

CURRICULUM VITAE

DR RYAN L FOGT

Associate Professor of Geography-Meteorology
Director, Scalia Laboratory for Atmospheric Analysis
Department of Geography
Ohio University
122 Clippinger Laboratories
Athens, OH 45701
Phone: 740-593-1151
fogtr@ohio.edu
<http://www.ohio.edu/people/fogtr>
Researcher ID page: www.researcherid.com/rid/B-6989-2008

Professional Preparation

The Ohio State University, Columbus, OH Atmospheric Sciences *Ph.D., 2007*
Dissertation title: “*Investigation of the Southern Annular Mode and the El Niño – Southern Oscillation Interactions*”
Advisor: Dr. David H. Bromwich

The Ohio State University, Columbus, OH Atmospheric Sciences *M.S., 2003*
Thesis title: “*Decadal variability of the ENSO teleconnection to the South Pacific*”
Advisor: Dr. David H. Bromwich

Creighton University, Omaha, NE Atmospheric Sciences *B.S., summa cum laude, 2000*

Senior Research Project: “*A Statistical Analysis of Lake-Effect Snow at Cleveland, OH and Buffalo, NY*”
Advisor: Dr. Arthur V. Douglas

Appointments

2014-present Associate Professor, Geography-Meteorology, Department of Geography, Ohio University
2009-present Director, Scalia Laboratory for Atmospheric Analysis, Ohio University
2009-2014 Assistant Professor, Geography-Meteorology, Department of Geography, Ohio University
2007-2009 Postdoctoral Research Fellow, National Research Council, NOAA Earth System Research Laboratory.
2004-2007 Graduate Research Associate, Polar Meteorology Group, Byrd Polar Research Center, The Ohio State University
2002-2004 Graduate Teaching Associate, Department of Geography, The Ohio State University.
2001-2002 University Fellow, The Ohio State University.
2001 Graduate teaching associate, Department of Atmospheric and Environmental Sciences, Creighton University.

1999-2000 Undergraduate Research Assistant, Department of Atmospheric and Environmental Sciences, Creighton University

Teaching

a) Ohio University

Spring Semester 2016 Geography 4090/5090 (33/2 enrolled)
University Professor 4901N (22)

Fall Semester 2015 Geography 4080/5080 (33/1)
Geography 6010 (5); UC 1900 (23)

Spring Semester 2015 Geography 3020 / 5020 (35/2)
Geography 3050 / 5050 (30/3)

Fall Semester 2014 Geography 3010/ 5010 (25/1); UC 1900 (13)

Spring Semester 2014 Geography 4090/5090 (18/1)

Fall Semester 2013 Geography 3010 (38); Geography 4080 (19);
Geography 6010 (7)

Spring Semester 2013 Geography 3020/5020 (24/3); Geography 3050/5050 (17/1)

Fall Semester 2012 Geography 3010 (38)

Spring Quarter 2012 Geography 409/509 (19/4)

Winter Quarter 2012 Geography 408/508 (19/6)

Fall Quarter 2011 Geography 302 (36); Geography 681C (14)

Spring Quarter 2011 Geography 303/503 (14/4)

Winter Quarter 2011 Geography 302 (38); Geography 310/510 (17/3)

Fall Quarter 2010 Geography 302 (48)

Winter Quarter 2010 Geography 303 (14)

Fall Quarter 2009 Geography 101 (123); Geography 302 (29)

b) Prior Experience

Sep – Dec 2004 2 recitation sections of Geography 120, The Ohio State University.

Jan – Jun 2004 2 sections (1 per quarter) of **instructor of record** for Geography 120, The Ohio State University.

Sep – Dec 2003 1 recitation section of Geography 210 (Physical Geography and Environmental Issues), The Ohio State University.

Sep – Dec 2002 2 recitation sections of Geography 120 (Earth Systems 2: Atmospheric Environment), The Ohio State University.

Jan – May 2001 4 sections as **instructor of record** for Atmospheric Sciences 114, Creighton University.

Aug - Dec 2000 2 sections as **instructor of record** for Atmospheric Sciences 114 (Introduction to Atmospheric Sciences Laboratory), Creighton University.

Peer-Reviewed Publications

a) *Submitted, in review*

- 2016 Clem, K. R., J. Renwick, J. McGregor, and **R. L. Fogt**. The relative influence of ENSO and SAM on Antarctic Peninsula climate. *J. Geophys. Res.*, in review.

b) *Published*

- 2016 **Fogt, R. L.**, C. A. Goergens^{*}, M. E. Jones^{*}, G. A. Witte^{*}, M. Y. Lee^{**}, and J. M. Jones. Antarctic station-based seasonal pressure reconstructions since 1905: 1. Reconstruction evaluation. *J. Geophys. Res.*, **21**, 2814-2835, doi:10.1002/2015JD024564.
- 2016 **Fogt, R. L.**, J. M. Jones, C. A. Goergens^{*}, M. E. Jones^{*}, G. A. Witte^{*}, and M. Y. Lee^{**}. Antarctic station-based seasonal pressure reconstructions since 1905: 2. Variability and trends during the 20th century. *J. Geophys. Res.*, **21**, 2836-2856, doi:10.1002/2015JD024565.
- 2016 Raphael, M., G. J. Marshall, J. Turner, **R. L. Fogt**, D. Schneider, D. A. Dixon, J. S. Hosking, J. Jones, W. Hobbs. The Amundsen Sea Low: Variability, change, and impact on Antarctic climate. *Bull. Amer. Meteorol. Soc.*, **97**, 111-121, doi:10.1175/BAMS-D-14-00018.1.
- 2015 **Fogt, R. L.**, and A. J. Wovrosh^{**}. The relative influence of tropical sea surface temperatures and radiative forcing on the Amundsen Sea Low. *J. Climate*, **28**, 8540-8555.
- 2015 **Fogt, R.L.**, (Associate Editor and Section Author). Antarctica [In “State of the Climate in 2014”]. *Bulletin of the American Meteorological Society*. **96**, S149-S167.
- 2015 Clem, K. R.^{**}, and **R. L. Fogt**. South Pacific circulation changes and their connections to the tropics and regional Antarctic warming in austral spring, 1979-2012. *J. Geophys. Res.*, **120**, 2773-2792, doi:10.1002/2014JD022940.
- 2014 **Fogt, R. L.**, and E. A. Zbacnik^{**}. The sensitivity of the Amundsen Sea Low to stratospheric ozone depletion. *J. Climate*, **24**, 9383-9400.
- 2014 **Fogt, R.L.**, (Associate Editor and Section Author). Antarctica [In “State of the Climate in 2013”]. *Bulletin of the American Meteorological Society*. **95**, S143-S156.
- 2013 Clem, K. R.^{**}, and **R. L. Fogt**. Varying roles of ENSO and SAM on the Antarctic Peninsula Climate. *J. Geophys. Res.*, doi:10.1002/jgrd.50860.
- 2013 **Fogt, R.L.**, (Associate Editor and Section Author). Antarctica [In “State of the Climate in 2012”]. *Bulletin of the American Meteorological Society*. **94**, S133-S146.
- 2012 **Fogt, R. L.**, J. M. Jones, and J. Renwick. Seasonal zonal asymmetries in the Southern Annular Mode and their impact on regional temperature anomalies. *J. Climate*, **25**, 6253-6270.
- 2012 **Fogt, R.L.**, (Associate Editor and Section Author). Antarctica [In “State of the Climate in 2011”]. *Bulletin of the American Meteorological Society*, **93**, S149-S161.
- 2012 **Fogt, R. L.**, A. J. Wovrosh^{*}, R. A. Langen^{*}, and I. Simmonds. The characteristic variability and connection to the underlying synoptic activity of the Amundsen-Bellinghousen Seas Low. *J. Geophys. Res.*, **117**, doi:10.1029/2011JD017337.

* Indicates (current or former) undergraduate student at time of submission

** Indicates (current or former) graduate student at time of submission

- 2011 **Fogt, R. L.**, D. H. Bromwich, and K. M. Hines. Erratum to: Understanding the SAM influence on the South Pacific ENSO teleconnection. *Climate Dynamics*, **37**, 2127-2128.
- 2011 Bromwich, D. H., D. F. Steinhoff, I. Simmonds, K. Keay, and **R. L. Fogt**. Climatological aspects of cyclogenesis near Adèle Land Antarctica. *Tellus A*, **63**, 921-938.
- 2011 **Fogt, R.L.**, (Associate Editor and Section Author). Antarctica [In “State of the Climate in 2010”]. *Bulletin of the American Meteorological Society*, **92**, S161-S171.
- 2011 **Fogt, R. L.**, D. H. Bromwich, and K. M. Hines. Understanding the SAM influence on the South Pacific ENSO teleconnection. *Climate Dynamics*, **36**, 1555-1576.
- 2010 **Fogt, R.L.**, (Associate Editor and Section Author). Antarctica [In “State of the Climate in 2009”]. *Bulletin of the American Meteorological Society*, **91**, S125-S134.
- 2009 **Fogt, R.L.**, (Associate Editor and Section Author). Antarctica [In “State of the Climate in 2008”]. *Bulletin of the American Meteorological Society*, **90**, S113-S121.
- 2009 Jones, J. M., **R. L. Fogt**, M. Widmann, G. J. Marshall, P. D. Jones, and M. Visbeck. Historical SAM Variability. Part I: Century Length Seasonal Reconstructions of the Southern Hemisphere Annular Mode. *J. Climate*, **22**, 5319-5345.
- 2009 **Fogt, R. L.**, J. Perlwitz, A. J. Monaghan, D.H. Bromwich, J. M. Jones, and G. J. Marshall. Historical SAM Variability. Part II: 20th Century Variability and Trends from Reconstructions, Observations, and the IPCC AR4 Models. *J. Climate*, **22**, 5346-5365.
- 2009 **Fogt, R. L.**, J. Perlwitz, S. Pawson, and M. A. Olsen. Intra-annual relationships between polar ozone and the SAM. *Geophys. Res. Lett.*, **35**, L04707, doi:10.1029/2008GL036627.
- 2008 **Fogt, R.L.**, and D.H. Bromwich. Atmospheric moisture and cloud cover characteristics forecast by AMPS. *Wea. Forecasting*, **23**, 914-930.
- 2008 **Fogt, R.L.** Contributing author to the Antarctic circulation section of 'State of the Climate in 2007'. *Bull. Amer. Meteorol. Soc.*, **89**, s99-s100.
- 2008 Perlwitz, J., S. Pawson, **R. L. Fogt**, J. E. Nielsen, and W. D. Neff. Impact of stratospheric ozone hole recovery on Antarctic climate. *Geophys. Res. Lett.*, **35**, L08714, doi:10.1029/2008GL033317.
- 2007 **Fogt, R.L.** Contributing author to the Antarctic circulation section of 'State of the Climate in 2006'. *Bull. Amer. Meteorol. Soc.*, **88**, s72-s73.
- 2007 **Fogt, R.L.** Contributing author, IPCC Working Group 1 (WG1) Fourth Assessment Report, for “Chapter 3: Observations: Surface and Atmospheric Climate Change”; subsections 3.4.1.3, “Changes in the Free Atmosphere: Temperature of the Upper Air: Troposphere and Stratosphere” and 3.5.2, “Changes in Atmospheric Circulation: Geopotential Height, Winds, and the Jet Stream”.
- 2007 Bromwich, D.H., **R.L. Fogt**, K.I. Hodges, and J.E. Walsh. A tropospheric assessment of the ERA-40, NCEP, and JRA-25 global atmospheric reanalyses in the polar regions. *J. Geophys. Res.*, **112**, doi:10.1029/2006JD007859.
- 2006 Monaghan, A.J., D.H. Bromwich, **R.L. Fogt**, S-H. Wang, P.A. Mayewski, D.A. Dixon, A.A. Ekaykin, M. Frezzotti, I.D. Goodwin, E. Isaksson, S.D. Kaspari, V.I. Morgan, H. Oerter, T.D. van Ommen, C.J. van der Veen, and J. Wen. Insignificant change in Antarctic snowfall since the International Geophysical Year, *Science*, **313**, 827-831.
- 2006 **Fogt, R.L.**, and D.H. Bromwich. Decadal variability of the ENSO teleconnection to the high-latitude South Pacific governed by coupling with the Southern Annular Mode. *J. Climate*, **19**, 979-997.

- 2005 Bertler, N.A.N., P.J. Barrett, P.A. Mayewski, **R.L. Fogt**, K.J. Kreutz, and J. Shulmeister. Reply to comment by Doran et al. on “El Niño suppresses Antarctic warming.” *Geophys. Res. Lett.*, **32**, L07707, doi: 10.1029/2005GL022595.
- 2004 Bromwich, D.H., and **R.L. Fogt**. Strong trends in the skill of the ERA-40 and NCEP / NCAR reanalyses in the high and middle latitudes of the Southern Hemisphere, 1958-2001. *J. Climate*, **17**, 4603-4619.
- 2004 Bertler, N.A.N., P.J. Barrett, P.A. Mayewski, **R.L. Fogt**, K.J. Kreutz, and J. Shulmeister. El Niño suppresses Antarctic warming. *Geophys. Res. Lett.*, **31**, L15207, doi:10.1029/2004GL020749.
-

Other Publications

- 2008 **Fogt, R.L.**, D.H. Bromwich, and K.M. Hines. Recent SAM and ENSO teleconnections for Antarctica. *US CLIVAR Variations*, **6 (1)**, 4-7.
- 2007 **Fogt, R.L.** Investigation of the Southern Annular Mode and the El Niño – Southern Oscillation Interactions. Ph.D. Dissertation, Atmospheric Sciences Program, Department of Geography, The Ohio State University, 212 pp.
- 2007 Bromwich, D.H., **R.L. Fogt**, K.I. Hodges, and J.E. Walsh. A tropospheric assessment of contemporary global reanalyses in the polar regions. *In preprints of the 87th Annual Conference of the American Meteorological Society*, San Antonio, TX, 6 pp.
- 2006 Bromwich, D.H. and **R.L. Fogt**. An assessment of contemporary global reanalyses in the polar regions. *In Proceedings of the ECMWF / GEO Workshop on Atmospheric Re-Analyses*, Reading, UK, 49-54.
- 2006 **Fogt, R.L.**, and D.H. Bromwich. The AMPS pseudo satellite product. *In preprints of the Antarctic Meteorological Observation, Modeling, and Forecasting Workshop*, Boulder, CO, 4 pp.
- 2006 **Fogt, R.L.**, G. E. Vázquez, and D.H. Bromwich. AMPS precipitable water vapor comparisons with GPS observations in the McMurdo region. *In preprints of the Antarctic Meteorological Observation, Modeling, and Forecasting Workshop*, Boulder, CO, 4 pp.
- 2005 **Fogt, R.L.**, and D.H. Bromwich. Decadal variability of the Antarctic-ENSO teleconnection and its association with the Southern Annular Mode. *CLIVAR Exchanges*, **10 (4)**, 4-5.
- 2005 **Fogt, R.L.**, and D.H. Bromwich. An evaluation of clouds forecast by AMPS. *In preprints of the Joint annual meetings of the Antarctic Automatic Weather Station, Antarctic Meteorological Research Center, and the Antarctic Mesoscale Prediction System (AMPS)*, Columbus, OH, 1 pp.
- 2005 **Fogt, R.L.**, and D.H. Bromwich. Strong trends in the skill of the ERA-40 and NCEP / NCAR reanalyses in the high and middle latitudes of the Southern Hemisphere, 1958-2001. *In preprints of the 8th Conference on Polar Meteorology and Oceanography*, San Diego, CA.
- 2005 **Fogt, R.L.**, and D.H. Bromwich. Decadal variability of the ENSO teleconnection to the South Pacific governed by coupling with the Antarctic Oscillation. *In preprints of the 8th Conference on Polar Meteorology and Oceanography*, San Diego, CA.
- 2004 **Fogt, R.L.**, D.H. Bromwich, K.M. Hines, Z. Guo, and J.F. Carrasco. Strong ENSO Variability in the Drake Passage in the 1990s. *In preprints of the 7th Conference on Polar Meteorology and Oceanography*, Hyannis, MA.

2003 **Fogt, R.L.** Decadal variability of the ENSO teleconnection to the South Pacific. M.S. Thesis, Atmospheric Sciences Program, Department of Geography, The Ohio State University, 135 pp.

Conference and Workshop Presentations

a) Invited / Keynote

- 2015 Oral Twenty-second Annual West Antarctic Ice Sheet (WAIS) Workshop, Loveland, CO. “Antarctic seasonal station-based pressure variability during the 20th century.”
- 2015 Oral Next Generation of Polar Researchers Symposium, Santa Catalina Island, CA. “Perspectives on a career path in polar climatology.”
- 2015 Oral Ohio University Department of Geological Sciences Colloquium Series, Athens, OH. “Antarctic station-based pressure reconstructions during the 20th century: Regional climate change in context.”
- 2015 Oral WCRP Workshop on Polar Climate Predictability Initiative, San Diego, CA. (3 talks) “Overview: Tropical-Polar connections of the ASL”, “Modeling aspects of the ASL”, “Antarctic seasonal station-based pressure reconstructions since 1905”.
- 2015 Oral Kanawha Project Workshop, Athens, OH. “Understanding climate change across the globe.”
- 2014 Oral Short Course and Antarctic Plant Ecophysiology, Punta Arenas, Chile. “Global Climate Change.”
- 2014 Oral Short Course and Antarctic Plant Ecophysiology, Punta Arenas, Chile. “Antarctic Peninsula Climate Change: Causes and Effects.”
- 2014 Oral Ohio University Science Cafe Series, Athens OH. “All coupled climate models are wrong, some are useful.”
- 2014 Oral Lamont Tropical-Polar Mini-Conference, NSF, Lamont Doherty Earth Observatory. “Tropical influences on Antarctic warming in austral spring.”
- 2013 Oral Ohio University Department of Geography Colloquium Series, Athens, OH. “Off the Charts: Understanding Antarctic climate change from the perspective of the regional atmospheric circulation.”
- 2013 Oral World Climate Research Programme (WCRP) Workshop on Ozone Impacts in the Southern Hemisphere, Buenos Aires, Argentina. “Ozone impacts on the SAM and Antarctic climate”.
- 2012 Oral Boat of Knowledge in the Science Classroom (BooKS) Teacher Professional Development Workshop, Ohio University, Athens, OH. “Climate change: The science and impacts on water.”
- 2012 Oral APECS Career Development Workshop, XXXII SCAR Open Science conference, Portland, OR. “Time management and finding family balance.”
- 2011 Oral The Ohio State University Department of Geography Colloquium Series, Columbus, OH. “The weather-climate connection in recent Antarctic climate change.”
- 2011 Oral 18th Annual West Antarctic Ice Sheet (WAIS) Workshop, Loveland, CO. “Atmospheric control knobs on WAIS climate.”
- 2011 Oral AMS Annual Student Conference, Seattle, WA. “How to write a grant: Tips and tricks for graduate school and beyond.”

b) Lead presenter, in last 6 years

- 2015 Oral 11th Conference on Southern Hemisphere Meteorology and Oceanography, Santiago, Chile. “Varying roles of ENSO and SAM on the Antarctic Peninsula in Austral Spring.”
- 2015 Oral 13th Conference on Polar Meteorology and Oceanography, Whistler, Canada. “The roles of the PDO and ENSO on regional Antarctic warming during austral spring, 1979-2012.”
- 2014 Oral XXXIII SCAR Open Science Conference, Auckland, New Zealand. “Seasonal station-based Antarctic pressure reconstructions during the 20th century.”
- 2014 Oral XXXIII SCAR Open Science Conference, Auckland, New Zealand. “Varying roles of ENSO and the SAM on the Antarctic Peninsula in austral spring.”
- 2013 Poster 12th Conference on Polar Meteorology and Oceanography, Seattle, WA. “Antarctic station-based pressure reconstructions from 1905-2011 using principal component regression.”
- 2013 Oral 12th Conference on Polar Meteorology and Oceanography, Seattle, WA. “The influence of ozone depletion on the Amundsen-Bellinghshausen Seas Low.”
- 2012 Oral XXXII SCAR Open Science conference, Portland, OR. “Antarctic Climate Change Education through Meteorological Measurements at Schools (ACCEMMS).”
- 2012 Oral XXXII SCAR Open Science conference, Portland, OR. “Ozone and greenhouse gas influences on the Amundsen-Bellinghshausen Seas Low.”
- 2011 Oral 11th Conference on Polar Meteorology and Oceanography, Boston, MA. “Seasonal zonal asymmetries in the Southern Annular Mode.”
- 2010 Oral XXXI SCAR Open Science Conference, Buenos Aires, Argentina. “Seasonal zonal asymmetries in the Southern Annular Mode.”
- 2010 Oral XXXI SCAR Open Science Conference, Buenos Aires, Argentina. “Understanding the SAM influence on the South Pacific ENSO teleconnection.”
- 2010 Oral IPY Oslo Science Conference, Oslo, Norway. “The Amundsen / Bellinghshausen Seas Low: The underlying synoptic scale variability in the climatological mean position.”
- 2010 Oral 90th Annual AMS Meeting, Atlanta, GA. “The role of transient eddies in modulating the high southern latitude ENSO teleconnection during strong SAM events.”

Research Funding

a) Ongoing, funded

PI, NSF Office of Polar Programs: “Collaborative Research: Reconstruction and Understanding of Antarctic Circulation Variability and Trends since 1905.” \$249,984, May 2014 – April 2017.

b) Previously funded

- PI, Ohio University Research Challenge, “Reconstruction and Understanding of Antarctic Circulation Variability and Trends since 1905.” \$5,000, September 2012 – December 2013.
- PI, NSF Office of Polar Programs: “ARRA: The variability and predictability of the Amundsen / Bellingshausen Seas Low and its connection to the Antarctic regional climate.” \$234,231, Ohio University Department of Geography, July 2010-September 2013.
- PI, Ohio Space Grant Consortium: “Antarctic Climate Change Education through Meteorological Measurements at Schools (ACCEMMS)”. \$25,097 (+ \$25,000 in matching funds), November 2011 – December 2012.
- PI, Ohio University Research Challenge, “The feasibility of an observationally constrained statistical reconstruction of Antarctic sea ice extent and concentration during the 20th century.” \$5,000, December 2010-December 2011.
- PI, Ohio University Research Challenge, “The variability and predictability of the Amundsen / Bellingshausen Seas Low and its connection to the Antarctic regional climate.” \$5,000, September 2009-July 2010.
- PI, NRC Research Associateship Programs Postdoctoral Fellowship, “An investigation of long-term Southern Annular Mode variability.” \$92,000 to NOAA ESRL, 2007-2009.
- Contributor, UCAR: "Support and Enhancement of the Antarctic Mesoscale Prediction System (AMPS)." \$248,790, Byrd Polar Research Center Polar Meteorology Group, 2006-2008.
- Contributor, NSF Climate Dynamics: "Antarctic climate variability and tropical teleconnections." \$390,000, Byrd Polar Research Center Polar Meteorology Group, 2008-2010.

c) In review

None (as of May 31, 2016)

d) Denied funding

- PI, Ohio University Baker Fund Award, “Diagnosing the variability and change of the Amundsen-Bellingshausen Seas Low using self-organizing maps.” \$11,037.57, submitted October 2013.
- PI, NSF Office of Polar Programs: “CAREER: Antarctic pressure variations during the 20th century: Reconstructions and attribution of recent atmospheric circulation changes”. \$552,390, submitted July 2012.
- PI, NSF Office of Polar Programs: “Collaborative Research: The feasibility of an observationally constrained statistical reconstruction of Antarctic sea ice extent and concentration during the 20th century”. \$249,244 [Ohio University portion], submitted June 2011.
- Co-PI, NSF: “DRK-12: Climate Change Awareness for STEM Education (CCASE).” \$449,438, submitted January 2011.
- PI, NOAA Climate Program Office: “Evaluation of the 20th Century Reanalysis in the High Latitudes of the Southern Hemisphere.” \$75,000, submitted September 2010.
- PI, NOAA Climate Program Office: “The feasibility of an observationally constrained statistical reconstruction of Antarctic sea ice extent and concentration during the 20th century”. \$300,000, submitted September 2010.
- Co-PI, NSF: “E-Climate Change Awareness from Drought to Flood (E-CCADF).” \$984,924, submitted May 2010.

Honors and Awards

- Outstanding Research Award (Natural Sciences), Ohio University College of Arts and Sciences, September 2016.
- University Professor Award, Ohio University, August 2015 – May 2016.
- AMS Student Chapter of the Year (OUCAMS, advisor), 2014-2015.
- Grasselli Faculty Teaching Award (Natural Sciences), Ohio University College of Arts and Sciences, September 2014.
- Nominated for the AMS Teaching Excellence Award, April 2012.
- Ann Campbell Brown Distinguished Service Award, Ohio University Office of Nationally Competitive Awards, May 2011.
- Best Oral Presentation, Scientific Theme 1. SCAR Open Science Conference, Buenos Aires, Argentina, August 2010.
- \$2000 UCAR Travel Grant to 9th International Conference on Southern Hemisphere Meteorology and Oceanography, Melbourne, Australia, February 2009.
- Competitively chosen to attend the New Generation of Polar Researchers symposium, Colorado Springs, CO, May 4-11, 2008.
- \$3000 NSF-OPP Travel Grant to International Union of Geodesy and Geophysics (IUGG) annual conference, Perugia, Italy, July 2007.
- Recipient, E. Willard and Ruby S. Miller fellow award, Department of Geography, The Ohio State University, March 2007.
- NSF / Raytheon Polar Services Travel Grant to McMurdo, Antarctica, December 2002, January 2005, January 2006
- University Fellowship, The Ohio State University, September 2001-August 2002
- Graduated *Summa Cum Laude* (3.9 or higher cumulative GPA), Creighton University
- Outstanding Senior Research Award, Department of Atmospheric Sciences, Creighton University, May 2001
- Academic Achievement Award for Highest Graduating GPA in Atmospheric Sciences, Creighton University, May 2001
- Creighton University Atmospheric Sciences Scholarship, 1999-2000

Graduate and Undergraduate Thesis Projects Advised

a) Graduate Theses

Alex Wovrosh (Geography MS) August 2014. *The role of regional sea-surface temperatures on the Amundsen-Bellinghousen Seas Low as depicted by Atmospheric Model Intercomparison Project simulations.*

Kyle Clem (Geography MS) May 2014. *The combined influence of ENSO and SAM on Antarctic climate variability.*

Ming Yeung Lee (Geography MS) May 2013. *Antarctic station-based pressure reconstructions from 1905-2011 using principal component regression.*

Emily Sheer (Geography MS) May 2013. *The joint influence of ENSO and NAO on US landfalling hurricanes and their origination points.*

Elizabeth Zbacnik (Geography MS) August 2012. *The sensitivity of the Amundsen-Bellinghousen Seas Low to changes in greenhouse gas concentrations and stratospheric ozone depletion.*

Alek Krautmann (Geography MS), May 2012. *Midwest urban heat wave climatology: What constitutes the worst events?*

b) Undergraduate Honors Theses

Jarrold Knauff, B.S. Geography-Meteorology with Honors, 2015. *Post-tropical cyclone Sandy: A case study of the dynamics that influenced the storm.*

Grant Witte, B.S. Geography-Meteorology with Honors, 2015. *Historical Antarctic station-based pressure changes in austral fall and summer during the 20th century.*

Donald Lippi, B.S. Geography-Meteorology with Honors, 2014. *An improved understanding of the North American Mesoscale (NAM) dry bias at the southern end of cold fronts.*

Seth Warthen, B.S. Geography-Meteorology with Honors, 2014. *Evaluating multiple representations of the 20th century Antarctic atmospheric circulation.*

Alex Wovrosh, B.S. Geography-Meteorology with Honors, 2012. *Characteristics of strong cyclonic activity in the Amundsen and Bellinghousen Seas: Connection to the regional climate change and the climatological mean.*

Nicole Grams, B.S. Geography-Meteorology with Honors, 2011. *Investigating the sea, lake, and overland surge from hurricanes (SLOSH) model: A multi-part verification for hurricanes Gustav and Ike using Geographic Information Systems (GIS).*

Field Work

- Field visit and interaction with weather observers at Amundsen-Scott South Pole Station, January 2006.
- Participant, On-site interactions with McMurdo forecasters in McMurdo, Antarctica, on behalf of the Antarctic Mesoscale Prediction System (AMPS) project, January 2006; January 2005; December 2002-January 2003.
- Automatic weather station servicing and installation in Antarctica, January 2006; January 2005.
- Site visit and interaction with weather observers at Odell Glacier, Antarctica, December 2002.

Synergistic Activities

- Chair, AMS Polar Meteorology and Oceanography committee, January 2016-present.
- Vice-chair, AMS Polar Meteorology and Oceanography committee, May 2013-2015.
- Faculty mentor, Ohio University Student Chapter of the AMS. September 2009-present.
- Associate Editor, 2008-2015. *State of the Climate* report by the *American Meteorological Society* for the chapter on Antarctica.
- Convener, 12th AMS Conference on Polar Meteorology and Oceanography session: “Atmospheric and oceanic circulation, variability, and dynamics II”, Seattle, WA, May 2013.
- Co-organizer of the XXXII SCAR Open Science Conference session S2, “Decadal time scale variability in the Antarctic and Southern Ocean climate system.”, Portland, OR, July 2012.
- Panelist, APECS career and mentoring panel, 11th AMS Polar Meteorology and Oceanography Conference, Boston, MA, May 2011.

- APECS Representative, SCAR Scientific Standing Group on the Physical Sciences, September 2009 – August 2012.
- Workshop co-organizer, “Teaching at a University”, IPY Open Science Conference APECS career development workshop, June 2010.
- Convener, Association of Polar Early Career Scientists (APECS) career and mentoring panel, May 2009 at 10th AMS Polar Meteorology and Oceanography Conference, May 2009.
- Reviewer, *Antarctic Science*, *Annals of Glaciology*, *Journal of Geophysical Research*, *International Journal of Climatology*, *Journal of Climate*, *Geophysical Research Letters*, *Climate Dynamics*, *Journal of the Atmospheric Sciences*, *Nature Climate Change*, and NSF proposals, 2004-present.
- Panelist, Climate Change Challenge Panel, Colorado School of Mines, January 2008.
- Participant, Reanalysis workshop in the High Latitudes, Cambridge, UK, April 2006.
- Reviewer, IPCC WG1 Fourth Assessment Report, 2005.
- Contributed to the preliminary data collection and development of the North American Drought Monitor (NADM, <http://www.ncdc.noaa.gov/oa/climate/monitoring/drought/nadm/>) as an undergraduate research assistant.

Professional Memberships

- American Meteorological Society
- American Geophysical Union