

## **DR. ACHINI KOSHILA RANASINGHE**

Lecturer in Biomedical Sciences

Department of Biomedical Sciences,

Faculty of Health Sciences,

CINEC Campus, Malabe Sri Lanka.

**E-mail:** [koshila.ranasinghe@cinec.edu](mailto:koshila.ranasinghe@cinec.edu)

**Contact number:** 0774794083



### **ACADEMIC QUALIFICATIONS**

#### ➤ **Bachelor of Science (Special) Degree in Zoology: First Class Honors**

Department of Zoology and Environmental management, University of Kelaniya, Sri Lanka

(2017) - (Effective date 01.03.2017)

- Awarded **Professor H. H. Costa Memorial Gold Medal** for the **Best Performance in Zoology** at the convocation 2017 for Bachelor of Science (Special) Degree Examination.
  - Awarded **Gold Medal presented by the Alumini Association of the Faculty of Science**, University of Kelaniya for the **Best Performance in Zoology** at the convocation 2017 for Bachelor of Science (Special) Degree Examination.
  - Selected for the **Dean's List**, Faculty of Science, University of Kelaniya based on the academic performance in Academic Year 2013/2014.
  - Selected for the **Dean's List**, Faculty of Science, University of Kelaniya based on the academic performance in Academic Year 2014/2015.
- **PhD Degree** at Faculty of Science, University of Kelaniya, Sri Lanka (Effective date 07.07.2020)

“Diversity of microbiota in mosquito breeding habitats in selected districts in Sri Lanka and screening of bacteria in the midgut of dengue transmitting vectors”

72 GenBank Sequences have deposited in the NCBI (National Center for Biotechnology Information) data base- (72)

### **Research Awards**

- Awarded **University Senate Honors** for conducting High Quality Research and Publishing in International peer-Reviewed Indexed Journals for the year 2019.
- Awarded **University Senate Honors** for conducting High Quality Research and Publishing International peer-Reviewed Indexed Journals for the year 2020.
- Awarded **University Senate Honors** for conducting High Quality Research and Publishing International peer-Reviewed Science Citation Indexed Journals for the year 2021.
- The abstract publication; Ranasinghe HAK, Gunathilaka PADHN, Amarasinghe LD, Rodrigo WW. (2020). Diversity of midgut bacteria among larval and adult stages of dengue vector, *Aedes aegypti* in Gampaha District, Sri Lanka, International Research Conference 2020, Kothelawala Defence University (KDU IRC 2020) was selected as the Selected as the **Best Presentation (medicine), KDU IRC 2020.**

### **Research Publications**

#### **Full Papers: Science Citation Indexed Journals**

- Ranasinghe, H.A.K. and Amarasinghe, L.D. (2020). Naturally occurring microbiota associated with mosquito breeding habitats and potential parasitic species against mosquito larvae; a study from Gampaha district, Sri Lanka. *BioMed Research International*, Volume 2020, Article ID 4602084, 12 pages, <https://doi.org/10.1155/2020/4602084>
- Koshila Ranasinghe, Nayana Gunathilaka, Deepika Amarasinghe, Wasana Rodrigo, Lahiru Udayanga. (2021). Diversity of midgut bacteria in larvae and females of *Aedes aegypti* and *Aedes albopictus* from Gampaha District, Sri Lanka, *Parasites and Vectors*, 14: 433.

- Amarasinghe, L.D. and Ranasinghe, H.A.K. (2019). Diversity and species composition of microbiota associated with mosquito breeding habitats; a study from Kurunegala District in Sri Lanka. *Biomed Research International*, Volume 2019, December; Article ID 5897317, 12 pages, <https://doi.org/10.1155/2019/5897317>
- Koshila Ranasinghe, Nayana Gunathilaka, Deepika Amarasinghe, Lahiru Udayanga. (2020). Breeding habitat distribution of medically important mosquitoes in Kurunegala, Gampaha, Kegalle and Kandy Districts of Sri Lanka and potential risk for disease transmission; A cross-sectional study. *Journal of Tropical Medicine*.2020 (21): 12.
- Ranasinghe, H.A.K. and Amarasinghe, L.D. (2020). Naturally occurring microbiota associated with Dengue vector mosquito breeding habitats and their use as diet organisms by developing larvae in the Kandy District, Sri Lanka. *BioMed Research International*, Volume 2020, Article ID 5830604, 1-12.
- Koshila Ranasinghe and Amarasinghe, L.D. (2020). Larvicidal effect of *Vorticella microstoma* (Ehrenberg, 1830) on mosquito larvae, and morphological changes under induced environmental conditions. *Journal of Parasitology Research*. 2020 (5): 1-9.
- Koshila Ranasinghe, Nayana Gunathilaka, Deepika Amarasinghe, Wasana Rodrigo, Harendra Mallawarachchi, Nilmini Chandrasena. (2020). Molecular Characterization of Culturable Aerobic Bacteria in the Midgut of Field-Caught *Culex tritaeniorhynchus*, *Culex gelidus*, and *Mansonia annulifera* Mosquitoes in the Gampaha District of Sri Lanka. *BioMed Research International*. Volume 2020, Article ID 8732473, 1-12.
- Ranasinghe, H.A.K., & Amarasinghe, L.D. (2020). Naturally occurring microbiota associated with mosquito breeding habitats and their effects on mosquito larvae. *BioMed Research International*. Volume 2020, Article ID 4065315, 1-12.

#### **Full Paper Publications**

- L. D. Amarasinghe and H. A. K. Ranasinghe, Herbal extracts and extracellular metabolites of antagonistic fungi as larval killing agents of dengue vector mosquitoes, *Gloria Scientiam*, Golden Jubilee Commemorative Volume, Faculty of Science, University of Kelaniya (2017): 72-93.

#### **Book Chapter Publications**

IOB Thematic publication 2021- “Stepping Towards Green-Economy: Potential use of naturally occurring microbiota for sustainable development of mosquito vector controlling programs in Sri Lanka” by Dr. H. A. Koshila Ranasinghe and Prof. (Mrs).L. Deepika Amarasinghe, Department of Zoology and Environmental Management, University of Kelaniya

**Abstracts in Conference Proceedings:**

- Ranasinghe HAK, Gunathilaka PADHN, Amarasinghe LD, Rodrigo WW. (2021). Molecular Characterization of midgut bacteria in larval and adult stages of *Aedes albopictus* in Gampaha district, Sri Lanka. Proceedings of 41th Annual Sessions of Institute of Biology, Sri Lanka, 30 pp.
- H.A.K. Ranasinghe, L.D. Amarasinghe, and P.A.D.H.N. Gunathilaka. Species composition of medically important mosquitoes in selected areas of Kurunegala, Gampaha, Kegalle and Kandy districts in Sri Lanka. Proceedings of International Research Conference 2019, Kothelawala Defence University (KDU IRC 2019), 172 pp.
- Ranasinghe HAK, Gunathilaka PADHN, Amarasinghe LD, Rodrigo WW. (2020). Diversity of midgut bacteria among larval and adult stages of dengue vector, *Aedes aegypti* in Gampaha District, Sri Lanka, International Research Conference 2020, Kothelawala Defence University (KDU IRC 2020), 40pp.
- Ranasinghe HAK, Amarasinghe LD, (2021). Microbiota diversity associated with mosquito breeding habitats in Kegalle district, Sri Lanka, 5th International Research Conference of Uva Wellassa University, IRCUWU 2021.
- Mosquito larvicidal effect of *Annona glabra* fruit extract on dengue vector, *Aedes aegypti*. Wijebandara NRY, Ranasinghe HAK, Amarasinghe LD and Wickramarachchi SR (2021), Proceedings of the International Conference on Applied and Pure Sciences ICAPS 2021, University of Kelaniya, 29 pp.
- Diversity of Micro-fauna species associated with breeding habitats of Dengue transmitting vectors in Gampaha District, Sri Lanka” by H.A.K. Ranasinghe and L.D. Amarasinghe, Proceedings of International Conference on Multidisciplinary Research 2019 (AIMR 2019), 29pp.
- Bacterial diversity in the midgut of field caught *Culex tritaeniorhynchus* by H.A.K. Ranasinghe, P.A.D.H.N. Gunathilaka, L.D. Amarasinghe and W.W.P. Rodrigo, Proceedings of the International Postgraduate Research Conference 2019, University of Kelaniya, Sri Lanka, 42pp.
- Mosquito breeding habitat diversity and distribution of species in selected areas in the districts of Kurunegala, Gampaha, Kegalle and Kandy in Sri Lanka, H.A.K. Ranasinghe, P.A.D.H.N. Gunathilaka, L.D. Amarasinghe, and N.W.B.L. Udayanga, Proceedings of the

International Postgraduate Research Conference 2019, University of Kelaniya, Sri Lanka, 43pp.

- Antagonist potential of *Vorticella microstoma* on the larval development of *Culex gelidus* and *Aedes aegypti*. by H.A.K. Ranasinghe and L.D. Amarasinghe, Proceedings of the 19th International Postgraduate Research Conference 2018, University of Kelaniya, Sri Lanka, 56 pp.
- Effect of aqueous extracts of *Annona glabra* plant extract and extracellular metabolites of two *Trichoderma* species on the survival of larval *Culex quinquefasciatus* and eggs of *Aedes aegypti* by A.A.U.Abeyrathna, H. A .K. Ranasinghe, D. Rajapaksha and L. D. Amarasinghe, Proceedings of International Research Symposium on Pure and Applied Sciences (IRSPAS) 2018, 66pp.
- Prevalence of micro-fauna associated in rice field habitats in Kurunegala district in Sri Lanka and potential mosquito larvicidal effect of *Vorticella microstoma* by H. A .K. Ranasinghe and L. D. Amarasinghe, Proceedings of International Research Symposium on Pure and Applied Sciences (IRSPAS) 2018, 29 pp.

### **Research Supervisions**

Research Supervision of students; BSc (Hons) in Biomedical Sciences at Cinec Campus, Malabe.

Research Supervision of students; BSc (Hons) in Biomedical Sciences at Management and Science University MSU/MSI.

### **Professional Qualifications**

- **Lecturer of Biomedical Sciences** in Faculty of Health Sciences at Cinec Campus, Malabe. (January 2022- Up to now).
- Former **Lecturer and Program Manager of BioMedical Sciences** at “Management and Science University” (MSU/MSI), Colombo 03 (April 2021- January 2022).
- Former Graduate Research Assistant, Department of Zoology and Environmental Management, University of Kelaniya (2017 May- 2020 July)
- Former Demonstrator (2017 July- 2021 March), Department of Zoology and Environmental Management, University of Kelaniya.

- Former trainee at Microbiology laboratory, Medical Research Institute (MRI), Colombo 08.

### **Responsibilities and Duties as a Lecturer**

- As a lecturer in Department of Biomedical Science, Cinec Campus;  
Conducting lectures, laboratory practicals and tutorials in General Microbiology, Clinical Microbiology, Industrial Microbiology, Pharmaceutical Bioinformatics, Molecular Biology,
- Setting and conducting examinations and paper marking.

### **Administrative Experience**

Former **Program Manager of BioMedical Sciences** Degree and Diploma Programs at “Management and Science University” (MSU/MSI), Colombo 03

### **EXTRA QUALIFICATIONS**

- Moderator– Checklist of spiders of Sri Lanka (Online database)  
(<https://aceasl.weebly.com/checklist-of-spiders-of-sri-lanka.html>)
- **Diploma in Information and Technology with E-Commerce** at ESOF Metro Campus, Colombo 04.
- **Diploma in English** at Aquinas University College, Colombo 08.
- Completed the **workshop on Scientific Research-1 and workshop on Scientific Research-2** conducted by the Research Services Centre, Faculty of science.
- Completed the “Interactive workshop on converting a draft manuscript to a Ready to Publish manuscript” organized by Research Division of National Science Foundation.
- Completed the program on “Improvement of skills of Postgraduate students” in Statistical Analysis, Information Literacy, Research Methodologies and Scientific Writing”, Conducted by Faculty of graduate Studies, University of Kelaniya.
- Completed the program on “Statistical Analysis and Interpretation of Results”, Conducted by Faculty of graduate Studies, University of Kelaniya.
- Made oral presentations at monthly” Postgraduate Research Colloquium” organized by Research and Services Centre, Faculty of Science, University of Kelaniya.

### **Memberships**

- Life member of Institute of Biology (IOB), Sri Lanka
- Member of STMIS, National Science Foundation, Sri Lanka