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Education Background

Sun Yat-Sen University, Guangzhou, China — **Sep 2021-Jun 2024**
Master of science, School of Life Science — Guangzhou, China

South China Agriculture University, Guangzhou, China — **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)

Liu, S., Han, C., Huang, J., Zhu, Q., **Liu, D**., Han, L., Li, S., Li, G., Lin, H., Zhang, Y. (2023). Screening and characterization of X chromosome-specific markers in mandarin fish (*Siniperca chuatsi*). **Aquaculture**, 562, 738833. https://doi.org/10.1016/j.aquaculture.2022.738833.

Ouyang, H., Deng, N., Xu, J., Huang, J., Han, C., **Liu, D**., Liu, S., Yan, B., Han, L., Li, S., Li, G., Zhang, J., Lin, H., Zhang, Y. (2023). Effects of hyperosmotic stress on the intestinal microbiota, transcriptome, and immune function of mandarin fish (*Siniperca chuatsi*). **Aquaculture**, 563. 738901. https://doi.org/10.1016/j.aquaculture.2022.738901.

Liu, Shiyan, Ouyang, H., Han, C., Huang, J., Zhu, Q., **Liu, D**., Han, L., Li, S., Li, G., Lin, H., & Zhang, Y. (2022). Estrogen receptor-related receptors in Mandarin Fish (*siniperca chuatsi*): Molecular cloning, characterization, and estrogen responsiveness. **Aquaculture Reports**, 24, 101137. https://doi.org/10.1016/j.aqrep.2022.101137.

Zhu, Q., Han, C., Liu, S., Ouyang, H., **Liu, D**., Zhang, Z., Huang, J., Han, L., Li, S., Li, G., Lin, H., & Zhang, Y. (2022). Development and gene expression analysis of gonad during 17α-methyltestosterone-induced sex reversal in Mandarin Fish (*siniperca chuatsi*). **Aquaculture Reports**, 23, 101049. https://doi.org/10.1016/j.aqrep.2022.101049

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
- Modified and prepared figures and 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
- Modified and prepared figures and 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
- Modified and prepared figures and 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)