

Shanelle A. Wikramanayake

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Education

California State University, Northridge (CSUN)

expected June 2023

Department of Biology, MSc
PI: Jeanne Robertson

University of Washington (UW), Seattle

September 2016 – June 2020

BS, Biology
Advisor: Adam Leaché

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. (2023). Genomic analysis of Bornean geckos (Gekkonidae: *Cyrtodactylus*) reveals need for updated Taxonomy. *Zoologica Scripta*. <https://doi.org/10.1111/zsc.12575>

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 (*Ceratophora aspera*) 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 (*Ceratophora aspera*).

Honors and Awards

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- **Nathan O. Freedman Memorial Award for Outstanding Graduate Student, CSUN (\$3000)** 2023
 - **Distinguished Thesis/Graduate Project Competition, CSUN (\$1500)** 2023
 - **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., Pascal, F.J., Hoke, K., Vega, A., Robertson, J. M., (2023). An integrative approach to elucidate the underlying mechanisms of speciation in a polymorphic neotropical treefrog, *Agalychnis callidryas*. Southern California Academy of Sciences Annual Meeting. (Oral)

Wikramanayake, S. A., Pascal, F.J., Hoke, K., Vega, A., Robertson, J. M., (2023). Investigating the neurological basis of speciation in a polymorphic neotropical treefrog, *Agalychnis callidryas*. CSUNposium. (Oral; **First place winner**)

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. (Lightning talk)

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*). Annual Southwest Regional Meeting of Organismal Biologists. (Oral)

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; Second place winner*)

Wikramanayake, S.A., Wikramanayake, E.D., Pallewatte, N., Leaché A.D. (2020). Genetic Structure of an endemic endangered 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*).
- A modeling approach to understanding the factors driving the speciation continuum.

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 historical *Thamnophis* specimens 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

Wikramanayake	2022
Teaching Associate, CSUN Class: General Biology Lab for non-major students (BIOL 101L)	2020 – 2022
Hy-Flex Instructional Student Assistant, CSUN Assistance in Hy-Flex classroom setting	2021
STEM Outreach, CSUN STEM related outreach activities for 2 nd and 3 rd grade students at the Multicultural Learning Center, Canoga Park, CA	2020, 2022
Burke Museum of Natural History and Culture, UW, Seattle, Washington Collection and specimen preparation in herpetology department for public viewing	2019
Peer Facilitator, UW, Seattle Class: Introductory Biology for Biology majors (BIOL 220)	2018

Professional Work Experience

Graduate Assistant, CSUN Classes: Molecular Markers, Herpetology	Spring 2023
Vivarium Assistant Animal care (mammals, fish, reptiles, and amphibians)	2020 – 2022
Curatorial Assistant, Burke Museum of Natural History and Culture, UW, Seattle, Washington Organized herpetology collection	2019
Intern, Convention on Biological Diversity, Sri Lanka Data analysis	2018
Intern, Environmental Foundation Limited, Colombo, Sri Lanka Project report and case study preparation for protected areas in Sri Lanka, by conducting site visits, literature searches and interviews.	2017

Professional Service

Member: ASIH Diversity, Equity, Inclusion, and Belonging committee	2022
Ad- hoc reviewer:	
- “Reptiles & Amphibians”	October 2022, March 2023
- “Scientific Reports”	November 2021
- “Mitochondrial DNA Part B”	May, July 2020
Sri Lanka Reptile Red List Assessment 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	September 2019

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: 1082

Species: 599

Identifications: 555

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

• President, CSUN, Behavior, Ecology and Evolution Research Club	2021
• Vice President, CSUN, Behavior, Ecology and Evolution Research Club	2020
• Representative, CSUN Women in Science	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)

Computer language: Intermediate

- Python
- R
- Linux command line

Phylogenetics: Intermediate

- Sequence assembly (Geneious, MEGA, iPyrad)
- Phylogeny estimation (BEAST, RAxML, BPP, PAUP)
- Biogeographic analysis (VCFTools, Arlequin)

Miscellaneous:

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