

Shanelle A. Wikramanayake

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Education

California State University, Northridge (CSUN)
Department of Biology, MSc

expected June 2023

University of Washington (UW), Seattle
BS, Biology

September 2016 – June 2020

Research Interests

Evolutionary Ecology, Conservation genetics, Population Genetics, Phylogenetics, Evolutionary Physiology, Herpetology

Publications

Davis, H. R., Nashriq, I., Woytek, K. S., **Wikramanayake, S. A.**, Bauer, A. M., Karin, B. R., Brennan, I. G., Iskandar, D. T., Das, I., (In press). Genomic analysis of Bornean geckos (Gekkonidae: Cyrtodactylus) reveals need for updated Taxonomy. *Zoologica Scripta*

Wikramanayake, S. A., (2022). [Review of *A Photographic Field Guide to the Amphibians of Sri Lanka*, by A. de Silva, K. Ukuwela, and D. Chathuranga]. *Herpetological review*, 53, 355– 356.

Wikramanayake, S. A., Wikramanayake, E. D., Pallewatta, N., & Leaché, A. D. (2021). Integration of genetic structure into conservation of an endangered, endemic lizard, *Ceratophora aspera*: A case study from Sri Lanka. *Biotropica*, 00, 1– 15. <https://doi.org/10.1111/btp.12970>

Wikramanayake, E. D, Fernando, S., Wickramaratne, C., Akbarally, Z., **Wikramanayake, S. A.** (2020) Sri Lankan Moist Forests Ecoregions: An imperiled Island Rainforest., *Earth Systems and Environmental Sciences*.
<https://doi.org/10.1016/B978-0-12-821139-7.00004-0>

Wikramanyake, S. A., “*Bromeliophyla bromeliacia*: Bromeliad Tree Frog”. *AmphibiaWeb*, University of California, Berkeley, CA, USA, <http://amphibiaweb.org/species/745>. Accessed 19 November 2020.

Research Grants

Exploration Fund Grant, The Explorers Club (\$4,000)	2022
The effect of forest fragmentation and degradation on genetic structure of and connectivity among populations: Exploring a case study of four endemic island species in an imperilled rainforest ecosystem	
California State University, Northridge Graduate Thesis Support Grant (\$600)	2020
Understanding the relative contributions of multiple modes of sexual signal to pre-mating isolation and lineage divergence	
Walter and Margaret Sargent Endowed Scholarship Fund (\$1600)	2019
Genetic structure of an endemic endangered agamid lizard from Sri Lanka (<i>Ceratophora aspera</i>) and its implications for conservation	
Mary Gates Research Scholarship (\$5000)	2018
A phylogeographic approach to conserving a rare and endangered Sri Lankan lizard	
Walter and Margaret Sargent Endowed Scholarship Fund (\$1500)	2018
A phylogeographic approach to conserving the endangered Sri Lankan Rough-nose horned lizard (<i>Ceratophora aspera</i>)	

Honors and Awards

• International Graduate Student Award, CSUN (\$700)	2022
• Robert H. Schiffman Memorial Award for Outstanding Research Promise, CSUN (\$700)	2021
• California State University, Northridge Tuition Fee Waiver	2020
• Dean's List, UW, Seattle	4 Quarters
• John and Dorothy Franco Award (\$1400)	2020
Best scientific paper submitted by an undergraduate involved in research	

Professional Presentations

Wikramanayake, S. A., Gompert, Z., Robertson, J. M., Chan, L. M., (2022) Using genetic simulation models to assess the effects of mate-choice and epistasis on speciation of divergent inter-specific populations. CSUNposium. (<i>Lightning talk</i>)	
Wikramanayake, S. A., Pascal, F.J., Hoke, K., Vega, A., Robertson, J. M., (2021). The neural basis of premating isolation in the red-eyed treefrog (<i>Agalychnis callidryas</i>). Annual Southwest Regional Meeting of Organismal Biologists. (<i>Oral</i>)	

Wikramanayake, S. A., Pascal, F.J., Hoke, K., Vega, A., Robertson, J. M., (2021). The neural basis of premating isolation in the red-eyed treefrog (*Agalychnis callidryas*). Joint Meeting of Ichthyologists and Herpetologists. (Poster)

Wikramanayake, S.A., Wikramanayake, E.D., Pallewatte, N., Leaché A.D. (2021). Integration of genetic structure into conservation of an endangered, endemic lizard, *Ceratophora aspera*: A case study from Sri Lanka. Virtual meeting of the Association for Tropical Biology and Conservation. (Lightning talk)

Wikramanayake, S. A., Pascal, F.J., Hoke, K., Vega, A., Robertson, J. M., (2021). The neurological basis of premating isolation in the red-eyed treefrog (*Agalychnis callidryas*). CSUNposium. (Poster)

Wikramanayake, S.A., Wikramanayake, E.D., Pallewatte, N., Leaché A.D. (2020). Genetic Structure of an Endemic Endangered Agamid Lizard from Sri Lanka (*Ceratophora aspera*) and its Implications for Conservation. Undergraduate Research Symposium, UW, Seattle, Washington. (Poster)

Wikramanayake, S.A., Wikramanayake, E.D., Pallewatte, N., Leaché A.D. (2019). A phylogeographic approach to conserving the endangered Sri Lankan Rough-nose horned lizard (*Ceratophora aspera*). Association for Tropical Biodiversity- Asia Pacific Chapter Meeting, Sri Lanka, 2019. (Oral)

Wikramanayake, S.A., Wikramanayake, E.D., Pallewatte, N., Leaché A.D. (2019). A phylogeographic approach to conserving the endangered Sri Lankan Rough-nose horned lizard (*Ceratophora aspera*). Undergraduate Research Symposium, UW, Seattle, Washington. (Oral)

Research Experience

Department of Biology, CSUN

2020 – Present

PI: Jeanne M. Robertson

Investigating the neurological basis of female mate-choice on speciation in a polymorphic tree frog (*Agalychnis callidryas*).

Department of Biology, UW, Seattle

2017 – 2020

PI: Adam D. Leaché

Integration of genetic structure into conservation of an endangered, endemic lizard, *Ceratophora aspera*.

Burke Museum of Natural History and Culture, UW, Seattle, Washington

2019

Herpetology Collections Manager: Peter Miller

Identifying and organizing historical specimens of *Thamnophis* species to understand changes in distribution in the Pacific Northwest.

Biology Department/ School of Aquatic and Fishery Sciences, UW, Seattle

2018

Graduate Student: Christopher D. Wells

Quantifying morphometrics of cup corals (*Balanophyllia*) to assess environmental effects on growth.

Predator Ecology Lab, School of Environmental and Forest Sciences, UW, Seattle 2017

Graduate Student: Carolyn Shores

Analyzing camera trap data to understand predator-prey interactions in the Pacific Northwest.

Teaching and Outreach Experience

Teaching Associate, CSUN

2020 – 2022

Class: General Biology Lab for non-major students (BIOL 101L)

Hy-Flex Instructional Student Assistant, CSUN

2021

Assisting with bridging the disconnect between virtual and in-person students in a Hy-Flex classroom setting

STEM Outreach, CSUN

2020, 2022

STEM related outreach activities for 2nd and 3rd grade students at the Multicultural Learning Center, Canoga Park, CA

Burke Museum of Natural History and Culture, UW, Seattle, Washington

2019

Outreach activities for Herpetology Department, including presenting collection and specimen preparation for public viewing

Peer Facilitator, UW, Seattle

2018

Class: Introductory Biology for Biology majors (BIOL 220)

Professional Work Experience

Vivarium Assistant

2020 – 2022

Animal care (mammals, fish, reptiles and amphibians)

Curatorial Assistant, Burke Museum of Natural History and Culture, UW, Seattle, Washington

Organized herpetology collection

2019

Intern, Convention on Biological Diversity, Sri Lanka

2018

Data analysis

Intern, Environmental Foundation Limited, Colombo, Sri Lanka

2017

Project report preparation and case study preparation for protected areas in Sri Lanka, by conducting site visits, literature searches and interviews

Professional Service

Member: ASIH Diversity, Equity, Inclusion, and Belonging committee 2022

Ad-hoc reviewer:

- “Reptiles & Amphibians” October 2022
- “Scientific Reports” November 2021
- **Ad-hoc reviewer: “Mitochondrial DNA Part B”** May, July 2020

Sri Lanka Reptile Red List Assessment

September 2019

Provided data for listing species under the IUCN Red List, compiled species accounts and contributed to the conservation action planning for the snakes and lizards of Sri Lanka

18th Conference of the Parties to the Convention on International Trade in Endangered Species (CITES CoP18)

August 2019

Provided data for first listing of *Ceratophora aspera* (*Appendix II*) under CITES

Member and contributor to iNaturalist (Handle: [shanelle97](#))

Observations: 969

Species: 559

Identifications: 527

Observation of the day: <https://www.inaturalist.org/observations/105020170>

Sri Lanka - iNaturalist World Tour: <https://www.inaturalist.org/blog/26809-sri-lanka-inaturalist-world-tour>

Society Memberships

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- **President, CSUN, Behavior, Ecology and Evolution Research (BEER) Club** 2021
 - **Vice President, CSUN, Behavior, Ecology and Evolution Research (BEER) Club** 2020
 - **Representative, CSUN Women in Science (CSUN WiS)** 2020
 - **Society for Integrative and Comparative Biology (SICB)** 2020
 - **American Society of Ichthyologists and Herpetologists (ASIH)** 2020 – 2022
 - **Society for the Study of Amphibians and Reptiles (SSAR)** 2020 – 2022
 - **Association for Tropical Biology and Conservation (ATBC)** 2019 – 2022

Skills

Language: Fluent

- English
- Sinhala (native tongue)

Phylogenetics: Intermediate

- Sequence assembly (Geneious, MEGA, iPyrad)

- Phylogeny estimation (BEAST, RAxML, BPP, PAUP)
- Biogeographic analysis (VCFTools, Arlequin)

Computer language: Intermediate

- Python
- R
- Linux command line

Miscellaneous:

- ImageJ, FIJI
- QGIS
- Raven Pro
- PADI Open Water Certification