

Schools Attended and Degree Received

Oregon State University-Corvallis

Doctor of Philosophy, 2006: Geology, Oceanography (minor)

Thesis: Dynamics of the Laurentide Ice Sheet, Advisor: P.U. Clark, A.C. Mix (minor)

University of Wisconsin-Madison

Masters of Science, 2002: Geology

Thesis: The Quaternary Geology of Southern Sheboygan County, Wisconsin, Advisor: D.M. Mickelson

Augustana College, Rock Island, IL

Bachelors of Arts, *Summa Cum Laude*, 2000: Geology with Honors, German

Thesis: The Composition, Genesis and Internal Architecture of a Little Ice Age End Moraine, Matanuska Glacier, Alaska, Advisors: W. Hammer, J. Strasser, K. Vivian

Relevant Experience

2007 -	Assistant Professor, Geology & Geophysics, University of Wisconsin-Madison
2006 -	Postdoctoral Scholar, Geology & Geophysics, Woods Hole Oceanographic Institution
2006	Postdoctoral Researcher, Dept. of Geosciences, Oregon State University
2002 - 2006	Research Assistant, Dept. of Geosciences, Oregon State University
2002	Teaching Assistant, Dept. of Geosciences, Oregon State University
2001	Research Assistant, Geology & Geophysics, University of Wisconsin
2000 - 2002	Teaching Assistant, Geology & Geophysics, University of Wisconsin
1999	Research Assistant, National Science Foundation, Matanuska Gl., AK
1997 - 2000	Teaching Assistant, Geology, Augustana College

Research Interests

Paleoclimatology
Quaternary and Glacial Geology
Geochemistry applications in Paleoclimatology
Cosmogenic Radionuclide Applications
Climate Modeling
Glaciology and Ice Sheet Dynamics
Geomorphology
Sedimentology and Stratigraphy

Research Methodology

Cosmogenic Radionuclide Dating, Trace Element and Isotopic Analysis in Foraminifera, Paleoclimate and Climate Model Data Synthesis, Paleolimnology and Pollen Analysis, Groundwater and Landform Modeling, Stratigraphic and Sedimentological Analysis,

Peer Reviewed Publications

- Carlson, A.E., 2004, Dewatering structures genesis and its implications on melt-out till identification: *Journal of Glaciology*, v. 50, p. 17-24.
- Carlson, A.E., Mickelson, D.M., Principato, S.M., and Chapel, D.M., 2005, The genesis of the northern Kettle Moraine, Wisconsin: *Geomorphology*, v. 36, p. 365-374.
- Carlson, A.E., Jenson, J.W., and Clark P.U., in press, Field observations from the Tiskilwa Till, IL and Sky Pilot Till, MB of the Laurentide Ice Sheet: *Géographie physique et Quaternaire*.
- Carlson, A.E., Clark, P.U., Haley, B.A., Klinkhammer, G.P., Brook, E.J., and Meissner, K., in review, Freshwater forcing of ocean and climate variability during the Younger Dryas cold interval: *Nature*.
- Carlson, A.E., Mickelson, D.M., Principato, S.M., and Chapel, D.M., in review, The Quaternary geology of Sheboygan County: *Wisconsin Geological and Natural History Survey Bulletin*.
- Carlson, A.E., Clark, P.U., and Jenson, J. W., in review, Subglacial hydrology of the James Lobe of the Laurentide Ice Sheet: *Quaternary Science Reviews*.
- Carlson, A.E., Clark, P.U., Raisbeck, G.M., and Brook, E.J., submit, Rapid Holocene disintegration of the Labrador Sector of the Laurentide Ice Sheet: *Science*.
- Jenson, J.W., Desai, C., Clark, P.U., Contractor, D.N., Sane, S., and Carlson, A.E., in review, A Unified constitutive model for subglacial till Part I: The Disturbed State Concept – theory, parameters and methodology: *Quaternary Science Reviews*.

Sane, S.M., Desai, C.S., Jenson, J.W., Contractor, D.N., Carlson, A.E., and Clark, P.U., in review, A Unified constitutive model for subglacial till Part II: Laboratory Tests, Disturbed State Modeling, and Validation for Two Subglacial Till: *Quaternary Science Reviews*.

Conference Presentations and Abstracts

- Carlson, A.E., Strasser, J.C., Gosse, J.C., Evenson, E.B., Larson, G.J., 2000, The composition, genesis and internal architecture of a Little Ice Age end moraine, Matanuska Glacier, Alaska: Geological Society of America, Abstracts with Programs, v. 32, n. 4.
- Carlson, A.E., 2002, The limitations of drill core analysis for glacial stratigraphic interpretation: an example from eastern Wisconsin: Geological Society of America, Abstracts with Programs v. 34, n. 6.
- Carlson, A.E., 2002, Are dewatering structures necessary criteria for identifying melt-out till?: EOS Transactions, AGU, v. 83, n. 47.
- Carlson, A.E., and Mickelson, D.M., 2002, Genesis of the northern Kettle Moraine, Wisconsin: Geological Society of America, Abstracts with Programs V. 34, n. 2.
- Swanson, B.A., Carlson, A.E., and Carroll, A., 2002, Sedimentary facies and paleoenvironments of the Luman Tongue of the Green River Formation, Wyoming: Geological Society of America, Abstracts with Programs V 34, n. 6.
- Carlson, A.E., 2003, Retreat of the Laurentide Ice Sheet and global sea level rise: Geological Society of America, Abstracts with Programs, v. 35, n. 6.
- Carlson, A.E., and Clark, P.U., 2003, Using river geochemistry as a tracer of continental routing during the last deglaciation: CANQUA National Meeting.
- Carlson, A.E., and Mickelson, D.M., 2003, The genesis of an extensive interlobate deposit in eastern Wisconsin, USA: INQUA National Congress.
- Carlson, A.E., Clark, P.U., Haley, B.A., and Klinkhammer, G.P., 2004, A geochemical tracer of continental routing during the last deglaciation: EOS Transactions, AGU-Oceans.
- Carlson, A.E., Clark, P.U., Haley, B.A., and Klinkhammer, G.P., 2004, North American freshwater forcing of the last two abrupt climate events: EOS Transactions, AGU-CGU.
- Carlson, A.E., Clark, P.U., Haley, B.A., Klinkhammer, G.P., Brook, E.J., and Meissner, K., 2005, Geochemical proxies of freshwater routing during the last deglaciation: EGU General Assembly, v. 7.
- Carlson, A.E., Jenson, J.W., and Clark P.U., 2005, Field properties and description of the Tiskilwa Till at the Friday 3 Section, IL: *Midwest Friends of the Pleistocene Annual Field Trip Guide*.
- Carlson, A.E., Clark, P.U., and Jenson, J. W., 2005, Subglacial hydrology of the James Lobe of the Laurentide Ice Sheet: Geological Society of America, Abstracts with Programs.
- Carlson, A.E., Jenson, J.W., and Clark P.U., 2005, Field observations from the Tiskilwa Till, IL and Sky Pilot Till, MB of the Laurentide Ice Sheet: CANQUA National Meeting.
- Carlson, A.E., Raisbeck, G.M., Clark, P.U., and Brook, E.J., 2005, Rapid Holocene disintegration of the Laurentide Ice Sheet: Eos Transactions, Fall AGU.
- Clark, P.U., Carlson, A.E., and Meissner, K., 2005, Continued Support for a St. Lawrence Routing Event as the Cause for the Younger Dryas: Eos Transactions, Fall AGU.

Affiliations

International Quaternary Association (since 2003)	Friends of the Pleistocene (since 2001)
Canadian Quaternary Association (since 2003)	Geological Society of America (since 2001)
International Glaciological Society (since 2002)	Phi Beta Kappa (since 2000)
American Geophysical Union (since 2002)	

Service

Reviewer for Journals:

Geomorphology
Quaternary Science Reviews

Outreach to the Community

Outreach speaker at Madison Area Grade Schools, 2001

Engagements

Invited Speaker, College of Oceanic and Atmospheric Sciences, Oregon State University, 2006
Invited Speaker, Harvard University, 2005
Invited Speaker, Burpee Museum of Natural History, 2004
Invited Speaker, J.A. Udden Geology Lecture Series, Augustana College, 1999, 2001, 2002
Invited Speaker, Augustana College Alumni Donor Banquet, Key Note Speaker, 1999