

# Henry Nathaniel Thomas

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Research interests primarily fall under the broad categories of systematics, paleobiology, and macroevolution of amniotes.

## Education

### **Graduate: Idaho State University (August 2022 - August 2024)**

Master of Science, Department of Biological Sciences

Supervisory committee: Brandon Peecook (major advisor), Dave Delehanty, Bruce Finney, Kendra Murray

Thesis: *The First Geikiid Dicynodont from Late Permian Zambia and the Evolution of Ornamented Dicynodonts*.

### **Undergraduate: University of California Berkeley (August 2017 - May 2021)**

Bachelor of Arts, Department of Integrative Biology

GPA: 3.486

## Research experience

### **Peer-reviewed publications**

**Thomas, H.N.** (in press). “*Rhamphorhynchus bucklandi* Huxley, 1859 is the valid name and authority for a Jurassic pterosaur (Pterosauria, ?Rhamphorhynchidae) from England, not *Pterodactylus bucklandi* Meyer, 1832”. *Bulletin of Zoological Nomenclature*.

**Thomas, H.N.**; McDavid, S.N. (2025). “Enter the dragons: the phylogeny of Azhdarchoidea (Pterosauria: Pterodactyloidea) and the evolution of giant size in pterosaurs”. *Journal of Systematic Paleontology* 23(1): 2569368. <https://doi.org/10.1080/14772019.2025.2569368>

Ravesloot-Chavez, M.M.; Van Dis, E.; Fox, D.; Sanchez, A.A.; Espich, S.; Nguyenla, X.H.; Rawal, S.L.; Samani, H.; Balinger, M.A.; **Thomas, H.**; Kotov, D.; Vance, R.; Nachman, M.W.; Stanley, S.A. (2025). “Tuberculosis susceptibility in genetically diverse mice reveals functional diversity of neutrophils”. *eLife* 13: RP102441: <https://doi.org/10.7554/eLife.102441.2>.

**Thomas, H.N.**; Angielczyk, K.D.; Peecook, B.R. (2025). “The first geikiid dicynodont, *Aulacephalodon kapoliwacela* sp. nov. (Therapsida: Anomodontia), from the upper Madumabisa Mudstone Formation of Zambia.” *Journal of Vertebrate Paleontology* 45(sup1): e2446603. <https://doi.org/10.1080/02724634.2024.2446603>.

McDavid, S.N.; **Thomas, H.N.** (2025). “The Putative Pterosaur Tracks at Gunston Hall (Potomac Group, Cretaceous of Virginia) are Examples of Erosion”. *The Mosasaur* 14: 13–21. <https://doi.org/10.5281/zenodo.14991720>.

**Thomas, H.N.**; Hone, D.W.E.; Gomes, T.; Peterson, J.E. (2025). “*Infernodrakon hastacollis* gen. et sp. nov., a new azhdarchid pterosaur from the Hell Creek Formation of Montana, and the pterosaur diversity of Maastrichtian North America”. *Journal of Vertebrate Paleontology* 44(4): e2442476. <https://doi.org/10.1080/02724634.2024.2442476>.

## Oral conference presentations

**Thomas, H.N.; McDavid, S.N.** (2025). “Pterosaurs from the paleocontinent of Appalachia”. *NorthEast Regional Vertebrate Evolution Symposium*, Stony Brook.

McDavid, S.N.; **Thomas, H.N.**; Lauer, R.L.; Lauer, B. (2025). “A new germanodactylid pterosaur from the Tithonian Mörsheim Formation of Mühlheim, Southern Germany”. *NorthEast Regional Vertebrate Evolution Symposium*, Stony Brook.

**Thomas, H.N.**; Peacock, B.R. (2024). “Lawless teeth indeed: repeated reversals of edentulousness in dicynodont therapsids”. *84th Annual Meeting of the Society of Vertebrate Paleontology*, Minneapolis.

**Thomas, H.N.**; Angielczyk, K.D.; Peacock, B.R. (2024). “Taxonomy and paleobiology of the dicynodont *Aulacephalodon* from South Africa and Zambia”. *22nd Palaeontological Society of Southern Africa Conference*, Graaff-Reinet.

**Thomas, H.N.**; Angielczyk, K.D.; Peacock, B.R. (2023). “The return of Geikiidae (Synapsida: Dicynodontia) to the Upper Madumabisa Mudstone Formation (Upper Permian) of the Luangwa Basin, Zambia”. *83rd Annual Meeting of the Society of Vertebrate Paleontology*, Cincinnati.

**Thomas, H.N.**; Angielczyk, K.D.; Peacock, B.R. (2023). “Taxonomic reappraisal of a mounted dicynodont skeleton at the Field Museum of Natural History”. *4th Paleontological Virtual Congress*, virtual.

**Thomas, H.N.**; Hone, D.W.E.; Peterson, J.E. (2022). “The Feathered Serpent did not live in Hell: reappraisal of an azhdarchid cervical vertebra from the Hell Creek Formation of Montana”. *82nd Annual Meeting of the Society of Vertebrate Paleontology*, Toronto.

Muddiman, B.; **Thomas, H.N.**; Booth, S.; Duijnste, I.; Looy, C.V. (2022). “Ecosystem engineering feedback and the Carboniferous Rainforest Collapse”. *The Geological Society of America Connects 2022*, Denver.

**Thomas, H.N.**; Booth, S.; Muddiman, B.; Duijnste, I.; Looy, C.V. (2022). “Community dynamics of Pennsylvanian peat swamps and the nature of the Carboniferous Rainforest Collapse”. *The Geological Society of America Connects 2022*, Denver.

Booth, S.; **Thomas, H.N.**; Duijnste, I.; Muddiman, B. (2021). “Ecological (dis)similarity between Pennsylvanian coal floras across space and time”. *Midcontinent Paleobotanical Colloquium 2021*, virtual.

**Thomas, H.N.** (2019). “The phylogeny of azhdarchoid pterosaurs”. *NorCal Paleo*, Berkeley.

**Thomas, H.N.** (2018). “A novel phylogenetic analysis of azhdarchoid pterosaurs, with comments on their biogeography and paleoecology”. *1st Palaeontological Virtual Congress*, virtual.

## Conference posters

**Thomas, H.N.**; McDavid, S.N. (2025). “Giant size convergently evolved multiple times in azhdarchid pterosaurs”. *85th Annual Meeting of the Society of Vertebrate Paleontology*, Birmingham.

McDavid, S.N.; **Thomas, H.N.** (2025). “Flying reptiles of the forgotten paleocontinent: revision of the pterosaurs of Appalachia and Eastern North America”. *85th Annual Meeting of the Society of Vertebrate Paleontology*, Birmingham.

**Thomas, H.N.**; Angielczyk, K.D.; Peacock, B.R. (2024). “The identity of a historic mounted dicynodont skeleton at the Field Museum”. *12th North American Paleontological Convention*, Ann Arbor.

**Thomas, H.N.;** Humphries, D.; Dickson, M.C. (2023). "Bias in documentary portrayals of paleontology and prehistoric life". *83rd Annual Meeting of the Society of Vertebrate Paleontology*, Cincinnati.

Booth, S.; **Thomas, H.N.;** Muddiman, B.; Duijnste, I.; Looy, C.V. (2022). "A case study in taphonomy from the Phillips Coal Ball Collection". *The Geological Society of America Connects 2022*, Denver.

**Thomas, H.N.** (2021). "The phylogeny of Azhdarchoidea (Pterosauria) and the rise of toothless pterosaurs". *81st Annual Meeting of the Society of Vertebrate Paleontology*, virtual.

Dickson, M.C.; Deans, A.M.; **Thomas, H.N.;** Voss, B.; McCallum, M.; Chen, A. (2018). "A case study in conducting an online learning experience in vertebrate palaeontology". *78th Annual Meeting of the Society of Vertebrate Paleontology*, Albuquerque.

Dickson, M.C.; Chen, A.; Cortes, J.C.; Deans, A.M.; Orlowski, H.; **Thomas, H.N.;** Turmelle, J.F.; Wood, J.; Groom, R. (2016). "Dinosaurs, birds, and memes: utilizing a popular microblogging platform for palaeontological education". *76th Annual Meeting of the Society of Vertebrate Paleontology Meeting*, Salt Lake City.

### **Manuscripts reviewed**

Pêgas, R.V.; Zhou, X; Kobayashi, Y. (2025). "Azhdarchid pterosaur diversity in the Bayanshiree Formation, Upper Cretaceous of the Gobi Desert, Mongolia". *PeerJ* 13: e19711. DOI: 10.7717/peerj.19711.

Rabe, C.; Marugán-Lobón, J.; Smith, R.; Chinsamy, A. (2024). "Geometric morphometric analysis of an ontogenetic cranial series of the Permian dicynodont *Diictodon feliceps*". *Proceedings of the Royal Society B* 291(2027): 20240626. DOI: 10.1098/rspb.2024.0626.

## **Teaching and outreach experience**

### **Teaching**

Human Anatomy and Physiology, Idaho State University (Spring 2024): Taught the lab portion of a general human anatomy course. Duties include preparing and presenting lectures and grading assignments.

Biology II Lab, Idaho State University (Fall 2022–Fall 2023): Taught the lab portion of an introductory biology course. Duties included preparing and presenting lectures, tutoring students, and grading assignments.

### **Outreach events**

Fall Fossil Fest (October 2022–October 2023): Participated in a public outreach event at the Idaho Museum of Natural History. Explained paleontological topics to the general public, from small children to elders.

Society of Vertebrate Paleontology Diversity Panels (November 2022): Participated in neurodivergence/mental disability and LGBTQ+ diversity panels for the virtual component of SVP 2022.

Paleontological Society Student Ambassadorship Program (October 2020): Acted as a social media student ambassador for the Paleontological Society. Helmed a virtual booth at the 2020 Geological Society of America meeting and provided social media updates about the meeting to the public.

## **Media consultation**

*Walking with Dinosaurs* (2025) Episode 1: “The Orphan”. BBC Studios Science Unit.

Timmons, J. (2023). “Did Oregon once host a nesting colony of pterosaurs?”. *Ars Technica*.  
<https://arstechnica.com/science/2023/03/did-oregon-once-host-a-nesting-colony-of-pterosaurs/>.

## **Exhibit development**

Idaho Museum of Natural History (2023): *Dinosaurs from the Mountain: Idaho 100 Million Years Ago*.

## **Work and volunteer experience**

### **Employment history**

Walgreens (September 2025-): Pharmacy technician. Duties included ordering and filling prescriptions, preparing shipments, and customer service. Supervisor: Hannah Breslow.

Complexly LLC (May-July 2025): Scriptwriter. Pitched and wrote scripts for the educational YouTube series *Eons*, explaining paleontological concepts in a casual and accessible way. Supervisors: Paige Madison, Darcy Shapiro.

Idaho Virtualization Laboratory (May 2023-August 2023): Scan technician. Processed 3D surface scans of mammal skeletal elements to produce 3D models of whole skeletons. Duties included merging and aligning scans, cleaning and exporting finalized models. Supervisor: Tim Gomes.

UC Berkeley Museum of Vertebrate Zoology (July 2021-July 2022): Research technician. Managed inbred wild-derived house mouse colonies. Duties included animal husbandry, tissue collection and preservation, recording breeding and biometric data, management of lab materials, archival work. Supervisor: Michael Nachman.

### **Research positions**

Lauer Foundation for Paleontology, Science, and Education (July 2025-): Research Associate. Led research projects on pterosaurs and pliosaurs from Late Jurassic Germany.

California Academy of Sciences (February 2025-): Scientific Computing Volunteer. Conducted a research project under supervision to reconstruct evolution of anatomy, biogeography, and habitat usage in African reed frogs (Hyperoliidae). Duties included programming in R, literature reviews, and developing figures. Supervisor: Rayna Bell.

UC Berkeley Department of Integrative Biology (Fall 2020-Summer 2021): Research Apprentice. Worked with the Phillips Coal Ball Collection, a dataset of paleobotanical occurrences in Pennsylvanian coal balls. Investigating the relationship between ecological dissimilarity and geographic distance between Pennsylvanian fossil localities. Duties included transcribing data from scans of paper datasheets, reconstructing paleocoordinates of coal ball localities using GPlates, developing figures, and analyzing the dataset using R. Supervisors: Cynthia Looy, Benjamin Muddiman.

UC Berkeley Museum of Vertebrate Zoology (Spring 2020): Curatorial Apprentice. Assisted with various curatorial duties for the mammalogical and ornithological collections. Duties included applying specimen numbers to recently acquired specimens and setting up pest control. Supervisor: Chris Conroy.

## **Organizational experience**

83rd Annual Meeting of the Society of Vertebrate Paleontology (October 2023): Moderated Technical Session 18 (Synapsids).

Paleontological Society of Berkeley (Spring 2021): co-founded a student group at UC Berkeley focused on paleontology. Served as a member of the Executive Committee. Helped organize and conduct meetings.

Dino Nerds For Black Lives (June 2020): organized and co-hosted an impromptu scientific conference, streamed to the public via Twitch to raise funds. Raised \$4,701 for racial justice charities.

## **Field experience**

San Juan County, Utah, United States (August–September 2023): Chinle Formation. Prospecting.

Caribou County, Idaho, United States (August 2023): Wayan Formation. Prospecting.

Niobrara County, Wyoming, United States (June 2023): Fort Union Formation, Lance Formation, White River Formation. Microsite collection and prospecting.

San Juan County, Utah, United States (June 2023): Chinle Formation, Cutler Formation, Morrison Formation. Microsite collection and prospecting.

Grand County, Utah, United States (June 2021): Masuk Formation, Morrison Formation. Microsite collection, prospecting, and quarry work.

## **Grants and awards received**

Paleontological Society (2024): Student Research Grant (\$1,200).

Idaho State University Biology Graduate Student Association (2024): Travel Grant (\$400).

Idaho State University (2023): Graduate School Conference and Research Travel Award (\$400).

Idaho State University Biology Graduate Student Association (2023): Travel Grant (\$400).

Idaho State University (2022): Graduate School Conference and Research Travel Award (\$400).

Associated Students of Idaho State University (2022): Travel Grant (\$500).

University of California Berkeley (2021): Undergraduate Research Apprenticeship Program Summer Research Award (\$1,500).

Paleontological Society (2020): Paleontological Society Outreach and Education Grant (\$250).

## **Professional memberships**

Palaeontological Society of Southern Africa (2024–)

Paleontological Society (2021–)

Society of Vertebrate Paleontology (2019–)