

Prof. K.G. Sivaramakrishnan

SPECIALIZATION AND AREAS OF INTEREST

General research interests focus on Biosystematics, Ecology, Biogeography and Phylogeography of aquatic insects, especially the Ephemeroptera, Stream Ecology and Biomonitoring of aquatic systems through benthic macroinvertebrates.

PROFESSIONAL EXPERIENCE

2011-2013 **UGC Emeritus Fellow**

Department of Zoology,

Madras Christian College (Autonomous),

Tambaram East,

Chennai – 600059, INDIA

2007 – 2010 **Principal Investigator**

UGC – Major project,

Sri Paramakalyani Centre for Environmental Sciences,

Manonmaniam Sundaranar University,

Alwarkurichi – 627 412, INDIA

1999 – 2003 **Reader and Head,**

Department of Zoology,

The Madura College (Autonomous),

Madurai – 625 011, INDIA

1986 – 1999 **Lecturer (Selection Grade),**

Department of Zoology,

The Madura College (Autonomous),

Madurai – 625 011, INDIA

1968 – 1985 **Lecturer,**

Department of Zoology,

The Madura College (Autonomous),

Madurai – 625011, INDIA

*Worked as **Post – Doctoral Fellow** from September 1981 to September 1982 in Department of Entomology, Florida A & M University, Tallahassee, FL 32307.

*Senior **FULBRIGHT FELLOW** from September 1994 to June 1995 in Florida A & M University, Tallahassee, U.S.A. and University of California, Berkeley, USA.

PROFESSIONAL HONORS AND AWARDS

- Award by Australian Development Bureau to present a paper in 5th International Ephemeroptera Conference in Marysville, Australia in February 1987.
- **Dr. Radhakrishnan Award** for College teachers 1991-92 by Government of Tamilnadu.

PROFESSIONAL SOCIETIES

- Fellow – National Institute of Ecology, India.
- Member – North American Benthological Society, USA.
- Foundation Fellow – Indian Academy of Entomology.
- National Advisory Committee – Centre for Inland Waters in South Asia (CIWSA).
- Member – *International Union for Conservation of Nature (IUCN) South Asian invertebrate Specialist Group.*

List of publications

- Published in peer reviewed Journals: Murugan, N and Sivaramakrishnan, K.G. 1973. The biology of *Simocephalus acutirostratus* King (Cladocera: Daphnidae): Laboratory studies of life span, instar duration, egg production, growth and stages in embryonic development. *Freshwater Biology*. 3: 77-83.
- Murugan, N and Sivaramakrishnan, K.G. 1976. Laboratory studies on the longevity, instar duration, growth, reproduction and embryonic development in *Scapholeberis kingi* Sars (1903) (Cladocera:Daphnidae). *Hydrobiologia* 50 (1): 78-80.
- Sivaramakrishnan, K.G. and Job, S.V. 1981. Studies on mayfly populations of Courtallam streams. *Proc. Symp. Ecol. Anim. Populo Zool. Surv. India* (2):105-116.
- Sivaramakrishnan, K.G. 1984. A new genus and species of Leptophlebiidae: Atalophlebiinae from Southern India (Ephemeroptera) *Int. J. Entomol.* 26 (3): 194-203.
- Sivaramakrishnan, K.G. and Hubbard, M D. 1984. A new species of *Petersula* from southern India (Ephemeroptera : Leptophlebiidae). *Int. J. Entomol.* 26 (3): 204-205.
- Sivaramakrishnan, K.G. and Peters, W.L. 1984. Description of a new species of *Notophlebia* from India and reassignment of the ascribed nymph of *Nathanella* (Ephemeroptera: Leptophlebiidae). *Aquatic Insects*. 6 (2): 115-121.
- Sivaramakrishnan, K.G. 1985. New genus and species of Atalophlebiinae (Ephemeroptera: Leptophlebiidae) from southern India. *Ann. Entomol. Soc. Am.* 78: 235-239.
- Sivaramakrishnan, K.G. 1985. Description of the female imago and eggs of *Indialis badia* Peters & Edmunds (Ephemeroptera: Leptophlebiidae). *Oriental Insects*. 18: 95-98.
- Sivaramakrishnan, K.G. and Venkataraman, K. 1985. Behavioral strategies of emergence, swarming, mating and oviposition in mayflies. *Proc. Indian Acad. Sci. (Anim. Sci.)* 94(3): 351-357.
- Grant, P.M and Sivaramakrishnan, K.G. 1985. A new species of *Thraulius* (Ephemeroptera : Leptophlebiidae) from southern India. *Fla. Entomol.* 68 (3): 424-432.
- Sivaramakrishnan, K.G and Venkataraman, K. 1987. Observations on feeding properties, growth rate and fecundity in mayflies. *Proc. Indian Acad. Sci. (Anim. Sci.)* 96 (3): 305-309.

- Venkataraman, K and Sivaramakrishnan, K.G. 1987. A new species of *Thalerosphyrus* from India (Ephemeroptera: Heptageniidae). *Current Science*, 56 (21): 1126-1129.
- Sivaramakrishnan, K.G. and Venkataraman K. 1987. Biosystematic studies of South Indian Leptophlebiidae and Heptageniidae in relation to egg ultrastructure and phylogenetic interpretations. *Proceedings of the Indian Academy of Sciences, Animal Sciences*, 96(5):637-646.
- Venkataraman, K. and Sivaramakrishnan, K. G. 1989. A new species of *Cinygmia* (Ephemeroptera) from south India and reevaluation of generic traits of *Cinygmia* Kimmins 1937. *Hexapoda (Insecta Indica)* Vol. 1 (1&2): 117-121.
- Sivaramakrishnan, K.G. 1990. Systematics and speciation in relation to insect-plant interactions. *Proc. Indian Acad. Sci. (Anim.Sci.)* 99 (3): 267-276.
- Victor, J., Venkataraman, K and Sivaramakrishnan, K. G. 1990. Mosquito fauna of medical importance in Kumbakkarai, a tourist spot near Madurai, Tamil Nadu. *Ind. J. Malariol.* 27: 233-236.
- Sivaramakrishnan, K. G., Sridhar, S. and Venkataraman, K. 1990. Habitats, microdistribution, life cycle patterns and trophic relationships of mayflies of Cardomom hills of Western Ghats. *Hexapoda*, 2: 118-121.
- Sivaramakrishnan, K. G., Sridhar, S. and Rajarajan, P.A. 1991. Effect of temperature on hatching of parthenogenetic eggs of *Baetis geminatus* Muller-Liebenau and Hubbard 1985 from south India (Ephemeroptera: Baetidae). *Opusc. Zool. Flumin.* 69 (10): 1-8.
- Balasubramanian, C., Venkataraman, K. and Sivaramakrishnan, K.G. 1991. Life stages of south Indian burrowing mayfly, *Ephemera (Aethephemera) nadinae* McCafferty and Edmunds 1973 (Ephemeroptera: Ephemeridae). *Aquatic Insects* 13 (4): 223-228.
- Balasubramanian, C., Venkataraman, K. and Sivaramakrishnan, K.G. 1992. Bioecological studies on the burrowing mayfly *Ephemera nadinae* (Ephemeroptera: Ephemeridae) in Kurangani streams of Western Ghats. *J. Bomb. Nat. Hist. Soc.* 89 (1): 72-77.
- Burton, T.M and Sivaramakrishnan, K.G. 1993. Composition of the insect community in the streams of the Silent valley National park in Southern India. *Tropical Ecology.* 34 (1): 1-16.
- Sivaramakrishnan, K. G., Venkataraman, K., Sridhar, K., and Marimuthu, S. 1995. Spatial patterns of benthic macroinvertebrate distributions along Kaveri river and its tributaries in south India. *International Journal of ecology and Environmental Sciences*, 21: 141-161.
- Sivaramakrishnan, K. G., Venkataraman, K. and Balasubramanian, C. 1996. Biosystematics of the genus *Nathanella* Demoulin (Ephemeroptera: Leptophlebiidae: Atalophlebiinae) from south India. *Aquatic Insects* 18 (10): 19-28.
- Sivaramakrishnan, K. G., Hannaford, M. J., and Resh, V. H. 1996. Biological assessment of the Kaveri river catchment, south India, using Benthic macroinvertebrates: Applicability of water quality monitoring approaches developed in other countries *IJEE* 22: 113-132.
- Sivaramakrishnan, K. G., Venkataraman, K., Moorthy, R. K., Subramanian, K. A and Utkarsh, G. 2000. Aquatic insect diversity and ubiquity of the streams of the Western Ghats, India. *J. Indian Institute of Science*, 80: 537-552.
- Sivaramakrishnan, K. G. 2000. A refined rapid bioassessment protocol for benthic macroinvertebrates for use in peninsular Indian streams and rivers. P.302-314. In: Ramachandra, T.V. Rajasekara Murthy, Co, and Ahalya, N. (Eds.) *Proceedings of lake 2000 – Symposium on restoration of Lakes and wetlands*. Center for Ecological Sciences, IISc., Bangalore.

- Subramanian, K. A. and Sivaramakrishnan, K. G. 2005. Habitat and microhabitat distribution of stream insect communities of the Western Ghats. *Current Science*. 89 (6): 976: 987.
- Subramanian, K.A. and Sivaramakrishnan, K. G. and Gadgil. M, 2005. Impact of riparian landuse on stream insects of Khudremukh National Park, Karnataka state. India. *Journal of Insect Science*. 5: 49. 1-10.
- Jahir Hussain, K., Jayachandra, C. M and Sivaramakrishnan, K. G. 2006. Diversity, seasonability and trophic Ecology of stream insects in a tropical dry deciduous forest of Karandamalai hills (Eastern Ghats), Tamilnadu. *Indian J. Trop. Biodiv.* 14 (2): 123 – 133.
- Subramanian, K.A. and Sivaramakrishnan, K. G. 2009. A new species of Symbiocloeon (Ephemeroptera: Baetidae) associated with a freshwater mussel species from India. *Oriental Insects*, Vol. 43: 71-76.
- Sivaramakrishnan, K. G., Subramanian, K. A and Ramamoorthy, V.V. 2009. Annotated checklist of the Ephemeroptera of the Indian subregion. *Oriental Insects*, Vol. 43: 315-339.
- Sivaramakrishnan, K.G., Subramanian, K.A., Arunachalam, M., Selva kumar, C. and Sundar, S. 2011. Emerging trends in molecular systematics and molecular phylogeny of mayflies (Insecta: Ephemeroptera). *Journal of Threatened Taxa* 3(8): 1972-1980.
- Selva kumar, C., Sundar, S. and Sivaramakrishnan, K.G. 2012. Two new mayfly species (Baetidae) from India, *Oriental Insects*, Vol. 46, No. 02, 116-129. ISSN; 0030-5316 (Print), 2157-8745 (Online)
- Selva Kumar, C., Rahul R. Nair, K. G. Sivaramakrishnan, D. Ganesh, S. Janarthanan, M. Arunachalam, and T. Sivaruban. 2012. Influence of certain forces on evolution of synonymous codon usage bias in certain species of three basal orders of aquatic insects. *Mitochondrial DNA*, Vol. 23, No. 6: 447–460.
- Selva-Kumar, C. Arunachalam, M. and Sivaramakrishnan, K. G. 2013. A new species of Choroterpes (Ephemeroptera: Leptophlebiidae) from Southern Western Ghats, India. *Oriental Insects*, 47 (2–3), 169–175.
- Sivaruban, T., Barathy, S., Arunachalam, M., Venkataraman, K., and Sivaramakrishnan, K. G. 2013. *Epeorus petersi*, a new species of Heptageniidae (Ephemeroptera) from the Western Ghats of southern India. *Zootaxa* 3731 (3): 391–394.
- Kluge, N. J., Sivaramakrishnan, K. G., Selvakumar, C. and Kubendran, T. 2014. Notes about *Acentrella* (*Liebebiella*) *vera* (Müller-Liebenau, 1982) (= *Pseudocloeon difficile* Müller-Liebenau, 1982 syn. n. = *Platybaetis arunachalae* Selvakumar, Sundar, and Sivaramakrishnan, 2012 syn. n.) (Ephemeroptera: Baetidae). *Aquatic Insects*, 35 (3–4), 63–70 (2013).
- Selvakumar, C., Sivaramakrishnan, K. G., Janarthanan, S., Arumugam, M. and Arunachalam, M. 2014. Impact of riparian land use patterns on Ephemeroptera community structure in river basins of southern Western Ghats, India. *Knowledge and Management of Aquatic Ecosystems*, 412 (11): 1–15.
- Selvakumar, C., Janarthanan, S. and Sivaramakrishnan, K. G. 2014. Nymphal redescription of *Thalerosphyrus flowersi* Venkataraman & Sivaramakrishnan 1987 (Ephemeroptera, Heptageniidae, Ecdyonurinae) with a brief note on the taxonomic status. *Hexapoda*, 21(1): 10–14.
- Sivaramakrishnan, K. G., Janarthanan, S. Selvakumar, C. and Arumugam, M. 2014. Aquatic insect conservation – a molecular genetic approach. *Conservation Genetics Resources*, 6(4): 849–855.

- Kubendran, T., Rathinakumar, T., Balasubramanian, C., Selvakumar, C. and Sivaramakrishnan, K. G. 2014. A new species of *Labiobaetis* Novikova & Kluge, 1987 (Ephemeroptera: Baetidae) from the southern Western Ghats in India, with comments on the taxonomic status of *Labiobaetis*. *Journal of Insect Science* 14(86): 1–10.
- Selvakumar, C., Sivaramakrishnan, K. G., Jacobus, L. M., Janarthanan, S. and Arumugam, M. 2014. Two new genera and five new species of Teloganodidae (Ephemeroptera) from South India. *Zootaxa* 3846 (1): 087–104.
- Selvakumar, C., Janarthanan, S. and Sivaramakrishnan, K. G. 2015. A new species of the *Choroterpes* Eaton, 1881 subgenus *Monophyllus* Kluge, 2012 and a new record of the subgenus *Choroterpes*, s.s. (Ephemeroptera: Leptophlebiidae) from southern Western Ghats, India. *Zootaxa* 3941 (2): 284–288.
- Selvakumar, C., Sivaramakrishnan, K. G., Janarthanan, S. 2015. A new record of *Potamanthellus caenoides* Ulmer 1939 (Ephemeroptera: Neoephemereidae) from the southern Western Ghats of India. *Biodiversity Data Journal* 3: e5021. 1–5. doi: 10.3897/BDJ.3.e5021
- Kubendran, T., Balasubramanian, C., Selvakumar, C., Gattolliat, J.L. and Sivaramakrishnan, K. G. 2015. Contribution to the knowledge of *Tenuibaetis* Kang & Yang 1994, *Nigrobaetis* Novikova & Kluge 1987 and *Labiobaetis* Novikova & Kluge 1987 (Ephemeroptera: Baetidae) from the Western Ghats (India). *Zootaxa*, 3957 (2): 188-200.
- Kluge, N.J., Selvakumar, C., Sivaramakrishnan, K. G., Jacobus, L.M., Contribution to the knowledge of the mayfly genus *Teloganella* Ulmer, 1939 (Ephemeroptera: Ephemerelloidea). *Zootaxa* 4028 (2), 287-295.
- Selvakumar, C., Sivaramakrishnan, K. G., Janarthanan, S. 2016. DNA barcoding of mayflies (Insecta: Ephemeroptera) from South India. *Mitochondrial DNA Part B* 1 (1), 651-655.
- Sivaramakrishnan, K. G., 2016. Systematics of the Ephemeroptera of India: Present status and future prospects. *Zoosymposia* 11, 33-52.
- Selvakumar, C., Sivaruban, T., Subramanian, K.A., Sivaramakrishnan, K. G. 2016. A new genus and species of *Atalophlebiinae* (Insecta: Ephemeroptera: Leptophlebiidae) from Palni hills of the southern Western Ghats, India. *Zootaxa* 4208 (4), 381-391.
- Selvakumar, C., Subramanian, K. A., Kailash Chandra, Sivaramakrishnan, K. G., Eyarin Jehamalar, E., Bikramjit Sinha. 2017. A new species and a new record of the subgenus *Dilatognathus* Kluge 2012 (Ephemeroptera: Leptophlebiidae: genus *Choroterpes* Eaton, 1881) from India. *Zootaxa* 4268 (3), 439-447.
- Roopa, S. R., Selvakumar, C., Subramanian, K. A., Sivaramakrishnan, K. G. 2017. A new species of *Prosopistoma* Latreille, 1833 and redescription of *P. indicum* Peters, 1967 (Ephemeroptera: Prosopistomatidae) from the Western Ghats, India. *Zootaxa* 4242 (3), 591-599.

Book Chapter:

1. **Sivaramakrishnan, K. G.**, Arunachalam, M., Sundar, S. and Selva Kumar, C. 2011. A brief conspectus and Research priorities on Plecoptera (stoneflies) of India, 105-118. In: B.K. Tyagi & Vijay Veer (Eds.), *Entomology (Ecology and Biodiversity)* Scientific Publishers, India. 522pp.

2. Subramanian, K. A. and **Sivaramakrishnan, K. G.** 2011. Latitudinal distribution of stream insect communities of the Western Ghats, 67-85. In: B.K. Tyagi & Vijay Veer (eds.), Entomology (Ecology and Biodiversity) Scientific Publishers, India. 522pp.
3. Subramanian, K.A. and **Sivaramakrishnan, K.G.** 2012. Altitudinal distribution of stream insects of the Western Ghats. "Diversity and distribution of Invertebrates of the Western Ghats" ATREE, Bangalore, India.
4. **Sivaramakrishnan, K.G.** and Subramanian, K.A. 2012. Mayflies (Insecta: Ephemeroptera) of the Western Ghats: Biogeographic patterns and diversity profiles. In: a book on "Invertebrate diversity and conservation in the Western Ghats". ATREE, Bangalore, India.

Publication in non-peer reviewed journals

1. **Sivaramakrishnan K.G.** Recent trends in the taxonomy and evolution of mayflies (Ephemeroptera). *MCAA* 1:25-28
2. **Sivaramakrishnan, K.G.** Critical oxygen demand in three species of South Indian Ephemeroptera nymphs. *Salsearch*. 5:17-24
3. **Sivaramakrishnan, K.G.** 1987. Continental drift and mayflies. *Biology Education*. 4 (1): 7-10.
4. **Sivaramakrishnan, K.G.** and Venkataraman, K. 1990. Abundance, altitudinal distribution and swarming of Ephemeroptera in Palani hills, South India. In: I.C. Campbell (Ed.) mayflies and stoneflies. Kluwer Academic Publishers. 209-213.
5. **Sivaramakrishnan, K.G.** 1990. Utility of Cladistics in comparative Embryology. *Salsearch*. (9): 44-46.
6. Balasubramanian, C., Venkataraman, K and **Sivaramakrishnan, K. G.** 1990. Bionomics of a new species of an aquatic weevil, *Bagous* sp. infesting *Ottelia alismoides*. *Salsearch*. (9): 41-45.
7. **Sivaramakrishnan, K.G.** 1991. Recent trends in biological water quality assessment of running water. *Salsearch*. 10: 39-51.
8. Marimuthu, S. Rajkumar, T.F and **Sivaramakrishnan, K.G.** 1991. Water quality assessment of river Vaigai based on macroinvertebrates. *Salsearch* 10: 26-27.
9. Victor, J., Marimuthu, S and **Sivaramakrishnan, K. G.** 1991. Aquatic macrophytes and the associated mosquitoes in and around Madurai city (Tamil Nadu) *Salsearch* 10: 28-31.
10. **Sivaramakrishnan, K.G.** 1992. Species concepts and speciation with special reference to sympatric speciation in Insects, *Biology Eduaction* 9 (4): 265-276.
11. **Sivaramakrishnan, K. G.** 1993. Trichoptera – A study in biological diversity, *Hexapoda*. 5 (2): 173-181.
12. Subramanian, K. A. and **Sivaramakrishnan, K. G.** 2002. Conservation of odonate fauna in Western Ghats – A biogeographic perspective. Pp 11-22. In: Sanjayan, K.P., Mahalingam, V., and Murlairangan. M C. (Eds.) 2002. Vistas of Entomological Research for the New Millennium, G.S. Gill Research Institute, Guru Nanak College, Chennai – 600 042. 178 pp.
13. **Sivaramakrishnan, K. G.,** Arunachalam, M., Raja, M and Ilango, K. 2007, Attenuated Entomofaunal Diversity of the hill streams of Eastern Ghats: Causes and consequences. 298-304. In: Baquer, S.H., Sivaramakrishna, I., Bhaheshu, L. M. And Sudhakar Reddy, C. Proceedings of National seminar on Conservation of Eastern Ghats. Environmental Protection Training and Research Institute (EPTRI), ENVIS Centre of Eastern Ghats, Hyderabad-500 032. 477pp.

14. **Sivaramakrishnan, K. G.**, Arunachalam, M., Raja, M. 2008. Impact of global warming and climate change on aquatic insects including vector species – A global perspective. Proceedings of the 2nd Conference on Medical Arthropodology; Climate change & Vector borne diseases; Centre for Research in Medical Entomology (CRME), Madurai, 1-15pp.
15. **Sivaramakrishnan, K. G.** and Selva Kumar, C. 2011. Insect Biodiversity and Climate change: Detected patterns, future trends and implications for conservation. *Proceedings of the National level conference on Climate change, Biodiversity and Conservation*. Edited by Rajkumar, S. D., Samuel, C. O. & Lal, J. K. Gayathri Technological Publication, Palayamkottai, India. 93-106pp.
16. **Sivaramakrishnan, K. G.** and Selva Kumar, C. Insect biodiversity and climate change: an overview. *Symposium Proceeding: "Biodiversity status and conservation strategies with special reference to NE India"* Published by CAS in Life Sciences, Manipur University. ISBN: 978-81-923343-1-8. 141-151pp.
17. Selvakumar, C., Arunachalam, M., Janarthanan, S. and **Sivaramakrishnan, K. G.** Altitudinal, latitudinal and habitat diversity profiles of Ephemeroptera in river basins of KMTR, southern Western Ghats. A Florilegium of Research Studies in KMTR, published by Tamil Nadu Forest Department, 191-201.

Field Guide:

1. **Sivaramakrishnan, K. G.**, Madhyastha, N. A and Subramanian, K. A. 1998. Field guide to aquatic macroinvertebrates Project Life scape. Developed for Western Ghats, Biodiversity monitoring Network, Centre for Ecological Sciences, Indian Institute of Science, Bangalore. 67 pp.
2. Subramanian, K.A. and **Sivaramakrishnan, K. G.** Aquatic Insects of India-A fieldguide. Ashoka Trust for Research in Ecology and Environment (ATREE), Bangalore, India. 62pp.

Research Reports:

National:

1. Subramanian, K.A. and **Sivaramakrishnan, K. G.** 2000. Aquatic Macroinvertebrates and Water Birds at Thattekkad Bird Sanctuary, Kerala. A preliminary study. A report submitted to Wildlife Warder, Kerala Forest Department, Idukki circle, Kerala.

International:

1. Smakhtin, V., Arunachalam, M., Behera, S., Chatteyee, A., Dar, S., Gautam, P., Joshi, G.D., **Sivaramakrishnan, K. G.** and Unni, K. S. 2007. Developing procedures for assessment of ecological status of Indian river basins in the contest of environmental water requirements, Colombo, Sri Lanka: International Water management Institute 40p. (IWMI Reasearch Report 114).

E-books:

- Subramanian, K.A. and **Sivaramakrishnan, K. G.** Biomonitoring of freshwater systems – A methodology manual (Funding ATREE Small Grants Programme, 2005).

- **Sivaramakrishnan, K. G.**, Subramanian, K. A., Ramamoorthy, V.V., Sharma, R. M and Kailash Chandra 2009. Checklist of Ephemeroptera of India. E-publication, Zoological Survey, SI, Calcutta.

Books published:

1. Ananthakrishnan, T. N. and **Sivaramakrishnan, K. G.** 2006 Animal Biodiversity: patterns and processes. Scientific Publishers (India), Jodhpur, 264 pp.
2. Ananthakrishnan, T. N. and **Sivaramakrishnan, K. G.** 2008 Ecological entomology: Insects life in odd environments (Hardcover). Scientific publishers (India), Jodhpur, 142 pp.

Books Edited:

1. Ananthakrishnan, T. N. and **Sivaramakrishnan, K. G.** 2012 Dynamics of Insect behaviour. Scientific publishers (India), Jodhpur, 212pp.

EDUCATION

B.Sc.,-Zoology

M.Sc.,- Zoology

Ph.D.,-Zoology

