Department of Zoology
Faculty of Science / University of Peradeniya

Prof. Suyama H. Boyagoda

B.Sc. (Perad.), M.Sc. (Perad.), Ph.D. (Boston, USA)

Head of the Department / Professor

suyamam@sci.pdn.ac.lk
suyamam@sci.pdn.ac.lk
+94 81 239 (4470)
+94 77 402 4436
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About Me

Suyama H. Boyagoda is currently serving as the Head of the Department of Zoology and the Chairperson of the Board of Study in Zoological Sciences at the Postgraduate Institute of Science (PGIS), University of Peradeniya. She graduated in 1997 with a First-Class Honours in B.Sc. in Zoology and obtained her M.Sc. in Parasitology from the PGIS, in 1999. She then completed her Ph.D. in Biology at Boston University, USA, in 2007 studying systematics of shrews of Sri Lanka. Her research includes several significant publications on Sri Lankan shrews, notably the description of a new species, *Crocidura hikmiya*, from the Sinharaja Forest Reserve. Prof. Boyagoda began her academic career as a Temporary Assistant Lecturer in the Department of Zoology in 1997. She joined the permanent faculty in 1999 as a Probationary Lecturer and has since progressed through the ranks, serving as a Senior Lecturer and later as a Professor (2018–present). In addition to her teaching and research, she has held several leadership positions at the university, including, the Sub-editor of the *Ceylon Journal of Science* (2007–2012), Coordinator of the Higher Education for the Twenty-First Century (HETC) Project, Faculty of Science and PGIS (2013–2015), Chairperson of the inaugural Science Undergraduate Research Symposium (SURS) in 2021, Faculty Chairperson for Peradeniya University Research Symposium and Exposition (iPURSE) 2021. Prof. Boyagoda has published number of research articles on systematics of murine rodents and frogs in Sri Lanka including description of a new genus of frog (*Taruga*) from the island. Her recent research interests have shifted toward studying the effects on biodiversity in organic and conventional agriculture and Role of collembolans in decomposition and as a bioindicator of soil health.

Higher Education Qualifications

PhD	MSc	BSc
Boston University USA (2007)	University of Peradeniya Sri Lanka (1999)	University of Peradeniya Sri Lanka (1997)

Awards, Scholarships, Memberships & Fellowships

- Life member of Association for the Advancement of Science (SLAAS)
- University Scholarship 1997 for best results in Zoology
- Merit award for publications 2015, 2016 NRC, Sri Lanka

Positions Held

- Head. Department of Zoology- (2023-present)
- Chairperson, Borad of Study in Zoological Sciences, Postgraduate Institute of Science, University of peradeniya- (2024 - present)
- University of Peradeniya: Senior Lecturer in Zoology, Department of Zoology- (since 2007)
- Boston University, Boston, USA: Teaching Fellow, Department of Biology- (2001-2007)
- University of Peradeniya: Sub-Editor, Ceylon Journal of science- (2007-2012.)
- University of Peradeniya: coordinator of Higher Education for the Twenty First Century (HETC) Project under Quality and Innovation Grants (QIG) Window 3, Faculty of Science and Postgraduate Institute of Science- (Since May 2013)
- University of Peradeniya Secretary, Board of Zoological studies, Postgraduate Institute of Science- (2007-2011)
- University of Peradeniya: Senior Student Counselor- (January 2009 – December 2010)
- University of Peradeniya Secretary, Science Alumni Association- (2013/15)

My Teachings

BIO1182: Introductory Evolutionary Biology

ZOO3262: Animal Behaviour

ZOO4073: Immunobiology

Research Interests (Research Fields/ Projects)

Systematics, Evolutionary Biology, Ethology, Health Science, Environmental Health

Ongoing Research and Projects

Role of collembolans in decomposition

Collembola, commonly known as springtails, play a vital role in leaf litter decomposition and nutrient cycling in terrestrial ecosystems. By fragmenting leaf litter, they enhance microbial activity, accelerating organic matter breakdown. Larger Collembolans primarily feed on soil fungi, while smaller ones consume humus and arthropod feces. Their feeding behavior promotes nutrient release and supports soil fertility. Additionally, Collembolans influence microbial communities and soil structure, indirectly impacting decomposition rates. As key decomposers within the litter layer, they contribute significantly to ecosystem productivity and soil health, highlighting their importance in maintaining balanced nutrient cycles.

Effects of conversion to organic agriculture on biodiversity

Sustainable farming is a pressing need of the world to ensure the well-being of humans and other organisms while providing food for the growing human population. With 37% of the world's terrestrial land used for agriculture currently, sustainable farming without expansion of farmlands needs a rigorous investigation. Biodiversity performs a variety of ecosystem services including provision of material, recycling of nutrients, regulation of microclimate, regulation of local hydrological processes, pollination, seed dispersal, control of pests and diseases, and detoxification of harmful chemicals. Hence, enhancing functional biodiversity in agroecosystems is identified as a key ecological strategy in sustainable farming.

Systematics and Phylogenetic relationships of Murine rodents in Sri Lanka

For conservation of animals, it is essential to know the accurate number of species present in the country, their distribution and abundance. Phylogenetic relationships of species are important to understand their biogeography and evolutionary times, which in turn can be applied to other fields such as biomedical research and conservation;

Role of small mammals as reservoir hosts of rickettsioses and leptospirosis in Sri Lanka

Rickettsioses and leptospirosis are emerging public health problems in Sri Lanka. Involvement of small mammals as reservoir hosts, which is important in controlling the disease, is being ivestigted in this study

Key Publications

- Journal of Bacteriology and Mycology - (2016)

  Leptospira reservoirs among small mammals in Sri Lanka.

- Ceylon Journal of Science - (2016)

  New Records of Small Mammal Hosts for Five Ectoparasite Species from Sri Lanka.

- Ceylon Journal of Science - (2012)

  Diagnoss of Sri Lankan shrews using hair anatomy.

- Amphibian and Reptile Conservation - (2011)

  Predator- induced plasticity in tadpoles of Polypedates cruciger (Anura: Rhacophoridae).

- Ceylon Journal of Science - (2010)

  Taruga (Ranidae: Rhacophorinae), a relict endemic genus of foam nesting tree frogs from Sri Lanka.

- Molecular Phylogenetics and Evolution - (2010)

  Systematic relationships and taxonomy of Suncusmontanusand S. murinus from Sri Lanka.

- Zootaxa - (2007)

  Crocidura hikmiya, a new shrew (Mammalia: Soricomorpha: Soricidae) from Sri Lanka.

- Research Article - (2019)

  Morphological and molecular divergence of subspecies of Indian Bush Rats, Golunda ellioti Gray, 1837 (Rodentia: Muridae) from Sri Lanka.

- Scientific Article - (2020)

  Historic black rat invasions into Sri Lanka lead to hybridization forming two sub-lineages in the Rattus rattus species complex.

Conferences

Nothing to show under this subheading !!!

My Publications

Please goto the website.

https://sci.pdn.ac.lk/zoology/staff/Suyama-Boyagoda

