

# Mark E. Swanson, PhD

*Mailing address:* Box 646410, Washington State University, Pullman, WA 99164-6410

*Cell phone:* (206) 947-5323

*Email:* [markswanson@wsu.edu](mailto:markswanson@wsu.edu)

## Work History

2007- present Associate Professor, Landscape Ecology and Silviculture, School of the Environment  
2016-present Associate Director, Graduate Programs, School of the Environment  
2011-present Affiliate Professor, Crop and Soil Sciences, Washington State University

## Education

1999-2007 PhD, Forest Ecosystem Analysis, University of Washington

- Dr. Jerry F. Franklin, Major Professor.
- Dissertation: "Measurement and modeling of the forest carbon resource in the *Nothofagus* forests of Tierra del Fuego, Chile"

1995-1999 Bachelor of Science, Forest Management, University of Washington

- Graduated *cum laude*
- Minor area of study: Conservation of Wildland Resources

## Current Projects

- Faculty member, Geospatial Research Lab, Department of Crops and Soil Sciences, WSU
- Contribution of early seral environments to regional wildlife diversity. With Daniel C. Donato and John Campbell. Undergraduate research associate: Nichole M. Studevant.
- Forest landscape dynamics in a northeast Washington Cascades ponderosa pine/Douglas-fir landscape. Graduate student (M.S.): Emily Haeuser.
- Spatial response of bighorn sheep to forest habitat restoration in the Sinlahekin Wildlife Management Area, Washington, USA. Graduate student (M.S.): Tiffany Baker.
- Relationships between forest above-ground biomass and topographic variables across latitudinal and global precipitation gradients with data from the Center for Tropical Forest Science network. Matteo Detto (Smithsonian Institution) and Mark E. Swanson.
- Landscape assessment of weed seed banks in Palouse wheat production. (PI: Ian Burke)
- Hybrid poplars as a regional ethanol feedstock: its development, production and economics
- Effects of herbicide on the foraging ecology of black-tailed deer. Lisa A. Shipley, Amy Ulappa, and Mark E. Swanson.
- The effects of thinning on maturation-phase Douglas-fir/western hemlock forests in the central Washington Cascades (graduate student: Rebecca L. Greenwood, M.S., defended Nov. 8<sup>th</sup>, 2010).
- Director, upland secondary succession plots (extant 1981-present), Mt. St. Helens, Washington. Collaborators: Oregon State University, United States Forest Service, United States Geological Survey, and University of Washington.
- Spatial ecology of cougars, Washington State. Collaborators: Dr. Robert B. Wielgus, Dr. Benjamin T. Maletzke, Washington Department of Fish and Wildlife.
- Yosemite Forest Dynamics Plot (PIs: Dr. James Lutz, University of Washington, and Dr. Andrew J. Larson, University of Montana). Role: coarse woody debris and detritus analyst.

## Peer-Reviewed Publications

### Journal Articles

Maletzke, Benjamin T. \*, **Mark E. Swanson**, Rich A. Beausoleil, Brian N. Kertson, Gary M. Koehler, Robert B. Wielgus, and Hilary S. Cooley. *In press, April 2017*. Implications of cougar response to a gradient of human development. *Ecosphere* (IF= 2.287). \*was graduate student during part of publication production.

Lutz, James A., Tucker J. Furniss, Sara J. Germain, Kendall M. L. Becker, Erika M. Blomdahl, Sean A. Jeronimo, C. Alina Cansler, James A. Freund, **Mark E. Swanson**, and Andrew J. Larson. 2017. Shrub consumption and immediate community change by reintroduced fire in Yosemite National Park, California, USA. *Fire Ecology* 13(1): 104-125. (IF= 1.422).

Larson, A. J., C. A. Cansler, S. G. Cowdery, S. Hiebert, T. J. Furniss, M. E. Swanson, and J. A. Lutz. 2016. Post-fire morel (*Morchella*) mushroom production, spatial structure, and harvest sustainability. *Forest Ecology and Management* 377: 16-25. (IF= 2.487).

Swanson, Mark E. 2016. Elegance within the chaos: bringing complexity science to the forest: Book review of 'Managing Forests as Complex Adaptive Systems: Building Resilience to the Challenge of Global Change'. *Ecology* 97 (7): 1890-1892. (IF=6.421).

Keehner, Jon R. \*, Robert B. Wielgus, Ben T. Maletzke, and **Mark E. Swanson**. 2015. Effects of male targeted harvest regime on sexual segregation in mountain lion. *Biological Conservation* 192: 42-47. (IF=3.762) \*Graduate student co-author (mentored by Wielgus).

Stonehouse, Kourtney F. \*, Lisa A. Shipley, Jason Lowe, Michael T. Atamian, **Mark E. Swanson**, and Michael A. Schroeder. 2015. Habitat selection by sympatric greater sage grouse and Columbian sharp-tailed grouse. *Journal of Wildlife Management* DOI: 10.1002/jwmg.990. (IF=1.726) \*Graduate student co-author (mentored by Shipley).

Larson, Andrew J., James A. Lutz, Daniel C. Donato, James A. Freund, **Mark E. Swanson**, Janneke Hille Ris Lambers, Douglas G. Sprugel, and Jerry F. Franklin. 2015. Spatial aspects of tree mortality strongly differ between young and old-growth forests. *Ecology* 96 (11): 2855-2861. (IF=5.175)

Preece, Ellen, Barry C. Moore, and **Mark E. Swanson**. 2015. Identifying best methods for routine ELISA detection of microcystin in seafood. *Environmental Monitoring and Assessment* 187:12 DOI 10.1007/s10661-014-4255-y. (IF=1.679) \*Graduate student co-author (mentored by Moore).

Klein, Linda R. \*, William G. Hendrix, Jolie B. Kaytes, Virginia I. Lohr, Rodney D. Saylor, **Mark E. Swanson**. 2015. Linking ecology and aesthetics in agricultural landscapes: a case study from the Palouse Region of Washington State, U.S.A. *Landscape and Urban Planning*, 134: 195-209. (IF=3.184) \*Graduate student co-author (mentored by Hendrix).

Maletzke, Benjamin, Robert Wielgus, Gary Koehler, **Mark E. Swanson**, Hilary Cooley, and Rich Alldredge. 2014. Effects of hunting on cougar spatial organization. *Ecology and Evolution* 4 (11): 2178–2185, June 2014 (IF=1.18)

Totman, Michelle E. \*, **Swanson, Mark E.**, Toby M. Rodgers, Paul A. McDaniel, Rick A. Rupp, and David J. Brown. 2014. Soil organic carbon stocks in the forests of Mount Rainier National Park, Washington USA. *Soil Science Society of America Journal* (Special Issue: Papers from the North American Forest Soils Conference: The Role of Forest Soils in Sustaining Ecosystem Services, Whitefish, MT, June 16-20, 2013) 78 (S1): S270-S280. (IF=1.980) \*Graduate student co-author; mentored by M.E. Swanson.

- Lutz, James A., Andrew J. Larson, Tucker J. Furniss\*, Daniel C. Donato, James A. Freund, **Mark E. Swanson**, Kenneth J. Bible, Jiquan Chen, and Jerry F. Franklin. 2014. Non-random tree mortality and ingrowth maintain equilibrium spatial patterns in an old-growth *Pseudotsuga-Tsuga* forest. *Ecology* 95:2047–2054. <http://dx.doi.org/10.1890/14-0157.1>. (IF= 5.175) \* Graduate student co-author.
- James A. Lutz, Kaitlyn A. Schwindt\*\*, Tucker J. Furniss, James A. Freund\*, Andrew J. Larson, **Mark E. Swanson**, Katie I. Hogan\*\*, and Gillian E. Kenagy\*\*. 2014. Community composition and allometry of *Leucothoe davisiae*, *Chrysolepis sempervirens*, and *Cornus sericea*. *Canadian Journal of Forest Research* 44(6): 677-683 (IF=1.852). \*\*Undergraduate co-author. \* Graduate student co-author.
- Skinner, Megan\*, Barry C. Moore, and **Mark E. Swanson**. 2014. Hypolimnetic oxygenation in Twin Lakes, WA: Part II: Feeding ecology of a mixed cold and warm water fish community. *Lake and Reservoir Management*. 30(3): 240-249. (IF=0.80) \*Graduate student co-author.
- Swanson, Mark E.**, John Campbell, Dan Donato, and Nichole M. Studevant\*\*. 2014. Biological associates of early-seral pre-forest in the Pacific Northwest. *Forest Ecology and Management*. (Special issue: Post-Disturbance Forests) 324: 160-171. (IF=2.92) \*\*Undergraduate co-author.
- Kwit, Charles, David King, Beverly Collins, and **Mark E. Swanson**. 2014. Conservation importance of early post-disturbance temperate forests. Preface article to Special Edition, *Forest Ecology and Management* 324: 158-159 (IF=2.92).
- Lutz, James A., Andrew J. Larson, James A. Freund, and **Mark E. Swanson**; Kenneth J. Bible. 2013. The importance of large-diameter trees to forest structural heterogeneity. *PLoS One*. <http://dx.plos.org/10.1371/journal.pone.0082784>. (IF=4.1)
- Peebles, Kaylie A. \*, Robert B. Wielgus, Benjamin T. Maletzke, and **Mark E. Swanson**. 2013. Effects of remedial sport hunting on cougar complaints and livestock depredations. *PLoS ONE* 8(11): e79713. doi:10.1371/journal.pone.0079713. (IF=4.10). \*Graduate student co-author
- Moore, Barry C., Benjamin K. Cross, Marc Beutel, Stephen Dent, Ellen Preece & **Mark Swanson**. 2012. Newman Lake Restoration: A Case Study, Part III. Hypolimnetic oxygenation. *Lake and Reservoir Management* 28:311–327. (IF=0.742) \*Graduate student co-author
- Kathie L. Nicholson\*, Nathan Tarlyn, Tyler Armour, **Mark E. Swanson** and Amit Dhingra 2012. Effect of phyllotactic position and cultural treatments toward successful direct shoot organogenesis dwarf 'Pixie' grapevine (*Vitis vinifera* L.) *Plant Cell, Tissue & Organ Culture* DOI 10.1007/s11240-012-0173-2. (IF= 1.234) \*Graduate student co-author.
- Lutz, James A., Andrew J. Larson, **Mark E. Swanson**, and James A. Freund\*. 2012. Ecological importance of large-diameter trees in a temperate mixed-conifer forest. *PLoS ONE* 7(5): e36131. doi:10.1371/journal.pone.0036131. (IF=4.537). \*Graduate student co-author. Article resulted in abundant media exposure, including *BBC Radio News* and *ScienceDaily.com*.
- Biswas, Shampa, **Mark E. Swanson**, and Harald Vacik. 2012. Natural Resources Depletion in Hill Areas of Bangladesh: A Review. *Journal of Mountain Science*. 9: 147-156. (IF=0.632).
- Wade T. Tinkham\*, Alistair M.S. Smith, Chad Hoffman, Andrew T. Hudak, Michael J. Falkowski, **Mark E. Swanson**, and Paul E. Gessler. 2012. The utility of LiDAR for forest inventory: Investigating height errors from slope and vegetation in a coniferous forest with complex terrain. *Canadian Journal of Forest Research* 42: 413-422. (IF=2.000). \*Graduate student co-author.
- Biswas, Shampa, Harald M. Vacik, **Mark E. Swanson**, and Sirajul M.S. Haque. 2012. Evaluating Integrated Watershed Management using Multiple Criteria Analysis - a case study at Chittagong Hill Tracts in Bangladesh. *Ecological Monitoring and Assessment*, 184:2741–2761. DOI 10.1007/s10661-011-2148-x (IF=1.356).

**Mark E. Swanson**, Jerry F. Franklin, Robert L. Beschta, Charles M. Crisafulli, Dominick A. DellaSala, Richard L. Hutto, David B. Lindenmayer, and Frederick J. Swanson. 2011. The Forgotten Stage of Forest Succession: Early Successional Ecosystems on Forest Sites. *Frontiers in Ecology and the Environment*. 9(2): 117-125. (IF=9.113)

Biswas, Shampa, Jalal Uddin Md. Shoaib, S.M.S. Sirajul Haque, **Mark E. Swanson**. 2010. Soil chemical properties under modern and traditional farming systems at Khagrachari, Chittagong Hill Tracts, Bangladesh. *Journal of Forestry Research* 21 (4): 8-14. (IF=0.874)

Franklin, J.F., and **Mark E. Swanson**. 2010. Long-term ecological research in the forests of the United States: key lessons with application in Chile and around the world. *Revista Chilena de Historia Natural (Chilean Journal of Natural History)* 83: 185-194. (IF=0.723).

Kato, Akira, L.\* Monika Moskal, Peter Schiess, **Mark E. Swanson**, Donna Calhoun, and Werner Stuetzle. 2009. Capturing crown formation through implicit surface reconstruction. *Remote Sensing of Environment* 113(6): 1148-1162. (IF=4.605) \*Graduate student co-author.

**Swanson, Mark E.** 2009. Modeling the effects of alternative management strategies on forest carbon in the *Nothofagus* forests of Tierra del Fuego, Chile. *Forest Ecology and Management* 257 (8): 1740-1750. (IF=2.507)

**Swanson, Mark E.** 2006. El manejo forestal ecológico en noroeste Norteamérica: una respuesta a un mundo en movimiento. *Bosque Nativo* (Revista de la Agrupación de Ingenieros por el Bosque Nativo).. Valdivia, Chile. (English title: Ecological forest management in northwestern North America: a response to a changing world.) No. 39: 3-9.

**Swanson, Mark E.**, David C. Shaw, and Tisha K. Marosi. 2006. Distribution of western hemlock dwarf mistletoe (*Arceuthobium tsugense* [Rosendahl] G.N. Jones subsp. *tsugense*) in mature and old-growth Douglas-fir (*Pseudotsuga menziesii* [Mirb.] Franco) forests. *Northwest Science* 80(3): 207-217.

Paun, Dorothy A., Olivier Trendel, Jeffrey Mathews, Mark Mead, Yihai Liu, Kyle H. Cunningham, Julie Nelson, **Mark E. Swanson**, Kevin Hodgson, and Edward B. Kelley. 1999. A Financial Analysis of North American Pulp, Paper and Packaging Firms: A Review of the 1997 Market and Results. Technical Association of the Pulp and Paper Industry Journal, September, 1999 Vol. 82, No. 9.

#### Submitted

Ulappa, Amy C.\*, Lisa A. Shipley, Rachel C. Cook, John G. Cook, and **Mark E. Swanson**. *Submitted, March 2016*. Silvicultural herbicides and forest succession affect understory biomass and black-tailed deer foraging dynamics in managed forests. *Ecological Applications*. (IF= 4.093) \*Graduate student author.

Young, Frank L., Drew Lyon, **Mark E. Swanson**, and Todd Coffey. *Submitted, June 2017*. Jointed Goatgrass (*Aegilops cylindrica*) Population Dynamics in Winter Wheat. *Weed Science* (IF= 1.993).

Hendrickson, Christopher, Mark E. Swanson. T. Einhorn, and Amit Dhingra. *Submitted, April 2015*. Physiogenomics analysis of conditioning in Anjou and Bartlett pears. *Nature Horticulture*.

#### In revision

**Swanson, Mark E.** *In revision*. Flora and substrates of anthropogenically burned areas in southwest Tierra del Fuego, Chile: composition and edge effects. *Journal of the Torrey Botanical Society*.

#### Accessioned Data Sets

Lutz, J. A., J. A. Freund, A. J. Larson, **M. E. Swanson**, T. J. Furniss, K. M. L. Becker, E. M. Blomdahl, C. A. Cansler, S. J. Germain, and S. M. A. Jeronimo. 2017. Data for allometric equations of *Chrysolepis*

sempervirens, *Cornus sericea*, *Corylus cornuta* ssp. *californica*, and *Leucothoe davisiae*. Utah State University. [http://digitalcommons.usu.edu/all\\_datasets/22/](http://digitalcommons.usu.edu/all_datasets/22/)

Lutz, J. A., T. J. Furniss, S. J. Germain, K. M. L. Becker, E. M. Blomdahl, S. M. A. Jeronimo, C. A. Cansler, J. A. Freund, **M. E. Swanson**, and A. J. Larson. 2017. Shrub consumption and immediate community change by reintroduced fire in Yosemite National Park, California, USA; Supplemental Information. Utah State University. [http://digitalcommons.usu.edu/all\\_datasets/21/](http://digitalcommons.usu.edu/all_datasets/21/)

#### Professional Papers (non-peer reviewed unless noted)

*Note: fifteen consulting reports (2009-2013) on hybrid poplar plantation management and health and a consulting report on forest carbon (Turtleback Preserve, Orcas Island, Washington) are also available upon request. These reports were generated for municipal- and county-level clients.*

**Swanson, Mark E.** 2012. Early Seral Forest in the Pacific Northwest: A Literature Review and Synthesis of Current Science. Produced under contract for Cheryl Friesen, Science Liaison, Willamette National Forest, United States Forest Service.

**Swanson, Mark E.**, Hiroo Imaki, and Bruce Lippke. 2009. Literature Review on Innovative Silviculture and Management Practices Supportive of Conservation Values. Working Paper 10, Rural Technology Initiative. Forks, WA: Olympic Natural Resources Center, College of Forest Resources, University of Washington.

**Swanson, Mark E.** 2008. Comparison of the impacts of forest practices regulations on carbon storage in Washington, Oregon, California, and British Columbia. *Paper contracted for the Washington State Department of Ecology, contract #C0800402.*

**Swanson, Mark E.** 2006. An ecological history of the Charles L. Pack Experimental Forest, Eatonville, Washington: natural history, landscape ecology, and forest management. *Paper contracted for the Center for Sustainable Forestry at Charles L. Pack Experimental Forest. Available online at: [http://www.packforest.org/research/Pack\\_ecolhist.pdf](http://www.packforest.org/research/Pack_ecolhist.pdf)*

**Swanson, Mark E.** 2005. Centuries of change in Pacific Northwest forests: ecological effects of forest simplification and fragmentation. *Chapter in: Saving Washington's Working Forest Land Base: A Forum of the Northwest Environmental Forum at the College of Forest Resources at the University of Washington. Available online at: <http://www.nwenvironmentalforum.org/ForestForum/topicpapers/tp10.pdf>. Peer-reviewed.*

#### Letters

**Mark E. Swanson**, Jerry F. Franklin, Robert L. Beschta, Charles M. Crisafulli, Dominick A. DellaSala, Richard L. Hutto, David B. Lindenmayer, and Frederick J. Swanson. 2011. A reply to King *et al.* *Frontiers in Ecology and the Environment* 9(6): 320. doi:10.1890/11.WB.017.

DellaSala, Dominick A., James R. Karr, Tania Schoennagel, Dave Perry, Reed F. Noss, David Lindenmayer, Robert Beschta, Richard L. Hutto, **Mark E. Swanson** and Jon Evans. 2006. "Post-fire logging debate ignores many issues." *Science* 314: 51-52.

#### Book Chapters

Scheller, Robert, and Mark E. Swanson. 2015. The simulation of forest recovery following disturbances: vegetation dynamics, biomass, carbon, nitrogen, water cycling, aboveground and belowground dynamics. Chapter 10 (pp 263-285) in: Perera, Ajith, Brian Sturtevant, and Lisa Buse. *Modeling Forest Landscape Disturbances*. New York: Springer.

Franklin, Jerry F., and **Mark E. Swanson**. 2007. Forest landscape structure, degradation, and condition: some commentary and fundamental principles. Chapter 12 (pp. 123-137) in: Lindenmayer, David and Richard Hobbs. 2007. *Managing and designing landscapes for conservation: moving from perspectives to principles*. Malden, MA: Blackwell Publishing.

#### Extension Publications

**Swanson, Mark E.** In revision. Introduction to Washington's ecosystems: coastal forest to sagebrush steppe, oak savanna to alpine tundra. Master Naturalist Program, Washington State University Extension.

### **Publications in Preparation**

Cansler, A., **Swanson, M.E.**, R. Burke, C., A. J. Larson, J. A. Freund, and J. A. Lutz. *In preparation*. Forest floor and woody fuels characteristics in an old-growth Sierra Nevada mixed-conifer forest: effects of low-severity fire, forest structure, and microtopography. *Forest Ecology and Management*. (IF=2.487)

Glover, Grant N., **Mark E. Swanson**, Benjamin T. Maletzke, and Robert M. Wielgus. *In preparation*. Comparison of summer, winter, and available lynx habitat in the Okanogan highlands.

Campbell, John L., Daniel C. Donato, **Mark E. Swanson**, K. Norman Johnson, Jerry F. Franklin, Paul C. Hammond, Matthew G. Betts, Charles M. Crisafulli, Fred J. Swanson, Derek C. Churchill, and Andrew J. Larson. *In preparation: Submission 2012*. Ecological characteristics of high-functioning pre-forest communities in the Pacific Northwest and beyond. *Trends in Ecology and Evolution*. (IF=14.448).

**Swanson, Mark E.**, MacDonald, D., J. Kallestad, J. Johnson, and J. Bowerman. *In preparation*. Predicting wind resistance in hybrid poplar clones from 28-day cuttings. *Tree Physiology*.

**Swanson, Mark E.**, Jeffery C. Kallestad, Jon D. Johnson, Brian Stanton, and Jordan Bowerman. *In preparation*. Light quality in a hybrid poplar short-rotation spacing trial. *Biomass and Bioenergy*.

**Swanson, Mark E.**, Shampa Biswas, and Kevin Zobrist. Impacts of forest practices on landscape carbon storage in Washington, Oregon, California, and British Columbia: results of a simulation exercise. *Journal of Forestry*.

**Swanson, Mark E.**, and Jerry F Franklin. Coarse woody debris in the southern beech forests of Tierra del Fuego, Chile.

**Swanson, Mark E.** and Peter Constable. The Wildland Reserve concept: ecologically-oriented residential development on the forest land base. *Real Estate Review*.

### **Conference Proceedings, Presentations, and Posters**

\***Swanson, Mark E.** 2017. Birds and early succession on forest sites. *Invited talk*. NCASI Annual Meeting, September 24-26, 2017, Santa Fe, New Mexico.

\*Hanley, Don and **Mark E. Swanson**. 2017. Thinning and pruning. *Invited talk*. Talk given at the "Forest and Range Owner Field Day", Dayton, Washington, June 24<sup>th</sup>, 2017. WSU Forestry Extension.

Amy C. Ulappa\*, Lisa A. Shipley, Rachel C. Cook, John G. Cook, **Mark E. Swanson**. 2017. Effects of silvicultural herbicides on the nutritional ecology of Columbian black-tailed deer. 97th Annual Meeting of the American Society of Mammalogists, 20 Jun 2017 - 24 Jun 2017, University of Idaho, Moscow, Idaho.

**Swanson, Mark E.** 2016. Birds in managed forest of the Pacific Northwest. *Invited talk*. Palouse Chapter of the Audubon Society, Moscow, Idaho. Presented in the Fiske Room of the 1912 Center, Wednesday, April 20<sup>th</sup>, 2016. Contact: Diane Weber, Pullman, Washington, 509- 334-3817.

Inglis, Briana, Landon Charlo, **Mark E. Swanson**, and Daniel H. Thornton. 2016. Camera trap documentation of mammal occurrences in created snag gaps in young coastal temperate conifer forest, northwestern Washington State. Showcase for Undergraduate Research and Creative Activities (SURCA), March 28<sup>th</sup>, 2016, Senior Ballroom, Compton Union Building, Washington State University, Pullman, Washington.

Rose-Albert, Alex, Lindsay Welfelt, and **Mark E. Swanson**. 2016. Black bear density within ecoregions of the Central Cascades, Washington. Showcase for Undergraduate Research and Creative Activities

(SURCA), March 28<sup>th</sup>, 2016, Senior Ballroom, Compton Union Building, Washington State University, Pullman, Washington.

**Swanson, Mark E.** Burning Issues: The Past, Present, and Future of Fire and Forest Management in the North American West. *Invited Talk*. The Roots of Contemporary Issues Fall Lecture 2015. Washington State University Department of History. Tuesday, October 20<sup>th</sup>, 2015. 7:00-8:30 PM, CUB Senior Ballroom.

**Swanson, Mark E.** 2015. Forest management and birds: a forester's perspective. *Invited talk*. University of Idaho Experimental Forest, Working Forests Field Day, Princeton, ID. University of Idaho College of Natural Resources and University of Idaho Forestry Extension. Saturday, September 26, 2015.

**Swanson, Mark E.** 2015. Early-seral pre-forest in the Pacific Northwest: diverse conservation values. *Invited talk*, Joint Annual Meeting, Washington State Society of American Foresters (SAF) and the Washington Chapter of The Wildlife Society (TWS-WA), April 15 to 17, 2015.

Ulappa, Amy, Lisa A. Shipley, John Cook, Rachel Cook, and **Swanson, Mark E.** 2015. Early-seral pre-forest in the Pacific Northwest: diverse conservation values. *Invited talk*, Joint Annual Meeting, Washington State Society of American Foresters (SAF) and the Washington Chapter of The Wildlife Society (TWS-WA), April 15 to 17, 2015.

Woodley, Steven, Benjamin Zamora, and **Mark E. Swanson.** 2015. Environmental factors triggering the emergence of *Eustenopus villosus* and *Larinus curtus* within *Centuarea solstitialis* populations on the Kramer Prairie in southeastern Washington State. 86<sup>th</sup> Annual Meeting, Northwest Scientific Association, Pasco, Washington, April 1-4, 2015.

Hendrickson, Christopher, **Mark E. Swanson**, Todd Einhorn, and Amit Dhingra. 2015. Physiogenomics of European pear ripening. Plant and Animal Genome Conference XXIII, San Diego, CA, January 10-14<sup>th</sup>, 2015.

**Swanson, Mark E.** 2014. "Early seral forests: diverse origins, diverse values". *Invited talk*, NCASI West Coast Regional Meeting. The Heathman Lodge, Vancouver, WA, September 24<sup>th</sup>, 2014.

**Swanson, Mark E.** 2014. The Sinlahekin: geology, vegetation, disturbance, and landscape pattern. *Invited talk*, 75<sup>th</sup> Anniversary of the Sinlahekin Wildlife Management Area, Washington Department of Fish and Wildlife. Saturday-Sunday, July 26-27, Sinlahekin Wildlife Management Area, Loomis, WA.

**Swanson, Mark E.** 2014. Forest succession in the Sierra Nevada: rich patterns, remarkable complexity. *Invited talk*, Rim Fire Technical Workshop on Reforestation, Part 1. Thursday, July 10, USFS Wildland Fire Training Center, McClellan, CA.

Skinner, Megan, Barry C. Moore, and **Mark E. Swanson.** 2013. "The effects of hypolimnetic oxygenation on the diets of brook trout (*Salvelinus fontinalis*), rainbow trout (*Oncorhynchus mykiss*), and golden shiner (*Notemigonus crysoleucas*) in Twin Lakes, Washington." North American Lake Management Society 2013 Annual Meeting, November 1, 2013, San Diego, CA.

Skinner, Megan, Barry C. Moore, and **Mark E. Swanson.** 2013. "The effects of hypolimnetic oxygenation on the diets of brook trout (*Salvelinus fontinalis*), rainbow trout (*Oncorhynchus mykiss*), and golden shiner (*Notemigonus crysoleucas*) in Twin Lakes, Washington." North American Lake Management Society 2013 Annual Meeting, November 1, 2013, San Diego, CA.

Totman, Michelle, **Mark E. Swanson**, Toby Rodgers, Paul A. McDaniel, Rick A. Rupp, and David J. Brown. 2013. Soil organic carbon stocks in Mt. Rainier National Park. Poster presented at North American Forest Soils Conference: The Role of Forest Soils in Sustaining Ecosystem Services, Whitefish, MT, June 16-20, 2013.

Skinner, Megan, Barry C. Moore, and **Mark E. Swanson**. Oral Presentation. "The effects of hypolimnetic oxygenation on the diets of brook trout (*Salvelinus fontinalis*) and rainbow trout (*Oncorhynchus mykiss*) in Twin Lakes, Washington." Western Division American Fisheries Society 2013 Annual Meeting, April 17, 2013, Boise, ID.

Totman, Michelle, Paul A. McDaniel, Toby Rodgers, Rick A. Rupp, **Mark E. Swanson**, and David J. Brown. 2013. Estimating soil organic carbon stocks in Mt. Rainier National Park. Poster presented at Washington Society of Professional Soil Scientists (WSPSS) Joint Winter Meeting with the Northwest Forest Soils Council (NWFSC), Okanogan-Wenatchee National Forest Headquarters, Wenatchee, WA, March 7, 2013.

Haeuser, Emily, **Mark E. Swanson**, Richard A. Rupp, Eva Strand. 2013. Spatiotemporal Encroachment Patterns of Conifers into Shrub-Steppe Areas in the Sinlahekin Wildlife Area, Washington State. Poster presented at the 84th Northwest Scientific Association Annual Meeting, Portland, OR, March 20-23, 2013.

Totman, Michelle, Paul A. McDaniel, Toby Rodgers, Rick A. Rupp, **Mark E. Swanson**, and David J. Brown. 2013. Estimating soil organic carbon stocks in Mt. Rainier National Park. Poster presented at the Third Robert E. Allan Plant Breeding Symposium, Monday, March 25<sup>th</sup>, 2013, Ensminger Pavilion, Washington State University.

Unger, Rachel, Misha R. Manuchehri, Ian C. Burke, and **Mark E. Swanson**. 2013. Effect of wheat population on wheat yield and yield parameters: a case for increasing planting rates. Western Society of Weed Science Meeting. San Diego, CA, March 11 – 14, 2013.

Preece, Ellen P., Barry C. Moore, and **Mark E. Swanson**. 2012. "Identifying Best Methods for Detecting Microcystin in Fish Muscle." Washington State Lake Protection Association. 2012 Annual Meeting. Oct. 24-26, Wenatchee, WA. "The Future of Lakes: The Next Generation of Limnology Research and Mitigation".

Preece, Ellen P., Barry C. Moore, and **Mark E. Swanson**. 2012. "Detection and Quantification of the Cyanotoxin, Microcystin, in Fish Muscle Tissue." North American Lake Management Society. 2012 International Symposium: Nov. 7-9, Madison, WI, "Lakes in the Landscapes".

Unger, Rachel, Dave Huggins, Ian Burke, William Pan, **Mark E. Swanson**, David Uberuaga. 2012. "Field-Scale Changes in Soil Profile N After 10 Years of Continuous No-Tillage." Agronomy Abstracts. American Society of Agron. 2012 Annual Meetings: Oct. 21-24, Cincinnati, OH, "Visions for a Sustainable Planet".

Kwit, Charles, David King, James Runkle, Lara Souza, Beverly Collins, and **Mark E. Swanson, (organizers)**. 2012. Organized Oral Session 14, "Conservation Value and Dynamics of Early Post-Disturbance Temperate Forests in North America", 97<sup>th</sup> Annual Meeting, Ecological Society of America, Portland, Oregon, August 2012.

**Swanson, Mark E.** 2012. "Conservation value of the early stage of succession in western U.S. forest." 97<sup>th</sup> Annual Meeting, Ecological Society of America, Portland, Oregon, August 5-10, 2012. Organized Oral Session 14, "Conservation Values and Dynamics of Early Post-disturbance Temperate Forests in North America". August 7<sup>th</sup>, 2012. *Resulted in abundant media exposure, including New York Times (in press), Seattle's KIRO FM, UPI.com, and ScienceDaily.com.*

Detto, Matteo, and **Mark E. Swanson**. 2012. A comparison of topographic relations across forest types in the CTFS Network: Methods and preliminary results. Center for Tropical Forest Science, 4th annual Forest Dynamics Plot network annual workshop: "Dimensions of Biodiversity", July 17-August 3rd, 2012, School of Environmental and Forest Sciences, University of Washington, Seattle, Washington.



Dhingra, Amit, Kathie Nicholson, Nathan Tarlyn, Derick Jiwan, Scott Schaeffer, **Mark E. Swanson**, Kate Evans. 2012. Manipulating Fruit Genomes – Discovery to Application. World Congress on In Vitro Biology (Society for In Vitro Biology), June 3-7, 2012, Bellevue, Washington.

**Swanson, Mark E.** 2012. “What is... the matrix? Conservation in multiple-use forest environments of the 21st century”. Annual Meeting of the Northwest Scientific Association, “Meeting Forest Conservation Goals in the 21st Century”, March 28-31, 2012, Owyhee Plaza Hotel, Boise, Idaho (<http://www.northwestscience.org/2012meeting>).

**Swanson, Mark E.** 2012. “Hybrid poplar as a multi-functional, multi-product crop (The view from the hybrid poplars: agriculture and forestry as a continuum of practice)”. Invited lecture, Department of Crops and Soils Sciences seminar series, Washington State University. Monday, February 13<sup>th</sup>, 2012. Available online at: [http://css.wsu.edu/seminar/soils\\_2012-1.htm](http://css.wsu.edu/seminar/soils_2012-1.htm).

Unger, Rachel, **Mark E. Swanson**, Ian Burke, David Huggins, Eric Gallandt, and Stewart Higgins. 2012. “Analyzing Terrain Attribute Effects on Italian Ryegrass Presence using Zero-Inflated Poisson and Poisson GLM.” West. Soc. Weed Sci. Abst., March 12-15, 2012, Peppermill Resort, Reno, Nevada.

Unger, Rachel, **Mark E. Swanson**, Ian Burke, Dave Huggins, Eric Gallandt, and Stewart Higgins. 2012. “The Effects of Crop Rotation and Terrain Attributes on the Weed Seed Bank.” West. Soc. Weed Sci. Abst., March 12-15, 2012, Peppermill Resort, Reno, Nevada.

Lutz, James A., Andrew J. Larson, and **Mark E Swanson**. 2011. The Western Forest Initiative- the Yosemite and Wind River Forest Dynamics Plots: Assessing the Ecosystem Consequences of Climate Variability and Climate (*Poster and Presentation*). DISCCRS (DISsertations initiative for the advancement of Climate Change ReSearch) VI, October 22 - 29, 2011, La Foret Conference Center, Colorado Springs, Colorado.

Shiple, Lisa, **Mark E. Swanson**, Amy Ulappa, John Cook, and Rachel Cook. 2011. Effects of intensive forestry on black-tailed deer nutrition. NCASI West Coast Regional Meeting. The Heathman Lodge, Vancouver, WA, September 22, 2011.

Unger, Rachel, Ian Burke, **Mark E. Swanson**, Dave Huggins, Eric Gallandt, Stuart Higgins. 2011. The effects of crop rotation and topography on the weed seed bank in the Palouse wheat region of Washington State. American Society of Agronomy Meeting. San Antonio, TX, October 16 -19, 2011.

**Swanson, Mark E.** 2011. Scientific Presenter at: PacifiCorp/Rocky Mountain Elk Foundation Field Day: Early Seral Habitat in Managed Forests. Heritage Park Events Center, Ariel, Washington, June 24<sup>th</sup>, 2011.

**Swanson, Mark E.** and Rebecca L. Greenwood. 2011. The effects of thinning on maturation-phase Douglas-fir/western hemlock forests in the central Washington Cascades. 11<sup>th</sup> Annual North American Forest Ecology Workshop, Roanoke, Virginia, June 19-23, 2011.

**Swanson, Mark E.** 2011. “The value and management of early-successional stands”. University of Idaho and Washington State University Cooperative Extension System. 19<sup>th</sup> Annual Family Forester’s Workshop, Coeur d’Alene Resort, Coeur d’Alene, Idaho. January 21<sup>st</sup>, 2011. *Invited presentation*.

**Swanson, Mark E.** 2010. “Matrix management in the 21<sup>st</sup> century: ecological and technological considerations.” International Forum for Adaptability Science II: Technologies for a Sustainable Society. Nov. 30–Dec. 3, 2010, Tohoku University, Sendai, Japan. *Invited presentation*.

**Swanson, Mark E.** 2010. “Hybrid poplar as a regional bioethanol feedstock: its development, production, and economics.” Western Sun Grant Annual Meeting, October 13<sup>th</sup>, 2010, Vancouver, WA. Part of the Biomass Fuels Summit 2010, October 12-13, Hilton Hotel, Vancouver, Washington.

Emerson, Paul, G. Beauchamp, Robert Heyduck, Jeffrey C. Kallestad, Mick O'Neill, Richard Shuren, Brian Stanton, and **Mark E. Swanson**. 2010. Hybrid poplar suitability for regional deployment as a bio-fuel feedstock. International Poplar Symposium, Orvieto, Italy, September 20 – 25, 2010.

**Swanson, Mark E.** 2010. "Early seral forest: some concluding thoughts" Early Seral Forest: We Know We Need It- How Do We Get It? Central Cascades Adaptive Management Partnership and NW Oregon Ecology Group, LaSells-Stewart Conference Center, Oregon State University, Corvallis, Oregon. April 28<sup>th</sup>, 2010. *Invited presentation*.

Franklin, Jerry F., James A. Lutz, Andrew J. Larson, James A. Freund, Mark E. Harmon, Robert Van Pelt, Kenneth Bible, **Mark E. Swanson**, and Keala Hagmann. 2009. A critical window on reality: long-term forest plots. 94<sup>th</sup> Annual Ecological Society of America Meeting: "Ecological Knowledge and Society", August 2009, Albuquerque, New Mexico.

William S. Keeton, Per Angalstam, Yuriy Bihun, Jiquan Chen, Mykola Chernyavskyy, Brigitte Commarmot, Jerry F. Franklin, Andrew J. Larson, David Lindenmayer, Jared Nunery, Thomas Spies, **Mark E. Swanson**, and Robert Van Pelt. 2008. A global meta-analysis of temperate old-growth forests: structural characteristics, carbon storage, and management implications for montane ecosystems. *Mountain Forests in a Changing World: Advances in research on sustainable management and the role of academic education*. April 2 - 4, 2008, University of Natural Resources and Applied Life Sciences, Vienna, Austria.

Kato, Akira, L. Monika Moskal, **Mark E. Swanson**, Peter Schiess, and Donna Calhoun. (2007b) A wrapped surface reconstruction method of LIDAR points to identify tree crown attributes, *Proceedings of CRSS/ASPRS 2007 Fall Conference*, Ottawa, Canada, Nov. 2007.

Akira Kato, Monika L. Moskal, **Mark E. Swanson**, Donna Calhoun, and Peter Schiess. A wrapped-surface reconstruction method of LIDAR points to identify tree crown attributes. Canadian Remote Sensing Society/American Society of Photogrammetry and Remote Sensing Fall Conference, Oct. 28<sup>th</sup>-Nov. 1<sup>st</sup>, 2007. Ottawa, Canada.

Franklin, Jerry F. and **Mark E. Swanson**. "Attributes of early successional communities on forest sites." Early Seral Forest Symposium, "What is a 'Good' Forest Opening? And is the Future a Concern?" Oregon State University, Corvallis, Oregon, January 30<sup>th</sup>, 2007.

**Swanson, Mark E.** "Two maturation-phase Douglas-fir stands in the Wind River: composition, structure and dynamics." Wind River Canopy Crane Research Facility Science Symposium, Carson, Washington, June 8-9, 2006.

**Swanson, Mark E.**, Linda E. Storm, Daniela J. Shebitz and Carson B. Sprenger. "Emerging Research Fronts in Traditional Fire Ecology." Northwest Scientific Association, 78th Annual Meeting, Corvallis, Oregon, Oregon State University Press. 23-26 March 2005.

**Swanson, Mark E.**, Miller, A., Poling, V., Honea, J., and Travers, V. "Environmental Science and Resource Management: The Redesigned Undergraduate Curriculum of the UW College of Forest Resources." Presented at the EFS West's Sustainability and Higher Education Conference "Defining the Vision for Higher Education", October 21-23rd (Thurs.-Sat.), 2004- Portland, Oregon.

**Swanson, Mark E.** "A landscape-scale carbon inventory in Tierra del Fuego, Chile". Presented at the Puget Sound Chapter of the Society of American Foresters meeting, held at the University of Washington College of Forest Resources. April 18<sup>th</sup>, 2003.

**Swanson, Mark E.**, and Marosi, Tisha K. "Distribution of Hemlock Dwarf Mistletoe (*Arceuthobium tsugense* ssp. *tsugense*) in a mature Douglas-fir (*Pseudotsuga menziesii*) forest". Presented at Northwest Science 2003, held at the Olympic Natural Resources Center, Forks, WA. March 27<sup>th</sup>, 2003.

**Swanson, Mark E.** "Measuring and mapping large blocks of young and mature forests near the Wind River Canopy Crane Research Facility." Wind River Canopy Crane Research Facility Science Symposium, Carson, Washington, June 17-18, 2000.

#### *Extension/Outreach Publications*

**Swanson, Mark E.** *In revision.* 'Introduction to Washington's Ecosystems: Coastal Forest to Sagebrush Steppe, Oak Savanna to Alpine Tundra'. Washington State University Extension, Master Naturalist Program.

**Swanson, Mark E.**, and 5 student co-authors. 2011. Forest stewardship plan developed for Tom and Cheryl Kammerzell, Colfax, Washington. *Approved by Washington Department of Natural Resources in March 2011.*

**Swanson, Mark E.** 2010. Managing forests for climate change. *Northwest Woodlands* (Society of American Foresters). Spring, 2010: 12-15.

**Swanson, Mark E.** 2010. Student SAF chapter thrives at Washington State University. *Western Forester* (Society of American Foresters), 55 (2): 20-21.

**Swanson, Mark E.**, and 24 student co-authors. 2010. A Proposed Management Plan for the 19-Acre Treatment Stand Located at Sravasti Abbey, Newport, Pend Oreille County, Washington State. Consulting document produced for Sravasti Abbey, Newport, Washington. *Approved by Washington Department of Natural Resources in November 2010.*

## Funding

### *In Preparation*

**Mark E. Swanson.** Density management tools for hybrid poplar in the Pacific Northwest.

### *Submitted Grants*

Krawchuk, Meg (CoF, OSU), Matthew G. Betts (CoF, OSU), Mark Swanson (Washington State University), James W. Rivers (CoF, OSU). Wildfire-IFM bird study: biodiversity in natural and managed early seral forests of southern Oregon. \$110K including \$70K request from NCASI and \$40K request from OSU FWHMF.

Chang, Cynthia (PI), Abir Biswas (co-PI), Thomas H. DeLuca (co-PI), Dylan Fischer (co-PI), Andres Holz (co-PI), Robert Pabst (co-PI), Mark Swanson (co-PI), Charles M. Crisafulli (senior personnel), Kristin Sweeney (senior personnel). From Barren Plains to Old-Growth Forests in 35 Years : The Effect of Disturbance Intensity on Succession After a Major Volcanic Eruption. Preliminary Proposal. Funding agency: National Science Foundation (Long-Term Research in Environmental Biology). Requested: \$100,000.

Hessburg, Paul F. (PI), Nicholas Povak (co-PI), Mark E. Swanson (co-PI), Brion Salter (co-PI), and James Dickinson (co-PI). 2015. Early-successional habitats and high severity fires: Comparing early 20th and 21st century area and patch sizes in the Inland Northwest and Rocky Mountain regions. Funding agency: Joint Fire Sciences Program. Requested: \$345,110.

Charlo, Landon and **Mark E. Swanson.** January 2015. Supplementary funding for: 'Demographics and wildlife use of created snags in second-growth temperate conifer forest (Snohomish County PUD)'. Funding agency: Intertribal Timber Council and the USDA Forest Service Southern Research Station Native American Natural Resource Research Scholarship. Requested: \$3,000.

Shipley, Lisa A., John G. and Rachel C. Cook, and **Mark E. Swanson.** Testing the Forage Resource Evaluation Model (FRESH-DEER) at the Stand Level with Black-tailed Deer. Funding agency: United States Forest Service. \$300,000. *Currently tabled by agency due to low funding levels.*

### *Funded*

Krawchuk, Megan, Matthew G. Betts, Mark E. Swanson, and James W. Rivers. 2016. "Seed grant: Wildfire-IFM bird study: biodiversity in natural and managed early seral forests of southern Oregon." National Council for Air and Stream Improvement, Corvallis, Oregon. \$20,000.

Thornton, Dan, and Mark E. Swanson. 2014. Demographics and wildlife use of created snags in second-growth temperate conifer forest. Snohomish County PUD. \$33,065. Supports M.S. student.

Lutz, James A., Andrew J. Larson, Mark E. Swanson, and James A. Freund. 2013. "Post Rim Fire assessment of fuel consumption and mortality in the Yosemite Forest Dynamics Plot." USDO National Park Service (Emergency Funds In Support of Monitoring Efforts) for 2014 Yosemite Forest Dynamics Plot re-measurement. \$59,064.

**Swanson, Mark E.** 2011. Design and implementation of an ecological integrity protocol for the Sinlahekin Wildlife Management Area: a prototype methodology for east Cascadian forests. Funding agency: Washington Department of Fish and Wildlife, Olympia, Washington. \$61,154. *Graduate student: Emily Haeuser (M.S. level).*

The Influence of Forest Herbicides on the Nutritional Ecology of Black-tailed Deer in Western Washington. \$200,000. Washington Department of Fish and Wildlife. Co-P.I. Lisa A. Shipley, **Mark E. Swanson**, John Cook, Rachel Cook. (6/11 – 5/14).

Landscape restoration and spatial responses of bighorn sheep in Sinlahekin Wildlife Management Area. Washington Department of Fish and Wildlife. \$30,000. Co-P.I: **Mark E. Swanson** and Lisa A. Shipley. (5/10-8/12). *Graduate student: Tiffany Baker (M.S. level).*

**Mark E. Swanson** and David J. Brown, 2011. Soil carbon flux in forests of the Mount Rainier region: effect of topography, elevation, and intensive management. Funding agency: Natural Resource Conservation Service. \$150,000 plus instrumentation costs. *Graduate student: Michelle Totman (M.S. level).*

Washington State University, Greenwood Resources, and ZeaChem Corporation. 2007-2010. Hybrid poplar as a regional bioethanol feedstock: its development, production, and economics. Funding agency: Western Sun Grant subcontract T-0013A. \$494,794. PI: **Mark E. Swanson** (in lieu of Dr. Jon D. Johnson, deceased).

**Swanson, Mark E.**, and Randy L. Burke. 2010. Coarse woody material, litter, and duff characteristics in an old-growth Sierran mixed-conifer forest (Yosemite Forest Dynamics Plot): correlation with overstory and topographic variables. Funding agency: College of Agricultural, Human, and Natural Resources: Undergraduate Research & Creative Project Proposal. \$1,000.

#### *Not Funded*

Edburg, Steven L., Lamb, Brian, Liu, Heping, Vaughan, Joe, Adam, Jenifer, Evans, Dave, and **Swanson, Mark E.** Development of a Low Cost Airborne Platform for Earth System Process Measurements. NSF Major Research Instrumentation (Program Solicitation 11-503), \$1,327,930. *Submitted 09/17/2012. Declined.*

Lutz, James A., Andrew J. Larson, **Mark E. Swanson**, James A. Freund, and Gus Smith. September 2013. Disturbance mediated self-organization of forest composition and structure. National Science Foundation Rapid Response Research (RAPID) review due to the impacts of the Rim Fire on the Yosemite Forest Dynamics Plot. \$200,000.

Edburg, Steven L., Meddens, Arjan J.H., and **Swanson, Mark E.** Quantifying Snag Fall Rates and Decomposition along a Chronosequence of Insect-Affected Forests to Improve an Earth System Model. DOE Terrestrial Ecosystem Science DE-FOA-0000749. \$427,301. *Invited to submit full proposal, 9/19/2012. Submitted by funding agency deadline, 11/12/2012. Not funded.*

Bishop, John, Cynthia Chang, Janneke Hille Ris Lambers, and Mark E. Swanson. 2013. Elucidating temporal dynamics of stochastic and deterministic successional mechanisms across stress and disturbance gradients at Mount St. Helens. National Science Foundation, Division of Ecosystem Biology - Population and Community Ecology.

Garcia-Perez, Manuel, Su Ha, Claudio Stockle, Usama E. Zaher, and **Mark E. Swanson**. Submission January 2012. Selective Pyrolysis and Novel Bio-oil Refinery Concept to Sustainably Produce Aviation Fuels and Sequester Carbon from Forest and Agricultural Wastes. Funding agency: National Science Foundation. Requested amount: \$1,999,926.

Balancing Overstory and Understory Values in Agroforestry through Thinning: Effects on Non-timber Forest Products and Forest Ungulates. \$427,286. USDA NIFA AFRI Foundational. Co-P.I. L.A. Shipley, M. Swanson. (12/12 – 5/16).

Eisenberg, Cristina, Daniel C. Donato, **Mark E. Swanson**, Jerry F. Franklin, and William Fagan. Reassessing the Universality of Trophic Cascades: Context Dependence by Setting and Sere in Pacific Northwest Forest Ecosystems. Funding agency: National Science Foundation. \$1,523,895.

### Service Work- Selected Items

- Invited Keynote Speaker, ASWSU Faculty and Staff Awards, Friday, April 14<sup>th</sup>, 2017.
- Participant, LEAD21 Leadership Development Program, 2015-2016.
- Data Analytics Degree Development Workgroup, October 31st, 2014- present. Commissioned by Provost Dan Bernardo. Contact: Dr. Ron Mittelhammer, Dean, CAHNRS. [mittelha@wsu.edu](mailto:mittelha@wsu.edu).
- Faculty reviewer, WSU Strategic Plan 2014-2019. Contact: Dr. Rebecca Craft, (509) 335-5040, [craft@wsu.edu](mailto:craft@wsu.edu).
- Leader, CAHNRS task force on statistical/quantitative resources. Contact: Dean of CAHNRS, Dr. Ron C. Mittelhammer, [mittelha@wsu.edu](mailto:mittelha@wsu.edu), 509-335-1706. Worked with Dr. Mittelhammer and others to develop and analyze a statistical expertise and needs survey for CAHNRS faculty, staff, and graduate students.
  - Lead author of the following report:  
*Swanson, Mark E. and Keith A. Blatner. December 2013. Results of the CAHNRS Statistics Expertise Inventory: a report. Office of the Dean, College of Agricultural, Human and Natural Resource Sciences, Washington State University.*
- Development of CAHNRS Quantitative Consortium (CQC) concept to address statistical/analytical needs within CAHNRS. Foundational letter submitted to Deans Bernardo, Kidwell, and Cavalieri on November 15<sup>th</sup>, 2011. Currently (Fall 2013) working with Dean Mittelhammer.
- Selected to Provost's Leadership Academy, Washington State University, December 2011- December 2012.
- Associate Editor, *Western Journal of Applied Forestry*, May 2012-2014.

*For full record of University service, please see or request service work document, "Mark E. Swanson- Service, WSU".*

### Awards, Honors, and Scholarships

- Involvement Advisor of the Year, 2015-2016, Associated Students of Washington State University, for work with the student chapters of the Society of American Foresters (Forestry Club) and The Wildlife Society. Awarded on April 25<sup>th</sup>, 2016.
- Inducted Member, Washington State University Teaching Academy, November 2014.
- Nominated for Sahlin Award for Excellence in Instruction, September 2013.
- Promoted to rank of Associate Professor in the School of the Environment, March 5<sup>th</sup>, 2013. Effective August 16<sup>th</sup>, 2013.
- R.M. Wade Excellence in Teaching Award, March 2012. *Highest teaching award in CAHNRS.*
- Invited participant, Provost's Leadership Development Program, 2011-2012

- “Teaching Faculty Member of the Year”, Department of Natural Resource Sciences, Washington State University, 2008-2009 academic year
- “Outstanding Mentor” Award (one of 120 recipients), Women & Leadership Alliance Forum, Washington State University, 2008-2009 academic year
- Peer-elected speaker, College of Forest Resources Graduation Ceremony, June 8<sup>th</sup>, 2007.
- Dean’s Exemplary Student Award for service to community at the College of Forest Resources, University of Washington, 2004-2005.
- Teaching Assistant of the Year, College of Forest Resources, University of Washington, 2002-2003.
- Pack Forest Scholarship, Spring Quarter 1998.
- National Merit Scholar, 1995-1999.
- R.D. Merrill Forestry Scholarship, Fall Quarter 1995.
- University of Washington Annual Dean’s List, 1995-1999.
- National Honor Society scholar, University of Washington, 1995-1999.
- Xi Sigma Pi Forestry Honor Society, Alpha Chapter, 1998-present.
- Phi Eta Sigma Honor Society, 1996-1999.
- Byron and Alice Lockwood Scholar, Winter 2004.
- Finalist for College of Forest Resources 2001-2002 Teaching Assistant of the Year.

### Organizations

- Faculty Advisor, Washington State University Forestry Club (affiliated with Society of American Foresters), August 2007-present.
- Pinchot Partners collaborative working group, Packwood, WA, 2006-present.
- Working Forest Forum, Northwest Environmental Forum, University of Washington and other institutions, 2005-present.
- American Society of Photogrammetry and Remote Sensing, April 2008- present.
- Society of American Foresters, 2002-present.
- University of Washington College of Forest Resources Alumni Association, 2000-present. Trustee of board, 2004 to present.
- Charles L. Pack Experimental Forest Management Plan Revision Committee (College of Forest Resources, University of Washington), beginning January 2006.
- Agrupación de Ingenieros Forestales por el Bosque Nativo. (Association of Professional Foresters for the Native Forest). Valdivia, Chile. 2004-present.
- University of Washington Forest Club, 1995-2005.

## Work Experience

- August 2007-present : Assistant Professor of Landscape Ecology and Silviculture, Department of Natural Resource Sciences, Washington State University. Pullman, Washington
  - WashingtonView Team Project Leader, March 2008- present
  - Affiliate professor, Dept. of Crop and Soil Sciences, February 2012-present.
- Consultant in hybrid poplar measurement and management for several government agencies, including City of College Place (Washington), City of Woodburn (Oregon), and King County Solid Waste (Washington).
- Winter 2007- Consultant for Forestpark, Inc. Ecological and economic analysis of an ecologically-designed real estate development model in Washington State.
- Summer 2004- Forest research technician (surveyor), Cedar River Watershed. Employer: Seattle Public Utilities, North Bend, Washington.
- Summer 2000-Summer 2003- Forest research technician, College of Forest Resources, University of Washington
- Fall 1999-Winter 2000- Forest researcher, Trillium Corporation, Bellingham, Washington
- Measurement of coarse woody debris, live and dead standing trees, soil profiles, and other ecosystem components in *Nothofagus pumilio*/*N. betuloides*-dominated forest in Tierra del Fuego, Chile.
- Summer 1999- Forest research technician, College of Forest Resources, University of Washington
- Forestry-related and botanical measurements in a number of studies.
- Demonstration of Ecosystem Management Options: understory plant response to different overstory retention levels.
- Remeasurement of permanent vegetation plots at Mt. St. Helens National Volcanic Monument.
- Botanical remeasurements of clearcut site at Starrbright Creek, Oregon.
- Understory plant measurements at the Wind River Canopy Crane, GPNF, WA.
- Establishment of permanent measurement plots in mature forest on the Gifford Pinchot National Forest, WA, to assess forest development.
- Summer 1998- Forest research technician, College of Forest Resources, University of Washington
- Summer 1997- Timber inventory technician, Longview Fibre Company, Longview, Washington
- Summer 1996- Wildlife habitat measurement technician, western Washington, for University of Washington Wildlife Sciences.

## Teaching Experience

- ◆ **Washington State University, Pullman, WA.** Instructor for classes in resource science and management.
  - *NATRS 464/564 Landscape Ecology.* Spring Semesters 2008-2015.
  - *NATRS 305 Silviculture.* Fall Semester 2007-2009, 2011-2015.
  - *NATRS 595 Graduate Seminar- Research Communication.* Fall semesters 2008-2009.
  - *NATRS 419 Practicum in Restoration Forestry.* Spring Semester 2009-2010.
  - *NATRS 519 Section 2- Introduction to Statistical Programming in R.* Spring semesters 2011 and 2012, and Fall semester 2012.
  - *SOILS 502- Introduction to Statistics in R.* Co-taught with David J. Brown. Fall semester 2013.
  - *NATRS 419 and 479- forest research summery intensives.* Summers 2008-2013.
  - Substantial ad hoc mentoring of graduate and undergraduate students in statistics, forest ecology, landscape ecology, and other disciplines.
  - R.M. Wade Award for Excellence in Teaching and Learning, 2011-2012. (Highest teaching award in CAHNRS).
  - Top ten finalist for “Outstanding Mentor Among Teaching Faculty”, 2009
  - “Outstanding Teaching Award”, 2008-2009, Dept. of Natural Resource Sciences
- ◆ **University of Washington, Seattle, WA.** Teaching assistantships consisting of every activity associated with course management. Typically collaborated with Dr. Jerry F. Franklin.
  - *ESC 322 Forest Ecosystems.* Fall 1997. Teaching assistant on field exercises.
  - *ESC 490a Stand Development in Natural Forests.* Summer 2000, Summer 2001.

- *ESC 490a Alternative Silvicultural Methods*, Summer 2002.
  - *ESC 490A Natural Forests and Their Development: Research at the Andrews Experimental Forest*. Summer 2003.
  - *ESC 490b Ecology of Old Growth Forests*. Summer 2000, Summer 2001, Summer 2002.
  - *ESC 440ZN Case studies in ecosystem management*. Fall 2000, Fall 2001.
  - *ESC 441 Landscape Ecology*. Winter 2001, Winter 2002 (including 18 lecture hours), Winter 2003 (including 30 lecture hours), and Winter 2004 (including 30 lecture hours).
  - *ESC 320/520c Natural Resource Issues: Old-Growth and Forest Management*. Spring 2001, Spring 2002, Spring 2003.
  - *FM 425 Ecosystem Management*. Fall 2002, Fall 2003 (contracted lecturer).
  - *BIO 180 Introductory Biology for Majors*, Winter 2004, Spring-Fall-Winter 2005, Winter 2007. Field trip designer and instructor.
  - Pre-doctoral Lectureship, Spring Quarter, 2004.
- ◆ **Peninsula College, Port Angeles, WA.**
- Natural Resource Issues with Dr. Daniel Underwood. Summer 2001. Forest biometry, developmental ecology in a field course setting.
- ◆ **Oregon State University/Earthwatch Institute Student Challenge Awards.** Forest biometry, experimental design, and basic forest ecology with high school students. With Dr. David C. Shaw and Dr. Barbara Schrader (OSU). 2001: “Integrated Forest Research in a Threatened Ecosystem: the Willamette Valley Oak Woodlands, Oregon”. 2003: “Establishment of a Long-Term Riparian Research Site at the Wind River Experimental Forest”, Wind River Experimental Forest, Washington.

## Skills

- Wilderness First Responder- certified by National Outdoor Leadership School, Lander, WY. Course taken 03/10/2017-03/19/2017. Contact: NOLS main office, 800-710-6657.
- American Tree Farm System Certified Inspector (January 20<sup>th</sup>, 2010).
- Software: Microsoft Office, Adobe Pagemaker. Statistical packages: R (10 years), SAS (3 years of effective experience), PC-ORD (5 years).
- Spatial analysis: ESRI ArcGIS 8.x and 9.x (including geoprocessing with Python), ArcView 3.x GIS programs (6+ years). ERDAS Imagine 8.0 (3 years, including Spatial Modeler) and ENVI image processing software package (3 years). Tripod Data Systems (TDS) Survey Works (Survey Link, Foresight survey processing software)(2 years). Landis-II forest landscape simulation model.
- Forest management software: Landscape Management System (LMS), STEWPLAN, FVS.
- Mensuration and surveying techniques including: Spiegel Relaskop, diopter prisms, other cruising devices, Nikon DTM-Series surveying total stations, Tripod Data Systems Recon, and Trimble (XRS Pro) surveying GPS and Garmin (and other brands) handheld GPS.
- Experienced field botanist. Regional expertise: Pacific Northwest, California, northern Baja California, and Patagonian Chile.
- Experience with backcountry travel and extended periods in remote areas in a field-work setting.
- Fluent in Spanish (including working in a forestry setting with Spanish-speaking people); proficiency in German; very basic competency in French.