

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

- Florida Museum of Natural History, Gainesville, FL
2017–present **CT Specialist**, Nanoscale Research Facility
2015–present **Postdoctoral researcher**, Department 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 on Vertebrate Zoology and Anthropology
- American Museum of Natural History, New York, NY
2013–present **Research Associate**, Department of Herpetology.
2009–2013 **Research Fellow**, Richard Gilder Graduate School
- Baruch College (City University New York), New York, NY
2011 **Adjunct Lecturer**. Department of Biology

CURRENT RESEARCH INTERESTS

- Phylogenetics of Sub-Saharan African lizards and frogs
- Phenotypic adaptation and diversification of defensive structures
- African biogeography
- New applications of Computed Tomography data for research and education
- Squamate Paleontology
- The effect of taxonomic biases on macroevolutionary studies

PUBLICATIONS

- Kim, B.G., Kim, Y.H., **Stanley, E.L.**, Garrido-Martin, E.M., 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*, cvx188,
- Ribeiro, L. F., Blackburn, D. C., **Stanley, E. L.**, Pie, M. R., & Bornschein, M. R. 2017. Two new species of the *Brachycephalus pernix* group (Anura: Brachycephalidae) from the state of Paraná, southern Brazil. *PeerJ*, 5, e3603.
- Blackburn D.C., Paluh, D.J. & **Stanley, E.L.** 2017. *Phrynobatrachus krefftii* (Krefft's Puddle Frog). Anurophagy. *Herpetological Review* 48: 413–414.
- Bateman, C., Yin-Tse Huang, Simmons, D.R., Kasson, M.T., **Stanley, E.L.**, & 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
- Bornschein, M.R., Ribeiro, L.F., Blackburn, D.C., **Stanley, E.L.** & Pie, M.R. 2016. A new species of *Brachycephalus* (Anura: Brachycephalidae) from Santa Catarina, southern Brazil. *PeerJ* 4, e2529
- Blackburn, D.C., Boix C., Greenbaum, E., Fabrezi, M., Meirte, D., Plumptre, A.J. & **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.
- 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., & 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):
- Daza, J.D., **Stanley, E.L.**, Wagner, P., Bauer, A.M. & Grimaldi, D.A. 2016. Mid-Cretaceous amber fossils illuminate the past diversity of tropical lizards. *Science Advances* 2(3): 1–8
- 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
- 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., & 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: 10.1371/journal.pone.0142823
- Stanley, E.L.** & 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

- de Sá R.O., Grant, T.A., Camargo, A., Heyer, W.R., Ponssa, M.L. & **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
- Stanley, E.L.** Cordylid systematics and evolution. 2014. *In* Girdled Lizards and their relatives. Natural history, captive care and breeding. Reissig, J. Edition Chimaira London p.249.
- Mouton, P.F.N., Fleming, A. & **Stanley, E. L.**, 2012 Synchronised versus asynchronised breeding in the lizard family Cordylidae: An evolutionary perspective. *Journal of Zoology* 288:191–198
- Greenbaum, E.B., **Stanley, E.L.**, Kusamba, C., Moninga W.M., Goldberg, S.R., & 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
- Portik D, Wood P, Grismer J, **Stanley E.L.**, & 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
- Stanley, E. L.**, Bauer, A. M., Jackman, T. R., Mouton, P. L. N. & Branch, W. R. 2011. Between a rock and a hard polytomy: rapid radiation in the rupicolous girdled lizards (Cordylidae: Squamata). *Molecular Phylogenetics and Evolution* 58: 53-70
- Stanley, E. L.**, Kendal, R. L., Kendal, J. R., Grounds S., & 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

TEACHING AND TRAINING

- Herpetology: ZOO4926.** Guest lecturer, University of Florida, Gainesville, FL. April 2017. *Taught classes on squamate diversity.*
- 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, focussing on the chemistry of life, the cell, the gene, and mechanisms of evolution.

HONORS, AWARDS AND FELLOWSHIPS

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

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

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

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.

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.

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.

SELECTED PRESENTATIONS

Hard and Soft Tissue: Exploring the utility of contrast-enhanced CT scanning. July 2017. Natural History and Morphology – Engines of Inspiration: Workshop at the Joint Meeting of Ichthyologists and herpetologists, Austen, Texas.

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

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

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

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

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

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

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

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

Phylogenetics and biogeography of the northern *Cordylus*. Oral presentation. November 2014. Herpetological Association of Africa. Gobabeb, Namibia.

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

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

The evolution of defensive systems in African girdled lizards. September 2012. Invited Seminar for the Summer Science Institute's Evolution class. The American Museum of Natural History, New York, USA.

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

PUBLIC ENGAGEMENT AND OUTREACH:

Rare, Beautiful & Fascinating: 100 Years @FloridaMuseum, Gainesville FL 2017
<https://www.floridamuseum.ufl.edu/100years/tuataras/>

Discovery Days exhibitor, San Francisco 2014
<http://www.bayareascience.org/festival/discovery-days-at-att-park>

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
<https://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/>

American Museum of Natural History's Identification Day 2011 – 2013

<http://www.amnh.org/calendar/identification-day>

Behind the scenes members tours, American Museum of Natural History 2011 – 2013

<http://www.amnh.org/explore/news-blogs/from-the-collections-posts/special-tours-take-members-behind-the-scenes>

“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.