

## Special Issue

# Machine Learning in Aquaculture

### Message from the Guest Editors

The Special Issue focuses on the use of neural networks and algorithms to optimize various aspects of the field, including species identification, counting, classification, and behavior analysis. With the growth of aquaculture, it is essential to develop and automate management processes to achieve greater efficiency and agility. This Special Issue will explore how neural networks and detection algorithms can be applied innovatively in aquaculture to improve monitoring, automatic identification, fish counting, and behavior analysis. We aim to present scientific advancements in the use of machine learning for the automated management of aquatic environments, both in controlled production systems and in natural or underwater environments. Practical and technical limitations in the use of these technologies will also be explored, such as issues with data labeling and image quality, as well as adverse visual capture conditions. Moreover, we will focus on the solutions that these technologies offer to address such challenges and improve the accuracy and efficiency of management in modern aquaculture.

### Guest Editors

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### Deadline for manuscript submissions

31 August 2025



## Fishes

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## About the Journal

### 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.

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### Editor-in-Chief

Prof. Dr. Maria Angeles Esteban

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