CURRICULUM VITAE

EDWARD LEO STANLEY

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EDUCATION

2009-2013 **Richard Gilder Graduate School,** American Museum of Natural History, NY
Ph.D. Comparative Biology. *Systematics and morphological diversification of the Cordylidae (Squamata)*

2007-2009 **Villanova University,** Villanova, PA
M.S. Biology. *Evolutionary relationships within the family Cordylidae (Squamata)*

2001-2005 **University of St Andrews,** St. Andrews, Scotland
B.Sc Hons. (2.1) Zoology

PROFESSIONAL PREPARATION AND APPOINTMENTS

Florida Museum, University of Florida, Gainesville, FL
2026–present **Associate Curator** of Digital Imaging
2025-2026 **Research Scientist** and **Director** of the Digital Imaging Division
2017–2025 **Associate Scientist** and **Director** of the Digital Imaging Division
2017–present **CT Specialist**, Nanoscale Research Facility
2015–2017 **Postdoctoral researcher**, Division of Herpetology

California Academy of Sciences, San Francisco, CA.
2015–present **Research Associate**, Section of Herpetology, Department on Vertebrate Zoology and Anthropology
2013–2015 **Postdoctoral researcher**, Section of Herpetology, Department of Vertebrate Zoology and Anthropology

American Museum of Natural History, New York, NY.
2013–present **Research Associate**, American Museum of Natural History, Dept. of Herpetology.
2009–2013 **Research Fellow**, Richard Gilder Graduate School, AMNH

PROFESSIONAL DUTIES

Developing, implementing and facilitating imaging technology at the Florida Museum. Training and supporting faculty, students and staff in 3D imaging techniques, including photogrammetry, Computed Tomography and light scanning. Developing and implementing digital data policies. Supervising graduate Students and Postdoctoral Researchers. Managing imaging laboratories.

RESEARCH INTERESTS

- New applications of Computed Tomography data for research and education
- 3D data production and dissemination techniques
- Evolution and phylogenetics of reptiles and amphibians
- Phenotypic adaptation and diversification of defensive structures

PUBLICATIONS

95. Rayhan M.J., Foquet, B., Lopez-Cacacho, I., **Stanley, E.L.** and Kawahara, A.Y. 2026. Micro-CT supports morphological and putative functional transformation of silk glands in *Manduca sexta*. *Insect Systematics and Diversity.*00(00), ixag045

94. Tea, Y.K., Blum, S.D., Rocha, L.A., Parkinson, K. and Stanley, E.L., 2026. A New Deepwater Species of Butterflyfish (Teleostei: Chaetodontidae: Prognathodes) from Mozambique, Africa, with a Systematic Review of Chaetodontid Relationships on the Basis of Osteology. *Ichthyology & Herpetology*, *114*(3), pp.474-494. doi.org/10.1643/i2025038

93. Lopez-Cacacho A.I., Weng, Y., Sourakov, A., Foquet, B., **Stanley, E.L.,** Martyniuk, C. and Kawahara A.Y. 2026. Organ-Specific Responses to Plant Secondary Metabolites Reveal Mechanisms of Adaptation. *Archives of Insect Biochemistry and Physiology* 122: e70206. doi.org/10.1002/arch.70206

92. **Stanley, E.L.,** Fenner, K.A., Daza, J.D., Heinicke, M.P., Arais, J.S., and Krause, D. New insights into the phylogenetic position and paleobiogeography of *Konkasaurus mahalana* (Squamata: Scincoidea) from the Late Cretaceous of Madagascar. *Zoological Journal of the Linnean Society*, 2026, 207(4), zlag122. doi.org/10.1093/zoolinnean/zlag122

91. Daza J.D., Stelling E.G., Jenkins K.M., **Stanley E.L.**, Doucet D.S., Fotanarrosa G., Bauer A.M. 2026. Evidence of male anatomy in a mid-Cretaceous Burmese miniaturised amber gecko. Swiss Journal of Palaeontology 145: 785-799.

90. Ghosh, T., Carrano, M. T., Jukar, A. M**., Stanley, E. L.**, Kumar, K. and Bajpai, S. 2026. A new turiasaur (Dinosauria, Eusauropoda) specimen from the Middle Jurassic of India. *Journal of Vertebrate Paleontology*. doi.org/10.1080/02724634.2026.2618183

89. Babcock, P. J., Bauer, A. M., Daza, J. D., Paluh, D. J., and **Stanley, E. L.** 2026. The distinct synsacrum of knob-tailed geckos (Gekkota: Carphodactylidae: *Nephrurus*). The Anatomical Record, 1–9. doi.org/10.1002/ar.70172

88. Bornschein, M.R., Pie, M.R., Nadaline, J., Confetti,A., Blackburn, D.B., **Stanley, E.L.**, de Britto Mari, R., Silveira Alves, G., Sandretti-Silva, G., de Andrade Lima, F. and Ribeiro, L.F. 2025. A new species of *Brachycephalus* (Anura: Brachycephalidae) from Serra do Quiriri, northeastern Santa Catarina state, southern Brazil, with a review of the diagnosis among species of the B. pernix group and proposed conservation measures. PLoS One 20(12): e0334746. doi.org/10.1371/journal.pone.0334746

87. Collins, E., Bauer, A.M., Diaz Jr, R.E., Herrera-Martínez, A., Lavilla, E., **Stanley, E.L.**, Thies, M.L. and Daza, J.D., 2025. A new twist in the evolution of chameleons uncovers an extremely specialized optic nerve morphology. *Scientific Reports*, *15*(1), p.38270.

86. Lobón-Rovira, J., Vaz Pinto, P., Keates, C. and **Stanley, E.L.** 2025. Ancient polymorphism, secondary contact, taxonomic inflation or all of them together? Mito-nuclear discordance in the Angolan girdled lizard (Cordylidae: *Cordylus*), with the description of a new species from the central highlands. *Zoological Journal of the Linnean Society*, 2025, 205(1), zlaf112 doi.org/10.1093/zoolinnean/zlaf112

85. Davenport, B., Wilson, R., Williams, A., Gray, J., **Stanley, E.L.** and Jones, H., 2025. Aberrant placental structure is corrected with repeated nanoparticle-mediated IGF1

treatments in a guinea pig model of fetal growth restriction. *Translational Research in Anatomy*, pp.2025-06.

84. Ebel, R., Broeckhoven, C., **Stanley, E.L.**, Ramm, T. and Keogh, J.S., 2025. Dermal armour in lizards: osteoderms more common than presumed. *Zoological Journal of the Linnean Society*, *204*(3), p.zlaf070. doi.org/10.1093/zoolinnean/zlaf070

83. Louppe V., Clavel J., Le Verger K., Ferreira G.S., Kyriakouli C., **Stanley E.L.**, Watt E.C., Bardua C., Boistel R., Pérez-Ben C., Fröbisch N.B., Bothe V., Daghfous G., Goswami A. and Fabre A.C. 2025) Complete metamorphosis in salamanders facilitates diversification of mandible shape and feeding innovation in terrestrial environments. *Functional Ecology* 39, 1732-1747. doi.org/10.1111/1365-2435.70044

82. Gray, J.A., **Stanley, E.L.**, Sheehy III, C.M., Randall, Z.S., Watkins-Colwell, G.J. and Blackburn, D.C., 2025. The Diffusion Diaries: Diffusible Iodine-Based Contrast-Enhanced Computed Tomography for Vertebrate Natural History Specimens. *Integrative Organismal Biology*, p.obaf014.

81. Bourque J.R. and **Stanley E.L.** A tegu-like lizard (Teiidae, Tupinambinae) from the Middle Miocene Climatic Optimum of the southeastern United States. *Journal of Paleontology*, 99(1):177-191. doi.org/10.1017/jpa.2024.89

80. Daza, J.D., **Stanley, E.L**., Heinicke, M.P., Leah, C., Doucet, D.S., Fenner, K.L., Arias, J.S., Smith, R.D., Peretti, A.M., Aung, N.N. and Bauer, A.M., 2024. Compound osteoderms preserved in amber reveal the oldest known skink. *Scientific Reports*, *14*(1), p.15662. doi.org/10.1038/s41598-024-66451-w

79. Grant, A.R., Johnson, K.P., **Stanley, E.L.**, Baldwin-Brown, J., Kolenčík, S. and Allen, J.M., 2024. Rapid Targeted Assembly of the Proteome Reveals Evolutionary Variation of GC Content in Avian Lice. *Bioinformatics and Biology Insights*, *18*. doi.org/10.1177/11779322241257991

78. Blackburn, D.C., Gray, J.A. and **Stanley, E.L.**, 2024. The only "lungless" frog has a glottis and lungs. *Current Biology*, *34*(10), pp.R492-R493. doi.org/10.1016/j.cub.2024.03.017

77. Gignac, P.M., Aceves, V., Baker, S. Barnes, J.J., Bell, J., Boyer, D., Cunningham, D., De Carlo, F., Chase, M.F., Cohen, K.E., Colbert, M., De Cree, T.,Daza, J.D., Dickinson, E., DeLeon, V., Dougan, L., Duffy F., Dunham, C., Early C.M., Edey, D.R., Echols, S., Eckley, S.A., Fenner, F., Franklin, K.P., Gila, B., Goetz F.E., Gray, J.A., Gleiber, D., Hall, A.S., Hanna, R., Hannula, M., Harris, W., Hill, J.J., Holliday, C.M., Hurdle, K., Jayarajan, A., Knaub, J.L., Krause, A.R., Leavey, A., Lessner, E.J., Lynch, L.M., Maga, M., Maisano, J., Marsh2, K., Marsh, M., Martin-Silverstone, E., Misiaszek, J.P. Neander, A.I. O'Brien, H.D., Olson, S., Panigot, E., Motch-Perrine, S.M., Porri , T.J., Ramsey, A., Scheiffele G., Smith, H.F., **Stanley, E.L**., Stock, S.R., Terhune, C.E., Thomas, D.L., Linares Vargas, C.A. Veltri, M., Warnett, J.M., Watanabe, A., Waters, E.A., Wende, R., Wescott, D.J., Withnell, C.B., Whittaker, S., Wilbur, Z.E., Wilson, J., Wilson, M., Winchester, J., Yoakum, C.B., and Zobek, CM. 2024. The Role of Networks to Overcome Large-scale Challenges in Tomography: The Non-Clinical Tomography Users Research Network. *Tomography of Materials and Structures*, p.100031. doi.org/10.1016/j.tmater.2024.100031

76. Kolencik; S., **Stanley, E.L**., Punnath, A., Grant, A., Doña, J., Johnson, K.P. and Allen. J. 2024. Parasite escape mechanisms drive morphological diversification in avian lice. Proceedings of the Royal Society B. doi.org/10.1098/rspb.2023.2665

75. Griffing, A.H., **Stanley, E.L**. and Paluh, D.J., 2024. The first report of preovipositional embryonic development in the legless gecko*, Lialis burtonis* (Gekkota: Pygopodidae). *The Anatomical Record*. doi.org/10.1002/ar.25434

74. Blackburn, D.C., Boyer, D.M., Gray, J.A., Winchester, J., Bates, J.M., Baumgart, S.L., Braker, E., Coldren, D., Conway, K.W., Davis Rabosky, A., de la Sancha, N., Dillman, C.B., Dunnum, J.L., Early, C.M., Frable, B.W., Gage, M.W., Hanken, J., Maisano, J.A., Marks, B.D., Maslenikov, K.P., McCormack, J.E., Nagesan, R.S., Pandelis, G.G., Prestridge, H.L., Rabosky, D.L., Randall, Z.S., Robbins, M.B., Scheinberg, L.A., Spencer, C.L., Summers, A.P., Tapanila, L., Thompson, C.W., Tornabene, L., Watkins-Colwell, G.J., Welton, L.J., the oVert Project Team and **Stanley, E.L.** 2024. Increasing the impact of vertebrate scientific collections through 3D-imaging: the openVertebrate (oVert) Thematic Collections Network. *Bioscience*, doi.org/10.1093/biosci/biad120

73. Maliuk, A., Marghoub, A., Williams, C. J. A., **Stanley, E.L.**, Kéver, L., Vickaryous, M., Herrel, A., Evans, S. E., and Moazen, M. 2024. Comparative analysis of osteoderms across the lizard body. *The Anatomical Record*, 1–13. doi:/10.1002/ar.25418

72. Daza, J.D., Rock, A.A. and **Stanley, E.L.**, 2024. The palatal gland of dibamid lizards. *The Anatomical Record*, *307*(1), pp.233-237. doi.org/10.1002/ar.25288

71. Kircher, B.K., **Stanley, E.L.** and Behringer, R.R., 2024. Anatomy of the female reproductive tract organs of the brown anole (*Anolis sagrei*). *The Anatomical Record*, *307*(2), pp.395-413. doi:/10.1002/ar.25293

70. Bourque, J. R., **Stanley, E.L.,** and Hulbert Jr., R. C. 2023. A Late Miocene occurrence of the extinct salamander Batrachosauroides (Caudata, Batrachosauroididae) and other new caudate fossils from Florida and Georgia, USA. Bulletin of the Florida Museum of Natural History 60(4):235–255. doi.org/10.58782/flmnh.tzqg4599

69. Vallejo-Pareja, M.C., **Stanley, E.L.**, Bloch, J.I. and Blackburn, D.C., 2023. Fossil frogs (Eleutherodactylidae: Eleutherodactylus) from Florida suggest overwater dispersal from the Caribbean by the Late Oligocene. *Zoological Journal of the Linnean Society*, p.zlad130. doi.org/10.1093/zoolinnean/zlad130

68. Wolcott, K. A., **Stanley, E.L.**, Gutierrez, O. A., Wuchty, S., and Whitlock, B. A.. 2023. 3D pollination biology using micro-computed tomography and geometric morphometrics in *Theobroma cacao*. *Applications in Plant Sciences* 11(5): e11549. doi.org/10.1002/aps3.11549

67. Lobón-Rovira, J., Bauer, A.M., Vaz Pinto, P., Trape, J.F., Conradie, W., Kusamba, C., Júlio, T., Cael, G., **Stanley, E.L.**, Hughes, D.F. and Behangana, M., 2023. Integrative revision of the Lygodactylus gutturalis (Bocage, 1873) complex unveils extensive cryptic diversity and traces its evolutionary history. *Zoological Journal of the Linnean Society*, p.zlad123. doi.org/10.1093/zoolinnean/zlad123

66. Rodrigues, A., Johnson, A.J., Joseph, R.A., Li, Y. Keyhani, N.O., **Stanley, E.L.**, Weiss, B., Kaltenpoth, M., Smith M.E. and Hulcr, J. 2023. Fungal symbiont community and absence

of detectable mycangia in invasive *Euplatypus* ambrosia beetles. *Symbiosis*. doi.org/10.1007/s13199-023-00938-4

65. Das, K., Rödel, M.O., **Stanley, E.L.**, Srikanthan, A.N., Shanker and K., Vijayakumar, S.P. 2023. Reed bamboos drive skull shape evolution in bush frogs of the Western Ghats, Peninsular India. Ecology and Evolution doi.org/10.1002/ece3.10493

64. Bates, M.F., Lobón-Rovira, J., **Stanley, E.L.**, Branch, W.R. and Vaz Pinto, P., 2023. A new species of green-eyed Cordylus Laurenti, 1768 from the west-central highlands of Angola, and the rediscovery of Cordylus angolensis (Bocage, 1895) (Squamata: Cordylidae), *Vertebrate Zoology*, 73 doi.org/10.3897/vz.73.e95639

63. Gray, J. A., Gignac, P. M., and **Stanley, E.L.** 2023. The first full body diffusible iodine-based contrast-enhanced computed tomography dataset and teaching materials for a member of the Testudines. The Anatomical Record, 1–14. doi.org/10.1002/ar.25282

62. Tharakan, S., Shepherd, N., Gower, D.J., **Stanley, E.L.,** Felice, R.N., Goswami, A. and Watanabe, A., 2023. High-density geometric morphometric analysis of intraspecific cranial integration in the barred grass snake (Natrix helvetica) and green anole (Anolis carolinensis). *Integrative Organismal Biology*, p.obad022. doi.org/10.1093/iob/obad022

61. Maden, M., Polvadore, T., Polanco, A., Barbazuk, W.B. and **Stanley, E.**, 2023. Osteoderms in a mammal the spiny mouse Acomys and the independent evolution of dermal armor. *iScience*. 26(6). doi.org/10.1016/j.isci.2023.106779

60. Ramteke, D., Smith, S. Y., Kapgate, D. K., **Stanley, E.L**., and Manchester, S. R., 2022. Angiosperm affinities of *Surangea* from the late Cretaceous Deccan Intertrappean Beds of central India. *Acta Palaeobotanica*, 62(2), pp.196-204. doi.org/10.35535/acpa-2022-0013

59. Paulina-Carabaja A., Jiménez-Huidobro, P., Triviño, L., **Stanley, E.L.**, Zaher, H., and Daza, J.D., 2022 A look in to the neurocranium of living and extinct Lepidosauria in paleoneurology of Amniotes. *in* New Directions in the Study of Fossil Endocasts. Dozo, M.T., Paulina-Carabajal, P., Macrini, T.E., and Walsh S. ISBN: 9783031139826.

58. Essner R.L., Pereira, R.E.E., Singh, A.L., **Stanley, E.L.**, Moura M.O., Confetti, A.E. and Marcio R. Pie 2022. Semicircular canal size constrains vestibular function in miniaturized frogs. Science Advances 8,24. DOI: 10.1126/sciadv.abn1104

57. Pinheiro, P.D., Blotto, B.L., Ron, S.R., **Stanley, E.L.,** Garcia, P.C., Haddad, C.F., Grant, T. and Faivovich, J., 2021. Prepollex diversity and evolution in Cophomantini (Anura: Hylidae: Hylinae). *Zoological Journal of the Linnean Society*. doi.org/10.1093/zoolinnean/zlab079

56. Čerňanský, A., **Stanley, E.L**., Daza, J.D., Bolet, A., Arias, J.S., Bauer, A.M., Vidal-García, M., Bevitt, J.J., Peretti, A.M., Aung, N.N. and Evans, S.E. 2022. A New Early Cretaceous lizard in Myanmar Amber with Exceptionally Preserved Integument. *Scietific Reports* 12, 1660 doi.org/10.1038/s41598-022-05735-5

55. Paluh, D.J., Dillard, W.A., **Stanley, E.L.**, Fraser, G.J. and Blackburn, D.C., 2021. Re-evaluating the morphological evidence for the re-evolution of lost mandibular teeth in frogs. *Evolution*. doi.org/10.1111/evo.14379

54. Blackburn, D.C., Hernández-Morales, C., Paluh, D.J., **Stanley, E.L**. 2021 Predation on a

gymnophthalmid lizard by the Brazilian Dumpy Frog, Stereocyclops incrassatus (Microhylidae, Gastrophryninae. Herpetology Notes, volume 14: 847-849

53. Bell, C. J., Daza, J. D., **Stanley, E.L**., and Laver, R. J. 2021. Unveiling the elusive: X-rays bring scolecophidian snakes out of the dark. *The Anatomical Record*, 304(10):2110 2117 doi.org/10.1002/ar.24729

52. Laver, R.J., Daza, J.D., Ellis, R.J., S**tanley, E.L.** and Bauer, A.M., 2021. Underground Down Under: Skull anatomy of the southern blind snake *Anilios australis* Gray, 1845 (Typhlopidae: Serpentes: Squamata). *The Anatomical Record*. 304(10):2215-2242 doi.org/10.1002/ar.24696

51. Bolet, A., **Stanley, E.L.**, Daza, J. D., Salvador Arias, J., Čerňanský, A., Vidal-García, M., Bevitt, J. J., Peretti, A., Evans, S. E. 2021. "Unusual morphology in the mid-Cretaceous lizard *Oculudentavis*". *Current Biology*, 31, 1–12. doi.org/10.1016/j.cub.2021.05.040

50. Paluh, D.J., Riddell, K., Early, C.M., Hantak, M.M., Jongsma, G.F., Keeffe, R.M., Silva, F.M., Nielsen, S.V., Vallejo-Pareja, M.C., **Stanley, E.L.** and Blackburn, D.C., 2021. Rampant tooth loss across 200 million years of frog evolution. *Elife*, *10*, p.e66926. doi.org/10.7554/eLife.66926

49. Bardua, C., Fabre, A.C., Clavel, J., Bon, M., Das, K., **Stanley, E.L**., Blackburn, D.C. and Goswami, A., 2021. Size, microhabitat, and loss of larval feeding drive cranial diversification in frogs. *Nature Communications*, *12*(1), pp.1–13. doi.org/10.1038/s41467-021-22792-y

48. Goodman, C.M., Jongsma, G.F.M., Hill, J.E., **Stanley, E.L.**, Tuckett, Q.M., Blackburn, D.C. and Romagosa, C.M. 2021. A case of mistaken identity: genetic and anatomical evidence reveal the cryptic invasion of *Xenopus tropicalis* in central Florida. *Journal of Herpetology* 55.1 : 62-69. doi.org/10.1670/20-083

47. Wagner, P., **Stanley, E.L.**, Daza, J.D., Bauer, A.M. 2021. A new agamid lizard in mid Cretaceous amber from northern Myanmar. *Cretaceous Research* doi.org/10.1016/j.cretres.2021.104813

46. Feiner, N., Jackson, I.S.C., **Stanley, E.L.**, and Tobias Uller, T., 2021 Evolution of the locomotor skeleton in *Anolis* lizards reflects the interplay between ecological opportunity and phylogenetic inertia. *Nature Communications* **12,** 1525 doi.org/10.1038/s41467-021-21757-5

45. Daza J.D., **Stanley, E.L.,** Bolet, A,, Bauer, A.M., Salvadore Arisa, J.m Cernasky, A., Bevitt, J., Wagner, P., and Evans, S.E. 2020. Enigmatic amphibians in mid-Cretaceous amber were chameleon-like and had ballistic feeding. *Science*. 370(6517): 687–691. doi.org/10.1126/science.abb6005

44. Nielsen, S.V., Conradie W., Ceríaco, L.M.P., Bauer, A.M., Heinicke, M.P., **Stanley, E.L.** and Blackburn, D.C. 2020. A new species of Rain Frog (Brevicipitidae, *Breviceps*) endemic to Angola. *ZooKeys* 979: 133–160 doi.org/10.3897%2Fzookeys.979.56863

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42. Heinicke M.P., Titus-McQuillan, J.E., Daza, J.D., Kull, E.M., **Stanley,** E.L. and Bauer, A.M. 2020.Phylogeny and evolution of unique skull morphologies in dietary specialist African shovel-snouted snakes (Lamprophiidae: *Prosymna*), *Biological Journal of the Linnean Society*, blaa076. doi.org/10.1093/biolinnean/blaa076

41. Fabre, A.C., C. Bardua, M. Bon, J. Clavel, R.N. Felice, J.W. Streicher, J. Bonnel, **Stanley**, **E.L.,** D.C. Blackburn and A. Goswami. 2020. Metamorphosis and the evolution of morphological diversity in salamanders. *Nature Ecology and Evolution*. doi.org/10.1038/s41559-020-1225-3

40. Bardua, C., Fabre, A.-C., Bon, M., Das, K., **Stanley, E.L.,** Blackburn, D. and Goswami, A. 2020, Evolutionary integration of the frog cranium. *Evolution*, Volume 74, Issue 6, 1 June 2020, Pages 1200–1215. doi.org/10.1111/evo.13984

39. Paluh, D.P., **Stanley, E.L**. and Blackburn, D.C., 2020 Evolution of hyperossification expands skull diversity in frogs. *Proceedings of the National Academy of Sciences*. 2020 Apr 14;117(15):8554-8562. doi.org/10.1073/pnas.2000872117

38. Bates, M.F. and **Stanley, E.L**. 2020 A taxonomic revision of the south-eastern dragon lizards of the *Smaug warreni* (Boulenger) species complex in southern Africa, with the description of a new species (Squamata: Cordylidae). *PeerJ,* 8, p.e8526 doi.org/10.7717/peerj.8526

37. Singer, R. A., Moore, J. A., and **Stanley, E.L.** 2020. Novel life history strategy in a deep sea fish challenges assumptions about reproduction in extreme environments. *Scientific Reports*, *10*(1), 1–7. doi.org/10.1038/s41598-020-60534-0

36. Blackburn, D.C., L. Roberts, M.C. Vallejo-Pareja, and. **Stanley, E.L.**. 2019. First record of the anuran family Rhinophrynidae from the Oligocene of eastern North America. *Journal of Herpetology*. Vol. 53, No. 4, pp. 316–323. doi.org/10.1670/19-044

35. Blackburn, D. C., Giribet, G., Soltis, D. E., and **Stanley, E.L.** 2019. Predicting the Impact of Describing New Species on Phylogenetic Patterns. *Integrative Organismal Biology*, *1*(1), obz028. doi.org/10.1093/iob/obz028

34. Paluh, D.J., **Stanley, E.L.** and Blackburn, D.C., 2019. First dietary record of Gastrotheca guentheri (Boulenger, 1882), the lone anuran with true mandibular teeth. *Herpetology Notes*, *12*, pp.699-700.

33. Černanský A., **Stanley E.L**. 2019. The atlas– axis complex in Dibamidae (Reptilia: Squamata) and their potential relatives: The effect of a fossorial lifestyle on the morphology of this skeletal bridge. *Journal of Morphology*. 2019;1–21. doi.org/10.1002/jmor.21064

32. Marques, M., Ceríaco, L.M.P., **Stanley, E.L.,** Bandeira, S.A., Agarwal, I. and Bauer A.M., 2019. A new species of Girdled Lizard (Squamata: Cordylidae) from the Serra da Neve Inselberg, Namibe Province, southwestern Angola. *Zootaxa* 4668(4) doi.org/10.11646/zootaxa.4668.4.4

31. Evans B.J., Gansauge, M-T., **Stanley, E.L.**, Furman, B.L.S., Caroline M. S. Cauret, C.M.S., Ofori-Boateng, C., Gvoždík, V., Streicher, J.W., Greenbaum, E., Tinsley, R.C., Meyer, M. and Blackburn D.C. 2019. *Xenopus fraseri*: Mr. Fraser, where did your frog come from? *PLoS ONE* 14(9): e0220892. doi.org/10.1371/journal.pone.0220892

30. Holovacs, N.T., Daza, J.D., Guerra, C., **Stanley, E.L.** and Montero, R., 2019. You can't run, but you can hide: the skeleton of the sand-swimmer lizard Calyptommatus leiolepis (Squamata: Gymnophthalmidae). *The Anatomical Record*. doi.org/10.1002/ar.24246

29. Griffing, A. H., Sanger, T. J., Daza, J. D., Nielsen, S. V., Pinto, B. J., **Stanley, E.L.**, and Gamble, T. 2019. Embryonic development of a parthenogenetic vertebrate, the mourning gecko (*Lepidodactylus lugubris*). *Developmental Dynamics*, *248*(11), 1070–1090. doi.org/10.1002/dvdy.72

28. Camaiti, M. , Villa, A. , Wencker, L. C., Bauer, A. M., **Stanley, E.L.** and Delfino, M. 2019. Descriptive osteology and patterns of limb loss of the European limbless skink *Ophiomorus punctatissimus* (Squamata, Scincidae). *Journal of Anatomy* doi.org/10.1111/joa.13017

27. Blackburn D.C., Paluh, D.J., Krone, I., Roberts, E.M., **Stanley, E.L.** and Stevens, N.J. 2019. The Earliest Fossil of the African Clawed Frog (Genus *Xenopus*) from Sub-Saharan Africa," *Journal of Herpetology*, 53(2), 125–130. doi.org/10.1670/18-139

26. Portillo F., **Stanley E.L.**, Branch W.R., Conradie W.R., Rödel M.O., Penner J., Barej M., Kusamba, C., Muninga W.M., Aristote M.M., Bauer A.M., Trape J.F., Nagy Z.T., Carlino P., Pauwels O.S.G., Menegon M., Ineich I., Burger M., Mazuch T., Jackson K., Hughes D.F., Behangana M and Greenbaum E. 2019. Evolutionary history of burrowing asps (Atractaspidinae) (Squamata: Lamprophiidae) with emphasis on fang evolution and prey selection *PLoS One* 14 (4) doi.org/10.1371/journal.pone.0214889

25. Vijayakumar SP, Pyron, A., Dinesh KP, Torsekar, V., Srikanthan A., Swamy P., **Stanley E.L.,** Blackburn, D.C. and Shanker, K. 2019. A new ancient lineage of frog (Anura: Nyctibatrachidae: Astrobatrachinae subfam. nov.) endemic to the Western Ghats of Peninsular India. *PeerJ* 7:e6457 doi.org/10.7717/peerj.6457

24. Daza J. D., Bauer A. M., **Stanley E.L**., Bolet A., Dickson B., and Losos J. B. 2018. An Enigmatic Miniaturized and Attenuate Whole Lizard from the Mid-Cretaceous Amber of Myanmar. *Breviora* 563 (1), 1–18 doi.org/10.3099/MCZ49.1

23. Li, Y., Ruan, Y., Kasson, M.P., **Stanley E.L.,** Gillett, C.P.D.T., Johnson, A.J., Zhang, M., and Hulcr, J. 2018. Structure of the Ambrosia Beetle (Coleoptera: Curculionidae) Mycangia Revealed Through Micro-Computed Tomography. *Journal of Insect Science* 18 (5): 1–8. doi.org/10.1093/jisesa/iey096

22. Ceríaco, L.M.P., Marques, M.P., Bandeira, S., Agarwal, I., **Stanley E.L.,** Bauer, A.M., Heinicke, M.P., Blackburn, D.C. 2018. A new earless species of *Poyntonophrynus* (Anura, Bufonidae) from the Serra da Neve Inselberg, Namibe Province, Angola. *ZooKeys* 780: 109–136. doi.org/10.3897/zookeys.780.25859

21. Xing, L., **Stanley E.L.,** Bai, M. and Blackburn, D.C. 2018. The earliest direct evidence of frogs in wet tropical forests from Cretaceous Burmese amber. *Scientific Reports* 8, Article number: 8770 doi.org/10.1038/s41598-018-26848-w

20. Hill R.L., Martin, K.G., **Stanley, E.L.** and Mendelson, J.R. 2018. A taxonomic review of the genus *Hemiphractus* (Anura: Hemiphractidae) in Panama: Description of Two New Species, Resurrection of *Hemiphractus panamensis* (Stejneger, 1917), and Discussion of

Hemiphractus fasciatus Peters. 1862 *Zootaxa* 4429 (3): 495–512. doi.org/10.11646/zootaxa.4429.3.3

19. Li, Y., Ruan, Y., **Stanley E.L.,** Skelton, J. and Hulcr, J. 2018. Plasticity of mycangia in *Xylosandrus* ambrosia beetles. *Insect Science*. 00, 0–11. doi.org/10.1111/1744-7917.12590

18. Kim, B.G., Kim, Y.H., **Stanley E.L.,** Garrido-Martin, E.M. and Lee, Y.J., Oh, S.P. 2017. CXCL12-CXCR4 signaling plays an essential role in proper patterning of aortic arch and pulmonary arteries, *Cardiovascular Research*, 113(13) 1677–1687. doi.org/10.1093/cvr/cvx188

17. Blackburn, D.C., J. Brecko, J. **Stanley E.L.** and Meirte, D. 2017. Observations on the reproductive biology of *Laurentophryne parkeri* (Laurent, 1950) based on the holotype. *Herpetology Notes* 10: 681–683

16. Ribeiro, L. F., Blackburn, D. C., **Stanley E.L.,** Pie, M. R., and Bornschein, M. R. 2017. Two new species of the *Brachycephalus pernix* group (Anura: Brachycephalidae) from the state of Paraná, southern Brazil. *PeerJ*, *5*, e3603. doi.org/10.7717/peerj.3603

15. Bateman,C., Yin-Tse Huang, Simmons, D.R., Kasson, M.T., **Stanley E.L.,** and Hulcr, J. 2017 Ambrosia beetle Premnobius cavipennis (Scolytinae: Ipini) carries highly divergent ascomycotan ambrosia fungus, *Afroraffaelea ambrosiae* gen. nov. sp. nov. (Ophiostomatales). *Fungal Ecology*, 25: 41–49. doi.org/10.1016/j.funeco.2016.10.008

14. Bornschein, M.R., Ribeiro, L.F., Blackburn, D.C., **Stanley, E.L**. and Pie, M.R. 2016. A new species of *Brachycephalus* (Anura: Brachycephalidae) from Santa Catarina, southern Brazil. *PeerJ* 4, e2529 doi.org/10.7717/peerj.2629

13. Blackburn, D.C., Boix, C., Greenbaum, E., Fabrezi, M., Meirte, D., Plumptre, A.J. and **Stanley, E.L**.2016. The distribution of the Bururi Long-fingered Frog (*Cardioglossa cyaneospila*, family Arthroleptidae), a poorly known Albertine Rift endemic. *Zootaxa* 4170: 355–364. doi.org/10.11646/zootaxa.4170.2.8

12. Ceríaco, L.M.P., de Sá, S.C., Bandeira, S., Valério, H., **Stanley E.L.,** Kuhn, A.L., Marques, M., Vindum, J.V., Blackburn D.C., and Bauer, A.M. 2016. Herpetological survey of Iona National Park and Namibe Regional Natural Park, with a Synoptic list of the Amphibians and Reptiles of Namibe Province, Southwestern Angola. *Proceedings of the California Academy of Sciences* 63 (2):

11. Daza, J.D., **Stanley E.L.,** Wagner, P., Bauer, A.M. and Grimaldi, D.A. 2016. Mid-Cretaceous amber fossils illuminate the past diversity of tropical lizards. *Science Advances* 2(3): 1–8 doi.org/10.1126/sciadv.1501080

10. **Stanley E.L.,** Ceríaco, L.M.P., Bandeira, S. Valerio, H., Bates, M.F., and Branch, W.R. 2016. A review of *Cordylus machadoi* (Squamata: Cordylidae) in southwestern Angola, with the description of a new species from the Pro-Namib desert. *Zootaxa* 4061(3): 201–226. doi.org/10.11646/zootaxa.4061.3.1

9. Evans BJ, Carter TF, Greenbaum E, Gvoždík V, Kelley, D.B., McLaughlin, P.J., Pauwels, O.S.G., Portik, D.M., **Stanley E.L.,** Tinsley, R.C.,Tobias, M.L., and Blackburn, D.C. 2015. Genetics, Morphology, Advertisement Calls, and Historical Records Distinguish Six

New Polyploid Species of African Clawed Frog (*Xenopus*, Pipidae) from West and Central Africa. *PLoS ONE* 10(12): e0142823. doi.org/10.1371/journal.pone.0142823

8. **Stanley, E.L**, and Bates, M.F. 2014. Here be Dragons: A phylogenetic and biogeographic study of the *Smaug warreni* species complex (Squamata: Cordylidae) in southern Africa. *Zoological Journal of the Linnean Society* 172: 892–909. doi.org/10.1111/zoj.12187

7. de Sá R.O., Grant, T.A., Camargo, A., Heyer, W.R., Ponssa, M.L. and **Stanley E.L.** 2014. Systematics of the Neotropical Genus *Leptodactylus* Fitzinger, 1826 (Anura: Leptodactylidae): Phylogeny, the Relevance of Non-molecular Evidence, and Species Accounts. *South American Journal of Herpetology* 9:S1–100. doi.org/10.2994/SAJH-D-13-00022.1

6. Stanley, E.L. Cordylid systematics and evolution. 2014. *In* Girdled Lizards and their relatives. Natural history, captive care and breeding. Reissig, J. Edition Chimaera London p.249.

5. Mouton, P.F.N., Fleming, A. and **Stanley E.L.,** 2012 Synchronised versus asynchronised breeding in the lizard family Cordylidae: An evolutionary perspective. *Journal of Zoology* 288:191–198 doi.org/10.1111/j.1469-7998.2012.00940.x

4. Greenbaum, E.B., **Stanley E.L.,** Kusamba, C., Moninga W.M., Goldberg, S.R., and Bursey, C.R. 2012. A new species of *Cordylus* (Squamata: Cordylidae) from the Marungu Plateau of southeastern Democratic Republic of the Congo. *African Journal of Herpetology*. 61:14-39. doi.org/10.1080/21564574.2012.666505

3. Portik D, Wood P, Grismer J, **Stanley E.L.**, and Jackman T. 2012. Identification of 104 rapidly-evolving nuclear protein-coding markers for amplification across scaled reptiles using genomic resources. *Conservation Genetics Resources* 4: 1-10. doi.org/10.1007/s12686-011-9460-1

2. **Stanley E.L.,** Bauer, A. M., Jackman, T. R., Mouton, P. L. N. and Branch, W. R. 2011. Between a rock and a hard polytomy: rapid radiation in the rupicolous girdled lizards (Cordylidae: Squamata). *Molecular Phlylogenetics and Evolution* 58: 53-70 doi.org/10.1016/j.ympev.2010.08.024

1. **Stanley E.L.,** Kendal, R. L., Kendal, J. R., Grounds S., and Laland K. N. 2008. The effects of group size, rate of turnover and disruption to demonstration on the stability of foraging traditions in fish. *Animal Behaviour* 75: 565-572 doi.org/10.1016/j.anbehav.2007.06.014

NOTES AND SHORT COMMUNICATIONS

Morales, J. A., Parra-Gómez, A., Blackburn, D.C., **Stanley, E.L.**, and Correa, C. 2023 Discovering the Ecological Secrets of *Alsodes Cantillanensis* (Anura: Alsodidae): Dietary Knowledge through Computerized Microtomography. *Gayana 87*, 168-172.

Claunch N., **Stanley E.L**. and Romagosa C.M. 2020 Natural History note: *Leiocepahalus carinatus* (Northern Curly-Tailed Lizard) Extreme Fecal Impaction. *Herpetological Review* 51(1): p126.

Blackburn D.C., Paluh, D.J. and **Stanley, E.L**. 2017. *Phrynobatrachus krefftii* (Krefft's Puddle Frog). Anurophagy. *Herpetological Review* 48: 413–414.

PATENTS

Scheiffele, G. and **Stanley, E.L.,** 2021. Methods and compositions for minimizing X-ray scattering artifact (US Patent No.11183314)

Scheiffele, G. and **Stanley, E.L.,** 2021. Methods and compositions for minimizing X-ray scattering artifact (US Patent No. 12176123)

TEACHING AND TRAINING

CT for Biologists: ZOO6927 / ZOO4926. Lecturer, University of Florida, Gainesville, FL. Fall Semester 2018–2025. *Graduate and upper-level undergraduate course focusing on the fundamentals and practical applications of high-resolution x-ray Computed Tomography.*

Parasite Biodiversity PCB4460. Guest Lecturer, University of Florida, Gainesville, FL. 2024—2026. *Taught classes on digital imaging techniques for parasite screening.*

Herpetology: ZOO4926. Guest lecturer, University of Florida, Gainesville, FL. 2017, 2018, 2022 and 2023. *Taught classes on squamate diversity.*

Acquiring, analyzing, and disseminating CT data. Workshop, the American Mammologists society meetings June 2021. Online. *Developed and ran a workshop that introduced attendees to specimen-based CT datasets and the software used to analyze them.*

Museum Collections Management: ARH 6895. Guest lecturer, University of Florida, Gainesville, FL. November 2020. *Taught one class on museum digitization methodologies*.

Computed Tomography in the Analysis of Natural History, Morphology, and Evolution. Imaging Workshop at the University of Texas Arlington. January 2018. *Developed and ran a workshop introducing attendees to specimen-based CT imaging and the software used to analyze them.*

Hard and Soft Tissue: Exploring the utility of contrast-enhanced CT scanning. Natural History and Morphology – Engines of Inspiration: Workshop, the Joint Meeting of Ichthyologists and herpetologists, July 2017. Austen, Texas. *Developed and ran a workshop introducing attendees to specimen-based CT datasets and the software used to analyze them*

Careers in Science Internship. Mentor. California Academy of Sciences, San Francisco, CA. January–August 2015. *Training High-School and Undergraduate students in CT reconstruction techniques and anuran / squamate anatomy.*

Geographic Information Systems. Invited lecturer. Villanova University, Villanova PA. March 2013. *Designed and taught a two-day workshop on GIS theory and MaxEnt-based analyses*

Comparative Anatomy BIO3010. Adjunct lecturer. Baruch College, New York, NY August-December 2011. *Lectured and taught the lab-portion of a comparative anatomy class involving detailed dissections of dogfish and rabbits.*

CT Scanning: Seminar and Research Practicum. Lecturer. American Museum of Natural History, New York, NY. June-July 2011. *Designed and taught six-week workshop for the "research experience for undergraduates" program, teaching the fundamentals of X-ray, Computed Tomography, reconstruction and segmentation*

techniques and analysis of CT data.

Evolution BIO4305. Teaching Assistant. Villanova University, Villanova PA. January–May 2008. *Taught and supervised molecular sequencing components and lead paper discussions.*

General Biology 1 BIO2015. Teaching Assistant. Villanova University, Villanova PA. September–December 2007. Taught lab component, focusing on the chemistry of life, the cell, the gene, and mechanisms of evolution.

MENTORING AND SUPERVISION

Graduate Advisor:

- Kelsey Fenner. PhD. Biology. University of Florida. 2022–present

Graduate Committee member:

- Danielle Wasserman. PhD. Biology, Yeshiva University, 2015–present
- Aditi Jayarajan. PhD. Biology. University of Florida. 2017–2023
- Ella Nicklin, PhD. Biology, University of Florida, 2019–present
- Stephen Byrum. PhD, Biology, University of Florida, 2019–present
- Katherine Wolcott. PhD. Biology, University of Miami, 2021–2025
- Ashley Hammersma, PhD. Biology, University of Florida, 2021–2026
- Aswaj Punnath: PhD. Entomology and Nematology. 2022–present
- Dane Ungurait. PhD. Mechanical Engineering. 2022–present
- Sarah Benevenute. PhD. Horticultural Science. University of Florida, 2022–2025
- Gary Nicolau, MSc. Biology, Villanova University, 2023–2025
- Anngelyk La Luz. PhD. Biology, University of Florida. 2024–present
- Md Jahir Rayhan. PhD. Entomology and Nematology, University of Florida. 2025–present
- Ashwin Shrinivasin. MS. Biology, University of Florida. 2025–present

External Evaluator

- Shivaun Punnath, MSc. Zoology, University of the Witwatersrand, 2011–2015
  PhD. Zoology, University of the Witwatersrand, 2014–2020
- Wade Stanton-Jones, PhD. Zoology, University of the Witwatersrand, 2017–2023
- Ross Williams, MSc. Materials Science, University of Swansea, 2025–2026

Postdoctoral Supervisor

- Jaimi Gray, Florida Museum of Natural History, 2022-2024
- John True, Florida Museum of Natural History, 2024-2026
- Maria Vallejo-Pareja, Florida Museum of Natural History, 2026–present

FUNDING AND FELLOWSHIPS (PI/COPI GRANT TOTAL $4,889,195)

National Science Foundation Collaborative Research: DEB#2615595, $391,576. Integrating Phylogenomics and Traits to Reveal the Eco-Evolutionary Range Dynamics of Anopheline Mosquitos. *Principal Investigator*, May 2026.

National Institute for Health Small Research Grant Program: $100,000. Advancing mosquito blood-feeding rate quantification using micro-CT imaging: an innovative tool for vector-borne disease transmission studies. *Co-Principal investigator,* August 2025.

University of Florida Strategic Funding grant $650,000. Developing a core imaging laboratory at the University of Florida, building on existing resources at the Florida Museum and Wertheim College of Engineering Nanoscale Research Facility, November 2024

University of Florida Biodiversity Institute $11,000. The Spider Parasite Digital Research (SPDR) Collection: Using traditional and cutting-edge techniques to record the hidden diversity of parasites. Co-Principle Investigator, July 2024

National Science Foundation RCN #2226185 $398,731, Collaborative Research: Cross-Cutting Improvements: Non-Clinical Tomography Users Research Network (NoCTURN)**.** *Principal Investigator,* September 2022

National Science Foundation SBS#2206734, $133,767. Collaborative Research: Adaptation or opportunity? Using mammal sucking lice to determine drivers of host-parasite associations. *Principal Investigator*, July 2022

National Science Foundation DMR#2017977, $1,413,729. MRI: Acquisition of Nano-resolution Zeiss Xradia 620 Versa X-ray Computed Tomography with Phase Contrast and Lab Diffraction Contrast Tomography, *Co-Principal Investigator*, July 2020

National Science Foundation ICB#1929448, $763,978. CSBR: Curating the Early Anthropocene Record of circum-Caribbean Animal Biodiversity in the Florida Museum of Natural History, *Co-Principal Investigator,* September 2019

National Science Foundation SBS #1924759, $104,252. Collaborative Research: Repeated Adaptive Radiation in the Coevolutionary History of Birds and Feather Lice, *Principal Investigator*, September 2019.

University of Florida Technology Fee Grant, $90,027. Expanding Capacity for 3D Data Analysis Expanding Capacity for 3D Data Analysis. *Co-Principal Investigator,* August 2019,

Florida Museum of Natural History seed grant, $9,980. Developing a stable framework for the Florida Museum of Natural History's Digital collections, *Principal Investigator*, November 2018

National Science Foundation DBI #1701714, $808,235. Digitization TCN: Collaborative Research: oVert: Open Exploration of Vertebrate Diversity in 3D, *Co-Principle Investigator,* September 2017

National Science Foundation DEB #1556559. $884,855. Collaborative Research: Survey and Analysis of the Angolan Herpetofauna. *Senior personnel*, June 2016

National Science Foundation DEB #1210478. $13,910. Doctoral Dissertation Improvement Grant: A synthetic analysis of evolutionary patterns in the Squamate family

Cordylidae. *Co-Principle Investigator,* March 2012

Exploration Fund grant, the Explorers Club. $1050 for the project "Phylogenetic relationships of the Cape cliff lizards." May 2011

Full-year Research Fellowship, Villanova University, Villanova, PA, Sept 2008 to May 2009. Awarded to a second-year Teaching Assistant on the basis of research proposal, academic record and research experience.

Summer Research Fellowship, Villanova University, Villanova, PA, June to July 2008. Financial assistance awarded for research carried over the summer.

HONORS AND AWARDS

Best Student paper. 11th conference, Herpetological Association of Africa. March 2013

Tracy Storer award, Joint meeting of Ichthyologists and Herpetologists, Providence, RI, July 2010. The Storer Awards of the American Society of Ichthyologists and Herpetologists recognize the best student poster presentation in herpetology and ichthyology.

Nesmith Dickinson Research Award, University of Richmond, Richmond, VA 2004. Awarded to a student majoring in biology at the University of Richmond to aid research projects during the recipient's senior year.

SCIENTIFIC PRESENTATIONS

58.Lizards of Earth Sea and Air. Oral presentation, Joints project. September 2026.

57. Show some backbone! Some of the things one can do with a 3500 vertebrae dataset. Bauerpalooza, Villanova, Pennsylvania, September 2026.

56. Natural history museum specimen tomography: A different kind of non-destructive testing. Oral presentation. *Hexagon Tech Day.* Blue Origin, Meritt Island, Florida. August 2026

55. New Insights into the Phylogenetic Position and Paleobiogeography of *Konkasaurus mahalana.* Oral presentation. *Joint meeting of Ichthyologists and Herpetologists.* New Orleans, Louisiana. July 2026

54. Imaging the Florida Museum's Natural History Collections: Workflows, Innovation and the Future of 3D Digitization. Invited Webinar. *iDigBio Webinar series.* May 2026.

53. I count Bacula (and so can you). Oral presentation. *Departmental Halloween seminar.* Florida Museum of Natural History, Gainesville, Florida. October 2025

52. Comparing Landmark-based Geometric Morphometric and Signed Distance Function Approaches to Quantify and Explore Axial Skeleton Variation in Girdled Lizards. Plenary talk, Science in 3D symposium. *Joint meeting of Ichthyologists and Herpetologists.* Saint Paul, Minnesota. July 2025

51. Comparing Landmark-based Geometric Morphometric and Signed Distance Function Approaches to Quantify and Explore Axial Skeleton Variation in Girdled Lizards. Oral presentation. *ToScA North America*, New York City, New York. May 2025.

50. Adaptation of vertebral Anatomy in tail-biting lizards (*Ouroborus cataphractus*). Oral presentation. *Herpetological Association of Africa.* Wilderness, Republic of South Africa, November 2024.

49. Lessons learned from the openVertebrate project elucidate a path forward for FAIR collections networks. Webinar. *iDigBio TCN Webinar series.* Online. November 2024

48. Computer cabinets of curiosity. X-ray tomography and the digital revolution of natural history museums. Departmental Seminar. *University of Dayton*, Dayton Ohio, November 2024

47. Unlocking Collaborative Potential: Shareable Datasets within UF. Panel Discussion. *3rd Annual UF AI Days.* University of Florida. Gainesville, Florida, October 2024

46. Digitization, Dissemination and Democratization: 3D solutions to challenges facing Museum Collections. Promotion seminar. *Florida Museum of Natural History.* Gainesville Florida. September 2024

45. NoCTURN Non-Clinical Tomography Users Research Network: an NSF FAIROS RCN. Invited talk. *FAIR Facilities and Instruments workshop.* National High Magnetic Field Laboratory, Tallahassee, Florida. August 2024

44. Adaptation of vertebral Anatomy in tail-biting lizards (*Ouroborus cataphractus*). Oral presentation. Society for the Study of Amphibians and Reptiles conference. Ann Arbor Michigan, June 2024.

43. Increasing accessibility to museum digital collections. iDigBio Advances in Digital Media Workshop series. Invited presentation. *iDigBio Advances in Digital Media Workshop series.* New Haven, Connecticut. June 2024.

42. What comes next? Post-oVert museum digitization and the application of FAIR principles to our data. Invited presentation. *iDigBio Advances in Digital Media Workshop series.* Gainesville Florida. March 2024.

41. Doors unlocked and open: Digitization, dissemination and democratization of Natural History collections from the open Vertebrate thematic collections network. Plenary lecture. *ToScA UK.* Glasgow, Scotland, August 2023.

40. Scaled up defenses: Patterns and Drivers of dermal Armor in lizards. Invited symposium lecture. *International Congress of Vertebrate Morphology*. Cairnes, Australia. July 2023.

39. Leveraging 3D digitization efforts to build VR and AR interactives. Online presentation. *iDigBio Digital data meetings*. June 2023.

38. Tails of the unexpected: Dermal ossifications in Deomyine rodents. Poster and lightning talk. *ToScA North America*. Austin, Texas. May 2023.

37. Introduction to CT scanning insects: Xray Principles, Tomography analysis and data management. *Silk gland workshop*. Gainesville, Florida. April 2023.

36. Unlocked cabinets of curiosity: Digitization, Dissemination and Democratization of Natural History Collections. Plenary lecture. *The 40th Mid-Continent Paleobotanical Colloquium*. Gainesville Florida, April 2023.

35. Unlocked cabinets of curiosity: Digitization, Dissemination and Democratization of Natural History Collections. Departmental Seminar. *University of Reno, Nevada*. Reno, Nevada, April 2023.

34. The Open Vertebrate project and trait assembly from CT scanning. Oral presentation. *6th Annual Digital data in Biodiversity meetings.* Gainesville, Florida. May 2022.

33. Scaled up defenses: Patterns and Drivers of dermal Armor in lizards. Invited symposium lecture. *Society for Experimental Biology Meetings*. Montpellier, France. July 2022.

33. How snakes lost their legs but won the race. Invited symposium lecture. National Association of Biology Teachers Annual meetings. Atlanta, Georgia. November 2021.

32. The Inside Story: How Computed Tomography is revolutionizing Natural History Museums in the 21st Century. April 2017. Departmental Seminar, *University of California San Diego*. Virtual event. October 2021

31. The inside story: Employing 3D imaging to unlock the full potential of natural history collections in the 21st Century. Invited seminar*. Bruce Museum.* virtual event. June 2020.

30. 3D imaging and the future of Natural History collections. Invited Seminar. *Everglades National Park seminar series*. Virtual event. July 2020.

29. The inside story: Employing 3D imaging to unlock the full potential of natural history collections in the 21st Century. Departmental seminar*. Villanova University.* virtual event. February 2020.

28. CT data and the digital revolution of Natural History Museum collections. Invited Departmental Seminar. *Auburn University*, Auburn, Alabama. February 2020.

27. Computed Tomography techniques for analyzing amber fossils. Oral presentation*, Burmite amber workshop.* Bangkok, Thailand. December 2019.

26. Diversification of dermal armor in squamates. Invited symposium presentation. *International Congress of Vertebrate Morphology*. Prague, Czech Republic. August 2019.

25. The Inside Story: How Computed Tomography is revolutionizing Natural History Museums in the 21st Century. Departmental Seminar, *University of Texas at Arlington*. Arlington, Texas, January 2018.

24. Diversification of Dermal Armor in Squamates. Oral presentation. *Society of Integrative and Comparative Biology*. San Francisco. January 2018

23. The Inside Story: How Computed Tomography is revolutionizing Natural History Museums in the 21st Century. April 2017. Departmental Seminar, *Sam Houston University.* Huntsville, Texas. May 2017.

22. The Inside Story: How Computed Tomography is revolutionizing Natural History Museums in the 21st Century. April 2017. Departmental Seminar, *Universidad de los Andes*, Bogota, Colombia. April 2017

21. Getting Under the Skin: How CT Technology is Unlocking the Full Potential of Natural History Museum Collections. Invited plenary talk. *GE Science workshop*. November 2016. Pune, India.

20. Getting Under the Skin: How CT Technology is Unlocking the Full Potential of Natural History Museum Collections. Invited plenary talk. *Volume Graphics User Group Meeting.* Heidelberg Germany. September 2016

19. Maximizing the scientific and educational utility of natural history collections through computed tomography. Oral Presentation.. *ToScA (Tomography for Scientific Advancement). Bath, UK.* September 2016

18. Building a 3D/4D interactive museum of life. Session co-chair. *Science Foo*. Googleplex, Mountain View, California. July 2016.

17. Phylogenetic and ecological diversity within the widespread melanistic species *Hemicordylus capensis*, Oral presentation. *Joint Meetings of Ichthyology and Herpetology*. New Orleans, Louisiana. July 2016

16. Contrast-enhanced CT provides insight into Amphibian lingual Morphology. Oral presentation *International Congress of Vertebrate Morphology Meetings*, Washington DC. July 2016.

15. Amber fossils: windows into the ancient paleotropics. Oral presentation *Florida Herpetological Society meetings*. Gainesville FL. April 2016

14. Getting Under the Skin: How CT Technology is Unlocking the Full Potential of Natural History Museum Collections. Invited plenary talk. *Yxlon science days*. Cleveland OH. March 2016.

13. Arms and armor: The morphological radiation of girdled lizards. Invited seminar. *Ohio University Biology departmental seminar*, Athens, Ohio. October 2015.

12. Amber fossils: windows into the ancient paleotropics. Oral presentation *Florida Herpetological Society meetings*. Gainesville FL. April 2016

11. Arms and armor: Adaptive radiation in the girdled lizards.. Oral presentation. Invited departmental Seminar *California Academy of Sciences,* San Francisco CA. March 2015

10. Can we predict the effect of species discovery on macroevolutionary inferences? Oral presentation. *SSAR meetings*, Lawrence, Kansas. August 2015.

9. Phylogenetics and biogeography of the northern *Cordylus*. Oral presentation. *12th conference of the Herpetological Association of Africa.* Gobabeb research station, Namibia. November 2014.

8. Systematics and morphological diversification of the Cordylidae (Squamata). Departmental seminar. *California Academy of Sciences,* San Francisco, USA. September 2014

7. Arms and armour: Osteodermal variation in African Girdled lizards*. Oral presentation. *11th conference of the Herpetological Association of Africa,* Pretoria, South Africa. February 2013

6. Evolutionary patterns of ecology and biogeography in the Cordylidae. Invited symposium talk: Advances in the Biogeography of African Amphibians and Reptiles. *World Congress of Herpetology*. Vancouver, Canada. August 2012.

5. Adaptive radiation and armor variation in girdled lizards (Cordylidae). Departmental seminar, Qwaqwa University, Freestate, South Africa. March 2011

4. Here be dragons: phylogenetics and biogeography of the African Dragon lizards (Cordylidae, *Smaug*). Poster presentation, *Joint Meetings of Ichthyology and Herpetology.* Providence Rhode Island. July 2010.

3. Molecular systematics of the girdled lizards (Cordylidae). Oral presentation, *Joint Meetings of Ichthyology and Herpetology.* Portland Oregon. July 2009.

2. Preliminary molecular systematics of the Cordylidae. Oral presentation, *9th conference of the Herpetological Association of Africa.* Sterkfontein research station, Free State, South Africa. November 2008.

1. Phylogenetics of Leptodactylidae. Poster presentation. 1º Congresso Brasileiro de Herpetologia. Curitiba, Brazil, July 2004.

SELECT PUBLIC ENGAGEMENT AND OUTREACH:

All things considered. Interview for "this week in science" section, discussing chameleon optic nerves. 2025. www.npr.org/2025/11/13/nx-s1-5601812/this-week-in-science-a-saturn-moons-ocean-chameleon-eyes-and-energy-used-for-ai

Bizarre Beasts: Spiny Mice. YouTube video series on strange adaptations in the animal kingdom. 2023. www.youtube.com/watch?v=xKI9yIqyFWs

Quite a Tail: A Mouse Has Been Hiding Its Armor All This Time. New York Times Article 2023. www.nytimes.com/2023/05/24/science/spiny-mouse-armor-tail.html

"Vertebrates anytime, anywhere". Interview for the Reports of the National Center for Science Education. Volume 42 No. 3 June 22, 2022
ncse.ngo/vertebrates-anytime-anywhere

Science up close: Fantastic Fossils! Exhibit at the Florida Museum of Natural History, 2021–2022 www.floridamuseum.ufl.edu/exhibits/fantastic-fossils/

Under the skin: the Art of anatomy exhibit at the Bruce Museum, Greenwich CT. 2020–2021
www.undertheskinexhibition.com/

Rare, Beautiful & Fascinating: 100 Years @FloridaMuseum, Gainesville FL. 2017–2018
www.floridamuseum.ufl.edu/100years/tuatara/
Science today, featured video California Academy of Sciences 2014
http://www.calacademy.org/explore-science/armored-lizards
Howard Hughes Medical Institute: Image of the week 2014 www.hhmi.org/biointeractive/your-armored-reptile

"Skulls" temporary exhibit, California Academy of Sciences 2014
http://www.calacademy.org/skulls-exhibit/
The California Academy of Sciences' Night Life program: Herpetology bench: 2013 – 2014
http://www.calacademy.org/events/nightlife/
"Picturing Science" temporary exhibit, American Museum of Natural History 2011 – present
http://www.amnh.org/exhibitions/current-exhibitions/picturing-science
"The critter people" New York Times article, 2011
http://www.nytimes.com/2011/07/24/education/edlife/edl-24naturalhistory-t.html?pagewanted=all&_r=0

FIELDWORK:

June 2017: Serra Martin Garcia, Dominican Republic.

September–October 2015: Cangandala National Park, Malanje province, Angola

May 2015: Desert National Wildlife Refuge, Nevada USA

August 2014: Desert National Wildlife Refuge, Nevada USA

November–December 2013: Iona National Park, Namibe province, Angola.

January–March 2011: Western Cape, South Africa. Lesotho.

October–November 2008: Swaziland. Limpopo, Mpumalanga, Gautang, South Africa.

July 2008: Western Cape, South Africa.

July 2004: Atlantic Rainforest, Brazil.

PROFESSIONAL SERVICE:

2024–present: Faculty Senator, Department of Natural History, University of Florida.

2024: Local Host for NoCTURN conference, University of Florida.

2023–present: Chair of Digitization Committee. Department of Natural History, Florida Museum of Natural History.

2023–present: Awards Committee undersecretary. Department of Natural History, Florida Museum of Natural History.

2013–2023: Associate Editor, African Journal of Herpetology.

2019: Local Host, ToScA conference.

2018–present: Board Member, ToScA North America.