CURRICULUM VITAE

Megan R. Whitney

Postdoctoral Fellow

Organismal and Evolutionary Biology & Museum of Comparative Zoology

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Education

Ph.D. Biology, University of Washington (UW), Seattle 2019

Supervisory committee: Dr. Christian Sidor (Advisor),

Dr. Gregory Wilson, Dr. Susan Herring, Dr. Aaron Leblanc, and Dr. Tracy Popowics

B.A. Biology, Macalester College, Saint Paul 2013

Dr. Kristina Curry Rogers (Advisor)

Grants & Awards

Richard C. Snyder Award ($1,000) 2019

UW Tunnicliffe Graduate Fellowship (1 Q support) 2018

Society of Vertebrate Paleontology Dawson Pre-Doctoral Fellowship ($3,000) 2017

Richard C. Snyder Award ($1,800) 2017

NSF Doctoral Dissertation Improvement Grant ($20,043) 2017

UW Student Technology Fund Award ($38,974) 2016

NSF Graduate Research Fellowship Program Honorable Mention 2016

BEACON Evolution Award ($1,000) 2016

UW Graduate Student Symposium: Faculty Choice for Best Talk 2016

Washington Research Foundation & Benjamin Hall Fellowship (1 Q support) 2015

Washington Research Foundation & Benjamin Hall Award ($800) 2015

Research

**Positions**

Curatorial Assistant, UW Burke Museum, Dr. Christian Sidor 2017-2019

Research Assistant, UW, Dr. Christian Sidor 2015-2019

Paleohistology Lab Technician, Macalester College 2013-2014

Research Assistant, Macalester College, Dr. Kristina Curry Rogers 2012-2013

Undergraduate Researcher, SIT Ecology Ecuador 2012

Research Assistant, Macalester College, Dr. Mark Davis 2011

**Publications**

Underline author designates undergraduate student

**Whitney, M. R.** and C. A. Sidor. 2019. Histological and developmental insights into the herbivorous dentition of tapinocephalid therapsids. PLoS ONE 12(10):e0223860.

**Whitney, M. R.**, Y. T. Tse, and C. A. Sidor. 2019. Histological evidence of trauma in tusks of southern African dicynodonts. Palaeontologia africana 53:75—80.

LeBlanc, A. R. H., K. S. Brink, **M. R. Whitney**, F. Abdala and R. R. Reisz. 2018. Dental ontogeny in extinct synapsids reveals a complex evolutionary history of the mammalian tooth attachment system. Proceedings of the Royal Society B 285:20181792.

Wynd, B. M., B. R. Peecook, **M. R. Whitney**, and C. A. Sidor. 2017. The first occurrence of Cynognathus (Synapsida: Cynodontia) in Tanzania and Zambia, with implications for the age and biostratigraphic correlation of Traissic Strata in southern Pangea. pp. 228-239 in C. A. Sidor and S. J. Nesbitt (eds.), Vertebrate Climatic Evolution in the Triassic Rift Basins of Tanzania and Zambia. Society of Vertebrate Paleontology Memoir 17. Journal of Vertebrate Paleontology 37(6).

**Whitney, M. R.**, L. Mose, C. A. Sidor. 2016. Odontoma in a 255-Million-Year-Old Mammalian Forerunner. JAMA Oncology 3(7):998—1000.

Curry Rogers, K. A., **M. Whitney**, M. D’Emic and B. Bagley. 2016. Precocity in a tiny titanosaur from the Cretaceous of Madagascar. Science 352(6284):450-453.

**Whitney, M. R.** and C. A. Sidor. 2016. A new therapsid from the Permian Madumabisa Mudstone Formation (Mid-Zambezi Basin) of southern Zambia. Journal of Vertebrate Paleontology. Doi: 10.1080/02724634.2016.1150767.

Davis, M. A., A. Colehour, J. Daney, E. Foster, C. MacMillen, E. Merrill, J. O’Neil, M. Pearson, **M. Whitney**, M. D. Anderson, and J. J. Dosch. 2012. The Population Dynamics and Ecological Effects of Garlic Mustard, Alliaria petiolata, in a Minnesota Oak Woodland. The American Midland Naturalist 168(2):364-374.

**Conference Abstracts**

**M. R. Whitney**, K. D. Angielczyk, C. A. Sidor, and B. R. Peecook. 2019. Comparative histology of dicynodont tusks reveals cryptic diversity of tissue composition, development, and attachment strategies. Society of Vertebrate Paleontology Annual Meeting. Brisbane, Australia.

Sidor, C. A., P. Makovicky, J. A. McIntosh, N. Smith, R. M. Smith, N. J. Tabor, **M. Whitney**, and C. H. Woolley. 2019. Vertebrate paleontology of the Lower Triassic Fremouw Formation in the Shackleton Glacier area (Antarctica). Society of Vertebrate Paleontology Annual Meeting. Brisbane, Australia.

**Whitney**, **M. R.** and C. A. Sidor. 2019. Comparative Histology and Development of Dicynodont Tusks. Western Association of Vertebrate Paleontology. Eugene, OR.

Sidor, C. A., J. A. McIntosh, R. M. H. Smith, N. J. Tabor, and **M. R. Whitney**.2019.Vertebrate Paleontology of the Lower Triassic Fremouw Formation in the Shackleton Glacier Region (Antarctica). Western Association of Vertebrate Paleontology. Eugene, OR.

**Whitney**, **M. R.**, C. A. Sidor, and A. R. H. LeBlanc. 2018. A Permanent ligamentous tooth attachment in Permian gorgonopsians expands the phylogenetic and ecological distribution of a gomphosis in synapsids. Society of Vertebrate Paleontology Annual Meeting. Albuquerque, NM.

Fulghum, H. Z., L. N. Weaver, **M. R Whitney**, and G. P. Wilson. 2018. Comparative osteohistology of extant small-bodied mammals with implications for understanding the growth dynamics of Mesozoic mammals. Society of Vertebrate Paleontology Annual Meeting. Albuquerque, NM.

Wosik, M., **M. Whitney**, K. Curry Rogers, H. Woodward, and D. C. Evans. 2018. Defining dinosaur neonatal body size using osteohistological evidence. Society of Vertebrate Paleontology Annual Meeting. Albuquerque, NM.

Sidor, C. A., B. R. Peecook, C. V. Beightol, T. Kaye, Z. T. Kulik, G. Livingston, W. G. Parker, S. L. Olroyd, and **M. R. Whitney**. 2018. The shuvosaurid quarry: a multitaxic bonebed from the Sonsela Member of the Chinle Formation at Petrified Forest National Park. Society of Vertebrate Paleontology Annual Meeting. Albuquerque, NM.

Tse, Yuen Ting, **M. R. Whitney**, C. A. Sidor. 2018. Histological evidence of trauma in a tusk of Lystrosaurus (Synapsida: Anomodontia). Geological Society of America Annual Meeting. Indianapolis, IN.

**M. R. Whitney**, Y. T. Tse, and C. A. Sidor. 2018. Comparative tusk histology of Lystrosaurus from

the Early Triassic of South Africa and Antarctica shows pronounced seasonality. 5th International Palaeontological Congress. Paris, France.

Curry Rogers, K. A. , Z. Kulik, Bui, H. N., and **M. R. Whitney**. 2018. Titanosaur paleobiology: insights from Rapetosaurus krausei (Maevarano Formation, Madagascar). 5th International Palaeontological Congress. Paris, France.

Weaver, L. N., **M. R. Whitney**, and G. P. Wilson. 2018. Osteohistology of multituberculate femora from northeastern Montana suggests variation in growth rate near the K-Pg Boundary. Society for Integrative and Comparative Biology.

**Whitney, M. R.** and C. A. Sidor. 2017 Taphonomic indicators of tooth attachment in fossil synapsids with implication for oral food processing in tapinocephalids. Society of Vertebrate Paleontology Annual Meeting. Calgary, Alberta, Canada.

Tse, Y. T., **M. R. Whitney**, R. M. H. Smith, and C. A. Sidor. 2017. Unusual dentin deposition in the tusk of Lystrosaurus sp. (Synapsida: Anomodontia) from the Early Triassic of southern Pangea. Society of Vertebrate Paleontology Annual Meeting. Calgary, Alberta, Canada.

Weaver, L. N., **M. R. Whitney**, and G. P Wilson. 2017. First osteohistological description of a Late Cretaceous multituberculate from North American and implications for growth rates across the K-PG Boundary. Society of Vertebrate Paleontology Annual Meeting. Calgary, Alberta, Canada.

Sidor, C. A., K. D. Angielczyk, S. J. Nesbitt, B. R. Peecook, R. M. H. Smith, N. J. Tabor, S. Tolan, **M.R. Whitney**. 2017. Burnetiamorphs did it first: cranial adornment, rates of speciation, biogeography, and sampling in a Permian lineage of therapsids. Society of Vertebrate Paleontology Annual Meeting. Calgary, Alberta, Canada.

**Whitney, M. R.**, M. Wosik, L. Doran, K. A. Curry Rogers, H. Woodward, and D. C. Evans. 2017. Osteohistological signatures of hatching in modern ratites with implications for reconstructing the early ontogeny of dinosaurs. International Symposium on Paleohistology. Trenton, NJ.

**Whitney, M. R.**, L. Mose, and C. A. Sidor. 2016. Histopathology of a potentially cancerous mass in a late Permian gorgonopsian canine. Society of Vertebrate Paleontology Annual Meeting. Salt Lake City, UT.

**Whitney, M. R.**, L. Mose, and C. A. Sidor. 2016. Mammal-like thecodonty in several PermoTrassic therapsids: Implications for the evolution of tooth attachment in mammals. Society for Integrative and Comparative Biology Annual Meeting, Portland, Oregon. Abstract P2.164.

Curry Rogers, K., **M. Whitney**, B. Bagley, and M. D’Emic. 2015. Tiny titanosaurs: Primary growth and early ontogeny in a very young sauropod from Madagascar. Society of Vertebrate Paleontology Annual Meeting. Dallas, TX.

**Whitney, M.** and C. A. Sidor. 2015. Mammal-like thecodonty in herbivorous middle Permian tapinocephalids (Therapsida, Dinocephalia). Society of Vertebrate Paleontology Annual Meeting. Dallas, TX.

Curry Rogers, K., **M. Whitney**, and B. Bagley. 2013. Tiny Titanosaurs: Primary growth rates in hatchling sauropods from Madagascar. International Symposium on Paleohistology, Bozeman, MT. July 19.

**Whitney, M.**, K. Curry Rogers and B. Bagley. 2013. Bone histology and primary growth rates in hatchling titanosaurus from Madagascar: New insights from micro-computed tomography. Society for Integrative and Comparative Biology Annual Meeting, San Francisco, California. Abstract P3.197

**Whitney, M.**, M. Bernard, B. Bagley, and K. Curry Rogers. 2012. Tiny Titanosaurs: Micro-computed tomography and primary growth rates in hatching sauropods from Madagascar. Geological Society of America Abstracts with Programs, Vol. 44:231.

**Fieldwork**

Chinle Formation (Triassic), Arizona, USA 2015-2019

Madumabisa (Permian) and Ntaware (Triassic) Formations, Zambia 2018, 2019

Fremouw Formation (Triassic), Antarctica 2017-2018

Hell Creek Formation (Cretaceous), Montana, USA 2016

Judith River Formation (Cretaceous), Montana, USA 2012

**Collections Experience**

Natural History Museum LA County, Los Angeles, USA

Cambridge Museum of Zoology, Cambridge, England

British Museum of Natural History, London, England

South African Museum, Cape Town, South Africa

Evolutionary Studies Institute, Johannesburg, South Africa

American Museum of Natural History, New York, USA

Field Museum of Natural History, Chicago, USA

Burke Museum of Natural History, UW: Vertebrate Paleontology, Ornithology

Service Activities

**UW Biology Department**

Faculty Meeting Graduate Student Representative 2017-2019

Graduate Student Symposium Organizer 2017

**Reviewer for Journals**

The Science of Nature; Peer J; Journal of Systematic Palaeontology

Educational & Outreach Activities

**Positions**

Teaching Assistant: UW Biology 450: Vertebrate Paleontology

UW Biology 453: Comparative Vertebrate Anatomy

UW Biology 200: Introductory Biology (Cell Biology)

UW Biology 180: Introductory Biology (Evolution and Ecology)

Macalester College Biology 394: Research in Paleobiology

Macalester College Biology 112: Origins (Non-majors evolution)

Macalester College Biology 270: Biodiversity and Evolution

**Pedagogical Development**

UW Biology 505: Teaching Undergraduate Biology for Diverse Audience

**Invited Lectures**

UW Biology 450: Vertebrate Paleontology

 Evolution of Hard Tissues

 Lepidosaur Evolution

UW Biology 453: Comparative Vertebrate Anatomy

 Evolution of Teeth and Scales

 Evolution of Fin and Limbs

 Human Anatomy and Evolution

Kennebunk High School 9th – 12th Biology

Paleontology in Antarctica

**Mentored Student Researchers**

Henry Z. Fulghum 2017-present (UW Mary Gates Research Scholar)

Amanda Peng 2017-2018 (Graduate Student at Oregon State University, Hopkins Lab)

Yuen Ting Tse 2016-2017 (Graduate Student at the Ohio State University, Calede Lab)

Lisa Doran 2016-2017 (UW Medical Student)

Larry Mose 2015-2017 (UW Mary Gates Research Scholar)

Eryca Benson 2016

Cody Rose Knaub 2015

**Academic-Based Outreach**

*Italicized indicates programs where original content was developed*

UW Burke Museum *Dino Day*; *Birds at the Burke*;

 Behind the Scenes Night; Since 2014

*Girl Scouts of America Women in Science*

Expanding Your Horizons *STEM outreach workshops for middle*

 *school and high school girls and women* Since 2016

Field Museum of Natural History Donor dinner and unpacking party

 Zambian collections 2018

DIG Field School Instructor Program for K-12 teachers to get hands-on

 experience in paleontology in SE Montana 2016

**Popular Science Outreach**

Minutiae: Essays of the Scientific Process

By: Roberta Kwok, in Prep

UW Burke Museum: Burke paleontologists investigate mass extinctions in Zambia

https://www.burkemuseum.org/blog/burke-paleontologists-investigate-mass-extinctions-zambia-0

Antarctic Sun: Paleo Gondwanaland Was Full of Lystrosaurus

https://antarcticsun.usap.gov/science/contentHandler.cfm?id=4355

UW Burke Museum: Going to the end of the earth to uncover fossil life in Antarctica

https://www.burkemuseum.org/blog/going-end-earth-uncover-fossil-life-antarctica

UW Today: F&Q Odontoma in a gorgonopsian

https://www.washington.edu/news/2016/12/08/frequently-asked-questions-odontoma-in-a-gorgonopsian/