

Name: Robert Scheller
Title: Assistant Professor
Campus Address: SB1 #105
Campus Phone: 503 725 2497
Email: rmschell@pdx.edu



Education: 2004 Ph.D. Department of Forest Ecology, University of Wisconsin-Madison
2000 M.S. Department of Forest Ecology, University of Wisconsin-Madison
1991 B.S. Biology, University of Minnesota

Major Fields: Landscape ecology, forest ecosystem ecology, fire ecology, global climate change, forest management, landscape and disturbance modeling, spatial and multivariate statistics, GIS, scientific computing/programming, remote sensing, ecosystem modeling.

Courses: Freshmen Inquiry: Sustainability, Introduction to Landscape Ecology (UW-Madison).

Select Recent Publications:

- Sturtevant, B.R., R.M. Scheller, B.R. Miranda, D. Shinneman, A.D. Syphard. Simulating dynamic and mixed-severity fire regimes: A process-based fire extension for LANDIS-II. *Ecological Modelling*. In press.
- Gustafson, E.J., A.Z. Shvidenko, B.R. Sturtevant, R.M. Scheller. Predicting global change effects on forest biomass and composition in south-central Siberia. *Ecological Applications*. In press.
- Ravenscroft, C.R., R.M. Scheller, D.J. Mladenoff, M.A. White. Simulating forest restoration in a mixed ownership landscape under climate change. *Ecological Applications*. In press.
- Xu, Chonggang, G.Z. Gertner, and R.M. Scheller. 2009. Pathways for forest landscape response to global climatic change: competition or colonization? *Global Change Biology* 15, 116-131.
- Scheller, R.M., E.J. Gustafson, B.R. Sturtevant, B.C. Ward, and D.J. Mladenoff. 2009. Increasing the research and management value of ecological models using modern software engineering techniques. *Frontiers in Ecology and the Environment*: doi:10.1890/080141
- Xu, C., G.Z. Gertner, and R.M. Scheller. 2009. Uncertainty in forest landscape response to global climate change. *Global Change Biology* 15: 116-131.
- Scheller, R.M. and D.J. Mladenoff. 2008. The Potential Futures of Wisconsin's Forested Landscapes. In "The Vanishing Present: Ecological change in Wisconsin" D.M. Waller and T.P. Rooney, Eds. University of Chicago Press, Chicago, Illinois, USA.
- Scheller, R.M. and D.J. Mladenoff. 2008. Simulated effects of climate change, fragmentation, and inter-specific competition on tree species migration in northern Wisc., USA. *Climate Research* 36: 191-202.
- Scheller, R.M., S. Van Tuyl, K. Clark, N.G. Hayden, J. Hom, D.J. Mladenoff. 2008. Simulation of Forest Change in the N.J. Pine Barrens under Current and Historic Conditions. *Forest Ecology and Management* 255: 1489-1500.
- Xu, C., G.Z. Gertner, and R.M. Scheller. 2007. Potential effects of interaction between CO₂ and temperature on Boundary Water Canoe Area's forest landscape response to global warming. *Global Change Biology* 13: 1469-1483.

Recent Research Grants:

- Scheller, R.M. 2009. LANDIS-II Core Model Improvements. U.S. Forest Service. \$12,385.
- Van Tuyl, S., R.M. Scheller, K. Clarke, and J. Hom. 2008. Interactions among gypsy moth, wildfire, forest health management, and climate change. U.S. Forest Service Forest Health Monitoring Program. \$95,287.
- Bolstad, P.V., R. Pouyat, R.M. Scheller, and D.J. Mladenoff. 2007. Improving Models of Northern Forest Soil Carbon Cycles. US Forest Service. \$242,000.
- Scheller, R.M. 2007, 2008. Improving the ecological realism of the LANDIS-II model. US Forest Service. \$38,000.
- Scheller, R.M. and D.J. Mladenoff. 2004 - 2006. Development of an collaborative forest landscape disturbance and succession model, LANDIS-II. US Forest Service. \$286,524.

Professional Activities, Honors & Awards:

Member: American Assoc. for the Advancement of Science, American Institute of Biological Sciences, Association for Fire Ecology, Ecological Society of America, International Association of Landscape Ecologists, Society for Conservation Biology.