

James M. Russell

Publications

Publications (* denotes student or post-doc author)

A. Book Chapters

3. Eggermont, H., **Russell, J. M.**, van Damme, Kay, 2009. Rwenzori: Headwaters of the Nile. In: (Dumont, H., ed.), *The River Nile*. Monographiae Biologicae. Springer-Verlag, Berlin, pp. 243-262.
2. Brigham-Grette, J., et al., 2007. Chapter 1. Climate dynamics and global environments. In: Harms, U., Koeberl, C., Zoback, M. (eds.): *Continental Scientific Drilling: A Decade of Progress and Challenges for the Future*. Springer-Verlag, Berlin.
1. 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.

B. Refereed Journal Articles

32. Eggermont, H. R., Verschuren, D., Audenaert, L., Lens, L., **Russell, J. M.**, Klaussen, G., Heiri, O., in press. Thermal and Ecological Sensitivity of Rwenzori mountain lakes to climate warming. *Hydrobiologia*.
31. *Tierney, J.E, D. W. Oppo, Y. Rosenthal, **J. M. Russell**, and B. K. Linsley, 2009. Coordinated hydrological regimes in the Indo-Pacific region during the past two millennia, *Paleoceanography*, doi:10.1029/2009PA001871.
30. Verschuren, D., et al. (31 authors) 2009. Half-precession dynamics of monsoon rainfall near the East African equator. *Nature* 462: 637-641.
29. **Russell, J. M.**, McCoy, S. J., Verschuren, D., Bessems, I., Huang, Y., 2009. Human impacts, climate change, and aquatic ecosystem response during the past 2,000 years at Lake Wandakara, Uganda. *Quaternary Research*.
28. *Tierney, J. E., **Russell, J. M.**, Huang, Y., in press. A molecular perspective on Late Quaternary climate and vegetation in the Lake Tanganyika basin, East Africa. *Quaternary Science Reviews*.
27. Verschuren, D., **Russell, J. M.**, 2009. Paleolimnology of African lakes: beyond the exploration phase. *PAGES News* 17 (2): pp. 112-114.
26. * Tierney, J. E., **Russell, J. M.**, 2009. Distributions of branched GDGTs in a tropical lake watershed: Implications for the lacustrine application of the MBT/CBT paleoproxy. *Organic Geochemistry*. doi:10.1016/j.orggeochem.2009.04.014
25. **Russell, J. M.**, Werne, J. P., 2009. Climate change and productivity variations recorded by sedimentary sulfur in Lake Edward, Uganda/D. R. Congo. *Chemical Geology*. doi:10.1016/j.chemgeo.2009.03.020
24. Eggermont, H., Heiri, O., **Russell, J. M.**, Vuille, M., Audenaert, L., Verschuren, D., 2009. Chironomidae (Insecta: Diptera) as paleothermometers in the African tropics. *Journal of Paleolimnology*. doi10.1007/210933-009-9339-2
23. *Tierney, J., **Russell, J. M.**, Huang, Y., Hopmans, E., Schouten, S., Sinninghe-Damsté, J., Cohen, A. S., 2008. Southeast African surface temperatures and rainfall during the past 60,000 yr BP. *Science* 322: doi:10.1126/science.1160485
22. Kröpelin, S., Verschuren, D., Lézine, A.-M., Eggermont, H., Cocquyt, C., Francus, P., Cazet, J.-P., Fagot, M., Rumes, B., **Russell, J. M.**, Conley, D., Schuster, M., von

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- Suchdoletz, H., Engstrom, D., 2008. Climate-driven ecosystem succession in the Sahara: the last 6000 years BP. *Science* 320: doi 10.1126/science.1154913
21. **Russell, J.M.**, Eggermont, H.R., Verschuren, D., 2008. Comparative paleolimnological records of recent glacial recession in the Rwenzori Mountains, Uganda-D.R. Congo. *Journal of Paleolimnology*. doi: 10.1007/s10933-008-9224-4
 20. McGlue, M., Lezzar, K., Cohen, A. S., **Russell, J. M.**, Tiercelin, J. J., Felton, A., 2008. Seismic records of late Pleistocene aridity in Lake Tanganyika, tropical East Africa. *Journal of Paleolimnology*. doi 10.1007/s10933-007-9187-x
 19. Bessems, I., Verschuren, D., **Russell, J. M.**, Hus, J., Cumming, B. F., 2008. Paleolimnological evidence for widespread late-18th century drought across equatorial Africa. *Palaeogeography, Palaeoclimatology, Palaeoecology* 259: 107-120.
 18. Eggermont, H., **Russell, J. M.**, Schetter, G., Vandamme, K., Verschuren, D., 2007. Physical and chemical limnology of alpine lakes and pools in the Rwenzori Mountains, Uganda-Congo. *Hydrobiologia* 592: 151-173.
 17. *Tierney, J., **Russell, J. M.**, 2007. Abrupt Climate change in Southeast Tropical Africa influenced by Indian monsoon variability and ITCZ migration. *Geophysical Research Letters* 34: L15709, doi:10.1029/2007GL029508.
 16. *Wetter, L., Verosub, K., **Russell, J. M.**, 2007. Detection of silica-mediated dissolution of magnetic grains in sediments using FORC diagrams. *Geophysical Research Letters* 34: L12707, doi:10.1029/2007GL029984.
 15. *Felton, A., **Russell, J. M.**, Cohen, A. S., Baker, M. E., Chesley, J., McGlue, M. M., Lezzar, K. E., Pigati, J., Quade, J., Stager, J. C., 2007. Geochemical and Sedimentological Records of Late Quaternary Climate Change, Lake Tanganyika, Tropical East Africa. *Palaeogeography, Palaeoclimatology, Palaeoecology* 252: 405-423.
 14. **Russell, J. M.**, Johnson, T. C., 2007. Little Ice Age Drought in Equatorial Africa: ITCZ migrations and ENSO variability. *Geology* 35: 21-24.
 13. **Russell, J. M.**, Verschuren, D., Eggermont, H. E., 2007. Spatial complexity of Little Ice Age climate in East Africa: sedimentary records from two crater lake basins in Western Uganda. *The Holocene* 17: 183-193.
 12. **Russell, J.M.**, Werne, J. P., 2007. The use of solid-phase elution columns in fatty acid purification. *Organic Geochemistry* 38: 48-51.
 11. Crausbay, S., **Russell, J.M.**, Schnurrenberger, D.W., 2006. A 750-year lithologic record of rainfall and drought from sub-annually laminated lake sediments of Ranu Lamongan, East Java. *Journal of Paleolimnology* 35(3): pp. 641-659.
 10. **Russell, J.M.**, Johnson, T.C., 2006. The water balance and stable isotope hydrology of Lake Edward, Uganda-Congo. *Journal of Great Lakes Research* 32 (1): 77-90.
 9. **Russell, J.M.**, Johnson, T.C., 2005. An equatorial harmonic of the high latitude's 1500-year cycle. *Geophysical Research Letters* 32: doi:10.1029/2005GL023295.
 8. **Russell, J.M.**, Johnson, T.C., 2005. 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* 24: 1375-1389.
 7. Brooks, K., Scholz, C.A., King, J.W., Peck, J., Overpeck, J.T., **Russell, J.M.**, Amoako, P.Y.O., 2005. Late-Quaternary lowstands of Lake Bosumtwi, Ghana: evidence from high-resolution seismic reflection and sediment-core data. *Palaeogeography, Palaeoclimatology, Palaeoecology* 216: 235-249.
 6. 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.

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5. **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.
4. **Russell, J.M.**, Talbot, M.R., Haskell, B.J., 2003. Mid-Holocene climate change in Lake Bosumtwi, Ghana. *Quaternary Research* 60: 133-141.
3. Schnurrenberger, D.W., **Russell, J.M.**, Kelts, K.R., 2003. A component-based lacustrine sediment classification system. *Journal of Paleolimnology*.29 (2): 141-154.
2. **Russell, J.M.**, Johnson, T.C., Kelts, K.R., Laerdal, T., Talbot, M.R., 2003. An 11,000 year lithostratigraphic and paleohydrologic record from equatorial Africa: Lake Edward, Uganda-Congo. *Palaeogeography, Palaeoclimatology, Palaeoecology* 193: 25- 49.
1. 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.

C. Non-Refereed Articles

2. **Russell, J. M.**, 2007. Rainfall and drought in lowland Indonesia: opportunities for paleoclimate research in the Malili Lakes. In: Hehanussa, P., Haryani, G. S, Ridwansyah, I., eds., *The Ecology and Limnology of the Malili Lakes*. LIPI (Indonesian Institute of Science) Press, pp. 9-17.
1. **Russell, J.M.**, Kelts, K.R., 2000. The sedimentologic history of Lake Edward, Uganda. *IDEAL Bulletin* (summer): 1-3.

D. Abstracts (National and International Meetings):

38. *R. Zech; Y. Huang; **J. M. Russell**; R. Tarozo; L. Gao; A. Hemp; W. Zech New Proxies from Loess-Paleosols on Mount Kilimanjaro document Late Pleistocene Megadroughts in East Africa. *Eos Trans. AGU*, 90(52) PP21B-1357.
37. *S. E. Loomis; **J. M. Russell**; J. E. Tierney; H. Eggermont (2009). A comparison of branched tetraethers in soils and lake sediments from the Rwenzori Mountains, Uganda: Potential for MBT/CBT paleothermometry. *Eos Trans. AGU*, 90(52) PP31B-1352.
36. *J. R. Rody sill; **J. M. Russell**; S. Bijaksana; E. T. Brown; C. Bousquet; L. Safiuddin Paleolimnological records of decade- to century-scale rainfall variability in East Java, Indonesia during the past millennium (2009). *Eos Trans. AGU*, 90(52) PP13D-1435.
35. **J. M. Russell**; T. C. Johnson; Y. Huang; J. P. Werne; J. T. Overpeck; Z. Liu; B. L. Otto-Bliesner (2009). The hydrologic and thermal evolution of tropical Africa since 21 kyr BP: Recent progress and synthesis. *Eos Trans. AGU*, 90(52) PP13G-03.
34. *J. E. Tierney; D. Oppo; Y. Rosenthal; B. K. Linsley; **J. M. Russell**; A. S. Cohen; J. S. Sinninghe Damsté; D. Verschuren (2009). Synoptic shifts in tropical Indo-Pacific hydrology during the past two millennia. *Eos Trans. AGU*, 90(52) PP11G-02.
33. *B. Konecky; **J. M. Russell**; T. C. Johnson; Y. Huang; J. P. Werne; M. L. Woltering (2009). A 75,000-Year Precipitation Record from Lake Malawi, Africa Based on Compound-Specific D/H Ratios. *Eos Trans. AGU*, 90(52) PP11B-1314..
32. *Zech, R., Gao, L., Huang, Y., **Russell, J. M.**, Hemp, A., Zech, W., 2009. Climate and environmental changes recorded in a high-altitude ~80 ka loess profile on Mount Kilimanjaro. *Isocompound 2009 Meeting*, Potsdam, Germany.
31. *Mayes, M., *Tierney, J. E., Huang, Y., **Russell, J. M.**, 2008. High-resolution reconstructions of Tanganyika temperature and precipitation during the last millennium from Lake Tanganyika, Africa. *EOS Transactions AGU, Fall Meeting Supplement* 89: PP13E-01.

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30. Eggermont, H. R., Heiri, O., **Russell, J. M.**, Vuille, M., Audenaert, L., Klaassen, G., Verschuren, D., 2008. Fossil Chironomidae (Insecta: Diptera) as paleothermometers in the African tropics. *EOS Transactions AGU, Fall Meeting Supplement* 89: GC21A-0715.
29. **Russell, J. M.**, Eggermont, H. R., Loomis, S., Verschuren, D., 2008. Paleolimnological records of recent changes in glacier status, precipitation, and temperature in the Rwenzori Mountains, Uganda-D.R. Congo. *EOS Transactions AGU, Fall Meeting Supplement* 89: GC12A-07
28. *Tierney, J., **Russell, J. M.**, Huang, Y., Sinninghe-Damste, J., Hopmans, E. Cohen, A., 2008. The enigma of millennial-scale rainfall variations in the Southeast African tropics: a breakdown of the ITCZ paradigm. *EOS Transactions AGU, Fall Meeting Supplement* 89: PP41A-1423.
27. *Tierney, J. E., **Russell, J. M.**, Huang, Y., Sinninghe-Damsté, J.S., 2008. Preliminary evidence for *in situ* production of branched tetraethers in tropical lakes: implications for the MBT/CBT proxies. Gordon Research Conference on Organic Geochemistry, New Hampshire, USA.
26. **Russell, J. M.**, Bijaksana, S., Tierney, J., Wattrus, N., 2007. The Malili Lakes, Indonesia: Potential archives of long records of terrestrial paleoclimate from the equatorial West Pacific. *EOS Transactions AGU* 88 (52), Fall Meeting Supplement Abstract U13B-1158.
25. *Tierney, J., **Russell, J. M.**, Huang, Y., Sinninghe-Damsté, J. S., Schouten, S., Hopmans, E. C., Cohen, A. S., 2007. A 60,000-yr organic geochemical record of precipitation, temperature, and vegetation change in Southeast Tropical Africa. *EOS Transactions AGU* 88 (52), Fall Meeting Supplement Abstract PP52B-04.
24. *Hou, J., **Russell, J. M.**, Huang, Y., 2007. Penetration of Atlantic Walker Circulation Into East Africa During Early to mid-Holocene: Hydrogen Isotope Evidence From Sacred Lake, Mt. Kenya. *EOS Transactions AGU* 88 (52), Fall Meeting Supplement Abstract PP52B-06.
23. Eggermont, H. E., **Russell, J. M.**, Verschuren, D., 2007. Response of Rwenzori (Uganda-D. R. Congo glaciers and mountain lake ecosystems to climate change: past, present, and future. *EOS Transactions AGU* 88 (52), Fall Meeting Supplement Abstract GC32A-07.
22. **Russell, J. M.**, Eggermont, H. R., Verschuren, D., 2007. Limnogeology in the Mountains of the Moon: Reconstructing tropical African rainfall, temperature, and glaciation in the Rwenzori, Uganda-Congo. International Association of Limnogeology Conference, Barcelona.
21. Eggermont, H. R., Verschuren, D., **Russell, J. M.**, 2007. Fossil Chironomidae (Insecta: Diptera) as paleotemperature indicators in African climate reconstruction. International Association of Limnogeology Conference, Barcelona,
20. **Russell, J. M.**, 2006. Mid- to late Holocene climate change in tropical Africa: regional patterns, rates, and timing. American Geophysical Union Fall Meeting, 2006.
19. *Tierney, J., **Russell, J. M.**, A 60,000-yr record of climate in Southeast Tropical Africa: Preliminary results from Lake Tanganyika. American Geophysical Union Fall Meeting, 2006.
18. *Wetter, L., Verosub, K., **Russell, J. M.**, 2005. Detection of Silica-Mediated Dissolution of Magnetic Grains in Sediments Using FORC Diagrams. American Geophysical Union Fall Meeting.
17. *Crausbay, S., **Russell, J.M.**, Schnurrenberger, D.W., 2005. A High-Resolution Drought Record Spanning the Past ca. 800 Years From Sub-annually Laminated Lake Sediment, East Java. American Geophysical Union Fall Meeting.

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16. *Felton, A., **Russell, J.M.**, Cohen, A. S., Baker, M., Lezzar, K.E., 2005. Geochemical and Sedimentological Records of Late Quaternary Climate Change, Lake Tanganyika, East Africa. American Geophysical Union Fall Meeting.
15. **Russell, J.M.**, Johnson, T.C., 2005. A high-resolution late Holocene record of rainfall from Lake Edward, equatorial Africa: Linkages between the African and Indian monsoons. American Geophysical Union Fall Meeting.
14. **Russell, J.M.**, Johnson, T.C., 2004. An Equatorial Harmonic of the Holocene's 1,500-year cycle: Cycle geochemical variability in Lake Edward, Uganda-Congo. American Geophysical Union Fall Meeting.
13. *Wetter, L., Verosub, K., Acton, G., **Russell, J.M.**, 2004. Environmental Magnetism as an Instrument for Characterizing Paleoclimatic Variations in the Sediment Record of Lake Tanganyika, East Africa. American Geophysical Union Fall Meeting.
12. **Russell, J.M.**, Thomas C. Johnson, 2003. Lake Edward, East Africa: Carbonates, the Silica Cycle, and Late Holocene Century-scale Drought. Geologic Society of America Paper 23-4, Seattle, Washington.
11. *Freiburger, N. C., **Russell, J. M.**, Beuning, K.R.M., Schnurrenberger, D.W., 2003. Widespread drought in tropical East Africa during the Grand Solar Maximum. Geologic Society of America Paper 84-3, Seattle, Washington.
10. **Russell, J.M.**, Thomas C. Johnson, Michael R. Talbot, 2003. Super-ENSO cycles in African Lake and Indian Ocean late-Holocene Paleorecords. International Association of Limnogeology Congress, Tucson, AZ.
9. Talbot, M.R., Brendeland, K.I., **Russell, J.M.**, Lærdal, T., 2003. Using Sr-isotopes to trace changes in basin configuration: the Holocene Sr-isotope stratigraphy of Lake Edward, Uganda-Congo. International Association of Limnogeology Congress, Tucson, AZ.
8. **Russell, J.M.**, T. C. Johnson, 2002. Cyclic variability in moisture balance in central equatorial Africa during the past 5,000 years. EOS Trans AGU 82 (47): Abstract # PP61B-11.
7. **Russell, J.M.**, T. C. Johnson. 2001 The Mid- to Late Holocene History of Lake Edward, Uganda, and its Implications for Hydrologic Change in the African Tropics. EOS Trans. AGU 82 (47) Abstract # PP21C-04.
6. S. B. Mueller, L. Triplett, R. Clotts, A. Myrbo, **J.M. Russell**, M. D. Shapely. 2001 A sediment record of abrupt lake level change from west central Minnesota. EOS Trans. AGU 82 (47): Abstract # PP22A-0503.
5. **Russell, J. M.**, T. C. Johnson, K.R. Kelts, 2001. An 11,000-year record of effective moisture balance from Lake Edward, Uganda-Congo. PAGES PEP III Conference, Aix-en-Provence, France.
4. **Russell, J. M.**, K. R. Kelts. 2000, Lake Edward, Uganda: African Climate Change and Tropical Connections. AGU Fall Meeting. EOS Trans. AGU 81 (48): p. F7.
3. **Russell, J. M.** K.R. Kelts. 2000, The Sedimentology and Paleolimnology of Lake Edward, Uganda. International Paleolimnological Congress, Kingston, Ontario.
2. **Russell, J.M.**, K.R. Kelts, T.C. Johnson, 2000. Sediment and Climate History based on piston cores from Lake Edward, Uganda-Congo. 2nd international IDEAL symposium, Club Makokola, Malawi.
1. **Russell, J.M.** and K. R. M. Beuning. 1998. Temperature Change During the African Younger Dryas. ASLO/ESA Abstracts, St. Louis, Missouri, p. A-79