Dr. N. Senthilkumar
Scientist 'E' & Head

1. **Date of Birth** : November 15, 1973
2. **Sex** : Male
3. **Contact Address** **: Institute of Forest Genetics and Tree Breeding**

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Professional Experience

- **Bioprospecting of forest resources** for biopesticide, bioboosters, natural colourants, biofuel and phyto products
- Characterization of bioactive compounds of plant and microbial origin.
- Instrumentation techniques such as column chromatography, TLC, HPLC, GCMSMS.
- Insect taxonomy (Orthoptera :Tettigoniidae)
- Climate change on forest insects and biodiversity conservation.
- Insect-plant interactions.
- Ecofriendly pest management – Biopesticides
- Development and implementation of EIA procedures.
- Carbon sequestration potential of forests.
- Handled more than **10 research projects** funded by ICFRE, DST, MoEFs, etc.
- Involved in development of 7 products : biopesticides namely, **Vilvekam, Hy-Act, Tree-PAL^{H}, Ento-fight** ***Nasa,*** **Crawl clean** and a biobooster called **Treerich biobooster** and a Phytomedicine named **R-500** and **a mobile ápp' Tree pests of India.**
- Published more than **50 research papers** in journals of national and international repute, **10 books**, 12 chapters in books, 15 popular articles in his credit.
- Imparted 6 trainings on Bioprospecting of forest resources to IFS officers, scientists, academicians, Research scholars and students.
- **Awarded** DST under Young Scientist in the year 2005; DST international Travel support to visit Thailand; and "**Outstanding scientist in Entomology"** by VISF.

4. Academic qualification : M.Sc., M. Phil, Ph.D

Name of the Certificate /Degree /Diploma along with subject	**Year of Passing**	**Division**	**% of Mark**
Ph.D., in Zoology (specilization in **Entomology**)	2003	Commendable thesis	
M. Phil., in Zoology (specilization in **Entomology**)	1997	I	73 (I rank)
M.Sc., in Zoology (specilization in **Entomology**)	1996	I (Distinction)	78 (I rank)
B.Sc., in Zoology (specilization in **Entomology**)	1994	I (Distinction)	79 (I rank)

Ph.D., Thesis title: Biodiversity of tettigoniids of Tamil Nadu and Bioecological characteristics of *Conocephalus maculatus* (Le Guilou) (Orthoptera:Tettigoniidae:Conocephalinae)

Work experience:

S. No.	**Organisation where experience gained**	**Designation/Grade**	**Period**	
			From	**To**
1	Institute of Forest genetics and Tree Breeding, Coimbatore	Scientist 'E'	1st July, 2015	Till date
2	Institute of Forest genetics and Tree Breeding, Coimbatore	Scientist 'D'	1st July, 2011	30th June, 2015
3.	Institute of Forest genetics and Tree Breeding, Coimbatore	Scientist 'C'	22nd April, 2009	30th June, 2011

4.	Forest Research Centre, Hyderabad	Scientist 'C'	22nd January, 2008	19th April, 2009
5.	Rain Forest Research Institute, Jorhat	Scientist 'C'	1st July, 2007	21st January, 2008
6.	Rain Forest Research Institute, Jorhat	Scientist 'B'	25th April, 2003	30th June, 2007
7.	G.S. Gill Research Institute, Guru Nanak College, Chennai.	Project Assistant	June, 1999	August,2002
8.	Madura College, Madurai	Lecturer (Ad-hoc)	July, 1997	June, 1999

Research Projects

As Principal Investigator(PI)

S. No.	Name of the agency	Title of the scheme	Period		Grant in Lakhs Rs.	Remarks
			From	To		
1.	**DST (Young Scientist)** RFRI/EP/10	Augmentation of entomopathogenic fungi for the management of *Calopepla leayana* on *Gmelina arborea*: An ecofriendly approach	2005	2007	7.30	Completed
2.	ICFRE RFRI/FE/11	Development of an ecofriendly strategy for the management of *Calopepla leayana* on *Gmelina arborea*	2004	2007	2.5	Completed
3.	ICFRE RFRI/FE/12	Bioecological Studies of seed insect pests of *Dipterocarpus retusus*	2005	2008	1.26	Completed
4.	MoEFs RFRI/EP/14	Biodiversity studies of Orthoptera in Kaziranga National Park, Assam	2006	2009	6.35	Completed
5.	ICFRE	Evaluation of certain flora based on ethnobotanical records for their pesticidal properties against important forestry insect pests.	2010	2013	8.0	Completed
6.	ICFRE	Orthopteran diversity of the Nilgiri Biosphere Reserve (Tamilnadu part)	2010	2013	8.0	Completed
7.	ICFRE	Anti- insect secondary metabolites from fungal endophytes of selected tree species.	2011	2014	12.14	Completed
8.	MoEF VII	Contributory factors in the establishment of *Leptocybe invasa* (Fisher and LaSalle) on Eucalyptus plantations in Tamil Nadu	2012	2015	11.61	Completed
9.	BSI-MoEF&CC	AICOPTAX on Tettigoniidae of India	2016	2019	17.44	Ongoing
10.	NRDMS-DST	Transfer of products/technology on biobooster to Irular tribes in forest fringe villages of Coimbatore, Tamilnadu: An alternate source of livelihood support	2016	2019	18.61	Ongoing
11	ICFRE	Biocolourant: Bioprospecting of selected accessions of Red tamarind as ecofriendly and protective natural dye in textiles/ foods	2016	2019	15.54	Completed
12	SERB-DST	Taxonomic study of Orthoptera of Tamilnadu	2016	2019	29.53	Ongoing
13.	ICFRE	Development of biopesticide	2017	2020	11.24	Ongoing

		formulation from seed oil of *Simarouba glauca* DC for use in forestry.				
14.	DST-NRDMS	Development of compost out of waste involving tribal for their livelihood support: a part of Swachh Bharat Mission'	2019	2022	1.68 crores	Ongoing
15.	ICFRE	Development of Nano-biopesticides for application in forestry	2019	2022	18.0	Ongoing
16.	ICFRE /AICRP (NPC-FRI)	Bioprospecting for industrial utilization of lesser known forest plants	2019	2022	58.82	Ongoing
17.	ICFRE /AICRP (NPC-IFGTB)	Development of Biopesticide products/ formulations from extracts of tree borne oil seeds and tissues of wild plants for management of insect pests.	2019	2022	51.32	Ongoing

As Co- Investigator (Co-PI)

S. No.	Name of the agency	Title of the scheme	Period		Grant in Lakhs Rs.	Remarks
			From	To		
1	**MoEFs** RFRI/EP/12	Biological control of *Mimosa invisa*, a destructive alien weed threatening Kaziranga National Park grassland.	2006	2009	9.17	Completed
2.	ICFRE RFRI/FP/11	Investigation on the formation of agar wood in *Aquilaria malaccensis* Lamk.	2006	2009	1.20	Completed
3.	DST	Prospecting bioactive compounds from certain flora: Biopesticides against papaya mealybug, *Paracoccus marginatus* Williams and Granara de Willink. in Tamilnadu- TNSTC – DST	2011	2014	12.00	Completed
4.	MoEF	Insecticidal potential and Biological activity of *semicarpus anacardium* against Defoliators	2015	2018	13.27	Completed
5.	DBT - BIRAC	Registration and commercialization of the most effective biopesticide formulation using the seed extract of Hydnocarpus pentandra for the management of isect pests of agriculture and forestry importance	2015	2018	178	Ongoing

Products & Technology

1. The product on **Biopesticides -Vilvekam (**Bael, *Aegle marmelos* seed oil based formulation) was developed and released.
2. ***Hy-Act*** –**Biopesticide**-*Hydnocarpus pentandra* seed oil based preformulated biopesticide against teak defoliator *Hyblea purea*, casuarina bark eating caterpillar *Inderbela quadrinotata* and ailanthus defoliator *Eligma narsisuss* was developed and released by the Honb. Minister of Environment and Forest, Smt. Jeyanthi Natarajan to the farmers during tree growers mela, February, 2012 held in IFGTB at Coimbatore.
3. **Tree PAL^{H}** a new biopesticidal product of seed oil based formulation developed from *Hydnocarpus pentandra* was released during "Tree growers Mela February, 2013" at Institute of Forest Genetics and Tree Breeding, Coimbatore.
4. **Tree rich biobooster**" using ecofriendly organic materials for growth improvement of fast growing trees species such as *Casuarina, Gmelina, Ailanthus, Melia and Eucalyptus* has been developed and introduced during "Tree growers Mela February, 2013" at Institute of Forest Genetics and Tree Breeding, Coimbatore
5. **R-500"** Phytomedicine-(rejuvenating capsule) for antidepressant, anxiolytic and hypoglycemic properties from aegle fruit has been developed with due pharmacological evaluation.
6. A **microbial biopesticide** from endophytic fungus of entomopathogenic significance *Nigrospora sphaerica* **Ento-Fight Nasa** has been developed and released by DG, ICFRE during 19&20th November, 2014.

7. **Crawl clean** – Botanicals based **Biopesticde** has been developed and released by Secretary, MoEF on 16th June 2015 for the management of Papaya mealybug, *P. marginatus.*
8. **Key for identification of fifty two species of Orthoptera of Nilgiri Biosphere Reserve** and released by DG, ICFRE during 19&20th November, 2014.
9. **Vermico-IPM** (Instant organic potting mixture) was developed and released on 2nd February, 2016.
10. **A free mobile "app" on "Tree Pests of India**" has been developed and released : contributed the content part of the app which includes insect pests of 25 important tree crops and the information about insects, damage caused and control measure.

Publications

1. Brindha B., Sumathi R., Lakshmidevi R., Suresh Babu D., **Senthilkumar N.** and Murugesan S. (2019). Profiling bio-active compounds of *Ailanthus excelsa* leaves roxb. (Simaroubaceae) for livestock health. International Journal of Science, Environment and Technology, 8(1): 218 – 228.
2. **Senthilkumar N**, Sumathi R, Lakshmidevi R, Divya G, Lenora L. M, Sathishkumar R, Suresh Babu D, Sangeetha M and Nandhini V (2019). Capacity building on the development of treerich biobooster technology to irular tribes in forest fringe villages of Coimbatore, Tamilnadu: an approach towards livelihood improvement. *Journal of Emerging Technologies and Innovative Research*, 6(2):434-439.
3. **Natchiappan Senthilkumar**, Ramachandran Lakhmidevi, Ramasamy Sumathi, Rajendran Sathiskumar, Govinda Raj Divya and Lourdhuswamy Marianayagam Durairaj Lenora, 2018. Millicompost: an alternate biocompost for forest nurseries, *International Journal Of Current Research, 10(6): 70971-70974*
4. Govindaraj Divya and **Natchiappan Senthilkumar**, 2018. Influence of courtship feeding on fecundity of *conocephalus maculatus* (Le Guillou, 1841) (Orthoptera: Tettigoniidae: Conocephalinae), *Journal of Entomology and Zoology Studies*, 6(5): 612-617
5. Thenmozhi, A., Lenora. L. M, **Senthilkumar. N**, Sri durgadevi. R, Maleeka begum. S. F (2018), Bioassay directed isolation and characterisation of bioactive compounds fom fruit pulp of *Annona muricata. L., World Journal of Engineering Research and Technology* 4(3):298-308
6. Divya, G. and **N. Senthilkumar**. 2017. Record of grasshopper fauna (Orthoptera) in forest campus, Coimbatore, Tamil Nadu, India, *Current Biotica* 10(4): 296-301
7. Durai, M.V., G. Balamuniappan, R. Anandalakshmi, S. Geetha and **N. Senthilkumar**. 2016. Qualitative and quantitative analysis of phytochemicals in crude extract of big – Leaf mahogany (Swietenia macrophylla King.), *International Journal of Herbal Medicine* 4(6): 88-91
8. **Senthilkumar, N.** 2017. Characterization of Tree genetic Resources/Germplasm by Biochemical markers. In (Eds.) K. Palanisamy, D. Thangamani, S.p. Subramani and R.S. Prashanth, HRD Training on 'Germplasm Conservation and Documentation' IFGTB publications, pp.103-111
9. Lenora, L.M., and **N. Senthilkumar**. 2017. Insecticidal Potential of Aquatic Alien Weed, *Eichhornia crassipes* (Mart) Solms on Tobacco Caterpillar, *Spodoptera litura* (F.), *Asian Journal of Plant Science and Research*, 7(1):1-6
10. **Senthilkumar, N.** 2016. Distribution, Habitat preference, and Rarity of Tettigoniid Species and Site Selection for their Conservation Through Root Weighting Method. In: K.A. Sujana, M.V. Durai, C. Sivaperuman. 2016. Forest Ecosystems. Biodiversity, Ecology and Conservation.Write and Print Publication, New Delhi. 91-111
11. Murugesan, S., **N. Senthilkumar**, R. Sumathi, D. Suresh Babu and R. Lakshmi Devi. 2016. Biosignalling Molecules and Biomass Documentation of *Casuarina Equisetifolia* Inoculated with Frankia. *Asian Journal of Biochemical and Pharmaceutical Research*, 3(6): 139-150
12. **Senthilkumar, N**. 2015. Nitorgen fixation in non-leguminous tree, Casuarina by Frankia symbiosis. *Current Biotica*, 9(2): 101-104.
13. Lenora, L. M., Suresh Babu, D., Senthil Kumar, J., and **Senthilkumar, N**. (2016). GC-MS-MS analysis of Alien Invasive Aquatic weed, *Eichhornia crassipes* (Mart.) Solms. *Der Chemica Sinica*, 7(3): 48-52
14. Srinivasan, A., D. Suresh Babu, **N. Senthilkumar** and S. Murugesan (2016). Physicochemical properties and phytochemical constituents of *Semecarpus anacardium* l. Seed oil. *Advances in Applied Science Research*, 7(3):151-154.
15. S. Murugesan, V. Mohan, **N. Senthilkumar**, R. Lakshmidevi, D. Suresh Babu and R. Sumathi (2016). Effects of growing media with bioinoculants on quality seedlings production of *Eucalyptus tereticornis* in nursery conditions. *European Journal of Experimental Biology***,** 6(3):86-93.
16. S. Murugesan, **N. Senthilkumar**, D. Suresh Babu and D. Rajasugunasekar (2016). Chemical constituents and toxicity assessment of the leaf oil of *Lantana camara* Linn. from Tamilnadu regions. *Asian Journal of Plant Science and Research*, 6(3):32-42.

17. Sri Harini, R., A. Saivikashini, G. Keerthana, K. Kumaresan, S. Murugesan and **N. Senthilkumar** . 2016. Profiling metabolites of *Carica papaya* Linn. variety CO7 through GC-MS analysis. *Journal of Pharmacognosy and Phytochemistry*, 5(2): 200-203 **(IF.0.22)**
18. Vijayaraghavan, A. and **N. Senthilkumar**. 2016. Incidence of *Cossus cadambae* Moore (Lepidoptera:Cossidae) on *Neolamarckia cadamba* (Roxb.) Miq. (Rubiaceae). ENVIS newsletter-Forest Genetic Resources and Tree Improvement, 2(3): 9-10.
19. Murugesan, S., **N. Senthilkumar**, D. Suresh Babu, and D. Rajasugunasekar. 2016. Chemical composition, antifeedant and insecticidal activities of Tree borne oil seeds. *Pestology*, XL (2): 29-41
20. Lenora, L. M., Suresh Babu, D., Senthil Kumar, J., and **Senthilkumar, N**. (2016). *Eichhornia crassipes* (Mart.) Solms. - An alternate renewable source for Shikimic acid, a precursor for Tamiflu, a swine flu drug. *Journal of Pharmacognosy and Phytochemistry*, 5(1): 178-181 **(IF.0.22)**
21. Lenora, L. M., Senthil Kumar, J., Murugesan, S., and **Senthilkumar, N**. (2015). Anticancer activity of water hyacinth, *Eichhornia crassipes* (Mart.) Solms. On human cervical cancer cell line. *Octa Journal of Environmental Research*, 3(4): 327-331
22. **Senthilkumar, N.** 2015. Socio-economic status of forest fringe villages in Tiruvannamalai District, Tamilnadu. *JAEERD*, 3(10):317-325
23. **Senthilkumar, N**., A. Mayavel, S. P. Subramani, K. Balaji and P. Deenathayalan. 2015. Red sanders, *Pterocarpus santalinus* L. in Rajampet Forest Range, Rajampet Forest Division, Andhra Pradesh, INDIA, *AASR*, 6(10):130-134
24. **Senthilkumar, N**., S. Murugesan, and D. Suresh Babu. 2015. Cellulolytic activity of gut extract of subterranean termite, *Odontotermes obesus* Rambur : A pretreatment tool for conversion of lignocellulosic biomass to fermentable sugar for biorefinery industry. *African Journal of Biotechnology*,14(20):1753-1756 (**IF:0.57**)
25. **Senthilkumar, N.,** S. Murugesan, R. Sumathi and D. Suresh Babu. 2015. Compositional analysis of lignocellulosic biomass from certain fast growing tree species in India. *Der Chemica Sinica.*, 6 (2): 25-28
26. **Senthilkumar, N.,** V. Mohan and S. Murugesan. 2014. Studies on endophytic fungi of commercially important tropical tree species in India. *Kavaka*, 43: 22-31.
27. **Senthilkumar, N**., S. Murugesan, and D. Suresh Babu. 2014. Secondary metabolites and nutrient balance in casuarinas: An insight into Protein Competition Model (PCM). *J. Adv. Lab. Res. Biol.*,V(IV): 107-111..
28. **Senthilkumar, N.,** S. Murugesan, D. Suresh Babu and C. Rajeshkannan. 2014. GC-MS analysis of the extract of endophytic fungus, *Phomopsis* sp. Isolated from tropical tree species of India, *Tectona grandis* L. *IJIRSET*, 3(3): 10176-10179. (**IF:1.672**)
29. **Senthilkumar, N.,** S. Murugesan, and D. Suresh Babu. 2014. Metabolite profiling of the extracts of endophytic fungi of entomopathogenic significance, *Aspergillus flavus* and *Nigrospora sphaerica* isolated from tropical tree species of India, *Tectona grandis* L. *Journal of Agriculture and Life Sciences*, 1(1): 108-114
30. **Senthilkumar, N**., S. Prakash, C. Rajesh Kannan, A. Arun Prasth and N. Krishnakumar. 2014. Revisiting forest types of India (Champion and Seth, 1968): A case study on Myristica swamp forest in Kerala. *IJAR*, 2(2):492-501 (**IF:1.659**)
31. **Senthilkumar, N**., K. Thangapandian, S. Murugesan, J. P. Jacob and N. Krishnakumar. 2013. Invasive Alien Eucalyptus gall wasp, *Leptocybe invasa* (Fisher and Lasalle): A Threat to Eucalyptus Plantations in Tamilnadu (INDIA). *AJE*, 6(3):146-152
32. Rajeshkannan, C., S. Murugesan and **N. Senthilkumar**. 2013. Current status of papaya mealybug *Paracoccus marginatus* and its management strategies in Tamilnadu" *Pestology*, XXXVII (12): 21-24
33. **Senthilkumar, N**., S. Murugesan, V. Mohan and J. Muthumary 2013.Taxol producing fungal endophyte, *Colletotrichum gleospoiroides* (Penz.) from *Tectona grandis* L. *Current Biotica*, 7 (1&2): 8-15
34. **Senthilkumar, N.,** S. Murugesan and K. Thangapandian. 2013. Present status of eucalyptus gall insect, *Leptocybe invasa* (Fisher and LASalle) in Tamilnadu. *Current Science*, 104(9):1135-1136 (**IF:0.905**)
35. **Senthilkumar, N.,** and N.D. Borthakur. 2013. Impact of natural and anthropogenic disturbances on Orthopteran community in Kaziranga National Parak, Assam, India. *The Indian Forester*,139 (6): 547-552
36. Murugesan.S., **N.Senthilkumar**, K.B.Vijayalakshmi and C.Rajeshkannan (2013). Phytochemical characterization of *Melia dubia* for their biological properties, *Der Chemica Sinica*, 4(1):36-40.
37. Murugesan, S., C.Rajeshkannan, A.Mayavel, **N.Senthilkumar** and D.Suresh Babu. 2012. Bioprospecting of Forest Natural Resources: As Natural Dyes, *Pestology*, XXXVI (11):26-33.
38. **Senthilkumar, N.,** and S. Murugesan. 2012. Bioprospecting the renewable forest resources: An overview. *Current Biotica*, 5(4): 522-540

39. **Senthilkumar, N.,** and S. Murugesan. 2012. Insecticidal properties of certain flora based on ethnobotanical records against teak defoliator, *Hyblaea puera* Cramer (Lepidoptera: Hybaeidae), *European Journal of Experimental Biology*, 2 (3): 513-519. **5- citations**
40. **Senthilkumar, N.,** S. Murugesan and K. B. Vijayalakshmi. 2012. GC-MS-MS analysis of *Trichilia connaroides* (wight &Arn.) Bentv (Meliaceae): A tree of ethnobotanical records, *Asian Journal of Plant Science and Research*, 2(2): 193-197 – **8 citations**
41. Murugesan, S., **N. Senthilkumar**, N. Krishnkumar, D. Suresh Babu, C. Rajeshkannan, P. Manivachakam and R. Sumathi. 2012. Hy-Act (HyPSO 25 EC)- Seed oil based biopesticide from Hydnocarpus pentandra: An IPM for some of the defoliators of forest trees. *Pestology*, XXXVI (3): 12-14.
42. Murugesan, S., **N. Senthilkumar**, R. Sumathi, P. Manivachakam, and C. Rajeshkannan. 2012. Plants with promising anti-infective activity: role of Bioprospecting. In (Eds.) Nagarajan, B, C. Kunhikannan, K.R. Sasidharan, and N. Krishnakumar. Tropical Ecosystems: Structure, Function and Services. pp 362-370.
43. Murugesan, S., R. Sumathi, A. Karthikeyan, **N. Senthilkumar**, and C. Rajeshkannan. 2012. Biotransformation of some secondary metabolites of Frankia-Casuarina relationship. In (Eds.) R.S.C. Jayaraj, Rekha R. Warrier, A. Nicodemus and and N. Krishnakumar. pp 283-288.
44. **Senthilkumar, N**. S. Murugesan, N. Bhanu, S. Supriya and C. Rajeshkannan. 2011. Biochemical Estimation and Antimicrobial Activities of the Extracts of *Caesalpinia sappan* Linn. *BJSIR*, 46(4):429-436
45. Krishnakumar, N. S.Murugesan, **N.Senthilkumar**, C.Rajeshkannan, P.Manivachakam, and R.Sumathi. 2011. Vilvekam – A*egle marmelos* seed oil based biopesticide for the management of teak defoliator, *Pestology*, xxxv (3): 8-9
46. **Senthilkumar, N.,** S. Murugesan, K.R.Sasidharan, P. Manivachakam and D. Suresh Babu. Diversity of Orthoptera in Nilgiri Biosphere Reserve (Tamilnadu part): A preliminary observation. 2011. Proceedings on the celebration of International day of biological diversity and Centenary of Fisher Herbarium. organized by IFGTB & NBA published by Director, IFGTB. pp. 95-103
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48. Rajeshkannan, C., S. Supriya, S. Murugesan and **N. Senthilkumar**. 2010. Analysis of anthocyanin in *Caesalpinia sappan* L. and *Carissa carandas* L. using HPLC, *International Journal of Biotechnology and Bioengineering Research*, 1 (1): pp 115-123
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50. Murugesan,S., **N. Senthilkumar**, C. Rajeshkannan and S. Supriya. 2010. Fungistatic Action and Biochemical Properties of *Clitoria ternatea* (L.) extracts. *Herbal Tech Industry*, 6(7): 22-24 pdf
51. S. Murugesan, **N. Senthilkumar**, C.Rajeshkannan and S. Supriya. 2010. Pectin quantification and determination from *Tamarindus indica, Achras zapota and Aegle armelos* using HPLC. *SAJOSPS*, 10(2):100-102 pdf
52. **Senthilkumar, N.** and S. Murugesan. 2010. Sucrose and maltose as carbon sources for fermentative production of polysaccharide by *Aspergillus niger* Van Tiegh. *Recent Research in Science and Technology*, 2 (4): 1-5
53. **Senthilkumar, N.,** Saurabh Sarma and Nizara D. Barthakur**.** 2010. Effect of abiotic factors on the population of *Calopepla leayana* Latr. (Coleoptera: Chrysomelidae) on *Gmelina arborea* (Roxb.) (Verbenaceae) *Indian Forester* , 136 (1): 487-496 – **3 citations** pdf
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57. **Senthilkumar, N.**, R. Prakash, K.P.Sanjayan, V. Mahalingam and M.C. Muralirangan**.** 2009. Diversity and distributional pattern of acridids (Orthoptera:Acrididae) in Tamil Nadu, India. *Indian Journal of Forestry*, 32(2):277-284 pdf
58. **Senthilkumar, N.**, and K.P. Sanjayan. 2008. Impact of climate change on embryonic and post embryonic development of *Conocephalus maculates* (Le Guillou) (Orthoptera:Ensifera:Tettigoniidae:Conocephalinae). *Indian Forester* 134 (1):57-65
59. Senthilkumar, N., Nizara D. Barthakur, and M. Lokeswara Rao. 2008. Bioprospecting with reference to Medicinal Insects and tribes in India: An overview. *Indian Forester, 134* (12) 1575-1591

60. Saurab Sarma, **N. Senthilkumar** and Satyam Kr. Das. 2008. Insect pests of Medicinal plants and their management: An overview**.** *Indian Forester* 134 (1):105-119
61. **Senthilkumar, N.** 2007. Biological control of insect pests and diseases of forestry importance. *Current Science*, 92(2): 166-167 (**IF:0.905**)
62. **Senthilkumar, N.**, S. Trivedi, P.K. Kathri, N.D. Barthakur and N. J. Borah. 2006 Butterfly fauna of Gibbon Wildlife Sanctuary, Assam: A Preliminary survey. *Ann.For.*, 14(1):86-91.
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Books

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2. Murugesan, S. and **N. Senthilkumar**. 2009. Instrumentation methods and chemical analysis. ICFRE/IFGTB/TM-1 – English. pp. 104
3. **Senthilkumar, N.,** S. Murugesan and N. Krishnakumar. 2009. An illustrated guide on insect pests of important tree species in South India. IFGTB Publications, Coimbatore. pp 132.
4. Murugesan, S and **N. Senthilkumar**. 2010. Metabolite profiling: Current Techniques IFGTB Publications, Coimbatore. pp 180.
5. **Senthilkumar, N.**, S. Murugesan, C. Rajeshkannan and N. Krishnakumar.2011. Bioprospecting forest resources: An illustrative catalogue of some flora for biopesticides. IFGTB publications, Coimbatore. pp 56.
6. Murugesan, S., and **N. Senthilkumar**. 2012. Chemical Ecology, Sentinals of plant defences in forest insect plant interactions. LAP Lambert Academic Publishing, Germany. Pp188.
7. Murugesan, S., C.Rajeshkannan and **N. Senthilkumar**. 2012. *Aegle marmelos* seed oil based biopesticide, An Ecofriendly Strategy for the management of teak defoliators. LAP Lambert Academic Publishing, Germany. Pp124.
8. Murugesan, S., **N. Senthilkumar** and N. Krishna Kumar. 2013. Bioprospecting: Scope, challenges and prospects, IFGTB, Pp164.
9. Murugesan, S., **N. Senthilkumar** and N. Krishna Kumar. 2013. Training workshop (manual) on Bioprospecting: Role of state forest departments. IFGTB,.Pp 142.

10. **Senthilkumar, N**., and S. Murugesan. 2014. Orthoptera (Grasshoppers) of Nilgiris Biosphere Reserve: A systematic information. IFGTB, Coimbatore. Pp56. ISBN:978-93-82387-09-1.
11. Murugesan, S., **N. Senthilkumar** and R.S. Prashanth. 2016. Forest resources in India:Opportunities in Bioprospecting. IFGTB publications. Pp243.
12. Murugesan, S., **N. Senthilkumar** 2016.Training manual on "Instrumentation methods and phytochemical analysis" IFGTB publications, pp 84.

Chapter in Editorial book

1. **N. Senthilkumar**, A. Karthikeyan, M.C. Muraliranagan, V. Mahalingam and K.P. Sanjayan. 2002. Tettigoniids of Tamil Nadu: A study on Biodiversity. In: (Eds.) K.P. Sanjayan, V. Mahalingam and M.C. Muraliranagan. *Vistas of Entomological Research for the New Millennium* G.S. Gill Research Institute, Guru Nanak College, Chennai, India. Pp 37-42
2. M.C. Muralirangan, K.P. Sanjayan and **N. Senthilkumar**. 2004. Behavioral and ecological features of Mantids that confer as prospective biocontrol agents. In: K.Sahayaraj (ed.) Indian insects predators in biological control. Daya Publishing House, Delhi. Pp 24-60.
3. Murugesan, S. and **N. Senthilkumar**. 2010. Ecological Interactions and impact of biodiversity of Insects in Social Forests. In: Prof. T.N. Ananthakrishnan (ed.) Insect Biodiversity: Functional Dynamics and Ecological Perspectives. Scientific Publishers (India), Jodhpur.Pp.107-125
4. **Senthilkumar, N.,** S. Murugesan, P. Manivachakam, D. Suresh Babu and M. Monisha. 2013. Species richness, climate change and altitudes: A study on diversity of Orthoptera in Nilgiris shola forests and grasslands. 135-142. In (Eds.). Balu *et al.,* Proceedings of the National Seminar on Forest Health Management. 22nd & 23rd March 2012, IFGTB, Pp 586.
5. Murugesan, S., R. Sumathi, S. Santhi, **N. Senthilkumar**, C. Rajesh Kannan, P. Manivachakam, and R. Lakshmidevi.2013. Impact of biochemical signals of Frankia on *Casuarina equisetifolia*. 527-536. In (Eds.). Balu et al., Proceedings of the National Seminar on Forest Health Management. 22nd & 23rd March 2012, IFGTB, Pp 586.

Seminars/Symposia/workshops/conferences/meetings attended during last 5 years - 40

Training imparted

1. Imparted training on "Instrumentation methods and chemical analysis" on 27&28th July, 2009 at IFGTB, Coimbatore.
2. Imparted training on "Instrumentation methods and chemical analysis" on 9&10th September, 2009 at IFGTB, Coimbatore.
3. Imparted training on "Instrumentation methods and chemical analysis" on 27&28th September, 2010 at IFGTB, Coimbatore
4. Two days Training workshop on "Bioprospecting-Role of state forest departments need to play" to IFS officials was imparted during 1st & 2nd August, 2013 sponsored by MoEF, Govt. of India. Total of 25 IFS officers from various states participated in the training programme.
5. Two days Training workshop on "Bioprospecting-Role of state forest departments need to play" to IFS officials was imparted during 23& 24 July, 2015 sponsored by MoEF, Govt. of India. Total of 25 IFS officers from various states participated in the training programme.
6. Two days Training workshop on "Bioprospecting-Role of state forest departments need to play" to IFS officials was imparted during 21-22nd July, 2016 sponsored by MoEF, Govt. of India.
7. Imparted Hands on training on "Bioprospecting – Instrumentation methods and phytochemical analysis" during 17-19th August, 2016 at IFGTB, Coimbatore.
8. Imparted Hands on training on "Bioprospecting – Instrumentation methods and phytochemical analysis" during 22 – 23rd December 2016 at IFGTB, Coimbatore.
9. Imparted Summer Internship training on "Biotechnology, Microbiology and Bioprospecting module" during 15th – 31st May, 2017 at IFGTB, Coimbatore

Foreign visits: Bhutan and Thailand

Awards & honors

DST under Young Scientist in the year 2005
DST international Travel support in 2010 to visit Thailand
Outstanding scientist in Entomology in the year 2015 by VIF, Chennai
Best Scientist Award -2018 – Nature Science Foundation, Coimbatore.