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., "*Bromeliohyla 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

- **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

Teaching Associate, CSUN 2020 – 2022
Class: General Biology Lab for non-major students (BIOL 101L)

Hy-Flex Instructional Student Assistant, CSUN 2021
Assistance in 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
Collection and specimen preparation in herpetology department for public viewing

Peer Facilitator, UW, Seattle 2018
Class: Introductory Biology for Biology majors (BIOL 220)

Professional Work Experience

Graduate Assistant, CSUN Spring 2023
Classes: Molecular Markers, Herpetology

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 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, March 2023
- "Scientific Reports" November 2021
- "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: 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