



Jesse Sayles

Curriculum Vitae

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857-231-6708, Jesse.Sayles@asu.edu

Languages: English (Fluent), Spanish (Conversational), French (Conversational)

Citizenships: U.S.A. and German (European Union)

Research Interests & Key Words: Human-environment geography, Resilience, Environmental restoration, Natural resource governance, Social network analysis, Landscape ecology, Local and indigenous peoples, Coastal and watershed systems, Ecosystem services.

Skills & Tools: GIS (ArcGIS), Remote sensing (ERDAS), Statistics (SPSS), Systems modeling (STELLA, XPPAUT), Qualitative analysis (NVivo, MAXQDA), Social Network Analysis (ICINET), Data management (Microsoft excel).

Education

- Present** **Ph.D. Candidate, Geography (advanced to candidacy on 9 May 2012)**
- 2009 Arizona State Univ., College of Arts & Sci., School of Geographical Sci. & Urban Planning, Tempe, AZ
- 2008** **M.Sc. Geography**
- 2006 Concordia Univ., Faculty of Arts & Sci., Dept. of Geography, Planning & Environment, Montreal, QC
- 2004** **B.Sc. Environment – Biodiversity and Conservation Biology**
- 2000 McGill Univ., Faculty of Sci., McGill School of Environment, Montreal, QC

Teaching Experience

- Present** Teaching assistant: Introduction to Physical Geography (GPH 111), Society and Environment (GPH 210), Latin American Geography (GCU 323), Geography of the Middle East & North Africa (GCU 328), and Geography of World Crises (GCU 350), School of Geog. Sci. & Urban Planning, Arizona State Univ., AZ.
- 2009 *Duties: lab instruction and grading (GPH 111), discussion group moderator and grading (others). I gave several course lectures in GPH 210.*
- 2009** Instructor: GIS graduate workshop series, Indian Ocean World Centre, McGill Univ., Montreal, QC.
- 2008 *Duties: full course duties.*
- 2008 fall** Teaching assistant: Earth's Changing Surface (introduction to geomorphology) (GEOG 272), Dept. of Geography, McGill Univ., Montreal, QC.
Duties: tutorial session instruction and grading.
- 2008 fall** Guest lecturer: Environmental History (HIST 395/4), Concordia Univ., Montreal, QC
- 2008** Teaching assistant: The Natural Environment: Air and Water (GEOG 272), Geographic Information Systems (GEOG 363), Advanced GIS (GEOG 463), and GIS for Environmental Impact Assessment (ENVS 563), Dept. Geography, Planning & Environment, Concordia Univ., Montreal, QC.
- 2006 *Duties: lab instruction and grading. I also gave several course lectures.*

In addition to academic teaching, I have a background in outdoor education. Please see research and work experience.

Research & Work Experience

- 2012**
sum / fall **Environment International, Ltd, Seattle, WA**
Analyst
Duties: 1) research for environmental restoration planning in the Confederated Tribes of the Colville Reservation and 2) research and writing for natural resource damage assessment (NRDA) desk book.
- 2010**
sum / fall **Global Institute of Sustainability & Central Arizona-Phoenix Long-Term Ecological Research Project, Arizona State Univ., Tempe, AZ**
Research assistant – Dr. Kelli Larson (Geography) and Dr. Sharon Hall (Life Science)
Duties: quantitative & qualitative analysis of social-ecological dynamics of residential landscapes. Training & overseeing two undergraduate research assistants in ethnographic interview work.
- 2009**
- 2008 **Indian Ocean World Center, Dept. History, McGill Univ., Montreal, QC**
Research assistant – Dr. Gwyn Campbell
Duties: grant writing and cartography. Our \$2.5 million grant application was fully funded.
- 2008**
- 2006 **Concordia Univ., Dept. Geography Planning & Environment, Montreal, QC**
Research assistant – Dr. Monica Mulrennan
Duties: marine protected area workshop organization and synthesizing environmental impact assessments.
- 2007** Dec **Wemindji Protected Area Project, McGill Univ., Montreal, QC**
GIS analyst
Duties: database creation and data digitizing.
- 2007** Aug **McGill Univ., Department of Geography, Montreal, QC**
Research assistant – Dr. Florin Pendea
Duties: wetland coring for paleoenvironmental reconstruction in James Bay, QC, Canada.
- 2006**
Mar–Apr **The Center for Investigation of Aquatic Ecosystems (CIDEA), Nicaragua**
(El Centro de Investigación de Ecosistemas Acuáticos, Universidad Centroamericana)
Volunteer
Duties: local livelihood assessments and writing of a fisheries monitoring advisory booklet.
- 2006**
Jan–Feb **Hudson River Estuary Program, New York State Dept. of Environmental Conservation, NY**
Independent contractor
Duties: identify riparian buffer mapping and monitoring methodologies.
- 2006**
- 2005 **Hudson River Estuary Program, New York State Depart. of Environmental Conservation, NY**
River restoration analyst
Duties: development of a dam and culvert inventory and characterization program for citizen-led watershed restoration.
- 2005**
- 2003 **H₂O Adventures, Montreal, QC**
Director of Youth Experiential Learning Programs (2004 to 2005). White water kayak instructor (2003) – I continued working casually as an instructor from 2006 to 2010.
Duties: pedagogy design and instruction, group management, and general programs management.
- 2002**
- 1997 **Charles River Recreation, Newton, MA**
Lead guide of sea kayak camps (2001 & 2002), kayak and cross-country ski instructor (1997 to 2000)
Duties: instruction, group management, and guiding.

(Research and work experience continued on next page)

(Research and work experience continued)

2000 **Environmental Science Program, Newton, MA**
- **1998** Student director (summer 1999-2000), junior leader (summer 1998)
 Duties: instruction, group management, and guiding.

Funding

2013 Arizona State Univ., School of Geographical Sciences & Urban Planning
 Matthew G. Bailey Scholarship, \$1,468 US
 Project Title: *Integrating landscape restoration & social network analysis to address scalar mismatches in estuaries*

2013 Arizona State Univ., School of Geographical Sciences & Urban Planning
- **2009** Tuition waiver, health insurance, and RA/TA stipend ≈ \$38,750 US annually for four years.

2012 Arizona State Univ., School of Geographical Sciences & Urban Planning
(**fall**) Research Support Award, \$400 US
 Project Title: *Integrating landscape restoration & social network analysis to address scalar mismatches in estuaries*

2012 Arizona State Univ., School of Geographical Sciences & Urban Planning
(**spring**) Research Support Award, \$340 US
 Project Title: *Integrating landscape restoration & social network analysis to address scalar mismatches in estuaries*

2012 Arizona State Univ., School of Geographical Sciences & Urban Planning
 Melvin G. Marcus Scholarship, \$883 US
 Project Title: *Integrating landscape restoration & social network analysis to address scalar mismatches in estuaries*

2012 Arizona State Univ., Graduate and Professional Student Association (GPSA)
 Travel Grant, \$545 US

2012 Arizona State Univ., Graduate and Professional Student Association (GPSA)
- **2011** GPSA Graduate Research Support Program, \$1,989 US
 Project Title: *Scale Mismatch in Estuary Restoration*

2011 Arizona State Univ., Graduate and Professional Student Association (GPSA)
 Travel Grant, \$405 US

2011 Arizona State Univ., School of Geographical Sciences & Urban Planning
 Matthew G. Bailey Scholarship, \$1,490 US
 Project Title: *Restoring Estuaries for Future Changes: A Multi-Scalar Social-Ecological Approach*

2011 Arizona State Univ., Graduate and Professional Student Association (GPSA)
 GPSA Spring 2011 JumpStart Grant, \$431 US
 Project Title: *Addressing Scale Mismatches in Estuary Restoration*

2009 Arizona State Univ., Graduate College
 University Graduate Fellowship, \$5,000 US

(Funding continued on next page)

(Funding continued)

- 2008** Concordia Univ., School of Graduate Studies
Competition for Supplemental Funding for Conference Support, \$740 CAD
- 2008** Concordia Univ., School of Graduate Studies
- 2006 International Tuition Fee Remission Award, \$8,043.74 CAD
- 2008** Concordia Univ., Faculty of Arts and Sci.
- 2006 Research Assistant Fellowship at \$5,000/year x 2 years = \$10,000 CAD
- 2008** Wemindji Protected Area Project, McGill Univ.
- 2006 Research Stipend at \$6,000/year x 2 years = \$12,000 CAD, plus research expenses.
The Wemindji Project, under the direction of Dr. Colin Scott (McGill Univ., Anthropology), is funded through the Social Sciences and Humanities Research Council (SSHRC) of Canada under its Community-University Research Alliances (CURA) program and its Aboriginal Research program.

Service

- (1) Steering committee member for Graduates in Integrative Social and Environmental Research (GISER) at Arizona State Univ. from fall 2011 to the present. This is a monthly, plus as needed time obligation.
- (2) Peer reviewer for Arizona State Univ., Graduate and Professional Student Association (GPSA) 2012-2013 Travel Grant funding program (a monthly obligation) and 2011 fall, 2012 spring, and 2013 spring JumpStart grant program (a semesterly obligation).
- (3) Organizer and member of the unofficial committee to improve the teaching assistant program, School of Geog. Sci. & Urban Planning, Arizona State Univ. Time commitment varied in fall 2011 and led to a weekly workshop in spring 2012.
- (4) Peer reviewer for Puget Sound Characterization. Volume 1: The Water Resources Assessments (Water Flow and Water Quality). Stanley et al. 2011. Washington State Department of Ecology. Publication #11-06-016. Olympia, WA.
- (5) Organizer and facilitator for 2010 spring semester writers' studio series, School of Geog. Sci. & Urban Planning, Arizona State Univ. This was a weekly time commitment.

Professional Affiliations & Research Groups

- (1) Graduates in Integrative Social and Environmental Research (GISER) at Arizona State Univ., asugiser.ning.com/
- (2) The Urban Ecology Research Lab (UERL) at the University of Washington www.urbaneco.washington.edu/
- (3) The Wemindji Protected Area Project, www.wemindjiprotectedarea.org
- (4) McGill Univ.'s Computational Archeology Lab (CAL), cal.mcgill.ca/htdocs/
- (5) Association of American Geographers (AAG)
- (6) Ocean Management Research Network (OMRN) / Réseau de Recherche sur la Gestion des Océans (RRGO)

Publications & Presented Papers

Refereed Journal Articles

- Sayles, J.S.** 2012. A review of *Practicing Geography: Careers for Enhancing Society and the Environment*. *The Professional Geographer*. 64(4): 626-627.
- Sayles, J. S.**, and M. E. Mulrennan. 2010. Securing a future: Cree hunters' resistance and flexibility to environmental changes, Wemindji, James Bay. *Ecology and Society*. 15(4): 22. [online] URL: <http://www.ecologyandsociety.org/vol15/iss4/art22/>
- Sayles, J.S.** and D.I. Green. 2005. Bilateral action for right whales. *Science* (letters). 310 (5754): 1616-1617.

Refereed Book Chapters

- Sayles, J.S.** and M.E. Mulrennan. (In press). Cree hunters' modifications of the coast: Agency in a changing land. In M. Mulrennan, C. Scott and K. Scott, (eds), *Striking a Balance: The Science and Politics of Environmental Protection in James Bay*. Vancouver. UBC Press.
- Bussi eres, V., M.E. Mulrennan, and **J.S. Sayles**. (In press). Cultural connection to the Wemindji coastal and marine environment. In M. Mulrennan, C. Scott and K. Scott, (eds), *Striking a Balance: The Science and Politics of Environmental Protection in James Bay*. Vancouver. UBC Press.

Theses

- Sayles, J.S.** 2008. *Tapaiitum: Human Modifications of the Coast as Adaptations to Environmental Change, Wemindji, Eastern James Bay*. Master's thesis. Concordia University. Montreal, QC.

- *Benessaiah, K., A. Bennett, S. Boyce, E. Crawford, V. Demers, M. Forrest, E. Lagac e, C.C. Lemoine, C. P eloquin, **J. Sayles**, S. Schiff, and K. Scott. 2003. *Aa-Wiichaautuwiihkwa: Creating a culturally appropriate watershed and adjacent marine coastal protected area in Paakumshumwaau (old factory) Wemindji, James Bay, Quebec*. Group senior project. McGill School of Environment, McGill University. Montreal, QC.

*Authors are listed in alphabetical order.

Non-refereed Publications

- Sayles, J.S.** and E. White. 2006. Appendix F: Discussion of Dams on the Wallkill River. In, Wallkill River Watershed Conservation and Management Plan Steering Committee (eds), *Wallkill River Watershed Conservation and Management Plan*. Ulster County Soil and Water Conservation District. New York. Available online at: http://ucswcd.org/Appendices/appendix_F.pdf
- Sayles, J.S.** 2005. Knowledge flow: a Hudson River Estuary Watershed citizens' tool for ecological discussions about stream barriers and barrier removal. In, David Burns, Lisa Vasilakos, Rick Oestrike (eds), *Natural Resource Management Plan for the Fishkill Creek Watershed, June 2005*. Dutchess County Environmental Management Council. New York. Pp 30-36.

Posters

- Sayles, J.S.**, K.L. Larson, E.M. Cook, and S.H. Hall. 2011. The influence of environmental values, urban structure, and neighborhood context on household-level biodiversity and plant composition. At the 2011 Annual Meeting of the Association of American Geographers. 12-16 April 2011.
- Sayles, J.S.**, E.M. Cook, K.L. Larson, and S.H. Hall. 2011. The influence of environmental values and neighborhood context on household-level biodiversity. At the Central Arizona-Phoenix Long-Term Ecological Research Project Thirteenth Annual Poster Symposium. 12-13 Jan 2010.
- Cook, E., R. Hale, D. Iwaniec, J. Corman, X. Dong, G. Metson, and **J. Sayles**. 2010. Urban stoichiometry: an elemental approach to understanding human-environment interactions. At the Central Arizona-Phoenix Long-Term Ecological Research Project Twelfth Annual Poster Symposium. 14 Jan 2010.

Conference Proceedings and Presentations

- Sayles, J.S.** 2012. Session discussant for researching and improving geography graduate education for STEM careers, sponsored by the AAG EDGE project. At the 2012 Annual Meeting of the Association of American Geographers. 24-28 February 2012.
- Sayles, J.S.** 2012. TA survey results and TA workshop. Presented at School of Geographical Sciences and Urban Planning Brown Bag Series, Arizona State University, Tempe, Arizona. 25 January 2012. Available on line at: https://geoplan.asu.edu/files/TA%20survey%20results_cut_24aug2012.pdf
- Polsky, C., M. Grove, K. Larson, L. Ogden, J. Fraser, E. Harris, D. Martin, R. Garvoille, **J. Sayles**, and N. Vaughn. 2011. Landscape and social ecologies of suburbanization: what is on our residential landscapes? At the 2011 Annual Meeting of the Association of American Geographers. 12-16 April 2011.
- Sayles, J.S.** 2010. Environmental changes, resource harvesting, tradeoffs, and values in Wemindji, James Bay. At the 2010 Annual Meeting of the Association of American Geographers. 14-18 April 2010.
- Campbell, G. and **J.S. Sayles**. 2008. Crisis of faith and conversion during the first LMS mission to Madagascar, 1820-36. At the Workshop on Madagascar: Human's, Health, and Environment in Madagascar. The Indian Ocean World Center, McGill Univ. 10-11 Oct 2008.
- Sayles, J.S.**, and M.E. Mulrennan. 2008. Wemindji Cree adaptations to coastal landscape change, Eastern James Bay. At The 2008 Annual Meeting of the Association of American Geographers. 15-19 April 2008.
- Sayles, J.S.**, and M.E. Mulrennan. 2007. James Bay Cree response to coastal landscape change, Eastern James Bay. At The National Ocean Management Research Network (OMRN) Conference 2007. 24-27 Oct 2007.
- Sayles, J.S.**, and M.E. Mulrennan. 2007. Where Islands meet the mainland: understanding dynamic human and biophysical historic coastal changes in Wemindji, Eastern James Bay, QC. At the 8th International Assoc. of Canadian Universities for Northern Studies (ACUNS) Student Conference on Northern Studies. 19-21 Oct 2007.
- Sayles, J.S.**, and M.E. Mulrennan. 2006. Adaptation to coastal change: recent shoreline displacement and associated human land-use and landscape modifications, Wemindji, Eastern James Bay, Quebec. At the New England – St. Lawrence Valley Division of the Association of the American Geographers Annual Meeting. 13-15 Oct 2006.
- Sayles, J.S.** 2005. A three tiered, nested approach to stream barrier inventory: characterizing barriers for restoration discussions in tributaries of the Hudson River Estuary. At the ASWM Integrated Restoration of Riverine Wetlands, Streams, Riparian Areas, and Floodplains in Watershed Contexts workshop. 15-16 Nov 2005. Available on line at: <http://www.aswm.org/calendar/integratingrest/sayles1.pdf>

Publications in Preparation (2 manuscripts)

- (1) Karina Benessaiah, John Connors, me, Christopher Galleti, Arjit Gauh, and Dr. Billie Turner II (all Arizona State Univ., Geography) are working on a review paper about scale and ecosystem services. The intended journal is still under consideration.
- (3) Dr. Sharon Hall (Arizona State Univ., Life Sciences), me, Elizabeth Cook (Arizona State Univ., Life Sciences), and Dr. Kelli Larson (Arizona State Univ., Geography), are working on a paper entitled: Biodiversity in social-spatial context: neighborhood landscapes of Phoenix, Arizona. The intended journal is still under consideration.