

Biographical Sketch

ROBERT P. ACKERT, Jr., Ph. D.

Education:

B.A.	Geological Sciences	University of Maine	1979
M.S.	Geological Sciences	University of Maine	1990
Ph.D	Marine Geology and Geophysics	M.I.T./Woods Hole Joint Program in Oceanography	2000

Appointments:

5/2012 - present	Staff Scientist, Department of Earth and Planetary Sciences, Harvard University
10/2011 – 5/2020	Lab Manager, Archaeology Multi User Laboratory, Harvard University
11/2006 - 5/2012	Research Associate, Earth and Planetary Sciences, Harvard University
2011- 2017	Adjunct Instructor, Bentley University, Principles of Geology NAS-130 NASE 337 Global Climate Change: New Zealand
10/2003 - 10/2006	Postdoctoral Fellow, Earth and Planetary Sciences, Harvard University
6/2000 - 9/2003	Post Doctoral Investigator, Woods Hole Oceanographic Institution.
3/15/02 - 6/30/02	Chief Scientist, Sea Education Association, Class 181,
11/20/01 - 1/15/02	Assistant Scientist, Sea Education Association, Class 178,
1989, 1990, 1992	Consulting geologist for Antarctic field research

Awards:

Outstanding student paper in Hydrology Section at Fall AGU, 1997

Publications:

- Ackert, R. P. Jr., Putnam, A. E., Mukhopadhyay, S., Pollard, D., DeConto, R. M., Kurz, M. D. Borns, H. W. (2013) Controls on interior West Antarctic Ice Sheet Elevations; Inference from geologic constraints and ice sheet modeling. *Quaternary. Science. Reviews.* **65**, 26-38.
10.1016/j.quatscirev.2012.12.017.
- Ackert, R. P., Jr., Mukhopadhyay, S., Pollard, D. DeConto, R. M. Putnam, A. E., Borns, H.W. (2011). West Antarctic Ice Sheet Elevations in the Ohio Range: Geologic constraints and ice sheet modeling prior to the last highstand. *Earth Planet. Sci. Lett.* **307**, 83-93. doi:10.1016/j.epsl2011.04.015
- Ackert, R. P., Jr. (2009) Patagonian dust machine. *Nature Geoscience* **2**, 244-245.
- Ackert, R. P., Jr., Becker, R. A., Singer, B. S., Kurz, M. D., Caffee, M. W., and Mickelson, D. (2008) Patagonian glacier response during the Late Glacial–Holocene transition: *Science* **321**, 392-395.
- Ackert, R. P., Jr., Mukhopadhyay, S., Parizek, B.R., and Borns, H.W. (2007) Ice elevation near the West Antarctic Ice Sheet divide during the Last Glaciation, *Geophys. Res. Lett.*, **34**, L21506, doi:10.1029/2007GL031412.
- Ackert, R. P., Jr., and Kurz, M.D. (2004) Age and uplift rates of Sirius Group sediments in the Dominion Range, Antarctica, from surface exposure dating and geomorphology: *Global and Planetary Change.* **42**, 207-225.
- Ackert, R. P., Jr., Brad Singer, B.S., Guillou, H., Kaplan, M.R., and Kurz, M.D. (2003) Long term cosmogenic ³He production rates from ⁴⁰Ar/³⁹Ar and K-Ar dated Patagonian lava flows at 47°S: *Earth and Planetary Science Letters.* **210**, 119-136.
- Ackert, R. P., Jr. (2003) An ice sheet remembers. *Science* **299**, 57-58.
- Ackert, R.P., Jr., (2000), "Antarctic glacial chronology: New constraints from surface exposure dating". Ph.D. thesis, MIT/WHOI Joint Program in Oceanography.

- Ackert, R. P., Jr., Barclay, D. J., Borns, H. W., Jr., Calkin, P. E., Kurz, M. D., Steig, E. J., and Fastook, J. L. (1999). Measurements of past ice sheet elevations in interior West Antarctica. *Science* **286**, 276-28.
- Ackert, R. P., Jr. (1998). A rock glacier/debris covered glacier system at Galena Creek, Absaroka Mountains, Wyoming: Implications for rock glacier chronology. *Geografiska Annaler* **80A**, 267-276.
- Ackert, R. P., Jr. (1990). "Surficial geology and geomorphology of Njord Valley and adjacent areas of the Western Asgard Range, Antarctica: Implications for late tertiary glacial history." M. S. thesis, University of Maine.
- Ackert, R. P., Jr. (1989). The origin of isolated gravel ripples in the western Asgard Range, Antarctica. *Antarctic Journal of the United States* **XXIV**, 60-62.
- Ackert, R. P., Jr. (1984). Ice-cored lateral moraines in Tarfala Valley, Swedish Lapland. *Geografiska Annaler* **66A**, 79-88.

Co-Authored Publications:

- Middleton, J.L., Ackert, R. P. Jr., and Mukhopadhyay, S. (2012) Pothole and channel formation in the McMurdo Dry Valleys of Antarctica: New insights from cosmogenic nuclides: *Earth and Planetary Science Letters*, **355-356**, p. 341-350.
- Mukhopadhyay S., Ackert R. P., Pope A., Pollard D., DeConto R. M. (2012) Miocene to recent ice elevation variations from the interior of the West Antarctic Ice sheet: Constraints from geologic observations, cosmogenic nuclides and ice sheet modeling. *Earth and Planetary Science Letters*, **337-338**, 243-251. doi 10.1016/j.epsl.2012.05.015
- Bockheim, J. G., and Ackert, Jr., R. P. (2007). Implications of soils on mid-Miocene-aged drifts in the Transantarctic Mountains for ice sheet history and paleoclimate reconstruction. *Geomorphology* **92**, 12-24
- Sims, W.W. K., Ackert, Jr., R. P., Ramos, F., Sohn, R. A., Murrell, M. T., DePaulo, D. (2007) Dating Quaternary Age Volcanism: a comparison of U-Th series disequilibria and cosmogenic exposure ages for the Bluewater Flow in the Zuni- Bandera Volcanic Field, New Mexico. *Geology* **35** 471-474.
- Douglass, D. C., Kaplan, M. R., Ackert, R. P., Mickelson, D. M., and Caffee, M. W. (2005). Evidence of early Holocene glacial advances in southern South America from cosmogenic surface exposure dating. *Geology* **33** 237-240.
- Kaplan, M. R., Douglass, D. C., Singer, B. S., Ackert, R. P., Jr., and Caffee, M. W. (2005). Cosmogenic nuclide chronology of pre-last glaciation maximum moraines at Lago Buenos Aires, 46°S, Argentina. *Quaternary Research* **63**, 301-315.
- Kaplan, M.R., Ackert, R.P., Jr., Singer, B.S., Douglass, D.C., and Kurz, M.D. (2004). Cosmogenic exposure chronology of millennial-scale glacial advances during O-isotope Stage 2 in Patagonia. *Geological Society of America Bulletin*, **166**, 308-321.
- Singer, B.S., Ackert, R.P., Jr., and Guillou, H. (2004). $^{40}\text{Ar}/^{39}\text{Ar}$ and K-Ar chronology of Pleistocene glaciation in Patagonia: *Geological Society of America Bulletin*, **116**, 434-450.
- Steig, E. J., Fastook, J. L., Zweck, C., Goodwin, I., Licht, K. L., White, J. W. C., and Ackert, R. P., Jr., (2001). West Antarctic Ice Sheet elevation changes. In "Antarctic Research Series. Vol. 77", Alley, R and Bindshadler, R., Eds. American Geophysical Union, Washington D.C.
- Brook, E. J., Kurz, M. D., Ackert, R. P., Jr., Raisbeck, G., and Yiou, F. (1995). Cosmogenic nuclide exposure ages and glacial history of late Quaternary Ross Sea Drift in McMurdo Sound, Antarctica. *Earth and Planetary Science Letters* **131**, 41-56.
- Brook, E. J., Brown, E. T., Kurz, M. D., Ackert, R. P., Raisbeck, G. M., and Yiou, F. (1995). Constraints on age, erosion, and uplift of Neogene glacial deposits in the Transantarctic Mountains determined from in situ cosmogenic ^{10}Be and ^{26}Al . *Geology* **23**, 1063-1066.

- Brook, E. J., Kurz, M. D., Ackert, R. P., and Denton, G. H. (1993). Chronology of Taylor Glacier advances in Arena Valley using *in situ* produced cosmogenic helium-3. *Antarctic Journal of the United States (1991 review)* **XXVI**, 82-85.
- Brook, E. J., Kurz, M. D., Ackert, R. P., Jr., Denton, G. H., Brown, E. T., Raisbeck, G. M., and Yiou, F. (1993). Chronology of Taylor Glacier advances in Arena Valley, Antarctica, using *in situ* cosmogenic ^3He and ^{10}Be . *Quaternary Research* **39**, 11-23.
- Weed, R., and Ackert, R. P. Jr. (1986). Chemical weathering of Beacon Super group sandstones and implications for Antarctic glacial chronology. *South African Journal of Science* **82**, 513-516.
- Denton, G. H., Ackert, R. P., Prentice, M. L., and Potter, N., Jr. (1984). Ice sheet overriding of the ice-free valleys of southern Victoria Land. *Antarctic Journal of the United States* **XIX**, 47-48.