

ERIC M. ROBERTS, Ph.D.

Associate Professor of Geology
Department of Earth and Oceans, James Cook University
Townsville, 4811 QLD, Australia
Tel +61 (0)7 4781 6947 | Fax +61 (0)7 4781 4020 | eric.roberts@jcu.edu.au

Education

2005 Ph.D. Geology, University of Utah, USA. Advisor: Dr. Marjorie Chan
1999 M.Sc. Geology, University of Montana, USA. Advisor: Dr. Marc Hendrix
1996 B.A. Geology and Environmental Studies, Cornell College, USA.

Professional Experience

2016-present Associate Professor, Dept. Earth and Oceans, James Cook University
2012-2015 Senior Lecturer, Dept. Earth and Oceans, James Cook University
2012(April) Visiting Lecturer, Division of Earth Science, University of Papua New Guinea
2010-2011 Lecturer, School of Earth and Environmental Sciences, James Cook University
2008-2010 Assistant Professor, Department of Physical Sciences, Southern Utah University
2005-2008 Lecturer, School of Geosciences, University of the Witwatersrand
2004-2005 Visiting Instructor, Department of Geosciences, Idaho State University

Other Appointments

2014-present Associate Editor, *Palaios*
2014-present Editorial Board Member, *Scientific Data*
2014-present Associate Editor, *Frontiers in Earth Science-Paleontology*
2014-present Honorary Staff, Evolutionary Studies Institute, University of the Witwatersrand
2008-present Honorary Research Fellow, School of Geosciences, University of the Witwatersrand
2006-present Research Associate, Michigan State University Museum

Grants and Awards

submitted Australian Research Council Discovery- "Jurassic Arc? Filling the gap in the tectonic evolution of eastern Australia" Co-CI's: E. Roberts, C. Spandler, T. Kemp, G. Rosenbaum, B. Henderson
submitted Australian Research Council Discovery- "Sedimentology of hominin caves in the Cradle of Humankind, South Africa" Co-CIs: P. Dirks; E. Roberts; C. Placzek
2015 University Excellence Award Winner: Research. James Cook University: \$5000 cash prize.
2015 International Continental Scientific Drilling Program (ICDP) Workshop Proposal- "Continental drilling of the Cretaceous-Paleogene Larsen Basin, Antarctica" Co-CIs: D. Barbeau, S. Bohaty, J. Crame, C. Gebhardt, S. Hemming, F. Rack, E. Roberts, S. Robinson, S. Warny, T. Williams. \$54,125
2015 International Ocean Drilling Program (IODP) Analytical Grant: "Combined U-Pb zircon/detrital zircon geochronology & Lu-Hf analysis of Jurassic-Cretaceous volcanic rocks and sandstones from the Queensland Plateau and Lord Howe Rise, Australia" E. Roberts, C. Spandler, R. Holm \$9,986
2014-2016 National Science Foundation -EAR-1349825-Collaborative Research: "From Dinosaurs to Primates: 100 Million Years of Biotic and Tectonic Evolution in the Western Branch of the East African Rift System" Co-CIs: P. O'Connor, N. Stevens, S. Hemming, T. Heironymous \$309,516
2014-2015 Australian Research Council Discovery- "Life and death of *Australopithecus sediba*: how a potential ancestor ended up dead in a cave in a World Heritage site in South Africa" Co-CIs: P. Dirks, E. Roberts, C. Spandler: \$256,547
2014 Research consultancy with student bursary, Adamantine Energy: "U-Pb detrital zircon geochronology: maximum depositional age characterization of Cretaceous-Miocene strata, Turkana Basin, Kenya; PhD Bursary for Prince Agyemang" \$31,200

- 2014 Australian Synchrotron Beamtime Grant AS141/IRM/7626, "A refined approach for identifying original, in situ organic residues in Mesozoic dinosaur bones with Synchrotron IR-Microscopy"
- 2013 Australian Synchrotron Beamtime Grant AS132/IRMF1/6851, "A novel approach for identifying in situ organic residues in Mesozoic dinosaur bones: A combined IR-Microscopy and Stable Isotope Approach"
- 2013 James Cook University, Faculty of Science and Engineering, Staff Development Grant "Unravelling fossil food webs through Synchrotron Radiation and stable N isotopes": \$8,150
- 2012-2015 Research grant with student bursary, Heritage Oil: "Analysis of the Plio-Pleistocene Lake Beds Group, Rukwa Rift, Tanzania with PhD Bursary for Cassy Mtelela" \$202,597
- 2011 James Cook University, Faculty of Science and Engineering, New Staff Grant "Provenance of Jurassic Sandstones": \$13,700
- 2011-2014 National Science Foundation -BCS-127164-"Paleoprimatology in Sub-Equatorial Africa: Views from the Oligocene Nsungwe Formation, Tanzania" Co-PIs: N. Stevens, P. O'Connor \$224,000
- 2011 Research Consultancy, Heritage Oil: "Stratigraphy and sedimentology of the Rukwa Rift Basin Tanzania Fieldtrip" \$14,000
- 2010-2011 AusAid Australian Leadership Award (#57617) "Detrital zircon analysis of the Karoo Supergroup" Co-PIs: P. Dirks, Z. Jinnah; \$11,000.
- 2009-2010 National Geographic Society-CRE grant proposal "The Mana Pools Project: Paleontology and Taphonomy of a Spectacular Late Triassic-Early Jurassic Theropod Bone Bed ("Syntarsus" rhodesiensis) from the Zambezi Valley, Zimbabwe": \$19,500
- 2008-9 National Science Foundation-EAR-0745454 "The Kaiparowits Basin Project" (Co-PIs: S. Sampson, P. O'Connor, M. Loewen): \$61,000
- 2008-9 National Science Foundation-SGER-0745490- "The Trans-Saharan Seaway Project: An Examination of the Paleocene-Eocene Thermal Maximum in Continental Tropical Africa" (Co-PIs: M. O'Leary, L. Tapanila, D. Goodwin): \$38,000
- 2008 Research consultancy, DeBeers: "Stratigraphy of the Mesozoic cover sequences in the Kasai-Congo Basin, Democratic Republic of Congo." \$20,000
- 2008 Friedel-Sellschop Award - University of the Witwatersrand award for "exceptional researcher under the age of 35" Cash award: \$15,000/year for 3 years
- 2008 P.A.S.T. grant- "Reconstructing a mid-Cretaceous terrestrial ecosystem on Continental Africa: Revisiting the Dinosaur Beds of Malawi": \$4,000
- 2008 Rated as a Y-1 Researcher by the National Research Foundation of South Africa.
- 2007 Jurassic Foundation grant- "Zimbabwe Dinosaur Project": \$1,000
- 2007 P.A.S.T. grant- "Dinosaurs of the Mid-Zambezi Rift": \$3,900
- 2006-8 National Science Foundation-EAR-0617561 "Closing the African Gap-Cretaceous and Paleogene Paleontology in the Rukwa Rift Basin, southwest Tanzania" (Co-PIs: P. O'Connor, M. Gottfried, N. Stevens): \$245,208
- 2006 University Research Committee Grant, University of the Witwatersrand- "Stratigraphy and Paleontology of the Rukwa Rift Basin, Tanzania" (PI): \$4,600
- 2006 Small Equipment Grant, University Research Committee Grant, University of the Witwatersrand- PETROG digital point counter and image analysis software (Co-PI: N. Wagner): \$12,300
- 2005-10 BLM/Grand Staircase-Escalante National Monument Research Grant-"Stratigraphy, sedimentology and taphonomy of Upper Cretaceous strata in the Kaiparowits Basin": \$70,003
- 2004 BLM/Grand Staircase-Escalante National Monument Research Grant (Co-PI: M. Chan): \$2000
- 2003 BLM/Grand Staircase-Escalante National Monument Research Grant (Co-PI: M. Chan): \$5000
- 2003 SEPM-Rocky Mountain Section- Donald L. Smith Award: \$1000
- 2002 Rocky Mountain Association of Geologists- Norman Foster Award: \$2500
- 2002 A.A.P.G. Grants-in-Aid Recipient: \$1800
- 2001-2 Cooper Hanson Graduate Research Fellowship, University of Utah
- 1999 University of Montana- Bertha Morton Research Grant: \$3000

Research Publications

Peer Reviewed Papers (*student coauthor)

- In revision.* Mtelela, C.*, **Roberts, E.M.**, Downie, R., and Hendrix, M.A. Interplay between structural, climatic and volcanic controls on Quaternary lacustrine-deltaic sedimentation patterns in the Western Branch of the East African Rift System, Rukwa Rift, Tanzania: *Journal of Sedimentary Research* (submitted June, 2015).
- In review.* Hilbert-Wolf, H.L.*, **Roberts, E.M.**, Downie, B., Mtelela, C.*, O'Connor, P.M., Stevens, N.J. Application of U-Pb detrital zircon geochronology on well-cutting in hydrocarbon exploration as an alternative for biostratigraphy; a case example from the East African Rift System: *AAPG Bulletin* (submitted Dec., 2015).
- In review.* Tucker, R.T.*, **Roberts, E.M.**, Darlington, V.*, Salisbury, S.W. Stratigraphy and paleoenvironments of mid-Cretaceous vertebrate-bearing deposits of Eastern Australia: a reappraisal of the Winton Formation, central Queensland: *Cretaceous Research* (submitted December, 2015).
- In review.* **Roberts, E.M.**, Todd, C.N.*, Aanen, D.K., Nobre, T., Hilbert-Wolf, H.L.*, O'Connor, P.M., Tapanila, L., Mtelela, C.*, and Stevens, N.J. Oldest evidence of fungus-farming termites reveals Paleogene African origin of Agriculture. *PLOS ONE* (submitted Dec. 2015).
- In review.* Owusu Agyemang, P.C.*, **Roberts, E.M.**, Jelsma, H. Sedimentary provenance of Jurassic-Cretaceous strata in the Kasai-Congo Basin, Democratic Republic of Congo. *Cretaceous Research* (submitted Dec. 2015).
- In press.* Dirks, P.H.G.M., Placzek, C., Fink, R., Dosseto, A., **Roberts, E.M.**, et al. Evolution of hominin landscapes in the Cradle of Humankind, South Africa: *Journal of Human Evolution* (submitted Feb, 2015).
- In press.* Hilbert-Wolf, H.L.*, **Roberts, E.M.**, and Simpson, E.L. New sedimentary structures in seismites from SW Tanzania: Evaluating gas- vs. water-escape mechanisms of soft-sediment deformation: *Sedimentary Geology* (submitted Sept., 2015).
- In press.* Jadoon, Q.*, **Roberts, E.M.**, Blenkinsop, T., Wust, R. Evaluation of mineralogical modelling and reliable petrophysical parameters in mineralogical complex reservoir of Permian Gas Shales from the Roseneath and Murteree formations, Cooper Basin, Australia (A case study). *Petroleum Exploration and Development* (accepted Nov. 2015).
- In press.* Syme, C.E.*, Welsh, K.J., **Roberts, E.M.**, and Salisbury, S.W. Depositional environment of the Lower Cretaceous (Upper Albian) Winton Formation at Isisford, central-western Queensland, inferred from sandstone concretions. *Palaaios* (submitted Dec. 2015).
- In press.* Tucker, R.T., **Roberts, E.M.**, Kemp, A.A., Henderson, B. Large igneous province or long-lived magmatic arc along the eastern margin of Australia during the Cretaceous? Insights from the sedimentary record: *GSA Bulletin* (submitted June, 2015).
2016. Spandler, C., Hammerli, Sha, P. Hilbert-Wolf, H.L.*, Hu, Yi., **Roberts, E.M.**, and Schmitz, M. MKED1: A new titanite standard for in situ microanalysis of trace elements, Sm-Nd isotopes, and U-Pb geochronology: *Chemical Geology* 425, 110-126.
2016. Jadoon, Q.*, **Roberts, E.M.**, Blenkinsop, T., Wust, R. Organic petrography and thermal maturity of the Permian Roseneath and Murteree shales in the Cooper Basin, Australia. *International Journal of Coal Geology* 154-155, 240-256.
2015. Dirks, P.H.G.M., Berger, L., **Roberts, E.M.**, et al. Geological and taphonomic setting of *Homo naledi* from the Dinaledi Chamber, South Africa: *eLife* 4:e09561. DOI: 10.7554/eLife.09561.001 (1-37).
2015. Blackburn, D., **Roberts, E.M.**, and Stevens, N.J., The earliest record of the endemic African frog Family Ptychadenidae from the Oligocene Nsungwe Formation of Tanzania: *Journal of Vertebrate Paleontology* 35, e907174: 1-5. DOI:10.1080/02724634.2014.907174.
2015. Foreman, B.Z., **Roberts, E.M.**, Tapanila, L., Ratigan, D., Sullivan, P. Stable isotope insights into paleoclimatic conditions and alluvial depositional processes in the Kaiparowits Formation (Campanian, south-central Utah, U.S.A.) *Cretaceous Research* 56, 180-192.
2015. Hilbert-Wolf, H.L.*. and **Roberts, E.M.**, Giant seismites and megablock uplift in the East African Rift: Evidence for Late Pleistocene large magnitude earthquakes: *PLoS ONE*, DOI:10.1371/journal.pone.0129051.

2015. Hill, R., **Roberts, E.M.**, Tapanila, L., Bouaré, M.L., Sissoko, F., O'Leary, M.A. Multi-species shark feeding in the Trans-Saharan Seaway: Evidence from Late Cretaceous dyrosaurid (Crocodyliformes) fossils from northeastern Mali: *Palaios* 30, 589-596.
2015. **Roberts, E.M.**, Jelsma, H., and Hegna, T. Mesozoic sedimentary cover sequences of the Congo Basin in the Kasai Region, Democratic Republic of Congo. In M. DeWit and F. Guillocheau (eds.), *Geology and Resource Potential of the Congo Basin – Dedicated to L. Cahen and H. Kampunzu*. Springer-Verlag, London, p. 163-191.
2015. Tapanila, L., Ferguson, A., and **Roberts, E.M.** The paradox of drilled devil's toenails: Taphonomic mixing obscures Cretaceous drilling predation in Utah oysters. *Palaios* 30, 294-303.
2015. Xing, L., Parkinson, A.H., Ran, H., Pirrone, C., **Roberts, E.M.**, Jianping, Zhang, J., Burns, M.E., Wang, T., Choiniere, J., The earliest fossil evidence of osteophagia by terrestrial invertebrates, examples from China and South Africa: *Historical Biology* DOI: 10.1080/08912963.2015.1111884.
2014. Gorscak, E.*, O'Connor, P.M., Stevens, N.J., and **Roberts, E.M.** The basal titanosaurian *Rukwatitan biseptus* (Dinosauria: Sauropoda) from the middle Cretaceous Galula Formation, Rukwa Rift Basin, southwestern Tanzania: *Journal of Vertebrate Paleontology* 34, 1133-1154.
2014. **Roberts, E.M.**, Lamanna, M.C., Clarke, J.A., Gorscak, E., Meng, J., Sertich, J.J.W., O'Connor, P.M., Claeson, K., and MacPhee, R.E.E. Stratigraphy and taphonomy of Latest Cretaceous vertebrates from Vega Island, James Ross Basin, Antarctica: implications for high-latitude terrestrial ecosystems. *Palaeogeography, Palaeoclimatology, Palaeoecology* 402, 55-72.
2013. **Roberts, E.M.**, Sampson, S.D., Deino, A.D., Buchwaldt, R. and Bowering, S.A., The Kaiparowits Formation: a remarkable record of Upper Cretaceous Terrestrial Ecosystems, Evolution and Tectonics in Western North America. In A. Titus and M. A. Loewen (eds.), *Advances in Late Cretaceous Western Interior Paleontology and Geology*. Indiana Press, Bloomington, pgs. 85-106.
2013. Reisz, R., Huang, T.D., **Roberts, E.M.**, Peng, S., Sullivan, C., Stein, K., LeBlanc, A., Shieh, D., Chang, R., Chiang, C., Yang, C., and Zong, S. Dinosaur embryology: inside the bones of an Early Jurassic sauropodomorph from China. *Nature* 496*, 210-214. (*featured on cover of *Nature*)
2013. Sampson, S. D., Loewen, M. A., **Roberts, E. M.**, and Getty, M. A. A new macrovertebrate assemblage from the Late Cretaceous (Campanian) of southern Utah. In A. Titus and M. A. Loewen (eds.), *Advances in Late Cretaceous Western Interior Paleontology and Geology*. Indiana Press, Bloomington, pgs. 599-622.
2013. Stevens, N.J., Seiffert, E., O'Connor, P.M., **Roberts, E.M.**, Schmitz, M., Krause, D. Gorscak, E., Ngasala, S., Hieronymus, T., Temu, J., 2013. Paleontological evidence for an Oligocene divergence between Old World Monkeys and Apes. *Nature* 497, 611-614.
2013. Sullivan, C., Liu, J., **Roberts, E.M.**, Huang, T.D., Yang, C., and Zhong, S. Pelvic morphology of a tritylodontid (Synapsida: Eucynodontia) specimen from the Lower Jurassic of China, and some functional and phylogenetic implications. *Comptes Rendus Palevol* 12, 505-518.
2013. Tapanila, L., and **Roberts, E.M.**, Facies associations of continental mollusks in the Kaiparowits Formation in the Grand Staircase-Escalante National Monument, southern Utah. In A. Titus and M. A. Loewen (eds.), *Advances in Late Cretaceous Western Interior Paleontology and Geology*. Indiana Press, Bloomington, pgs. 132-152.
2013. Titus, A., **Roberts, E.M.**, and Albright, B. Geologic Overview of the Kaiparowits Plateau, Grand Staircase-Escalante National Monument, southern Utah. In A. Titus and M. A. Loewen (eds.), *Advances in Late Cretaceous Western Interior Paleontology and Geology*. Indiana Press, Bloomington, pgs. 13-41.
2013. Tucker, R.T.*, **Roberts, E.M.**, Hu, Y., Kemp, A.I.S., and Salisbury, S.W. Detrital zircon age constraints for the Winton Formation, Queensland: Contextualizing Australia's Late Cretaceous dinosaur faunas. *Gondwana Research* 24, 767-779.
2013. Xing, L.*, **Roberts, E.M.**, Harris, J.D., Gingras, M.K., Ran, H., Zhang, J., Xu, X., Burns, M., Dong, Z. Novel insect traces on a dinosaur skeleton from the Lower Jurassic Lufeng Formation of China. *Palaeogeography, Palaeoclimatology, Palaeoecology* 388, 58-68.
2012. Backwell, L., Parkinson, A.*, **Roberts, E.M.**, d'Errico, and Huchet, J-B. Criteria for identifying bone modifications by termites in the fossil record: *Palaeogeography, Palaeoclimatology, Palaeoecology* 337-338: 72-87.
2012. Reisz, R., Evans, D., **Roberts, E.M.**, Sues, H.D., and Yates, A.M. Oldest known nesting site and the reproductive biology of the Early Jurassic sauropodomorph *Massospondylus*. *Proceedings of the National Academy of Science* 109(4): doi: 10.1073/pnas.1109385109.

2012. **Roberts, E.M.**, Stevens, N.J., O'Connor, P.M., Dirks, P.H.G.M., Gottfried, M.D., Clyde, W.C., Armstrong, R.A., Kemp, A.I.S., and Hemming, S. Initiation of the western branch of the East African rift coeval with the eastern branch. *Nature Geoscience* 5(4):289-294
2012. Tapanila, L., and **Roberts, E.M.**, The earliest evidence of Holometabolan insect pupation in conifer wood. *PLoS ONE* 7(2): e31668. doi:10.1371/journal.pone.0031668.
2011. Jinnah, Z.A.*, and **Roberts, E.M.**, Facies associations, paleoenvironments and base level changes in the Upper Cretaceous Wahweap Formation. *Journal of Sedimentary Research* 81, 266-283.
2010. Claeson, K.M., O'Leary, M.A., **Roberts, E.M.**, Sissoko, F., Bouare, M., Tapanila, L., Goodwin, D., and Gottfried, M.D. First Mesozoic record of the stingray *Myliobatis wurmoensis* from Mali and a phylogenetic analysis of Myliobatidae incorporating dental characters: *Acta Palaeontologica Polonica* 55, 214-223.
2010. Gates, T.A., Sampson, S.D., Zanno, L.E., **Roberts, E.M.**, Eaton, J.G., Nydam, R.L., Hutchison, J.H., Smith, J.A., Loewen, M.A., Getty, M.A. Biogeography of terrestrial and freshwater vertebrates from the Late Cretaceous (Campanian) Western Interior of North America: *Palaeogeography, Palaeoclimatology, Palaeoecology* 291, 371-387.
2010. Larsen, J.S.*, Link, P.K., **Roberts, E.M.**, Tapanila, L., and Fanning, C.M., Cyclic stratigraphy of the Paleocene Pine Hollow and detrital zircon provenance of Campanian to Eocene sandstones of the Kaiparowits and Table Cliffs basins, south-central Utah. In: S. M. Carney, D.E. Tabet and C. L. Johnson (eds.), *Geology of South-Central Utah*, Publication 39 of the Utah Geological Association, pgs. 194-224.
2010. O'Connor, P.M., Sertich, J.J.W., Stevens, N.J., **Roberts, E.M.**, Gottfried, M.D., Hieronymus, T.L., Jinnah, Z.A., Ridgely, R., Ngasala, S.E., and Temba, J. The evolution of Mammal-like Crocodyliforms in the Cretaceous of Gondwana. *Nature* 466, 748-751.
2010. **Roberts, E.M.**, and Chan, M.A., Variations in iron oxide, iron sulfide and carbonate concretions and their distributions in fluvio-deltaic and neashore sandstones: sandstones: Cretaceous examples from the Kaiparowits Plateau, Utah and San Juan Basin, New Mexico. In: S. M. Carney, D.E. Tabet and C. L. Johnson (eds.), *Geology of South-Central Utah*, Publication 39 of the Utah Geological Association, pgs. 151-177.
2010. **Roberts, E.M.**, O'Connor, P.M., Stevens, N.J., Gottfried, M.D., Jinnah, Z.A.*, Ngasala, S.*, and Armstrong, R.A. Sedimentology and depositional environments of the Red Sandstone Group, Rukwa Rift Basin, southwestern Tanzania: New insight into Cretaceous and Paleogene terrestrial ecosystems and tectonics in sub-equatorial Africa: *Journal of African Earth Sciences* 57 (Presidential Review Paper 15), 179-212.
2010. Sampson, S.D., Loewen, M.A., Farke, A., **Roberts, E.M.**, Forster, C., Smith, J.A., and Titus, A.D. New Horned Dinosaurs from Utah Provide Evidence for Intracontinental Dinosaur Endemism: *PLoS ONE* 5(9): e12292. doi:10.1371/journal.pone.0012292
2010. Getty, M.A., Loewen, M.A., **Roberts, E.M.**, Titus, A.L., and Sampson, S.D. Taphonomy of horned dinosaurs (Ornithischia: Ceratopsidae) from the late Campanian Kaiparowits Formation, Grand Staircase-Escalante National Monument, Utah. In Ryan, M.J., Chinnery-Allgeier, B.J., Eberth, D.A. (Eds.). *New Perspectives on Horned Dinosaurs: The Royal Tyrrell Museum Ceratopsian Symposium*, Indiana University Press, pgs. 478-494.
2009. Gottfried, M.D., Stevens, N.J., **Roberts, E.M.**, O'Connor, P.M., and Chami, R. A new Cretaceous lungfish (Dipnoi: Ceratodontidae) from the Rukwa Rift Basin, Tanzania: *African Natural History* 5, 1-11.
2009. Jinnah, J. A. *, **Roberts, E.M.**, Deino, A.D. Larsen, J.S.*, Link, P.K., & Fanning, C.M., New ⁴⁰Ar/³⁹Ar and detrital zircon U-Pb ages for the Upper Cretaceous Wahweap and Kaiparowits formations on the Kaiparowits Plateau, Utah: implications for regional correlation, provenance, and biostratigraphy: *Cretaceous Research* 30, 287-299.
2009. Stevens, N.J., Holroyd, P.A., **Roberts, E.M.**, O'Connor, P.M., Gottfried, M.D. *Kahawamys mbeyaensis* (n. gen., n. sp.) (Rodentia: Thryonomyoidea) from the late Oligocene Rukwa Rift Basin, Tanzania. *Journal of Vertebrate Paleontology* 29, 631-634.
2009. Stevens, N.J., **Roberts, E.M.**, O'Connor, P.M., Gottfried, M.J. *Rukwalorax kitanajino* (n. gen., n. sp.) (Mammalia: Hyracoidea) from the late Oligocene Rukwa Rift Basin, Tanzania. *Journal of Vertebrate Paleontology* 29, 972-975.
2008. Hill, R.V., McCartney, J.A., **Roberts, E.M.**, Bouare, M., Sissoko, F., & O'Leary, M.A. Dyrosaurid (Crocodyliformes: Mesoeucrocodylia) Fossils from the Upper Cretaceous and Paleogene of Mali:

- Implications for phylogeny and survivorship across the K-T Boundary. *American Museum Novitates* 3631, 1-19.
2008. **Roberts, E.M.**, Tapanila, L., and Mijal, B.* Taphonomy and sedimentology of storm-generated continental shell beds: A case example from the Cretaceous Western Interior Basin: *Journal of Geology* 116, 462-479.
2008. Stevens, N.J., Gottfried, M.D., **Roberts, E.M.**, Ngasala, S., Kapilima, S., & O'Connor, P.M. Paleontological exploration of Africa: A view from the Rukwa Rift Basin of Tanzania: in Fleagle, J.G. and Gilbert, C.C. (eds.), *Elwyn Simmons: A Search for Origins. Developments in Primatology: Progress and Prospects*, Springer, pgs. 159-180.
2008. Tapanila, L., **Roberts, E.M.**, Bouare, M.L., Sissoko, F., & O'Leary, M.A. Phosphate taphonomy and paleoecology of bone and coprolite conglomerates: A case study from the Eocene of Mali, NW Africa: *Palaaios* 23, 139-152.
2007. Feldmann, R. M., O'Connor, P.M., Stevens, N.J., Gottfried, M.D., **Roberts, E.M.**, Ngasala, S., Rasmusson, E.L., & Kapilima, S. A new freshwater crab (Decapoda: Brachyura: Potamonautidae) from the Paleogene of Tanzania, Africa. *Neues Jahrbuch fur Geologie und Palaontologie* 244, 71-78.
2007. Gaffney, E.S., **Roberts, E.M.**, Sissoko, F., Bouare, M.L., Tapanila, L., & O'Leary, M.A. *Acleistochelys*, a new side-necked turtle (Pelomedusoides: Bothremydidae) from the Paleocene of Mali: *American Museum Novitates* 3549, 1-24.
2007. **Roberts, E.M.** Facies architecture and depositional environments of the Upper Cretaceous Kaiparowits Formation, southern Utah: *Sedimentary Geology* 197, 207-233.
2007. **Roberts, E.M.**, Rogers, R.R., & Foreman, B.Z*. Continental insect borings in dinosaur bone: examples from the Late Cretaceous of Madagascar and Utah: *Journal of Paleontology* 81, 201-208.
2006. O'Leary, M.A., **Roberts, E.M.**, Bouare, M.L., Sissoko, F. and Tapanila, L. Malian Paenungulata (Mammalia: Placentalia): New African Afrotheres from the early Eocene: *Journal of Vertebrate Paleontology* 26, 981-988.
2006. O'Connor, P. M., Gottfried, M.D., Stevens, N.J., **Roberts, E.M.**, Ngasala, S., Kapilima, S., & Chami, R. Dinosaurs and other vertebrates from the Cretaceous Red Sandstone Group, Rukwa Rift Basin, Southwestern Tanzania: *Journal of African Earth Sciences* 44, 277-288.
2006. **Roberts, E.M.** & Tapanila, L. A new social insect nest trace from the Late Cretaceous Kaiparowits Formation of southern Utah: *Journal of Paleontology* 80, 768-774.
2006. Stevens, N.J., O'Connor, P.M., Gottfried, M.D., **Roberts, E.M.**, Ngasala, S. and Dawson, M. *Metaphiomys* from the Paleogene of Southwestern Tanzania: *Journal of Paleontology* 80, 407-410.
2005. **Roberts, E.M.**, Deino, A.D., & Chan, M.A. $^{40}\text{Ar}/^{39}\text{Ar}$ age of the Kaiparowits Formation, southern Utah, and correlation of coeval strata and faunas along the margin of the Western Interior Basin: *Cretaceous Research* 26, 307-318.
2005. Stevens, N.J., O'Connor, P.M., Gottfried, M.D., **Roberts, E.M.**, & Ngasala, S. An anthropoid primate from the Paleogene of Southwestern Tanzania: *Journal of Vertebrate Paleontology* 25, 986-989.
2005. Titus, A.L., Powell, J.D., **Roberts, E.M.**, Sampson, S.D., Pollock, S.L., Kirkland, J.I., & Albright, L.B. Late Cretaceous stratigraphy, depositional environments, and macrovertebrate paleontology of the Kaiparowits Plateau, Grand Staircase-Escalante National Monument, Utah: in Pederson, J., and Dehler, C.M. (eds.), *Interior Western United States: Geological Society of America Field Guide* 6, p. 101-128.
2004. **Roberts, E.M.**, O'Connor, P.M., Gottfried, M.D., Stevens, N.A., Kapilima, S., & Ngasala, S. Revised stratigraphy and age of the Red Sandstone Group in the Rukwa Rift Basin, Tanzania: *Cretaceous Research* 25, 749-759.
2004. Gottfried, M.D., O'Connor, P.M., Jackson, F.D., **Roberts, E.M.**, & Chami, R. Dinosaur eggshell from the Red Sandstone Group of Tanzania: *Journal of Vertebrate Paleontology* 24, 497-500.
2004. O'Leary, M., **Roberts, E.M.**, Head, J.J., Sissoko, F., & Bouare, M. Titanosaurian (Dinosauria: Sauropoda) remains from the "Continental Intercalaire" of Mali: *Journal of Vertebrate Paleontology* 24, 923-930.
2004. Tapanila, L., **Roberts, E.M.**, Bouare, M.L., Sissoko, F., & O'Leary, M.A. Bivalve borings in phosphatic coprolites and bone, Cretaceous-Paleogene, northeastern Mali: *Palaaios* 19, 572-580.
2003. Krause, D.W., Gottfried, M.D., O'Connor, P.M., & **Roberts, E.M.** A Cretaceous Mammal from Africa: *Acta Palaeontologica Polonica* 48, 321-330.

2002. Bamford, M.K., **Roberts, E.M.**, Sissoko, F., Bouare, M., & O'Leary, M.A. An extensive deposit of fossil conifer wood from the Mesozoic of Mali, southern Sahara: *Palaeogeography, Palaeoclimatology, Palaeoecology* 186, 115-126.
2002. Brochu, C.A., Bouare, M.L., Sissoko, F., **Roberts, E.M.**, & O'Leary, M.A. A Dyrosaurid crocodyliform braincase from Mali: *Journal of Paleontology* 76, 1060-1071.
2000. **Roberts, E.M.** & Hendrix, M.S. Taphonomy of a petrified forest in the Two Medicine Formation (Campanian) northwest Montana: Implications for Palinspastic restoration of the Boulder batholith and Elkhorn Mountains Volcanics: *Palaios* 15, 476-482.
2000. Sears, J.W., Hendrix, M.S, Wadell, A., Webb, B., Nixon, B., King, T., **Roberts, E.**, & Lerman, R. Structural and Stratigraphic Evolution of the Rocky Mountain foreland basin in central-western Montana. *in*: Roberts, S. and Winston, D.W. (eds.); Field Trip Guidebook for 2000 Rocky Mountain Geologic Society of America Meeting, p. 131-155.

Conference Proceedings, Professional Reports and other Miscellaneous Publications

2015. **Roberts, E.M.**, Agyemang, P.O., and Hilbert-Wolf, H.L. Combined U-Pb detrital zircon/titanate geochronology on volcanoclastic sandstones and $^{40}\text{Ar}/^{39}\text{Ar}$ sanidine geochronology on volcanic tuff from the GEKL-001 Core, Kyela, Tanzania for age and sedimentary provenance analysis. Unpublished Heritage Oil Ltd. Internal Report, 24p.
2013. **Roberts, E.M.**, Hilbert-Wolf, H.L., Mtelela, C. U-Pb LA-ICP-MS zircon geochronology of ten detrital zircon samples from the Galula-1 Well Cuttings, Rukwa Rift Basin, Tanzania. Unpublished Heritage Oil Ltd. Internal Report, 7p.
2009. **Roberts, E.M.**, Investigation of Permian-Upper Cretaceous sedimentary cover sequences in the Congo Basin, southcentral Democratic Republic of Congo. Unpublished DeBeers Internal Report, 29p.
2005. **Roberts, E. M.**, Ngasala, S, Kapilima, O'Connor, P. M., Gottfried, M. D., Stevens, N. J., & Chami, R. Stratigraphic and sedimentological analysis of the Red Sandstone Group in the Songwe Valley, Mbeya District. Southwestern Tanzania: East African Rift System (EAR05): Geodynamics, environment, resources & sustainable development Vol. 1, 87-90.
2005. O'Connor, P. M., Gottfried, M. D., **Roberts, E. M.**, Ngasala, S. Stevens, N. J., Kapilima, S., & Chami, R. New Cretaceous vertebrate fossil discoveries from the Red Sandstone Group, Rukwa Rift Basin, southwestern Tanzania: East African Rift System (EAR05): Geodynamics, environment, resources & sustainable development Vol. 1, 82-84.
2005. **Roberts, E. M.** Stratigraphic, taphonomic and paleoenvironmental analysis of the Upper Cretaceous Kaiparowits Formation, Grand Staircase-Escalante National Monument, Utah: unpublished Ph.D. dissertations, University of Utah, Salt Lake City, USA, 243p.
1999. **Roberts, E. M.** Sedimentology, taphonomy and alluvial sequence stratigraphy of the lower Two Medicine Formation (Campanian) near Choteau, Montana: unpublished M.Sc. thesis, University of Montana, Missoula, USA, 66p.

Technical Abstracts

2014. **Roberts, E.M.** Advances and strategies for dating ancient terrestrial ecosystems: case examples from Africa, North America and Australia. Invited keynote workshop presentation. 4th International Paleontological Congress, Mendoza, Argentina Sept.29-Oct. 5, 2014.
2014. **Roberts, E.M.**, Lamanna, M.C., Clarke, J.A., Gorscak, E., Meng, J., Sertich, J.J.W., O'Connor, P.M., Claeson, K., and MacPhee, R.E.E. Upper Cretaceous-Paleogene stratigraphy and vertebrate paleoecology of Vega Island, Antarctica: paleogeographic, palaeoclimatic and sequence stratigraphic implications.(Invited) 4th International Paleontological Congress, Mendoza, Argentina Sept.29-Oct. 5, 2014.
2014. Tapanila, L., and **Roberts, E.M.** Does volcanic ash enhance continental fossil preservation across basins? 4th International Paleontological Congress, Mendoza, Argentina Sept.29-Oct. 5, 2014.
2014. Stevens, N.J., Seiffert, E.R., O'Connor, P.M., **Roberts, E.M.** Primates from the Nsungwe Formation of southwestern Tanzania: Fossil evidence of strepsirrhines, anthropoids, and an Oligocene divergence between Old World monkeys and apes. American Association of Physical Anthropology.

2013. Blackburn, D., **Roberts, E.M.**, and Stevens, N.J., A late Oligocene anuran fauna from the Nsungwe Formation, southwestern Tanzania: 73rd Annual Society of Vertebrate Paleontology Annual Meeting, suppl. 3, 88A.
2013. Eberth, D., **Roberts, E.M.**, Deino, A., Bowring, S. Twenty-three years of radiometric dating at Dinosaur Provincial Park (Upper Cretaceous, Alberta, Canada). 73rd Annual Society of Vertebrate Paleontology Annual Meeting, suppl. 3, 120A (presented by Roberts).
2013. Hilbert-Wolf, H.L.*, **Roberts, E.M.**, Brown, R., O'Connor, P.M., Stevens, N.J. Deciphering the links between landscape change and vertebrate evolution using U-Pb geochronology and detrital thermochronology: A case study from the Rukwa Rift Basin, Tanzania. 73rd Annual Society of Vertebrate Paleontology Annual Meeting, suppl. 3, 143A.
2013. Hilbert-Wolf, H.L.*, **Roberts, E.M.**, Mtelega, C., O'Connor, P.M., Stevens, N.J. Constraining the timing of Cenozoic rifting and basin development in the Rukwa Rift Basin of the East African Rift System via detrital zircon geochronology. Geological Society of America.
2013. Jinnah, Z.A., **Roberts, E.M.** Potential of detrital zircons for providing age constraints for Karoo fossil vertebrates. 73rd Annual Society of Vertebrate Paleontology Annual Meeting, suppl. 3, 148A.
2013. **Roberts, E.M.**, Rapidly Increasing Class Sizes: Challenges and Solutions to Leading Subject-Specific Fieldtrips at 2nd and 3rd year Levels. Geological Society of Australia, Abstracts No. 106, 2nd Australian Geoscience Teaching Meeting Townsville, Australia, January 2013, 22p.
2013. **Roberts, E.M.**, O'Connor, P.M., Stevens, N.J. Dating Mesozoic-Paleogene continental vertebrate assemblages in Africa: An interdisciplinary approach. 73rd Annual Society of Vertebrate Paleontology Annual Meeting, suppl. 3, 200A.
2013. O'Connor, P.M., Stevens, N.J., **Roberts, E.M.**, Sertich, J.J., Gorscak, E. Uncovering the Cretaceous terrestrial vertebrate record of sub-Saharan Africa: New information from the middle Cretaceous Galula Formation, Rukwa Rift Basin (East African Rift System), southwestern Tanzania. Geological Society of America.
2013. Stevens, NJ, O'Connor, PM, **Roberts, EM.** Continental vertebrates from the late Oligocene Nsungwe Formation (Southwestern Tanzania) and faunal dynamics in sub-Saharan Africa during the Paleogene-Neogene transition. Geological Society of America.
2013. Stevens, NJ, Seiffert, E., O'Connor, PM, **Roberts, EM.** Primate diversity in the late Oligocene Nsungwe Formation of southwestern Tanzania. 73rd Annual Society of Vertebrate Paleontology Annual Meeting, suppl. 3, 219A.
2013. Tucker, R.T., **Roberts, EM.**, Salisbury, S. Advances in dating the Late Cretaceous vertebrate fossil record of northeastern Australia using U-Pb LA-ICPMS detrital zircon geochronology. 73rd Annual Society of Vertebrate Paleontology Annual Meeting, suppl. 3, 228A.
2012. Gorscak, E., O'Connor, P.M., Stevens, N.J., **Roberts, E.M.** A new titanosaurian from the Cretaceous Galula Formation, Rukwa Rift Basin, Tanzania: Geologic Society of American, Southeastern Section, Abstracts with Programs.
2012. **Roberts, E.M.**, Stevens, N.J., O'Connor, P.M., Dirks, P.H.G.M, Gottfried, M.D., Clyde, W., Armstrong, R.A., Kemp, A.I.S., and Hemming, S. Did the Western and Eastern branches of the East African Rift System develop synchronously? 34th International Geologic Congress, Brisbane, Australia, Abstracts, 3636.
2012. Stevens, N.J., O'Connor, P.M., **Roberts, E.M.** A new taxon of Diamantomys from the late Oligocene Nsungwe Formation, Rukwa Rift Basin, southwestern Tanzania. Society of Vertebrate Paleontology.
2011. MacPhee, R., Clarke, J., Gorscak, E., Lamanna, M., O'Connor, P., Meng, J., **Roberts, E.**, Sertich, J., Salisbury, S., 2011. New fossil vertebrate discoveries from the Late Cretaceous of James Ross and Vega islands, West Antarctica, in 11th International Symposium on Antarctic Earth Sciences, Programme and Abstracts, 265.
2011. **Roberts, E.M.**, Hendrix, M.S., and Jinnah, Z.A.* Combining tephrostratigraphy with sandstone provenance and detrital zircon geochronology to assess along-strike continuity of alluvial sequence stratigraphic patterns in the Campanian Western Interior Basin, from Western Montana to southern Utah: Geological Society of America Abstracts with Programs 43, 600A.
2011. **Roberts, E.M.**, Perritt, S., Jelsma, H.A., and Hegna, T.A.* Mesozoic-early Cenozoic sedimentary cover sequences in the Kasai region of the Congo Basin. 23rd Colloquium of Africa Geology, Johannesburg, South Africa, 08-14 January 2011, Abstracts (note*=keynote address).

2011. **Roberts, E.M.**, Tapanila, L., Rogers, R.R., and Foreman, B.Z.* Basin-scale controls on continental vertebrate taphonomy: insights from the Campanian of Laramidia: *Journal of Vertebrate Paleontology* 31, suppl. 3, 180A.
2011. Stevens, N.J., Egberts, S., **Roberts, E.M.**, O'Connor, P.M. Faunal composition of the late Oligocene Songwe Member of the Nsungwe Formation, Tanzania: *Journal of Vertebrate Paleontology* 31, suppl. 3, 200A.
2011. Tucker, R.T., Roberts, E.M. and Salisbury, S.W. 2011. New information on the stratigraphy, depositional environment and taphonomy of the mid-Cretaceous Winton Formation, central-western Queensland, Australia; p. 84 in Trinajstić, K., Bunce, M., Warburton, N., Hadley, C., Baynes, A. and Siversson, M. (eds.), 13th Conference on Australasian Vertebrate Evolution, Palaeontology and Systematics (CAVEPS), 27–30 April 2011, Perth. Geological Survey of Western Australia, 2011/9.
2010. Foreman, B.Z.*, **Roberts, E.M.**, Tapanila, L., and Ratigan, D. Paleoclimate, hydrology and taphonomy of the Kaiparowits Formation (south-central Utah): The stable isotope perspective. *Journal of Vertebrate Paleontology* 30, suppl. 3, 90A.
2010. Hill, R., Sertich, J., **Roberts, E.M.** and O'Leary, M. Fossil crocodyliformes and turtles from the Early Cretaceous of northeastern Mali. *Journal of Vertebrate Paleontology* 30, suppl. 3, 105A.
2010. Gottfried, M.A., Ostrowski, S., **Roberts, E.M.**, Stevens, N.A., O'Connor, P.M. A new African record for polypterid fishes, from the late Oligocene of Tanzania: *Journal of Vertebrate Paleontology* 30, suppl. 3, 98A.
2009. Jinnah, Z.A.*, and **Roberts, E.M.**, Facies associations and paleoenvironments of the Upper Cretaceous Wahweap Formation: Implications for Sequence Stratigraphy. *Advances in Western Interior Late Cretaceous Paleontology and Geology*, Saint George, Utah, Abstracts with Program, p. 29.
2009. Lund, E. K., Loewen, M. A., **Roberts, E. M.**, Sampson, S. D., and Getty, M. A. Dinosaur skin impressions in the Upper Cretaceous (Late Campanian) Kaiparowits Formation, Southern Utah: insights into preservation mode. *Advances in Western Interior Late Cretaceous Paleontology and Geology*, St. George, Utah, Abstracts with Program, p. 32.
2009. O'Connor, P., **Roberts, E.M.**, Tapanila, L., Deino, A., Hieronymus, T., and Jinnah, Z.*, Reconnaissance paleontology in the Straight Cliffs and Wahweap formations (Turonian–Campanian), Grand Staircase-Escalante National Monument, Utah. *Advances in Western Interior Late Cretaceous Paleontology and Geology*, St. George, Utah, Abstracts with Program, p. 40.
2009. Parks, J.*, Hinkle, B.J.*, **Roberts, E.M.**, & Lohrengel, C.F. II. Insect borings preserved in wood from the Petrified Forest Member of the Chinle Formation, Wolverine Bench, Grand Staircase-Escalante National Monument: *Geologic Society of America, Rocky Mountain Section, Abstracts with Programs* 41, 49.
2009. **Roberts, E.M.**, O'Connor, P.M., Stevens, N.J., Jelsma, H., Dirks, P.H.G.M, and Armstrong, R.A., Reconstructing Cretaceous and Paleogene paleoenvironments and drainage patterns of Central Africa: *Geological Society of America, Abstracts with Programs*, 41, 243.
2009. **Roberts, E.M.**, Sedimentology of the Upper Cretaceous Kaiparowits Formation, Grand Staircase-Escalante National Monument: New insights into basin-scale trends in stratigraphy and paleontology. *Advances in Western Interior Late Cretaceous Paleontology and Geology*, St. George, Utah, Abstracts with Program, p. 41.
2009. Sampson, S. D., **Roberts, E. M.**, Loewen, M. A., Getty, M. A., Gates, T. A., Zanno, L. E., and Titus, A. Dinosaurs and Other Macrovertebrates from the Upper Cretaceous (Campanian) Deposits of Grand Staircase-Escalante National Monument, Utah. *Advances in Western Interior Late Cretaceous Paleontology and Geology*, Utah, Abstracts with Program, 42.
2009. Sampson, S. D., Loewen, M. A., Farke, A. A., Smith, J. A., and **Roberts, E. M.** 2009. Two new chasmosaurine ceratopsids from the Late Cretaceous of Utah. *Journal of Vertebrate Paleontology* 29A,
2009. Stevens, N. J., Gottfried, M.D., O'Connor, P.M., **E. M. Roberts**, Ngasala, S. Vertebrates from newly discovered lacustrine localities in the late Oligocene Nsungwe Formation, Rukwa Rift Basin, Tanzania. *Journal of Vertebrate Paleontology* 29, suppl. 3, 158A.
2009. Stevens, N. J., Gottfried, M.D., **E. M. Roberts**, O'Connor, P.M. Primates from the Rukwa Rift Basin of Tanzania. *American Journal of Physical Anthropology* Suppl., 78.
2009. Tapanila, L., and **Roberts, E.M.**, Review of fossil invertebrates and their traces from the Late Cretaceous Kaiparowits Formation, Grand Staircase-Escalante National Monument, southern Utah. *Advances in*

- Western Interior Late Cretaceous Paleontology and Geology, St. George, Utah, Abstracts with Program, 45A.
2008. O'Connor, P.M., Sertich, J.J.W., Stevens, N.J., Gottfried, M.D., **Roberts, E.M.** The evolution of mammal-like crocodyliforms (Crocodyliformes: Notosuchia) in Gondwana: New evidence from the middle Cretaceous Galula Formation, Rukwa Rift Basin, Southwestern Tanzania. *Journal of Vertebrate Paleontology* 28(S3), 122A.
2008. O'Connor, P.M., Stevens, N.J., Sertich, J.J.W., **Roberts, E.M.**, Gottfried, M.D., Hieronymus, T.L., Temba, J., & Jinnah, Z.A.* A notosuchian crocodyliform from the Galula Formation, Red Sandstone Group (middle Cretaceous) of southwestern Tanzania. The Third Annual Latin American Congress of Vertebrate Paleontology, Neuquén, Argentina.
2008. **Roberts, E.M.**, Mgodi, K.*, Broderick, T.J., Yates, A.M., & O'Connor, P.M. Paleontology and taphonomy of a spectacular Late Triassic-Early Jurassic theropod Bone Bed ("*Syntarsus*" *rhodesiensis*) from the Zambezi Valley, Zimbabwe: *Journal of Vertebrate Paleontology* 27, suppl. 3.
2007. Gottfried, M. D., Stevens, N.J., O'Connor, P. M., **Roberts, E. M.**, & Ngasala, S. A new fossil record for the African lungfish *Protopterus* from the Paleogene of Tanzania. *Journal of Vertebrate Paleontology* 27.
2007. **Roberts, E.M.**, Armstrong, R.A., O'Connor, P.M, & Stevens, N.J. Late Mesozoic and early Tertiary sedimentary and tectonic evolution of the Rukwa Rift Basin: The 6th PESGB/HGS African Conference – Africa's Petroleum Systems: From Outcrop to Deepwater, p. 45.
2007. **Roberts, E.M.**, O'Connor, P.M., Hieronymus, T., Gottfried, M.D., & Stevens, N.J. Taphonomy of two Cretaceous dinosaur quarries, Tanzania, Africa: New insights into regional paleoclimate, paleoenvironments, and paleogeography: *Journal of Vertebrate Paleontology* 27, 135-136A.
2007. **Roberts, E.M.**, O'Connor, P.M., Armstrong, R.A., Stevens, N.J., & Gottfried, M.D. U-PB geochronology of detrital zircons from the Rukwa Rift Basin, Tanzania: New Data on the pre-Neogene tectonic and sedimentary evolution of the Western Branch of the East African Rift System: *Geological Society of America, Abstracts with Programs* 39, 505.
2006. Getty, M., Loewen, M., & **Roberts, E.** Collection and use of taphonomic data from vertebrate localities: lessons from six years of paleontological inventory and excavation in Grand Staircase-Escalante National Monument, Utah: *Journal of Vertebrate Paleontology* 26, 67A.
2006. O'Connor, P.M., Gottfried, M.D., **Roberts, E.M.**, Stevens, N.A., & Ngasala, S. A new vertebrate fauna from the Cretaceous Red Sandstone Group, Rukwa Rift Basin, southwest Tanzania; in Barrett, P.M., and S.E. Evans (eds.), *Ninth International Symposium on Mesozoic Terrestrial Ecosystems and Biota, Abstracts and proceedings*, 36.
2006. O'Connor, P., Stevens, N., Gottfried, M., Ridgeley, R., & **Roberts, E.** New Archosaur Discoveries from the Cretaceous Red Sandstone Group of the Rukwa Rift Basin, Southwestern Tanzania: *Journal of Vertebrate Paleontology* 26, 106A.
2006. **Roberts, E.M.**, Link, P.K., Fanning, M., & Larsen, J.* U-Pb Geochronology of detrital zircons from Upper Cretaceous and Paleogene strata on the Kaiparowits Plateau, Southern Utah: Implications for the tectonic and paleofluvial evolution of the southern Cordilleran foreland basin: *Geological Society of America, Abstracts with Programs* 38, 411.
2006. **Roberts, E.M.**, O'Connor, P.M., Stevens, N.A., & Gottfried, M.D. New Cretaceous and Palaeogene vertebrates from the East African Rift, Tanzania: stratigraphic, tectonic, and palaeobiogeographic implications: 14th Biennial Palaeontological Society of South Africa Annual Meeting Abstracts, 20.
2006. **Roberts, E.M.**, O'Connor, P.M., Hieronymus, T.L., Ngasala, S., Gottfried, M.D., & Stevens, N.A. Stratigraphy, paleoenvironments, and taphonomy of a new Cretaceous vertebrate fauna from the East African Rift, southwestern Tanzania; in Barrett, P.M., and S.E. Evans (eds.), *Ninth International Symposium on Mesozoic Terrestrial Ecosystems and Biota, Abstracts and proceedings*, 40.
2006. Stevens, N.J., Ngasala, S., Gottfried, M.D., O'Connor, P.M., & **Roberts, E.M.** Macroscelideans from the Oligocene of southwestern Tanzania: *Journal of Vertebrate Paleontology* 26, 128A.
2005. **Roberts, E.M.** Taphonomy of wet alluvial systems: A case example from the Cretaceous Western Interior Basin of Utah: *Journal of Vertebrate Paleontology* 25, 105A.
2005. **Roberts, E.M.**, Tapanila, L., & Mijal, B.* Taphonomy of an unusual freshwater shell bed in the Upper Cretaceous Kaiparowits Formation, Southern Utah: *Geologic Society of America, Abstracts with Programs* 37, 115.

2005. **Roberts, E.M.** Stratigraphic, taphonomic and paleoenvironmental analysis of the Upper Cretaceous Kaiparowits Formation: Grand Staircase-Escalante National Monument Science Forum 2005, vol. 1, 25.
2005. Gottfried, M. D., O'Connor, P. M., **Roberts, E. M.**, Stevens, N., & Chami, R. First Cretaceous lungfish from Tanzania: an enigmatic ceratodontid from the Rukwa Rift: *Journal of Vertebrate Paleontology* 25, 65A.
2005. O'Connor, P. M., Gottfried, M. D., **Roberts, E. M.**, Stevens, N. J., & Ngasala, S. New Dinosaurs and other vertebrate fossils from the Cretaceous Red Sandstone Group, Rukwa Rift Basin, southwestern Tanzania: *Journal of Vertebrate Paleontology* 25, 97A.
2005. Stevens, N. J., O'Connor, P. M., Gottfried, M. D., **Roberts, E. M.**, Kapilima, S., & Ngasala, S. New Paleogene mammals and other vertebrates from the Rukwa Rift Basin, southwestern Tanzania: *Journal of Vertebrate Paleontology* 25, 118A.
2005. Zanno, L., Sampson, S., **Roberts, E.**, & Gates, B. Late Campanian non-avian theropod diversity across the Western Interior Basin: *Journal of Vertebrate Paleontology* 25, 111A.
2004. Holman, J.A., Stevens, N.J., Gottfried, M.D., O'Connor, P.M., **Roberts, E.M.** An enigmatic neobatrachian from the Paleogene of southwestern Tanzania. *Journal of Vertebrate Paleontology* 24 (3), 71A.
2004. **Roberts, E.M.** & Deino, A. Absolute age of the richly fossiliferous Kaiparowits Formation (Utah) and correlation of coeval (Judithian) vertebrate-bearing strata across the Western Interior Basin: *Journal of Vertebrate Paleontology* 24, 113A.
2004. Sampson, S., Loewen, M., **Roberts, E.**, Smith, J., Zanno, L., & Gates, T. Provincialism in Late Cretaceous terrestrial faunas: New evidence from the Campanian Kaiparowits Formation of Utah: *Journal of Vertebrate Paleontology* 24, 108A.
2004. Smith, J., Sampson, S., **Roberts, E.**, Getty, M., & Loewen, M. A new Chasmosaurine ceratopsian from the Upper Cretaceous Kaiparowits Formation, Grand Staircase-Escalante National Monument, Utah: *Journal of Vertebrate Paleontology* 24, 114A.
2004. Stevens, N., Gottfried, M., O'Connor, P., **Roberts, E.**, & Kapilima, S. A new Paleogene fauna from the East African Rift, southwestern Tanzania: *Journal of Vertebrate Paleontology* 24, 118A.
2004. Tapanila, L., **Roberts, E.M.**, & O'Leary, M.A. Cretaceous-Tertiary faunas of the Trans-Saharan Seaway in NW Africa: trends in preservation and paleoecology: *Journal of Vertebrate Paleontology* 24, 120A.
2003. Gates, T.A., **Roberts, E.M.**, & Rogers, R.R. Drought in the vertebrate fossil record: A review of fossil and modern drought-related assemblages: *Journal of Vertebrate Paleontology* 23, 53A.
2003. Getty, M., **Roberts, E.M.**, Loewen, M., Smith, J., Gates, T.A., & Sampson, S. Taphonomy of a Chasmosaurine Ceratopsian skeleton from the Campanian Kaiparowits Formation, Grand Staircase-Escalante National Monument, Utah: *Journal of Vertebrate Paleontology* 23, 54A.
2003. Gottfried, M., O'Connor, P.M., Krause, D., & **Roberts, E.M.** A Gondwanatherian? Mammal from the Cretaceous of Tanzania: *Journal of Vertebrate Paleontology* 23, 56A.
2003. O'Connor, P.M., Gottfried, M., **Roberts, E.M.**, & Stevens, N. Closing the African gap: A new Cretaceous vertebrate fauna from Tanzania: *Journal of Vertebrate Paleontology* 23, 84A.
2003. **Roberts, E.M.**, Chan, M., & Sampson, S. Taphonomic analysis of the Late Cretaceous Kaiparowits Formation in the Grand Staircase-Escalante National Monument, southern Utah: *Geological Society of America, Abstracts with Programs* 35, 101.
2003. **Roberts, E. M.**, Rogers, R.R., & Foreman, B.* An experimental approach to identifying and interpreting dermestid (Insecta, Coleoptera) bone modification: *Journal of Vertebrate Paleontology* 23, 89A.
2003. Smith, J., Getty, M., Gates, T.A., **Roberts, E.M.**, & Sampson, S. Fossil vertebrates from the Kaiparowits Formation, Grand Staircase-Escalante National Monument: An important window into the Late Cretaceous of Utah: *Journal of Vertebrate Paleontology* 23, 98A.
2003. Tapanila, L., **Roberts, E.M.**, & O'Leary, M.A. Phosphate-mediated taphonomy: A concentrated bone and coprolite bed from the Maastrichtian of Mali: *Journal of Vertebrate Paleontology* 23, 103A.
2003. Tapanila, L., **Roberts, E.M.**, O'Leary, M.A., and Novacek, M.J., Vertebrate-rich phosphatic conglomerates from the shallow Trans-Saharan Seaway, northeastern Mali: *GSA Annual Meeting, Abstracts with Programs*, v. 35(7), p. 497.
2001. O'Leary, M.A., Gottfried, M., **Roberts, E.**, & Goodwin, D. A record of *Aetobatus* survivorship across the K/T boundary; new data from the Maastrichtian of West Africa (Mali): *Journal of Vertebrate Paleontology* 21, 85A.

2000. **Roberts, E.M.**, Rogers, R.R., & Hendrix, M.S. Lateral Variation in alluvial response to third-order sea level change across the Two Medicine Formation (Campanian), northwest Montana: Rocky Mountain Section of the Geologic Society of America, 2000 Abstracts w/Programs, 21.
1999. **Roberts, E.M.**, & O'Leary, M.A. Stratigraphy and sedimentology of vertebrate fossil localities from the Cretaceous and Tertiary of Mali: Geologic Society of America, Abstracts with Programs 31, 472.
1998. **Roberts, E.M.** Variable response to third-order sea level change in nonmarine strata: Sedimentology of the lower Two Medicine Formation, Upper Cretaceous, Montana: A.A.P.G. Annual Convention Abstracts 7, 45.
1997. **Roberts, E.M.** & Rogers, R.R. Insect modification of dinosaur bones from the Upper Cretaceous of Madagascar: *Journal of Vertebrate Paleontology* 17, 71A.
1997. Rogers, R.R., Sampson, S.D., & **Roberts, E.M.** Taphonomy of semi-arid depositional environments: A case study from the Upper Cretaceous of Madagascar: *Journal of Vertebrate Paleontology* 17, 71A.

Current and Recent Research Projects

- Antarctica – Latest Cretaceous vertebrate paleontology and stratigraphy of Vega Island in the Antarctic Peninsula. Collaborators: R. MacPhee, M. Lamana, J. Clarke, J. Sertich, M. Jin, E. Gorscak, P. O'Connor.
- Australia – *Using detrital mineral geochronology and isotope geochemistry to unravel Jurassic-Cretaceous tectonics of northeastern-northcentral Australia and refine the age and paleogeography associated floras and faunas.* Collaborators: R. Tucker, S. Salisbury, C. Spandler, C. Pirard, R. Holm, B. Henderson, T. Kemp
- China – *Geology and taphonomy Jurassic and Triassic vertebrates.* Collaborators: C. Sullivan, L. Jun, R. Reisz, T. Huang
- Democratic Republic of Congo and Angola – *Revised stratigraphy of the Jurassic-Cretaceous cover sequences in the Congo-Kasai Basin.* Collaborators: H. Jelsma, T. Hegna, P. Agyemang.
- Mali – *Trans-Saharan Seaway Project: An examination of the Paleocene-Eocene thermal maximum in a section with vertebrate fossils in continental tropical Africa.* Collaborators: M. O'Leary, L. Tapanila, M. Novacek, D. Goodwin, M. Bouare, F. Sissoko
- South Africa – *Stratigraphy, faunas and paleoenvironments of Cretaceous and Tertiary deposits in the Algoa Basin, Eastern Cape, South Africa.* Collaborators: B. de Klerk; D. Goodwin; C. Forster
- South Africa – *Taphonomy and sedimentology of hominin bearing caves in the Cradle of Humankind.* Collaborators: P. Dirks, L. Berger, C. Spandler.
- Tanzania – *Tectonics, stratigraphy and palaeontology of the Western Branch of the East African Rift System; the Rukwa Rift Basin Project.* Collaborators: P. O'Connor and N. Stevens, with many others.
- USA – *Kaiparowits Basin Project: Tectonics, sedimentation and paleontology of Upper Cretaceous strata in Grand Staircase-Escalante National Monument, Utah.* Collaborators: S. Sampson, P. O'Connor, M. Loewen, M. Getty, L. Tapanila, B. Foreman, J. Sertich, B. Gates, L. Zanno
- Zimbabwe – *Stratigraphy, taphonomy and vertebrate paleontology of Mesozoic dinosaur bearing strata in the Mono Pools Basin.* Collaborators: T. Broderick, P. O'Connor, M. Carrano, P. Dirks, Z. Jinnah, N. Stevens
- Continental Ichnology – *Investigating continental bone borings in the fossil record.* Collaborators: L. Backwell, R. Rogers, B. Foreman, L. Xing.

Teaching Experience

James Cook University 2010-present

Introduction to Sedimentology; Sedimentary Environments and Energy Resources; Introductory Marine Science; 2nd Year Field Mapping; Honours Coordinator

University of Papua New Guinea Fall 2012 (AusAid Sponsored Visiting Lecturer)

Sedimentology (3.5 Week Block Mode Course; co-taught w/N. English)

Southern Utah University 2008-2010

Sedimentology; Paleontology; Dinosaurs & the History of Life; Physical Geology; Historical Geology; Geology of the National Parks

University of the Witwatersrand 2005-2008

Sedimentology; Sedimentary Basin Analysis; Energy Resources; Physics of the Earth (team taught); Sedimentology & Geologic Mapping Field Modules (team taught)

Idaho State University 2004-2005

Tectonics and Sedimentation; Invertebrate Paleontology; Dinosaur Paleontology; Physical Geology; Physical Geography; Sedimentology Graduate Seminar
University of Utah and the University of Montana 1998-2003 (Teaching Assistant)
 Sedimentary Processes; Architecture of the Earth; Paleobiology; Invertebrate Paleontology; History of Life

Academic Service

Honours Coordinator, College of Science, Technology and Engineering, James Cook University (2015-present)
 Research Committee Member, College of Science Technology and Engineering, James Cook University (2015-present)
 Teaching and Learning Committee Member, College of Science Technology and Engineering, James Cook University (2015-present)
 Chair, Research Committee, School of Earth & Environmental Sciences, James Cook University (2013-present)
 Honours Coordinator, School of Earth & Environmental Sciences, James Cook University (2011-present)
 Symposia Co-Convener, Society of Vertebrate Paleontology Annual Meeting (2013)
 AusAid Capacity development at the University of Papua New Guinea- course delivery (2012)
 Host Committee and Fieldtrip Committee, Symposia Co-Convener, Society of Vertebrate Paleontology Annual Meeting (2011)
 Organizing Committee and Fieldtrip Leader, Advances in Western Interior Late Cretaceous Paleontology and Geology Conference (2009)
 Fieldtrip Co-organizer for the Geological Society of America Annual Meeting (2005)
 Scientific Consultant- Discovery Channel: Dinosaur Planet Series (2003)
 Invited Lectures: Idaho State University, Ohio University, Montclair State University, Trinity University, Cornell College; Grand Staircase-Escalante National Monument Lecture Series, Western Michigan University, Michigan State University; University of Zimbabwe; James Cook University; University of the Witwatersrand; Idaho State University, Museum of Tropical Queensland
 Peer Review & Refereeing (*reviewed over 80 articles and grants*): Australian Research Council; National Geographic Society-CRE; National Science Foundation; National Research Foundation, South Africa; *South African Journal of Geology*; *Earth and Planetary Science Letters*; *Geology*; *Journal of African Earth Science*; *Palaios*; *PLoS One*; *Naturwissenschaften*; *Journal of Paleontology*; *Palaeogeography*, *Palaeoclimatology*, *Palaeoecology*; *Paleobiology*; *Journal of Sedimentary Research*; *Ichnos*; *Cretaceous Research*; *Oman Journal of Science*; *Paleoworld*; *Sedimentary Geology*; Indiana university Press Edited Volume – *Late Cretaceous Geology and Paleontology of Southern Utah: A Critical Window into End-Mesozoic Ecosystems*; Springer Edited Volume – *Current Developments in Bioerosion*.

Professional Affiliations

Geological Society of America (GSA); *Society for Sedimentary Geologists (SEPM)*; *Society of Vertebrate Paleontology (SVP)*; *Paleontological Society (PS)*; *Geological Society of South Africa (GSSA)*; *Palaeontological Society of Southern Africa (PSSA)*