

AMAL THATTARUPARAMBIL RAJEEV

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Passionate young researcher with a strong interest in marine biopolymers, nanoparticles, and their composite-based applications. Specializing in marine resource utilization and value addition, with expertise in the isolation and characterization of biopolymers and nanoparticles for nutritional, pharmacological, and biomedical purposes. Experienced in developing bio-scaffolds and hydrogels.

EDUCATION

KERALA UNIVERSITY OF FISHERIES AND OCEAN STUDIES, KOCHI, KERALA, INDIA

2023-24

MFSc- Fish Processing Technology

Final grade: 86.9%

Expertise: Deepsea fishes, Biopolymer extraction, food preservation, and Value addition

KERALA UNIVERSITY OF FISHERIES AND OCEAN STUDIES, KOCHI, KERALA, INDIA

2018-22

Bachelor of fisheries science (BFSc)

Final grade: 78.2 %

RELEVANT EXPERIENCE

Young Professional

ICAR- Central Institute of Fisheries Technology [23/01/2025 -10/11/2025] City: Kochi | Country: India

- **World Fish Funded Project**- Establishing value chain for fish: Ensuring the nutritional security of vulnerable group and developing a sustainable model
- **Value-Added Processing:** Develop dried, smoked, fermented, and frozen fish products; create fortified fish-based foods (fish powder, protein concentrates) for vulnerable groups.
- **Nutrient Analysis of Value-Added Fish Products** – Evaluate proximate composition, micronutrients (vitamins&minerals), bioavailability, and shelf-life stability to ensure high nutritional quality and effectiveness.

TRAINEE

ICAR- Central Institute of Fisheries Technology [28/03/2022 – 02/04/2022] City: Kochi | Country: India

- Completed training programme on “**HACCP system for Fish and shellfish Processing Industries**” , Quality Assurance and Management division
- **Quality Assurance&Management Expertise** – Gained practical knowledge in quality control measures, risk assessment, and regulatory standards for ensuring seafood safety and industry best practices.

DATA COLLECTION AND ANALYSIS

KUFOS & Chellanam Grama Panchayat [11/12/2021 – 22/12/2021] City: Kochi | Country: India

- **Development Planning for Chellanam Fishing Village** – Contributed to formulating a comprehensive development plan focused on sustainable fisheries, infrastructure improvement, and livelihood enhancement, in collaboration with KUFOS and Chellanam Grama Panchayat.

RESEARCH INTERESTS

- Isolation & characterization of Nanoparticles
- Nutritional and pharmacological applications of marine biopolymers
- Bio-scaffold and Hydrogel development
- Marine resource utilization and value addition
- Sustainable packaging Materials

INSTRUMENTS HANDLED

- FTIR
- Freeze Dryer
- UV Spectrophotometer
- Refrigerated centrifuge
- Texture analyser
- Universal Testing Machine
- pH meter
- Tear tester
- Puncture tester
- Cobb' s apparatus
- Water activity analyzer
- Color analyzer

ACHIEVEMENTS&AWARD

- HACCP LEVEL 3 certification from Highfield
- ISO9001:2008 Internal Auditor (FSMS)
- AIASA (All India Agricultural Students Association) membership
- Academic Excellence Award from Students Police Project Kerala, India

WORKSHOPS&CERTIFICATIONS

- **Seafood products Packaging Technician course certification** - Department of Biotechnology government of India [10/07/2024 - 10/10/2024]
- **Aquaculture and byproducts valorization certification** - FAO [23/12/2024]
- **National workshop on data analysis and documentation using LaTeX, SPSS, and R**- Kerala university of fisheries and ocean studies [01/02/2024 – 03/02/2024]
- **Introduction to Algae course certification** - University of California Santiago [25/05/2023]
- **On job training in fisheries post-harvest technology** - The National Institute of Fisheries Post Harvest Technology and Training (NIFPHATT) [01/10/2021 – 14/10/2021]

PROJECTS

Master's Thesis- “Fabrication and characterization of fish collagen/gelatin Bio-scaffold incorporated with chitin crystals for antioxidant and antimicrobial applications” Under the Guidance of Dr, Radhika Rajasree S.R, HoD, Fish Processing Technology KUFOS, Kochi.

Fish Collagen Development - An Alternative Source of Mammalian Collagen- “Valorization of Discarded Marine nano Wastes for Collagen Extraction” Under the Guidance of Dr, Radhika Rajasree S.R, HoD , Fish Processing Technology KUFOS, Kochi

PUBLICATIONS

- Amal, T. R., & Rajasree, S. R. R. (2025). Incorporation of chitin nanocrystals into fish collagen-gelatin bio-scaffolds: Enhancing functional properties and biomedical applications. *International Journal of Biological Macromolecules*, 145581. <https://doi.org/10.1016/j.ijbiomac.2025.145581>
- Amal, T., & Rajasree, S. R. (2025). Assessment of nutritional and Macro-Mineral profiles in selected underutilized Deep-Sea fishes. *Regional Studies in Marine Science*, 104375. <https://doi.org/10.1016/j.rsma.2025.104375>
- Extraction and Characterization of Chitin Nanocrystals from Deep Sea shrimp *Plesionika martia* (Milne-Edwards, 1883) Communicated in *Journal of Bionanoscience*- Under Review

SKILLS

Languages - English, Hindi, Malayalam (Mother tongue)

IT Skills - Microsoft Office (Word, Excel, PowerPoint), SPSS, OriginLab

REFERENCE

Dr. Radhika Rajasree S.R | HoD , Fish Processing Technology Kerala University of fisheries and ocean studies, Kochi, Kerala, India email: radhikarajasree@kufos.ac.in

Dr. George Ninan | Director, PI of Worldfish project, ICAR-Central Institute of Fisheries Technology Kochi, Kerala India email: ciftdirector@gmail.com

DECLARATION

I hereby declare that the information provided in this CV is true and correct to the best of my knowledge and belief.

Amal Thattaruparambil Rajeev