

## SAVANNAH LEIGH OLROYD

PO Box 208109, New Haven CT 06520-8109 | 503-260-9924 | savannaholroyd@gmail.com

### RESEARCH INTERESTS

- Morphological adaptation
- Functional morphology
- Evolution of development and its intersection with paleontology
- Patterns of evolution of mammalian traits throughout Synapsida

### EDUCATION

University of Washington, Seattle, WA

**Ph.D. in Biology**

**2016-2022**

Supervisory committee: Dr. Christian Sidor, Dr. Gregory Wilson-Mantilla, Dr. Sharlene Santana, Dr. Patricia Kramer

University of Washington, Seattle, WA

**M.S. in Earth and Space Sciences**

**2016**

Supervisory committee: Dr. Christian Sidor, Dr. Kenneth Angielczyk, Dr. Gregory Wilson, Dr. Roger Buick

University of Oregon, Eugene, OR

**B.S. in Biology**

**2013**

Minor: Geological Sciences

Advisers: Dr. Samantha Hopkins, Dr. Edward Davis

Cum Laude

### RESEARCH EXPERIENCE

**NSF Postdoctoral Research Fellow in Biology** – Department of Earth and Planetary Sciences, Yale University

Research adviser: Dr. Bhart-Anjan Bhullar

**2022-present**

**Graduate Research** – Department of Biology, University of Washington

Research adviser: Dr. Christian Sidor

**2016-2022**

**Research Assistantship** – Department of Biology, University of Washington

Research adviser: Dr. Christian Sidor

**2017**

**Graduate Research** – Department of Earth and Space Sciences, University of Washington

Research adviser: Dr. Christian Sidor

**2014-2016**

**Research Assistantship** – Department of Biology, University of Washington

Research adviser: Dr. Christian Sidor

**2015**

**Internship** – Department of Paleobiology, Field Museum of Natural History  
Research adviser: Dr. Kenneth Angielczyk **2013-2014**

**Independent Research** – Department of Geological Sciences, University of Oregon  
Research adviser: Dr. Samantha Hopkins **2011-2013**

**Lab Technician** – Department of Biology, University of Oregon  
Research adviser: Dr. William Cresko **2012-2013**

**Independent Research** – Department of Biology, University of Oregon  
Research adviser: Dr. Peter Wetherwax **2012**

**Independent Research** – Institute of Ecology and Evolution, University of Oregon  
Research adviser: Dr. William Bradshaw **2012**

#### GRANTS AND AWARDS

NSF Postdoctoral Research Fellowship in Biology, <b>\$138,000</b>	<b>2021</b>
AAUW American Fellowship, <b>\$20,000</b>	<b>2021</b>
U. Washington Distinguished Teaching Graduate Fellowship, <b>\$8000</b>	<b>2020</b>
U. Washington WRF-Hall Fellowship, <b>\$8000</b>	<b>2018</b>
Soc. Vertebrate Paleontology Cohen Prize, <b>\$3000</b>	<b>2018</b>
U. Washington Biology Snyder Award, <b>\$1500</b>	<b>2018</b>
Paleontological Society Feldmann Student Research Award, <b>\$1200</b>	<b>2019</b>
U. Washington Biology Snyder Award, <b>\$675</b>	<b>2020</b>
Soc. Vertebrate Paleontology Jackson School of Geosciences Travel Grant, <b>\$600</b>	<b>2019</b>
U. Washington Graduate School Conference Travel Award, <b>\$400</b>	<b>2019</b>
U. Oregon International Projects Fair Best Poster Presentation, <b>\$100</b>	<b>2013</b>

#### PEER-REVIEWED PUBLICATIONS

- Olroyd, S. L.** 2022. Independent origins of a novel atympanic middle ear system within Chamaeleonidae. *The Anatomical Record*. DOI: 10.1002/ar.24879.
- Olroyd, S. L.**, LeBlanc, A. R., Araújo, R., Angielczyk, K. D., Duhamel, A., Benoit, J., and Amaral, M. 2021. Histology and  $\mu$ CT reveal the unique evolution and development of multiple tooth rows in the synapsid *Endothiodon*. *Scientific Reports*, 11(1), 1-23. DOI: 10.1038/s41598-021-95993-6.
- Roopnarine, P. D., Angielczyk, K. D., **Olroyd, S. L.**, Nesbitt, S. J., Botha-brink, J., Peacock, B. R., Day, M. O. and Smith, R. M. 2018. Comparative ecological dynamics of Permian-Triassic communities from the Karoo, Luangwa, and Ruhuhu basins of southern Africa. *Journal of Vertebrate Paleontology*. 37(sup1), Memoir 17: Vertebrate and Climatic Evolution in the Triassic Rift Basins of Tanzania and Zambia:254-272.
- Olroyd, S. L.** Sidor, C. A., and Angielczyk, K. D. 2018. New materials of the enigmatic dicyonodont *Abajudon kaayai* (Therapsida, Anomodontia) from the lower Madumabisa

Mudstone Formation, middle Permian of Zambia. *Journal of Vertebrate Paleontology*. DOI: 10.1080/02724634.2017.1403442.

**Olroyd, S. L.** and Sidor, C. A. 2017. A review of the Guadalupian (middle Permian) global tetrapod fossil record. *Earth-Science Reviews*. 171:583-597.

#### PUBLISHED ABSTRACTS

**Olroyd, S. L.** and Sidor, C. A. (2021, May). The allometry of a potential hearing structure in non-mammalian synapsids. Oral presentation at the Triassic Vertebrate Paleontology Meeting, Online.

**Olroyd, S. L.** and Sidor, C. A. (2020, October). A 3D comparative analysis of the reflected lamina of therapsids provides clues to its function before the evolution of the mammalian ear. Oral presentation at the Society of Vertebrate Paleontology Annual Meeting, Online.

Angielczyk, K. D., Roopnarine, P., **Olroyd, S. L.**, Kammerer, C., and Pardo, J. (2020, October). The changing roles of insect and tetrapod herbivores in promoting terrestrial ecosystem stability from the Pennsylvanian to the Triassic. Oral presentation at the Society of Vertebrate Paleontology Annual Meeting, Online.

**Olroyd, S. L.** and Sidor, C. A. (2020, January). Allometry and porosity of the novel sound reception structure of chameleons. Oral presentation at the Society for Integrative and Comparative Biology Annual Meeting, Austin, TX.

**Olroyd, S. L.**, LeBlanc, A. R., and Angielczyk, K. D. (2019, October). Tooth migration, replacement, and the evolution of multiple tooth rows in endothermic dicynodonts (Therapsida, Anomodontia). Oral presentation at the Society of Vertebrate Paleontology Annual Meeting, Brisbane, Australia.

**Olroyd, S. L.** and Sidor, C. A. (2019, March). Allometry of bony sound reception structures: Chameleons as a potential functional analog for hearing ability in non-mammalian therapsids. Oral presentation at the Western Association for Vertebrate Paleontology Annual Meeting, Eugene, OR. *Bulletin of the Museum of Natural History, University of Oregon* 28:8.

**Olroyd, S. L.** and Sidor, C. A. (2018, October). Allometry of bony sound reception structures: Chameleons as a potential functional analog for hearing ability in non-mammalian therapsids. Oral presentation at the Society of Vertebrate Paleontology Annual Meeting, Albuquerque, NM.

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

**Olroyd, S. L.**, Sidor, C. A., Angielczyk, K. D., Smith, R. M. H., Nesbitt, N. J., and Tolan, S. (2017, August). Patterns of tooth replacement in the early dicynodont *Abajudon* and the origin of multiple tooth rows in *Endothiodon*. Oral presentation at the Society of Vertebrate Paleontology Annual Meeting, Calgary, AB.

- Olroyd, S. L.,** Sidor, C. A., Angielczyk, K. D., Smith, R. M. H., Steyer, J-S., Tabor, N., and Tolan, S. (2016, October). Recent tetrapod discoveries from the middle Permian (Guadalupian) of Tanzania and Zambia with biogeographic considerations. Poster presentation at the Society of Vertebrate Paleontology Annual Meeting, Salt Lake City, UT.
- Olroyd, S. L.,** Sidor, C. A., Angielczyk, K. D., Steyer, J-S., Tabor, N., and Tolan, S. (2015, October). A chimaeric emydopoid dicynodont (Therapsida: Anomodontia) from the Middle Permian of Zambia. Oral presentation at the Society of Vertebrate Paleontology Annual Meeting, Dallas, TX.
- Olroyd, S. L.** and Angielczyk, K. D. (2014, November). Exploring the robustness of Permo-Carboniferous terrestrial communities: The importance of insect and tetrapod herbivores. Oral presentation at the Society of Vertebrate Paleontology Annual Meeting, Berlin, Germany.
- Olroyd, S. L.** and Hopkins, S. S. B. (2013, November). Variation through tooth wear obscures the differential diagnoses of the Hemphillian castorids *Dipoides stirtoni* and *Dipoides smithi*. Poster presented at the Society of Vertebrate Paleontology Annual Meeting, Los Angeles, CA.
- Olroyd, S. L.** and Hopkins, S. S. B. (2013, May). Variation through tooth wear obscures the differential diagnoses of the beavers *Dipoides stirtoni* and *Dipoides smithi*. Poster presentation at the University of Oregon Undergraduate Symposium, Eugene, OR.
- Olroyd, S. L.** and Lawrence, S. (2013, April). Problem-solving abilities of leafcutter ants. Poster presentation at the University of Oregon International Projects Fair, Eugene, OR.

#### MUSEUM EXPERIENCE

Yale Peabody Museum  
Carnegie Museum of Natural History  
Harvard Museum of Comparative Zoology  
Florida Museum of Natural History  
University of the Witwatersrand Evolutionary Studies Institute  
National Museum, Bloemfontein  
Iziko South African Museum  
American Museum of Natural History  
Los Angeles County Museum of Natural History  
University of California Museum of Vertebrate Zoology  
University of California Museum of Paleontology  
Burke Museum of Natural History and Culture (**Research Associate 2018, 2019, 2020, 2021;**  
**Exhibit 3D Printing and Scanning 2018-2019**)  
Field Museum of Natural History (**Intern 2014**)  
University of Oregon Museum of Natural and Cultural History (**Collections volunteer 2010-2013**)

#### FIELDWORK EXPERIENCE

**Petrified Forest National Park, Arizona**                      **2015, 2016, 2017, 2018, 2019, 2021**

Chinle Formation, Triassic

**Northeastern Montana** 2018, 2019

Hell Creek Formation (Cretaceous) and Tullock Formation  
(Paleogene)

**Free State, South Africa** 2019

Balfour Formation (Permian) and Katberg Formation (Triassic)

**Ruhuhu Basin, Tanzania** 2017

Usili Formation (Permian) and Manda Beds (Triassic)

**Central Oregon** 2012-2013

John Day Formation, Eocene-Miocene

**Tiputini Biodiversity Station, Ecuador** 2012

#### PROFESSIONAL MEMBERSHIPS

##### **Society of Vertebrate Paleontology**

Meetings attended 2014, 2015, 2016, 2017, 2018, 2019, 2020

##### **Society for Integrative and Comparative Biology**

Meetings attended 2015, 2020

##### **Paleontological Society**

#### MENTORED UNDERGRADUATES

Lianna Marilao, Chet Merklin

#### INVITED LECTURES

**Kumustahan (Association of Filipino Scientists in America)** 2021

How Mammals Evolved a Middle Ear

**Fossil Friday Chat (Raymond Alf Museum)** 2020

Can You Hear Me Now? A History of the Tetrapod Ear

**Comparative Anatomy (University of Washington)** 2019

Evolution of Hearing

**Vertebrate Paleontology (University of Washington)** 2018

Origin of Lissamphibia

**Comparative Anatomy (University of Washington)** 2017

Reptile Diversity

**Comparative Anatomy (University of Washington)** **2016**  
Evolution of Teeth

## TEACHING EXPERIENCE

**Teaching Assistant, University of Washington** – Vertebrate Paleontology, Comparative Anatomy, Introductory Biology, and Introductory Geology **2014-2021**

**Tutor** – High School Math, Science, and ACT Preparation **2011-2014**

## OUTREACH EXPERIENCE

Jordan, MT  
**DIG Field School** **2018, 2019**

Burke Museum of Natural History and Culture, Seattle, WA  
**Dino Day** **2015, 2016, 2017, 2018**

Burke Museum of Natural History and Culture, Seattle, WA  
**Ice Age Chillout** **2018**

Burke Museum of Natural History and Culture, Seattle, WA  
**Dinos on the Rocks** **2017**

Burke Museum of Natural History and Culture, Seattle, WA  
**Dino Night** **2017**

Burke Museum of Natural History and Culture, Seattle, WA  
**Members' Night** **2015-2019**

Cascades Raptor Center, Eugene, OR  
**Interpreter** **2013**

Museum of Natural and Cultural History, Eugene, OR  
**Paleolab Interpreter** **2010-2011**

## SERVICE

Soc. of Vertebrate Paleontology Student and Postdoc Liaison Committee **2020-present**

UW Grad-Led Action on Diversity and Equity **2017-2020**

UW Graduate and Postdoc Programming Committee **2018-2020**

UW Biology Grad Student Orientation **2020**

UW Biology faculty hiring committee **2019**

Session moderator, Society of Vertebrate Paleontology Annual Meeting **2018**