

Daolan Zheng

Resume (update: 07/25/09)

Mailing address:

215 James Hall

Department of Natural Resources

University of New Hampshire

Durham, NH 03824

Phone : 603-868-7696 (W)

Email : daolan.zheng@unh.edu

Education:

- Ph.D.**, 1993 (Applied Ecology), School of Forestry, University of Montana, Missoula, MT 59812.
- M.S.**, 1989 (Natural Resources Management), Department of Geography and Land Studies, Central Washington University, Ellensburg, WA 98926.
- M.S.**, 1984 (Comprehensive Physical Geography), Department of Geography, Northeast Normal University (NENU), Changchun, Jilin Province, P. R. China
- B.S.**, 1982 (Geography), Department of Geography, NENU, Changchun, Jilin Province, P. R. China

Professional experience:

Research Scientist II/Postdoctoral Research Associate (**May 2006 – Present**)
Department of Natural Resources and the Environment, University of New Hampshire
Research project: North American Carbon Program

Research Assistant Professor/Postdoctoral Research Associate (**Aug. 2002 - Apr. 2006**)
Department of Earth, Ecological, and Environmental Sciences, University of Toledo
Research project: Fires, management, and land mosaic interactions: A Generic spatial model and toolkit from stand to landscape scales

Postdoctoral Research Associate (**Jul. 99 - June 2002**)
Department of Geography
University of Maryland
Research projects: Global Primary Production Data Initiative (GPPDI) and Ecosystem Model/Data Inter-comparisons (EMDI).

Postdoctoral Research Associate (**May 98 - May. 99**)

School of Forestry & Wood products
Michigan Technological University
Research projects: Microclimate in Missouri Ozark Forests and Landscape analysis in
Chequamegon National Forest, WI

Faculty Research Assistant (**Jan. 94 - Mar. 98**)

Ecological Modeler

Department of Forest Science

Oregon State University

Research projects: "Oregon Coastal Range Landuse Analysis and Modeling Study
(CLAMS)", and "Analysis of Land-use effects on landscape patterns and biodiversity in
Pacific Northwest forests: 1972-1991".

Graduate Research Assistant (**Aug. 1989 - Dec. 1993**)

School of Forestry

University of Montana

Major Professor: Dr. S. W. Running

Dissertation: Predicting daily soil temperature and available soil water capacity through
topographical analysis at various scales using climatic and satellite data.

Graduate Research Assistant (**Sept. 1987 - June 1989**)

Department of Geography and Land Studies (GIS Laboratory)

Central Washington University

Major Professor: Dr. J. Q. Ressler

Thesis: Factors affecting conversion of agricultural land to residential use in Kittitas
County, WA.

Visiting Scholar (**Aug. 1986 - Aug. 1987**)

Department of Geography

The Pennsylvania State University

University Park, PA 16802

Association: Dr. C. G. Knight

Instructor & Assistant Professor (**Sept. 1984 - Aug. 1986**)

Department of Geography

Northeast Normal University

Changchun, Jilin Province, P. R. China

Courses taught: Comprehensive Physical Geography, Field survey and research.

Honors:

Remote Sensing of Environment - Most requested articles (April 2004 - March 2005)
Daolan Zheng, John Rademacher, Jiquan Chen et al. Estimating aboveground biomass
using Landsat 7 ETM+ data across a managed landscape in northern Wisconsin, USA
www.elsevier.com/homepage/sad/downloads/00344257.html

Excellent student of the year (1979-80), NENU, Changchun, Jilin Province, P. R. China.
Excellent student of the year (1980-81), NENU, Changchun, Jilin Province, P. R. China.

Publications (Peer-Reviewed Articles & Book Chapters) Chronologically:

- Zheng, D.**, L. Heath, M. Ducey, and J. Smith. 2009. Quantifying scaling effects on satellite derived forest area estimates for the conterminous U.S. Int. J. Remote Sens., 30: 3097-3114.
- DelGrosso, S., W. Parton, T. Stohlgren, **D. Zheng**, D. Bachelet, S. Prince, K. Hibbard, R. Olson. **2008**. Global Potential Net Primary Production Predicted from Vegetation Class, Precipitation, and Temperature. Ecology, 89: 2117-2126.
- LaCroix, J.J., Q. Li, S. Ryu, **D. Zheng**, and J. Chen. 2008. Edge effects on fuel loading and fire spread in a managed northern Wisconsin landscape. *in* Earth Science Satellite Remote Sensing. Edited by J. Qu, X. Hao, and M. Kafatos. Springer and Tsinghua University Press, *in press*.
- Zheng, D.**, L. Heath, and M. Ducey. 2008. Scaling effect on global forest area estimates and carbon studies. Geophysical Research Letters, 35:L21403.
- Zheng, D.**, L. Heath, and M. Ducey. 2008. Modeling grain-size dependent bias in estimating forest area: a regional application. Landscape Ecol, 23:1119-1132.
- Zheng, D.**, L. Heath, and M. Ducey. 2008. Satellite detection of land-use change effects on forest aboveground biomass estimates. Environmental Monitoring and Assessment, 144: 67-79. doi: 10.1007/s10661-007-9946-1.
- Zheng, D.**, L. Heath, and M. Ducey. 2008. Spatial distribution of forest aboveground biomass estimated from remote sensing and forest inventory data in New England, USA. Journal of Applied Remote Sensing, 2: 021502.
- Zheng, D.**, J.J. LaCroix, S. Ryu, J. Chen, J. Hom, and K. Clark. 2008. Fire spread regulated by weather, landscape structure, and management in Wisconsin Oak-dominated forests and New Jersey Pinelands. *in* Earth Science Satellite Remote Sensing. Edited by J. Qu, X. Hao, and M. Kafatos. Springer and Tsinghua University Press, *in press*.
- Ryu, S., J. Chen, **D. Zheng**, and J.J. LaCroix. **2007**. Relating surface fire spread to alternative landscape management: An application of FARSITE in a managed forest landscape. Landscape & Urban Planning, 83: 275-283.
- Zheng, D.**, L. Heath, and M. Ducey. 2007. Forest biomass estimated from MODIS and FIA data in the Lake States: MN, WI, and MI, USA. Forestry, doi:10.1093/forestry/cpm015.
- LaCroix, J.J., S. Ryu, **D. Zheng**, and J. Chen. **2006**. Simulating fire spread with landscape management scenarios. Forest Science, 52: 522-529.
- Noormets, A., B. Ewers, G. Sun, S. Mackay, **D. Zheng**, S. McNulty, and J. Chen. 2006. Linking ecology to landscape mosaic: an ecosystem perspective. *in* Linking ecology to landscape hierarchies. Edited by J. Chen, S.C. Saunders, K.D. Brosofske, and T.R. Crow. Chapter 4, Nova Science Publishers, Inc., Hauppauge, NY.
- Ryu, S., J. Chen, **D. Zheng**, Mary K. Bresee and T.R. Crow. 2006. Simulating the effects of prescribed burning on fuel loading and timber production (EcoFL) in managed northern Wisconsin forests. Ecological Modelling, 196: 395-406.

- Wang, X., B. Song, J. Chen, **D. Zheng**, and T.R. Crow. 2006. Visualizing forest landscapes using public data sources. Landscape & Urban Planning, 75: 111-124.
- Zheng, D.**, E.R. Hunt Jr., P.C. Doraiswamy, Greg W. McCarty, and S-R. Ryu. 2006. Using remote sensing approach and models to understand the ecology of Landscapes. *in* Linking ecology to landscape hierarchies. Edited by J. Chen, S.C. Saunders, K.D. Brosofske, and T.R. Crow. Chapter 6, Nova Science Publishers, Inc., Hauppauge, NY.
- Zheng, D.**, J. Chen, A. Noormets, E. Euskirchen, and J. Le Moine. **2005**. Effects of climate and land use on landscape soil respiration in northern Wisconsin, USA: 1972 to 2001. Climate Research, 28: 163-173.
- Zheng, D.**, J. Chen, J. LeMoine, and E. Euskirchen. 2005. Influences of land-use change and edges on soil respiration in a managed forest landscape, WI, USA. Forest Ecology and Management, 215: 169-182.
- Chen, J., K.D. Brosofske, A. Noormets, T.R. Crow, M.K. Bresee, J.M. Le Moine, E.S. Euskirchen, S.V. Mather, and **D. Zheng**, **2004**. A Working framework for quantifying carbon sequestration in disturbed land mosaics. Environmental Management, 33(S1): 210-221.
- Zheng, D.**, J. Rademacher, J. Chen, T. Crow, M. Bresee, J. Le Moine, and S-R Ryu. 2004. Estimating aboveground biomass using Landsat 7 ETM+ data across a managed landscape in northern Wisconsin, USA. Remote Sensing of Environment, 93: 402-411.
- Zheng, D.**, S.D. Prince, and T. Hame, 2004. Estimating net primary production of boreal forests in Finland and Sweden from field data and remote sensing. J. of Vegetation Science, 15: 161-170.
- Zheng, D.**, S.D. Prince, and R. Wright, **2003**. Terrestrial net primary production estimates for 0.5 degree grid cells from field observations-a contribution to global biogeochemical modeling. Global Change Biology, 9: 46-64.
- Zheng, D.**, H. Cui, and J. Chen. 2000. Satellite-based remote sensing and applications in terrestrial ecosystems. *In* "Global Ecology--Climate Change and Ecological Responses" (J. Fang, Y. Tang, J. Lin and G. Jiang, eds.), pp. 177-190. China Higher Education Press, Beijing and Springer-Verlag, Heidelberg.
- Zheng, D.**, and J. Chen, 2000. Edge effects in fragmented landscapes: A generic model for delineating area of edge influences (D-AEI). Ecological Modeling, 132: 175-190.
- Zheng, D.**, J. Chen, B. Song, M. Xu, P. Sneed, and R. Jensen, 2000. Effects of silvicultural treatments on forest microclimate in southeastern Missouri Ozarks. Climate Research, 15: 45-59.
- Zheng, D.**, D.O. Wallin, and Z. Hao, **1997**. Rates and patterns of landscape change between 1972 and 1988 in the Changbai Mountain area of China and North Korea using satellite data. Landscape Ecology, 12: 241-254.
- Zheng, D.**, E.R. Hunt Jr., and S.W. Running, **1996**. Comparison of available soil water capacity estimated from topography and soil series information. Landscape Ecology, 11(1): 3-14.
- Zheng, D.**, E.R. Hunt Jr., and S.W. Running, **1993**. A daily soil temperature model based on air temperature and precipitation for continental applications. Climate Research, 2:183-191.
- Zheng, D.**, Y. Zhang, and W. Xu, **1979**. Kinetics of microbiological aerobic decomposition of methylmercury. pp. 1-14 in Chinese, Special issue in Environmental Research, Published by Institute of Environmental Science, Northeast Normal University, Changchun, China.

Translated and compiled from English origin of R.V. Cooley and P.L. McCarty in Environmental Biogeochemistry: Metals Transfer and Ecological Mass Balances 2:451-470. Ann Arbor Science Publishers, Inc. 1976, P.O. Box 1425, Ann Arbor, MI 48106.

Other Publications:

- Zheng, D.**, L. Heath, M. Ducey, and J. Smith. 2009. A preliminary investigation of forest carbon changes associated with land-use change in northern New England. *In* Forest Inventory and Analysis (FIA) Symposium 2008. Edited by W. McWilliams, Will, G. Moisen, and R. Czaplewski. October 21-23, 2008; Park City, UT. Proc. RMRS-P-56CD. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 1 CD.
- Olson, R. J., J. M. O. Scurlock, S. D. Prince, **D. L. Zheng**, and K. R. Johnson (eds.). 2008. NPP Multi-Biome: Global Primary Production Data Initiative Products, R[evision]1. Data set. Available on-line [<http://www.daac.ornl.gov>] from the Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A. doi:10.3334/ORNLDAAC/xxx (doi will be assigned).
- Olson, R. J., J. M. O. Scurlock, S. D. Prince, **D. L. Zheng**, and K. R. Johnson (eds.). 2008. NPP Multi-Biome: NPP and Driver Data for Ecosystem Model-Data Intercomparison, R[evision]1. Data set. Available on-line [<http://www.daac.ornl.gov>] from the Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A. doi:10.3334/ORNLDAAC/xxx (doi will be assigned).
- Olson, R. J., J. M. O. Scurlock, S. D. Prince, **D. L. Zheng**, and K. R. Johnson (eds.). 2001. NPP Multi-Biome: NPP and Driver Data for Ecosystem Model-Data Intercomparison. Data set. Available on-line [<http://www.daac.ornl.gov>] from the Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A. doi:10.3334/ORNLDAAC/615.
- Olson, R. J., J. M. O. Scurlock, S. D. Prince, **D. L. Zheng**, and K. R. Johnson (eds.). 2001. NPP Multi-Biome: Global Primary Production Data Initiative Products. Data set. Available on-line [<http://www.daac.ornl.gov>] from the Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A. doi:10.3334/ORNLDAAC/617
- Olsen, R.J., K. Johnson, **D. Zheng**, and J.M.O. Scurlock, 2001. Global and regional ecosystem modeling: databases of model drivers and validation measurements. ORNL/TM-2001/196, Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA, 84 pp.
- Zheng, D.**, S. D. Prince, and R. Wright. 2001. NPP multi-biome: Gridded estimates for selected regions worldwide, 1989-2001. Available on-line [<http://www.daac.ornl.gov/>] from the Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A.
- Alig, R. J., **D. Zheng**, T. Spies, and B. Butler, 2000. Forest cover dynamics in the Pacific Northwest west side: regional trends and projections. Res. Pap. PNW-RP-522, Portland, OR: USDA For. Serv. Pacific Northwest Research Station, Feb., 22p.
- Zheng, D.**, and R.J. Alig, 1999. Changes in the non-federal land base involving forestry in

western Oregon, 1961-94. Res. Pap. PNW-RP-518. Portland, OR: USDA, For. Serv. Pacific Northwest Research Station, July, 22p.

Zheng, D. 1993. Predicting daily soil temperature and available soil water capacity through topographical analysis at various scales using climatic and satellite data. Dissertation, The University of Montana, Missoula, MT 59812, 69pp.

Zheng, D. 1989. Factors affecting conversion of agricultural land to residential use in Kittitas county, WA, Thesis, Central Washington University, Ellensburg, WA 98926, 86pp.

Zheng, D. 1984. Numerical classification of land-use types in Jilin region, PRC. Thesis, Northeast Normal University, Changchun, China.

Paper(s) submitted or in revision:

Ducey, M., **D. Zheng**, and L. Heath. 2009. Creating Compatible Maps from Remotely Sensed and Forest Inventory Data Using Radial Basis Functions. Submitted to IUFRO 09, Proceeding.

Zheng, D., L. Heath, and M. Ducey. 2009. Effects of Conservation Status and Ownership on Forest Aboveground Biomass Distributions and Landscape Dynamics in New England States of USA. Environmental Management, in revision.

Manuscripts prepared or in preparation:

Heath, L., **D. Zheng**, and M. Ducey. 2009. Potential carbon sequestration from marginal agricultural land afforestation in the conterminous U.S. J. to be determined.

Zheng, D., L. Heath, M. Ducey, and J. Smith. 2009. Effects of land-use/cover change and harvests on forest carbon dynamics in northern states of the U.S. from remote sensing and inventory data: 1992-2001. To Forest Science.

Zheng, D., S.D. Prince, K. Hibbard, R.J. Olson, W. Parton, B. Law and the participants of the EMDI, 2002. Comparisons between model estimates of terrestrial primary production (NPP) and observational NPP at multiple scales worldwide, EMDI workshop, Santa Barbara, CA.

Zheng, D., S.D. Prince, R.J. Olson, K.A. Hibbard, W.J. Parton, D. Barrett and the participants of the EMDI, 2002. Spatial and temporal comparisons between net primary production (NPP) simulated by global terrestrial models and the NPP obtained from resource inventories and local modeling over large areas: from the Great Plains Region to east coast of the USA and Australia. EMDI workshop, Santa Barbara, CA.

Manuscripts & Proposal Reviewed:

Advances in Atmospheric Sciences, **African Journal** of Environmental Science & Technology, **Applied** Vegetation Science, **Ecological** Modeling, **Forest** Ecology & Management, **Environmental** Management, **Environmental** Monitoring and Assessment, **Forestry**, **Forest** Science, **Journal** of Plant Ecology, **Landscape** & Urban Planning, **Landscape** Ecology, **Land** Use Policy, **Rangeland** Ecology & Management, **Remote** Sensing of Environment, and

National Science Foundation.

Conference Proceedings, Abstracts, Posters, and Presentations (Listed in the order of year and alphabet of senior authors):

- Ducey, M. J., **D. Zheng**, and L. S. Heath. 2009. Creating Compatible Maps from Remotely Sensed and Forest Inventory Data using Radial Basis Functions. IUFRO 2009, May 19-22, Quebec City, Canada.
- Zheng, D.**, L. S. Heath, and M. J. Ducey 2009. Spatial distribution of Forest aboveground biomass, landscape dynamics, and ownerships in New England, USA. AGU Joint Assembly, May 24-27, Toronto, Canada.
- Zheng, D.**, L. S. Heath, M. J. Ducey, and J. E. Smith. 2009. Estimating bias of scaling effects on satellite based forest area estimation for the conterminous U.S. 2nd NACP All-Investigators Meeting, February 17-20, San Diego, CA.
- Zheng, D.**, L. S. Heath, and M. J. Ducey. 2008. A preliminary investigation of forest carbon changes associated with land-use change in northern New England. FIA 2008 Symposium, Park City, UT, Oct. 21-23.
- Zheng, D.**, L. S. Heath, and M. J. Ducey. 2008. Grain-size dependent bias on global forest area estimates and carbon studies. IUFRO annual meeting, Chengdu, China, Sept. 16-22.
- Zheng, D.**, L. S. Heath, and M. J. Ducey. 2007. Estimating regional forest aboveground biomass in New England, USA, using remote sensing and forest inventory data. 92th ESA annual meeting, San Jose, CA, Aug. 6-10.
- Zheng, D.**, L. S. Heath, and M. J. Ducey. 2007. Satellite detection of land-use change effects on forest aboveground biomass estimates in 3 lake states of USA: 1992-2001. 6th North American Forest Ecology Workshop, Vancouver, BC, June 18-20.
- Zheng, D.**, L. S. Heath, and M. J. Ducey. 2006. Estimating forest biomass using MODIS and FIA data in the Lake States: MN, WI, and MI, USA. AGU Fall Meeting, San Francisco, USA. Dec. 11-15.
- Del Grosso, Stephen, W. Parton, T. Stohlgren, **D. Zheng**, D. Bachelet, S. Prince, K. Hibbard, R. Olson. 2006. Abiotic controls on land cover type and net primary production. ESA 91st Annual Meeting, Aug. 7-11, Memphis, Tennessee, USA.
- Chen, J., Q. Li, R. Henderson, R. Jensen, D.L. Moorhead, and **D. Zheng**. 2005. Carbon pools (Biomass) and vertical soil respiration across Ozark landscape. Missouri Department of Conservation annual meeting, Jefferson City, MO, Nov. 29-30.
- LaCroix, J.J., **D. Zheng**, S-U. Ryu, Q. Li, and J. Chen. 2005. The effects of patch edges on the direction and rate of fire spread in Wisconsin, USA. EastFIRE Conference, May 11-13, Fairfax, VA.
- Ryu, S-U, J. Chen, **D. Zheng**, M. Bresee, and T.R. Crow. 2005. Simulating the effects of disturbances and age structure on fuel loading in forest ecosystems of Northern Wisconsin, USA. EastFIRE Conference, May 11-13, Fairfax, VA.
- Zheng, D.**, J.J. LaCroix, S-U. Ryu, J. Chen, J. Hom, and K. Clark. 2005. Influences of landscape structure, weather, and harvesting on fire spread in temperate forests USA. EastFIRE Conference, May 11-13, Fairfax, VA.

- Zheng, D.**, Q. Li, R. Jensen, and J. Chen. 2005. Satellite detection of aboveground biomass in southeast Missouri Ozark forests. 90th ESA Annual Meeting, Aug. 7-12, Montreal, Canada.
- Chen, J., T.R. Crow, B. Song, **D. Zheng**, X. Wang, J. LaCroix, and S-R. Ryu. 2004. Fires, management, and land mosaic interactions: A generic spatial model and toolkit from stand to landscape scales. JFSP annual workshop, April 11-14, Arizona, USA.
- LaCroix, J. J., S. Ryu, **D. Zheng** and J. Chen. 2004. Model Applications: Management and climate affect fire spread. Workshop of the Joint Fire Science Program, August 23rd, Rhinelander, WI. with links to web presentations:
http://research.eeescience.utoledo.edu/lees/research/jfsp/spotlight/CNFFARSITE_files/frame.htm
<http://research.eeescience.utoledo.edu/lees/research/jfsp/spotlight/FARSITE&HARVEST.ppt>
- Ryu, S-R, **D. Zheng**, J.J. LaCroix, J. Chen, and T.R. Crow. 2004. Possibility of model application to the forest fire management: using LandNEP and PnET models. Workshop of the Joint Fire Science Program, August 23rd, Rhinelander, WI.
- Ryu, S-R. D.Zheng, J.Chen, and T.R. Crow. 2004. PnET and LandNEP modeling. Workshop of the Joint Fire Science Program, November 18th, Charleston, SC.
- Song, B., X. Wang, J. Cheng, T.R. Crow, **D. Zheng**, and E. Gustafson. 2004. 3-D visualization of forest landscape with fire and other disturbances. Workshop of the Joint Fire Science Program, August 23rd, Rhinelander, WI.
- Zheng, D.**, J. LaCroix, S-R Ryu, J. Chen, and T.R. Crow. 2004. Data compiling and model linkage. JFSP Workshop: Fire science in forestry management. Nov. 18-19, Charleston, SC.
- Zheng, D.**, J. LaCroix, S-R Ryu, J. Chen, and T.R. Crow. 2004. Examining effects of landscape mosaics, fuel type, and management on fire spread and behavior in northern Wisconsin, USA using modeling approach. Workshop of the Joint Fire Science Program, Aug. 23, Rhinelander, WI.
- Zheng, D.**, S.D. Prince, T. Hame. 2004. Special Workshop of Integrated Regional Studies for Global Sustainability. March 22-24, Auburn University, Auburn, AL, USA.
- Crow, T., J. Chen, S. Ryu, **D. Zheng**, B. Song, and X. Wang. 2003. Fires, management, and land mosaic interactions: A generic spatial model and toolkit from stand to landscape scales. JFSP annual workshop, March 11-13, Arizona, USA.
- Zheng, D.**, J. Chen, J.M. LeMoin, and E.S. Euskirchen. 2003. Fragmentation and edge effects on landscape-level soil respiration in a managed land mosaic in N. Wisconsin. The 4th North American Forest Ecosystem Workshop, June 16-20, Corvallis, OR, USA.
- Zheng, D.**, S.D. Prince et al. 2002. Comprehensive comparisons and analyses between modeled and observed net primary production worldwide at multiple scales. Ecosystem Model/Data Inter-comparison workshop III, Apr. 21-24, Santa Barbara, California, USA.
- Zheng, D.**, S.D. Prince, R.J. Olson, K.A. Hibbard, W.J. Parton, D. Barrett and the participants of the EMDI, 2002. Spatial and temporal comparisons between net primary production (NPP) simulated by global terrestrial models and the NPP obtained from resource inventories and local modeling over large areas. AGU spring meeting, May 28-31, Washington D.C., USA. P. 110 (abstr).
- Zheng, D.** and S.D. Prince, 2001. Grid net primary production estimates in Finland and Sweden at 1-km and 0.5 degree cell sizes. The International Association of Landscape Ecology-

- U.S. Chapter 16th Annual Symposium, Apr. 25-29, Tempe, Arizona, USA. P. 228 (abstr).
- Zheng, D.**, S.D. Prince, and et al. 2001. 0.5 degree NPP dataset and comparison with model results. Ecosystem Model/Data Inter-comparison workshop II, Apr. 18-21, Santa Barbara, California, USA.
- Fan, W., J. Chen, K.D. Brosofske and **D. Zheng**. 1999. Landscape-level effects of alternative forest management on nitrogen mineralization in the Chequamegon National Forest, Wisconsin. The Ecological Society of America 84th Annual Meeting, Aug. 8-12, Spokane, Washington, USA. p. 85 (abstr).
- Zheng, D.** and J. Chen. 1999. Edge effects in fragmented landscapes: A generic model for delineating area of edge influences (D-AEI). The Ecological Society of America 84th Annual Meeting, Aug. 8-12, Spokane, Washington, USA.
- Zheng, D.**, R. Wright, and S.D. Prince. 1999. Derivation of estimates of primary production for 0.5 deg grid cell from field observations for comparison with global primary production model estimates. American Geophysical Union 1999 Fall Meeting, 80(46)(suppl): 72 (abstr).
- Ohmann, J.L., J.E. Gray, and **D. Zheng**. 1998. Integrating plot, remote sensing, and environmental data for forest landscape simulations and biodiversity assessments. International Association for Landscape Ecology (IALE), 13th annual Conference, Michigan State University, March 17-21, p. 125.
- Zheng D.** and J. Chen. 1998. GIS covers and Landscape analysis in Chequamegon National Forest, WI, Workshop on Research on Landscape Ecology in the National Forests, Rhinelander, WI, June 18, 1998.
- Zheng, D.**, S.L. Garman, and T.A. Spies. 1997. Effects of DEM grain size on estimates of daily mean radiation. August, Madison, WI. Bulletin of the Ecological Society of America 78(3, suppl), p.55.
- Zheng, D.**, E.R. Hunt Jr., and S.W. Running. 1995. Comparison of available soil water capacity estimated from topography and soil series information. Bulletin of the Ecological Society of America 76(suppl): 293 (abstr).
- Zheng, D.**, D. Wallin, M. Huff, A. Hansen, L. Ganio, W. McComb, M. Hunter, J. Lehmkuhl, W. Cohen, and M. Fiorella. 1995. Mapping potential habitat using satellite data. The Wildlife Society Second Annual Conference. Sept. 12-17, Portland, Oregon, USA. p. 33.
- Wallin, D.O., **D. Zheng**, A. Hansen, M. Huff, L. Ganio, W. McComb, J. Lehmkuhl, W. Cohen, and M. Fiorella. 1994. Landuse effects on bird communities in forests of the U.S. Pacific Northwest (1972-1991): mapping potential habitat using satellite data. International forest biodiversity conference, Dec. Canberra-Australia. National Parks & Wildlife Service, Center for Environment Sport and Territories, p.121 (abstr).
- Zheng, D.**, Running, S.W., Hunt, E. R. Jr. 1992. A simple soil temperature model derived from air temperature and precipitation for continental application. Bulletin of the Ecological Society of America 73(suppl): 398 (abstr).

Research Interests:

Large-scale carbon cycles, terrestrial ecosystem productivity, spatial pattern and temporal analyses in landscape ecology, land-use change detection and planning, natural resources

management and monitoring, and biodiversity studies at various scales using GIS, remote sensing, and modeling approaches.

Teaching experience:

(Landscape Ecology, EEES 4760/6760, Spring, 2005, University of Toledo)

- 1) Estimating aboveground biomass using Landsat 7 ETM + data.
- 2) Linking landscape patterns to processes using RS/GIS and modeling.

(Landscape Ecology, EEES6980, Spring, 2003, University of Toledo)

- 1) Identification of edge effects across landscape;
- 2) Measuring landscape structure (FRAGSTATS);
- 3) Applications of remote sensing and GIS in landscape ecology.

(Environmental Biophysics, EEES4980, Fall, 2002, University of Toledo)

Remote sensing of biophysics.

(Forest Ecology, FW443, Winter, 1999, Michigan Technological University)

- 1) Modeling approach-A generic model for delineating area of edge influences in fragmented landscapes.
- 2) Applications of GIS Arc/Info in forest management.

Memberships:

American Geophysical Union (2001-present)

Technical Skills:

GIS:

Arc/Info and its subsystems, ArcView (both using routinely), ArcGis, Pamap, Grass.

Image processing and spatial modeling:

ERDAS75, and IMAGINE8.6 (using routinely), little IPW.

Programming languages:

BASIC, FORTRAN, C, AML, AVENUE, MODULA II, HTML (Hypertext Makeup Language for Web Design), and Visual Basic.

Statistics:

SAS and SPLUS, Regression analysis, Discriminant function analysis, Principle component analyses, etc.

Miscellaneous and spreadsheets:

Windows NT4.0, Window 2003 (00, 98, 95), QuattroPro8.0, Excel2003, MSword2003, MS PowerPoint, HarvardGraphics98, Vedit, FoxPro, Access, WordPerfect8.0, Operating systems (UNIX, VAX, VMS, and DOS platform, mainly UNIX), EndNote6.0, TextPad (PC), Text editors (UNIX), imagetools, E-mail and ftp.