

IRESHA NILMINI HARISCHANDRA

B.Sc. (Hons) (Colombo), Ph.D. (USJ), M.I.Biol. (Sri Lanka), C. Biol. (Sri Lanka) MIEPSL

Email : ireshanh@gmail.com

LinkedIn: <http://linkedin.com/in/iresha-n-harischandra-7a2a9741/>

Researchgate: <http://researchgate.net/profile/Iresha-Harischandra>

Google Scholar: <https://scholar.google.com/citations?user=YvSHssgAAAAJ&hl=en>

EDUCATION

Doctor of Philosophy (PhD): 2009 – 2015

Department of Zoology, University of Sri Jayewardenepura, Sri Lanka

Thesis title: Screening of sibling species of *Anopheles culicifacies* Giles in Sri Lanka
using DNA based methods and their population structure

Research Area: Molecular Biology, Genetics, Bioinformatics

B.Sc. (Hons) in Zoology specialized in Environmental Science: 2002 – 2006

(Second class upper division)

Department of Zoology, University of Colombo, Sri Lanka

G.C.E. (A/L): 2001 - Visakha Vidyalaya, Colombo

Biology (A), Chemistry (A), Physics (B), Average Z-score: +1.7100

G.C.E. (O/L):1997 - Visakha Vidyalaya,

Colombo 4 Distinctions & 4 Credits

EMPLOYMENT

- **Education Consultant** – Casey Tutors, ME & D Holdings Pyt Ltd, Melbourne, Australia (2021 to date)
- **Visiting Lecturer** – Genetics and Evolution for the Bachelor of Arts (Hons) in Applied Archeology degree program, Department of Archeology, Faculty of Humanities and Social Sciences, Nagananda International Institute for Buddhist Studies, Kelaniya (2025 to date)
- **Co-founder /Trustee and Scientist** – Vidya Sethu Foundation (VSF) – An initiative for capacity building and collaborative research, 36/1B, Heenatikumbura Road, Thalangala North, Battaramulla, Sri Lanka (2019 to date)
- **Senior Lecturer G II** – Genetics and Molecular Biology Unit, Faculty of Applied Sciences, University of Sri Jayewardenepura (June 2018 to February 2021)
- **Visiting Lecturer** – Quantitative and Population Genetics for the Genetics and Molecular Biology (general/honors) degree program, Genetics & Molecular Biology Unit, Faculty of Applied Sciences, University of Sri Jayewardenepura (2021)
- **External Lecturer** – Bioinformatics for the Advance Diploma in Biomedical Science program, International Institute of Health Science (IIHS), Welisara (2021 – 2022)
- **Visiting Lecturer** –Bioinformatics for the Immunology and Functional Genomics honors degree program, Department of Zoology, Faculty of Science, University of Colombo (2019 – 2020)
- **Lecturer** - Certificate course on ‘Molecular Biology Techniques’ in the Department of Zoology, Faculty of Applied Sciences, University of Sri Jayewardenepura (2017 to date)
- **Visiting Lecturer** - Certificate course on ‘Practical skills in Molecular Biology and Genetics’ in the Institute of Research and Development (IRD), Battaramulla (2016 to 2019)
- **Demonstrator** - Department of Zoology, Faculty of Science, University of Colombo (October 2006 to April 2009)

RESEARCH PUBLICATIONS

- De Silva, B.G.D.N.K., Fernando, H.S.D., **Harischandra, I.N.**, Rathnayake, R.A.S., Muthukumarana, L.S. and Jayathunga, D.P.W. (2026). Molecular systematics and population genetics of vector mosquitoes. Book chapter in *Studying the Mosquito; Contemporary Research Advances* eds. Rao, P.N. and Raghavendra, K. Cambridge Scholars Publishing. ISBN13: 978-1-0364-6947-4
- Wedage, W.M.M., **Harischandra, I.N.**, Weerasena, O.V.D.S.J., Senanayake, S.A.S.C. and De Silva, B.G.D.N.K. (2025) Demographic history and population structure of *Phlebotomus argentipes* (Diptera: Psychodidae) complex, the leishmaniasis vector in Sri Lanka. PLOS ONE 20(12): e0337428. SCIE Impact factor – 2.60
- Wedage, W.M.M., **Harischandra, I.N.**, Weerasena, O.V.D.S.J. and De Silva B.G.D.N.K. (2023) Genetic diversity and phylogeography of *Phlebotomus argentipes* (Diptera: Psychodidae, Phlebotominae), using COI and ND4 mitochondrial gene sequences. PLOS ONE 18(12): e0296286. <https://doi.org/10.1371/journal.pone.0296286>. SCIE Impact factor – 2.60
- Jayathunga, D.P.W., **Harischandra, I.N.**, Chandrasekharan, N.V. and De Silva, B.G.D.N.K. (2021) Compensatory base changes reveal sexual incompatibility among members of the *Anopheles subpictus* s.l. (Diptera; Culicidae) species complex in Sri Lanka. Life, 11(3), 211. <http://doi.org/10.3390/life11030211>. SCIE Impact factor - 2.51
- **Harischandra, I.N.**, Dassanayake, R.S. and De Silva, B.G.D.N.K. (2020) Mitochondrial *COII* sequence polymorphism reflects spatial genetic clustering of *Anopheles culicifacies* sibling species E in Sri Lanka, Journal of Vector Borne Diseases. 57(2), <http://doi.org/10.4103/0972-9062.310864>. SCIE impact factor - 1.127
- Prasadini, M., Dayananda, D., Fernando, S., **Harischandra, I.N.** and De Silva, N. (2019)

Blood feeding preference of female *Aedes aegypti* mosquitoes for human blood group types and its impact on their fecundity: Implications for vector control. American Journal of Entomology, 3(2), 43-48.

- Wedage, W.M.M., Aberathne, A.H.M.N.R., **Harischandra, I.N.** and Gunawardana, D. (2019) A nodulation-proficient nonrhizobial inhabitant of *Pueraria phaseoloides*. The Scientific World Journal. 2019, <http://doi.org/10.1155/2019/9782684>
- Jayatunga, D.P.W, **Harischandra, I.N.**, Chandrasekharan, N.V., De Silva and B.G.D.N.K. (2018). Alterations and interchange of morphometric characteristics in different life cycle stages with reference to the genomic variations of *Anopheles subpictus* (Diptera; Culicidae) sibling species complex in Sri Lanka. Insects 9(3), 89; <https://doi.org/10.3390/insects9030089>. SCIE impact factor – 2.319
- Fernando, T.S.P., Fernando, V.A.K., **Harischandra, I.N.** and Wedage, I.R. (2018). The freshwater garfish (*Xenentodon cancila*, Hamilton 1822: Family Belontiidae) preying on endemic black ruby barb (*Pethiya nigrofasciata*, Gunther 1868: Family Cyprinidae) in Walawwatta wathurana swamp forest stream in Sri Lanka. Wetlands in Sri Lanka, 2018, Central Environmental Authority, Sri Lanka
- **Harischandra I.N.**, Dassanayake, R.S. and De Silva B.G.D.N.K. (2016) Three sympatric clusters of the malaria vector *Anopheles culicifacies* E (Diptera: Culicidae) detected in Sri Lanka. *Parasites and Vectors* (2016) 9:3, <http://doi.org/10.1186/s13071-015-1286-3>. SCIE impact factor - 3.430
- Shanika, K.H.S., **Harischandra, I.N.** and De Silva, B.G.D.N.K. (2016) Nucleotide sequence and secondary structure variations in ITS2-rDNA region of the members of *Anopheles culicifacies* (Diptera: Culicidae) species complex. *Vidyodaya Journal of Science*, 20, 26-40.
- **Harischandra, I.N.**, Kanthika, W.A.L., Fernando, A.D., Dharmasena, C.M. and

Liyanage, U. (2016) Analysis of avian species diversity in relation to the habitat gradient and land use pattern in Dombagaskanda Forest Reserve, Kalutara District, Sri Lanka. *Sri Lanka Naturalist*, IX (1-2), 10-17.

- **Harischandra, I.N.** and Kanthika, W.A.L. (2016) Opportunistic observations on biodiversity in a rural home garden in Bulathkohupitiya, Kegalle District, Sri Lanka. *Sri Lanka Naturalist*, IX (1-2), 27-32.

ABSTRACTS

- **Harischandra, I.N.** and Vidanapathirana D.R. (2020). Nesting and parenting behavior of *Glaucidium castanotum*; Chestnut - backed Owlet (Strigiformes; Strigidae) endemic to Sri Lanka. Wildlanka International Symposium, Department of Wildlife, Sri Lanka.
- Mendis, B.A.N., Fernando, H.S.D., Dayananda, P.D., **Harischandra, I.N.**, Chandrasiri, P.K.G.K. and de Silva, B.G.D.N.K. (2018). Evaluation of organophosphate and pyrethroid insecticides against *Aedes aegypti* in Gangodawila Public Health Inspectors (PHI) area. In proceedings of the 74th annual sessions of Sri Lanka Association for the Advancement of Science (SLAAS).
- Chandrasiri, P.K.G.K., Fernando, H.S.D., Dayananda, P.D., **Harischandra, I.N.**, Mendis, B.A.N. and de Silva, B.G.D.N.K. (2018) Resistance of *Culex quinquefasciatus* (Diptera: Culicidae) to widely using insecticide groups of Sri Lanka. In proceedings of the 74th annual sessions of Sri Lanka Association for the Advancement of Science (SLAAS)
- Dhanushka, A.D., Kanishka, S.K., Cooray, R., Hapuarachchi, N.S., Warnakula, L. and **Harischandra, I.N.** (2018) Literature review for identifying the research gaps on taxonomy, molecular systematics and conservation status of endemic skink genus *Lankascincus* (Squamata: Scincidae). Open University International Research

Sessions (iOURS 2018).

- **Harischandra I.N.**, Dassanayake, R.S. and De Silva B.G.D.N.K. (2015) Sympatric gene clusters in microsatellite marker depicted genetic structure of *Anopheles culicifacies* s.l. (Diptera: Culicidae) sibling species E in Sri Lanka. In proceedings of the 71st annual sessions of Sri Lanka Association for the Advancement of Science (SLAAS).
- **Harischandra I.N.**, Dassanayake, R.S. and De Silva B.G.D.N.K. (2015) Demographic stability of *Anopheles culicifacies* sibling species E (Diptera: Culicidae) in Sri Lanka. In proceedings of the 2nd International Conference on Multidisciplinary Approaches (ICMA).
- Shanika, K.V.H., **Harischandra, I.N.**, Jayathunga, D.P.W., Fernando, H.S.D. and B.G.D.N.K de Silva (2015) Analysis of helices of the ITS2 secondary structures of *Anopheles culicifacies* sibling species complex. In proceedings of the 71st annual sessions of Sri Lanka Association for the Advancement of Science (SLAAS).
- **Harischandra I.N.**, Dassanayake, R.S. and De Silva B.G.D.N.K. (2014) *Anopheles culicifacies* Giles sibling species E in Sri Lanka varies intra-specifically in amino acid sequence of the cytochrome Oxidase II (*CO II*) gene of mitochondrial DNA. 6th ASEAN Congress of Tropical Medicine and Parasitology (ACTMP) held in Kuala Lumpur, Malaysia.
- **Harischandra I.N.**, Dassanayake, R.S. and De Silva B.G.D.N.K. (2012) Cytochrome Oxidase II region of mitochondrial DNA to differentiate the sibling species of *Anopheles culicifacies* in Sri Lanka. Proceedings of the 68th annual sessions of Sri Lanka Association for the Advancement of Science (SLAAS).
- Hewadikaram, E.H.M.M., P.J. Kumarasiri, Jayathunga, D.P.W., **Harischandra, I.N.**, and De Silva, B.G.D.N.K. (2012) Phylogenetic analysis of ITS2-rDNA cistron in some *Anopheles* species, subgenus *Cellia* and *Anopheles* (Diptera:Culicidae) in Sri Lanka.

Proceedings of the 68th annual sessions of Sri Lanka Association for the Advancement of Science (SLAAS).

- Hewadikaram, E.H.M.M., P.J. Kumarasiri, Jayathunga, D.P.W., **Harischandra, I.N.**, and De Silva, B.G.D.N.K. (2012) Analysis of phylogenetic relationships of *Anopheles* species, subgenus *Cellia* (Diptera:Culicidae) in Sri Lanka by using ITS2-rDNA cistron Proceedings of the 32nd annual sessions of the Institute of Biology (IOB), Sri Lanka.
- **Harischandra I.N.**, Dassanayake, R.S. and De Silva D.G.D.N.K. (2010) identification of sibling species of *Anopheles culicifacies* s.l. present in Sri Lanka using multiplex BCE-PCR in the *COII* region of the mitochondrial DNA. Proceedings of the 66th annual sessions of Sri Lanka Association for the Advancement of Science (SLAAS).
- Weerakkody U., Wickramasinghe D.D, **Harischandra I.** and Yapa W.B. (2009) Does water level change affects developmental plasticity of tadpoles of common toad *Duttaphrynus melanostictus* (Anura: Bufonidae). International conference on emerging trends in environmental research (ICETER), India.
- **Harischandra I.N.**, Pallewatte N. and Dangalle C. (2008) Butterfly diversity, abundance and diurnal variation in selected urban sites in the Colombo district, Sri Lanka. Proceedings of the Annual research symposium of the University of Colombo, Sri Lanka.
- **Harischandra I.N.**, Adikaram C.P., Wickramasinghe D.D. and Yapa W.B. (2008) Developmental plasticity of *Polypedates cruciger* (Ranidae: Rhacophorinae) tadpoles to crowding. Proceedings of the 28th Annual sessions of the Institute of Biology, Sri Lanka.

PROFESSIONAL SERVICES

- **Editor in Chief** – ‘Sanrakshana’ - e-magazine on environmental conservation by Young Zoologists’ Association of Sri Lanka (2020 to date)
- **Advisor & the Chief in the Editorial Board** – Citizen Scientist’s Symposium on Conservation and Ecology, Organized by The Young Zoologists’ Association of Sri Lanka, National Zoological Gardens, Dehiwala for fostering citizen engagement in conservation, education and awareness (2022, 2023)
- **Member of the advisory board** – for the certificate course on Practical Skills in Molecular Biology and Genetics, Institute of Research and Development, Battaramulla (2016-2019).
- **Committee Member** of the Section D (Life Sciences) Committee, Sri Lanka Association for advancement of Science (SLAAS-D) (2020)
- **Committee Member** of the Environmental Committee, Sri Lanka Association for advancement of Science (SLAAS-EC) (2019 -2020)
- **Editor in Chief** - Sri Lanka Naturalist the Journal for Ecology and Nature (ISSN 1391-281X)- (2014-2022)
- **Instructor on Mammalogy** - teaching mammalian biology, ecology taxonomy and environmental conservation at Young Zoologists’ Association in Sri Lanka (2014 to date)
- **Resource person** - conducted lectures and laboratory sessions in Sinhala & English medium for the workshop series of Genetics and Molecular Biology, targeting G.C.E. (A/L) students organized by the Center for Biotechnology, University of Sri Jayewardenepura (2011 to 2018)