



Department of Botany, OSU

Bluestem

Spring Edition, 2008

Botany Dept. Joins Oklahoma Centennial Celebration

Oklahoma celebrated her centennial this past year, and the department was an active participant. Several of our faculty, students, and staff are members of the Cross-Timbers Chapter of the Oklahoma Native Plant Society which hosted the ONPS Indoor Outing in February 2007 with the theme "A Centennial Celebration of Oklahoma Plants." Ron Tyrl presented "A Calvacade of Oklahoma Botanists," outlining the history of botanists in Oklahoma from the days of exploration to the present. He had previously given this talk as the banquet address at the fall technical meeting of the Oklahoma Academy of Sciences in November 2006.



Osage Hills, home of the Oklahoma Centennial Garden

Of larger scope was Ron Tyrl's involvement in the creation of the Oklahoma Centennial Botanical Garden and Education Center. The 300-acre botanical garden sits in the Osage Hills seven miles northwest of downtown Tulsa. A large part of the garden will remain untouched in its natural state, just as Washington Irving and his companions saw it in 1832 when they ventured through the cross timbers. Two woodlands and prairie walking trails have been opened at the Garden. Both trails wind through these ancient cross timber forests, with the longer trail showcasing the awe-inspiring views of the Osage Hills.



Planning the trail: Gene Phillips, Ron Tyrl, Bruce Hoagland, Jay Walker

Volunteers for the trails project were Ron; Bruce Hoagland, coordinator of the Oklahoma Natural Heritage Inventory at OU; botanist Jay Walker of Sapulpa; and Gene Phillips, civil engineer with Wallace and Wallace Engineering in Tulsa. Boy Scout Troop 1 worked with Jay Walker to clear the trails. He and Ron Tyrl prepared a booklet that identifies the trees, shrubs, and wildflowers along the trails. Bruce Hoagland will continue the identification process by collecting and inventorying all the plants.

The culmination of all their hard work was the Centennial Celebration for the Garden, held on September 8 and 9, 2007. The walking trails were dedicated and opened. Presentations on various botanical subjects related to Oklahoma were held throughout the two-day event, as well as special activities like flower planting, face painting, butterfly release, and entertainment.



Centennial Garden Dedication Sept. 8 & 9, 2007

Eventually the Centennial Garden will include a 17-acre lake, 15 major gardens, 60 small gardens, an amphitheater, a visitor's center, wedding chapel, and conservatory. More information on the Centennial Garden can be found at <http://www.oklahomacentennialbotanicalgarden.com>.



Off the Top of the Head Even *More* Exciting Times in Botany

by Bill Henley

It has been far too long since our last *Bluestem*, but that gap represents frenetic activity that will improve the status of Botany in the future. That's my excuse and I'm sticking to it!

In summer 2005, I wrote about our then-recent external review, which affirmed our plan for the future. Since then, we have made significant revisions to our graduate student guidelines and faculty promotion and tenure guidelines; hired a new undergraduate advisor and two new junior faculty members (articles this issue); hired a new Department Head; and planned extensive space renovations. Former Department Head Becky Johnson retired in 2007 (article this issue) and Ron Tyrl plans to retire this summer (next issue). This fall we hope to begin a search to fill Ron's faculty line.

Our new Department Head beginning summer 2008 will be Dr. Linda Watson (Ph.D., University of Oklahoma), currently Chair of the Department of Botany at Miami University in Ohio. Linda's specialty is molecular phylogenetics applied to biogeography and diversification of the Asteraceae. Her husband, Chris Wood, will be a Clinical Instructor of Botany. Chris currently manages Miami University's *Center for Bioinformatics and Functional Genomics*.

Major space changes are in the works. A new Interdisciplinary Research Building is under construction on the former site of the Dairy Building, which was demolished last year. The IRB will house collaborative researchers on a competitive basis from various science departments, potentially including Botany. Several chemistry laboratories in the Physical Sciences Building will move to the IRB, and their vacated labs will be renovated for Botany research, teaching and office facilities following our design. We expect to accommodate five research labs there, and retain five in the Life Science East basement. The inconvenience of a divided department will be at least partially compensated by improved laboratory quality. We will give up much of the first floor of LSE which is, to put it politely, inadequate for modern research. The move should occur by the end of 2010.

In summary, we are in a period of dramatic change for the better, and I expect that Linda Watson will deliver more good news in the next issue. Stay tuned!

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A Plea for Help

Botany is on the move, and we need your help! Nationwide, state universities are receiving a decreasing fraction of their total operating budgets from state allocations. According to a recent graphic in *The O'Colly*, in the last twenty years state funding has declined from nearly half to slightly over one-fourth of the total OSU budget. Tuition and fees increases have covered much of the difference, but it is increasingly clear that major increases in private donations are essential for the maintenance and improvement of academic programs. Botany is a small department with relatively few alumni. We desperately need your contributions of any size, particularly for graduate student support. Our top priority is to increase the number of students and quality of education in the Botany B.S. and M.S. and Plant Science Ph.D. programs. This will require major increases in recruiting effort and financial resources, in order to be competitive for a small national pool of potential applicants.

We have started a new alumni bulletin board in the hallway, featuring short career biographies of Botany alumni. You are invited to send a paragraph describing your career path after graduating with an OSU Botany degree, a photo or two of you in action at your job, or just a recent portrait. Current students need to see the many career options with a Botany degree.

Unfortunately, advertising is not enough. Our graduate assistant stipends are far too low for regional, much less national competitiveness. The Graduate College recently implemented a competitive stipend bonus program for top new Ph.D. recruits, but a large universal stipend increase does not appear to be imminent. If you would like to receive a list of Botany's needs, please contact paula.shryock@okstate.edu (405-744-5559) and ask for a PDF file or hard copy of the Botany *Green Book*. You may make donations by using the form on the back page of this newsletter. To dispel a common myth, the OSU Foundation does NOT keep a percentage of donations; they receive a small percentage of the *investment earnings* on the account balances. Every dollar you donate reaches us, possibly with interest!

We want to hear from you!

Job—Family—Accomplishments

Email your news:

paula.shryock@okstate.edu

New Faculty Members

Andrew Doust joined our department in July 2007 as an Assistant Professor of Plant Evolutionary Biology. A native of Australia, he received his Ph.D. degree in 1999 at the University of Melbourne. He held research positions at the University of Missouri-St.Louis as a postdoctoral fellow and research assistant professor. Before coming to OSU, he completed a postdoctoral fellowship at the Florida Museum of Natural History.

He has successfully completed his first semester of teaching this past fall – BOT 1404 Plant Biology, and he is busy putting his research lab in order. His research centers on plant molecular evolution, specifically phylogeny, evolutionary genetics, and the development of grasses. Two botany undergraduate students, Michael Malahy and Katie Miller, are working with him this semester.



Janette Steets is a new Assistant Professor of Plant Evolutionary Ecology. She earned her B.S. in 2000 from Muhlenberg College and her Ph.D. in 2005 from the University of Pittsburgh. She held a postdoctoral fellowship for two years in the Institute of Arctic Biology at the University of Alaska-Fairbanks prior to her arrival in August 2007.

Janette spent the fall semester setting up her research lab and is now teaching BOT 1404 Plant Biology. She will also teach BIOL 3034 General Ecology in the fall 2008 semester. Through her research, Janette aims to understand the ecological and genetic forces that control phenotypic diversity and shape adaptive evolution in plants. She currently has two botany undergraduates, Laura Eskridge and Lydia Meador, working with her.

Janette is married to Dr. Jeff Byrnes, a volcanologist, who is conducting research and teaching several courses for the OSU Geology Department.

Spotlight on Staff

James Hull is our Senior Academic Advisor in the department. He advises all undergraduate majors in botany and biology and is a member of the Center for Advisement in Life Sciences and Pre-Health Professions. This center encompasses the programs in biological science, microbiology, botany, and zoology and is now housed in the new A&S Center for Student Academic Success, 213 Life Sciences East.



Jim received his B.S. and M.S. degrees in geography here at OSU, but has had extensive experience with the botany program. He served as a teaching assistant in BOT 1404 Plant Biology and BIOL 1114 General Biology and as a co-lecturer in BOT 3233 Plant Anatomy and BOT 3013 Biological Microtechnique. In 2006-07, he served as lecturer for BOT 1404 Plant Biology while still performing his duties as advisor.

Jim is married to Deborah, who is the manager of the book binding department in the Edmon Low Library. He

has many hobbies, which include cooking, glass etching, and raising his dogs.

James Borrone joined our department in January as a postdoc in Andrew Doust's lab. He earned his B.S. and M.S. degrees in Chemistry and Biology from Florida Atlantic University and his Ph.D. degree in Biological Sciences from Florida International University. Prior to coming to OSU, James worked as a research molecular biologist at the Subtropical Horticulture Research Station of the USDA-ARS in Miami, Florida.

James is married to **Margarita Mauro-Herrera**, who is working part-time in Doust's lab. She received her Ph.D. in Agronomy & Range Science from the University of California-Davis. They are parents of a four-year-old daughter Ciana.



Faculty News

Congratulations to **Gerald Schoenknecht** (July 2006) and **Ming Yang** (July 2007), who were promoted to associate professor with tenure!

Ron Tyrl received the Arts & Sciences Outstanding Faculty Award for the second time at the A&S banquet in April 2006. He had previously received the award in 1989.

The department welcomes **Yinghua Huang** who was appointed as an adjunct professor in 2006. He received his Ph.D. in Biological Sciences from Michigan Technological University and is currently the lead scientist and research geneticist at the USDA-ARS in Stillwater.

In November 2007, **Mike Palmer** participated in a debate at the annual meeting of the American Society of Agronomy in New Orleans. Different visions of the future for ethanol were the focus. One vision was offered by Ken Cassman, Director of the Nebraska Center for Energy Science Research, who advocated producing the maximum yield per acre from corn using high-input, low-diversity systems. In contrast, Mike proposed the view that ethanol producers should use low-input, high-diversity systems such as tallgrass prairie hay meadows.

Mike Palmer went on sabbatical leave in 2006-2007 in order to conduct research with Per Milberg at Linköping University in Sweden. As a visiting professor for the project, "Assessment of Environmental Goal Achievement Under Uncertainty," Mike offered advice on monitoring grasslands, analyzing existing grassland data sets from Sweden, and developing new multivariate methods.

In 2007, **Kay Scheets** was awarded \$82,000 in OCAST funding in order to optimize MNeSV so it can be used to cause virus-induced gene silencing in maize plants. By inserting maize mRNA into the Maize necrotic streak virus (MNeSV) and then injecting the virus into the maize plant, the plant is induced to silence genes. This technique provides researchers a faster way to identify the function of different genes. Kay will also use this process for wheat and oats, the goal being to facilitate the breeding of drought or disease resistant plants.

David Meinke was the keynote speaker in August 2006 at the International Society for Plant Molecular Biology Congress in Adelaide, Australia.

OSU has submitted a patent application for a method **Kay Scheets** developed while conducting research on Maize necrotic streak virus (MNeSV), a project funded by NSF. Through her research on RNA sequences and structures, Kay developed a method whereby large amounts of a single protein can be synthesized using a wheat germ extract protein synthesis system, thus saving both time and money.

Faculty involved in Tallgrass Prairie Preserve

Andrew Doust has joined the Oklahoma EPSCoR Plant Virus Biodiversity and Ecology Project (PVBE), working with **Mike Palmer**, **Kay Scheets**, and Ulrich Melcher (biochemistry professor and project coordinator). This research is divided into two parts: a biodiversity inventory of viruses inhabiting plants in Oklahoma and the study of the ecological roles of these viruses. The Nature Conservancy's Tallgrass Prairie Preserve in northeastern Oklahoma is being used because of its high diversity of plants, over 700 species. The inventory began in the summer when Mike and his graduate students - **Vaskar Thapa**, **Matt Allen**, and **Dan McGlenn** - gathered samples of more than 400 species of Preserve plants. After collecting and identifying the plants, the leaves will be probed for the presence of viral molecules. The viruses will be characterized by obtaining the full nucleotide sequences of their genetic material before being passed on to Kay and other team members for additional study.

Mike Palmer served as chairman of the First Annual Tallgrass Prairie Retreat at the research station in March 2006. Mike's opening remarks reflected the goals he wanted to achieve: "showcasing research conducted at the TGPP, exploring new collaborations, informal networking, and just having a good time amongst the bluestems and bison." More than 60 professors, graduate students, and other researchers gathered from the state universities and beyond. The event was sponsored by Oklahoma EPSCoR, Oklahoma State Regents for Higher Education, and the National Science Foundation.

Mike Palmer is currently involved in an NSF planning grant, along with other OSU faculty, students, and administrators, to discuss the possibility of adding dormitory, dining, and kitchen facilities to the Tallgrass Prairie Ecological Research Station. Added facilities would increase research and classroom activity of both graduate and undergraduate students, as well as faculty and other researchers. The committee is now identifying the facilities needed to support current and future research and education activities and the funding sources and strategies needed to accomplish their goals.

Becky Johnson Retires

Becky Johnson, Professor, retired from OSU and the department on June 30, 2007 after 37 years of service. She received a B.S. in Physiology from OSU and a M.S. and a Ph.D. in Physiology from the University of Illinois-Urbana. In 1970, she began her career as an instructor at OSU in the Biological Sciences program and later joined the department as an associate professor. She was promoted to Professor in 1988 and served as Dean of Undergraduate Studies in Whitehurst from 1992 to 1997. After rejoining the department in 1999, she became Head in July 2000 and served in that capacity until July 2004.



Becky's research involved the use of plant tissue culture in plant breeding and genetic engineering. She often collaborated with Earl Mitchell in the Department of Biochemistry & Molecular Biology and Charles Taliaferro in the Department of Plant and Soil Sciences. She was a member of the American Association for the Advancement of Science, Sigma Xi, Tissue Culture Association, and the International Society for Plant Tissue Culture. She served as a reviewing editor for the *Journal of Tissue Culture Methods*.

Becky taught many different courses during her tenure at OSU. They include: Cellular and Molecular Biology, General Genetics, Introductory Biology, and Plant Biology. She developed Plant Tissue Culture, Man and Disease, Survey of Human Disease, Plants and People, and Ethnobotany. She also taught two courses for the Honors College -- Fraud and Error in Science and Scientific Inquiry.

Her commitment to teaching was formally recognized when she was named Outstanding Teacher in Biological Sciences by the Student Government Association in 1978. In 1985, she received the AMOCO Outstanding Teacher Award.

Becky was involved in the Oklahoma Principals' Science Scholars (OPSS) Program funded by the Oklahoma State Regents for Higher Education. The objective of the OPSS program was to encourage minority students to pursue careers in science, mathematics, and computer science. Becky spent part of her summers organizing the program and mentoring and guiding junior and senior high school students.

Later in her career, Becky began exploring her interests in paleontology and Native American culture. She taught summer academies on paleontology, the ancient life of Oklahoma, and traditional culture to groups of public school teachers and students. She developed an ethnobotany course with a lab for botany undergraduate students. She also conducted research with Mary Jane Warde of the Oklahoma Historical Society on the plant poisons that were used by Native Americans to kill fish. She was invited several times to present that research, as well as other ethnobotanical topics, to various groups, including Native Americans.

Becky now lives in Tulsa, enjoying her friends, her garden, and her dogs and cats.

Botany Recruits High School Students

Our department is always looking for ways to recruit high school students to become botany majors at OSU. We usually give one-on-one tours to prospective students and their parents, but we recently had two opportunities to influence a whole class. In November 2006, 72 seventh graders from Cascia Hall in Tulsa visited OSU and several departments in the Colleges of Agriculture and Arts & Sciences. **Kay Scheets** helped to coordinate our part of this visit, and **Gerald Schoenknecht** gave them a presentation on "Meat-Eating Plants." Gerald gave his presentation again in February 2007 when a botany class from Edmond-Santa Fe visited our department. The students and teachers enjoyed seeing the Department and OSU.



Outstanding Students

Audra Ligenstoffer, 2006 Outstanding Botany Senior

Audra Ligenstoffer, Kiowa, Kansas, received an Associate of Science degree from Northern Oklahoma College in Tonkawa, Oklahoma before attending OSU. Audra was an active member of our department and of the student OSUBS group, serving as treasurer. She earned three degrees at OSU – Biology, Botany, and Microbiology, and is currently working on a master's degree in microbiology at OSU.



Laura Eskridge, 2007 Outstanding Botany Senior

Laura Eskridge, Edmond, Oklahoma, began her studies toward a Botany B.S. degree in the fall semester of 2004. She is currently finishing her senior year and is employed in the lab of Janette Steets. She actively participates in the social and academic activities of our department and the student OSUBS group.



Dan McGlenn, Ph.D. student with Mike Palmer, has discovered a new plant species at the Tallgrass Prairie Preserve. The new plant is in the genus *Isoetes*, commonly known as quillwort. He is not sure which species this particular one is, but it most resembles *Isoetes butleri*. Dan discovered the plant in the southeastern corner of the preserve in an open moist site. Mike Palmer and his other graduate students, Matt Allen and Vaskar Thapa, discovered another population about 1 km away in a similar environment. Before Dan's discovery, quillworts were only found in 12 counties, mostly in southeastern Oklahoma.

Andy Potter, M.S. 2006, worked as part of the Rural Alliance for Improving Science Education (RAISE) while he was a masters student. This program matches science students with high school science teachers at Morrison, Perkins-Tryon, and Hennessey. Andy worked with Ms. Brown's Environmental Science class at Hennessey High School. Another highlight of his time at OSU was attending the Phycological Society of America international meeting in South Africa, where he met several researchers in his field of interest – diatoms.

OSU BOTANICAL SOCIETY

Celebrate Darwin's birthday! That's what the OSUBS group did this year with a potluck hosted by their advisor Ron Tyrl and new faculty member Andrew Doust. Other fun activities included manning a booth for children at the Audubon Nature Day at Sanborn Lake and having a booth on campus for Earth Day. Students have also attended meetings and field trips of the Oklahoma Academy of Science and the Oklahoma Native Plant Society.



Several guest speakers were invited to our department by OSUBS. Jeff Nekola, University of New Mexico, spoke to the department on ecological communities and also gave a talk on heirloom plants to the local Cross-Timbers Chapter of ONPS. Don Falk, University of Arizona, gave a talk to the department and the ONPS about his tree-ring research. Tom Cason, Botany Dept. alumnus and owner of Kingston Environmental Services, spoke to the OSUBS group about careers in the private sector.

Audubon Nature Day



Ron Tyrl with Tom Cason at OSUBS potluck

The 2007-08 officers are: Brooke Bonner, President; Mary Gard, Vice President; Dan McGlenn, Treasurer; Will Lowry, Secretary; and Charlie Huang, Historian.

If you wish more information or you want to help OSUBS, please contact Brooke at brooke.bonner@okstate.edu.

Visiting Scholars



Robert S. Capers came to our department as a visiting assistant professor during the fall 2006 and spring 2007 semesters. He taught the ecology classes while Mike Palmer was on sabbatical. Bob received his Ph.D. in Botany from the University of Connecticut and is involved in research concerning plant community ecology. Before coming to OSU, he completed a two-year postdoc position in the Invasive Aquatic Plant Survey Program at the Connecticut Agricultural Experiment Station. Bob is now the Plant Collections Manager for the Department of Ecology & Evolutionary Biology at the University of Connecticut.

Eahsan Shahriary arrived from Iran in August 2007 as a visiting Ph.D. student and will remain until August 2008. He is studying with Mike Palmer and conducting research on the vegetation of piospheres in grazed rangelands. We have all enjoyed getting to know Eahsan and seeing slides of his homeland and of his research.

During his extended visit to China this year, Yinghua Huang encouraged several scholars to come to his lab this year to study and conduct research in plant science and crop genetics. **Weijun Zheng** is a Ph.D. student from Northwest Agricultural and Forestry University. **Li Yan**, a Ph.D. student, and **Shuang Yi Zhao**, an associate professor, are from Shandong University.

Ilona Leyer, a member of the biology faculty at Philipps University in Marburg, Germany, has co-authored a book in German entitled *Multivariate Statistics in Ecology*, published by Springer in 2007. When Ilona was working on her Ph.D. degree, she came to our department in the fall of 1999 to study multivariate methods with Mike Palmer. It was this experience, in part, that led her to write the book.

Former Employees

Biao Ding, former faculty member and now a professor at Ohio State University, made a trip to Stillwater in spring 2006 to speak before the Plant BioNet group. He was able to bring his daughter Adeline with him, and they both enjoyed seeing and meeting everyone. It was a memorable trip!

Chun-Ming Liu, former postdoc of David Meinke, is Professor and Director of the Center for Signal Transduction and Metabolomics in the Botany Institute of the Chinese Academy of Sciences in Beijing, China. The center houses several groups in agriculture-related basic and applied research.

Charmaine Naidoo, former postdoc of Gerald Schoenknecht, is a faculty member in the Department of Natural Sciences at Langston University where she teaches biology.

Former Botany Advisor and M.S. student, **Deann Lowder**, lives in Wagoner with her husband Kenny and their young daughter Naomi Grace. Deann is enjoying being a mom!

Jim Ownby, Professor and Head Emeritus, is an active member of the Payne County Audubon Society and participates in the yearly bird counts. He is an excellent nature photographer, as well. You can see his wonderful photographs on his website: www.ownbyphotography.com

New Babies



Jose Arévalo is the proud papa of a baby boy, Manuel, born in March 2007. Jose is on faculty at the University of La Laguna, Spain and has visited our department several times, working with Mike Palmer and teaching General Ecology labs. Manuel joins his five-year-old sister Beatrice.

Becky Rogers and **Michael Berg** are the proud parents of a baby boy, Patrick, also born in March 2007. This is their first child and they are enjoying him so much! Becky worked as a lab technician for David Meinke, and Michael worked for Dave as a postdoc.

Kelly and **Smoot Major** are the proud parents of their first child, as well. Their son Michael was born in February 2008. Kelly was a postdoc for Bill Henley and is now an associate professor and herbarium curator at the University of South Alabama in Mobile.

Alumni News

Bob Adcock (*MS 35*) and his wife Ruth are still enjoying their retirement in Lakeland, Florida.

After 20 years of teaching biology and botany at the University of Maine, **Barbara Arter** (*MS 84*) is a consultant for her firm BSA Environmental Consulting in Steuben, Maine. She specializes in ecosystem management, land use and watershed planning, water quality interpretation, and Atlantic salmon habitat restoration. Barbara remembers fondly the botany faculty and classes, especially physiology!

Charles Bird (*MS 58, PhD 60*) was awarded honorary membership in the Ottawa Field-Naturalist's Club for serving 30 years as Associate Editor (Botany) of the *Canadian Field-Naturalist*. Charles taught botany for many years at the University of Calgary, retiring as full professor.

Denise Bishoff Wilson (*BS 88*) is an environmental scientist with the Mississippi Department of Environmental Quality in Jackson, Mississippi.

Nisa Blackmon (*MS 95*) participated in the 2007 MFA Exhibition at the School of Art & Design, University of Illinois at Urbana-Champaign. She showcased botanical specimens fabricated from silver. After graduation, she accepted a teaching position at Illinois Wesleyan University, where she coordinates and teaches the general biology labs.

Digamber Borgaonkar (*PhD 63*) was invited to give a talk in September 2005 titled "Chromosomal Variation in Man Online Database, Its Usefulness in Syndromology and Counseling" as part of the International Conference on Medical Diagnosis and Therapeutics in Dubai, United Arab Emirates.

Josh Brokaw (*MS 04*) continues his doctoral studies in taxonomy at Washington State University. After a year as a teaching assistant, he is now the assistant curator of the Marion Ownbey Herbarium at WSU. He and his wife Amber live outside of Pullman in the little town of Albion (pop. 600). They enjoy hiking and exploring the countryside.

Tom Cason (*MS 74, PhD 77*) visited the department in November 2007 to speak to Bill Henley's "Professional Development" class and to the OSUBS group at an evening potluck. Tom is the owner of Kingston Environmental Services in Kansas City.

Kim Copland Boling (*BS 01*) and her husband Brian are the proud parents of a little girl Alora born in 2006.

David Cothrun (*EdD 69*) recently retired as President of Taft College in Taft, California. He had been at the college since 1980. Botany was David's subject emphasis while pursuing his EdD, and former department head Glenn Todd was his dissertation advisor.

George Driever (*MS 95*) is a project scientist in the Department of Plant Pathology at the University of California, Riverside. He is based at the Kearney Agricultural Center where he conducts research on controlling bacterial and fungal diseases in fruit and nut crops.

Phil Gibson (*BS 88*) moved in 2006 to the University of Oklahoma where he has a dual appointment as associate professor in the departments of Zoology and Botany/Microbiology. Besides his research on the evolution of plant life history strategies, Phil is interested in science education and has co-authored two high school level books: *Plant Ecology* and *Plant Diversity*, both published by Chelsea House Publishers, New York.

David Hagyar (*BS 03*) is now working for an environmental consulting firm. Previously, he has worked botanical contract jobs taking him to Utah, Everglades National Park, Florida, southern Nebraska, and all over Oklahoma, usually performing wetland delineations and floristic surveys.

Mijitaba "Taba" Hamissou (*PhD 92*) was awarded the Earlon & Betty McWhorter Outstanding Teacher Award of 2007 at Jacksonville State University, Jacksonville, Alabama. Taba has been at JSU since 2002 and is an Associate Professor of Biology.

George Heine (*BS 00*) received his PhD in June 2006 from Ohio State University, where he investigated plant transcription factors. He then changed, taking a postdoc at Harvard Medical School studying the BRCA1 protein and how it relates to breast cancer, DNA damage, and transcription. After a year, the PI moved his lab to Ohio State University, so George followed and is now in the Department of Biomedical Informatics of the OSU Medical Center. His wife is an elementary school teacher in Fairborn Public Schools.

Janice Hironaka (*MS 00*) is an assistant professor in the chemistry department at Michigan State University where she teaches chemistry courses for nonscience majors. She is also involved in two undergraduate programs: the Bailey Scholars Program, a non-residential learning community, and the Lyman Briggs School, a residential college for science majors.

Elizabeth Hood (*MS 80*) moved to Arkansas State University in the fall of 2004 to accept the position as Associate Vice Chancellor for Research and Technology where she helps faculty obtain research funding and facilitates technology

Alumni News (cont.)

transfer between the university and businesses. Previously, Elizabeth was a NSF program director and the vice president of technology for Prodigene, a plant biotechnology company in College Station, Texas.

Mumtaz Hussain (*PhD 94*) has been appointed Head of the Department of Botany at the University of Agriculture in Faisalabad, Pakistan. He is currently studying the propagation of medicinal plants endemic to the Salt Range in Pakistan.

Jerad Linneman (*MS 04*) began a new job in January 2008 as a Safety and Health Specialist with the Department of Labor – Occupational Safety and Health Administration. He is based in Washington, D.C. and works with OSHA's on-site consultation services and business resource groups to develop and implement occupational safety and health programs.

William F. Mahler (*MS 1960*) is a retired associate professor of Southern Methodist University and director of BRIT – Botanical Research Institute of Texas. He succeeded Lloyd H. Shinnars, whose herbarium and library became the SMU Herbarium and later BRIT. While at OSU, Bill studied under U.T. Waterfall, a curator of the OSU Herbarium and author of *Keys to the Flora of Oklahoma*, a floristic treatment used by countless students.

Marty Matlock (*MS 89*) gave a talk "Designing Ecosystems for Sustainable Habitats" in October 2007 as part of our Botany Seminar Series. Marty is an associate professor of ecological engineering at the University of Arkansas.

David Murray (*BS 06*) is a graduate student in the Department of Geography at Virginia Tech in

Blacksburg, Virginia. He has taught several geography courses and is pursuing his research concerning the spatial distribution of four exotic invasive plant species in southwest Virginia and predicting where they may occur in the future.

Jessica Rivers Horn (*BS 04*) was recently married and now lives in Santa Rosa, California with her husband. Jessica had previously been an intern at the Ladybird Johnson Wildflower Center in Austin, Texas. She collected seeds and identified plants as part of the Millennium Seed Project.

Adeline Torrijos San Nicolas (*MS 55*) studied plant physiology under Dr. Orville Schultz while at OSU, but chose to use her pharmacy degree when she lived on Guam. Adeline worked as the chief pharmacist at the Catholic Medical Center and later as the managing pharmacist at two island drug stores.

Fumiko Shirakura (*BS 03, MS 06*) works as a lab technician for Dr. Patricia Rayas-Duarte, a cereal chemist in the OSU Department of Biochemistry & Molecular Biology. She was a student of Mike Palmer, studying the fire history and dendroecology of the Tallgrass Prairie Preserve.

Catherine Sonleitner (*BS 01*) earned a master's degree in education from OSU and now teaches science at Norman High School, Norman, Oklahoma.

A portrait of **Richard Speairs** (*BS 41*) was dedicated on October 20, 2007 at the Ouachita Mountains Biological Station, where he was director at the time of his death. Many family members and friends gathered to remember him and share stories. Botany students who work in the OSU herbarium are supported by the Betty and Richard Speairs Jr. Fellowship.

Martin Stone (*MS 90*) is an Assistant Professor of Horticulture in the Department of Agriculture at Western Kentucky University, Bowling Green, Kentucky. He stated that of his three degrees, he most enjoyed working on his master's in botany at OSU. He remembers fondly all his teachers and fellow students, one of which is his wife **Joleen Niemann Stone** (*BS 88*).

Cynthia Wyman Jordy (*BS 86, MS 88*) is a corporate environmental manager for the Chevron Phillips Chemical Company in Sweeney, Texas.

Theses & Dissertations Completed 2006-07

M.S.

Potter, Andrew. 2006. "The Diatom Assemblages of the Salt Plains National Wildlife Refuge and Diatom Allometry in the Southwestern United States."

Thomas, Shyam Mathew. 2006. "Effects of Nine Years of Mowing on Tallgrass Prairie Grassland Community & Review of the Ecology of Montane Grasslands of the Western Ghats."

Shirakura, Fumiko. 2006. "Tornado Damage and Fire History in the Cross Timbers of the Tallgrass Prairie Preserve, Oklahoma."

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- Betty & Richard Spears Fellowship** (223250) [supports an undergraduate herbarium assistant]

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