

## ROGER G. BARRY - Vitae

### A. List of Publications

#### 1. Books already published

- 2001      *Synoptic and Dynamic Climatology*. R.G. Barry and A.M. Carleton. Routledge, London. 620 pp.
- 2003      *Atmosphere, Weather and Climate*, 8<sup>th</sup> edn. R.G. Barry and A.M. Carleton. Routledge, London. 421 pp.

#### 2. Articles and book chapters already published

- 1960      The application of synoptic studies in palaeoclimatology; a case-study for Labrador-Ungava. R.G. Barry. *Geogr. Ann.* 42: 36-44.
- 1966      Meteorological aspects of the glacial history of Labrador-Ungava with special reference to vapor transport. R.G. Barry. *Geogr. Bull. (Ottawa)* 8(4): 319-340.
- 1970      An inventory of the present and past glacierization of Home Bay and Okoa Bay, east Baffin Island, N.W.T., and some climatic palaeoclimatic considerations. J.T. Andrews, R.G. Barry, and L. Drapier. *J. Glaciol.* 9(57): 337-362.
- 1971      Discussion of the atmospheric circulation during the last Ice Age. R.G. Barry, J.D. Ives and J.T. Andrews. *Quat. Res.* 1(3): 416-419.
- 1972      Palaeoclimatological aspects of the synoptic climatology of Keewatin, Northwest Territories, Canada. W.A.R. Brinkmann and R.G. Barry. *Palaeogeogr., Palaeoclimatol., Palaeoecol.* 11: 87-91.
- 1972      Past and present glaciological responses to climate in eastern Baffin Island. R.G. Barry, J.T. Andrews, et al. *Quat. Res.* 3: 303-316.
- 1973      The conditions favoring glacierization and deglaciation in North America from a climatological viewpoint. R.G. Barry. *Arctic and Alpine Research* 5(3): 171-184.
- 1973      Recent temperature changes due to changes in the frequency and average temperature of weather types over the British Isles. R.G. Barry and A.H. Perry. *Meteorolog. Mag.* 102: 73-82.
- 1973      Secular climatic fluctuations in southwestern Colorado. R.S. Bradley and R.G. Barry. *Mon. Wea. Rev.* 101: 264-270.
- 1974      Simulation of the atmospheric circulation using the NCAR Global Circulation Model with Ice Age boundary conditions. J. Williams, R.G. Barry, and W.M. Washington. *J. Appl. Met.* 13: 305-317.
- 1974      Wind storms: a case study of wind hazard for Boulder, Colorado. D. Miller, W.A.R. Brinkmann and R.G. Barry. In: *Natural Hazards, Local, Global and National*. Oxford University Press: 80-86.
- 1975      Climate models in paleoclimatic reconstruction. R.G. Barry. *Palaeogeogr., Palaeoclimatol., Palaeoecol.* 17: 123-137.
- 1975      Continental ice sheets: conditions for growth. R.G. Barry, J.T. Andrews, and M.A. Mahaffy. *Science* 190: 179-181.
- 1975      Experiments with the NCAR global circulation model using glacial maximum boundary conditions: southern hemisphere results and interhemispheric comparison. R.G. Barry and J. Williams. In: R.P. Suggate and M.M. Creswell, eds., *Quat. Studies, Bull.* 13, Royal Society New Zealand: 57-66.
- 1975      Growth and decay of the Laurentide ice sheet and comparisons with Fenno-Scandinavia. J.D. Ives, J.T. Andrews, and R.G. Barry. *Naturwissenschaften* 62: 118-125.
- 1975      Ice age experiments with the NCAR general circulation model. J. Williams and R.G. Barry. In: G.

- Weller and S.A. Bowling, eds., *Climate of the Arctic*. University of Alaska, Fairbanks: 163-169.
- 1977 Environmental change and cultural change in the eastern Canadian Arctic during the last 5,000 years. R.G. Barry, W.H. Arundale, J.T. Andrews, R.S. Bradley and H. Nichols. *Arctic and Alpine Research* 9: 193-210.
- 1977 Climatic fluctuations. R.G. Barry. *Progr. in Phys. Geogr.* 1: 114-125.
- 1978 Climatic fluctuations during the periods of historical and instrumental records. R.G. Barry. In: A.B. Paddock *et al.*, eds., *Climatic Change and Variability: A Southern Perspective*. Cambridge University Press: 150-166.
- 1978 Cryospheric responses to a global temperature increase. R.G. Barry. In J. Williams (ed) *Carbon Dioxide, Climate and Society*. Pergamon Press, Oxford: 169-180.
- 1978 Dry climates past and present. R.G. Barry. *Progr. in Phys. Geogr.* 2: 116-126.
- 1978 Glacial inception and disintegration during the Last Glacial Maximum. J.T. Andrews and R.G. Barry. *Ann. Revs. Earth Sci.* 6: 205-228.
- 1979 Climatic change. R.G. Barry, A.D. Hecht, J.E. Kutzbach, W.D. Sellers, T. Webb, III, and P.B. Wright. *Rev. Geophys. Space Phys.* 17: 1,803-1,813.
- 1979 Paleoclimatic research: status and opportunities. A.D. Hecht, R.G. Barry, H. Fritts, J. Imbrie, J.E. Kutzbach, J.M. Mitchell and S.M. Savin. *Quat. Res.* 12: 6-17.
- 1979 Recent advances in climate theory based on simple climate models. R.G. Barry. *Progr. in Phys. Geogr.* 3: 119-131.
- 1981 Atmospheric circulation and climatic change: 1. Approaches to palaeoclimatic reconstruction. 2. Case studies. R.G. Barry. In: A. Berger, ed., *Climatic Variations and Variability: Facts and Theories*. D. Reidel, Dordrecht, 333-345; 347-354.
- 1981 The nature and origin of climatic fluctuations in northeastern North America. R.G. Barry. *Geograph. Phys. Quat.* 35: 41-47.
- 1981 The palaeoclimatic interpretation of exotic pollen peaks in Holocene records from the eastern Canadian Arctic: A Discussion. R.G. Barry, D.L. Elliott and R.G. Crane. *Rev. Palaeobot. Palaeoecol.* 33: 153-167.
- 1981 Synoptic climatology of the western United States in relation to climatic fluctuations during the twentieth century. R.G. Barry, G. Kiladis and R.S. Bradley. *J. Climatology*, 1: 97-113.
- 1982 Approaches to reconstructing the climate of the steppe-tundra biome. R.G. Barry. In: D.M. Hopkins *et al.*, eds., *Paleoecology of Beringia*. Academic Press, New York, 195-204.
- 1983 Climatic environment of the Great Plains, past and present. R.G. Barry. *Trans. Nebraska Acad. Sci.* (Special Issue, 1983) XI: 45-55.
- 1983 Late-Pleistocene climatology. R.G. Barry. In: S.C. Porter, ed., *Late-Quaternary Environments of the United States, Vol. 1, The Late Pleistocene*. University of Minnesota Press, Minneapolis: 390-407.
- 1984 Climate sensitivity and the marginal cryosphere. R.G. Barry, A. Henderson-Sellers and K. Shine, eds. In: J.E. Hansen and T. Takashi, eds., *Climate Processes and Climate Sensitivity*. Amer. Geophys. Union, Geophys. Monograph 29: 221-237.
- 1984 Possible CO<sub>2</sub>-induced warming effects on the cryosphere. R.G. Barry. In: N.A. Morner and V. Karlen, eds., *Climatic Changes on a Yearly to Millennial Basis*. Reidel Publ. Co.: 571-604.
- 1985 The cryosphere and climate change. R.G. Barry. Chapter 6. In: M.C. MacCracken and F.M. Luther, eds., *Detection of CO<sub>2</sub>-Induced Climatic Change*. DOE/ER-0235, U.S. Dept. of Energy, Washington, D.C.: 109-148.
- 1985 Lake ice cover as a temperature index for monitoring climate perturbations. F. Tramoni, R.G. Barry and J. Key, *Zeitschrift f. Gletscherkunde und Glazialgeologie* 21: 43-49.

- 1986 Freeze-up and break-up of lakes as an index of temperature changes during the transition seasons: A case study for Finland. M.A. Palecki and R.G. Barry. *J. Climate Appl. Met.* 25: 893-902.
- 1987 The cryosphere-neglected component of the climate system. R.G. Barry. In: U. Radok, ed., *Towards Understanding Climate Change*. Westview Press, Boulder, Colorado: 35-67.
- 1989 The present climate of the Arctic Ocean and possible past and future states. R.G. Barry. In: Y. Herman, ed., *The Arctic Seas: Climatology, Oceanography, Biology and Geology*. Van Nostrand, Reinhold Co.: 1-46.
- 1990 Evidence of recent changes in global snow and ice cover. R.G. Barry. *GeoJournal* 20(2): 121-7.
- 1990 Observed climate variations and change. C.K. Folland, T.R. Karl and K. Ya. Vinnikov, eds., R.G. Barry: contributor. In: J.T. Houghton, G.J. Jenikins and J.J. Ephraums, eds., *Climate Change: The IPCC Scientific Assessment*. Intergovernmental Panel on Climate Change. World Meteorological Organization/ United Nations Environment Programme. Cambridge University Press, Cambridge: 194-238.
- 1991 Climate-Ice Interactions. R.G. Barry. In: W.A. Nierenberg, ed., *Encyclopedia of Earth System Science. Vol. 1*, Academic Press, Orlando, Florida: 517-524.
- 1991 Observational evidence of changes in global snow and ice cover. R.G. Barry. In: M.E. Schlesinger ed., *Greenhouse Gas-Induced Climatic Change: a Critical Appraisal of Simulations and Observations*. Elsevier, Amsterdam: 329-345.
- 1992 Climate change in mountains, R.G. Barry. In: P.B. Stone, ed., *The State of the World's Mountains. A Global Report*. Zed Books Ltd., London, pp. 359-380.
- 1992 Mountain climatology and past and potential future climatic changes in mountain regions: A review. R.G. Barry. *Mountain Res. Devel.* 12: 71-86.
- 1992 The significance of global snow and ice cover for global change studies, R.G. Barry. *GeoJournal* 27: 293-297.
- 1993 The North Atlantic Oscillation Signature in deuterium and deuterium excess signals in the Greenland Ice Sheet Project-2 ice core, 1840-1970. L.K. Barlow, J.C. White, R.G. Barry, J.C. Rogers and P.M. Grootes. *Geophys. Res. Lett.*, 20(24): 2,901-2,904.
- 1994 Glacier trends in the Caucasus, 1960s to 1980s. D.P. Bedford and R.G. Barry. *Physical Geography*, 15: 414-424.
- 1995 Twentieth-century variability in snow cover conditions and approaches to detecting and monitoring changes: Status and prospects. R.G. Barry, J.-M. Fallot and R.L. Armstrong. *Progr. Phys. Geog.*, 19(4): 520-532.
- 1996 B.B. Fitzharris et al. (12 lead authors and 15 contributing authors/including R.G. Barry). The cryosphere: changes and their impacts, Ch 7. In: R.T. Watson, M.C. Zinyowera, R.H. Moss and D.J. Dokken, eds., In: *Climate change 1995: Impacts, Adaptations, and Mitigation of Climate Change: Scientific-Technical Analyses*. IPCC (WMO, UNEP). Cambridge Univ. Press, pp. 241-265.
- 1996 M. Beniston and D.G. Fox, eds., (8 lead authors and 25 contributing authors/including R.G. Barry). In: R.T. Watson, M.C. Zinyowera, R.H. Moss and D.J. Dokken, eds., *Impacts of climate change on mountain regions*, Ch 5. In: *Climate change 1995: Impacts, Adaptations, and Mitigation of Climate Change: Scientific-Technical Analyses*. IPCC (WMO, UNEP). Cambridge Univ. Press, pp. 191-213.
- 1996 N. Nicholls, G.V. Gruza, T.R. Karl, E.A. Ogallo and D.E. Parker, eds., (6 key authors and 88 contributing authors/including R.G. Barry). In: *Observed climate variability and change*, Ch. 3. In: J.T. Houghton, L.G. Meira Filho, B.A. Callander, N. Harris, A. Kattenberg and K. Maskell, eds., *Climate change 1995: The Science of Climate Change*. Cambridge Univ. Press, pp. 132-192.
- 1996 Recent decreases in Arctic summer ice cover and linkages to atmospheric circulation anomalies.

- J.A. Maslanik, M.C. Serreze and R.G. Barry. *Geophys. Res. Lett.*, 23(13), 1,677-1,680.
- 1997 Aspects of climate variability in the North Atlantic sector: Discussion and relation to the Greenland Ice Sheet Project 2 high-resolution isotopic signal. Barlow, L.K., Rogers, J.C., Serreze, M.C. and Barry, R.G. *J. Geophys. Res.*, 102(c12):2633-344.
- 1997 Climate change. Ch. 17. M.F. Price and R.G. Barry. In: B. Messerli and J.D. Ives, eds., *Mountains of the World: a Global Priority*. Parthenon Publishing Group, New York, pp. 409-445.
- 1997 Paleoclimatology, climate system processes and the geomorphic record. R.G. Barry. In: D.R. Stoddart, ed., *Process and Form in Geomorphology*. Routledge, London, NY. Ch. 9, pp. 187-214.
- 1997 Variations of mean cold season temperature, precipitation and snow depths during the last 100 years in the Former Soviet Union (FSU). J.-M. Fallot, R.G. Barry, and D. Hoogstrate, *Hydrol. Sci. J.*, 42(3): 301-327.
- 2000 Historical trends in lake and river ice cover in the Northern Hemisphere. J.D. Magnuson and 18 others/inc. R.G. Barry). *Science*, 289(5485): 1743-46.
- 2000 Observational evidence of recent change in the northern high-latitude environment. M.C. Serreze, J.E. Walsh, F.S. Chapin, III, T. Osterkamp, M. Dyurgerov, V. Romanovsky, W.C. Oechel, J. Morison, T. Zhang and R.G. Barry. *Climate Change*, 45: 159-207.
- 2000 Research for Mountain Area Development: Climate fluctuations in the mountains of the Americas and their significance. R.G. Barry and A. Seimon. *Ambio*, 29(7): 364-370. *Corrigendum Ambio*, 30(1): 69.
- 2001 An amplified signal of climate change in soil temperatures during the last century at Irkutsk, Russia. T. Zhang, R.G. Barry, D. Gilichinsky, S.S Bykhovets, V.A. Sorikov and J. Ye. *Climatic Change* 49: 41-76.
- 2001 Physical climate processes and feedback, Ch. 7 in J.T. Houghton and 7 others, eds. T.F. Stocker, G.K. Clarke and 9 Lead Authors, eds.; 56 Contributing Authors incl. R.G. Barry. *Climate Change 2001. The Scientific Basis. Cambridge University Press*, pp. 417-470.
- 2002 The Role of Snow and Ice in the Global Climate System: A Review. R.G. Barry. *Polar Geog.* 24(3) pp. 235-246.
- 2003 A Record Minimum in Arctic Sea Ice Extent and Area in 2002, M.C. Serreze, J. Maslanik, T.A. Scambos, F. Fetterer, J. Stroeve, K. Knowles, C. Fowler, S. Drobot, R.G. Barry and T. Haran. *Geophys. Res. Lett.* 30(3)1110: pp. 10.1-10.4 (doi: 10.1029/2002GL016407)
- 2003 Late-Twentieth Century Changes in Glacier Extent in the Ak-Shirak Range, Central Asia, Determined from Historical Data and ASTER Imagery. T.E. Khromova, M.B. Dyurgerov, R.G. Barry. *Geophys. Res. Lett.* 30(16), 1863, pp. HLS 2-1 to 2-5 (doi: 10.1029/2003GL017233)

### 3. Conference papers already published

- 1975 The Laurentide ice sheet: problems of the mode and speed of inception. J.T. Andrews, R.G. Barry, P.T. Davis, A.S. Dyke, J.D. Ives, M. Mahaffy, L.D. Williams, and C. Wright. In: *Proceedings of the WMO/IAMAP Symposium on Long-Term Climatic Fluctuation*. World Meteorological Organization, Geneva, W.M.O. No. 421: 87-94.
- 1975 Secular fluctuations of precipitation in the Rocky Mountain region. R.S. Bradley and R.G. Barry. In: *Proceedings of the WMO/IAMAP Symposium on Long-Term Climatic Fluctuation*, World Meteorological Organization, Geneva, W.M.O. No. 421: 215-222.
- 1990 Cryospheric data for studies of global change. J.E. Walsh and R.G. Barry. In: *Preprints Volume :Symposium on Global Change Systems*. Amer. Met. Soc., Boston, Mass (February 1990): 127-132.
- 1991 Atmospheric circulation anomalies in the Arctic Basin and their relationship to the Great Salinity Anomaly in the northern North Atlantic. M.C. Serreze, J.A. Maslanik, R.G. Barry and T.L. Demaria. In: *Preprints Volume. Fifth Conference on Climate Variations*. Amer. Met. Soc., Boston,

MA: 350-353.

- 1992 An exploratory study of temperature trends for paired mountain-high plains stations in Colorado. T.J. Brown, R.G. Barry and N.J. Doesken. In: *Preprints Volume: Sixth Conference on Mountain Meteorology*. Amer. Met. Soc., Boston: 181-184.
- 1994 Assessing decadal changes in the cryosphere: Eurasian snow cover. R.G. Barry, J.-M. Fallot and R.L. Armstrong. In: *Fifth Symposium on Global Change Studies. Preprints*. Amer. Met. Soc. Boston, MA: 148-155.
- 1994 Assessment of temperature, precipitation and snow depth variations during the last 100 years in the Former Soviet Union (FSU). J.-M. Fallot and R.G. Barry. In: *62nd Western Snow Conference. Proceedings*. Santa Fe, NM: 139-142.
- 1997 Monitoring snow cover fluctuations in the Former Soviet Union using surface station data and passive microwave remote sensing. R.L. Armstrong, R.G. Barry, A.N. Krenke, T.G. Kadomtseva and L.M. Kitayev. In: *Seasonal and Long-term Fluctuations of Nival and Glacial Processes in Mountains. Materialy Glatsiologicheskikh Issledovaniy* No. 81, Inst. of Geography, Russian Academy of Sciences, Moscow, pp. 179-192.
- 1998 A century of temperature observations of soil climate: Methods of analysis and long-term trends. D.A. Gilichinsky, R.G. Barry, S.S. Byhovets, V.A. Sorokovikov, T.J. Zhang, S.L. Zudin and D.G. Federov-Davydov. In: A.G. Lewcowitz and M. Allard, eds., *Permafrost. Seventh International Conference, Proceedings*. Centre d'Etudes Nordiques, Universite Laval, Quebec, PQ.: 313-317.
- 2002 Barry, R.G. 2002. Mountain climate change and cryospheric responses: A review. In Berger, T., et al. (eds) "Mountain of the World." Proceedings of the World Mountain Symposium (WMS 2001), 7pp. CD-ROM. Swiss Agency for Development and Cooperation, Bern, Switzerland. Also web: [http://www.wms2001.ch/cd/publications/publication\\_10.html](http://www.wms2001.ch/cd/publications/publication_10.html)