



Intelligent Recognition Research for Fish Behavior

Guest Editors:

Dr. Jian Zhao

Department of Biosystems
Engineering, Zhejiang University,
Hangzhou 310000, China

Dr. Ran Zhao

National Innovation Center for
Digital Fishery, China Agricultural
University, Beijing 100083, China

Dr. Kewei Cai

College of Mechanical and
Electronic Engineering, Dalian
Minzu University, Dalian 116600,
China

Deadline for manuscript
submissions:

closed (31 August 2025)

Message from the Guest Editors

Dear Colleagues,

The Special Issue focuses on the latest developments in using intelligent and automated techniques for recognizing and analyzing the behavior of fish. Fish behavior is an important area of study for understanding aquatic ecosystems, managing fisheries, and monitoring animal welfare in aquaculture.

The specific research topic is dedicated to (1) enhancing the understanding of aquatic ecosystems; (2) supporting the sustainable utilization of fishery resources; (3) promoting the development of aquaculture.

This Special Issue aims to showcase applications of machine learning, computer vision, and other state-of-the-art intelligent methods to the study of fish behavior recognition. It calls for original and novel papers related to the following research topics:

1. Automated detection, classification, and identification of fish;
2. Tracking of individual fish movements and behaviors;
3. Analyzing group dynamics and schooling behaviors;
4. Monitoring fish health and stress levels;
5. Assessing the impacts of environmental changes on fish.



mdpi.com/si/207017

Dr. Jian Zhao
Dr. Ran Zhao
Dr. Kewei Cai
Guest Editors

Special Issue



fishes



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Maria Angeles Esteban

Department of Cell Biology and Histology, Faculty of Biology, University of Murcia, 30100 Murcia, Spain

Message from the Editor-in-Chief

Fishes is a multidisciplinary open access journal focusing on reports of original research and critical reviews and synthesis from the broad area of fishes and aquatic animals. The ultimate objective of *Fishes* is to facilitate the discovery of connections between research areas, advancing science and filling knowledge gaps, and providing solutions for all present and future issues encountered in the sector of fisheries and aquaculture. As Editor-in-Chief, I encourage you to consider *Fishes* for your scientific papers and would be pleased to welcome you as one of our authors.

Author Benefits

Open Access: free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [GEOBASE](#), [PubAg](#), [FSTA](#), and [other databases](#).

Journal Rank: JCR - Q1 (Marine and Freshwater Biology)

Contact Us

Fishes Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/fishes
fishes@mdpi.com
[X@Fishes_MDPI](#)