA-NRI grant funded by a new program aimed at developing a sustainable domestic biofuels industry. The focus of the \$1,500,000 grant is using genomic tools developed in rice to identify new genes responsible for high yields of plant biomass. This project is directed by a multidisciplinary team that is using rice as a "model" plant from which new discoveries can be moved rapidly to emerging energy crops, such as *Miscanthus* or switchgrass, that do not have genomic resources developed yet.

On the Road

Professor Mike Antolin traveled to the Rocky Mountain Biological Laboratory in Gothic, CO (near Crested Butte) on June 17 to present a seminar on "Searching for Plague Reservoirs: Vast Lakes or Tiny Trickle?" .

Prof. Don Mykles was at UC Davis Bodega Marine Lab in June studying crustacean molting physiology.

Assistant Professor Debbie Garrity was in Washington DC at the end of June to serve on the National Science Foundation review panel for the Integrative Graduate Education and Research Traineeship (IGERT) program.

Prof. Don Mykles will present two papers at the International Conference for Comparative Physiology & Biochemistry meeting at the Maasai Mara National Reserve, Kenya, July 19-25.

Professor and GDPE Senior Ecologist Alan Knapp was invited to speak about his research at EXPO Zaragoza 2008 in Zaragoza Spain as part of a 3 day international conference on Climate Change, July 21-23. The title of his presentation was "Climate Change and Grasslands: Unexpected Consequences of Extreme Rainfall Patterns".

Graduate students Yelena Chernyavskaya and Alicia Ebert presented posters at the Society for Developmental

Biology Symposium in Philadelphia in July 2008. Assistant Professor Debbie Garrity presented a talk.

Dhruba Naug, Ann Gibbs, Chris Mayack and Craig Feigenbaum attended the 12th International Behavioral Ecology Congress at Cornell University. Dhruba organized a symposium and gave two talks while Ann, Chris, and Craig made poster presentations.

Drs. Diana Wall, Alan Knapp, and Mike Antolin, along with graduate students Karie Cherwin and Amanda Lease, attended the Long Term Ecological Research network regional meeting of the "treeless" sites in Albuquerque, NM, July 11-12.

New Publications from Biology

From Emeritus Professor Gary Packard: Gary C. Packard and Thomas J. Boardman, Model Selection and Logarithmic Transformation in Allometric Analysis. *Physiol and Biochemi Zoology* 81:496-507 2008

Wilder, A.P., E.J. Eisen, S. Bearden, J. Montenieri, M.F. Antolin, K.L. Gage. 2008. *Oropsylla hirsuta* (Siphonaptera: Ceratophyllidae) can support plague epizootics in black-tailed prairie dogs (*Cynomys ludovicianus*) by early-phase transmission of *Yersinia pestis*. *Vector-Borne and Zoonotic Diseases* 8: 359-368. This work was part of Aryn Wilder's MS thesis completed in Mike Antolin's lab and was a collaboration with the CDC here in Fort Collins.

A paper by postdoc Joe Covi, former graduate student Hyun-Woo Kim, and Prof. Don Mykles has been published in *Comparative Biochemistry & Physiology* (150A: 423-430): "Expression of alternatively spliced transcripts for a myostatin-like protein in the blackback land crab, *Gecarcinus lateralis*."

Simmons, M. P., J. J. Cappa, R. H. Archer, A. J. Ford, D. Eichstedt and C. C. Clevinger. 2008. Phylogeny of the Celastreae (Celastraceae) and the relationships of *Catha edulis* (qat) inferred from morphological characters and nuclear and plastid genes. *Molecular Phylogenetics and Evolution* 48: 745-757.

Ebert AM, McAnelly CA, Handschy AV, Mueller RL, Horne WA, Garrity DM. Genomic organization, expression and phylogenetic analysis of Ca²⁺ channel β 4 (CACNB4) genes in thirteen vertebrate species. *Physiol Genomics*. 2008 Aug 5. [Epub ahead of print]

Buzby. M., D. Neckels, M.F. Antolin, and D. Estep. 2008. Analysis of the sensitivity properties of a vector-borne model of plague. *Proc. Roy. Soc. Lond. Interface* 5, 1099-1107. (This is a collaboration among students and faculty in the PRIMES program).

Other News

With great sadness we note the passing of Professor Paul Kugrens, a long-standing member of the Biology Department. Professor Kugrens first joined the Department of Botany and Plant Pathology in 1971 (later merged into Biology). He was a respected teacher and mentor to hundreds of students, and specialized in systematics and taxonomy of aquatic algae (recently with an eye toward using them for production of biofuels). Dr. Kugrens will be missed here, but we're certain he'll continue to find good fishing.

TWIB is published (semi) weekly by the Department of Biology, Colorado State University.