

Asst. Prof. UMAR KHAN DURRANI

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International Researcher IDs

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Publons / Web Of Science ResearcherID: S-1018-2017

ScopusID: 57188843736

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Education Information

Doctorate, Karadeniz Technical University, Sürmene Deniz Bilimleri Fakültesi, Balıkçılık Teknolojisi Mühendisliği, Turkey 2013 - 2020

Postgraduate, University of Peshawar, Faculty of Life and Environmental Sciences, Zoology, Pakistan 2009 - 2012

Undergraduate, University of Peshawar, Faculty of Arts and Sciences, Biological Sciences, Pakistan 2007 - 2009

Biography

My research interests focus on exploring the functional connectivity of marine ecosystems in Turkish waters. To achieve this goal, I employ morphological markers such as otolith and fish body shape to differentiate between fish stocks. I have conducted extensive research on stock connectivity for several pelagic fish species, including anchovies and horse mackerel. Moreover, I utilize geometric morphometric analysis to examine how invasive freshwater fish species have adapted their body shape to survive and establish populations in different freshwater habitats, such as rivers, freshwater lakes, and dam reservoirs. In my future studies, I plan to incorporate chemical markers alongside morphological ones to investigate fish stock connectivity. Additionally, I study the gastric evacuation rates (GER) of farmed fish and analyze how various predictor variables impact GER. By parameterizing these effects, I aim to gain a comprehensive understanding of how farmed fish process and digest their food. The resulting data can be used to optimize feeding schedules and amounts, leading to improved efficiency and reduced costs in fish farming. This information can be used to develop automatic feeders calibrated to the individual GERs of farmed fish.

Foreign Languages

English, C1 Advanced

Certificates, Courses and Trainings

Project Management, Ufuk Avrupa Programına Yönelik Teorik ve Uygulamalı Proje Hazırlama Eğitimi, PwC Turkey, 2021
Education Management and Planning, Sucul Türlerde İstilacılık Potansiyeli Belirleme – Risk Tarama ve R Programı
Temelli Uygulamalar, Mugla Sıtkı Kocman University, 2021

Dissertations

Doctorate, Gastric evacuation of formulated feeds in brook trout, Karadeniz Technical University, Deniz Bilimleri ve Teknolojisi Enstitüsü, Fisheries management, 2020
Postgraduate, A Study of the Food and Feeding Biology of Catfishes of subfamily Schilbeinae, University of Peshawar, Department of Zoology, Fisheries, 2012

Research Areas

Aquaculture, Marine Sciences and Technology

Academic Titles / Tasks

Assistant Professor, Karadeniz Technical University, Deniz Bilimleri ve Teknolojisi Enstitüsü, Fisheries Management, 2021 - Continues
Researcher, Firat University, Faculty Of Aquaculture, Department of Marine Biology, 2020 - 2020

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Investigating the seasonal and spatial dynamics of total suspended matter composition in major fishing ports across the southeastern Black Sea**
ÖZŞEKER K., SEYHAN K., Dürrani Ö., ATASARAL Ş., ŞAHİN A.
Regional Studies in Marine Science, vol.77, 2024 (SCI-Expanded)
- II. **Stock identification of the Mediterranean horse mackerel (Carangidae: Trachurus mediterraneus) in the Marmara and Black Seas using body and otolith shape analyses**
Dürrani Ö., SEYHAN K.
Estuarine, Coastal and Shelf Science, vol.299, 2024 (SCI-Expanded)
- III. **FishAgePredictionNet: A multi-stage fish age prediction framework based on segmentation, deep convolution network, and Gaussian process regression with otolith images**
İşgüzar S., Türkoğlu M., Ateşşahin T., Dürrani Ö.
Fisheries Research, vol.271, 2024 (SCI-Expanded)
- IV. **The green seaweed Ulva: tomorrow's "wheat of the sea" in foods, feeds, nutrition, and biomaterials**
Hofmann L. C., Strauss S., Shpigel M., Guttman L., Stengel D. B., Rebours C., Gjorgovska N., Turan G., Balina K., Zammit G., et al.
Critical Reviews in Food Science and Nutrition, 2024 (SCI-Expanded)
- V. **Morphological variations of an invasive cyprinid fish (Carassius gibelio) in lentic and lotic environments inferred from the body, otolith, and scale shapes**
Dürrani U. K., Ateşşahin T., Eroğlu M., Düşükcan M.
ACTA ZOOLOGICA, vol.104, no.3, pp.458-472, 2023 (SCI-Expanded)
- VI. **Spatial and temporal variations in the environmental and biological characteristics of the Turyanchay River basin, Azerbaijan**
Aliyev S., Farzali S., Dürrani Ö.
JOURNAL OF FRESHWATER ECOLOGY, vol.38, no.1, pp.1-28, 2023 (SCI-Expanded)

- VII. **Effects of hook size and bait type on the size selectivity and short-time post-release mortality of a cyprinid fish (*Cyprinus carpio* L.) in recreational fisheries**
Ateşşahin T., Khan U. K.
FISHERIES RESEARCH, vol.261, 2023 (SCI-Expanded)
- VIII. **Gastric evacuation in European seabass *Dicentrarchus labrax* (Linnaeus, 1758), forced-fed on commercial pellets**
Bal H., Durrani O., SEYHAN K.
INDIAN JOURNAL OF FISHERIES, vol.70, no.1, pp.25-30, 2023 (SCI-Expanded)
- IX. **Using otolith and body shape to discriminate between stocks of European anchovy (*Engraulidae: Engraulis encrasicolus*) from the Aegean, Marmara and Black Seas**
Khan U. K., Bal H., Battal Z. S., Seyhan K.
JOURNAL OF FISH BIOLOGY, vol.101, no.6, pp.1452-1465, 2022 (SCI-Expanded)
- X. **Catch composition of non-target species escaping dredge gear of *Rapana* fisheries in the western coast of the Black Sea**
Seyhan K., Durrani U. K., Şahin A., Terzi Y.
MARINE BIOLOGY RESEARCH, vol.18, no.5-6, pp.347-360, 2022 (SCI-Expanded)
- XI. **Temperature, meal size and body size effects on the gastric evacuation of rainbow trout: modelling optimum and upper thermal limits**
Khan U. K.
JOURNAL OF FISH BIOLOGY, vol.100, no.6, pp.1388-1398, 2022 (SCI-Expanded)
- XII. **Parameterizing an expanded square root model to account for the effects of temperature, meal size, and body size on gastric evacuation rate in farmed brown trout**
Khan U. K., Seyhan K.
AQUACULTURE RESEARCH, vol.52, no.10, pp.4849-4857, 2021 (SCI-Expanded)
- XIII. **Sexual dimorphism in the otolith shape of shi drum, *Umbrina cirrosa* (L.), in the eastern Mediterranean Sea: Fish size-otolith size relationships**
Başusta N., Khan U. K.
JOURNAL OF FISH BIOLOGY, vol.99, no.1, pp.164-174, 2021 (SCI-Expanded)
- XIV. **Gastric Evacuation in Brook Trout (*Salvelinus fontinalis*) Fry: Effect of Body Size**
SEYHAN K., Bascinar N. S., BAŞÇINAR N., Khan U. K.
PAKISTAN JOURNAL OF ZOOLOGY, vol.52, no.3, pp.1173-1186, 2020 (SCI-Expanded)
- XV. **Gastric evacuation evacuation rates in farmed brook trout subjected to a range of feeding conditions fed commercial pellets**
Khan U. K., Seyhan K.
AQUACULTURE, vol.513, 2019 (SCI-Expanded)
- XVI. **EVALUATION OF SEASONAL VARIATIONS IN SURFACE WATER QUALITY OF THE CAGLAYAN, FIRTINA AND IKIZDERE RIVERS FROM RIZE, TURKEY**
ALKAN N., TERZİ Y., KHAN U. K., BAŞÇINAR N., SEYHAN K.
FRESENIUS ENVIRONMENTAL BULLETIN, vol.28, pp.9679-9688, 2019 (SCI-Expanded)
- XVII. **Effects of meal and body sizes on gastric evacuation rate in brook trout *Salvelinus fontinalis* (Mitchill, 1814) fed commercial pellets in group feeding**
Bascinar N. S., Bascinar N., Khan U. K., Seyhan K.
INDIAN JOURNAL OF FISHERIES, vol.64, no.3, pp.50-54, 2017 (SCI-Expanded)
- XVIII. **The Effect of Temperature on the Rate of Gastric Evacuation in Brook Trout *Salvelinus fontinalis* Fed on Commercial Pellets: Group-Feeding**
BAŞÇINAR N., BAŞÇINAR N., SEYHAN K., Khan U. K.
PAKISTAN JOURNAL OF ZOOLOGY, vol.48, no.6, pp.1899-1904, 2016 (SCI-Expanded)
- XIX. **Satiation meal and the effects of meal and body sizes on gastric evacuation rate in brook trout *Salvelinus fontinalis* fed commercial pellets**
Khan U. K., Seyhan K., Bascinar N., Bascinar N. S.
JOURNAL OF FISH BIOLOGY, vol.89, no.2, pp.1227-1238, 2016 (SCI-Expanded)

- XX. **Effects of Mono- and Duoculture on the Survival and Growth Rate of Juvenile Abant Trout (*Salmo trutta abanticus*) and Brook Trout (*Salvelinus fontinalis*)**
Onder M. Y., Khan U. K.
PAKISTAN JOURNAL OF ZOOLOGY, vol.48, no.3, pp.895-898, 2016 (SCI-Expanded)
- XXI. **Effect of Photoperiod on Growth and Efficiency of Yolk-Sac Utilization in Alevins of Brook Trout (*Salvelinus fontinalis*)**
Onder M. Y., BAŞÇINAR N., Khan U. K., Sonay F. D.
PAKISTAN JOURNAL OF ZOOLOGY, vol.48, no.2, pp.533-537, 2016 (SCI-Expanded)
- XXII. **Feeding Habits of a Freshwater Catfish, *Clupisoma naziri* (Pisces: Schilbidae) from Khyber Pakhtunkhwa Rivers, Pakistan**
Khan U. K., Hasan Z., Inayatullah M., Jan A.
PAKISTAN JOURNAL OF ZOOLOGY, vol.46, no.4, pp.1166-1169, 2014 (SCI-Expanded)
- XXIII. **Analysis of Stomach Contents of Freshwater Catfish, *Eutropiichthys vacua* (Hamilton, 1822) from Khyber Pakhtunkhwa Rivers, Pakistan**
Khan U. K., Hasan Z., Inayatullah M., Jan A.
PAKISTAN JOURNAL OF ZOOLOGY, vol.45, no.4, pp.1153-1156, 2013 (SCI-Expanded)

Articles Published in Other Journals

- I. **An Empirical Comparison of Sex Ratio, Condition Factor, and Length–Weight Relationships in Commercial Catch of Mediterranean Horse Mackerel from the Sea of Marmara, the Middle and Eastern Black Sea**
Dürrani Ö.
JOURNAL OF ANATOLIAN ENVIRONMENTAL AND ANIMAL SCIENCES, vol.8, no.3, pp.492-499, 2023 (Peer-Reviewed Journal)
- II. **The invasive silver-cheeked toadfish, *Lagocephalus sceleratus* (Gmelin, 1789) appeared in the Sea of Marmara after more than a decade: A call for awareness**
Bal H., DURRANI U. K.
SU URUNLERI DERGISI, vol.39, no.3, pp.261-266, 2022 (ESCI)
- III. **A preliminary study of the effects of cold, frozen, or room temperature storage of commercial feeds on growth performance and feed consumption of juvenile rainbow trout (*Oncorhynchus mykiss*)**
DURRANI U. K., SEYHAN K.
SU URUNLERI DERGISI, vol.38, no.4, pp.411-416, 2021 (ESCI)
- IV. **Mussel: a potential pollution indicator in the aquatic ecosystem and effect of climate change**
Atasaraş Ş., Durrani U. K., Terzi Y., Seyhan K.
International Journal of Environment and Geoinformatics, vol.7, no.3, pp.300-304, 2020 (Peer-Reviewed Journal)
- V. **Effect of Salinity on Yolk Utilization and Growth of Brook Trout Alevins (*Salvelinus fontinalis*)**
Durrani U. K.
Journal of Anatolian Environmental and Animal Sciences, vol.4, no.2, pp.93-96, 2019 (Peer-Reviewed Journal)
- VI. **Protein Sparing Effect and the Efficiency of Different Compositions of Carbohydrates, Lipids and Proteins on the Growth of Rohu (*Labeo rohita*) Fingerlings**
Durrani U. K., Jan A., Hasan Z.
World Journal of Fish and Marine Sciences, vol.5, no.3, pp.244-250, 2013 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Anchovies of the world**
Durrani U. K., Seyhan K.
in: Anchovies: Ecological, Economic and Social Evaluation, Kadir SEYHAN, Editor, Tüm Bürokratlar ve İş İnsanları

Refereed Congress / Symposium Publications in Proceedings

- I. **Population structure of Mediterranean Horse Mackerel in the marine waters of Türkiye as determined by morphological markers**
Durrani U. K., Seyhan K.
International Symposium on Fisheries and Aquatic Sciences (SOFAS), Trabzon, Turkey, 25 - 27 October 2022, pp.20
- II. **New Methods for Age Determination of the Invasive Veined Rapa Whelk *Rapana venosa* (Valenciennes, 1846)**
Başusta N., Seyhan K., Bat L., Başusta A., Dağtekin., Durrani U. K.
Denizel İstilacı Yabancı Türlerin Etkileri Bilimsel Konferansı, Antalya, Turkey, 21 - 23 November 2022, pp.52-55
- III. **The Effect of Climate Change on the Fishing Ports in the Eastern Black Sea**
SEYHAN K., ÖZŞEKER K., DÜRRANİ Ö., ATASARAL Ş., TERZİ Y.
3rd International Environmental Chemistry Congress (EnviroChem), Antalya, Turkey, 1 - 04 November 2021
- IV. **Parameterizing the impact of climate change on sediment transportation to the fishing ports of Turkey in the Black Sea**
Seyhan K., Durrani U. K., Özşeker K., Atasaral Ş.
Blue Growth: Challenges and Opportunities for the Black Sea - Marblue 2022, Constanta, Romania, 26 - 28 October 2022, pp.19
- V. **Dynamics of Total Suspended Matter at Major Fishing Ports along the Southern Black Sea**
Özşeker K., Seyhan K., Durrani U. K., Atasaral Ş., Şahin A.
International Scientific Conference " Modern Problems of Ecology", Batumi, Georgia, 16 - 17 October 2022, vol.8, pp.167-170
- VI. **Fourier analysis of otolith shape for stock discrimination of anchovy (*Engraulis encrasicolus*) in the Turkish marine waters**
Durrani U. K., Bal H., Seyhan K.
5. Ulusal Deniz Bilimleri Konferansı, Trabzon, Turkey, 1 - 03 June 2022, pp.230-231
- VII. **Screening Some Enzyme-Inhibitory Activity in Ascidian (*Botryllus schlosseri*) from Trabzon, Turkey**
Dokuzparmak Ü., Alkan N., Durrani U. K.
3rd International Environmental Chemistry (EnviroChem) Congress, Antalya, Turkey, 1 - 04 November 2021, pp.93
- VIII. **The Effect of Climate Change on the Fishing Ports in the Eastern Black Sea**
Seyhan K., Özşeker K., Durrani U. K., Atasaral Ş.
3rd International Environmental Chemistry (EnviroChem) Congress, Antalya, Turkey, 1 - 04 November 2021, pp.55
- IX. **Is the destiny of the 'Black Sea' black?**
Durrani U. K., Terzi Y., Atasaral Ş., Seyhan K.
International Scientific Conference, Modern Problems of Ecology, Tbilisi, Georgia, 26 - 28 September 2020, pp.89-92
- X. **By-Catch in *Rapana* Whelk Fishery in the Black Sea**
Durrani U. K., Seyhan K., Şahin A., Terzi Y.
FISHFORUM 2018 (Forum on Fisheries Science), Rome, Italy, 10 - 14 December 2018, pp.132
- XI. **Gastric Evacuation in Brook Trout (*Salvelinus fontinalis*) Fed Multiple Meals**
Durrani U. K., Seyhan K.
8th International Advanced Technologies Symposium, Elazığ, Turkey, 19 - 22 October 2017, pp.154
- XII. **Analysis of Stomach Contents of Freshwater Catfish, *Eutropiichthys vacha* (Hamilton, 1822)**
Durrani U. K.
32nd Pakistan Congress of Zoology, Lahore, Pakistan, 6 - 08 March 2012, pp.266

Supported Projects

SEYHAN K., ATASARAL Ş., ÖZŞEKER K., TERZİ Y., DURRANI U. K., EU Framework Program Project, Developing Optimal and Open Research Support for the Black Sea (DOORS), 2021 - Continues

ALKAN N., DOKUZPARMAK Ü., DURRANI U. K., ÖZKILIÇ B., AY TAN Ü., ALKAN A., Project Supported by Higher Education Institutions, Değirmendere Nehir Ağzında Su Sediment ve Biyotada Mikroplastik Kirlilik Düzeylerinin Belirlenmesi, 2021 - 2024

Başusta N., Başusta A., Durranı U. K., Seyhan K., Bat L., Dağtekin M., TUBITAK Project, Orta ve Doğu Karadeniz'de Yaşayan Deniz Salyangozu (*Rapana venosa*)'nun Büyüme Özelliklerinin Karşılaştırılmalı Olarak İncelenmesi, 2019 - 2021

Seyhan K., Başçınar N., TUBITAK Project, Food consumption, gastric evacuation and modelling in larval, fingerling and brood brook trout, (*Salvelinus fontinalis* Mitchill, 1814), 2013 - 2015

Activities in Scientific Journals

JOURNAL OF APPLIED ICHTHYOLOGY, Assistant Editor/Section Editor, 2022 - Continues

AQUACULTURE RESEARCH, Assistant Editor/Section Editor, 2022 - Continues

Scientific Refereeing

MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM. JOURNAL, SCI Journal, September 2022

AQUACULTURE RESEARCH, SCI Journal, July 2022

ROYAL SOCIETY OPEN SCIENCE, SCI Journal, November 2021

Aquaculture Studies, Other Indexed Journal, May 2021

TURKISH JOURNAL OF FISHERIES AND AQUATIC SCIENCES, Journal Indexed in SCI-E, October 2020

Aquatic Research, Other Indexed Journal, September 2020

Journal of Applied Aquaculture, Other Indexed Journal, January 2018

Journal of Applied Aquaculture, Other Indexed Journal, December 2017

Tasks In Event Organizations

Durrani U. K., ÖZŞEKER K., 5. Ulusal Deniz Bilimleri Konferansı, Scientific Congress, Trabzon, Turkey, Haziran 2022

Durrani U. K., 3rd International Environmental Chemistry (EnviroChem) Congress, Scientific Congress, Antalya, Turkey, Kasım 2021

Scientific Research / Working Group Memberships

Ca20106 - Tomorrow'S 'Wheat Of The Sea': Ulva, A Model For An Innovative Mariculture (Seawheat) (Seawheat) (Seawheat), COST (European Cooperation in Science and Technology), Belgium, <https://seawheatcost.haifa.ac.il/>, 2022 - Continues

Ca19107 - Unifying Approaches To Marine Connectivity For Improved Resource Management For The Seas, COST (European Cooperation in Science and Technology), Belgium, <https://www.sea-unicorn.com/>, 2022 - Continues

Ca20102 - Marine Animal Forest Of The World, COST (European Cooperation in Science and Technology), Belgium, Belgium, <https://www.cost.eu/cost-action/marine-animal-forest-of-the-world/>, 2021 - Continues

Metrics

Publication: 43

Citation (WoS): 92

Citation (Scopus): 89

H-Index (WoS): 7

H-Index (Scopus): 6

Scholarships

Post-Doctoral Research Scholarship, TUBITAK, 2020 - 2020

Türkiye Scholarships (YTB), Other International Organizations, 2013 - 2019

Awards

Durrani U. K., TUBITAK Incentive Program for International Scientific Publications (UBYT), Ulakbim Ubyt Programı, October 2021