

## Special Issue

# Application of Protein and Amino Acid in Aquaculture Feed

### Message from the Guest Editor

Aquaculture has been developing rapidly since 1986 based on the data of the Food and Agriculture Organization (FAO). Fishmeal has remained the main protein source of choice, as it contains a high protein content, adequate essential amino acid (including taurine), and no anti-nutritional factors. Since the resource of wild pelagic fish species used for fishmeal production are finite, fishmeal shortages will continue to increase because of the increase in aquaculture production. Thus, the sustainable development of aquaculture requires reducing its dependence on fishmeal. The address to fishmeal shortage is to require the continuous search for all potential alternative protein sources, including plant, terrestrial animal, and single-cell protein sources. Apart from that, it is necessary to have a refined understanding of protein and amino acid nutrition, which will help for the nutritional shortcomings of alternative protein sources. This Special Issue aims to investigate the innovative protein and amino acid in aquaculture feed that can reduce fishmeal in feed formulation and improve sustainability in aquaculture production.

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### Guest Editor

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### Deadline for manuscript submissions

closed (30 April 2025)



## Fishes

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### 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

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