

DAVID M. THEOBALD, PH.D.

Natural Resource Ecology Laboratory
Colorado State University
Fort Collins, CO 80523-1499
(970) 491-5122; (970) 491-1965 (FAX)
davet@nrel.colostate.edu
<http://nrel.colostate.edu/~davet>

EDUCATION

- 1995 Ph.D., Department of Geography, University of Colorado, Boulder. *Morphology and Effects of Mountain Land Use Change in Colorado: A Multi-Scale Landscape Analysis.*
- 1990 M.A., Department of Geography, University of California, Santa Barbara. *Delineation of Hydromorphology on TIN-based Surfaces.*
- 1986 B.A., Department of Geography, University of Colorado, Boulder.

ACADEMIC APPOINTMENTS

- 2002 - *Faculty member*, Graduate Degree Program in Ecology, Colorado State University.
- 2001 - *Research Scientist*, Natural Resource Ecology Laboratory, Colorado State University.
- 2001 - *Assistant Professor*, Department of Natural Resources Recreation & Tourism, College of Natural Resources, Colorado State University.
- 2000 - 2001 *Scientist*, Natural Resource Ecology Laboratory, Colorado State University. February 2000 to 2001.
- 1995- 2000 *Post-Doctoral Research Associate*, Natural Resource Ecology Laboratory, Colorado State University. June 1995 to February 2000.
- 1994 *Research Assistant*. Department of Geography, University of Colorado, Boulder. January 1994 to July 1994.
- 1994 *Teaching Assistant*, Division of Environmental Design, University of Colorado, Boulder. Ecology and Design, Fall 1994.
- 1992-1994 *Research Assistant*, Quantitative Reasoning and Mathematical Skills Program, University of Colorado, Boulder. June 1992 to December 1994.
- 1990-1991 *Professional Research Assistant*, Center for Advanced Decision Support Systems for Water and Environmental Systems, University of Colorado, Boulder. April 1990 to July 1991.
- 1988-1990 *Research Assistant*, Department of Geography, University of California, Santa Barbara and NCGIA. October 1988 to March 1990.
- 1987-1988 *Teaching Assistant*, Department of Geography, University of California, Santa Barbara. Introduction to Physical Geography, Aerial Photo Interpretation.

RESEARCH GRANTS

- 2003 D.M. Theobald. Mapping historical and current conditions for the Laramie Foothills. TNC Fire Learning Network. (\$8,000). 2003.
- 2002 Theobald, D., S. Weiler, R. Kling, and G. Wallace. Maximizing protection of ecological, agricultural, and community values at the rural-urban fringe. USDA NRI (\$182,000). 2003-2005.
- Theobald, D. and L. O'Brien. *Using Bayesian probabilities to improve habitat modeling*. USGS Gap Analysis Program. (\$20,000). 2002.
- Theobald, D. Colorado State Forest Service. *Modeling forest species in Colorado*. (\$7,000). 2002.
- 2001 Theobald, D. Colorado State Forest Service. *Mapping housing density and vegetation to assist prioritization of urban/forest-wildfire hazards in Colorado*. (\$15,000). 2001.
- Urquhart, S. (Dept. of Statistics, CSU), J. Hoeting, F. Breidt, H.K. Iyer, and D. Theobald. EPA STAR. *Statistical Survey Design and Analysis for Aquatic Resources*. (\$2,998,000). 2001-2004.
- 2000 Hobbs, N.T., E. Williams (Univ. of Wyoming), M. Miller (CDOW), K. Burnham, J. Thomas, R. Reich, and D.M. Theobald. NSF/NIH. *Spatial & Temporal Dynamics of Prion Disease in Wildlife: Responses to Changing Land Use* (\$2,166,000). 2000-2004.
- Theobald, D.M. and N.T. Hobbs. The Nature Conservancy/David H. Smith Post-doctoral Fellowship. *Incorporating landscape context into the design of functional conservation networks*. (\$123,000). 2000-2003.
- Theobald, D.M. and D. Schrupp (CDOW). National Gap Program, Socioeconomic Seed Grant for State Gap Analysis Projects. *Assessing Risk of Habitat Loss due to Private Land Development*. (\$15,000). 2000-2001.
- 1999 Hobbs, N.T. and D.M. Theobald. Colorado Division of Wildlife. *The role of habitat in the decline of mule deer in Colorado: Research and adaptive management at landscape scales* (\$839,000). 1999-2000.
- Hobbs, N.T., D. Ojima, J. Loomis, S. Weiler, D.M. Theobald, A. Covich, J. Baron, T. Stohlgren, and M. Coughenour. EPA Integrated Assessment of the Consequences of Climate Change, 1998. *An integrated assessment of the effects of climate change on Rocky Mountain National Park and its gateway community* (\$898,000). 1999-2002.
- 1998 Theobald, D.M. and N.T. Hobbs. Great Outdoors Colorado Trust Fund. *Land stewardship mapping for Colorado* (\$33,500).
- 1997 Hobbs, N.T. and D.M. Theobald. Colorado Division of Wildlife. *Bringing consistency to information products: A proposal to continue the System for Conservation Planning* (\$150,000). 1997.
- 1996 Hobbs, N.T., J.E. Gross, D.M. Theobald, and W.E. Riebsame (Univ. of Colorado). 1996. Rocky Mountain Elk Foundation. *Forecasting Impacts of Land Use Change on Elk Habitat in the Rocky Mountains: Tools for Planners and Citizens* (\$92,233). 1996-1999.
- 1994 Theobald, D.M., 1994. Edna Bailey Sussman Internship. *Impact of Second Home Development on Landscape Ecology in Crested Butte, Colorado* (\$1,750).

- 1989 Davis, F. and D.M. Theobald. 1989. Academic Research Grant, University of California, Santa Barbara. *Surface Analyses Using Triangulated Irregular Networks* (\$750).
- Not funded* Ojima, D., K. Galvin, D.M. Theobald, 2003-2006. Center for Global Environmental Sustainability. Proposal #0338049, NSF Science and Technology Center.

PUBLICATIONS

Peer-reviewed Articles

- In press* Weiler, S. and D.M. Theobald. (*in press*). Pioneers of rural sprawl in the Rocky Mountain West. *The Review of Regional Studies*.
- Cova, T.J., P. Sutton, and D.M. Theobald. (*in press*). Urban change detection in fire-prone regions with nighttime satellite imagery. *Photogrammetric Engineering & Remote Sensing*.
- 2003 Theobald, D.M. 2003. Targeting conservation action through assessment of protection and exurban threats. *Conservation Biology* 17(6):1624-1637.
- Miller, J.R., J.A. Wiens, N.T. Hobbs, and D.M. Theobald. 2003. Effects of human settlement on bird communities in lowland riparian areas of Colorado (USA). *Ecological Applications* 13(4):1041-1059.
- Odell, E.A., D.M. Theobald, and R.L. Knight. 2003. Incorporating ecology into land use planning: The songbird's case for cluster development. *Journal of American Planning Association* 69(1):72-81.
- 2002 Theobald, D.M. and N.T. Hobbs. 2002. A framework for evaluating land use planning alternatives: Protecting biodiversity on private land. *Conservation Ecology* 6(1): 5. [online] URL: <http://www.consecol.org/vol6/iss1/art5>
- 2001 Theobald, D.M. 2001. Land use dynamics beyond the American urban fringe. *Geographical Review* 91(3):544-564.
- Theobald, D.M. 2001. Topology revisited: Representing spatial relations. *International Journal of Geographical Information Science* 15(8):689-705.
- 2000 Theobald, D.M. 2000. Correcting linear and perimeter measurement errors in raster-based data. *Cartography and Geographic Information Science* 27(2):111-116.
- Baron, J.S., D.M. Theobald, and D.B. Fagre. 2000. Management of land use conflicts in the United States Rocky Mountains. *Mountain Research and Development* 20(1): 24-27.
- Theobald, D.M., N.T. Hobbs, T. Bearly, J. Zack, T. Shenk, and W.E. Riebsame. 2000. Incorporating biological information into local land-use decision making: Designing a system for conservation planning. *Landscape Ecology* 15(1): 35-45.
- 1998 Theobald, D.M. and N.T. Hobbs. 1998. Forecasting rural land use change: A comparison of regression- and spatial transition-based models. *Geographical & Environmental Modelling* 2(1): 65-82.
- 1997 Theobald, D.M., J.M. Miller and N.T. Hobbs. 1997. Estimating the cumulative effects of development on wildlife habitat. *Landscape and Urban Planning* 39(1): 25-36.

- 1996 Riebsame, W.E., H. Gosnell and D.M. Theobald. 1996. Land use and landscape change in the Colorado mountains I: Theory, scale, and pattern. *Mountain Research and Development* 16(4): 395-405.
- Theobald, D.M., H. Gosnell, and W.E. Riebsame. 1996. Land use and landscape change in the Colorado mountains II: A case study of the East River Valley, Colorado. *Mountain Research and Development* 16(4): 407-418.
- 1995 Theobald, D.M., S.H. Huntsman, and J.R. Supra, Jr. 1995. World System Simulation: A generational perspective on global systems. *Simulation & Gaming* 26: 249-260.
- 1994 Theobald, D.M. and M.D. Gross. 1994. EML: A modeling environment for exploring landscape dynamics. *Computers, Environment and Urban Systems* 18: 193-204.

Books

- 2003 Theobald, D.M. 2003. *GIS Concepts and ArcGIS Methods*. Conservation Planning Technologies: Fort Collins, CO.
- 1999 Theobald, D.M. 1999. *GIS Concepts and ArcView Methods*. Conservation Planning Technologies: Fort Collins, CO.
- 1997 Riebsame, W.E., H. Gosnell, and D.M. Theobald (eds). 1997. *Atlas of the New West: Portrait of a Changing Region*. New York: Norton Press.

Book Chapters (*refereed)

- 2003 Theobald, D.M. 2003. Connected landscapes. Pages 65-68, M. Licker, editor. *Yearbook of Science & Technology*. New York, NY: McGraw-Hill.
- 2003 Theobald, D.M. and N.T. Hobbs. 2002. Collaborative development of a conservation planning system: A case study of Summit County, Colorado. In: *Rocky Mountain Futures*, J. Baron (ed.). Island Press, Washington, DC. Pgs. 255-268.
- Travis, W.E., D.M. Theobald, and D. Fagre. 2002. Transforming the Rockies: Human forces, settlement patterns, and ecosystem effects. In: *Rocky Mountain Futures*, J. Baron (ed.), Island Press, Washington, DC. Pgs. 1-24.
- Sullins, M.J., D.M. Theobald, J.R. Jones, and L.M. Burgess. 2002. The lay of the land: ranch land and ranching. In: *Culture, Economics, and Ecology of Ranching West of the 100th Meridian*, R. Knight, W. Gilgert, and E. Marston, editors. Island Press. Pgs. 25-32.
- 2001 Hobbs, N.T. and D.M. Theobald. 2001. Effects of land-use change on wildlife habitat: Applying ecological principles and guidelines in the Western United States. In *Applying Ecological Principles to Land Management*, V.H. Dale and R. Haeuber, editors. Springer-Verlag
- *Theobald, D.M. and N. T. Hobbs. 2001. Functional definition of landscape structure using a gradient-based approach. In *Predicting Plant and Animal Occurrences: Issues of Scale and Accuracy*, edited by J.M. Scott, P.J. Heglund, M. Morrison, M. Raphael, J. Haufler, and B. Wall. Island Press, Covello, CA. Pgs. 667-672.
- *Miller, J.R., J.M. Fraterrigo, N.T. Hobbs, D.M. Theobald, and J.A. Wiens. 2001. Urbanization, avian communities, and landscape ecology. In *Avian Ecology in an Urbanizing World*. J.M. Marzluff, R. Bowman, and R. Donnelly (eds). Kluwer, New York. Pgs. 113-137.

- 2000 *Theobald, D.M. 2000. Fragmentation by inholdings and exurban development. In *Forest fragmentation in the southern Rocky Mountains*, R.L. Knight, F.W. Smith, S.W. Buskirk, W.H. Romme, and W.L. Baker, editors. University Press of Colorado: Boulder, Colorado. Pgs. 155-174.
- 1989 Theobald, D.M. 1989. Accuracy and bias issues in surface representation. In *The Accuracy of Spatial Databases*, M.F. Goodchild and S. Gopal eds., pp. 99-106. Bristol, PA: Taylor & Francis.
- Conference Proceedings, Technical Reports, Databases, and Programs**
- 2004 Newman, P. and D.M. Theobald. 2004. *Building capacity in the Consortium for Protected Areas Management: Training Latin American park managers and the trainers that train them*. Report to CIPAM, USFS. 20 January.
- 2003 Hobbs, N.T., J.S. Baron, S. Cooney, D.J. Cooper, J.E. Dickens, H. Galbraith, A.P. Covich, J.B. Loomis, E. Martinson, D. Ojima, R.D. Scherer, D.M. Theobald, G. Wang, S.A. Weiler. 2003. Future impacts of global climate on Rocky Mountain National Park: Its ecosystems, visitors, and the economy of its gateway community – Estes Park. EPA STAR Final Report. http://www.nrel.colostate.edu/projects/star/papers/2003_final_report.pdf
- Theobald, D.M. *Defining and mapping rural sprawl: Examples from the Northwest US*. Growth Management Leadership Alliance white paper. 16 September 2003.
- Theobald, D.M. 2003. *Regional growth and development maps for Colorado*. Colorado Natural Diversity Information Source [<http://ndis.nrel.colostate.edu/conservationcnty.asp?reg=nfr>]
- Kotliar, N.B., S. Simonson, G. Chong, and D. Theobald. 2003. *Effects on species of concern*. RMRS-GTR-114-5, part 8: Hayman Fire Pgs. 250-262.
- Theobald, D.M., N. Peterson, and W. Romme. 2003. *The Colorado Vegetation Model: Using National Land Cover Data and Ancillary Spatial Data to Produce a High Resolution, Fine-Classification Map of Colorado (v1.0)*. 29 April. Unpublished report, Natural Resource Ecology Lab, Colorado State University. Report and database available at: www.ndis.nrel.colostate.edu/davet/cvm.htm.
- 2002 Kotliar, N.B., S. Simonson, G. Chong, and D. Theobald. 2002. *Evaluating the effects of the Hayman fire on species of concern*. Report to the USFS Hayman Fire Science Review Team. October 16.
- Theobald, D.M. 2002. Modeling functional landscape connectivity. Proceedings of the ESRI User Conference 2002. San Diego, CA. July 11. (<http://gis.esri.com/library/userconf/proc02/pap1109/P1109.HTM>)
- Theobald, D.M. 2002. Landscape Connectivity Model extension, v0.5. Unpublished report, Natural Resource Ecology Lab, Colorado State University. 31 March.
- Theobald, D.M. and M. Kneeland. 2002. Mapping housing density for prioritization of urban/forest wildfire hazards in Colorado. Unpublished report, Natural Resource Ecology Lab, Colorado State University. 28 February. Pgs. 9.
- Theobald, D.M. and W. Romme. 2002. Mapping forest vegetation for prioritization of urban/forest wildfire hazards in Colorado. Unpublished report, Natural Resource Ecology Lab, Colorado State University. 28 February. Pgs. 8.

2001

Theobald, D.M., D. Schrupp, and L. O'Brien. 2001. *A method to assess risk of habitat loss to development: A Colorado case study*. USGS-BRD Gap Analysis Program Bulletin 10. URL: <<http://www.gap.uidaho.edu/Bulletins/10/bulletin10.htm>>

Theobald, D.M. 2001. *Modeling impacts of growth on Colorado riparian areas*. Proceedings of the Colorado Riparian Association annual meeting. Glenwood Springs, CO. 4 October.

Theobald, D.M. 2001. *Documentation of methods to produce factor maps for the Lower Gunnison Basin Conservation Lands Inventory*. Report for the Delta Soil Conservation District, Colorado. 24 August. 4 pgs.

Mapping the Forest-Development Fringe in Colorado. Unpublished report. Natural Resource Ecology Lab, Colorado State University. 18 July.

Theobald, D.M., D. Schrupp, and L. O'Brien. 2001. *Assessing risk of habitat loss due to private land development in Colorado*. Final report for Cooperative Agreement No. 00HQAG0010, USGS-BRD Gap Analysis Program. 29 June. 62 pages.

Neely, B., G. Bell, P. Comer, H. Copeland, J. Humke, M. Lammert, C. Moritz, C. Pague, R. Rondeau, T. Schulz, S. Spackman, D. Theobald, and L. Valutis. 2001. *Southern Rocky Mountains: An Ecoregional Assessment and Conservation Blueprint*. The Nature Conservancy. September.

Theobald, D.M. 2001. *Dealing with sensitive data: A report and a request*. Society for Conservation GIS e-newsletter 1(2). June 2001. URL: http://www.scgis.org/newsletters/v1_v2/scgis_news_1_2_revised.html

Theobald, D.M. 2001. *Technical description of mapping historical, current, and future housing densities in the US using Census block-groups*. Natural Resource Ecology Lab, Colorado State University. 31 May. http://www.ndis.nrel.colostate.edu/davet/dev_patterns.htm

Theobald, D.M. 2001. *Quantitative measures of the urban-rural gradient*. Annual meeting of the International Association of Landscape Ecology. Phoenix, AZ. April 27.

Theobald, D.M. 2001. Understanding topology and shapefiles. *ArcUser* (Spring): 24-26. <http://www.esri.com/news/arcuser/0401/topo.html>

Theobald, D.M. *ISITES v1.0: Interactive file creation for SITES (ArcView extension)*. Natural Resource Ecology Lab, Colorado State University. 14 March.

2000

Theobald, D.M. Letter to Commissioner Don Ament, Colorado Department of Agriculture. 25 October.

Weiler, S. and D.M. Theobald. *Pioneers of rural sprawl* (presentation). *Regional Science Association*.

Theobald, D.M. and N.T. Hobbs. 2000. *A comparison of databases for modeling rural land use change* (extended abstract). Proceedings of the 4th International Conference on Integrating GIS and Environmental Modeling: Problems, Prospects and Research Needs. Banff, Alberta, Canada. September 2-8. (<http://www.colorado.edu/research/cires/banff/upload/45/>).

Hobbs, N.T., D. Ojima, J. Loomis, S. Weiler, D.M. Theobald, A.P. Covich, H. Galbraith, J.S. Baron, T.J. Stohlgren, and M.B. Coughenour. 2000. *An integrated assessment of the effects of climate change on Rocky Mountain National Park and its gateway community*:

- Summary report of the preliminary assessment and initial stakeholder meeting.*
Unpublished report, Natural Resource Ecology Lab, Colorado State University.
- Theobald, D.M. 2000. *Description of a build-out analysis and potential effects on wildlife habitat in the Lower Blue Planning Basin, Summit County, Colorado.* 9 June. 14 pgs. (<http://www.ndis.nrel.colostate.edu/davet/pubs/build-out.htm>).
- Theobald, D.M. 2000. *Developing conservation priorities for Lower Gunnison riparian areas using multi-criteria evaluation.* Report for the Delta Soil Conservation District, Colorado. 10 May. 10 pgs.
- Theobald, D.M. 2000. *Proposed Fragmentation Indicator for Principle ER-4 (Wildlife Habitat Protection) for the Larimer County Master Plan, Monitoring and Evaluation Report.* 7 June. 2 pgs. (<http://ndis.nrel.colostate.edu/davet/pubs/frag-indicator.htm>).
- Theobald, D.M. 2000. *Colorado State Forest Service Forest Ag Assessment Pilot Project.* Final report to Colorado State Forest Service. 21 April.
- 1999 Theobald, D.M., G. Wockner, and N.T. Hobbs. 1999. *The Colorado Land Stewardship Mapping Project: Methodology and recommendations from a prototype of Larimer County.* Final report to Great Outdoors Colorado Trust Fund. 35 pgs. (<http://ndis.nrel.colostate.edu/davet/clsm/cover.htm>)
- Theobald, D.M. 1999. AVPrimed! Extension for ArcView. ESRI ArcScripts. November 13. (<http://gis.esri.com/arcscripsts/details.cfm?CFGRIDKEY=-1214067607>).
- Theobald, D.M. 1999. *Trends and patterns of agricultural land loss in Mesa County, Colorado.* Final report for the American Farmland Trust, Rocky Mountain Field Office. September 4.
- Theobald, D.M., C.S. Johnson, J.A. Zack, T. Bearly, and N.T. Hobbs. 1999. *Tangled in the web: Procedures for managing web-based projects.* Proceedings of the ESRI Users Conference, San Diego, CA. July 28. (<http://gis.esri.com/library/userconf/proc99/proceed/papers/pap681/P681.HTM>)
- Theobald, D.M. and N.T. Hobbs. 1999. *Calculating landscape fragmentation using a gradient-based approach.* Proceedings of the ESRI Users Conference, San Diego, CA. July 28. (<http://gis.esri.com/library/userconf/proc99/proceed/papers/pap141/p141.htm>).
- Theobald, D.M. 1999. *Mooovement calculator v1.0.* Unpublished Avenue program. Natural Resource Ecology Lab, Colorado State University. April.
- 1998 Theobald, D.M. 1998. *A visual programming environment for spatial modeling: The ArcView Spatial Modeler extension.* Proceedings of the ESRI User Conference '98, San Diego, CA. (<http://gis.esri.com/library/userconf/proc98/PROCEED/TO150/PAP101/P101.HTM>)
- Bearly, T., D.M. Theobald, N.T. Hobbs, and J.A. Zack. 1998. *Disseminating natural diversity information using ArcView IMS: Design issues and technical considerations.* Proceedings of the ESRI User Conference '98. (<http://gis.esri.com/library/userconf/proc98/PROCEED/TO200/PAP184/P184.HTM>)
- Hobbs, N.T. and D.M. Theobald. 1998. *Effects of Population Growth on Wildlife Habitat in Colorado.* Briefing Paper, Colorado Division of Wildlife.
- 1997 Hobbs, N.T. and D.M. Theobald. 1997. *Description of Important Wildlife Habitat Map.* Larimer County, Colorado, Master Plan.

- Hobbs, N.T., D.M. Theobald, J.A. Zack, T.L. Bearly, W.E. Riebsame, and T. Shenk. 1997. *Forecasting Impacts of Land Use Change on Wildlife Habitat: Collaborative Development of an Interactive GIS for Conservation Planning*. Natural Resource Ecology Laboratory, Colorado State University. (<http://ndis.nrel.colostate.edu/scop/SCoPwww.html>)
- Bearly, T., N.T. Hobbs, D.M. Theobald, T. Shenk, J. Zack. 1997. User's Manual (v1.0b): *SCoP: System for Conservation Planning - Summit County*. Natural Resource Ecology Laboratory, Colorado State University.
- 1994 Supra, J.R., Jr., S.H. Huntsman, D.M. Theobald, and J.O. Bennett. 1994. *A Modeling Approach To Quantitative Literacy*. Proceedings of the Seventh Annual International Conference on Technology in Collegiate Mathematics. Orlando, FL, November 18-21, 1994.
- Supra, J.H., Jr., S.H. Huntsman, and D.M. Theobald. 1994. *A Modeling Approach to Quantitative Literacy*. 245 p.
- 1993 Bennett, J.O., J.R. Supra, Jr., C.A. Morrow, S.H. Huntsman, and D.M. Theobald. 1993. *Quantitative Literacy: An Alternative Course in College Mathematics*. Proceedings of the Sixth Annual International Conference on Technology in Collegiate Mathematics, Parsippany, NJ.
- 1992 Theobald, D.M. 1992. *Designing GIS User Interfaces to Support Environmental Learning*. Research Initiative 13: Report on the Specialist Meeting - User Interfaces for Geographic Information Systems, Mark, D.M. and Frank, A.U., eds., NCGIA Technical Report 92-3. pp. 161-163.
- 1991 Edwards, J.B. and D.M. Theobald. 1991. *CD-ROM Acceptance Increasing for Global Change Models*. GIS World 4(9): 85-86.
- Fulp, T., D.M. Theobald, B. Williams, and B. Vickers. 1991. Decision Support of Colorado River Operations. *Proceedings of WaterPower '91*. Denver, CO. July 1991.
- 1990 Theobald, D.M. and M.F. Goodchild. 1990. *Artifacts of TIN-based Surface Flow Modeling*. Proceedings of GIS/LIS '90, Anaheim, CA.
- 1989 Davis, F., D.M. Theobald, R. Harrington, and A. Parikh. 1989. *Part 2: Technical Report on Hydrology and Water Quality of West and Storke Campus Wetlands: A Report to the California Coastal Conservancy and UCSB Campus Wetlands Committee*.

PRESENTATIONS (*INVITED)

- 2003 *Theobald, D.M. 2003. *Protected landscapes of the West: What are we protecting, and what are we protecting them from?* Department of Forest, Range, and Watershed Stewardship seminar. Colorado State University. 16 October.
- *Theobald, D.M. 2003. *Landscape metrics based on hydrologic networks and hydrologically-weighted distances*. Western Ecology Division, US Environmental Protection Agency. Corvallis, Oregon. 13 August.
- *Theobald, D.M. 2003. *Rural sprawl in the northwest and ecological effects*. Fourth Greater Northwest Retreat for Smart Growth Advocacy Organizations. Tacoma, Washington. 18 July.

*Theobald, D.M. 2003. *Evaluating land use planning alternatives on private lands -- The interface between land-use planning and biodiversity protection*. Society for Conservation Biology Annual Meeting, Duluth, MN. 29 June.

Ferraz, S.F.B, D.M. Theobald, and C.A. Vettorazzi. 2003. *Spatial and temporal changes in landscape structure in central Rondonia (Brazilian Amazon): Implications for species conservation (poster)*. Society for Conservation Biology Annual Meeting, MN. 30 June.

Newman, P. and D. Theobald. 2003. *Procesos y recomendaciones de manejo del Chocoyero y El Brujo parques (in Spanish)*. Ticuantepe, Nicaragua. 15 June.

Newman, P. and D. Theobald. 2003. *A spatial analysis of human dimensions research: Integrating social, ecological, and managerial indicators of quality into carrying capacity decision-making in Yosemite National Park Wilderness*. USGS Interactions on the Society and Environment series, Fort Collins, CO. 2 May.

*Theobald, D.M. and M. Kneeland. 2003. *Hydrologic network metrics based on functional distance and stream discharge*. University of Colorado, Boulder. 23 April.

*Theobald, D.M. and M. Kneeland. 2003. *Hydrologic network metrics based on functional distance and stream discharge*. Department of Geography, University of Utah. 18 April.

Theobald, D.M. and M. Kneeland. 2003. *Hydrologic network metrics based on stream discharge*. US-International Association of Landscape Ecologists Annual meeting, Banff, Alberta. 3 April.

Ferraz, S.F.B, C.A. Vettorazzi, D.M. Theobald, and M.V. Ballester. 2003. *Incorporating temporal land use data in assessing deforestation impacts on water quality in Rondonia State, Brazil*. US-International Association of Landscape Ecologists Annual meeting, Banff, Alberta (poster). 2 April.

2002

*Theobald, D.M. 2002. *Understanding land use change in the Rocky Mountain West: Challenges and opportunities*. Keynote talk for Geography Awareness Week, University of Wyoming. 20 November.

Theobald, D.M. 2002. *Land use change along the Front Range*. NREL 35th Annual Symposium. 30 October.

*Theobald, D.M. 2002. *Land use and land cover change in the South Platte Basin*. South Platte Basin Integrated Assessment Workshop. Pingree Park, Colorado. 29 September.

Shenk, T.M., D.M. Theobald, G.C. White, and A.B. Franklin. *Movement patterns of lynx reintroduced to Colorado*. The Wildlife Society, Bismarck, ND. 24 September.

*Theobald, D.M. 2002. *The Challenge of Growth*. Workshop on Living with the Endangered Species Act in Colorado, CU Law Center, 19 September.

Theobald, D.M., V.H. Dale, N.T. Hobbs, J. Kline, B. Maxwell, and T. Spies. 2002. *Support for decisions about rural land use change*. Ecological Society of America, Tucson, Arizona. 5 August.

Brown, D.G., K.M. Johnson, T.R. Loveland, and D.M. Theobald. 2002. *Rural land use trends in the U.S., 1950-2000*. Ecological Society of America, Tucson, Arizona. 5 August.

- Manier, D.J., N.T. Hobbs, and D.M. Theobald. 2002. Fifty years of succession in semi-arid shrub communities: the effects of grazing and ungulate exclusion. Ecological Society of America, Tucson, Arizona. 9 August.
- Theobald, D.M. 2002. *Determining the needs of wide ranging species: Modeling functional landscape connectivity for lynx in the Southern Rocky Mountains (poster)*. The Nature Conservancy's All Conservancy Science Meeting, Albuquerque, NM. 2 May.
- Theobald, D.M. 2002. *Assessing land use impacts on conservation targets: Moving from vulnerability to risk*. US-International Association of Landscape Ecology, Lincoln, NE. 24 April.
- *Theobald, D.M. 2002. *Identifying resource areas sensitive to recreation use*. Colorado Outdoor Recreation Resource Project, Golden, CO. 8 March.
- 2001 *Theobald, D.M. 2001. *Growth and sprawl: land use dynamics beyond the urban fringe*. Demography and Ecology Seminar, University of Wisconsin, Madison. 13 November.
- *Theobald, D.M. 2001. *Effects of growth on riparian areas in Colorado*. Colorado Riparian Association meeting. 4 October. Glenwood Springs, CO.
- *Theobald, D.M. 2001. *Modeling functional landscape connectivity*. Mid-Atlantic Governors' Conference on Greenways, Blueways, and Green Infrastructure. 18 September. Washington, DC. <http://www.ndis.nrel.colostate.edu/davet/pubs/theobald-magc2001.pdf>
- Theobald, D.M. 2001. *Defining and measuring the urban-rural gradient*. Annual Meeting of the Ecological Society of America. August 10. Madison, WI.
- Manier, D., N.T. Hobbs, D.M. Theobald, R. Reich, and M. Campbell. 2001. *Landscape changes in the semi-arid steppe of western Colorado impacts on winter habitat of mule deer (*Odocoileus hemionus*)*. Annual meeting of the Ecological Society of America. Madison, WI. August.
- *Theobald, D.M. 2001. *Defining functional landscape fragmentation*. Department of EPO Biology and Boulder Chapter of the Society for Conservation Biology, University of Colorado. May 16, Boulder, CO.
- *Theobald, D.M. 2001. Scripps-Howard Institute on the Environment, School of Journalism and Mass Communication, University of Colorado. May 16, Boulder, CO.
- *Theobald, D.M. 2001. *Mapping sprawl: Beyond the urban fringe*. Department of Earth Resources, Colorado State University. March 26, Fort Collins, CO.
- *Theobald, D.M. 2001. *ISITES (Interface to SITES model)*. Washington Field Office, The Nature Conservancy. March 5, Seattle, WA.
- Theobald, D.M. 2001. *Quantifying urban and rural sprawl using the sprawl index*. Annual meeting of the Association of American Geographers. March 2, New York, NY. <http://www.ndis.nrel.colostate.edu/davet/pubs/aag2001-v2.htm>
- *Theobald, D.M. 2001. *Land use change and ecosystem simplification (Sponsored by the Ecological Society of America)*. Society for Range Management. February 19, Kona-Kailua, HI.
- *Theobald, D.M. 2001. *Modeling landscape fragmentation in the Southern Rocky Mountain Ecoregion*. Department of Geography, University of Colorado. January 23, Boulder, Colorado.

- 2000 *Theobald, D.M. 2000. *Forecasting land use change in Colorado*. Department of Geography, Denver University. November 2. Denver, Colorado.
- *Theobald, D.M. 2000. *Quantifying Watershed Changes in the West*. Colorado Lake and Reservoir Management Association, 4th Annual Fall Conference. October 4. Morrison, Colorado.
- *Theobald, D.M. 2000. *Rural Landscape Change in Colorado*. Changing Landscapes for Rural America. September 23. Mammoth Springs, MT.
- Theobald, D.M. 2000. *Using build-out scenarios to identify potential impacts of development on biodiversity*. Society for Conservation GIS, June 25. Borrego Springs, California.
- Theobald, D.M. 2000. *When you've got it but can't use it: Dealing with sensitive data*. Society for Conservation GIS, June 25. Borrego Springs, California.
- *Theobald, D.M. N. T. Hobbs, and G. Wockner. 2000. *An approach to estimate the impact of development on elk carrying capacity in Jackson Hole (invited)*. National Elk Refuge, January 21, 2000, Jackson Hole, Wyoming.
- 1999 *Theobald, D.M. 1999. *Topology in GIS: What it is, when you need it, and when you don't*. Colorado State University GIS Club.
- *Theobald, D.M. 1999. *Landscape changes due to development along the Colorado Front Range*. Geological Society of America Annual Conference, October 28, Denver, CO.
- Theobald, D.M. and N. T. Hobbs. 1999. *Functional definition of landscape structure using a gradient-based approach (poster)*. Predicting Plant and Animal Occurrences: Issues of Scale and Accuracy, October 19-22, 1999, Snowbird, Utah.
- Shenk, T., D.M. Theobald, and N. T. Hobbs. 1999. *Use of fuzzy set theory to deal with error in spatial databases: A comparison at two resolutions*. Predicting Plant and Animal Occurrences: Issues of Scale and Accuracy, October 19-22, 1999, Snowbird, Utah.
- *Hobbs, N.T. and D.M. Theobald. 1999. *The Natural Diversity Information Source: Stakeholder Design for Decision Support*. ESRI Southwest Users Group meeting, October 13th.
- Theobald, D.M., G. Wockner, N.T. Hobbs. 1999. *The Colorado Land Stewardship Mapping Project*. ESRI Southwest Users Group meeting, October 13th.
- *Theobald, D.M. 1999. *Land use change and conservation planning in Colorado*. Department of Geography, University of Colorado, Boulder. October 8th.
- *Theobald, D.M. and N.T. Hobbs. 1999. *Understanding the consequences of development on habitat in Colorado*. Joint BRD/GD Scientific Research Workshop, August 17.
- Theobald, D.M. and N.T. Hobbs. 1999. *A method to portray patch networks based on allometric scaling of animal movements*. Presented at the International Association of Landscape Ecology Annual Meeting, Snowmass, CO. July 30.
- Theobald, D.M., E.A. Odell, and R.L. Knight. 1999. *Development trends and loss of habitat in Pitkin County, Colorado (poster)*. Presented at the International Association of

Landscape Ecology Annual Meeting, Snowmass, CO. July 30.
(http://www.nrel.colostate.edu:8080/~davet/pitkin/pitkin_paper.htm)

Theobald, D.M. 1999. *Wildlife habitat in GIS*. Poudre School District GIS Camp, Fort Collins, CO. June 7.

*Theobald, D.M. 1999. *Forecasting the impacts of development on habitat in Colorado: GIS models of development patterns*. Presented at the Colorado Field Office of The Nature Conservancy, Boulder, CO. May 3.

*Theobald, D.M. 1999. *Modeling Rural Land Use Change using GIS*. Presented at the Natural Resource and Agricultural Economics Seminar Series, Colorado State University. April 28.

*Theobald, D.M. 1999. *Biological Information for Local Planning: The Natural Diversity Information Source*. Presented at the Poudre Canyon Group of the Sierra Club, Fort Collins, CO. April 21.

Theobald, D.M. 1999. *Estimating fragmentation using a functional definition of a patch (illustrated poster)*. Presented at the Association of American Geographers '99, Honolulu, HI. March 25.

*Theobald, D.M. 1999. *Rural Sprawl: Development Patterns and Trends in the Rocky Mountain West*. 2001: A Space for Wildlife Odyssey -- A Symposium on Living in the Western Landscape. Bozeman, Montana. March 8-10.

*Theobald, D.M. and N.T. Hobbs, 1999. *Effect of land use change on wildlife habitat*. American Association for the Advancement of Science Annual Meeting. Anaheim, CA. January 25.

1998 *Theobald, D.M. 1998. *Local land use mapping and decision making*. USDA Coordinating Committee WCC-84 (Community, Institutional Change, and Population). Colorado State University. 9 December.

*Theobald, D.M. 1998. *Using GIS to support conservation planning*. Department of Natural Resource Planning and Interpretation, Humboldt State University. March 27.

Theobald, D.M., N.T. Hobbs, D. Schrupp, and L. O'Brien. 1998. *An Assessment of Imperiled Habitat in Colorado (poster)*. Annual Meeting of International Association for Landscape Ecology, East Lansing, MI. March 17.
(http://www.nrel.colostate.edu:8080/~davet/co_assess/assessment.htm)

Hobbs, T. and D.M. Theobald. 1998. *A System for Conservation Planning: Stakeholder Design for Decision Support*. The US Meeting of the International Association for Landscape Ecology, East Lansing, Michigan. March 17-21.

*Theobald, D.M. 1998. *Land Use Change and Conservation Planning in the Rocky Mountain West*. Department of Geography, University of New Mexico. February 23.

*Theobald, D.M. 1998. *Tools for Measuring Habitat Fragmentation*. The Colorado Chapter of The Wildlife Society Annual Meeting, Grand Junction, Colorado. January 22.

1997 *Theobald, D.M. 1997. *Land Use Change in the Rocky Mountain West*. Wirth Forum on Growth, Sustainability, and the Future of the West, University of Colorado, Boulder. November 14-15.

- *Theobald, D.M. 1997. *Fragmentation by Inholdings and Exurban Development*. Forest Fragmentation in the Central Rocky Mountains Workshop, Colorado State University. November 12-13. (<http://www.nrel.colostate.edu:8080/~davet/fragmentation.html>).
- Hobbs, N.T., and D.M. Theobald. 1997. *Land use change and its influence on ungulate winter range surrounding Rocky Mountain National Park*. The Wildlife Society 1997 Annual Conference, Snowmass, Colorado.
- Shenk, T.M., N.T. Hobbs, and D.M. Theobald. 1997. *Estimating the accuracy of Landsat TM vegetation classifications using fuzzy logic: A case study (poster)*. The Wildlife Society 1997 Annual Conference, Snowmass, Colorado.
- *Theobald, D.M. 1997. *Development and Land Use: Colorado Case Studies*. Human-induced Environmental Change in the Rocky Mountains Workshop, Flathead Biological Station, University of Montana. September 18.
- Shenk, T.M., N.T. Hobbs, and D.M. Theobald. 1997. *Use of fuzzy set theory to deal with error in spatial databases: a case study (poster)*. Annual Meeting of the Ecological Society of America. Albuquerque, New Mexico.
- Theobald, D.M. 1997. *Protecting Wildlife Habitat as Cities Grow: Conservation Biology Principles and Guidelines for Collaboration*. 1997 American Planning Association National Planning Conference. San Diego, CA. April 7th.
- Theobald, D.M. 1997. *Forecasting Rural Land Use Change: An Evaluation of Approaches (poster)*. 12th Annual Symposium of the US-International Association for Landscape Ecology, Durham, North Carolina. March 16-19.
- Hobbs, N.T., D.M. Theobald, J.A. Zack, T.L. Bearly, T. Shenk, and W.E. Riebsame. 1997. *Collaborative Design of Information Systems for Conservation Planning*. 12th Annual Symposium of the US-International Association for Landscape Ecology, Durham, North Carolina. March 16-19.
- Miller, J.R., D.M. Theobald, and N.T. Hobbs. 1997. *Characterization of Urban-Rural Gradients and Effects on Avian Assemblages (poster)*. 12th Annual Symposium of the US-International Association for Landscape Ecology, Durham, North Carolina. March 16-19.
- 1996 Theobald, D.M., N.T. Hobbs, and W.E. Riebsame. 1996. *Forecasting the Effects of Land Use Change on Wildlife Habitat in Summit County, Colorado*. The Sixth International Symposium on Society and Resource Management. State College, Pennsylvania. May 18-23.
- *Theobald, D.M. 1996. *Conserving Wildlife Habitat at the Urban/Rural Interface: The SCoP (A System for Conservation Planning) Project*. Natural Resources Week Symposium, Utah State University, Logan, Utah. April 17-19.
- 1994 Riebsame, W.E., D.M. Theobald, and H. Gosnell. 1994. *The Social Ecology of Mountain Valley Development in Colorado (poster)*. Fifth International Symposium on Society and Resource Management, Fort Collins, CO. June 7-10, 1994.
- Theobald, D.M. 1994. *Integration of GIS, Systems Dynamics, and Cellular Automata Modeling Techniques*. Presented at the Association of American Geographers '94, San Francisco, CA.

- 1993 Theobald, D.M. 1993. *A Visual Object-Oriented Modeling Environment for Exploring Landscape Dynamics (poster)*. Second International Conference/Workshop on Integrating Geographic Information Systems and Environmental Modeling. Breckenridge, CO. September 26-30, 1993.
- Theobald, D.M. 1993. *A Systems Approach to Environmental Sustainability*. Presented at the Association of American Geographers '93. Atlanta, GA.

HONORS, AWARDS, CERTIFICATIONS

- 2003 Human subjects research protection training
- 2002 *Nominated for Biodiversity Leadership Award*, Bay and Paul Foundations
- 2001 *Exceptional Service Award*, Graduate Discovery Internship Program of the College of Agricultural Sciences, Colorado State University
- 2000 The Nature Conservancy's *David H. Smith Fellowship* in Conservation Research
- 2000 ESRI's User Conference 2000, Avenue Applications 3rd place for *AVPrimed!*
- 1997 *Outstanding Post-Doctoral Fellow*, Natural Resources Ecology Laboratory, Colorado State University

CONFERENCE ACTIVITIES

- 2001 Theobald, D.M. 2001. *Workshop: making conservation science hit the ground (organizer)*. Annual Meeting of the Ecological Society of America. August 5. Madison, WI.

PROFESSIONAL ACTIVITIES

Courses

- 2003 Fall NR420 Ecosystem Management (w/Knight)
RR442 Tourism Planning (Donnelly, GIS component by Theobald)
LA361 Digital Methods (Hellmund, GIS component by Theobald)
- 2003 Spring RR480 Spatial Analysis of Protected Areas
- 2002 Fall NR420 Ecosystem Management (w/ Knight)
- 2002 Spring RR480 Spatial Analysis of Protected Areas
- 2001 Fall NR580 Applications in Landscape Ecology (w/ Noon)
- 1993-1994 Instructor, Department of Geography, University of Colorado, Boulder
Maps and Mapping, Summer 1993, Spring 1994, and Summer 1994

Short-courses

- 2003 Introduction to ArcGIS (short course), January 14-15, 2003
- 2000 Advanced ArcView (short course), January 13-14, 2000
Introduction to ArcView (short course), January 10-11, 2000
Colorado State Forest's Introduction to ArcView (short course), January 5-7, 2000

- 1999 Advanced ArcView (short course), May 20-21, 1999
Introduction to ArcView (short course), May 17-18, 1999
Advanced ArcView (short course), January 14-15, 1999
Introduction to ArcView (short course), January 10-11, 1999
Introduction to ArcView (short course), January 7-8, 1999
- 1998 Introduction to ArcView (short course), May, 1998

Employment - Professional/Consulting

- 1991-1992 Geographic Information Systems Designer, EarthInfo, Inc. Boulder, CO. October 1991 to May 1992. Wrote C programs to filter data, optimize retrieval on CD-ROM, and interface CD-ROM data with GIS packages.
- 1991 Hypermedia Designer, Consultant to OptiLearn, Stevens Point, WI. October 1991. Designed and developed user interface for accessing videodisk images.
Application Designer, Intelligent Decision Technologies, Boulder, CO, April to October 1991. Developed groundwater statistical analysis decision support system.
- 1987 Planning Technician, Larimer County Land Use Department, Fort Collins, CO. January 1987 to August 1987. Assisted in reviewing proposed developments and computer-assisted mapping of planning information.

SERVICE

Instructor

- 1998 NR592/EY592 Meta-Issues in GIS (with Laituri), Spring 1998
- 1997 EY592 Land Use Change: Human-Ecosys. Interactions (w/Ojima, Galvin), Spring 1997

Guest Lectures

- 2003 NR442 Land Use Planning, Fall 2003 (16 Oct). Spatial data in land use planning.
NR322 Intro to GIS, Fall 2003 (6 Oct). Mapping and modeling wildland-urban interface.
RR231 Parks and Protected Areas, Fall 2003 (12 Sept). Conservation biology in PPAs.
Integrated Range Management, Spring 2003 (2 May). GIS in range management.
NR322 Intro to GIS, Spring 2003. Mapping and modeling wildland-urban interface.
NR793 GIS Seminar, Spring 2003 (24 February). Topology revisited.
- 2002 EY592, Fall 2002 (22 Oct). Land cover data in landscape modeling.
NR493/793 GIS Seminar, Spring 2002 (28 Jan). Refining vulnerability using land use.
- 2001 NR420 Ecosystem Management, Fall 2001 (28 Sept). Fragmentation and corridors.
LA380 Ecology of Landscapes, Spring 2001 (19 March). Landscapes and GIS.
- 2000 LA380 Ecology of Landscapes, Spring 2000 (18 Apr). Landscapes and GIS.
NR422 GIS Applications, Spring 2000 (18 Apr). Customizing ArcView.
- 1999 Conservation Planning, Fall 1999 (28 September). EPO Biology (Univ. of Colorado).

- 1998 LA380 Ecology of Landscapes, Spring 1999 (20 Apr). Landscapes and GIS.
- 1998 NR440 Land Use Planning, Spring 1999 (8 February). Natural Diversity Information.
- 1998 FW371 Wildlife Mgmt. Tech., Fall 1998 (8 December). Assessing imperiled habitat.
- 1998 NR505 GIS, Fall 1998 (14 & 21 October). Avenue programming.
- GIS and Planning, Fall 1998 (6 October). College of Environmental Design (Univ. of Colorado).
- BZ526 Landscape Ecology, Fall 1998 (1 September). Land Use Change.
- 1997 NR505 Concepts in GIS, Fall 1997 (29 October). GIS programming.
- ER101 Introduction to Geography, Spring 1997 (7 February). The New West.
- 1996 NR505 Concepts in GIS, Fall 1996 (October 16). Conservation planning in a GIS.
- WB101 Wildlife Techniques, Fall 1996. SCoP GIS.

Student Committees (advisor)

- Ongoing* Joyce Acen (Coughenour), Ph.D. GDPE, Colorado State University
- Jess Behrens (Moore), M.S. Department of Bioagricultural Sciences and Pest Management.
- Brett Dickson (Noon), GDPE, Colorado State University
- Mark Drummond (Laituri), Earth Resources, Colorado State University
- Brad Eckert (Aukerman), *Using GIS to identify ROS Inconsistencies*, M.S. Department of Natural Resources, Recreation & Tourism, Colorado State University.
- Buffy Hastings (Knight), M.S. Department of Fishery & Wildlife Biology, CSU
- Pamela Kaval (Loomis), *Analysis of Public Perspectives of Wild and Prescribed Fires in Colorado*. Ph.D., GDPE, Colorado State University
- Nathan Korb (Romme), M.S. Department of Forest, Rangeland, and Watershed Stewardship, CSU.
- Stacy Lynn (Swift), *Assessment of pastoral-wildlife-agricultural interface in the Tarangire-Manyara Ecosystem, Tanzania*, Ph.D. GDPE, Colorado State University
- Lee O'Brien (Theobald w/Wiens), *Depicting uncertainty in wildlife habitat suitability models using Bayesian inference and expert opinion*, GDPE, Colorado State University
- Melissa Miller (Hobbs), MS, GDPE, Colorado State University
- DeAna Naseth (Peters), PhD, GDPE, Colorado State University
- Rud Platt (Veblen), PhD, Geography, University of Colorado
- Kerri Poore (Wallace), *Building bridges*. M.A. Department of Natural Resource Recreation and Tourism, Colorado State University.
- Erin Poston (Theobald w/Laituri), PhD, Geosciences, Colorado State University
- 2003 David Bower (Knight), Undergraduate Honors Thesis, Fishery and Wildlife Biology, CSU
- Siobhan Everson-Stewart (Breidt), Statistics, Colorado State University

- Alicia Johnson (Breidt), Statistics, Colorado State University
 Jen Valiulis (Wiens), M.S. Department of Biology, Colorado State University
 2002 Jeff Rulli (Wallace), *GIS mapping for building bridges*. M.A. Department of Natural Resource Recreation and Tourism, Colorado State University.
 Susie Geer (Dean), M.S. Department of Forest Sciences, Colorado State University.
 2001 Kevin Petrik (Buttenfield), *Internet-based Geographic Information Services in College Classrooms*, M.A. Department of Geography, University of Colorado, Boulder.
 1999 Sonya Le Febre (Woodmansee), *Creating a management assessment for residual land*. M.S. Department of Rangeland Ecosystem Science, Colorado State University.

Professional and Community Service

- 2003 - Executive and Technical Committee, *Linking Colorado's Landscape and Beyond* project
 2003 Career Forum panel, International Association of Landscape Ecologists, Banff, Canada
 2002- 2003 Hayman Fire Science Review Team, USDA National Forest Service
 2002 US-International Association for Landscape Ecology Symposium planning committee
 2001- Editorial board for Journal of Conservation GIS
 2001 Ecological Society of America Career Workshop
 2000 Colorado Open Land's Colorado Conservation GIS Committee
 1999-2000 Larimer County Master Plan Monitoring and Evaluation Project
 1998-2000 Poudre School District's Spatial Information Technologies and Geographic Education Partnership project
 1998-2000 Advisor to EPA's State of the Southern Rockies Ecosystem Report

University Service

- 2003- Center for Information Science and Technology Education Committee, CSU
 2002 Announcer, College of Natural Resources Fall 2002 graduation ceremony
 2001 Vice President for Research and Information Technology Task Force on Colleges of Agriculture and Natural Resources
 2000-2001 Dean's Geomatics/Biometrics Working Group, Colorado State University College of Natural Resources
 2000- Campus representative for ESRI (GIS software) technical help
 1999-2001 Colorado State University, committee for Graduate Degree Program in Geospatial Science
 CSU GIS Open House/GIS Day (organizer)
 1999-2000 Cooperative Extension County Information Service Office, Colorado State University
 1998 GISFORUM, a cross-campus technical GIS discussion group
 1996 Colorado State University, College of Natural Resources Career Forum

1993-1994 Graduate Student Committee Representative. Department of Geography, University of Colorado, Boulder

Natural Resource Ecology Lab Service

2002- Executive Committee

2002 Fall Seminar Series co-coordinator

Natural Resource, Recreation & Tourism Service

2002 Review of Geospatial Science curriculum

Parks and Protected Area search committee, Department of Natural Resources Recreation & Tourism

Reviews

Articles for: *Cartography and Geographic Information Science* (3); *Conservation Biology* (3); *Conservation Ecology* (3); *Ecological Applications* (2); *Environmental Monitoring and Assessment*; *Environmental Management*; *Geographical & Environmental Modeling*; *Geographical Review*; *Human Dimensions of Wildlife* (2); *Journal of Environmental Management*; *International Journal of Geographic Information Science* (2); *Landscape and Urban Planning*; *Landscape Ecology* (3); *Northeast Naturalist*; *Photogrammetric Engineering & Remote Sensing* (2); *Transactions in GIS*.

Proposals 9 (5 NSF).

Biodiversity Assessment for the Western Corn Belt Ecoregion, USDA National Agroforestry Center, Lincoln, NE, 2001; Intergovernmental Panel on Climate Change Report: *The Regional Impacts of Climate Change: An Assessment of Vulnerability*, 1997.

Various book chapters (5).

AFFILIATIONS

2000- Ecological Society of America, Society for Conservation Biology

1997-1998 American Planning Association

1997-2000 Society for Conservation GIS

1997-1999 Adjunct Professor, Department of Earth Resources, Colorado State University

1994- US-International Association for Landscape Ecology

1994 Visiting Scientist, Rocky Mountain Biological Laboratory, Crested Butte, Colorado

1989-2002 Association of American Geographers