

# Curriculum Vita

Mary V. Santelmann  
College of Earth, Ocean and Atmospheric Sciences  
104 CEOAS Administration Building  
Oregon State University, Corvallis, OR 97331-5506  
(541)737-1215  
[santelmm@oregonstate.edu](mailto:santelmm@oregonstate.edu)

## EDUCATION

1988 PhD in Ecology University of Minnesota, Minneapolis, MN  
Dissertation: The Ecology and Distribution of *Carex exilis*: An Experimental Approach  
Major Advisor: Dr. Eville Gorham  
1980 M.S. in Biology University of Michigan, Ann Arbor, MI  
1978 B.S. in Botany University of Minnesota, Minneapolis, MN

## PROFESSIONAL EXPERIENCE

2010-present Associate Professor, Senior Research, Department of Geosciences Oregon State University  
2005-present Director, Water Resources Graduate Program  
1996-2010 Assistant Professor, Senior Research; Department of Geosciences, Oregon State University  
1994-1996 Research associate; Department of Geosciences, Oregon State University  
1992-1996 Instructor; GEO324 (Biogeography), Department of Geosciences, Oregon State University  
1990-1991 Environmental consultant; atmospheric deposition research  
1984-1987 Teaching Assistant, University of Minnesota, Department of Ecology and Behavioral Biology  
1980-1984 Research Assistant, University of Minnesota, Department of Ecology and Behavioral Biology  
1980 Seasonal Interpretive Ranger, US NPS Grand Canyon NP, North Rim Unit  
1979 Teaching Assistant, University of Michigan, Rackham School of Graduate Studies, Department of Biological Sciences  
1979 Seasonal Interpretive Ranger, US NPS Grand Canyon NP, South Rim Unit  
1978 Tree Inspector, Dutch elm disease, City of St. Paul, MN, Forestry Dept.

## CURRENT RESEARCH INTERESTS

- 1) Ecosystem response to human land use and management practices; use of alternative future scenarios combined with diverse evaluative approaches
- 2) Environmental and anthropogenic influences on species composition and species richness in forest, agricultural, urban and wetland ecosystems, including effects of landscape composition and pattern on native biodiversity
- 3) Ecology and biogeochemistry of wetlands and riparian systems

## AWARDS & FELLOWSHIPS

2004-2006 Award for service and leadership as Treasurer for the US Regional Chapter of the International Association for Landscape Ecology

2002-2004 Award for service as Treasurer for the US Regional Chapter of the International Association for Landscape Ecology  
 1985-1986 Dissertation Fellowship, University of Minnesota  
 1984-1986 Alexander and Lydia Anderson Award, University of Minnesota  
 1984-1985 Carolyn Crosby Award, University of Minnesota  
 1984-1985 Nature Conservancy Research Grant  
 1984-1986 Dayton-Wilkie Award, University of Minnesota  
 1979-1980 Rackham Fellowship, University of Michigan, Ann Arbor

**GRANTS AWARDED**

<b>Duration</b>	<b>Title</b>	<b>Funding Source</b>	<b>Amount</b>
<b>2015</b>	Let's Talk About Water Event	NSF-CUAHSI	\$3000
<b>2015-2019</b>	Joint Venture: Climate Change Impacts on Coastal Riverscapes	USFS	\$56,000
<b>2013-2015</b>	JV Amendment II-Climate Change Effects on Coastal Draining Streams	USFS	\$26,500
<b>2013-2016</b>	Developing Alternatives to Plastic Mulch Phase II	USEPA	\$90000
<b>2012-2017</b>	Meeting National Needs for Hydrologists and Water Resource Engineers	NSF STEM Scholarship	\$413,995
<b>2012-2013</b>	Developing Alternatives to Plastic Mulch Phase I	USEPA	\$15000
<b>2011-2015</b>	JV Amendment I: Climate Change Effects on Coastal Draining Streams	USFS	\$46,500
<b>2010-2012</b>	Portland Vancouver Ultra-Ex****	NSF	\$200,000
<b>2010-2015</b>	Water Sustainability and Climate****	NSF	\$4,250,000
<b>2010-2015</b>	Joint Venture: Climate Change Effects on Coastal Draining Streams in Oregon	USFS	\$19,000
<b>2009-2011</b>	Vegetation and Soil Processes in Wet Prairie Wetlands	USGS	\$9,955
<b>2006-2007</b>	Collaborative learning towards sustainable agricultural landscapes in Muddy Creek Watershed, Oregon.	USGS and OSU Institute for Water and Watersheds	\$45,000
<b>2003-2005</b>	Attitudes toward water resource policy in Portland, OR.*	NSF Geography and Regional Science	\$8944
<b>2001-2003</b>	Sustaining Multiple Functions for Urban Wetlands DEB 0119783	NSF Biocomplexity in the Environment:	\$64,990
<b>1998-2001</b>	Developing Methods and Tools for Watershed Restoration **	NSF/EPA STAR Water/ Watersheds	\$809,993

<b>1996-2000</b>	Modeling Effects of Alternative Landscape Design and Management on Water Quality and Biodiversity in Midwest Agricultural Watersheds.	NSF/EPA STAR Water/ Watersheds Program	\$1,228,520
<b>1997-1998</b>	Biogeography, Biodiversity and Policy ***	Grant PNW 97-5096 from the US Forest Service	\$102,590
<p><b>These grants have brought in \$7.39 million dollars in external funds to OSU; of this total, over \$2.34 million has been under my personal direction as Principal Investigator or co-Principal Investigator. My grants have provided over \$600,000 in graduate student support, paid about \$100,000 in tuition, and generated over \$245,000 in indirect costs.</b></p>			

\* Served as Principal Investigator on this grant as advisor to co-PI doctoral student Kelli Larson

\*\*Served as Co-PI with John Bolte, Dept. of Biol. and Ecol. Engineering

\*\*\* Served as Co-PI with Gordon Matzke and A. Ross Keister

\*\*\*\* Senior collaborator on large interdisciplinary research team

## **TEACHING, ADVISING, AND OTHER ASSIGNMENTS**

### **Courses taught at OSU**

Biogeography (GEO 324), Plant Ecology (BOT 341), Plant Autecology (BOT 441/541), Graduate Seminar (GEO 507), Ecological Biogeography (GEO 539), Geography of Resource Use (GEO 420/520), GEO 505 Reading and Conference, WRP 524 Sociotechnical Aspects of Water Resources, WRP 505/507 Seminar and Journal Club, WRS 505/507 Seminar and Journal Club, WRE 505/507 Seminar and Journal Club, WRE 599 Multi-scale Hydrologic Modeling (with K. Vaché), WRP 523 Environmental Water Transactions (with Bruce Aylward), WRS 599 Field Methods in Aquatic Chemistry

### **Curriculum Development**

**1992** Revamped GEO 324 “Biogeography” with new lectures and text.

**2000** Revamped GEO 420/520 “Geography of Resource Use” with new lectures, text, and structure

**2002** Developed and taught as a graduate seminar course: “Place as an Integrator of Interdisciplinary Research”

**2004** Developed Distance Education version of Geo 324 “Biogeography”, taught in Fall 2004 and Spring 2005

**2005** Revamped BOT 341 “Plant Ecology” with new lectures, text, and structure

**2008** Revamped and taught WRP 524 Sociotechnical Aspects of Water Resources with new lectures and texts in Fall 2008 after team teaching course with Todd Jarvis in W 2008

**2011** Revamped and taught Sociotechnical Aspects of Water Resources with new laboratory field sessions.

**2012** Assisted in developing and teaching new special topics course Multi-scale Hydrologic Modeling delivered concurrently at PSU and OSU

**2012** Assisted in developing and teaching new course WRP 523 Environmental Water Transactions

**2014** Developed and taught new course in field methods in aquatic chemistry including field data collection, sample collection and analyses for major cations and anions.

**2015** Participated in development of curriculum for a joint educational programme in Water Cooperation and Peace Master's Level Degrees (WCP) to be delivered by UNESCO-IHE at Delft, the Netherlands, University of Peace in Costa Rica, and Oregon State University. Serving as member of the Joint Management Committee for the programme from the Oregon State University entity.

**2015** Developed new course in Writing in the Water Resources as part of the WCP joint programme. Assisted in development of course Working in Collaborative Groups with Lynette de Silva

### **Graduate Students**

**I have advised or have served on committees for the following students:**

<b>Student</b>	<b>Program</b>	<b>Role</b>	<b>Graduation</b>
Mary Barczak	MS Geography	Committee member	1996
Renee Davis	MS Fish. and Wildlife	Committee member	1997
Heather Rustigian	MS Geography	Co-major advisor	1999
Colette Coiner	MS Ag. & Res. Econ	Committee member	2000
Lori Slane	MS Geography	Co-major advisor	2001
Christina Lett	MS Geography	Major advisor	2002
Thomas Rodhouse	MS Geography	Committee member	2002
Dale Lindeman	MS Geography	Committee member	2003
Emily Larkin	MS Geography	Committee member	2004
Jennifer Larsen	MS Geography	Major advisor	2005
Mark Gascho Remp	MS Geography	Committee member	2005
Amber Wierck	MS Environmental Sci.	Major advisor	2005
Kristal Fesler	MS Geography	Committee member	2006
Rachel Schwindt	MS Geography	Major advisor	2006
Nathan Schaub	MS Geography	Major advisor	2007
Aaron Arthur	MS Geography	Co-major advisor	2007
Jon-Michael Bosley	MS Geography	Committee member	2006
Carla Stevens	MS Environmental Sci.	Committee member	2008

Barbara Wilson	PhD Botany	Committee member	1998
Jill Heaton	PhD Geography	Committee member	2001
Paul Adamus	PhD Fish. and Wildlife	Committee member	2002
Kellie Vaché	PhD Biol. & Ecol Eng.	Committee member	2002
France Lamy	PhD Biol. & Ecol Eng	Committee member	2002
Kelli Larson	PhD Geography	Major advisor	2004
Sarah Jovan	PhD Botany	Committee member	2005
Jason Alexander	PhD Botany	Committee member	2007
Kelly Clayton	MS Environmental Sci.	Major advisor	2008
Elise Ferrarese	MS Environmental Sci.	Major advisor	2008
Tyler Beemer	MS Environmental Sci	Committee member	2008
Stacy Polkowse	MS Environmental Sci.	Major advisor	2008
Kevin Hetherington	MS Environmental Sci.	Major advisor	2008
Marisa Sowles	MS WR Pol. & Mgmt.	Major advisor	2009
Andrew Schwartz	MS Environmental Sci.	Committee member	2010
Emily Mulford	MS Environmental Sci.	Committee member	2010
Tracy Kugler	PhD Geography	Major advisor	2011
Sara M. Taylor	MS Environmental Sci.	Major advisor	2011
Graysen Squeochs	MS WR Science	Committee member	2011
Andrew Neill	MS Environmental Sci.	Committee member	2012
Marc Bell	MS Environmental Sci.	Committee member	2012
Kristen Larson	MS Environmental Sci.	Committee member	2012
Julie Ryden	MS Environmental Sci.	Major advisor	2012
Mark Ingman	MS WR Pol. & Mgmt.	Major advisor	2012
Alison Doniger	MS WR Science	Major advisor	2012
Tucker Selko	MS WR Pol. & Mgmt.	Major advisor	2013
Rachel Lovellford	MS WR Science	Major advisor	2013
Maria Lewis	MS WR Pol. & Mgmt.	Major advisor	2013
Kelly Foley	MS WR Pol. & Mgmt.	Major advisor	2013
Adam Shapiro	MS Environmental Sci.	Committee member	2013
Jeffrey Dengel	MS WR Pol. & Mgmt.	Committee member	2013
Hayley Corson-Rikert	MS WR Science	Co-major advisor	2014
Malia Losordo	MS WR Science/J.D.	Major advisor	2016 (anticipated)
Alessandra Harewood	MS WR Science	Major advisor	2015
Brett Boisjolie	MS WR Pol. & Mgmt.	Major advisor	2016 (anticipated)
Hayley Carlson	MS WR Pol. & Mgmt.	Major advisor	2016 (anticipated)
Megan Chellew	MS Geography	Major advisor	2017 (anticipated)
Kathryn Perlman	MS Geography	Major advisor	2017 (anticipated)

### Undergraduate thesis advisor

I advised OSU undergraduate Joshua Mater in his senior thesis project for the International Studies in Geography major. The project was entitled “Forest Certification as a Tool to Achieve Sustainable Forestry in the International Market: Contrasts between Japan and the United States”.

### PROPOSALS SUBMITTED as PI or Co-PI

Funding Agency	Proposal Title	Status	Submitted	Requested Amount
CUASHI	Let’s Talk about Water	Awarded	2015	\$3,000
USFS	Climate Change Impacts on Coastal Riverscapes	Awarded	2014	\$47,000

<u>Funding Agency</u>	<u>Proposal Title</u>	<u>Status</u>	<u>Submitted</u>	<u>Requested Amount</u>
NOAA Sea Grant	Status and Trends in Landowner Attitudes Towards Restoration in the Coos Bay Lowlands Watershed, Oregon	Declined	03/01/2014	\$103,000
NSF	Developing ecologically-relevant metrics to assess climate change impacts in Pacific Northwest coastal streams	Declined	06/03/2013	\$494,493
NOAA	Keeping Pace With Climate Change: Pro-Active Planning for Estuary Restoration Under Future Sea-Level Rise	Declined	05/13/2013	\$179,809
NSF	Long-term hydrologic regimes in coastal streams of the Pacific Northwest	Declined	12/05/2012	\$468,222
US EPA	Sustainable Alternatives to Plastic Mulch-PhaseII	Awarded	10/01/2012	\$90,000
NSF	S-STEM Fellowships for Water Resources	Awarded	8/12/2011	\$425,000
US EPA	Sustainable Alternatives to Plastic Mulch	Awarded	12/22/2010	\$19,000
NSF	S-STEM Fellowships for Water Resources	Declined	8/15/2010	\$425,000
USFS	Climate Change Effects on Coastal Draining Streams in Oregon	Awarded	3/26/2010	\$65,000
US EPA Reg. 10	Assisting PNW Communities in TMDL planning	Declined	11/05/2009	\$80,064
NSF	Water Governance In The Face Of Uncertainty	Declined	7/14/2009	\$6,998,964
US EPA Reg. 10	Assisting PNW Communities in TMDL planning	Declined	12/08/2008	\$119,545
USEPA	Forecasting Wetland Ecosystem Services	Declined	11/03/2008	\$475,000
NSF	DRU Building a Research Community for Water Governance in an Era of Uncertainty	Declined	01/23/2007	\$124,998.00
USDA	USDA CSREES National Needs Fellowships in Sustainable Sciences	Declined	06/05/2007	\$500,000
NSF	Planning Grant for the Pacific Northwest GIScience Center of Excellence	Discouraged	04/25/2006	\$69,660
NSF	Use of mobile visualization technology to enhance stakeholder participation in environmental decision making	Discouraged	03/21/2006	\$690,698
NSF	Using Lichen to Quantify Geographic Patterns of Pollutant Deposition	Declined	01/27/2006	\$99,384
NSF	Modeling the influence of trophic dynamics on cyanobacterial blooms in Oregon lakes	Declined	01/11/2006	\$466,282
USGS-IWW	Collaborative learning towards sustainable agricultural landscapes in Muddy Creek, OR	Awarded	11/13/2005	\$45000

<u>Funding Agency</u>	<u>Proposal Title</u>	<u>Status</u>	<u>Submitted</u>	<u>Requested Amount</u>
NSF	BE/CNH: Wetlands as Coupled Human-Natural Systems in Urban Landscapes	Declined	12/03/2003	\$1,999,641
NSF	Doctoral Dissertation Research: An Investigation of Individual and Group Attitudes Toward Water Resources in Portland, Oregon	Awarded	02/14/2003	\$10,446.00
NSF	BE/CNH: Linkages Among Human, Terrestrial, and Aquatic Systems: Wetlands in Urban Landscapes	Declined	11/19/2002	\$1,996,537
NSF	ITR/IIS: Virtual Center for Interdisciplinary Watershed Studies	Declined	11/13/2001	\$4,975,440
NSF	Biocomplexity of Coupled N,C & Hydrologic Cycles in Agroecosystems	Declined	03/29/2001	\$2,493,286
NSF	BE/CNH: Sustaining Multiple Functions for Urban Wetlands	Awarded	03/15/2001	\$100,000
NSF	Virtual Center for Study of Transboundary Waters	Declined	07/31/2000	\$3,376,260
US EPA	Developing Methods and Tools for Watershed Restoration (with PI J. Bolte)	Awarded	2/28/1997	\$809,993
US EPA/ NSF	Modeling Effects of Alternative Landscape Design and Management on Water Quality and Biodiversity in Midwest Agricultural Watersheds.	Awarded	05/03/1996	\$1,228,520

## **MEMBERSHIP IN PROFESSIONAL SOCIETIES**

Ecological Society of America, International Association for Landscape Ecology, American Water Resources Association, American Geophysical Union, Society of Wetland Scientists

## **PUBLICATIONS**

### **EDITED BOOKS (1)**

Joan Iverson Nassauer, **Mary V. Santelmann**, and Donald Scavia, Editors. 2007. *From the Corn Belt to the Gulf: Environmental and Societal Implications of Alternative Agricultural Futures*. Resources for the Future Press: Washington D.C. ISBN 978-1-933115-47-4

### **BOOK CHAPTERS (11)**

**Santelmann, M.V.**, J. McDonnell, J. Bolte, S. Chan, A.T. Morzillo, and D. Hulse. 2012. Willamette Water 2100: River basins as complex social-ecological systems. In: The

Sustainable City VII, Vol. 1, 575-586. ed. M. Pacetti. WIT Transactions on Ecology and The Environment, Vol 155, C 2012 WIT Press [www.witpress.com](http://www.witpress.com), ISSN 1743-3541 (on-line) ISBN: 978-1-84564-578-6

**Santelmann, M.V.** 2010. Water Needs. In: *Encyclopedia of Geography*, edited by Barney Warf, SAGE Publications.

Perovich, G., Q. Dortch, J. Goodrich, P. Berger, J. Brooks, T.J. Evens, C. J. Gobler, J. Graham, J. Hyde, D. Karner, D.K. O'Shea, V. Paul, H. Paerl, M. Piehler, B.H. Rosen, **M.V. Santelmann**, P. Tester, and J. Westrick. **2007**. Causes, Prevention and Mitigation Working Group Report. Chapter 9 in *Proceedings of the Interagency, International Symposium on Cyanobacterial Harmful Algal Blooms*. H.K. Hudnell [Ed]. Advances in Experimental Medicine & Biology. Springer Press: New York.

**Santelmann, M.V.**, J. Sifneos, D. White, and K. Freemark. **2007**. Assessing Potential Plant Diversity in Alternative Future Landscapes for the Agricultural Midwest. In: Nassauer, J. I., **M.V. Santelmann**, and D. Scavia, eds. *From the Corn Belt to the Gulf: Environmental and Societal Implications of Alternative Agricultural Futures*. Resources for the Future Press: Washington D.C.

Debinski, D. M., **M. V. Santelmann**, D. White, K. E. (Freemark) Lindsay, J. Sifneos Pollinator Responses to Alternative Futures for Agricultural Watersheds. **2007**. In: Nassauer, J. I., **M.V. Santelmann**, and D. Scavia, eds. *From the Corn Belt to the Gulf: Environmental and Societal Implications of Alternative Agricultural Futures*. Resources for the Future Press: Washington D.C.

Clark, M. E., B. J. Danielson, **M. V. Santelmann**, D. White. **2007**. Modeling mammal community dynamics in agricultural watersheds of the American Midwest. In: Nassauer, J. I., **M.V. Santelmann**, and D. Scavia, eds. *From the Corn Belt to the Gulf: Environmental and Societal Implications of Alternative Agricultural Futures*. Resources for the Future Press: Washington D.C.

Rustigian, H\*, **M. Santelmann**, N. Schumaker. **2007**. Assessing the Potential Impacts of Alternative Landscape Designs on Amphibian Population Dynamics. In: Nassauer, J. I., **M.V. Santelmann**, and D. Scavia, eds. *From the Corn Belt to the Gulf: Environmental and Societal Implications of Alternative Agricultural Futures*. Resources for the Future Press: Washington D.C.

Vaché, K.B.\*, J.M. Eilers, **M.V. Santelmann**. **2007**. Water quality modeling of alternative agricultural scenarios in two Iowa watersheds. In: Nassauer, J. I., **M.V. Santelmann**, and D. Scavia, eds. *From the Corn Belt to the Gulf: Environmental and Societal Implications of Alternative Agricultural Futures*. Resources for the Future Press: Washington D.C.

**Santelmann, M.**, D. White, K. Freemark, J. I. Nassauer, J. M. Eilers, K. B. Vaché, B. J. Danielson, R. C. Corry, M. E. Clark, S. Polasky, R. M. Cruse, J. Sifneos, H.



Rustigian, C. Coiner, J. Wu, D. Debinski. **2007**. Assessing Alternative Futures for Agriculture in the U. S. Corn Belt. *In: Nassauer, J. I., M.V. Santelmann, and D. Scavia, eds. From the Corn Belt to the Gulf: Environmental and Societal Implications of Alternative Agricultural Futures*. Resources for the Future Press: Washington D.C.

**Santelmann, M.**, K. Freemark, D. White, J. Nassauer, M. Clark, B. Danielson, J. Eilers, R. Cruse, S. Galatowitsch, S. Polasky, J. Wu. **2001**. Applying Ecological Principles to Land-Use Decision-making in Agricultural Watersheds. *In: V. Dale and R. Haueber, eds. Applying Ecological Principles to Land Management*. J.Wiley and Sons, Inc.

Gorham, E., S.J. Eisenreich, M.S. Ford, **M.V. Santelmann**. **1985**. The Chemistry of Bog Waters. *In: Chemical Processes in Lakes*, ed. Werner Stumm, Wiley and Sons, Inc.

#### **ARTICLES IN PEER-REVIEWED LITERATURE (15)**

\*Highland, S., **M.V. Santelmann**, and \*R. Schwindt. 2015. Plant Community Dynamics in Remnant and Restored Willamette Valley Wetland Prairie. *Ecological Restoration* 33(2):156-170.

\*Ingman, M., **M.V. Santelmann** and B. Tilt. 2015. Agricultural Water Conservation in China: Plastic Mulch and Traditional Irrigation. *Ecosystem Health and Sustainability* 1(4):12. <http://dx.doi.org/10.1890/EHS14-0018>.

\*Taylor, S. and **M.V. Santelman**. 2014. Comparing Vegetation and Soils of Remnant and Restored Prairie Wetlands in the Northern Willamette Valley. *Northwest Science* 88:329-343.

Jaeger, W.A. A. J. Plantinga, H. Chang, K. Dello, G. Grant, D. Hulse, J. J. McDonnell, S. Lancaster, H. Moradkhani, A. T. Morzillo, P. Mote, A. Nolin, **M. Santelmann**, and J. Wu. 2013. Toward a formal definition of water scarcity in natural-human systems. *Water Resources Research*, VOL. 49, 1–12, doi:10.1002/wrcr.20249

**Santelmann, M.V.**, Gosnell, H. and S. M. Meyers. 2011. Connecting Children to the Land: Place-Based Education in the Muddy Creek Watershed, Oregon. *Journal of Geography* 110(3):91-106.

**Santelmann, M.V.** **2008**. Meeting the Need for Water Resource Professionals: Recruiting More Women and Minorities. *Journal of Contemporary Water Resources Research and Education* 141:64-71.

**Santelmann, M.V.** **2007**. Informing Decision Making for Agricultural Watersheds. *Journal of Contemporary Water Resources Research and Education* 136: 37-43.

- Larson, K.L.\* and **M. V. Santelmann. 2007.** The relationship between proximity to water and residents' attitudes about water resource protection. *Professional Geographer* 59(3): 316-333.
- Santelmann, M.V.,** K. E. Freemark, J. Sifneos, and D. White. **2006.** Assessing effects of alternative agricultural practices on wildlife habitat in Iowa, USA. *Agriculture, Ecosystems and Environment* 113: 243–253
- Santelmann, M. V.** and, K. L. Larson\*. **2005.** Sustaining multiple functions for urban wetlands. *Wetlands* 24(4): 717-718.
- Santelmann, M.,** D. White, K. Freemark, J. I. Nassauer, J. M. Eilers, K. B. Vaché\*, B. J. Danielson, R. C. Corry, M. E. Clark, S. Polasky, R. M. Cruse, J. Sifneos, H. Rustigian\*, C. Coiner\*, J. Wu, D. Debinski. **2004.** Assessing Alternative Futures for Agriculture in the U. S. Corn Belt. *Landscape Ecology* 19: 357-374.
- Rustigian, H.\* , **M. Santelmann,** N. Schumaker. **2003.** Assessing the potential impacts of alternative landscape designs on amphibian population dynamics. *Landscape Ecology* 18:65-81.
- Vaché, K.B.\* , J.M. Eilers, **M.V. Santelmann. 2002.** Water quality modeling of alternative agricultural scenarios in two Iowa watersheds. *Journal of the American Water Resources Association* 38:773-787.
- Lamy, F.\* , J. Bolte, K. Vaché\* , **M. Santelmann,** and C. Smith. **2002.** Development and evaluation of multi-objective decision-making methods for watershed management planning. *Journal of the American Water Resources Association* 38:517-530.
- White, D., P.G. Minotti\*, M.J. Barczak\* , K.E. Freemark, **M.V. Santelmann,** A.R. Kiester, E. Preston. **1997.** Assessing risks to biodiversity from future landscape change. *Conservation Biology* **11**: 349-360.
- Santelmann, M. 1992.** Cellulose mass loss in ombrotrophic bogs of northeastern North America. *Canadian Journal of Botany* 70:2378-2383.
- Santelmann, M. 1991.** The ecology and distribution of *Carex exilis*: an experimental approach. *Ecology* 72: 2025-2037.
- Foster, D.A., G.A. King, and **M.V. Santelmann. 1988.** Patterned fens of western Labrador and adjacent Quebec: Phytosociology, water chemistry, landform features, and dynamics of surface patterns. *Canadian Journal of Botany* 66: 2402-2418.
- Santelmann, M.** and E. Gorham. **1988.** The influence of airborne road dust on the chemistry of *Sphagnum* mosses. *Journal of Ecology* 76: 1219-1231.

#### **TECHNICAL REPORTS (4)**

US EPA CHAB Working Group Report. **2006**. Working group members: Paul S. Berger, Justin Brooks, Terence J. Evens, Christopher J. Gobler, Jennifer Graham, James Hyde, Dawn Karner, Dennis (Kevin) O'Shea, Valerie Paul, Hans Paerl, Michael Piehler, Barry H. Rosen, **Mary Santelmann**, Pat Tester, Judy Westrick. *Cyanobacterial Harmful Algal Blooms (CHABs): Causes, Prevention, and Mitigation* edited by Gina Perovich, Quay Dortch, and James Goodrich. Final Report to US-Environmental Protection Agency, Fall 2006.

Adamus, P.R., D. White, **M. Santelmann**, P. Haggerty, and J.P. Baker. **2000**. Terrestrial Vertebrate Species of the Willamette River Basin: Species-Habitat Relationships Matrix. Internal Report. U.S. Environmental Protection Agency, Corvallis, OR. <http://www.fsl.orst.edu/pnwerc/wrb/access.html>

**Santelmann, M.** **1991**. Evaluating the utility of natural vegetation in assessing arctic accumulation of air toxics. Report to the US EPA Arctic Accumulation of Air Toxics Program, Corvallis ERL. 143 pp.

Gorham, E., **M. Santelmann**, & J. McAllister. **1984**. A Peatland Bibliography: Chiefly with reference to the ecology and biogeochemistry of *Sphagnum* bogs. An annotated bibliography. Minnesota State Planning Agency.

#### **PUBLICATIONS IN REVIEW or REVISION**

Gorham, E., J.A. Janssens, **and M. V. Santelmann**. In revision. The concentrations of thirty-seven elements in the bog moss *Sphagnum fuscum* from the mid-continent to the east coast of North America.

**Santelmann, M.V.** and E. Gorham. In revision. Growth and productivity of the moss *Sphagnum fuscum*, in bogs from the mid-continent to the east coast of North America. Target Journal: Ecology of the Total Environment.

#### **PRESENTATIONS (ORAL SESSIONS AND POSTERS)**

Flitcroft, R., B. Penaluna, and **M. Santelmann**. **2015**. Symposium Organizers: Keeping Pace with Climate Change. International Association for Landscape Ecology World Congress, Portland OR. August 5-10 2015.

**Santelmann, M.V.** **2013**. Willamette Water 2100. American Waste Water Association Chapter Meeting, Eugene, OR. February 18, 2014.

Schwartz, M.W., **M.V. Santelmann**, D.A. Foster. 2013. Symposium: Ecological Society of America Meetings, Minneapolis St. Paul, MN August 5-10 2013.

**Santelmann, M.V.,** \*S. Highland, \*S.M. Taylor and \*R. Schwindt. 2012. Species-area relationships in wet-prairie remnants and restorations of the Willamette Valley, OR. Ecological Society of America. Minneapolis, MN. August 4-9, 2013.

**Santelmann, M.V.,** S. Chan, A. Morzillo, A. Stebbins, M. Wright. 2012. Enhancing Understanding of Coupled Human-Natural Systems Through Collaborative Learning. American Geophysical Union. December 3-7, San Francisco CA. USA.

**Santelmann, M.V.,** J. P. Bolte and T. Larsen. 2012. Assessment of biodiversity in alternative future landscapes of the Willamette Valley, Oregon. Oral presentation given at the Ecological Society of America meeting in Portland, OR. August 5-10, 2012.

**Santelmann, M.,** J. McDonnell, J. Bolte, S. Chan, A.T. Morzillo, D. Hulse, and M. Wright. 2012. Willamette Water 2100: river basins as complex socio-ecological systems. Oral presentation given at the International Conference on *Water and Society 2011*, Las Vegas, NV. December 5-7, 2011.

**Santelmann, M.V.** 2006. Water Resources Graduate Program. Presentation to Oregon State University Deans, May 18, 2010.

MacQuarrie, P., L. de Silva, N. Eidem, **M. V. Santelmann,** A. T. Wolf. 2007. An Integrated Program to Inform Water Policy and Conflict Management. Poster presented at the Conference: *Water in the Pacific Northwest: Moving Science into Policy and Action*, held at Skamania Lodge, Stevenson, WA, November 7-9, 2007.

**Santelmann, M.V. 2007.** Invited presentation entitled, "Using Wetlands to Teach Landscape Ecology" given at workshop entitled *Constructing and Teaching a Great Course in Landscape Ecology*. U.S. Regional Symposium of the International Association for Landscape Ecology, Tucson, Arizona April 9, 2007.

**Santelmann, M.V.** 2006. Workshop on "Developing land use scenarios for economic-ecological studies". December 6, 2006. Institute for Landscape Ecology and Resources Management, Justus Liebig University, Gießen, Germany.

**Santelmann, M.V.** 2006. Evaluating Biodiversity in Alternative Futures. December 6, 2006. Institute for Landscape Ecology and Resources Management, Justus Liebig University, Gießen, Germany.

**Santelmann, M.V.** 2006. Using Alternative Future Scenarios in Multi-objective Planning and Evaluation of Agricultural Landscapes. December 5, 2006. Institute for Landscape Ecology and Resources Management, Justus Liebig University, Gießen, Germany.

**Santelmann, M.V.** 2006. Programmatic impact of the IWW initiative. Presentation to Oregon State University Geosciences Board of Advisors, May 18, 2006.

**Santelmann, M.,** P. Warner, K. Erickson , H. Schloss, G. Phillips. **2004.** Educating the next generation of interdisciplinary scientists: Integrating research and education. Poster presented at Ecological Society of America Meetings, Portland, OR.

Larson, K. L., D. Lindeman, **M. Santelmann,** and D. Lach. March 2002. An Interdisciplinary Study of Urban Wetlands in Portland, Oregon. Poster presented at the Annual Conference of the Association of American Geographers (AAG), Los Angeles, CA

**Santelmann, M.V.,** C.M. Lett, .P.R. Adamus. **2002.** Developing and evaluating a habitat restoration component of a decision-support system to be used by Oregon watershed councils. Poster presented at Ecological Society of America Meetings, Tucson, AZ.

**Santelmann, M.V.,** K. Freemark, D. White, J. Nassauer, M. Clark, B. Danielson, J. Eilers, R. Cruse, S. Galatowitsch, S. Polasky, J. Wu. **2001.** Managing successful interdisciplinary projects: Lessons learned. Presentation for Scientific Consulting Group Workshop, US-EPA STAR grants program. Oct 11-12, 2000. Washington D.C.

**Santelmann, M.V.,** K. Freemark, D. White, J. Nassauer, M. Clark, K. Vache, B. Danielson, J. Eilers, R. Cruse, H. Rustigian, S. Galatowitsch, S. Polasky, J. Wu. **1999.** Alternative Futures for Agriculture. Invited Symposium Presentation at Fifth World Congress of Landscape Ecology. Snowmass, CO.

**Santelmann, M.V.,** K. Freemark, D. White, J. Sifneos, and S. Galatowitsch 1998. Developing models for the prediction and evaluation of plant diversity in agricultural watersheds. Poster presented at 13<sup>th</sup> annual conference International Association for Landscape Ecology meetings in East Lansing, MI.

**Santelmann, M.V.,** K. Freemark, D. White, J. Nassauer, M. Clark, B. Danielson, J. Eilers, R. Cruse, S. Galatowitsch, S. Polasky, J. Wu. **1999.** Science-based alternative future scenarios for use in landscape planning: an Iowa example. Presentation to Illinois EPA and Illinois DNR, Dec 8, 1999.

**Santelmann, M.V. ,** K. Freemark, D. White, J. Nassauer, M. Clark, B. Danielson, J. Eilers, R. Cruse, S. Galatowitsch, S. Polasky, J. Wu. **1999.** Using Alternative Futures to Assist in Ecosystem Based Planning. Invited poster presentation in honor of Eville Gorham upon occasion of his retirement, University of MN, St. Paul, MN. April, 1999.

**Santelmann, M.V.,** K. Freemark, D. White, J. Nassauer, M. Clark, B. Danielson, J. Eilers, R. Cruse, S. Galatowitsch, S. Polasky, J. Wu. **1998.** Incorporating Ecological Principles for Land Use and Management in Agricultural Watersheds. Invited Symposium Presentation at Association of American Geographers, Honolulu, Hawa'ii.

**Santelmann, M.V. and K. E. Freemark. 1996.** Alternative Future Scenarios for agricultural ecosystems. Presentation at Program Review, NSF/US EPA Partnership Science to Achieve Results, Water and Watersheds Program. Corvallis, OR May 1996.

**Santelmann, M.V. and Denis White. 1992.** Modifying habitat suitability requirements for forest birds by consideration of spatial configuration of habitat. Presentation at Biodiversity Research Consortium Workshop. US EPA. Corvallis, OR.

## **RELEVANT PROFESSIONAL ACTIVITIES**

Joint Management Committee, Water Cooperation and Peace Joint Educational Programme with University of Peace, Ciudad Colon, Costa Rica and UNESCO-IHE, Delft, The Netherlands.

Director, Water Resources Graduate Program, Oregon State University. 2005-present.

Member of Executive Committee for the Oregon State University Institute for Water and Watersheds 2007-present

Senior Person on Grant Entitled: Portland-Vancouver Ultra-Ex, funded by US NSF. 2010-2012.

Participant in Workshop on Advising Doctoral Students for University Faculty and Administrators; offered by Oregon State University Graduate School Spring Term 2010.

Participant in Workshop on Suicide Prevention for University Faculty and Administrators; Suicide Gatekeeper Training February 5, 2008 offered by Oregon State University Counseling Services.

Member of the Oregon State University C2D (Committed to Diversity) Task Force. Member of the Mentoring group working to identify, coordinate, and enhance mentoring efforts at Oregon State University, and to improve efforts to mentor students, staff, and faculty from underrepresented groups.

Invited member of US EPA Working Group on Causes, Prevention, and Mitigation of Harmful Algal Blooms. *Cyanobacterial Harmful Algal Blooms (CHABs)*: and contributor to report edited by Gina Perovich, Quay Dortch, and James Goodrich. Final Report to US-Environmental Protection Agency, Fall 2006.

Treasurer for U.S. Chapter of the International Association for Landscape Ecology, 2004-2006. Received a Service Award for assisting in maintaining healthy financial status of organization.

Held a leadership role in organizing a conference and workshop on Urban Wetlands. Five of the papers presented at this meeting were published as a special section of the journal

*Wetlands* in December of 2004. This conference was put on in collaboration with faculty at Portland State University.

Participated in the Scientific Consulting Group Lessons Learned workshop in Washington, D.C. October 11-12, 2000 to advise the Environmental Protection Agency STAR grants program on successful approaches to managing interdisciplinary research. Presented a paper and participated in discussions to develop materials that will assist EPA in providing guidance to Principal Investigators of interdisciplinary grants.

Presented results of our interdisciplinary research project for Iowa watersheds to the Illinois EPA and Department of Natural Resources (December 1999; Chicago, IL). This invited presentation assisted these Agencies in the initiation of similar projects to develop alternative future scenarios for river basins in Illinois undergoing rapid development.

Developed a database to support research and education: Developed a wildlife-habitat association database for the Willamette Valley region of Oregon with Paul Adamus, Joan Baker, Denis White. <http://www.fsl.orst.edu/pnwerc/wrb/access.html>

Developed database to support research and education: Developed a plant database for central Iowa for use in assessment of plant biodiversity response to landscape change, based on the USDA PLANTS database maintained by John Kartesz and his staff, then conducted an expert review of the database. The database is being used to evaluate alternative future scenarios for their potential to preserve native plant diversity.

As a student member of the Association for Women in Science at the University of Minnesota, organized and conducted a week-long conference: *Women In Science: Questioning the Traditional Paradigm*, May 21-24 1984 with keynote speakers Vivian Gornick (author) and Dr. Margaret Davis.

### **COLLABORATORS**

Paul Adamus, Adamus Resource Assessment, Inc.; John Bolte and James Moore, Bioresources Engineering, Oregon State University; Richard Cruse, Agronomy, Iowa State University; Joseph Eilers, JC Headwaters Inc.; Rebecca Flitcroft, USFS; Kathryn Lindsay (Freemark), Canadian Wildlife Service, Environment Canada; D. A. Foster, Director, Harvard Forest; Susan Galatowitsch, Horticulture, University of Minnesota; Eville Gorham, University of Minnesota; Roy Haggerty, William Jaeger, Denise Lach, Desiree Tullos, Kellie Vache, Aaron T. Wolf, Oregon State University; Joan Nassauer, Natural Resources, University of Michigan; Steven Polasky, Agriculture and Resource Economics, University of Minnesota; Junjie Wu, Agriculture and Resource Economics, Oregon State University; Denis White, US EPA (retired).

### **SERVICE AS A REVIEWER**

Proposals: National Science Foundation, U.S. Environmental Protection Agency, National Oceanic and Atmospheric Administration, Environment Canada

- Fellowships: Fulbright Fellowship Screening Committee, Special Fellowships in Water Management at University of Delft, The Netherlands  
Oregon State University Institute for Water and Watersheds  
Oregon State University Water Resources Graduate Programs Student Awards Committee
- Journals: Canadian Journal of Botany  
Computers and Electronics in Agriculture  
Ecology and Society  
Ecological Engineering  
Ecological Modelling  
Environmental Management  
Journal of the American Water Resources Association  
Journal of Geophysical Research-Biogeosciences  
Journal of Vegetation Science  
Landscape Ecology  
Landscape and Urban Planning  
Restoration Ecology  
Wetlands  
Sustainability
- Books: Reviewed two chapters in *Applying Ecological Principles to Land Management* for John Wiley and Sons, Ltd.,  
Reviewed *The Skeptical Environmentalist* by Bjorn Lomborg for the journal Environmental Management.  
Reviewed *The Willamette River Basin: A Planning Atlas* for the Oregon State University Press.  
Reviewed Chapters of *Ecology* textbook for Sinauer Press