

## **Nomination for Ray Bradley**

*Nominated by Mike Retelle*

Ray is the director and founder of the Climate System Research Center at UMass. His specialization is climatology and paleoclimatology. He has been a leader in numerous PAGES initiatives and other national and international collaborative climate research projects. He has worked in the arctic (Canadian high arctic, Greenland and Svalbard) since the '70's in climatological, glaciological and paleoclimate studies. He has led several projects in which environmental monitoring is a major focus. He is a good collaborator, he has a broad understanding of the arctic system and has keen insight for developing strategies to address emerging scientific problems. I highly recommend Ray for this committee!

## CURRICULUM VITAE

**RAYMOND S. BRADLEY**

**Department of Geosciences  
University of Massachusetts  
Amherst, MA 01003-9297**

Telephone: 413-545-2120  
Fax: 413-545-1200

Email: [rbradley@geo.umass.edu](mailto:rbradley@geo.umass.edu)

### Education (earned degrees)

D.Sc. 2003	University of Southampton, England
Ph.D. 1974	University of Colorado, Boulder
M.A. 1971	University of Colorado, Boulder
B.Sc. 1969	University of Southampton, England

### Positions

2014+	Professor II, Dept of Earth Science, University of Bergen, Norway
2002+	University Distinguished Professor, University of Massachusetts
2005-2010	Honorary Professor, Lancaster University, U.K.
1993-Jan 2003	Head, Dept of Geosciences, University of Massachusetts, Amherst.
1986+	Director, Climate System Research Center, University of Massachusetts, Amherst
1986+	Life Member, Clare Hall, Cambridge University
1984 -2002	Professor, University of Massachusetts, Amherst.
1978-1984	Associate Professor, University of Massachusetts, Amherst.
1979-1980	Visiting Scholar, Scott Polar Research Institute, Cambridge University, England.
1975-1978	Assistant Professor, University of Massachusetts, Amherst.
1973 - 1975	Instructor, University of Massachusetts, Amherst.

### Research Interests

Climatic variability (instrumental and paleoclimatic time scales); global change; methods of paleoclimatic reconstruction; arctic environments.

### Awards, Honors

2014	Zuckerberg Endowed Leadership Chair
2013	Doctor of Science <i>honoris causa</i> , Queen's University, Canada
2009	Association for the Advancement of Science (AAAS)—elected Fellow
2008	Finnish Academy of Science and Letters—elected Foreign Member
2007	Hans Oeschger Medal, European Geosciences Union (EGU)
2006	Doctor of Science <i>honoris causa</i> , Lancaster University, U.K.
2005	American Geophysical Union (AGU)—elected Fellow
2005	Outstanding Research Award: College of Natural Sciences & Mathematics
1995	Chancellor's Medal, University of Massachusetts (University's highest award).
1994	Arctic Institute of North America—elected Fellow

**Appointments, Committees: 1986-2010**

2014-2016	Mountain Research Initiative, Bern, Switzerland: Science Leadership Council
2010-2015	International Geosphere Biosphere Programme (IGBP): Scientific Committee
2009-2012	American Geophysical Union: Vice-Chairman, Global Environmental Change; Member, AGU Council
2005-2012	Bjerknes Centre for Climate Research, Bergen, Norway: Scientific Advisory Board
2002-2010	Max-Planck Institute for Meteorology (Hamburg) Advisory Council
2000+	Editorial Advisory Boards: <i>Journal of Earth Environment</i> , <i>Boreas</i> , <i>J. Quaternary Science</i> , <i>J. Paleolimnology</i> , <i>The Holocene</i> , <i>Key Issues in Environmental Change (Arnold)</i> , <i>Advances in Global Change Research (Kluwer)</i> , <i>Developments in Paleoenvironmental Research (Springer)</i> ;
2000-2012	Swiss "National Centers for Competence in Research-Climate" Advisory Board
2006-2007	Institute of Arctic and Alpine Research, Boulder: Scientific Advisory Board
2000-2005	NOAA Climate Change Data & Detection (C <sup>2</sup> D <sup>2</sup> ) Advisory Panel
2002-2004	Associate Editor, <i>J. Geophysical Research (Atmospheres)</i>
2000-2004	Arctic Research Consortium of the United States (ARCUS): Board of Directors
1990-1998	International Geosphere Biosphere Programme (IGBP) PAGES Scientific Steering Committee and Executive Committee (SSC Chairman, 1996+); Member of IGBP SSC, 1996+.
1994-1998	National Research Council, National Academy of Sciences: Panel on Decade-to-Century-Scale Climate Variability.
1994-1998	NSF Earth System History Advisory Panel.
1994-1996	U.S. Project Leader, Paleoclimatology, Working Group 8: U.S./Russia Convention on Protection of the Environment.
1990-1993	NOAA Climate and Global Change Advisory Panel.
1991	Evaluation committee: Swedish National Research Council: National research in physical geography
1988-1994	Secretary, INQUA Paleoclimate Commission
1989-90, 1994-95	Member of the Inter-Governmental Panel on Climate Change (I.P.C.C.)
1992-3	PALE (Paleoclimate of Arctic Lakes and Estuaries) Steering Committee
1988-1990	Chairman, National Geophysical Data Center (NOAA) Paleoclimate Advisory Panel
1989	U.S. delegate, Working Group 8: U.S./U.S.S.R. meeting on development of data sets for detecting climatic change, Obninsk, U.S.S.R.
1986 - 1989, 1994-96	American Quaternary Association: Council Member.
1986	U.S. delegate to Working Group 8, Project 11 of the U.S./U.S.S.R. Bilateral Agreement on Protection of the Environment "Meeting of Experts on Causes of Recent Climatic Change" Leningrad, U.S.S.R.
1983 - 1986	National Research Council, National Academy of Sciences: Committee on Monitoring and Assessment of Trends in Acid Deposition.
1984 - 1987	American Meteorological Society: Committee on Climatic Variations.

**Invited/Keynote Talks (since 2003)**

- 2014 *Third Pole Environment Workshop*, Berlin Germany: December 8-9 (invited).
- 2014 International conference on *Climate Change and Societal Disruption*, Urbino, Italy: June 17-21 (invited)
- 2014 Conference on *Future and Past Solar Influence on the Terrestrial Climate: Physical Meteorological Observatory*, Davos, Switzerland: May 20-23 (invited)
- 2014 Amherst College: May 5 (invited)
- 2014 *Northeastern Storms Conference*, Rutland Vermont: March 9 (invited)
- 2013 University of Pittsburgh/Carnegie Museum of Natural History: October 3 (invited)
- 2013 *Swiss Global Change Day, Bern*: April 16 (invited)
- 2013 Institut nationale de recherche scientifique, Quebec City Canada: April 4 (invited)
- 2013 Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland: Landolt Private Bank, Keynote Lecture: March 26
- 2013 Episcopal Diocese of Massachusetts, Longmeadow (invited)
- 2012 Fundación Ramón Areces, Madrid: November 12 (invited)
- 2012 University of Bern, Switzerland: October 12 (invited):
- 2012 University of Venice, Italy: October 9 (invited)
- 2012 International Conference on *Culture, Climate Change and Politics*, University of Colorado, Boulder: September 13<sup>th</sup> (keynote, plenary)
- 2012 *Boston Globe Forum*, Boston Public Library: April 12 (invited)
- 2012 Amherst College: *Keck Symposium*: April 7 (keynote)
- 2012 University of Texas, Corpus Christi: February 24 (keynote)
- 2011 University of Bremen, Germany: November 10 (invited)
- 2011 Nanjing University: October 20 (invited)
- 2011 Chinese Academy of Sciences Earth Institute, Xi'an: October 17 (invited)
- 2011 *International Symposium on Changes in the Cryosphere, Water Resources and Sustainable Development*, Urumchi, China: October 6 (keynote)
- 2011 Institut D'Estudis Catalans, Barcelona: May 6 (invited)
- 2010 M.I.T. *Global Change Forum*, Brussels, October 20 (invited)
- 2010 Luso-American Foundation: *The Medieval Warm Period Redux*, Lisbon, September 23 (invited)
- 2010 Institute of Catalan Studies, Barcelona, April 29 (invited)
- 2010 Commonwealth College, University of Massachusetts, Inaugural Daffodil Lecture Series (keynote), April 24, 2010.
- 2010 Massachusetts Association of Conservation Commissioners, Annual Meeting, Worcester, Massachusetts, February 27 (keynote)
- 2010 International Glaciological Conference: *Ice and Climate Change*, Valdivia, Chile: February 3 (invited)
- 2009 *Chief of Naval Operations Strategic Studies Group*, Naval War College, Newport, Rhode Island: November 6 (invited)
- 2009 Unitarian/Universalist Society of Amherst, Amherst, MA : Oct. 18 (invited)
- 2009 *17<sup>th</sup> International Northern Research Basins Symposium*, Baffin Island: Aug 13
- 2009 *Bertram Berger Seminar*, Boston Society of Civil Engineers, Boston: May 14
- 2009 Institut D'Estudis Catalans, Barcelona: April 29 (keynote)
- 2009 Cooperative Institute for Research in Environmental Sciences (CIRES) Distinguished Lecture Series, Boulder CO: April 18 (invited)

- 2009 University of Arkansas, Fayetteville: April 3 (invited)
- 2008 *Chief of Naval Operations Strategic Studies Group*, Naval War College, Newport, Rhode Island: November 17 (invited)
- 2008 *Green Dubai World Forum 2008*, Dubai: October 25 (keynote)
- 2008 *Pontificia Universidad Católica del Peru, Lima*: June 17 (keynote)
- 2007 Chemical Society of the Catalan Academia, Barcelona, November 29 (keynote)
- 2007 *Nicolaus Copernicus University*, Torun, Poland, October 11 (keynote).
- 2007 *European Geophysical Union, Vienna: Hans Oeschger Medal*: April 17(keynote).
- 2007 *Engineers Without Borders* (Annual conference) Amherst, MA, April 12 (invited)
- 2007 Century Club, Springfield, MA, April 2 (invited)
- 2007 University of Bergen, Norway, Dept. of Geological Sciences, March 2 (invited)
- 2006 *World Bank*, Washington D.C., November 8 (invited)
- 2006 *Canadian Circumpolar Institute*, Edmonton, Alberta, September 22 (invited)
- 2006 *HOLIVAR Open Science meeting*, London, June 15 (keynote)
- 2006 University of Illinois, Chicago, April 27 (invited)
- 2006 36<sup>th</sup> Arctic Workshop, Boulder Co, March 17 (keynote)
- 2005 ECOCLIM (Nordic Center of Excellence) Workshop on *Ecological response to climate change: scales of change, scales of observation*, Helsinki, Finland, November 4<sup>th</sup> (invited)
- 2005 *SORCE (Solar Radiation & Climate Experiment)* meeting, Durango, Colorado, September 15 (invited)
- 2005 *NCCR (National Center of Competence in Climate Research) Summer School*, Grindelwald, Switzerland, September 2 (invited)
- 2005 *Walter Orr Roberts Memorial Lecture*, Aspen Global Change Institute, July 18
- 2005 *Taafe lecture*, Department of Geography, Ohio State University: Feb.17 (invited)
- 2004 *Institute of Geographical Sciences*, Chinese Academy of Sciences Beijing, China, November 18, (invited)
- 2004 *International Conference on Environmental Processes of East Eurasia: Past, Present and Future*; Xi'an, China, Nov. 15 (keynote)
- 2004 *European Science Foundation HOLIVAR (Holocene Climate Variability) Workshop*, Kastanienbaum, Switzerland, Sept. 23-25 (invited).
- 2004 *Bjerknes Centenary Symposium on Climate Change in High Latitudes*, Bergen, Norway; Sept. 1-3 (keynote).
- 2004 *Symposium on Mountain Climate Sciences*: Lake Tahoe, California, May 25-27
- 2004 *Conference on Tree Rings and Climate: Sharpening the Focus*: Tucson, Arizona, April 6-9 (keynote).
- 2003 *GCOS Regional Workshop for South America*, Santiago, Chile, October 14-16
- 2003 *Conference on Global Change Research in Mountain Biosphere Reserves*, Entlebuch, Biosphere Reserve, Switzerland, November 10-13 (invited).
- 2003 *IMAGES Holocene Workshop*; Hafslø, Norway, Aug 27-30 (invited).
- 2003 *International Quaternary Association Congress*: Reno, Nevada (keynote).
- 2003 *American Meteorological Society conference on Polar Meteorology*: Hyannisport, Massachusetts (keynote)

**RESEARCH GRANTS (Total= \$22,533,991; \$560,750 p.a./40 years)**

<b>Period</b>	<b>Agency</b>	<b>Title</b>	<b>Total Funds</b>	<b>Co-P.I.</b>
2014-2016	UMASS	Center for Computational Climatology and Paleoclimatology	\$104,000	DeConto
2014-2017	NSF	Paleocrystic Arctic sea ice export and its relationship to abrupt climate change	\$595,992	Condron
2012-2016	DoI/USGS	Northeast Climate Science Center	\$7,500,000	Palmer, Griffin
2011-2014	DOE	High-resolution model development to quantify the impact of icebergs on the stability of the Atlantic Meridional Overturning Circulation	\$496,693	Condron
2010-2012	NOAA	Climate System Research	\$482,505	
2010-2012	NSF	Purchase of an X-Ray Core Scanner for Research in Paleoclimatology and Global Change	\$388,976	Rhodes, Woodruff
2010-2015	NOAA/Columbia	Consortium for Climate Risk in the Urban Northeast	\$697,884	Palmer
2009-2011	NOAA	Research on Climate System Variability	\$633,350	
2009-2011	UMASS	The effects of climate change on the New England environment	\$164,000	Palmer
2009-2011	NSF	Non-linearities in the Arctic climate system during the Holocene	\$209,087	
2007-2010	NSF	Volcanoes in the Arctic System (VAST)	\$416,551	
2007-2010	DOE	Regional-Scale Climate Change: Observations and Model Simulations	\$349,621	
2006-2008	NOAA	Research on Climate Variability	\$692,682	
2005-2007	NOAA	Climate System Research	\$683,800	
2005-2009	NSF	Collaborative research: a synthesis of the last 2000 years of climatic variability from Arctic lakes	\$193,098	Francis
2004-2007	DOE	Regional-scale climate variability on decadal to multi-century timescales	\$286,489	
2004-2007	NSF	High-Resolution Studies of High Arctic Paleoclimate from Varved Lake Sediments.	\$425,147	
2003-2005	NOAA	A 19 <sup>th</sup> century data catalog for New England and adjacent states	\$194,001	
2003-2005	NOAA	Climatic conditions in East Africa and Arabia: implications for paleoclimatic interpretations	\$236,055	Vuille
2002-2005	NOAA	Reconstruction and analysis of patterns of climate variability over the last 1-2 millennia	\$113,434	Mann, Hughes
2001-2004	DOE	Regional-scale climate variability on decadal to century timescales	\$272,229	
2001-2003	NSF	Lake sediment paleoclimate research in the Lofoten Islands, Arctic Norway	\$60,019	Francus
2000-2002	NSF	Stable isotope variability in precipitation at low-latitude sites	\$254,653	Vuille
2000-2001	U. Va	Multiproxy climate reconstruction	\$33,889	

1999-2001	NSF	The Late Quaternary water balance of the Venezuelan Andes	\$335,477	Abbott
1999-2002	NSF	Land-atmosphere-ice and snow interactions in the High Arctic	\$538,727	Hardy
1998-2001	DOE	Validation of decadal to multi-century climate predictions	\$450,000	Diaz
1997-2002	NSF	High resolution lake sediment studies for paleoclimatic reconstruction	\$637,096	
1999-2000	NSF	Solar influences on cloud formation and global temperature	\$55,335	
1996-1999	NSF	Patterns of interannual climate variability	\$137,000	
1997-99	NSF	Precipitation variability in the Inter-Tropical Andes	\$142,848	
1996-97	NASA	Meteorological studies, Windy Dome Ice Cap, Franz-Josef Land	\$31,000	
1996-99	NOAA	Meteorological studies, Sajama Ice Cap, Bolivia	\$170,007	
1996-97	N.S.F.	Workshop on climate variability in the Americas from high elevation ice cores	\$49,937	
1995-98	D.O.E.	Climate system studies	\$587,000	Diaz
1994-97	N.S.F.	Paleoclimate from Arctic lake sediments	\$300,000	
1993-94	D.O.E.	Records of recent climatic change in northern Canada	\$85,000	
1993-94	National Geog. Soc.	Climate of the last millennium from Arctic lake sediments	\$18,500	
1991-96	N.S.F.	Analysis of rapid and recent climatic change (ARRCC)	\$286,000	
1991-94	D.O.E.	Diagnostic studies of climate variability	\$640,681	Diaz
1990-92	NOAA	Climatic fluctuations of Monsoon Asia since A.D. 1600	\$ 71,600	Hughes, Thompson
1990-93	N.S.F.	Paleoclimatic significance of laminated lake sediments: Canadian High Arctic	\$299,997	
1990-91	NOAA	Precipitation history of Massachusetts	\$ 15,000	
1990-91	D.O.E.	Scientific workstation	\$ 27,040	
1988-91	D.O.E.	Climate system research	\$526,541	Diaz, Kelly
1987-91	N.S.F.	Chronology and paleoclimatology loess deposits in central China	\$246,500	McCoy
1985-87	N.S.F.	Evolution of Arctic lacustrine environments	\$162,000	Yuretich
1985-88	D.O.E.	Studies of climatic variability	\$484,000	Diaz, Kelly, Jones
1983-86	N.S.F.	Late Quaternary climatic variations in the Venezuelan Andes	\$101,000	Yuretich
1984-85	N.S.F.	Equipment for lake sediment studies	\$50,000	
1981-84	D.O.E.	Climate of the Northern Hemisphere 1851-1900 compared to contemporary	\$408,550	Diaz, Jones, Kelly
1981-83	N.S.F.	Climatic fluctuations of northernmost North America	\$128,000	England
1977-79	N.S.F.	Secular climatic history of the arid and semi-arid western U.S.	\$65,000	

### Field Experience

Summer 2014	Northern Spitzbergen, Svalbard: lake sediment research
Summer 2012	Northwestern Spitzbergen, Svalbard: lake sediment research
Summer 2011	Lofoten Islands, NW Norway: lake sediment research
Spring 2010	Southeast Greenland: lake sediment paleoclimate research
Summer 2009	Lofoten Islands, NW Norway: lake sediment research
Summer 2008	Lofoten Islands, NW Norway: lake sediment research and tephrochronology
Summer 2007	Quelccaya Ice Cap, Cordillera Vilcanota, Peru: meteorology of the ice cap
Summer 2006, 2007	Lofoten Islands, NW Norway: lake sediment research on organic biomarkers
Summer 2005	Northern Ellesmere Island, Nunavut, Canada: paleoclimatic significance of laminated lake sediments (Murray Lake).
Summer 2002	Kilimanjaro, Tanzania: meteorology of the Northern Icefield.
Summer 2001	Lofoten Islands, northwestern Norway: lake sediment collection late Holocene paleoclimatic reconstruction.
Summer 2000	Northeastern Ellesmere Island: energy balance and topoclimatic studies of the Hazen Plateau (Murray and Simmonds Ice Caps).
Summers 1990 to 1999	Northern Ellesmere Island and Cornwallis Island, N.W.T. Canada: paleoclimatic significance of laminated lake sediments.
Fall 1987, 1988	Central China: chronology and paleoclimatic aspects of loess/paleosol sequences.
Summer 1988	Cornwallis Island, N.W.T., Canada: lake sediment collection from Sophia Lake for late Holocene paleoclimatic reconstruction.
Fall 1987	Czechoslovakia and Austria: chronology and paleoclimatology of loess/paleosol sequences.
Summer 1986	Northern Ellesmere Island: lake sediment collection for Holocene paleoclimatic reconstruction.
Winters, 1982, 1984, 1985	Venezuelan Andes: collection of lake sediments from high elevation basins.
Summers 1982, 1983	Northeastern Ellesmere Island and northwestern Greenland: energy balance and topoclimatic studies of Hazen Ice Cap
Summer 1978, 1981	Northeastern Ellesmere Island, N.W.T., Canada: paleoclimatology and glacial history of Beaufort Lakes area.
Summers 1975, 1976, 1978	Northeastern Ellesmere Island, N.W.T., Canada: glacial and climatic history of Archer Fiord/Judge Daly Promontory.
Summer 1970, 1972	Eastern Baffin Island, N.W.T., Canada: sea-ice energy budget and glacier mass balance study, east coast of Cumberland Peninsula.
Summer 1971	Northeastern Ellesmere Island, N.W.T., Canada: field assistant, glacial history of Hazen Plateau.

## PUBLICATIONS

### A. Books and Edited Volumes

- Bradley, R.S., 2014. **Paleoclimatology: Reconstructing Climates of the Quaternary (3<sup>rd</sup> edition)**. Elsevier/Academic Press, San Diego, 675pp (ISBN: 9780123869135).
- Bradley, R.S., 2011. **Global Warming and Political Intimidation**. University of Massachusetts Press, Amherst, 167pp. (Japanese translation published August 2012 by Kagaku Dojin, Tokyo).
- Diaz, H.F. and R.S. Bradley (eds.), 2004. **The Hadley Circulation, Present, Past and Future**. Kluwer Academic, Dordrecht, 511pp.
- Alverson, K., R.S. Bradley and T.F. Pedersen (eds.), 2003. **Paleoclimate, Global Change and the Future**. Springer Verlag, Berlin, 220pp.
- Bradley, R.S. and N.E. Law, 2001. **Climate Change and Society**. Stanley Thornes, Cheltenham, 104pp.
- Alverson, K., F. Oldfield and R.S. Bradley (eds.), 1999. **Past Global Changes and their Significance for the Future**, Elsevier, Amsterdam, 479pp.
- Bradley, R.S., 1999. **Paleoclimatology: Reconstructing Climates of the Quaternary**. Academic Press, San Diego, 610pp. [reprinted 2005]
- Diaz, H.F., M. Beniston and R.S. Bradley, 1997. **Climatic Change at High Elevation Sites**. Kluwer Academic, Dordrecht, 298pp.
- Jones, P.D., R.S. Bradley and J. Jouzel, (eds.), 1996. **Climate Variations and Forcing Mechanisms of the Last 2000 years**. Springer-Verlag, Berlin, 649pp.
- Bradley, R.S. and Jones, P.D. (eds) 1992. **Climate Since A.D. 1500**. Routledge, London. 679pp. (*Revised edition*, 1995, with additional chapter, 706pp).
- Bradley, R.S. (ed.) 1991. **Global Changes of the Past**. University Corporation for Atmospheric Research, Boulder, 514pp.
- Bradley, R.S., 1985. **Quaternary Paleoclimatology: Methods of Paleoclimatic Reconstruction**. Chapman and Hall, London, 472 pp.
- Bradley, R.S., 1976. **The Precipitation History of the Rocky Mountains**. Westview Press, Boulder, 336 pp.

### B. JOURNAL ARTICLES AND BOOK CHAPTERS

- Bradley, R.S. and Miller, G.H., 1972: Recent climatic change and increased glacierization in the eastern Canadian Arctic. **Nature**, 237, 385-387.
- Bradley, R.S., 1972: The problem of inversions in estimating the height of glaciation limits in Arctic regions. **Arctic and Alpine Research**, 4(4), 359-360.
- Andrews, J.T., Barry, R.G., Bradley, R.S., Miller, G.H. and Williams, L.D., 1972: Past and present glaciological responses to climate in eastern Baffin Island. **Quaternary Research**, 2(3), 303-314.
- Jacobs, J.D., Barry, R.G., Bradley, R.S. and Weaver, R.L., 1972: Glaciological and meteorological studies on the Boas Glacier, Baffin Island, for two contrasting seasons. **WMO/UNESCO/IASH Symposium on the Role of Snow and Ice in Hydrology\***, Banff, Vol. 1, 371-382.
- Bradley, R.S., 1973: Seasonal climatic fluctuations on Baffin Island, N.W.T. during the period of instrumental records. **Arctic**, 26(3), 230-243.

- Bradley, R.S. and Barry, R.G., 1973: Secular climatic fluctuations in southwestern Colorado. **Monthly Weather Review**, 101(3), 264-270.
- Bradley, R.S., 1973: Recent freezing level changes and climatic deterioration in the Canadian Arctic archipelago. **Nature**, 243, 398-400.
- Miller, G.H., Bradley, R.S. and Andrews, J.T., 1975: Glaciation level and lowest equilibrium line altitude in the High Canadian Arctic: maps and climatic interpretation. **Arctic and Alpine Research**, 7(2), 155-168.
- Bradley, R.S. and Barry, R.G., 1975: Secular fluctuations of precipitation in the Rocky Mountain region. In: **Proceedings of the WMO/IAMAP Symposium on Long-Term Climatic Fluctuations\*** (WMO No. 421), Norwich, England, 215-222.
- Bradley, R.S., 1975: Equilibrium line altitudes, mass balance and freezing level heights in the Canadian High Arctic. **Journal of Glaciology**, 14 (71), 267-274.
- Barry, R.G., Bradley, R.S. and Jacobs, J.D., 1975: Synoptic climatological studies of the Baffin Island area, p. 82-89, in: **Climate of the Arctic**, Weller, G. and Bowling, S.A. (eds.), Geophysical Institute, University of Alaska, Fairbanks.
- Miller, G.H. and Bradley, R.S., 1976: Geology, Ice and Climate. Chapter 1, in: **The Land That Never Melts: Auyuittuq National Park**, Wilson, R. (ed.), Ottawa: Parks Canada. (also French translation: **Au Pays des Glaces Eternelles**), p. 14-76.
- Bradley, R.S., 1976: Seasonal precipitation fluctuations in the western United States during the late nineteenth century. **Monthly Weather Review**, 104, 501-512.
- Bradley, R.S., 1976: Secular changes of precipitation in the Rocky Mountain States. **Monthly Weather Review**, 104, 513-523.
- Joyner, S.A., Jr., Dorrier, R.T. and Bradley, R.S., 1976: Energy conservation: a topoclimatic approach, in: **Decision Making in Solar Technology\***, Proceedings of the New England Solar Energy Association, 1st Annual Conference, Amherst, 269-280.
- Joyner, S.A., Jr., Bradley, R.S. and Reiter, R.E., Jr., 1977: Topoclimatic aspects of developmental suitability in the metropolitan landscape. **Proceedings of Conference on the Metropolitan Physical Environment\***, USDA Forest Service General Technical Report, NE-25, 163-171.
- Barry, R.G., W.H. Arundale, J.T. Andrews, R.S. Bradley and H. Nichols, 1977. Environmental change and cultural change in the eastern Canadian Arctic during the last 5000 years. **Arctic and Alpine Research**, 9, 193-210.
- England, J. and Bradley, R.S., 1978: Past glacial activity in the Canadian High Arctic. **Science**, 200, 265-270.
- Bradley, R.S. and England, J., 1978: Influence of volcanic dust on glacier mass balance at high latitudes. **Nature**, 271, 736-738.
- England, J., Bradley, R.S. and Miller, G.H., 1978: Former ice shelves in the Canadian High Arctic. **Journal of Glaciology**, 20, 393-404.
- Bradley, R.S. and England, J., 1978: Recent climatic fluctuations of the Canadian High Arctic and their significance for glaciology. **Arctic and Alpine Research**, 10, 715-731.
- Bradley, R.S. and England, J., 1979: Synoptic climatology of the Canadian High Arctic. **Geografiska Annaler**, 61A, 187-201.
- Bradley, R.S., 1980: Secular fluctuations of temperature in the Rocky Mountain states and comparison with precipitation fluctuations. **Monthly Weather Review**, 108, 873-885.
- England, J., Bradley, R.S. and Stuckenrath, R., 1981: Multiple glaciations and marine transgressions, western Kennedy Channel, N.W.T., Canada. **Boreas**, 10, 71-89.
- Barry, R.G., Kiladis, G. and Bradley, R.S., 1981: Synoptic climatology of the Western United States in relation to climatic fluctuations during the twentieth century. **Journal of Climatology**, 1, 97-113.

- Young, M. and *Bradley, R.S.*, 1984: Insolation gradients and the paleoclimatic record, p. 707-713, in: **Milankovitch and Climate**, Volume 2, Imbrie, J., Kukla, G. and Saltzman, B. (eds.), Dordrecht: D. Reidel.
- Eisched, J., *Bradley, R.S.* and Shao, X.M., 1985: Secular climatic fluctuations in the Great Salt Lake Basin, p. 111-112, in: **Problems of and Prospects for Predicting Great Salt Lake Levels\***, Kay, P. and Diaz, H. (eds.) Center for Public Affairs and Administration, University of Utah, Salt Lake City.
- Williams, L.D. and *Bradley, R.S.*, 1985: Paleoclimatology of Baffin Bay, p. 741-772, in: **Quaternary Environments: The Eastern Canadian Arctic, Baffin Bay and West Greenland**, Andrews, J.T. (ed.), Boston: G. Allen and Unwin.
- Bradley, R.S.*, Yuretich, R., Salgado-Labouriau, M.L. and Weingarten, B., 1985: Late Quaternary paleoenvironmental reconstruction using lake sediments from the Venezuelan Andes: preliminary results. **Zeitschrift fur Gletscherkunde und Glazialgeologie**, 21, 97-106.
- Bradley, R.S.* and Jones, P.D., 1986: Data bases for detecting CO<sub>2</sub>-induced climatic change. Chapter 2, in: **Detection of CO<sub>2</sub>-Induced Climatic Change\***, MacCracken, M. and Luther, F. (eds.), U.S. Department of Energy, Washington, D.C.
- Bradley, R.S.*, 1986: Uncertainties in trends in acid deposition: the role of climatic fluctuations, in: **Acid Deposition: Long term trends**, National Academy Press, Washington, D.C., p. 93-108.
- Jones, P.D., Raper, S.C.B., *Bradley, R.S.*, Diaz, H.F., Kelly, P.M. and Wigley, R.M.L., 1986: Northern Hemisphere surface air temperature variations, 1851-1984. **Journal of Climate & Applied Meteorology**, 25, 161-179.
- Bradley, R.S.*, Diaz, H.F., Jones, P.D. and Kelly, P.M., 1987: Secular climatic fluctuations of temperature over Northern Hemisphere land areas and mainland China since the mid-19th century, in: **The Climate of China and Global Climate**, (eds. Ye Duzheng, Fu Congbin, Chao Jiping and M. Toshino) China Ocean Science Press, Beijing, p. 76-87.
- Bradley, R.S.* and Serreze, M.S., 1987: Mass balance studies of two high Arctic plateau ice caps. **Journal of Glaciology**, 33, 123-128.
- Bradley, R.S.* and Serreze, M.C., 1987: Topoclimatic studies of a High Arctic plateau ice cap. **Journal of Glaciology**, 33, 149-158.
- Serreze, M.C. and *R.S. Bradley*, 1987: Radiation and cloud observations on a High Arctic plateau ice cap. **Journal of Glaciology**, 33, 162-168.
- Bradley, R.S.*, Diaz, H.F., Kiladis, G.N. and Eisched, J.K., 1987: ENSO signal in continental temperature and precipitation records. **Nature**, 327, 497-501.
- Bradley, R.S.*, Diaz, H.F., Eisched, J.K., Jones, P.D., Kelly, P.M. and Goodess, C.M., 1987: Precipitation fluctuations over Northern Hemisphere land areas since the mid-19th century. **Science**, 237, 171-175.
- Bradley, R.S.*, 1988: The explosive volcanic eruption signal in northern hemisphere continental temperature records. **Climatic Change**, 12, 221-243.
- Diaz, H.F., *Bradley, R.S.* and Eisched, J.L., 1989: Precipitation fluctuations over global land areas since the late 1800s. **Journal of Geophysical Research**, 94, D1, 1195-1210.
- Retelle, M.J., *Bradley, R.S.* and Stuckenrath, R., 1989: Relative sea-level chronology determined from raised marine sediments and coastal isolation basins, northeastern Ellesmere Island, Arctic Canada. **Arctic and Alpine Research**, 21, 113-125.
- Bradley, R.S.*, 1989: Recent developments in Quaternary paleoclimatology. In: **Climate and the Geosciences**, Berger, A. *et al.*,(ed) Kluwer, Dordrecht, p.165-171 .
- Weingarten, B., Yuretich, R.F., *Bradley, R.S.* and Salgado-Labouriau, M-L., 1989: Characteristics of sediments in an altitudinal sequence of lakes in the Venezuelan Andes: climatic implications. **Journal of South American Earth Sciences**, 3, 113-124.

- Karl, T.R., Tarpley, D., Quayle, R.G., Diaz, H.F., Robinson, D.A. and *Bradley, R.S.*, 1989: The recent climate record: what it can and can not tell us. **Reviews of Geophysics**, 27, 405-430.
- Bradley, R.S.* and P.Ya. Groisman, 1990. Continental scale precipitation variations. In: **Precipitation Measurements\*** (Ed. B. Sevruck). Swiss Federal Institute of Technology, ETH, Zurich, 499-503.
- Bradley, R.S.*, 1990: Holocene paleoclimatology of the Queen Elizabeth Islands, Canadian High Arctic. **Quaternary Science Reviews**, 9, 365-384.
- Karl, T., Vinnikov, K., and *Bradley, R.S.*, 1990: Recent global climate trends. In: **Prospects for Future Climate** (eds. M.C. MacCracken, A.D. Hecht, M.I. Budyko and Y.A. Izrael) Lewis Publishers, Chelsea, Michigan, p.35-63.
- Weingarten, B., Yuretich, R.F., *Bradley, R.S.* and Salgado-Labouriau, M.L., 1990: Environmentally-controlled variations in clay mineral assemblages from lake sediments in the Venezuelan Andes. In: Farmer, V.C and Tardy, Y (eds.) **Proc. 9th International Clay Conference\***, Strasbourg, **Sci. Géol., Mém.**, 88, 53-61.
- Bradley, R.S.* and Eddy, J.A., 1991: Records of past global changes. In: **Global Changes of the Past** (ed. *R.S. Bradley*) University Corporation for Atmospheric Research, Boulder, p.5-9.
- Bradley, R.S.*, 1991: Instrumental records of past global change: lessons for the analysis of non-instrumental data. In: **Global Changes of the Past** (ed. *R.S. Bradley*) University Corporation for Atmospheric Research, Boulder, p.103-116.
- Bradley, R.S.*, and 14 others, 1991: Global change: the last 2000 years. In: **Global Changes of the Past** (ed. *R.S. Bradley*) University Corporation for Atmospheric Research, Boulder, p.11-24.
- Bradley, R.S.*, 1991: Pre-instrumental climate: how has climate varied during the past 500 years? In: **Greenhouse Gas-induced Climatic Change** (ed. M.Schlesinger) Elsevier, p.391-410.
- Bradley, R.S.* and Jones, P.D., 1992: Climate since A.D. 1500: Introduction. In: **Climate Since A.D. 1500**, (eds. *R.S. Bradley* and P.D. Jones) Routledge, London, p.1-16.
- Jones, P.D. and *Bradley, R.S.*, 1992: Climatic variations in the longest instrumental records. In: **Climate Since A.D. 1500**, (eds. *R.S. Bradley* and P.D. Jones) Routledge, London, p.246-268.
- Bradley, R.S.* and Jones, P.D., 1992: Records of explosive volcanic eruptions over the last 500 years. In: **Climate Since A.D. 1500**, (eds. *R.S. Bradley* and P.D. Jones) Routledge, London, p.606-622.
- Jones, P.D. and *Bradley, R.S.*, 1992: Climatic variations over the last 500 years. In: **Climate Since A.D. 1500**, (eds. *R.S. Bradley* and P.D. Jones) Routledge, London, p.649-665.
- Bradley, R.S.*, and Jones, P.D., 1992: When was the "Little Ice Age"? In: **Proceedings, International Symposium on the Little Ice Age Climate\***. (ed. T. Mikami) Tokyo Metropolitan University, Tokyo, Japan, 1-4.
- Jones, P.D. and *Bradley, R.S.*, 1992: Global-scale temperature changes during the period of instrumental records. In: **Proceedings, International Symposium on the Little Ice Age Climate\***. (ed. T. Mikami) Tokyo Metropolitan University, Tokyo, Japan, 253-259.
- Bradley, R.S.*, Keimig, F.T. and Diaz, H.F., 1992: Climatology of surface-based inversions in the North American Arctic **Journal of Geophysical Research-Atmospheres**, 97, D14, 15,699-15,712.
- Salgado-Labouriau, M.L., *Bradley, R.S.*, Yuretich, R.F. and Weingarten, B., 1992: Paleoecological study of Lake Mucubaji sediments, Venezuelan Andes. **Journal of Biogeography**, 19, 31-.
- Bradley, R.S.*, Keimig, F.T. and Diaz, H.F., 1992: Recent changes in the Arctic boundary layer in winter. **Journal of Geophysical Research-Atmospheres**, 97, D5, 8851-8858.
- Bradley, R.S.*, and 10 others: 1993: Evaluating strategies for reconstructing global changes: what and where are the gaps? In: **Global Changes in the Perspective of the Past**. (eds. J. Eddy and H. Oeschger) J. Wiley, p. 145-171.

- Bradley, R.S. and Jones, P.D., 1993: "Little Ice Age" summer temperature variations: their nature and relevance to recent global warming trends. **The Holocene** 3, 367-376.
- Bradley, R.S., 1993: High resolution paleoclimatic records from Monsoon Asia. **EOS**, 74, 601, 603-604.
- Bradley, R.S., (ed.) 1993: **High Resolution Records of Past Climate from Monsoon Asia: The Last 2000 years and Beyond: Recommendations for Research**\*. IGBP PAGES Workshop Report Series 93-1, Bern, Switzerland.
- Bradley, R.S., Ahern, L.G., and Keimig, F.T., 1994: A computer-based atlas of global instrumental climate data. **Bulletin of the American Meteorological Society**, 75, 35-41. (plus CD-ROM: **Atlas of Global Instrumental Climate Data, Version 1.0**)
- Bradley, R.S., 1994: Reconstructions of climate from A.D. 1000 to the present. In: **Contemporary Climatology**\*, (eds. R. Brázdil and M. Kolár) International Geographical Union, Brno, Czech Republic, p. 12-21.
- Anderson, P., Andrews, J., Bradley, R.S., Brubaker, L., Edwards, M., Finney, B., Grootes, P., Lozhkin, A., Macdonald, G., Miller, G., Overpeck, J., Smol, J., Velichko, A. and Williams, K., 1994: **Research Protocols for PALE: Paleoclimates of Arctic Lakes and Estuaries**\*. PAGES Workshop Report 94-1, IGBP/PAGES, Bern, Switzerland, 53pp.
- Bradley, R.S. and Jones, P.D., 1995: Recent developments in studies of climate since A.D. 1500. In: **Climate Since A.D. 1500** [Revised Edition] (eds. R.S. Bradley and P.D. Jones). Routledge, London, 666-679.
- Bradley, R.S., 1994: Perspectives on the climate of the last 500 years. In: **The Solar Engine and its Influence on Terrestrial Atmosphere and Climate** (ed. E. Nesmé-Ribes) Springer-Verlag, Berlin, 437-448.
- Bradley, R.S., 1994. Reconstructions of climate from A.D. 1000 to the present. In **Global Change**\*, A. Speranza, S. Tibaldi and R. Fantechi (eds) European Commission, Luxembourg, 123-137.
- Woodcock, H. and Bradley, R.S., 1994: *Salix arctica* (Pall.): its potential for dendrochronological studies in the High Arctic. **Dendrochronologia**, 12, 11-22.
- Duplessy, J-C, Bradley, R.S. and Briffa, K., 1994: Panel Discussion on Paleoclimate Data. In: **The Solar Engine and its Influence on Terrestrial Atmosphere and Climate** (ed. E. Nesmé-Ribes) Springer-Verlag, Berlin, 465-478.
- Mann, M.E., J. Park, and R.S. Bradley, 1995: Global inter-decadal and century-scale climate oscillations during the past five centuries. **Nature**, 378, 266-270.
- Bradley, R.S., J-C. Duplessy, J. Dodson, F. Gasse, T-S. Liu and V. Markgraf, 1995: PANASH science and implementation plan. In: **Paleoclimates of the Northern and Southern Hemispheres: The PANASH Project: The Pole-Equator-Pole Transects**\*. PAGES Series 95-1, IGBP/PAGES, Bern, Switzerland, 1-19.
- Lean, J., J. Beer and R.S. Bradley. 1995: Reconstruction of solar irradiance since A.D. 1600: implications for climate change. **Geophysical Research Letters**, 22, 3195-3198.
- Diaz, H.F. and Bradley, R.S., 1995: Documenting natural climatic variations: how different is the climate of the 20th century from that of previous centuries? In: **Natural Climate Variability on Decade-to-Century Time Scales**. D.G. Martinson, K. Bryan, M. Ghil, M.M. Hall, T.M. Karl, E.S. Sarachik, S. Sorooshian, and L.D. Talley (eds). National Academy Press, Washington D.C., 17-29.
- Bradley, R.S., 1996: Are there optimum sites for global paleotemperature reconstruction? In: **Climate Variations and Forcing Mechanisms of the Last 2000 years**. (P.D. Jones, R.S. Bradley and J. Jouzel, eds.) Springer-Verlag, Berlin, 603-624.

- Bradley, R.S., M.J. Retelle, S.D. Ludlam, D.R. Hardy, B. Zolitschka and S.F. Lamoureux, 1996: The Taconite Inlet Lakes Project: a systems approach to paleoclimatic reconstruction. **Journal of Paleolimnology**, 16, 97-110.
- Hardy, D.R., R.S. Bradley, and B. Zolitschka, 1996: The climatic signal in varved sediments from Lake C-2, northern Ellesmere Island, Canada. **Journal of Paleolimnology**, 16, 227-238.
- Lamoureux, S.F. and R.S. Bradley, 1996: A late Holocene varved sediment record of environmental change from northern Ellesmere Island, Canada. **Journal of Paleolimnology**, 16, 239-255.
- Barnett, T.P., B.D. Santer, P.D. Jones, R.S. Bradley and K.R. Briffa, 1996: Estimates of low frequency natural variability in near-surface air temperature. **The Holocene**, 6, 255-263.
- Hardy, D. and R.S. Bradley, 1997: Climatic change in Nunavut. **Geoscience Canada** 23, 217-224.
- Groisman, P.Ya, E.L. Genikhovich, R.S. Bradley and B.M. Ilyin, 1997: Assessing surface-atmosphere interactions using former Soviet Union standard meteorological network data. Part II. Cloud and snow cover effects. **Journal of Climate**, 10, 2184-2199.
- Beniston, M., H.F. Diaz and R.S. Bradley, 1997: Climatic change at high elevation sites: an overview. **Climatic Change**, 21, 1-19.
- Diaz, H.F. and R.S. Bradley, 1997: Temperature variations during the last century at high elevation sites. **Climatic Change**, 21, 21-47.
- Overpeck, J., K. Hughen, D. Hardy, R.S. Bradley, R. Case, M. Douglas, B. Finney, K. Gajewski, G. Jacoby, A. Jennings, S. Lamoureux, A. Lasca, G. MacDonald, J. Moore, M. Retelle, S. Smith, A. Wolfe, G. Zielinski, 1997: Arctic environmental change of the last four centuries. **Science**, 278, 1251-1256.
- Mann, M., R.S. Bradley and M.K. Hughes, 1998: Global scale temperature patterns and climate forcing over the past six centuries. **Nature**, 392, 779-788. (also: **Science**, 280, 2029-2030).
- Vuille, M., D.R. Hardy, C. Braun, F.T. Keimig and R.S. Bradley, 1998: Atmospheric circulation anomalies associated with 1996/1997 summer precipitation events on Sajama Ice Cap, Bolivia. **Journal of Geophysical Research**, 103D, 11191-11204.
- Hardy, D.R., M. Vuille, C. Braun, F.T. Keimig and R.S. Bradley, 1998: Annual and daily meteorological cycles at high altitude on a tropical mountain. **Bulletin of the American Meteorological Society** 79, 1899-1913.
- Mann, M.E., R.S. Bradley, and M.K. Hughes, 1999: Northern Hemisphere temperatures during the past millennium: inferences, uncertainties, and limitations. **Geophysical Research Letters**, 26, 759-762.
- Groisman, P. Ya, E.L. Genikhovich, R.S. Bradley and B. Sun, 1999. Trends in turbulent heat fluxes over northern Eurasia. Interactions between the cryosphere and greenhouse gases. **IASH publication** 256, 19-25.
- Groisman, P. Ya, R.S. Bradley and B. Sun, 2000 The relationship of cloud cover to near-surface temperature and humidity: comparison of GCM simulations with empirical data. **J. Climate** 13, 1858-1878.
- Vuille, M., R.S. Bradley and F.T. Keimig, 2000: Climate variability in the Andes of Ecuador and its relation to tropical Pacific and Atlantic sea surface temperatures. **J. Climate** 13, 2520-2535.
- Bradley, R.S., 2000. Past global changes and their significance for the future. **Quaternary Science Reviews**, 19, 391-402.
- Bradley, R.S., 2000. 1000 years of climate change. **Science**, 288, 1353-1354.
- Vuille, M., R.S. Bradley and F.T. Keimig, 2000. Interannual climate variability in the central Andes and its relation to tropical Pacific and Atlantic forcing. **J. Geophysical Research**, 105D, 12447-12460.
- Mann, M.E., R.S. Bradley, and M.K. Hughes, M.K., 2000. Long-term variability in the El Niño Southern Oscillation and associated teleconnections. In: **El Niño and the Southern**

- Oscillation. Multiscale Variability and Global and Regional Impacts**, (eds. H.F. Diaz & V. Markgraf). Cambridge University Press, Cambridge, UK., 357-412.
- Bradley, R.S., 2000. Climate paradigms for the last millennium. **PAGES Newsletter**<sup>\*</sup>, 8, 2-3.
- Sun, B., P. Groisman, R.S. Bradley and F.T. Keimig, 2000. Temporal changes in the observed relationship between cloud cover and surface air temperature. **J. Climate** 13, 4341-4357.
- Mann, M.E., E. Gille, R.S. Bradley, M.K. Hughes, J.T. Overpeck, R.S. Webb, and F.T. Keimig, 2000. Global temperature patterns in past centuries: an interactive presentation. **Earth Interactions**, 4-4, 1-29.
- Bradley, R.S., M.K. Hughes and M.E. Mann, 2000. Comments on "Detection and attribution of recent climate change: a status report". **Bulletin of the American Meteorological Society**, 81, 2987-2990.
- Vuille, M. and R.S. Bradley, 2000. Mean annual temperature trends and their vertical structure in the tropical Andes. **Geophysical Research Letters**, 27, 3885-3888.
- Braun, C., D.R. Hardy, R.S. Bradley and M. Retelle, 2000. Streamflow and suspended sediment transport into Lake Sophia, Cornwallis Island, Nunavut, Canada. **Arctic, Antarctic and Alpine Research** 32, 456-465.
- Braun, C., Hardy, D.R., Bradley, R.S., and Retelle, M.J., 2000. Hydrological and meteorological observations at Lake Tuborg, Ellesmere Island, Nunavut, Canada. **Polar Geography**, 24, 83-97.
- Vuille, M., D.R. Hardy, C. Braun, F.T. Keimig and R.S. Bradley, 2001: Climate variability on intraseasonal to interannual timescales on the Bolivian Altiplano with special emphasis on the Nevado Sajama region.. **Ecologia en Bolivia - Revista del Instituto de Ecología**<sup>\*</sup>, 35, 17-40.
- Weiss, H. and R.S. Bradley 2001. What drives societal collapse? **Science**, 291, 609-610.
- Alverson, K., R.S. Bradley, K.R. Briffa, J. Cole, M.K. Hughes, I. Larocque, T. Pedersen, L. Thompson and S. Tudhope, 2001. Disappearing evidence: the need for a Global Paleoclimate Observing System. **Global Change Newsletter**<sup>\*</sup>, 46, 2-6.
- Bradley, R.S., 2001. Many citations support global warming trend. **Science**, 292, 2011. [letter<sup>\*</sup>]
- Bradley, R.S., K.R. Briffa, T.J. Crowley, M.K. Hughes, P.D. Jones, M.E. Mann, 2001. The scope of Medieval warming. **Science**, 292, 2011-2012. [letter<sup>\*</sup>]
- Alverson, K., R.S. Bradley, K.R. Briffa, J. Cole, M.K. Hughes, I. Larocque, T. Pedersen, L. Thompson and S. Tudhope, 2001. A Global Paleoclimate Observing System. **Science** 293, 47-48. [letter<sup>\*</sup>]
- Braun, C., D.R. Hardy and R.S. Bradley, 2001. Recent recession of a small plateau ice cap, Ellesmere Island, Canada. **J. Glaciology**, 47, 154.
- Mann, M.E., R.S. Bradley, K. Briffa, J. Cole, M.K. Hughes, J.T. Overpeck, J.M. Jones, H. von Storch, M. Widmann, H. Wanner and S.L. Weber, 2001. Reconstructing Late Holocene climate. **EOS**, 82, 553.
- Alverson, K., R.S. Bradley and T. Pedersen, 2001. **Environmental Variability and Climatic Change**. IGBP Science, No.3, Stockholm. 31pp.
- Keimig, F.T. and R.S. Bradley, 2001. Recent changes in wind chill temperatures at high latitudes in North America. **Geophysical Research Letters**, 29, No. 8, 10.1029/2001GL013228
- Waple, A.M., M.E. Mann and R.S. Bradley, 2001. Long-term patterns of solar irradiance forcing in model experiments and proxy-based surface temperature reconstructions. **Climate Dynamics**, 18, 563-578.
- Sun, B. and R.S. Bradley, 2002. Solar influences on cosmic rays and cloud formation: a re-assessment. **J. Geophysical Research**, 107, D14, 10.1029/2001JD000560.

- Bradley, R.S., 2002. Climate change -- past, present and future: a personal perspective. In: **Challenges of a Changing Earth**. (Eds: W. Steffen, J. Jäger, D.J. Carson and C. Bradshaw). Springer Verlag, Berlin, 109-112. [reprinted in **Gaia**, 10, 266-269].
- Prohom, M.J. and R.S. Bradley, 2002. Anomalías de la precipitación invernal en la Península Ibérica y Baleares después de grandes erupciones volcánicas tropicales (1901-1996). In: **El Agua y el Clima** \* (Eds: J.A. Guijarro, M. Grimalt, M. Laita and S. Alonso). Publicaciones de la Asociación Española de Climatología (AEC), Serie A, 3, 511-520.
- Francus, P., R.S. Bradley, M.B. Abbott, W. Patridge and F. Keimig, 2002. Paleoclimate studies of minerogenic sediments using annually resolved textural parameters. **Geophysical Research Letters** 29, No. 20, 1998, doi:10.1029/2002GL015082.
- Bradley, R.S., K.R. Briffa, J. Cole, M.K. Hughes and T.J. Osborn, 2003: The climate of the last millennium. In: Alverson, K., R.S. Bradley and T.F. Pedersen (eds.) **Paleoclimate, Global Change and the Future**. Springer Verlag, Berlin, 105-141.
- Bradley, R.S., K. Alverson and T.F. Pedersen, 2003. Challenges of a changing earth: past perspectives, future concerns. In: **Paleoclimate, Global Change and the Future**. (Alverson, K., R.S. Bradley and T.F. Pedersen, eds.). Springer Verlag, Berlin, 163-167.
- Vuille, M., R.S. Bradley, M. Werner, R. Healy and F. Keimig, 2003.  $\delta^{18}\text{O}$  in Precipitation over the Tropical Americas, Part I: Interannual variability and climatic controls. **J. Geophysical Research-Atmospheres** 108 No. D6; doi:10.1029/2001JD002038.
- Vuille, M., R.S. Bradley, R. Healy, M. Werner, D.R. Hardy, L.G. Thompson and F. Keimig, 2003.  $\delta^{18}\text{O}$  in precipitation over the Tropical Americas, Part II: simulation of the stable isotope signal in Andean ice cores. **J. Geophysical Research-Atmospheres** 108 No. D6; doi: 10.1029/2001JD002039.
- Bradley, R.S., M. Vuille, D.R. Hardy and L.G. Thompson, 2003. Low latitude ice cores record Pacific sea surface temperatures. **Geophysical Research Letters**, 30, 1174-1177; doi:10.1029/2002GL016546.
- Mann, M. E., S. Rutherford, R.S. Bradley, M.K. Hughes and F.T. Keimig, 2003. Optimal surface temperature reconstructions using terrestrial borehole data. **J. Geophysical Research-Atmospheres** 108 (D7), 4203, doi: 10.1029/2002JD002532, 2003.
- Vuille, M., R.S. Bradley, M. Werner and F.T. Keimig, 2003. 20th century trends in climate in the tropical Andes. **Climatic Change**, 59, 75-99.
- Diaz, H.F., J.K. Eischeid, C. Duncan, and R.S. Bradley, 2003. Variability of freezing levels, melting season indicators, and snow cover for selected high-elevation and continental regions in the last 50 years. **Climatic Change**, 59, 33-52.
- Mann, M.E., Ammann, C.M., Bradley, R.S., Briffa, K.R., Crowley, T.J., Jones, P.D., Oppenheimer, M., Osborn, T.J., Overpeck, J.T., Rutherford, S., Trenberth, K.E., Wigley, T.M.L., 2003. On past temperatures and anomalous late 20th century warmth. **EOS**, 84, July 8, 2003.
- Bradley, R.S., 2003. Climate forcing during the Holocene. In: **Global Change in the Holocene: approaches to reconstructing fine-resolution climate change**. (A.W. Mackay, R.W. Battarbee, H.J.B. Birks & F. Oldfield, eds.). Arnold, London, 10-19.
- Perren, B., R.S. Bradley and P. Francus, 2003. Rapid lacustrine response to recent High Arctic warming: a diatom record from Sawtooth Lake, Ellesmere Island, Nunavut. **Arctic, Antarctic and Alpine Research**, 35, 271-278.
- Bradley, R.S., M.K. Hughes and H.F. Diaz., 2003. Climate in Medieval Time. **Science**, 302, 404-405.
- Hardy, D.R., M. Vuille and R.S. Bradley, 2003. Variability of snow accumulation and isotopic composition on Nevado Sajama, Bolivia. **J. Geophysical Research-Atmospheres** 108, D22, 4693, [doi:10.1029/2003JD003623, 2003].

- Braun, C., D.R. Hardy and R.S. Bradley, 2004. Mass balance and area changes of four High Arctic plateau ice caps, 1959-2002. **Geografiska Annaler** 86A, 43-52.
- Kaser, G, D.R. Hardy, T. Mölg, R.S. Bradley and T.M. Hyera, 2004. Modern glacier retreat on Kilimanjaro as evidence of climate change: observations and facts. **International Journal of Climatology**, 24, 329-339.
- Smith, S.V., R.S. Bradley and M.B. Abbott, 2004. A 300 year record of environmental change from Lake Tuborg, Ellesmere Island, Nunavut, Canada. **J. Paleolimnology** 32, 137-148.
- Sun, B. and R.S. Bradley, 2004. Reply to comment by N.D. Marsh and H. Svensmark on "Solar influence on cosmic rays and cloud formation: A reassessment". **J. Geophysical Research-Atmospheres** 109, doi:D14206/10.1029/2003JD004479.
- Bradley, R.S., F.T. Keimig and H.F. Diaz, 2004. Projected temperature changes along the American Cordillera and the planned GCOS network. **Geophysical Research Letters**, 31, doi:10.1029/2004GL020229.
- Braun, C., D.R.Hardy, R.S. Bradley and V. Sahanatien, 2004. Mass Balance of the Ward Hunt Ice Rise and Ice Shelf, Ellesmere Island, Nunavut, Canada. **J. Geophysical Research-Atmospheres** 109, D22110, doi:10.1029/2004JD004560.
- Francus, P., R.S. Bradley and J. Thurow, 2004. An introduction to image analysis, sediments and paleoenvironments. In: **Image Analysis, Sediments and Paleoenvironments** (ed. P. Francus). Kluwer Academic, Dordrecht, 1-7.
- Bradley, R.S. and Z. An, 2005. Environmental processes of East Eurasia: past, present and future. **EOS**, 86, p.89 & 92.
- Rutherford, S., M.E. Mann, T.J.Osborn, R.S. Bradley, K.R. Briffa, M.K. Hughes and P.D. Jones, 2005. Proxy-based northern hemisphere surface temperature reconstructions: sensitivity to methodology, predictor network, target season, and target domain. **J. Climate**, 18, 2308-2329.
- Pilcher, J., R.S. Bradley, P. Francus and L. Anderson, 2005. A Holocene tephra record from the Lofoten Islands, Arctic Norway. **Boreas**, 34, 136-156.
- Goosse, H., H. Renssen, A. Timmermann and R.S. Bradley, 2005. Natural and forced climate variability during the last millennium: A model-data comparison using ensemble simulations. **Quaternary Science Reviews**, 24, 1345-1360.
- Vuille, M., M. Werner, R.S. Bradley, R.S. Chan and F. Keimig, 2005. Stable isotopes in East African precipitation record Indian Ocean Zonal mode. **Geophysical Research Letters**, 32, L21705, doi:10.1029/2005GL023876.
- Rull, V., M. B. Abbott, P. J. Polissar, A. Wolfe, M. Bezada and R.S. Bradley, 2005. 15,000-year pollen record of high-altitude vegetation change in the tropical Andes at Laguna Verde Alta, Venezuela. **Quaternary Research**, 64, 308-317.
- Condron, A., R. Deconto, R.S. Bradley & F. Juanes, 2005. Multidecadal North Atlantic climate variability and its effect on North American salmon abundance. **Geophysical Research Letters**, 32, L23703, doi:10.1029/2005GL024239.
- Lewis, T., D.R. Hardy, P. Francus and R.S. Bradley, 2005. An extreme sediment transfer event in a Canadian High Arctic stream. **Arctic, Antarctic and Alpine Research**, 37, 477-482.
- Vuille, M., M. Werner, R.S. Bradley and F. Keimig, 2005. Stable isotopes in precipitation in the Asian monsoon region. **J. Geophysical Research**, 110, D23108, doi:10.1029/2005JD006022.
- Goosse, H., H. Renssen, A. Timmermann, R.S. Bradley and M.E. Mann, 2005. Using paleoclimate proxy-data to select optimal realizations in an ensemble of simulations of the climate of the past millennium. **Climate Dynamics** 27, 165-184, DOI 10.1007/s00382-006-0128-6.
- Polissar, P. J., M.B. Abbott, A. Shemesh, A.P.Wolfe, and R.S. Bradley, 2006. Holocene hydrologic balance of tropical South America from oxygen isotopes of lake sediment opal, Venezuelan Andes. **Earth and Planetary Science Letters** 242, 375-389.

- Polissar, P. J., M.B. Abbott, A.P. Wolfe, M. Bezada, V. Rull and R.S. Bradley, 2006. Solar modulation of Little Ice Age climate in the tropical Andes. **Proc. National Academy of Sciences**, 103, 8937-8942.
- Bradley, R.S., M. Vuille, H.F. Diaz and W. Vergara, 2006. Threats to water supplies in the Tropical Andes. **Science**, 312, 1755-1756.
- Diaz, H.F., R. Villalba, G. Greenwood and R.S. Bradley, 2006. The impact of climate change in the American Cordillera. **EOS**, 87, 315.
- Lewis, T., Francus, P. and R.S. Bradley, 2007. Limnology, sedimentology and hydrology of a jökulhaupte into a High Arctic meromictic lake. **Canadian Journal of Earth Sciences** 44, 791-806.
- Vergara, W., A. Deeb, A. Valencia, R.S. Bradley, B. Francou, A. Zarzar, A. Grunwaldt and S. Haeussling, 2007. The economic impacts of rapid glacier retreat in the Andes. **EOS**, 88, 261 and 264.
- Griffiths, M.L. and R.S. Bradley, 2007. Variations of twentieth century temperature and precipitation extreme indicators in the Northeast United States. **J. Climate**, 20, 5401-5417.
- Chan, R.Y., M. Vuille, D.R. Hardy and R.S. Bradley, 2007. Intraseasonal precipitation variability on Kilimanjaro and the East African region and its relationship to the large-scale circulation. **Theoretical and Applied Meteorology**, 93, 149-165. doi:10.1007/s00704-007-0338-9.
- Pilcher, J., R.S. Bradley, P. Francus and L. Anderson, 2007. Vulkansk aske fra Island setter tidsskala for Lofotens kilmatiske historie. **Årboka Lofotr**\*, 30, 104-107.
- Besonen, M.R., W. Patridge, R.S. Bradley, P. Francus, M. Abbott and J. Stoner, 2008. A record of climate over the last millennium based on varved lake sediments from the Canadian High Arctic. **The Holocene** 18, 169-180.
- Fleitmann, D., M. Mudelsee, S.J. Burns, R.S. Bradley, J. Kramers and A. Matter, 2008. Evidence for a widespread climatic anomaly at around 9.2 ka before present. **Paleoceanography**, 23, doi:10.1029/2007PA001519.
- Karmalkar, A., R.S. Bradley and H.F. Diaz, 2008. Climate change scenarios for Costa Rican montane forests. **Geophysical Research Letters** 35, L11702, doi:10.1029/2008GL033940.
- Bradley, R.S., 2008. Holocene perspectives on future climate change. In: R.W. Battarbee and H.A. Binney (eds.) **Natural Climate Variability and Global Warming: a Holocene Perspective**. Wiley-Blackwell, Chichester, 254-268.
- Vuille, M., B. Francou, P. Wagnon, I. Juen, G. Kaser, B. G. Mark, and R. S. Bradley, 2008. Climate change and tropical Andean glaciers—past, present and future. **Earth Science Reviews**, 89, 79-96. doi: 10.1016/j.earscirev/2008.04.002.
- Bradley, R.S. and J. England, 2008. The Younger Dryas and the Sea of Ancient Ice. **Quaternary Research** 70, 1-10.
- Koç, N., P. Francus, C. Ammann, D.M. Anderson, R.S. Bradley, D. Kaufman, A. Korhola and G. Miller, 2008. Generating and synthesizing paleoclimate data to assess Arctic climate change. **EOS**, 89, 244-245.
- Francus, P., R.S. Bradley, T. Lewis, M. Abbott, M. Retelle and J. Stoner, 2008. Limnological and sedimentary processes at Sawtooth Lake, Canadian High Arctic lake and their influence on varve formation. **J. Paleolimnology** 40, 963-985; doi:10.1007/s10933-008-9210-x.
- Besonen, M.R., R.S. Bradley, M. Mudelsee, M. Abbott and P. Francus, 2008. A 1,000 year record of hurricane activity from Boston, Massachusetts. **Geophysical Research Letters** 35, L14705, doi:10.1029/2008GL033950.
- Mann, M.E., Z. Zhang, M.K. Hughes, R.S. Bradley, S. Miller, S. Rutherford and F. Ni, 2008. Proxy-based reconstructions of hemispheric and global surface temperature variations over the past two millennia. **Proc. Nat. Acad. Sci.** 105, 13252-13257.

- Cook, T.L., R.S. Bradley, J.S. Stoner and P. Francus, 2008. Five thousand years of sediment transfer in a High Arctic watershed recorded in annually laminated sediments from Lower Murray Lake, Ellesmere Island, Nunavut, Canada. **J. Paleolimnology**, 41, 77-94; doi: 10.1007/s10933-008-9252-0.
- Lewis, T., P. Francus and R.S. Bradley, 2009. Recent occurrence of large jökulhlaups at Lake Tuborg, Ellesmere Island, Nunavut. **J. Paleolimnology**, 41, 491-506; doi: 10.1007/s10933-008-9240-4.
- Mills, K., A.W. MacKay, R.S. Bradley and B. Finney, 2009. Diatom and stable isotope records of late Holocene lake ontogeny at Indrepollen, Lofoten, N.W. Norway: a response to glacio-isostasy and Neoglacial cooling. **The Holocene**, 19, 261-271.
- Bradley, R.S., F. Keimig, H.F. Diaz and D.R. Hardy, 2009. Recent changes in freezing level heights in the Tropics with implications for the deglaciation of high mountain regions. **Geophysical Research Letters**, 36, L15703, doi:10.1029/2009GL038826, 2009.
- Kaufman, D.S., D. P. Schneider, N. P. McKay, C. M. Ammann, R.S. Bradley, K.R. Briffa, G.H. Miller, B.L. Otto-Bleisner, J.T. Overpeck, B.M. Vinther and JOPL-SI authors, 2009. Recent Warming Reverses Long-Term Arctic Cooling. **Science**, 325, 1236-1239.
- Bradley, R.S. and P. Francus, 2009. Long-term perspectives on Arctic climate from lake sediments. **Proc. 17<sup>th</sup> International Northern Research Basins Symposium**\*, 37-45.
- Nichols, J.E., M. Walcott, R.S. Bradley, J. Pilcher, Y. Huang, 2009. Quantitative Assessment of Precipitation Seasonality and Summer Surface Wetness Using Ombrotrophic Sediments from an Arctic Norwegian Peatland **Quaternary Research**, 73, 443-451.
- Mann, M.E., Z. Zhang, S. Rutherford, R.S. Bradley, M.K. Hughes, D. Shindell, C. Ammann, G. Faluvegi and F. Ni, 2009. Global signatures and dynamical origins of the "Little Ice Age" and "Medieval Climate Anomaly" **Science**, 326, 1256-1260.
- Cook, T.L. and R.S. Bradley, 2009. An analysis of past and future changes in the ice cover of two high-arctic lakes based on synthetic aperture radar (SAR) and Landsat imagery. **Arctic, Antarctic and Alpine Research**, 42, 9-18.
- Lewis, T., P. Francus, R.S. Bradley and K. Kanamaru, 2010. An automated system for the statistical analysis of sediment texture and structure at the micro scale. **Computers & Geosciences**, 36, 1374-1383.
- Brown, P., R.S. Bradley and F. Keimig, 2010. Changes in extreme climate indices for the northeastern U.S., 1870-2006. **J. Climate**, 23, 6555-6572.
- Balascio, N., S. Wickler, L.E. Narmo and R.S. Bradley, 2011. Distal tephra found in a Viking boathouse: the potential for tephrochronology in reconstructing the Iron Age in Norway. **J. Archaeological Science** 38, 934-941.
- Balascio, N.L., Z. Zhang, R.S. Bradley, B. Perren, S.O. Dahl and J. Bakke., 2011. A multi-proxy approach to assessing isolation basin stratigraphy from the Lofoten Islands, Norway. **Quaternary Research**, 75, 288-300.
- Bradley, R.S., 2011. High-resolution paleoclimatology. In: M.K. Hughes, T.W. Swetnam and H.F. Diaz (eds). **Dendroclimatology: Progress and Prospects**. Developments in Paleoenvironmental Research 11, Springer, Berlin, 3-15.
- Bradley, R.S., 2011. Mountain glaciers face the heat. **Global Change**\*, 76, 30-33.
- Bradley, R.S. 2011. Natural archives, changing climates. **Contributions to Science**\* 7, 21-25.
- Karmalkar, A.V., R.S. Bradley and H.F. Diaz, 2011. Climate change in Central America and Mexico: regional climate model validation and climate change projections. **Climate Dynamics**, 37, 605-629; DOI 10.1007/s00382-011-1099-9.
- Bradley, R.S. 2011. Where do we stand on global warming? **Contributions to Science**\* 7, 45-49.
- Callaghan, T.V., M. Johansson, R.D. Brown, P.Ya. Groisman, N. Labba, V. Radionov, R.S.

- Bradley, S. Blangy, O. N. Bulygina, T.R. Christensen, J.E. Colman, R.L.H. Essery, B.C. Forbes, M.C. Forchhammer, V.N. Golubev, R.E. Honrath, G.P. Juday, A.V. Meshcherskaya, G.K. Phoenix, J.Pomeroy, A.Rautio, D.A. Robinson, N.M. Schmidt, M.C. Serreze, V.P. Shevchenko, A.I. Shiklomanov, A.B. Shmakin, P. Sko'ld, M. Sturm, Ming-ko Woo, and E.F. Wood, 2012. Multiple effects of changes in Arctic snow cover. **Ambio**, 40, 32-45.
- Balascio, N.L. and R.S. Bradley, 2012. Evaluating Holocene climate change in northern Norway using sediment records from two contrasting lake systems. **J. Paleolimnology** 48, 259-273; Doi: 10.1007/s10933-012-9604-7.
- D'Andrea, W.J., D. Vaillencourt, N.L. Balascio, A. Werner, S. Roof, M.J. Retelle and R.S. Bradley, 2012. A mild Little Ice Age and unprecedented recent warmth in an 1800-year record from Svalbard. **Geology**, 40, 1007-1010; doi: 10.1130/G33365.1.
- Von Gunten, L., W.J. D'Andrea, R.S. Bradley and Y. Huang, 2012. Proxy-to-proxy calibration: increasing the temporal resolution of quantitative climate reconstructions. **Nature Scientific Reports**, 2, 609; doi: 10.1038/srep00609.
- Bradley, R.S., 2012. What can we learn from past warm climates? **Contributions to Science** \* 8, 53-59; doi: 10.2436/20.7010.01.134.
- D'Anjou, R., R.S. Bradley, N.L. Balascio and D.B Finkelstein, 2012. Biogeochemical evidence for prehistoric human impacts on the environment in northwestern Norway. **Proc. Nat. Acad. Sci.**, 109, 20332-20337.
- Diaz, H.F. and R.S. Bradley, R.S. 2012. A framework for a proposed US initiative on "Climate and Environmental Change in the American Cordillera". **Mountain Views** \* 6, No. 2, 8-17.
- Rawlins, M.A., R.S. Bradley and H.F. Diaz, 2012. Assessment of regional climate model simulation estimates over the Northeast U.S. **J. Geophysical Research** 117, D23112, doi:10.1029/2012JD018137.
- Balascio, N.J., W.J. D'Andrea, R.S. Bradley and B.B. Perren, 2013. Biogeochemical evidence for hydrologic change during the Holocene in a lake sediment record from southeast Greenland. **The Holocene**, 23, 1428-1439.
- Fan, F.X., R.S. Bradley and M.A. Rawlins, M., 2014. Climate change in the northeastern U.S.: regional climate model validation and climate change projections. **Climate Dynamics** 43, 145-161.
- Ning, L. and R.S. Bradley, 2014. Winter precipitation variability and corresponding teleconnections over the northeastern United States. **J. Geophysical Research Atmospheres**, 119, 7931-7945, doi:10.1002/2014JD021591.
- D'Anjou, R., R.S. Bradley, and N.L. Balascio, 2014. Locating cryptotephra in sediments using fluid imaging technology. **J. Paleolimnology**, 52, 257-264; doi: 10.1007/s10933-014-9786-2.
- Diaz, H.F., R.S. Bradley and L. Ning 2014. Recent changes of climate in mountain regions of the American Cordillera and the Tropics. **Arctic, Antarctic and Alpine Research**, 46, 1-9.
- Røthe, T., J. Bakke, K. Vasskog, M. Gjerde, W. D'Andrea and R.S. Bradley, 2015. Arctic Holocene glacier fluctuations reconstructed from lake sediments at Mitrahelvøya, Spitsbergen. **Quaternary Science Reviews**, 109, 111-125.
- Solomina, O., R.S. Bradley, D. Hodgson, S. Ivy-Ochs, V. Jomelli, A. Mackintosh, A. Nesje, L. Owen, H. Wanner, G. Wiles and N. Young. 2015. Holocene glacier fluctuations. **Quaternary Science Reviews** , 111, 9-34.
- Ning, L. and R.S. Bradley, 2014. Winter climate extremes over the northeastern United States and southeastern Canada and teleconnections with large-scale modes of climate variability. **J. Climate** (in press).
- Balascio, N.J., P. Francus, R.S. Bradley, B.B. Schupack, G.H. Miller, B.C. Kvisvik, J. Bakke and T. Thordarson, 2015. Investigating the use of scanning XRF to locate cryptotephra in

- minerogenic lacustrine sediment: experimental results. In: **Micro-XRF studies of sediment cores: A non-destructive tool for the environmental sciences** (eds: R. G. Rothwell and I. Croudace). Springer, Berlin (in press).
- MRI Working Group, 2015 (N. Pepin, *R.S. Bradley* et al.), Elevation-dependent warming in mountain regions of the world. **Nature Climate Change** (in press).
- Ning, L., E. Riddle and *R.S. Bradley*, 2015. Projected changes in climate extremes over the northeastern United States. **J. Climate** (in press).
- Ning, L. and *R.S. Bradley*, 2015. Influence of Eastern Pacific and Central Pacific El Niños on winter climate extremes over the eastern and central United States. **Int. J. Climatology** (in press).
- Ning, L. and *R.S. Bradley*, 2015. NAO and PNA influences on winter temperature and precipitation over the eastern United States in CMIP5 GCMs. **Climate Dynamics** (in press).
- Fan, F.X., *R.S. Bradley* and M.A. Rawlins, M., 2015. Climate change in the Northeast United States: an analysis of the NARCCAP multimodel simulations. **J. Geophysical Research** (in revision).
- Medina-Elizalde, M.A., J.M. Polanco-Martinez, F. Lasas-Hernandez, *R.S. Bradley* and S.J. Burns, 2015. Testing the "tropical storm hypothesis" of Yucatan Peninsula climate variability during the Maya Terminal Classic Period. **Quaternary Science Reviews** (in review).

\*not a peer-reviewed article

### C. RESEARCH MONOGRAPHS & TECHNICAL REPORTS\*

- Bradley, R.S.* and England, J., 1977: **Past Glacial Activity in the High Arctic**. Department of Geology and Geography Contribution No. 31, University of Massachusetts, Amherst. 184 pp.
- Bradley, R.S.*, Barry, R.G. and Kiladis, G., 1982: **Climatic Fluctuations of the Western United States During the Period of Instrumental Records**. Department of Geology and Geography Contribution No. 42, University of Massachusetts, Amherst. 169 pp.
- Bradley, R.S.* (ed.) 1985: **Glacial Geologic and Glacio-climatic Studies in the Canadian High Arctic**. Department of Geology and Geography Contribution No. 49, University of Massachusetts, Amherst. 271 pp.
- Bradley, R.S.*, Kelly, P.M., Jones, P.D., Goodess, C.M. and Diaz, H., 1985: **A Climatic Data Bank for Northern Hemisphere Land Areas, 1851-1980**. Technical Report TR 017, U.S. Department of Energy, Washington, D.C. 335 pp.
- Bradley, R.S.*, Eischeid, J.K. and Ives, P.T., 1987: **The Climate of Amherst, Massachusetts, 1836-1985**. Occasional Paper No. 50, Dept. of Geology and Geography, University of Massachusetts, Amherst. 108 pp.
- Eischeid, J.K., Diaz, H.F., *Bradley, R.S.* and Jones, P.D., 1991: **A Comprehensive Precipitation Data Set for Global Land Areas**. Technical Report TR051, U.S. Department of Energy, Washington D.C., 82pp.
- Bradley, R.S.* and D.R. Hardy, 2003. A high elevation climate reference network for the Americas. In: Report of the GCOS Regional Workshop for South America on Improving Observing Systems for Climate. **WMO/TD** No 1183, 77-82