

Curriculum Vitae

Alexander D. Clark

PhD Student - University of Chicago
Department of Ecology and Evolution | Program: Committee on Evolutionary Biology
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RESEARCH INTERESTS

- Socio-sexual selection pressures on ornamentation and behavior
- Incorporating neontological comparative anatomy and qualitative analyses to create rigorous predictions of extinct organism's behavior and ecologies
- Extinct bird morphology description, ecomorphology, and socio-sexual dichotomy
- Inferred paleoethology of early tetrapod, avian, and non-avian theropod groups through display structures and skeletal morphology

EDUCATION

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| University of Chicago, Chicago, IL PhD – Committee on Evolutionary Biology (CEB) Concentration: Mesozoic bird paleobiology and signaling | 2023 - Present |
| West Virginia University, Morgantown, WV M.Sc. – Wildlife and Fisheries <i>with high honors</i> Concentration: Avian ecology and behavior | 2020 - 2023 |
| University of Cincinnati, Cincinnati, OH Additional Courses in Biological Sciences and Mathematics | 2018 |
| Cedarville University, Cedarville, OH B.A. (Senior focus: Invertebrate Paleontology) Minors: Geology, Psychology <i>*I do not endorse or hold to Cedarville University's religious or political views</i> | 2010 - 2014 |

FIELD RESEARCH EXPERIENCE

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| Hell Creek Formation Dig Member – Field Museum Annual prospecting, collection, and examination of fossiliferous layers in Southeastern Montana. Supervisor: Dr. Jingmai O'Connor | 2023 - Present |
| Cincinnati Museum Center – Paleontology Department Collection and curatorial duties in vertebrate paleontology. Supervisor: Dr. Glenn Storrs | |

- Washington Avian Ethologist – Center for Natural Lands Management and Washington Dept. Fish and Wildlife** – “Tidal and estuarine avian species wintering and breeding population research.” 2020
Supervisor: Gary Slater
- BADP Crew Member, University of Alberta** – “Paleontological research in the Wapiti Formation in North Western Alberta (Grande Prairie).” 2019
Supervisor(s): Dr. Corwin Sullivan (UofA) and Nicolas Campione (UNE)
- Conservation/ Environmental Consultant – California Condor Project (WEST Inc)** “Monitoring **California Condor (CR)** and Golden Eagle activity in proximity to wind turbine activity in southern California.”
Supervisor: Troy Rintz
- Migratory Bird Bander (USGS and OBBA)** – “Fall/Winter migratory bird trends as seen through annual banding.” Supervisor: Robert Thobaben 2018
- Field Assistant (USGS)** – “Spring Migrant Demography and project MAPS”.
Supervisor: Robert Thobaben
- Field Assistant** – “Winter Raptor Demography” Waynesville, Ohio.
Supervisor: Robert Thobaben
- Biological Technician (BLM)** – “**Northern Spotted Owl (NT)** Demography” Roseburg, Oregon. Supervisor: Janice Reid (US Forest Service) 2017
- Biological Technician** – “*Burrowing Owl Population Research*”. Umatilla, Oregon. *Supervisor: David Johnson*
- Primary Point-Count Leader (USFWS & USGS)** – “**Palila (*Loxioides bailleui*) (CR)** Mauna Kea Survey” Annual transect point-counts for critically endangered Hawaiian honeycreeper. Mauna Kea, Hawaii. Supervisor: Kālā Asing (Mauna Kea Forest Recovery Project).
- Biological Technician (USGS)** - “Hawaiian Endemic, **Hawaii ‘Elepaio (VU)**, Breeding Response to Invasive Predator Management” GS03-04 Volcano, Hawaii. 2016
Supervisor: Dr. Paul Banko (USGS)
- Field Assistant (USGS)** – “Hawaiian Endangered Mammal and Arthropod data collection” Poli Poli, Maui. Supervisor: Robert Peck
- Field Assistant (USGS)** – “Anchialine Pools of Hawai’i; *Megalagrion* & *Halocardina*” Kona, Hawaii. Supervisor: Robert Peck
- Field Assistant** – “Neotropical Migrational Trend Research” Waynesville, Ohio. Supervisor: Robert Thobaben 2014-15

Biological Technician (University of Tennessee) – “Patch-burning and Avian Breeding Preference” Richmond, Kentucky. University of Tennessee

Rehabilitation Manager (Ohio DNR) – “Raptor Care in Central Ohio”
Waynesville, Ohio. Supervisor: Erin Shaw (ODNR)

THESIS

Clark, A., 2023. Assessing forest features and nocturnal flying insect diversity as predictors of Eastern whip-poor-will occupancy in foraging habitat. Graduate Theses, Dissertations, and Problem Reports. <https://doi.org/https://doi.org/10.33915/etd.11895>

PEER-REVIEWED PUBLICATIONS

*denotes the primary and corresponding author

- 8 **Clark, A.D.***, Atterholt, J., Carroll, N., Carr, T.D., Scannella, J.B., O’Connor, J.K. (**in prep**). Functional morphology of the avisaurid tarsometatarsus and three new Hell Creek enantiornithines. *PLOS One* (IF. 3.7)
- 7 O’Connor, J.K.*, **Clark, A.D.**, Herrera, F., Zhou, Z., Xiaoli, W, Zheng, X. (**In review**). Stomach contents in the Mesozoic bird *Longipteryx* (Aves: Enantiornithes) contradict morphological data and quantitative analyses. *National Science Review* (IF 22.3)
- 6 Cruz-Vega, E.J.*, O’Connor, J.K., **Clark, A.D.**, Sertich, J.J. (**In review**). First Neornithine Bird from the Latest Cretaceous Hell Creek Formation of South Dakota, U.S.A. *All Earth* (IF 1.3)
- 5 O’Connor, J.K.*, Atterholt, J., **Clark, A.D.**, Zhou, L., Peng, C., Zhang, X., You, H. (**In review**). Enantiornithine (Aves: Ornithothoraces) from the Lower Cretaceous Xiagou Formation with an unusually short pubis. *Geobios* (IF 1.6)
- 4 Wang X., **Clark, A.D.***, O’Connor, J.K., Zhang X., Wang X., Zheng X., and Zhou Z. 2024. First Edentulous Enantiornithine from the Lower Cretaceous Jehol Avifauna Biota. *Cretaceous Research* (IF 2.432). doi: 10.1016/j.cretres.2024.105867
- 3 **Clark, A.D.***, Hu, H., Benson, R.B.J., and O’Connor, J.K. 2023. Reconstructing the Dietary and Ecological Habits of the Longipterygidae (Aves: Enantiornithines) Using Quantitative and Comparative Morphological Methods. *PeerJ* (IF 3.06). doi: 10.7717/peerj.15139
- 2 **Clark, A.D.***, and D.W.E., Hone. 2022. Evolutionary Pressures of Aerial Insectivory Reflected in Anurognathid Pterosaurs. *Journal of Anatomy* (IF 2.4). doi: 10.1111/joa.13814
- 1 **Clark, A.D.***, and J.K., O’Connor. 2021. Exploring the Ecomorphology of Two Cretaceous Enantiornithines with Unique Pedal Morphology. *Frontiers Ecology and Evolution* (IF 4.493). doi: 10.3389/fevo.2021.654156

MUSEUM SPECIMENS

Carnegie Museum of Natural History (Pittsburgh, USA). Catalog ID: CM E 10424. *Antrostomus vociferus* egg. Refer to specimen account.

Field Museum of Natural History (Chicago, USA). Catalog ID: FMNH PE 82124 – 82155. Multiple articulated Cincinnatian Ordovician crinoid specimens that were the focus of my senior research during undergraduate degree as well as a geological conference abstract. Genera are identified as *Isocrinus*, *Glyptocrinus*, and *Pycnocrinus*. All specimens were discovered, excavated, and prepared by myself.

AVIAN BANDING EXPERIENCE *Approximately 1500 individuals, 94 species*

Families Include: Parulidae, Turdidae, Emberizidae, Cardinalidae, Vireonidae, Bombycillidae, Mimidae, Corvidae, Regulidae, Friengillidae, Sittidae, Troglodytidae, Paridae, Certhiidae, Icteridae, Strigidae, Tyrannidae, Picidae, Columbidae, Zosteropidae, Leiothrichidae, Icteriidae

PRESENTATIONS/INVITED TALKS

Society of Vertebrate Paleontology, October 2023, Podium presentation. 2023
 “First Edentulous Enantiornithine from the Early Cretaceous Jehol Avifauna Biota”.

Southeastern Association of Fish and Wildlife Sciences, 2022. Podium 2022
 presentation. “Assessing landscape features & nocturnal flying insect abundance as predictors of Eastern Whip-poor-will on institutional landscapes in West Virginia” *I do not endorse or hold to most statutes held by SEAFWA

Mountaineer Audubon Society: “Assessing landscape features & nocturnal flying insect abundance as predictors of Eastern Whip-poor-will on institutional landscapes in West Virginia”. West Virginia University, Morgantown, WV

Geological Society of America: “New Ordovician Crinoid Locality and the Ontogeny of *Glyptocrinus dedactylus*”. Clark, Alexander. Department of Science and Mathematics, Cedarville University. *Abstract* Vol. 44, No. 7, p.230. Session No. 89, Booth #41. 2012

MEDIA/ PUBLIC OUTREACH

Dinofest – Field Museum. Show Chicago citizens dinosaur casts, models, and discuss how paleontologists make discoveries and go out into the field. General event held by the Museum 2024

Behind-the-scenes Field Museum Guide. Guide invited guests to tour the dinosaur collections and be given a small lecture on current work, history of paleontology at the Field Museum, and interesting facts of taxa within the collections. 2023 - Present

SUE the T-rex Special Event Guide. Special donor events - guided tour of the history and paleobiology of *Tyrannosaurus rex* at the Field Museum in Chicago, IL. 2023

Contributing Author and Photographer. Regular contributor of 2016 - Present

Commissioned multiple-page articles discussing scientific findings and experiences that are readable for the general public and scientists alike, while keeping scientific integrity at the forefront. I also work as a professional wildlife photographer for 'Birdwatching Magazine', 'American Bird Conservancy', 'Living Bird Magazine', 'Hawaii Magazine', and the Cornell Lab of Ornithology.

Colorado Parks and Wildlife – Selected by the state of Colorado and the Strategic Committee for **Gunnison Sage Grouse (EN)** to be the photographer for the species in 2019. Private escort onto leks, led by Nathan Seward, Colorado biologist. 2019, 2023

ACADEMIC AWARDS/ GRANTS/ FUNDING

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| University of Chicago, Graduate Council Funding Award - \$750 | 2023 |
| West Virginia University, University Research Assistant- \$15,000 | 2021-22 |
| West Virginia University, University Research Assistant - \$15,000 | 2021-22 |
| University of Cincinnati, Dean's list | 2018 |
| Cedarville University, John W. Bicket Award. Alumni Scholarship Award- \$350 | 2013 |
| Cedarville University, Dean's list for junior/ senior year of undergraduate degree | 2013-14 |

TEACHING & TRAINING HISTORY

Graduate Research Assistant – West Virginia University. 2020-22
Independent research and lecturer for Ornithology 426

Graduate Teaching Assistant – West Virginia University.
Lab lecturer and demonstrator for Biology 116, intended for biology-major undergraduate students. Responsible for in-class instruction, test and practical administration, and holding office hours for questions and study help.

Wilderness First Aid Training (BLM) – Roseburg, OR 2017
GSA Vehicle Training – BLM and U.S. Forest Service

Blood-borne Pathogen Training – University of Hawaii at Hilo 2016
GSA Vehicle Training - USGS

WILL Program Presenter (Wilmington Institute of Lifelong Learning) 2010-15
Mist nest demonstrations, teaching identification keys including species level, sex, age, and band-reading.

Wildlife Rehabilitation - Ohio Division of Wildlife, Training Level I

Geology Camp Leader (2011 & 2012) – Cedarville University. Teaching geology classes, fossil identification, preparation, and geology lecturing