

BIORHYTHMS



November, 2008
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Upcoming Events

Cake Break!

Come take a break from studying on Wednesday November, 12 at 8:30 pm in the Biology Commons. We will have a number of delicious cakes to eat!

Upcoming Noon Seminars:

Come and support your biology peers!

Friday, November 7 – Tyson Stock, Zan Sullivan-Wilson, and Apurva Subbaswamy

Friday, November 14 – Caroline Townsend, Anthony Oliveri, and Issac Dripps

Tree Tour

Interested in Grinnell's trees? Learn quick tree identification tips with Larissa Mottl on Sunday, November 9. Meet at Macy House (1205 Park St.) at 1pm.

Serendipity Bird Records of Early Iowa Ornithologists

BRING A LUNCH & EXPLORE IOWA HISTORY

Wednesday, November 19 (12-1 P.M).

With Special Guest Author & Birder Thomas H. Kent

In 1804, Lewis and Clark were the first to provide definite records of Iowa birds. The first Iowa resident birder was William Savage, who recorded and painted birds from 1855 to 1908. Since writing chapters on the history of Iowa birding in 1984 and 1996, Tom Kent, Emeritus Professor of Pathology at the University of Iowa, came into the possession of bird records of many other early Iowa birders. Their stories are the subject of this presentation.

Kent began studying and photographing birds with his father, Fred Kent, in 1948. In the 1970s, he began to visit favorite birding spots in North America. His Iowa birding intensified after 1976 and since then he has co-authored three books and numerous articles documenting the occurrence of Iowa birds, including one about William Savage in Iowa Heritage Illustrated (Summer 2000).

STATE HISTORICAL SOCIETY OF IOWA
402 IOWA AVE. (IOWA & GILBERT), IOWA CITY
A Division of the Iowa Department of Cultural Affairs
This event is free and open to the public.
Call (319) 335-3911 for information.

If you're interested in carpooling to this event in Iowa City from Grinnell, please contact Larissa Mottl at 641-269-4717 or mottll@grinnell.edu.

Professor Profile: Gregg Whitworth

I am interested in understanding the ways in which the large, multi-component, molecular machines required for each essential step of eukaryotic gene expression can be regulated to dynamically alter patterns of gene expression in response to changing cellular needs. In the course of my graduate work I was able to demonstrate that one such complex, the spliceosome, can be regulated to rapidly modulate the splicing efficiency of specific pre-mRNA transcripts in response to cellular stress, thereby shifting the cellular population of mature, translatable messages in *Saccharomyces cerevisiae*. This discovery was made possible by the collaborative development of a custom microarray platform which allows us to assay the relative splicing efficiency of every intron-containing transcript in the yeast genome. In ongoing collaborations, we are using this microarray platform to build a high-resolution description of the dynamics of the yeast splicing response to changing environments and to mutations in spliceosomal components. At present, our database describes over 3,000 microarray-based splicing profiles representing dozens of unique environmental conditions and hundreds of different mutations in RNA processing factors. My goal is to continue this work at Grinnell, using bioinformatic and experimental tools to begin to address the many compelling questions which are made tractable by this dataset: can we, for example, identify distinct sub-groups of transcripts which behave like splicing “regulons”? Will sequence-motif searching algorithms reveal potential *cis*-regulatory sequences governing splicing activity? How can computational and visualization tools be used to explore our splicing-microarray dataset in the context of other large-scale studies, including high-throughput genetic interaction datasets and results from other specialized microarray platforms (for examples, those exploring chromatin dynamics or translational efficiency)?

Random Creature of the Month



The waters of Bali, Indonesia, are home to this otherworldly creature, a peacock mantis shrimp (*Odontodactylus scyllarus*). The shrimp feeds by smashing open its prey until it can feed on its tissue.

<http://photography.nationalgeographic.com/photography/photos/colorful-sea-creatures/peacock-mantis-shrimp.html>

We can be contacted at [biosepc].

Your friendly BioSEPC,

Marci Kirchberg '09

Courtney Smith '09

Caroline Townsend '09

Hannah Yourd '09

Joo Hyun Im '10

Adhiti Kannan '10

David Montgomery '10