

Liu Dingrui

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Education Background

Westlake University	Sep 2024 - Now
Doctor of philosophy , joint program with SMART	Shenzhen, China
Sun Yat-Sen University	Sep 2021-Jun 2024
Master of science , School of Life Science	Guangzhou, China
South China Agriculture University	Sep 2017-Jun 2021
Bachelor of Aquaculture , School of Marine Science	Guangzhou, China

Publications

- Liu, D.**, Zhang, J., Zou, Z., Chen, L., Lin, J., Zeng, J., Hou, J. M., Han, L., Jiang, Y., Li, S., & Zhang, Y. (2024). Identification of SNPs and candidate genes associate with growth performance in all-female mandarin fish (*Siniperca chuatsi*) by a genome-wide association study. **Aquaculture**, 740778. <https://doi.org/10.1016/j.aquaculture.2024.740778>
- Liu, D.**, Zhang, Z., Song, Y., Yang, J., Lu, Y., Lai, W., Wu, Z., Zhao, D., Lin, H., Zhang, Y., Zhang, J., & Li, S. (2023). Effects of salinity on growth, physiology, biochemistry and gut microbiota of juvenile grass carp (*Ctenopharyngodon idella*). **Aquatic toxicology**, 258, 106482. <https://doi.org/10.1016/j.aquatox.2023.106482>
- Liu, D.**, Zhang, Z., Yang, J., Zhao D., Song Y., Li M., Lin H., Zhang Y. (2023). Effects and Mechanisms of Low Salinity Brackish Water on Growth and the Meat Quality of Grass Carp (*Ctenopharyngodon idella*). **Journal of Hainan Institute of Tropical Oceanography**, 30, 02. doi:10.13307/j.issn.2096-3122.2023.02.01. (in Chinese)
- Liu, D.**, Ouyang, H., Huang, J., Han, L., Li, S., Li, G., Yan, B., Hou, Y., Lin, H., Zhang, Y. (2022). Analysis of the molecular mechanism of adaptation to artificial feed in mandarin fish (*Siniperca chuatsi*) based on transcriptome sequencing. **Journal of Hainan Institute of Tropical Oceanography**, 29, 05. doi:10.13307/j.issn.2096-3122.2022.05.01. (in Chinese)

Skills

Animal experiment skills: Fish husbandry, Anesthesia, Sampling, Haemospasia
Wet lab skills: Extracting RNA/DNA, Real-time PCR, Library Construction
Software skills: Prism, R Studio, Plink, Adobe Illustrator

Research Experience

State Key Laboratory of Biocontrol, Sun Yat-Sen University | Guangzhou, China

Postgraduate student in Professor Yong Zhang's Lab

Project title: Effects of salinity on growth, physiology, biochemistry and gut microbiota of juvenile grass carp (*Ctenopharyngodon idella*)
Oct 2021-Mar 2023

- Husbanded and sampled experiment animals
- Measured and analyzed the growth performance, enzyme activity and ion concentration of grass carp
- Analyzed intestinal 16s sequencing microbiome data
- Drew figures and draft manuscript for publication

Project title: Integrative analysis of gut microbiome and metabolome reveals the mechanism behind the growth difference of yellowfin seabream (*Acanthopagrus latus*) **Oct 2022-Now**

- Analyzed intestinal 16s sequencing microbiome data
- Analyzed intestinal metabolomic data
- Identified specific probiotics and metabolites related to growth
- Conducted experiments to verify the effects of probiotics and metabolites
- Drew figures and draft manuscript for publication

Project title: Genome-Wide Association Analysis and Candidate Functional Gene Mining for Growth and Salt tolerance Traits of Mandarin fish (*Siniperca Chuatsi*) **Mar 2022-Now**

- Identified molecular markers for growth of mandarin fish
- Identified molecular markers for salt tolerance of mandarin fish
- Analyzed transcriptome data and mined candidate functional gene
- Drew figures and draft manuscript for publication

Work Experience

Guangzhou Chengyi Aquaculture Co., Ltd.	Oct 2021-Dec 2021
Interns; domestication and culture of grass carp	Guangzhou, China
Guangdong Liangshi Aquatic seed Co., Ltd.	Mar 2022-Aug 2022
Interns; Artificial fertilization and breeding of mandarin fish	Foshan, China

Honors and Sponsorships

China National Scholarship for Postgraduates	2023
Sun Yat-Sen University First Prize Scholarship	2021-2024
College-Level Outstanding Student Leader	2022
The “Liao Xianghua, Lin Ding” Scholarship	2022

Languages

Mandarin (Native), English (Fluent), Cantonese (Fluent)