



Department of Botany

College of Arts and Sciences

Oklahoma State University

Summer 2005

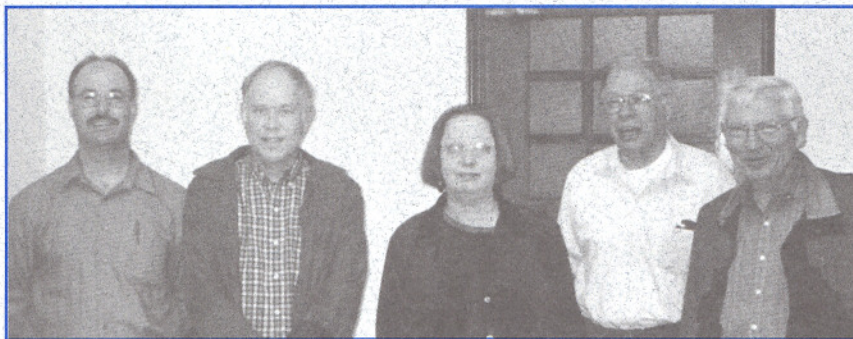
Volume 11

EMERITUS FACULTY VISIT DEPARTMENT

Last fall, the department was pleasantly surprised by an inpromptu visit from Glenn Todd, former head, who called to make arrangements to review his stored files. A few phone calls later, he, other emeritus faculty, and our current faculty members were drinking coffee in the conference room and remembering "the good old times." Glenn, Eddie Basler, Paul Richardson, and James Ownby enjoyed being together again and also talking with current faculty. Eddie came to OSU in 1957 and retired in 1986. Glenn arrived in 1958. He served as Director of the School of Biological Sciences, which was



(Left to Right): Eddie Basler, Ron Tyril, Becky Johnson, Bill Henley, Jim Ownby, Paul Richardson, Glen Todd



Department Heads (left to right): Bill Henley, 2004-present; James Ownby, 1993-2000; Becky Johnson, 2000-2004; Paul Richardson, acting head 1981; Glenn Todd, Director 1973-1981, Head 1981-1993.

created in 1973. In 1981 the School was dissolved and he became the Head of the new Department of Botany. He remained department head until his retirement in 1993. Paul joined OSU in 1968. During his tenure here, he served for a few months as acting department head in 1981. In 1988 he became the Director of the Electron Microscope Facility, and in 1992 he retired. Jim came to the department in 1975. He also served as department head from 1993 until his retirement in 2000.

MEINKE WINS AWARD



David Meinke, far left; David Schmidly, OSU System CEO and President, third from left

During the university's Fall Convocation on October 14, 2004 in the Student Union Atrium, David Meinke, Regents Professor of Botany, was presented the Regents Distinguished Research Award. This award recognizes faculty for continued research excellence at Oklahoma State University, having received national and international recognition.

Dave has established himself as one of the most skilled and productive research scientists in the OSU community. During his tenure at OSU, he has generated approximately \$4.3 million in research funding, and has served as principal investigator on two EPSCoR grants that have brought another \$4.4 million to OSU and other research institutions in the state. He was also part of the team that decoded the genome of the plant *Arabidopsis*.

NEW STAFF

Marilynn Cleveland joined our department in January 2005 as an academic counselor for undergraduate botany and biology majors. She is a member of the staff of the new Center for Advisement in Life Sciences and Pre-Health Professions, which encompasses the biological science, microbiology, botany, and zoology programs. Marilynn earned an Associate of Science degree in 1986 from Murray State College, a B.S. degree in Biology Education in 1988 from East Central University, and a M.Ed. degree in School Counseling in 2001 from East Central University. She has six years experience as a higher education academic counselor, working at Murray State College, University of Central Oklahoma, and OSU's College of Human Environmental Sciences. Marilynn is a native



Marilynn Cleveland



Jana Kviderova

Oklahoman, growing up in the Sulphur area.

Jana Kviderova came to our department in February 2005 as a postdoc in Bill Henley's lab. She is a native of the Czech Republic and attended the University of South Bohemia. She received a Bc. degree in Biology in 1997, a Mgr. degree in Plant Physiology in 1999, and a Ph.D. degree in Plant Physiology and Developmental Biology in 2005. Her Ph.D. dissertation is

titled "Adaptation of Algae to Extreme Environments." While here at OSU, she will work on the NSF Salt Plains Microbial Observatory project, conducting experiments involving isolation, culture, identification, manipulation, and physiological characterization of salt tolerant algae, cyanobacteria, bacteria, and archaea.

ALUMNI NEWS

Nisa Blackmon (M.S. 1995 with Ron Tyrl) has received a fellowship at the University of Illinois Champaign-Urbana to complete a M.F.A. in metalsmithing and jewelry. Recent alumni of the department will remember her detailed, botanically correct models of a sunflower head and grass spikelet that were the basis of her masters research endeavor.

Tom Cason (M.S. 1974, Ph.D. 1977 with Paul Richardson) received the 2003-2004 Minority Small Business of the Year Award for the Kansas City area. He owns Kingston Environmental Services, an American Indian-owned firm which has 70 employees and \$10.7 million in annual revenue. Tom also received a scholarship from the Small Business Administration to attend the Advanced Minority Executive Business Program at the Tuck School of Business at Dartmouth College in Hanover, New Hampshire.

Karol Chandler-Ezell (M.S. 1997 with Michael Palmer) has accepted a new position as assistant professor in the Sociology, Anthropology, & Gerontology Department of Stephen F. Austin State University in Nacogdoches, Texas. She is the director of the Anthropology Program and will teach Cultural Anthropology, Plants & People, and Medical Anthropology. She hopes to build up the program, increasing enrollment and adding new courses.

Larry Green (B.S. 1998) will begin a teaching position as Assistant Professor of Biology at Rogers State University in Claremore, OK. After earning his bachelor's degree in Botany, Larry remained at OSU to get his Ph.D. in Plant and Soil Sciences. While here, he taught several classes for us, including BIOL 1114 Introductory Biology labs, BOT 1404 Plant Biology labs, and BOT 3233 Plant Anatomy.

David Hagyard (B.S. 2003) has been working in various botanical positions since graduation. His first position was a temporary assignment with the Chicago Botanical Gardens, working in Utah monitoring poppies and cacti. He is now employed by the USGA and is conducting vegetation surveys in Florida to determine the habitat requirements for endangered birds.

Charriss Hayes (M.S. 2004 with Ron Tyrl) accepted a position working at the Buffalo Bayou Partnership in Houston, Texas. BBP is a non-profit environmental company that works to conserve and restore Buffalo Bayou, its tributaries and the surrounding lands. Her position was created through a Texas Forest Service grant to remove invasive species and restore tributaries and to create new wetland sites, prairie sites, and wildflower plots. She will also be involved with organizing and supervising volunteer

groups, as well as bringing school groups to the park area for nature walks and other activities. Her husband Derek York received his B.S. degree in Wildlife and Fisheries Ecology in 2002 from OSU and now works for the Texas Parks and Wildlife Department.

Jerad Linneman (M.S. 2004 with Mike Palmer) has accepted a position in Fort Lauderdale, Florida working with the USDA-APHIS.

Joe Rackley (B.S. 1982), long-time adviser to countless undergraduate students majoring in biological science, allied health, wildlife, and zoology, has resigned to accept a position as Director of Student Support Services at the Pleasantville Campus of Pace University, New York.

Jia-qian Wu (M.S. 1999 with David Meinke) received her Ph.D. in molecular and human genetics in May 2005 from the Baylor College of Medicine. She continues her study in human genomics as a postdoctoral fellow at Yale University. Since most of her time in the U.S. has been spent in the southwest, she is having to adjust to the climate and culture of the northeast. In her free time, she enjoys traveling, camping, jogging, and art and is looking forward to snow skiing this winter.



Tom Cason



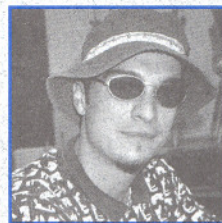
Karol Chandler-Ezell



Larry Green



Charriss Hayes



Jerad Linneman



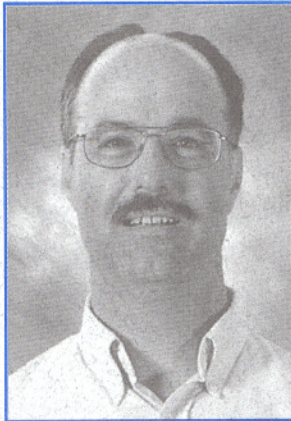
Jia-Qian Wu

We want to hear from our alumni and friends. Please feel free to share with us any personal or professional news. Send it to the Botany office at: Oklahoma State University, Department of Botany, 104 Life Sciences East, Stillwater OK 74078-3013 or by email to Paula Shryock: pshryoc@okstate.edu.

NEWS REQUESTED

OFF THE TOP OF THE HEAD: EXCITING TIMES IN BOTANY

by Bill Henley



I have survived my first eventful year as Head, with its steep learning curve, challenges and stress. What makes it worthwhile is that these are truly exciting times for Botany, thanks to a number of recent and future events.

Dean of Arts & Sciences Peter Sherwood ordered external reviews for Botany, Zoology and Microbiology & Molecular Genetics in spring 2005. In preparation for the late April site visit by three prominent Plant Biologists,

we held an all-day faculty retreat in February. The result was an aggressive five-year self-assessment plan in which we proposed to expand the size of our faculty and graduate program. We seek to become a nationally recognized research department, in keeping with President Schmidly's lofty goal of achieving top-75 research status for OSU.

The constructively critical external review panel's report largely affirmed our plan for expansion and emphasis on research. They argued for institutional and departmental "culture" changes, as well as substantial OSU financial input to help us realize our goals. It is too soon to know the extent to which the administration will respond, but we are optimistic that our situation will improve over the next few years.

We are in the early planning stages for moving Botany and Microbiology & Molecular Genetics across the parking lot from Life Science East to Physical Science II, following construction of a new state-of-the-art Chemistry/Physics building. PS-II will be renovated to our specifications (Microbiology Head Bob

Miller and I are on the planning committee), providing larger research labs for current faculty and accommodating a few additional faculty members. Stay tuned for annual updates!

Mike Palmer is spearheading a major effort to obtain funds for expanded research station facilities at The Nature Conservancy's Tallgrass Prairie Preserve near Pawhuska. In recognition of the great research potential for such a facility, Dean Peter Sherwood recently awarded substantial seed funding to establish the broadly interdisciplinary Center for Scholarship: Dynamic Ecosystem Biodiversity Observatory. We also submitted a planning proposal to NSF, and will hire a consultant specializing in field stations to assist with the planning process. Ultimately, the construction phase will require at least \$2 million in private and corporate donations coordinated by Suzy Thompson, OSU Foundation's A&S representative.

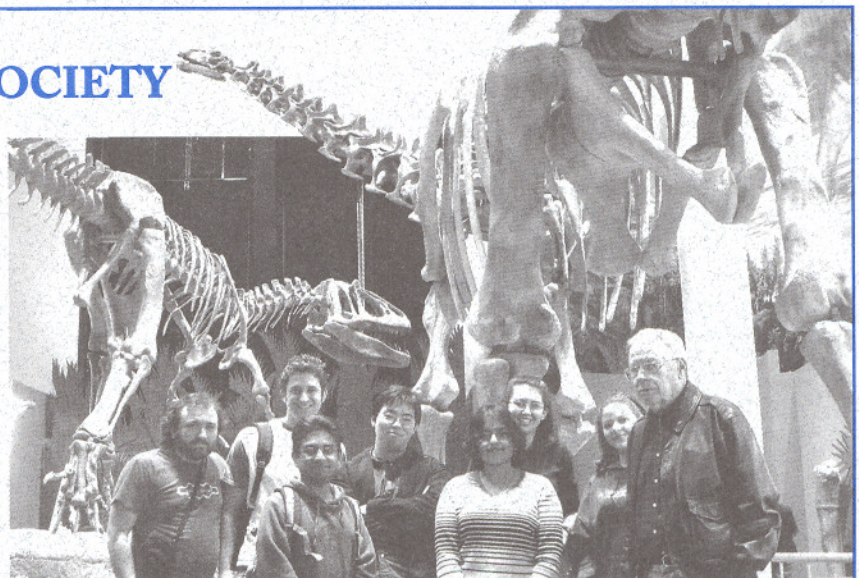
I want to emphasize that growth in size and quality of our graduate program is one of my highest priorities as Head. We admitted two new students in spring and expect three or four more in the fall, bringing us to at least twelve, the most in many years. We'd like to increase that to 15-20 as we add faculty positions (if all goes as planned). Starting this academic year, more departmental and administration funds will be devoted to attracting and supporting the best graduate students through in-state tuition waivers, higher stipends and greater support for travel and research expenses. We welcome and appreciate donations of any size to support this worthy cause. The McPherson fund targets field-oriented graduate student research, while the Botany general fund is unrestricted.

Finally, please take the time to complete and return the enclosed alumni survey to help us with mandatory program assessment. Note that only composite statistics are included in reports.

OSU BOTANICAL SOCIETY

Under the leadership of President Andy Potter, the OSU Botanical Society participated in various activities throughout the year. They once again participated in the Audubon Society Nature Day, which helps kids and their families learn more about the natural world, and in Earth Day at OSU. The members also visited the Sam Noble Museum of Natural History in Norman. OSUBS members camped out at Robbers Cave State Park in April while attending the spring field meeting of the Oklahoma Academy of Science where several members presented papers.

www.orgs.okstate.edu/botanical



Andy Potter, Dan McGlinn, Shyam Thomas, Tatsuro Yamada, Kasuri Ghatak, Jessica Milner, Audra Liggerstoffer, and Paul Richardson at the Museum of Natural History.

BITS AND PIECES

In October, Botany and Microbiology teamed up to host a "Halloweenies with Chilly" lunch to raise funds for the United Way campaign on campus. Several people gathered to chow down on chili dogs, chips, cookies, and lemonade. We raised \$150 for the fund.

David Murray (B.S. Botany student) will be back at OSU this fall after spending a year in Scotland. In addition to studying, he visited the Isle of Harris and the Orkney Islands. A highlight for him was a visit to the Botaniska Trädgård in Goteborg, Sweden where there were several tributes to Linneaus.

Several new graduate students have joined our department. Beginning in the fall semester were John Haase, a master's student with Ron Tyrl, and Daniel McGlenn, a doctoral student with Mike Palmer. Those who started this spring were Brooke Bonner, a master's student with Bill Henley, and Kasturi Ghatak, a doctoral student with Ming Yang.

Ryan Jenlink, an undergraduate student who worked in the Meinke lab, earned several honors this year. In the fall semester he was named one of fifteen Homecoming King candidates. This spring, he was chosen as an OSU Outstanding Senior. Ryan earned a double major in cell and molecular biology and plant and soil sciences biotechnology. He plans to attend law school and study patent law and bioethics.

Sherry Leis (M.S. 2004 Plant and Soil Science), is now a grassland botanist for the Missouri Department of Conservation. She was an active member of OSUBS and is a friend of our department.

Ma Yu Naing, an undergraduate student who worked in Gerald Schoenknecht's lab, has earned her Biology B.S. degree from OSU and is now attending nursing school in Manchester, Connecticut.

Andrea Kirkwood, a postdoc in Bill Henley's lab for the past two years, is enjoying her new position at the University of Calgary. She is working at the Alberta Ingenuity Centre for Water Research in the Department of Biological Sciences. Even though she enjoyed Oklahoma, she is glad to be back home in Canada.

Kelly Major, a past postdoc for Bill Henley, has added a new position to her list of duties. Besides being a faculty member in the Department of Biological Sciences at the University of South Alabama, she will be the new Curator of the USA Herbarium. Her husband Smoot joins her as Associate Curator and Research Coordinator.

Becky Rogers (B.S. Biology), who worked as a lab technician in Meinke's lab for many years, has a new career as a Special Agent with the FBI in Philadelphia. Her husband Michael Berg, who was a postdoc for David Meinke, moved with her and has taken a job with Severn Trent Laboratories, an environmental testing company in Cherry Hill, NJ.

Colleen Sweeney, lab technician in David Meinke's lab, received her 5-year service pin at this year's Staff Appreciation Day.

Michael Palmer, Professor, hosted several visiting scientists throughout the year who consulted with him on their own research, worked with him on various grants, and attended his classes.

They included: Jose Ramon Arevalo, Spain; Mary Carmen Cobo, Spain; Mumtaz Hussain, Pakistan; and Terho Hyvonen, Finland.

Gerald Schoenknecht, Assistant Professor, received the Technology Innovator Award for Creative Use of Technology from the OSU Divisions of Academic Affairs and Information Technology. The award recognized his creative use of information technology for his BOT 3460/3463 Plant Physiology course. The course website offers a set of interactive learning tools that foster active learning and improve higher level thinking skills, including "Interactive Exercises," "Spreadsheet and Graphs," "Animated Tutorials," and "Self-Test Quizzes."

Ron Tyrl, Professor, is the co-author of a new book, *Dyes from American Native Plants: A Practical Guide*, published by Timber Press. Ron has been on sabbatical leave in Sydney, Australia where he completed two more books, *Field Guide to Oklahoma Plants*, 2nd edition and *Toxic Plants of North America: A Handbook for Clinicians*.

Ming Yang, Assistant Professor, is part of an exchange agreement between OSU and the Samuel Roberts Noble Foundation in which both institutions agree to advance basic science, applications, and production agriculture for the benefit of the public through select projects involving OSU graduate students. As part of this agreement, Yang and Dr. Rujin Chen of the Noble Foundation are working with Yang's doctoral student Kasturi Ghatak on research concerning the role of auxin in cell cycle regulation during lateral root development.

SECRETARY HONORED

At the College of Arts & Sciences Fall Convocation held September 14, 2004 in the Wes Watkins Center, Paula Shryock was honored as the recipient of the first College of Arts & Sciences Outstanding Staff Award. Dean Peter Sherwood presented her with a beautiful plaque and a check for \$500. Paula has been the Unit Assistant in the Botany Department since September 1995. She serves as the office receptionist and manager as well as providing support for the department head, faculty, staff, and students. Congratulations, Paula!



Paula receives award from Dean Sherwood.

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OBITUARIES

Louise Higgins, 1924-2003. Dr. Louise Higgins died November 7, 2003 in Plano, Texas at the age of 79. She was born in 1924 in Cuervo, New Mexico. She attended New Mexico State University and Oklahoma State University, earning her Ph.D. in Botany in 1964 under J. M. J. DeWet. She retired in 2001 after 30 years at Texas Woman's University in Denton, where she was a professor in biology and the director of the electron microscopy lab. She was buried near her hometown in Tucumcari, New Mexico.

Taken from The Denton Record-Chronicle.

Lou S. Morrison, 1916-2005. Lou S. Morrison died January 25, 2005 in Stillwater at the age of 88. He was born in 1916 in Oklahoma City and graduated from Shawnee High School. He earned his B.S. in Horticulture and his M.S. in Plant Pathology, both from OSU. In 1949, Lou joined the Department of Botany and Plant Pathology of OSU, where he became an associate professor. He retired in 1982.

Taken from The Stillwater News Press.

Richard Spears, Jr., 1920-2004. Dr. Richard Kirk Spears, Jr., died December 9, 2004 in Shreveport, Louisiana at the age of 84. He was born in 1920 in Muskogee, Oklahoma and graduated from Texas High School in Texarkana, Texas. He attended Oklahoma State University, receiving a B.S. degree in 1941 in Biology and a minor in Botany. After serving in the Army Air Corps during World War II, he received his M.S. and Ph.D. degrees from Louisiana State University in Baton Rouge. Dr. Spears taught biology at Centenary College of Louisiana from 1949 until 1967 and was chairman of the Department of Biological Sciences at LSU in Shreveport from the time it opened in 1967 until he retired in 1987. He founded the Ouachita Mountains Biological Station near Mena, Arkansas in 1962 and served as Director from 1962 until 2002.

Taken from the Centenary College website.

In 1990, Ron Tyrl became friends with Richard and his wife Betty when they attended Ron's first elderhostel at OSU, "Wildflowers of the Midwest." Dick and Betty continued to attend Ron's elderhostels and in 1995 began donating funds to our department. The Betty and Richard Spears, Jr. Fellowship was established, which offers undergraduate students in botany the opportunity to obtain training in field biology and herbarium curation.

Memorial donations may be made to the OSU Foundation, P.O. Box 1749, Stillwater OK 74076. Please identify your donation as going to the "Spears Fellowship," account 22 3250.



Lou S. Morrison



Richard Spears, Jr.