

# POSIES & PATHOGENS



## Department of Botany and Plant Pathology

2082 Cordley Hall, Corvallis, OR 97331-2902 Phone: 541-737-3451 Fax: 541-737-3573

<http://bpp.oregonstate.edu/>

Twenty Third Edition

December 2014

### FROM THE DEPARTMENT HEAD

Dear Alumni and Friends,

With this edition of "Posies and Pathogens" we mark the 23rd year of our newsletter distributed to all members of our extended family. It is a privilege to keep in touch with all of you and I hope this letter finds you well.

Our students, faculty, research associates and assistants, and staff continue to thrive and make us proud every day! I believe the quality of the individuals and the culture of BPP are the major contributors to our success. One person that has truly been instrumental in "guiding our ship" has been Dr. Stella Melugin Coakley. Stella plans to retire at the end of February 2015. She will, however, continue for an additional year working on special projects for the college. Because Stella will still be here and because I find it hard to accept that she is leaving, we will hold off any discussion of her tremendous contributions until our next edition.

I hope you will enjoy the descriptions of recent activities and accomplishments provided in this edition. However, I would like to highlight several very special events. As some of you may know, Drs. Pat Muir, David Sugar, and Bill Pfender retired in 2014. It is impossible to acknowledge appropriately the outstanding contributions (both as individuals and scientists) made by these three colleagues, but I hope the tributes enclosed will provide you a flavor of their many accomplishments over the years; thank you Pat, David, and Bill!

We have the good fortune to welcome new faculty to BPP. Dr. Jeremiah Dung joined the

Department as an Assistant Professor in late 2013. Jeremiah is based at the Central Oregon Agricultural Research Center. Dr. Ken Frost will join the Department as an Assistant Professor in February 2015 and will be based at the Hermiston Agricultural Research and Extension Center. Dr. Jeff Anderson will join BPP as an Assistant Professor spring 2015.

I hope many of you will take the opportunity to visit our website and I invite you to look regularly at the changing "News" spot on our front page, as well as the "Meet Our Alumni", "Events", and "Award Winners". In doing so, you will be able to keep up with the department throughout the year.

Unfortunately, I also have some sad news to convey with the passing of our dear friends and colleagues Drs. Ron Welty and Richard Converse. Enclosed are special tributes to Ron and Dick.

We are extremely grateful for the many gifts provided by your generosity and all that is made possible through these donations. We love hearing from you and invite you to visit us when you find the opportunity to do so. I wish all of you a very peaceful Holiday Season with family and friends and a happy and healthy New Year.

Warm regards,

Lynda M. Ciuffetti  
Professor and Department Head,  
[ciuffetL@science.oregonstate.edu](mailto:ciuffetL@science.oregonstate.edu)

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## WELCOME NEW FACULTY

**Jeremiah Dung** joined the Department of Botany and Plant Pathology as an Assistant Professor in December 2013. He is based at the Central Oregon Agricultural Research Center (COARC) in Madras, OR.



Jeremiah earned his M.S. (2009) and Ph.D. (2012) degrees in Plant Pathology at Washington State University. Before arriving at COARC, Jeremiah was a postdoctoral scholar with at the OSU Hermiston Agricultural Research and Extension Center, where he investigated the epidemiology and control of ergot in grass seed production systems. At COARC, Jeremiah uses traditional, molecular, and GIS approaches to study the epidemiology of plant diseases affecting vegetable seed and other high-value crops in central Oregon, with the ultimate goal of improved and sustainable plant disease

management. His current research focuses on pathogen etiology, detection and control, the population biology of plant pathogens, spatial and temporal dynamics of plant disease, and the identification of environmental factors that contribute to plant disease epidemics. He also provides Extension and diagnostic support to local growers and stakeholders.

**Ken Frost** will join the Department of Botany and Plant Pathology and will be based at Hermiston Agricultural Research and Extension Center as plant pathologist on Feb 1, 2015. Ken comes to us from the Department of Plant Pathology, University Wisconsin, Madison where his research has focused on disease and pest management in fresh-market and processing vegetable production, including web based decision support tools. He has also worked on the epidemiology of late blight caused by *Phytophthora infestans*, the epidemiology of the disease aster yellows caused by a leafhopper-transmitted phytoplasma affecting vegetable crops, as well as the impact of neonicotinoid insecticides on crop yield. We look forward to welcoming Ken in Hermiston.

**Jeff Anderson** will join the Department of Botany and Plant Pathology with a plant-microbe interactions focus in spring 2015. Jeff comes to us from the Department of Biochemistry, University of Missouri, Columbia. His recent research found that *Pseudomonas syringae*, a bacterial plant pathogen, perceives host metabolites to induce a molecular device that is instrumental for bacteria to infect eukaryotic hosts. He is interested in identifying and characterizing pathways in *P. syringae* that perceive and respond to the host in order to mediate changes to a pathogenic lifestyle. He is also looking at what happens in a host during plant immune responses. Dr. Anderson is skilled in metabolomics and quantitative proteomics. We look forward to welcoming Jeff and his family in Corvallis.

## FACULTY NEWS



**Joey Spatafora** has received the OSU Alumni Association Distinguished Professor Award. This award recognizes a faculty member for superior academic performance, professional renown, and service to the university and to the public. Dr. Spatafora's research is focused on molecular systematics and population genetics of fungi.

**Jay Pscheidt** continues to serve APS as Pacific Division Forum Representative. Extension duties continue from the PNW Plant Disease Management Handbook to pest management guides. The research program grows with projects on the

overwintering of fruit rot pathogens. Graduate student **Jade Florence** is working on understanding the biology of the mummy berry pathogen. Postdoctoral Scholar **Lisa Jones** is working on understanding the biology of *Botrytis* sclerotial development in red raspberry canes. Faculty research assistants **John Bassinette** and **Stephanie**



**Heckert** make much of the field work happen. John keeps the woody perennials programs (apples, cherries, blueberries, pears, and many ornamentals) moving well at the Botany and Plant Pathology farm. Stephanie has major projects with hazelnuts from eastern filbert blight to kernel mold.

Two of **Bruce McCune's** recent doctoral students have taken tenure track jobs: **Peter Nelson** at the University of Maine in Fort Kent, and **Heather Root** at the Weber State University in Provo, Utah. In October **Martin Hutten** successfully defended his PhD, measuring atmospheric nitrogen deposition in Yosemite National Park and its effects on lichen communities. Martin linked direct measurements of N deposition with internal N concentrations and the blend of species present in lichen communities. Martin has taken a supervisory position with the Forest Service in Wrangell, Alaska. In August, **Jade Marks** (co-supervised by Julie Pett-Ridge in Soil Science), defended her masters on phosphorus and trace element (Mo, V) effects on two charismatic macrolichens, *Lobaria* and *Usnea*, one of them an N-fixer (and therefore hungry for phosphorus) and one of them not. Current grad student **Rob Smith** continues our studies of lichen and bryophyte distribution in relation to climate in the Pacific NW and Minnesota, while **Nijmah Ali** and **Kaleigh Spickerman** are working on other ecological projects with lichens in Alaska. Current students have been supported by the US Forest Service, National Park Service, and National Science Foundation.



**Nijmah Ali and Bruce McCune**, field work in inclement weather, Cross Peak, Baranof Island, Alaska. Photo by Ralph Hartley.

**Mike Behrenfeld**, in his front cover article in *Nature Climate Change* (Climate-mediated dance of the plankton, Michael J. Behrenfeld, *Nature Climate Change* 4, 880–887 (2014)) explains that changes in phytoplankton populations are governed by periods of accelerating and decelerating division rates. Environmental factors that are impacted by climate change are also responsible for changes in the plankton ecosystem. Climate change will unquestionably influence global ocean plankton because it directly impacts both the availability of growth-limiting resources and the ecological processes governing biomass distributions and annual cycles. Forecasting this change demands recognition of the vital, yet counterintuitive, attributes of the plankton world. The biomass of photosynthetic phytoplankton, for example, is not proportional to their division rate. Perhaps more surprising, physical processes (such as deep vertical mixing) can actually trigger an accumulation in phytoplankton while simultaneously decreasing their division rates. These behaviors emerge because changes in phytoplankton division rates are paralleled by proportional changes in grazing, viral attack and other loss rates. Here he discusses this trophic dance between predators and prey, how it dictates when

phytoplankton biomass remains constant or achieves massive blooms, and how it can determine even the sign of change in ocean ecosystems under a warming climate.

Organized by **Pankaj Jaiswal's** lab, twelve local high school students compared the genomes of wild winter wheat (Einkorn wheat) with domesticated spring wheat during their hands-on summer camp experience at OSU. The DNA Biology summer camp was a collaborative effort of the Gramene project, and Plant Ontology project, with Oregon State University STEM Academy. The 9th-12th graders were from various local high schools including Crescent Valley High School, Corvallis High School, Philomath High School, and Lebanon High School. Other participants included one home-school student from Halsey, OR and one international student visitor. Dr. Pankaj Jaiswal, Associate Professor at Oregon State University, led the instruction, planning and coordination of this course. Dr. Cathy Law, Director of the STEM Academy at OSU, coordinated student enrollment and logistics. Funds for this course were provided by the National Science Foundation (NSF) funded projects; The Plant Ontology and Gramene: A Comparative Genomics Database. The activities in the camp included short introductory lectures and follow up exercises using models and laboratory experiments. The learning in a collaborative environment was encouraged to further enrich their camp experience. Instructors included **Sam Fox** of Linfield College (formerly of the Jaiswal lab), **Laurel Cooper** (Research Associate), **Sushma Naithani** (Research Faculty), **Justin Preece** (Faculty Research Assistant) and **Matthew Geniza** (Graduate Student).



**Jeff Chang, Melodie Putnam, Nik Grunwald and Luisa Santamaria**, together with collaborators Taifo Mahmud (Pharmacy, OSU) and Clark Seavert (Applied Econ., OSU) have received funding from USDA-NIFA-SCRI to work on gall-forming bacterial diseases that seriously affect nurseries with estimates of \$1,000,000 in lost revenue.



and Clark Seavert (Applied Econ., OSU) have received funding from USDA-NIFA-SCRI to work on gall-forming bacterial diseases that seriously affect nurseries with estimates of \$1,000,000 in lost revenue.

*Agrobacterium tumefaciens* and *Rhodococcus fascians* are gall forming bacteria that can affect a very wide range of hosts. These bacteria cause symptoms on plants that are unsightly and render them unfit for sale. Nurseries have been calling for easy methods for detection of these diseases, as well as how to control and manage the spread of the bacteria. This grant will address these needs from several different angles:

- Test and develop control compounds for broad host range and gall forming bacterial pathogens.
- Determine population structure, migration patterns, and evolution of *A. tumefaciens* and phytopathogenic *Rhodococcus*.
- Develop sensitive and easy-to-use diagnostic kits.

- Develop a website and database for using molecular data to rapidly identify species and strains of *A. tumefaciens* and phytopathogenic *Rhodococcus*.
- Education outreach to advance in-depth bilingual programs, workshops, and courses focused on managing bacterial diseases, and develop materials to educate and train workers at all levels of the industry.
- Economic outreach to assess at the levels of the growers, retail and consumer, and community.

**Joyce Loper's** group continues to study plant-associated bacteria in the USDA-ARS Horticultural Crops Research Lab on campus. Collaborator **Virginia Stockwell** is leading projects on the biology and management of *Pseudomonas syringae* on blueberry and the discovery of genes essential to epiphytic survival of bacteria on plant surfaces. Research Associate **Brenda Shaffer** continues to manage the laboratory while contributing to virtually every research project. Research Associate **Marcella Henkels** retired after 25 wonderful years contributing to the group's research, and she is sorely missed. In March, postdoctoral fellow **Jennifer Clifford** finished her two year project and moved to New England. **Qing Yan** joined the group as a postdoctoral fellow focusing on small molecules functioning as signals regulating antibiotic production by *Pseudomonas fluorescens*. **Max Kohen**, who was a student intern with the group in the summer of 2012, joined again as a research associate shortly after his graduation from Western Oregon University this summer. The group is grateful for the help provided by talented undergraduate researchers, **Jeannie Klein** and **Rhett Barrett**. This year, Joyce spent two months in Albany, California serving as an Acting Assistant Director of the Pacific West Area of USDA-ARS, and four months serving as the Acting Research Leader of the USDA-ARS Forage Seed and Cereals Research Unit on the OSU campus. In both cases, she filled positions vacated by retirements until new hires are in place. In September, **Cheryl Whistler**, currently an Associate Professor of Microbiology at the University of New Hampshire, was the invited alumni speaker at the Center for Genome Research and Biocomputing conference. The group enjoyed her visit tremendously along with visits from other past lab members, including **Nancy Chaney** and **Meadow Anderson**. May they return soon and often!

More than 80 collaborating scientists, including **Aaron Liston**, **Joey Spatafora**, and **Pankaj Jaiswal** have sequenced and assembled the genome of *Eucalyptus grandis*, one of the world's most widely planted hardwood trees and a global renewable resource for fiber and energy. The work was published in *Nature* in June 2014. Eucalypts outstanding diversity, adaptability and growth have made them a global renewable resource of fibre and energy. The group sequenced and assembled >94% of the 640-megabase genome of *Eucalyptus grandis*. Of 36,376 predicted protein-coding genes, 34% occur in tandem duplications, the largest proportion thus far in plant genomes. Eucalyptus also shows the highest diversity of genes for specialized metabolites such as terpenes that act as chemical defence and provide unique pharmaceutical oils. Genome sequencing of the *E. grandis* sister species *E. globulus* and a set of inbred *E. grandis* tree genomes reveals dynamic genome evolution and hotspots of inbreeding depression. The *E. grandis* genome is the first reference for the eudicot order Myrtales and is placed here sister to the eurosids. This resource expands our understanding of the unique biology of large woody perennials and provides a powerful tool to accelerate comparative biology, breeding and biotechnology. OSU press release:

[http://www.eurekalert.org/pub\\_releases/2014-06/osu-gcu060914.php](http://www.eurekalert.org/pub_releases/2014-06/osu-gcu060914.php)

**Valerian Dolja** has been elected as Fellow of the American Association for the Advancement of Science for distinguished contributions to the fields of plant virology and plant cell biology, particularly for new concepts of virus evolution and transport of viruses and membranes in plants. Election as a Fellow of AAAS is an



honor bestowed upon members by their peers. Fellows are recognized for meritorious efforts to advance science or its applications. He was also recently elected as Councilor for Plant Virology, by members of the American Society for Virology.

**Jennifer Parke** will lead a team of researchers determining risks of waterborne plant pathogens in recycled irrigation water and assessing their economic losses as part of a new USDA-SCRI grant. The national team of scientists working to encourage use of alternative water resources by the nation's billion-dollar nursery and floriculture industry has been awarded funds for the first year of an \$8.7 million, five year US Department of Agriculture – National Institute of Food and Agriculture – Specialty Crop Research Initiative competitive grant. The team will develop and apply solutions to assist grower decision-making by providing science-based information to increase use of recycled water. This award will be managed by Project Director Sarah White of Clemson University. She will lead a group of 21 scientists from 9 U.S. institutions in “Clean WaterR3 - Reduce, Remediate, Recycle – Enhancing Alternative Water Resources Availability and Use to Increase Profitability in Specialty Crops”.



### The Oregon Flora Project

“It’s our twentieth anniversary”, writes **Linda Hardison** (OFP Director), “and it has been a busy and productive year for the Oregon Flora Project (OFP). In April, we released the Oregon Wildflowers plant identification app. This app brings OFP research to your mobile phone or tablet in the form of plant descriptions, distribution maps, and gorgeous photographs. Users can identify 947 wildflowers throughout the state using any combination of the twelve characters listed (flower color, leaf shape, ecoregion, month, etc.). The positive feedback received from users, coupled with the fun we’ve had using it, has OFP staff speculating on the focus of our next plant ID app. Oregon Wildflowers can be purchased through iTunes or Google Play.

We can only speculate whether the founding director of the OFP, the late Dr. Scott Sundberg, thought it would take 20+ years to produce a new state-wide flora. Nevertheless, we are now ready to publish the first of two volumes of the Flora of Oregon! Volume 1 presents descriptions and keys to the ferns and fern allies, gymnosperms, and monocots—1,054 plant taxa that comprise ~23% of the vascular plant flora. There will also be chapters describing the ecology of the state, profiles of notable Oregon botanists past and present, places to explore our biodiversity, and OFP history. Over 50 color photographs supplement the introductory chapters, and 468 pen and ink illustrations accompany the floristic treatments. This hardbound volume will be published by BRIT Press and available in late Spring 2015 (<http://shop.brit.org/collections/frontpage>). It will be the first comprehensive flora of the state written in over 50 years!

In October 2014, the OFP received funding from the Oregon Dept. Agriculture’s Specialty Crop Block Grant Program for its proposal entitled “Native plants: connecting growers with gardeners and landscape professionals.” This is an exciting opportunity to work with both the production and the consumer sides of the horticultural industry to promote and expand the successful use of native plants. This spring, we provided Master Gardeners and Soil & Water Conservation Districts with “Verified Native Species” tags for their native plant sales. We hope to raise awareness among native plant enthusiasts about the information OFP provides regarding the plants of our state.



The OFP continues to develop its website (<http://oregonflora.org>), where the public can search and view 42,000 photographs of Oregon plants, or map the distribution of taxa from a database of more than 540,000 records. The website highlights our partnership with the OSU Herbarium, as we provide digital access and context to all information from Oregon specimens housed here.

Staff members **Thea Cook**, **Linda Hardison**, **Stephen Meyers**, **Katie Mitchell**, and **John Myers** have a combined tenure of 40 years' work with the Oregon Flora Project, and we are looking forward to the twenty-first year of this great program."

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## RETIREMENTS

### Pat Muir

Pat Muir retired from Botany and Plant Pathology in April of 2014, and what a hole she leaves behind!



Pat started at Oregon State University in 1987 in the Department of General Science along with her husband Bruce McCune, and when that department disbanded in 1991, we were fortunate to have them both move to BPP. She became a full professor in 1999.

Pat's research has focused on applied ecology, especially the effects of stress and disturbance on plants. Her numerous peer reviewed papers show her depth of work and varied interests in this area, from air pollution impacts on pines and pinto beans to effects of forest harvest practices on timber production; and from fire suppression and fuels reduction effects on plant communities in southwestern Oregon to the invasive potential of forage Kochia, a widely seeded non-native range plant. She got her share of media attention for her work, too. For example, her research on moss harvest landed her on the radio and several local and national newspapers, including the New York Times.

Pat launched OSU's Undergraduate Environmental Science Program in 1993 and served as its committed Director until 2002, and then again from 2009 to 2012. During that time she oversaw the development and maturation of the program including its curriculum and over 30 minors, and establishment of the ENVS prefix. She coordinated dozens of faculty from throughout the university and hired and supervised academic advisors for the on-campus and e-campus students. Pat created the Environmental Sciences Association (the undergraduate major club), and worked on successful initiatives to attract international students and find opportunities for US students to work overseas. In 2012, Environmental Science had 500 declared majors. Stacy Moore, who worked for Pat in this program, told me, "*Many of the students she taught or counseled are now in the workforce making their own positive difference to our community and the world.*"

A teacher's teacher, Pat worked with OSU students for 27 years. Her devotion to quality and innovative instruction was matched by her genuine caring for her students, a potent mix. Her door was always open and she made time for her students in her busy schedule, assuming they caught her before she rode her bike home (every day, rain or shine, mostly rain around here!). Pat taught eleven Special Topics courses and team-taught in the Biology sequence, developing new lectures for 500-800 students a year. Caitlin Lawrence, one of Pat's recent TA's, told me "*Pat was a great professor to teach with; her love for ecology was infectious and she always went above and beyond for her students. Pat's enthusiasm and sense of humor made working with her a pleasure and I'm thankful for what I learned from teaching with her.*" Pat also developed interactive educational software to model spruce budworm (BUDWORM) and evolutionary dynamics (NATSEL), and contributed to two biology textbooks and two peer reviewed educational videos. She received the College of Science's Carter Award for Outstanding

and Inspirational Teaching (1993) and the Frederick Horne Award for Sustained Excellence in Teaching (1999). Pat taught her final lecture in 2014 in full academic regalia in the gown worn previously by her father – that’s a class act.

During her years at OSU, Pat advised a generation of students. She supervised the research programs of three PhD students, including myself, plus 17 MS students and 13 undergraduates. The list of graduate committees on which Pat served was simply too long for me to bother counting, so just trust me, it’s a lot, and it contains several MS students in Science and Mathematics Education. Erin Gray, one of Pat’s last graduate students, wrote “*Pat promotes research on ecological questions that are applied and contribute directly to management of our ecosystems; for her graduate students, this presents the opportunity to take part in a project whose contributions are clear and meaningful.*” And Pat’s cumulative roster of undergraduate advisees after all these years can only be estimated, but if I did my math right, may have exceeded 1,000 students. Her skill in advising students was recognized by the University, which selected her for the Boedtker Award for Excellence in Advising from the College of Science (1992) and the Dar Reese Excellence in Advising Award (1997).

From 2005 to 2009, Pat was appointed by the governor of Oregon to the Natural Heritage Advisory Council and from 2003 to 2009 she served on the board of the Institute for Applied Ecology. Among Pat’s many awards, my favorite is Family Friendly Faculty Award (2010). Pat officiated at the weddings of some of her students, including Carolyn Menke and Warren Coffeen, and Olivia Duren and Dominic Maze. It is hard to get more family friendly than that!

So what’s next in the brilliant career of Pat Muir? According to her, “it is time for something new; I don’t know quite what yet, but opportunities abound.” Dearest Pat, we wish you all the best in whatever new opportunity you pursue!

**By Tom Kaye**

### **Bill Pfender**

William (Bill) Pfender retired from the USDA ARS Forage Seed and Cereal Research Unit in Corvallis,



Oregon on April 18, 2014. Born and raised in Ohio, Bill earned a BS in Natural Resource Conservation at University of Michigan and graduate degrees in Plant Pathology at University of Arizona (MS) and University of Wisconsin (PhD). In Arizona he worked with R. B. Hine and M. E. Stanghellini on the ecology of *Phytophthora* in alfalfa. His Ph.D. research, under the tutelage of D. J. Hagedorn and with the legendary field assistance of R. E. Rand, focused on *Aphanomyces* and *Pythium* root rots of peas and beans. Publications from that research included contributions to theory and methodology for epidemiology of soil-borne plant pathogens, as well as description of a new *Aphanomyces* disease in

beans. Bill joined the Plant Pathology Department at Kansas State University in 1983, where he was assistant then associate professor. He taught Ecology and Epidemiology as well as undergraduate Plant Pathology. His research in Kansas detailed the microbial ecology of *Pyrenophora tritici-repentis* in its saprophytic stage, with application to theory and implementation of biological control. While employed at KSU he did a sabbatical year with J. E. Loper in Corvallis, working with her and J. Kraus on the genetics of antibiotic production by the biocontrol bacterial isolate Pf-5. Before returning to KSU Bill worked several years as a visiting scientist at US EPA in Corvallis, applying knowledge of microbial ecology to problems in bioremediation of soil pollutants and the ecological risks of applying recombinant microbes to soil. In 1997 he left KSU and joined ARS in Corvallis to lead research on epidemiology and management of stem rust in cool-season grasses grown for seed. He was also a Professor (Courtesy) in the Oregon State University Botany and Plant Pathology Department. During his 17 years at ARS Bill combined field, greenhouse and laboratory research to produce a body of work quantifying epidemiology of stem rust in grass seed crops. He led a group that produced and implemented a weather-based decision aid for fungicide timing to manage ryegrass stem rust. At the beginning of his tenure at ARS, he worked with S. C. Alderman on the newly-emergent choke disease of orchardgrass. And in the several years before retirement, he initiated a research program on host resistance to stem



rust in *Lolium*. Papers from that work include description of QTL for resistance to pathotypes of *Puccinia graminis* subsp. *graminicola*, as well as collaborative research with M. Figueroa on early events in *Brachypodium*'s defense responses to stem rust. During his career as a plant pathologist Bill had the great privilege of working with many colleagues, including research assistants, students and post-docs, who are committed to the shared effort and are generous in their interpersonal interactions. In retirement Bill plans to enjoy trips to dance and music camps with his wife, Anne, to play clarinet in his dance band and to frequently visit their sons.

*By David Sugar*

### **Searching for the perfect pear**

David Sugar, after a 36 year career at OSU, retired at the end of May but continues on a temporary appointment until the end of June 2015. David was hired in 1978 by Porter Lombard, then Director of the Southern Oregon Experiment Station (now the Southern Oregon Research & Extension Center). While some of David's early work involved variety selection in winegrapes and blueberries, the focus of his research has been the pear. David obtained his Ph.D. at OSU in 1989 researching side rot of pears under Bob Spotts and became an Assistant Professor in 1990. David has investigated many facets of pear horticulture and disease management. His research includes pear rootstock evaluation, variety development, tree training and fruit thinning. David was the convenor for the Sixth International Pear Symposium held in southern Oregon in 1993. David has directed four graduate students: Maria Claudia Dussi, Jesse Benbow, Xiaoling Dong, and Jose Luis Henriquez. He has been a frequent invited speaker overseas and he has often given talks in Spanish to audiences in Spain and Latin America.



David's work on disease management encompasses the whole gamut of pear pathology, from pre-bloom control of pear scab and fireblight to post-harvest rots. His work showed how fertility practices were key determinants of subsequent post-harvest decay. He studied a multitude of methods to manage storage problems, including controlled and modified atmospheres, and the use of biological controls applied either in the field or in the packing house. He examined numerous materials for control of pear diseases, both conventional and organically certified, but his goal was always on integrated management. Starting with his earliest work on the effect of sprinkler irrigation on pear scab David has consistently looked at the entire orchard ecosystem including environmental factors and management practices.

His research on the management of fruit russet was readily adopted and implemented by the local pear industry. More recently, David has investigated how pear ripening can be influenced and enhanced by both ethylene and temperature conditioning. His work in this area has led to real improvements in the ripening capacity and sensory attributes of pears and, once again, his work has been used by the fruit industry to produce a better and tastier fruit to send to market. David's career has been one of service to the pear industry both locally and globally, his research has always kept the grower in mind with a focus on practical application. David has been an avid traveler and with his fluency in Spanish and friends around the world we hope that he continues to enjoy and explore our planet.

Thank you, David for your many contributions to SOREC, OSU, your colleagues, the fruit growing industry in the US and beyond, and, ultimately, the pear consumer. Happy trails!

*By Rick Hilton and Phil VanBuskirk*

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### **FROM A FORMER CHAIRPERSON/DEPARTMENT HEAD**

The time has come for me to acquire Emeritus status both as a Professor of Botany and Plant

Pathology and as an Associate Dean of the College of Agricultural Sciences. My replacement



should be identified by late November and the hand-off of my current job is targeted to be end of December 2014. My official retirement date is set for February 1, 2015 but my intent is to enjoy a full vacation during the last three weeks of January---Jim and I will be making our escape to Maui a special time this year.

Any way one sizes it up, from my perspective it has been a truly exceptional run during my time at OSU. From my arrival on August 1, 1988 to become department head/chairperson to my transition to the dean's office as associate dean in January 2004, to this date, I have had a wonderful set of colleagues who are dedicated to their jobs and who have valued our students highly. It has been a remarkable journey for me and one shared by our family, and now our six grandchildren. Next year will see me doing some

special projects for the college on a part-time basis and will include working on faculty and unit leader development/mentoring but it will also see me with the opportunity to start catching-up on projects that have been accumulating for some years.

The College's offices moved from Strand Agriculture Hall to Bexell Hall (old home of the College of Business) while the seismic retrofit of Strand Hall is completed without us in it. The last 9 months were more than tedious as they started the reconstruction around and under us. However, the redone building will be much safer and will host the college Dean's office on the fourth floor while the academic programs will remain on first. So if you come to campus this coming year, look first for me in Bexell Hall and by September, likely somewhere back in Strand. If you come to campus, please let me know ahead if possible---my office phone remains 541-737-5264 and my e-mail: stella.coakley@oregonstate.edu . I enjoy your visits and calls. Wishing you the best for the year ahead.

*By Stella Melugin Coakley*

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## UNDERGRADUATE STUDENT NEWS

### BPP CLUB

The Botany Club has been trying to expand and provide more opportunities for its members. Over the past year the club has added more outreach projects, including education for the public at Science Night at Periwinkle Elementary School in Albany, staffing a booth at Ag Day on campus, and continuing our ongoing project with Jefferson Elementary School in Corvallis, where we have been working to restore the Dixon Creek habitat. These projects have helped members connect with the local community and also have provided opportunities for interested members to practice their educational skills.

The club has also done a lot of traveling around the PNW region this past year. Last spring break, several members went to the Redwoods to botanize in this beautiful area and to see these majestic trees. We also explored the Mt. Pisgah Mushroom Festival and the Glide Flower Show. This year we are adding a trip to Opal Creek, in the Willamette National Forest, to the schedule. We hope that this event will connect members as well as connect them to the beautiful flora and fauna of the Pacific NW. Back by popular demand, this fall we had a cider-pressing event at the BPP Field Lab. We made over 20 gallons of cider and oh my, it was delicious!

Another aspect of the BPP Club that we have been trying to improve is the interaction between graduate and undergraduate students in the department. During the winter we have invited grad students to come and talk to the Club about their research. This has given the grads some extra practice at presentations while exposing undergrads to different fields of botanical research.

Lastly, last years' plant and lip balm fundraiser went swimmingly well. The Fry Road Nursery in Albany gave the club a huge discount on starts for our plant sale fundraiser and also gave us a tour. This was a

great insight into the world of ornamentals and the plant industry. We use the funds raised to support our educational trips around the Pacific NW.

As a Club we continue to grow and evolve in order to create a more meaningful and engaging experience for our members.

*By Emma Buczkowski, BPP Club President and officers of the BPP Club*

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#### CONGRATULATIONS TO THE FOLLOWING STUDENTS WHO RECEIVED A B.S. IN BOTANY 2014:

Cameraon Metzler  
Elizabeth Bowman  
Cole Ditzler  
Katherine Benson

Eric Larson  
Morgan Schneider  
Marie Rolufs  
Kazuya Tsukagoshi

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#### GRADUATE STUDENT NEWS

It has been a busy time for all our graduate students with many academic and social achievements gained throughout the year. Last spring, the BPP GSA held a spring fling fundraising event that featured live music, a silent auction, and even faculty awards such as "Most Environmentally Minded" (winner: **Pat Muir**) and "Fewest Coins in the Swear Jar" (winner: **John Fowler**). The event raised a net total of \$550 that provided for three travel grants for Graduate Students in the GSA.

The Annual Fall Beach Weekend was a success, with over 20 new and continuing students engaging in social activities such as swimming, playing sports and socializing. As a follow up BPP graduate students have teamed up this term to represent the department in OSU's intramural volleyball league. The squad remains undefeated and looks forward to winning the Co-Ed A league championship next week. Team Members are: **Nijmah Ali, Zolton Bair, Briana Claassen, Kristen Finch, Duncan Kroese, Tyler Schappe, and Javier Tabima.**

Some notable awardees include (others are listed in the awards section):

**Zolton Bair** (major prof Jeff Stone) won the Student Research Grant from the Whitebark Pine Ecosystem Foundation.

**Patrick Bennett** (major prof Jeff Stone) received an Anita Summers Travel grant as well as the Portland Garden Club Katherine R. Pamplin Scholarship.

**Christina Hagerty** (major prof Chris Mundt) won the Oregon Women for Agriculture Scholarship which will allow her to continue work on a Willamette Valley survey for *Septoria tritici* fungicide resistance.

**Javier F. Tabima** (major prof Nik Grunwald) won an award from the Virginia Bioinformatics Institute and Virginia Tech to assist to the **Oomycete Bioinformatics Training Workshop** held at Blacksburg, VA to learn about Oomycete genomics.

**Taj Morton** and major prof Molly Megraw published their paper "Paired-End Analysis of Transcription Start Sites in *Arabidopsis* Reveals Plant-Specific Promoter Signatures" in *Plant Cell* this year. The paper featured a combination of wet-lab experiments and bioinformatics analyses to understand the promoter architecture controlling the transcription and expression of genes in plants.

**Jade Florence** (major prof Jay Pscheidt) competed in the annual University-wide Scholars' Insights competition held by OSU. The competition is designed to challenge graduate students to deliver a compelling presentation of their thesis topic and its significance in just three minutes. Jade won the People's Choice Award for her presentation called "A Sustainable Solution to a Flower Mimicking Fungus". <http://www.youtube.com/watch?v=DQ0SipSCiTM&feature=youtu.be>

In addition, Jade served as a Graduate Teaching Assistant Mentor during the summer of 2014. Her role was to assist other GTAs' development of the university-wide New GTA Orientation and to develop and deliver her own curriculum.

**Matt Geniza** (major prof Bob Meinke) was awarded a BPP GSA Travel Award for use toward attending the International Symposium of Rice Functional Genomics (ISRFG) in Tuscon, AZ, November 16-19, 2014. He presented his work on rice transcriptomes in response to

salt stress. The theme of the conference was centralized around how to improve rice varieties to feed 9-billion people by 2050 and keynote speaker was the 1996 World Food Prize winner, Gurdev Khush, who was involved in developing over 300 rice strains during his career. Matt was fortunate to have the opportunity to present his poster to Dr. Khush and ask him for career advice. Matt's hope is that the networking at this conference will lead to productive collaborations and is very appreciative of the BPP GSA Travel Award and the opportunities it afforded him by attending the ISRFG.

**Dabao Lu** (major prof Joey Spatafora) received the Haakon Styri scholarship from the American Scandinavian Foundation that promotes bilateral exchange in higher education between the US and the Scandinavian countries.

**Ed Davis** (major prof Jeff Chang) and **Brian Atkinson** (major profs Ruth Stockey and Gar Rothwell) received NSF-Graduate Research Fellowships; Ed to study pathogenesis of Gram positive bacterium, *Rhodococcus fascians*, with

a focus on the molecular plant-microbe interactions, and Brian to characterize the explosive evolutionary radiation of the dogwood order, Cornales, that occurred during the Late Cretaceous.

**Zhian N. Kamvar** (major prof Nik Grünwald), was awarded the Anita Summers travel grant to attend the 2014 Annual American Phytopathological Society meeting in Minneapolis, MN. He, Nik Grünwald, and Sydney Everhart, lead a well-attended workshop entitled "Population Genetic Analysis in R" that introduced plant pathologists to tools and techniques of analyzing population genetic data in the open-source statistical language, R.

On a less serious note, **Zolton Bair** and **Patrick Bennett** won Master Brewers' Choice for the CGE Brew-Off competition with their "Thai'd Up" brew - a dry hopped pale ale with kaffir lime leaves, lemongrass, and citrus peel.

*By Brian Atkinson, GSA President and officers of the GSA*

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## RECENT THESIS TITLES BOTANY AND PLANT PATHOLOGY

|                      |     |                |            |   |
|----------------------|-----|----------------|------------|---|
| Hutten, Martin       | PhD | McCune         | 12/12/2014 | Yosemite region nitrogen deposition and lichen community composition change   |
| Hulbert, Joseph      | MS  | Hansen/Morrell | 12/12/2014 | Phytosanitation of Douglas-fir ( <i>Pseudotsuga menziesii</i> ) Logs to Mitigate the Risk of Artificially Disseminating <i>Phytophthora ramorum</i> Within the Global Trade of Timber |
| Quandt, Alisha       | PhD | Spatafora      | 9/5/2014   | Systematic, Genomic, and Transcriptomic Analysis of Mycoparasitic <i>Tolypocladium</i> Species and their <i>Elaphomyces</i> Hosts   |
| Wolfenbarger, Sierra | MS  | Gent           | 6/14/2014  | Identification and Distribution of the Mating-Type Locus and Development of Cleistothecia of <i>Podosphaera macularis</i>   |
| Sims, Laura          | PhD | Hansen         | 3/21/2014  | <i>Phytophthora</i> Species and Riparian Alder Tree Damage in Western Oregon  |
| Groberg, Matt        | MS  | Meinke         | 3/21/2014  | An Experimental Reintroduction of <i>Pleuropogon oregonus</i> , a Rare Wetland Grass Native to Oregon   |
| Nelson, Peter        | PhD | McCune         | 12/13/2013 | Lichen Communities and Caribou Habitat in Denali National Park and Preserve, Alaska, USA  |
| Sweeney, Katarina    | MS  | Stone          | 12/13/2013 | Histological Comparisons of Needle Tissues of Four Species of White Pine Infected by <i>Cronartium ribicola</i>   |

## AWARDS, HONORS AND PROMOTIONS

### *Faculty and Staff*



**Joyce Loper** (center left): 2014 USDA-ARS, Agricultural Research Service Distinguished Senior Scientist of the Year award “For scientific leadership in understanding the mechanisms and application of biocontrol agents for disease control, contributions to plant pathology, mentoring young scientists and service to ARS.”

**Valerian Dolja**: 2014 Fellow of American Association for the Advancement of Science

**Michael Behrenfeld** : 2014 F.E. Price/Agricultural Research Foundation Award for Excellence in Research  
**Joseph Spatafora**: 2014 OSU Alumni Association Distinguished Professor

**Brett Tyler**: 2014 Fellow of the American Phytopathological Society

**Pankaj Jaiswal**: Promotion to Associate Professor with Indefinite Tenure, July 2014

### *Students*

#### • *Undergraduates*

**Elizabeth Bowman**, Botany major, has received an NSF Graduate Research Fellowship to work with Elizabeth Arnold in the Masters program at the University of Arizona

**Emma Buczkowski**, Botany major, has received the Bill and LaRea Outstanding Senior Award for 2014

**William Matthews**, Botany major, has received the Jean Siddall Memorial Scholarship, and the CAS Merrill Family Scholarship for 2014

**Kaitlyn Furnish**, Botany major, has received the Charles and Helen Fulton Memorial Scholarship for 2014

**Jeannie Klein**, Botany major and Honors College Scholar, has received the Charles and Helen Fulton Memorial Scholarship, the CAS Wayne & Joan Chambers Scholarship, and the CAS Merrill Family Scholarship for 2014

**Ashley Gill**, Botany major, has received the Thomas C. Moore Memorial Scholarship for 2014

**Michelle Reers**, Botany major and Honors College Associate, has received the Thomas C. Moore Memorial Scholarship for 2014

**Lauren Pittis**, Botany major and Honors College Scholar, has received the Thomas C. Moore Memorial Scholarship for 2014

**Tabitha Pearson**, Botany major and Honors College Scholar, has received the Thomas C. Moore Memorial Scholarship for 2014

**Tabitha Pearson**, Botany major and Honors College Scholar, has been awarded the 2014 Ernest and Pauline Jaworski Scholarship for Summer Research Experiences for Underserved Undergraduates in Plant Science to work with Dr. Robert Meinke

**Kaitlyn Furnish**, Botany major, was awarded the 2014 Ernest and Pauline Jaworski Scholarship for Summer Research Experiences for Underserved Undergraduates in Plant Science to work with Dr. Andy Jones

**Jason Hernandez**, Biology major, was awarded the 2014 Ernest and Pauline Jaworski Scholarship for Summer Research Experiences for Underserved Undergraduates in Plant Science to work with Dr. Lynda Ciuffetti

#### • *Graduates*

**Joseph Hulbert** in the Hansen/Morrell labs was awarded the Oregon Lottery Graduate Scholarship

**Brian Atkinson** in the Rothwell and Stockey lab was awarded an NSF Graduate Research Fellowship 2013-2014

**Jade Florence** in the Pscheidt lab was awarded an Anita Summers Graduate Student Travel Grant for her poster on the "Proposed terminology for pseudosclerotial stages of *Monilinia vaccinii-corymbosi*" at the APS Pacific Division Meeting, July 2014

**Zolton Bair** in the Stone lab was awarded the 2014 Larry Moore Award for Graduate Education in Plant Pathology

**Alfredo Diaz Lara** in the Martin lab was awarded the 2014 Larry Moore Award for Graduate Education in Plant Pathology

**Jessica Celis** in the Jones lab was awarded the 2014 Moldenke Fund for Plant Systematics for her work on the survival and flowering of meadow species in the face of conifer encroachment

**Zolton Bair** in the Stone lab was awarded an Anita Summers Graduate Student Travel Grant for his poster on using transcriptomics to identify candidate genes associated with blister rust resistance in whitebark pine at the IUFRO annual meeting in Fort Collins, CO in June 2014

**Patrick Bennett** in the Stone lab was awarded an Anita Summers Graduate Student Travel Grant for his poster on genetic variation in stomatal densities and other needle traits in a range-wide sampling of whitebark pine at the IUFRO annual meeting in Fort Collins, CO in June 2014

**Patrick Bennett** in the Stone Lab was awarded the 2014 Katherine Pamplin Scholarship from the Portland Garden Club for his research on investigate how changes in climate influence antagonistic plant-microbe interactions and plant community composition

**Kevin Weitemier** in the Liston lab was awarded the 2014 Katherine Pamplin Scholarship from the Portland Garden Club for his research on genome-enabled phylogeography of a Great Basin milkweed, *Asclepias cryptoceras*

**Jessica Celis** in the Jones lab was awarded the 2014 Katherine Pamplin Scholarship from the Portland Garden Club for her work on Contributions of Species' Functional Traits to Meadow Community Reassembly

**Kevin Weitemier** in the Liston lab was awarded the Leslie and Vera Gottlieb Fund for Evolutionary Biology in 2014 for his research on Genome-enabled phylogeography of a Great Basin milkweed, *Asclepia cryptoceras*

**Caity Smyth** in the Fowler lab was awarded an Anita Summers Graduate Student Travel Grant for her poster on maize pollen development and transcription during pollination at the 56th Annual Maize Genetics Conference in Beijing, China in March 2014

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## **KEN CHAMBERS AND GEORGE POINAR DESCRIBE NEWLY DISCOVERED GENUS AND SPECIES IN VERY ANCIENT AMBER**

**Kenton Chambers**, our own Emeritus Professor and former Director of the OSU Herbarium and George Poinar (Courtesy Faculty, Integrative Biology) had their discovery publicized in the National Geographic News in January this year (<http://news.nationalgeographic.com/news/2014/01/140106-flower-sexual-reproduction-fossil-amber-cretaceous-science/>) because the hundred million year old amber contained a flower of the new species *Micropetasos burmensis* in the act of reproduction. The amber from Myanmar (Burma) contained an inflorescence of very small flowers, and pollen tubes growing out of the pollen grains and entering the stigma. They found the species to

be unlike any modern family members, although it has some very superficial resemblance to members of the Fabaceae, although this family is thought to have originated later than this fossil. The full description can be read in *J. Bot. Res. Inst. Texas* 7(2): 745 – 750. 2013.

## WAS THIS THE FIRST BOTANY CLUB T-SHIRT?

In 1982 or 1983, Randy Smith, then an undergrad in the Department, took time off from his tree climbing exploits (sequoias in the Quad) and designed this shirt for the Botany Club. LaRea Johnston from the herbarium helped locate the illustration. Does anyone have an older one?

*By Everett Hansen*



## IN MEMORIAM

### Ron Welty

Ronald Earle Welty died on Jan. 27, 2014, at his Corvallis, Oregon home. He was 79 years old. Ron was born in Winona, Minn., on Dec. 7, 1934, to Earle and Virginia Welty. He graduated



from Winona Senior High School in 1952 and Winona State University in 1956. Ron taught biology and chemistry at a Junior High School in Barnum, Minn., 1956-1957. Due to a military deferment during college, he

received his draft notice during his first year of teaching and entered the U.S. Army in June, 1957, serving in Louisiana, Georgia, and Arizona before returning to Barnum to continue teaching science in 1958. In fall of 1959, Ron entered graduate school at the University of Minnesota, receiving a Master of Science degree in 1961 and Ph.D. in Plant Pathology with a minor in Entomology in 1965.

Ron joined the Department of Plant Pathology at North Carolina State University in Raleigh as a postdoctoral research associate in 1965 and, shortly thereafter, joined the U.S. Department

of Agriculture, Agricultural Research Service (USDA-ARS) in Raleigh as a Research Plant Pathologist. He held courtesy appointments at North Carolina State University as Assistant Professor (1966), Associate Professor (1970) and Professor (1976).

In 1982, Ron and his family moved to Corvallis where he was the Research Leader of the USDA-ARS Forage Seed and Cereal Research Unit. He was also a Professor (Courtesy) in the Department of Botany and Plant Pathology at Oregon State University (OSU). Ron studied fungal diseases of grasses grown for seed and, as Research Leader, managed nine USDA-ARS research programs dealing with cool-season grasses. He authored or co-authored 136 research publications, book chapters or abstracts published in national and international journals. He presented research reports and led discussion sessions at national and international meetings and symposia in England, New Zealand, Australia, Denmark and Germany.

In addition to research, Ron managed the construction and staffing of the USDA-ARS National Forage Seed Production Research Center on the campus of OSU. He served on graduate student advisory committees and supervised students for M.S. and Ph.D. degrees at North Carolina State University and Oregon

State University. He was a member of the American Phytopathological Society, American Mycological Society, Gamma Sigma Delta and Sigma Xi. He retired in April 1996.

Ron's interests included barbershop singing, hiking, white-water rafting, golf, fishing, cross-country skiing, cooking, bridge and dinner parties with friends. He volunteered in community projects including American Legion baseball, Red Cross, Meals on Wheels, and YMCA Indian Guides. Ron and his wife Terrie loved to travel and visited all 50 states and 23 countries. Ron was active in the Rotary Club of Corvallis for 28 years, serving or chairing numerous committees; he was elected President in 1993-1994 and became an honorary member in 2009. Ron and Terrie hosted or entertained 23 Rotary youth exchange students from 10 countries, and participated in Rotary friendship exchange visits to England and Australia. They established the Welty Family Fund in the Benton County Foundation to provide financial assistance to outbound exchange students in Benton County and to the Corvallis Assistance League, School Bell program.

Ron is survived by his wife Terrie Welty, and son Kurt Welty, daughter Beth Welty and granddaughter Kate Welty of Portland, Oregon; brother, James T. Welty of Colorado Springs, Colorado; and sister, Barbara Welty Hildgedick of St. Paul, Minnesota.

**By Joyce Loper**

### **Richard Converse**

Richard (Dick) H. Converse died peacefully surrounded by family members on Tuesday, May 6, 2014, at his home in Corvallis, Oregon.



Born Sept. 18, 1925, in Greenwich, Connecticut, Dick lived his early childhood years in Japan, where his parents, Guy and Berthae Converse, worked for the YMCA. After his father's death in

1930, Dick and his mother left Japan to live in New York City; Tucson, Arizona; and Whittier, California. He moved to Berkeley, California to pursue a bachelor's degree in Plant Pathology and there met Leona Reukema, who was to be his wife of 66 years. He completed his B.S. degree in 1947 at the University of California (UC) at Berkeley, a MSc. degree in Agronomy at UC Davis in 1948, and a Ph.D. in Plant Pathology at UC Davis in 1951.

After completing his Ph.D., Dick and Leona loaded their 1937 Packard and headed to South Dakota State University in Brookings where Dick taught plant pathology and worked on diseases of sorghum for two years. He then joined the USDA-ARS, working first at Oklahoma State University in Stillwater, moving to Beltsville, Maryland in 1957, and then to Corvallis, Oregon in 1967, where he remained until he retired in 1990. In Corvallis, Dick was an active member of the Department of Botany and Plant Pathology at Oregon State University, where he held the position of Professor (Courtesy). Dick is best known for his contributions to the detection and management of virus diseases of small fruits and his early work on *Phytophthora* species that cause root rot diseases in strawberry and raspberry. With collaborators, he unraveled the complex etiology of a number of virus diseases of strawberry and raspberry in Maryland, the Pacific Northwest, Japan, Israel and Costa Rica. He established a clean plant program for berries in Corvallis and worked with the Oregon and Washington State Department of Agriculture to develop certification programs for berry crops. The production of certified nursery stock of strawberry, raspberry, blackberry, and blueberry has been invaluable to the small fruit industry in the Pacific Northwest and beyond. The success of this certification program for berry crops, along with similar programs for other vegetatively-propagated crops, served as the basis for the development of the National Clean Plant Network, which now provides a level of stable funding for certification programs



nationwide. Over the years, he trained many graduate students and postdoctoral associates and hosted numerous visiting scientists, all of whom benefited from his infectious enthusiasm for research. His work took him and Leona to many countries, and they made many friends around the world over the years. He was an editor and major contributor to the USDA handbook, 'Virus Diseases of Small Fruits' and the American Phytopathological Society's 'Compendium of Raspberry and Blackberry Diseases and Insects', which remain valuable and widely-used resources to this day.

In retirement, Dick was an active volunteer in the grade schools in Corvallis for more than a decade, often serving as a teacher's assistant several days each week. Due to his fluency in Spanish, he was especially important to students in the dual language programs, and was beloved by students and teachers alike.

Dick was preceded in death by his daughter Nancy Roe and his son Paul Converse. He is survived by his wife, Leona; son, Frank; three grandchildren; and seven great-grandchildren.

*By Joyce Loper and Bob Martin*

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## THANK YOU DONORS

The following individuals and organizations generously supported the Department (not including those who donate solely to the Oregon Flora Project) with donations received between November 2013 and December 2014. Those who wish to remain confidential are not listed.

John and Cathleene Alden  
Thomas and Donna Allen  
James and Deanna Anderson  
Richard Brainerd and Manuela Huso  
Violet Campbell  
Stephen Cassell  
Ernest and Jane Claassen  
James and Stella Coakley  
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August and Mary De Hertogh  
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Jennifer Stewart  
George Temple  
Ronald Tyrl  
Luise Walker  
George and Joan Weir  
Barbara Wilson  
Stanford Young  
Donald and Pricilla Zobel

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## ALUMNI NEWS

### **Alcetta Campbell, MS with William Chilcote, 1973**

If you visit the Fitton Green Natural Area in Corvallis, with trails her and around Corvallis that keep on getting better with the help of the Green Land Trust, think of Alsie Campbell. At 80 years young she hiked the Oregon segment of the Pacific Crest Trail with her daughter-in-law over a period of two months a couple of years ago as a fundraiser for this organization. See the full story in the *Corvallis Gazette Times* ([http://democratherald.com/oregon-outdoors/day-tripper/for-the-good-of-the-greenbelt/article\\_324140a2-b741-11e1-8590-001a4bcf887a.html](http://democratherald.com/oregon-outdoors/day-tripper/for-the-good-of-the-greenbelt/article_324140a2-b741-11e1-8590-001a4bcf887a.html))

### **Steve Carpenter, BS 1973**

Greetings friends,

Following a varied career, I have finally “retired.” After returning to Oregon in 1980 with a newly minted Ph.D. from the New York Botanical Garden/CUNY program, I worked for several years on fungal regeneration in the Mt. St. Helens devastation area, and my wife Patty and I went on fungal collecting expeditions in Chiapas for the LA Museum of Natural History as well as on Kauai, on NSF grant monies. Seeking financial stability, I went on to work for HP as a microcontamination engineer while on the side running a fungal identification business, Abbey Lane Laboratory, in part due to the requests from OSU researchers to identify fungi. I retired from HP after 18 yrs, and returned to OSU to attend graduate classes in teaching Science, got my teaching credentials, and taught science at Philomath High School, eventually retiring. Shortly thereafter, Patty and I bought a state certified water and soil testing laboratory, Pacific Analytical Laboratory, Inc. in Corvallis. As fortune would have it, some years later another company contacted us and wanted to purchase the business; we sold it and are retired again. I’ve published 2 local field guides, “Wildflowers of Mary’s Peak Meadows,” and “Wildflowers of Bald Hill Meadows.” I’m currently working on a field guide to mushrooms of Mary’s Peak and surrounding areas. I enjoy teaching classes on mushroom identification at OSU Extension seminars and at local nurseries, and run workshops at the yearly Yachats Mushroom Festival. This summer we took a two month road trip to Alaska, a truly amazing place, we came back with hundreds of photos of wildflowers and animals. Patty and I have raised 3 sons and have two grandchildren. We enjoy our home on the lowest slopes of Marys Peak, nestled in the cool, green forest. I will always remember the OSU Botany program as the best educational experience I have had and still treasure the interactions I had with the remarkable faculty there.

### **Borys Tkacz, MS with Everett Hansen, 1979**

In September 2014, Borys Tkacz was welcomed to the Pacific Northwest Research Station as Assistant Station Director for Research, based in Portland. He will serve as the science lead for planning, developing and executing multidisciplinary research within and across programs at the station. Borys served as temporary Special Assistant to the Station Director in 2013, during which time he led a review and overhaul of the station’s strategic framework. He has 13 years of experience as the National Program Manager for Forest Health Monitoring.

### **Roy Saigo, PhD with Frank Smith, 1968**

In June 2014 Roy Saigo was appointed Interim President of Southern Oregon University in Ashland. He was President of St. Cloud University Minnesota 2000-2007, and has also served at universities in Louisiana, Alabama, Iowa and Wisconsin. A botanist by training, he completed his doctoral degree with a thesis entitled “Anatomical changes in the secondary phloem of grand fir induced by the balsam woolly aphid”. Dr. Saigo will guide SOU through the process of forming its first institutional governing board.

## SCHOLARSHIPS AND AWARDS MADE POSSIBLE BY OUR ENDOWMENTS

The **Department of Botany and Plant Pathology** is fortunate in the support it receives from alumni, friends, and other organizations. Through the OSU Foundation, we have established named funds and endowments in honor, or, in memory, of friends, alumni, and faculty. The growth of these funds enables us to enhance support for our students and programs.

**Botany and Plant Pathology Endowment Fund in Honor and Memory of Alumni and Friends** holds smaller endowments that have been established in honor and in memory of particular individuals so we can reach the minimum amount required for an individual fund (as required by the OSU Foundation) more rapidly and benefit from the potential earning power of these gifts. Once a particular fund reaches the endowment level it will be moved into a separate account. The **Donald J. Armstrong Fund, Dallice I. Mills Seminar Fund, Mary L. Powelson Fund, Alfred H. Soeldner Fund, Donald B. Zobel Fund, William Chilcote Memorial Fund, William C. Denison Memorial Fund, Harold Evans Memorial Fund, MacSwan Memorial Fund, F. McWhorter Memorial Fund, E. Otto Memorial Fund, Mark T. Patterson Fund, Harry K. Phinney Memorial Fund, James Sandeno Memorial Fund,** and the **Roy A. Young Memorial Fund** are all held within this larger fund. Awards are periodically made in the individual's name for the purpose associated with the original gift.

**Charles and Helen Fulton Memorial Endowment** provides scholarships for botany majors and undergraduate research projects in botany.

**Leslie and Vera Gottlieb Research Fund in Plant Evolutionary Biology** provides funds to graduate students to support both laboratory and field research in the evolutionary biology of plants native to western North America: including evolutionary and population genetics, systematics and phylogenetic studies, comparative analyses of development, and physiological and biochemical studies of plant adaptations.

**Bonnie Hall Student Activity Fund** supports group activities for undergraduate and graduate students.

**Hardman Award for Native Plant Research** supports graduate student research concerning the native plants of Oregon.

**The Ernest and Pauline Jaworski Fund for Summer Research Experiences for Underserved Undergraduates in Plant Science** is offered for undergraduate research during summer term. The goal of this program is to increase the level of diversity among students who enter Ph.D. programs to pursue careers in university teaching and research by providing research opportunities to undergraduates that have been underserved.

**Bill and LaRea Johnston Endowment** supports undergraduate education and is used either to directly support students or their research efforts, or teaching activities on behalf of these students. The ***Outstanding Senior Award*** is also made possible by this endowment.

**Georgia Mason Herbarium Fund** provides funds for a student worker to participate in the day-to-day operating activities of the Herbarium and its programs.

**Moldenke Fund for Plant Systematics** supports graduate student travel to herbaria to study preserved plants, and travel to field sites to collect specimens for plant systematics research.

**Larry Moore Award for Graduate Education in Plant Pathology** supports graduate student education in plant pathology.

**Thomas C. Moore Memorial Scholarship** assists undergraduate students in botany and plant pathology.

**Portland Garden Club Katherine R. Pamplin Fellowships** are offered for research in aspects of native plant biology, rare and endangered plant conservation and environmental effects on native plants.

**Jean Siddall Memorial Scholarship** supports undergraduate students studying rare and endangered plants.

**Anita Summers Graduate Student Travel Fund** supports travel of graduate students within the area of Botany and Plant Pathology for attendance at professional meetings where the recipient has a specific responsibility such as presenting a poster or paper, or participating in a discussion as an invited participant.

**The Dr. Bonnie C. Templeton Endowment** supports graduate student research in systematics.



**Oregon State**  
UNIVERSITY

Department of Botany and Plant Pathology  
2082 Cordley Hall  
Corvallis, OR 97331-2902

**ADDRESS SERVICE REQUESTED**

**Thanks** are due to **Sue Jepson** for collecting the information, layout, editing and handling the mailing list; **Dianne Simpson** for proof reading; **Tom Allen** for the logo and **Ken Chambers** for the name.



**CONTRIBUTIONS** may be sent to **The Oregon State University Foundation, 850 SW 35th Street, Corvallis, OR 97333**

I'm making a gift of \$\_\_\_\_\_ to **Botany and Plant Pathology** and would like to direct it to the following:

- Where need is greatest
- Student support (research and travel)
- Bonnie B. Hall Student Activity Fund
- Bill and LaRea Johnston Fund for Undergraduate Education
- Oregon Flora Endowment
- Bonnie C. Templeton Endowment Fund
- Larry Moore Endowment Fund
- Thomas C. Moore Memorial Endowment
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- Leslie and Vera Gottlieb Research Fund in Plant Evolutionary Biology
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**THANK YOU FOR YOUR SUPPORT**