

Elizabeth Glynne (Boenigk)

Curriculum Vitae

PhD - Ecology and Evolutionary Biology
Iowa State University, Ames, IA

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Education

Degrees

Aug. 2018 – May 2025	Iowa State University in Ames, IA <i>PhD of Ecology and Evolutionary Biology – EEOB Dept</i>
Aug. 2016 – Aug. 2018	Sam Houston State University in Huntsville, TX <i>Masters of Science – Biology</i>
Jan. 2014 – Dec. 2015	Sam Houston State University in Huntsville, TX <i>Bachelors of Science - Psychology with minor in Biology</i>
Aug. 2008 – May 2013	Blinn College in Bryan, TX <i>Associates of Arts – Biology</i>

Certifications

Adult and Pediatric First Aid / CPR / AED	Expires 04/2026
CITI Training – Working with the IACUC	Expires 05/2026

Teaching Philosophy

My instructional methods aim to create an inclusive learning environment that fosters critical thinking, ignites curiosity, and promotes lifelong learning. Drawing from diverse approaches such as online learning, experiential learning, and student-centered methods, I engage students actively and accommodate their varied backgrounds. I prioritize proactive curriculum design, flexible teaching methodologies, and universal accessibility, utilizing cost-effective resources like freeware and open-source software to ensure equitable access. My desire is to empower students to become self-directed learners, equipped with the skills and knowledge to navigate their academic journey independently. Whether as an Instructor of Record for lecture-based courses or in laboratory instruction, I emphasize real-world applications, encourage student participation, and provide personalized mentorship to facilitate this process. By fostering a culture of empowerment and self-discovery, I aim to enable every student to succeed academically and pursue their passions.

Research Overview

I am fascinated with understanding phenotypic patterns (e.g. body size evolution, sexual dimorphism, phylogenetic patterns) observed in nature. As a quantitative evolutionary biologist, I am interested in using phylogenetic comparative methods to characterize patterns of phenotypic diversity and how it evolves across the tree of life. My master's work used qualitative approaches to assess comparative cranial anatomy in geckos utilizing 3D modeling of CT scans. My Ph.D. work and my current work utilizes quantitative methods to evaluate macroevolutionary patterns of phenotypic differences across geckos, exploring the effects of extreme evolutionary body shifts and how this relates to other evolutionary patterns (i.e. sexual dimorphism and integration) in two families of geckos in a phylogenetic comparative context.

Diversity, Equity, and Inclusion (DEI) Commitment

My commitment to DEI in education is deeply rooted in the belief that every individual, regardless of background or identity, deserves equitable access to opportunities and resources. I advocate for neurodiversity and marginalized backgrounds, striving to create inclusive learning environments through tailored curriculum design, flexible teaching methodologies, and universal accessibility. Recognizing the richness of diverse perspectives, experiences, and identities, I promote cultural competence and foster cross-cultural interactions to cultivate a sense of belonging for all. In my pursuit of inclusivity, I am dedicated to creating, maintaining, and utilizing supportive and welcoming environments where individuals can express themselves authentically, engage in meaningful dialogue, and collaborate effectively. Through ongoing assessment and reflection, I am committed to continuous improvement, ensuring that our educational communities evolve to meet the diverse needs of all learners. Together, as a community, we can drive transformative change to shape an educational landscape that celebrates diversity and fosters academic success for all who seek knowledge.

Teaching

Instructor – Lecture

Iowa State University Jan. 2025– May. 2025
Instructor of Record – BIOL 1010 Introductory Biology (3 credit hr)
Iowa State University Aug. 2022– Dec. 2022
Instructor of Record – BIOL 457 Herpetology Lecture (2 credit hr)
Lab Coordinator – BIOL 457 Herpetology Lecture (1 credit hr)

Instructor – Lab

Iowa State University Aug. 2023– Dec. 2023
Graduate Teaching Assistant– BIOL 457L Herpetology Lab (1 credit hr)
Iowa State University Aug. 2021– Dec. 2021
Graduate Teaching Assistant– BIOL 457L Herpetology Lab (1 credit hr)
Sam Houston State University Jan. 2017 – May 2017
Graduate Teaching Assistant– BIOL 1408 Contemporary Biology (1 credit hr)
Sam Houston State University Aug. 2016 – Dec. 2016
Graduate Teaching Assistant– BIOL 1413 General Zoology (1 credit hr)
BIOL 1411 General Principles of Botany (1 credit hr)
Sam Houston State University Aug. 2014 – May 2015
Undergraduate Teaching Assistant – BIOL 1413 General Zoology Lab (1 credit hr)

Substitute – Lecture

Sam Houston State University Aug. 2016 – May 2017
Graduate Teaching Assistant (PRN) – BIOL 2403 Human Anatomy & Physiology I (3 credit hr)

Teaching Accolades

2023 Awarded Ecology, Evolutionary, and Organismal Biology Excellence in Teaching Award.
2016 Awarded a Graduate Teaching Assistant Stipend from Sam Houston State University

Research

Publications

- Glynne, E.** & D. C. Adams. (In-prep). Interspecific Allometry of Sexual Shape Dimorphism in Miniaturized and Non-Miniaturized Geckos. *Evolutionary Biology*.
- Koppetsch, T., Burriel-Carranza, B., **Glynne, E.**, et al. (In-prep). Phenotypic crypticity despite strong phylogenetic segregation: diversification dynamics in a species complex of Arabian *Pristurus* geckos. *PLoS One*.
- Glynne, E.**, Conaway, M., & D. C. Adams. (In-Review). The effect of miniaturization on patterns of integration in geckos. *Journal of Evolutionary Biology*.
- Glynne, E.** & D. C. Adams. (2024). The effect of miniaturization on sexual size dimorphism in geckos. *Evolution*. (qpae046). <https://doi.org/10.1093/evolut/qpae046>
- Glynne, E.**, Daza, J. D., & A. M. Bauer. (2020). Surface sculpturing in the skull of gecko lizards [Squamata: Gekkota]. *Biological Journal of the Linnean Society*, 131(4), 801–813.
<https://doi.org/10.1093/biolinnean/blaa144>
- Adams, D. C., **Glynne, E.**, & A. Kaliontzopoulou. (2020). Interspecific allometry for sexual shape dimorphism: Macroevolution of multivariate sexual phenotypes with application to Rensch's rule. *Evolution*, 74(9), 1908–1922. <https://doi.org/10.1111/evo.14049>
- Bauer, A. M., Beach-Mehrotra, M., Bermudez, Y., Clark, G., Daza, J. D., **Glynne, E.**, Hagyard, D., Harnden, J. M., Holovacs, N., Kanasiro, A., Lofthus, A. J., Pierce, Z. W., Aaliyah, R., Syed, S., Vallejo-Pareja, M. C., & B. A. Walker. (2018). The tiny skull of the Peruvian gecko *Pseudogonatodes barbouri* [Gekkota: Sphaerodactylidae]. *South American Journal of Herpetology*, 13(2), 102–117.
<https://doi.org/10.2994/SAJH-D-17-00113.1>

Scholarships, Grants, and Awards

2025 Research Excellence Award from E.E.O.B. and Iowa State University.
2022 Professional Development Grant from the Graduate College at ISU. (\$500)
2022 Michele L. Adrich Collections Research Grant to visit the collections at California Academy of Sciences. (\$1500)
2019 Professional Development Grant from the Graduate College at ISU. (\$500)
2018 Graduate Fellowship through ISU
2017 Travel grant from Gans Collections and Charitable Fund. (\$500)
2017 Travel grant from Dean of Science at Sam Houston State University. (\$250)
2015 Travel grant from Gans Collections and Charitable Fund. (\$500)
2015 Fall, Dean's List of Academic Honors

Society and Organization Memberships

2024 – Present	(Member)	Scientific Advancement of Chicanos/Hispanics & Native Americans in Science (SACNAS)
2020 – Present	(Member)	American Association for the Advancement of Science (AAAS)
2019 – 2021	(Senator)	EEB Graduate Student Organization at Iowa State University
2019 – 2021	(Curriculum Committee)	Graduate Research in Evolutionary Biology and Ecology at Iowa State University
2019 – Present	(Member)	Society for the Study of Evolution
2018 – Present	(Member)	Graduate Student Organization at Iowa State University
2018 – Present	(Member)	Graduate Research in Evolutionary Biology and Ecology at Iowa State University
2017 – Present	(Member)	Society for Integrative and Comparative Biology
2017 – 2021	(Member)	American Society of Ichthyologists and Herpetologists
2017 – Present	(Member)	Herpetologists League
2017 – 2018	(President)	Biological Sciences Graduate Student Organization
2016 – 2018	(Member)	Biological Sciences Graduate Student Organization
2016 – 2018	(Member)	Texas Academy of Science
2015 – Present	(Member)	Society for the Study of Amphibians and Reptiles

Professional Development

Mentoring Experience

Iowa State University

Research Experiences for Teachers (RET) *NSF funded program* 7/1/2022 – 7/28/2022

Joe Carey

Project centered around teaching the participant use of photogrammetry to create 3D digital models of organisms using freeware pipeline created by E. Glynne.

Undergraduate Mentorship

Jordyn Eovito	Research assistant	Jan. 2021 – May 2024
Anne Hatch	Research assistant	Jan. 2021 – May 2022
Lillie Smith	Research assistant	Aug. 2021 – May 2022
Emily Allen	Research assistant	May 2021 – Dec. 2021
Hunter Blum	Research assistant	Aug. 2020 – May 2021

ISU Honors thesis poster: Patterns of shape variation in Sphaerodactylidae claw morphology

Sam Houston State University

Undergraduate Mentorship

Jordan Hunziker	Undergraduate Researcher	Juan Daza's Lab
Emily Stelling	Undergraduate Researcher	Juan Daza's Lab
Hannah Morris	Undergraduate Researcher	Juan Daza's Lab

Taylor Eubank	Undergraduate Researcher	Juan Daza's Lab
Elizabeth Hull	Undergraduate Researcher	Juan Daza's Lab
Geneva Means (Clark)	Undergraduate Researcher	Juan Daza's Lab
Kylie Horelica	Undergraduate Researcher	Juan Daza's Lab
Olivia Clark	Undergraduate Researcher	Juan Daza's Lab

Field Experience

- Puerto Rico, USA. May 11– 21, 2016. Led by Dr. Juan D. Daza. This was a collection trip to sample reptiles and amphibians from Puerto Rico and some of the satellite islands for systematic studies on *Sphaerodactylus* geckos.
- Zimbabwe, Africa. May 31 – June 30, 2015. Led by Dr. Monte Thies and Dr. Jeffrey Wozniak. This was an ecologically/ socio-ecologically focused experience, with time spent across the differing eco-regions of Zimbabwe, including a hunting lodge and a conservation to see the differing ways the environment contributes to the economic framework of the country, all while furthering my knowledge on local herpetofauna on a different continent.

Museum Experience

- Iowa State University. Teaching collection curation & maintenance. Herpetological specimen identification and cataloging. 2021-Current.
- Field Museum of Natural History. Chicago, Illinois. Visiting researcher. Visit collection and determine viable specimen for dissertation work. Browsed and selected ideal *Sphaerodactylid* & *Phyllodactylid* specimens to work with. Aug. 3, 2022. Curator: Alan Reastar. Collection Manager: Joshua Mata.
- K.U. Natural History Museum, Kansas University, Lawrence, Kansas. Visiting researcher. Data collection utilizing herpetological specimen on site. Measured and Imaged 100+ *Sphaerodactylid* & *Phyllodactylid* gecko specimens, Mar. 28- Apr. 1, 2022. Curator: Rafe Brown & Rich Glor.
- K.U. Natural History Museum, Kansas University, Lawrence, Kansas. Visiting researcher. Data collection utilizing herpetological specimen on site. Measured and Imaged 100+ *Sphaerodactylid* gecko specimens, Mar. 7-12, 2021. Curator: Rafe Brown & Rich Glor.
- California Academy of Sciences Museum, California Academy of Sciences, San Francisco, California. Visiting researcher. Data collection utilizing herpetological specimen on site. Measured and Imaged 100+ *Sphaerodactylid* & *Phyllodactylid* gecko specimens, Feb. 26- Mar. 4, 2022. Curator: Rayna Bell. Collection Manager: Lauren Scheinberg.
- K.U. Natural History Museum, Kansas University, Lawrence, Kansas. Visiting researcher. Data collection utilizing herpetological specimen on site. Measured and Imaged 100+ *Sphaerodactylid* gecko specimens, Feb. 21-26, 2021. Curator: Rafe Brown & Rich Glor.
- K.U. Natural History Museum, Kansas University, Lawrence, Kansas. Visiting researcher. Data collection utilizing herpetological specimen on site. Gathered 300+ SVL of *Sphaerodactylid* & *Phyllodactylid* gecko specimens, Nov. 15-21, 2020. Curator: Rafe Brown & Rich Glor.
- National Museum of Natural History, Smithsonian Institution, Washington, DC. Visiting Researcher. Purpose: Digital X-rays using a MCI's Philips MOD 301/4 X-ray tube machine for 100 gecko specimens, Jul. 31- Aug. 4, 2017. Curator: Addison Wynn. Collection Manager: Kenneth Tighe.
- National Museum of Natural History, Smithsonian Institution, Washington, DC. Visiting Researcher. Purpose: Digital X-rays using a MCI's Philips MOD 301/4 X-ray tube machine for 400 gecko specimens, Mar. 13-17, 2017. Curator: Addison Wynn. Collection Manager: Kenneth Tighe.
- Sam Houston State University. Teaching collection creation & maintenance. Herpetological specimen identification and cataloging for J. D. Daza-Vaca.
- National Museum of Natural History, Smithsonian Institution, Washington, DC. Visiting Researcher. Purpose: Digital X-rays using a MCI's Philips MOD 301/4 X-ray tube machine for 200 gecko specimens and 50 skinks, Dec. 14-21, 2014. Curator: Addison Wynn. Collection Manager: Kenneth Tighe.

Volunteer Experience

- July 13, 2023. Joint Meeting of Ichthyologists and Herpetologists. Volunteer. Assisted with the presentation room to ensure all presenters' talks were properly loaded and ready.
- February 17, 2018. Girls in STEM event hosted by Houston Museum of Natural Sciences: participant, hosted a table with the B.S.G.S.O. to educate about the biodiversity and effect of invasive species.
- November 4, 2017. Girls in STEM Event at Klein ISD: assisted with booth set up and tear down, spoke with girls grades 3 – 8 to educate about biological sciences as well as being a woman in STEM.
- July 7, 2017: Assisted Texas Invasive Species Institute with a public education event: assisted with set up and tear down of booth, informed attendees about biodiversity of Texas as well as informed regarding invasive species.
- August 19, 2017. Assisted with Graduate Orientation at S.H.S.U.: welcomed new graduate students and assisted with checking them in as well as with the set up and tear down of the event.
- February 18, 2017. Girls in STEM event hosted by Houston Museum of Natural Sciences: participant, hosted a table with the B.S.G.S.O. to educate about the biological sciences.
- December 2, 2016. Participant of a Women in Stems Panel hosted by S.H.S.U.: 8th graders visited with us and asked us questions regarding college experience and being a woman in STEM.

Conferences & Presentations

- Joint Meeting of Ichthyologists and Herpetologists (JMIH), St. Paul, Minnesota. July 9-13, 2025, presentation. Glynne, E. & D. Adams. Interspecific Allometry of Sexual Shape Dimorphism in Miniaturized & Non-Miniaturized Geckos.
- Joint Conference of American Society of Naturalists, the Society for the Study of Evolution, and the Society of Systematic Biologists (Evolution), Athens, Georgia. June 20-24, 2025, co-author. Glynne, E. & D. Adams. Interspecific Allometry of Sexual Shape Dimorphism in Miniaturized & Non-Miniaturized Geckos.
- Interdisciplinary Biological Sciences Symposium, Ames, Iowa. April 3-4, 2024, presentation. Glynne, E. & D. Adams. The effect of miniaturization on sexual size dimorphism in geckos.
- Ecology and Evolutionary Biology Spring Symposium, Ames, Iowa. February 3, 2024, presentation. Glynne, E. & D. Adams. The effect of miniaturization on sexual size dimorphism in geckos.
- Joint Meeting of Ichthyologists and Herpetologists (JMIH), Norfolk, Virginia. July 12-16, 2023, presentation:
1) Glynne, E. & D. Adams. Allometry of sexual size dimorphism in geckos.
2) Koppetsch, T., Burriel-Carranza, B., Wipfler, B., Glynne, E., Luo, X., Adams, D., Matschiner, M., & S. Carranza. Genomic and Morphometric Analyses of Diversification Dynamics in the *Pristurus rupestris* Species Complex.
- Joint Conference of American Society of Naturalists, the Society for the Study of Evolution, and the Society of Systematic Biologists (Evolution), Albuquerque, New Mexico. June 21-25, 2023, attendee.
- Herpetology Lunch. Kansas University. 3 31, 2022. Presentation: "A freeware based pipeline to allow photogrammetry in regions of low-funded science for shape data."
- Joint Conference of American Society of Naturalists, the Society for the Study of Evolution, and the Society of Systematic Biologists (Evolution), Cleaveland, Ohio. June 24-28, 2022, Presentation: Glynne, E. & D. Adams. Allometry of sexual size dimorphism in geckos.
- Joint Conference of American Society of Naturalists, the Society for the Study of Evolution, and the Society of Systematic Biologists (Evolution), Virtual. June 11-25, 2021, attendee.
- Joint Conference of American Society of Naturalists, the Society for the Study of Evolution, and the Society of Systematic Biologists (Evolution), Rhode Island Convention Center in Providence, Rhode Island. June 21-25, 2019, attendee.
- The Society for Integrated & Comparative Biology (SICB), San Francisco Marriott Marquis in San Francisco, California. January 3-7, 2017, poster presentation: Anasiro, A., Glynne, E., Daza, J. D., Bell, C. J., Maisano, J. A., Gamble, T., & A. M. Bauer. 2018. Learning to Fly: skeletal evolution in gliding geckos.

Joint Meeting of Ichthyologists and Herpetologists (JMIH), Renaissance Hotel in Austin, Texas. July 12-16, 2017, poster presentation: Glynne, E., Daza J. D., & A.M. Bauer. Alternative configurations of the lacrimal foramen in geckos.

Tomography for Scientific Advancement (ToSCA), University of Texas in Austin, Texas. June 6-8, 2017, poster presentation: Glynne, E., Daza, J. D., & A.M. Bauer. Establishing the variation of dermal sculpturing within Gekkota.

Joint Meeting of Ichthyologists and Herpetologists (JMIH), Marriott Hotel in New Orleans, Louisiana. July 6-10, 2016, attendee.

58th annual meeting of Society for the Study of Amphibians and Reptiles at University of Kansas, Lawrence, Kansas, July 30- August 2, 2015, poster presentation: Glynne, E., Daza J. D., & A.M. Bauer. Gekkota Skulls: taking the rough with the smooth.

Workshops

3D Morphometrics and Image Analysis Intense Winter Workshop. Workshop at University of Washington, Friday Harbor Marine Labs. San Juan Island, Washington. February 16-23, 2020, attendee.

New developments in phylogenetics and evolution. SSB Workshop at Evolution 2019 in Providence, Rhode Island. June 21, 2019, attendee.

2019 Midwest Phylogenetics Workshop. Workshop at University of Minnesota, Itasca Biological Station. Shelvin, Minnesota. June 3-9, 2019, attendee.

An introduction to Geometric Morphometrics: a workshop using R. Workshop at University of Concepcion in Concepcion, Chile. April 8-12, 2019, attendee.

Using Volume Graphics Studio. Workshop at University of Texas in Austin. Austin, Texas. June 5, 2017, attendee.

Using Aviso. Workshop at University of Texas in Austin. Austin, Texas. June 5, 2017, attendee.

Tree Analysis using New Technology (TNT) Workshop at Sam Houston State University. Huntsville, Texas, December 12-14, 2016, attendee.

The Austin Working Group advancing contrast-enhanced CT Imaging in the Biological Sciences at The University of Texas at Austin and the High-Resolution X-ray CT Facility, April 2-3, 2015, attendee.

References

Dr. Dean C. Adams (Main Advisor)

Distinguished Professor
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Iowa State University
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Dr. Tracey Heath (Committee Member & DEI Mentor)

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Iowa State University
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Iowa State University
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