

## Heather A. Sander

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### EDUCATION

**Ph.D., Conservation Biology**, University of Minnesota, Twin Cities, *in progress*

**Thesis:** What's it worth? Improving land use planning using spatial modelling and economic valuation of ecosystem service delivery

**Advisors:** Dr. Stephen Polasky and Dr. Steven M. Manson

**M.A., Geography**, University of New Orleans, New Orleans, Louisiana, 2004

**B.S., Wildlife and Fisheries Biology**, University of Massachusetts at Amherst, 1993

### RESEARCH EXPERIENCE

#### Research Assistantships

- 2008 *Research Assistant*, Department of Geography, University of Minnesota  
Research assistant for project geared towards the development of general tools to assist civic leaders and planners in efforts to employ smart growth long term planning principles
- 2008 *Research Assistant*, Department of Ecology, University of Minnesota  
Research assistant on a project involving mapping residential tree cover in the metropolitan St. Paul area and estimating the economic values of tree cover as capitalized in residential home sales prices.
- 2007-2008 *Research Assistant*, Department of Geography, University of Minnesota  
Research assistant on three projects, one centered on analyzing and improving the parcels dataset for the Minneapolis-Saint Paul seven county metropolitan area, a second using GIS technology to analyze global patterns of air pollution in cities, and a third using GIS technology to model global changes in ecosystem service delivery in the year 2030
- 2007 *Research Assistant*, Minnesota Population Center, University of Minnesota  
Research assistant on a project centered on analyzing and improving the parcels dataset for the Minneapolis-Saint Paul seven county metropolitan area
- 2007 *Research Assistant*, CAP – GIS Inventory to Inform Land-Use Development, Becker County, Minnesota  
Research assistant on GIS-based project to prioritize conservation, agriculture, and recreation land parcels in Becker County, Minnesota

- 2006 *Research Assistant*, Department of Geography, University of Minnesota  
Research assistant on GIS-based viewshed analysis project
- 2005-2006 *Research Assistant*, University of California, Santa Barbara  
Off-site research assistant for an NSF-funded interdisciplinary research  
coordination network on biodiversity conservation in dynamic landscapes
- 2004-2006 *Research Assistant*, Department of Applied Economics, University of Minnesota  
Research assistant on ecosystem service valuation project
- 2003 *Intern*, Pacific Biodiversity Institute, Winthrop WA  
Intern for projects related to GIS conservation prioritization of local wild lands  
for community planning, aerial photography-based vegetation classification of the  
Arizona Sonoran Desert National Monument, and local vegetation inventories

## PUBLICATIONS

- Sander, H.A., S. Polasky, and R.G. Haight. *In review*. The value of urban tree cover, a hedonic estimation of home sale prices in Ramsey and Dakota County, Minnesota, USA
- Sander, H.A., D. Ghosh, D. Van Riper, and S.M. Manson. *In revision*. How do you measure distance in spatial models? An example using open space valuation. *Environment and Planning B*.
- Manson, S.M.; H.A. Sander; D. Ghosh; J.M. Oakes; M.W. Orfield, Jr.; W.J. Craig; T.F. Luce Jr.; E. Myott, Jr.; and S. Sun. 2009. Parcel data for research and policy. *Geography Compass*. *Accepted – in press*.
- Sander, H.A. and S. Polasky. 2009. The value of views and open space: estimates from a hedonic pricing model for Ramsey County, Minnesota, USA. *Land Use Policy*. *Accepted – in press*.
- Sander, H.A. and S.M. Manson. 2007. Heights and locations of artificial structures in viewshed calculation: how close is close enough? *Landscape and Urban Planning* 82(4):257-270.

## CONFERENCE PRESENTATIONS

- Sander, H.A., S. Polasky, and R.G. Haight. 2008. Tree cover in a rapidly-urbanizing region: economic values and implications for policy. 55th Annual North American Meetings of the Regional Science Association International, Brooklyn, NY.
- Sander, H.A. and S. Polasky. 2008. The Impact of Parks, Trails, and Views on Residential Property Values: Estimates from a Hedonic Pricing Model for Ramsey County, Minnesota. Association of American Geographers Annual Meeting, Boston, MA.
- Marshall, J.D. (presenter), H.A. Sander, and S.M. Manson. 2007. Air Pollution and Urban Form: Evidence from Satellite Data. 5th WSEAS International Conference on Environment, Ecosystems, and Development. Puerto De La Cruz, Tenerife, Canary Islands, Spain.
- Sander, H.A. 2007. What's it worth? Improving the visibility of ecosystem services in local planning using spatial models and economic valuation techniques. Royal Geographic Society-Institute of British Geographers Annual International Conference 2007, London, U.K.

Sander, H.A. and S.M. Manson. 2007. Artificial structure locations and heights in viewshed calculation: how much accuracy is necessary? Association of American Geographers Annual Meeting, San Francisco, CA.

Sander, H.A. 2007. What's it worth? Improving land use planning through the modeling and economic valuation of ecosystem services. Conference and Annual Meeting of the Minnesota Society for Conservation Biology, Sandstone, MN.

## **GRANTS AND AWARDS**

2007 – 2008 Outstanding Graduate Student Award, University of Minnesota, Conservation Biology Program

2008 – 2009 University of Minnesota Doctoral Dissertation Fellowship

2008 – 2009 Resources for the Future Joseph L. Fisher Doctoral Dissertation Fellowship  
2007 Conservation Biology Travel Grant

2002 – 2004 University of New Orleans Full Graduate Dean's Scholarship

## **TEACHING EXPERIENCE**

### **Teaching Assistantships**

Spring, 2007 Biology 1001, Introductory Biology I: Evolutionary and Ecological Perspectives, University of Minnesota

Fall, 2006 Biology 3407/5407, Ecology, University of Minnesota

Spring, 2006 Biology 1001, Introductory Biology I: Evolutionary and Ecological Perspectives, University of Minnesota

### **Other Teaching Experience**

2000-2004 *Environmental Science and Biology Teacher*, Archbishop Rummel High School, Metairie, LA

1998-2000 *Biology, Physical Science, and Marine Biology Teacher*, St. Petersburg Catholic High School, St. Petersburg, FL

1997-1998 *WildScience Instructor*, Audubon Nature Institute, New Orleans, LA

1996-1997 *Integrated Science Teacher*, Sullivan Middle School, Lowell, MA

1995-1996 *Life, Earth, and Physical Science Teacher*, Riverside Military Academy, Gainesville, GA

## **PROFESSIONAL MEMBERSHIPS**

Association of American Geographers

Society for Conservation Biology

Society of Women Geographers, Student Member

## **JOURNAL REVIEWING**

2008 Landscape Ecology  
2008 Landscape Research

## **SERVICE**

2006–2007 *Seminar Coordinator*, Conservation Biology Program, University of Minnesota,  
Twin Cities  
2006–2007 *Volunteer Tutor*, IHM-Saint Luke's School, Saint Paul, MN  
2004-2005 *Science Fair Judge*, Monarchs in the Classroom Project, University of Minnesota,  
Twin Cities

## **REFERENCES**

**Steven M. Manson**, Associate Professor, Department of Geography, University of Minnesota,  
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**Stephen Polasky**, Fessler-Lampert Professor of Ecological/Environmental Economics,  
Department of Applied Economics, 337E Classroom Office Building, University of Minnesota,  
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*Currently on sabbatical at:*

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