




# Bharathiar University

State University | "A<sup>++</sup>" Grade by NAAC | 46<sup>th</sup> Rank in MoE-NIRF  
Maruthamalai Road, Coimbatore, Tamil Nadu - 641 046.

<b>Dr T MUTHUKUMAR</b> Professor Department of Botany Bharathiar University Coimbatore, 641045 Tamil Nadu <b>E-mail:</b> tmkum@buc.edu.in <b>Phone:</b> 9942436855 <b>Office Number:</b>	
<b>Research Area</b> <ul style="list-style-type: none"><li>• Root and Soil Biology</li><li>• Fungal Endophytes</li><li>• Mycorrhizal Technology</li><li>• Plant Anatomy</li><li>• Bioremediation</li></ul>	<b>Courses Teaching</b> <ul style="list-style-type: none"><li>• Microbiology</li><li>• Mycology</li><li>• Bryophytes</li><li>• Plant Anatomy</li><li>• Horticulture</li><li>• Ecology</li><li>• Algal Technology</li><li>• Root and Soil Biology</li></ul>
<b>Research Experience:</b> 27	<b>Teaching Experience:</b> 20
<b>Research Credentials</b> (as on September 2025 – Source: Google scholar) H-index: 38                      Citations: 4390                      i10-index: 97	
<b>Publications</b> National Journals: 4                      International Journals: 134                      Books/Chapters: 14	
<b>Education</b> <b>PG Diploma</b> Subject : Bioinformatics Institution : Bharathiar university Affiliated University : Bharathiar university Year of Award : December 2004 <b>Ph. D.</b> Subject : Botany Institution : Bharathiar University Affiliated University : Bharathiar University Year of Award : April 1997 <b>M. Phil.</b> Subject : Botany Institution : Bharathiar University Affiliated University : Bharathiar University Year of Award : December 1991 <b>M. Sc.</b> Subject : Botany Institution : Government Arts College, Coimbatore Affiliated University : Bharathiar University Year of Award : May 1990	



## B. Sc.

Subject : Botany

Institution : Government Arts College, Coimbatore

Affiliated University : Bharathiar University

Year of Award : April 1988

## Selected Publications

### 1. Synergistic effects of arbuscular mycorrhizal fungi on growth and nutrient uptake in proso, barnyard, and little millet genotypes under different soil types and conditions

Journal of Soil Science and Plant Nutrition 25(1): 603-617 (January 2025)  
Deepika, S., Muthuraja, R. & Muthukumar, T

### 2. Effects of particle size and aging on heavy metal adsorption by polypropylene and polystyrene microplastics under varying environmental conditions

Chemosphere 369, 143843 (December 2024)  
Muthuraja, R., Ou, B., Muthukumar, T., Narayanan, T.N., Chittamart, N. & Janjaroen, D.

### 3. Drought tolerance of *Aspergillus violaceofuscus* and *Bacillus licheniformis* and their influence on tomato growth and potassium uptake in mica amended tropical soils under water-limiting conditions.

Frontiers in Plant Science 14:1-18 (March 2023)  
Muthuraja, R., Muthukumar, T., & Natthapol, C.

### 4. Vegetative anatomy and endorhizal fungal morphology of an endangered medicinal plant *Gloriosa superba* L.

Microscopy Research and Technique 85: 3466-3479 (October 2022)  
Balachandar, M., Koshila Ravi, R., & Muthukumar, T.

### 5. Comparative vegetative and ecological anatomy of *Sirhookera* (Orchidaceae) growing in Western Ghats of Southern India.

Nordic Journal of Botany 38: 1-16 (May 2020)  
Koshila Ravi, R., Balachandar, M., Jinsha, K. & Muthukumar, T.

### 6. Morphology, anatomy and mycotrophy of pseudobulb and subterranean organs in *Eulophia epidendrea* and *Malaxis acuminata* of sub family (Epidendroideae, Orchidaceae)

Flora 217: 14-23 (November 2015)  
Uma, E., Rajendran, R. & Muthukumar, T.

### 7. Arbuscular mycorrhizae in cycads of southern India.

Mycorrhiza 12: 213-217 (August 2002)  
Muthukumar, T. & Udaiyan, K.

### 8. Arbuscular mycorrhizal fungal composition in semi-arid soils of Western Ghats, southern India.

Current Science 82: 624-628 (March 2002)  
Muthukumar, T. & Udaiyan, K.

### 9. Influence of organic manures on arbuscular mycorrhizal fungi associated with *Vigna unguiculata* (L.) Walp., in relation to tissue nutrients and soluble carbohydrates in roots under field conditions.

Biology and Fertility of Soils 31: 114-120 (May 2000)  
Muthukumar, T. & Udaiyan, K.



**10. Arbuscular mycorrhizas of plants growing in Western Ghats region, Southern India.**

Mycorrhiza 9: 297-313 (April 2000)

Muthukumar, T. & Udaiyan, K.