

## Dr. Shambanagouda. R. Marigoudar

**Scientist-E**

**National Centre for Coastal Research (NCCR)**

Ministry of Earth Sciences, Government of India



### EDUCATIONAL QUALIFICATIONS

**Ph.D.** (Zoology) – Dec, 2012 – Cypermethrin Induced Pathophysiological and Some Biochemical Changes in the Teleost, *Labeo rohita* - Karnataka University, Dharwad

**M.Sc** (Marine Biology) – June, 2006 – Department of Studies in Marine Biology, Karnatak University Post Graduate Centre, Kodibag, Karwar, Karnataka

### EMPLOYMENT RECORDS

1. **Scientist E**, National Centre for Coastal Research (NCCR), Ministry of Earth Sciences, Government of India, 2023-till date
2. **Scientist D**, National Centre for Coastal Research (NCCR), Ministry of Earth Sciences, Government of India, 2018-2022
3. **Scientist-C**, National Centre for Coastal Research (NCCR), Ministry of Earth Sciences, Government of India, 2013 – 2018
4. **Teaching Assistant**, Department of Zoology, Industrial Fish and Fisheries, Karnataka Science College, Dharwad, 2012-2013
5. **UGC DRS SAP-III Project Fellow**, Department of Zoology, Karnatak University, Dharwad, 2008-2012
6. **Guest Faculty**, Department of Zoology, Industrial Fish and Fisheries, Karnataka Science College, Dharwad, 2007-2008

### MAJOR PROGRAMS & ACHIEVEMENTS

- Contribution to Policies: (1) Regulatory draft amendments for Coastal Water Standards, contributing technical data leading to a draft notification by MoEF&CC, updating primary water quality standards for coastal waters (SW-III & SW-V). (2) Contributed to the “Draft National Marine Litter Policy” and circulated to all stakeholders and the implementing agency, MoEF&CC.
- Sea Water Quality Criteria (SWQC): Derived and recommended *Safe Limit* SWQC for various heavy metals (Cu, Cr, Zn, Pb, Hg, Cd, As, Ni, Se) and organics for designated coastal zones.
- Marine Outfall Monitoring: Managed a time-bound monitoring programme for marine outfalls, assessing compliance with primary water quality standards. Reports have been submitted to MoEF&CC and CPCB.
- Environmental Monitoring along the Indian coast (EnRAIC): Implementing the Environmental Monitoring along the Indian coast (EnRAIC- erstwhile MEERA) programme scientific activities.

- Toxicity Bioassays & Criteria Derivation: Conducted bioassays using customized continuous-flow systems to derive toxicity values for metals (Cu, Cr, Zn, Pb, Hg, Cd, As, Ni, Se) and pesticides (Monocrotophos, Chlorpyrifos).
- Method Development & Lab Standardization: Established & standardized methodologies for measuring PAHs, plankton culture assays, novel FDA (Fluorescein Diacetate) assay and other ecotoxicology experiments.
- Ecological Risk Assessment via Micro/Mesocosms: Performed ecological risk assessments using microcosm and open-sea mesocosm studies in Ennore estuary, Palk Bay and Visakhapatnam coastal waters to evaluate pollutant effects (from coastal discharges, outfalls) on marine populations and validate environmental standards.
- Coastal & Estuarine Monitoring, Environmental Indexing: Monitored coastal waters in identified locations, estuaries like Ennore, Uppanar, Vellar, Cochin and comprehensive risk assessment of Vembanad Lake to develop environmental quality indices, quantifying contaminant-driven damages.
- *Marine Litter & Microplastics*: Implementation of programme activities across the Indian coast through citizen science and multidisciplinary approaches, envisaging to build a national scientific knowledge hub on microplastics.
- Laboratory Facility Enhancement: Upgraded lab infrastructure by integrating advanced instrumentation, improving capacity for marine ecotoxicology and microplastic studies.

## AWARDS

Certificate of Merit for Scientist in Ocean Science & Technology from Ministry of Earth Sciences, Government of India for the Year 2017.

## PG/Ph.D/Post-Doc

- PG Dissertation: 20+ Marine Biology, Biotechnology, Chemical Engineering, Marine Sciences, Life Sciences, Environmental Sciences.
- Ph.D: 2 Ongoing - Marine Sciences/Marine Pollution, Bharathidasan University

## PUBLICATIONS

- 70+ publications in national and international scientific journals of repute.
- 20+ publications in national and international proceedings.
- Policy Documents (3), Technical reports (8), SOP (5), and progress reports (10).
- Delivered 30+ lectures and served as resource person for workshops/ Training/ conferences etc on Marine Pollution aspects like Marine Ecotoxicology, Marine Litter & Microplastics.
- Editorial board member (6 No) and Reviewer (10+) for scientific journals
- Citations: 1010; h-Index:17; i10 Index: 26 (Since 2020)  
<https://scholar.google.com/citations?user=1eT7y9AAAAAJ&hl=en>

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