# Individual Bio Data




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**Qualification** : M.F. Sc, Ph.D.
**Discipline** : Fish Quality Assurance & Management
**Specialization/Area of Interest** : Pesticides, Polyaromatic hydrocarbons, Heavy metals, Fatty acids, Functional properties, Ecotoxicity assessment, Human health risk assessment, Formaldehyde, Fish Biodiversity, Texture analysis, Formaldehyde, Proximate composition, Nutritional changes, Toxicity study, Antibiotics residues, GC-MS, ICP-MS, GC-FID, FTIR, TPA Analyzer, and HPLC, ISO/IS/17025:2017, ISO 22000, and Effect of thermal processing on fish composition and etc.
**Experience** : 4 Years

## Research Publications


1. **Arisekar, U.,** Shalini, R., Shakila, R.J., Sivaraman, B., Selvaraj, M., Meena, P.L. and Sundhar, S., 2025. Impact of thermal processing on mercury, selenium and arsenic levels in farmed shrimp (Penaeus vannamei, Boone, 1931): Se: Hg molar ratios, benefit-risk analysis, and health implications. Journal of Food Composition and Analysis, 139, p.107148.
2. Iyyappan, T., Santhakumar, R., Arul Oli, G., Padmavathy, P., Athithan, S. and **Arisekar, U*.,** 2025. Enterprise Attributes and Hazard Risks in the Ornamental Fish Trade: Implications for Ecosystem Integrity and Stakeholder Engagement in Southeast India. Journal of Coastal Research, 41(1), pp.131-145.
3. Balamanikandan, V., Shalini, R., **Arisekar, U*.,** Shakila, R.J., Padmavathy, P., Sivaraman, Devanesan, S., Sundhar, S., AlSalhi, M.S., Mythili, R., Kim, W. 2024. Bioaccumulation and health risk assessment of trace elements in Tilapia (Oreochromis mossambicus) from selected inland water bodies. Environmental Geochemistry and Health, 46(187), p.126.
4. **Arisekar, U.,** Shakila, R.J., Shalini, R., Sivaraman, B., Karthy, A., Al-Ansari, M.M., Dahmash Al-Dahmash, N., Mythili, R., Kim, W., Ramkumar, S. and Kalidass, B., 2024. Diffusion of organochlorine (OCPs) and cypermethrin pesticides from rohu (Labeo rohita)

internal organs to edible tissues during ice storage: a threat to human health. Environmental Geochemistry and Health, 46(4), p.126.
5. Jenish, D.A., Iburahim, S.A., **Arisekar*, U.,** Seenivasan, P., Masilan, K., Srihari, M. and Velmurugan, R., 2024. Carbon footprint and associated environmental impacts of fisheries on the Pulicat region, Southern India: A preliminary study. Regional Studies in Marine Science, p.103478.
6. **Arisekar, U.,** Shalini, R., Shakila, R.J., Iburahim, S.A., Anantharaja, K., Bharathi Rathinam, R and Sundhar, S. 2024. Selenium and mercury concentration, Se/Hg molar ratio and risk–benefit assessment of marine fish consumption: Human health risks and protective role of Se against Hg toxicity. Food Research International, p.113969
7. **Arisekar, U.,** Shalini, R., Iburahim, S.A., Deepika, S., Reddy, C.P.K., Anantharaja, K., Albeshr, M.F., Ramkumar, S., Kalidass, B., Tamilarasan, K. and Kumar, N.N., 2024. Biomonitoring of mercury and selenium in commercially important shellfish: Distribution pattern, health benefit assessment and consumption advisories. Environmental Geochemistry and Health, 46(4), p.122.
8. Sundhar, S., **Arisekar, U., *** Shakila, R.J. Shalini, R., Al-Ansari, M.M., Al-Dahmash, N.D., Mythili, R. Kim, W., Sivaraman, S., Jenishma, J.S. and Karthy, A. 2024. Potentially toxic metals in seawater, sediment and seaweeds: bioaccumulation, ecological and human health risk assessment. Environ Geochem Health, 2024, 46:35, 1-21.
9. **Arisekar, U.,** Shalin, R., Shakila, R.J., Sundhar, S., Iburahim, S.A. and Umamaheshwari, T., 2024. Trace metals in commercial seafood products (canned, pickled and smoked): Comparison, exposure, and health risk assessment. Food Research International, 178, p.113969.
10. Keerthana, M., **Arisekar, U*.,** Kingston, S.D. and Sudhan,C. 2023. Malacofaunal diversity (Gastropods and Bivalves) along the mangrove forest area of the Gulf of Mannar marine biosphere region, South India. Regional Studies in Marine Science, 67. 103201
11. **Arisekar, U.,** Rajendran, S., Shanmugam, S., Shannon, R.S., Rajesh, B.R., Abdulwahed, F.A., Bejawada, C.N., Kanagaraja, A., Sahana, M.D. and Saranya Packialakshmi, J., 2023. De-novo exposure assessment of heavy metals in commercially important fresh and dried seafood: Safe for human consumption. Environmental Research,235, 116672.
12. Reddy, C.P.K., Manikandavelu, D., **Arisekar, U*.,** Ahilan, B., Uma, A., Jayakumar, N., Kim, W., Govarthanan, M., Harini, C., Vidya, R.S. and Madhavan, N., 2023. Toxicological effect of endocrine disrupting insecticide (deltamethrin) on enzymatical, haematological and histopathological changes in the freshwater iridescent shark, Pangasius hypothalamus. Environmental Toxicology and Pharmacology, 101, 104201.
13. Reddy, C.P.K., Manikandavelu, D., **Arisekar, U *.,** Albeshr, M.F., Alrefaei, A.F., Ahilan, B., Keerthana, M. and Packialakshmi, J.S., 2023. Toxicological effect of endocrine disrupting heavy metal (Pb) on Mekong silurid Pangasius catfish, Pangasius hypophthalmus. Environmental Research,231, Part 1, 116033.
14. **Arisekar, U.,** Shakila, R.J., Shalini, R., Jeyasekaran, G., Arumugam, N., Almansour, A.I., Keerthana, M. and Perumal, K., 2022. Bioaccumulation of organochlorine pesticide residues (OCPs) at different growth stages of pacific white leg shrimp (Penaeus vannamei): First report on ecotoxicological and human health risk assessment. Chemosphere, 308, 136459.

15. **Arisekar, U.,** Shakila, R.J., Shalini, R., Jeyasekaran, G., Padmavathy, P., Hari, M.S. and Sudhan, C., 2022. Accumulation potential of heavy metals at different growth stages of Pacific white leg shrimp, Penaeus vannamei farmed along the Southeast coast of Peninsular India: A report on ecotoxicology and human health risk assessment. Environmental Research, 212, Part A, 113105.
16. **Arisekar, U.,** Shakila, R.J., Shalini, R., Jeyasekaran, G. and Padmavathy, P., 2022. Effect of household culinary processes on organochlorine pesticide residues (OCPs) in the seafood (Penaeus vannamei) and its associated human health risk assessment: Our vision and future scope. Chemosphere, 297, 134075
17. **Arisekar, U.,** Shakila, R.J., Shalini, R., Jeyasekaran, G., Padmavathy, P. and Sukumar, D., 2022. Effect of different thermal processing methods on potentially toxic metals in the seafood, Penaeus vannamei, and the related human health risk assessment. J. Food Compos. Anal. 105, 104259
18. **Arisekar, U.,** Shakila, R.J., Shalini, R., Jeyasekaran, G., Keerthana, M., Arumugam, N., Almansour, A.I. and Perumal, K., 2022. Distribution and ecological risk assessment of heavy metals using geochemical normalization factors in the aquatic sediments. Chemosphere, 294, 133708.
19. **Arisekar, U.,** Shakila, R.J., Shalini, R., Jeyasekaran, G., Sundhar, S., Natarajan, A., Abdulrahman, I.A. and Karthikeyan, P., 2022. Potentially toxic elements contamination and its removal by aquatic weeds in the riverine system: A comparative approach. Environmental Research, 206, 112613
20. **Arisekar, U.,** Shakila, R.J., Shalini, R., Sivaraman, B., Jeyasekaran, G. and Malini, N.A.H., 2021. Heavy metal concentration in reef-associated surface sediments, Hare Island, Gulf of Mannar Marine Biosphere Reserve (southeast coast of India): The first report on pollution load and biological hazard assessment using geochemical normalization factors and hazard indices. Marine Pollution Bulletin, 162, 111838.
21. **Arisekar, U.,** Shakila, R.J., Shalini, R. and Jeyasekaran, G., 2021. Pesticides contamination in the Thamirabarani, a perennial river in peninsular India: the first report on ecotoxicological and human health risk assessment. Chemosphere, 267, p.129251.
22. **Arisekar, U.,** Shakila, R.J., Shalini, R., Jeyasekaran, G., Sivaraman, B. and Surya, T., 2021. Heavy metal concentrations in the macroalgae, seagrasses, mangroves, and crabs collected from the Tuticorin coast (Hare Island), Gulf of Mannar, South India. Marine Pollution Bulletin, 163, p.111971.
23. **Arisekar, U.,** Shakila, R.J., Shalini, R. and Jeyasekaran, G., 2020. Human health risk assessment of heavy metals in aquatic sediments and freshwater fish caught from Thamirabarani River, the Western Ghats of South Tamil Nadu. Marine Pollution Bulletin, 159, p.111496.
24. **Arisekar, U.,** Shakila, R.J., Jeyasekaran, G., Shalini, R., Kumar, P., Malani, A.H. and Rani, V., 2019. Accumulation of organochlorine and pyrethroid pesticide residues in fish, water, and sediments in the Thamirabarani river system of southern peninsular India. Environmental nanotechnology, monitoring & management, 11, 100194.
25. Emiema, S., Ravikumar, T., Krishnamoorthi, E., Neethiselvan, N., Renuka, V., Fathiraja, P., Masilan, K. and **Arisekar, U.,** 2025. Development of Artificial fish bait incorporated with Surimi and fatty acid bioattractant derived from seafood processing wastes for longline fishing. Regional Studies in Marine Science, p.104090.

26. Shalini, R., **Arisekar, U.,** Jeyasekaran, G., Jeya Shakila, R., Sundhar, S., Sivaraman, B. and Tamizhselvan, S., 2025. Mineral Composition of the Commercially Valuable Fish and Shellfish Caught along the Thoothukudi Coast, Southeast India. Journal of Coastal Research, 41(1), pp.94-104.
27. Dhruve, D., Shalini, R., Jeya Shakila, R Hemamalini, A., **Arisekar, U.,** and Ratrey, V. 2024. Method validation for the detection of formaldehyde in the fish using ultra performance liquid chromatography. Indian J. Fish., 71 (3): 108-114,
28. Sundhar, S., Shakila, R.J., Shalini, R., Aanand, S., Jayakumar, N., **Arisekar, U.** and Manikandan, B., 2024. Bioaccessibility of toxic heavy metals/metalloids in edible seaweeds: Exposure and health risk assessment. Food Research International, 182, p.114135.
29. Sundhar, S., Shakila, R.J., Shalini, R., Aanand, S., Jayakumar, N., **Arisekar, U.** and Surya, T., 2023. First report on the exposure and health risk assessment of organochlorine pesticide residues in Caulerpa racemosa, and their potential impact on household culinary processes. Food Research International, p.113559.
30. Manjunathan, M., Ravikumar, T., Chandran, S., Neethiselvan, N., Jawahar, P., **Arisekar, U.** and Karthy, A., 2023. Catch Efficiency and Economic Analysis for Traditional Fishing Gear (Troll Lines) Operated along the Coromandel and Gulf of Mannar Coasts (Southeast India). Journal of Coastal Research, 39(6), pp.1137-1145.
31. Pathak, N., Shakila, R.J., Jeyasekaran, G., **Arisekar, U.,** Neethiselvan, N., Padmavathy, P., Patel, A. and Mayilvahnan, R., 2023. Standardization of Pasteurization Process for Soft- and Hard-Shell Blue Swimming Crab (*Portunus pelagicus*). Journal of Food Processing and Preservation, 2023. 1-17.
32. Keerthika, K., Padmavathy, P., Rani, V., Jeyashakila, R., Aanand, S., Kutty, R., **Arisekar, U.** Tamilselvan, R. and Subash, P., 2023. Ingestion of Microplastics in commercially important species along Thoothukudi coast, south east India. Environ. Monit. Assess, 195:517, 1-17
33. Surya, T., Jeyasekaran, G., Shakila, R.J., Sivaraman, B., Shalini, R., Sundhar, S. and **Arisekar, U.,** 2022. Prevalence of biofilm-forming Salmonella in different seafood contact surfaces of fishing boats, fish landing centers, fish markets and seafood processing plants. Marine Pollution Bulletin, 185 (Part A), 114285
34. Surya, T., Jeyasekaran, G., Shakila, R.J., Alsalhi, M. S., Devanesan, S., Sivaraman, B. **Arisekar, U.,** and Pham, T.H., 2022. Effect of antibiotics and Sanitizers on Salmonella biofilms Associated with Seafood contact surfaces. Microbiological Research, 266, 127213
35. Dhruv, D., Shalini, R., Shakila, R.J., Lowanshi, A., **Arisekar, U.,** Jeyasekaran, G. and Neethiselvan, N., 2022. Detection of Free and Found Formaldehyde in commercially important fishes and their effect on cooking: A Preliminary study. The Pharma Innovation, 11(9), 3048-3053.
36. Manimekalai, D., Srinivasan, A., Padmavathy, P., Jawahar, P., George, R. and **Arisekar, U.,** 2022. Acute and Chronic Toxicity Effects of the Heptachlor Pesticide on Tilapia (Oreochromis mossambicus): Impact to Behavioral Patterns and Histopathological Responses. Journal of Coastal Research, 38(5), 999-1010.
37. Sofi, F.R., Saba, K., Pathak, N., Bhat, T., Surasani, V.K.R., Phadke, G. and **Arisekar, U.,** 2022. Quality improvement of Indian mackerel fish (Rastrelliger kanagurata) stored under

the frozen condition: Effect of antioxidants derived from natural sources. Journal of Food Processing and Preservation, 46(5), 16551.
38. Masilan, K., Neethiselvan, N., Shakila, R.J., Karthy, A., **Arisekar, U.,** Muralidharan, N., Ravikumar, T., Sivaraman, B., Kalidas, C. and Ranjith, L., 2022. Development of fish gelatin-based artificial fish baits incorporating bioattractants from seafood processing waste. Journal of the Indian Chemical Society, 99(3), 100376.
39. Pathak, N., Shakila, R.J., Jeyasekaran, G., Shalini, R., **Arisekar, U.,** Patel, A., Kumar, U., Malini, A.H. and Mayilvahnan, R., 2021. Variation in the nutritional composition of soft and hard blue swimming crabs (Portunus pelagicus) having good export potential. Journal of Aquatic Food Product Technology, 30(6), 706-719.
40. Shalini, R., Jeyasekaran, G., Shakila, R.J., Sundhar, S., **Arisekar, U.,** Jawahar, P., Aanand, S., Sivaraman, B., Malini, A.H. and Surya, T., 2021. Dietary intake of trace elements from commercially important fish and shellfish of Thoothukudi along the southeast coast of India and implications for human health risk assessment. Marine Pollution Bulletin, 173, 113020.
41. Shalini, R., Jeyasekaran, G., Shakila, R.J. and **Arisekar, U.,** 2021. Trace element concentrations in the organs of fish along the southeast coast of India. Marine Pollution Bulletin, 162, 111817.
42. Sundhar, S., Shakila, R.J., Jeyasekaran, G., Aanand, S., Shalini, R., **Arisekar, U.,** Surya, T., Malini, N.A.H. and Boda, S., 2020. Risk assessment of organochlorine pesticides in seaweeds along the Gulf of Mannar, Southeast India. Marine Pollution Bulletin, 161, 111709.
43. Shalini, R., Jeyasekaran, G., Shakila, R.J., **Arisekar, U.,** Sundhar, S., Jawahar, P., Aanand, S. and HemaMalini, A., 2020. Concentrations of trace elements in the organs of commercially exploited crustaceans and cephalopods caught in the waters of Thoothukudi, South India. Marine pollution bulletin, 154, 111045.
44. Sundhar, S., JeyaShakila, R., Jeyasekaran, G., Shalini, R., **Arisekar, U.** and Jenishma, J.S., 2019. Safety assessment of edible red seaweeds Gracilaria and Gelidiella of Gulf of Mannar in terms of OCP residual contamination. Environmental Nanotechnology, Monitoring & Management, 12, 100245.

**Awards and Appreciations**

| Sl. | Award(s) & Year | Event & Organization/Society/Authority |
|---|---|---|
| 1. | NAAS Young Scientist Award (2024) (05.06.2024) | National Academy of Agricultural Science, New Delhi |
| 2. | Young Researcher Award (2023) (30.08.2023) | International Academy of Science and Research (IASR), Kolkata (Register Under the Act II of 1882, Govt. of India Vide No. 152400476 of 2018). |
| 3. | Prof. K.H. Alikunhi Gold Medal for Best Ph.D. Thesis Award (2023) (12.07.2024) | ICAR- Central Institute of Fisheries Education, Mumbai, India |
| 4. | Prof. I. Karunasagar Gold Medal for Best Outgoing Ph.D. Student Award (2023) (07.07.2023) | Tamil Nadu Dr. J. Jayalalithaa Fisheries University, Nagapattinam, Tamil Nadu |

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| 5. | Best Poster Presentation Award (2022) | 12th Indian Fisheries and Aquaculture Forum (IFAF) Jointly organized by Tamil Nadu Fisheries University & Asian Fisheries Society Indian Branch, Chennai, India |
| 6. | Junior Young Scientist Award (2022) (13.07.2022) | Society of Fisheries and Life Science, College of Fisheries, Mangalore, Karnataka. Registered under Karnataka Societies Registration Act 1960 (Registration No. DKM/S-47/2016-17) |
| 7. | Best Researcher Award (2022) | Sabujeema: An International Multidisciplinary E-Magazine, Odhisa by Society for Agriculture and Allied Sciences and Technology (SAAT) Registered under the Society Registration Act 21, 1860. |
| 8. | Young Researcher Award (2020)<br>(28.02.2021) | 4th International Conference on Global Approaches in Natural Resources Management for Climatic Resource Agriculture (GNRSA -2020) by Agricultural Technology Development Society, Uttar Pradesh. Reregistered under the Societies Registration Act XXI of 1860 with Registration No. 1024/2015-16. |
| 9. | Young Environmentalist Award (2020) | 4th International Conference on Global Approaches in Natural Resources Management for Climatic Resource Agriculture (GNRSA -2020) by Agricultural Technology Development Society, Uttar Pradesh. Reregistered under the Societies Registration Act XXI of 1860 with Registration No. 1024/2015-16. |
| 10. | Best Teaching Assistant Award (2018) | Tamil Nadu Dr. J. Jayalalithaa Fisheries University, Nagapattinam, Tamil Nadu |
| 11. | TNJFU Appreciation Award (2018) | Tamil Nadu Dr. J. Jayalalithaa Fisheries University, Nagapattinam for the development of formalin kit |
| 12. | TNJFU Appreciation Award (2018) | Tamil Nadu Dr. J. Jayalalithaa Fisheries University, Nagapattinam for the development of rapid pesticide analysis protocol |
| 13. | Best Poster Presentation Award (2017) | National Conference on Food Regulation in India: Current Status and Way Forward Jointly organized by Pondicherry University & Association of Food Scientists and Technologists (India), Pondicherry |

**GenBank Submissions - <u>Accession Number (S)</u>**

1. NCBI, 2024. Nucleotide sequence PQ045756 (*Scomberomorus commerson* Complete D-loop region). https://www.ncbi.nlm.nih.gov/nuccore/PQ045756 . (Authors: Rajakumari, R., Shalini, R., Sivaraman, B., **Arisekar, U.** and Sundhar, S)

2. NCBI, 2024. Nucleotide sequence PQ045757 (*Scomberomorus guttatus* Complete D-loop region). https://www.ncbi.nlm.nih.gov/nuccore/PQ045757. (Authors: Rajakumari, R., Shalini, R., Sivaraman, B., **Arisekar, U.** and Sundhar, S)

3. NCBI, 2024. Nucleotide sequence PQ045758 (*Acanthocybium solandri* Complete D-loop region). https://www.ncbi.nlm.nih.gov/nuccore/PQ045758 . (Authors: Rajakumari, R., Shalini, R., Sivaraman, B., **Arisekar, U.** and Sundhar, S)

4. NCBI, 2024. Nucleotide sequence PQ505665 (*Scomberomorus lineolatus* Complete D-loop region). (Authors: Rajakumari, R., Shalini, R., Sivaraman, B., Sundhar, S. and **Arisekar, U**)