

## Shanelle A. Wikramanayake

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### Education

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**Colorado State University (CSU), Fort Collins** September 2023 – expected 2028  
Graduate Degree Program in Ecology (GDPE) and Department of Biology, PhD  
PI: Chris Funk

**California State University, Northridge (CSUN)** September 2020 – June 2023  
Department of Biology, MSc  
PI: Jeanne Robertson

**University of Washington (UW), Seattle** September 2016 – June 2020  
BS, Biology  
Advisor: Adam Leaché

### Publications

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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

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**Roger Conant Grants in Herpetology, Society for the Study Of Amphibians And Reptiles (\$500)2024**  
Integrating genetics into conservation planning of tropical lizards in an imperiled ecosystem

**GDPE Research Grant, CSU, Fort Collins (\$1500)** 2024  
Characterizing the thermal niches of tropical lizards facing climate change in an imperiled ecosystem for conservation

**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, UW (\$1600)** 2019  
Genetic structure of an endemic endangered agamid lizard from Sri Lanka (*Ceratophora aspera*) and its implications for conservation.

**Mary Gates Research Scholarship, UW (\$5000)** 2018  
A phylogeographic approach to conserving a rare and endangered Sri Lankan lizard.

**Walter and Margaret Sargent Endowed Scholarship Fund, UW (\$1500)** 2018  
A phylogeographic approach to conserving the endangered Sri Lankan Rough-nose horned lizard (*Ceratophora aspera*).

### Honors and Awards

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- **Department of Biology Conference Travel Award, CSU, Fort Collins** 2024
  - **Colorado State Graduate Fellowship, CSU, Fort Collins (\$2000)** 2023
  - **Inclusive Excellence Fellowship Award, CSU, Fort Collins** 2023
  - **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** September 2020 – June 2023
  - **Dean's List, UW, Seattle** 4 Quarters
  - **John and Dorothy Franco Award, UW, Seattle (\$1400)** 2020  
Best scientific paper submitted by an undergraduate involved in research

### Professional Presentations

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**Wikramanayake, S. A., Espinoza, R. E., Funk, W. C., (2024).** Persistence vs. extinction of tropical lizards in a changing world. CSU, Fort Collins Graduate Student Showcase. (*poster; Top Scholars for University-Wide Graduate Programs 2<sup>nd</sup> place winner*)

**Wikramanayake, S. A., Espinoza, R. E., Funk, W. C., (2024).** Persistence vs. extinction in a warming, fragmenting world: Can Sri Lankan rainforest lizards cope?. 10<sup>th</sup> World Congress of Herpetology. (*poster*)

**Wikramanayake, S. A., Pietti, A. D., Mendez, J., Hoke, K., Vega, A., Chan, L. M., Gompert, Z., Gray, D. A., Robertson, J. M., (2024).** Investigating the role of premating behavioural reproductive isolation along a speciation continuum in a polymorphic neotropical treefrog, *Agalychnis callidryas*. Front Range Student Ecology Symposium. (*Oral*)

**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

### Graduate Degree Program in Ecology (GDPE) and Department of Biology, CSU, Fort Collins

PI: W. Chris Funk

September 2023 – present

Persistence vs. extinction in a warming, fragmented world: An integrative, conservation genomics approach using tropical island lizards.

### Department of Biology, CSUN

September 2020 – June 2023

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

**Graduate Teaching Assistance (GTA) CSU, Fort Collins** Fall 2024

Class: Introduction to Evolution (BZ220)

**International Graduate GTA Excellence in Teaching certificate, CSU Fort Collins** Fall 2023

**Graduate Associate, CSUN** Spring 2023

Class: Molecular Markers in Evolutionary Studies and Lab (BIOL452/452L)

**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 2<sup>nd</sup> and 3<sup>rd</sup> 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: Herpetology (BIOL412)

**Vivarium Technician** 2020 – 2022

Animal care (mammals, fish, reptiles, and amphibians)

**Curatorial Assistant, Burke Museum of Natural History and Culture, UW, Seattle, Washington** 2019

Organized herpetology collection

**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

Treasurer, 31 <sup>st</sup> Front Range Student Ecology Symposium 2025	2024
Mentor, GDPE Mentor-Mentee program	2024
Mentor, Global Women in Herpetology Mentorship program	2024
Workshop co-lead, Introduction to vector graphics for scientific illustration for GDPE	2024
Graduate student presentation and abstract judge, Multicultural Undergraduate Research Art and Leadership Symposium (MURALS), CSU, Fort Collins	2024
Workshop organizer and day of volunteer, 30 <sup>th</sup> Front Range Student Ecology Symposium 2024	2024
Contributing Author, Women in Herpetology: 50 Stories from Around the World. Edited by Umilaela Arifin, Itzue Wendolin Caviedes-Solis, Sinlan Poo	2023
Member, ASIH Diversity, Equity, Inclusion, and Belonging committee	2022-2024
Ad- hoc reviewer,	
- "Molecular Ecology"	November 2024
- "Reptiles & Amphibians"	October 2022, March 2023
- "Scientific Reports"	November 2021
- "Mitochondrial DNA Part B"	May, July 2020
Participant, 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	
Assistant, 18 <sup>th</sup> Conference of the Parties to the Convention on International Trade in Endangered Species (CITES CoP18)	August 2019
- Provided data for first listing of <i>Ceratophora aspera</i> (Appendix II) under CITES	
Member and contributor to iNaturalist (Handle: <a href="#">shanelle97</a> )	
- Observations: 1221	
- Species: 668	
- Observation of the day: <a href="https://www.inaturalist.org/observations/105020170">https://www.inaturalist.org/observations/105020170</a>	
- Sri Lanka - iNaturalist World Tour: <a href="https://www.inaturalist.org/blog/26809-sri-lanka-inaturalist-world-tour">https://www.inaturalist.org/blog/26809-sri-lanka-inaturalist-world-tour</a>	

### 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 – 2024
• Society for the Study of Amphibians and Reptiles (SSAR)	2020 – 2022
• Association for Tropical Biology and Conservation (ATBC)	2019 – 2022

## **Skills**

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### **Language:** Fluent

- English, Sinhala (native tongue)

### **Computer language:** Intermediate

- R, Python, bioinformatics

### **GIS:** Intermediate

- QGIS, ArcGIS Pro

**Miscellaneous:** ImageJ, Raven Pro, PADI Advance  
Open Water Certification, Adobe Illustrator