

Forest Science Newsletter

August 2007

Klaus Puettmann

Klaus Puettmann will be spending the next year on sabbatical at the Albert-Ludwigs-University in Freiburg, Germany. He received a Mercator-Professorship from the German Research Council to work with the university and the State Forest Research Station. The main focus of his work will be the investigation of spatial aspects of tree-tree interactions using the Research Station's long-term datasets of several uneven-aged management experiments. In addition, he will teach two classes at the University, spend time with family, and have lots of fun (+ some Hefeweizen). Note, if he does not respond to your email, it is only because the connection to Europe is slow and unreliable.

Dave Turner

Dave Turner will be on leave for a year beginning August 1 at the Cooperative Institute for Research in Environmental Science (CIRES) in Boulder, Colorado. He received a sabbatical fellowship from CIRES and will be working with colleagues in remote sensing and carbon flux modeling. He will be in contact through his OSU email address and will be back periodically (e.g. December 15-30).

Andrews Forest Research

Nearly every evening, a river of cool air slides down a valley in the H.J. Andrews Experimental Forest east of Eugene. It pools in low spots like water behind a dam. By analyzing this exhaled forest breath, OSU scientists are learning to diagnose the health of mountain ecosystems. Barbara Bond's airshed project was featured in the Summer 2007 issue of Terra magazine. www.oregonstate.edu/terra/features/grasping-air.php

For centuries, a complex fire history has shaped Oregon's western Cascades. OSU graduate students are part of a team working to understand what the past can teach tomorrow's forest managers. The Spring 2007 issue of Terra magazine highlighted the fire ecology research of Andrews Forest graduate student, Alan Tepley. www.oregonstate.edu/terra/2007spring/features/fire.php

This year marks the 10th year anniversary of the DIRT (Detrital Input and Removal Treatment) experiment at the H.J. Andrews forest. DIRT is a long-term experiment designed to examine the effects of changing detrital quality and quantity on soil organic matter stabilization, carbon balance, and nutrient cycling and availability. DIRT was

featured in a KVAL television news story on June 20. To see the news story, go to www.kval.com/news/8101687.html for text and photos or to www.kval.com/news/8101687.html?video=YHI&t=a for a video.

Now you can see real-time video of the Andrews Forest from your computer! Log onto <http://webcam.oregonstate.edu/andrews/>



A workshop, *Recent Trends: Linking Research to Management - CFER and Beyond*, will be held November 6-7 at the LaSells Stewart Center. For additional information and to register for this free workshop, please visit the workshop website at <http://www.fsl.orst.edu/cfer/workshop/agenda.html>!



Betts, M.G., Forbes, G.J. and Diamond, A.W. (In Press). Thresholds in songbird occurrence in relation to landscape structure. *Conservation Biology* 21: 1046-1058.

Radosevich, S.R, J.S. Holt, and C.M. Ghera. 2007. Ecology of Weeds and Invasive Plants: Relationship to Agriculture and Natural Resource Management, 3rd Edition. John Wiley & Sons, Inc. 472 p.

Lipow, S.R., K. Vance-Borland, J.B. StClair, J. Henderson, and C. McCain. 2007. In situ gene conservation of six conifers in western Washington and Oregon. *Western Journal of Applied Forestry* 22(3):176-187.

St. Clair, J.B. and Howe, G.T. 2007. Genetic maladaptation of coastal Douglas-fir seedlings to future climates. *Global Change Biology* 13(7):1441-1454. <http://www.blackwell-synergy.com/doi/pdf/10.1111/j.1365-2486.2007.01385.x>

Tappeiner, J.C. II, D.A. Maguire, and T.G. Harrington. 2007. *Silviculture and Ecology of Western U.S. Forests*. OSU Press. 448 p.

Waring, R., and S. Running. 2007. *Forest Ecosystems: Analysis at Multiple Scales*. Elsevier. 440 p.

White, T.L, W.T. Adams, and D.B. Neale. 2007. *Forest Genetics*. CABI International. 704 p.

Woodruff, David R., Katherine A. McCulloh, Jeffrey M. Warren, Frederick C. Meinzer, and Barbara Lachenbruch. 2007. Impacts of tree height on leaf hydraulic architecture and stomatal control in Douglas-fir. *Plant, Cell & Environment* 30(5):559-569.



Adrian Areas, a post-doctoral research associate, has been hired to work with Klaus Puettmann on the density management study. He has a PhD in Botany from the University of Hawaii and has most recently worked for the Weyerhaeuser Corporation.

Adam Hadley is arriving in mid-August to begin his PhD with Matt Betts in Forest Science. He is a Canadian on a National Sciences and Engineering Research Council PhD fellowship and will be examining movement and trophic interactions of hummingbirds in tropical forest landscapes.

Hongyan Luo is a native Chinese and is joining us from the joint doctoral program in ecology from San Diego State University and U.C. Davis, where she has been researching the functional controls on the exchange of carbon in the chaparral ecosystems in southern California. She is here to work with Hank Loescher in the AmeriFlux Quality Control/Quality Assurance research lab and study the within-site and network-wide controls and uncertainties on estimated carbon exchange.

Frank Schnekenburger has recently joined the professional staff within the Department to work with Mark Harmon and Kari O'Connell on developing simulation models that predict carbon dynamics of forests. This effort is part of a NASA funded project that examines the trade-offs between fire fuel reductions and carbon management of forests in Oregon. Frank has extensive experience in programming computer models that examine forest dynamics and has

most recently worked on studies within the Canadian boreal forests of Ontario.

Susan Shirley, a wildlife ecologist, will be arriving in mid-August to work with Dave Hibbs in a post-doc position. She will be compiling, summarizing, and interpreting research on riparian ecology and forest management strategies conducted by the Cooperative Forest Ecosystem Research (CFER) program. She has her PhD from UBC and has worked on invasive bird species in Israel.

Travis Woolley is a new Faculty Research Assistant working with Dave Shaw (supervisor), Stephen Fitzgerald, and Lisa Ganio reviewing post-fire tree mortality modeling methods for conifer species of the west (Funded by Western Wildlands Environmental Threats Assessment Center in Prineville, OR). In 2006, he received his M.S. degree in the Forest Science Department here at OSU working with Mark Harmon and Kari O'Connell. His thesis topic examined the temporal and spatial variability of net primary productivity of trees in relation to climate variability at the H.J. Andrews Experimental Forest. He has been involved with Long-Term Ecological (LTER) and Permanent Study Plot (PSP) programs at the H.J. Andrews since 2000. This work has included measurement of long-term vegetation monitoring plots across the Pacific Northwest, collecting long-term decomposition samples, and participating in local and national LTER symposia. His current research interests are focused on climate change, and disturbance and restoration ecology in forests of the Pacific Northwest.

Bryan Endress has taken a new position as the Associate Director, Plant Conservation at the Beckman Center for Conservation and Research of Endangered Species in San Diego, California. Bryan will develop and lead a new conservation research program which will focus on the conservation, restoration, and sustainable management of at-risk species, communities, and ecosystems.

Kimberly Wallin has taken a new position as a Research Assistant Professor with a specialization in Forest Ecosystem Health in The Rubenstein School of Environment and Natural Resources at The University of Vermont (UVM), in Burlington, Vermont.

It was great having both Bryan and Kimberly here. Bryan played a significant role in research collaborations with the PNW Station in La Grande working on the ecology of invasive plant species and herbivore-plant interactions. He also provided

a CoF presence at Eastern Oregon University and taught a course in Forest Ecology there last spring. Kimberly was involved in a number of ecological, behavioral and genetic studies of forest insect pests. She was also involved prominently in departmental and College governance, serving as co-Graduate Program Advisor in the Department (with Lisa Ganio) and was our representative on the College Advisory Committee. We wish both Bryan and Kimberly the best of success in their new positions.



At the Forest Science Spring Fling, the following Departmental fellowships were awarded:

- **Waring travel awards** - Lori Kayes, Glenn Kohler, Holly Barnard
- **Dukes Fellowship** - Carlos Sierra
- **Tarrant Fellowship** - Brennan Garrelts
- **Fowells Fellowship** - Tara Hudiberg
- **Bacon Fellowship** - Jenny Edwards

Other awards from the Spring Fling include:

- **Outstanding Students 2006-07** - Cassie Hebel (MS), Lori Kayes (PhD)
- **Big Fish Service Award** - Dave Hibbs
- **Outstanding Faculty** - Bev Law

The College Fellowship awards were given out at the Fernhopper Banquet:

- **Hayes** - Lori Kayes
- **Hoener** - Jonathan Thompson
- **McDonald** - Maureen McGlinchy
- **Moltke** - Dan Donato, Maureen McGlinchy, Michael Messier, Lauren Redmore, Alan Tepley
- **Randall Memorial Forestry Fund** - Glenn Kohler
- **Saubert** - Michael Messier
- **Schutz** - Dan Donato

Carlos Sierra was awarded the Eduardo Ruiz Landa Founder's Fellowship.

Don Donato received a Yerex Graduate fellowship that is granted through the Graduate School.

Congratulations to everyone!

Grants & Contracts

Howe, G.T. Forest management and climate change: A synthesis of genetic and silvicultural options for the Pacific Northwest. USDA Forest Service Pacific Northwest Research Station Joint Venture Agreement, \$40,000.

Tuskan, G.A., Kalluri, U.C., Wullschleger, S.D., Howe, G.T., DiFazio, S.P., and Slavov, G.T. A functional genomics approach to altering crown architecture in *Populus*. Maximizing carbon capture in trees grown in dense plantings, \$1,000,000. The US Departments of Energy and Agriculture has awarded \$8.3 million to fund 11 research projects to use genomics and proteomics technology to study certain plant species for their ability to develop biofuels. The agencies said that these studies will "provide the scientific foundation to facilitate and accelerate the use of woody plant tissue for bioenergy and biofuel." "These research projects build upon DOE's strategic investments in genomics and biotechnology and strengthen our commitment to developing a robust bioenergy future," DOE Secretary Samuel Bodman said in a statement. Note that two former FS Students (DiFazio and Slavov) are co-PI's.

For questions, comments or to submit articles, events, publications, stories, pictures or other information for the Forest Science Newsletter please email irene.schoppy@oregonstate.edu.