

VITA OF EDWARD HAMILTON BAIR

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EDUCATION

University of California – Santa Barbara

- Ph.D., 2011, Bren School of Environmental Science and Management
- Research areas: avalanches and snow metamorphism, snow hydrology
- Teaching assistant for ESM 232: Environmental Modeling (2008)
- Teaching assistant for ESM 236: The Alpine Snowpack (2008, 2010, 2011, 2012)

Bowdoin College, Brunswick, ME

- B.A., 2003, magna cum laude in economics

PUBLICATIONS

Peer Reviewed

Bair, E.H., Simenhois, R., Birkeland, K., and Dozier, J. (2012) A field study on failure of storm snow slab avalanches. *Cold Regions Science and Technology*, doi:10.1016/j.coldregions.2012.02.007

Bair, E.H. (2011), Fracture mechanical and statistical properties of nonpersistent snow avalanches, Ph.D. Thesis, Donald Bren School of Environmental Science and Management, University of California, Santa Barbara, CA, 183 pp.

Bair, E.H., Birkeland, K.W., & Dozier, J. (2010). In situ and photographic measurements of avalanche crown transects. *Cold Regions Science and Technology*, 64, 174-181, doi: 10.1016/j.coldregions.2010.08.004.

Bair, E.H., Dozier, J., & Birkeland, K.W. (2008). Avalanche crown-depth distributions. *Geophysical Research Letters*, 35, L23502, doi: 10.1029/2008GL035788.

Bair, E.H., & Fitzgerald, J. M. (2005), Hedonic estimation and policy significance of the impact of HOPE VI on neighborhood property values, *Review of Policy Research*, 22, 771-786, doi: 10.1111/j.1541-1338.2005.00175.x.

Conference Proceedings

Bair, E.H., Dozier, J., Davis, R.E., Kaempfer, T., Colee, M., Mielke, R., & Blackford, J. (2009). Observations of two seasons of sintering in a mountain snowpack. *2009 International Snow Science Workshop*, Davos, Switzerland, pp. 115-119.

Bair, E.H., Birkeland, K.W., & Dozier, J. (2009). In situ and photogrammetric measurements of avalanche crown transects. *2009 International Snow Science Workshop*, Davos, Switzerland, pp. 395-399.

FUNDING

- 2010-current: NSF Hydrologic Sciences Grant: "Rapid Quantitative Snow Stratigraphy for Avalanche Forecasting Using Near-Infrared Photography" award #1015057, \$33,972

- 2009-2011: US Army Corps of Engineers Cold Regions Research and Engineering Laboratory student fellowship administered by Oak Ridge Institute for Scientific Education
- 2007-2010: NSF Hydrologic Sciences Grant: "Sintering in snow and the possible role of soluble impurities" award #0537327, \$150,000

SKILLS

- Computer languages: MATLAB, SQL, PHP, Java, C, Assembly, Fortran, GIS
- Modeling: time-series, geostatistics, particle-tracking

PROFESSIONAL AFFILIATIONS

- American Avalanche Association, Professional Member
- American Geophysical Union, Member
- International Glaciological Society, Member
- Cold Regions Science and Technology, Reviewer

EMPLOYMENT

US Army Corps of Engineers Cold Regions Research and Engineering Laboratory, Hanover, NH

- Postdoctoral Researcher, 2011-present

Earth Research Institute, Santa Barbara, CA

- Assistant Researcher, 2011-present
- Graduate Student Researcher, 2007-2009

Mammoth Mountain Ski Area, Mammoth Lakes, CA

- Professional Ski Patroller, 2003-2011

Timberline Mountain Guides, Bend, OR
Shasta Mountain Guides, Mt. Shasta, CA

- Alpine and Rock Guide, summer 2003 & 2004

INTERESTS

- Skied from 17,200 feet on Mt. McKinley (Denali), Alaska
- Have climbed at least 3000 rock, alpine, and ice routes in the U.S.