

**VITA**  
**JEFFREY C. ROGERS**

Department of Geography  
The Ohio State University  
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**DEGREES**

Ph.D., 1979, University of Colorado (Geography)

M.S., 1974, University of Wisconsin-Milwaukee (Geography)

B.S., 1972, University of Wisconsin-Milwaukee (Appl. Math/Physics)

**POSITIONS HELD**

1992- Professor, Dept of Geography, The Ohio State University.

1986- Appointed State Climatologist for Ohio.

1985-92 Associate Professor, Department of Geography, The Ohio State University.

1979-85 Assistant Professor, Department of Geography, The Ohio State University.

1976-79 Graduate Research Assistant at the Institute of Arctic and Alpine Research Univ. of Colorado.

1974-76 Research Physical Scientist at the NOAA/ERL Great Lakes Environmental Research Laboratory (GLERL) in Ann Arbor.

1972-74 Graduate Research Assistant, Department of Geography, Univ. of Wisconsin at Milwaukee.

**RESEARCH PUBLICATIONS IN REFEREED JOURNALS**

Ballinger, T.J., J.C. Rogers, and M.-P. Hung, 2011: The role of the AMO and other teleconnections on summer sea ice retreat in the Beaufort, Chukchi, and East Siberian Seas, 1953-2009. Submission planned for *J. Climate*, December 2011.

Rogers, J.C., 2011: The 20th Century cooling trend over the Southeastern United States. Submission planned for *Climate Dynamics* October 2011.

Lauritsen, R.G., and J.C. Rogers, 2011: Spatial and temporal U.S. diurnal temperature range variability, 1901-2002, and evaluation of regional causal mechanisms. Submitted to *J. Climate* on 7/26/11.

Rogers, J.C., and M.-P. Hung, 2008: The Odden Ice Feature of the Greenland Sea and its Association with Atmospheric Pressure, Wind, and Surface Flux Variability from Reanalyses. *Geophys. Res. Lett.*, 35, L08504, doi:10.1029/2007GL032938.

Rogers, J.C., S.-H. Wang, and J.S.M. Coleman, 2007: Evaluation of a long-term (1882-2005) equivalent temperature time series. *Journal of Climate*, 20 (17), 4476-4485.

Coleman, J.S.M., and J.C. Rogers, 2007: A synoptic climatology of the central United States and associations with Pacific teleconnection pattern frequency. *J. Climate.*, 20, 3485-3497.

- Box, J.E., D.H. Bromwich, B.A. Veenhuis, L.-S. Bai, J.C. Stroeve, J.C. Rogers, K. Steffen, T. Haran, and S.-H. Wang, 2006: Greenland ice sheet surface mass balance variability (1988-2004) from calibrated Polar MM5 output. *Journal of Climate*, 19, 2783-2800.
- McHugh, M.J., and J.C. Rogers, 2005: Multi-model representation of the North Atlantic Oscillation in the 20th and 21st centuries. *Geophys. Res. Lett.*, 32, L21713, doi:10.1029/2005GL023679.
- Rogers, J.C., L. Yang, and L. Li, 2005: The role of Fram Strait winter cyclones on sea ice flux and on Spitsbergen air temperatures. *Geophys. Res. Lett.*, 32, L06709, doi:10.1029/2004GL022262. March 28.
- Rogers, J.C., D. J. Bathke, E. Mosley-Thompson, and S.-H. Wang, 2004: Atmospheric Circulation and Cyclone Frequency Variations Linked to the Primary Modes of Greenland Snow Accumulation. *Geophys. Res. Lett.*, 31 (23), L23208 10.1029/2004GL021048
- Rogers, J.C., and J.S.M. Coleman, 2004: Ohio winter precipitation and stream flow associations to Pacific Atmospheric and Oceanic teleconnection patterns. *Ohio Journal of Science*, 104(3), 51-59.
- Rogers, J.C., S.-H. Wang, and D.H. Bromwich, 2004: On the role of the NAO in the recent northeastern Atlantic Arctic warming. *Geophys. Res. Lett.*, 31, L02201, 10.1029/2003GL018728
- Rogers, J.C., and J.S.M. Coleman, 2003: Interactions between the Atlantic multidecadal oscillation, ElNiño/LaNiña, and the PNA in winter Mississippi Valley Stream Flow", *Geophys. Res. Lett.*, 30(10), 1518, 10.1029/2003GL017216 (22 May).
- Coleman, J.S.M., and J.C. Rogers, 2003: Ohio River Valley winter moisture conditions associated with the Pacific/North American teleconnection pattern. *J. Climate*, 16, 969-981.
- Otterman, J., R. Atlas, S.-H. Chou, J.C. Jusem, R.A. Pielke, Sr, T.N. Chase, J.C. Rogers, G.L. Russell, S.D. Schubert, Y.C. Sud, and J. Terry, 2002: Are stronger North-Atlantic southwesterlies the forcing the late-winter warming in Europe? *Int. J. Climatol.* 22, 743-750.
- Rogers, J.C., and M. McHugh, 2002: On the separability of the North Atlantic Oscillation and Arctic Oscillation. *Climate Dynamics*, 19, 599-608.
- Wang, C.-C., and J.C. Rogers, 2001: A composite study of explosive cyclogenesis in different sectors of the North Atlantic. Part I: Cyclone structure and evolution. *Monthly Weather Review*, 129(6), 1481-1499.
- McHugh, M., and J.C. Rogers, 2001: North Atlantic Oscillation Influence on precipitation variability around the southeast African convergence zone. *J. Climate*, 14, 3631-3642.
- Folland, C.K., C. Miller, D. Bader, M. Crowe, P. Jones, N. Plummer, M. Richman, D.E. Parker, J.C. Rogers, and P. Scholefield, 1999: Report of breakout Group C - Temperature Indices for Climate extremes. *Climatic Change*, 42(1), 31-43.
- Easterling, D.R., H.F. Diaz, A.V. Douglas, W.D. Hogg, K.M. Kunkel, J.C. Rogers, and J.F. Wilkinson, 1999: Long-term observations for monitoring extremes in the Americas. *Climatic Change*, 42(1), 285-308.
- Rogers, J.C., C.-C. Wang, and M. McHugh, 1998: Persistent cold climatic episodes around Greenland and Baffin Island: Links to decadal-scale sea surface temperature anomalies. *Geophysical Research Letters*, 25(21), 3971-3974.
- Rogers, J.C., J.F. Bolzan, and V.A. Pohjola, 1998: Atmospheric circulation variability associated with shallow-core seasonal isotopic extremes near Summit Greenland. *Journal of Geophysical Research-Atmospheres*, 103(D10), 11,205-11,219.

- Kunkel, K.K., K. Andsager, G. Conner, W.L. Decker, H.J. Hilaker, jr, P. Nabor-Knox, F.V. Nurnberger, J.C. Rogers, K. Scheeringa, W.L. Wendland, J. Zandlo, and J.R. Angel, 1998: An expanded digital daily data set for climatic resources applications in the Midwestern United States. *Bull. Amer. Meteor. Soc.*, 79(7), 1357-1366.
- Rogers, J.C., 1997: Progress Report in Applied Climatology. *Prog. in Physical Geography*, 21(2), 338-343.
- Pohjola, V.A., and J.C. Rogers, 1997: Atmospheric circulation and variations in Scandinavian glacier mass balance. *Quaternary Research*, 47(1), 29-36.
- Barlow, L.K., J.C. Rogers, M.C. Serreze, and R.G. Barry, 1997: Aspects of climate variability in the North Atlantic sector: discussion and relation to the GISP2 high resolution isotopic signal. *J. Geophys. Res. - Atmospheres*, 102(C12), 26,333-26,344.
- Rogers, J.C., 1997: North Atlantic storm track variability and its association to the North Atlantic Oscillation and climate variability of Northern Europe. *J. Climate*, 10(7), 1635-1647.
- Rogers, J.C., R.A. Hellstrom, E. Mosley-Thompson, and C.-C. Wang, 1997: An abrupt spring air temperature rise over the Greenland ice cap. *J. Geophys. Res. - Atmospheres*, 102(D12), 13,793-13,800.
- Pohjola, V.A., and J.C. Rogers, 1997: Coupling between the atmospheric circulation and extremes of the mass-balance of Storglaciären, northern Scandinavia. *Annals of Glaciology*, 24, 229-233.
- Serreze, M.C., F. Carse, R.G. Barry, and J.C. Rogers 1997: Icelandic Low cyclone activity: Climatological features, linkages with the NAO and relationships with recent changes elsewhere in the Northern Hemisphere circulation. *Journal of Climate*, 10(3), 453-464.
- Rogers, J.C., 1995: Annual Progress Report on Applied Climatology. *Prog. in Phys. Geogr.*, 19(4), 553-558.
- Rogers, J.C., and E. Mosley-Thompson, 1995: Atlantic arctic wave cyclones and the mild Siberian winters of the 1980s. *Geophys. Res. Lett.*, 22(7), 799-802.
- Rogers, J.C., 1994: Applied Climatology. *Prog. In Phys. Geogr.*, 18(2), 271-275.
- Barlow, L.H., J.W.C. White, R.G. Barry, J.C. Rogers, and P.M. Grootes, 1993: The North Atlantic Oscillation signature in deuterium and deuterium excess signals in the Greenland ice sheet Project 2 ice core. *Geophys. Res. Lett.*, 20(24), 2901-2904.
- Rogers, J.C., 1993: Climatological aspects of drought in Ohio. *Ohio Journal of Science*, 93(3), 51-59.
- Rohli, R.V., and J.C. Rogers, 1993: Atmospheric teleconnections and citrus freezes in the southern United States. *Phys. Geogr.*, 14, 1-17.
- Rogers, J.C., and M.N. Raphael, 1992: Meridional eddy sensible heat fluxes in the extremes of the Pacific/North American teleconnection pattern. *Journal of Climate*, 5(2), 127-139.
- Howarth, D., and J.C. Rogers, 1992: Problems associated with smoothing and filtering of geophysical time series. *Physical Geography*, 13, 81-99.
- Raphael, M.N., and J.C. Rogers, 1992: The meridional flux of eddy sensible heat at 700 mb in the Northern Hemisphere winter. *Physical Geography*, 13, 1-13.
- Rogers, J.C., and R.V. Rohli, 1991: Florida citrus freezes and polar anticyclones in the Great Plains. *Journal of Climate*, 4, 1103-

1113.

Rogers, J.C., 1990: Patterns of low-frequency monthly sea level pressure variability (1899-1986) and associated wave cyclone frequencies. *J. Climate*, 3, 1364-1379.

Rogers, J.C., 1988: Precipitation variability over the Caribbean and tropical Americas associated with the Southern Oscillation. *J. Climate*, 1, 172-182.

Rogers, J.C., and A. Yersavich, 1988: Daily air temperature variability associated with climatic variability at Columbus, Ohio. *Physical Geography*, 9(2), 120-138.

Rogers, J.C., 1985: Atmospheric circulation changes associated with the warming over the northern North Atlantic in the 1920's. *J. Clim. Appl. Meteor.*, 24, 1303-1310.

Van Loon, H. and J.C. Rogers, 1984: The yearly wave in pressure and zonal geostrophic wind at sea level on the Southern hemisphere and its interannual variability. *Tellus*, 36A, 348-354.

Rogers, J.C., 1984: The Association between the North Atlantic Oscillation and the Southern Oscillation in the Northern Hemisphere. *Mon. Wea. Rev.*, 112, 1999-2015.

van Loon, H. and J.C. Rogers, 1984: Interannual variations in the Half-yearly cycle of pressure gradients and zonal wind at sea level on the Southern Hemisphere. *Tellus*, 36A, 76-86.

Rogers, J.C., 1983: Spatial variability of Antarctic Temperature Anomalies and their Association with the Southern Hemisphere Circulation. *Annals Assoc. Amer. Geogr.*, 73 #4, 502-518.

Rogers, J.C. and H. van Loon, 1982: Spatial Variability of Sea Level Pressure and 500 mb Height Anomalies over the Southern Hemisphere," *Mon. Wea. Rev.*, 110, 1375-1392.

van Loon, H. and J.C. Rogers, 1981: Remarks on the circulation over the Southern Hemisphere in FGGE and on its relation to the phases of the Southern Oscillation. *Mon. Wea. Rev.*, 109, 2255-2259.

Rogers, J.C., 1981: Spatial variability of seasonal sea level pressure and 500 mb height anomalies. *Mon. Wea. Rev.*, 109, 2093-2106.

van Loon, H. and J.C. Rogers, 1981: The Southern Oscillation, Part II: Associations with changes in the middle troposphere in the Northern winter. *Mon. Wea. Rev.*, 109, 1163-1168.

Rogers, J.C., 1981: The North Pacific Oscillation. *Journal of Climatology*, 1 (1), 39-58.

Barry, R.G., R.E. Moritz, and J.C. Rogers, 1979: The Fast Ice Regimes of the Beaufort and Chukchi Sea Coasts, Alaska. *Cold Regions Science and Technology*, 1, 129-152.

Rogers, J.C. and H. van Loon, 1979: The Seesaw in Winter Temperatures Between Greenland and Northern Europe. Part II: Some Oceanic and Atmospheric Effects in Middle and High Latitudes. *Mon. Wea. Rev.*, 107, 509-519.

van Loon, H. and J.C. Rogers, 1978: The Seesaw in Winter Temperatures Between Greenland and Northern Europe. Part I: General Description. *Mon. Wea. Rev.*, 106, 296-310.

Rogers, J.C., 1978: Meteorological Factors Affecting Interannual Variability of Summertime Ice Extent in the Beaufort Sea. *Mon. Wea. Rev.*, 106, 890-897.

Rogers, J.C., 1976: Sea Surface Temperature Anomalies in the Eastern North Pacific and Associated Wintertime atmospheric Fluctuations Over North America, 1960-73. *Mon. Wea. Rev.*, 104, 985-993.

## **BOOK CHAPTERS**

Coleman, J.S.M., and J.C. Rogers, 2009: "Regional synoptic classification schemes: A Midwestern Example" in *Climate Variability, Predictability & Change in the Midwest*. S.C. Pryor, ed. Indiana University Press. pp. 207-218.

Rogers, J.C., S.-H. Wang, and J.S.M. Coleman, 2009: "Long-Term Midwestern Summer Equivalent Temperature Variability", in *Climate Variability, Predictability & Change in the Midwest*. S.C. Pryor, ed. Indiana University press. pp. 55-65.

Rogers, J.C., J. Winkler, D. Legates, and L. Mearns, 2004: "Climatology" in *Geography in America toward the 21st century*. Gaile, G.L., and C.J. Willmott (eds.), Oxford: Oxford University Press, pp. 32-46.

Marengo, J., and J.C. Rogers, 2000: Polar air outbreaks in the Americas. Assessments and impacts during modern and past climates. In *Inter-hemispheric climate linkages in the Americas and their societal effects*, by V. Markgraf (ed), SanDiego: Academic Press, pp 31-49 of 443 pp. ISBN: 0-12-472670-4

Rogers, J.C., 1999: "Climate and Weather", in *North America: Environment and Society*, F. Boal and S.A. Royle (eds), London:Arnold, 27-36.

## **RESEARCH GRANTS**

"Collaborative Research: Syntheses of Sea Ice, Climate, and Human Systems in the Arctic and Subarctic (SYNICE)", from the National Science Foundation, OPP, Synthesis of Arctic System Science (ARC-0629338) for the period 9/15/06 through 8/31/10 for \$199,646.

"Influence of ocean surface conditions on regional climate of the northern North Atlantic" From NSF Arctic System Science Program, 9/1/2001 - 8/31/2005 for \$295,327.

"Development of new electronic climatological data sets". From the Midwestern Climate Center, June 1, 1998 - May 31, 2000, for \$8800.

"Environmental changes and human responses in the North Atlantic (Iceland and Greenland sectors) during the last 2000 years: A contribution to the ARCSS Systems, Integration and Modeling Initiative" From NSP-OPP/ARCSS, 1/1/98-12/31/01 for \$31,500.

Supplemental Research Experiences for Undergraduates award to "Environmental changes and human responses in the North Atlantic (Iceland and Greenland sectors) during the last 2000 years: A contribution to the ARCSS Systems, Integration and Modeling Initiative" From NSP-OPP/ARCSS, from 5/21/98 to 1/31/00 for \$5259.

"A comparative analysis of North Atlantic climate and atmospheric circulation variability" (Ellen Mosley-Thompson, co-P.I.). From NOAA Office of Global Programs - Atlantic Climate Change Program, 3/1/95- 12/31/98, for \$197,796.

"1000 years of proxy climate records from the North Atlantic region: A contribution to the ARCSS plan for integration." From NSF-OPP-Arctic Systems Science, 1/1/95 - 12/31/97 for \$71,753.

Atmospheric Circulation, Sea Ice and Climate Variability over the northern Atlantic. (Ellen Mosley-Thompson, co-P.I.). From National Oceanic and Atmospheric Administration, Office of Global Programs - Atlantic Climate Change Program, 6/1/93 - 5/31/95, for \$135,952.

Digitization of daily climate data for Ohio". From the Midwestern Climate Center, July 15, 1992 through June 31, 1994 for \$13,700.

Secular Climate and Atmospheric Circulation Fluctuations over the Atlantic Area. From National Science Foundation (NSF)-Climate Dynamics Branch, 11/1/88-4/30/91 for \$74,889.

Secular climate and atmospheric circulation fluctuations over the Atlantic Area. From NSF-Climate Dynamics branch 3/86-8/88, \$91,200.

"The Interannual variation of certain features of the general circulation over the Southern Hemisphere." (H. van Loon, co-PI). Total \$74,200 from NSF, Climate Dynamics Branch, 3/83-3/86.

The Interannual Variation of Certain Features of the general circulation over the Southern Hemisphere." (H. van Loon, Co-P.I.). Received from NSF- Climate Dynamics Branch, for \$56,800, 7/1/80-12/31/82.

Examination of the Climatic Variability of the Arctic Temperature Inversion over Alaska and Northern Canada. Received from The Ohio State University Graduate School, Small Research Grant Program, for \$3,950, June 1980 - June 1981.

#### **UNREFEREED ARTICLES, CONFERENCE PROCEEDINGS AND ABSTRACTS**

Rogers, J.C., 2003: The climate of Ohio. *Climate of the States*, Clim-60.

Rogers, J.C., J.F. Bolzan and V. Pohjola, 1997: Atmospheric circulation variability associated with shallow-core seasonal isotopic extremes near Summit Greenland. Proc. Principal Investigators Meeting - Atlantic Climate Change Program, Washington, D.C.: NOAA.

Rogers, J.C., 1997: Changes in cold wave frequencies and intensities in the United States. Proceedings of the Workshop on Indicators and Indices for Climate Extremes, Asheville:National Climatic Data Center, XXXpp.

Rogers, J.C., 1997: East Greenland sea ice variability and synoptic storm systems. Abstracts of the 93rd Annual Meeting of the Association of American Geographers, p. 227.

Rogers, J.C., 1996: On the Causes of Mild Winters in Northern Europe. In *Studies in Climate, Part II*. NCAR/TN-433+PROC, Boulder:National Center for Atmospheric Research, 51-67.

Rogers, J.C., 1996: "Synoptic Weather Systems Associated with Air Temperature Variability on the Greenland Ice Sheet" Abstracts of the 92nd Annual Meeting of The Association of American Geographers, p 252.

Rogers, J.C., 1995: The North Atlantic Oscillation. In *The Global Climate System Review*. Climate System Monitoring June 1991-November 1993. World Meteorological Organization, page 18.

Rogers, J.C., 1995: The North Atlantic storm track and climate variability. Proceedings Sixth Intl Meeting on Statistical Climatology, Galway: University College Galway, 79-82.

Rogers, J.C., E. Mosley-Thompson, R.A. Hellstrom, and C.-C. Wang, 1995: The Abrupt Spring Warming over Greenland. Proceedings from the Principal Investigators Meeting - Atlantic Climate Change Program. NOAA:Washington D.C., 153-157.

Barlow, L., and J.C. Rogers, 1994: Aspects of climate dynamics and variability in the North Atlantic sector: relationships to GISP2 and other Greenland ice core records. Submitted for inclusion in Summit Ice Core Compendium.

Rogers, J.C., and E. Mosley-Thompson, 1994: Sea level pressure variability and Greenland snow accumulation. ACCP Notes, #3, Miami, FL: NOAA/AOML, 3-4.

Rogers, J.C., 1994: Atlantic storm track variability and the North Atlantic Oscillation. NOAA/UCAR: The Atlantic Climate Change Program - Proceedings from the Principal Investigators Meeting, pp 20-24.

(with 9 others), 1992: Mean 1961-1990 Temperature and Precipitation over the Upper Midwest. Midwestern Climate Center Research Report 92-01, Champaign, IL: Illinois State Water Survey, 27 pp.

Abstract (with L.K. Barlow, J.W.C. White, P. Grootes), 1991: Investigation of the seesaw in winter temperatures from Deuterium and Deuterium excess signals in the GISP II ice core. EOS, 72, 40, p.65 (Fall Meeting Abstracts).

Rogers, J.C., 1991: Climatology of strong polar anticyclones and Florida citrus freezes. Proc. 15th Annual Climate Diagnostics Workshop, Washington D.C.: NOAA/CAC, 427-432.

Rogers, J.C., 1990: Atlantic sea level pressure teleconnections and associated storm track and climate variability. Proc. 14th Annual Climate Diagnostics Workshop. Washington, D.C.: NOAA/CAC, 151-155.

Rogers, J.C., 1989: Statistical evaluation of arctic climatic variability. In High-latitude climate processes, with special emphasis on large scale air-sea-ice interactions. (Proceedings 16th Stanstead Seminar) L.A. Mysak (ed.), Montreal: McGill Univ. Climate Research Group, CRG report No. 89-12, 51-56.

Rogers, J.C., 1989: Seasonal Temperature variability over the North Atlantic Arctic. Proc. Thirteenth Annual Climate Diagnostics Workshop, 170-175.

1988. Atlantic SST Variability and high latitude Climate fluctuations. Proceedings Twelfth Annual Climate Diagnostics Workshop, NOAA, Washington, D.C., 146-152.

1987. Precipitation variability over tropical South America associated with the Southern Oscillation. Proceedings Eleventh Annual Climate Diagnostics Workshop, NOAA, Washington, D.C., 157-164.

1987. Cloud and precipitation variability over South America and the tropical Atlantic associated with the southern Oscillation. Tropical Ocean-Atmosphere Newsletter, 37,7-10.

1985. The Rapid Warming over the Northern North Atlantic around 1920. Extended Summaries of the Third Conference on Climate Variations and Symposium on Contemporary Climate: 1850-2100. Los Angeles, January 1985. pp. 52-53.

1985. Climatic fluctuations over the northern North Atlantic in the early Twentieth Century. EOS, 66(46), 816. (Abstract).

1984. "Factor Analysis of Antarctic Seasonal Mean Temperatures", Proceedings of 15th Annual Modeling and Simulation Conference. Vol. 15, Part 1, 411-415.

1984. A comparison of the mean winter pressure distribution in the extremes of the North Atlantic Oscillation and Southern Oscillation. In Studies in Climate, H. van Loon (ed.), NCAR Tech. Note NCAR/TN-227+STR, 208-241.

1983. The eigenvectors of fields of sea level pressure and 500 mb height anomalies. Proceedings of 14th Annual Modeling and Simulation Conference. Vol 14 Part 3, 689-693.

1983. The North Atlantic Oscillation during Winter 1982-83, Proceedings, 8th Annual Climate Diagnostics Workshop. U.S. Dept. Commerce, NOAA, 36-41.

1982. Combined Signals of the Walker Oscillations to Northern Hemisphere Sea Level Pressure and Air Temperature, Proc. 7th Annual Climate Diagnostics Workshop. U.S. Dept. of Commerce, NOAA, 259-264.
1981. (with H. van Loon) Aspects of the half-yearly oscillations on the Southern Hemisphere. Academy of Athens, Research Center for Atmospheric Physics and Climatology, Publication No. 5, Athens, 45 pp.
1981. Teleconnections to the strength of the Southern Hemisphere Westerlies. Proceedings 6th Annual Climate Diagnostics Workshops. U.S. Department of Commerce, NOAA, 197-208.
1979. "The North Pacific Oscillation and Eigenvectors of Northern Hemisphere Atmospheric Circulation During Winter". A Thesis for the Degree of Ph.D. in Geography at the University of Colorado to be published as NCAR Cooperative Thesis NCAR/CT-56 and INSTAAR Occasional Paper No. 31, 173 pp.
1977. A Meteorological Basis For Long-Range Forecasting of Summer and Early Autumn Sea Ice Conditions in the Beaufort Sea. Proceedings 4th Conference on Port and Ocean Engineering Under Arctic Conditions, Vol. 2, 952-962.
1977. (with van Loon, H.) Teleconnections at Middle and High Latitudes in Winter. Proceedings of the Second Annual Climate Diagnostics Workshop. U.S. Department of Commerce, NOAA, 26-1 to 26-8.
1976. (with Barry, R.G., R.E. Moritz) Studies of Climate and Fast Ice Interaction During the Decay Season Along the Beaufort Sea Coast. AAAS, Proceedings 27th Alaskan Science Conference, Vol. 2, 213-228.
1976. Climate, Ice and Summertime Navigability of the Beaufort Sea. EOS, 57 (12), p. 933. (Abstract).
1976. Long-Range Forecasting of Maximum Ice Extent on the Great Lakes. NOAA Tech. Memorandum ERL GLERL-7, 15 pp.
1976. Evaluation of Techniques for Long-Range Forecasting of Air Temperature and Ice Formation. NOAA Tech. Memorandum ERL-GLERL-8, 24 pp.
1975. (with B. DeWitt and D. Dixon) Operational Ice Forecast for the Little Rapids Cut. NOAA Tech. Memorandum ERL-GLERL-4, 17 pp.
1974. The possibilities of using anomalies of sea surface temperature as a basis for long-range forecasting. Master's Thesis, Dept. of Geography, University of Wisconsin-Milwaukee (unpublished), 90pp.
1974. Investigation of Ocean-Atmosphere Teleconnections During the Climatic Fluctuation of the 1960's Over North America. Bulletin of the American Meteorological Society, 55 (7), p. 875. (Abstract).
1973. Possibilities of Long-Range Forecasting of the Winter Ice Closedown Date on the Western Great Lakes. Bulletin, of the Illinois Geographical Society, 15, 3-9.
1973. (with Lyons, W.A., and G.E. Stout) ERTS-1 and Air Force DAPP Satellite Images of Dynamical Features of Great Lakes Snow Squall Mesosystems. Bull. Amer. Meteor. Soc., 54 (10), p. 1112.

## **BOOK REVIEWS**

2002. "Synoptic and Dynamic Climatology", Annals, Assoc Amer Geogr., 92(4), 809-811.
2000. "A History of Florida Citrus Freezes", Bull. Amer. Meteor. Soc., 81(3), 590-591.
1996. "The Genius of C.W. Thornthwaite, Climatologist-Geographer", Bull. Amer. Meteor. Soc., 77(7), 1594-1596.



1995. "Global and Regional Climate Interaction: The Caspian Sea Experience" Bull. Amer. Meteor. Soc., 76(12), 2498-2500.
1988. "Climatic change and variability in Southern Africa." Annals Assoc. Amer. Geog., 78(1), 205-207.
1985. "Weather and Climate of the Antarctic." Prof. Geographer, 37(3), 383-384.
1984. "Climate from Tree Rings". Professional Geographer, 36(2), 267-268.

## **GRADUATE STUDENT ADVISING**

### A. PhD's completed and in progress.

Ryan Lauritsen, Geography, Ph.D. winter 2011: "Environmental factors influencing 20<sup>th</sup> century diurnal temperature range variations".

Meng-Pai Hung, Ph.D., summer 2009: The evaluation of the East Greenland Sea Odden ice feature using the Community Climate System Model 3.0 (CCSM3)

Jill Coleman, Ph.D. summer 2005: Atmospheric circulation types associated with cause-specific mortality in the central United States.

Sheng-Hung Wang, Ph.D. Winter 2004 "Large-scale moisture flux analysis for the United States"

Maurice McHugh, PhD (1999). Currently Assistant professor at Kansas State University.

Dissertation: "Precipitation over Southern Africa and Global-scale atmospheric circulation during boreal winter"

Chung-Chieh Wang, Ph.D. Atmospheric Sciences (1998). Dissertation: "Rapid development of cyclones at high latitudes over the North Atlantic"

Marilyn Raphael, PhD (1990). Currently Associate Professor at University of California - Los Angeles. Dissertation: "Atmospheric circulation and poleward sensible heat flux variations associated with the recent Northern Hemisphere warming".

Mary Marshall (1994). Dissertation: "Atlantic sea surface temperature variability and its relationship to overlying air temperature, sea level pressure, and 500 mb teleconnections".

### B. Master's Theses (student's in the OSU Atmospheric Science Program).

Bria Youderian, M.S. summer 2009: Influence of the Atlantic multidecadal and Pacific decadal oscillations on hemispheric air temperature and cloud cover

Joshua Jankot, M.S., summer 2009: Synoptic Analysis of Large Snowstorms affecting Boston, Massachusetts.

Michael Davis, M.S. Summer 2008: Analysis of United States seasonal air temperatures

Brianne Vogt, M.S. Winter 2007 (12/12/06): Spatial and temporal variability of United States cloud cover, 1893-1996

Ebner, Andrew D., M.S. Summer 2006: Trends in the seasonal lake level cycle and water budget for Lake Erie from 1948-1999.

Mills, Kristen D., M.S. Spring 2006: The annual cycle of monthly and 10 day correlations between solar radiation and air temperature across Ohio

Kenichi Matsui, M.A., Spring 2005: "Variations and Regional Differences in Northern Hemisphere Snow Cover Frequency"

Dennis Cavanaugh, M.S., Summer 2004: "A case study of the August 26, 2003 derecho, focusing on derecho propagation"

Robert C. Pulliam, M.S., Spring 2003 Thesis: "Validation of the parameterized real-time ionospheric specification model (PRISM)".

Lawrence K. Brown Jr, M.S., Winter 2002 Thesis: "Atmospheric Circulation associated with snowy periods in the Ohio River Valley"

Beth Mazzocco, M.S., summer 2001 Thesis: "Weekly cycles in air pollution and precipitation around central Ohio"

Susan Ware, M.S., (2000) Thesis: "ENSO/LNSO related precipitation variability in the northern Plains"

Michael Ryan, M.S., (2000) Thesis: "Precipitation-streamflow relationships in the Ohio River Valley during El Niño and La Niña winters"

Shawn Trueman, M.S. (1996) Thesis: "A classification of Gulf of Mexico wintertime storms as they move through the eastern Ohio Valley".

Sabrina Tajjeron, M.S. (1993) Thesis: "The sea breeze convergence zone and its relationship to fair weather electricity in east central Florida".

Robert V. Rohli, M.S. (1991). Currently a PhD student at Louisiana State University. Thesis: "The relationship between polar anticyclones, citrus freezes in the southeastern United States, and atmospheric teleconnection patterns".

C. Master's Research Papers (Geography).

Thomas Ballinger, Thesis, summer 2011, "The influence of atmosphere-ocean teleconnections on western Arctic sea ice and surface air temperature".

Jill Coleman, M.A., (2000) Thesis: "Ohio River Valley winter moisture conditions associated with Pacific atmospheric teleconnections"

Tim Boyer, M.A. (1993) "The synoptic climatology of mesoscale cyclogenesis in the Davis Strait region"

Pauline Deutz, M.A. (1989) (co-advisor with Ellen Moseley-Thompson) "Variations in the concentration, size distribution and morphology of microparticles preserved in a central Greenland ice core over the last 150 years"

Amy Yersavich, M.A. (1987). "An investigation of anomalously warm and cold seasons in Columbus".

Marilyn Raphael, M.A. (1986). "Relationship between the intertropical convergence zone and extratropical pressure fluctuations".

Kathy Ray Hutchings, M.A. (1983). "Spatial and temporal variations in persistence of mean air temperatures over the United States and their association with variations in atmospheric circulation".

Arliss S. Perry, M.A. (1982). "Associations between the strength of the easterlies and westerlies of the Northern and Southern Hemisphere at the 500 mb level".

## **PROFESSIONAL SERVICE**

1990-1992: Secretary/Treasurer of the Climate Specialty Group of the Association of American Geographers.

EXTRAMURAL SERVICE (State Climatologist)

Member, State of Ohio NOAA/NWS coordinating committee ("Troika") for the centennial cooperative weather station program, 1990-1991.

Member Governor's State Drought Assessment Committee, formed in 1988 under the direction of the Ohio Emergency Management Agency, and currently activated.

Consultant in the Chubb drought insurance litigation 1988-89.

Supervisor of the "Weather or Not" event of the Ohio Science Olympiad competition for 6th-9th graders, annually since 1988.

## **UNIVERSITY SERVICE**

Departmental Committees: (1) Curriculum (1980-present)

(2) Graduate Studies (1985-1988)

(3) Library (1979-present)

Departmental: Course coordinator for Physical Geography (1982-present).

Departmental: Undergraduate major advisor (1980-present) and

Coordinating advisor for undergraduate majors (1988- ).

University Committees: (1) Petitions Committee (March 1988-Dec. 1989).

(2) Search Committee director for the Byrd Polar  
Research Center (1987-1989)

## **COURSES TAUGHT**

Courses taught on the quarter system at O.S.U. include the following:

1. Physical Geography (5 credit hours) (undergraduates).
2. Climatology (5 credit hours) (undergraduates mostly).
3. Synoptic Meteorology I: Synoptic Analysis and Forecasting (5)
4. Synoptic Meteorology II: Severe storm forecasting (5).
5. Graduate seminars - on topics such as climatic change and extreme synoptic events.

Courses 2-4 are my primary responsibility, and courses 3 and 4 have entailed the preparation of unpublished instruction manuals.

## **MEMBERSHIPS**

Association of American Geographers      American Geophysical Union

American Meteorological Society      Ohio Academy of Science

Byrd Polar Research Center - OSU

## **AWARDS and HONORS**

Lifetime Achievement Award of the Climate Specialty Group of the Association of American Geographers, March 25, 2009, Las

Vegas, NV.

## **PAPERS PRESENTED AT PROFESSIONAL MEETINGS**

2011, October 25: "Ohio Climate Change and It's Impacts" to Ohio Transportation Engineer's Conference , Columbus, OH, Climate Change In Ohio Session.

2010, May 6: "Climate change: Science basics and impacts around the Great Lakes" as part of The Ohio State University Climate Change Webinar Series: Climate Change and water Resource Impacts in the Great Lakes Region. Columbus, OH.

2010, February 22: "Ohio's Changing Climate", at OSU's AEDE annual colloquium & meeting: Cap & Trade: The implications of carbon regulation & Pricing", at OSU's Nationwide & Ohio Farm Bureau 4-H Center Auditorium.

2009, October 15: "Decadal-scale ocean variability and implications for high latitude environments", at National Science Foundation Long-Term Human Ecodynamics Workshop, at Eagle Hill Maine.

2009, October 10: "Changing severe weather events: Impacts on emergency management" to the Nat'l Emergency Management Agency annual meeting, Panel discussion on Climate Change, Columbus, OH.

2009, June 17: "The evaluation of the East Greenland Sea Odden Ice feature using CCSM3" with M.-P. Hung and J. Lin at Breckenridge CO annual CCSM3 users meeting of UCAR.

2009, May 19: "Ohio's Climate and its Variability" presented to Master Gardeners of Franklin County, at Scott Hall, OSU.

2009 "The Twentieth century cooling over the Southeastern United States" Las Vegas, NV, Annual Meeting of the Association of American Geographers.

2008, September 30, 2008: Presented "Ohio severe weather hazards and climate change" to the Ohio Emergency Management Agency Fall Directors' seminar at Reynoldsburg, OH..

2008 "Once, when the United States was a sunny, sunny place", Boston, MA, Annual Meeting of the Association of American Geographers AAG

2007 Oct. 15-17, Bloomington: Presented "Analysis of an equivalent temperature data record and potential applications" at the Workshop on Regional Climate Variability, Predictability and Change in the Midwest, Univ. Indiana.

2007 Oct. 2-4, Alexandria, VA: "Synthesis of sea ice, climate and human systems in the Arctic and subarctic" with Astrid Ogilvie, NSF ARCSS Arctic Synthesis workshop.

2007 San Francisco: "The annual cycle of monthly correlations between station mean air temperatures and sunshine duration across the United States" annual meeting of the Association of American Geographers (AAG)

2006 Chicago: "A long-term summer surface equivalent temperature time series" annual meeting of AAG.

2005 Denver: "Cyclone frequency variations associated with Greenland snow accumulation" annual meeting of the AAG.

2004 Philadelphia: "Role of the Pacific/North American teleconnection pattern in the tropical Atlantic Moisture Budget", annual meeting of the AAG.

April 12, 2003: Kent Ohio, "The role of Pacific and Atlantic atmospheric teleconnections in Ohio River Valley winter precipitation and stream flow variability" at the Northeast OH Chapter of the AMS.

March 8, 2003: New Orleans, LA; "Role of the Pacific North American teleconnection pattern in the tropical Atlantic moisture budget"; annual meeting of the Association of American Geographers.

January 16, 2003: Toledo, OH; 2003 Ohio Fruit and Vegetable Growers Congress "Recent weather trends and future predictions".

November 12, 2002: Dayton, OH, "How the Pacific controls Ohio River Valley winter hydroclimatology" to the Wright Memorial Chapter of the American Meteorological Society

March 2002: Los Angeles, CA: AAG Annual meeting

January 13, 2001: Dublin Oh, Top Farmers of Ohio winter meeting, "Global warming and future Ohio Weather".

April 2000: Pittsburgh, AAG meeting, "Atlantic Arctic seasonal atmosphere circulation variability".

November 1999: Byrd Polar Research Center, "Recent studies of ocean and atmosphere variability in the north Atlantic Arctic"  
November 4.

July, 1999: Akureyri, Iceland: North Atlantic Ocean causes of persistent cold climatic episodes: Current examples and implications for the past" Workshop of the Stefansson Arctic Institute and the North Atlantic Biocultural Organization & University of Akureyri.  
July 16-21, 1999.

March 1999: Honolulu: "The North Atlantic Oscillation During Summer" Annual AAG Meeting.

April 1998: Boston, AAG

December 1997: North Atlantic Oscillation links to oxygen isotope variability on the greenland ice cap. Semi-annual meeting of the American Geophysical Union, San Francisco December 8-12.

December 1997: North Atlantic Oscillation links to oxygen isotope variability on the greenland ice cap. Semi-annual meeting of the American Geophysical Union, San Francisco December 8-12.

September, 1997: Atmospheric circulation variability associated with shallow-core seasonal isotopic extremes near Summit Greenland. Annual Principal Investigators meeting of the NOAA Atlantic Climate Change Program, Palisades NY, Lamont Doherty Earth Observatory.

June, 1997: At Asheville NC, an invited presentation "Changes in cold wave frequencies and intensities in the United States" at the Workshop on Indicators and Indices for Climate Extremes.

April, 1997: At Fort Worth, TX "East Greenland sea ice variability and synoptic storm systems". 93rd Annual Meeting of the Association of American Geographers.

October, 1996: At Boulder CO an invited presentation "On the Causes of Mild Winters in Northern Europe" at the Harry van Loon Symposium Studies in Climate, Part II at the National Center for Atmospheric Research.

April, 1996: At Charlotte, NC, presented "Synoptic Weather Systems Associated with Air Temperature Variability on the Greenland Ice Sheet" at the 92nd Annual Meeting of The Association of American Geographers, 9-13 April.

June, 1995: At Galway, Ireland, presented "the North Atlantic storm track and climate variability" at the Sixth International Meeting on Statistical Climatology.

May, 1995: At Miami, FL, presented an invited paper on "Atmospheric circulation linkages to North Atlantic sea and land ice variability" at the Principal Investigator's Meeting of the NOAA Atlantic Climate Change Program.

May, 1995: At Miami, FL, presented a poster on "Abrupt springtime warming over Greenland" at the Principal Investigator's Meeting of the NOAA Atlantic Climate Change Program.

December, 1994: At Boulder, CO, presented "Climate variability associated with storm tracks in the northern Atlantic".

May, 1994: At Princeton, NJ, presented "Atlantic storm track variability and the North Atlantic Oscillation" at the Principal Investigator's Meeting of the NOAA Atlantic Climate Change Program.

April 1994: At Kent State Univ., presented "Drought and Climatic variability in Ohio" - the keynote address (invited) to the Water Resources Research Institute's annual research conference.

October, 1992: At Columbus, OH, presented "Data for the evaluation of Ohio's changing climate" to the 21st annual meeting - Water Management Association of Ohio.

March 1992: At Columbus, OH, presented (invited) "Drought in Ohio" to the Ohio Water Advisory Council.

April, 1991: At Miami, FL, the annual meeting of the AAG: (with Robert Rohli) "Florida citrus freezes and long-term changes in atmospheric circulation features".

October, 1990: At Asheville, NC, the 15th annual climate diagnostics workshop. (Titles are listed under conference proceedings)

October, 1990: (with D. Howarth), "Problems associated with smoothing and filtering of climatological time series" at the 13th annual applied geography conference.

April, 1990: At Toronto, the annual meeting of the AAG: "Synoptic variability associated with sea level pressure teleconnections".

October, 1989: At LaJolla, CA, the 14th annual climate diagnostics workshop. (Title under conference proceedings).

July, 1989: At Lennoxville, Quebec, the 16th Stanstead Seminar.

March, 1989: At Baltimore, "Evaluation of midwestern seasonal mean temperature and precipitation fluctuations" at the AAG annual meeting. I was the organizer of the special session: Climatic fluctuation during the period of instrumental records.

November, 1988: At Boston, the 13th Annual Diagnostics Workshop, NOAA.

October, 1987: At Salt Lake City, the Twelfth Annual Climate Diagnostics Workshop, NOAA.

April, 1987: "The southern oscillation and seasonal precipitation variability over the tropical Americas and Caribbean." AAG annual meeting, Portland, Oregon.

October, 1986: At Champaign, IL, the 11th Annual Climate Diagnostics Workshop.

May, 1986: At Minneapolis, annual meeting of the AAG: (with Dave Howarth) "Analysis of annual and seasonal precipitation regimes over South America".

December, 1985: San Francisco, Annual meeting Amer. Geophys. Union: Climatic fluctuations over the northern North Atlantic in the early twentieth century.

August, 1985: "Pressure variability over the northern Atlantic and associated temperature variability". Honolulu, IAMAP/IAPSO Joint Assembly.

April, 1985: "Circulation changes associated with the warming over the North Atlantic around 1920". Detroit, AAG Annual meeting.

January, 1985: At Los Angeles, 3rd Conference (of the AMS) on Climate Variations and Symposium on Contemporary Climate, 1850-2100: "The rapid warming over the northern North Atlantic around 1920".

April, 1984: At Washington, D.C., annual AAG meeting: "Northern Hemisphere atmospheric circulation during the El Niño winter 1982-83".

April, 1984: At Pittsburgh, 15th Modeling and Simulation Conference.

Nov., 1983: At Boulder, Colorado, paper presented at an informal symposium on current climatological research.

October, 1983: At Toronto, 8th Annual Climate Diagnostic Workshop.

April, 1983: At Denver, AAG annual meeting: "Southern Hemisphere Westerlies".

April, 1983: At Pittsburgh, 14th Conference on Modelling and Simulation.

October, 1983: At Toronto, the 8th annual climate Diagnostics Workshop, NOAA.

October, 1982: At Boulder, Colorado, the 7th Annual Climate Diagnostics Workshop.

October, 1981: 6th annual climate diagnostics workshop, Palisades, N.Y.

January, 1981: Paper at the first conference on climate variations of the AMS, San Diego.

June, 1978: Paper at the 59th annual meeting of the Pacific Division of the AAAS - "The seesaw in winter temperatures between Greenland and northern Europe", Seattle.

September, 1977: 4th Conference on Port and Ocean Engineering under arctic conditions at St. Johns, Newfoundland.

December, 1976: AGU annual meeting, San Francisco.

October, 1974: Paper at a Climatology Conference and Workshop of the AMS, Asheville, NC.

October, 1973: Paper at the west lakes divisional meeting of the AAG, Eau Claire, Wisc.