

Dr. Jayampathi Herath

Senior Lecturer (Contract Basis)

BSc (Special) (RUSL), MSc (Perad), PhD (CHN)

About me

I am currently serving as a Senior Lecturer (Contract Basis) at the Postgraduate Institute of Science (PGIS). I hold a Doctor of Philosophy (PhD) from Guangxi University, People's Republic of China. My doctoral research, titled "*Ranavirus infections in ectothermic vertebrates: an integrated analysis of ecological and evolutionary patterns of the disease,*" focused on understanding the ecological and evolutionary dynamics of emerging viral pathogens in ectothermic vertebrates.

I obtained my Master of Science degree from the Postgraduate Institute of Science (PGIS), University of Peradeniya, and I completed my Bachelor of Science (Special) in Applied Biology from the Faculty of Applied Sciences, Rajarata University of Sri Lanka.

My research interests encompass disease ecology, virology, parasitology, and molecular phylogenetics, with a particular focus on genetic diversity and climatic drivers influencing disease dynamics. My work integrates disease ecology, evolutionary biology, and climate-based modeling to better understand emerging pathogens, particularly in the Asian context. I am especially interested in viral and parasitic infections, with an emphasis on zoonotic diseases and the application of the One Health approach.

Positions

Senior Lecturer Grade II (Contract Basis) Postgraduate Institute of Science (PGIS), University of Peradeniya December 2025 – to date

Senior Lecturer Grade II (Assignment Basis) – June 2025 – December 2025

External lecture, International Institute of Health Sciences (IIHS), Wattala - December 2021 – June 2025

Lecturer, Department of Parasitology, Faculty of Medicine, South Asian Institute of Technology and Medicine (SAITM), Malabe 2011 - 2018

Research Officer, National Aquatic Resources, Research and Development Agency (NARA), Colombo. 2010 - 2011

Teaching Assistant in Zoology, Department of Biological Sciences, Rajarata University of Sri Lanka 2009 – 2010

Awards

- Chinese government scholarship (CSC) for international students to pursue PhD in China.
- Travel grant by the Guangxi University to attend 5th International Symposium on Ranaviruses 2019 organized by the College of Public Health, Medical and Veterinary Sciences and James Cook University, Australia.
- Woodruff and Maxwell award to attend the Association for Tropical Biology and Conservation (ATBC) Asia-pacific chapter meetings, 25th of March to 28th of March 2017, Xishuangbanna Tropical Botanical Garden (XTBG), China.
- Scholarship and Travel Grant to attend Advanced Field Course in Ecology and Conservation – XTBG, China 2013. Organized by Xishuangbanna Tropical Botanical Garden (XTBG), Chinese Academy of Sciences (CAS)
- Travel grant by the International Research Centre, University of Peradeniya to attend the International Conference on Conserving Biodiversity for Sustainable Development (INCCBSD 2013) organized by National Institute of Technology Rourkela, Odisha, India
- Travel grant to participate the 3rd Regional Conference of the Society for Conservation Biology (SCB) -Asia section which was held in Melacca, Malaysia in 2014.

Research interests

I'm interested in Disease ecology, Virology, Parasitology, and Molecular phylogenetics, with a particular focus on genetic diversity and climatic drivers influencing disease dynamics. I am especially interested in viral and parasitic infections, with an emphasis on zoonotic diseases and the application of the One Health approach

Publications

- **Herath, J.**, Sun, D., Ellepola, G., Meegaskumbura, M. and Subramaniam, K. (2023). Emerging Threat of Ranavirus: Prevalence, Genetic Diversity, and Climatic Drivers of Ranavirus (*Iridoviridae*) in Ectothermic Vertebrates of Asia. *Frontiers of Veterinary Science*. 10:1291872. <https://doi.org/10.3389/fvets.2023.1291872>
- **Herath, J.**, Ellepola, G. and Meegaskumbura, M. (2021). Patterns of infection, origins, and transmission of ranaviruses among the ectothermic vertebrates of Asia. *Ecology and Evolution*. 11: 22. <https://doi.org/10.1002/ece3.8243>.
- Sun, D., Ellepola, G., **Herath, J.**, Liu, H., Liu, Y., Murray K. and Meegaskumbura, M. (2025). Climatically Specialized Lineages of *Batrachochytrium dendrobatidis*, and its Likely Asian Origins. *EcoHealth*. <https://doi.org/10.1007/s10393-025-01698-x>
- Dan S., Ellepola G., **Herath J.** and Meegaskumbura, M. (2023). Ecological Barriers for an Amphibian Pathogen: A Narrow Ecological Niche for *Batrachochytrium salamandrivorans* in an Asian Chytrid Hotspot. *Journal of Fungi*. 9: 911. <https://doi.org/10.3390/jof9090911>.
- Dan S., Ellepola G., **Herath J.** and Meegaskumbura, M. (2023). The two chytrid pathogens of amphibians in Eurasia-climatic niches and future expansion. *BMC Ecology and Evolution*. 23: 26. <https://bmcecol-evol.biomedcentral.com/articles/10.1186/s12862-023-02132-y>.
- Sun, D., **Herath, J.**, Zhou, S. Ellepola G. and Meegaskumbura, M. (2023). Skin microbiota as a protective shield against a chytrid pathogen (*Batrachochytrium dendrobatidis*) in Asian amphibians. *ISME Communications*. 3 (123). doi: 10.1038/s41598-022-20547-3.
- Zhou S, Rajput AP, Mao T, Liu Y, Ellepola G, **Herath J**, Yang J and Meegaskumbura M. (2022). Adapting to Novel Environments Together: Evolutionary and Ecological Correlates of the Bacterial Microbiome of the World's Largest Cavefish Diversification (*Cyprinidae*, *Sinocyclocheilus*). *Frontiers in Microbiology*. 13:823254. doi: 10.3389/fmicb.2022.823254
- Ellepola G., **Herath J.**, Manamendra-Arachchi K., Wijayathilaka N., Senevirathne G., Pethiyagoda R. and Meegaskumbura, M. (2021). Molecular species delimitation of shrub frogs of the genus *Pseudophilautus* (Anura, Rhacophoridae). *PLoS ONE*, 16:10: e0258594. <https://doi.org/10.1371>.

- Sudasinghe, H., Ranasinghe, T., **Herath, J.**, Wijesooriya, K., Pethiyagoda, R. and Meegaskumbura, M. (2021). Molecular phylogeny and phylogeography of the freshwater-fish genus *Pethia* (Teleostei: Cyprinidae) in Sri Lanka. *BMC Ecology and Evolution* 21, 203. <https://doi.org/10.1186/s12862-021-01923-5>
- Ubhayawardana, N., Gammana Liyanage, I., **Herath, H.M.J.C.B.**, Amarasekera, U., Dissanayake, T., de Silva, S., Fernando, N., and Ekanayake, S. (2018). Direct Microscopy of Stool Samples for Determining the Prevalence of Soil-Transmitted Helminthic Infections among Primary School Children in Kaduwela MOH Area of Sri Lanka following Floods in 2016. *Journal of Environmental and Public Health*. Volume 2018, Article ID 4929805. <https://doi.org/10.1155/2018/4929805>
- Sudasinghe, H., **Herath, J.**, Pethiyagoda, R., and Meegaskumbura, M. (2018). Undocumented translocations spawn taxonomic inflation in Sri Lankan fire rasboras (Actinopterygii, Cyprinidae). *PeerJ* 6:e6084 <https://doi.org/10.7717/peerj.6084>
- Nanayakkara, R.P., and **Herath, H.M.J.C.B.** (2017). Report on 14 Large Whales That Died due to Ship Strikes off the Coast of Sri Lanka, 2010–2014. *Journal of Marine Biology*. Volume 2017, Article ID 6235398, 7. <https://doi.org/10.1155/2017/6235398>
- Nanayakkara, R.P. **Herath, H.M.J.C.B.** and de Mel, R. (2014) Cetacean presence in the Trincomalee Bay and adjacent waters, Sri Lanka. *Journal of Marine Biology*. Volume 2014, Article ID 819263,. <http://dx.doi.org/10.1155/2014/819263>
- Vishvanath, N. Nanayakkara, R.P. and **Herath, H.M.J.C.B.** (2014) Current status, distribution and conservation of Hog Deer *Axis porcinus porcinus* (Kelaart: 1852) (Order: Cetartiodactyla, Family: Cervidae) in Sri Lanka. *Journal of Threatened Taxa*. 6(12): 6515–6522. DOI: <http://dx.doi.org/10.11609/JoTT.o3263.6515-22>.
- Nanayakkara, R.P. **Herath, H.M.J.C.B.** de Mel, R and Tharaka Kushminda, T.G. (2015) Molecular genetic identification of beached whales in Sri Lanka from mitochondrial DNA sequence data. *Ceylon Journal of Science (Biological Sciences)*. DOI: <http://dx.doi.org/10.4038/cjsbs.v43i2.7326>
- Nanayakkara, R.P. de Mel, R.K. Cabral, S.J and **Herath, H.M.J.C.B.** (2016) Dugongs, *Dugong dugon* (Sirenia: Dugongidae) and Humans: the fisher's perspective. *Asian Journal of Conservation Biology*. July 2016. Vol. 5 No. 1, pp. 51-54

Presentation at conferences and meetings – published in abstract form:

- Nivethan P., **Herath, J.** and Sanjeeva S.K.A.D. (2026). Prevalence and factors associated with burnout syndrome among emergency department staff in Western province, Sri Lanka. 9th Annual academic sessions. Polonnaruwa Clinical Society. Polonnaruwa, Sri Lanka.
- **Herath, J.**, Sun, D., Ellepola., G., Subramaniam, K. and Meegaskumbura, M. (2024). The pervasive threat of ranavirus infection on herpetofauna: Prevalence and genetic diversity of Ranavirus (family *Iridoviridae*) in ectothermic vertebrates of Asia. Second Global Amphibian and Disease Conference (GARD). World Congress of Herpetology. 5-9th August 2024. Kuching, Sarawak, Malaysia.
- **Herath, J.**, Ellepola, G., Dan, S. and Meegaskumbura (2022). Primary surveillance and mitigation of ranaviruses in Guangxi Zhuang Autonomous Region, China. Southeast Asia One Health University Network (SEAOHUN) 2022 International Conference. 5-7th September 2022. Grand Richmond Hotel, Bangkok, Thailand.
- **Herath, J.** and Meegaskumbura, M. (2021). Investigating the disease ecology of Ranaviruses (Family *Iridoviridae*) in ectothermic vertebrates of Southern China. Society for Integrative and Comparative Biology (SICB) Annual Meeting. 3rd of January to 28th of February 2021. (Virtual annual meeting)
- **Herath, J.** and Meegaskumbura, M. (2018). Conservation considerations of inter-basin fish species translocations in Sri Lanka: a genetic barcoding and taxonomic approach. Proceedings of 55th Annual meeting of Association for Tropical Biology and Conservation society. 1st to 5th July 2018. Kuching, Sarawak, Malaysia.
- **Herath, J.** and Nanayakkara, R.P. (2017). Destructive fishing practices, fisher's perspective and Dugongs, Dugong dugon (Family: Sirenia). Proceedings of Association for Tropical Biology and Conservation society - Asia-Pacific Chapter Meetings. 25th - 28th March, 2017. XTBG, China
- **Herath, H.M.J.C.B.**, Meegaskumbura, M. and Wijayathilake, N. (2015). Evaluating the status of an inter-basin translocation of four species of endemic Sri Lankan fishes. Cambodian Journal of Natural History. ATBC Special Issue. Vol.2015 No.1
- **Herath, H.M.J.C.B.** Nanayakkara, R.P. Guruge, I.T and Nivethan, P. (2014). Fisheries and related threats for the native fish of Nuwarawewa Tank. Anuradhapura, Sri Lanka. Proceedings of 3rd Regional Conference of the Society for Conservation Biology (SCB) - Asia section.

- **Herath, H.M.J.C.B.** and Nathanael, S (2012). Socio-economic status of fishing community and the fishery of the Mahakanadarawa tank, Mihintale Ileperuma, O.A., Priyantha, N., Navaratne, A., Yatigammana, S.K. and Weragoda, S.K. (editors) (2012): Symposium Proceedings, International Symposium on Water Quality and Human Health: Challenges Ahead, 22nd to 23rd March, PGIS, Peradeniya, Sri Lanka.
- **Herath, H.M.J.C.B.** and Nathanael, S. (2007). Behavioral study of the Siamese fighting fish (*Betta splendens*). Proceedings of the First Annual Research Sessions. Faculty of Applied Sciences, Rajarata University of Sri Lanka.
- **Herath, H.M.J.C.B.** (2009). Preliminary Observations on the Banded Mountain Loach *Schistura notostigma*. Proceedings of the Second Annual Research Sessions. Faculty of Applied Sciences, Rajarata University of Sri Lanka.
- **Herath, H.M.J.C.B.** De Zoysa, NC. Gangani, N.V.S. Herath, P.H.M.A.K. Pathirana, S.N.J. Weerasinghe, A. (2014). Preliminary study on monitoring aeroallergens of SAIMM campus park, Malabe. Symposium Proceedings of SAIMM Research Symposium - Medical 2014. Faculty of Medicine, South Asian Institute of Technology and Medicine (SAITM), Malabe, Sri Lanka.
- Herath P.H.M.A.K. **Herath, H.M.J.C.B.** Pathirana, S.N.J. De Zoysa, N.C. Gangani, N.V.S., Ranawana, S.K.T.M.D.YB. De Zoysa, D.K.M. Wijekoon, W.M.W.A. Chandrasekara, M. (2014) A baseline survey of selected Biodiversity of the campus park of SAIMM and adjacent areas, Sri Lanka. Symposium Proceedings of SAIMM Research Symposium - Medical 2014. Faculty of Medicine, South Asian Institute of Technology and Medicine (SAITM), Malabe, Sri Lanka.
- Guruge, I.T. **Herath, H.M.J.C.B.** and Guruge, S.J. (2013). Species identification by Data mining using DNA bar-coding. 7th International Conference on Computing and Communication Technologies, ICACCT-2013 Organized by Asia Pacific Institute of Information Technology SD India, Panipat.