

Ellen Mosley-Thompson is a Professor and Distinguished University Scholar in the Department of Geography and a Senior Research Scientist in the Byrd Polar Research Center at the Ohio State University. She uses the chemical and physical properties preserved in ice cores collected from the polar ice sheets and high mountain glaciers to reconstruct the Earth's complex climate history. These records indicate that the Earth's climate has moved outside the range of natural variability experienced over at least the last 2000 years. Ellen has led eight expeditions to Antarctica and six to Greenland to retrieve ice cores. She established Antarctica's most extensive and longest running snow accumulation network at South Pole Station. Ellen holds a B.S. degree in physics and a Master's and Ph.D. in climatology and atmospheric sciences

Complete Vita available at http://bprc.osu.edu/Icecore/vitae/emt_cv.pdf

ELLEN STONE MOSLEY-THOMPSON

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DEGREES

Ph.D., 1979, Geography (Climatology), The Ohio State University
M.A., 1975, Geography (Climatology), The Ohio State University
B.S., 1970, Physics, Marshall University

POSITIONS

1995-09 Professor, Department of Geography (Climatology), Ohio State University (OSU)
1996-09 Senior Research Scientist, Byrd Polar Research Center, OSU
1990-94 Associate Professor, Department of Geography (Climatology), OSU
1988-96 Research Scientist, Byrd Polar Research Center, OSU
1984-87 Senior Research Associate, Institute of Polar Studies, OSU
1979-83 Research Associate, Institute of Polar Studies, OSU
1973-79 Graduate Research Associate, OSU

AWARDS

2009 Elected as a Fellow of the American Geophysical Union, May 26, 2009
2009 Elected as a Member of the National Academy of Sciences, April 27, 2009
2009 Elected as a Member of the American Philosophical Society, April, 2009
2009 American Alpine Club, David R. Brower Award for Outstanding Service in Mountain Conservation, February 21, 2009
2008 Dan David Prize, Dan David Foundation, Tel Aviv, Israel, May 19.
2007 Alumni Medalist Award, The Ohio State University, November 9, 2007
2007 Elected, OSU Sphinx Chapter Senior Member, Spring 2007
2007 Roy Chapman Andrews Society, *2007 Distinguished Explorer Award*, winter 2007
2005 Faculty Award for Distinguished University Service, OSU, Dec. 17, 2005
2004 University Distinguished Lecturer, The Ohio State University, August 24, 2004

- 2003 University Distinguished Scholar Award, The Ohio State University, April 21, 2003
- 2003 Marshall Univ., Distinguished Alumna for Community Achievement, April 26, 2003
- 2003 Inducted into Ohio Women's Hall of Fame, October 7 by Governor Taft
- 2003 Elected as a Fellow of the American Association for the Advancement of Science
- 2002 John C. Marshall Award (Marshall Univ.) for distinguished scholarship, March 7, 2002
- 2002 The Common Wealth Award for Science and Invention (the award recognizes distinguished service to the world community), April 20, 2002

CURRENT NATIONAL SERVICE ACTIVITIES

- 2009+ NOAA Science Advisory Board Climate Working Group
- 2006+ Member, NRC-NAS Committee on Strategic Advice on the U.S. Climate Change Science Program
- 2001+ Member, AAAS Steering Group for Section E (Geology and Geography)
- 2000+ Associate Editor: Polar Geography
- 1996+ AAG Representative to the AAAS (Section W: Atmospheric Sciences)

RESEARCH PUBLICATIONS AND ACTIVITIES

Peer Reviewed Papers: (115 peer-reviewed papers)

Research Grants: (50 total grants awarded)

Field Programs (15 programs: 8 to Antarctica; 6 to Greenland; 1 to Peru)

Selected Peer Reviewed Papers (2009 - 2006 only)

- 2009 Buffen, A.M., L.G. Thompson, E. Mosley-Thompson, and K.-I. Huh. Recently exposed vegetation reveals Holocene changes in the extent of the Quelccaya Ice Cap, Peru, *Quaternary Research*, in press (see journal website). (Buffen: graduate student)
- 2009 Jones, P.D., K.R. Briffa, T.J. Osborn, J.M. Lough, T.D. van Ommen, B.M. Vinther, J. Luterbacher, E. R. Wahl, F.W. Zwiers, M.E. Mann, G.A. Schmidt, C. M. Ammann, B.M. Buckley, K. M. Cobb, J. Esper, H. Goosse, N. Graham, E. Jansen, T. Kiefer, C. Kull, M. Küttel, E. Mosley-Thompson, J.T. Overpeck, N. Riedwyl, M. Schulz, A. W. Tudhope, R. Villalba, H. Wanner, E. Wolff and E. Xoplaki. High-resolution paleoclimatology of the last millennium: a review of current status and future prospects. *The Holocene*, 19(1), 3-49. (doi. DOI: 10.1177/0959683608098952).
- 2009 van der Veen, C.J., Y. Ahn, B.M. Csatho, E. Mosley-Thompson and W.B. Kraybill. Surface roughness over the northern half of the Greenland ice sheet from airborne laser altimetry, *Journal of Geophysical Research (Earth Surface)*, 114, F01001, doi:10.1029/2008JF001067.
- 2008 Wei, L., E. Mosley-Thompson, P. Gabrielli, L.G. Thompson and C. Barbante. Synchronous deposition of volcanic ash and sulfate aerosols over Greenland in 1783 from the Laki eruption (Iceland). *Geophys. Res. Lett.*, 35, L16501, doi:10.1029/2008GL035117. (Wei: graduate student)
- 2008 Kehrwald, N. M., L. G. Thompson, Y. Tandong, E. Mosley-Thompson, U. Schotterer, V. Alifimov, J. Beer, J. Eikenberg, and M. E. Davis (2008), Mass loss on Himalayan glacier endangers water resources, *Geophys. Res. Lett.*, doi:10.1029/2008GL035556, in

- press. (Kehrwald: graduate student): Paper was highlighted in *Nature* under Research Highlights in Dec. 11, 2008 issue, p. 679).
- 2008 Calder, C.A., Craigmille, P. F. and E. Mosley-Thompson. Spatial variation of the influence of the North Atlantic Oscillation on precipitation across Greenland. *Journal of Geophysical Research (Atmospheres)*, in press.
- 2007 Duan, K., L. G. Thompson, T. Yao, M. E. Davis and E. Mosley-Thompson. A 1000 year history of atmospheric sulfate concentrations in southern Asia as recorded by a Himalayan ice core. *Geophysical Research Letters*, 34, L01810, doi:10.1029/2006GL027456.
- 2006 Thompson, L.G., E. Mosley-Thompson, H. Brecher, M.E. Davis, B. Leon, D. Les, T.A. Mashiotta, P.-N. Lin, and K. Mountain. Evidence of abrupt tropical climate change: past and present. *Proceedings of the National Academy of Sciences*, 103(28), 10536-10543.
- 2006 Mosley-Thompson, E., L. G. Thompson and P.-N. Lin. A multi-century perspective on 20th century climate change with new contributions from high Arctic and Greenland (PARCA) cores. *Annals of Glaciology*, 43, 42-48.
- 2006 Thompson, L.G., E. Mosley-Thompson, M. E. Davis, T. A. Mashiotta, K. A. Henderson, P.-N. Lin, and Y. Tandong. Ice core evidence for asynchronous glaciation on the Tibetan Plateau. *Quaternary International*, 154/155, 3-10.
- 2006 Thompson, L.G., T. Yao, M.E. Davis, E. Mosley-Thompson, P.N. Lin, T.A. Mashiotta, V.N. Mikhailenko and V.S. Zagordonov. Holocene climate variability archived in the Puruogangri ice cape from the central Tibetan Plateau. *Annals of Glaciology*, 43, 61-69..
- 2006 Yao, T., Z. Li, L.G. Thompson, E. Mosley-Thompson, Y. Wang, L. Tian, N. Wang, and K. Duan. $\delta^{18}\text{O}$ record in Tibetan ice reveals differences in climatic changes. *Annals of Glaciology*, 43, 1-7.
- 2006 Li, Z., R. Edwards, E. Mosley-Thompson, F. Wang, Z. Dong, X. You, H. Li, C. Li and Y. Zhu. Seasonal variability of ionic concentrations in surface snow and elution processes in snow-firn packs at the PGPI site on Ürümqi glacier No. 1, eastern Tien Shan, China. *Annals of Glaciology*, 43, 250-256.
- 2006 Grannas, A. M., W.C. Hockaday, P.G. Hatcher, L. G. Thompson and E. Mosley-Thompson. New revelations on the nature of organic matter in ice cores, *Journal of Geophysical Research-Atmospheres*, 111(D04304), doi:10.1029/2005JD006251.