

Mr. KILLIVALAVAN N

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Date of Birth: July 11, 1999 (Age: 26)

S/O: Narayanan K., 507, Kandhagoundanur (Village) (Post),  
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India - 635302.



## PROFILE SUMMARY

Dedicated and results-driven research scholar specializing in phytoremediation, applied microbiology and phytochemical studies. Passionate about environmental sustainability and utilizing native halophytes for soil restoration. Experienced in research publication, laboratory analysis and scientific writing. Experienced in teaching, guiding students in laboratory experiments, and assisting in research projects. Passionate about fostering a dynamic learning environment and contributing to institutional academic and research growth.

## ACADEMIC QUALIFICATIONS

Qualification	Institution	Year	Percentage
Ph.D. (Botany)	Annamalai University	2025 (Thesis submitted)	-
M.Sc. (Botany)	Kongunadu Arts and Science College, Coimbatore (Bharathiar University)	2019-2021	78%
PGDBD	Kongunadu Arts and Science College, Coimbatore (Bharathiar University)	2020	72%
JOC	Kongunadu Arts and Science College, Coimbatore (Bharathiar University)	2020	81%
B.Sc. (Botany)	Sri Vidya Mandir Arts and Science College, Krishnagiri (Periyar University)	2016-2019	82%

## RESEARCH INTERESTS & SPECIALIZATION

- Phytoremediation & Halophyte-based Soil Restoration
- Applied Microbiology & Environmental Botany
- Phytochemical Profiling & Bioactive Compound Isolation
- Antimicrobial & Biofilm activity.
- Plant Tissue Culture

## WORK EXPERIENCE

### Project Associate

**Project Title** : Understanding and Activating Secondary Metabolites Production in *Bacillus* species.

**Funding Source** : Hindustan Unilever (IIT Kanpur)

**Duration** : 3 months 20.06.2025 to 19.09.2025

### Project Fellow

**Project Title** : Phytoremediation of Salt-Affected Soils by Halophytes

**Funding Source** : RUSA 2.0 (Annamalai University)

**Duration** : 2 Years (March, 2022 – March, 2024)

## DOCTORAL THESIS TITLE

- Exploring the Phytoremediation Efficacy of Native Halophyte(s) in Salt Affected Agricultural Land Contaminated by Shrimp Aquaculture.

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## ACADEMIC DISSERTATIONS

- **M.Sc. Dissertation:** Phytochemical analysis and Anti-bacterial activity of leaf extract of *Justicia betonica* L.
- **PG Diploma Dissertation:** Survey of Flora and Fauna of the river bed of Thenpennai River, Krishnagiri District, Tamil Nadu.
- **B.Sc. Dissertation:** Green synthesis of silver nanoparticles using *Mitragyna parvifolia* (Roxb.) leaf and antibacterial assay from endemic tree species of Southern and Western Ghats.

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## TECHNICAL SKILLS

- Gel documentation and fluorescence microscopy
- qPCR and Gene cloning
- Anti-microbial and Time-Kill assay
- Snap gene, MEGA, Autodock and ImageJ
- Atomic absorption spectrophotometer and flame photometer

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CONFERENCE/ SEMINAR ATTENDED: 29

WORKSHOP ATTENDED: 12

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## RESEARCH PUBLICATIONS

1. **Killivalavan Narayanan**, Mohandoss Durai and Aamir Sultan Lone. (2025). Assessing the growth, biochemical and phytoremediation potential of *Suaeda maritima* (L.) Dumort. – A salt marsh halophyte in salt affected farmland. *Aquatic Botany*, 202: 103945. (IF: 2.6) (Elsevier).
  2. **Killivalavan Narayanan**, Rudhra Santhi and Ravindran Konganapuram Chellappan. (2025). Phytodesalinization of Salt Affected Agricultural Land contaminated by Shrimp Aquaculture by using Native Halophyte(s): A comparative study. *Process Safety and Environmental Protection*. (Under Review).
  3. **Killivalavan Narayanan** and Konganapuram Chellappan Ravindran. (2025). Exploring the growth and phytoremediation efficacy of *Suaeda fruticosa* in agricultural soil contaminated by shrimp aquaculture. *International Journal of Phytoremediation*, 27(4): 437-447. (IF: 3.4) (Taylor & Francis).
  4. **Killivalavan Narayanan** and Konganapuram Chellappan Ravindran. (2024). Phytoremediation efficiency of *Salicornia brachiata* Roxb. – A salt marsh halophyte on restoration of shrimp farm contaminated soil. *Journal of Soil Salinity and Water Quality*, 16(3): 378-389. (NAAS: 5.02) (ICAR).
  5. Rudhra Santhi, **Killivalavan Narayanan** and Venkatesan A. (2024). Phytochemical analysis and evaluation of antimicrobial activity of leaf and stem extracts of *Ecbolium viride* Forssk. *Journal of Medicinal and Aromatic Plant Sciences*, 46(3): 115-122. (NAAS: 4.86) (ICAR).
  6. Rudhra, S., **Killivalavan, N.**, Venkatesan, A. and Ravindran, K.C. (2024). Phytochemical Analysis of Antibacterial activity and FT-IR analysis of leaf extract of *Justicia betonica* L. *Journal of Xidian University*, 18(4): 984-996.
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