

# ANDREW C. COMRIE

## Curriculum Vitae

### Education

#### *Degrees*

- Ph.D. Geography, The Pennsylvania State University, August 1992.
- M.Sc. Environmental and Geographical Science, University of Cape Town, June 1988.
- B.Sc.(Hons) Atmospheric Science, University of Cape Town, December 1985.
- B.Sc. Geography, University of Cape Town, December 1984.

Doctoral Dissertation: A Synoptic Climatology of Ozone Concentrations in the Forests of Pennsylvania. Advisor: Brent Yarnal.

Master's Thesis: Growth, Structure and Prediction of the Thermal Internal Boundary Layer. Advisor: Cecil S. Keen.

#### *Major Fields*

Geography, including physical and environmental geography, climate and health, synoptic climatology, climate and air pollution, physical and human dimensions of global change, climate variability and change, climate-environment interactions.

### Employment

- Senior Vice President for Academic Affairs & Provost, University of Arizona, August 2012 - present
- Associate Vice President for Research and Dean of the Graduate College, University of Arizona, January 2006 - present.
- Professor, Department of Geography and Regional Development, University of Arizona, July 2005 - present. Joint appointments: Arid Lands Resource Sciences, Entomology & Insect Science, Global Change, Public Health, Remote Sensing & Spatial Analysis, Atmospheric Sciences, Statistics.
- Associate Professor, Department of Geography and Regional Development, University of Arizona, July 1999 – June 2005.
- Assistant Professor, Department of Geography and Regional Development, University of Arizona, August 1992 – June 1999.
- Instructor, Department of Geography, The Pennsylvania State University, August 1991 - May 1992.
- Research Assistant, Department of Geography, The Pennsylvania State University, June 1989 - May 1992.
- Teaching Assistant, Department of Meteorology, The Pennsylvania State University, August 1988 - May 1989.
- Research Assistant, Department of Environmental and Geographical Science, University of Cape Town, January 1987 - December 1987.
- Teaching Assistant, Department of Environmental and Geographical Science (and former Department of Geography), University of Cape Town, February 1984 - December 1986.
- Field Research Assistant, Wildlife Tourism Survey of Okavango Delta, Botswana, July 1985.

Research Assistant, Atmospheric Sciences Division, National Physical Research Laboratories, Council for Scientific and Industrial Research, Pretoria, December 1984 - February 1985.

### **Honors and Awards**

Excellence in Mentoring Award, Honors College, University of Arizona, Spring 2011.  
 Special Contribution to American Indian Education Award, University of Arizona American Indian Alumni Club, Spring 2007.  
 Research Professorship, University of Arizona, Social and Behavioral Sciences Research Institute, Awarded for 2006-2007, not used because of switch to administration job.  
 Research Professorship, University of Arizona, Social and Behavioral Sciences Research Institute, Spring 2000.  
 Best Weather Graphic, American Meteorological Society, Southeast Arizona Chapter, 1999.  
 Faculty Appreciation Award, Business and Public Administration Student Council, University of Arizona, 1997.  
 Visiting Fellow, Udall Center for Studies in Public Policy (fellowship support from the Institute for the Study of Planet Earth), University of Arizona, 1996/97.  
 First Place, Faculty Best Article Competition (in College), University of Arizona, Social and Behavioral Sciences Research Institute, 1995.  
 Featured scholar, UA Report on Research magazine, University of Arizona, 1994.  
 J. Warren Nystrom Award for Best Ph.D. Dissertation (Paper and Presentation), Association of American Geographers, 1993.  
 Selection, Participation and Funding for National Science Foundation Global Change Workshop, Atlanta GA, supported by Association of American Geographers, 1993.  
 Award for Research Support in General Education, College of Arts and Sciences, University of Arizona, 1992.  
 E. Willard Miller Award for Best Graduate Student Paper, Department of Geography, The Pennsylvania State University, 1991.  
 American Meteorological Society and National Science Foundation Scholarship to attend Second Symposium on Global Change Studies, New Orleans, LA, 1991.  
 Best Poster Presentation (Air Pollution), American Meteorological Society Annual Meeting with the Air and Waste Management Association, New Orleans, LA, 1991.  
 Hans Neuberger Award for Outstanding Teaching, Department of Meteorology, The Pennsylvania State University, 1989.  
 Masters Research Scholarship, Council for Scientific and Industrial Research, 1986-1987.  
 Honours Research Scholarship, Council for Scientific and Industrial Research, 1985.  
 W.M. Talbot Trophy for Outstanding Contributions to the Department of Geography, University of Cape Town, 1984.

### **Service and Outreach**

#### ***Local/State Outreach***

National Weather Service/Pima DEQ, Southwest Air Quality, Tucson, AZ, Dec. 2005.  
 Cool communities workshops – Combating Heat Islands, Tucson, AZ, Dec. 2005.  
 Arizona Governor’s Working Group on Climate Change, Phoenix, AZ, Sep. 2005.  
 White Mountains Stewardship Group, Pinetop, Arizona, climate variability talk, 2004.  
 CLAS Workshops for Educators, climate and drought talk, April 2005.

- Governor's Drought Task Force, State of Arizona, advising, speaking and participation, 2003.
- Member of the Tucson Environmental Planning and Advisory Committee, Air Quality Subcommittee, 1992-2002.
- Panel member, Tucson Urban Haze Task Force, with other members from local and state environmental agencies and the University of Arizona, 1992.
- Technical and editorial advising on climate change issues for a children's environmental book by Biosphere Press, 1993.
- Educational outreach to K-12 students and APEX minority program via activities in Spatial Analysis Laboratory (with collaborators), 1994-1995.
- Cabeza Prieta National Wildlife Refuge, advising on rainfall data analysis, 1995-2002.
- Presentation to Arizona Geographic Alliance, Outstanding High School Teacher Workshop, 1998.
- Multiple interviews with local press, radio, and television stations, 1998-present.
- Visiting speaker for community service organizations, societies, K-12 schools, etc., approximately two-four per year, 1992-present.

### ***National/International Outreach***

- ENSO-Drought initiative press briefing & associated media coverage, 2002.

### ***Departmental Committees & Service***

- Promotion and Tenure Review Committees: K. Bailey (2008 - chair), S. Yool (2007 – chair), Department of Geography and Regional Development, University of Arizona.
- Search Committee for Environmental/Physical Geographer Assistant Professor position, Department of Geography and Regional Development & Office of Arid Lands Studies, University of Arizona, 2005.
- Search Committee (Co-Chair) for Environmental Policy Assistant/Associate Professor position, Department of Geography and Regional Development & Udall Center for Public Policy, University of Arizona, 2005-2006.
- Faculty Mentor for K. Bailey, Department of Geography and Regional Development, University of Arizona, 2004-2005.
- Faculty Mentor for C. Bauer, Department of Geography and Regional Development, University of Arizona, 2006-2008.
- Co-acting Head (with B. Mitchneck), Department of Geography and Regional Development, University of Arizona, Spring/Summer 2001.
- Director of Graduate Studies, Department of Geography and Regional Development, University of Arizona, 1994-1996, 2000-present.
- Annual Faculty Performance Review Committee, Department of Geography and Regional Development, University of Arizona, 2001-2002 (chair).
- Search Committee, Department of Geography and Regional Development, Environmental / Physical Geography Assistant Professor position, University of Arizona, 1998-1999.
- Search Committee Chair, Department of Geography and Regional Development/CASA, Computer Systems Analyst, 1999.
- Search Committee Co-Chair for Human-Environment Assistant/Associate Professor, Department of Geography and Regional Development, University of Arizona, 2000-2001.

- Instructional Technology Committee, Department of Geography and Regional Development, University of Arizona, 1992 - 2001 (co-chair 1992-1995, 1998).
- Graduate Affairs Committee, Department of Geography and Regional Development, University of Arizona, 1993 – 1997; 2000 - 2005 (chair 1994, 2000-2005).
- Physical Geography Committee, Department of Geography and Regional Development, University of Arizona, 1992 - present (chair, 1993, 1997/98).
- Colloquium Committee, Department of Geography and Regional Development, University of Arizona, 1993, 1997 (chair, 1997/98).
- Curriculum Committee, Department of Geography and Regional Development, University of Arizona, 1994, 1996-1997.
- Colloquium Committee, Department of Geography and Regional Development, University of Arizona, 1993, 1997 (chair, 1997/98).
- Department Head Search Committee, Department of Geography and Regional Development, University of Arizona, 1996-1997.
- Acting Secretary for faculty meetings, Department of Geography and Regional Development, University of Arizona, 1993-1994.
- Faculty Advisor for Southern Arizona Geographical Association, graduate student club, 1995-1997, 2000-present.
- Presentation of Department computer laboratory facilities and related teaching and research to visitors, including Provost, Vice-Provost, Asst. VP for Research, Dean, and various advisory and technical committees, 1993-present.
- Coordination and setup of Altschul-Alumni Learning Laboratory, 1999.
- Network Manager and official liason to computer center (CCIT), responsible for assignment of Internet addresses, World Wide Web access, homepage construction and maintenance, and E-mail listserver, Department of Geography and Regional Development, University of Arizona, 1994 - 1999.
- Graduate Student Committees and Advising, 1992-present (major in Geography, unless otherwise noted; listed in approximate chronological order, most recent at the bottom).

<i>Master's:</i>	<u>Committee Chair</u>	<u>Committee Member</u>
	Ken Akerman	Jeff Bawdon
	Jenny Dolak	Barry Boczar
	Seumas Rogan	Nick Hodgins
	David Adams	Jason Rech
	Tracey Gutheim	Cynthia Wallace
	David Guiliano	John Rogan
	Rex Hansen	Tom Pagano (Hydrology)
	Jeremy Diem	Pat McGowan (Ag. & Resource Econ.)
	Greg Packin	Courtney Donovan
	Kurt Angersbach	Peter Johnson
	Korine Kolivras	Susan Taunton
	David Brown	Keith Lombardo
	Joseph Abraham	Paula Decker
	Tamara Wilson	Toby Ault (Geosciences)
	Erika Wise	Patrick Stacy
	Jenna McPhee Myers	Desiree Johnson (Applied Biosciences)
	Brenda Bonanno	Theresa Foley (Atmos Sci)

Christopher Uejio	Stephen Bieda (Atmos Sci)
Casey Kahn-Thornbrugh	Joseph Hoover
James Tamerius	Steven Brewster Malevich
Michael Cline (co-chair)	
Cory Morin	
Beth Karasz (General Biology)	

<i>Doctoral:</i>	<u>Committee Chair</u>	<u>Committee Member</u>
	Jeremy Diem '00	Jon Unruh
	Susan Kliman '01 (Arid Lands)	Gregg Garfin (Tree-Ring Lab.)
	Korine Kolivras '04	Connie Woodhouse (Tree-Ring Lab.)
	David Brown '04	Len Milich (Arid Lands)
	Michael Crimmins '04	Susan Carmody (Arid Lands)
	Rick Brandt '06	Stuart Black (Arid Lands)
	Joseph Abraham '06	Garri Dryden (Arid Lands)
	Erika Wise '09	Sang-Yool Lee
	Casey Thornbrugh	Rod Hay
	Stephen Delgado	Michael Medler
	James Tamerius '11	Chuck Riggs (Anthropology)
	Cory Morin	Rawlings Miller (Atmospheric Sciences)
	Stephen Bieda '12 (Arid Lands)	Amy Hessl
	Melinda Butterworth	John Bezy
	Mona Arora	John All
		Hallie Eakin
		Kurt Kipfmueller
		Camille Holmgren (Geosciences)
		Luis Cervera (Arid Lands)
		Cindy Pope
		Er Lu (Atmospheric Sciences)
		Seumas Rogan (Epidemiology)
		Hardson Kwandayi (Education)
		Teresa Mau-Crimmins (RNR)
		Hugo Rodriguez (Arid Lands)
		Humberto Barbosa (SWES)
		Derrick Lampkin
		Kathryn Mauz (Arid Lands)
		Stefanie Herrmann (Arid Lands)
		Colin West (Anthropology)
		Rosalind Bark (Arid Lands)
		Ellis Margolis (Tree-Ring Lab)
		Andy Hale (Arid Lands)
		Jennifer Rice
		Jeanne Nordstrom (SWES)
		Lisette De La Cruz (Hydrology)
		Lezlie Moriniere (Arid Lands)
		Scott Pianalto

Eve Halper  
R. Daniel Griffin  
Lily House-Peters  
Audra El Vilaly

Post-Doctoral Researchers supported:

Dr. Jeremy Diem, 2000-2001.  
Dr. Tereza Cavazos, 2000-2002.  
Dr. Gregg Garfin, 2000, 2001.  
Dr. Cynthia Sorrensen, 2001-2005.  
Dr. Mary Glueck, 2002-2003, 2005-2010.  
Dr. Heidi Brown, 2010-present.

***College Committees & Service***

Five-year review committee for D. Archangeli, SBSRI Director, College of Social and Behavioral Sciences, University of Arizona, 2005-2006.  
Faculty Mentor for M. Wilder, Center for Latin American Studies, University of Arizona, 2002-present (includes 3<sup>rd</sup> year review committee chair).  
Guest speaker, Geog/SBS Development/Alumni meeting, Phoenix, Fall 2002.  
College of Social and Behavioral Sciences, Committee on Continuing Eligible Status, 2002-2003.  
Executive/Advisory Committee, Social and Behavioral Sciences Research Institute, College of SBS, 2000-2002.  
SBS College Graduate Teaching Award Committee, Fall 2001.  
Search Committee, College of Social and Behavioral Sciences GIS Laboratory Director, University of Arizona, 1997-1998.

***University Committees & Service***

Chair, Search Committee, Dean of the College of Agriculture & Life Sciences, University of Arizona, 2010-11.  
Chair, Search Committee, Dean of the College of Fine Arts, University of Arizona, 2009.  
Chair, Search Committee, Assistant Vice President for Corporate and Business Relations, University of Arizona, 2007.  
Member, Search Committee, Assistant Director, Office of Federal Relations, University of Arizona, 2007.  
Member, Search Committee, Interim Dean, Mel & Enid Zuckerman College of Public Health, University of Arizona, 2007.  
Chair, Search Committee, Vice Provost for Enrollment Management and Dean of Admissions, University of Arizona, 2007.  
Executive Committee, Institute for the Study of Planet Earth, University of Arizona, 2003-present.  
National Aeronautics and Space Administration, Space Grant Committee, University of Arizona, 1997-2006.  
Graduate Student Travel Grant Reviewer for the Graduate and Professional Student Council, University of Arizona, 2004-2005.  
UA/USGS-Earth Surface Processes Research Institute, Advisory Panel, 2003.

Grader for the Upper Division Writing Proficiency Examination (UDWPE), University of Arizona, 1994.

### ***Other Committees & Service***

#### ***Internal***

Arid Lands Resource Sciences Executive Council, Graduate Interdisciplinary Programs, University of Arizona, 1994-2005.

Global Change Executive Committee, Graduate Interdisciplinary Programs, University of Arizona, 1994-2005.

Committee on Remote Sensing and Spatial Analysis, Executive Committee, Graduate Interdisciplinary Programs, University of Arizona, 2001-2005.

Water Policy Graduate Certificate Planning Committee, University of Arizona, 2005.

Arid Lands Resource Sciences, Academic Program Review Self-Study Committee, Graduate Interdisciplinary Programs, University of Arizona, 2004-2005.

Faculty Search Committee for Assistant Professor, Dept. of Atmospheric Science, University of Arizona, 2004-2005.

Faculty Search Committee for Assistant Professor/Climate Extension Specialist, Dept. of Soil, Water and Environmental Sciences, University of Arizona, 2003-2004.

ISPE Postdoc Search Committee, University of Arizona, 2003-2004.

Hosted Fulbright Scholar Dr. Zbigniew Ustrnul, visiting Polish climatologist (2001-02).

Advising and Committee Member for graduate students at Arizona State University, Department of Geography, 1994-1999: Mark Fitch, Rebecca Ruckman.

Organization and funding of campus visit by D. McGinnis of the Cooperative Institute for Research in Environmental Sciences at the University of Colorado, Boulder, sponsored by Department of Geography and Regional Development and Institute for Study of Planet Earth, University of Arizona, Spring 1995.

Campus host for visit by T. Karl of the National Climatic Data Center, sponsored by the Institute for Study of Planet Earth, University of Arizona, 1994.

Authored Geography Department section in successful proposal to UA VP for Research to establish the Institute for the Study of Planet Earth (ISPE), 1993.

#### ***External***

Editor for the Americas, *International Journal of Climatology*, 2004-2012 (approximately 100 submissions per year).

Editorial Advisory Board, *Progress in Physical Geography*, 2009-present.

Editorial Board, *Environmental Science & Policy*, 2007-present.

Editorial Board, *Annals of the Association of American Geographers*, 2006-present.

Editor, *Climate Research*, an international journal, 2001-2003 (approx. 20 ms/year).

Board member, Graduate Record Examination (GRE) Board (incl. service as member of Minority Graduate Education Committee and Finance Committee), 2010-2014.

Member (elected), Association of American Universities (AAU) Association of Graduate Schools (AGS) Executive Committee, 2010-present.

Board member (elected), and Executive Board member (2010), Council of Graduate Schools, 2008-2010.

National Stakeholder Advisory Committee for the Professional Science Master's Degree, under auspices of the Council of Graduate Schools, 2010.

Board member, Applied Climate Committee, American Meteorological Society, 2003-2005.  
Editorial Advisory Board of the international journal *Atmospheric Environment*, 2000-2008.  
Co-Organizer of Climate Prediction Applications and Sciences Workshop, Tucson, March 2006, 2005-2006.

Review Editorial Board of the international journal *Climate Research*, 1999-2000.  
Chair, Climate Specialty Group, Association of American Geographers, 2002-2004.  
Secretary-Treasurer, Climate Specialty Group, Assoc. of American Geographers, 1998-2000.  
Panel Member, National Science Foundation, Geography & Regional Science Program, 2002-2004.

Organizer and Co-chair of special sessions on Climate & Health, AAG Annual Meeting (Denver, CO), sponsored by the Climatology Specialty Group & Medical Geography Specialty Group, 2004-05.

Organizer and/or Chair of Climate Specialty Group special sessions, AAG Annual Meeting (Philadelphia, PA), 2003-04.

Co-organizer and Co-chair of special session on Air Quality, AAG Annual Meeting (New York, NY), sponsored by the Climatology Specialty Group, 2000/01.

Co-organizer, special round-table panel discussion of Geography as an Integrative Discipline, AAG Annual Meeting (Pittsburgh, PA), 1999/2000.

Co-organizer and Chair of session on Ozone and Air Quality Mapping at the Air and Waste Management Association Annual Meeting (Salt Lake City, UT), 1999/2000.

Co-organizer and Chair of special session on Making Climate Research Relevant, AAG Annual Meeting (Pittsburgh, PA), sponsored by the Climatology and Human Dimensions of Global Change Specialty Groups, 1999/2000.

Co-organizer and Co-chair of special session on Fire and Ice: Mountain Climates of the Southwest, AAG Annual Meeting (Honolulu HI), sponsored by the Climatology Specialty Group, 1998/99.

Session Chair, Climate Impacts and Downscaling. American Meteorological Society 10<sup>th</sup> Conference on Applied Climatology, Reno, NV, October 1997.

Organizer of Geography sessions for April, 1996 ANAS meeting (Tucson, AZ).

Organizer of Climate and Air Quality special session for the AAG annual meeting (Charlotte, NC), sponsored by the Climatology Specialty Group, 1996.

Co-organizer of Southwest Climatology special session for the AAG annual meeting (Chicago, IL), sponsored by the Climatology Specialty Group, 1995.

Organizer of three Synoptic Climatology special sessions for the AAG annual meeting (San Francisco, CA), sponsored by the Climatology Specialty Group, 1994.

Board of Governors, Arizona-Nevada Academy of Sciences (ANAS), 1995-1999.  
Conference Organizing Board, 2000 Arizona-Nevada Academy of Sciences meeting (Tucson, AZ).

Journal manuscript reviewer (~20 per year until I began Journal Editing in 2001, now ~10 per year), including the following journals: *Advances in Environmental Research*; *American Journal of Public Health*; *Annals of the Association of American Geographers*; *Applied Geographic Studies*; *Atmospheric Environment*; *Cities*; *Climate Research*; *Ecological Modeling*; *Environmental Modeling and Software*; *Environmental Pollution*; *Environmental Technology*; *International Journal of Climatology*; *International Journal of GIS*; *Journal of Applied Meteorology*; *Journal of Arid Environments*; *Journal of Climate*; *Journal of Environmental Management*; *Journal of Hydrological Engineering*;

*Journal of Regional Science; Journal of the Air and Waste Management Association; Monthly Weather Review; Photogrammetric Engineering and Remote Sensing; Physical Geography; Professional Geographer; Regional Studies; Southeastern Geographer; Weather and Forecasting.*

Promotion & Tenure reviews of faculty at other universities (1-2 per year).

Department/Program reviews at other universities (Kent State 2006, Univ. S. Carolina 2008).

Proposal reviewer for the following agencies (recently 2 to 4 per year): U.S. Environmental Protection Agency; National Geographic Society; National Science Foundation; National Oceanographic and Atmospheric Administration; Southwest Center for Environmental Research and Prediction; U.S. Dept. of Labor

Reviewer, United States National Assessment of Climate Change.

Reviewer of University Geography Programs for the National Research Council, Committee for the Study of Research-Doctorate Programs in the United States, 1993 (national rankings published 1995).

Book proposal reviewer for Edward Arnold Publishers, and W.H. Freeman Publishers.

Professional Memberships:

Association of American Geographers, 1989-present.

American Geophysical Union, 2002-present.

American Meteorological Society, 1991-present.

Fellow of the Royal Meteorological Society, 1995-present.

Valley Fever Center for Excellence, Scientific Member, 2006-present.

Air and Waste Management Association, 1993-2006.

Arizona-Nevada Academy of Sciences, 1995-2001.

## **Publications**

### **Chapters**

Comrie, A.C., 1991: The Climatology of Rural Ozone Pollution. Ch. 9 in Majumdar, S.K., Miller, E.W. and Cahir, J. (eds.), *Air Pollution: Environmental Issues and Health Effects*. Easton, PA: Pennsylvania Academy of Science, 121-135.

Kolivras, K.N. and Comrie, A.C., 2000: Climate and Valley Fever. Pages 39-41, in Chapter 8, Human Health, by Southwest Regional Assessment Group, *Preparing for a Changing Climate: The Potential Consequences of Climate Variability and Change*. Companion Volume to the National Assessment of Climate Change. Institute for the Study of Planet Earth, University of Arizona, 60 pp.

Comrie, A.C., 2003: Climate Doesn't Stop at the Border: US-Mexico Climatic Regions and Causes of Variability. In Diaz, H.F. and Morehouse, B.J. (eds.), *Climate and Water: Transboundary Challenges in the Americas*. Dordrecht: Kluwer Academic Press, 291-316.

Matthias, A.D., Comrie, A.C. and Musil, S.A., 2006: Atmospheric Pollution. Chapter 23 in Pepper, I.L., Gerba, C.P. and Brusseau, M.L. (eds.), *Pollution Science*, 2<sup>nd</sup> Ed. New York: Academic Press/Elsevier, 377-394.

Yarnal, B., Harrington, J., Comrie, A., Polsky, C. and Alqvist, O. 2009: Infrastructure for Observing Local Human-Environment Interactions. Chapter 1 in Yarnal, B. Polsky, C. and O'Brien, J. (Eds.) *Sustainable Communities on a Sustainable Planet: The Human Environment Regional Observatory Project*. Cambridge University Press, pp 1-12.

- Polsky, C., Comrie, A., Whitehead, J., Sorrensen, C. Butler Harrington, L.M., Lu, M., Neff, R., and Yarnal, B. 2009: Rapid Vulnerability Assessments of exposures, sensitivities, and adaptive capacities of the HERO study sites. Chapter 9 in Yarnal, B. Polsky, C. and O'Brien, J. (Eds.) *Sustainable Communities on a Sustainable Planet: The Human Environment Regional Observatory Project*. Cambridge University Press, pp 175-208.
- Sorrensen, C.L. and Comrie, A.C. 2009: Sonoran Desert Border Region: Urbanization and Hydroclimatic Challenges in the Sonoran Desert Border Region. Chapter 14 in Yarnal, B. Polsky, C. and O'Brien, J. (Eds.) *Sustainable Communities on a Sustainable Planet: The Human Environment Regional Observatory Project*. Cambridge University Press, pp 293-316.
- Yarnal, B., Harrington, J., Comrie, A., Polsky, C. and Alqvist, O. 2009: Lessons learned from the HERO Project. Chapter 15 in Yarnal, B. Polsky, C. and O'Brien, J. (Eds.) *Sustainable Communities on a Sustainable Planet: The Human Environment Regional Observatory Project*. Cambridge University Press, pp 317-338.

### **Refereed Journal Articles**

- Comrie, A.C., 1990: \*The climatology of surface ozone in rural areas: a conceptual model. *Progress in Physical Geography* 14, 295-316.
- Comrie, A.C., 1992: \*A procedure for removing the synoptic climate signal from environmental data. *International Journal of Climatology* 12, 177-183.
- Comrie, A.C., 1992: \*An enhanced synoptic climatology of ozone using a sequencing technique. *Physical Geography* 13, 53-65.
- Comrie, A.C. and Yarnal, B., 1992: \*Relationships between synoptic-scale atmospheric circulation and ozone concentrations in metropolitan Pittsburgh, Pennsylvania. *Atmospheric Environment* 26B, 301-312.
- Simini, M., Skelly, J.M., Davis, D.D., Savage, J.E. and Comrie, A.C., 1992: \*Sensitivity of four hardwood species to ambient ozone in northcentral Pennsylvania. *Canadian Journal of Forest Research* 22, 1789-1799.
- Comrie, A.C., 1994: \*A synoptic climatology of rural ozone pollution at three forest sites in Pennsylvania. *Atmospheric Environment* 28A, 1601-1614.
- Comrie, A.C., 1994: \*Tracking ozone: air-mass trajectories and pollutant source regions influencing ozone in Pennsylvania forests. *Annals of the Association of American Geographers* 84 (4), 635-651.
- Comrie, A.C., 1996: An All-Season Synoptic Climatology of Air Pollution in the U.S.-Mexico Border Region. *Professional Geographer* 48(3), 237-251.
- Comrie, A.C., 1997: Comparing Neural Networks and Regression Models for Ozone Forecasting. *Journal of the Air and Waste Management Association* 47, 653-663.
- Adams, D.K. and Comrie, A.C., 1997: The North American Monsoon. *Bulletin of the American Meteorological Society* 78(10), 2197-2213.
- Comrie, A.C., 1998: Mapping the climatology of ozone potential for the U.S.-Mexico border region. *Journal of the Arizona-Nevada Academy of Science* 31(1), 1-12.
- Comrie, A.C. and Glenn, E.C. 1998: Principal components-based regionalization of precipitation regimes across the Southwest United States and Northern Mexico, with an application to monsoon precipitation variability. *Climate Research* 10, 201-215.
- Comrie, A.C. and Diem, J.E. 1999: Climatology and forecast modeling of ambient carbon monoxide in Phoenix, AZ. *Atmospheric Environment* 33, 5023-5036.

- Comrie, A.C. 2000: Mapping a wind-modified urban heat island in Tucson, Arizona (with comments on integrating research and undergraduate learning). *Bulletin of the American Meteorological Society* 81, 2417-2431.
- Diem, J.E. and Comrie, A.C. 2000: Integrating remote sensing and local vegetation information for a high resolution biogenic emissions inventory: application to an urbanized, semi-arid region. *Journal of the Air and Waste Management Association* 50, 1968-1979.
- Kolivras, K.N., Johnson, P., Comrie, A.C. and Yool, S.R. 2001: Environmental Variability and Coccidioidomycosis (Valley Fever). *Aerobiologia* 17, 31-42.
- E. Wright, A. Long, A. Comrie, S. Leavitt, T. Cavazos and C. Eastoe, 2001: North American monsoonal moisture sources revealed using temperature, precipitation, and precipitation stable isotope timeseries. *Geophysical Research Letters* 28, 787-790.
- Diem, J.E. and Comrie, A.C. 2001: Air quality, climate, and policy: A case study of ozone pollution in Tucson, Arizona. *The Professional Geographer* 53, 469-491.
- Yarnal, B., Comrie, A.C., Frakes, B. and Brown, D.P. 2001: Developments and prospects in synoptic climatology. *International Journal of Climatology* 21, 1923-1950.
- Diem, J.E. and Comrie, A.C. 2001: Allocating anthropogenic pollutant emissions over space: application to ozone pollution management. *Journal of Environmental Management* 63, 425-447.
- Diem, J.E. and Comrie, A.C. 2002: Predictive mapping of air pollution involving sparse spatial observations. *Environmental Pollution* 119, 99-117.
- Comrie, A.C. and Broyles, B., 2002: Variability and spatial modeling of fine-scale precipitation data for the Sonoran Desert of Southwest Arizona. *Journal of Arid Environments* 50, 573-592.
- Sheppard, P.R., Comrie, A.C., Packin, G.D., Angersbach, K., and Hughes, M.K. 2002: The climate of the US Southwest. *Climate Research* 21, 219-238.
- Cavazos, T., Comrie, A.C. and Liverman, D.M., 2002: Intraseasonal wave anomalies associated with wet monsoons in Southeast Arizona. *Journal of Climate* 15, 2477-2490.
- Brown, D.P. and Comrie, A.C. 2002: Spatial modeling of winter temperature and precipitation in Arizona and New Mexico, U.S.A. *Climate Research* 22, 115-128.
- Ni, F., Cavazos, T., Hughes, M.K., Comrie, A.C. and Funkhouser, G., 2002: Cool season precipitation in the Southwestern United States since AD 1000: Comparison of linear and nonlinear techniques for reconstruction. *International Journal of Climatology* 22, 1645-1662.
- Brown, D.P. and Comrie, A.C., 2002: Sub-regional seasonal precipitation linkages to SOI and PDO in the Southwest United States. *Atmospheric Science Letters* 3, 94-102.
- Komatsu, K., Vaz, V., McRill, C., Colman, T., Comrie, A., Sigel, K., Clark, T., Phelan, M., Hajjeh, R. and Park, B., 2003: Increase in coccidioidomycosis – Arizona, 1998-2001. *Morbidity and Mortality Weekly Report* 52, 109-112.
- Kolivras, K.N. and Comrie, A.C., 2003: Modeling valley fever incidence based on climate conditions in Pima County, Arizona. *International Journal of Biometeorology* 47, 87-101.
- Brown, D.B. and Comrie, A.C., 2004: A winter precipitation ‘dipole’ in the Western United States associated with multidecadal ENSO variability. *Geophysical Research Letters* 31, doi:10.1029/2003GL018726.

- Abraham, J.S. and Comrie, A.C., 2004: Real-time ozone mapping using a regression-interpolation hybrid approach, applied to Tucson, Arizona. *Journal of the Air and Waste Management Association* 54, 914–925.
- Kolivras, K.N. and Comrie, A.C., 2004: Climate and infectious disease in the southwestern United States. *Progress in Physical Geography* 28, 387-398.
- Crimmins, M. A. and Comrie, A.C., 2004: Interactions between antecedent climate and wildfire variability across southeast Arizona. *International Journal of Wildland Fire* 13, 455-466.
- Park, B.J., Sigel, K., Vaz, V., Komatsu, K., McRill, C., Phelan, M., Colman, T., Comrie, A.C., Warnock, D.W., Galgiani, J.N. and Hajjeh, R.A., 2005: An epidemic of coccidioidomycosis in Arizona associated with climate changes, 1998-2001. *Journal of Infectious Diseases* 191, 1981-1987.
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### **Book Reviews**

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- El Vilaly, AE, Arora M, Butterworth MK, El Vilaly MAM, Jarnagin W and Comrie AC. 2012. Climate and Rift Valley Fever. *Progress in Physical Geography*, submitted.

#### **Preprints/Proceedings/Reports**

- Comrie, A.C., Yarnal, B. and Yelsey, K., 1991: \*Selecting the best synoptic classification for air pollution studies. Preprints, 7th Joint Conference on Applications of Air Pollution Meteorology with the Air and Waste Management Association, *American Meteorological Society*, Boston, MA.
- Comrie, A.C. and Adams, D.K., 1995: A synoptically-based 850 mb climatology for the US-Mexico border region. Preprints, 9th Conf. on Applied Climatology, *American Meteorological Society*, Boston, MA.
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- Adams, D.K. and Comrie, A.C., 1997: Extending downscaling techniques for precipitation in the southwestern United States. Preprints, 10<sup>th</sup> Conference on Applied Climatology, *American Meteorological Society*, Boston, MA.

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- Sheppard, P.R., Comrie, A.C., Packin, G.D., Angersbach, K. and Hughes, M.K., 1999: The Climate of the Southwest. Proceedings, 24<sup>th</sup> Climate Diagnostics and Prediction Workshop, Tucson, AZ.
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- Yool, S., Johnson, P., Ampel, N., Bultman, M., Comrie, A., Kolivras, K., Rogan, S., Smith, K., 1999: Geospatial Modeling of *Coccidioides Immitis* Habitat as Mediated by Climate and Surface Variables. Proceedings, 24<sup>th</sup> Annual Climate Diagnostics and Prediction Workshop, Tucson, AZ.

- Abraham J.S. and Comrie, A.C., 2000: Real-Time Mapping of Local Scale Air Pollution. Proceedings, Air and Waste Management Association Annual Conference, Salt Lake City, UT.
- Diem, J.E. and Comrie, A.C., 2000: Regression-Based Spatial Modeling of Ozone in the Tucson Region. Proceedings, Air and Waste Management Association Annual Conference, Salt Lake City, UT.
- Brown, D.P. and Comrie, A.C., 2000: Spatial modeling and scale analysis of winter climate variability in Arizona and New Mexico. Proceedings, 2<sup>nd</sup> Southwest Weather Symposium, Tucson, AZ.
- Kolivras, K.N. and Comrie, A.C., 2000: Climate Variability and Valley Fever. Proceedings, 2<sup>nd</sup> Southwest Weather Symposium, Tucson, AZ.
- Cavazos, T., A. C. Comrie, and A. Gershunov, 2000: Seasonal forecast of monsoon precipitation in Arizona using linear and nonlinear techniques. Proceedings, 2<sup>nd</sup> Southwest Weather Symposium, Tucson, AZ.
- Cavazos, T., F. Ni, M. Hughes, A. C. Comrie, and G. Funkhouser, 2001: Using regression and neural networks to reconstruct circulation indices and precipitation in the Southwest. Preprints, 81<sup>st</sup> Annual Meeting of the American Meteorological Society, Albuquerque, NM.
- Kolivras, K.N. and Comrie, A.C., 2002: Predicting Valley Fever Incidence Based on Climate Conditions. *The Climate Report* 3, 12-15. Climate Risk Solutions, Brookline, MA.
- Comrie, A.C. and Cavazos, T., 2001: Experimental seasonal forecast of monsoon precipitation in Arizona. Proceedings, 18<sup>th</sup> Annual Pacific Climate (PACLIM) Workshop, Asilomar/Pacific Grove, CA.
- Comrie, A.C., Lemos, M.C., Hughes, M.K. and Overpeck, J.T., 2002: Climate science and services: some lessons from CLIMAS. Proceedings, 19<sup>th</sup> Annual Pacific Climate (PACLIM) Workshop, Asilomar/Pacific Grove, CA.
- Comrie, A.C. and Brown, D., 2002: Development and analysis of fine-scale gridded climate data for Arizona and New Mexico. Proceedings, American Meteorological Society 12<sup>th</sup> Conference on Applied Climatology, Portland, OR.
- Comrie, A.C., Redmond, K. and Daly, C., 2003: WestMap: the Western Climate Mapping initiative. Proceedings, 20<sup>th</sup> Annual Pacific Climate (PACLIM) Workshop, Asilomar/Pacific Grove, CA.
- Comrie, A.C., Lemos, M.C., Hughes, M.K. and Overpeck, J.T., 2004: Climate science and services: some lessons from CLIMAS. Preprints, American Meteorological Society Annual Meeting and 13<sup>th</sup> Conference on Applied Climatology, Seattle, WA.
- Wise, E. and A. Comrie. 2004. Assessing Meteorological Controls on Ozone Trends in the Southwestern United States. In Zerefos, C.S. (ed), Proceedings of the XX Quadrennial Ozone Symposium. University of Athens, Athens, Greece.
- Comrie, A.C., Skirvin S., Glueck M., Pianalto S., Johns R., Stacy P., Yool S., 2007: Climate and satellite remote sensing analyses of the “grow and blow” hypothesis. Proceedings of the 51<sup>st</sup> Annual Coccidioidomycosis Study Group Meeting, Tempe, AZ.
- Glueck, M.F., Comrie, A.C., Redmond, K., Reinbold, H.J., Abatzoglou, J.T. and Daly, C., 2008: The WestMap stakeholder-driven interactive data access and analysis interface for fine-scale climate data. Preprints, American Meteorological Society 88th Annual Meeting and 24th Conference on IIPS, New Orleans, LA.

Comrie, A.C., Tamerius, J., and Glueck, M., 2009: Climate factors related to coccidioidomycosis in the Tucson and Phoenix areas. Proceedings of the 53<sup>rd</sup> Annual Coccidioidomycosis Study Group Meeting, Bakersfield, CA.

**Scholarly Presentations (invited presentations are marked by \*)**

***Colloquia & Seminars***

- Climate-environment interactions between atmospheric circulation and ozone pollution. Geography Department Colloquia at Louisiana State University, University of Arizona, University of Indiana, University of Maryland-Baltimore County, University of Georgia, University of Wisconsin-Milwaukee, 1991-1992.\*
- Colloquium Presentation on air-mass trajectories and ozone climatology, Department of Geography, Arizona State University, February 1993.\*
- Departmental Research in Progress Seminar on long-range transport of pollutants in the borderlands, Department of Geography and Regional Development, University of Arizona, September 1993.\*
- Departmental Colloquium on publishing refereed journal articles, Department of Geography and Regional Development, University of Arizona, Fall 1994.\*
- Exploring climate variability in the US-Mexico border region. Udall Center for Studies in Public Policy, University of Arizona, March 26, 1997.\*
- Carbon monoxide climatology and forecast model development for Phoenix, Arizona. Tucson Environmental Planning Advisory Committee, July 7, 1997 (with J. Diem).\*
- Coccidioides immitis* as a Southern Arizona Environmental Biohazard. Panel discussion in UA Dept. of Plant Pathology, March 23, 2001 (with J. Galgiani & M. Orbach).\*
- Institute for the Study of Planet Earth, University of Arizona, Fall 2001.\*
- Dept. of Atmospheric Sciences, University of Arizona, Spring 2002.\*
- Institute for the Study of Planet Earth, University of Arizona, Spring 2002.\*
- Valley Fever Center for Excellence, University of Arizona, Fall 2002.\*
- School of Natural Resources, University of Arizona, Spring 2004.\*
- Cooperative Institute for Research in the Atmosphere, Colorado State Univ., May 2005.\*
- Mycology Research Unit, Arizona Health Sciences Center, University of Arizona, June 2005.\*
- Arizona Governor's Climate Change Advisory Group, Arizona Dept. of Water Resources/Salt River Project, Phoenix, September 2005.\*
- Environmental Fluid Dynamics Program, Arizona State University, Tempe, AZ, Oct. 2005.\*
- School of Geography, Arizona State University, Tempe, AZ, Nov. 2006.\*
- College of Science, Global Climate Change public lecture series, University of Arizona, Tucson, AZ, Nov. 2006.\*
- National Research Council, Committee on Strategic Advice to the U.S. Climate Change Science Program, National Center for Atmospheric Research, Boulder, CO, June 7-8 2007.\*
- Power of the Past Symposium, Dept. of Geography and Anthropology, Louisiana State University, Baton Rouge, LA, Nov. 2007.\*
- Keynote Address: Conference on Health Effects of Climate Change, University of Arizona, Tucson, AZ, Nov. 2008.\*
- Dept. of Geography, Texas A&M University, College Station, TX, Feb. 2009.\*

E.W. Miller Memorial Lecture, College of Earth & Mineral Sciences, Pennsylvania State University, Sep. 2009.\*

Spieker Colloquium, Department of Geography, University of California-Los Angeles, Feb. 2010.\*

Department of Geography, The Ohio State University, Columbus, OH, Oct. 2010.\*

### ***Conferences & Symposia***

A comparison of synoptic climatological classification schemes. 86th Annual Meeting of the Association of American Geographers, April 19-22, 1990, Toronto, Canada, with B. Yarnal.

Selecting the best synoptic classification for air pollution studies. American Meteorological Society 7th Joint Conference on Applications of Air Pollution Meteorology with the Air and Waste Management Association, January 14-18, 1991, New Orleans, LA, with B. Yarnal and K. Yelsey.

The synoptic climatology of ozone pollution in Pittsburgh. 87th Annual Meeting of the Association of American Geographers, April 13-17, 1991, Miami, FL.

Tracking the ill wind of ozone that blows Pennsylvania's forests no good: a climatology of air-mass trajectories. 89th Annual Meeting of the Association of American Geographers, April 6-10, 1993, Atlanta, GA.

A synoptic climatology of rural ozone pollution in Pennsylvania forests. 90th Annual Meeting of the Association of American Geographers, March 29-April 2, 1994, San Francisco, CA.

Discussant, special session on the Future of Synoptic Climatology, at 90th Annual Meeting of the Association of American Geographers, March 29-April 2, 1994, San Francisco, CA.\*

A synoptically-based 850 mb climatology for the US-Mexico border region. 9th Conf. on Applied Climatology, American Meteorological Society, Dallas, TX, January 15-20, 1995, with D. Adams.

Linking synoptic climatology and air pollution over the borderlands. 91st Annual Meeting of the Association of American Geographers, March 14-18, 1995, Chicago, IL.

Forecasting ozone pollution from climate data: multivariate regression versus neural networks. 92nd Annual Meeting of the Association of American Geographers, April 9-13, 1996, Charlotte, NC.

The Utility of Neural Networks for Predicting Air Pollution. 40th Annual Meeting of the Arizona-Nevada Academy of Sciences, Tucson, AZ, April 19-20, 1996.

Determining the climatology of ozone potential for the US-Mexico border region. 89th Annual Meeting of the Air and Waste Management Association, June 23-28, 1996, Nashville, TN.

Downscaling climate data in the Southwest using digital elevation modeling. 93rd Annual Meeting of the Association of American Geographers, April 1-5, 1997, Fort Worth, TX (with D. Adams).

A climatological analysis of carbon monoxide concentrations in Phoenix, Arizona. 93rd Annual Meeting of the Association of American Geographers, April 1-5, 1997, Fort Worth, TX (with J. Diem).

Development of an operational statistical forecast model for ambient carbon monoxide. Symposium on Measurements of Toxic and Related Air Pollutants, Air and Waste

- Management Association/EPA, Research Triangle Park, NC, April 29-May 1, 1997 (with J. E. Diem).
- Precipitation Variability at High Spatial Resolution in the Desert Southwest. Web Workshop on the Impact of Climate Change and Land Use on the Southwestern United States, U.S. Global Change Research Program and U.S. Geological Survey, July 7 - July 18, 1997 (with B. Broyles).\*
- Panelist, Southwest Regional Climate Change Symposium, sponsored by U.S. Department of Interior and U.S. Global Change Research Program, Tucson, AZ, September 3, 1997.\*
- Regionalization of precipitation regimes across the U.S.-Mexico border region. American Meteorological Society 10<sup>th</sup> Conference on Applied Climatology, Reno, NV, 20-23 October 1997 (with E. Glenn).
- Extending downscaling techniques for precipitation in the southwestern United States. American Meteorological Society 10<sup>th</sup> Conference on Applied Climatology, Reno, NV, 20-23 October 1997 (with D. Adams).
- Climatological analysis and modeling of carbon monoxide concentrations in Phoenix, Arizona. American Meteorological Society 10<sup>th</sup> Conference on Applied Climatology, Reno, NV, 20-23 October 1997 (with J. Diem).
- Precipitation variability at high spatial resolution from a storage gauge network in the Southwest desert. American Meteorological Society 10<sup>th</sup> Symposium on Meteorological Observations and Instrumentation / 78<sup>th</sup> Annual Meeting, Phoenix, AZ, 11-16 January, 1998 (with B. Broyles).
- Estimating biogenic VOC emissions for the Tucson region using satellite remote sensing. PAG Regional Symposium on Air Quality Monitoring/Modeling in the Tucson Region, Tucson, AZ, February 8-10, 1998 (with J. Diem).\*
- Development of a GIS-based air quality planning model for marginal attainment areas. PAG Regional Symposium on Air Quality Monitoring/Modeling in the Tucson Region, Tucson, AZ, February 8-10, 1998 (with J. Diem).\*
- Precipitation variability at high spatial resolution in the Southwest desert. 94<sup>th</sup> Annual Meeting of the Association of American Geographers, March 25-29, 1998, Boston, MA (with B. Broyles).
- Assessing precipitation variability in the US-Mexico border region. Arizona/NASA Space Grant Statewide Undergraduate Research Internship Symposium, April 17-18, 1998, University of Arizona (with B. Decker).\*
- Development of a GIS-based air quality planning model for marginal attainment areas. 91<sup>st</sup> Annual Meeting of the Air and Waste Management Association, June 14-18, 1998, San Diego, CA (with J. Diem and T Gutheim).
- Estimating biogenic emissions for urban airshed modeling in Tucson, Arizona. 91<sup>st</sup> Annual Meeting of the Air and Waste Management Association, June 14-18, 1998, San Diego, CA (with J. Diem).
- Seasonal and interannual climate controls on forest and wildland fire in the Southwest. American Meteorological Society 23<sup>rd</sup> Conference on Agricultural and Forest Meteorology, November 2-6, 1998, Albuquerque, NM (with D.K. Adams, J.D. All, J.E. Diem, A.E. Hessler, K.F. Kipfmüller and M.W. Salzer).
- Development of a biogenic emissions inventory for a southwestern, semi-arid city. American Meteorological Society 2<sup>nd</sup> Urban Environment Symposium, November 2-6, 1998, Albuquerque, NM (with J.E. Diem).

- Teleconnections between winter circulation patterns, surface climatology, and vegetation behavior in the Southwest U.S. American Meteorological Society 11<sup>th</sup> Conference on Applied Climatology, January 10-15, 1999, Dallas, TX (with H.C. Hartmann, and T.C. Pagano, T.S. Hogue, A. Farid, and S. Sorooshian).
- Development of the System for Management, Observation, and GIS Modeling of Air Pollution (SMOGRAM). Electric Utilities Environmental Conference, January 11-13, 1999, Tucson, AZ (with J. Diem).\*
- Panelist, The National Assessment of Climate Change, 95th Annual Meeting of the Association of American Geographers, March 23-27, 1999, Honolulu, HI.\*
- Linking climate variability to forest fire severity in the Southwest. 95th Annual Meeting of the Association of American Geographers, March 23-27, 1999, Honolulu, HI (with D.K. Adams, J.D. All, J.E. Diem, A.E. Hessel, K.F. Kipfmüller and M.W. Salzer).
- Modeling Temperature at Fine Spatial Scales for Global Change Impacts. Arizona/NASA Space Grant Undergraduate Research Internship Symposium, Tempe, Arizona, April 9-10, 1999 (with M.E. Rodriguez).
- Predictive Spatial Modeling of Coccidioidomycosis Infection in Arizona. Annual Symposium of the Pan-American Aerobiology Association, Tucson, Arizona, May 28-June 1, 1999 (with K. Smith, S. Rogan, N. Ampel, S. Yool and K. Komatsu).
- Public Health and Access to Air Quality Data: The EMPACT Project in Tucson, AZ. Annual Symposium of the Pan-American Aerobiology Association, Tucson, Arizona, May 28-June 1, 1999 (with M.K. O'Rourke, J.L. Burgess, L. Comrie, S. Davis and D. Esposito).
- The Climate of the Southwest. 26<sup>th</sup> Annual Water Resources Planning and Management Conference of the American Society of Civil Engineers (ASCE), Tempe, Arizona, June 6-9, 1999 (with P. Sheppard, K. Angersbach, G. Packin and M. Hughes).\*
- Climate Variability in the Southwest: An Integrated Assessment. 16th Annual Pacific Climate Workshop on Climate Variability of the Eastern North Pacific and Western North America (PACCLIM), Santa Catalina Island, CA, May 24-27, 1999 (with K. Angersbach, P. Sheppard, G. Packin and M. Hughes).
- Climate and Valley Fever (with K. Kolivras), in W. Sprigg and T. Hinkley, Southwest Regional Component of the National Climate Assessment. American Geophysical Union, Spring Meeting, June 1999.
- Exploring Climate Variability and Valley Fever. 24<sup>th</sup> Annual Climate Diagnostics and Prediction Workshop, Tucson, Arizona, November 1-5, 1999 (with K. Kolivras, N. Ampel, M. Bultman, P. Johnson, S. Rogan, K. Smith and S. Yool).
- Geospatial Modeling of Coccidioides Immitis Habitat as Mediated by Climate and Surface Variables. 24<sup>th</sup> Annual Climate Diagnostics and Prediction Workshop, Tucson, AZ, November 1-5, 1999 (with S. Yool, P. Johnson, N. Ampel, M. Bultman, K. Kolivras, S. Rogan and K. Smith).
- Local and Remote Linkages Associated with Extreme Precipitation Events During the Monsoon Season in Southeast Arizona. 24<sup>th</sup> Annual Climate Diagnostics and Prediction Workshop, Tucson, AZ, November 1-5, 1999 (with T. Cavazos and D. Liverman).
- Exploring Links Between Climate and Valley Fever. 44<sup>th</sup> Coccidioidomycosis Study Group Conference, Berkeley, CA, April 1, 2000 (with K. Kolivras).
- Case Study of a Wind-Modified Heat Island in Tucson. 96th Annual Meeting of the Association of American Geographers, Pittsburgh, PA, April 4-8, 2000.

- The Relationship Between Valley Fever Incidence and Climatic Conditions. 96th Annual Meeting of the Association of American Geographers, Pittsburgh, PA, April 4-8, 2000 (with K. Kolivras).
- Snow in the Southwest: Important Considerations of Winter Climate Variability in Arizona and New Mexico. 96th Annual Meeting of the Association of American Geographers, Pittsburgh, PA, April 4-8, 2000 (with D. Brown).
- Spatial Modeling of Ozone in the Tucson Region. 96th Annual Meeting of the Association of American Geographers, Pittsburgh, PA, April 4-8, 2000 (with J. Diem).
- Spatio-Temporal Mapping of Air Pollution in the Tucson Metro Area. 96th Annual Meeting of the Association of American Geographers, Pittsburgh, PA, April 4-8, 2000 (with J. Abraham).
- Geography As An Integrative Discipline. Round Table Discussion at 96th Annual Meeting of the Association of American Geographers, Pittsburgh, PA, April 4-8, 2000 (with B. Morehouse, D. Liverman, B.L. Turner, S. Cutter, T. Baerwald, and R. Kates).
- Regression-Based Spatial Modeling of Ozone in the Tucson Region. 93rd Annual Conference of the Air and Waste Management Association, Salt Lake City, UT, June 18-22, 2000 (with J. Diem).
- Real-Time Mapping of Local Scale Air Pollution. 93rd Annual Conference of the Air and Waste Management Association, Salt Lake City, UT, June 18-22, 2000 (with J. Abraham).
- Climate Doesn't Stop at the Border: US-Mexico Climatic Regions and Causes of Variability. NOAA/IAI Symposium on Climate, Water and Transboundary Challenges in the Americas, Santa Barbara, CA, July 16-19, 2000.\*
- Spatial Modeling and Scale Analysis of Winter Climate Variability in Arizona and New Mexico. 2<sup>nd</sup> Southwest Weather Symposium, Tucson, AZ, Sept 21-22, 2000 (with D. Brown).
- Tucson's Urban Heat Island: Trends and Case Study. 2<sup>nd</sup> Southwest Weather Symposium, Tucson, AZ, Sept 21-22, 2000.
- Seasonal Forecast of Monsoon Precipitation in Arizona Using Linear and Nonlinear Techniques. 2<sup>nd</sup> Southwest Weather Symposium, Tucson, AZ, Sept 21-22, 2000 (with T. Cavazos and A. Gershunov).
- Climate Variability and Valley Fever Incidence. 2<sup>nd</sup> Southwest Weather Symposium, Tucson, AZ, Sept 21-22, 2000 (with K. Kolivras).
- Winter climate variability in Arizona and New Mexico. American Water Resources Association 2000 Annual Spring Specialty Conference, May 1-3, 2000, Anchorage, AK (with D. Brown).
- Cavazos, T., F. Ni, M. Hughes, A. C. Comrie, and G. Funkhouser, 2001: Using regression and neural networks to reconstruct circulation indices and precipitation in the Southwest. 81<sup>st</sup> Annual Meeting of the American Meteorological Society, Albuquerque, NM, January 14-19.
- Determining climatological return periods for natural dust events in Arizona. 97<sup>th</sup> Annual Meeting of the Association of American Geographers, New York, NY, February 27-March 3, 2001 (with G. Garfin).
- Ozone pollution and climate: a case study of Tucson, Arizona. 97<sup>th</sup> Annual Meeting of the Association of American Geographers, New York, NY, February 27-March 3, 2001 (with J. Diem).

- Improving spatial estimates for subregional air pollution mapping using geographic principles. 97<sup>th</sup> Annual Meeting of the Association of American Geographers, New York, NY, February 27-March 3, 2001 (with J. Abraham).
- Spatio-temporal variability of winter climate in Arizona and New Mexico. 97<sup>th</sup> Annual Meeting of the Association of American Geographers, New York, NY, February 27-March 3, 2001 (with D. Brown).
- Climate and health: predicting valley fever incidence from climate variability. 97<sup>th</sup> Annual Meeting of the Association of American Geographers, New York, NY, February 27-March 3, 2001 (with K. Kolivras).
- Experimental seasonal forecast of monsoon precipitation in Arizona. 18<sup>th</sup> Annual Pacific Climate (PACLIM) Workshop, Asilomar/Pacific Grove, CA, March 18-21, 2001 (with T. Cavazos).\*
- Climate of the Southwest. Fire and Climate Workshop, Tucson, AZ, March 28, 2001.\*
- Development of a climate-coccidioidomycosis predictive model. 45<sup>th</sup> Coccidioidomycosis Study Group Conference, Tucson, AZ, March 31, 2001 (with K. Kolivras).
- Climate and Health: The Valley Fever Project. Workshop on Applications and Human Dimensions of Monsoon Research, Tucson, AZ, June 18-20, 2001.\*
- Our Changing Understanding of the North American Monsoon. Global Change Monsoon Colloquium, University of Arizona, Tucson, AZ, Sept 10, 2001.\*
- Seasons of Drought and Flood. Hot Topics/Cool Solutions 2001 - The Sustaining Desert: Building Liveable Futures, Tucson, AZ, Sept 10-12, 2001.\*
- Sub-regional variability of climate in Arizona and New Mexico. 26<sup>th</sup> Annual Climate Diagnostics and Prediction Workshop, Scripps Institute for Oceanography, La Jolla, CA, Oct 22-26, 2001 (with D. Brown).
- Structuring climate services through stakeholder-driven assessment. 3<sup>rd</sup> Symposium on Environmental Applications, American Meteorological Society. Orlando, FL, January 2002 (with BJ Morehouse et al.).
- Climate science and services: some lessons from CLIMAS. 19<sup>th</sup> Annual Pacific Climate (PACLIM) Workshop, Asilomar/Pacific Grove, CA, March 2-6, 2002 (with M.C. Lemos, M.K. Hughes and J.T. Overpeck).
- Exploring Links Between Climate and Influenza Outbreaks. 98<sup>th</sup> Annual Mtg of the Assoc. of American Geographers, Los Angeles, CA, March 19-23, 2002 (with K. Kolivras)
- Development and analysis of fine-scale gridded climate data for Arizona and New Mexico. American Meteorological Society 12<sup>th</sup> Conference on Applied Climatology, Portland, OR, May 12-15, 2002 (with D. Brown).
- Climate Science and Services: Some Lessons from CLIMAS. 99<sup>th</sup> Annual Meeting of the Association of American Geographers, New Orleans, LA, March 4-8, 2003 (with M.C. Lemos, J. Overpeck and M. Hughes).
- Seasonal Climate Variability and Coccidioidomycosis in the Tucson Region. 47<sup>th</sup> Coccidioidomycosis Study Group Conference, Mayo Clinic Scottsdale, AZ, April 5, 2003.
- WestMap: the Western Climate Mapping initiative. 20<sup>th</sup> Annual Pacific Climate (PACLIM) Workshop, Asilomar/Pacific Grove, CA, April 6-9, 2003 (with K. Redmond and C. Daly).

- Integration of fire-climate information into a decision support system: the WALTER project. 20<sup>th</sup> Annual Pacific Climate (PACLIM) Workshop, Asilomar/Pacific Grove, CA, April 6-9, 2003 (with M. Crimmins, S. Taunton, S. Yool and B. Morehouse).
- Air Quality Trends and Climate Variability in Tucson. Southwest Air Quality Forum, Tucson, AZ, August 15, 2003 (with E. Wise).
- WestMap: The Western Climate Mapping Initiative. Climate Diagnostics and Prediction Workshop, Reno, NV, Oct 20-21, 2003 (with K. Redmond & C. Daly).
- Wildfire-Climate Interactions Across Southeast Arizona. 5th Symposium on Fire and Forest Meteorology, Orlando, FL, Nov 16-20, 2003 (with M. Crimmins).
- A Climatology of Drought for Arizona. 100<sup>th</sup> Annual Meeting of the Association of American Geographers, Philadelphia, PA, March 14-19, 2004 (with J. McPhee & G. Garfin).
- Analysis of the Impact of the North American Monsoon System on Wildfire Occurrence in Southeastern Arizona. 100<sup>th</sup> Annual Meeting of the Association of American Geographers, Philadelphia, PA, March 14-19, 2004 (with R. Brandt & S. Yool).
- SARS in China: A Chronology of Chinese Newspaper Discourse. 100<sup>th</sup> Annual Meeting of the Assoc. of American Geographers, Philadelphia, PA, March 14-19, 2004 (with J. Dooley).
- Vulnerability to Drought at Different Places and Scales: A Cross-Site Comparison. 100<sup>th</sup> Annual Meeting of the Association of American Geographers, Philadelphia, PA, March 14-19, 2004 (with R. Neff, C. Sorrensen, K. Chen, M. Lu, C. Polsky & B. Yarnal).
- Multi-decadal modulation of ENSO links to winter precipitation in the Western U.S. 21<sup>st</sup> Annual Pacific Climate (PACLIM) Workshop, Asilomar/Pacific Grove, CA, March 28-31, 2004 (with D. Brown).
- Climate, airborne dust and valley fever. Coccidioidomycosis Study Group Annual Meeting, Rosarito Beach, Mexico, April 3, 2004 (with B. Bonanno).
- The top ten questions about drought and climate in Arizona. Arizona Water and Pollution Control Association Annual Meeting, Mesa, AZ, May 7, 2004.
- Uncertainties in Water Supply. New Mexico Bar Water Law Conference, Albuquerque, NM, May 21, 2004.\*
- WestMap: The Western Climate Mapping Initiative. Mountain Climate Sciences Meeting, Lake Tahoe, CA, May 25-27, 2004 (with K. Redmond, C. Daly and M. Glueck).\*
- Assessing Meteorological Controls on Ozone Trends in the Southwestern United States. Presented at the XX Quadrennial Ozone Symposium, 1-8 June 2004, Kos, Greece (with E. Wise).
- Climate and Airborne Dust Links to Coccidioidal Disease Activity. Translational Research Seminar, Arizona Cancer Center, Arizona Health Sciences Center, University of Arizona, June 8 2004, Tucson Arizona (with B. Bonanno).
- Translational Climate Science and Services in the Climate Impact Assessment for the Southwest (CLIMAS) Project. Second International Conference on Climate Impact Assessment, Grainau, Germany, June 28-July2, 2004.\*
- The Latest Perspective on Short and Long-Term Drought Conditions. Arizona Hydrological Society 17<sup>th</sup> Annual Symposium, Tucson, AZ, September 15-18, 2004.\*
- Antecedent Precipitation Trumps Drought in Causing Southeast Arizona Wildfires. American Geophysical Union Fall Meeting, San Francisco, CA, Dec 13-17, 2004 (with M.A. Crimmins).

- Grounded Assessment: Using grounded theory and mixed methods in vulnerability assessments. IGU Workshop on Making Sense of Vulnerability: Social and Critical Engagements, Dundee, Scotland, March 10-11, 2005 (with R. Neff, C. Sorrensen & B. Yarnal).
- Grounded Assessment: Using grounded theory and critical perspectives in vulnerability assessments. 101<sup>st</sup> Annual Meeting of the Association of American Geographers, Denver, CO, April 5-9, 2005 (with R. Neff, C. Sorrensen & B. Yarnal).
- Planning the National Integrated Drought Information System. Workshop Panelist, NOAA Climate Diagnostics Center, Boulder, CO, June 2, 2005.
- Downscaling Seasonal Climate Predictions for Local Applications. 15<sup>th</sup> Conference on Applied Climatology, American Meteorological Society, Savannah, GA, June 19-23, 2005 (with J. McPhee).
- Reconciling Supply and Demand for Climate Information in CLIMAS. SPARC/RISA NSF workshop, East-West Center/University of Hawaii, Honolulu, HI, August 14-17, 2005.\*
- Authors Meet The Editors (Panelist). Association of Pacific Coast Geographers Annual Meeting, Phoenix, AZ, October 19 - 22, 2005.\*
- Data Adjustment and Exposure Modeling Identify Climate Controls on Coccidioidomycosis. International Society for Exposure Analysis, 15th Annual Conference, Tucson, AZ, October 30–November 3, 2005.
- Climatic Influences on West Nile Virus Epidemics in South Africa: A Retrospective Study. 54<sup>th</sup> Annual Meeting of the American Society of Tropical Medicine and Hygiene, Washington, DC, 11-15 December, 2005 (C. Uejio & A. Comrie).
- Climate and coccidioidomycosis in the arid Southwest United States. Forum on Climate and Disease, The Yale Institute for Biospheric Studies, Yale University, New Haven, CT, December 9-10, 2005.\*
- A Geography of SPI-Derived Drought Exposure in the United States. 102<sup>nd</sup> Annual Meeting of the Association of American Geographers, Chicago, IL, March 7-11, 2006 (with J. Harrington).
- Nietzsche and Geography. 102<sup>nd</sup> Annual Meeting of the Association of American Geographers, Chicago, IL, March 7-11, 2006.\*
- Preparing for Graduate School. 102<sup>nd</sup> Annual Meeting of the Association of American Geographers, Chicago, IL, March 7-11, 2006.\*
- Theorizing Scale across Human and Physical Geography. 102<sup>nd</sup> Annual Meeting of the Association of American Geographers, Chicago, IL, March 7-11, 2006.\*
- Climate and Health: Basic Science and Decision Support for Valley Fever. 4th NOAA Climate Prediction Applications Science Workshop: Research and Applications on Use and Impacts, Tucson, AZ, March 21-24, 2006.
- Predicting West Nile Virus mosquito habitat using ecological theory. 17th Conference on Biometeorology and Aerobiology, American Meteorological Society, San Diego, CA, May 21-25, 2006 (with C. Uejio).
- Prototype web tools for the western climate mapping initiative (WestMap). 21<sup>st</sup> Annual Pacific Climate (PACLIM) Workshop, Asilomar/Pacific Grove, CA, March 26-29, 2006 (A. Comrie, K. Redmond, M. Glueck, H. Reinbold).
- Climatologic Effects on the Risk of Acquiring Coccidioidomycosis. 6<sup>th</sup> International Symposium on Coccidioidomycosis, Stanford University, Palo Alto, CA, August 23-26, 2006.\*

- Prototype web tools for the western climate mapping initiative (WestMap). Mountain Climate Sciences Meeting (MTNCLIM), Mount Hood, OR, September 19-22, 2006 (A. Comrie, K. Redmond, M. Glueck, H. Reinbold).
- Fine-Scale Winter Precipitation Variability in the US Southwest. Mountain Climate Sciences Meeting (MTNCLIM), Mount Hood, OR, September 19-22, 2006 (A. Comrie & J. Tamerius).
- Interactive Web-based Access and Analysis Tools for the Western Climate Mapping Initiative (WestMap). Fall Meeting, American Geophysical Union, San Francisco, 11-15 December, 2006 (M. Glueck, A. Comrie, K. Redmond, H. Reinbold).
- Developing the Local 3 Month Precipitation Outlook. 16th Conference on Applied Climatology, American Meteorological Society, San Antonio, TX, 14–18 January, 2007 (J. Meyers, M. Timofeyeva, D. Unger, A. Comrie).
- Satellite Characterization of Infectious Disease Biomarkers. American Society for Photogrammetry and Remote Sensing (ASPRS) Southwest Technical Meeting. Global Institute of Sustainability, ASU, Tempe, 7 March 2007 (S Yool, S Skirvin, M Glueck, A Comrie, P Stacy, S Pianalto, R Johns).
- Climate and Satellite Remote Sensing Analyses of the "Grow and Blow" Hypothesis. 51st Coccidioidomycosis Study Group, Biodesign Institute ASU, Tempe AZ, March 31, 2007 (A Comrie, S Skirvin, M Glueck, S Pianalto, R Johns, P Stacy and S Yool).
- Dynamic modeling of mosquito populations with climate data. Annual Meeting of the Association of American Geographers, San Francisco, CA, April 17-21, 2007 (C. Morin & A. Comrie).
- Valley Fever Public Health Decision Support System Based on Climate and Environmental Changes. 135th American Public Health Association Annual Meeting, Washington DC, November 3-7, 2007 (A Comrie, M Glueck, S Skirvin, S Pianalto, R Johns, P Stacy and S Yool).
- Dynamic simulation modeling of mosquito populations with climate data. 22<sup>nd</sup> Annual Pacific Climate (PACLIM) Workshop, Asilomar/Pacific Grove, CA, May 13-17, 2007 (A. Comrie & C. Morin).
- Dynamic modeling of populations of the dengue fever vector, *Aedes Aegypti*, with climate data in Tucson, Arizona. 22<sup>nd</sup> Annual Pacific Climate (PACLIM) Workshop, Asilomar/Pacific Grove, CA, May 13-17, 2007 (C. Morin & A. Comrie).
- Global climate change in the Southwest and air quality implications. Air Quality Trends in the Southwest Forum, Tucson, AZ, June 22, 2007.\*
- Creating, Financing and Sustaining Graduate Interdisciplinary Programs at the University of Arizona. Council of Graduate Schools New Deans Institute and Summer Workshop, San Juan, Puerto Rico, July 7-11, 2007.\*
- Entrepreneurship in Graduate Education. Facilitator and Panelist, Council of Graduate Schools New Deans Institute and Summer Workshop, San Juan, Puerto Rico, July 7-11, 2007 (R. Bulla & A Comrie).\*
- Using DyMSiM to model the response of important disease vectors to urban environments and climate in Tucson, Arizona. American Meteorological Society Seventh Symposium on the Urban Environment, San Diego, CA, 10-13 September 2007 (C Morin & A. Comrie).

- Measuring the social value of innovation: A link in the university technology transfer and entrepreneurship equation. Panelist, UA/Kauffman Colloquium, Tucson, AZ, February 7-10, 2008.\*
- The WestMap stakeholder-driven interactive data access and analysis resource interface for fine-scale climate data. American Meteorological Society 88th Annual Meeting and 24th Conference on IIPS, New Orleans, LA, 20-24 January 2008 (M. Glueck, A. Comrie, K. Redmond, H. Reinbold, J. Abatzoglou and C. Daly).
- Developing the Local 3 Month Precipitation Outlook. American Meteorological Society 88th Annual Meeting and 19th Conference on Probability and Statistics, New Orleans, LA, 20-24 January 2008 (J. Meyers, M. Timofeyeva, D. Unger and A. Comrie).
- Transient inverted troughs interacting with the North American monsoon system. 2nd International Lightning Meteorology Conference (ILMC), Tucson, AZ, 24-25 April 2008 (Bieda, S.W., Castro, C.L., Mullen, S.L., Comrie, A.C. and Pytlak, E.).
- Climate and Surface Disturbance Controls on Valley Fever Incidence. Annual Meeting of the Association of American Geographers, Boston, MA, April 15-19, 2008 (A Comrie, M Glueck, S Skirvin, S Pianalto, R Johns, P Stacy, J Tamerius and S Yool).
- A West Nile Virus Vector's Response to Climate Variability using the Dynamic Mosquito Simulation Model (DyMSiM). Annual Meeting of the Association of American Geographers, Boston, MA, April 15-19, 2008 (C. Morin & A. Comrie).
- Sub-Regional Winter Precipitation Variability: Case studies of disparate winter precipitation modes in Southwest U.S. Annual Meeting of the Association of American Geographers, Boston, MA, April 15-19, 2008 (J Tamerius & A. Comrie).
- Graduate Admissions and Financing Overview for Associate/Assistant Deans. Council of Graduate Schools New Deans Institute and Summer Workshop, Vail, CO, July 13-16, 2008.\*
- Climate Change and Public Health Preparedness. Plenary speaker, 80<sup>th</sup> Annual Meeting, Arizona Public Health Association, Tucson, AZ, September 17-19, 2008.\*
- The evolution of urban heat island and water demand. American Meteorological Society Eighth Symposium on the Urban Environment, Phoenix, AZ, January 11-15, 2009 (C.A. Scott, E. Halper, S.R. Yool & A.C. Comrie).
- Dynamic Modeling of Future Mosquito Population Trends Across the Southern United States. Annual Meeting of the Association of American Geographers, Las Vegas, NV, March 22-27, 2009 (A. Comrie & C. Morin).
- Climate factors related to coccidioidomycosis in the Tucson and Phoenix areas. 53rd Annual Coccidioidomycosis Study Group Meeting, Bakersfield, CA, April 2009 (Comrie, A.C., Tamerius, J., and Glueck, M.).
- Interruption and reemergence of *Trypanosoma cruzi* transmission in peri-rural localities of Arequipa, Peru. American Society for Tropical Medicine and Hygiene, 58<sup>th</sup> Annual Meeting, Washington DC, November 18-22, 2009 (S Delgado, R Castillo Neyra, VR Quispe Machaca, J Ancca Juárez, LC Chu, M Verastegui, CD Bocángo, AW Tustin, CR Sterling, AC Comrie, C Náquira, JG Cornejo del Carpio, RH Gilman, C Bern & MZ Levy).
- Temporal variation of coccidioidomycosis incidence and associations with precipitation in Arizona. 54th Annual Coccidioidomycosis Study Group Meeting, Surprise, AZ, March 27, 2010 (Comrie, A.C., Tamerius, J.).

- Validation of the Grow and Blow Hypothesis for Climate Control of Valley Fever in Arizona. Annual Meeting of the Association of American Geographers, Washington, DC, April 14-18, 2010 (A. Comrie, J. Tamerius, M. Glueck, S. Yool).
- Climate Buzz: Mosquitoes in a Changing Environment. Tucson Water Speaker Series, Tucson, AZ, May 20, 2011 (A Comrie & C Morin).\*
- Forecasting the 2011 North American Monsoon Onset and Precipitation for Southern Arizona: A Case-study in Applied Climatology. 6th Annual Southwest Hydrometeorology Symposium. Tempe, AZ, 27-28 September 2011 (C. Kahn-Thornbrugh, S.W. Bieda, A.C. Comrie, M.A. Crimmins, & J.J. Brost).
- Urban Mosquito Mapping Using The Climate-Based Dynamic Mosquito Simulation Model (DyMSiM). Annual Meeting of the Association of American Geographers, New York, NY, Feb 24-28, 2011 (A. Comrie, C. Morin, M. Butterworth, K Landau, W. van Leeuwen).
- Land cover and climate impacts on the spatial distribution of mosquito abundance in Tucson, Arizona. Annual Meeting of the Association of American Geographers, New York, NY, Feb 24-28, 2011 (K Landau, W. van Leeuwen, E. Willott, C. Morin, A. Comrie).
- Vector Borne Disease in the American West. Charting the Rapids Ahead: Western Water, Climate Change & Public Health. Webinar presentation, Public Health Institute, Center for Public Health & Climate Change & Carpe Diem West, Oct 19, 2011.
- Progress in American Monsoon Research: Climatological Forecasting of the North American Monsoon System. World Climate Research Programme, Climate Research in Service to Society Conference, Denver, CO, 24-28 October 2011. (S Bieda, C Kahn-Thornbrugh, A. Comrie; M. Crimmins, J Brost).
- Flash Flood Causing Mechanisms of the North American Monsoon System in the Sonoran Desert Region. Association of American Geographers Annual Meeting 2012, New York, NY – Feb 24-28 (Bieda, S.W. III, A.C. Comrie, M.A. Crimmins, L.A. Byerle, S. Marsh, and D.P. Guertin).
- Forecasting the 2011 North American Monsoon Onset and Precipitation for Southern Arizona: A case study in Applied Climatology. 6th Annual Southwest Hydrometeorology Symposium. Tempe, AZ. Sep 27-28 (Kahn-Thornbrugh, C., S.W. Bieda III, A.C. Comrie, M.A. Crimmins, and J.J. Brost).

### **Grants and Contracts**

- Masters Research Grant. Department of Environmental and Geographical Science, University of Cape Town (100%; P.I.; R500[~\$250]), 1986.
- Thermal Internal Boundary Layers in the South Western Cape. Council for Scientific and Industrial Research Grant NPWCAR-GBE1 (90%; P.I.; R22,000[~\$11,000]), with C.S. Keen, 1987.
- Climatological evaluation of proposed Gansbaai/Agulhas nuclear reactor site. Contract with Environmental Evaluation Unit, University of Cape Town (75%; P.I.; R100[~\$50]), with L. Loewenheim, 1987.
- Assessing Air Pollution Transport to Wilderness Areas: The case of Tucson and the Saguaro National Monument. University of Arizona, Social and Behavioral Sciences Research Institute, Summer Stipend Grant for Proposal Development (100%; P.I.; \$5,000), 1993.

- A Synoptic Climate Database for Air Pollution Studies in the US-Mexico Border Region. University of Arizona, Social and Behavioral Sciences Research Institute, Small Grant (100%; P.I.; \$1,500), 1993.
- A Virtual Communication and Spatial Analysis Laboratory. University of Arizona, Instructional Computing Grant Program (75%; Co-P.I.; \$19,000), with S. Yool, 1994.
- A Virtual Communication and Spatial Analysis Laboratory. National Science Foundation, Instrumentation and Laboratory Improvement Grant (50%; Co-P.I.; \$89,000), with S. Yool and D. Plane, 1994.
- Development of Carbon Monoxide Forecasting Models for Phoenix, Arizona. Arizona Department of Environmental Quality, Office of Air Quality (100%; P.I.; \$25,000), 1996.
- Downscaling Regional Climate Data to Local Scales. Office of the Vice-President for Research, University of Arizona (100%; P.I.; \$4,000), 1996.
- Ozone Modeling Assessment Study. Pima Association of Governments (100%; P.I.; \$10,000), 1997.
- National Aeronautics and Space Administration/UA Space Grant Program, Undergraduate Research Intern (100%; P.I.; \$17,500[~\$3,500 per student/year]), 1997, 1998, 2000, 2001, 2002, 2003, 2005.
- System for Management, Observation, and GIS Modeling of Air Pollution (SMOGRAM). Pima Association of Governments (100%; P.I.; \$194,954), 1997-2001.
- Climate Variability, Social Vulnerability, and Public Policy in the Southwestern United States: A Proposal for Regional Assessment Activities (a.k.a. Climate Assessment for the Southwest [CLIMAS]). National Oceanographic and Atmospheric Administration (10% years 1-3 and 8.38% years 4-6; Co-P.I.; \$5,000,000), with J. Overpeck, R. Bales, S. Sorooshian, D. Liverman, T. Finan, M. Hughes, et al., 1999-2007.
- Climate Data Analysis for Southern Africa. National Oceanic and Atmospheric Administration to ASU Office of Climatology and the National Climatic Data Center (5%; consulting Co-P.I.; \$75,000), with R. Vose and T. Peterson, 1999.
- Public Access to Environmental Monitoring Data in Tucson, Arizona. U.S. Environmental Protection Agency, EMPACT program, in collaboration with Pima County Department of Environmental Quality (33%; Co-P.I.; \$485,000 total, University of Arizona portion \$175,000), with M.K. O'Rourke and J. Burgess, 1999-2000.
- Updating the Department of Geography and Regional Development's Spatial Analysis Laboratory. Learning Technologies Partnership, University of Arizona (33%; Co-P.I.; \$15,000), with A. Esparza and S. Yool, 1999.
- Determination of Climatological Criteria for Natural Dust Events in Arizona. Arizona Department of Environmental Quality (100%; P.I.; \$25,000), 2001.
- Infrastructure to Develop a Human-Environment Research Observatory (HERO). National Science Foundation (35% years 1-4 and 100% year 5; Co-P.I./P.I.; ~\$2,500,000 total with Penn State et al., University of Arizona portion \$235,415), with D. Liverman, R. Merideth and R. Varady, 2000-2005.
- Research Experience for Undergraduates (REU) – HERO project. National Science Foundation (50% years 1-2 and 100% year 3; Co-P.I./P.I.; ~\$250,000 total with Penn State et al., University of Arizona portion \$53,035), with D. Liverman, 2002-2005.
- Integrated Epidemiological Study of Valley Fever. Arizona Disease Control Research Commission (0%; consultant/collaborator; \$690,339 total), with M.K. O'Rourke, J. Tabor, M. Orbach, L. Shubitz et al., 2002-2005.

- Tailored Drought Planning for Arizona. University of Arizona TRIF/Water Sustainability (25%; Co-P.I.; \$95,000), with G. Garfin and B. Morehouse, 2003-2005.
- Converging NASA Mission Measurements and Products with the Rapid Syndrome Validation Project (RSVP) Decision Support System to Validate and Benchmark Public Health Medical Alerts and Early Warning Forecasts. National Aeronautics and Space Administration (25%; Co-P.I.; ~\$2 million total with U. New Mexico, University of Arizona portion \$359,906), with W. Sprigg and K. Thome, 2004-2008.
- Application and Possible Refinement of a Dust Definition for WRAP. Western Governor's Association, with A. Pollack et al./Environ (\$64,953, 1 year), 2005 (consulting co-P.I.).
- A Distributed Interactive Access and Resource Interface For Fine-Scale Climate Data (WestMap). National Oceanographic and Atmospheric Administration (~\$200,000 over 2 years), with M. Glueck and K. Redmond (DRI), 2005-2007, (Lead P.I.).
- A Valley Fever (Coccidioidomycosis) Public Health Decision Support System Based on Climate and Environmental Changes. U.S. Environmental Protection Agency (\$265,000 over 2 years), with S. Yool, 2006-2009, (Lead P.I.).
- Geographies of Insects and Institutions: Mosquito Governance in the US Southwest. National Science Foundation (co-PI; \$100,000, 2 years), with P. Robbins, J.P. Jones, E. Willott, 2006-2009.
- Geospatial Analysis of Urban Thermal Gradients: Application to Tucson Arizona's Projected Water Demand. U.S. Geological Survey 104B Grant Program, via UA Water Resources Research Center (co-PI; \$12,000, 1 year), with C. Scott, S. Yool, 2007.
- Integrating Climate Science for Decision-Support, Mitigating Risk and Promoting Resilience. (a.k.a. Climate Assessment for the Southwest [CLIMAS]). National Oceanographic and Atmospheric Administration (Co-P.I.; \$4,794,552), with J. Overpeck, B. Colby, H. Hartmann, M. Wilder, K. Hirschboeck, G. Frisvold, 2007-2012.
- University of Arizona Proposal for Graduate Research Fellowship Program. Science Foundation Arizona (Co-P.I.; \$1,750,000), with L. Tolbert, 2007-2009.
- Strategic Growth of Integrated Graduate Programs for Arizona. Science Foundation Arizona (Co-P.I.; \$4,000,000), with L. Tolbert, 2008-2011.
- Research Ethics Throughout the Curriculum: Promoting Scientific Integrity at the University of Arizona. Council of Graduate Schools (PI; \$50,000, 2 years), with E. Boyd, 2008-2012.
- Ecological hazards in southwestern metropolises: The case of mosquito disease vectors. National Science Foundation (co-PI; \$300,000, 2 years), with P. Robbins, J.P. Jones, W Van Leeuwen, E. Willott, 2010-2011.

This is a true and accurate statement of my activities and accomplishments. I understand that misrepresentation in securing promotion and tenure may lead to dismissal or suspension under ABOR Policy 6-201 J.1.b.

Andrew C. Comrie



Date: December 18, 2013