

## Special Issue

# Unraveling the Complexities of Fish Reproductive Physiology: From Molecules to Ecosystems

### Message from the Guest Editor

This Special Issue will bring together cutting-edge research and comprehensive reviews exploring both fundamental and applied dimensions of reproductive physiology in fishes. We welcome submissions on a wide range of topics, including the following:

- The molecular and endocrine regulation of gametogenesis;
- The integration of multi-omics approaches (e.g., bulk and single-cell transcriptomics, proteomics, and epigenetics);
- The influence of environmental and social factors on puberty, fecundity, and gamete quality;
- Impacts of climate change and abiotic stressors on reproductive performance;
- Biotechnological innovations in reproductive manipulation:
  - Germ cell transplantation,
  - 3D gonadal cell cultures and organoid models,
  - Bioengineering and bioprinting of reproductive tissues;
- Nutritional and husbandry strategies to enhance reproductive efficiency in aquaculture.

We particularly encourage contributions that combine classical physiology with contemporary approaches, as well as works with translational relevance to aquaculture, biodiversity conservation, and evolutionary biology.

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### Guest Editor

Dr. Rafael Nóbrega

Reproductive and Molecular Biology Group, Department of Structural and Functional Biology, Institute of Biosciences, São Paulo State University (UNESP), Botucatu 18618-970, SP, Brazil

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### Deadline for manuscript submissions

closed (31 October 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

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

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#### Journal Rank:

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