

Update from Department Head Greg Brown

Greetings and best wishes from the faculty, staff and students in Botany! The department experienced some major personnel changes during the 2012-2013 academic year. **Bill Higgins**, Manager of the UW Botany greenhouses, retired after 30 years at UW. Bill was deeply dedicated to the care of our greenhouse facilities and live plant collection, and he managed the move from the old Cowboy Dorm greenhouse location, now the site of the Berry Biodiversity Conservation Center, to the newly constructed Louis and Terua Williams Conservatory in 1994. We all wish Bill and his wife Georgia a long and happy retirement!

Professor Steve Jackson, a Botany Faculty member since 1995, also retired from UW, with emeritus status. Steve, however, is still working, as he was recruited from UW by the U.S. Geological Survey to be the Director of the Southwest Climate Science Center, located at the University of Arizona. While at UW, Steve developed an internationally prominent research program, was named a Fellow of the American Academy of Sciences, was given UW's George Duke Humphrey Award, and left many positive, lasting impacts on both the department and the university. For instance, Steve was the first director and driving force for UW's Program in Ecology, now the largest Ph.D. granting program on campus.

The department has developed some new channels of communication with alumni, friends and the public. With the help of faculty members **Ramesh Sivanpillai** and **Brianna Wright**, we now have a UW Botany blog site and a Facebook presence, where you can obtain more details on events related to the Botany Department. If you know of students who would like to study with us, please encourage them. Your support of our programs is important.

UW Botany student helps uncover mammoth in Colorado

Dane Miller, a graduate student in Dr. Steve Jackson's lab, was part of a team that unearthed fossilized bones of huge animals such as mammoths, mastodons, and sloths. In the summer of 2010, a machine operator accidentally found the bones of a Columbian Mammoth near Snowmass, Colorado. In the next several days, workers found more tusks, limb bones, jaws and teeth of these ice age animals.



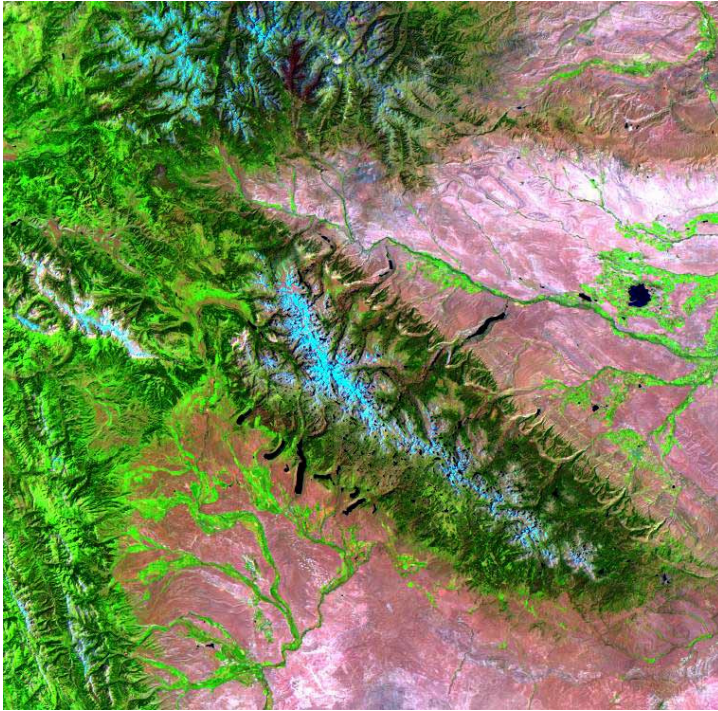
The curator of paleontology at the Denver Museum of Nature and Science, Ian Miller, hired Dane for collecting bones and plant materials. His other duties included supervising volunteers, assisting research scientists and labeling specimens. His most dangerous assignment was to run alongside the massive D6 bulldozers looking for bones as they came out of ground.

During one of these "running" assignments in an area deemed to be void of fossils by the Museum, he noticed a large mammoth jaw sticking out of the clay. A vertebrate paleontologist verified his discovery. Further excavations resulted in more bones and other fossilized materials. Read the complete story and media coverage at our blog site: <http://uwbotany.blogspot.com/2012/04/extraordinary-discovery-of-ice-age.html>



UNIVERSITY OF WYOMING

Botany to offer a new minor in Remote Sensing



The Botany Department is excited to offer a new undergraduate **minor in Remote Sensing**.

You may not know that Botany has been central in remote sensing education at UW for over a decade, since we began teaching courses on the applications of satellite imagery and aerial photography for plant studies.

With increased interest from UW students, we've steadily increased the number of remote sensing courses, and now students can be recognized on their diplomas for coursework exploring this increasingly marketable science. Courses for the Minor cover basic and advanced remote sensing techniques, specialized applications of remote sensing, hands-on digital image analysis, experience with other geospatial tools, like GIS, and fundamental plant ecology, which can contribute to image analysis.

Find out more about the new Minor on the department's website or by contacting the Department.

Library named in honor of Steve Jackson



Professor Steve Jackson's numerous contributions to the Program in Ecology (PiE) were recognized when UW's Program in Ecology and the Berry Biodiversity Conservation Center named their Ecology Library in his honor. The Jackson Ecology Library, located on the 2nd floor of the Berry Center, is intended to be a shared resource for graduate and undergraduate students who study ecology and biodiversity. Each semester PiE and the Berry Center will add a new book, selected by students, to this collection. Many of the books are not readily available at the university library.

Acknowledging this recognition as *"a great honor,"* Steve thanked the faculty, staff and students for the hard work that resulted in the growth of PiE over the past 10 years. He is confident that PiE has a great future and believes that *"as more of our students graduate and get placed in good positions, and more have papers published with the PiE address, more people will become aware of what a good thing we've got here."*

Donations to the Jackson Ecology Library in the form of books pertinent to ecology are welcome. Contact Ms. Marsicek (bwanous@uwyo.edu) for additional details.

Highlights from 2012

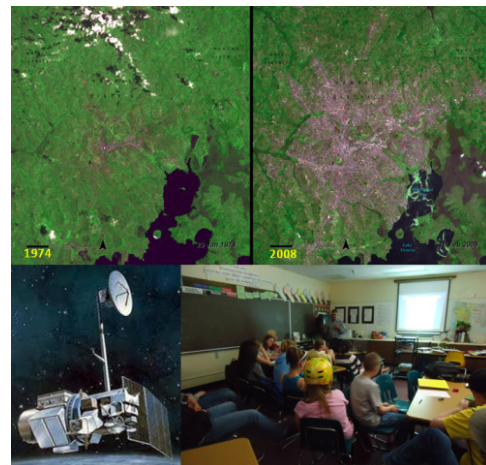


Botany graduate students in **Ron Hartman's** lab conducted floristic inventories in the Ashland and Sioux Ranger Districts of Custer National Forest (MT and SD), Uncompahgre Basin and greater Grand Mesa (CO) area, Salmon River and its tributaries (ID), and White River National Forest (CO). They collected more than 30,000 specimens, finding a new population of Visser's buckwheat (*Eriogonum visseri*) in Montana, along with other rare plants such as lesser yellow lady's slipper (*Cypripedium parviflorum* var. *parviflorum*). The Rocky Mountain Herbarium (<http://www.rmh.uwyo.edu>) contains the largest collection of Rocky Mountain plants and fungi in existence.

As part of Earth Observation Day, **Ramesh Sivanpillai** introduced remote sensing concepts and applications to 6th, 7th and 8th graders in Laramie. Also the 7th and 8th graders at the **UW Lab School** learned how remotely sensed images can be used for monitoring human impact on environment.



William Reiners delivered two invited talks at the Ecological Society of America's 97th annual meeting in Portland, OR, titled "Traits of a good ecologist: What do contemporary ecologists think?," and "Personal beliefs and motivations of contemporary U.S. ecologists: Uncovering patterns and associations".



Elise Pendall and her team of researchers have been studying the effect of increased carbon-dioxide and warming in native grasslands. Their research indicates that grasslands are likely to witness a shift in the dominant plant species that will alter soil nutrient availability. These findings were published in *Nature* (476, 202–205).

Further, they found that the loss of carbon from soils in response to climate change could be accelerated by unexpected responses of soil-inhabiting microorganisms. These findings were recently published in *Ecology Letters* (DOI: 10.1111/ele.12034).



Indy Burke and **Brent Ewers** won the 2012 PiE award for promoting intellectual engagement in the classroom. The award is given to faculty who inspire students intellectually in first-year courses.



Cynthia Weinig won the A&S Extraordinary Merit in Research Award and **Brianna Wright** won the A&S Extraordinary Merit in Teaching Award for 2012.



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DEPARTMENT OF BOTANY



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Department of Botany, 3165
1000 E. University Ave.
University of Wyoming
Laramie, WY 82071

Phone: 1-307-766-2380
Fax: 1-307-766-2851
E-mail: gkbrown@uwyo.edu

<http://www.uwyo.edu/Botany>
<http://uwbotany.blogspot.com>



Copy editor: Dennis Knight
Professor Emeritus
Layout editor: Ramesh Sivanpillai
Associate Research Scientist

Old timer's perspective — Professor Gene Pratt, retired



Kay and I came to the Botany Department over 50 years ago, in 1961. I was interviewed over the phone and offered the dream job, for me, to teach General Botany and Genetics. Soon, though, I was also teaching Plant Anatomy, and later Cell Biology and advanced courses in genetics. In those days all faculty taught three or even four courses each semester, including the laboratories associated with the courses. General Botany came in two formats: a 3-credit hour course without a lab and a 4-credit hour with a lab. The Department of Zoology had the same arrangement with their introductory General Zoology course.

I used Hank Northen's fine general botany textbook, but with no color figures. All black and white. Soon I wanted to order a new text published in color, but Hank was the Department Head. I was just an assistant professor.

At that time, the senior faculty in the Botany and Zoology Departments met almost daily in the Union for coffee and to swap stories. They also invited us younger faculty and our families to join them for parties at their homes, especially at Christmas. We enjoyed that, but with so many courses to teach, I didn't have time to join them every day for coffee.

When Hank was about to retire, he asked me to take over the "teaching" of his General Botany correspondence course, which I did. I also developed a correspondence course in Genetics. Most students who enroll in correspondence science courses never finish, but I had some very good experiences with correspondence students.

I also taught summer school classes for the Botany Department, including General Botany, Plant Physiology, and Genetics, and one semester I even taught ecology when Dennis Knight was off gallivanting around. I hope my students learned as much as I did!

In the late 1960s a discussion ensued regarding improving our UW general education requirements. That's when General Biology was introduced at UW, and General Botany and General Zoology were dropped. It was traumatic for Botany faculty, because historically such moves were not good for botanists. But our department survived and is thriving.

I had quite a ride at UW and I enjoyed it. It's a good thing, though, that I liked to teach. Toward the end of my career I was the Associate Dean of Arts & Sciences, and then, Director of the UW Center for Academic Advising.

