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# Thomas James Rodengen

## Curriculum Vitae

### Objective:

Liberal arts college or university with strong emphasis on undergraduate teaching and experiential learning

### Education:

In Progress:

Ph. D. Candidate in Resource and Environmental Management, Simon Fraser University, Expected Completion Date: 9/1/2015

Obtained:

Masters in Resource Management (M.R.M.), Simon Fraser University, 2009

B.S. Geology, University of St. Thomas, St. Paul, MN, 2007

B.A. Environmental Studies, University of St. Thomas, St. Paul, MN, 2007

### Experience:

Graduate Scientist: 2014  
Parks Canada  
Ecosystem and Limnology Specialist

Course Developer and Sessional Instructor: 2011-2013  
Simon Fraser University, Department of Environmental Science  
EVSC 205: Methods in Environmental Science

Sessional Instructor: 2012 -2014  
Simon Fraser University, Department of Environmental Science  
EVSC 100: Introduction to Environmental Science

Sessional Instructor: 2010, 2011  
Simon Fraser University, Department of Environmental Science  
EVSC 491: Advanced Field Studies in Environmental Science

Teaching Assistant: 2008-2014  
Simon Fraser University, School of Resource and Environmental Management  
Courses: REM 100: Global Change (9x)  
REM 631: Physical Processes in the Environment

Camp Director 2008-2010  
UU Camp UniStar

Laboratory Manager 2007-2013  
Simon Fraser University  
Climate Oceans and Paleoenvironments (COPE) Laboratory

Climatology Expert, Student Intern, 2006-2007  
Science Museum of Minnesota, *Science on a Sphere Exhibit*

Teaching Assistant, 2005-2007  
University of St. Thomas  
Courses: Geology 113: Earth's Record of Climate  
Geology 111: Physical Geology

Research Assistant, 2005-2007  
University of St. Thomas, Dr. Kevin Theissen

Resident Naturalist, 2003-2007  
Northwoods Environmental Center, Camp Olson, YMCA

Research and Circulation Librarian, 2004-2006  
University of St. Thomas, O'Shaughnessy-Frey Library

#### Research Skills:

Laboratory  
-Elemental Analysis and Gas Chromatography  
-Coulometry  
-Spectrophotometry  
-Pollen Analysis  
-Charcoal Analysis  
-Smear Slide Analysis  
-Loss on Ignition  
-Microscopy

Field  
-Livingstone Corer  
-Push Corer  
-Gravity/Glew Corer  
-Stream Monitoring Station  
-Vegetation and Dendrology Sampling  
-Soil Profiles

Data  
-Microsoft Office  
-R  
-Matlab  
-Tableau  
-SPSS  
-Adobe Illustrator  
-TILIA  
-Carbon Budget Model –Canadian Forest Service 3 (CBM-CFS3)

#### Publications and Presentations:

Rodengen et al. (2014) Protected area carbon management. Environmental Management, in preparation.

Rodengen et al. (2014) Comparing two methods of estimating lake sediment total organic carbon and the resulting calculations of carbon accumulation rate and storage. Journal of Paleolimnology, in preparation.

Rodengen et al. (2014) Post-industrial changes in carbon accumulation rates in lakes along the southern boreal forest of western Canada. Limnology and Oceanography, in preparation.

Rodengen, T (2014) Chapter 6: Inland Lakes and Rivers (In:) North Woods, Great Lakes, Textbook, Minnesota Master Naturalist Program.

Rodengen et al. (2013) Protected Area Carbon Management, BC Protected Areas Research Forum, Oral Presentation.

Neal, V., Kirpatrick, T., **Rodengen, T.** and Starr E (2013) The University as a Living Lab: What Does It Take to Make It Work? Symposium Encore Series, Panel Discussion.

Bell, K., Kirpatrick, T., **Rodengen, T.** and Starr E (2013) The University as a Living Lab: What Does It Take to Make It Work? Symposium on Teaching and Learning, Panel Discussion.

Rodengen, T. and Bendell L (2013) Applied Methods in Community-Engaged Environmental Science 205 Course. Symposium on Teaching and Learning, Poster Presentation.

Schaufele, T., Soron M. and **Rodengen, T** (2012) Sustainable Careers Panel. Sustainable SFU Careers and Community Connections, Panel Discussion.

Rodengen (2012) Impacts of Climate Change on Lacustrine Carbon Storage in Western Canadian Parks, CCIRC Student Research Day, Oral Presentation.

Rodengen et al. (2011) Starting the Conversation: Climate Change Mitigation in Canada's Protected Areas, BC Protected Areas Research Forum, Panel Discussion.

Rodengen et al. (2011) Holocene Carbon Dynamics in Southern British Columbia's Forests: A Paleoecological Perspective, GSA Annual Meeting, Oral Presentation.

Ridgwell, A., **Rodengen, T.** and K. Kohfeld (2011) Geographical variations in the effectiveness and side effects of deep ocean carbon sequestration, Geophysical Research Letters: 38, L17610.

Rodengen et al. (2010) Economic Evaluation of Ocean CO<sub>2</sub> Injection as a Means for Reducing Atmospheric Carbon Dioxide Concentrations, 29<sup>th</sup> Annual USAEE Conference, Oral Presentation.

Rodengen et al. (2010) Identifying potential sites for injection of liquid CO<sub>2</sub> into the deep ocean, AGU Ocean Sciences Meeting, Poster Presentation.

Rodengen (2009) Pipe Dreams: Evaluation of ocean CO<sub>2</sub> injection as a means for reducing atmospheric carbon dioxide concentrations, School of Resource and Environmental Management, Masters Thesis.

Rodengen et al. (2008) An Earth System Model Ensemble Assessment of Potential Liquefied CO<sub>2</sub> Injection Sites in the Deep Ocean, AGU Annual Meeting, Poster Presentation.

Rodengen et al. (2006) Lacustrine sedimentary organic matter based paleoclimates in the Prairie-Pothole Region of Western Minnesota, IREE Meeting, Oral Presentation.

Rodengen (2006) Building for the Geological Sciences, Student Inquiry Session, University of St. Thomas. Poster Presentation.

Rodengen (2005). Building for the Geological Sciences. Student Showcase, University of St. Thomas. Poster Presentation.

**Grants and Scholarships:**

Graduate Level:  
Larger Teaching and Learning Grant “Applied Methods in Community Engaged Environmental Science 205 Course”: \$10,000.00: 2012/2013  
President’s PhD Scholarship \$6,500: 2012/2013  
Graduate Student Society Professional Development Grant \$500.00: 2012  
Parks Canada RFP 5P429-10-032 (Kohfeld, K as PI) “Carbon Storage in Lacustrine and Peatland Systems in Canadian National Parks” \$25,000: 2011  
International Student Travel Grant \$6,500.00: 2010  
Graduate Fellowship (2x) \$6,500.00/ea: 2009, 2011

Undergraduate Level:  
MN/NASA Space Grant  
Rahr Foundation Grant  
University of St. Thomas Environmental Studies Scholarship  
District 281 Cooper Scholarship  
Target All-Around Scholarship  
Twin West Scholarship  
Elks Lodge 44 Scholarship  
Kiwanis New Hope Scholarship  
Golden Valley Rotary Scholarship  
Wesphal American Legion Scholarship  
Alliss University of St. Thomas Scholarship  
Louella Cook University of St. Thomas Scholarship

**Awards, Honors and Affiliations:**

Canadian Association of Palynologists  
American Association of Professional Geologists  
American Society of Limnology and Oceanography  
Geological Society of America  
International Paleolimnology Association  
Certificate in University Teaching and Learning: 2011  
American Geophysical Union  
International Association for Energy Economics  
Minnesota Naturalists Association  
Eagle Scout  
City of St. Louis Park Service Award for Naturalism  
Who’s Who Among American Students: 2003, 2004

**Interests and Other Qualifications:**

Red Cross Certified Lifeguard, Adult CPR, First Aid, AED Essentials Red Cross Certified, Advanced Wilderness First Aid Trained, Sailing Skipper class E, Civilian Marksmanship Certified Instructor, Search and Rescue Officer for Chippewa National Forest, Soccer and Hockey Coach, Scouts Canada Scout Leader, Minnesota Master Naturalist Instructor

**Workshops, Service and Schools:**

Community Perspectives of Stoney Creek Video Project: 2012-2013  
R Workshop: 2013  
Gulf Islands Garry Oak Ecosystem Restoration Project: 2011-2012  
Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3): 2012  
Ecological Restoration Graduate Program Focus Group: 2012  
Honeycomb Project Experiencing Collaborative Learning Implementing SFU’s Academic Vision: 2010-2013

Canadian Parks Council Climate Change Working Group: 2011

GEOIDE/MITACS Summer School on Spatial Statistics and Climate Modeling:  
2010

Instructional Skills Workshop (ISW): 2010

**Supervision:**

Negar Naghshinehpour Esfahani, B.S.: 2013  
COPE Lab Volunteer

Marta Spira, B.S.: 2013  
COPE Lab Volunteer

Yoko Lu, B.S.: 2013  
COPE Lab Volunteer

Hugo De Sa, B.S.: 2013  
COPE Lab Volunteer

Jessica Fickell B.S.: 2013  
COPE Lab Technician

Brad Lute, B.S.: 2013  
COPE Lab Technician

Reza Quarehbaghi, M.S.: 2012  
COPE Lab Technician

Helen Lee, B.S.: 2012, 2013  
COPE Lab Technician

Minjoo Kang, B.S.: 2012, 2013  
Senior COPE Lab Technician

Hafsa Salihue, B.S.: 2012, 2013  
Senior COPE Lab Technician

Faatimah Ali, High School Sr.: 2012  
COPE Lab Assistant

Haroon Chaudhary, High School Sr.: 2012  
COPE Lab Assistant

Brett Marchant, B.S.: 2011, 2012, 2013  
Senior COPE Lab Technician

Celeste Barlow, B.S.: 2011, 2012, 2013  
COPE Lab Technician, Field Assistant, NSERC USRA