

Title Professor
First Name Beverly
Middle Name E.
Last Name Law
Institution OSU
Department Forest Science
Email bev.law@oregonstate.edu
Phone 541-737-6111

8/31/2007
Permission date

Photo



Website

<http://zircote.forestry.oregonstate.edu/terra/>

Specific Research Interests

Local to regional analysis and global analysis of the effects of climate and disturbance on terrestrial carbon processes; regional carbon balance (fire emissions, terrestrial carbon sequestration); coupling of carbon and water cycling at ecosystem scale (several km)

Research Fields

- Atmospheric chemistry
- Biogeochemistry
- Carbon Footprint Analysis
- Climatology
- Community & Disaster Planning
- Data Analysis & Statistical Modeling
- Ecology & Ecosystem Management
- Economics
- Energy policy & technology
- Ethics
- Fire
- Forestry & Forest Management
- Geographic Information Systems
- Horticulture
- Human Impacts - economics
- Human Impacts - health
- Human Impacts - policy
- Hydrology
- Impacts - agriculture & horticulture
- Impacts - ecosystems, populations
- Impacts - physical
- Instrumentation
- Mitigation Policy
- Modeling Climate
- Modeling Ecosystems
- Modeling Socioeconomic Processes
- Natural Resource Policy & Planning
- Outreach & Engagement
- Paleoclimatology
- Paleoecology
- Physical Ecology
- Physiological Ecology
- Urban Ecology
- Water Policy & Planning
- Other...

Projects

Integrating Remote Sensing, Field Observations, and Models to Understand Disturbance and Climate Effects on the Carbon Balance of the West Coast U.S. (9/1/07-8/31/10)

AmeriFlux Measurement Network: Science Team Research - Science Chair of the AmeriFlux network of research sites in the Americas (9/1/07-8/31/10)

The effects of disturbance and climate on carbon storage and the exchanges of CO₂, water vapor and energy of coniferous forests in the Pacific Northwest: integration of measurements at a cluster of supersites (9/15/06-9/14/09)

Database Design and Approach Implementation for the Organization of Ecological, Remote Sensing, and Atmospheric Data Collected at Multiple Spatial and Temporal Scales

Selected Recent Publications

- * Donato, D. C., Fontaine, J. B., Campbell, J. L., Robinson, W. D., Kauffman, J. B., Law, B. E. 2006. Post-Wildfire Logging Hinders Regeneration and Increases Fire Risk. *Science* 311: 352
- * Hibbard, K.A., B.E. Law, M. Reichstien, J. Sulzman, et al. 2005. An analysis of soil respiration across northern hemisphere temperate ecosystems. *Biogeochemistry* 73:29-70.
- * Campbell, J.L., and B.E. Law. 2005. Forest soil respiration across three climatically-distinct chronosequences. *Biogeochemistry* 73:109-125.
- * National Research Council. 2004. *Air Quality Management in the United States*. National Academies Press, Washington DC.
- * Law, B.E., D. Turner, J. Campbell, O.J. Sun, S. Van Tuyl, W.D. Ritts, W.B. Cohen. 2004. Disturbance and climate effects on carbon stocks and fluxes across western Oregon USA. *Global Change Biology*.
- * Irvine, J., B.E. Law, M. Kurpius. 2004. Coupling of canopy gas exchange with root and rhizosphere respiration in ponderosa pine. *Biogeochemistry*.
- * Law, B.E., D. Turner, M. Lefsky, J. Campbell, M. Guzy, O. Sun, S. Van Tuyl, W. Cohen. 2006 (in press). Carbon fluxes across regions: Observational constraints at multiple scales. In *Scaling and Uncertainty Analysis in Ecology: Methods and Applications* (J. Wu, B. Jones, H. Li, O. Loucks, eds.). Columbia University Press, New York, USA.
- * Treuhaft, R.N., B.E. Law, G.P. Asner. 2004. Forest attributes from radar interferometric structure and its fusion with optical remote sensing. *BioScience* 54:561-572.
- * Irvine, J., B.E. Law, M. Kurpius, P.M. Anthoni, D. Moore, P. Schwarz. 2004. Age related changes in ecosystem structure and function and the effects on carbon and water exchange in ponderosa pine. *Tree Physiology* 24:753-763.
- * Law, B.E., O. Sun, J. Campbell, S. Van Tuyl, P. Thornton. 2003. Changes in carbon storage and fluxes in a chronosequence of ponderosa pine. *Global Change*

Biology 9:510-524.

* Thornton, P., B.E. Law, H. Gholz, K.L. Clark, E. Falge, D.H. Ellsworth, A.H. Goldstein, R.K. Monson, D. Hollinger, M. Falk, J. Chen, J.P. Sparks. 2002. Modeling and measuring the effects of disturbance history and climate on carbon and water budgets in evergreen needleleaf forests. *Agricultural and Forest Meteorology* 113:185-222.

* Law, B.E., E. Falge, D.D. Baldocchi, P. Bakwin, P. Berbigier, K. Davis, A.J. Dolman, M. Falk, J.D. Fuentes, A. Goldstein, A. Granier, A. Grelle, D. Hollinger, I.A. Janssens, P. Jarvis, N.O. Jensen, G. Katul, Y. Mahli, G. Matteucci, R. Monson, W. Munger, W. Oechel, R. Olson, K. Pilegaard, K.T. Paw U, H. Thorgeirsson, R. Valentini, S. Verma, T. Vesala, K. Wilson, S. Wofsy. 2002. Carbon dioxide and water vapor exchange of terrestrial vegetation in response to environment. *Agricultural and Forest Meteorology* 113:97-120.

* Law, B.E., R.H. Waring, P.M. Anthony, and J.D. Aber. 2000. Measurements of gross and net ecosystem productivity and water vapor exchange of a *Pinus ponderosa* ecosystem, and an evaluation of two generalized models. *Global Change Biology* 6:155-168.

Professional Activities

Science Chair, AmeriFlux research network (2001-present)

Member, Terrestrial Carbon Observations Panel of the Global Terrestrial Observing System (UN programme)

Member, US Carbon Cycle Science Program Science Steering Group (2003-present)

Member, North American Carbon Program Science Steering Group (2005-present)

Member, North American Carbon Program Synthesis Committee (2005-present)

US point of contact on scientific exchange in carbon cycle science for US-EU and US-Italy bilateral agreements on climate change (2003 - present, US Dept of State)

US point of contact on boreal ecosystem research and monitoring sites for the US-Canada bilateral agreement on climate change (2003 - present, US Dept of State)

Member, National Phenology Network Implementation Team (2005-present)