

SCOTT ALAN REINEMANN

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Education

- Ph.D. 2013 The Ohio State University, Department of Geography
PhD Dissertation: *Holocene climate and environmental change in the Great Basin of the Western United States: a paleolimnological approach*
Committee: Dr. David F. Porinchu (Co-Advisor); Dr. Bryan G. Mark (Co-Advisor); Dr. Ellen Mosely-Thompson; Dr. Alvaro Montenegro.
- M.S. 2008 The Ohio State University, Department of Geography
Master's Thesis: *A Chironomid-Based Paleolimnological Study of Recent and Mid-Holocene Changes in Mean July Air Temperature in the Great Basin, Nevada, USA.*
Committee: Dr. David F. Porinchu (Advisor); Dr. Bryan G. Mark; Dr. Jeff Rogers.
(GPA: 3.90)
- B.S. 2006 Ohio University, Department of Geography
Meteorology (minor: Physics)
(GPA: 3.502)

Positions

- 2019-present Assistant Professor, Sinclair Community College, Department of Geography
- 2017-2019 Visiting Assistant Professor, Miami University, Department of Geography
- 2016-2017 Visiting Assistant Professor, Ohio University, Department of Geography
- 2013-2015 Lecturer, The Ohio State University at Lima, Department of Geography
- 2008-2013 Graduate Teaching Assistant, The Ohio State University, Department of Geography
- 2006-2008 Research Associate, The Ohio State University, Department of Geography

Teaching and Research Interests

Geographic Information Systems, physical geography, Geographic Education, global climate change, anthropogenic pollution, Quaternary environmental reconstruction,

paleolimnology, biogeochemistry, climatology, meteorology, the Great Basin of western United States, alpine & sub-alpine mountain lakes, and mountain geography.

Technical expertise with the setup and maintenance of a lab for the development of paleolimnological and paleoclimatological applications. Experience in planning and supervising undergraduate education in fieldwork seasons through the Great Basin of western United States.

Publications

Peer-reviewed Journal Articles

- 2021 Cooper, C., Porinchu, D., **Reinemann, S.**, Mark, B., & DeGrand, J. (2021). A lake sediment–based paleoecological reconstruction of late Holocene fire history and vegetation change in Great Basin National Park, Nevada, USA. *Quaternary Research*, 1-15. doi:10.1017/qua.2021.17
- 2020 Sambuco, E., Mark, B.G., Patrick, N., DeGrand, J.Q., Porinchu, D.F., **Reinemann, S.A.**, Baker, G., and Box, J.E. (2020) Mountain temperature changes from embedded sensors spanning 2000m in Great Basin National Park, 2006-2018. *Frontiers in Earth Science*, 8. <https://doi.org/10.3389/feart.2020.00292>
- 2020 Kaufman, D., McKay, N., Routson, C. *et al.* A global database of Holocene paleotemperature records. *Scientific Data* **7**, 115 (2020). DOI:10.1038/s41597-020-0445-3
- 2017 Porinchu, D.F., Haskett, D.R., and **Reinemann, S.A.** (2017) Biostratigraphic Evidence of Human Modification of High Elevation Aquatic Ecosystems in the Intermountain West of United States. *Anthropocene*. 20, 37-47. DOI:10.1016/j.ancene.2017.08.003
- 2016 Drevnick, P.E., Cooke, C.A., Barraza, D., Blais, J.M., Coal, K.H., Cumming, B.F., Curtis, C.J., Das, B., Donahue, W.F., Eagles-Smith, C.A., Engstrom, D.R., Fitzgerald, W.F., Furl, C.V., Gray, J.E., Hall, R.I., Jackson, T.A., Laird, K.R., Lockhart, W.L., Macdonald, R.W., Mast, M.A., Mathieum, C., Muir, D.C., Outridge, P.M., **Reinemann, S.A.**, Rothenberg, S.E., Ruiz-Fernández, A.C., St. Louis, V.L., Sanders, R.D., Sanei, H., Skierszkan, E.K., Van Metre, P.C., Veverica, T.J., Wiklund, J.A., Wolfe, B.B. 2016. Spatiotemporal patterns of mercury accumulation in lake sediments of western North America, *Sci Total Environ*, DOI :10.1016/j.scitotenv.2016.03.167
- 2014 **Reinemann, S.A.**, Porinchu, D.F., Gustin, M.S., and Mark, B.G. 2014. Historical Trends Of Mercury And Spheroidal Carbonaceous Particle Deposition In Sub-Alpine. *Journal of Paleolimnology*. DOI :10.1007/s10933-014-9801-7
- 2014 **Reinemann, S.A.**, Porinchu, D.F., and Mark, B.G. 2014. Regional Climate Change Evidenced by Recent Shifts in Chironomid Community Composition in

- Sub-alpine and Alpine Lakes in the Great Basin of the United States. *Arctic, Antarctic, Alpine Research*. 46, 600-615. DOI: 10.1657/1938-4246-46.3.600
- 2014 **Reinemann, S.A.**, Porinchu, D.F., MacDonald, G.M., Mark, B.G., and DeGrand, J.Q., 2014. A 2000 Year Reconstruction of Air Temperature in the Great Basin of the United States with Specific Reference to the Medieval Climatic Anomaly. *Quaternary Research*. 82, 309-317. DOI: 10.1016/j.yqres.2014.06.002
- 2011 **Reinemann, S.A.**, Patrick, N.A., Baker, G.M., Porinchu, D.F., Mark, B.G., and Box, J.E., 2011. Climate Change in Great Basin National Park: Lake Sediment and sensor-based studies. *Park Science* 28, 31-35.
- 2010 Porinchu, D.F., **Reinemann, S.**, Mark, B.G., Box, J.E., and Rolland, N., 2010. Application of a midge-based inference model for air temperature reveals evidence of late-20th century warming in sub-alpine lakes in the central Great Basin, United States. *Quaternary International* 215, 15-26.
- 2009 **Reinemann, S.A.**, Porinchu, D.F., Bloom, A.M., Mark, B.G., and Box, J.E., 2009. A multi-proxy paleolimnological reconstruction of Holocene climate conditions in the Great Basin, United States. *Quaternary Research* 72, 347-358.

Articles (editor reviewed)

- 2016 Porinchu, D.F. & **Reinemann, S.A.** 2016 Response of High Elevation Lakes to Recent Climate Change: The View from the Great Basin. *Mountain Views* 10, 43-48
- 2009 **Reinemann, S. A.**, 2009: Stella Lake: A Glimpse into the Past. *The Midden*
- 2008 **Reinemann, S. A.**, 2009: Student Reports from the Field IV *Geospectrum*

Articles in Progress

Courses Taught

- Geo 1101 (SCC): Global Forces, Local Diversity (2019-present)
- Geo 1102 (SCC): Earth's Physical Environment (2019-present)
- Geo 1107 (SCC): Introduction to Geographic Information Systems (GIS) (2019-present)
- Geo 1201 (SCC): World Regional Geography: People, Places & Globalization (2019-present)
- Geo 1212 (SCC): Data Acquisition and Management. (2019-present)
- Geo 271 (MU): Human Dimensions of Nat. Resource Cons. (2017-2019)
- Geo 121 (MU): Earth's Physical Environment (2017-2019)
- Geo 211 (MU): Global Change (2017)

- Geog 3050 (OU): Physical Meteorology (2016-2017)
- Geog 3010 (OU): Meteorology (2016-2017)
- Geog 4070 (OU): Mesoscale Meteorology (2016-2017)
- Geog 1100 (OU): Physical Geography (2017)
- Geog 2960 (OSU): Introduction to Physical Geography (2014-2015)
- Geog 2400 (OSU): Economic & Social Geography (2013-2015)
- Geog 1900 (OSU): Introduction to Weather and Climate (2012-2015)
- Geog 3980 (OSU): Biogeography (2014)

Research Funding

- 2020 Western National Parks Association, *Examining Fire Regime Variability Along an Elevation Gradient in Great Basin National Park During the Last Two Millennia*. 2 year, 10,000
- 2016 Western National Parks Association, *Meadow and lake-sediment based reconstructions of Holocene fire histories for sub-alpine and montane ecosystems in Great Basin National Park*. 1 year, \$7,500
- 2011 National Science Foundation: Doctoral Dissertation Research Improvement Grant. *Geography and Spatial Sciences Program: Holocene Climate and Environmental Change in the Great Basin of the Western United States: A Paleolimnological Approach*.
- 2010 Western National Parks Association, *Recent and historical influence of anthropogenic activities in Great Basin National Park: evidence from lake sediment and water geochemistry*. 1 year, \$7,500 (\$7,693 matching from Ohio State University, Department of Geography).
- 2007 Western National Parks Association, *Contemporary Climate History and Climate Change Impacts in Great Basin National Park*. (\$1,500 summer stipend)

Academic Awards and Honors

- 2008 Runner-up, PhD Student Paper Competition, West Lakes Division of the Association of American Geographers (WLDAAG) Annual Meeting

Research Papers and Posters(*) Presented at Professional Meetings

- 2020 Housel, J., Johnson, D., McDermott, J. **Reinemann, S.A.** *Mapping Gaps: Visualizing Equity in Place*. 2021 Virtual Innovations Conference. Virtual, 1 – 4 March 2021.
- 2019 **Reinemann, S.A.**, D.F. Porinchu, B.G. Mark, Manos, J.M. *Surface elevation change of the Lehman Rock Glacier using drone- & balloon-born photogrammetry*. 2019 East Lakes Division of the American Association of

- Geographers Annual Meeting, University Center, Michigan, 10 – 11 October 2019.
- 2019 *Porinchu, D.F., S. Cooper, **S.A. Reinemann**, J. DeGrand, B. Mark. A lake sediment-based reconstruction of fire history spanning the last two millennia from Great Basin National Park, NV. United States Association of American Geographers Annual Meeting, Washington, D.C., 3-7 April 2019.
- 2017 ***Reinemann, S.A.**, D.F. Porinchu, B.G. Mark, Munroe, J.S. A regional synthesis of climate change during the Holocene from the central Great Basin. Pacific Climate Workshop, Asilomar Conference Center, Pacific Grove, CA, 5-8 March 2017.
- 2016 *Porinchu, D.F., D. Haskett., U. Sachdeva, **S.A. Reinemann**. Evidence of the "Anthropocene" and a Golden Spike: The View from Alpine Ecosystems in the Intermountain West of United States. United States Association of American Geographers Annual Meeting, San Francisco, CA, March 29 – April 2, 2016.
- 2015 Porinchu, D.F., A. Campbell, N. Stansell, B. Mark, Z. Yu, R. Booth. E. Klein, **S.A. Reinemann**. A quantitative reconstruction of late Holocene climate and environmental change in south-central Alaska: evidence from lake sediment United States Association of American Geographers Annual Meeting, Chicago, IL, 21-25 April 2016.
- 2014 *Porinchu, D.F., D. Haskett., **S.A. Reinemann**. Response of High Elevation Lakes in the Intermountain West of the United States to Recent Climate Change. Mountain Climate Research Conference, Midway, UT, 15-18 September 2014.
- 2014 Porinchu, D.F., **S.A. Reinemann**, D. Haskett. Response of High Elevation Lakes in the Intermountain West of the United States to Recent Climate Change. American Geographers Annual Meeting, Tampa, FL, 8-12 April 2014.
- 2013 **Reinemann, S.A.**, D.F. Porinchu, B.G. Mark, J.S. Munroe. Sub-fossil Midge Analysis Provides Evidence of Elevated Temperatures during the mid-Holocene in the central Great Basin, NV, United States. United States Association of American Geographers Annual Meeting, Los Angeles, CA, 8-13 March, 2013.
- 2013 **Reinemann, S.A.**, D.F. Porinchu, M.S. Gustin, B.G. Mark. A Multi-Proxy Paleolimnology Study of the Impact of Climate Change and Atmospheric Pollutant Loadings on Aquatic Ecosystems in the Great Basin, United States. Pacific Climate Workshop, Asilomar Conference Center, Pacific Grove, CA, 3-6 March 2013.
- 2012 Porinchu, D.F., **S.A. Reinemann**, D. Haskett. Late Quaternary Climate Variability in the Intermountain West of the United States: Evidence from Sub-Fossil Midge Analysis. MtnClim 2012, Estes Park, CO, 1-4 October, 2012.

- 2012 **Reinemann, S.A.**, D.F. Porinchu, B.G. Mark, M.S. Gustin. A Multi-Proxy Paleolimnology Investigation of Anthropogenic Influence and Ecological Response in Sub-Alpine and Alpine Ecosystems in the Great Basin, United States, United States Association of American Geographers Annual Meeting, New York, NY, 24-28 February, 2012.
- 2012 *Soltesz, P., D.F. Porinchu, A. Potito, A. Beilman, J. DeGrand, **S.A. Reinemann**. Assessing Mid-Holocene Aridity in Central Ohio, United States Association of American Geographers Annual Meeting, New York, NY, 24-28 February, 2012.
- 2011 **Reinemann, S.A.**, D.F. Porinchu. A Multi-Proxy Paleolimnology Study Provides Evidence of Anthropogenic Influence on Sub-Alpine and Alpine Ecosystems in the Great Basin, United States Association of American Geographers Annual Meeting, Seattle, WA, 12-16 April, 2011.
- 2010 ***Reinemann, S.A.**, D.F. Porinchu. A Multidecadal Midge-Based Temperature Reconstruction From the Great Basin, United States Provides Evidence of Warmer Conditions During The Medieval Climatic Anomaly. 4th Graduate Climate Conference, Pack Forest Conference Center, Eatonville, WA, 15-17 October, 2010.
- 2010 **Reinemann, S.A.**, D.F. Porinchu. A High Resolution Midge-Based Temperature Reconstruction from the Great Basin, United States Provides Evidence of Warmer Conditions During The Medieval Climatic Anomaly. Association of American Geographers Annual Meeting, Washington, D.C., 14-18 April, 2010.
- 2009 ***Reinemann, S.A.**, D.F. Porinchu, A.M. Bloom, B.G. Mark, J.E. Box. A multi-proxy paleolimnological reconstruction of Holocene climatic conditions in the Great Basin, United States. Pacific Climate Workshop, Asilomar Conference Center, Pacific Grove, CA, 19-22 May 2009.
- 2008 **Reinemann, S.A.**, D.F. Porinchu, A.M. Bloom. Holocene Chironomid-Based Climate Reconstructions from a Sub-alpine Lake in the Western United States. West Lakes Division of the Association of American Geographers Annual Meeting. Bloomington, IN 13-14 November, 2008.
- 2008 *Porinchu, D., **S. Reinemann**, B. Mark and J. Box. Midge-based air temperature inference model provides evidence for peak Holocene warmth at ~5200 yr BP in the Eastern Great Basin, USA. MTNCLIM 2008, Silverton, CO, 9-12 June, 2008.
- 2008 **Reinemann, S.A.**, D.F. Porinchu, B.G. Mark, J.E. Box. 20th Century and Holocene Chironomid-Based Climate Reconstructions from Sub-alpine Lakes in the Western United States. Association of American Geographers Annual Meeting, Boston, MA, 15-19 April, 2008.

- 2007 Porinchu, D.P., **S. Reinemann**, G. MacDonald, K. Moser, J. Munroe, J. Box and B.G. Mark. Evidence of regional warming during the 20th century in alpine and subalpine lakes in the Western United States. American Geophysical Union Fall Meeting, San Francisco, CA, 10-14 December, 2007.

Invited Research Presentations:

- 2016 **Reinemann, S.A.**, D.F. Porinchu, B.G. Mark. Long term perspective on environmental change in Great Basin National Park. Great Basin National Park, Baker, NV. 12th July. 2016
- 2010 **Reinemann, S.A.** How Climate change and Great Basin National Park: insights from The Ohio State University Research and Education Program, Great Basin National Park, Baker, NV. 4th August, 2010
- 2009 D.F. Porinchu, B.G. Mark, **Reinemann, S.A.** How Climate Change is Affecting the Great Basin National Park. Great Basin National Park, Baker, NV. 10th August, 2009

Professional Service

1. Editorial Activities

Journal Reviewer:

Science of the Total Environment

Hydrobiologia

The Geography Teacher

2. Committee Service

- Ohio Dept. of Higher Education Geography TAG Committee member (2021-present)
- Equity Summit Planning Committee member (2020-present)
- Virtual Reality (VR) steering group member (2020-present)
- International Education Committee member (2019-present)
- Faculty Meeting Representative, Geography Graduate Organization, OSU, Department of Geography (2009-2010)

3. Interviewed Scientist

- Athens Messenger (2017)
- Las Vegas Sun (2015)
- Las Vegas Review-Journal (2015)

Professional Society Membership

- Association of American Geographers (AAG) (2007-present)
- American Geophysical Union (AGU) (2011-present)
- Geological Society of America (GSA) (2010-2014)