

DON MCKENZIE

RESEARCH LANDSCAPE ECOLOGIST

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EDUCATION

University of Washington, College of Forest Resources, Seattle, WA

Ph.D., Landscape Ecology, June 1998

M.S., Forest Biometrics, December 1994

University of California at Berkeley, Berkeley, CA

B.A., Anthropology and Psychology, June 1974

RESEARCH INTERESTS

Climatic change and its effects on disturbance regimes, species responses, and air quality in protected areas; paleological fire studies, controls on fire regimes, and scaling relationships; forest biogeography and climatic variability.

PROFESSIONAL EXPERIENCE

Research Landscape Ecologist, US Forest Service, 2002-

Research Scientist, University of Washington, 1998-2002

CURRENT UNIVERSITY AFFILIATION

University of Washington

College of Forest Resources: Affiliate assistant professor

JISAO Climate Impacts Group: Principal investigator for forest ecosystems

PUBLICATIONS

McKenzie, D., S.M. O'Neill, N. Larkin, and R.A. Norheim. 2006. Integrating models to predict regional haze from wildland fire. *Ecological Modelling*, *in press*.

McKenzie, D., A.E. Hessler, and Lara-Karena B. Kellogg. 2006. Using neutral models to identify constraints on low-severity fire regimes. *Landscape Ecology* 21:139-152.

McKenzie, D., S.M. O'Neill, N. Larkin, and R.A. Norheim. 2006. How will climatic change affect air quality in parks and wilderness? In: D. Harmon, ed. *Proceedings of the 2005 George Wright Society Annual Meeting*, Philadelphia, PA.

Wiedinmyer, C., B. Quayle, C. Geron, A. Belote, **D. McKenzie**, X. Zhang, S.M. O'Neill, and K.K. Wynne. 2006. Estimating emissions from fires in North America for air quality modeling. *Atmospheric Environment*, *in press*.

Hessler, A.E., J. Miller, J. Kernan, and **D. McKenzie**. 2006. Mapping wildfire boundaries from binary point data: comparing approaches. *Professional Geographer*, *in revision*.

Halpern, C.B., **D. McKenzie**, S.A. Evans, and D.A. Maguire. 2005. Early responses of forest understories to varying levels and patterns of green-tree retention. *Ecological Applications* 15:175-195.

McKenzie, D., Z.M. Gedalof, D.L. Peterson, and P. Mote. 2004. Climatic change, wildfire, and conservation. *Conservation Biology* 18:890-902.

McKenzie, D. 2004. La historia del fuego y su relación con el clima. Pages 13-28 in: L. Villers-Ruiz and J López-Blanco, eds. *Incendios forestales en México: métodos de evaluación*. Universidad Nacional Autónoma de México, México, DF.

McKenzie, D., S. Prichard, A.E. Hessler, and D.L. Peterson. 2004. Empirical approaches to modelling wildland fire in the Pacific Northwest: methods and applications to landscape simulations. Chapter 7 in A.J. Perera, L. Buse, and M.G. Weber, eds., *Emulating Natural Forest Landscape Disturbances*. Columbia University Press, New York, NY.

Peterson, D.L., M.C. Johnson, J.K. Agee, T.B. Jain, **D. McKenzie**, and E.D. Reinhardt. 2005. Forest structure and fire hazard in dry forests of the western United States. USDA Forest Service General Technical Report PNW-GTR-628. Pacific Northwest Research Station, Portland, OR.

Hessler, A.E., **D. McKenzie**, and R. Schellhaas. 2004. Drought and Pacific Decadal Oscillation linked to fire occurrence in the inland Pacific Northwest. *Ecological Applications* 14:425-442.

McKenzie, D., D.W. Peterson, D.L. Peterson, and P.E. Thornton. 2003. Climatic and biophysical controls on conifer species distributions in mountain forests of Washington State, USA. *Journal of Biogeography* 30:1093-1108.

McKenzie, D., D.W. Peterson, and D.L. Peterson. 2003. Modelling conifer species distributions in mountain forests of the Pacific Northwest. *Forestry Chronicle* 79:253-258.

McKenzie, D., A. Hessler, and D.L. Peterson. 2001. Recent growth in conifer species of western North America: assessing the spatial patterns of radial growth trends. *Canadian Journal of Forest Research* 31:526-538.

Halpern, C.B., and **D. McKenzie**. 2001. Disturbance and post-harvest ground conditions in a structural retention experiment. *Forest Ecology and Management* 154:215-225.

McKenzie, D., D.L. Peterson, and J.K. Agee. 2000. Fire frequency in the Columbia River Basin: building regional models from fire history data. *Ecological Applications* 10:1497-1516.

McKenzie, D., C.B. Halpern, and C.R. Nelson. 2000. Overstory influences on herb and shrub communities in mature forests of western Washington, USA. *Canadian Journal of Forest Research* 30:1655-1666.

Peterson, D.L., S.J. Prichard, and **D. McKenzie**. 2000. Disturbance in Mountain Forests. In Price, M., ed. *Forests in Sustainable Mountain Development: a State-of-Knowledge Report for 2000*. CAB International, Oxford, England. Pages 51-59.

Schmoldt, D.L., D.L. Peterson, R.E. Keane, J.M. Lenihan, **D. McKenzie**, D.R. Weise, and D.V. Sandberg. 1999. Assessing the effects of fire disturbance on ecosystems: a scientific agenda for research and management. USDA Forest Service General Technical Report PNW-GTR-455.

McKenzie, D. and C.B. Halpern. 1999. Modeling understory shrub distributions in Pacific Northwest forests. *Forest Ecology and Management* 114:293-308.

McKenzie, D. 1998. Fire, vegetation, and scale: toward optimal models for the Pacific Northwest. *Northwest Science* 72:49-65.

McKenzie, D., D.L. Peterson and E. Alvarado. 1996. Predicting the effect of fire on large-scale vegetation patterns in North America. USDA Forest Service Research Paper PNW-489, Pacific Northwest Research Station, Portland, Oregon.

McKenzie, D., D.L. Peterson and E. Alvarado. 1996. Extrapolation problems in modeling fire effects at large spatial scales: a review. *International Journal of Wildland Fire* 6:65-76.

Maguire, D.A., J.L.F. Batista and **D. McKenzie**. 1993. Horizontal structure of uneven-aged mixed-species forests modeled as an inhomogeneous Poisson process. Proceedings of the IUFRO conference on Spatial Stochastic Processes in Forestry.

PROFESSIONAL MEMBERSHIPS

International Association for Landscape Ecology

Don McKenzie

curriculum vitae

Ecological Society of America
Society for Conservation Biology