Professor S.H.P. Parakrama Karunaratne

B.Sc. (Hons), M.Sc. (Perad.), Ph.D. (Lond.), DLSHTM (Lond.), FRES (UK), FNASSL

Professor Emeritus

Department of Zoology, Faculty of Science, University of Peradeniya, Peradeniya 20400, Sri Lanka.
Tel: ++ 94 77 5810261, e-mail: shppk@sci.pdn.ac.lk, shppkaru@yahoo.com

NAME IN FULL: Saparamadu Heeralu Pathirannehelage Parakrama Karunaratne
DATE OF BIRTH: 18TH MAY 1959
SCHOOL EDUCATION: Royal College, Colombo 7, Sri Lanka.
UNIVERSITY EDUCATION: University of Peradeniya (Sri Lanka), University of London (UK).

EXPERTISE FIELDS

- Biology, Molecular Biology, Zoology, Medical Entomology, Research Methodology & Scientific Writing
- Senior Management in Research and Higher Education

EDUCATIONAL BACKGROUND:

1. **B.Sc. (Zoology) Hons.** -***University of Peradeniya***, Sri Lanka, 1983
2. **M.Sc. (by research)** -***University of Peradeniya***, Sri Lanka, 1990
3. **Ph.D.** – London School of Hygiene and Tropical Medicine (LSHTM), ***University of London***, U.K. 1994
4. **Postgraduate Diploma in Medical Parasitology** – LSHTM, ***University of London***, U.K. 1995
5. **Fellow of Royal Entomological Society**, ***London***, U.K. (since 1997)
6. **Fellow of National Academy of Sciences, *Sri Lanka*** (Since 2006)

EMPLOYMENT BACKGROUND:

1. **Professor Emeritus,** University of Peradeniya, Sri Lanka (since July 2025)
2. **Senior Professor & Chair of Zoology,** University of Peradeniya, Sri Lanka (2009 - 2025)
2. **Professor & Chair of Zoology**, University of Peradeniya, Sri Lanka (2001 - 2009)
3. **Associate Professor**, University of Peradeniya, Sri Lanka (1997 – 2001)
4. **Senior Lecturer**, University of Peradeniya, Sri Lanka (1990 -1997)
5. **Lecturer**, University of Peradeniya, Sri Lanka (1984 -1990)

ADMINISTRATIVE POSITIONS HELD:

1. **Deputy Vice Chancellor**, University of Peradeniya, Sri Lanka (Jan 2018 to August 2021)
2. **Director (CEO)**/ National Institute of Fundamental Studies (NIFS), Sri Lanka (Oct 2015 to Dec 2017)
2. **Dean**/ Faculty of Science, University of Peradeniya, Sri Lanka (April 2007 - April 2013)
3. **Head**/ Department of Zoology, University of Peradeniya, Sri Lanka (Jan 2006 - April 2007)
4. **Chairman**/ Board of Study in Zoological Sciences, Postgraduate Inst. of Sci., Sri Lanka (2004 - 2007)

RESEARCH POSITIONS HELD:

1. **Chinese Academy of Science PIFI Research Fellow,** Research Centre for Eco-Environmental Studies, Beijing, China (March 2022 – May 2023)
2. **Senior Research Professor,** National Institute of Fundamental Studies (NIFS), Sri Lanka (2015 to 2017)
3. **Wellcome Trust Research Fellow**, Liverpool School of Tropical Medicine, Pembroke place, Liverpool L3 5QA, England (Oct 2002 – Sept 2004)
4. **Visiting Research Fellow**, School of Biosciences, Cardiff University, Wales, UK (1994 – 2001)

   Fellowships at School of Biosciences, Cardiff University PO BOX 915, Cardiff CF1 3TL, Wales, UK

   1). August 1994 - January 1995 (funded by Sir Halley Stewart Trust, Cambridge, UK)
   2). October 1995 – December 1995 (funded by The Wellcome Trust, UK)
   3). July 1996 - September 1996 (funded by The Wellcome Trust, UK)
   4). October 1997 – December 1997 (funded by The Wellcome Trust, UK)
   5). October 1998 – November 1998 (funded by The Wellcome Trust, UK)
   6). October 1999 – December 1999 ((funded by The Royal Society, UK)
   7). April 2001 – May 2001 ((funded by The Royal Society, UK)

5. **Visiting Research Professor**, Liverpool School of Tropical Medicine, Liverpool, UK (2002 – 2010)

   Fellowships at Liverpool School of Tropical medicine, Pembroke Place, Liverpool L3 5QA, England, UK

   1) March 2002 – April 2002 (funded by The Wellcome Trust, UK)
   2) October 2002 – September 2004 (funded by The Wellcome Trust, UK)
   3) October 2005 – November 2005 (funded by The Wellcome Trust, UK)
   4) October 2006 - November 2006 (funded by The Wellcome Trust, UK)
   5) October 2007 - November 2007 (funded by The Wellcome Trust, UK)
   6) October 2008 - November 2008 (funded by The Wellcome Trust, UK)
   7) November 2009 - December 2009 (funded by The Wellcome Trust, UK)
   8) October 2010 – September 2010 (Funded by IVCC, Liverpool School of Tropical Medicine, UK)

6. **Visiting Research Professor**, Faculty of Life Sciences, University of Manchester, UK (March – May 2016: funded by the Royal Society, UK).

OTHER MAJOR RESPONSIBILITIES HELD:

1. WHO representative member to UNEP - DDT Expert Group, Geneva, Switzerland (2015 - 2027)
2. Chairman, Research Committee, China-Sri Lanka Joint Research and Demonstration Centre for Water Technology (JRDC), University of Peradeniya (2020 - 2025)
3. Member, Research Advisory Board, National Science Foundation (NSF), Sri Lanka (2019-2020)
4. Member, Basic Science Research Policy Committee, National Science & Technology Commission (NASTEC), Sri Lanka (2017-2020)
5. Member, Working Committee on Basic Sciences, National Science Foundation (NSF), Sri Lanka (2016-2019)
6. Member, Board of Governors, Institute of Fundamental Studies, Kandy, Sri Lanka (April 2012 - 2014)
7. Member, National Standing Committee on Science, University Grants Commission, Sri Lanka (2007-2013)
8. Member, National Committee on Basic Sciences, National Science Foundation, Sri Lanka (2008 - 2011)
9. Member, Research Council, Institute of Fundamental Studies, Kandy, Sri Lanka (2008 - 2014)
10. Member, Integrated Vector Management Technical Committee, Ministry of Health, Sri Lanka (2012 to date)
11. Member, Integrated Mosquito Control Programme, Central Environmental Authority, Sri Lanka (2013 to date)

12. Member, University Senate, University of Peradeniya, Sri Lanka (2001 to date)
13. Member, University Council, University of Peradeniya, Sri Lanka (2007 – 2013, 2018-2021)
14. Chairman, Staff Residence Committee, University of Peradeniya, Sri Lanka (2007 to 2009)
15. Chairman, Board of Discipline, University of Peradeniya, Sri Lanka (2009 - 2012)
16. Secretary/Board of Study in Zoological Sci, Postgraduate Institute of Science, Peradeniya, Sri Lanka (1999 - 2002)
17. Member, Board of Management, Centre for Distance and Continuing Education, University of Peradeniya, Sri Lanka (2007 - 2013, 2018-2021)
18. Chairman, Grievance Committee, Univ of Peradeniya (2018-2021)
19. Chairman, Landscape Advisory Committee, Univ of Peradeniya (2018-2021)
20. Chairman, Bond Recovery Review Committee, Univ of Peradeniya (2018-2021)
21. Chairman, Leave and Award Committee, Univ of Peradeniya (2018-2021)
22. Chairman, Admission Committee, Univ of Peradeniya (2018-2021)
23. Chairman, Scholarship Committee, Univ of Peradeniya (2018-2021)
24. Chairman, University Safety Committee, Univ of Peradeniya (2018-2021)
25. Chairman, Web Development Committee, Univ of Peradeniya (2018-2021)
26. Chairman, Network & Communication Services Committee, Univ of Peradeniya (2018-2021)
27. Chairman, University Ranking Committee, Univ of Peradeniya (2018-2021)
28. Member, Board of Management, Postgraduate Institute of Science, Peradeniya, Sri Lanka (2004 - 2013)
29. Member, Audit and Management Committee, Postgraduate Institute of Science, Peradeniya, Sri Lanka (2007 - 2013)
30. Member, Audit and Management Committee, University of Peradeniya, Sri Lanka (2018 - 2021)
31. Member, Board of Management, Information Technology Centre, University of Peradeniya, Sri Lanka (2007 - 2013, 2018-2021)
32. Member, Board of Management, Centre for Environmental Studies, Univ of Peradeniya, Sri Lanka (2007 - 2013, 2018-2021)
33. University Proctor, University of Peradeniya, Sri Lanka (Sept 2000- Sept 2002 & Jan 2007- April 2007)
34. Senior Student Counselor (1998, 1999, 2000)
35. Career Guidance Counselor (1999-2002)
36. Member, Student Residence Committee (1999-2001
37. Senior Treasurer, Science Students Union (1996-1999)
38. Senior Treasurer, Zoologists' Association (1999-2000)
39. Warden, Hilda Obeysekera Hall & Senaka Bibile Hall (2000/2021)
40. Secretary, Science Teachers' Association (STA) (1997/98)
41. President, Science Teachers' Association (STA) (1998/99)
42. Joint Secretary, Peradeniya Federation of University Teachers' Association (PFUTA) (1996-2000)
43. General Secretary, Faculty Sports Club & Recreation Centre (1998/99)
44. University full colors for sports (1981, 1982)
45. Captain, University Volleyball Team (1982)
46. Member, University Sports Council (1982)
47. Secretary, University Film Society (1982)
48. Publicity Officer, World University Service (WUS) (1982)
49. Secretary, Science Students' Union, Univ of Peradeniya (1982)
50. Member, Peradeniya Students' Union (1982)

EDITORIAL WORK

1. **Editor-in-Chief,** Ceylon Journal of Science (indexed in Scopus), University of Peradeniya (2022 - 2025)
2. **Associate Editor**, Ceylon Journal of Science, University of Peradeniya (2015 - 2022)
3. **Member,** Editorial Board, Ceylon Journal of Science (Biological Sciences) (2006-2013)

4. **Member,** Editorial Board, International Journal of Entomological Research (open access Journal) (2012 to date)
5. **Editor in Chief,** Proceedings of the Peradeniya University International Research Sessions- iPURSE (2014)
6. **Theme coordinator (Life Sciences) & Member,** Editorial Board, Proceedings of the Postgraduate Institute of Science Research Congress, Sri Lanka (2014)

SPECIAL ACADEMIC CONTRIBUTIONS:

(1) Member of the Quality Assurance Committees for Institutional Reviews appointed by the University Grant Commission, Sri Lanka.
University of Colombo Review - 2015
University of Jaffna Review - 2018
South Eastern University of Sri Lanka Review - 2020
(2) Consultant to revise B.Sc. curricular Eastern University of Sri Lanka IRQUE Project: 2014
(3) Member of the Committee to develop Basic Science Research Policy for Sri Lanka, National Science & Technology Commission (NASTEC) (2017-2020)

DETAILS OF THE MAJOR GRANTS HELD

1. Title of project- Characterization of the microbiota of water sources in selected CKDu endemic areas of Sri Lanka, and its association with water chemistry (Co-Investigator). Source of support- University Research Council, University of Peradeniya, Sri Lanka. **Rs. 2,500,000.00**. Duration of support- 2023-2025.

2. Title of project- Identification and quantification of chemical and microbial contaminations in the watershed of Mahaweli river to ensure a safe drinking water supply (Principal Investigator). Source of support- University Research Council/Postgraduate Institute of Science, University of Peradeniya, Sri Lanka. **Rs. 3,700,000.00**. Duration of support- 2022-2024.

3. Title of project- Species diversity and vector status of Ornithophilic mosquitoes in Sri Lanka (co-Investigator). Source of support- National Research Council, Sri Lanka. **Rs. 1,524,600.00**. Duration of support- 2016-2019.

4. Title of project- Host specificity and vector potential of Uranotaenia mosquitoes in Sri Lanka (co-Investigator). Source of support- National Science Foundation, Sri Lanka. **Rs. 1,420,620.00**. Duration of support- 2016-2018.
5. Title of project- Dengue vector control in Sri Lanka: Occurrence of `kdr' type mutations and *wolbachia* in *Aedes* mosquito populations, and the effect of insecticide fogging on insect pollinators (Principal Investigator). Source of support- National Research Council, Sri Lanka. **Rs. 3,356,608.00**. Duration of support- 2014-2017.
6. Title of project- Characterization of anopheline mosquitoes of North and North-western Sri Lanka through DNA barcoding (Principal Investigator). Source of support- International Research Centre, University of Peradeniya, Sri Lanka. **Rs. 1,480,000.00**. Duration of support- 2013-2017.
7. Title of project- Effective control of Dengue vector mosquitoes in Sri Lanka (Principal Investigator). Source of support- National Science Foundation, Sri Lanka. **Rs. 1,499,925.00**. Duration of support- 2006-2009.
8. Title of project- The effect of insecticide resistance on mosquito vectorial capacity. Source of support- The Wellcome Trust UK (Principal Investigator with Prof. Janet Hemingway, Liverpool School of Tropical Medicine, UK). **£ 178,118.00**. Duration of support- 2002-2008.
9. Title of project- Molecular analysis of insecticide resistance (Principal Investigator). Source of support- The Royal Society UK. **£ 5,610.00**. Duration of support- 2000-2002.
10. Title of project- Insecticide resistance in anopheline vectors of malaria and insect pests of rice. Source of support- National Science Foundation, Sri Lanka. **Rs. 872,500.00**. Duration of support- 1999-2002.
11. Title of project- The interface between disease transmission and insecticide resistance in mosquito vectors. Source of support- Cardiff University, UK. **£ 5,000.00**. Duration of support- 1998-2000.
12. Title of project- Molecular analysis of estα and estβ genes of Sri Lankan *Culex* mosquitoes. Source of support- The Wellcome Trust, UK. **£ 1,600.00**. Duration of support- 1998.

13. Title of project- Insecticide resistance in agricultural insect pests. Source of support- Third World Academy of Science, Italy. **$ 4000.00**. Duration of support- 1997-1999.
14. Title of project- Molecular mechanisms of insecticide resistance in agriculturally important insect pests. Source of support- Postgraduate Institute of Science, Sri Lanka, **Rs. 232,000.00**. Duration of support- 1997-2000.
15. Title of project- Molecular characterization of elevated esterase-based insecticide resistance in Sri Lankan *Culex tritaeniorhynchus*. Source of support- Wellcome Trust, U.K. (collaborative project with Cardiff University, Wales, UK). **£ 35,280.00**. Duration of support- 1995-1997.
16. Title of project- Insecticide resistance in Anopheline vectors of malaria. Source of support- National Science Foundation, Sri Lanka. **Rs. 625,600.00**. Duration of support- 1995-1998.

NATIONAL & INTERNATIONAL AWARDS:

1. **Prof. Lakshman Samaranayake Award for Research Excellence** (2023) University of Peradeniya, Sri Lanka.
2. **Chinese Academy of Sciences (CAS)** President's International Fellowship Initiative (PIFI) (2022) Fellowship
3. **SLAAS General Research Committee Award** (2018) for carrying out exceptionally high quality research/pioneering research in Sri Lanka over a period of time, Sri Lanka Association for the Advancement of Science (SLAAS), Sri Lanka.
4. **SUSRED** (Support Scheme for Supervision of Research Degrees) Award (2018), National Science Foundation, Sri Lanka.
5. **CVCD Excellence Award** (2016) for the most outstanding senior researcher in the field of biological sciences including agriculture and allied sciences, Committee of Vice Chancellors and Directors (CVCD), University Grant Commission, Sri Lanka.
6. **Vestergaard Frandsen Award** (2011) for outstanding research contribution, National Academy of Vector Borne Diseases, Bhubaneswar, Indian Council of Medical Research, INDIA.
7. **Bernard Soysa Memorial Award (Gold Medal)** (2005) for Outstanding Scientific Research, Sri Lanka Association for the Advancement of Science (SLAAS), Sri Lanka.
8. **Hiran Thilakaratne Award** for Outstanding Postgraduate Research (Natural Sciences), University Grants Commission, Sri Lanka (2001)
9. **Young Scientist Award** (1999), Third World Academy of Science- Italy & National Science Foundation- Sri Lanka).
10. **Wellcome Trust Research Award**, Welcome Trust, UK (2001)
11. **Seventeen (17) Presidential Awards for Research publications** (1999-2018)
12. **NRC Merit Awards for Scientific Publication** (2012, 2013, 2019,2020), National Research Council, Sri Lanka.
13. **Best Research Award in Science** (2000), University of Peradeniya, Sri Lanka
14. **National Science Foundation Merit Award** for the Best Scientific Research in Biology (1999), National Science Foundation- Sri Lanka.
15. **Research Development Award** in Tropical Medicine, Wellcome Trust, UK, (1994).
16. **Wilson Peiris memorial Award**, Sri Lanka Medical Council (1989).

M.PHIL. & PH.D. RESEARCH SUPERVISION:

(A) COMPLETED

Ph.D. (Principal Supervisor: SHPP Karunaratne)
JMMK. Herath, Postgraduate Institute of Science, University of Peradeniya.
Title of the Thesis- Prevalence, Breeding preference, insecticide resistance and novaluron susceptibility of dengue vector mosquitoes Aedes aegypti and Ae. albopictus
Date of Registration - December 2019
Date of Award – 09th April 2025

Ph.D. (Co-Supervisor: SHPP Karunaratne)
Ms. K. Sivabalakrishnan, Postgraduate Institute of Science, University of Peradeniya.
Title of the Thesis- Anatomical, physiological and epigenetic changes in Aedes aegypti adapting to salinity in nature
Date of Registration - December 2019.
Thesis submitted 30th January, 2025

Ph.D. (2023) (Principal Supervisor: SHPP Karunaratne)
Ms. J. Marasinghe, Postgraduate Institute of Agriculture, University of Peradeniya.
Title of the Thesis- Insecticide resistance of whiteflies and aphids from different geographical locations of Sri Lanka: underlying mechanisms of resistance, genotype variations, and possible control efforts
Date of Award – 20th May 2023

Ph.D. (2022) (Principal Supervisor: SHPP Karunaratne)
Mr. NWNP Nugapola, Postgraduate Institute of Science, University of Peradeniya.
Title of the Thesis- `Pyrethroid resistance, effect of insecticide fogging and distribution of *Wolbachia* with reference to dengue vector control in Sri Lanka'.
Date of Award – 03rd February 2022.

Ph.D. (2022) (Co- Supervisor: SHPP Karunaratne)
Ms. KPD. Ruwanika, Faculty of Medicine, University of Colombo.
Title of the Thesis- '*Phlebotomus argentipes*, the vector of leishmaniasis in Sri Lanka; mechanisms and propagation of insecticide resistance'
Date of Award – 18th January 2022

Ph.D. (2020) (Co-Supervisor: SHPP Karunaratne)
Dr. WGD. Chathuranga, Postgraduate Institute of Science, University of Peradeniya.
Title of the Thesis- `Diversity, distribution, abundance, and vector potential of ornithophilic mosquitoes in Sri Lanka'.
Date of Award – 21st September 2021

Ph.D. (2017) (Principal Supervisor: SHPP Karunaratne)
Dr. T.C. Weeraratne, Postgraduate Institute of Science, University of Peradeniya.
Title of the Thesis- DNA barcoding, genetic diversity, genetic structure and age structure of selected *mosquito species of Sri Lanka*.
Date of Award – 11th November 2017

Ph.D. (2007) (Single Supervisor: SHPP Karunaratne)
Dr. M.D.B. Perera, Postgraduate Institute of Science, University of Peradeniya.
Thesis Title -Status and mechanism of insecticide resistance in Anopheline vectors of Malaria in Sri Lanka.
Date of award-27th December 2007

M.Phil. (2012) (Single Supervisor: SHPP Karunaratne)

Ms. T.C. Weeraratne, Postgraduate Institute of Science, University of Peradeniya.
Thesis Title- Effective control of dengue fever vectors in Sri Lanka.
Date of award - 17th January 2012

M.Phil. (2006) (Co-Supervisor: SHPP Karunaratne)
Ms. W.A.P.P. De Silva, Postgraduate Institute of Science, University of Peradeniya.
Thesis Title -Insecticidal activity of Euphorbia antiquorum L. latex against agricultural insect pests.
Date of award-20th January 2006

M.Phil. (2003) (Single Supervisor: SHPP Karunaratne)
Ms. K.C. Weerakoon, Postgraduate Institute of Science, University of Peradeniya.
Thesis Title - Status of Insecticide resistance and resistance mechanisms in some of the rice insect pests and four of their predators.
Date of award-7th July 2003

M.Phil. (2001) (Single Supervisor: SHPP Karunaratne)
Ms. T.D. Bambarandage, Postgraduate Institute of Science, University of Peradeniya.
Thesis Title -Status of insecticide resistance and resistance mechanisms in some of the insect pests of vegetables and two insect predators.
Date of award-16th August 2001

(B) ON-GOING

M.Phil. (Principal Supervisor: SHPP Karunaratne)
Ms. PTA. Thilakarathna, Postgraduate Institute of Science, University of Peradeniya.
Tentative Title of the Thesis- Identification and quantification of chemical and microbial contaminations in the watershed of Mahaweli river to ensure a safe drinking water supply
Date of Registration – September 2022

M.Phil. (Principal Supervisor: SHPP Karunaratne)
Ms. F. Fareed, Postgraduate Institute of Science, University of Peradeniya.
Tentative Title of the Thesis- Identification of antibiotic resistance genes, viral and protozoan pathogens in water and wastewater treatment plants associated with Mahaweli river
Date of Registration – November 2022

ORATIONS

1. KARUNARATNE, S.H.P.P. (2024) Developing a multidisciplinary research culture. **Keynote** Address, Annual Undergraduate Research Sessions, **Faculty of Veterinary Medicine & Animal Health, University of Peradeniya**, Sri Lanka. 10th December, 2024.
2. KARUNARATNE, S.H.P.P. (2024) Navigating the Research Journey: From Ideas to Publications. **Keynote** Address, Annual Undergraduate Research Symposium, **Faculty of Dental Sciences, University of Peradeniya**, Sri Lanka. 30th November, 2024.
3. KARUNARATNE, S.H.P.P. (2023) Genetically modified mosquitoes for mosquito-borne disease control. **Keynote** Address for the session on "Innovative Scientific research for sustainable transitions" Annual Research Session (iPURSE 2023), **University of Peradeniya**, Peradeniya, Sri Lanka. 20th September, 2023.

4. KARUNARATNE, S.H.P.P. (2022) Doing and Publishing Good Research. **Keynote** Address, Annual Undergraduate Research Sessions, **Faculty of Allied Health Sciences, University of Peradeniya**, Sri Lanka. 18th February, 2022.
5. KARUNARATNE, S.H.P.P. (2020) Mosquito: The biggest Killer on the Planet. **Keynote** Address, Annual Research Congress (RESCON 2020), **Postgraduate Institute of Science**, Peradeniya, Sri Lanka. 26th November, 2020.
6. KARUNARATNE, S.H.P.P. (2018) Developing a dynamic research culture, **Keynote** Address, Wayamba University Research Congress, Annual Research Sessions 2018, **Wayamba University of Sri Lanka**, Makandura, Sri Lanka. 04th July, 2018.
7. KARUNARATNE, S.H.P.P. (2018) Biotechnological Applications in the control of mosquito borne diseases. **Plenary** Lecture, **South Asian Biotechnology Conference** (SABC – 2018), Hilton Colombo Residence, Sri Lanka. 28th – 30th March 2018.
8. KARUNARATNE, S.H.P.P. (2017) Mosquito Control: Historic perspectives and challenges ahead. **Keynote** Address, 1st International Conference on emerging trends in Zoology, **University of Sargodha, Panjab, Pakistan**. 8th & 9th December, 2017.
9. KARUNARATNE, S.H.P.P. (2017) Insecticide Resistance in Insects. **Plenary** Lecture, 2nd International Conference on Innovative Biological and Public Health Research, **GC University, Lahore, Pakistan**, 6th & 7th December, 2017.
10. KARUNARATNE, S.H.P.P. (2017) Control of the vectors of mosquito borne diseases in Sri Lanka. **Keynote** Address, Exchange of Knowledge between Sri Lanka and Taiwan- Symposium and Workshop on Advances in Entomological Research, **Postgraduate Institute of Science**, 18th -20th January, 2017.
11. KARUNARATNE, S.H.P.P. (2016) Vital Role of Academic Researchers in Anticipating Developmental Challenges, **Keynote** Address, Annual Research Sessions, **Sabaragamuwa University Sri Lanka**, Belihuloya, Sri Lanka. 17th February, 2016.
12. KARUNARATNE, S.H.P.P. (2015) Mosquito-borne diseases and the strategies to control vector mosquitoes in Sri Lanka. **Invited** speaker at the Association of Academies and Societies of Sciences in Asia (AASSA) International symposium on "Global Health Issues in Asia", Daejeon, **Republic of Korea**. 19th – 21st October, 2015.
13. KARUNARATNE, S.H.P.P. (2015) Dengue vector control in Sri Lanka: Mosquito susceptibility to insecticides and effect of fogging on non-target insects. **Invited** speaker at the 4th International forum for surveillance and control of mosquito and mosquito-borne diseases, Guangzhou**, Peoples Republic of China**. 25th – 28th May 2015.
14. KARUNARATNE, S.H.P.P. (2015) 'Free Education in Sri Lanka'. Dr. C.W.W. Kannangara **Memorial Oration** delivered as the Chief Guest**,** Nalanda Madya Maha Vidyalaya, Minuwangoda - 23rd September 2015.
15. KARUNARATNE, S.H.P.P. (2014) Mosquito Control and Insecticide Resistance. **Keynote** Address at Annual Research Sessions, **Sri Lankan Society for Microbiology**, Third Annual Conference and Scientific Sessions, Peradeniya, Sri Lanka, 24th October, 2014.
16. KARUNARATNE, S.H.P.P. (2014) Insecticide Resistance: A Major Threat to Mosquito control. **Keynote** Address at Annual Research Sessions, **National Institute of Fundamental Studies**, Hantana, Kandy, Sri Lanka, 21st February, 2014.
17. KARUNARATNE, S.H.P.P. (2013) Mosquito control: Can we overcome mosquito resistance to insecticides? **Keynote** Address at the National workshop on Genetic Manipulation of Mosquitoes: Current trends and Technologies, **University of Jaffna**, Sri Lanka, 10th -12th, October, 2013
18. KARUNARATNE S.H.P.P. (2010) Improvement of Quality and Relevance of Science Study Programmes: Recent Reforms and Innovations Made and Ways for Further Improvement. **Guest Speech** at **University Grant Commission** Workshop on Review of Science Study Programmes: Recent Reforms, Lessons

Learned and Way Forward, Hotel Janaki, Colombo,20th August 2010.

19. KARUNARATNE S.H.P.P. (2008) Role of metabolic enzymes and insensitive target sites in mosquito resistance to insecticides, **Plenary** Lecture at Annual Research Sessions, **Institute of Biochemistry, Molecular Biology and Biotechnology (IBMBB)**, Colombo. 25th April 2008.
20. KARUNARATNE, S.H.P.P. (2007) Science and Scientific Research in Sri Lanka, **Keynote** Address, Annual Research Sessions, **Rajarata University of Sri Lanka**, Mihinthale, Sri Lanka. May 2007.
21. KARUNARATNE, S.H.P.P. (2005) Insecticide resistance and the control of mosquito borne diseases in Sri Lanka. Hon. Brenard Soysa Memorial **Gold Medal Oration**, **Sri Lanka Association of the Advancement of Science (SLAAS)**, Colombo, Sri Lanka, 2005.

BOOKS

1. Karunaratne, S.H.P.P., Rajapakse R.G.S.G. and Sooriyapathrana, S.D.S.S. (2025) Understanding DNA Technology. Sankha Publishers, Mahara, Kadawata, Sri Lanka (www.sankhabooks.lk) ISBN 978-624-5626-45-8:165pp.
2. Karunaratne, S.H.P.P. and Sooriyapathrana, S.D.S.S. (2017) DNA Thakshanaya (in Sinhala medium). ISBN 978-955-41753-3-4: 158pp

RESEARCH PUBLICATIONS

Google Scholar **`h' Index: 36** with **4203 Citations** for my Research Publications.

(http://scholar.google.com/citations?hl=en&user=FhZsN98AAAAJ&view_op=list_works)

FULL PAPERS IN SCIENCE CITATION INDEXED (SCI)/SCI EXPANDED JOURNALS

1. Berg, H.V.D., Amwele, H.R., Brook, B.D., Fortelius, L.E., Jain, T., Karunaratne, S.H.P.P., Munyinda, N.S., Rubio-Palis, Y., Yadav, R.S., and Kleinschmidt, I. (2025) DDT: last mile in the global phase-out of its use for disease vector control? The Lancet Planetary Health 2025. https://doi.org/10.1016/j.lanplh.2025.06.007

2. Sivabalakrishnan, K., Hemphill, A., **Karunaratne, S.H.P.P.**, Naguleswaran, A., Roditi, I., Surendran, S.N. & Ramasamy, R. (2025) Preimaginal development of *Aedes aegypti* L. (Diptera: Culicidae) in brackish water gives rise to adult mosquitoes with thicker cuticles and greater insecticide resistance. **Medical and Veterinary Entomology**, 2025;1–15. https://doi.org/10.1111/mve.12799

3. Guruge, S.K., Hanb, Z., **Karunaratne, S.H.P.P.**, Chandrajith, R., Cooray, T., Hua, C., Zhang, Y., Yang, M. (2025) Short- and long-read metagenomics uncover the mobile extended spectrum β-lactamase (ESBL) and carbapenemase genes in hospital wastewater in Sri Lanka. **Water Research**. 283 (2025) 12383. http://doi.org/10.1016/j.watres.2025.123831

4. Thilakarathna, P.T.A., Fareed, F., Athukorala, S.N.P., Jinadasa, R., Premachandra, T., Noordeen, F., Gamage, C.D., Makehelwala, M., Weragoda, S.K., Fernando, B.R., Zhang, Y., Wei, Y., Yang, M. and

Karunaratne, S.H.P.P. (2025). Spatio-temporal variation of microbial indicators of river water and treatment efficiencies of drinking water treatment plants along the upper Mahaweli River segment of Sri Lanka. **Environmental Pollution**, p.125628. https://doi.org/10.1016/j.envpol.2025.125628

5. Thilakarathna, P.A., Fareed, F., Makehelwala, M., Weragoda, S.K., Fernando, R., Premachandra, T., Rajapakse, M., Wei, Y., Yang, M. and **Karunaratne, S.H.P.P**. (2024) Land-Use Pattern-Based Spatial Variation of Physicochemical Parameters and Efficacy of Safe Drinking Water Supply along the Mahaweli River, Sri Lanka. **Water.** 16, 2644. https://doi.org/10.3390/w16182644

6. Surendran, S.N. and **Karunaratne, S.H.P.P.** (2024) Taxonomy, Bio-Ecology and Insecticide Resistance of Anopheline Vectors of Malaria in Sri Lanka. **International Journal of Environmental Research and Public Health**. 21, 814. https://doi.org/10.3390/ijerph21070814

7. Herath, J.M.M.K., De Silva, W.A.P.P., Weeraratne T.C. and **Karunaratne S.H.P.P.** (2024) Efficacy of the insect growth regulator novaluron in the control of dengue vector mosquitoes *Aedes aegypti* and *Ae. albopictus*. **Scientific Reports**. (2024) 14:1988. https://doi.org/10.1038/s41598-024-52384-x

8. Herath, J.M.M.K., De Silva, W.A.P.P., Weeraratne T.C. and **Karunaratne S.H.P.P.** (2024) Breeding Habitat Preference of the Dengue Vector Mosquitoes *Aedes aegypti* and *Aedes albopictus* from Urban, Semiurban, and Rural Areas in Kurunegala District, Sri Lanka. **Journal of Tropical Medicine**. Volume 2024, Article ID 4123543, 14 pages https://doi.org/10.1155/2024/4123543

9. Wu, D., Daia, S., Fenga, H., **Karunaratne, S.H.P.P.**, Yang, M., Yu, Z., (2024) Persistence and potential risks of tetracyclines and their transformation products in two typical different animal manure composting treatments. **Environmental Pollution**, 341. https://doi.org/10.1016/j.envpol.2023.122904

10. Wang, C., Liu, S., Feng, H., Barrett, H., Peng, H., **Karunaratne, S.H.P.P**., Zhang, Y. and Yang, M. (2023) Effects of Triclosan on the Development of Antimicrobial Resistance in the Environment: A Review. **Current Pollution Reports**. https://doi.org/10.1007/s40726-023-00270-x

11. Chathuranga W. G. D., Weeraratne, T.C., Abeyasundara, S.P., **Karunaratne, S.H.P.P**. and de Silva, W.A.P.P (2023) Breeding site selection and co-existing patterns of tropical mosquitoes. **Medical and Veterinary Entomology** 2023;1–12. https://doi.org/10.1111/mve.12656

12. Herath, J.M.M.K., Abeyasundara, H.T.K., De Silva, W.A.P.P., Weeraratne T.C. and **Karunaratne S.H.P.P.** (2022) Weather-based prediction models for the prevalence of dengue vectors *Aedes aegypti* and *Ae. albopictus*. **Journal of Tropical Medicine** (2022). Volume 2022, Article ID 4494660, 10 pages https://doi.org/10.1155/2022/4494660

13. Karunaratne, S.H.P.P. and Surendran, S.N. (2022) Mosquito control: A review on past, present and future strategies. **Journal of National Science Foundation Sri Lanka.** 50 (Special): 277 - 292. DOI: http://dx.doi.org/10.4038/jnsfsr.v50i0.11244

14. Weeraratne, T.C., **Karunaratne, S.H.P.P.**, Reimer, L.J., De Silva, W.A.P.P. & Wondji, C.S. (2021) Use of transcriptional age grading technique to determine the chronological age of Sri Lankan female dengue mosquitoes; *Aedes aegypti* and *Aedes albopictus* **Parasites & Vectors** 14:493 https://doi.org/10.1186/s13071-021-04994-x.

15. Pathirage, D.R.K., Weeraratne, T.C., Senanayake, S.C., **Karunaratne, S.H.P.P.** and Karunaweera, N.D. (2021) Genetic diversity and population structure of *Phlebotomus argentipes*: vector of leishmaniasis in Sri Lanka. **PLoS ONE**. https://doi.org/10.1371/journal.pone.0256819

16. Chathuranga, W.G.D., Fernando, B.R., Weereratne, T.C., **Karunaratne, S.H.P.P.** and De Silva, W.A.P.P. (2021) Blood parasites of bird communities in Sri Lanka and their mosquito vectors. **Parasitology Research**. https://doi.org/10.1007/s00436-021-07049-3

17. Marasinghe, J.P. and **Karunaratne, S.H.P.P.** (2021) Evaluation of insecticide resistance and underlying resistance mechanisms in selected whitefly populations in Sri Lanka. **Journal of National Science Foundation Sri Lanka.** 49 (4): 469 - 478 DOI: http://dx.doi.org/10.4038/jnsfsr.v49i4.10312

18. Diyes, G.C.P., Bandara K.M.U.J., Rajakaruna, R.S. and **Karunaratne, S.H.P.P.** (2021) Acaricide resistance in the spinose ear tick, *Otobius megnini* (Acari: Argasidae) infesting racehorses in Sri Lanka. **Journal of National Science Foundation Sri Lanka.** 49 (4): 551 - 561 DOI: http://dx.doi.org/10.4038/jnsfsr.v49i4.10307

19. Nugapola, N.W.N.P., De Silva, W.A.P.P., Weeraratne, T.C. and **Karunaratne, S.H.P.P.** (2020) kdr type mutations and enhanced GST based insecticide resistance in dengue vector mosquitoes *Aedes aegypti* and *Aedes albopictus*. **International Journal of Tropical Insect Science**. https://doi.org/10.1007/s42690-020-00219-3

20. Pathirage, D.R.K., **Karunaratne, S.H.P.P.**, Senanayake, S.C. and Karunaweera, N.D. (2020) Insecticide susceptibility of the sand fly leishmaniasis vector *Phlebotomus argentipes* in Sri Lanka. **Parasites & Vectors** 13:246 https://doi.org/10.1186/s13071-020-04117-y

21. De Silva, W.A.P.P., Bernal, X.E., Chathuranga, W.G.D., Herath, B.P., Ekanayake, C., Abeysundara, H.T.K. and **Karunaratne, S.H.P.P.** (2020) Feeding patterns revealed host partitioning in a community of frog-biting mosquitoes. **Ecological Entomology** 1-9 https://doi.org/10.1111/een.12874.

22. Chathuranga, W.G.D., **Karunaratnea, S.H.P.P.**, De Silva, W.A.P.P. (2020) Predator–prey interactions and the cannibalism of larvae of *Armigeres subalbatus* (Diptera: Culicidae) **Journal of Asia-Pacific Entomology**, 23: 124-131. https://doi.org/10.1016/j.aspen.2019.11.010

23. Surendran, S.N., Marasinghe, J.P., Gajapathy, K., Tharmatha, T., Sivabalakrishnan, K., Weeraratne, T.C. and **Karunaratne, S.H.P.P.** (2019) Genotyping of *Bemisia tabaci* (Hemiptera: Aleyrodidae) reveals the presence of two genetic groups in Sri Lanka. **Journal of Entomological Science**, 54(2): 87-93. http://doi.org/10.18474/JES18-68

24. Punchiheva, R., De Silva, W.A.P.P., Weeraratne, T.C. and **Karunaratne, S.H.P.P.** (2019) Insecticide resistance mechanisms with novel 'kdr' type gene mutations in the tropical bed bug *Cimex hemipterus*. **Parasites & Vectors** 12:310 https://doi.org/10.1186/s13071-019-3565-x

25. Surendran, S.N., Jayadas, T.T.P., Sivabalakrishnan, K., Santhirasegaram, S., Karvannan, K., Weerarathne, T.C., **Karunaratne, S.H.P.P.**, Ramasamy, R. (2019) Development of the major arboviral

vector *Aedes aegypti* in urban drain-water and associated pyrethroid insecticide resistance is a potential global health challenge, **Parasites and Vectors**12:337 https://doi.org/10.1186/s13071-019-3590-9

26. Surendran, S.N., Sivabalakrishnan, K., Sivasingham, A., Jayadas, T.T.P., Karvannan, K., Santhirasegaram, S., Gajapathy, K., Senthilnanthanan, M., **Karunaratne, S.H.P.P.** and Ramasamy R. (2019) Anthropogenic Factors Driving Recent Range Expansion of the Malaria Vector *Anopheles stephensi.* **Frontiers in Public Health**, Vol. 7 Article 53. 14 March 2019 (doi.org/10.3389/fpubh.2019.00053)

27. Sivabalakrishnan, K., Weerarathne, T.C., Thileepan, A., **Karunaratne, S.H.P.P.**, Ramasamy, R. and Surendran, N.S. (2019) Susceptibility to common insecticides and detoxifying enzyme activities in *Anopheles sundaicus* (sensu lato) after cessation of indoor residual spraying of insecticides in the Jaffna Peninsula and its surroundings in northern Sri Lanka. **Parasites & Vectors** 12:13 (doi.org/10.1186/s13071-018-3254-1).

28. Weeraratne, T.C., Surendran, S.N., Walton, C. & **Karunaratne, S.H.P.P.** (2018) Genetic diversity and population structure of Malaria vector mosquitoes *Anopheles subpictus, Anopheles peditaeniatus* and *Anopheles vagus* in five districts of Sri Lanka. **Malaria Journal** 17: 271 *(*DOI 10.1186/s12936-018-2419-x).

29. Weeraratne, T.C., Surendran, S.N. and **Karunaratne, S.H.P.P.** (2018) DNA barcoding of morphologically characterized mosquitoes belonging to subfamily Culicinae from Sri Lanka. **Parasites & Vectors** 11:266 (doi.org/10.1186/s13071-018-2810-z).

30. Chathuranga, W.G.D., **Karunaratne, S.H.P.P.**, Fernando, B.R. and De Silva, W.A.P.P. (2018) Diversity, distribution, abundance and feeding pattern of tropical Ornithophilic mosquitoes. **Journal of Vector Ecology** 43(1): 158-167.

31. Surendran, S.N., Sivabalakrishnan, K., Gajapathy, K., Arthiyan, S., Jayadas, T.T.P., Karvannan, K., Raveendran, S., **Karunaratne, S.H.P.P.** and Ramasamy, R. (2018) Genotype and biotype of invasive *Anopheles stephensi* in Mannar Island of Sri Lanka. **Parasites & Vectors** 11:3 (DOI: 10.1186/s13071-017-2601-y)

32. Weeraratne, T.C., Surendran, S.N., Reimer, L.J., Wondji, C.S., Perera, M.D.B., Walton, C. & **Karunaratne, S.H.P.P.** (2017) Molecular characterization of Anopheline (Diptera:Culicidae) mosquitoes from eight geographical locations of Sri Lanka. **Malaria Journal** 16: 234 *(*DOI 10.1186/s12936-017-1876-y).

33. Nugapola, N.W.N.P., De Silva, W.A.P.P. & **Karunaratne, S.H.P.P.** (2017) Distribution and phylogeny of *Wolbachia* strains in wild mosquito populations of Sri Lanka. **Parasites & Vectors** 10: 230 (DOI: 10.1186/s13071-017-2174-9).

34. Bandara, K.M.U.J. and **Karunaratne, S.H.P.P.** (2017) Mechanisms of acaricide resistance in the cattle tick *Rhipicephalus (Boophilus) microplus* in Sri Lanka**. Pesticide Biochemistry and Physiology** 139: 68-72.

35. Marasinghe, J.P., Hemachandra, K. S., Nugaliyadde, L. and **Karunaratne, S.H.P.P.** (2017) Control failure of Sri Lankan whitefly (*Bemisia tabaci* Genn.*)* is due to high resistance development against recommended insecticides. **Journal of the National Science Foundation** 45(1): 23-31.

36. Abeyasuriya, K.G. T.N., Nugapola, N.W.N.P., Perera, D.B.M., Kasrunaratne, W.A.I.P. and **Karunaratne, S.H.P.P.** (2017) Effect of dengue mosquito control insecticide thermal fogging on non-target insects. **International Journal of Tropical Insect Science.** Vol. 37, No. 1, pp. 11–18.

37. Surendran, S.N., Truelove, N., Sarma, D.K., Jude, P.J., Ramasamy, R., Gajapathy, K., Peiris, L.B.S., **Karunaratne S.H.P.P.**, Walton, C. (2015) Karyotypic assignment of Sri Lankan Anopheles culicifacies species B and E does not correlate with cytochrome oxidase subunit I and microsatellite genotypes. **Parasites & Vectors** 06/2015; 8(1):327. DOI:10.1186/s13071-015-0944-9

38. **Karunaratne, S.H.P.P.**, Weeraratne, T.C., Perera, M.D.B. & Surendran, S.N. (2013) Insecticide resistance and, efficacy of space spraying and larviciding in the control of dengue vectors *Aedes aegypti* and *Aedes albopictus* in Sri Lanka. **Pesticide Biochemistry and Physiology** 107: 98-105.

39. Weeraratne, T.C., Perera, M.D.B., Mansoor, M.A.C.M. and **Karunaratne, S.H.P.P.** (2013) Prevalence and the breeding habitats of dengue vectors *Aedes aegypti* and *Aedes albopictus* in semi-urban areas in two different climatic zones in Sri Lanka. **International Journal of Tropical Insect Science** 33 (4): 216-226.

40. Surendran, S.N., Jude, P.J., Weerarathne, T.C., **Karunaratne S.H.P.P.** & Ramasamy, R. (2012) Variations in susceptibility to common insecticides and resistance mechanisms among morphologically identified sibling species of the malaria vector *Anopheles subpictus* in Sri Lanka. **Parasites & Vectors 5**:34.

41. Bartholomay, L.C., Waterhouse, R.M., Mayhew, G.F., Campbell, C.L., Michel, K., Zou, Z., Ramirez, J.L., Das, S., Alvarez, K., Arensburger, P., Bryant, B., Chapman, S.B., Dong, Y., Erickson, S.M., **Karunaratne, S.H.P.P.**, Kokoza, V., Kodira, C.D., Pignatelli, P., Shin, S.W., Vanlandingham, D.L., Atkinson, P.W., Birren, B., Christophides, G.K., Clem, R.J., Hemingway, J., Higgs, S., Megy, K., Ranson, H., Zdobnov, E. M., Raikhel, A.S., Christensen, B.M., Dimopoulos, G., Muskavitch, M.A.T. (2010) Pathogenomics of *Culex quinquefasciatus* and meta-analysis of infection responses to diverse pathogens. **Science** 330: 88-90.

42. Perera, M.D.B., Hemingway, J. and **Karunaratne, S.H.P.P.** (2008). Multiple insecticide resistance mechanisms involving metabolic changes and insensitive target sites selected in anopheline vectors of malaria in Sri Lanka**. Malaria Journal,** *7*:168

43. Strode, C., Wondji, C.S., David, J-P, Hawkes, N.J., Lumjuan, N., Nelson, D.R., Drane, D.R., **Karunaratne, S.H.P.P.,** Hemingway, J., Black, W.C. & Ranson, H. (2008). Genomic analysis of detoxification genes in the mosquito *Aedes aegypti.* **Insect Biochemistry and Molecular Biology** 38(1): 113 – 123.

44. Kannathasan, S., Antonyrajan, A., Srikrishnaraj, K.A., **Karunaratne, S.H.P.P.**, Karunaweera, N.D., Surendran, S.N. (2008) Studies on prevalence of anopheline species and community perception of malaria in Jaffna district, Sri Lanka. **Journal of Vector Borne Diseases** 45: 231 - 239.

45. Wondji, C.S., De Silva, W.A.P.P., Hemingway, J. Ranson & **KARUNARATNE, S.H.P.P.** (2008) Characterization of knock down resistance (kdr) in DDT and pyrethroid resistant *Culex quinquefasciatus* populations from Sri Lanka. **Tropical Medicine and International Health** 13(4): 548 - 555.

46. De Silva, W.A.P.P., **Karunaratne, S.H.P.P.** & Manuweera, G.K. (2008) Insecticidal activity of *Euphorbia antiquorum* latex and its preliminary chemical analysis. **Journal of the National Science Foundation of Sri Lanka** 36(1): 15 - 23.

47. **Karunaratne, S.H.P.P.**, Damayanthi, B.T., Fareena M.H.J., Imbuldeniya, V., & Hemingway, J. (2007) Insecticide resistance in the tropical bedbug *Cimex hemipterus***. Pesticide Biochemistry and Physiology** 88: 102-107.

48. **Karunaratne, S.H.P.P.,** Hawkes, N.J., Perera, M.D.B., Ranson, H. & Hemingway, J. (2007) Mutated sodium channel genes and elevated monooxygenases are found in pyrethroid resistant populations of Sri Lankan malaria vectors. **Pesticide Biochemistry and Physiology** 88: 108-113.

49. **Karunaratne, S.H.P.P.,** Weerakoon, K.C., Nugaliyadda, L. & Manuweera, G.K. (2007) Susceptibility of rice insect pests and their natural enemies to commonly used insecticides. **Journal of the National Science Foundation of Sri Lanka.** 35(2): 97-102.

50. **Karunaratne, S.H.P.P.** & Weerakoon, K.C. (2007) Involvement of metabolic and insensitive acetylcholin-esterase mecanisms in insecticide resistance of rice insect pest and predatory populations at Batalagoda, Sri Lanka. **Journal of the National Science Foundation of Sri Lanka.** 35(2): 103-108.

51. Thomas, D.R. McCarroll, L., Roberts, R., **Karunaratne, S.H.P.P**., Roberts. C., casey, D., Morgan, S., Touhig, K., Morgan, J. Collins F. and Hemingway, J. (2006). Surveillance of insecticide resistance in head lice using biochemical and molecular methods. **Archives of Disease in Childhood.** 91: 777-779.

52. Surendran, S.N., **Karunaratne, S.H.P.P.,** Adams, Z, Hemingway, J. & Hawkes, N.J. (2005) Molecular and Biochemical Characterization of a Sand Fly Population from Sri Lanka: Evidence for Insecticide Resistance due to Altered Esterases and Insensitive Acetylcholinesterase. **Bulletin of Entomological Research** 95: 371-380.

53. Damayanthi, B.T. & **Karunaratne, S.H.P.P.** (2005) Biochemical characterisation of insecticide resistance in vegetable insect pests and predatory ladybird beetles. **Journal of the National Science Foundation of Sri Lanka** 33(2): 115-122.

54. Kelly-Hope, L.A, Yapabandara, A.M.G.M, Wickramasinghe, M.B, Perera, M.D.B, **Karunaratne, S.H.P.P,** Fernando, W.P, Siyambalagoda, R.R.M.L.R, Herath, P.R.J, Galappaththy, G.N.L & J. Hemingway (2005) Spatio-temporal distribution of insecticide resistance in *Anopheles culicifacies* and *Anopheles subpictus* in Sri Lanka **Transactions of the Royal Society of Tropical Medicine & Hygiene** 99: 751-761.

55. Karunaratne, V., Wickramasinghe, A., Herath, A.M.C., Amerasinghe, P.H., **Karunaratne, S.H.P.P.** & Rajapakse, R.M.G. (2005) Phototoxic effect of some porphyrin derivatives against the larvae of *Aedes aegypti*, a major vector of dengue fever. **Current Science** 89(1): 170-173.

56. Vontas, J.G., McCarroll, L., **Karunaratne, S.H.P.P,** Louis, C., Hurd, H. & Hemingway, J. (2004) Does environmental stress affect insecticide-vectored parasite transmission? **Physiological Entomology** 29: 210-213.

57. **Karunaratne, S.H.P.P.** & Hemingway, J. (2001) Malathion resistance and prevalence of the malathion carboxylesterase mechanism in populations of Sri Lankan mosquito vectors of disease. **Bulletin of the World Health Organization** 79: 1060-1064.

58. **Karunaratne, S.H.P.P.** & Hemingway, J. (2000) Insecticide resistance spectra and the underlying resistance mechanisms in populations of Japanese encephalitis vector mosquitoes, *Culex tritaeniorhynchus* and *C. gelidus*, from Sri Lanka. **Medical and Veterinary Entomology** 14: 430-436.

59. McCarroll, L., Paton, M.G., **Karunaratne, S.H.P.P**, Jayasuriya, H.T.R., Kalpage, K.S.P. & Hemingway, J. (2000) Insecticides and mosquito-borne diseases: Insecticide resistance in mosquitoes can also interfere with developing parasites. **Nature** 407: 961-962.

60. Paton, M.G., **Karunaratne, S.H.P.P.,** Giakoumaki, E., Roberts, N. & Hemingway J. (2000) Quantitative analysis of gene amplification in insecticide resistant *Culex* mosquitoes. **Biochemical Journal** 346: 17-24.

61. **Karunaratne, S.H.P.P.** (1999) Insecticide cross-resistance spectra and underlying resistance mechanisms of Sri Lankan anopheline vectors of malaria. **Southeast Asian Journal of Tropical Medicine and Public Health** 30 (3): 460-469.

62. **Karunaratne, S.H.P.P.,** Small, G.J. & Hemingway, J. (1999) Characterization of the elevated esterase-associated insecticide resistance mechanism in *Nilaparvata lugens* Stal and other planthopper species. **International Journal of Pest Management** 45(3): 225-230.

63. Hemingway, J., **Karunaratne, S.H.P.P.** & Claridge, M.F. (1999) Insecticide resistance spectrum and underlying resistance mechanisms in tropical populations of the brown planthopper (*Nilaparvata lugens*) collected from rice and the wild grass *Leersia hexandra.* **International Journal of Pest Management** 45(3): 215-223.

64. Small, G.J., **Karunaratne, S.H.P.P.** & Hemingway, J. (1999) Molecular and kinetic evidence for allelic varients of esterase Est β1 in the mosquito *Culex quinquefasciatus*. **Medical and Veterinary Entomology** 13: 274-281.

65. **Karunaratne, S.H.P.P.,** Vaughan, A., Paton, M.G. & Hemingway J. (1998) Amplification of a serine esterase gene is involved in insecticide resistance in Sri Lankan *Culex tritaeniorhynchus*. **Insect Molecular Biology** 74): 307-315.

66. **Karunaratne, S.H.P.P.** & Hemingway, J. (1998) Identical restriction enzyme maps of the amplicon containing the Estα2^1 and Estβ2^1 insecticide resistance genes in *Culex quinquefasciatus* colonies from

Saudi Arabia, Tanzania and Sri Lanka. **Journal of the National Science Council of Sri Lanka** 26(4): 311-319.

67. Small G.J., **Karunaratne, S.H.P.P.,** Chadee, D.D. & Hemingway, J. (1998) Characterization of amplified esterase Estβ12 associated with organophosphate resistance in a multi-resistant population of the mosquito *Culex quinquefasciatus* from Cuba. **Medical and Veterinary Entomology** 12: 187-191.

68. Hemingway, J. & **Karunaratne, S.H.P.P.** (1998) Mosquito carboxylesterases: A review of the molecular biology and biochemistry of a major insecticide resistance mechanism. **Medical and Veterinary Entomology** 12: 1-12.

69. **Karunaratne, S.H.P.P.,** Hemingway, J., Jayawardena, K.G.I., Dassanayaka, V. & Vaughan, A. (1995) Kinetic and molecular differences in the amplified and non-amplified esterases from insecticide resistant and susceptible *Culex quinquefasciatus* mosquitoes. **The Journal of Biological Chemistry** 270(52): 31124-31128.

70. **Karunaratne, S.H.P.P.** & Hemingway, J. (1996) Different insecticides select multiple carboxylesterase isoenzymes and different resistance levels from a single population of *Culex quinquefasciatus*. **Pesticide Biochemistry & Physiology** 54: 4-11.

71. **Karunaratne, S.H.P.P.,** JAYAWARDENA, K.G.I. & HEMINGWAY, J. (1995) The cross-reactivity spectrum of a polyclonal antiserum raised against the native amplified A_2 esterase involved in insecticide resistance. **Pesticide Biochemistry & Physiology** 53: 75-83.

72. Jayawardena, K.G.I., **Karunaratne, S.H.P.P.,** Ketterman, A.J. & Hemingway, J. (1994) Determination of the role of elevated B_2 esterase in insecticide resistance in *Culex quinquefasciatus* from studies on the purified enzyme. **Bulletin of Entomological Research** 84: 39-44.

73. Peiris, J.S.M., Amerasinghe, P.H., Amerasinghe, F.P., Calisher, C.H., Perera, L.P., Arunagiri, C.K., Munasinghe, N.B., **Karunaratne, S.H.P.P.** & Weligama, N. (1994) Virus isolation from mosquitoes collected in Sri Lanka. **American Journal of Tropical Medicine and Hygiene** 51(2): 154-161.

74. **Karunaratne, S.H.P.P.,** Jayawardena, K.G.I., Hemingway, J. & Ketterman, A.J. (1994) Immunological cross-reactivity of a mosquito carboxylesterase-A_2 antibody to other mosquito and vertebrate esterases and cholinesterases. **Biochemical Society Transactions.** 649: 167.

75. Peiris, J.S.M., Amerasinghe, F.P., Arunagiri, C.K., Perera, L.P., **Karunaratne, S.H.P.P.,** Ratnayake, C.B., Kulatilaka, T.A. & Abesinghe, M.R.N. (1993) Japanese Encephalitis in Sri Lanka: comparison of vector and virus ecology in different agro-climatic areas. **Transactions of the Royal Society of Tropical Medicine and Hygiene.** 87: 541-548.

76. Ketterman, A.J., **Karunaratne, S.H.P.P.,** Jayawardena, K.G.I. & Hemingway, J. (1993) Qualitative differences between populations of *Culex quinquefasciatus* in both the esterases A_2 and B_2 which are involved in insecticide resistance. **Pesticide Biochemistry & Physiology.** 47: 142-148.

77. **Karunaratne, S.H.P.P.,** Jayawardena, K.G.I., Hemingway, J. & Ketterman, A.J. (1993) Characterization of a B-type esterase involved in insecticide resistance from the mosquito *Culex quinquefasciatus.* **Biochemical Journal**. 294: 575-579.

78. **Karunaratne, S.H.P.P.,** Jayawardena, K.G.I., Hemingway, J. & Ketterman, A.J. (1993) The function of esterases in insecticide resistance in *Culex quinquefasciatus* mosquitoes from Sri Lanka. **Biochemical Society Transactions.** 647: 482S.

79. **Karunaratne, S.H.P.P.,** Jayawardena, K.G.I., Hemingway, J. & Ketterman, A.J. (1993) Evidence for polymorphism in mosquito esterases involved in insecticide resistance. **Biochemical Society Transactions.** 647: 480S.

80. Peiris, J.S.M., Amerasinghe, F.P., Amerasinghe, P.H., Ratnayake, C.B., **Karunaratne, S.H.P.P.** & Tsai, T.F. (1992) Japanese encephalitis in Sri Lanka - the study of an epidemic: vector incrimination, porcine infection and human disease. **Transactions of the Royal Society of Tropical Medicine and Hygiene**. 86: 307-313.

FULL PAPERS IN OTHER PEER REVIEWED JOURNALS

81. Fareed, F. Thilakarathna, P.T.A., Karunaratne, S.H.P.P. and Noordeen, F (2024) Cryptosporidium infections in Sri Lanka: A Systematic Review. **Ceylon Journal of Science** 53(2): 291-299. http://doi.org/10.4038/cjs.v53i2.8358

82. Herath, J.M.M.K., Weeraratne, T.C. and Karunaratne S.H.P.P. (2024) Stage specific insecticide susceptibility and life-table analysis of the dengue vector mosquitoes *Aedes aegypti* and *Ae. albopictus*. **Ceylon Journal of Science** 53(2): 161-170. http://doi.org/10.4038/cjs.v53i2.8301

83. Karunaratne S.H.P.P. (2023) Transgenic mosquitoes: Is that a reality? **Ceylon Journal of Science** 52(4): 391-392. http://doi.org/10.4038/cjs.v52i4.8251

84. Marasinghe, J. P., Karunaratne, S.H.P.P., Surendran S.N., Hemachandra K.S. and Nugaliyadde L. (2023) Insecticide Resistance, Resistance Mechanisms, and Phylogeny of Three *Myzus persicae* Populations in Cabbage from Three Agroclimatic Zones of Sri Lanka. **Tropical Agricultural Research** 34(2): 80-93. http://doi.org/10.4038/tar.v34i2.8621

85. Anuradha, G.N.P.V., de Silva, W.A.P.P., Chathuranga, W.G. D., Karunaratne, S.H.P.P. and Weeraratne, T.C. (2022) Morphological variations in the male genitalia of seven mosquito genera (Diptera: Culicidae), Sri Lanka. **Ceylon Journal of Science** 51(Special Issue) 2022: 509-520. DOI: http://doi.org/10.4038/cjs.v51i5.8078

86. Marasinghe, J.P., Samarasinghe, R.J.K.N.P., Madugalla, S.R.K., Nugaliyadde, L, Hemachandra, K.S. and Karunaratne, S.H.P.P. (2022) Bio-efficacy of Selected Novel Insecticides for the Management of Whiteflies and Aphids in Bitter Gourd and Brinjal in Sri Lanka. **Annals of Sri Lanka Department of Agriculture** 24: 33-47.

87. Chathuranga, W.G.D., Weeraratne, T.C., Karunaratne S.H.P.P. and De Silva W.A.P.P. (2022) Spatial distribution pattern of ornithophilic mosquitoes along the vertical axis in forest habitats. **Ceylon Journal of Science** 51(3): 1209-216. DOI: http://doi.org/10.4038/cjs.v51i3.8029.

88. Surendran, S.N., Senthilnanthanan, M., Jayadas, T.T.P., Karunaratne, S.H.P.P. and Ramasamy, R (2020) Impact of salinization and pollution of groundwater on the adaptation of mosquito vectors in the Jaffna peninsula, Sri Lanka. **Ceylon Journal of Science** 49(2) 2020: 135-150 DOI: http://doi.org/10.4038/cjs.v49i2.7734

89. Daluwaththa, H.S.S., Karunaratne, S.H.P.P. and De Silva, W.A.P.P. (2019). Species composition of mosquitoes associated with a livestock field station. **Ceylon Journal of Science** 48 (1):77-84. DOI: http://doi.org/10.4038/cjs.v48i1.7591

90. Karunaratne, S.H.P.P., De Silva, W.A.P.P., Weeraratne, T.C. and Surendran, S.N. (2018) Insecticide resistance in mosquitoes: Development, mechanisms and monitoring. **Ceylon Journal of Science** 47(4): 299-309 DOI: http://doi.org/10.4038/cjs.v47i4.7547

91. Dharshini, S., Vinobaba, M., Jude, P.J., Karunaratne, S.H.P.P., Surendran, N. (2011) Prevalence and insecticide susceptibility of dengue vectors in the district of Batticaloa in eastern Sri Lanka. **Tropical Medicine and Health** 39(2): 47-52.

92. Harishchandra, H.K.S.P., Karunaratne, S.H.P.P. & Rajakaruna, R.S. (2011) Effect of mosquito larvicide Abate® on the development stages of the asian common toad, Bufo melanostictus. **Ceylon Journal of Science (Biological Sciences)** 40(2): 133-140.

93. BOGAMUWA M.M.S., WEERAKOON K.C. & KARUNARATNE S.H.P.P. (2002) Insecticide resistance in the bruchid *Callosobruchus maculates*, a storage pest of legumes. **Ceylon Journal of Science (Biological Sciences)** 30: 55-66.

94. KARUNARATNE, S.H.P.P., DAMAYANTHI,B.T. & IMBULDENIYA,V. (1999) Preliminary characterization of insecticide detoxified esterases which are elevated in agriculturally important insect pests. **Ceylon Journal of Science (Biological Sciences)** 27(1): 19-25.

95. KARUNARATNE, S.H.P.P. & RANAWANA, K.B. (1999) A preliminary study on feeding activity patterns and budgets of domesticated elephants (*Elephas maximus maximus*) in Sri Lanka. **Ceylon Journal of Science (Biological Sciences)** 27(1): 61-65.

96. KARUNARATNE, S.H.P.P. (1999) Possible mechanisms of insecticide tolerance in the cockroaches *Periplaneta americana* (L.) and *P. australasiae* (F.). **Ceylon Journal of Science (Biological Sciences)** 27(1): 9-18.

97. KARUNARATNE, S.H.P.P. (1998) Insecticide resistance in insects: A review. **Ceylon Journal of Science (Biological Sciences)** 25: 72-99.

98. KARUNARATNE, S.H.P.P. & RANAWANA, K.B. (1998) A preliminary study of the food preferences of domesticated elephants (*Elephas maximus* L.) in Sri Lanka. **Ceylon Journal of Science (Biological Sciences)** 25: 58-64.

99. KARUNARATNE, S.H.P.P**.** & AMERASINGHE, F.P. (1994) Ecology of four potential *Culex* vectors (Diptera: Culicidae) of Japanese Encephalitis in Kandy, Sri Lanka. **Ceylon Journal of Science (Biological Sciences)** 23(1): 38-46.

100. KETTERMAN, A.J. & KARUNARATNE, S.H.P.P. (1993) Preparative non-denaturing gel electrophoresis used in the purification of an esterase involved in insecticide resistance. **BIO-RAD US/EG Bulletin** 1839.

101. KARUNARATNE, S.H.P.P. & AMERASINGHE, F.P. (1992) Water mite parasitism in four species of *Culex* mosquitoes at Kandy, Sri Lanka. **Ceylon Journal of Science (Biological Sciences).** 22(1): 40-49.

102. KARUNARATNE, S.H.P.P. & AMERASINGHE, F.P. (1985) Diel oviposition cycle of *Aedes albopictus* (Diptera: Culicidae) at Peradeniya, Sri Lanka. **Ceylon Journal of Science (Biological Sciences).** 17: 76-84.

FULL PAPERS IN PEER REVIEWED CONFERENCE PROCEEDINGS

103. KARUNARATNE, S.H.P.P. (2016) Isolation of mosquito carboxylesterases. Invited Lecture. National workshop on separation techniques in natural product research, National Institute of Fundamental Studies, Hantana, Kandy, 19-23 September, 2016.

104. KARUNARATNE, S.H.P.P. (2013) Mosquito control: Can we overcome mosquito resistance to insecticides? **Proceedings of the National workshop on Gene Manipulation of Mosquitoes: Current trends and Technologies**, University of Jaffna, Sri Lanka, 10th -12th, October, 2013. Pages 1-8.

105. Karunaratne, S.H.P.P. (2011) Vector Control: Past, Present and Future. **Proceedings of the National Workshop on Gene manipulation in mosquitoes: Current trends and technologies.** University of Jaffna, 24th-25th June 2011. Pages 1-7.

106. KARUNARATNE, S.H.P.P & HEMINGWAY, J. (2000) Insecticide resistance and the vectorial capacity in *Culex quinquefasciatus*, the vector of filariasis. **Proceedings of the Annual Research Sessions, University of Peradeniya (ISBN-955-589-034-X)**: 137-142.

107. DE SILVA W.A.P.P., WONDJI, C.S., WEERARATNE, T.C., HEMINGWAY, J. AND KARUNARATNE, S.H.P.P. (2008) kdr mutations in mosquito nervous system cause pyrethroid and DDT resistance in Sri Lankan *Culex quinquefasciatus* populations. **Proceedings of the Peradeniya University Research Sessions, Sri Lanka, December 2008.** 13 (part II), 297-299

108. WEERARATNE, T. C., PERERA, M. D. B., DE SILVA, W.A.P.P. AND KARUNARATNE, S. H. P. P. (2009). Efficacy of insecticide based dengue vector control methods used in Sri Lanka: Space spraying of

adulticides and application of larvicides. **Proceedings of the Peradeniya University Research Sessions.** 14 (Part I): 319-321.

109. WEERARATNE T.C., SURENDRAN S.N., PERERA M.D.B. AND KARUNARATNE S.H.P.P. (2010). Status of insecticide resistance in dengue vector mosquitoes *Aedes aegyptii* and *Aedes albopictus* from six districts in Sri Lanka. **Proceedings of the Peradeniya University Research Sessions.** 15 (Part I): 344-346.

110. Ekanayake, D.H., Weeraratne,T.C., De Silva, W.A.P.P., and Karunaratne, S.H.P.P. (2007) Potential of selected larvivorous fish species in *Aedes* mosquito control. **Proceedings of the Peradeniya University Research Sessions, Sri Lanka. 12 (Part 1)**: 98-100.

111. KARUNARATNE, S.H.P.P. (2005) Insecticide resistance and the underlying resistant mechanisms of Sri Lankan mosquito populations. **National Symposium on Mosquito Control** (*ed*. S.H.P.P. Karunaratne) 15th-16th September 2005, Postgraduate Institute of Science, Sri Lanka. 15-23pp.

112. PERERA, M.D.B. & KARUNARATNE, S.H.P.P. (2005) Insecticide resistance in anopheline vectors of malaria: A comparative study in five distracts of Sri Lanka. **National Symposium on Mosquito Control** (*ed*. S.H.P.P. Karunaratne) 15th-16th September 2005, Postgraduate Institute of Science, Sri Lanka. 28-37pp.

113. KARUNARATNE, V., WICKRAMASINGHE, A., HERATH, A.M.C., AMERASINGHE, P.H., KARUNARATNE, S.H.P.P. & RAJAPAKSE, G. (2005) Phototoxic effext of some porphyrin derivatives against the larvae of Aedes aegypti: A major vector of degue fever. **National Symposium on Mosquito Control** (*ed*. S.H.P.P. Karunaratne) 15th-16th September 2005, Postgraduate Institute of Science, Sri Lanka. 112-117pp.

114. KARUNARATNE, S.H.P.P. (2005) Insecticide resistance and the control of mosquito borne diseases in Sri Lanka. **Hon. Brenard Soysa Memorial Gold Medal Oration**, Sri Lanka Association of the Advancement of Science, Colombo, Sri Lanka, 2005.

115. HEMINGWAY, J., KETTERMAN, A.J., KARUNARATNE, S.H.P.P., JAYAWARDENA, K.G.I. & VAUGHAN A. (1993) Amplified esterases A_2 and B_2. Has resistance occured once or several times? in **Proc. of the 1st International Conference on Insect Pests in the Urban Environment (eds. K.B. Wildey & W.H. Robinson), BPCC Wheatons Ltd, Exeter, UK.** 319-328.

ABSTRACTS IN CONFERENCE PROCEEDINGS

1. VAUGHAN, A., RODRIGUEZ, M., KARUNARATNE, S.H.P.P., SMALL, G.J., KETTERMAN, A.J., CHADEE, D. & HEMINGWAY, J. (1994) Characterization of non-specific esterases in *Culex quinquefasciatus* insecticide resistance **Proc. 8th IUPAC Cong. Pestic. Chem.,** Washington D.C., USA. 4 - 9 July 1994.

2. HEMINGWAY, J., VAUGHAN, A., KARUNARATNE, S.H.P.P. & SMALL, G.J. (1996) Pattern of evolution and spread of mosquito resistance 1□2 and Est□2/ Est□suggested from comparative analysis of the Est amplicon. **Proc. of the XX International Congress of Entomology**, Florence, Italy, 25-31 August, 585p.

3. KARUNARATNE, S.H.P.P**.** & AMERASINGHE, P.H. (1996) Seasonal abundance, parasite carriage and insecticide resistance in two Anopheline vectors of malaria. **Proc. of the 52nd annual sessions, Sri Lanka Association for the Advancement of Science.** November 1996. 8-9p.

4. KARUNARATNE, S.H.P.P**.** & HEMINGWAY, J. (1996) Significance of carboxylesterases in insecticide resistance of the rice brown planthopper, *Nilaparvata lugens* Stal. **Proc. of the 52nd annual sessions, Sri Lanka Association for the Advancement of Science.** November 1996. 155-156p.

5. KARUNARATNE, S.H.P.P**.** & HEMINGWAY, J. (1996) Insecticide resistance of *Culex tritaeniorhynchus* Giles, the major vector of Japanese encephalitis. **Proc. of the 52nd annual sessions, Sri Lanka Association for the Advancement of Science.** November 1996. 140p.

6. HEMINGWAY, J., VAUGHAN, A. & KARUNARATNE, S.H.P.P**.** (1996) Characterization of the resistance amplicon in *Culex quinquefasciatus* worldwide. **Proc. of the XIV International congress for Tropical Medicine and Malaria, Nagasaki, Japan. 17-22 November, 1996.**

7. SMALL, G.J., KARUNARATNE, S.H.P.P. & HEMINGWAY, J. (1997) Characterization of an elevated esterase-associated resistance mechanism in the brown planthopper *Nilaparvata lugens* stal. **Proc. of the Integrated Approach to combating Resistance. Pesticide resistance `97,** 14th - 16th April 1997, IACR, Rothamsted, England, UK.

8. KARUNARATNE S.H.P.P., A. VAUGHAN, M.G. PATON & HEMINGWAY, J. (1997) Amplification of serine esterase gene is involved in insecticide resistance in Sri Lankan *Culex tritaeniorhynchus*. **Proc. of the Integrated Approach to combating Resistance. Pesticide resistance `97,** 14-16th April 1997, IACR, Rothamsted, England, UK.

9. KARUNARATNE,S.H.P.P. (1997) Insecticide resistance in cockroaches. **Annual Research Sessions, (Faculty of Science),** University of Peradeniya, Sri Lanka. July 05 1997. 2p

10. DAMAYANTHI,B.T., KARUNARATNE,S.H.P.P. & IMBULDENIYA, V. (1997) Preliminary characterization of insecticide detoxifying esterases which are elevated in agriculturally important insects. (Abstract) **Annual Research Sessions (Faculty of Science),** University of Peradeniya, Sri Lanka. July 05 1997. 10p

11. KARUNARATNE,S.H.P.P. & HEMINGWAY, J. (1997) Organophosphorous insecticide resistance of Sri Lankan *Culex tritaeniorhynchus* is caused by an amplified serine esterase (Abstract) **Annual Research Sessions (Faculty of Science),** University of Peradeniya, Sri Lanka. July 05 1997. 21p

12. KARUNARATNE, V., KUMAR, V., KARUNARATNE, S.H.P.P., AMERASINGHE, P.H., WEERASEKARA, N., JAYASINGHE, S. & MENDIS, B.S.S. (1997) Phototoxic effect of porphyrins against *Aedes aegypti* and *Culex tritaeniorhynchus*. **Annual Research Sessions, University of Peradeniya,** Sri Lanka. July 05 1997. 25p

13. KARUNARATNE S.H.P.P. (1997) Mosquito carboxylesterases in insecticide resistance. **Pragna, IFS Science Bulletin, Sri Lanka** XI(2): 12.

14. KARUNARATNE, S.H.P.P., PATON, M.G. & HEMINGWAY, J. (1998) Molecular biology and biochemistry of insecticide resistance in *Culex tritaeniorhynchus* mosquitoes. (Abstract) Nineth **International Congress**

of Pesticide Chemistry, London, UK. 2-7 August 1998.

15. KARUNARATNE, S.H.P.P. (1998) Current status of insecticide resistance in mosquito vectors of dangerous human diseases in Sri Lanka. (Abstract) **Annual Research Session, Univ of Peradeniya, Sri Lanka.** July 05 1998, 23p.

16. DAMAYANTHI, B.T. & KARUNARATNE, S.H.P.P**.** (1998) Insecticide cross-resistance spectra and underlying resistance mechanisms of insect pests of vegetables. (Abstract) **Annual Research Session, University of Peradeniya, Sri Lanka.** July 05 1998, 82p.

17. KARUNARATNE, S.H.P.P. (1998) Insecticide cross-resistance spectra and underlying resistance mechanisms of anopheline vectors of malaria. (Abstract) **Proc. of the 54th annual sessions, Sri Lanka Association for the Advancement of Science. December 14-19,** Sri Lanka, 14p.

18. KARUNARATNE, S.H.P.P. & RANAWANA, K.B. (1998) Food preference and feeding behaviour in elephants in captivity. (Abstract) **National symposium on elephant management and conservation, Colombo, Sri lanka 29-30 May 1998.**

19. DAMAYANTHI, B.T. & KARUNARATNE, S.H.P.P. (1999) Insecticide resistance spectra and mechanisms of some vegetable insect pests and two predatory insect species. (Abstract) **Proc. of the 55th Annual Sessions, Sri Lanka Association for the Advancement of Science.** 29 Nov. – 3 December, Sri Lanka, 174-175.

20. DAMAYANTHI, B.T., KARUNARATNE, S.H.P.P., & NUGALIYADDE, M.M. (1999) Biochemical basis of organophosphorus and carbamate insecticide resistance of the leafminor, *Liriomyza huidobrensis* (Diptera: Agromyzidae). (Abstract) **Proc. of the 55th anuual sessions, Sri Lanka Association for the Advancement of Science.** 29 Nov. – 3 December, Sri Lanka, 101-102.

21. FAREENA, M.H.J., DAMAYANTHI, B.T. & KARUNARATNE, S.H.P.P. (2000) Resistance of the bedbug *Cimex hemipterus* to synthetic insecticides. **Proc. of the 56th annual sessions, Sri Lanka Association for the Advancement of Science.** 27 Nov. – 01 December, Sri Lanka, 180p.

22. KARUNARATNE, S.H.P.P. & HEMINGWAY, J. (2000) Insecticide resistance and the vectorial capacity of *Culex quinquefasciatus,* the vector of filariasis. **Proceedings of the Annual Research Sessions 2000, University of Peradeniya, Sri Lanka.** 16 December 2000. 137p.

23. FAREENA, M.H.J. & KARUNARATNE, S.H.P.P. (2000) Insecticide tolerance of the bedbug *Cimex hemipterus*. **Annual Research Sessions 2000, Faculty of Science and Postgraduate Institute of Science, University of Peradeniya, Sri Lanka.** 21 October 2000. BU3. 23p

24. AMERASINGHE, P.H., KARUNARATNE, V., KARUNARATNE, S.H.P.P., EKANAYAKE, C.D. & BANDARA, W.M.D. (2000) Evaluation of a novel method for the control of *Aedes aegypti* larvae, using porpyrin derivatives. (Abstract) **Proc. of the 56th Anuual sessions, Sri Lanka Association for the Advancement of Science.** 27 Nov. – 01 December, 2000. 185p

25. KARUNARATNE,S.H.P.P. (2000) Insecticide resistance in *An. culicifacies* and *An. subpictus*. (in Malaria in Sri Lanka: Current knowledge on Transmission and control by F. Konradsen, F.P. Amerasinghe, W. van

der Hoek and P.H. Amerasinghe) **International Water management Institute (IWMI)** ISBN 92-9090-406-2. 33p.

26. WEERAKOON, K.C., KARUNARATNE, S.H.P.P. & NUGALIYADDA, L. (2001). Organophosphate and Carbamate Resistance in Four Species of Rice Insect Pests. **Proc of the Annual Research sessions, Univ of Peradeniya, Sri Lanka.** No. 16, 2001, page 111.

27. AMERASINGHE, P.H., KARUNARATNE, V., KARUNARATNE, S.H.P.P., WICKRAMASINGHE, A., SAMARASINGHE, D. AND DISSANAYAKE, N. (2001) Porpyrin derivatives as mosquito photopesticides: A novel approach to control *Aedes aegypti*, vector of dengue fever. **Proc of the Annual Research sessions, Univ of Peradeniya, Sri Lanka.** No. 16, 2001, page 107.

28. DE SILVA, W.A.P.P., MANUWEERA, G.K. AND KARUNARATNE, S. H. P. P. (2001) Insecticidal activity of latex of latex of Euphobia antiquorum on agricultural insect pests. **Proc of the Annual Research sessions, Univ of Peradeniya, Sri Lanka.** No. 16, 2001, page 116.

29. Bogamuwa M.M.S. and KARUNARATNE, S.H.P.P. (2001) Insecticide tolerance in the bruchid *Callosobruchus maculates*. **Proc of the Annual Research sessions, Univ of Peradeniya, Sri Lanka.** No. 16, 2001, page 119.

30. WEERAKOON, K. C., KARUNARATNE, S. H. P. P., MANUWEERA, G. K. & NUGALIYADDA, L. (2001). Status and mechanisms of insecticide resistance in three rice insect pests and two of their natural enemies. **Sri Lanka Association for the Advancement of Science (SLAAS). Proceedings of the 57th Annual session**. page 179

31. PERERA, M.D.B & KARUNARATNE, S.H.P.P. (2001) Insecticide resistance of the vector *Anopheles culicifacies* collected from four districts in Sri Lanka. **Sri Lanka Association for the Advancement of Science (SLAAS). Proceedings of the 57th Annual session**. 178.
32. Bogamuwa M.M.S., Weerakoon, K.C. and KARUNARATNE, S.H.P.P. (2002) Insecticide resistance in the bruchid Callosobruchus maculates, a storage pest of legumes. **Proceedings of the First Research Sessions, Postgraduate Institute of Science, University of Peradeniya, Sri Lanka,** 7-8 September 2002. 27p

33. KARUNARATNE, S.H.P.P., MCCARROLL, L., JAYASURIYA, H.T.R., & HEMINGWAY, J. (2004) Can insecticide resistance affect parasite transmission? (Abstract). Genetic manipulation of insects, **Keystone Symposia, Taos, New Mexico, USA, 3-8 February 2004.**

34. DE SILVA W.A.P.P., MANUWEERA, G.K. AND KARUNARATNE, S.H.P.P. (2005) Insecticidal activity of Euphorbia antiquorum latext against agriculturally important insects and their natural enemies. **Proceedings of the Peradeniya University Research Sessions,** Sri Lanka. 10th November 2005. 93p

35. WEERARATNE, T.C., GUNARATNE, N.S. DE SILVA, W.A.P.P. MARUKONA, C.K. & KARUNARATNE, S.H.P.P. (2006) Prevalence & malathion resistance in *Aedes* vector mosquitoes in Kandy, Sri Lanka. **Proceedings of the Peradeniya University Research Sessions,** Sri Lanka, 30 November 2006. 127p.

36. KARUNARATNE, S.H.P.P., HAWKES, N.J., PERERA, M.D.B., RANSON, H. & HEMINGWAY, J. (2006) Mutated sodium channel genes and elevated monooxygenases cause pyrethroid resistance in Sri Lankan

malaria vectors. **Proc. 11th IUPAC Cong. Pestic. Chem.,** Kobe, Japan, 6 – 11 August 2006, 147p

37. Karunaratne, S.H.P.P., De Silva, W.A.P.P., Perera, M.D.B. and Hemingway, J. (2007) Target site mutations are found in pyrethroids resistant mosquito populations in Sri Lanka. **Proceedings of the 2nd International Symposium on Infectious Diseases and Health Sciences,** Faculty of Veterinary Medicine and Animal Sciences, University of Peradeniya, Sri Lanka. 26-27 July, 2007. 35p

38. Ekanayake, D.H., Weeraratne, T.C., de Silva, W.A.P.P. and Karunaratne, S.H.P.P. (2007). Potential of some selected larviviours fish species in *Aedes* mosquito control. ***Proceedings of Peradeniya University Research Sessions* 12 (Part I),** 98-100.

39. KARUNARATNE S.H.P.P. (2008) Role of metabolic enzymes and insensitive target sites in mosquito resistance to insecticides, **Plenary Lecture** at Annual Research Sessions**, Institute of Biochemistry, Molecular Biology and Biotechnology (IBMBB)**, Colombo. 25th April 2008. 13-14p.

40. Weeraratne, T.C., Wijerathna, J.M.R.G., De Silva W.A.P.P. and Karunaratne, S.H.P.P. (2008) Abundance and breeding preferences of the dengue vectors *Aedes aegypti* and *Aedes albopictus* in two localities in Kandy and Matale Districts. **Proceedings of the 28th Annual Sessions of the Institute of Biology, Sri Lanka,** 28: 45.

41. De Silva, W.A.P.P., Wondji, C.S. Weeraratne, T.C., Hemingway, J. and Karunaratne, S.H.P.P. (2008). *kdr* mutations in mosquito nervous system cause pyrethroid and DDT resistance in Sri Lankan *Culex qunquefasicatus* populations. *Proceedings of the Peradeniya University Research Session* 13 (part II), 297-299

42. Weeraratne, T.C., Perera, M.D.B., De Silva W.A.P.P. and Karunaratne, S.H.P.P. (2009) Efficacy of insecticide based dengue vector control methods used in Sri Lanka: Space spraying of adulticides and application of larvicides. **Peradeniya University Research Sessions (PURSE), Sri Lanka,** 3rd December 2009, Vol. 14: 319-321.

43. Karunaratne, S.H.P.P. (2010) Mechanisms of insecticide resistance in mosquitoes. **International Symposium on Recent Advances in Ecology and Management of Vectors and Vector Borne Diseases, DRDE, Ministry of Defence, Gwalior, India, 1-3 December 2010.** Page 15

44. Weeraratne, T.C., Surendran, S.N., Perera, M.D.B. and Karunaratne, S.H.P.P. (2010) Status of insecticide resistance in dengue vector mosquitoes *Aedes aegypti* and *Aedes albopictus* from six districts in Sri Lanka. **Proceedings of the Peradeniya University Research Sessions (PURSE), Sri Lanka**, 16th December 2010, Vol. 15: 344-346.

45. Perera, M.D.B., Weeraratne, T.C., Mansoor, M.A.C.M. and S.H.P.P. Karunaratne (2011). Use of synthetic insecticides in the control of dengue vector mosquitoes *Aedes aegypti* and *Aedes albopictus*. **Proceedings of the Annual Sessions of Sri Lanka Association for the Advancement of Science 67** (Part I), 115p

46. Perera, M.D.B. and Karunaratne, S.H.P.P. (2011) Reduced susceptibility to synthetic pyrethroids in malaria vectors, *Anopheles culicifacies* and *Anopheles subpictus* in three districts of Sri Lanka. **Proceedings of the 67th Annual Session of Sri Lanka Association for the Advancement of Science**, Abstract, 3

47. KARUNARATNE, S.H.P.P. (2012) Role of esterases and insensitive target sites in mosquito resistance to insecticides. **Proceedings of the conference `Global Meet of Biologists', Zoological Society of India & Indian Institute of Chemical Technology, Tarnaka, Hyderabad, India.** 2012 December 26-28.

48. Perera, M.D.B., Mansoor, M.A.C.M, Ravindrakumar, Y, Gnananadan, S and Karunaratne, S.H.P.P. (2013) An integrated approach for dengue vector management: an experience from an urban setting in eastern province, Sri Lanka. **Proceedings of the Third International Conference on dengue and dengue haemorrhagic fever,** Bangkok, Thailand. October 21-23, 2013. 123p.

49. Weeraratne, T.C., Perera, M.D.B., Mansoor, M.A.C.M. and Karunaratne, S.H.P.P. (2013) Prevalence of dengue vectors *aedes aegypti* and *aedes albopictus* in semi-urban areas of two different climatic zones of Sri Lanka. **Proceedings of the Third International Conference on dengue and dengue haemorrhagic fever,** Bangkok, Thailand. October 21-23, 2013. 51p.

50. KARUNARATNE, S.H.P.P., WEERARATNE, T.C., PERERA, M.D.B., MANSOOR, M.A.C.M. AND SURENDRAN, S.N. (2013) Vector resistance to insecticides and, efficacy of fogging and larviciding in dengue control programmes in Sri Lanka. **Proceedings of the Third International Conference on dengue and dengue haemorrhagic fever,** Bangkok, Thailand. October 21-23, 2013. 62p.

51. PERERA, M.D.B., MANSOOR, M.A.C.M. AND KARUNARATNE, S.H.P.P. (2013) Abundance, biting habits and susceptibility to insecticides in malaria vectrors in Deduru Oya Project in Kurunegala district. **Proceedings of the 69th Annual Session of Sri Lanka Association for the Advancement of Science**, 2-6 December, 2013. 114p.

52. SENANAYAKE, S.A.S.C., KARUNARATNE, S.H.P.P., VALENZULA, J, AND KARUNAWEERA, N.D. (2014) Laboratory rearing and morphological characterization of salivary glands of Phlebotomus argentipes glaucus from Sri Lanka. Book of Abstracts, **Third Annual Conference and Scientific Sessions of Sri Lankan Society for Microbiology (SSM), University of Peradeniya, Sri Lanka.** 24th October 2014. Volume 2: 27p.

53. KARUNARATNE, S.H.P.P., WEERARATNE, T.C., ABEYASURIYA, K.G.T.N., PERERA, M.D.B AND KARUNARATNE, W.A.P.I. (2015) Effect of insecticide fogging on dengue vector mosquitoes and non-target insects. Proceedings of The 4th International forum for surveillance and control of mosquito and mosquito-borne diseases, Guangzhou**,** Peoples Republic of China. 25th – 28th May 2015.

54. KARUNARATNE, S.H.P.P. (2015) Mosquito-borne diseases and the strategies to control vector mosquitoes in Sri Lanka. Proceedings of the AASSA International symposium on "Global Health Issues in Asia", Daejeon, Republic of Korea. 19th – 21st October, 2015.

55. WEERARATNE, T.C., PERERA, M.D.B., WONDJI, C.S., REIMER, L., SURENDRAN, N.S. AND KARUNARATNE, S.H.P.P., (2015) Preliminary characterization of Sri Lankan anopheline mosquitoes using DNA barcodes. Proceedings of the Postgraduate Institute of Science Research Congress, Peradeniya, Sri Lanka 9th – 10th October, 2015. 78p.

56. WEERARATNE, T.C., WONDJI, C.S., REIMER, L., SURENDRAN, N.S. AND KARUNARATNE, S.H.P.P., (2015) Determination of age structure of Sri Lankan *Aedes albopictus* mosquitoes using transcriptional age

grading technique. Proceedings of the Postgraduate Institute of Science Research Congress, Peradeniya, Sri Lanka 9th – 10th October, 2015. 79p.

57. BANDARA, K.M.U.J., WEERARATNE, T.C. AND KARUNARATNE, S.H.P.P. (2015) Acaricide resistance of the cattle tick *Rhipicephalus (Boophilus) microplus* from two cattle farms in Kurunegala District. Proceedings of the Postgraduate Institute of Science Research Congress, Peradeniya, Sri Lanka 9th – 10th October, 2015. 88p.

58. DE SILVA, W.A.P.P., KARUNARATNE, S.H.P.P., SAMARASINGHA, N. AND BERNAL, X.E. (2015) Preliminary studies on frog-biting mosquitoes (Culicidae) in Sri Lanka. Proceedings of the Peradeniya University International Research Sessions (Volume 19), University of Peradeniya, Sri Lanka 5th – 6th November, 2015. 304p.

59. BANDARA, K.M.U.J., NUGAPOLA, N.W.N.P. AND KARUNARATNE, S.H.P.P. (2015) Involvement of altered targetsites and metabolic enzymes in acaricide resistance of the cattle tick *Rhipicephalus (Boophilus) microplus* from Kurunegala, Sri Lanka. Proceedings of the Peradeniya University International Research Sessions (Volume 19), University of Peradeniya, Sri Lanka 5th – 6th November, 2015. 315p.

60. ABEYASURIYA, K.G.T.N., NUGAPOLA, N.W.N.P., KARUNARATNE, W.A.P.I., PERERA, M.D.B, WEERARATNE, T.C. AND KARUNARATNE, S.H.P.P. (2015) Effect of insecticide fogging on non-target insects during dengue mosquito control programmes . Proceedings of the Peradeniya University International Research Sessions (Volume 19), University of Peradeniya, Sri Lanka 5th – 6th November, 2015. 318p.

61. WEERARATNE, T.C., KARUNARATNE, S.H.P.P., M.D.B. PERERA AND SURENDRAN, N.S. (2015) Determination of age structure of Sri Lankan *Aedes albopictus* mosquitoes using transcriptional age grading technique. Proceedings of the 71st Annual sessions, Sri Lanka Association for the Advancement of Science (SLAAS), 2nd – 4th December, 2015.

62. Nugapola, N.W.N.P. and Karunaratne, S.H.P.P. (2016) Occurrence of Wolbachia in wild populations of mosquitoes in Sri Lanka. Proceedings of the Postgraduate Institute of Science Research Congress, Sri Lanka: 7th – 8th October, 2016. 83p.

63. T.C. Weeraratne, S.H.P.P. Karunaratne, M.D.B. Perera and N.S. Surendran. (2015). DNA barcoding of Sri Lankan Anopheline mosquitoes reveals its usefulness in identifying morphologically similar sibling species *Proceedings of the Annual Sessions of Sri Lanka Association for the Advancement of Science* 71, 49p

64. Wickramasinghe, W.M.N., Aryaprema, V.S., De Silva W.A.P.P., Abeysundara, S.P. and Karunaratne, S.H.P.P. (2016) Developing a model to show the potential impact of weather patterns on dengue disease and vector densities. Proceedings of the Peradeniya University International Research Sessions (Volume 20), University of Peradeniya, Sri Lanka 4th – 5th November, 2016. 283p.

65. Diyes, G.C.P., Bandara, K.M.U.J., Rajakaruna, R.S. and Karunaratne, S.H.P.P. (2016) Susceptibility status of Spinose ear tick, *Otobius megnini* (Acari: Argasidae) to selected acaricides. Proceedings of the Peradeniya University International Research Sessions (Volume 20), University of Peradeniya, Sri Lanka 4th – 5th November, 2016. 300p.

66. Herath, B.P., Ekanayake, C., Karunaratne, S.H.P.P., Bernal, X.E. and De Silva W.A.P.P., (2016) Host preference of frog-biting *Uranotaenia* mosquitoes in Sri Lanka. Proceedings of the Peradeniya University

International Research Sessions (Volume 20), University of Peradeniya, Sri Lanka 4th – 5th November, 2016. 311p.

67. Weeraratne, T.C., Surendran, S.N. and Karunaratne, S.H.P.P. (2016) Genetic diversity and population structure of malaria vector mosquitoes *Anopheles peditaeniatus, An. subpictus* and *An. vagus* (Diptera: Culicidae) in five districts of Sri Lanka. Proceedings of the Peradeniya University International Research Sessions (Volume 20), University of Peradeniya, Sri Lanka 4th – 5th November, 2016. 313p.

68. Nugapola, N.W.N.P. Karunaratne, W.A.I.P., Perera, M.D.B., De Silva, W.A.P.P. and Karunaratne, S.H.P.P. (2016) Effect of dengue insecticide fogging on cashew pollinators and other non-target insects. Proceedings of the Peradeniya University International Research Sessions (Volume 20), University of Peradeniya, Sri Lanka 4th – 5th November, 2016. 347p.

69. Karunaratne, S.H.P.P. (2016) Target site mutations and elevated esterases as insecticide resistance mechanisms in Sri Lankan mosquitoes, 14th EURASIA Conference on Chemical Sciences, ICCBS, University of Karachi, Pakistan 15th-18th December, 2016.

70. KARUNARATNE, S.H.P.P. (2016) Vital Role of Academic Researchers in Anticipating Developmental Challenges, Key-Note Address, Annual Research Sessions, Sabaragamuwa University Sri Lanka, Belihuloya, Sri Lanka. 17th February, 2016.

71. KARUNARATNE, S.H.P.P. (2017) Control of the vectors of mosquito borne diseases in Sri Lanka. Keynote Address, Exchange of Knowledge between Sri Lanka and Taiwan- Symposium and Workshop on Advances in Entomological Research, Postgraduate Institute of Science, 18th -20th January, 2017.

72. Weeraratne, T.C., Karunaratne, S.H.P.P. and Surendran, N.S. (2017). Molecular characterization and population structure of Sri Lankan anopheline mosquitoes (Diptera: Culicidae). *Proceedings of the Sri Lanka-Taiwan Joint Symposium on Advances in Entomological Research, Postgraduate Institute of Science, Peradeniya, 20th January*: 6p

73. Nugapola, N.W.N.P., De Silva, W.A.P.P. & Karunaratne, S.H.P.P. (2017a). Identification *Wolbachia* strains in wild mosquito populations in Kandy. *Proceedings of the Sri Lanka-Taiwan Joint Symposium on Advances in Entomological Research, Postgraduate Institute of Science, Peradeniya, 20th January*: 12p.

74. Bandara, K.M.U.J., Dissanayake, D.M.A.P., De Silva, P. and Karunaratne, S.H.P.P. (2017). First report on emerging resistance to amitraz and flumethrin in *Rhipicephalus sanguineus* (brown dog tick) at police kennels, Kandy, Sri Lanka: A case study. *Proceedings of the Sri Lanka-Taiwan Joint Symposium on Advances in Entomological Research, Postgraduate Institute of Science, Peradeniya, 20th January:*11p.

75. Chathuranga,W.G.D., Karunaratne, S.H.P.P and De Silva,W.A.P.P. (2017). A preliminary study on ornithophilic mosquitoes (Culicidae: Diptera) of Sri Lanka. *Proceedings of the Sri Lanka-Taiwan Joint Symposium on Advances in Entomological Research, Postgraduate Institute of Science, Peradeniya, 20th January*: 8p.

76. Weerarathne, T.C., Surendran, S.N. and Karunaratne, S.H.P.P. (2017). *DNA barcoding and genetic diversity of Sri Lankan mosquitoes (Diptera:Culicidae).* Proceedings of the 2nd international conference on Tropical Medicine, Plant Genetic Resource centre, Peradeniya: 49-50.

77. Weerarathne, T.C., Surendran, S.N. and Karunaratne, S.H.P.P. (2017). DNA bar-coding and genetic diversity of Sri Lankan mosquitoes (Diptera:Culicidae). *Proceedings of the 2nd International conference on Tropical Medicine, University of Peradeniya*, 8th and 9th December 2017: 49-50p.

78. Nugapola, N.W.N.P., De Silva, W.A.P.P. & Karunaratne, S.H.P.P. (2017b). Mechanisms of Pyrethroid Resistance in Dengue Mosquitoes *Aedes aegypti* and *Aedes albopictus*. *Proceedings of the 2nd International conference on Tropical Medicine, University of Peradeniya*, 8th and 9th December 2017: 47-48p.

79. Bandara, K.M.U.J., D.M.A.P. Dissanayake., Silva, P. and Karunaratne, S.H.P.P. (2017). Emerging Acaricide resistance of the brown dog tick *Rhipicephalus sanguineus* from two major police kennels, Sri

Lanka. *Proceedings of the 2nd International conference on Tropical Medicine, University of Peradeniya*, 8th and 9th December 2017**:** 11p

80. Chathuranga,W.G.D., Karunaratne, S.H.P.P., Fernando, B.R. and De Silva, W.A.P.P. (2017). Haemoparasites of wild birds and the role of ornithophilic mosquitoes in parasite transmission. *Proceedings of the 2nd International conference on Tropical Medicine, University of Peradeniya, 8th and 9th December 2017*: 43-44p.
81. Weeraratne, T.C., Karunaratne, S.H.P.P. and Surendran, N.S. (2017). Molecular characterization of mosquitoes belonging to subfamily Culicinae in Sri Lanka. *Proceedings and abstracts of National Conference on Insect Vector Biology, University of Jaffna 10th February 2017*: 13p
82. Nugapola, N.W.N.P., De Silva, W.A.P.P. & Karunaratne, S.H.P.P. (2017c). Presence of KDR type mutations in Pyrethroid and DDT resistant dengue mosquitoes *Aedes aegypti* and *Aedes albopictus*. *Proceedings and abstracts of National Conference on Insect Vector Biology, University of Jaffna 10th February 2017*: 14p
83. Ruwanika, K.P.D., Karunweera, N.D. and Karunaratne, S.H.P.P. (2017) Insecticide susceptibility patterns of *Phlebotomus argentipes*, from selected areas in Sri Lanka. *Proceedings and abstracts of National Conference on Insect Vector Biology, University of Jaffna 10th February 2017*
84. Chathuranga,W.G.D., Karunaratne, S.H.P.P., Fernando, B.R. and De Silva, W.A.P.P. (2017). Species composition and feeding pattern of ornithophilic mosquitoes in urban and rural areas in Gampola, Central Sri Lanka. *Research Congress-2017, Postgraduate Institute of Science (PGIS), University of Peradeniya, Peradeniya, Sri Lanka:* 82.
85. Dhananji, G.P.H.R., Bandara, K.M.U.J., Nugapola, N.W.N.P., De Silva, W.A.P.P. & Karunaratne, S.H.P.P. (2017). Insecticide resistance of Bed Bug *Cimex hemipterus* in infested hostels of University of Peradeniya, Sri Lanka. *Research Congress-2017, Postgraduate Institute of Science (PGIS), University of Peradeniya, Peradeniya, Sri Lanka:* p. 85
86. Chathuranga,W.G.D., Karunaratne, S.H.P.P and De Silva, W.A.P.P. (2017). Tree-hole breeding mosquitoes in selected forest patches in Kandy, Sri Lanka. Proceedings of the Peradeniya University International Research Sessions (iPURSE)- 2017, University of Peradeniya:416-417p.
87. KARUNARATNE, S.H.P.P. (2017) Mosquito Control: Historic perspectives and challenges ahead Keynote address, *Proceedings of the 1st International Conference on emerging trends in Zoology, University of Sargodha, Panjab, Pakistan. 8th & 9th December*, 2017.
88. KARUNARATNE, S.H.P.P. (2017) Insecticide Resistance in Insects Plenary Lecture, *Proceedings of the 2nd International Conference on Innovative Biological and Public Health Research, GC University, Lahore, Pakistan 6th & 7th December,* 2017.
89. Ruwanika, K.P.D., Karunweera, N.D. and Karunaratne, S.H.P.P. (2017) P*hlebotomus argentipes*, the vector of leishmaniasis in Sri Lanka; study on susceptibility patterns. *Gordon Research Conferences & Gordon Research Seminars, Frontiers of Science"on March 12 – 17th 2017 at Hotel Galvez, Galveston, Texas,USA*.
90. Ruwanika, K.P.D., Karunweera, N.D. and Karunaratne, S.H.P.P. (2017) *Phlebotomus argentipes*, the vector of leishmaniasis in Sri lanka ; study on insecticide susceptibility patterns. *Annual Research Symposium-Faculty of Medicine, University of Colombo, 28th November, 2017.*
91. D.M.C.J. Dissanayake, S.N. Weerakoon, I.S.P. Amarasinghe, T.C. Weeraratne, S.H.P.P. Karunaratne (2018). Survey of Anopheline mosquito fauna in a virgin forest in Dambana: the first record of A*nopheles barbumbrosus* in Badulla district. *Proceedings of the Postgraduate Institute of Science Research Congress, Peradeniya, Sri Lanka 9-10th November*, 5. 71p
89. Weeraratne, T.C., N.W.N.P. Nugapola and Karunaratne, S.H.P.P. (2018). Status and the mechanisms of insecticide resistance of dengue vectors, *Aedes aegypti* and *Ae. albopictus* populations in Sri Lanka. 2nd

WIN international conference on "Integrated approaches and innovative tools for combating insecticide resistance in arbovirus vectors", Singapore, October 1-3, 2018.

90. Ruwanika, K.P.D., Karunweera, N.D. and Karunaratne, S.H.P.P. (2018) Biochemical characterization and insecticide susceptibility of sand flies from selected areas of sri lanka. *Annual Research Symposium- Faculty of Medicine, University of Colombo, 28th November, 2018.*
91. Ruwanika K.P.D., Karunweera N.D., Karunaratne S.H.P.P. (2018) Susceptibility pattern and biochemical mechanisms of insecticide resistance in *Phlebotomus argentipes*, the vector of leishmaniasis in Sri Lanka. *American Society of Tropical Medicine and Hygiene 67th Annual Meeting October 28 – November 1, 2018 Sheraton New Orleans, Louisiana, USA (2018)*.
92. Ruwanika K.P.D., Karunweera N.D., Karunaratne S.H.P.P. (2018) Insecticide susceptibility pattern and underlying mechanisms of Phlebotomus argentipes, the vector of leishmaniasis in Sri Lanka. ICGEB *(International Centre for genetic engineering and biotechnology) Workshop on Molecular Biology of Leishmania", 22 - 24 October 2018, Trieste, Italy (2018)*.
93. Ruwanika K.P.D, Karunweera N.D, Karunaratne S.H.P.P (2018) Insecticide susceptibility and Biochemical analysis of *Phlebotomus argentipes*, in leishmaniasis in Sri Lanka. ICOPA 2018 14th International Congress of Parasitology 19th -24th August 2018, Exco, Daegu, Korea.
94. KARUNARATNE, S.H.P.P. (2018) Developing a dynamic research culture, Key-Note Address, Wayamba University Research Congress, Annual Research Sessions 2018, Wayamba University of Sri Lanka, Makandura, Sri Lanka. 04th July, 2018.
95. KARUNARATNE, S.H.P.P. (2018) Biological Applications in the control of mosquito borne diseases. Plenary Lecture, South Asian Biotechnology Conference (SABC – 2018), Hilton Colombo Residence, Sri Lanka. 28th – 30th March 2018.
96. Chathuranga, W.G.D., Karunaratne, S.H.P.P., Fernando, B.R. and De Silva, W.A.P.P. (2019). Infectious avian malaria and other blood parasites of bird communities in Sri Lanka. ATBC-Asia Pacific Chapter Meeting 2019. 10th -13th September 2019:114.
97. Ruwanika K.P.D, Karunweera N.D, Karunaratne S.H.P.P (2019) Resistance mechanisms of *Phlebotomus argentipes*, the vector of leishmaniasis in Sri Lanka. ASTMH 68th (American Society of Tropical Medicine and Hygiene) Annual Meeting held on November 20–24th, 2019 at Gaylord National resort and convention center national harbor, Maryland, USA.
98. J.M.M.K. Herath, W.A.P.P. De Silva, T.C. Weeraratne , S.H.P.P. Karunaratne , H.T.K. Abeyasundara.(2020). Association of entomological indices of dengue vectors with weather variables in Kurunegala district. Sri Lanka. Postgraduate Institute of Science Research Congress - 2020, Postgraduate Institute of Science (PGIS), University of Peradeniya, Peradeniya, Sri Lanka: 169.
99. J.M.M.K. Herath, W.A.P.P. De Silva, T.C. Weeraratne , S.H.P.P. Karunaratne , H.T.K. Abeyasundara.(2021). Association between the Abundance of Dengue Larvae and Water Quality Characteristics of Available Breeding Habitats in Selected Localities in Kurunegala District. Proceedings of Peradeniya University International Research Sessions 2021, Sri Lanka:23:520
100. Dulani Ruwanika K. Pathirage, Karunweera N.D, Karunaratne S.H.P.P (2021) Molecular markers *cox 1*, *cytb* and ITS2 reveals the presence of gene flow of sand flies in Sri Lanka. Molecular Parasitology and Vector Biology, Georgia, (Virtually) held on May 4-5th , 2021.
101. Dulani Ruwanika K. Pathirage, Karunweera N.D, Karunaratne S.H.P.P (2021) Genetic diversity and population structure of *Phlebotomus argentipes*, the vector of leishmaniasis in Sri Lanka. ASTMH 70th (American Society of Tropical Medicine and Hygiene) Annual Meeting held on

November 17-21st, 2021 at Gaylord National resort and convention center national harbor, Maryland, USA.

102. Dulani Ruwanika K. Pathirage, Karunweera N.D, Karunaratne S.H.P.P (2021) Genetic diversity and population structure of *Phlebotomus argentipes*, the vector of *Leishmania donovani* in Sri Lanka Colombo Medical Congress held at Faculty of Medicine, University of Colombo, Sri Lanka on November 26th, 2021.

103. Karunaratne, S.H.P.P., Thilakarathna, P.T.A., Fareed, F., Makehelwala, M., Premachandra, T.N., Weragoda, S.K., Jinadasa, R., Athukorala, A.D.S.N.P., Noordeen, F., Rajapakse, M., Fernando, B.R., Gamage, C., Wei, Y. & Yang, M. (2022) Study on microbial and chemical pollution of Mahaweli water at water treatment plants located between Kotmale and Victoria reservoirs. Proceedings of the 13 th International Conference on Sustainable Built Environment -2022, Kandy, Sri Lanka. December 16 th – 18 th , 2022: 162p.

104. Fareed, F., Thilakarathna, P.T.A., Noordeen, F., Bandara, D.R.L.N., Jinadasa, R., Premachandra, T.N., Makehelwala, M., Fernando, R., Gamage, C., Rajapakse, M., Weragoda, S.K. & Karunaratne, S.H.P.P. (2023) Cryptospordium species contamination in waters treated at selected treatment plants along the Mahaweli River. Proceedings of the Third International Conference of the Centre for Environmental Sustainability 2023, University of Peradeniya, Sri Lanka. August 25 th , 2023: 26p.

105. Thilakarathna, P.T.A., Fareed, F., Athukorala, S., Premachandra, T.N., Noordeen, F., Rajapakse, M., Weragoda, S.K. & Karunaratne, S.H.P.P. (2023) Enumeration of heterotrophic bacteria in raw and treated water of the river Mahaweli – A culture-based approach. Proceedings of the Peradeniya University International Research Sessions (iPURSE) 2023, University of Peradeniya, Sri Lanka. September 20 th and 21 st , 2023: 203p.

106. Thilakarathna, P.T.A., Fareed, F., Athukorala, S., Premachandra, T.N., Noordeen, F., Makehelwala, M., Fernando, R., Gamage, C., Rajapakse, M., Weragoda, S.K. & Karunaratne, S.H.P.P. (2023) Monitoring coliform contamination at Mahaweli river water intakes to ensure safe drinking water supply. Proceedings of the 12 th Annual Conference and Scientific Sessions of Sri Lanka Society for Microbiology, Sri Lanka. October 27 th , 2023: 25p.

107. Fareed, F., Suganya, T., Thilakarathna, P.T.A., Jinadasa, R., Premachandra, T.N., Weragoda S.K. & Karunaratne, S.H.P.P. (2023) Prevalence of antibiotic resistance bacteria along the Mahaweli river segment between Kotagala and Balagolla. Proceedings of PGIS Research Congress 2023, Postgraduate Institute of Science, University of Peradeniya, Sri Lanka. November 3 rd and 4 th , 2023: 16p.

108. Thilakarathna, P.T.A., Fareed, F., Makehelwela, M., Premachandra, T.N., Weragoda S.K. & Karunaratne, S.H.P.P. (2023) Physico-chemical characteristics of inlet and outlet water in water treatment plants along the Mahaweli river between Kotmale and Victoria reservoirs. Proceedings of PGIS Research Congress 2023, Postgraduate Institute of Science, University of Peradeniya, Sri Lanka. November 3 rd and 4 th , 2023: 17p.

109. S. Kokila, S.N. Surendran and S.H.P.P. Karunaratne (2023). Morphological changes in eggs and larvae of Aedes aegypti adapting to salinity. In PGIS research congress 2023, 157p.

110. Thilakarathna, P.T.A., Athukorala, S., Fareed, F., Jinadasa, R.N., Premachandra, T.N., Makehelwela, M., Fernando, B.R., Weragoda, S.K., Yawei Wang, Zhang Yu, Min Yang, Karunaratne, S.H.P.P. (2023). Diversity and antibiotic resistance of heterotrophic bacteria in drinking water: a study along the Mahaweli River water treatment plants from Kotagala to Balagolla, The 14th International Conference on Sustainable Built Environment-2023 Kandy, Sri Lanka, 15th-17th Dec. 2023.

111. Fareed, F., Noordeen, F., Thilakarathna, P.T.A., Premachandra, T.N., Weragoda, S.K., Yuansong Wei, Zhang Yu, Min Yang and Karunaratne, S.H.P.P. (2023). Detection of *Cryptosporidium* and coronavirus in influent and effluent water in selected water treatment plants along the Mahaweli river in Kandy, The 14th International Conference on Sustainable Built Environment-2023 Kandy, Sri Lanka, 15th-17th Dec. 2023.