

## Sean David Birkel

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Climate Change Institute  
University of Maine  
Orono, ME 04469

### A. Professional Preparation

University of Maine, Orono, ME	Geological Sciences	B.S., 2002
University of Maine, Orono, ME	Quaternary Geology and Glaciology	M.S., 2004
University of Maine, Orono, ME	Earth Sciences and Ice Sheet Modeling	Ph.D., 2010
University of Maine, Orono, ME	Climate Modeling	2011-2012

### B. Appointments

2013-present	Research Assistant Professor, Climate Change Institute, University of Maine
2010-2012	Postdoctoral Research Associate, Climate Change Institute, University of Maine
2008-2010	Research Assistant, Dept. of Earth Sciences, University of Maine
2006-2007	Teaching Assistant, Dept. of Earth Sciences, University of Maine
2006	Assistant Geology Field Instructor, University of Maine Presque Isle
2004-2005	Teaching Assistant and Lecturer, Jordan Planetarium, University of Maine
2003-2004	Research Assistant, Climate Change Institute, University of Maine

### C. Products

- Mayewski, P.A., Sneed, S.B., **Birkel, S.D.**, Kurbatov, A.V. and Maasch, K.A., 2014. Holocene warming marked by abrupt onset of longer summers and reduced storm frequency around Greenland. *Journal of Quaternary Science*, 29(1), p. 99-104, DOI: 10.1002/jqs.2684.
- Bromley, G.R., Putnam, A.E., Rademaker, K.M., Lowell, T.V., Schaefer, J.M., Hall, B., Winckler, G, **Birkel, S.D.**, Borns, H.W., 2014. Younger Dryas deglaciation of Scotland driven by warming summers. *Proceedings of the National Academy of Sciences*, 111(17), p. 6215-9, doi: 10.1073/pnas.1321122111.
- Koffman, B.G., Kreutz, K.J., Breton, D.J., Kane, E.J., Winski, D.A., **Birkel, S.D.**, Kurbatov, A.V., Handley, M.J., 2013. Centennial-scale shifts in the position of the Southern Hemisphere westerly wind belt over the past millennium. *Climate of the Past Discussions*, 01/2013; 9:3125-3174. DOI:10.5194/cpd-9-3125-2013.
- Putnam, A.E., Schaefer, J.M., Denton, G.H., Barrell, D.J., **Birkel, S.D.**, Andersen, B.G., Kaplan, M.R., Finkel, R.C., Schwartz, R., Doughty, A.M., 2013. The last local glacial maximum at 44°S documented by a <sup>10</sup>BE moraine chronology at Lake Ohau, Southern Alps of New Zealand. *Journal of Quaternary Science Reviews*, 62, p. 114-141, DOI:10.1016/j.quascirev.2012.10.034.
- Birkel, S.D.**, Putnam, A.E., Denton, G.H., Koons, P.O., Fastook, J.L., Putnam, D.E., Maasch, K.A., 2012. Climate inferences from a glaciological reconstruction of the Late Pleistocene Wind River Ice Cap, Wind River Range, Wyoming. *Arctic, Antarctic, and Alpine Research*, 44(3), p. 265-276.

**Birkel, S.D.**, Maasch, K.A., Oglesby, R.J., Fulginiti, L.E., Trindade, F., Hays, C., 2012. Changes in water and wind resources across the central and northeastern U.S. 2060-2010 in 24 km WRF downscale climate simulations. American Geophysical Union Fall Meeting (Abstract).

**Birkel, S.D.**, Maasch, K.A., Oglesby, R.J., Rowe, C., Hays, C., 2011. A downscaled multi-domain WRF model climate forecast for the northeastern and central U.S. for 2050-2054. American Geophysical Union Fall Meeting (Abstract).

#### **D. Synergistic Activities**

Developer of *Climate Reanalyzer* (<http://cci-reanalyzer.org>), online software for visualizing climate models, station data, and daily weather forecasts. The program provides a simple, intuitive user interface appropriate for both research and education.

#### **E. Collaborators and Other Affiliations**

##### **(i) Collaborators and Co-Editors**

P. Mayewski, K. Maasch, K. Kreutz, G. Denton, P. Koons, J. Fastook, (University of Maine); A. Putnam, M. Kaplan, J. Schaefer, B. Koffman (LDEO - Columbia University); M. Kelly, E. Osterberg (Dartmouth College); C. Wake (University of New Hampshire); R. Oglesby (University of Nebraska - Lincoln).

##### **(ii) Graduate Advisors and Postdoctoral Sponsors**

Kirk A. Maasch (Postdoctoral, UMaine); Peter O. Koons (Ph.D., UMaine); George H. Denton (M.S., UMaine).

##### **(iii) Thesis Advisor and Postgraduate-Scholar Sponsor**

None to date. However, currently serving as committee member for one Ph.D. student (Jennifer McCabe [UMaine School of Biology and Ecology]), and three M.S. students (Yi Yang [UMaine Climate Change Institute]; Timothy Godaire [UMaine Climate Change Institute]; Lauren Wheeler [UMaine School of Earth and Climate Sciences]).