

NATHAN P. KETTLE

nkettle@alaska.edu

EDUCATION

- 2012 Ph.D. (Geography) University of South Carolina
2003 M.A. (Geography) Kansas State University
2001 B.S. (Geography) Kansas State University

PROFESSIONAL EXPERIENCE

- 2016 - Present Research Assistant Professor, University of Alaska Fairbanks
2016 - Present Co-Investigator, Alaska Center for Climate Assessment and Policy, University of Alaska Fairbanks
2015 - 2016 Research Associate, University of Alaska Fairbanks
(Alaska Center for Climate Assessment and Policy, International Arctic Research Center)
2012 - 2015 Post-Doctoral Research Fellow, University of Alaska Fairbanks
(Alaska Center for Climate Assessment and Policy; USGS Alaska Climate Science Center)
2006 - 2012 Graduate Teaching/Research Assistant, University of South Carolina
2006 Assistant Specialist, GIS Spatial Analysis Laboratory, Kansas State University
2003 - 2005 United States Peace Corps Volunteer (Agroforestry), The Gambia, West Africa

RESEARCH AWARDS

- 2016 Bureau of Indian Affairs. A tribal climate science liaison for Alaska (liaison stationed at the Alaska Climate Science Center). **Co-PIs: N. Kettle** and K. Pletnikoff. 3 years.
2016 Alaska EPSCoR. Evaluating the North Slope Borough-Shell Baseline Studies Program. **PI: N. Kettle**. 1 year. \$44,803.
2016 National Oceanic and Atmospheric Administration. Alaska Center for Climate Assessment and Policy (ACCAP): Science, Decision Support, and Capacity Building for Climate Resilience in Alaska. **PI: S. Trainor** and J. Walsh. **Co-I: N. Kettle**. 5 years. \$3,590,000.
2015 Bureau of Indian Affairs. Development of Tribal Government Climate Adaptation Plans for Nome, Alaska. **PI: N. Kettle**. **Co-I: J. Walsh, S. Trainor**. 2 years. \$202,808.
2010 National Science Foundation, Doctoral Dissertation Research Improvement Grant. Decision, Risk, and Management Sciences. Influence of Risk, Uncertainty, and Scale on Coastal Adaptation Priorities. **PI: K. Dow**. **Co-I: N. Kettle**. 1 year. \$11,830.

PUBLICATIONS

Refereed Journal Articles

- Kettle, N.**, and K. Dow. 2016. The role of perceived risk, uncertainty, and trust on coastal climate change adaptation planning. *Environment and Behavior*. 48(4): 579-606.
Webler, T., S. Tuler, K. Dow., J. Whitehead, **N. Kettle**. 2016. Design and evaluation of a local analytic-deliberative process for climate adaptation planning. *Local Environment*. 21(2): 166-188.
Kettle, N., and S.F. Trainor. 2015. The role of remote engagement in supporting boundary chain networks across Alaska *Climate Risk Management*. 9:6-19.
Frisch, L. J. Mathis, **N. Kettle**, and S. Trainor. 2015. Gauging perceptions of ocean acidification in Alaska. *Marine Policy*. 53:101-110.
Kettle, N. and K. Dow. 2015. Comparing coastal planner expectations of climate change to climate science projections. *Journal of Environmental Policy and Planning* 17 (4): 475-494.
Kettle, N., K. Dow, S. Tuler, T. Webler, J. Whitehead, K. Miller. 2014. Integrating scientific and local knowledge to inform risk-based management approaches for climate adaptation. *Climate Risk Management* 4:17-31.

- Kettle, N.** and K. Dow. 2014. Cross-level differences and similarities in coastal climate change adaptation planning. *Journal of Environmental Science and Policy* 44: 279-290.
- Lackstrom, K. **N. Kettle**, B. Haywood, K. Dow. 2014. Climate-sensitive decisions and time frames: a cross-sectoral analysis of information pathways in the Carolinas. *Weather, Climate & Society* 6(2): 238-252.
- Haywood, B., A. Brennan, K. Dow, **N. Kettle**, and K. Lackstrom, 2014. Negotiating a mainstreaming spectrum: climate change response & communication in the Carolinas. *Journal of Environmental Policy and Planning*. 16 (1): 75-94.
- Dow, K., B. Haywood, **N. Kettle**, K. Lackstrom. 2013. The role of ad hoc networks in supporting climate change adaptation: a case study from the Southeastern United States. *Regional Environmental Change*. 13 (6): 1235-1244.
- Kettle, N.** 2012. Exposing compounding uncertainties in sea level rise assessments. *Journal of Coastal Research*. 28 (1): 161-173.
- Carr, E., and **N. Kettle**. 2009. Commentary: the challenge of quantifying susceptibility to drought related crisis. *Regional Environmental Change* 9: 131-136.
- Carr, E., **N. Kettle**, and A. Hoskins. 2009. Evaluating poverty-environment dynamics. *International Journal of Sustainable Development and World Ecology* 16(2) 87-93.
- Kettle, N.**, L. Harrington, and J. Harrington, Jr. 2007. Groundwater depletion and agricultural land use change: a case study from Wichita County, Kansas. *The Professional Geographer* 59(2): 221-235.

Book Chapters (peer-reviewed)

- Trainor, S., **N. Kettle**, and B. Gamble. 2016. Not another webinar! Regional webinars as a platform for climate knowledge to action networking in Alaska. In: Climate in Context. Editors: A. Parris, G. Garfin, K. Dow, R. Meyer, and S. Close. Wiley. pp. 117-142.

Proceedings Articles and White Papers

- Lackstrom, K., K. Dow, B. Haywood, A. Brennan, **N. Kettle**, A. Brosious. 2012. Engaging Climate Sensitive Sectors in the Carolinas. [Technical Report for the National Climate Assessment].
- Kettle, N.** 2010. Improving reporting of uncertainties in sea level rise assessments. In: Proceedings of the 22nd International Conference; Shifting Shorelines: Adapting to the Future. The Coastal Society. Wilmington, NC; 13-16 June 2010.

PRESENTATIONS

Paper Presentations

- Kettle, N.** 2016. Tribal climate adaptation planning in Alaska. Island Sustainability Conference: Islanded Communities. Tumon, Guam. 11-15 April 2016.
- Kettle, N.** 2016. A social network analysis of the climate-science practice interface in Alaska. Association of American Geographers Annual Conference. San Francisco, CA; March 31 – April 2 2016.
- Kettle, N.** 2016. Tribal climate adaptation planning in Nome, Alaska. Alaska Forum on the Environment. Anchorage, AK; 8-12 February 2016.
- Kettle, N.**, S. Trainor, P. Loring. 2014. A social network analysis of climate research, services, and decision making in Alaska. Climate, Conservation, and Community in Alaska and Northwest Canada Conference. Anchorage, AK; 3-6 November 2014.
- Kettle, N.** 2014. Climate webinars: a platform for knowledge to action networks in Alaska. Association of American Geographers Annual Conference. Tampa, FL: 8-12 April 2014.
- Kettle, N.** 2013. Comparing coastal planner expectations of climate change to climate science projections. Association of American Geographers Annual Conference. Los Angeles, CA; 8-13 April 2013.
- Kettle, N.** 2012. The influence of perceived risk, uncertainty, and trust on coastal climate change planning. Association of American Geographers Annual Conference. New York, NY; 24-28 February 2012.
- Kettle, N.** 2012. Climate change adaptation planning in coastal South Carolina. NOAA Social Coast Forum 2012. Charleston, SC; 15-16 February 2012.
- Kettle, N.** 2011. Climate change adaptation planning in coastal South Carolina. Southeastern Division of the Association of American Geographers Annual Conference. Savannah, GA; 20-22 November 2011.

- Kettle, N.** 2011. Coastal climate change adaptation: the influence of risk, knowledge, uncertainty, and trust. 19th Conference on Applied Climatology, Practical Solutions for a Warming World: American Meteorological Society Conference on Climate Adaptation. Asheville, NC; 18-20 July 2011.
- Kettle, N.** 2011. Trust in state-level climate change adaptation planning. Association of American Geographers Annual Conference; Seattle, WA; 12-16 April 2011.
- Tuler, S., K. Dow, J. Whitehead, T. Webler, and **N. Kettle**. 2011. Integration of local planners' and scientists' knowledge of consequences, vulnerabilities, and adaptation strategies to climate change related hazards. 91st Annual Meeting of the American Meteorological Society. Seattle, WA; 23-27 Jan. 2011.
- Kettle, N.** 2010. Improving reporting of uncertainties in sea level rise assessments. The Coastal Society's 22nd Biennial Conference. Wilmington, NC; 13-16 June 2010.
- Kettle, N.** 2010. Cross-scalar barriers to coastal adaptation to climate change. Association of American Geographers Annual Conference; Washington DC; 14-18 April 2010.
- Kettle, N.** 2009. Evaluating the historical development of sea level rise vulnerability models. Association of American Geographers Annual Conference; Las Vegas, NV; 22-29 March 2009.
- Kettle, N.** 2008. Sea level rise in the Carolinas: a review of methodologies, rates, and impacts. Southeastern Division of the Association of American Geographers Annual Conference; Greensboro, NC; 18-20 November 2008.
- Kettle, N.** 2008. Considerations of error and uncertainty in mapping sea level rise. Association of American Geographers Annual Conference; Boston, MA; 15-19 April 2008.
- Kettle, N., E. R. Carr, and A. Hoskins.** 2007. Evaluating poverty-environment dynamics: from indicators to assessments. Southeastern Division of the American Association of American Geographers Annual Conference; Charleston, SC; 18-20 November 2007.
- Harrington Jr., J., S. Hutchinson, **N. Kettle**. 2006. Rapidly changing demographics and water uses in the Arkansas River Basin. Presented at the 23rd Annual Water and the Future of Kansas Conference; Topeka, KS; 16 March 2006.

Poster Presentations

- Kettle, N.** and S. Trainor. 2015. The role of climate webinars in supporting boundary organization networks in Alaska. National Adaptation Forum. St. Louis, MO. 12-14 May 2015.
- Kettle, N.** and S. Trainor. 2015. Climate webinars as a platform for supporting extended networks in Alaska. American Meteorological Society 10th Symposium on Societal Applications: Policy, Research and Practice. Phoenix, AZ. 4-8 January 2015.
- Kettle, N.** 2012. Theoretical perspectives on support coastal climate change adaptation. Adaptation Futures. Second International Climate Change Adaptation Conference 2012. Tucson, AZ. 29-31 June 2012.
- Tuler, S., T. Webler, K. Dow, **N. Kettle**, K. Miller, and J. Whitehead. 2011. Integration of local planners' and scientists' knowledge of consequences, vulnerabilities, and adaptation strategies to climate change related hazards. Land Grant and Sea Grant National Water Conference. Washington DC; 31 January - 1 February 2011.
- Carbone, G., et al. 2010. Supporting drought adaptation through stakeholder engagement. NOAA in the Carolinas 2010 Meeting, Asheville, NC; 21-22 April 2010.
- Kettle, N., S. Chhotray, K. Dow, and J. Whitehead.** 2010. Interpreting sea level rise maps. North Carolina Sea Level Rise Forum. North Raleigh, NC; 14-15 January 2010.
- Kettle, N., L. Harrington, and J. Harrington, Jr.** 2004. Groundwater depletion and agricultural land use change in Wichita County, Kansas. Presented at the Water and the Future of Kansas 21st Annual Conference; Lawrence, KS; 11 March 2004.

SERVICE

-
- 2007 – 2010 Graduate Representative, Human Dimensions of Global Environmental Change Specialty Group, Association of American Geographers
- 2008 Vice President, Geography Graduate Student Association, University of South Carolina
- 2007 Faculty Search Committee, Coastal Scientist. Dept. of Geog. University of South Carolina

Manuscript Review

Refereed Journals

Climate (2); Climate Risk Management (1); Journal of Coastal Research (1); Journal of Environmental Policy and Planning (1); Journal of Environmental Science and Policy (2); Journal of Geography (3); Papers of the Applied Geography Conferences (1); Risk Analysis (2); Risks (1); Weather Climate and Society (1)

Other

University of Alaska Fairbanks, Water and Environmental Research Center (1)

Session Organizer

2014 Networks and the climate science-practice interface. Association of American Geographers Annual Conference.

Invited Presentations and Panels

Boundary organizations and the science-policy interface. International Arctic Research Center Summer School. University of Alaska Fairbanks. Fairbanks, AK: 11-23 March, 2016.

Climate change adaptation, policy, and practice. International Comparative Rural Policy Studies Program. University of Alaska Fairbanks. Fairbanks, AK. 14-26 July, 2016

Tribal climate adaptation planning: Nome, Alaska. Signs of Life Academy Camp: Reaching Arctic Communities Facing Climate Change. University of Alaska Fairbanks. June 14-17, 2016.

Coastal erosion in Alaska: causes, impacts, and barriers to adaptation. Environmental Protection Agency Climate Change Speaker Series [webinar]. 16 September 2015.

Alaska's changing climate. Alaska Center for the Environment. Fairbanks, AK: 6 December 2014.

Supporting local climate adaptation planning. Alaska Rural Water and Sanitation Working Group (US Arctic Research Commission-coordinated Working Group) Fairbanks, AK; 18 March 2014.

Global and regional climate change. Geofest 42: South Carolina Geographic Alliance Center of Excellence for Geographic Education. Columbia, SC; 10 September 2011.

Global and regional climate change. Multiple guest presentations within the Department of Geography and across other departments at the University of South Carolina. Columbia, SC; 2008-2012.

Grant Proposal Reviewer

2015 Virginia Sea Grant: Coastal Resilience

2015 National Estuarine Research Reserve System Science Collaborative

2014 Great Lakes Integrated Sciences and Assessments (GLISA): Supporting networks of boundary organizations

TEACHING EXPERIENCE

University of South Carolina

Introduction to Geography; Weather and Climate Lab; Geographic Information Systems Lab

Kansas State University

Introduction to Geographic Information Systems Lab; Remote Sensing of the Environment Lab

DukeTIP Scholar Weekend

Global Climate Change: From Science to Policy. University of South Carolina (2008 and 2011)

AFFILIATIONS

The Association of American Geographers

American Geophysical Union

MENTORING EXPERIENCE

Stefan Tangen (Master's degree, in progress, Thesis Committee)

Josie Sam (Post Doc, in progress)