

Special Issue

Advances in Genetic Improvement of Aquacultural Species

Message from the Guest Editors

Aquaculture is the fastest-growing sector in global food production and plays a vital role in ensuring food security and sustainable development. Genetic improvement provides powerful strategies to enhance key traits such as growth, disease resistance, reproduction, stress tolerance, and product quality. With the rapid advancement of genomic technologies—including whole-genome sequencing, genome-wide association studies (GWASs), genomic selection, transcriptomics, and genome editing.

We welcome original research articles, reviews, and short communications that address, but are not limited to, the following themes: The conservation, utilization, and enhancement of genetic resources in aquaculture;

The integration of multi-omics technologies for trait characterization and discovery;

The identification and functional validation of genes and molecular markers linked to breeding traits;

The genomic selection and the optimization of breeding programs;

Applications of genome editing in the genetic improvement of aquacultural species.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Animals is an on-line open access journal that was first published in 2011. *Animals* adheres to rigorous peerreview and editorial processes and publishes only high quality manuscripts that address important issues in the many varied disciplines that involve animals, with a focus on animal science, animal welfare and animal ethics. *Animals* is covered in the Science Citation Index Expanded (SCIE) in Web of Science, with the latest Impact Factor: 2.7 (2024, ranks 15/86 (Q1) in 'Agriculture, Dairy & Animal Science'; 21/170 (Q1) in 'Veterinary Sciences'), 5-Year Impact Factor: 3.2.

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