

DR. AMARA AKHTAR

Current Position: Assistant Professor

Department of Zoology, Wildlife & Fisheries

University of Agriculture Faisalabad, Pakistan

Email: amara.akhtar47@uaf.edu.pk | amara.akhtar47@gmail.com

Profile: <https://web.uaf.edu.pk/FacultyProfile/Profile/737>

Phone: +92-332-759-1405

PROFESSIONAL SUMMARY

Dedicated **Academician and Research Scientist** with over **15 years of experience in Zoology**, specializing in Fish Nutrition and Aquatic Toxicology. Currently **serving as Assistant Professor** at the University of Agriculture Faisalabad, I have a proven track record of optimizing fish feed efficiency by 30% and leading high impact research on environmental pollutants like microplastics. A **PhD holder with 22 peer reviewed international publications, and 2 Book Chapter**, I combine rigorous scientific inquiry with strong administrative leadership, having mentored **over 200 students** and managed diverse university coordination roles.

CORE COMPETENCIES & TECHNICAL SKILLS

- **Advanced Research & Lab Expertise:** Expert in fish feed formulation, Proximate analysis, Bioaccumulation studies, and Heavy metal stress assessment.
- **Environmental Toxicology:** Identifying toxicity thresholds for Microplastics and Nanomaterials in aquatic ecosystems.
- **Analytical & Digital Proficiency:** Skilled in statistical analysis software, data interpretation, and peer reviewed manuscript preparation.
- **Leadership & Administration:** Experienced in academic coordination, curriculum development, and student mentorship.

PROFESSIONAL EXPERIENCE

Assistant Professor | University of Agriculture Faisalabad, Pakistan **Aug 2024 – Present**

- Spearheaded research on sustainable aquaculture and cost-effective protein alternatives (poultry by product meal).
- Architected and taught advanced courses in Fish Nutrition and Toxicology.
- Mentored 200+ BS/MPhil students, ensuring successful thesis completions and technical report quality.
- Published impactful research in peer reviewed journals, focusing on nanoparticle and microplastic toxicity.

Lecturer | University of Agriculture Faisalabad, Pakistan **Aug 2011 – July 2024**

- Delivered comprehensive lectures to over 1,000 undergraduate and postgraduate students.
- Executed specialized research in aquatic toxicology with real-world applications in Pakistan's fisheries.
- Orchestrated departmental seminars and mentored students in advanced research writing.

RESEARCH EXPERIENCE & KEY ACHIEVEMENTS

- **Research Focus:** Over **10 years** of specialized research experience in fish nutrition and toxicology, with particular emphasis on improving feed efficiency, developing sustainable

protein alternatives, and identifying toxicological impacts of environmental pollutants on natural habitats of Pakistan.

- Enhanced fish feed efficiency by up to 30% through optimized formulation in *Labeo rohita* and *Catla catla*.
- Investigated heavy metal toxicity and developed herbal/probiotic based mitigation strategies.
- Identified nanoparticle and microplastic toxicity thresholds affecting fish organ health.
- Proposed cost-effective protein alternatives (e.g., poultry byproduct meal) to replace fishmeal.
- Optimized vitamin supplementation, improving antioxidant status and liver function.
- Publications cited by researchers across Asia and Europe, influencing fish nutrition practices.

EDUCATION

PhD in Zoology | University of Agriculture, Faisalabad 2023

Grade: 1st Division (A Grade)

Thesis: "Effect of dietary lipid levels on the feed utilization, growth, and serum metabolites of major carps".

MPhil in Zoology | University of Agriculture, Faisalabad 2015

Grade: 1st Division (A Grade)

Thesis: "Catalase Characterization in Metal Mixture (Pb+Cr) Exposed *Labeo rohita*".

MSc in Zoology | University of Agriculture, Faisalabad 2010

Grade: 1st Division (A Grade)

Thesis: "Arthropod study of Cropland weeds and orchid trees".

ADMINISTRATIVE LEADERSHIP

- Coordinator of Zoology (Postgraduate): Managed academic operations at UAF-Community College (2017–2021).
- Strategic Development: Established General and Research Laboratories at PARS Campus, Faisalabad.
- Superintendent of Iqbal Hall, PARS Campus (Current)

SELECTED PUBLICATIONS (2021-2026)

📌 (Full list of 22 publications and 2 Book Chapter available on [Google Scholar](#))

Selected Publications

Lead Author (Selected)

- Akhtar, A., et al. (2025). Fish meal replacement with poultry by-product meal in Rohu (*Labeo rohita*). *Physical Education, Health & Social Sciences*, 2(3), 44-58.
- Akhtar, A., et al. (2024). Microplastics (polyethylene glycol) impact on growth and haematology of *Labeo rohita*. *J.P.T.C.P.*, 31, 1004-1010.
- Akhtar, A., et al. (2023). Zinc oxide nanoparticles' effects on albino rat kidney histopathology. *J.P.T.C.P.*, 30, 891-898.
- Kauser, S., Akhtar, A., et al. (2024). *Nigella sativa* effects against lead toxicity in *Catla catla*. *Chelonian Conservation and Biology*, 19, 1983-1993.
- Akhtar, A., & Abdullah, S. (2021). Growth performance of *Catla catla* fed on animal vs plant-based dietary lipids. *Annals of R.S.C.B.*, 26, 1841-1857.

BOOK CHAPTERS

- Mubarik, M.Z., Nawaz, A., Akhtar, A., et al. (2024). Role of Probiotics in the Immunity of Humans and Animals. In: *Complementary and Alternative Medicine: Prebiotics and Probiotics*. Unique Scientific Publishers, Pakistan.

- *Kiran, M., F. Yousaf, Rimsha, Mamuna, Areej, A. Akhtar., Z. Ramazan, A. Iqbal and N. Iqbal. (2026). The Miracle Seed: Unlocking the Potential of Nigella sativa: A Review of Its Pharmacological Properties. Chapter:20, The Life: Unique scientific publishers, Pakistan.*

On Going Research

- *Effect of Nigella sativa on Growth, Hematology, and Liver Enzymes (ALP, ALT, and AST) Against Lead-Induced Toxicity in Catla catla*
- *Impact of Plant-Based Dietary Fat Levels on Growth, Feed Utilization, Body Composition, and Serum Metabolites in Labeo rohita*
- *Studies on the Effects of Fat-Soluble Vitamins E and K on the Growth Performance and Antioxidant Activity of Labeo rohita*
- *Replacement of Fish Meal (FM) with Poultry By-Product Meal (PBM) and Its Effect on Growth Performance, Hematology, and Liver Profile of Rohu (Labeo rohita)*
- *Therapeutic Potential of Aloe vera Extract on Haematology, Hepatotoxicity, and Nephrotoxicity Induced by Copper in Labeo rohita*

LANGUAGE PROFICIENCY

English: Proficient / Fluent

PTE Academic: Overall Score: 76 (Equivalent to IELTS Band 8.0 / CEFR C1 Level)

Urdu: Native / Mother Tongue

PROFESSIONAL DEVELOPMENT & CERTIFICATIONS

- Presiding Officers Training, Election Commission of Pakistan – 2018
- Workshop: Academic Writing Skills, UAF – 27 Dec 2018
- Seminar: Breast Cancer Awareness, UAF – 19 Feb 2019
- Rodent Pest Control in Agro-Ecological Zones, USAID Seminar – 30 Sep 2019
- Workshop: Software for Academic Writing, UAF – 5 Sep 2019
- 6th & 7th International Conference on Applied Zoology, Presenter/Participant – 2023 & 2024
- Enhancing Learner-Centered Pedagogical Skills, UAF – 23 Feb 2024
- Symposium on Medicinal Plants & Natural Products, UAF/PHEC/USDA – 8 Mar 2024 (Speaker & Organizer)
- International Symposium on Green Energy Nanomaterials & AI, Presenter – 27 Sep 2024
- Guest Speaker, Menstruation Positivity Panel, Diet Nutrition Zone – Apr 2024
- Game Coordinator, Annual Sports Gala, UAF – 2024
- Judge & Organizer, Paras Music Society Event – 30 Apr 2025
- Workshop: Bioassays for Bio actives, Dept. of Biochemistry, UAF – 2025

AWARDS & RECOGNITION

- Institutional Excellence: Awarded a Medal for excellence in organizing cultural events at Iqbal Auditorium, UAF.
- Infrastructure Development: Successfully established the General and Research Laboratory at UAF-Community College, PARS Campus.
- Management & Cleanliness: Secured 1st position in PARS hostels and 2nd overall in the university-wide hostel maintenance competition.
- Academic Distinction: Maintained a consistent first-division record throughout the entire academic and professional career.

REFERENCES

Dr. Sajid Abdullah

Associate Professor
Department of Zoology, Wildlife, and Fisheries
University of Agriculture Faisalabad, Pakistan
Email: drsajid@uaf.edu.pk
Phone: +92 333 6558550

Dr. Muhammad Naeem

Associate Professor
College of Biological Resource and Food
Engineering
Qijing Normal University, Qijing, China
Email: naeem@mail.qjnu.edu.cn
Cell: 0086-19716680369

Dr. Abdul Mateen

Associate Professor
Department of Zoology, Wildlife, and Fisheries
University of Agriculture Faisalabad, Pakistan
Email: mateen117@yahoo.com
Phone: +92 300 6628458