

James M. Russell

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Educational Background:

- 1994-1998 Wesleyan University (Middletown, CT).
Bachelor of Arts, Earth and Environmental Science. Junior Phi Beta Kappa.
- 1999-2004 University of Minnesota (Minneapolis, MN).
Ph.D. Ecology. Thomas C. Johnson, advisor. Minor in Quaternary Paleocology. The Holocene paleolimnology and paleoclimatology of Lake Edward, Uganda/Congo,

Positions Held:

- 2004-present *Post-doctoral Research Associate.* Large Lakes Observatory, University of Minnesota Duluth. Thomas C. Johnson. High-resolution geochemical and paleoclimatic analyses of piston cores from the Lake Edward, Uganda-Congo.
- 2004 *Paleoclimatology Instructor.* Nyanza Project, University of Arizona. Piston coring and seismic survey of central Lake Tanganyika for paleoclimatic and limnogeologic research.
- 1999-2004 *Ph.D. candidate.* University of Minnesota. The Holocene paleolimnology and paleoclimatology of Lake Edward, Uganda/Congo, Thomas C. Johnson, advisor.
- 1998-1999 *Junior Scientist.* Limnological Research Center, University of Minnesota. Analysis of lake sediment cores from Lakes Edward, Victoria, and Bosumtwi, Africa. Design, construction, and implementation of piston coring platforms and devices.
- 1997-1998 *Undergraduate Research Assistant.* Kristina R. M. Beuning. Dept. of Earth and Environmental Science, Wesleyan University. Stable isotopic analyses of grass pollen isolated from lake sediments: a tool for reconstructing C3/C4 ratios in grasslands.
- 1996-1997 *Undergraduate Research Assistant.* Ellen Thomas, Wesleyan University. Analysis of salt-marsh foraminiferal assemblages for reconstruction of Holocene sea-level change.

Teaching Experience:

- 2004 *Paleoclimatology Instructor.* University of Arizona, Nyanza Project. Lectured and supervised student projects in piston core and seismic studies for the Nyanza Project, an interdisciplinary research training course in tropical lake studies for US and Tanzanian graduate and undergraduate students on Lake Tanganyika, East Africa.

- 2002 *Teaching Assistant.* University of Minnesota, EEB/GEO 4601 Limnology. Occasionally gave lectures, led weekly review sections. Wrote and graded test questions and homework.
- 1998 *Teaching Assistant.* Wesleyan University. BIOL 349 Evolution. Attended lectures, conducted twice weekly office hours and review sessions, graded exams.

Informal Teaching and Service Activities:

- 2002-present *Reviewer.* Quaternary Research, The Holocene, Palaeogeography, Palaeoclimatology, Palaeoecology.
- 2001-2003 *Student Committee Member.* Quaternary Paleocology Seminar Series, University of Minnesota. Selected themes for, invited speakers for, and scheduled weekly interdisciplinary seminars as part of 5-student committee. Committee chair: 2002-2003.
- 2000-2002 *Student Committee Member.* Friday Noon Seminar Series, Dept, of Ecology, Evolution, and Behavior. Facilitated and scheduled informal seminar series.
- 2003 *Facilitator.* U of MN, Duluth. Led and lectured course in lake sediment description, and classification for graduate students.
- 2001 *Facilitator.* U of MN, Minneapolis, Research Training Group in Paleorecords. Organized short course in diatom taxonomy and paleoenvironmental reconstruction.
- 2000 *Mentor.* U of MN, Minneapolis. Advised senior undergraduate in 12-week summer research project on sulfur biogeochemistry in lake sediments.

Fellowships and Awards:

- 2003 *Kerry R. Kelts Memorial Foundation Student Travel Award.*
- 2000-2003 *National Science Foundation Graduate Fellow.* University of Minnesota.
- 2000 *Summer Fellowship.* Research Training Group for Paleorecords of Global Change, University of Minnesota.
- 1999-2000 *Graduate School Fellow,* University of Minnesota.
- 1997-1998 *Undergraduate Awards, Wesleyan University.* John and Mary Sease Earth and Environmental Science Student of the Year, Junior Phi Beta Kappa, Dana Scholar, David B. Jenkins Scholar.

Grants:

- 2003-2005 NSF-ATM # 0314832. A high-resolution record of Holocene climate variability from Lake Edward, central Africa. Authored with Thomas C. Johnson, P.I. \$190,856.

- 2002 U of MN Research Training Group in Paleorecords research award: Late Holocene arid events in the West African tropics. \$1500.
- 2001 U of MN Research Training Group in Paleorecords research award: An early-Holocene record of effective moisture from Lake Edward, Uganda. \$1540.
- 2001 U of MN Research Training Group in Paleorecords research award: The Late Holocene History of Lake Bosumtwi, Ghana. \$1460.
- 2000 U of MN Research Training Group in Paleorecords travel award: Summer travel to laboratory of Francoise Gasse, CEREGE, Aix-en-Provence, France. \$4000.
- 2000 U of MN Research Training Group in Paleorecords Short Course award: Diatoms: Taxonomy and Applications to the Paleoenvironmental Sciences. A short course for the University of Minnesota Paleorecords community. \$5000.

Publications:

1. **Russell, J.M.**, in prep. The water balance and stable isotope hydrology of Lake Edward, Uganda-Congo. *Journal of Great Lakes Research*.
2. **Russell, J.M.**, Johnson, T.C., submitted. An equatorial harmonic of the high latitude's 1500 year cycle. *Nature*.
3. **Russell, J.M.**, Johnson, T.C., accepted. A high-resolution geochemical record from Lake Edward, Uganda Congo and the timing and causes of tropical African drought during the Late Holocene. *Quaternary Science Reviews*.
4. Brooks, K., Scholz, C.A., King, J.W., Peck, J., Overpeck, J.T., **Russell, J.M.**, Amoako, P.Y.O., accepted. Late-Quaternary lowstands of Lake Bosumtwi, Ghana: evidence from high-resolution seismic reflection and sediment-core data. *Palaeogeography, Palaeoclimatology, Palaeoecology*.
5. Beuning, K.R.M., **Russell, J.M.**, 2004. Vegetation and sedimentation in the Lake Edward basin, Uganda-Congo during the late Pleistocene and early Holocene. *Journal of Paleolimnology* 32: 1-18.
6. **Russell, J.M.**, Johnson, T.C., Talbot, M.R., 2003. A 725 yr cycle in the climate of central Africa during the Late Holocene. *Geology* 31 (8): 677-680.
7. **Russell, J.M.**, Talbot, M.R., Haskell, B.J., 2003. Mid-Holocene climate change in Lake Bosumtwi, Ghana. *Quaternary Research* 60: 133-141.
8. Schnurrenberger, D.W., **Russell, J.M.**, Kelts, K.R., 2003. A component-based lacustrine sediment classification system. *Journal of Paleolimnology*. 29 (2): 141-154.
9. **Russell, J.M.**, Johnson, T.C., Kelts, K.R., Laerdal, T., Talbot, M.R., 2002. An 11,000 year lithostratigraphic and paleohydrologic record from equatorial Africa: Lake Edward, Uganda-Congo. *Palaeogeography, Palaeoclimatology, Palaeoecology* 193: 25- 49.
10. Beuning, K.R.M., Kelts, K.R., **Russell, J.M.**, Wolfe, B., 2002. Oxygen isotope stratigraphy of sediment cellulose from two cores, Lake Victoria, East Africa. *Geology* 30 (6): 559-562.
11. Laerdal, T, Talbot, MR, **Russell, JM**, 2002. Late Quaternary sedimentation and climate in the Lake Edward and George area, Uganda-Congo. In: Olago, D, Odada, EO (eds): The East African Great Lakes: Limnology, Palaeolimnology, and Biodiversity. Kluwer Academic Publishers, Dordrecht, The Netherlands, pp. 429-470.

Selected Abstracts (National and International Meetings):

1. An Equatorial Harmonic of the Holocene's 1,500-year cycle: Cycle geochemical variability in Lake Edward, Uganda-Congo. Russell, J.M., Johnson, T.C., American Geophysical Union 2004.
2. The Lake Tanganyika Accommodation Zone Structural Highs: Probable Archive of Continuous Miocene to Recent Paleoenvironmental and Paleoclimatic Information for East Africa. Cohen, A.S., Lezzar, K., Russell, J.M., Tiercelin, J.J., Scholz, C. American Geophysical Union 2004.
3. Lake Edward, East Africa: Carbonates, the Silica Cycle, and Late Holocene Century-scale Drought. James M. Russell, Thomas C. Johnson. Geologic Society of America Paper 23-4, Seattle, Washington, Nov. 2003.
4. Widespread drought in tropical East Africa during the Grand Solar Maximum. Freiburger, N. C., Russell, J. M., Beuning, K.R.M., Schnurrenberger, D.W. Geologic Society of America Paper 84-3, Seattle, Washington, Nov. 2003.
5. Super-ENSO cycles in African Lake and Indian Ocean late-Holocene Paleorecords. James M. Russell, Thomas C. Johnson, Michael R. Talbot. International Association of Limnogeology Congress, Tucson, AZ, April 2003.
6. Cyclic variability in moisture balance in central equatorial Africa during the past 5,000 years. J. M. Russell, T. C. Johnson, AGU Fall Meeting 2002. EOS Trans AGU 82 (47): Abstract # PP61B-11.
7. The Mid- to Late Holocene History of Lake Edward, Uganda, and its Implications for Hydrologic Change in the African Tropics. J. M. Russell, T. C. Johnson. 2001 AGU Fall Meeting. EOS Trans. AGU 82 (47) Abstract # PP21C-04.
8. A sediment record of abrupt lake level change from west central Minnesota. S. B. Mueller, L. Triplett, R. Clotts, A. Myrbo, J. M. Russell, M. D. Shapely. 2001 AGU Fall Meeting. EOS Trans. AGU 82 (47): Abstract # PP22A-0503.
9. An 11,000-year record of effective moisture balance from Lake Edward, Uganda-Congo. J. M. Russell, T. C. Johnson, K.R. Kelts. PAGES PEP III Conference, Aix-en-Provence, France, 2001.
10. Lake Edward, Uganda: African Climate Change and Tropical Connections. J. M. Russell, K. R. Kelts. Dec., 2000, AGU Fall Meeting. EOS Trans. AGU 81 (48): p. F7.
11. The Sedimentology and Paleolimnology of Lake Edward, Uganda. J. M. Russell and K.R. Kelts. 2000, International Paleolimnological Congress, Kingston, Ontario.
12. Sediment and Climate History based on piston cores from Lake Edward, Uganda-Congo. Jan. 2000. 2nd international IDEAL symposium, Club Makokola, Malawi. J.M. Russell, K.R. Kelts, T.C. Johnson.
13. Temperature Change During the African Younger Dryas. J.M. Russell and K. R. M. Beuning, ASLO/ESA Abstracts, St. Louis, Missouri, June 1998. p. A-79

Professional Memberships:

Geologic Society of America
 American Geophysical Union
 American Association for the Advancement of Science
 American Society of Limnology and Oceanography

References:

Doctoral Advisor:
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