

CURRICULUM VITAE

Dr. Ishtiyag Ahmad Teli

Assistant Professor (Contractual),

Department of Zoology,

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Areas of Specialization: Ichthyology (Fish Nutrition, Nutrigenomics)

Research Interest: Aquaculture, Fish Nutrition, Fish Physiology and Biochemistry

Qualifications:

- **M.Sc. Zoology (Zoology)** (HNB Garhwal University Uttarakhand)
- **M.Phil Zoology (Fisheries)** (Punjabi University Patiala)
- **Ph.D. Zoology (Ichthyology)** (University of Kashmir)

Publications:

- Total no. of Publications: 40 Books= 5 Book chapters= 11
- Cumulative Impact Factor = 99.7
- Citations= 490 h-index: 12 i10-index: 15

Experiences:

- JRF and SRF in DBT sponsored project at University of Kashmir (2016-2020)
- SRF in PMMSY funded project at Faculty of Fisheries, SKUAST-K (2022-til date)

Patent Filed

- Patent filed on “Raceway model for trout fish culturing” under Application No. 425257-001

Editorial Roles:

- PLOS One; Frontiers in Nutrition

Reviewer Roles:

- Fish Physiology and Biochemistry; Aquaculture Research; Veterinary Parasitology; Scientific Reports; Frontiers in Nutrition, Environmental Biology of Fishes etc.
- Shortlisted for Research Scientist Position at University of Idaho, USA

Professional Biography

With a Ph.D. in Biological Science (Ichthyology) from the University of Kashmir, India, my research journey has focused on the intersection of fish nutrition and health. My doctoral research involved studying the effects of dietary branched-chain amino acids on the growth performance, enzyme activities and gene expression of TOR and 4E-BP genes in *Oncorhynchus mykiss* (rainbow trout) fingerlings. This work, which combined molecular techniques with in-depth nutritional studies, led to recommendations on optimal dietary levels for leucine, isoleucine and valine. Through this project, I also explored the non-specific immune responses and antioxidant properties linked to these amino acids, with a particular focus on the TOR signaling pathway-a crucial regulator of protein synthesis in fish. I am proficient in applying bioinformatics tools and machine learning algorithms to analyze large datasets, identify growth-related genes and develop predictive models. I believe that by incorporating machine learning into omics data analysis, we can unveil novel biomarkers, optimize feed formulations and improve fish health, contributing significantly to sustainable aquaculture practices.

Additionally, I have diverse laboratory techniques, including feed formulation, molecular biology and microscopy, which provided me with a comprehensive and interdisciplinary skill set. I have managed multiple projects, consistently delivering high-quality research outcomes under strict deadlines. My goal is to drive innovation and develop sustainable solutions that will have a lasting impact on global food security.

Qualifications

Degree	Institution	Field of Study	Completion Date
B.Sc.	University of Kashmir	Science	2010
M.Sc.	HNB Garhwal Univ. Uttarakhand	Zoology	2012
B. ed.	University of Kashmir	Education	2013
M. Phil	Punjabi University Patiala	Zoology (Fisheries)	2016
CSIR-NET	CSIR	Life Sciences	2017
Ph.D	University of Kashmir	Ichthyology	2021

Awards/ Positions/Experience/Membership

- ❖ Worked as Senior Research Fellow in Ministry of Fisheries, Animal Husbandry & Dairying Department of Fisheries Sponsored project entitled ‘Development of pure lines for genetic improvement in Rainbow trout: Upscaling and Sustainable Quality Seed Production in Kashmir valley to enhance Aquaculture production’ under PMMSY scheme at College of Fisheries, Rangil-Ganderbal, SKUAST, Kashmir from 20th July, 2022 to 14th March, 2025.
- ❖ **Shortlisted for Research Scientist Position at University of Idaho, USA.**
- ❖ Worked in DBT-New Delhi Sponsored project entitled “Optimum feeding rate, dietary protein and essential amino acids requirement of rainbow trout, *Oncorhynchus mykiss* (Walbaum 1792) with a view to develop nutritionally balanced feed for intensive culture in J&K as Junior Research Fellow and Senior Research Fellow from 28th November, 2016 to 17th June, 2020.
- ❖ **Conferred Best Young Scientist National Award by IRDP Group of Journals, Chennai, India on 28th October, 2018.**
- ❖ Awarded with best paper presentation award in Animal Science Congress: Horizons in Zoological Studies, organized by Department of Zoology, University of Kashmir in association with ZSI, Gaya and JAKAS, Kashmir held on 4th to 6th August, 2018.
- ❖ **Life time member of The Academy of Environmental Biology, India.**
- ❖ Helped PG students from 2017-2021 in different projects.

List of Publications

- ❖ **Ahmad I.**, Irm M., Ahmed I., Haoran Y., Taj S., Tahir TA., Puswal SM., Khalil HS (2022). Role of Ginger in Fish Nutrition: A Review. *Journal of World Aquaculture Society*. **Impact factor 2.3**
- ❖ **Ahmad I.**, Ahmed I, Dar NA (2021). Dietary valine modulates growth performance, non-specific immune response, intestinal enzymatic activities, antioxidant properties and expression of TOR signaling cascade related genes in rainbow trout, *Oncorhynchus mykiss* fingerlings. *Scientific Reports*. **Impact factor 3.8**

- ❖ **Ahmad I**, Ahmed I, Dar NA (2021). Dietary leucine levels on growth performance, enzymatic activities, antioxidant properties and expression of TOR related genes in rainbow trout, *Oncorhynchus mykiss* fingerlings. ***Aquaculture Nutrition*. Impact factor 3.0**
- ❖ **Ahmad I**, Ahmed I, Dar NA (2021). Effects of dietary isoleucine improved growth performance, hemato-biochemical parameters, non-specific immune response, intestinal enzymatic activities, antioxidant status and relative expression of TOR and 4E-BP genes in rainbow trout, *Oncorhynchus mykiss* fingerlings. ***Aquaculture Research*. Impact factor 1.9**
- ❖ **Ahmad I**, Ahmed I, Abidi SF, Peres H (2021). Role of branched chain amino acids on growth, physiology and metabolism of different fish species: A review. ***Aquaculture Nutrition*. Impact factor 3.0**
- ❖ Ahmed I, **Ahmad I** (2021). Dietary lysine modulates growth performance, hemato-biochemical indices, non-specific immune response, intestinal enzymatic activities and antioxidant properties of rainbow trout, *Oncorhynchus mykiss* fingerlings. ***Aquaculture Nutrition*. Impact factor 3.0**
- ❖ **Ahmad I**, Ahmed I, Reshi QM, Jan K, Gupta A, Dar SA, Molnar K, Kaur H, Malla BA, Andrabi SM (2021). Morphological, histopathological, and molecular characterization of *Myxobolus szekelyianus* n. sp. (Cnidaria: Myxosporidia: Myxobolidae) infecting *Schizothorax esocinus* (Heckel, 1838) from river Jhelum of Kashmir Himalayan region. ***Aquaculture Research*. Impact factor 1.9**
- ❖ Ahmed I, **Ahmad I** (2020). Effect of dietary protein levels on growth performance, hematological profile and biochemical composition of fingerlings rainbow trout, *Oncorhynchus mykiss* reared in Indian himalayan region. ***Aquaculture Reports*. Impact factor 3.2**
- ❖ Ahmed, I., **Ahmad, I.**, & Malla, B. A. (2024). Effects of dietary tryptophan levels on growth performance, plasma profile, intestinal antioxidant capacity and growth related genes in rainbow trout (*Oncorhynchus mykiss*) fingerlings. ***Aquaculture*, 585, 740710. Impact factor 3.9**
- ❖ **Ahmad I**, Ahmed I, Sheikh ZA, Nabi N (2019). Cyclic variations of gonad development of snow trout, *Schizopyge niger* from the river Jhelum of Kashmir Himalaya. ***Journal of Applied Ichthyology*. 00, 1-12. Impact factor 0.7**
- ❖ Ahmed I, **Ahmad I**, Dar SA, Awas M, Kaur H, Ganai BA, Shah BA (2019). *Myxobolus himalayaensis* sp. nov. (Cnidaria: Myxozoa) parasitizing *Schizothorax richardsonii* (Cyprinidae: Schizothoracinae) from River Poonch in North West Himalaya, India. ***Aquaculture Reports*. 14, 100192. Impact factor 3.2**
- ❖ Iyyappan, S., Rather, M. A., **Ahmad, I.**, & Ahmad, I. (2024). Comparative mitochondrial genomics analysis of selected species of Schizothoracinae sub family to explore the differences at mitochondrial DNA level. ***Computational Biology and Chemistry*, 108165. Impact factor 2.6**
- ❖ Debnath, R., Prasad, G. S., Amin, A., Malik, M. M., **Ahmad, I.**, Abubakr, A., ... & Faggio, C. (2024). Understanding and addressing microplastic pollution: Impacts, mitigation, and future perspectives. ***Journal of Contaminant Hydrology*, 104399. Impact factor 3.5**

- ❖ Nabi, N., **Ahmad, I.**, Amin, A., Rather, M. A., Ahmed, I., Hajam, Y. A., ... & Abubakr, A. (2024). Understanding the sources, fate and effects of microplastics in aquatic environments with a focus on risk profiling in aquaculture systems. *Reviews in Aquaculture*. **Impact factor 8.8**
- ❖ Marzouk, Y., Gaber, M. M., **Ahmad, I.**, Ahmed, I., El Basuni, M. F., Zaki, M. A., ... & Khalil, H. S. (2024). Impacts of poultry by-product meal substituting fishmeal on growth efficiency, body composition, liver, and intestine morphology of European sea bass, *Dicentrarchus labrax*. *Food Chemistry: X*, **23**, 101569. **Impact factor 6.5**
- ❖ Rakkannan, G., Mohanty, A.K., Ipsita Das, I., Nayak, S., Sahoo, L., Kumar, R., Rasal, A., Rather, M.A., Ahmad, I., Sundaray, J.K. (2025). Triflumezopyrim induced oxidative stress, DNA damage and apoptosis on *Labeo rohita*: Insights from Bioinformatics, Histopathological and Molecular approaches. *International Journal of Biological Macromolecules*. **Impact factor 7.7**
- ❖ Sharma, N., Ajima, MNO., Rather, MA., Sharma, R., & **Ahmad, I.** (2024). Behavioural changes, DNA damage and histological alterations in *Labeo rohita* fingerlings in response to organic-coated silver nanoparticles. *Environmental Science and Pollution Research*. **Impact factor 5.8**
- ❖ Prasad, G. S., Rout, S. K., Amin, A., Malik, M. M., **Ahmad, I.**, Rather, M. A., ... & Abubakar, A. (2024). Impact of COVID-19 on the aquatic environment and implications for fisheries with special emphasis to Indian perspective. *Proceedings of the Indian National Science Academy*, 1-19. **Impact factor 0.9**
- ❖ Rather, M. A., **Ahmad, I.**, Shah, A., Hajam, Y. A., Amin, A., Khursheed, S., ... & Rasool, S. (2024). Exploring opportunities of Artificial Intelligence in aquaculture to meet increasing food demand. *Food Chemistry: X*, 101309. **Impact factor 6.5**
- ❖ Khan, S. Y., Rather, M. A., Shah, A., **Ahmad, I.**, Ahmad, I., Saba, K., & Sofi, F. R. (2024). Exploring 3D structure of gonadotropin hormone receptor using homology modeling, molecular dynamic simulation and docking studies in rainbow trout, *Oncorhynchus mykiss*. *Endocrine and Metabolic Science*, **15**, 100171.
- ❖ Saba Khursheed Khan, Joydeep Dutta, Mohd Ashraf Rather, **Ishtiyag Ahmad**, Irfan Ahmad Khan, Gohar Bilal Wani (2024). Assessing the Dose-Dependent Toxicity of Silver Nanoparticles on Rainbow Trout: A Comprehensive Analysis of Physiological and Molecular Responses. *Toxicology Mechanisms and Methods*. **Impact factor 2.8**
- ❖ Saba Khursheed Khan, Joydeep Dutta, Mohd Ashraf Rather, **Ishtiyag Ahmad**, Junaid Nazir. (2024). Toxicological Impact of Copper Nanoparticles on Rainbow Trout: Hematological, Biochemical, Antioxidant, and Histopathological Responses with Oxidative gene expression. *Toxicology Mechanisms and Methods*. **Impact factor 2.8**
- ❖ Saba Khursheed Khan, Joydeep Dutta, **Ishtiyag Ahmad**, Mohd Ashraf Rather. (2024). Nanotechnology in Aquaculture: Transforming the future of food security. *Food Chemistry: X*. **Impact factor 6.5**

- ❖ Dar, S. A., **Ahmad, I.**, Ahmed, I., Kaur, H., Khursheed, S., Nisar, K., Magray, A.R., Chishti, M. Z. (2024). Strategies for describing myxozoan pathogens, dreadful fish diseases in aquaculture. *Microbial Pathogenesis*. **187**: 106512. **Impact factor 3.8**
- ❖ Khursheed, S., Dutta, J., **Ahmad, I.**, Rather, M. A., Badroo, I. A., Bhat, T. A., Ahmad, I., Amin, A., Shah, A., Qadri, T., Habib, H. (2023). Biogenic silver nanoparticles: Synthesis, applications and challenges in food sector with special emphasis on aquaculture. *Food Chemistry: X*. **20**: 101051. **Impact factor 6.5**.
- ❖ Agarwal D, Kumar G, Ashraf Rather M, **Ahmad I**. (2023). Cloning, computational analysis and expression profiling of steroid 5 alpha-reductase 1 (SRD5A1) gene during reproductive phases and ovate stimulation in endangered catfish, *Clarias magur*. *Scientific Reports*, **13**(1), 19553. **Impact factor 3.8**
- ❖ Rehman HM, Sajjad M, Ali MA, Gul R, Naveed M, Aslam MS, Shinwari K, Bhinder MA, Ghani MU, Saleem M, Rather MA, **Ahmad I**, Amin A. (2023). Identification of RdRp inhibitors against SARS-CoV-2 through E- pharmacophore-based virtual screening, molecular docking and MD simulations approaches. *International Journal of Biological Macromolecules*. **Impact factor 7.7**
- ❖ Shah A, Ahmad I, **Ahmad I**, Amin I, Rather MA. (2023). Gene Characterization, Molecular Docking and Dynamic Simulations of Insulin-Like Growth Factor Receptor (IGF-1Ra) in Common Carp, *Cyprinus carpio*. *Proceedings of the Zoological Study*.
- ❖ Dar SA, Kaur H, Gupta A, **Ahmad I**, Chishti MZ. (2023). New record of gill hemorrhagic parasite *Myxobolus richardsoni* n. sp. (Cnidaria: Myxozoa) infesting *Schizothorax richardsonii* in Kashmir Himalayas. *Comparative Clinical Pathology*.
- ❖ Ahmed I, **Ahmad I**, Malla BA, Shah BA, Wani ZA (2022). Effects of dietary arginine levels on growth performance, body composition, plasma biochemical indices, intestinal enzymes and gene expressions of TOR and 4E-BP1 in rainbow trout, *Oncorhynchus mykiss* fingerlings. *Frontiers in Marine Sciences*. **Impact factor 3.5**
- ❖ **Ahmad I**, Kaur H (2018). Prevalence, site and tissue preference of myxozoan parasites infecting gills of cultured fingerlings of Indian major carps in District Fatehgarh Sahib, Punjab (India). *Journal of Parasitic Diseases*. **Impact factor 0.50**
- ❖ Kaur H, **Ahmad I** (2017). A report on two new myxozoan parasites infecting gills of Indian major carps cultured in nursery ponds in Punjab (India). *Journal of Parasitic Diseases*. **Impact factor 0.50**
- ❖ **Ahmad I**, Kaur H (2017). Redescription and histopathology of two species of myxozoans infecting gills of fingerlings of Indian major carps. *Journal of Fisheries Sciences.com*. **11**, 001-010. **Impact factor 0.714**
- ❖ **Ahmad I**, Ahmed I (2018). Length weight relationship and condition factor of cultured rainbow trout, *Oncorhynchus mykiss* (Walabum, 1792). *Journal of Ecophysiology and Occupational Health*. **19**, 1-4. **Impact factor 0.09**

- ❖ Kaur H, **Ahmad I** (2016). Morphological description of *Myxobolus markiwi* n. sp. (Cnidaria: Myxosporidia: Myxozoa) infecting gills of fingerlings of aquaculture ponds from Punjab, India. *Species. 17*, 141-149.

Papers in Communication

- ❖ Oshin Dhillon, Mohd Ashraf Rather, **Ishtiyag Ahmad**, Irfan Ahmad Bhat, Irfan Ahmad Khan. (2025). Genomics in Aquaculture: Current Advances, Challenges and Future Research Priorities for Sustainable Food Security. *Transgenic Research. (Under Review) Impact factor 4.996*
- ❖ Sajad Ahmad Rather, Adnan Amin, Adnan Abubakr, Monisa Mehboob Malik, Ifra Tabassum, Mohd Ashraf Rather, Mansoor Ahmad Rather, Bhagyashree Dhekale, **Ishtiyag Ahmad** and Hafsa Farooq Chashoo. (2025). First Incidence of Microplastic presence in commercially important food fishes and surface waters: A case study in the Dal Lake ecosystem of North-western Himalaya (India). *Journal of Contaminant Hydrology. (Under Review) Impact factor 3.5*
- ❖ Fatima M., Rather MA., Khan I.A, **Ahmad I.**, Bhat IA., Danazumi AU., Asimi OA., Bhat BA. Malik M. (2025). Zinc sulfate heptahydrate induce growth in Rainbow trout: A Computational biology and Experimental Validation Approach. *Scientific Reports. (Under Review) Impact factor 3.8*
- ❖ S Iyyappan, Irfan Ahmad Bhat, Ishtiyag Ahmad, Mohd Ashraf Rather (2025). Uncovering Evolutionary and Phylogenetic Relationships in Glyptothorax Species through Comparative Mitochondrial Genomics. *BMC Veterinary Research. (Under Review) Impact factor 2.3*
- ❖ Dar SA, Kaur H, **Ahmad I**, Chishti MZ, Lone MA, Wachkoo, AA (2025). Evaluating the pathogenic effects of Myxozoan parasites infecting cold water fishes of North West Himalayas. *Comparative Clinical Pathology (Under Review).*

Books published

- ❖ Sundaray JK, Rather MA, **Ahmad I**, Amin A. (2024). Food Security, Nutrition and Sustainability through Aquaculture Technologies. **Springer Publications Switzerland.**
- ❖ **Ahmad I**, Amin A, Malik MM, Rather MA (2023). Exploring frontiers in Fisheries Research: Emerging topics and innovations. **Elite Publishing House New Delhi. ISBN 978-93-95182-87-5**
- ❖ Rather MA, Shah A, **Ahmad I**, Amin A. (2023). Illustrated dictionary of biotechnology and bioinformatics. **Elite Publishing House New Delhi. ISBN 978-93-95182-84-4**
- ❖ **Ahmad I.** (2024). Sustainable Aquaculture: Innovative Strategies. **NIPA® genx electronic resources & solutions P. LTD. ISBN 978-93-58872-01-9**

Books Accepted

- ❖ Ahmed I, **Ahmad I.** (2024). Aquaculture: Enhancing Food Security and Nutrition. **Springer Publications Switzerland.**
- ❖ Nazir MI, **Ahmad I.** (2024). Aquatic Genomics and Food Security – Integrative Approaches and Future Prospects. **Springer Publications Switzerland.**
- ❖ Rather MA, **Ahmad I,** Malik M, Amin A. (2024). Emerging Technologies and their Applications in Aquatic Sciences. **Springer Publications Switzerland.**
- ❖ Ahmed I, **Ahmad I,** Syed FS. (2024). Fish Nutrition” Protein and Amino Acid Requirements. **Taylor and Francis CRC Press Publications.**
- ❖ **Ahmad I,** Khursheed S, Rather MA, Dutta J. (2024). Nanotechnology in Fisheries and Aquaculture (Volume I). **Taylor and Francis CRC Press Publications.**
- ❖ **Ahmad I,** Rather MA, Amin A, Malik MM (2024). Nanotechnology in Fisheries and Aquaculture (Volume II). **Taylor and Francis CRC Press Publications.**

Published Book chapter/s

- ❖ **Ahmad I,** Ahmed I (2021). Causes of ulceration in the fish fauna. In: Bacterial Fish Diseases. **Elsevier Publications.**
- ❖ Reshi QM, Ahmed I, **Ahmad I,** Fazio F (2023). Impact of Microplastics on flora and fauna. In: Microplastic Pollution: Causes, Effects and Control. **Bentham Publications.**
- ❖ Kousar Jan, Imtiaz Ahmed, Nazir Ahmad Dar, **Ishtiyaq Ahmad (2025).** Understanding the Seasonal Proximate International Composition of Himalayan Snow Trout (*Schizothorax labiatus*) for Ensuring Food Security. **Springer Publications. 311-326.**
- ❖ Quseen Mushtaq Reshi, **Ishtiyaq Ahmad,** Naveed Nabi, Imtiaz Ahmed, Muzamil Sidiq (2025). Global Food Insecurity: Role of Fishes to International Compensate Food Insecurity and Nutritional Demand. **Springer Publications. 75-93.**
- ❖ Saba Khursheed Khan, Joydeep Dutta, **Ishtiyaq Ahmad,** Mohd Ashraf Rather, Irfan Ashraf Badroo, Sehrish Taj (2025). Fish Protein: A Nutritional Solution for International Global Food Security. **Springer Publications. 457-491.**
- ❖ Zaheer Abass, Dechen Chuskit, Tasaduq H Shah, Rinkesh N Wanjari, **Ishtiyaq Ahmad,** Inab M Bala, Hudisa Banoo, Ishfaq Hamid, Manabjoyti Barman (2025). Microplastic an Emerging Threat to International Nutritional and Food Security. **Springer Publications. 397-415.**
- ❖ Rinkesh Nemichand Wanjari, Ishfaq Hamid, Zaheer Abass, Aadil Hussain Magloo, **Ishtiyaq Ahmad (2025).** Ecosystem Services of Aquatic International Biodiversity for Food Production and Livelihoods. **Springer Publications. 207-225.**
- ❖ Saima Andleeb, Irfan Ahmad, Asim I. Bazaz, Azra Shah, Durdana Qazi, Keezia Khurshid, Mohd Ashraf Rather, **Ishtiyaq Ahmad (2023).** Biotechnological Advancements in the Realm of Fisheries and Aquaculture. **Elite Publishing House New Delhi. 1-21.**
- ❖ Durdana Qazi, Irfan Ahmad, Tabish Farooq, Saima Andleeb, Azra Shah, Syed Zainab Jalali, **Ishtiyaq Ahmad (2023).** Exploring Fish Cytogenetics: Chromosome Preparation and Karyotype Analysis in Freshwater Teleost Fishes. **Elite Publishing House New Delhi. 84-98.**
- ❖ Azra Shah, Irfan Ahmad , Asim I. Bazaz, Saima Andleeb, Durdana Qazi, Saba Khursheed, **Ishtiyaq Ahmad,** Mohd Ashraf Rather (2023). Aquaculture Breeding Using Genomic Selection. **Elite Publishing House New Delhi. 113-126.**

- ❖ Saba Khursheed, Joydeep Dutta, Mohd Ashraf Rather, **Ishtiyag Ahmad** and Azra Shah (2023). Nanotechnology in Aquaculture: Applications and Challenges. **Elite Publishing House New Delhi. 155-182.**

Book Chapters in Communication

- ❖ Reshi QM, **Ahmad I**, Ahmed I, Nabi N, (2024). Role of nanotechnology and its implications in aquaculture. In: Recent Advances in Sustainable Aquaculture and Fisheries. **Taylor and Francis CRC Press Publications.**
- ❖ Ja'afar, Y., Ahmad, P.Z., Rather, M.A., Ahmad, I. (2025). An Overview of Functional Genomics in Aquaculture. In: Aquaculture: Enhancing Food Security and Nutrition. **Springer Publications Switzerland.**
- ❖ Ghara, S., Biswas, S., Patel, R.S., Rather, M.A., Ahmad, I. (2025). CRISPR-Cas and Nanotech in Aquaculture: Pioneering Genetic Advancements for Food Security. In: Aquaculture: Enhancing Food Security and Nutrition. **Springer Publications Switzerland.**
- ❖ Jan, K., Ahmed, I., Ahmad, I. (2025). Emerging trend of nanotechnology in aquaculture: Applications, mode of action and challenges. In: Aquaculture: Enhancing Food Security and Nutrition. **Springer Publications Switzerland.**

Laboratory/Equipment Experience

- Experience in Fish Feed Formulation.
- Experience in conducting fish feeding experiments.
- Experience in handling Equipments like Foss Kjeltex 8400 analyzer, Foss Soxtec 2050 analyzer, Vetscan Vs2 biochemistry analyzer, Microscopy etc.
- Having knowledge of analyzing physicochemical parameters.
- Statistical analysis knowledge (One way ANOVA, Two way ANOVA, Regression analysis, SPSS, t-test, Origin etc).
- Experience in molecular techniques like DNA/RNA extraction, cDNA synthesis, Real Time PCR, GC-MS, HPLC, NIRS, Spectrophotometry etc.
- Experience in histopathological study.
- Basic Computer Knowledge

Mentorship Experience

- Mentor, train, and supervise Masters students, University of Kashmir, Srinagar, India (2017 - 2022)

Editor Roles

- Review Editor: Frontiers in Nutrition; Editor: PLOS One

Service and Training

Service to community

- Manuscript Reviewer (Fish Physiology and Biochemistry, Environmental Biology of Fishes, Reviews in Fish Biology and Fisheries, Journal of Animal Physiology and Animal Nutrition, Iranian Journal of Ichthyology), Frontiers in Veterinary Science etc.

Professional Courses

- Science writing

Reviewed Research Papers as Referee

- ❖ Food and feeding habits of Indian halibut, *Psettodes erumei* from the North of the Persian Gulf and Oman Sea. **Iranian Journal of Ichthyology**. (2019).
- ❖ Hydrological variability, zooplankton availability and the shift between planktivore-benthivore feeding behaviour in the visual predator fish, *Odontesthes bonariensis*. **Environmental Biology of Fishes**. (2019). **Impact factor 1.844**
- ❖ Diel osmorepiration rhythms of juvenile marble goby (*Oxyeleotris marmorata*) from Malaysia. **Fish Physiology and Biochemistry**. (2020). **Impact factor 2.794**
- ❖ Effects of Ultraviolet Radiation (UVR) on the life stages of fish. **Reviews in Fish Biology and Fisheries**. (2020). **Impact factor 4.430**
- ❖ Carotenoid availability and tradeoffs in female convict cichlids, a reverse sexually-dichromatic fish. **Environmental Biology of Fishes**. (2020). **Impact factor 1.844**
- ❖ Winter ecology of striped bass (*Morone saxatilis*) near its northern limit of distribution in the Saint John River, New Brunswick. **Environmental Biology of Fishes**. (2020). **Impact factor 1.844**
- ❖ Differential expression analysis and identification of sex-related genes by gonad transcriptome sequencing in estradiol-treated and non-treated Ussuri catfish *Pseudobagrus ussuriensis*. **Fish Physiology and Biochemistry**. (2021). **Impact factor 2.794**
- ❖ In vitro induction of catfish, *Clarias batrachus* oocyte maturation by conspecific vitellogenin 1 (CFVg1). **Fish Physiology and Biochemistry**. (2021). **Impact factor 2.794**
- ❖ Effect of salinity on growth, survival, and serum osmolality of Red Snapper, *Lutjanus campechanus*. **Fish Physiology and Biochemistry**. (2021). **Impact factor 2.794**
- ❖ Dietary thiamin requirement of fingerling major carp *Catla catla* (Hamilton). **Journal of Animal Physiology and Animal Nutrition**. (2021). **Impact factor 2.130**
- ❖ Reproductive pattern of the female suckermouth armoured catfish, *Pterygoplichthys disjunctivus* (Weber 1991) from Polgolla reservoir in Sri Lanka. **Environmental Biology of Fishes**. (2021). **Impact factor 1.844**
- ❖ Post-spawning feed deprivation effects on testicular and ovarian maturation in the neotropical cichlid fish *Cichlasoma dimerus*. **Fish Physiology and Biochemistry**. (2021). **Impact factor 2.794**
- ❖ Relation of Gilthead Seabream (*Sparus aurata*) Seasonal Reproductive Activity to Hematology, Serum Biochemistry, Histopathology and Brdt Gene Expression. **Fish Physiology and Biochemistry**. (2021). **Impact factor 2.794**
- ❖ Research status of the Lancang-Mekong: fish and environmental stressors. **Reviews in Fish Biology and Fisheries**. (2021). **Impact factor 4.430**
- ❖ Transoceanic journey of an alien species: Rapa whelk era in the Black Sea. **Reviews in Fish Biology and Fisheries**. (2021). **Impact factor 4.430**
- ❖ Timing of early gonadal differentiation and effects of estradiol-17 β treatments on the sex differentiation in Largemouth bass (*Micropterus salmoides*). **Fish Physiology and Biochemistry**. (2022). **Impact factor 2.794**
- ❖ Effect of oral administration of a single bolus of six different protein sources on digestive physiology of red sea bream *Pagrus major* juvenile. **Fish Physiology and Biochemistry**. (2022). **Impact factor 2.794**

- ❖ The isosmotic point as critical salinity limit for growth and osmoregulation, but not survival, in the wolf eel *Anarrhichthys ocellatus*. **Fish Physiology and Biochemistry. (2022). Impact factor 2.794**
- ❖ No evidence of cortisol mediation in the determination of sex in European sea bass (*Dicentrarchus labrax*). **Fish Physiology and Biochemistry. (2022). Impact factor 2.794**
- ❖ Type of hormonal treatment administered to induce vitellogenesis in European eel influences biochemical composition of eggs and yolk-sac larvae. **Fish Physiology and Biochemistry. (2022). Impact factor 2.794**
- ❖ Growth and osmoregulation of the wolf eel *Anarrhichthys ocellatus* in dilute salinities. **Fish Physiology and Biochemistry. (2022). Impact factor 2.794**
- ❖ Natural cortisol production is not linked to the sexual fate of European sea bass. **Fish Physiology and Biochemistry. (2022). Impact factor 2.794**
- ❖ Dietary seabuckthorn polysaccharide reduced lipid accumulation, alleviated inflammation and oxidative stress, and normalized imbalance of intestinal microbiota that induced by high-fat diet in zebrafish *Danio rerio*. **Fish Physiology and Biochemistry. (2022). Impact factor 2.794**
- ❖ Effects of photoperiod and temperature on kisspeptin1 (kiss1) expression in the gonads of *Clarias batrachus*. **Environmental Biology of Fishes. (2019). Impact factor 1.844**
- ❖ Blood plasma high-density lipoprotein remodeling as a reserve mechanism for goldfish adaptation to critical salinity conditions. **Fish Physiology and Biochemistry. (2022). Impact factor 2.794**
- ❖ Dietary phenylalanine requirements and the effects of phenylalanine on TOR signaling and glucolipid metabolism in Largemouth bass (*Micropterus salmoides*). **Fish Physiology and Biochemistry. (2022). Impact factor 2.794**
- ❖ Brewer's spent yeast replacement in carp diet leads to muscle biomass production, recycling, waste management and resource conservation. **Fish Physiology and Biochemistry. (2022). Impact factor 2.794**

Selected professional presentations/workshops

- ❖ Participated and presented a paper entitled "Redescription and histopathology of two species of myxozoans infecting gills of Indian major carps" in the 10th JK Science Congress on Science and Technology for Inclusive Development: A way forward at University of Jammu from **14th to 16th March, 2015**.
- ❖ Participated in the National Symposium on the theme "Seven Billion Dreams. One Planet. Consume with Care." on **5th June, 2015** organized by CORD & Department of Environmental Science, in collaboration with Department of Students Welfare, University of Kashmir, Srinagar.
- ❖ Participated and presented a paper entitled "Ecology & diversity of myxosporeans infecting in fingerlings in aquaculture in Punjab" in the 19th Punjab Science Congress at SUS Group of Institutions, Tangori from **07-09 February, 2016**.
- ❖ Participated in Science Academies Three-Day Lecture Workshop on "Biodiversity of Kashmir Himalaya" held at Satellite Campus Kargil, University of Kashmir from **25th to 27th July, 2017**.
- ❖ Participated in National seminar on Himalayan Biodiversity Characterization and Bioprospection for Sustainable Utilization and presented a paper entitled "Ecology, prevalence, site and tissue preference of myxozoan parasites infecting gills of cultured fingerlings of Indian major carps in Punjab, India" held on **18th to 19th September, 2017**.
- ❖ Participated in Author Workshop on "Scholarly Writing & Intellectual Ethics" organized by University of Kashmir & Elsevier held on **October 25th, 2017**.
- ❖ Participated in One day National Seminal on Biodiversity and Climate change: Challenges and prospects and presented a paper entitled "*Myxobolus vascularis* n. sp. (Cnidaria: Myxozoa: Myxosporea), a new

parasite infecting fingerlings of Indian major carps in aquaculture in Punjab, India organized by Department of Environmental Science & IQAC, Govt. S.A.M. Degree College, Budgam (J&K) held on **26th October, 2017**.

- ❖ Ahmed, I., Sheikh, Z.A. & **Ahmad, I.** (2017). Effect of partial replacement of fish meal with aquatic weeds on growth, feed conversion ratio and biochemical composition of common carp, *Cyprinus carpio communis* fingerlings' Page 16. National Symposium on Biodiversity and Nutritional Resources for Sustainable Development and 37th Annual Session of Academy of Environmental Biology, Lucknow: Organized by Department of Zoology, Chaudhary Charan Singh University, Meerut in collaboration with Academy of Environmental Biology and DRDO, New Delhi. **November 24th – 26th, 2017**.
- ❖ Ahmed, I., Awas, M., **Ahmad, I.** & Sheikh Z.A. (2017). Documentation and conservation of fish diversity of river Poonch of Jammu region. Page 20. Himalyan biodiversity and bioprospection for sustainable utilization. Organized by Centre for Kashmir Himalayan Biodiversity: Documentation, Bioprospection & Conservation, University of Kashmir in collaboration with DST, UGC and DBT., Govt of India. **September 18th -19th, 2017**.
- ❖ Ahmed, I., Nabi, N., **Ahmad, I.**, Sheikh Z.A. & Wani, G.B. (2017). A review of four limiting amino acids requirement of fresh water fish species. Page 21. Himalyan biodiversity and bioprospection for sustainable utilization. Organized by Centre for Kashmir Himalayan Biodiversity: Documentation, Bioprospection & Conservation University of Kashmir in collaboration with DST, UGC and DBT., Govt of India. **September 18th -19th, 2017**.
- ❖ Ahmed, I., **Ahmad, I.** & Sheikh, Z.A. (2017). Utilization of hydrilla (*hydrilla verticillata*) meal as partial replacement of fish meal in the diet of fingerlings *Cyprinus carpio* var. communis Page 166. Himalyan biodiversity and bioprospection for sustainable utilization. Organised by Centre for Kashmir Himalayan Biodiversity: Documentation, Bioprospection & Conservation University of Kashmir in collaboration with DST, UGC and DBT., Govt of India. **September 18th -19th, 2017**.
- ❖ Sheikh, Z. A., Ahmed, I. & **Ahmad, I.** (2017). Comparative study of hematological analysis of two snow trouts, *Schizothorax plagiostomus* and *Schizothorax niger* with respect to season. Page 210. Himalyan biodiversity and bioprospection for sustainable utilization. Organized by Centre for Kashmir Himalayan Biodiversity: Documentation, Bioprospection & Conservation University of Kashmir in collaboration with DST, UGC and DBT., Govt of India. **September 18th -19th, 2017**.
- ❖ Participated in National Workshop on “Protein Sequencing Techniques” held on **23rd January, 2018** organized by Biotechnika Info Labs Ltd.
- ❖ Ahmed, I., **Ahmad, I.** & Sheikh, Z.A. (2018). Participated in Animal Science Congress: Horizons in Zoological Studies, organized by Department of Zoology, University of Kashmir in association with ZSI, Gaya and JAKAS, Kashmir held on **4th to 6th August, 2018** and presented a paper entitled “Histological assessment of gonads and reproductive biology of snow trout, *Schizothorax niger* from the river Jhelum of Kashmir Himalaya”.
- ❖ **Ahmad, I.**, Ahmed, I., Wani, R.A. & Sheikh, Z. A. (2018). Studies on the artificial breeding of brown trout, *Salmo trutta farrio* from Kashmir valley. Page 104. 13th J&K Science Congress. Organized by University of Kashmir in collaboration with J&K State Science Technology & Innovation Council, Govt. of J&K. **April 2nd - 4th, 2018**.
- ❖ Sheikh, Z. A., Ahmed, I. & **Ahmad, I.** (2018). Distribution pattern, threats and conservation of fish biodiversity on the river Jhelum, Kashmir valley. Page 85. 13th J&K Science Congress. Organized by

University of KU in collaboration with J&K State Science Technology & Innovation Council, Govt. of J&K.
April 2nd - 4th, 2018.

- ❖ Jan, K., Ahmed, I., Sheikh, Z. A., Reshi, Q.M. & **Ahmad, I.** (2018). Determination of age in fishes using various methods: A review. Page 84. 13th J&K Science Congress. Organized by University of Kashmir in collaboration with J&K State Science Technology & Innovation Council, Govt. of J&K. **April 2nd - 4th, 2018.**
- ❖ Reshi, Q.M., Ahmed, I., Sheikh Z.A., Jan, K. & **Ahmad, I.** (2018). Environment and anthropogenic issues of river Jhelum, JKSC-798, page 88. 13th J&K Science Congress. Organized by University of KU in collaboration with J&K State Science Technology & Innovation Council, Govt. of J&K. **April 2nd - 4th, 2018.**
- ❖ Participated in Animal Science Congress: Horizons in Zoological Studies, organized by Department of Zoology, University of Kashmir in association with ZSI, Gaya and JAKAS, Kashmir held on **4th to 6th August, 2018** and presented a paper entitled "Myxosporean parasites: An alarming disease in aquaculture in Punjab".
- ❖ Participated in one-week workshop on Research Methodology in sciences for Research Scholars from **January 21, 2019 to January 28, 2019** organized by UGC-Human Resource Development Centre, University of Kashmir.
- ❖ Participated and presented a paper entitled "*Myxobolus himalayaensis* sp. nov. (Cnidaria: Myxozoa) parasitizing *Schizothorax richardsonii* (Cyprinidae: Schizothoracinae) from River Poonch in North West Himalaya, India" in International Conference on Advances in Zoological Research (**ICAZR-2019**) and also attended the workshop on Real-Time PCR at the Department of Zoology, Aligarh Muslim University, Aligarh.
- ❖ Participated in the Workshop-cum-Brainstorming Session about the projects sponsored by the Ministry of Environment, forest & climate change under the National Mission on Himalayan studies on **16th of March, 2019.**
- ❖ **Ahmad, I.**, Ahmed, I., Jan, K., Kaur, H., Ahmad, S. M. and Reshi, Q. M. (2019). Morphological, histopathological and molecular characterization of *Myxobolus szekelyianus* sp. nov. (Cnidaria: Myxosporea) infecting *Schizopyge labiatus* from river Jhelum of Kashmir Himalayan region" in National conference on Fisheries and Climate Strategies, Challenges and Sustainable Management organized by Division of Fishery Engineering, Faculty of Fisheries Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir in collaboration with Ministry of Earth Sciences, Government of India held on **18th to 19th July, 2019.**
- ❖ Ahmed, I., **Ahmad, I.** and Sayed, S. F. (2019). Effect of dietary protein levels on growth performance, hematological profile and biochemical composition of fingerlings rainbow trout, *Oncorhynchus mykiss* reared in Indian Himalayan region". "One Health & Ecosystem Services". OHES-2019. Biodiversity Conservation on Society organized by NBFGR Lucknow held on **29th to 30th of November, 2019.**
- ❖ Ahmed, I., Sheikh, Z. A., **Ahmad, I.** and Nabi, N. (2019). Alteration in hematology and serum biochemical parameters of *Schizopyge plagiostomus* inhabiting in two fed rivers of Kashmir Himalaya region, India. OHES-119, page 122, One Health & Ecosystem Services. Organized by The Academy of environment Biology & ICAR- National Bureau of Fish Genetic Resources, Lucknow in collaboration with Aquatic Biodiversity Conservation Society (ABCS) India. **November 29th -30th, 2019.**

References

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