

M. Janani Bhagya Manathunga, BSc (Hons)

Department of Agricultural Biology, Faculty of Agriculture,
University of Peradeniya

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Educational Qualifications:

- 2021 - 2025 **Bachelor of Science Honours in Agricultural Technology and Management**
specialized in Molecular Biology and Biotechnology, Faculty of Agriculture, University
of Peradeniya, Sri Lanka (Medium: English).
- First Class Honours** (results of majoring module are annexed)
- Final GPA: 3.80/4.00**
- Rank: 9/ 210**
- 2019 **G.C.E. Advanced Level Examination** - Biology A, Chemistry B, Physics B
Mahamaya Girls College Kandy

Professional Experience:

- 2026 - Present **Temporary Demonstrator/Teaching Assistant**, Department of Agricultural Biology,
Faculty of Agriculture, University of Peradeniya, Sri Lanka.
- Conducting practical sessions and tutorial classes offered by the Department of
Agricultural Biology,
 - AB 4112 Practicum in Molecular Biology
 - AB 4111 Bioinformatics
 - AB 2101 Principles of Genetics and Breeding
 - AB 3102 Diseases of Crops
 - AB 3101 Insect Pest of Crops
 - Served as a resource person on Molecular Biology workshop for agriculture
faculty students

Research Experiences

- 2025 **Undergraduate research**
- Bioinformatics - Department of Agricultural Biology, Faculty of Agriculture, University of Peradeniya
Whole-Genome Assembly, Characterization, and Comparative Analysis of Foraging-Related Genes in the Sri Lankan Honeybee (*Apis cerana* Fabr.)
 - Quality assessment of the input reads using FastQC tool in Galaxy platform.
 - Aligning the reads to a reference genome by using BWA-MEM2 tool.
 - Improving draft genome assemblies and identify sequence variants by correcting errors and filling gaps by pilon.
 - Producing two types of assemblies as a reference-based assembly and a de novo assembly (SPAdes tool)
 - Identification of orthologs of 42 foraging-related genes by BLASTp.
 - Analyzing variations in protein domains between the Sri Lankan honeybee genome and other Hymenopteran species
- 2025 - Present **Transcriptomic analysis of *Salicornia brachiata* seedlings to reveal molecular mechanisms induced by seed priming**, Functional Genomics Lab, Department of Agricultural Biology, Faculty of Agriculture, University of Peradeniya, Sri Lanka.

Research and Laboratory Skills

- 2023 - Present **DNA extraction (plant, bacterial samples), RNA extraction (plant), PCR (primer handling, amplification), agarose gel electrophoresis and gel documentation, bacterial culture and media preparation (LB broth/agar)**, Molecular Biology lab - Department of Agricultural Biology, Faculty of Agriculture, University of Peradeniya, Sri Lanka.

Research Publications

Abstracts

- 2025 **Manathunga M.J.B., Jayasinghe W.H., Herath H.M.V.G., 2025 Whole-Genome Assembly, Characterization, and Comparative Analysis of Foraging-Related Genes in the Sri Lankan Honeybee (*Apis cerana* Fabr.)**, Proceedings of the Faculty of Agriculture Undergraduate Research Symposium, 7th November 2025

- 2025 K. Lakshan, A. Hasintha, H. Wijekoon, H. Adhikari, **B. Manathunga**, R. Nanayakkara, S. Poorni, D. Ariyasinghe, K.G.A. Samadhi, L. Ranathunga (2025) In silico Analysis of *Drynaria quercifolia* bioactive compounds as potential inhibitors of Newcastle disease virus HN protein, Proceedings of Young Scientists' Conference on Multidisciplinary Research 2025, Young Scientists' Association, National Institute of Fundamental Studies, Sri Lanka 27th November 2025
- 2025 Adhikari A. A. H. R., Karunarathne K. K. P., Wijekoon W. M. H. N. T. K., **Manathunga M. J. B.**, Nanayakkara P. R. S., Aberathna W. A. K. L., Somarathna M. S. S. P., Ariyasinghe A. H. T. D. K., Samadhi K. G. A. and Ranathunga L. N (2025), Computational discovery of potential MGF 360-11L inhibitors from *Aerva lanata* targeting African swine fever virus, Proceedings of International Conference on Applied and Pure Science, 2025, Faculty of Science, University of Kelaniya, Sri Lanka, 10th October 2025.
- 2025 **MJB Manathunga**, LN Ranathunga, KKP Karunarathne, AAHR Adhikari, WMHNTK Wijekoon, WAKL Aberathna, PRS Nanayakkara, MSSP Somarathna, AHTDK Ariyasinghe, KGA Samadhi (2025) In Silico Screening of *Cyperus rotundus* Phytochemicals Targeting African Swine Fever Virus MGF 505-7R, 14th Annual Conference and Scientific Sessions, Sri Lankan Society of Microbiology 2025, (Accepted for oral presentation)

Academic Referees

Prof. H.M.V.G. Herath

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University of Peradeniya. Sri Lanka
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Prof. S.A.C.N. Perera

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I hereby certify that the above information is true and correct according to the best of my knowledge.

M.J.B.Manathunga

Annexure

Results of Majoring Module – Molecular Biology and Biotechnology

Cell Biology	A
Plant Biochemistry	A
Molecular Genetics	A
Recombinant DNA Technology	A
Scientific Research and Communication in Biology	A-
Development Biology of Plants	A+
Applied Biotechnology	A
Bioinformatics	A-
Practicum in Molecular Biology	A
In vitro Techniques	A
Animal Biotechnology	A