



Dr. K. RAJALAKSHMI

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PROFESSIONAL EXPERIENCE

- **Associate Professor**, Department of Botany, N.G.M.College (Autonomous), Pollachi. (2009 January onwards).
- **Head**, Department of Biotechnology, Sri Adhi Chunchanagiri College for women, Cumbum. (2007- 2008)
- **Lecturer** in Department of Botany, The Madura College (Autonomous), Madurai. (2004 - 2007).
- **Part-time Lecturer** in Department of Microbiology, The Madura College (Autonomous), Madurai (2005 - 2007).
- **Resource person for** M.Phil Environmental Science, Manonmaniam Sundaranar University, Tirunelveli. (2006-2007).
- **Resource person for** M.Phil Microbiology and Biotechnology, Bharathidasan University, Trichy. (2005-2006).

ACADEMIC INFORMATION

	Degree	Year	Institution/ University	Class obtained
Ph.D	Life Science Botany	2007-2013	Bharathidasan University	Highly commendable
M Phil	Life science	2002- 2003	Pondicherry University	SAA*
M.Sc	Botany (Spl) Microbiology	2000-2002	The American College Madurai	73%
B.Sc	Environmental Biology	1997-2000	Sri Meenakshi College, Madurai	84%
HSC		1995-1997	Nirmala Girls' HSS	80%
SSLC		1994-1995	St. Joseph's Girls' HSS	82%

* S – Excellent A- Very Good

RESEARCH EXPERIENCE

- ✚ **Ph.D research** on “Studies on toxicity and bioavailability of hexavalent chromium in *Arachis hypogea* L.” under the supervision of Dr. R. Ravikumar, Bharathidasan University, Trichy. (2007 -2013)
- ✚ **Research Scholar** in a SHASTRI Indo-Canadian Project on “Policy development on the

Agrobiodiversity of hilly regions of Eastern and Western Ghats”, Madras Christian College, Chennai. (2003-2004)

- + M.Phil dissertation work on “Societal risks and gains: Case studies on the impact of technology, society and self-help” under the guidance of Prof. S.A. Abbasi, Center for Pollution Control and Energy Technology, Pondicherry University, Pondicherry. 2003
- + Assisted and provided technical guidance for water resources project(funded by Ministry of water resources) on **Sathanur Reservoir Project Information System (SRPIS) – a comprehensive Geographic Information System (GIS)** under the supervision of Prof. S.A. Abbasi, Center for Pollution Control and Energy Technology, Pondicherry University, Pondicherry. 2002 - 2003
- + Completed the dissertation work on Plant Tissue Culture titled **Cr(VI) mediated morphogenetic changes in embryonal and somatic explants of *Arachis hypogaea (L)* and *Caesalpinia bonduc*** under the supervision of Dr. G.C. Abraham, The American College, Madurai. 2001-2002.

GUIDE RECOGNITION

- Research Guide for M.Phil and Ph.D Botany, Bharathiar University, Coimbatore. (September 2009 & 2015 onwards)
- Research Guide and Resource person for M.Phil Botany, Periyar University (PRIDE), Salem. (2006 onwards).

M.PHIL DISSERTATIONS GUIDED

- Genetic Diversity of Selected Chilly cultivars using RAPD and ISSR markers, M. Phil Dissertation, Bharathiyar University, Coimbatore (2018)
- Studies on the Antimicrobial activity of *Syzygium cuminii* against UTI causing organisms, Mphil Dissertation, Periyar University, Salem. (2006-2007)
- Isolation and Partial characterization of cellulase produced by *Aspergillus spp.*, Mphil Dissertation, Periyar University, Salem. (2006-2007)
- Screening and Evaluation of Phytochemicals from *Cassia obtusa*, Mphil Dissertation, Periyar University, Salem. (2006-2007)
- Comparative study on degradative efficiency of a few fungal species isolated from municipal solid waste, Mphil Dissertation, Periyar University, Salem. (2006-2007)
- Ethno botanical studies on selected medicinal plants of Sirumalai Hills, Mphil Dissertation, Periyar University, Salem. (2006-2007)
- Evaluation of Farm Ponds on the agroecosystems of Tirumangalam, Mphil Dissertation, Periyar University, Salem. (2006-2007)

- Ethnobotanical studies on selected taxa of South Western Ghats, Mphil Dissertation, Periyar University, Salem. (2006-2007)

M.Sc DISSERTATIONS GUIDED

- In vitro regeneration and Salt stress on the embryonal explants of *Phaseolus vulgaris* L., M.Sc Dissertation, SACWC, Cumbum. (2007-2008)
- Guided Dissertation work entitled Molecular characterization of *Bacillus thuringiensis* isolates from the soils of Kodiganakali, Bangalore, Department of Microbiology, The Madura College, Madurai 625011. (2005-2006)
- Guided Dissertation work entitled Studies on the Genetic diversity of *Bacillus sp.*, using RFLP aided Restriction mapping, Department of Microbiology, The Madura College, Madurai 625011.(2005-2006)

SPECIALIZATIONS

- Plant Biotechnology
- Conservation Biology
- Lichens
- Environmental Biotechnology
- Forestry and Ethno botany
- Mathematical modeling

PAPERS PUBLISHED

- Jayakumar Alahupreeti, **Kandasamy Rajalakshmi**, Nayaka Sanjeeva and Kannan Pavithra. **Ecological Assessment of Lichen Diversity in the Anamalai Tiger Reserve, Southern Western Ghats, India.** Uttar Pradesh Journal of Zoology. Vol.47, Issue 13, July 2026. 245-266.
- J. Alahupreeti **K. Rajalakshmi** and K. Pavithra. **Phytochemical Screening of *Parmotrema planatilobatum* (Hale) Hale. For its Dye Yielding Potential.** Indian Journal of Natural Sciences. Vol.14, Issue 79, August 2023, 59994-60000.
- **Rajalakshmi K**, Neelamathi E, Alahupreeti J. & Vasanthi D. **Assessing the genetic diversity of chilli varieties with DNA markers.** International Journal of Botany and Research. Vol. 10, Issue 2, Dec. 2020, 85-94.
- **Rajalakshmi Kandasamy**, Aslam Abu, Sivasankar Sadasivam, Ravikumar Ramasamy and Shahjahan Appakhan. **Assessing Chromium stress on the Peanut's growth using mathematical model.** International Journal of Current Advanced Research. 2017. 6(12): 8064-8067.
- Suganthi, V., Mansoor Mohamed, M.P. and **Rajalakshmi, K.** **Effect of Pb toxicity on growth and antioxidant status in *Trigonella foenum graceum*.** Pollution 2013. 57: 14167-14171.
- **K. Rajalakshmi**, P. Kumar, A. Saravanakumar, A. Aslam, A. Shahjahan and R. Ravikumar. **Arachis Bioassay for soil contaminated with hexavalent chromium.** In:

Recent Research in Science and Technology. 2010. 2(6):110-115.

- Vikneshwaran D, Viji M and **Raja Lakshmi K.** *Ethnomedicinal plants survey and documentation related to Paliyar community.* . Ethnobotanical Leaflets. 2008. 12: 1108 – 15.
- Vikneshwaran D, Viji M and **Raja Lakshmi K.** *A survey of the Ethnomedicinal Flora of the Sirumalai Hills, Dindigul District, India.* Ethnobotanical Leaflets. 2008. 12:948-53.
- Jeyabal K.P, Viji M, Vikneshwaran, Murugan, P and **Raja Lakshmi K.** *Study on the Pharmacognostic Characterization and Antimicrobial Activity of the Medicinal Plant Cassia obtusa L.* Ethnobotanical Leaflets. 2008. 12: 1221-26
- P. Kannan, **K. Rajalakshmi**, G. Grace lydial pushpalatha and G.C. Abraham. **Rapid Clonal multiplication of *Caesalpinia bonduc* ROXB: A potential medicinal plant.** Asian Journal of Microbiology, Biotechnology and Environmental Sciences. 2008:Vol.10, No.(2): 329-332.
- **K. Rajalakshmi**, P. Kannan, G. Grace lydial pushpalatha and G.C. Abraham. **Cr(VI) mediated morphogenetic changes in embryonal and somatic explants of *Arachis hypogea* (L)** Eco chronicle. March 2007, pp 33-40.

BOOK CHAPTER

- **Rajalakshmi. K**, Alahupreeti. J & Pavithra. K, **Lichen Diversity: Potential Threats and Conservation Strategies in the Western Ghats, India.** Diversity, Conservation and Biotechnology of Fungi (Volume 3), ISBN: 978-93-49045-69-9.
- **A compendium of NGM College campus flora**, Infospringer Publishing Co. 2016, ISBN-978-81-931646-9-3).

CERTIFICATES AND ACCOMPLISHMENTS

- ✚ *University Rank Holder (First)* in Environmental Science & Engineering, Pondicherry University, 2003.
- ✚ *University Rank Holder (First)* in Environmental Biology, MKU, 1997-2000.
- ✚ *Diploma in Gandhian Thought*, Maduai Kamaraj University, 1998.
- ✚ *Praveen Uttrardh Examination Certificate* (equivalent to B.A.) conducted by Dhakshin Hindi Prachar Sabha, Chennai. 1998
- ✚ *Diploma in basic Counselling Skills*, Gandhi Memorial museum, Madurai. 1999.

SEMINARS / PROGRAMS ORGANISED

- Organised a **Traditional food festival 2023-2024** with ICDS Tamilnadu and IIC, N.G.M. College in “Protecting and educating the girl child on nutrition” N.G.M. College, Pollachi. (09.01.2024)
- Organised a **ICSSR sponsored Millet Exhibition** on “Celebrating Millets Legacy & contribution to Agriculture – CMLCA 2023” (11.02.2023 to 13.12.2023)
- Organised a **Science Academies Lecture workshop** on "Understanding Microbes -

Ecology, Diversity and Applications" under Science Academies' Education Program at N.G.M. College, Pollachi. (25.04.2023 – 26.04.2023).

- Organised a **National Seminar** on 'Floristic Diversity and Ethnic Intellect of Western Ghats' on at N.G.M.College, Pollachi. (21.11.2022)
- Organised a **National webinar** on "Botanical Bioprospecting" (through Google meet) on (27.05.2020)

ADDITIONAL ROLES & RESPONSIBILITIES HELD

- IIC Convenor, NGM College
- ERP Co-ordinator for the Department of Botany, N.G.M. College, Pollachi.(from 2019 onwards)
- Curriculum Development Co-ordinator for the Department of Botany, N.G.M. College, Pollachi (from 2015-2025)
- Placement Co-ordinator for the Department of Botany (from 2010-2023)
- Internal Stock verification committee member for the Department of Botany (from 2009 onwards)
- Executive Committee member, in Association of University Teachers', N.G.M. unit for the Department of Botany (from 2013-2023)
- External Examiner (Theory & Practicals) for Bharathiyar University, Coimbatore (2009 onwards)
- Presiding Officer for General Elections to Parliament/Constituent (2009 onwards)

MEMBERSHIPS & OFFICES HELD

- **Board of Member** for framing the syllabus for M.Phil Programme, Bharathiyar University, Coimbatore(25.04.2018)
- **Board of Member** in Department of Botany, N.G.M. College(Autonomous), Pollachi, (2009 onwards)
- **Board of Member** in Department of Botany, The Madura College(Autonomous), Madurai, (2004- 2007).
- **Board of Member** in Department of Environmental Biology, Sri Meenakshi Government College for women, Madurai, (2005-2006).
- **Organizing Committee member**, in State Level Seminar cum Exhibition on **Herbal resources and remedies** conducted by Department of Botany, NGM College, Pollachi . (03.09.2009 to 04.09.2009)
- **Organizer and Convenor**, in **Clonesfest**, a Regional level seminar and Inter-collegiate on
- **Biotechnology, Past, Present and Future!** , The Madura College, Madurai (2006).
- **Board of Member** in Department of Environmental Biology, Sri Meenakshi

Government College for women, Madurai. (2004-2005).

- **President** in “Vizhuthugal”, a service organization managed by college students of Madurai, (2000 - 2002).
- **Convenor**, Planning committee in Kathambam – a Public flower show, organized by The American College, Madurai, 2001.

PAPERS/POSTERS/ABSTRACTS/PARTICIPATION IN SEMINARS & CONFERENCES

- Presented a poster on **Cosmopolitan view on lichen secondary metabolites, culture based extraction and their applications** in International Conference (BioS-SEAM 2026) conducted by Department of Botany, Periyar University, (03.02.2026 to 04.02.2026)
- Presented a poster on **Crop shoots composition and the biochemical parameters of green leaves responsible for quality of tea under different harvesting methods** in International Conference (BioS-SEAM 2026) conducted by Department of Botany, Periyar University, (03.02.2026 to 04.02.2026)
- Presented a Paper entitled **Adoption of artificial intelligence in transforming water management practices of Indian agriculture through soil monitoring** in National Conference on “Water and Environment: Challenges and Opportunities for Sustainable Development” (NCWE’ 2023) organized by Gujarat Institute of Desert Ecology, Bhuj, Kachchh, Gujarat (December 2023)
- Presented a paper entitled **Current Evidences on *Parmotrema* Genus: Environmental Interest, Biological Activities with Therapeutic Potential** in 46th All India Botanical Conference of Indian Botanical Society and International Symposium on “Synergy in Plant Science and Sustainable future” organized by Sant Gadge Amravati University, Amravati. (November 2023).
- Presented a paper entitled **“A study on lichen interaction and growth on arecaceae family plants”** in the two day International Conference on Future Perspectives of Bioresources and Nanosciences (FPBN-2023) organized by Periyar university, Salem on 16 and 17 February 2023.
- Participated in a National workshop on **Lichens Connect – A workshop on identification and Taxonomy of Lichens** conducted by Kalinga Centre for Rainforest Ecology at KCRE field station, Agumbe, Karnataka (22.07.2022 - 24.07.2022)
- Presented a paper entitled **Socio-Economic Empowerment of Rural Women in India through Science Education** in two day National conference on Empowerment of Rural Communities Through Innovations in Science and Technology organized by Kongunadu Arts and Science College, Coimbatore on 21st and 22nd February 2020. (Abstract)
- Presented a paper entitled **Documentation of ethnomedical knowledge of paliyars inn Sadhuragiri hills, Virudhunagar district, Tamilnadu** in International conference on Emerging trends in science and technology organized by department of biological science,

physical science and computational science on 27th October, 2021.

- Presented a poster on **In vitro conservation of Zingiberales: A new perspective from direct and indirect somatic embryogenesis of selected species of Zingiberaceae** in *International Seminar on Advancements in Angiosperm Systematics and Conservation 2015* at University of Calicut, Kerala organized by Indian Association for Angiosperm Taxonomy and International Association for Plant Taxonomy, p-53. (November 2015)
- Participated in the International Seminar on **Emerging Contaminants and Environmental Remediation** in the Department of Environmental Science, School of Life Sciences, Periyar University (January 2015).
- Participated in one Day National workshop on **Antioxidants and Human Health** at Sri G.V.G. Visalakshi College for women, Udumalpet (March 2014)
- Presented a poster on **Gelatin coated iron oxide nanoparticles for targeted delivery of anticancer drugs** in *DBT-CITEP, CSIR sponsored National Seminar cum Workshop on Nanomedicines*, at Lady Doak College, Madurai p-50. (03.03.2010 to 04.03.2010)
- Participated and presented a poster on **Phytoremediation of chromium using selected weeds** in *UGC sponsored National Conference on Green Technology* conducted by Department of Chemistry, NGM College, Pollachi p-66. (18.02.2010 to 19.02.2010)
- Participated in a International Seminar on **Biotechnology: UK & Indian Perspectives**, organized by British Council, Chennai and Anna University, Chennai at Chennai (11.09.2009)
- Presented a paper on **Bioaccumulation of hexavalent chromium in *Arachis hypogaea* L.** in *XXXII All Indian Botanical Conference and International Symposium on Diversity of Plants and Microbes: Present Scenario*, at Kuvempu University, Shimoga District, Karnataka p – 172. (28.12.2009 to 30.12.2009)
- Participated in a Regional seminar on **Recent trends in Biology**, organized by Research wing of Biological sciences, Naesam trust, Madurai. (January 2007).
- Participated in a Interstate **consultation on Mullai Periyar Issue**, Center for Experiencing Socio- cultural interactions, Madurai. (January 2007)
- Participated in All **India Young Scientists Program XXX** Indian Social Science Congress, held in Alagappa University, Karaikudi. (December 2006).
- Participated in a National Seminar on **Environmental Genomics** in Bharathidasan University, Trichy. (March 2006).
- Participated in a Regional Seminar on **Beyond Field Research: Interface between**

plants and communities, in The American College, Madurai. (November 2005)

- Attended a UGC sponsored State Seminar on **Choice Based Credit System**, in The Madura College, Madurai. March 2005.

ORIENTATION/REFRESHER/ TRAININGS UNDERWENT

- Participated in the Refresher course in **Life Sciences** at Academic Staff College, Bharathiar University, Coimbatore. (13.02.2019 to 05.03.2019)
- Participated in the Training on **Biodiversity Act, 2002** at Institute of Forest Genetics and Tree Breeding, Coimbatore, sponsored by National Biodiversity Authority, Chennai. (12.03.2015 to 13.03.2015)
- Participated in the Refresher course Batch XII on **Advances in Biosciences and Drug Discovery** at University of Madras, Chennai (12.11.2014 to 02.12.2014)
- Participated in **Basic Techniques in Plant Molecular Biology**, DBT sponsored short-term Hands-on training course, organized by Jamal Mohamed College, Tiruchirappalli. (18.04.2011 to 03.05.2011)3
- Participated in the **88th orientation course** at Bharathiar University, Coimbatore (12.05.2011 to 08.06.2011).
- Participated in a training course for college teachers entitled **Biodiversity conservation and characterization using Biotechnology tools** held at TBGRI, Thiruvananthapuram sponsored by **DBT**, Government of India. (12.03.2007 to 02.04. 2007)

GUEST LECTURES/RESOURCE PERSON

- Resource person for 31st National Children Science Congress 2023 in Guide teacher Training program on “**Creating Environmental Awareness among School Children**” at N.G.M. College, Pollachi.(July 13, 2023)
- *Resource person for Medicinal plants-* a 10 days training program for Rural Self help group of women under ‘*Mahalir thittam*’ scheme in Sri Adi Chunchanagiri women’s college, Cumbum. (September 2007).
- Resource person for Workshop on **Diversified Alternative Technologies for Sustainable Agriculture for Agriucultural officers of Ampara District, Srilanka**. (May 18 to June 1 2007)

MEMBERSHIP IN PROFESSIONAL BODIES

Life Member in Indian Association for Angiospermic Taxonomy.

Life Member in Indian Lichenological Society.

EDITORSHIP OF JOURNALS

Reviewer for International Journal of Pharma and Biosciences.

Reviewer for International Journal of Public and Environment Health.

INTERVIEWS AND ARTICLES

✚ Interview on “Women and Science” in a program **Ariviyalil Magalirin Sathanaigal** broadcasted in All India Radio (03.08.2004)

✚ Article on **Student’s Campaign against use of Plastic bags**, The Hindu, dated 26.05.2001 Article on **War on Plastic bags**, The Hindu, dated 01.07.2001

IMPORTANT MEETINGS

✚ With **Dr. A.P.J. Abdul Kalam**, His excellency The President, Government of India, Madurai, September 2006.

✚ With **Shri Sunderlal Bahu Guna**, a well-known Environmental activist, CCD Virudhunagar, January 2006.

EXPERIENCE IN SOCIAL/EXTENSION ACTIVITIES

- **Caretaker**, for 4 TN BN NCC (Infantry) Girls wing, NGM College, Pollachi. (August 2009 – January 2012).
- **Deputy warden**, Rathna Sababathy Memorial Women’s Hostel, NGM College, Pollachi. (January 2009 –January 2011)
- *Organized* one day workshop for farmers on ‘*Iyarkai velanmayum chutrupura choolalum*’ sponsored by **NCSTC, New Delhi** in SACWC, Cumbum. September 2007
- *Participated in Anti-nuclear Conference*, organized by Dr. Lal Mohan, (Specialist in Dolphin Biology) at Nagar koil, 2001.
- *Participated in Anti-Koodangulam Power Project*, organized by Mr.David (An Environmental activist) YMCA, Madurai, 2001.
- Participated as a *Volunteer in educating rural children* organized by CESC *Interacted with the (3 villages) rural women of Madurai and Pondicherry* – to study the social transformation brought down by women and Self-help. 2000

FIELD VISITS

- Visit to Royal Botanical Garden, Kew, London (2024)
 - Visit to Mughal Gardens, New Delhi (2023)
 - Accompanied various field trips to Western ghats – Anaimalai, Vaalparai, Munar, Nilgiris, Kanjikode and Malampuzha organized by Department of Botany, N.G.M. College, Pollachi. (2009 onwards).
 - Field visits to Western Ghats - Periyar Tiger Reserve, Thekkadi (March 2008).
 - Field visits to Pitchavaram mangroves forest, (April 2007)
 - Accompanied various Field visits to Trivandrum, Moonar organized by Department of Biotechnology, SACWC, Cumbum. (2007 – 2008).
 - Monthly field trips to Kolli hills and Karandai hills (Eastern Ghats) (2004)
 - Accompanied various field trips with the students organized by Department of Botany, The Madura College, Madurai (2004 onwards)
 - Made a visit to Pitchandikulam Forest, Auroville (2003)
 - Study on *Alagar Koil Flora* (2001) and *Shola vegetation* at Ooty and Kodaikanal. (2002) Visited Fossil sites at *Thiruvakkarai*, Pondicherry. (2003)
 - As part of academic work in the courses on Biodiversity (2001) and Environmental Biology, (2000) carried out Vegetational Studies at various sites, in and around Madurai.
-