

PAUL ANDREW MAYEWSKI

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Academic Degrees

B.A. (1968) (Honors), Department of Geological Sciences, SUNY Buffalo

Ph.D (1973) Institute of Polar Studies, Ohio State University

Doctorate of Philosophy *honoris causa* (2000) Stockholm University, Sweden

Selected Professional Experience

Director, Climate Change Institute, University of Maine (2000-present);

Professor, Climate Change Institute, Department of Earth Sciences (2000-present)

Director, Climate Change Research Center, University of New Hampshire (1980-2000)

Director, University Research Development, University of New Hampshire (1985-1986)

Founder and Chair, International Trans Antarctic Scientific Expedition (1989-present)

Chief Scientist and Chairman of the Executive Committee, GISP2 (1989-1999)

National Research Council Committee on Global Change Research (1995-1998)

Selected Honors (since 1997)

Distinguished Alumni Award, University at Buffalo (2008)

Fellow AAAS (2007)

Lowell Thomas Medal (2007)

ST Lee Recipient Victoria University, New Zealand (2007)

First Scientific Committee for Antarctic Research Medal for Excellence in Antarctic Research (2006)

Honorary Research Associate, Victoria University, Wellington, New Zealand (2004-present)

Honorary Doctorate, Stockholm University (2000)

Fellow, American Geophysical Union (1998)

Explorers Club Honoree (2007), Citation of Merit and Fellow

Private audience Forbidden City (Beijing, China, 1997)

Selected Research Experience

Field Party Leader and Principal Investigator (>45 expeditions)- Greenland (since 1984: 8 expeditions), Asia (since 1979: 11 expeditions), Antarctica (since 1968: 23 expeditions) and other regions (e.g., Iceland, Canadian Rockies, New Zealand, Tierra del Fuego).

Current research

Research over last two decades related to climate change and change in the chemistry of the atmosphere primarily through recovery, analysis, and interpretation of ice cores from Antarctica, Asia, and the Arctic.

Publications >300 peer-reviewed since 1969 exclusive of Workshop Reports, Books, etc.)

5 Publications Relevant to this Proposal

Mayewski, P.A., Meeker, L.D., Twickler, M.S., Whitlow, S.I., Yang, Q. and Prentice, M., 1997, Major features and forcing of high latitude northern hemisphere atmospheric circulation over the last 110,000 years, *Journal of Geophysical Research*. 102, 26,345-26,362.

Mayewski, P. A., K. A. Maasch, J.W.C. White, E. Meyerson, I. Goodwin, V.I. Morgan., T. van Ommen, M.A.J. Curran, J. Souney, and K. Kreutz, 2005, A 700 year record of Southern Hemisphere extra-tropical climate variability, *Annals of Glaciology* 39, 127-132.

Mayewski, P.A., Rohling, E., Stager, C., Karlén, K., Maasch, K., Meeker, L.D., Meyerson, E., Gasse, F., van Kreveld, S., Holmgren, K., Lee-Thorp, J., Rosqvist, G., Rack, F., Staubwasser, M., and Schneider, R., 2004, Holocene climate variability, *Quaternary Research* 62, 243-255.

Mayewski, P. A., Maasch, K., Yan, Y., Kang, S., Meyerson, E., Sneed, S., Kaspari, S., Dixon, D., Morgan, V., van Ommen, T., and Curran, M., 2006, Solar forcing of the polar atmosphere, *Annals of Glaciology* 41, 147-154.

Mayewski, P.A. and Maasch, K., 2006, Recent warming inconsistent with natural association between temperature and atmospheric circulation over the last 2000 years, *Climate of the Past* (Discussions), on line: <http://www.copernicus.org/EGU/cp/cpd/2/327/cpd-2-327.htm>.

5 Selected Additional Publications

Meeker, L.D. and Mayewski, P. A., 2002, A 1400 year long record of atmospheric circulation over the North Atlantic and Asia, *The Holocene* 12 (3), 257-266.

Bertler, N.A.N., Naish, T.R., Oerter, H., Kipfstuhl, S., Barrett, P.J., Mayewski, P.A. and Kreutz, K., 2006, The effects of joint ENSO-Antarctic Oscillation forcing on the McMurdo Dry Valleys, Antarctica, *Antarctic Science* 18, 4, 507-514.

Mayewski, P.A. and White, F., 2002, *The Ice Chronicles*, University Press of New England, Hanover and London, 224p.

Mayewski, P.A., Frezzotti, M., Bertler, N., van Ommen, T., Hamilton, G.H., Jacka, J., Welch, B., Frey, M., Dahe, Q., Ren, J., Simoes, J., Fily, M., Oerter, H., Nishio, F., Iasaksson, E., Mulvaney, R., Holmund, P., Lipenkov, V. and Goodwin, I., 2006, The International Trans-Antarctic Scientific Expedition (ITASE) – An Overview, *Annals of Glaciology* 41, 180-185.

Mayewski, P.A., Meredith, M., Summerhayes, C., Turner, J., Aoki, S., Barrett, P., Bertler, N., Bracegirdle, T., Bromwich, D., Campbell, H., Casassa, G., Garabato, A.N., Lyons, W.B., Maasch, K.A., Worby, A., Xiao, C., in press, State of the Antarctic and Southern Ocean Climate System (SASOCS), *Reviews of Geophysics*.

Synergistic activities:

Development, oversight and direct involvement in a variety of outreach activities (media, websites, workshops, displays, pamphlets, posters) for grade schools and high schools, civic groups, Museum of Science (Boston), American Museum of Natural History (New York).

Organizer and chair or director of several multi-disciplinary, multi-institutional, national and international scientific programs such as: Greenland Ice Sheet Project Two (GISP2), International Trans Antarctic Scientific Expedition (ITASE).

Development of innovative methods for the interpretation of glaciochemical series including: calibration between instrumental and ice core series for a variety of environmental phenomena such as sea ice extent, ENSO, NAO, AAO.

Extensive public outreach through various media appearances (eg., CBS 60 Minutes “Arctic Warning” (2006) and “The Age of Warming” (2007); PBS, Fox, BBC).

Graduate Students and Post-Doctoral Scholars (since 1985)

D.A. Meese (MSc 1985), T.J. Trombley (MSc 1986), J.W. Kauer (MSc 1986), B. Mosher (Postdoc 1986-87), J. Dibb (Postdoc 1987-89), M.C. Morrison (MSc 1988), D.A. Meese (PhD 1988), J. Fiacco (MSc 1991), C. Kingma (MSc 1992), K. Welch (MSc 1993), C. Wake (PhD 1993), S. Drumme (MSc, 1993), C. Wake (Postdoc 1993-1994), Q. Yang (PhD 1996), S. O'Brien (MSc 1995), N. Fuller (MSc 1996), R. Pendleton (MSc 1995), K. Sharma (PhD 1997), D. Resusch (MSc 1997), K. Kreutz (PhD 1998), A. Shrestha (PhD 1999), E. Meyerson (MSc 1999), C. Zdanowicz (PhD 1999), J. Souney (MSc 2000), J. Putscher (MSc 2000), S. Kang (Postdoc 200-03), D. Dixon (MSc 2004, PhD 2008), S. Kaspari (MSc 2004, PhD 2007), E. Meyerson (PhD 2006), Erich Osterberg (PhD 2007), Sharon Sneed (PhD 2009), Bjorn Grigholm (MSc 2007), Elena Korotkikh (MSc 2007), Nicole West (MSc 2008).

Recent Scientific Collaborators (Projects, papers, etc.): R. Alley (Penn State), S. Arcone (CRREL), R. Bales (U Arizona), M. Bender (Princeton), W. Broecker (Columbia), C. Shuman (UMaryland), J. Dibb (UNew Hampshire), T. Gow (CRREL), J. McConnell (DRI), D. Meese (CRREL), A. Robock (Rutgers), E. Saltzman (Santa Cruz), T. Sowers (Penn State), E. Steig (UWashington), K. Taylor (DRI), E. Waddington (UWashington), C. Wake (UNew Hampshire), J. White (UColorado), G. Zielinski (USouthCarolina).

Graduate Advisors R.P. Goldthwait (deceased) and C. Bull (retired).