

SENTHIL-NATHAN, SENGOTTAYAN

Professor and Head
 Director (Planning and Development)
 Principal Investigator
 Sri Paramakalyani Centre for Excellence in Environmental Sciences,
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 Telefax: + 91 4634 210166 Academic media- [Google Scholar \(H-index 45\)](#), [Researchgate](#)

**EDUCATION**

Ph D	Animal Science-Biopesticides/Insect Toxicology, (Bharathiar University, 2000, Coimbatore, TN, India)
M Phil	Animal Science, 1995 (Insect Biodiversity)
M Sc	Zoology, 1994
B Sc	Zoology, 1992 (Ancillary Chemistry and Botany)

PROFESSIONAL RESEARCH POSITIONS

Professor and Head (2022 - Present) Professor (2017 -present) Associate Professor (2014-16) Assistant Professor (2007-14)	Sri Paramakalyani Centre for Excellence in Environmental Sciences, Manonmaniam Sundaranar University, Tamil Nadu.
Visiting Professor (2011-2012)	Louisiana State University Agricultural Center, Baton Rouge, USA (Host Supervisor-Dr. M.J. Stout)
Research Scientist (2006-2007)	Plant Environment Division, Honam Agricultural Research Institute, Republic of Korea (Adviser-Dr. M. Y. Choi)
Post-Doctoral Research Scientist (2003-2006)	Department of Environmental Engineering, Chonbuk National University, Republic of Korea (Adviser-Dr. P. G. Chung)
Assistant Professor (2000-2003)	Post Graduate and Research Department of Biotechnology, Vivekanandha College, Periyar University Tamil Nadu, India
Ph.D. student (1995-1999)	Bharathiar University, Coimbatore TN (Adviser-Dr. K. Murugan)

HONORS, AWARDS AND FELLOWSHIPS

2021	Fellow in the Academy of Sciences, The Academy of Sciences, Chennai.
2011-2012	BOYSCAST Fellow -DST Govt. of India (Louisiana State University, Baton Rouge, USA).
2010	Young Scientist award under Fast Track-DST, Govt. of India
2009	Young Scientist award under RGYI-DBT, Govt. of India
2004	CBNU-International Post-Doctoral Fellowship, Korea
2002, 2003	Best faculty award, VICAS, Periyar University
1994	Best outgoing student at Post Graduate level, Bharathiar University

SYNERGISTIC ACTIVITIES AND PROFESSIONAL POSITIONS

a. Administrative

- Subject Expert, Project Assistant Selection Committee for SERB-CRG Project(03.06.2022)
- Chairperson, Inspection Committee, Merit Arts and Science (Co-education) College, Idaikal (02.06.2022)
- Higher Education Expert - Professor, Principal Selection Committee, Thiruvalluvar College, Papanasam, Vickramasingapuram(30.05.2022)
- Director, Planning and Development Section (2021), Manonmaniam Sundaranar University.
- Member, Core Committee, Central Sophisticated Instrument facility, Manonmaniam Sundaranar University (2019-till date)
- Verifier in the Annual Stock Verification Committee to conduct the physical verification in the department of MSUCC, Kadayanallur (24.01.2022)
- Verifier in the Annual Stock Verification Committee to conduct the physical verification in the department of Bharathi Archives, Ettayapuram (19.01.2022)
- Member of Technical Support Group in the category “Expert in Environment Science” (2021) to assist the Biodiversity Management Committee, Tirunelveli District.
- Member of Atal Ranking of Institutions on Innovation Achievements (ARIIA)2021
- Head- In-charge (2014), Sri Paramakalyani Centre for Excellence in Environmental Sciences, MSU, Alwarkurichi 627 412, Tamil- Nadu.
- Member Syndicate - Manonmaniam Sundaranar University, 2017-2018
- Member, Disciplinary Action Panel, Manonmaniam Sundaranar University, 2016- till date, MSU
- Member, NAAC core committee, 2018 to till date, MSU
- Head- In-charge (2002-03), Post Graduate and Research Department of Biotechnology, Vivekandha College, (Periyar University) Trichengode, Tamil-Nadu.

b. Academic and Scientific Societal Service

- Editor-in-Chief - [Journal of Natural Pesticide Research](#) (Elsevier Inc.) (2021-till date)
- Senior Editor -[Physiological and Molecular Plant Pathology](#) (Elsevier Inc.) (2021-till date)
- Section Editor-[Toxin Reviews](#) (Taylor and Francis) (2021-till date)
- Editor-[Biocatalysis and Agricultural Biotechnology](#) (Elsevier Inc.) (2017-till date)
- Subject Editor-[Nature- Scientific Reports](#) (Nature Inc) (2012-till date)
- Academic Editor- [Plos One](#) (Plos.Org) (2019-till date)
- Associate Editor- [Chemical and Biological Technologies in Agriculture](#) (Springer) (2018-till date)
- Associate Editor-[Phytoparasitica](#) (Springer) (2021-till date)
- Associate Editor- [Neotropical Entomology](#) (Springer) (2019-till date)
- Associate Editor – [Toxicology Reports](#) (Elsevier Inc) (2018-2021)
- Associate Editor-[Frontiers in Invertebrate Physiology](#) (Frontiers Publisher) (2013-till date)
- Associate Editor-[International Journal of Pest Management](#)(Taylor and Francis) (2015-till date)
- Associate Editor-[Archives of Phytopathology and Plant Protection](#) (Taylor and Francis) (2013-till date)
- Associate Editor [Florida Entomologist](#) (www.ufl.edu/)(2013-till date)
- Editorial Board Member- [Pesticide Biochemistry and Physiology](#) (Elsevier Inc.) (2021 to till date)
- Editorial board member – [Current Research in Insect Science](#) (Elsevier Inc.) (2021-till date)
- Editorial Board Member-[Journal of Asia-Pacific Entomology](#) (Elsevier Inc.) (2013-till date)
- Editorial Board Member- [Biologia](#) (Springer) (2015-till date)

- Editorial Board Member-[Biopesticide International](http://Biopesticide.org) (Biopesticide.org) (2014-till date)
- Editorial Board Member -Journal of Applied Research in Plant Protection (2020 -till date)
- Guest Editor-MDPI-Agriculture, Journal of Fungi, International Journal of Environmental Research and Public Health,
- *Ad-hoc* and panel reviewer for DST-SERB, DBT, ICMR, NSF, CSF.

c. Academic Programming

- MANO Environmental club organizing committee (member), 2015 - till date
- Stakeholder-Thamiraparani River conservation, Southern Western Ghats, 2009 - till date.
- Co-Convener, National Conference Global Climatic Change and Mitigation, SPKCEES, 2017.
- Co-Convener, National Conference Environmental Science and Technology, SPKCEES, 2017.
- Organizing Secretary, National seminar - '**Impact of Climate Change on Environment and Biodiversity (NCCEB - 2015)**', SPKCEES, 2015.
- Member, National advisory committee for the international conference (Member)- '**Ecofriendly Plant Protection and production for Food Security, Food Safety and the role of Biopesticides in Global Economy**, 4th Biopesticide International Conference, Crop Protection Research Centre, St. Xavier's College Palayamkottai, 2013.
- Member, National advisory committee for the international conference (Member)-'**Third International Congress on Global Warming on Biodiversity of Insects: Management and Conservation Strategies**' (GW-BIMC, '13)', Bharathiar University, 2013.
- Organizing committee member, National conference- '**Environ Nano-2011**' (UGC sponsored) 2011.
- National advisory committee for the national conference (Member) - '**Impact of Climate Change on the Biodiversity of Insects and Environment**', Organized by the Department of Zoology, Bharathiar University, Coimbatore, 2010.
- Organizing committee, National conference sponsored by the UGC (member) - '**Environ Nano-2010**', 2010.
- Organizing committee, State level conference on River Ecosystems and Climatic Change, SPKCEES, Alwarkurichi, 2010.
- National advisory committee (member) - '**Biopesticide International Conference (BIOCICON-2009)**' 'Crop Protection Research Centre, St. Xavier's College Palayamkottai, 2009.
- National advisory committee (member) - '**International Congress of Global Warming on Biodiversity of Insects: Management and Conservation**' at Bharathiar University, Coimbatore, India, 2009.
- International advisory committee International Conference (member) - '**Biodiversity of insects: Challenging Issue in management and conservation**' at Bharathiar University, Coimbatore, India, 2006.
- National advisory committee for National Conference (Member) - "**Recent Trends Insect Control**", Bharathiar University, 2003.
- Organizing committee member - '**National Seminar on Biotechnology in the new Millennium**' at Vivekanandha College, Elaympalayam, TN, 2002.

d. Recruitment

- Qualification approval committee (member), 2010 - till date
- Assistant Professor Recruitment panel (member) - 2015 and 2016
- Assistant Professor Recruitment panel (member) - 2015 to till date (VOC college)
- Department of Animal Science, Manonmaniam Sundaranar University
- Department of Biotechnology, Manonmaniam Sundaranar University
- Department of Environmental Science, Manonmaniam Sundaranar University

e. Infrastructure

- Chairperson, SPKCEES Plant Science Growth Chamber Committee, 2009 - present.
- Chairperson, SPKCEES Insect culture facility, 2009-present.
- SPKCEES Greenhouse Committee (Member), 2012-present.

- SPKCEES Animal house Committee (Member), 2012-present.
- Strategic Planning Committee (Member) for climate change studies, 2009 -present.
- Co-ordinator, SPKCEES sophisticated instrument facility, 2018 - present.
- Campus infrastructure development committee, RUSA (member), 2017 – present

f. Academic

- Chairman- Board of studies, Environmental Sciences, Manonmaniam Sundaranar University
- Chairman- Board of studies, Environmental Sciences for colleges, Manonmaniam Sundaranar University
- Member, Board of studies, Department of Zoology, Manonmaniam Sundaranar University
- Member, Board of studies, Department of Zoology, Sri Parsakthi College for Women, Courtallam (2018-2021)
- Question paper setter - M.Phil. and M.Sc., - Zoology, Environmental Science, Insecticide Toxicology, Biotechnology; Sri Sankara Arts and Science college, Periyar University, Bharathiar University, Bharathidasan University, University of Calicut.
- Doctoral thesis evaluation panel member – Department of Zoology, Bharathiar University, Bharathidasan University, Calicut University; Department of Biotechnology -Periyar University.
- Doctoral Committee (member) - Research Scholars of Periyar University, Bharathidasan University, Madurai Kamaraj University, Karpagam University.
- External examiner, Ph. D viva-voce - Scholars of Periyar University, Bharathidasan University, University of Calicut and Thiruvalluvar University.
- External Member, Graduate Research dissertation, Anna University, Chennai
- Member, Board of studies, Department of Zoology, St. Xavier's College, Palayamkottai
- Member board of studies, SPKCEES, MS University, Alwarkurichi

g. Funding Agency Advisory

- Czech Science Foundation, Czech Republic.
- Department of Biotechnology, Government of India.
- Department of Science and Technology, Government of India
- Council of Scientific and Industrial Research, Government of India
- Indian Council of Agricultural Research, Government of India
- Ministry of Environment and Forests, Government of India

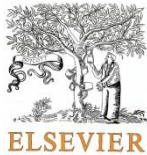
h. Development

- Honorary observer, NAAC peer team visit - Nanjil Catholic College of Arts and Science, Kanyakumari, 2017.
- Inspection Committee (member) - Constitution colleges of Manonmaniam Sundaranar University, 2017-2018
- Mentor, College development council - M.S. University Constituent college, Sathankulam, 2017
- Convener and Subject expert, Inspection Commission - Department of Zoology, Muslim Arts College, Thiruvithancode, 2017.
- Convener, Inspection Committee - Diploma in Human Care Services, Zion trust, Madurai, 2018
- Chair Person, Inspection Commission - Thiruvalluvar college, Papanasam, 2017
- Convener, Inspection Commission - ELP Centre, Diploma in Siddha Human Care, Sigaram Foundation, Kallidaikurichi, 2018.
- Convener, Inspection Commission - ELP Centre, Diploma in Human care, Subam Education Trust, Dindigul, 2019.
- Convener and Subject Expert, Diploma in Human care and Diploma in Biochemical Microbial Technology, Annai Indragandhi ELP centre, Thoothukudi, 2019.

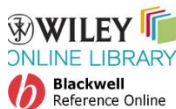
i. International Association

- Non-funded cooperative agreement - United States Department of Agriculture, Agriculture Research Service, Fort Pierce Florida, 2018.
- Member, International Society for Pest Information (ISPI), Darmstadt, Germany.
- Member, International Commission for Plant – Bee relationship, France.
- Member, The Science Advisory Board, USA.
- Member, Indian Entomological Society
- Member, Entomological Society of Korea
- Member, Weed Science Society
- Member, Orthopterists' Society
- Member, Indian Association of Invertebrate Reproduction
- Member, Society of Biopesticide Sciences
- Member PGPR, USA

Ad-Hoc Referee for Peer-Review Journals



Acta Tropica
Asian Pacific Journal of Tropical Medicine
Arabian Journal of Chemistry
Biological Control
Bioresource Technology
Chemical and Biological Technologies in Agriculture,
Chemosphere
Colloids and Surfaces B: Biointerfaces
Crop Protection
Ecotoxicology and Environmental Safety
Experimental Parasitology
Genomics
Journal of Ethnopharmacology
Journal of Hazardous Materials
Microbial Pathogenesis
Pesticide Biochemistry and Physiology
Phytochemistry
Phytomedicine
Soil and Tillage Research
Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Materials
Research Bulletin
Toxicology
Toxicon



Archives of Insect Biochemistry and Physiology
Agriculture and Forest Entomology
Entomologia Experimentalis et Applicata
Entomological Research
Journal of Applied Entomology
Journal of Applied Microbiology
Journal of Microscopy
Letters in Applied Microbiology
Journal of Vector Ecology
Pest Management Science



Taylor & Francis
Taylor & Francis Group

Natural Product Research, Toxin Reviews, Biocontrol Science and Technology,
3Biotech

Applied Biochemistry and Biotechnology

Biocontrol



Biologia

Ecotoxicology

Environmental Science and Pollution Research

European Journal of Plant Pathology

International Journal of Peptide Research and Therapeutics

Integrated Pest Management Reviews

Journal of Parasitic Diseases

Parasitology Research

Journal of Pest Science

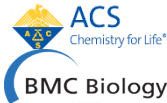
Journal of Plant Growth Regulator

Probiotics and Antimicrobial Proteins

Proteome Science

Environmental Monitoring Assessment

Waste and Biomass Valorization



BMC Biology



Brazilian Archives of Biology and Technology

Cellular and Molecular Biology

Indian Journal of Experimental Biology

International Journal of Green Pharmacy

Invertebrate Survival Journal

Journal of Agricultural and Food Chemistry

Journal of Economic Entomology

Journal of Insect Science

Journal of Plant Protection Research

Microscopy and Microanalysis

Nano-Bio Science

Plos One

Physiological Entomology

Rice Science

African Journal of Agricultural Research



Animals, Agriculture, Agronomy, Forests, Insects, Journal of Fungi, International

Journal of Environmental Research and Public Health, Molecules,



International Journal of Tropical Insect Science

PEER REVIEWED PUBLICATIONS

List of Publications: Total Citations: **6066** Total Impact Factors of published papers: **543.905** Average impact of published paper: **3.65**; **H index:** **45**

1. Kamaraj, C., Rahman, M., Md. Guilherme M., Karthi, S., **Senthil-Nathan, S.**, 2022. Green synthesis of gold nanoparticles using *Gracilaria crassa* leaf extract and their ecotoxicological potential: Issue to be consider **Environmental Research**, doi: 10.1016/j.envres.2022.113711, (IF-6.498).
2. Annamalai, M., Guru-Pirasanna-Pandi, G., Chellapandiyan, M., Adak, T., Basana-Gowda, G., Patil, N., Rath, P.C. and **Senthil-Nathan, S.**, 2022. Silica Amendment Enhances Resistance of Rice to Yellow Stem Borer *Scirpophaga Incertulas* (Walker) with no Detrimental Effect on Non-target Organism *Eisenia fetida* (Savigny). **Silicon**, pp.1-11. (IF-2.67)
3. Loganathan, S., Selvam, K., Padmavathi, G., Shivakumar, M.S., **Senthil-Nathan, S***, Gounder, S.A., Ali, M.A. and Almutairi, S.M., 2022. Biological synthesis and characterization of *Passiflora subpeltata ortega* aqueous leaf extract in silver nanoparticles and their evaluation of antibacterial, antioxidant, anti-cancer and larvicidal activities. **Journal of King Saud University-Science**, p.101846.(IF-4.011)
4. Murali-Baskaran, R.K., Mooventhan, P., Das, D., Dixit, A., Sharma, K.C., **Senthil-Nathan, S.**, Kaushal, P. and Ghosh, P.K., 2022. The Future of Plant Volatile Organic Compounds (pVOCs) Research: Advances and Applications for Sustainable Agriculture. **Environmental and Experimental Botany**, p.104912. (IF-5.545)
5. Sivasakthi, V., Selvam, K., Prakash, P., Shivakumar, M.S. and **Senthil-Nathan, S***, 2022. Characterization of silver nanoparticles using *Ixora brachiata* Roxb. and its biological application. **Current Research in Green and Sustainable Chemistry**, p.100257. (IF-1.457).
6. Subaharan, K., Senthamarai Selvan, P., Subramanya, T.M., Senthoorraja, R., Manjunath, S., Das, T., Pragadheesh, V.S., Bakthavatsalam, N., Mohan, M.G., **Senthil-Nathan, S*** and Uragayala, S., 2022. Ultrasound-assisted nanoemulsion of *Trachyspermum ammi* essential oil and its constituent thymol on toxicity and biochemical aspect of *Aedes aegypti*. **Environmental Science and Pollution Research**, pp.1-12. (IF-4.223)
7. Velavan, V., Dhanapal, R., Ramkumar, G., Karthi, S., **Senthil-Nathan, S***, Ndomba, O.A. and Kweka, E.J., 2022. Characterization and Evaluation of *Metarhizium spp.*(Metsch.) Sorokin Isolates for Their Temperature Tolerance. **Journal of Fungi**, 8(1), p.68. (IF-5.816)
8. Sujithra, M., Prathibha, H. V., Rajkumar, M., Guru-Pirasanna-Pandi, G., **Senthil-Nathan, S*** and Hegde, V. (2021). Entomopathogenic Potential of *Simplicillium lanosoniveum* Native Strain in Suppressing Invasive Whitefly, *Aleurodicus rugioperculatus* Martin (Hemiptera: Aleyrodidae), Infesting Coconut. **Journal of Fungi**, 7(11), 964.(IF-5.266)
9. Ramkumar, G., Asokan, R., Prasannakumar, N.R., Kariyanna, B., Karthi, S., Alwahibi, M.S., Elshikh, M.S., Abdel-Megeed, A., Ghaith, A., **Senthil-Nathan, S*** and Kalaivani, K., 2021. RNA Interference Suppression of v-ATPase B and juvenile hormone binding protein genes through topically applied dsrna on tomato leaves: developing biopesticides to control the south American pinworm, *Tuta absoluta* (Lepidoptera: Gelechiidae). **Frontiers in Physiology**, 12, 742871-742871. (IF-4.56).
10. Stanley-Raja, V., **Senthil-Nathan, S***, Chanthini, K.M.P., Sivanesh, H., Ramasubramanian, R., Karthi, S., Shyam-Sundar, N., Vasantha-Srinivasan, P. and Kalaivani, K., 2021. Biological activity of chitosan inducing resistance efficiency of rice (*Oryza sativa* L.) after treatment with fungal based chitosan. **Scientific Reports**, 11(1), pp.1-15. (IF-4.379)
11. Chellappandian, M., **Senthil-Nathan, S***, Karthi, S., Vasantha-Srinivasan, P., Kalaivani, K., Hunter, W.B., Ali, A.M., Veerabahu, C., Elshikh, M.S. and Al Farraj, D.A., 2021. Larvicidal and repellent activity of N-methyl-1-adamantylamine and oleic acid a major derivative of bael tree ethanol leaf extracts against dengue mosquito vector and their biosafety on natural predator. **Environmental Science and Pollution Research**, pp.1-10. (IF-4.223)
12. Shyam-Sundar, N., Karthi, S., Sivanesh, H., Stanley-Raja, V., Chanthini, K.M.P., Ramasubramanian, R., Ramkumar, G., Ponsankar, A., Narayanan, K.R., **Senthil-Nathan, S***, Vasantha-Srinivasan, P. and Alkahtani, J., 2021. Efficacy of Precocene I from *Desmosstachya bipinnata* as an Effective

- Bioactive Molecules against the *Spodoptera litura* Fab. and Its Impact on *Eisenia fetida* Savigny. **Molecules**, 26(21), p.6384. (IF-4.148)
13. Edwin, E.S., Vasantha-Srinivasan, P., **Senthil-Nathan, S***, Chellappandian, M., Karthi, S., Narayanaswamy, R., Stanley-Raja, V., Sivanesh, H., Ramasubramanian, R., Al-Huqail, A.A. and Khan, F., 2021. Toxicity of Bioactive Molecule Andrographolide against *Spodoptera litura* Fab and Its Binding Potential with Detoxifying Enzyme Cytochrome P450. **Molecules**, 26(19), p.5982. (IF-4.148)
 14. Chanthini, K.M.P., **Senthil-Nathan, S***, Stanley-Raja, V., Karthi, S., Sivanesh, H., Ramasubramanian, R., Abdel-Megeed, A., Maghraby, D.M.E., Ghaith, A., Alwahibi, M.S. and Elshikh, M.S., 2021. Biologically active toxin from macroalgae *Chaetomorpha antennina* Bory, against the lepidopteran *Spodoptera litura* Fab. and evaluation of toxicity to earthworm, *Eudrilus eugeniae* Kinb. **Chemical and Biological Technologies in Agriculture**, 8(1), pp.1-15. (IF-2.642)
 15. Amala, K., Karthi, S., Ganesan, R., Radhakrishnan, N., Srinivasan, K., Mostafa, A.E.Z., Al-Ghamdi, A.A., Alkahtani, J., Elshikh, M.S., **Senthil-Nathan, S*** and Vasantha-Srinivasan, P., 2021. Bioefficacy of *Epaltes divaricata* (L.) n-Hexane Extracts and Their Major Metabolites against the Lepidopteran Pests *Spodoptera litura* (fab.) and Dengue Mosquito *Aedes aegypti* (Linn.). **Molecules**, 26(12), p.3695. (IF4.148-)
 16. Narayanan, M., Divya, S., Natarajan, D., **Senthil-Nathan, S***, Kandasamy, S., Chinnathambi, A., Alahmadi, T.A. and Pugazhendhi, A., 2021. Green synthesis of silver nanoparticles from aqueous extract of *Ctenolepis garcini* L. and assess their possible biological applications. **Process Biochemistry**, 107, pp.91-99. (IF-3.757)
 17. Senthoorraja, R., Subaharan, K., Manjunath, S., Pragadheesh, V.S., Bakthavatsalam, N., Mohan, M.G., **Senthil-Nathan, S***, and Basavarajappa, S., 2021. Electrophysiological, behavioural and biochemical effect of *Ocimum basilicum* oil and its constituents methyl chavicol and linalool on *Musca domestica* L. **Environmental Science and Pollution Research**, pp.1-14. (IF-4.223)
 18. Sivanesh, H., Shyam Sundar, N., **Senthil-Nathan, S***, Stanley-Raja, V., Ramasubramanian, R., Karthi, S., Chanthini, K.M.P., Almoallim, H.S.M. and Alharbi, S.A., 2021. Toxicity of Suaeda *maritima* (L) against the *Scirpophaga incertulas* (W) and *Xanthomonas oryzae* pv. *oryzae* (Xoo) disease and its non-target effect on earthworm, *Eisenia fetida* Savigny. **Toxin Reviews**, pp.1-11. (IF-4.266)
 19. **Senthil-Nathan, S***. (2021). Effects of elevated CO₂ on resistant and susceptible rice cultivar and its primary host, brown planthopper (BPH), *Nilaparvata lugens* (Stål). **Scientific Reports**, 11(1), 1-15. (IF-4.379)
 20. Ramasamy, K., Dhavamani, S., Natesan, G., Sengodan, K., **Senthil-Nathan, S***, Tiwari, M., Vikram, S.S. and Perumal, V., 2021. A potential role of green engineered TiO₂ nanocatalyst towards enhanced photocatalytic and biomedical applications. **Environmental Science and Pollution Research**, pp.1-17. (IF-4.223)
 21. Subaharan, K., Senthoorraja, R., Manjunath, S., Thimmegowda, G.G., Pragadheesh, V.S., Bakthavatsalam, N., Mohan, M.G., **Senthil-Nathan, S***, David, K.J., Basavarajappa, S. and Ballal, C., 2021. Toxicity, behavioural and biochemical effect of *Piper betle* L. essential oil and its constituents against housefly, *Musca domestica* L. **Pesticide Biochemistry and Physiology**, 174, p.104804. (IF-3.963)
 22. Ramasamy, V., Karthi, S., Ganesan, R., Prakash, P., **Senthil-Nathan, S***, Umavathi, S., Krutmuang, P. and Vasantha-Srinivasan, P., 2021. Chemical characterization of billy goat weed extracts *Ageratum conyzoides* (Asteraceae) and their mosquitocidal activity against three blood-sucking pests and their non-toxicity against aquatic predators. **Environmental Science and Pollution Research**, 28(22), pp.28456-28469. (IF-4.223)
 23. Loganathan, S., Selvam, K., Sivasakthi, V., Prakash, P., Yamuna, M., Lalitha, K., Shivakumar, M.S. and **Senthil Nathan, S***, 2021. Phytochemical and Pharmacological Evaluation of Methanolic Extract of *Knoxia sumatrensis* Leaves. **Journal of Herbs, Spices and Medicinal Plants**, 27(2), pp.200-217. (IF-0.909)
 24. Vasantha-Srinivasan, P., Karthi, S., Ganesan, R., **Senthil-Nathan, S***, Krutmuang, P., Chellappandian, M., Radhakrishnan, N., Ponsankar, A., Karthick, K. and Nelofer, A.R., 2021. The

- efficacy of methanolic extract of *Swietenia mahagoni* Jacq.(Meliaceae) and a commercial insecticide against laboratory and field strains of *Aedes aegypti* (Linn.) and their impact on its predator *Toxorhynchites splendens*. **Biocatalysis and Agricultural Biotechnology**, 31, p.101915. (IF-3.281)
25. Loganathan, S., Shivakumar, M.S., Karthi, S., **Senthil-Nathan, S***, and Selvam, K., 2021. Metal oxide nanoparticle synthesis (ZnO-NPs) of *Knoxia sumatrensis* (Retz.) DC. Aqueous leaf extract and It's evaluation of their antioxidant, anti-proliferative and larvicidal activities. **Toxicology Reports**, 8, pp.64-72. (IF-4.807)
 26. Shyam-Sundar, N., Sivanesh, H., Karthi, S., Thanigaivel, A., Stanley-Raja, V., Chanthini, K.M.P., Ramasubramanian, R., Narayanan, K.R. and **Senthil-Nathan, S***. 2021. Developmental response of *Spodoptera litura* Fab in response to plant extract of *Desmostachya bipinnata* (L.) and its effect on non-target organism, earthworm (*Eisenia fetida*). **Environmental Science and Pollution Research**, 28(7), pp.7870-7882. (IF-4.223)
 27. Murali-Baskaran, R. K., **Senthil-Nathan, S*** and Hunter, W. B. (2021). Anti-herbivore activity of soluble silicon for crop protection in agriculture: a review. **Environmental Science and Pollution Research**, 28(3), 2626-2637. (IF-4.223)
 28. Kalaivani, K., Maruthi-Kalaiselvi, M. and **Senthil-Nathan, S***, (2021). Seed treatment and foliar application of methyl salicylate (MeSA) as a defense mechanism in rice plants against the pathogenic bacterium, *Xanthomonas oryzae* pv. *oryzae*. **Pesticide Biochemistry and Physiology**, 171, 104718. (IF-3.963)
 29. Karthi, S., Vasantha-Srinivasan, P., Ganesan, R., Ramasamy, V., **Senthil-Nathan, S***, Khater, H.F., Radhakrishnan, N., Amala, K., Kim, T.J., El-Sheikh, M.A. and Krutmuang, P., 2020. Target activity of *isaria tenuipes* (Hypocreales: Clavicipitaceae) fungal strains against dengue vector *Aedes aegypti* (linn.) and its non-target activity against aquatic predators. **Journal of Fungi**, 6(4), p.196. (IF-5.266)
 30. Chellappandian, M., **Senthil-Nathan, S***, Vasantha-Srinivasan, P., Karthi, S., Kalaivani, K., Hunter, W.B., Ali, H.M., Salem, M.Z. and Abdel-Megeed, A., 2020. Volatile toxin of *Limonia acidissima* (L.) produced larvicidal, developmental, repellent, and adulticidal toxicity effects on *Aedes aegypti* (L.). **Toxin Reviews**, pp.1-15. (IF-4.266)
 31. Karthi, S., Panneerselvam, B., **Senthil-Nathan, S***, Vasantha-Srinivasan, P., Shivakumar, M. S., and Krutmuang, P. (2020). Functional identification and characterization of midgut microbial flora derived from lepidopteran larvae *Spodoptera litura* Fab. **Biocatalysis and Agricultural Biotechnology**, 28, 101758. (IF-3.281)
 32. Murali-Baskaran, R. K., **Senthil-Nathan, S***, and Hunter, W. B. (2020). Split release of egg parasitoid, *Trichogramma japonicum* Ashmead for biocontrol of rice yellow stem borer, *Scirpophaga incertulas* in Chhattisgarh plain of central India.." **Journal of Asia-Pacific Entomology** (IF-1.303)
 33. Amala, K., Ganesan, R., Karthi, S., **Senthil-Nathan, S***, Chellappandian, M., Krutmunag, P., Radhakrishnan, N., Mohammad, F., Ponsankar, A. and Vasantha-Srinivasan, P., 2020. Larval and gut enzyme toxicity of n-hexane extract *Epaltes pygmaea* DC. against the arthropod vectors and its non-toxicity against aquatic predator. **Toxin reviews**, pp.1-11. (IF-4.226)
 34. Yogarajalakshmi, P., Poonguzhali, T.V., Ganesan, R., Karthi, S., **Senthil-Nathan, S***, Krutmuang, P., Radhakrishnan, N., Mohammad, F., Kim, T.J. and Vasantha-Srinivasan, P., 2020. Toxicological screening of marine red algae *Champia parvula* (C. *Agardh*) against the dengue mosquito vector *Aedes aegypti* (Linn.) and its non-toxicity against three beneficial aquatic predators. **Aquatic Toxicology**, 222, p.105474.. (IF-4.964)
 35. Murali-Baskaran, R.K., Sridhar, J., Chander Sharma, K., Jain, L., **Senthil-Nathan, S***, Hunter, W.B., Kumar, J. and Kaushal, P., 2020. Kairomones effect on parasitic activity of *Trichogramma japonicum* against rice yellow stem borer, *Scirpophaga incertulas*. **Journal of Applied Entomology**, 144(5), pp.373-381. (IF-2.603)
 36. Sengodan, K., Manohar, V., Uthirarajan, K., Venkatesan, M., Ramachandran, S., Prabhakaran, V.S., Chinnaperumal, K., Shivakumar, M.S., Arumugam, V., Patcharin, K. and **Senthil-Nathan, S***, 2020. Biological effects of *Avicennia marina* (Forssk.) vierh. extracts on physiological, biochemical,

- and antimicrobial activities against three challenging mosquito vectors and microbial pathogens. **Environmental Science and Pollution Research**, 27(13), pp.15174-15187. (IF-4.223)
37. Senthil-Nathan, S*. (2020). A review of resistance mechanisms of synthetic insecticides and botanicals, phytochemicals, and essential oils as alternative larvicidal agents against mosquitoes. **Frontiers in physiology**, 10, 1591. (IF-4.566)and
 38. Sridhar, J., Kumar, K.K., Murali-Baskaran, R.K., Senthil-Nathan, S*, Sharma, S., Nagesh, M., Kaushal, P. and Kumar, J., 2020. Impact of Climate Change on Communities, Response and Migration of Insects, Nematodes, Vectors and Natural Enemies in Diverse Ecosystems. In *Global Climate Change: Resilient and Smart Agriculture* (pp. 69-93). Springer, Singapore.
 39. Ponsankar, A., Sahayaraj, K., Senthil-Nathan, S*, Vasantha-Srinivasan, P., Karthi, S., Thanigaivel, A., Petchidurai, G., Madasamy, M. and Hunter, W.B., 2020. Toxicity and developmental effect of cucurbitacin E from *Citrullus colocynthis* L.(Cucurbitales: Cucurbitaceae) against *Spodoptera litura* Fab. and a non-target earthworm *Eisenia fetida* Savigny. **Environmental Science and Pollution Research**, 27(19), pp.23390-23401. (IF-4.223)
 40. Manjula, P., Lalitha, K., Vengateswari, G., Patil, J., Senthil-Nathan, S*,and Shivakumar, M. S. (2020). Effect of *Manihot esculenta* (Crantz) leaf extracts on antioxidant and immune system of *Spodoptera litura* (Lepidoptera: Noctuidae). **Biocatalysis and Agricultural Biotechnology**, 23, 101476. (IF-3.281)
 41. Palanikani, R., Chanthini, K. M. P., Soranam, R., Thanigaivel, A., Karthi, S., Senthil-Nathan, S*,and Murugesan, A. G. (2020). Efficacy of *Andrographis paniculata* supplements induce a non-specific immune system against the pathogenicity of *Aeromonas hydrophila* infection in Indian major carp (*Labeo rohita*). **Environmental Science and Pollution Research**, 27(19), 23420-23436. (IF-4.223)
 42. Thanigaivel, A., Chanthini, K.M.P., Karthi, S., Vasantha-Srinivasan, P., Ponsankar, A., Sivanesh, H., Stanley-Raja, V., Shyam-Sundar, N., Narayanan, K.R. and Senthil-Nathan, S*, 2019. Toxic effect of essential oil and its compounds isolated from *Sphaeranthus amaranthoides* Burm. f. against dengue mosquito vector *Aedes aegypti* Linn. **Pesticide biochemistry and physiology**, 160, pp.163-170. (IF-3.963)
 43. Karthi, S., Senthil-Nathan, S*, Kalaivani, K., Vasantha-Srinivasan, P., Chellappandian, M., Thanigaivel, A., Ponsankar, A., Sivanesh, H., Stanley-Raja, V., Chanthini, K.M.P. and Shyam-Sundar, N., 2019. Comparative efficacy of two mycotoxins against *Spodoptera litura* Fab. And their non-target activity against *Eudrilus eugeniae* Kinb. **Ecotoxicology and environmental safety**, 183, p.109474. (IF-6.291)
 44. Senthil-Nathan, S*, 2019. Effect of methyl jasmonate (MeJA)-induced defenses in rice against the rice leaf folder *Cnaphalocrocis medinalis* (Guenée)(Lepidoptera: Pyralidae). **Pest management science**, 75(2), pp.460-465. (IF-4.845)
 45. Rajkumar, R., Shivakumar, M.S., Senthil-Nathan, S* and Selvam, K., 2019. Preparation and Characterization of Chitosan Nanocomposites Material Using Silver Nanoparticle Synthesized *Carmona retusa* (Vahl) Masam Leaf Extract for Antioxidant, Anti-cancerous and Insecticidal Application. **Journal of Cluster Science**, 30(4), pp.1145-1155. (IF-3.061)
 46. Chanthini, K.M.P., Stanley-Raja, V., Thanigaivel, A., Karthi, S., Palanikani, R., Shyam Sundar, N., Sivanesh, H., Soranam, R. and Senthil-Nathan, S*, 2019. Sustainable agronomic strategies for enhancing the yield and nutritional quality of wild tomato, *Solanum Lycopersicum* (l) var *Cerasiforme* Mill. **Agronomy**, 9(6), p.311. (IF-3.336)
 47. Chellappandian, M., Senthil-Nathan, S*, Vasantha-Srinivasan, P., Karthi, S., Thanigaivel, A., Kalaivani, K., Sivanesh, H., Stanley-Raja, V., Chanthini, K.M.P. and Shyam-Sundar, N., 2019. Target and non-target botanical pesticides effect of *Trichodesma indicum* (Linn) R. Br. and their chemical derivatives against the dengue vector, *Aedes aegypti* L. **Environmental Science and pollution research**, 26(16), pp.16303-16315. (IF-4.223)
 48. Chanthini, K.M.P., Senthil-Nathan, S*, Stanley-Raja, V., Thanigaivel, A., Karthi, S., Sivanesh, H., Sundar, N.S., Palanikani, R. and Soranam, R., 2019. *Chaetomorpha antennina* (Bory) Kützing derived seaweed liquid fertilizers as prospective bio-stimulant for *Lycopersicon esculentum* (Mill). **Biocatalysis and Agricultural Biotechnology**, 20, p.101190. (IF-3.281)

49. Chanthini, K.M.P., **Senthil-Nathan, S***, Soranam, R., Thanigaivel, A., Sreenath Kumar, C and Kingsley, S.J., 2019. Bacterial compounds, as biocontrol agent against early blight (*Alternaria solani*) and tobacco cut worm (*Spodoptera litura* Fab.) of tomato (*Lycopersicon esculentum* Mill.) **Archives of Phytopathology and Plant Protection**, 51(13-14), pp.729-753. doi: 10.1080/03235408.2018.1496525 (IF -0.74)
50. Vasantha-Srinivasan, P., Chellappandian, M., **Senthil-Nathan, S***, Ponsankar, A., Thanigaivel, A., Karthi, S., Edwin, E.S., Selin-Rani, S., Kalaivani, K., Maggi, F. and Benelli, G., 2019. A novel herbal product based on *Piper betle* and *Sphaeranthus indicus* essential oils: Toxicity, repellent activity and impact on detoxifying enzymes GST and CYP450 of *Aedes aegypti* Liston (Diptera: Culicidae). **Journal of Asia-Pacific Entomology**, 21(4), pp.1466-1472. (IF-1.303)
51. Kumar, K.K., Sridhar, J., Murali-Baskaran, R.K., **Senthil-Nathan, S***, Kaushal, P., Dara, S.K. and Arthurs, S., 2019. Microbial biopesticides for insect pest management in India: Current status and future prospects. **Journal of Invertebrate Pathology**, 165, 74-81 (IF-2.841)
52. Benelli, G., Pavela, R., Petrelli, R., Cappellacci, L., Canale, A., **Senthil-Nathan, S***, and Maggi, F., 2018. Not just popular spices! Essential oils from *Cuminum cyminum* and *Pimpinella anisum* are toxic to insect pests and vectors without affecting non-target invertebrates. **Industrial Crops and Products**, 124, pp.236-243. (IF-5.645)
53. Rajkumar, R., Shivakumar, M.S., **Senthil-Nathan, S***, and Selvam, K., 2018. Pharmacological and Larvicidal Potential of Green Synthesized Silver Nanoparticles Using *Carmona retusa* (Vahl) Masam Leaf Extract. **Journal of Cluster Science**, 29(6), pp.1243-1253. (IF- 3.061)
54. Kamaraj, C., Deepak, P., Balasubramani, G., Karthi, S., Arul, D., Aiswarya, D., Amutha, V., Vimalkumar, E., Mathivanan, D., Suseem, S.R., Chanthini, K.M.P and **Senthil-Nathan, S***, 2018. Target and non-target toxicity of fern extracts against mosquito vectors and beneficial aquatic organisms. **Ecotoxicology and Environmental Safety**, 161, pp.221-230. (IF-6.291)
55. Karthi, S., Vaideki, K., Shivakumar, M.S., Ponsankar, A., Thanigaivel, A., Chellappandian, M., Vasantha-Srinivasan, P., Chanthini, K.M.P., Hunter, W.B. and **Senthil-Nathan, S***, 2018. Effect of *Aspergillus flavus* on the mortality and activity of antioxidant enzymes of *Spodoptera litura* Fab. (Lepidoptera: Noctuidae) larvae. **Pesticide Biochemistry and Physiology**, 149, pp.54-60. (IF-3.963)
56. Dinesh-Kumar, A., Srimaan, E., Chellappandian, M., Vasantha-Srinivasan, P., Karthi, S., Thanigaivel, A., Ponsankar, A., Chanthini, K.M.P., Shyam-Sundar, N., Annamalai, M., Kalaivani, K. and **Senthil-Nathan, S***. 2018. Target and non-target response of *Swietenia Mahagoni* Jacq. chemical constituents against tobacco cutworm *Spodoptera litura* Fab. and earthworm, *Eudrilus eugeniae* Kinb. **Chemosphere**, 199, pp.35-43. (IF-7.086)
57. Chellappandian, M., Vasantha-Srinivasan, P., **Senthil-Nathan, S***, Karthi, S., Thanigaivel, A., Ponsankar, A., Kalaivani, K. and Hunter, W.B., 2018. Botanical essential oils and uses as mosquitocides and repellents against dengue. **Environment International**, 113, pp.214-230. (IF-9.621)
58. Vivekanandhan, P., Kavitha, T., Karthi, S., **Senthil-Nathan, S***, and Shivakumar, M.S., 2018. Toxicity of *Beauveria bassiana*-28 Mycelial Extracts on Larvae of *Culex quinquefasciatus* Mosquito (Diptera: Culicidae). **International Journal of Environmental Research and Public Health**, 15(3), p.440. (IF-3.364)
59. Vivekanandhan, P., Venkatesan, R., Ramkumar, G., Karthi, S., **Senthil-Nathan, S*** and Shivakumar, M.S., 2018. Comparative Analysis of Major Mosquito Vectors Response to Seed-Derived Essential Oil and Seed Pod-Derived Extract from *Acacia nilotica*. **International Journal of Environmental Research and Public Health**, 15(2), p.388. (IF-3.364)
60. **Senthil-Nathan, S***, 2018. Natural pesticide research (Editorial) **Physiological and Molecular Plant Pathology**, (IF-2.747)
61. Murugan, K., Jaganathan, A., Rajaganesh, R., Suresh, U., Madhavan, J., **Senthil-Nathan, S***, Rajasekar, A., Higuchi, A., Kumar, S.S., Alarfaj, A.A. and Nicoletti, M., 2018. Poly (Styrene Sulfonate)/Poly (Allylamine Hydrochloride) Encapsulation of TiO₂ Nanoparticles Boosts Their Toxic and Repellent Activity Against Zika Virus Mosquito Vectors. **Journal of Cluster Science**, 29(1), pp.27-39. (IF-3.061)

62. Annamalai, M., Annamalai, V.S., Chellappandian, T., Sengodan, M., Mayabini, K., Pirasanna, J.G.G., Totan, P and **Senthil-Nathan, S***. (2017). Effect of thiamethoxam on growth, biomass of rice varieties and its specialized herbivore, *Scirpophaga incertulas* Walker. **Physiological and Molecular Plant Pathology**, 101, pp. 146-155. (IF-2.747)
63. Murali-Baskaran, R.K., **Senthil-Nathan, S***, Mankin, R.W. and Suresh, K., 2017. Kairomone activity of okra, *Abelmoschus esculentus* (L.) Moench genotypes on lepidopteran pests and their entomophages. **Physiological and Molecular Plant Pathology**, 101, pp.29-37(IF-2.747).
64. Annamalai, M., Vasantha-Srinivasan, P., Thanigaivel, A., Muthiah, C., Karthi, S., Jena, M., Pandi, G.G.P., Adak, T. and **Senthil-Nathan, S***, 2017. Effect of thiamethoxam on growth, biomass of rice varieties and its specialized herbivore, *Scirpophaga incertulas* Walker. **Physiological and Molecular Plant Pathology**, 101, pp.146-155. (IF-2.747)
65. Chandrasekaran, R., Revathi, K., **Senthil-Nathan, S***, Kalaivani, K., Hunter, W.B., Duraipandiyar, V., Al-Dhabi, N.A. and Esmail, G.A., 2017. Eco-friendly formulation of wild *Bacillus thuringiensis* secondary metabolites through molecular characterization against the lepidopteran pest. **Physiological and Molecular Plant Pathology**, 101, pp.93-104. (IF-2.747)
66. Dhivya, K., Vengateswari, G., Arunthirumeni, M., Karthi, S., **Senthil-Nathan, S***, and Shivakumar, M.S., 2017. Bioprospecting of *Prosopis juliflora* (Sw.) DC seed pod extract effect on antioxidant and immune system of *Spodoptera litura* (Lepidoptera: Noctuidae). **Physiological and Molecular Plant Pathology**, 101 (2018): 45-53. (IF-2.747)
67. Vasantha-Srinivasan, P., Thanigaivel, A., Edwin, E.S., Ponsankar, A., **Senthil-Nathan, S***, Selin-Rani, S., Kalaivani, K., Hunter, W.B., Duraipandiyar, V. and Al-Dhabi, N.A., 2017. Toxicological effects of chemical constituents from Piper against the environmental burden *Aedes aegypti* Liston and their impact on non-target toxicity evaluation against biomonitoring aquatic insects. **Environmental Science and Pollution Research**, pp.1-13. (IF-4.223)
68. Murali-Baskaran, R.K., Sharma, K.C., Kaushal, P., Kumar, J., Parthiban, P., **Senthil-Nathan, S*** and Mankin, R.W., 2017. Role of kairomone in biological control of crop pests-A review. **Physiological and Molecular Plant Pathology**, 101 (2018): 3-15. (IF- 2.747)
69. Kalaivani, K., Kalaiselvi, M.M. and **Senthil-Nathan, S***, 2017. Effect of Methyl Salicylate (MeSA) induced changes in rice plant (*Oryza sativa*) that affect growth and development of the rice leafhopper, *Cnaphalocrocis medinalis*. **Physiological and Molecular Plant Pathology**, 101, pp.116-126. (IF-2.747)
70. Kirubakaran, S.A., Abdel-Megeed, A. and **Senthil-Nathan, S***, 2017. Virulence of selected indigenous *Metarhizium pingshaense* (Ascomycota: Hypocreales) isolates against the rice leafhopper, *Cnaphalocrocis medinalis* (Guenée) (Lepidoptera: Pyralidae). **Physiological and Molecular Plant Pathology**, 101, pp.105-115. (IF-2.747)
71. Shahriari M, Sahbzadeh N, Zibae A, Khani A., **Senthil-Nathan, S***, 2017 Metabolic response of *Ephestia kuehniella* Zeller (Lepidoptera: Pyralidae) to essential oil of ajwain and thymol, **Toxin Reviews**, 36(3), pp.204-209. (IF-4.266).
72. Thanigaivel, A., **Senthil-Nathan, S***, Vasantha-Srinivasan, P., Edwin, E.S., Ponsankar, A., Selin-Rani, S., Pradeepa, V., Chellappandian, M., Kalaivani, K., Abdel-Megeed, A. and Narayanan, R., 2017. Chemicals isolated from *Justicia adhatoda* Linn reduce fitness of the mosquito, *Aedes aegypti* L. **Archives of Insect Biochemistry and Physiology**, 94(4), p.e21384. (IF-1.698)
73. Thanigaivel, A., Vasantha-Srinivasan, P., Edwin, E.S., Ponsankar, A., Selin-Rani, S., Chellappandian, M., Kalaivani, K., **Senthil-Nathan, S*** and Benelli, G., 2017. Development of an eco-friendly mosquitocidal agent from *Alangium salvifolium* against the dengue vector *Aedes aegypti* and its biosafety on the aquatic predator. **Environmental Science and Pollution Research**, pp.1-13. (IF-4.223)
74. Vasantha-Srinivasan, P., **Senthil-Nathan, S***, Ponsankar, A., Thanigaivel, A., Edwin, E.S., Selin-Rani, S., Chellappandian, M., Pradeepa, V., Lija-Escaline, J., Kalaivani, K. and Hunter, W.B., 2017. Comparative analysis of mosquito (Diptera: Culicidae: *Aedes aegypti* Liston) responses to the insecticide Temephos and plant derived essential oil derived from *Piper betle* L. **Ecotoxicology and Environmental Safety**, 139, pp.439-446. (IF-6.291)

75. Vivekanandhan, P., **Senthil-Nathan, S***, and Shivakumar, M.S., 2017. Larvicidal, pupicidal and adult smoke toxic effects of *Acanthospermum hispidum* (DC) leaf crude extracts against mosquito vectors. **Physiological and Molecular Plant Pathology**, 101 (2018): 156-162. (IF-2.747)
76. Radhika, S., Sahayaraj, K., **Senthil-Nathan, S***, and Hunter, W.B., 2017. Individual and synergist activities of monocrotophos with neem-based pesticide, Vijayneem against *Spodoptera litura* Fab. **Physiological and Molecular Plant Pathology**, 101, pp.54-68. (IF- 2.747)
77. Jinu, U., Rajakumaran, S., **Senthil-Nathan, S***, Geetha, N. and Venkatachalam, P., 2017. Potential larvicidal activity of silver nanohybrids synthesized using leaf extracts of *Cleistanthus collinus* (Roxb.) Benth. ex Hook. f. and *Strychnos nux-vomica* L. nux-vomica against dengue, Chikungunya and Zika vectors. **Physiological and Molecular Plant Pathology**, 101, pp.163-171. (IF-2.747)
78. Benelli, G, Pavela, R., Canale, A., Cianfaglione, K., Ciaschetti, G., Conti, F., Nicoletti, M., **Senthil-Nathan, S***, Mehlhorn, H., Maggi, F., 2017. Acute larvicidal toxicity of five essential oils (*Pinus nigra*, *Hyssopus officinalis*, *Satureja montana*, *Aloysia citrodora* and *Pelargonium graveolens*) against the filariasis vector *Culex quinquefasciatus*: synergistic and antagonistic effects. **Parasitology International**, 66(2), pp.166-171. (IF2.23-)
79. Thanigaivel, A., **Senthil-Nathan, S***, Vasantha-Srinivasan, P., Edwin, E.S., Ponsankar, A., Selin-Rani, S., Pradeepa, V., Chellappandian, M., Kalaivani, K., Abdel-Megeed, A. and Narayanan, R., 2017. Chemicals isolated from *Justicia adhatoda* Linn reduce fitness of the mosquito, *Aedes aegypti* L. **Archives of Insect Biochemistry and Physiology**, 94(4). (IF-1.698)
80. Thanigaivel, A., Vasantha-Srinivasan, P., **Senthil-Nathan, S***, Edwin, E.S., Ponsankar, A., Chellappandian, M., Selin-Rani, S., Lija-Escaline, J. and Kalaivani, K., 2017. Impact of *Terminalia chebula* Retz. against *Aedes aegypti* L. and non-target aquatic predatory insects. **Ecotoxicology and environmental safety**, 137, pp.210-217. (IF-6.291)
81. Lanka, S.K., **Senthil-Nathan, S***, Blouin, D.J. and Stout, M.J., 2017. Impact of Thiamethoxam Seed Treatment on Growth and Yield of Rice, *Oryza sativa*. **Journal of Economic Entomology**, 110(2), pp.479-486. (IF-2.381)
82. Murugan, K., Roni, M., Panneerselvam, C., Suresh, U., Rajaganesh, R., Aruliah, R., Mahyoub, J.A., Trivedi, S., **Senthil-Nathan, S***, Rehman, H., Al-Aoh, H.A.N. and Kumar, S., 2017. *Sargassum wightii*-synthesized ZnO nanoparticles reduce the fitness and reproduction of the malaria vector *Anopheles stephensi* and cotton bollworm *Helicoverpa armigera*. **Physiological and Molecular Plant Pathology**. (IF-2.747)
83. Vasantha-Srinivasan, P., **Senthil-Nathan, S***, Ponsankar, A., Thanigaivel, A., Chellappandian, M., Edwin, E.S., Selin-Rani, S., Kalaivani, K., Hunter, W.B., Duraipandiyar, V. and Al-Dhabi, N.A., 2017. Acute toxicity of chemical pesticides and plant-derived essential oil on the behavior and development of earthworms, *Eudrilus eugeniae* (Kinberg) and *Eisenia fetida* (Savigny). **Environmental Science and Pollution Research**, pp.1-12. (IF-4.223)
84. Chellappandian, M., Thanigaivel, A., Vasantha-Srinivasan, P., Edwin, E.S., Ponsankar, A., Selin-Rani, S., Kalaivani, K., **Senthil-Nathan, S*** and Benelli, G., 2017. Toxicological effects of *Sphaeranthus indicus* Linn. (Asteraceae) leaf essential oil against human disease vectors, *Culex quinquefasciatus* Say and *Aedes aegypti* Linn., and impacts on a beneficial mosquito predator. **Environmental Science and Pollution Research**, pp.1-13. (IF-4.223)
85. Edwin, E. S., Vasantha-Srinivasan, P., Ponsankar, A., Thanigaivel, A., Selin-Rani, S., Mankin, R. W., **Senthil-Nathan, S***, et al. 2016. Effects of temperature and nonionizing ultraviolet radiation treatments of eggs of five host insects on production of *Trichogramma chilonis* Ishii (Hymenoptera: Trichogrammatidae) for biological control applications. **Journal of Asia-Pacific Entomology**, 19(4), 1139-1144. (IF-1.303)
86. Selin-Rani, S., **Senthil-Nathan, S***, Vasantha-Srinivasan, P., Edwin, E., Thanigaivel, A., Ponsankar, A. et al. 2016. Toxicity and physiological effect of quercetin on generalist herbivore, *Spodoptera litura* Fab. and a non-target earthworm *Eisenia fetida* Savigny **Chemosphere** 165 (2016) 257-267 (IF-7.086)
87. Ponsankar, A., Vasantha-Srinivasan, P., **Senthil-Nathan, S***, Thanigaivel, A., Edwin, E.S., Selin-Rani, S., Kalaivani, K., Hunter, W.B., Alessandro, R.T., Abdel-Megeed, A. and Paik, C.H., 2016. Target and non-target toxicity of botanical insecticide derived from *Couroupita guianensis* L. flower

- against generalist herbivore, *Spodoptera litura* Fab. and an earthworm, *Eisenia foetida* Savigny. **Ecotoxicology and Environmental Safety**, 133, pp.260-270. (IF-6.291)
88. Edwin, E., Vasantha-Srinivasan, P., **Senthil-Nathan, S***, Thanigaivel, A., Ponsankar, A., et al. 2016. Anti-dengue efficacy of bioactive andrographolide from *Andrographis paniculata* (Lamiales: Acanthaceae) against the primary dengue vector *Aedes aegypti* (Diptera: Culicidae). **Acta Tropica** 163 (2016) 167–178. (IF-3.112).
 89. Pradeepa, V., **Senthil-Nathan, S***, Sathish-Narayanan, S., Selin-Rani, S., et al. 2016. Potential mode of action of a novel plumbagin as a mosquito repellent against the malarial vector *Anopheles stephensi*, (Culicidae: Diptera). **Pesticide Biochemistry and Physiology** 134, pp.84-93(IF-3.963).
 90. Kalaivani, K., Maruthi-Kalaiselvi, M., **Senthil-Nathan, S***, 2016. Effect of methyl salicylate (MeSA), an elicitor on growth, physiology and pathology of resistant and susceptible rice varieties. **Nature-Scientific Reports**, 6. 6:34498 | DOI: 10.1038/srep34498 (IF-4.379)
 91. Vasantha-Srinivasan, P., **Senthil-Nathan, S***, Thanigaivel, A., et al., 2016. Developmental response of *Spodoptera litura* Fab. to treatments of crude volatile oil from *Piper betle* L. and evaluation of toxicity to earthworm, *Eudrilus eugeniae* Kinb. **Chemosphere** 155, 336-347 (IF-7.086).
 92. Selin-Rani, S., **Senthil-Nathan, S***, Revathi, K., Chandrasekaran, R., Thanigaivel, A., Vasantha-Srinivasan, P., Ponsankar, P., Edwin, E. S., Pradeepa, V., 2016. Toxicity of *Alangium salvifolium* Wang chemical constituents against the tobacco cutworm *Spodoptera litura* Fab. **Pesticide Biochemistry and Physiology** 126, 92–101.(IF-3.963)
 93. Ponsankar, A., Vasantha-Srinivasan, P., **Senthil-Nathan, S***, Edwin, E. S., Thanigaivel, A., et al. 2016. Target and non-target toxicity of botanical insecticide derived from *Couroupita guianensis* L. flower against generalist herbivore, *Spodoptera litura* Fab. and an earthworm, *Eisenia foetida* Savigny. **Ecotoxicology and Environmental Safety** 133, 60–270 (IF-6.291)
 94. Edwin, E., Vasantha-Srinivasan, P., **Senthil-Nathan, S***, Thanigaivel, A., et al. 2016. Effect of andrographolide on phosphatases activity and cytotoxicity against *Spodoptera litura*. **Invertebrate Survival Journal (ISJ)** 13, 153-163. (IF-1.115)
 95. Lija-Escaline, L., **Senthil-Nathan, S***, Thanigaivel, A., Pradeepa, V., Vasantha-Srinivasan, P., Ponsankar, P., Edwin, E. S., Ponsankar, P., Edwin, E. S., Selin-Rani, S., Abdel-Megeed, A., 2015. Physiological and biochemical effects of botanical extract from *Piper nigrum* Linn (Piperaceae) against the dengue vector *Aedes aegypti* Liston (Diptera: Culicidae) **Parasitology Research**, 114(11):4239-4249 (IF-2.289)
 96. Pradeepa, V., Sathish-Narayanan, S., Kirubakaran, S.A., **Senthil-Nathan, S***, 2015. Toxicity of aristolochic acids isolated from *Aristolochia indica* Linn (Aristolochiaceae) against the malarial vector *Anopheles stephensi* Liston (Diptera: Culicidae). **Experimental Parasitology**, 153, 8–16 (IF-2.011)
 97. de Almeida, G. D., Zanuncio, J. C., **Senthil-Nathan, S***, Pratisoli, D., Polanczyk, R.A., Serrao, J. E., 2014. Cytotoxicity in the midgut and fat body of *Anticarsia gemmatalis* (Lepidoptera: Geometridae) larvae exerted by neem seeds extract. **Invertebrate Survival Journal**, 11, 79-86. (IF-1.115)
 98. Chandrasekaran, R., Revathi, K., Thanigaivel, A., Kirubakaran, S.A., **Senthil-Nathan, S***, 2014. Bacillus subtilis chitinase identified by matrix-assisted laser desorption/ionization time-of flight/time of flight mass spectrometry has insecticidal activity against *Spodoptera litura* Fab., **Pesticide Biochemistry and Physiology** 116, 1–12 (IF-3.963)
 99. Pradeepa, V., Sathish-Narayanan, S., Kirubakaran, S.A., **Senthil-Nathan, S***, 2014. Antimalarial efficacy of dynamic compound of plumbagin chemical constituent from *Plumbago zeylanica* Lin (Plumbaginaceae) against the malarial vector *Anopheles stephensi* Liston (Diptera: Culicidae). **Parasitology Research** 113(8), 3105-3109. (IF-2.289)
 100. Kirubakaran, S. A., Sathish-Narayanan, S., Revathi, K., Chandrasekaran, R., **Senthil-Nathan, S***, 2014. Effect of oil formulated *Metarhizium anisopliae* and *Beauveria bassiana* against the rice leaf folder *Cnaphalocrocis medinalis* Guenée (Lepidoptera: Pyralidae). **Archives of Phytopathology and Plant Protection** 47(8), 977-992(IF-0.74)
 101. Revathi, K., Chandrasekaran, R., Kirubakaran, S.A., **Senthil-Nathan, S***, 2014. Biocontrol efficacy of protoplast fusants between *Bacillus thuringiensis* and *Bacillus subtilis* against *Spodoptera litura* Fabr. **Archives of Phytopathology and Plant Protection** 47 (11), 1365–1375(IF-0.74)

102. **Senthil-Nathan, S***, Physiological and biochemical effect of Neem and other Meliaceae plants secondary metabolites against Lepidopteran insects. **Frontiers in Invertebrate Physiology** (Invited Review Paper) 4,359: 1-17 (IF-4.2).
103. Yazdani E, Sendi J. J., Aliakbar A., **Senthil-Nathan, S***, 2013. Effect of *Lavandula angustifolia* essential oil against lesser mulberry pyralid *Glyphodes pyloalis* Walker (Lep: Pyralidae) and identification of its major derivatives. **Pesticide Biochemistry and Physiology**, 107(3)369-376 (IF-3.963)
104. Revathi, K., Chandrasekaran, R., Kirubakaran, S.A., **Senthil-Nathan, S***, 2013. Effects of *Bacillus subtilis* metabolites on larval *Aedes aegypti* L. **Pesticide Biochemistry and Physiology** 107 (2)250-257 (IF-3.963)
105. Nisha, S., Revathi, K., Chandrasekaran, R., Kirubakaran, S.A., Sathish-Narayanan, S., Stout, M. J., **Senthil-Nathan, S***, 2012. Effect of plant compounds on induced activities of defense-related enzymes and pathogenesis related protein in bacterial blight disease susceptible rice plant. **Physiological and Molecular Plant Pathology** (IF-2.747)
106. Chandrasekaran, R., Revathi, K., Nisha, S., Kirubakaran, S.A., Sathish-Narayanan, S., **Senthil-Nathan, S***, 2012. Physiological effect of chitinase purified from *Bacillus subtilis* against the tobacco cutworm *Spodoptera litura* Fab. **Pesticide Biochemistry and Physiology**, 104 (1), 5-71 (IF-3.963)
107. Thanigaivel, A., Chandrasekaran, R., Revathi, K., Nisha, S., Sathish-Narayanan, S., Kirubakaran, S.A., **Senthil-Nathan, S***, 2012. Larvicidal efficacy of *Adhatoda vasica* (L.) Nees against the bancroftian filariasis vector *Culex quinquefasciatus* Say and dengue vector *Aedes aegypti* L. in vitro condition. **Parasitology Research** 110:1993-1999. (IF-2.289)
108. Kalaivani, K., **Senthil-Nathan, S***, Murugesan, A.G., 2012. Biological activity of selected *Lamiaceae* and *Zingiberaceae* plant essential oils against the dengue vector *Aedes aegypti* L. (Diptera: Culicidae). **Parasitology Research** 110:1261-1268 (IF-2.289).
109. **Senthil-Nathan, S***, Choi, M.Y., Paik, C.H., Seo, H.Y., Kalaivani, K., Kim, J.D., 2009. Toxicity and behavioral effect of 3b,25,26-trihydroxycycloartane and, beddomei lactone on the rice leaf folder *Cnaphalocrocis medinalis* (Guenée) (Lepidoptera: Pyralidae). **Ecotoxicology and Environmental Safety** 72, 1156-1162 (IF-6.291).
110. **Senthil-Nathan, S***, Kalaivani, K., Choi, M.Y., Paik, C. H., 2009. Effects of Jasmonic Acid-induced resistance in rice on the plant brownhopper, *Nilaparvata lugens* Stål (Homoptera: Delphacidae) **Pesticide Biochemistry and Physiology** 95, 77-84 (IF- 3.963)
111. **Senthil-Nathan, S***, Choi, M.Y., Seo, H.Y., Paik, C.H., Kalaivani, K., 2009. Toxicity and physiological effects of neem pesticides applied to rice on the *Nilaparvata lugens* Stal, the brown planthopper. **Ecotoxicology and Environmental Safety** 72, 1707-1713 (IF-6.291)
112. **Senthil-Nathan, S***, Choi, M.Y., Paik, C.H., Seo, H.Y., Kalaivani, K., Kim, J.D., 2008. Effect of azadirachtin on acetylcholinesterase (AChE) activity and histology of the brown planthopper *Nilaparvata lugens* (Stål). **Ecotoxicology and Environmental Safety** 70, 244-250 (Highlighted Article (IF-6.291)
113. **Senthil-Nathan, S***, Choi, M.Y., Paik, C.H., Seo, H.Y., Kalaivani, K., Kim, J.D., 2008. The toxicity and physiological effect of goniotalamin, a styryl-pyrone, on the generalist herbivore, *Spodoptera exigua* Hubner **Chemosphere** 72, 1393-1400 (IF-7.086)
114. **Senthil-Nathan, S***, Hisham, A., Jayakumar, G., 2008. Larvicidal and growth inhibition of the malaria vector *Anopheles stephensi* by triterpens from *Dysoxylum* spp. (Meliaceae). **Fitoterapia** 76, 106-111 (IF-2.882)
115. **Senthil-Nathan S***, 2007. The use of *Eucalyptus* leaf extract as a natural larvicidal agent against malarial vector *Anopheles stephensi* Liston (Diptera: Culicidae). **Bioresource Technology** 98 (9), 1856-1860 (IF-9.642)
116. **Senthil-Nathan, S***, Choi, M.Y., Paik, C.H., Seo, H.Y., Kim, J.D., 2007. The toxicity effect of neem extract and azadirachtin on brown planthopper, *Nilaparvata lugens* (BPH) (Homoptera: Delphacidae). **Chemosphere** 67 (1), 80-88 (IF-7.086)

117. **Senthil-Nathan, S***, Choi, M.Y., Paik, C.H., Seo, H.Y., 2007. Food consumption, utilization and detoxification enzyme activity of the rice leaffolder larvae after treatment with *Dysoxylum* limonoids. **Pesticide Biochemistry and Physiology** 88 (3), 260-267. [Top 25 articles](#)(IF-3.963)
118. **Senthil-Nathan, S***. 2006. Effects of *Melia azedarach* Linn on nutrition physiology and enzyme activities of the rice leaffolder. **Pesticide Biochemistry and Physiology** [Top 25 articles](#)(IF-3.963)
119. **Senthil-Nathan, S***, Saehoon, K., 2006. Effects of *Melia azedarach* L. extract on the teak defoliator *Hyblaea puer* Cramer (Lepidoptera: Hyblaeidae) **Crop Protection** 25 (3), 287-291(IF-2.571)
120. **Senthil-Nathan, S***, Kalaivani, K., Chung, K. Murugan, K., 2006. The toxicity and behavioural effects of neem limonoids on *Cnaphalocrocis medinalis* (Guenée) the rice leaffolder. **Chemosphere** 62 (8), 1381-1387(IF-7.086)
121. **Senthil-Nathan, S***, Kalaivani, K., Chung, P.G., Murugan, K., 2006. Effect of neem limonoids on lactate dehydrogenase (LDH) of the rice leaffolder, *Cnaphalocrocis medinalis* (Guenée) (Insecta: Lepidoptera: Pyralidae) **Chemosphere** 62 (8), 1388-1393. (IF-7.086)
122. **Senthil-Nathan, S***, Savitha, G., George, D.K., Narmadha, A., Suganya, L., Chung, P.G., 2006. Efficacy of *Melia azedarach* L. extract on the malarial vector *Anopheles stephensi* Liston. **Bioresource Technology** 97 (11) 1214-1221(IF-9.642)
123. **Senthil-Nathan, S***, Chung, P.G., Murugan, K., 2006. Combined effect of biopesticides on the digestive enzymatic profiles of *Cnaphalocrocis medinalis* (Guenée) (Rice leaffolder) (Insecta: Lepidoptera: Pyralidae). **Ecotoxicology and Environmental Safety** 64 (3), 382-389 (IF-6.291)
124. **Senthil-Nathan, S***, Kalaivani, K., Mankin, R.W., Murugan, K., 2006. Effects of millet, wheat, rice, and sorghum diets on development of *Corcyra cephalonica* Stainton (Lepidoptera: Galleriidae) and its suitability as a host for *Trichogramma chilonis* Ishii (Hymenoptera: Trichogrammatidae) **Environmental Entomology** 35 (3), 784-788(IF-2.465)
125. **Senthil-Nathan, S***, Kalaivani, S., Sehoon, K., 2006. Effects of *Dysoxylum malabaricum* Bedd. (Meliaceae) extract on the malarial vector *Anopheles stephensi* Liston (Diptera: Culicidae) **Bioresource Technology** 97 (16), 2077-2083(IF-9.642).
126. **Senthil-Nathan, S***, Kalaivani, K., Murugan, K., 2006. Behavioural responses and changes in biology of rice leaffolder following treatment with a combination of bacterial toxin and botanical pesticides. **Chemosphere** 64 (10), 1650-1658(IF-7.086)
127. **Senthil-Nathan, S***, Kalaivani, K., Chung, P.G., Murugan, K., 2006. Effect of biopesticides on the lactate dehydrogenase (LDH) of the rice leaffolder, *Cnaphalocrocis medinalis* (Guenée) (Insecta: Lepidoptera: Pyralidae). **Ecotoxicology and Environmental Safety** 65 (1), 102-107(IF-6.291)
128. **Senthil-Nathan, S***, Kalaivani, K., 2006. Combined effects of azadirachtin and nucleopolyhedrovirus (SpltNPV) on *Spodoptera litura* Fabricius (Lepidoptera: Noctuidae) larvae. **Biological Control** 36 (1), 94-104(IF-3.687)
129. **Senthil-Nathan, S***, Kalaivani, K., 2005. Efficacy of nucleopolyhedrovirus (NPV) and azadirachtin on *Spodoptera litura* Fabricius (Lepidoptera: Noctuidae). **Biological Control** 34 (1), 93-98 [Top 25 articles](#) (IF-3.687)
130. **Senthil-Nathan, S***, Chung, P.G., Murugan, K., 2005. Effect of biopesticides applied separately or together on nutritional indices of the rice leaffolder *Cnaphalocrocis medinalis* (Guenée) (Lepidoptera: Pyralidae). **Phytoparasitica** 33 (2), 187-195. (IF-1.439)
131. **Senthil-Nathan, S***, Kalaivani, K., Murugan, K., Chung, G. 2005. The toxicity and physiological effect of neem limonoids on *Cnaphalocrocis medinalis* (Guenée) the rice leaffolder. **Pesticide Biochemistry and Physiology** 81 (2), 113-122 [Top 25 articles](#) (IF-3.963)
132. **Senthil-Nathan, S***, Kalaivani, K., Chung, P.G., 2005. The effects of Azadirachtin and Nucleopolyhedrovirus (NPV) on midgut enzymatic profile of *Spodoptera litura* Fab. (Lepidoptera: Noctuidae). **Pesticide Biochemistry and Physiology** 83 (1), 46-57 [Top 25 articles](#) (IF-3.963)
133. **Senthil-Nathan, S***, Kalaivani, K., Murugan, K., Chung, P.G., 2005. Efficacy of neem limonoids on *Cnaphalocrocis medinalis* (Guenée) (Lepidoptera: Pyralidae) the rice leaffolder. **Crop Protection** 24 (8), 760-763 [Top 25 articles](#)(IF-2.571)
134. **Senthil-Nathan, S***, Kalaivani, K., Murugan, K., Chung, P.G., 2005. Effects of neem limonoids on malarial vector *Anopheles stephensi* Liston (Diptera: Culicidae). **Acta Tropica** 96 (1), 47-55(IF-3.112)

135. **Senthil-Nathan, S***, Chung, P.G., Murugan, K., 2004. Effect of botanicals and bacterial toxin on the gut enzyme of *Cnaphalocrocis medinalis*. **Phytoparasitica** 32 (5), 433-443 (IF-1.439)
136. Murugan, K., Senthil Kumar, N., Jeyabalan, D., **Senthil-Nathan, S***, Swamiappan, M., 2001. Influence of plant quality on interactions between the larval parasitoid *Compoletis chloride* Uchida (Hymenoptera: Ichneumonidae) and its host *Helicoverpa armigera* Hubner (Lepidoptera: Noctuidae) **Insect Science and Its Application** 20, 23-31 (IF-0.8)
137. Murugan, K., Jeyabalan, D., Senthil Kumar, N., Sivaramakrishnan, S., **Senthil-Nathan, S***, 2000. Influence of host plant on growth and reproduction of *Aphis nerii* (Homoptera: Aphididae) and feeding and prey utilization of its predator *Menochilus sexmaculatus* (Coleoptera: Coccinellidae) **Indian Journal of Experimental Biology** 38, 598-603 (IF-0.818)
138. Murugan, K., Sivaramakrishnan, S., Senthil Kumar, N., Jeyabalan, D., **Senthil-Nathan, S***, 1999. Potentiating effect of neem seed kernel extract and neem oil on nuclear Polyhedrosis virus (NPV) on *Spodoptera litura* Fab. (Lepidoptera: Noctuidae). **Insect Science and Its Application** 19, 229-235 (IF-0.8)
139. Murugan, K., Jeyabalan, D., Senthil Kumar, N., Babu, R., Sivaramakrishnan, S., **Senthil-Nathan, S***, 1999. Antifeedant and growth inhibitory potency of neem limonoids against *Helicoverpa armigera* Hubner (Lepidoptera: Noctuidae). **Insect Science and Its Application** 1, 157-162 (IF-0.8)
140. Murugan, K., Senthil Kumar, N., Jeyabalan, D., **Senthil-Nathan, S***, 1999. Bioactivities of neem products against Teak defoliator, *Hyblaea parea* Cramer (Lepidoptera: Hybaciidae) **Journal of Non-Timber Forest products** 6, 78-82. (IF-0.6)
141. Murugan, K., Jeyabalan, D., Senthil Kumar, N., **Senthil-Nathan, S***, Sivaprakasam, N., 1998. Growth promoting effects of plant products on silkworm - A biotechnological approach. **Journal of Scientific and Industrial Research** 57, 740-745 (IF-1.056)
142. Murugan, K., Sivaramakrishnan, S., Senthil Kumar, N., Jeyabalan, D., **Senthil-Nathan, S***, 1998. Synergistic interaction of botanicals and biocides (Nuclear Polyhedrosis virus) on pest control. **Journal of Scientific and Industrial Research** 57, 732-739 (IF-1.056)
143. Murugan, K., Cithra, P.S., Senthil Kumar, N., **Senthil-Nathan, S***, Jeyabalan, D., Sivaramakrishnan, S., 1997. Influence of age correlated host Plant biochemical diversity on feeding preference and survival of monarch butterfly *Danus chrysippus* (Lepidoptera: Danaeidae) **Flora and Fauna** 3, 99-102.
144. **Senthil-Nathan, S***, Murugan, K., Senthil Kumar, N., Jeyabalan, D., Muthuraman, S., 1999. Pollination Ecology of Honeybee *Apis florea* - A Conservation approach, **Zoo's Print** 14, 3-4. (IF-0.4)
145. Murugan, K., Senthil Kumar, V., Jeyabalan, D, Babu R, **Senthil-Nathan, S***, Sivaramakrishnan S., 1998. Interactive effect of neem products on the control of pulse beetle, *Callosbruchus maculatus* Fab. **Neem Newsletter** 15, 41-44.
146. Murugan, K., Senthil Kumar, N., Babu, R., **Senthil-Nathan, S***, Sivaramakrishnan, S., 1998. Neem (*Azadirachta indica* A. Juss) latex as a potential deterrent agent for *Musca domestica* L. (Diptera: Muscidae). **Neem Newsletter** 15, 3-7.
147. **Senthil-Nathan, S***, Murugan, K., Senthil Kumar, S., 1997. Status of *Colis hylae* (Lepidoptera: Pieridae) in Maruthamalai Hills, Western Ghats, Southern India. **Insect Environment** 1, 16.
148. **Senthil-Nathan, S***, Murugan, K., Senthil Kumar, S., Jeyabalan, D., 1996. Succession of insect fauna during decomposition of litter in a Teak Forest. **Zoo's Print** 11, 14. (IF-0.4)
149. Senthil Kumar, S., Murugan, K., **Senthil-Nathan, S***, Jeyabalan, D., 1996. Feeding and reproductive behavior of flower beetle, *Mylabris pustulata* Thunb. (Coleoptera: Meloidae) **Zoo's Print** 11 (7), 14-15. (IF-0.4)
150. Murugan, K., Senthil Kumar, N., **Senthil-Nathan, S***, 1995. On a collection of Entomofauna from the Adjoining areas of Western Ghats, Erode, Tamil Nadu. **Insect Environment** 2, 12-13.
151. Murugan, K., Senthil Kumar, N., Babu, R., **Senthil-Nathan, S***, 1995. Antifeedant and ovipositional deterrent effects of exudates of *Azadirachta indica* A. Juss, **Neem Newsletter** 12, 43-44.

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Book(s) chapter published: (3)

1. J. Sridhar, K. Kiran Kumar, R. K. Murali-Baskaran, **Senthil-Nathan, S.**, Suraj Sharma, M. Nagesh, Pankaj Kaushal, Jagdish Kumar. (2020) Impact of Climate Change on Communities, Response and Migration of Insects, Nematodes, Vectors and Natural Enemies in Diverse Ecosystems, **Global Climate Change: Resilient and Smart Agriculture**, ISBN : 978-981-32-9855-2
2. **Senthil-Nathan S.** 2015. A review of biopesticides and their mode of action against insect pest's .In: Environmental Sustainability- Role of Green Technologies, **Springer-Verlag**, pp.49- 63.
3. **Senthil-Nathan, S.** 2011. Biology, Behavioral and Population Dynamics of the Rice Leaffolder Complex In: Ananthakrishnan, T. N., Sivaramakrishnan, K.G. (Eds.) Dynamics of Insect Behavior, **Scientific Publishers**, Jodhpur, pp.156-167.
4. Murugan, K., Jeyabalan, D., Senthil Kumar, N., **Senthil-Nathan, S.**, Sivaramakrishnan, S., 1999. Synergistic effect botanicals and microbial pesticides on *Spodoptera litura* Fab In: Biopesticide in insect pest management, (Ignachimuthu and Aloksen [Eds] **Phoinex Publisher**, New Delhi, pp. 232-243.

RESEARCH SUPPORT AND FUNDING**Research Grants Secured (223.59 lakhs as Principal Investigator)**

1. To evaluate the cyto-toxicological effects of bio active derivatives in the midgut and nervous tissues of the tobacco cutworm *Spodoptera litura* using Fluorescent microscopy techniques. **PI**, DBT foldscope, Govt. of India, **Rs. 8 lakhs.**
2. Induced defenses in rice (*Oryza sativa*) by exogenous chemical elicitor against specialized pest and disease of the rice.**PI**, DST, Govt. of India, **Rs. 74.55 lakhs.**
3. Molecular characterization of the entomopathogenic bacteria and detection of toxic gene in strain using RAPD-PCR technique: Development of microbial pesticides against the polyphagus insect *Spodoptera litura* (Fabricius) (Lepidoptera: Noctuidae). **PI**, DST, Govt. of India, **Rs. 25 lakhs.**
4. Development of environmental-friendly biocontrol technology for the rice leaffolder by the induced defense of biotic and abiotic means in vivo with reference to high production of jasmonic acid. **PI**, DBT, **Rs. 25.90 lakhs.**
5. Effect of enriched CO₂ and O₃ on insect-plant interactions. A field experiment and green house analysis of CO₂ and O₃ mediated changes on plant chemistry in specialist herbivore performance. **PI**, CSIR, **Rs.27.09 lakhs**
6. Molecular characterization through RAPD-PCR technique of wide range of entomopathogenic fungi against the rice leaffolder complex with rice defense enzyme assay: Implication for integrated management of leaffolder population through novel biotechnology technique. **PI**, DBT, **Rs. 23.67 lakhs.**
7. Effect of elevated CO₂ on biology and nutritional ecology of the rice leaffolder *Cnaphalocrocis medinalis* Guenée (Lepidoptera: Pyralidae) and its natural enemies. **PI**, UGC-Major Research Project Scheme, University Grant Scheme, **Rs. 10.76 lakhs.**

CURRENT MEMBERS OF THE BIOPESTICIDE AND ENVIRONMENTAL TOXICOLOGY (BET) LAB

RESEARCH GUIDANCE: Post-Doctoral Scientists

Dr. G. Ramkumar, Dr. Kothari UGC-Post-Doctoral Fellow

Ph.D. Research Scholars (Current)

Pavana K Nair (2016-Present)
P. Kirupananda Rajan (2016-Present)
V. Stanly Raja, DST-SERB, SRF (2017- Present)
H. Sivanesh, (2017- Present)
R. Ramasubramaian (2019- Present)
M. Janaki (2020- Present)
P. Malarvizhi (2022 - Present)
A. Deva Andrews (2022 - Present)

PREVIOUS MEMBERS OF THE BET LAB

[Dr. S.Karthi, \(N-PDF-DST and Dr. Kothari UGC-Post-Doctoral Fellow\)](#) currently working as **Post-Doctoral Scientist**, University of Kentucky, Lexington, USA. (December 2021)

[Dr. N. Shyam Sundar](#), currently working as **Assistant Professor**, Department of Zoology, Sri Paramakalyani College of Arts and Science, Alwarkurichi.

[Dr. K. Chanthini](#), Induction of natural defense in response to elicitor compounds from *Chaetomorpha antennina* (Bory) kützing against the disease and pest of tomato, *Lycopersicon esculentum* mil. Bharath Ratna Dr. MGR centenary Ph.D. fellowship (2017-19). Currently working as **Assistant Professor** (Ad-hoc), Sri Paramakalyani Center for Excellence in Environmental Sciences, Manonmaniam Sundaranar University, Alwarkurichi.

[Dr. M. Chella Pandian \(SERB-National Post-Doc\)](#) currently working as **Assistant Professor**, Department of Botany, VOC College, Thoothukudi.

[Dr. P. Indira-Gandhi, \(DBT-RGYI-National Post-Doc\)](#) currently working as **Assistant Professor**, Tamil Nadu Agricultural University, Coimbatore (2009-2010). Molecular Entomology.

[Dr. S. Nisha](#), Integrated biological control of bacterial blight disease through induced systemic resistance by the mixture of PGPR strains and *Vitex negundo* L. extract. Junior Research Fellow (DBT). (2009-12). Currently working as **Assistant Professor and Head** at Sri Ram Nallamani Yadava College, Tenkasi.

[Dr. S. Sathish-Narayanan](#), Effect of entomopathogenic fungi *Metarhizium anisopliae* against teak pest in Western Ghats, Southern India: Implication for integrated management of teak pest. Junior Research Fellow (UGC). Currently working as a **Research Scientist** at KMTR, Tamil Nadu Forest Department.

[Dr. S.A. Kirubakaran](#), Molecular characterization through RAPD –PCR techniques of wide range of entomopathogenic fungi against the rice leaf folder complex with rice defense enzyme assay: Implication for integrated management of leaf folder population through novel biotechnology technique. SRF (DBT-RGYI). Currently working as **Quality Control Manager** at Festa soft drinks, D.R. Congo.

[Dr. R. Dr. Chandrasekaran](#), Biological activity of chitinase identified from *Bacillus subtilis* against *Spodoptera litura* Fab. Through biochemical and molecular aspects. Senior Research Fellow (CSIR). Currently working as **National Post-Doctoral Scientist** (N-PDF-DST).

[Dr. K. Revathi](#), Identification and characterization of secondary metabolites from *Bacillus thuringiensis* against Polyphagous insect, *Helicoverpa armigera* and their acute toxicity on earthworm. Currently working as **Assistant Professor** Sri Sakthi Kilash College for women, Salem.

[Dr. J. Lija Escaline](#), Molecular characterization of entomopathogenic fungi against different mosquito species through novel biotechnology techniques. Currently working as **National Post-Doctoral Scientist** (N-PDF-DST).

[Dr. A. Thanigaivel](#), DST-National Post-Doctoral Scientist Bioactivity and molecular characterization of field isolates of *Bacillus* spp., currently working as **National Post-Doctoral Scientist** (N-PDF-DST).

[Dr. A. Ponsankar](#), DST-National Post-Doctoral Scientist. Genetic characterization of the entomopathogenic fungi from rice cultivated region in Tirunelveli for effective management of *Spodoptera litura*. Currently working as **Assistant Professor**, Department of Biotechnology, Sri Parmakalyani Collge, Alwarkurichi.

[Dr. S. Selin Rani](#), DST-Inspire fellow. Effects of plant extracts and its active compound against the polyphagous insects. Currently working as **Assistant Professor**, Department of Biochemistry, Leshmipuram College of Arts and College, Neyyur, KK District.

[Dr. V. Pradeepa](#), Research Fellow. Isolation and Characterization of antimalarial compounds from *Aristolochia indica* Linn and *Plumbago zeylanica* Linn with prospective activity against the malarial vector *Anopheles stephensi* Liston (Diptera: Culicidae).

[Dr. P. Vasantha-Srinivasan](#), Research Fellow. Effect of medicinal plant and entomopathogenic fungi on the immune response of Lepidoptera larvae (*Spodoptera litura*). Currently working as **Assistant Professor** in Biotechnology St Peters University, Chennai

[Dr. E. Edwin](#), Research Fellow. Effects of plant extracts and its active compound against stored grain pest. Currently working as **Product Development Manager**, Abu Dhabi, UAE. University.

M. Phil.

1. **Mrs. P.S. Sangeetha**, Identification of certain medicinally important plant in relation to sericulture
2. **Mrs. S. Sangeeth**, Data mining of Protease-Introduction to Bioinformatics.

Visiting Scholar-Scientist

Mr. Annamalai Mahendiran – Scientist, Crop Protection Division, NRRI (ICAR), Cuttack, Odisha. [Under Professional Attachment Training (2016-17)].

Graduate students guided**M.Sc.,**

S. Athi Renganayagi
 V.Vasantha Sri
 A.Yesharath Nisha
 D.Mahaboop Uduman
 A.Natarajan
 S.Rajaram
 S.Nisha
 S.A.Kirubakaran
 S.Sathish Narayanan
 A.Amuthavalli
 J. Lija Escaline
 M.Revathy
 S.Sathya Shree
 A.Ponsankar
 R.Seethapriya
 S.Selin-Rani
 T.Uma Maheswari
 S.P.Mano Bala
 R. Nirmala Devi
 P.S.Sangeetha
 B.Nirupama
 D.Geetha
 N. Chithanya
 A. Smitha
 S. Sivaranjane

S.Sangeetha
 V.Sherina Thangam
 M. Ann Preethi
 M. Jubby Ann
 A. Jesly Mary
 N. Nagamani
 K.S. Gangai-Abirami
 Nandha Kumar
 A. Asahel
 A. Deva Andrews
 M. Duraisankar
 S. James raj
 K. Jeganath
 M. Kalaiselvi
 R. Kalimuthu
 P. Malarvizhi
 M. Muruges
 A. Selvaraj
 K. Thanga Eswari
 S. Anitharaj
 A. Gandhimathi
 P. Pandiselvi
 S. Vainath Praveen

B.Sc.,

G. Savitha
 Dency K. George
 L. Suganya
 A. Narmadha
 A. Deva Andrews
 M. Durai Sankar
 A. Asahel
 S. James Raj
 M. Mukesh
 S. Anitharaj
 A. Kasthuri Ramanan
 R. Mahesh Pandian
 P. Pandiselvi
 S. Vainath Praveen
 G. Pavithra
 P. Murugan
 V.S. Aja
 R.S. Deepthi
 P. Karthik
 R. Manju
 K. Pavithradvi
 D. Ponraj
 M. Tamilselvi
 T. Manthiraselvi
 M. Subalakshmi

R. Sowndarya Srivarshini

Invited Speaker, resource person, chairperson, key-note speaker

1. 2022, March 21 and 22, Invited talk on “**Applied Natural Product for sustainable development**” in International Conference at Sri Parasakthi college for women, courtallam, Tenkasi, Tamil Nadu.
2. 2022, March 3, **Keynote address on Recent Advances in the Management of Agricultural Insect Pest** in National symposium on recent trends advances in biology at Sri Paramakalyani college, Alwarkurichi, Tamil Nadu.
3. 2022, February 14, 2 to 5 PM Resource person for UGC-Sponsored “**Online Refresher Course in Environment and Sustainable Development**”, conducted by the UGC-Human Resource Development Centre, Bharathidasan University, Tiruchirappalli for University and College Teachers.
4. 2022, January 5, 11 -12 PM, Resource person for “**Pesticides and Insect Toxicology**” in a webinar conducted on 'innovations and advancements in food protection and grain storage' organized by CSIR-Central Food Technological Research Institute, Mysuru.
5. 2022, January 5, 2 to 5 PM Resource person for Refresher Course in Life Sciences for the University and College Teachers organized by the Human Resource Development Centre of Bharathiar University, Coimbatore
6. 2021, December 2, Invited talk on “**Environmental Pollution and Solution**” at Thiruvalluvar College Papanasam, Vickramasingapuram, Tirunelveli, Tamil Nadu.
7. 2021, October 4, Resource person in the Webinar on '**Scope of biopesticide in Indian perspective**' organized by ICAR-NIBSM, Raipur.

8. 2021, September 25, Inaugural Address “**Road Map to Clear CSIR – NET Examination**”, PG Department of Microbiology, Sri Paramakalyani College, Alwarkurichi.
9. 2021, July 19, Resource person for '**Ecofriendly products in the management of mosquitoes**' in national webinar on 'Taxonomy and recent trends in management of mosquitoes' organized by the Department of zoology and research center in association with IQAC-NMCC.
10. 2020, October 14, Resource person in the International Webinar on “**Treatment of Covid-19 – an Ethnobotanical Perspective**” organized by PG and Research Department of Zoology, Vivekananda College, Tiruvedakam West, Tamil Nadu, India.
11. 2020, July 23, Resource Person in the webinar on “**Effect of global climatic change on biodiversity**” held on. Organized by P.G. and Research Department of Zoology, Sri Paraskathi College for women, Courtallam.
12. 2020, June 12, Resource person for National level Webinar on “**Natural Pesticide for the Betterment of Eco-system - Present Status and Future Prospects**” organized by the PG and Research Department of Botany, V.O.Chidambaram College, Thoothukudi.
13. 2020, May 18, Resource person in the Webinar on “**Vaccine and Drug Development against COVID-19**” organized by Department of Biotechnology, School of Life Sciences, Mizoram University, Aizawl.
14. 2020, February 20, Resource person for '**National Seminar on Advances in Spectroscopy**', delivered a key note address on 'AAS-sample preparation; Environmental perspective', Sri Parasakthi collge for women, Courtrallam.
15. 2020, January 29, Key note speaker in “**Ecotoxicology of environmentally soft pesticides – Public health perspective**”, நிறல்யம் 2020 (Niralyam), சித்தமருத்துவ வலறிவுகாணுகை, Siddha medical college, Tirunelveli.
16. 2019, July 17, Invited judge for poster presentation in “**International seminar on climate changes**”, Department of Microbiology, Sri Paramakalyani College, Alwarkurichi.
17. 2019, Feb. 25th and 26th Key note speaker in '**Workshop on Molecular biological Technique**' PG and Research Department of Zoology, Sara Tucker College, Tirunelveli
18. 2018, '**Impact of global warming on flora and fauna**', Sri Narayana College, Punalur.
19. 2018, '**Tackling the plastic pollution - the nanotechnical way**', P.G. Department of Zoology, Sri Parasakthi College for women, Courtallam, Tirunelveli.
20. 2017, '**Application of biotechnology in pest management**'- Department of Zoology, Sri Paramakalyani college, Alwarkurichi.
21. 2017, '**Current trends in mosquito control through biopesticides - An ecofriendly approach**', ICMR sponsored National conference, Department of Biological Sciences, KSR college of Arts and Science, Tiruchengode.
22. 2017, '**Biopesticides, Development and formulation by biotechnological approach**', Department of Zoology, St. Xavier's College.
23. 2017, Valedictory address, Zoology association, Department of Zoology, St. Xavier's College
24. 2015, Plenary lecture, '**Biodiversity products and Industrial Applications**', Centre for biodiversity and forest studies, Periyar University, Salem.
25. 2014, '**Role of biopesticides in integrated agriculture system**', Department of Zoology, Sri Paramakalyani College, Alwarkurichi.
26. 2014, Keynote address, '**Biopesticide and sustainable agriculture**' in National Symposium on Biotechnology for Sustainable livelihood, at Annai Velankanni College, Kanyakumari.
27. 2013, Chief guest address '**Ecofriendly Plant Protection and production for Food Security, Food Safety and the role of Biopesticides in Global Economy Fourth Biopesticide International Conference**', Crop Protection Research Centre, St. Xavier's College.
28. 2013, Plenary lecture on '**Effect of elevated CO₂ on rice plant and feeding performance of specialized rice herbivore and chairperson in Third international congress on global warming**

on biodiversity of insects: management and conservation strategies (GW-BIMC, '13)' Bharathiar University, Coimbatore.

29. 2012, 34th **Meeting of the Rice Technical Working Group**, Hot Springs Convention Center Hot Springs, Arkansas, USA.
30. 2010, **Tamil Nadu State Science forum 10th Conference**, Manonmaniam Sundaranar University, Tirunelveli, TN, India.
31. 2009, '**Academic interaction programme**', invited paper and proposal conducted by BRNS (Department of Atomic Energy), Courtallam, Tirunelveli.
32. 2008, '**Biofertilizer development and usage in this Millennium**' in Sri Kumara Gurupara Swamikal Arts College, Srivaikuntam, Thoothukudi, Tamil-Nadu.
33. 2008, State level seminar on '**A modern Approach in Agricultural Economics and Ecosystem' under the topic** 'Recent development in Agricultural economics with respect to environment' at Sri Parasakthi College for Women, Courtallam, TN.
34. 2006, Invited paper presentation **Korean Entomological Science meeting** at Muju, South Korea.
35. 2006, Invited paper presentation in **Korean Entomological Science meeting** held at Seoul, South Korea.

Seminars/symposium/lectures attended:

1. Participated in the webinar on **Wildlife Resources of Oriental Region: Conservation Challenges** delivered by Dr. J. Antony Johnson, held on 3 July 2020 at Department of Habitat Ecology, Wildlife Institute of India, Dehradun, INDIA.
2. Participated in the One Day International Virtual Conference "**Microplastics 2020**" on 30.06.2020, organized by Centre of Nanobiotechnology at Vellore Institute of Technology, Vellore, India.
3. Participated in the four days **digital interaction series on the occasion of "World Environment Day 2020"** from 02.06.2020 to 05.06.2020. Organized by ENVIS RP – Centre for Coastal Zone Management and Coastal Shelter Belt, Institute for Ocean Management, Anna University, Chennai and Ministry of Environment, Forest and Climate Change, Government of India.
4. Participated in the webinar on "**Science Communication**" and "**Analysis of Scientific Publications for enhanced visibility**" Under UGC STRIDE Program held on 29th May, 2020. Organized by Mizoram University Aizawl, India.
5. Attended the webinar on "**sleep disorders and health related challenges: what evidence-based medicine informs us**" held on 21.05.2020, Department of Zoology, Sri Parasakthi College for Women, Courtallam, Tamil Nadu.
6. Participated in the webinar on "**Research Data Management**" on 20.05.2020 organized by Department of Library and Information Science, Mizoram University, Aizawl.
7. Attended '**National Colloquium on Molecular Breeding and Shaping the future of Rice**' organized by M.S.Swaminathan Research Foundation, Chennai during March 12th -13th, 2004.
8. Attended a national conference on '**Recent Trends in Insect Control**' at Department of Zoology, Bharathiar University, Coimbatore during February 15th-16th, 2003.
9. Attended a workshop on '**Recombinant DNA technology at School of Biotechnology**, Dr. G.R. Damodaran College of Science, Coimbatore during May 15th-16th, 2001.
10. Attended a national Symposium on '**Commercial Exploitation of Economically Important Medicinal Plants**' at Kongunadu Arts and Science College, Coimbatore during August 24th- 25th, 2000.
11. Attended a national conference on '**Biological Control of Insects in Agriculture, Forestry, Medicine and Veterinary Sciences**' organized by Department of Zoology, Bharathiar University, Coimbatore, India during Jan.21-22, 1999.
12. Participated in 3rd International Symposium on '**Afro Asian Society of Nematologists**' held on April 16-19, 1998, Sugarcane Breeding Institute, and Coimbatore.

13. Participated in the National Symposium on '**Recent trends in Biological Sciences**' held in Department of Zoology on 16th March 1998 at Bharathiar University, Coimbatore, Tamil-Nadu, India
14. Attended an International Conference on "**Frontiers in Biotechnology**" held during Nov 26-29th, 1997 conducted by Regional Research Laboratory, CSIR Trivandrum, India.
15. Presented a paper in **VII All India Symposium on Invertebrate Reproduction** held during April 5-7, 1995 at Sree Narayana College, Cannanore, Kerala, India.
16. Presented a paper in **XIII National Symposium on Reproductive Biology and Comparative Endocrinology** held during January 20-21st, 1995 at Osmania University, Hyderabad, India.
17. Presented a paper in Seminar on "**Emerging trends in Applied Biology**" held during October 21 - 22nd, 1994 at Indian Institute of Chemical Technology, Hyderabad, India.
18. Presented a paper in Second National Symposium on **Prospects and Problems of Sericulture in India** held during March 7-9th, 1994 at Madras University PG Extension Centre, Vellore, India.
19. Presented a paper in **XII National Symposium on Reproductive Biology and Comparative Endocrinology** held during January 21-23rd, 1994 at School of Life Sciences, Pondicherry University, Pondicherry, India.
20. Presented a paper in the **III Indo-Pacific and VI All India Symposium on Invertebrate Reproduction** held during December 10-12th, 1993 at Ayya Nadar Janaki Ammal College, Sivakasi, India.
21. Attended an UGC National Seminar on **Fish health** held on March 29-30th, 1993 at Department of Zoology, Bharathiar University, Coimbatore, India.

Workshops attended

1. Attended '**One day Awareness Workshop on NPTEL**' jointly organized by NPTEL, IIT Madras and Manonmaniam Sundaranar University, Tirunelveli, 19th July 2019.
2. Participated in 34th Meeting of the **Rice Technical Working Group** February 27 March 1, 2012 Hot Springs Convention Center Hot Springs, Arkansas, USA.
3. Attended a workshop on **Hands on workshop in Invertebrate keeping** held on 27-29, March 1997 at Zoo outreach organization, Coimbatore, Tamil-Nadu, India

Papers/Posters presented in the seminar /symposium (Abstract /Full paper)

Following papers/Posters were presented in National Symposium on Recent Trends and Advances in Biology, Sri Paramakalyani College, Alwarkurichi, March 3rd 2022.

1. Ramasubramaniam. R, Karthi. S, **Senthil-Nathan. S**, Sivanesh. H, Shyam Sundar. N, Stanley Raja. V, and Chanthini. K.M.P, 2022, "Isolation and characterization of *Bacillus subtilis* for the potential control of rice leaf folder *Cnaphlocrosis medinalis*".
2. Stanley Raja. V and **Senthil-Nathan. S**, 2022, "A study on Induced defense mechanism in rice plants against diseases and pest using bio-elicitor extracted from *Aspergillus niger* cultured in the post-harvest wastes: a sustainable agronomical approach".
3. Sowndarya srivarshini. R, Aja. V.S, Tamil Selvi. M, Manthira Selvi. T, Subhalakshmi. M, Karthick. P, Stanley Raja. V and **Senthil-Nathan. S**, 2022, "A study on biochemical elicitor inducing the defense mechanism against disease and promoting seed germination in rice: a sustainable agronomical approach".
4. Deva Andrews. A and **Senthil-Nathan. S**, 2022, "*Aedes aegypti* insecticide resistance status obtained from rural and urban areas in Tenkasi, Tamil Nadu".

5. Anitharaj. S, Chanthini. K.M.P and **Senthil-Nathan. S**, 2022, “Seaweed chemicals have sub-lethal effects on the growth and histopathology of the polyphagous pest *Spodoptera litura* fab(lepidoptera)”.
6. Chanthini. K.M.P and **Senthil-Nathan. S**, 2022, “Organic agricultural practices enhance nutritional and antioxidant properties of tomato (*Lycopersicon esculentum*)”.
7. Janaki. M, Chanthini. K.M.P and **Senthil-Nathan. S**, 2022, “Improvement of tomato seed germination by application of phosphate solubilizing bacteria(PSB) isolated from tomato rhizosphere”.
8. Malarvizhi. P, Chanthini. K and **Senthil-Nathan. S**, 2022, “Insecticide resistance status of *Aedes albopictus* collected from rural and urban area in Tenkasi, Tamil Nadu”.
9. Murugan. P, Chanthini. K and **Senthil-Nathan. S**, 2022, “Effect of entomopathogenic fungal isolates on the development of rice pest *Cnaphlocrosis medinalis* (guenee)”.
10. Pavithra. G, Chanthini. K, and **Senthil-Nathan. S**, 2022, “Alleviation of salt stress in rice (*Oryza sativa* L.) during germination by the application of seaweed extract”.
11. Kirubanandarajan. P and **Senthil-Nathan. S**, 2022, “Jasmonic acid application enhances phenol accumulation in rice *Oryza sativa* (L)”.
12. Vainath Praveen. S, Chanthini. K and **Senthil-Nathan. S**, 2022, “Seaweed compounds affect the performance of the immune system of polyphagous pest, *Spodoptera litura* fab. (lepidoptera)”.

Following papers were presented in the International Conference on Applied Biology for Sustainable Development, Sri Parasakthi College for Women, Courtallam, March 21 -22, 2022

13. Kirubanantharajan. P and Senthil-Nathan. S, 2022, “Potential control of mosquito larvae through botanicals and their toxicity against non-target organism”.
14. Pavana K Sivadasan Unni and Senthil-Nathan. S, 2022, “Physiological and biochemical effects of selected phytochemicals against mosquito *Culex quinquefasciatus*”.

Following papers were presented in 5th International Conference on recent trends in applied science and Technology (ICRTAST-2021), Manonmaniam Sundaranar University, November 25-28th 2021.

15. Chanthini. K.M.P and **Senthil-Nathan. S**, 2021, “Effect of seaweed extract on the population density of rice PGPR (*Oryza sativa*.L)”.
16. Stanley Raja. V and **Senthil-Nathan. S**, 2021, characterization of elicitor – the fungal chitosan to inducing the defence and promoting the growth in *Oryzae sativa*: A sustainable agronomical approach.
17. Sivanesh. H and **Senthil-Nathan. S**, 2021, “Effect of plant secondary metabolite in the control of rice pest, Yellow stem borer and disease, bacterial leaf blight”
18. Janaki. M and **Senthil-Nathan. S**, 2021, “Seaweed bio-stimulants promote growth of phosphate solubilizing bacteria in the rhizosphere of tomato (*Lycopersicon esculentum* Mill)
19. Ramasubramanian. R and **Senthil-Nathan. S**, 2021, “Isolation and characterization of *Bacillus subtilis* for the potential control of rice leaf folder *Cnaphalocrocis medinalis*”

Following papers/Posters were accepted for presentation at international conferences

20. Chanthini. K.M.P and **Senthil-Nathan. S**, 2019, Innovinc International, “Sustainable Agriculture and Food Systems Summit (SAFS-2019)”, to be held on 26-28, Sept, Berlin, Germany.
21. Karthi S., and **Senthil-Nathan S.**, “Comparative efficacy of two mycotoxins from *Beauveria bassiana* (Bals.) Vuill. and *Metarhizium anisopliae* (Metchnikoff) Sorokin against *Spodoptera litura* Fab. and their non-target activity against the earthworm, *Eudrilus eugeniae* Kinb.”, during June 2-6, 2019, ISCE 2019 Annual Meeting Atlanta, Georgia, USA.
22. Karthi S., and **Senthil-Nathan S.**, 2019, “Comparative efficacy of the entomopathogenic fungus, *Beauveria bassiana* (Bals.) Vuill. and *Metarhizium anisopliae* (Metchnikoff) Sorokin on larval

mortality, enzyme inhibition of *Spodoptera litura* Fab. and their non-target activity against *Eudrilis eugeniae* kinb” at Eighth International Symposium on Molecular Insect Science, Sitges, Spain.

Following posters were presented in the ‘International Seminar on Microbes and Climate change’ held on 17th July, 2019 at Department of Microbiology, Sri Paramakalyani College, Alwarkurichi, TN.

23. Chanthini, K, Shyam sundar. N, Soranam. R and **Senthil-Nathan. S.** ‘Seaweed compounds as prospective disease control agent against early blight disease of tomato ‘
24. Stanley-Raja V, Sivanesh H and **Senthil-Nathan S.** ‘Inducing defense mechanism and PGP in *Oryza sativa* using fungal chitosan as an elicitor’.

Following papers were presented in the National Seminar on ‘Importance of conserving Ozone layer, International Ozone Day celebrations’ held during 17-18th September, 2018 at Sree Narayana College, Punalur, Kerala.

25. Chanthini K., **Senthil-Nathan S***, Thanigaivel A , Shyam-Sundar N, Karthi S, Stanley-Raja V, Sivanesh H, Chellappandian M, Soranam. R. ‘Effect of raised CO₂ levels on early blight disease development and pathogen fitness on tomato plants’.
26. Shyam-Sundar N, **Senthil-Nathan S***, Chanthini K., Thanigaivel A , Karthi S, Stanley-Raja V, Sivanesh H, Chellappandian M.’ Developmental response of tobacco cutworm, *Spodoptera litura* Fab. to treatments of crude essential oil from *Desmostachya bipinnata* (Linn.)’.
27. Thanigaivel A, **Senthil-Nathan S***, Narayanan K. R, Shyam-Sundar N, Chanthini K., Karthi Stanley-Raja V, Sivanesh H, ‘Comparative efficacy of crude methanol of *Adhatoda vasica* (L.) Nees (Acanthaceae) against the dengue vector *Aedes aegypti* L. (Diptera: Culicidae)’.

Following papers were presented in the ‘National conference on Environmental Science and technology’ held on 18th and 19th January 2018 at Sri Paramakalyani Centre for Excellence in Environmental Sciences (SPKCEES), Manonmaniam Sundaranar University, Alwarkurichi, TN.

28. Chanthini K., **Senthil-Nathan S** and Soranam. R ‘ Key Coercions of Western Ghats’ Ichthyofauna’
29. Chanthini K., **Senthil-Nathan S** and Soranam. R ‘Bacterial compounds as prospective biocontrol agent against disease and pest of tomato’.

Following papers were presented in the ‘National conference on Impact of Climate Change on Environment and Biodiversity (NCCEB - 2015)’ held on 26th and 27th March 2015 at Sri Paramakalyani Centre for Excellence in Environmental Sciences (SPKCEES), Manonmaniam Sundaranar University, Alwarkurichi, TN.

30. Thanigaivel, A., Chandrasekaran, R., Revathi, K., **Senthil-Nathan, S.**, Survival and oviposition response of *Culex quinquefasciatus* Say and *Aedes aegypti* Linn against the *Justicia adhatoda* Linn.
31. Pradeepa, V., Kirubakaran, S.A., Selva-Kumar, G., Saravana-Kumar, M., **Senthil-Nathan, S.**, Novel Plumbagin repellent inhibit enzymes in malarial vector of *Anopheles stephensi*
32. Ponsankar, A., Edwin, E., Vasantha-Srinivasan, P., Selin-Rani, S., Thanigaivel, A., Pradeepa, V., **Senthil-Nathan, S.**, Efficacy of *Citrullus colocynthis* against the polyphagous pest *Spodoptera litura* Fabricius (Lepidoptera: Noctuidae)
33. Edwin, E., Ponsankar, A., Vasantha-Srinivasan, P., Selin-Rani, S., Thanigaivel, A., Pradeepa, V., **Senthil-Nathan, S.**, The effect of temperature and radiation on parasitization, emergence of adult and viability efficiency of *T. chilonis* in vitro conditions reared in different host eggs
34. Selin-Rani, S., Pradeepa, V., Selva-Kumar, G., Saravana-Kumar, M., **Senthil-Nathan, S.**, Toxicity of *Alangium salvifolium* Wang, and its chemical constituents against *Spodoptera litura* (Polyphagous) the tobacco cutworm (Lepidoptera: Noctuidae)
35. Vasantha-Srinivasan, P., Ponsankar, A., Edwin, E., Selin-Rani, S., Thanigaivel, A., Pradeepa, V., **Senthil-Nathan, S.**, Behavioral response of crude volatile oil of *Piper betle* L. (Piperales: Piperaceae) against *Spodoptera litura* Fabricius Lepidoptera: Noctuidae)

36. Lanka, S.K., **Senthil-Nathan, S.**, Davis, J.A., Stout, M.J., Influence of plant type and artificial diet on the activity of thiamethoxam against fall armyworm (*Spodoptera frugiperda*), 60th Annual Entomological Society Meeting, November 11th -14th , 2012 in Knoxville, TN, USA

Following papers were presented in 'National Seminar on Biotechnology in the new Millennium' on February 15th-16th 2002 at Vivekanandha College of Arts and Sciences for Women, Elaympalayam, TN

37. **Senthil-Nathan, S.**, Sivaranjane, S., Sangeetha, S., Potentiating effect of *Pongamia Sp.* on NPV in relation to control strategy of Tobacco cut worm.
38. **Senthil-Nathan, S.**, Smitha, A., Growth enhancement activity of *Ocimum sanctum* in sericulture –A biotechnological approach.
39. **Senthil-Nathan, S.**, Sherina, T.H., Vidya, V., Synergistic effect of neem on *Bacillus thuringiensis* in pest control.
40. **Senthil-Nathan, S.**, Murugan, K., Age specific feeding preference and reproductive potential of *Zygogramma bicolorata* (Coleoptera: Zygogrammatidae), presented in III National Symposium on Reproductive Biology and Comparative Endocrinology held on Jan. 27th -28th, 1995 at Osmania University, Hyderabad, India.
41. Senthil Kumar, N., **Senthil-Nathan, S.**, Murugan, K., Host plant influence on feeding and reproduction of teak pest *Hyblaea puera* and *Eutectona machaeralis*. Presented in the 7 th all India Symposium on Invertebrate Reproduction, April 5-7, 1995, at Sree Narayana College, Cannanore, Kerala.
42. Murugan, K., Jeyabalan, D., Senthil Kumar, N., **Senthil-Nathan, S.**, and Sivaprakasam, N., Growth promoting effects of plant products on silkworm - A biotechnological approach. Presented in . Presented in Frontiers in Biotechnology at Regional Research Centre, Trivandrum, Kerala, India, November 1997.
43. Murugan, K., Sivaramakrishnan, S., Senthil Kumar, N., Jeyabalan, D., **Senthil-Nathan, S.**, Synergistic interaction of botanicals and biocides (Nuclear Polyhedrosis Virus) on pest control. Presented in Frontiers in Biotechnology at Regional Research Centre, Trivandrum, Kerala, India, November 1997.
44. Murugan, K., Senthil Kumar, N., Jeyabalan, D., **Senthil-Nathan, S.**, Sivaramakrishnan, S., Synergistic effect of botanicals and microbial pesticide on *Spodoptera litura* Fab. Presented at the National Symposium of Biopesticides and Insect Pest Management at Entomological Research Institute, Loyola College, Madras, Tamil Nadu, India, February 1998.

The following papers were presented in "National Symposium on Biological Control of Insects in Agriculture, Forestry, Medicine and Veterinary Science" 21st-22nd January 1999 at Bharathiar University, Coimbatore, India.

45. **Senthil-Nathan, S.**, Murugan, K., Jeyabalan, D., Effect of Azadirachtin and *Bacillus thuringiensis* (Berliner) on the behavioral and physiological response on *Cnaphalocrosis medinalis* Guenee (Rice leaf folder).
46. Kalaivani, K., Murugan, K., **Senthil-Nathan, S.**, Senthil Kumar, N., Dietary influence on the parasitization of *Trichogramma chilonis* (Ishii).