

Name : Dr. S.Muthuramkumar

Department : Botany

Designation : Assistant Professor

Address :Assistant Professor, Department of Botany, VHNSN

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Experience in Teaching :15 years

Experience in Research :25 years

Education Qualification :M.Sc., Ph.D.,

TitlesofDissertation:

Ph.D.: Diversity and ecology of lianas in a tropical evergreen forest in the Anamalais, Western Ghats, India. Pondicherry University, Puducherry. Mentor-Dr. N. Parthasarathy

AreasofSpecialization: Biodiversity and Conservation, Tropical Ecology, Taxonomy Mycology

CoursesAttended:

- 1. OrientationCourse: Attended Orientation course at Pondicherry University from 09.01.2009 to 05.02.2009
- 2. Refresher Course
 - a) Attended Refresher course in life science at Madurai Kamaraj University from 16.11.2012 to 06.12.2012
 - b) Attended Refresher course in life science at Madurai Kamaraj University from 07.11.2013 to 27.11.2013

c) Attended Refresher Course on "Research Methodology and Data Analysis" from 17-31st May 2021. Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, Teaching Learning Centre, Ramanujam College, University of Delhi

3. Short-Term course

- a) A one week **Training On Counselling Skills (TCS) for Teachers at Higher Education Level.** Under the scheme Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (an MHRD Project, GoI), MS University, Tirunelvelli from 18.07.2019 to 24.07.2019.
- b) Online one-week Faculty Development Programme on "**Advanced Pedagogical Techniques**" from 30th June 2021 to 06th July 2021. Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, Teaching Learning Centre, Ramanujam College, University of Delhi

Project:

Major	Funding Agency
Exploration of bioactive endophytic mycoflora of	UGC
selected endemic plants of tropical evergreen forest,	
Western Ghats, Tamil nadu.	

Workshop Organized as convenor / co-ordinator: Nil

Seminars, Workshops and Conferences Attended:

State level Seminars / Workshops / Conference

- 1. Attended State level seminar on "*Beginning Pearl in Bioinformatics*" held at VHNSN College, Virudhunagar, during February 28, 2015
- 2. Attended "Workshop on Research Orientation for Science Lectures" held at VHNSN College, Virudhunagar, during April 17, 2008.

National level Seminars / Workshops / Conference

- 1. Attended National Symposium on *Nano Science and Technology* (NSNST-2017), held at Centre for Nano Science and Engineering, IISc, Bengaluru during July 2 to 4, 2017.
- 2. Attended National Conference on "Emerging Trends in Medicinal Plants and Herbal Products" held at Department of Botany, VHNSN College, Virudhunagar during December 12 to 13, 2013
- 3. Attended National Seminar on "Social Responsibilities of Higher Educational Institutions" held at, AyyaNadarJanakiAmmal College, Sivakasi,during July 18 to 19, 2013.

- 4. Attended National conference on "Impacts of cyclonic changes in Marine Biodiversity" held at Department of Botany, VHNSN College, Virudhunagar, duringFebruary 9 to 10, 2012.
- 5. Attended "Autumn School in Biotechnology" for college teachers, held at Plant Genetic Engineering Lab, Department of Biotechnology, Bharathiar University, Coimbatore, Sponsored by UK-India Education and Research Institute, during September 26 to 30, 2011
- 6. Participated in the National Conference on "Biodiversity for Sustainable Development: Threats, Indicators, Climate change, Poverty Alleviation and Targets for Safeguarding Biodiversity" from August 25 to 27, 2010, Organized by Centre for Biodiversity and Forest Studies, School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Madurai.
- 7. Participated in the National Conference on "Frontiers in Biotechnology" held at Department of Biotechnology, School of Biotechnology and Genetic Engineering, Bharathiar University, Coimbatore July 22 to 24, 2009
- 8. Participated in CSIR sponsored CIMAP's Winter School on "Recent Techniques in Gene Cloning, DNA Analysis and Functional Genomics" held at CIMAP, Lucknow during December 1 to 10, 2003.
- 9. Participated in the Workshop on "*Plant Biosystematics*" from October 29to 8 November 2001, conducted by Center for Environmental Management of Degraded Ecosystems, University of Delhi.

International level Seminars / Workshops / Conference

- 1. Attended International Conference on "Unifying Biology Through Diversity" held at Post-Graduate and Research Department of Botany, The American College, Chennai during 14 & 15, October 2022.
- 2. Attended International Conference on "Medicinal Plants and Herbal drugs: Challenges and Opportunities in Cultivation Sustainable Utilization and Conservation" held at Post-Graduate and Research Department of Botany, Pachaiyappa's College, Chennai during March 4to 6, 2010.
- 3. Attended International Conference on "Tropical Ecosystems: Structure, Diversity and Human Welfare" held at Bangalore during July 15 to 18, 2001,

Papers Presented in National level Seminars / Workshops / Conference

1. A. Maniraj, **S.Muthuramkumar**, M.Kannan, K. Rajarathinam and A.Pushparaj (2017) Optimization and Characterization of Green Synthesized Silver Nanoparticles and Its Inhibitory Activity Against Biofilm Forming Bacterial Pathogens. In: UGC sponsored National Seminar on

- "Recent Advances in Chemical Research" held at Department of Chemistry, VHNSN College (Autonomous) during 24th and 25th January 2017.
- 2. A. Maniraj, K. Rajarathinam, **S. Muthuramkumar** and M. Kannan (2016). Drug resistance patterns analysis of biofilm forming bacteria isolated from clinical specimens. In: UGC sponsored National Conference on "*Emerging infectious diseases and curative measures*" held at Department of Microbiology, Kamaraj College during 22nd and 23rd December 2016.
- 3.R. Packiaraj, K. Rajarathinam and **S.Muthuramkumar.**Cytotoxicity and antimicrobial activities of endophytic fungus *Colletotrichumgloeosporioides* isolated from endemic plant *Cinnamomummalabatrum*Burm.f. In: UGC sponsored National seminar on "*Plant genetic resources: Utilization and conservation*" held at V.O.Chidambaram College, Thoothukudi during 12th & 13th- February 2015.
- 4. R. Packiaraj, K. Rajarathinam, G. Premkumar and S. Muthuramkumar. Antimicrobial and cytotoxic activity of unidentified endophytic fungus isolated from endemic plant *Myristicamalabarica*Lam. In:UGC sponsored National seminar on "*Discourses on past, present and future scenario on medicinal plant conservation in India*" held at Saraswathi Narayanan College, Madurai during 6th & 7th –March 2015.
- 5. R. Packiaraj, P. Puntharaj and **S. Muthuramkumar.** Diversity and antimicrobial potential of endophytic fungi isolated from three endemic plants of tropical ever green forest in south-West India. In:UGC sponsored National Conference on "*Phytomedicine*" held at Bharathiar University, Coimbatore, 4th& 5th-October 2012.
- 6. **S. Muthuramkumar** (2009). The foliar endophyticmycofloral diversity of an important medicinal plant *Plectranthusamboinicus*(Lour.) Spreng. (Lamiaceae) and its antibacterial activity. In: "*Frontiers in Biotechnology*" held on July 22-24, 2009 organized by Department of Biotechnology, School of Biotechnology and Genetic Engineering, Bharathiar University, Coimbatore.
- 7. P. Nagarajan, P. Periyakaruppaiah, G. Premkumar, **S.Muthuramkumar**, Rajarathinam, K. and Jayakumar (2008). Effect of enhanced UV-B (280-320nm) radiation on the changes in the secondary metabolites content in *Vitexnegando* a medicinal plant. In:UGC sponsored National conference on "*Cultivation processing and Bioprospecting of ethnomedicine*" held at Sri Parasakthi college for women during 24th-26th march 2008.

Paper Presented in International level Seminars / Workshops / Conference

1. Karthiga K, Ayyappan N and Muthuramkumar S (2022). Floristic Inventory of selected Sacred Groves of Natham Taluk, Dindigul, Tamil Nadu. In: International Conference on "Unifying Biology Through Diversity" held at Post-Graduate and Research Department of Botany, The American College, Chennai during 14 & 15, October 2022.

- 2. R. Packiaraj, K. Rajarathinam, G. Premkumar and S. Muthuramkumar. Antimicrobial and cytotoxic activity of sterile endophytic fungus (Mm-8) isolated from *Myristicamalabarica*Lam. International symposium on "Medicinal plants and herbal drugs in human and livestock wealth a global prospective" at Pachaiyappa's College, Chennai, January 29to 31, 2016.
- 3. G. Premkumar, N. Arumugam, S.Muthuramkumar, G. Varatharajan, Wasim Rashid Kakroo and K. Rajarathinam, (2012). Manipulating Scopadulcic acid-B production by *Scopariadulcis* Cell suspension culture elicited with UV –B light In: International conference "Current trends in medicinal plant research" held at Department of Botany, University of Pune during January 10 to 13, 2012.

Research Publications in peer reviewed National/International Journals

- 1. Hariram, M., Rahul, A., Sankari, M.K.S., Vivekanandhan,S., **Muthuramkumar**, S., Misra, M., and Mohanty, A.K. (2021). Novel puffball (Lycoperdon Sp.) spores derived hierarchical nanostructured Biocarbon: A preliminary investigation on thermochemical conversion and characterization for supercapacitor applications. *Materials Letters* 291: 129432 https://doi.org/10.1016/j.matlet.2021.129432
- 2. Hariram, M., Ganesan, V., **Muthuramkumar**, S., and Vivekanandhan,, S. (2021). Functionalization of kaolin clay with silver nanoparticles by *Murraya koenigii* fruit extract-mediated bioreduction process for antimicrobial applications *Journal of the Australian Ceramic Society* 57 (2), 505-513
- 3. Osuri, A.M.,. Machado, S., Ratnam, J., Sankaran, M., Ayyappan, N., **Muthuramkumar, S.**, Parthasarathy, N., Pélissier, R., Ramesh, B.R., DeFries, R., and Naeem, S. (2020). <u>Tree diversity and carbon storage cobenefits in tropical human-dominated landscapes</u>. *Conservation Letters* 13 (2), e12699
- 4. Ganesan, V., Hariram, M., Vivekanandhan, S. and **Muthuramkumar**, S. (2020). Periconium sp. (endophytic fungi) extract mediated sol-gel synthesis of ZnO nanoparticles for antimicrobial and antioxidant applications *Materials Science in Semiconductor Processing* 105, 104739 (Elsevier)
- 5. Hariram, M., Vivekanandhan, S., Ganesan, V., **Muthuramkumar**, **S**., Rodriguezuribe, A., Mohanty, A.K. and Misra, M. (2019) *Tecoma stans* flower extract assisted biogenic synthesis of functional Ag-Talc nanostructures for antimicrobial applications. *Bioresource Technology Reports* 7doi.org/10.1016/j.biteb.2019.100298)
- **6.** Maniraj, A., Kannan, M., Rajarathinam, K., Vivekanandan, S. and **Muthuramkumar**, S. (2019) Green Synthesis of Silver Nanoparticles and Their

- Effective Utilization in Fabricating Functional Surface for Antibacterial Activity Against Multi-Drug Resistant Proteus mirabilis. *Journal of Cluster Science* 30: 1403–1414. https://doi.org/10.1007/s10876-019-01582-z
- 7. Vivekanandhan, S. Schreiber, M., **Muthuramkumar**, S. ,Misra,M. and Mohanty, A.K (2017) Carbon nanotubes from renewable feedstocks: A move toward sustainable nanofabrication. *Journal of Applied Polymer Science* (Wiley) 134 (4) 44255. Impact Factor: 1.866
- 8. Jeyakumar, S., Ayyappan, N., **Muthuramkumar**, S., and Rajarathinam, K. (2017). Impacts of selective logging on diversity, species composition and biomass of residual lowland dipterocarp forest in central Western Ghats, India. *Tropical Ecology*, 58 (2): 315-330.
- **9.** Osuri, A.M., Chakravarthy, D., DivyaMudappa, Shankar Raman, Ayyappa, N., **Muthuramkumar, S.** and Parthasarathy (2017). Successional status, seed dispersal mode and ovrstorey species influence tree regnration in tropical rain-forest fragments in Western Ghats, India. *Journal of Tropical Ecology* 33: 270-284 https://doi.org/10.1017/S0266467417000219
- 10. Vishnukumar, P., Vivekanandhan, S. and **Muthuramkumar, S.** (2017) Plant-Mediated Biogenic Synthesis of Palladium Nanoparticles: Recent Trends and Emerging Opportunities. *Chem. Bio. Eng. Review* (Wiley) **4(1):18-36.** Impact Factor :2.847
- 11. Vivekanandhan, S. Schreiber, M., **Muthuramkumar**, **S.**, Misra, M. and Mohanty, A.K (2017) Carbon nanotubes from renewable feedstocks: A move toward sustainable nanofabrication. *Journal of Applied Polymer Science*(Wiley)134 (4) 44255. Impact Factor:1.866
- 12. Packiaraj, R., Jeyakumar S., Ayyappan, N., Adhirajan, N., Premkumar, G., Rajarathinam, K. and **Muthuramkumar**, S. (2016) Antimicrobial and cytotoxic activities of endophytic fungus *Colletotrichumgloeosporioides* isolated from endemic tree *Cinnamomummalabatrum* Studies in Fungi 1 (1): 104–113.
- 13. Premkumar.G, Arumugam.N, Muthuramkumar.S, Varatharaju.G, Rajarathinam.K. 2013. Improved Micropropagation in Hybanthusenneaspermus L. MuellAmerican Journal of Plant Sciences 4: 1169-1172. Impact Factor: 1.03
- 14. Thalavaipandian, A. Ramesh, V. Bagyalakshmi, **Muthuramkumar**, **S.**Rajendran A 2011 Diversity of fungal endophytes in medicinal plants of Courtallam hills, Western Ghats, India. *Mycosphere* 2(5): 575-582.Impact Factor: 0.654

- 15. **Muthuramkumar**, S. Palanivel S. Parvathi, S and Bhakyaraj, R. 2009. Multiple shoot formation and efficient root induction in groundnut (*Arachishypogaea* L.) *Phytomorphology*59: 112-115.
- 16. Muthuramkumar, S., Ayyappan, N., Parthasarathy, N., DivyaMudappa, Shankar Raman, Arthur Selwyn, M. and Arul Pragasan, L. 2006. Plant community structure in tropical rainforest fragments of the Western Ghats, India. *Biotropica* (Blackwell, Oxford.) 38: 143-160.Impact Factor: 1.73
- 17. Parthasarathy. N., **Muthuramkumar, S.** and Reddy, M.S. 2004.Patterns of liana diversity in tropical evergreen forests of peninsular India. *Forest Ecology and Management* (Elsevier Sci.Publ., Amsterdam) **190**:15-31.Impact Factor :3.064
- 18. Muthuramkumar, S. and Parthasarathy. N. 2001. Tree-liana relationships in a tropical evergreen forest at Varagalaiar, Anamalais, Western Ghats, India. *Journal of Tropical Ecology* (Cambridge Univ. Press) 17: 395-409. Impact Factor: 1.041
- 19. Muthuramkumar, S. and Parthasarathy. N. 2000. Alpha diversity of lianas in a tropical evergreen forest in the Anamalais, Western Ghats, India. *Diversity and Distributions* (Blackwell, Oxford) 6: 1-14.Impact Factor:4.391

Research Publications in Edited Books

- Parthasarathy, N., Muthuramkumar, S.MuthumperumaL, C., Vivek, P., Ayyappan, N. and Sridhar Reddy, M. (2015). Liana composition and diversity among tropical forest types of peninsular India. Pp 36-49. In: *Ecology of Lianas* <u>Stefan Schnitzer</u>, <u>FransBongers</u>, <u>Robyn J. Burnham</u>, <u>Francis E. Putz</u> (eds.) John Wiley & Sons Ltd.West Sussex, UK.ISBN: 9781118392492
- Dewalt,S.J., Schnitzer, S.A., Alves, L.F., Bongers, F., Burnham, R.J., Cai, Z. Carson, W.P., Chave, J., Chuyong, G.B., Costa, F.R.C., Ewango, C.E.N., Gallagher, R.V., Gerwing, J.J., Amezcua, E.G., Hart, T., Ibarra-Manríquez, G., Ickes, K., Kenfack, D., Letcher, S.G., Macía, M.J., Makana, J-R., Malizia, A., Martínez-Ramos, M., Mascaro, J., Muthumperumal, C., Muthuramkumar, S., Nogueira, A., Parren, M.P.E., Parthasarathy, N., Pérez-Salicrup, D.R., Putz, F.E., Romero-Saltos, H.G., Sridhar Reddy, M., Sainge, M.N. Thomas, D. and Melis, J.V. (2015). Biogeographical patterns of liana abundance and diversity. Pp 131-146. In: Ecology of Lianas. Stefan Schnitzer, Frans Bongers, Robyn J. Burnham, Francis E. Putz (eds.) John Wiley & Sons Ltd. West Sussex, UK. ISBN: 9781118392492.
- 3. Parthasarathy , N., Vivek, P., Muthumperumal , C., Muthuramkumar , S. andAyyappan, N. (2015) **Biodiversity of Lianas and Their Functional Traits in Tropical Forests of Peninsular India.** Pp 123-148. **In:** *Biodiversity of Lianas, Sustainable development and Biodiversity* 5, N.Parthasarathy (ed.). **Springer International Publishing**, Switzerland. ISBN 978-3-319-14592-1 (e-book)

4. Parthasarathy, N. Ayyappan, N. **Muthuramkumar, S.** and Annaselvam, J. Plant biodiversity and conservation of tropical evergreen forest in the Anamalais, Western Ghats, India. p. 557-560. In: *Proc. International Conference on Tropical Ecosystems: Structure, Diversity and Human Welfare*, ATB 2001, Bangalore, Oxford IBH,NewDelhi

Research Training

Degree	Awarded	Submitted	Guiding
Ph.D.	3	1	1
M.Phil	4		

Invited Lectures Delivered: Nil

ResourcePerson

Acted as Resource Persons – International level: Nil

Acted as Resource Persons – National level: Nil

Acted as Resource Persons – State level: :Nil

Co-Ordinator: Nil

Boardof Studies Member: Board studies member in Botany for Providence College for

Women, Cunoor..

HonoursAchieved: Nil

ExtensionActivities: Spirulina training programme was conducted for women self-help

groups of Virudhunagar district.

Others

Acted as reviewer for the Journal "Tropical Ecology"