

NAME: Dong-Fang Deng
TITLE: Professor
DEPARTMENT: School of Freshwater sciences
CAMPUS ADDRESS: 600 East Greenfield Avenue
CITY, STATE, ZIP: Milwaukee, Wisconsin, 53204
TELEPHONE NUMBER: 414-382-7597
FAX: 414-382-1705
EMAIL ADDRESS: dengd@uwm.edu

EDUCATION:

Ph.D. in Nutrition, University of California, Davis, USA
M.S. in Animal Science, University of California, Davis, USA
M.S. in Aquaculture Nutrition, Zhongshan (Sun Yet-Sen) University, China
B.S. in Zoology, Zhongshan (Sun Yet-Sen) University, China

POSITIONS HELD:

Professor, University of Wisconsin-Milwaukee, Wisconsin 8/22/2022- present
Senior Scientist, University of Wisconsin-Milwaukee, Wisconsin 12/1/2014-8/21/2022
Interim Director, Aquatic Feeds and Nutrition Department, Oceanic Institute, Hawaii, 2013-2014
Senior Scientist, Aquatic Feeds and Nutrition Department, Oceanic Institute, Hawaii, 2009-2013
Project Scientist, Center for Health and the Environ., University of California, Davis, 2005-2009
Postdoctoral Researcher, Dept. of Animal Science & Center for Health and the Environ,
University of California, Davis, 2002-2005
Postdoctoral Scientist, Dept. of Biochemistry and Molecular Biology, Mississippi State
University, 2000-2002

ACTIVE PROFESSIONAL MEMBERSHIPS and SERVICES

World Aquaculture Society
US Aquaculture Society
National Animal Nutrition Program Feed Composition Committee/USDA (2021-2025)
Technical Committee/Research Subcommittee, NCRAC, NIFA-USDA (2017 to present)
Advisory Committee, Sea Grant Great Lakes Aquaculture Collaborative, NOAA (2019- present)
Academic Committee Member of the World's Chinese Scientists on Nutrition and Feeding of
Finfish and Shellfish (2001- present)
Editor, Aquaculture Nutrition (2017 to present)
Associate Editor, Animal Nutrition (2015 to present)
Editorial board member, Water Biology & Security, 2021-present

RESEARCH INTERESTS

- Development of optimal feed formulations and management for aquaculture and conservation
- Investigation of alternative ingredients for aquatic feed production

- Application of cutting-edge technology (genomic and metabolomics) to understand nutrient utilization of fish/shrimp in response to different culture conditions.
- Aquatic toxicology and fishery conservation
- Extension research with industry on ingredient evaluation, practical feed formulation development, feed processing technology and feeding management.

SELECTED PUBLICATIONS

1. 2022 Lu X, Han YC, Shepherd BS, Xiang Y, Deng DF, Vinyard BT. Molecular Analysis and Sex-specific Response of the Hepcidin Gene in Yellow Perch (*Perca Flavescens*) Following Lipopolysaccharide Challenge. *Probiotics Antimicrob Proteins*. 2022 Dec 23. doi: 10.1007/s12602-022-10024-8. Epub ahead of print. PMID: 36562953.
2. 2022 Lee, Seunghyung, Shaowei Zhai, **Dong-Fang Deng**, Yuquan Li, Patrick Christopher Blaufuss, Bradley T. Eggold, and Fred Binkowski. Feeding Strategies for Adapting Lake Sturgeon (*Acipenser fulvescens*) Larvae to Formulated Diets at Early Life Stages. *Animals* 12, no. 22: 3128. <https://doi.org/10.3390/ani12223128>
3. 2022. Lu X, Zhang JX, Zhang L, Wu D, Tian J, Yu LJ, He L, Zhong S, Du H, Deng DF, Ding YZ, Wen H, Jiang M. Comprehensive understanding the impacts of dietary exposure to polyethylene microplastics on genetically improved farmed tilapia (*Oreochromis niloticus*): tracking from growth, microbiota, metabolism to gene expressions. *Sci Total Environ*. 1;841:15657.1
4. 2022 Lu X., **Deng D-F.**, Huang F., Casu F., Kraco E., Newton R.J., Zohn M., Teh S.J., Watson A.M., Shepherd B., Ma Y., Dawood M.A.O., Rios Mendoza, L.M. Chronic exposure to high-density polyethylene microplastic through feeding alters the nutrient metabolism of juvenile yellow perch (*Perca flavescens*). *Animal Nutrition*. <https://doi.org/10.1016/j.aninu.2022.01.007>
5. 2020 J-W. Lee, **D-F. Deng**, J. Lee, K. Kim, H. J Jung, Y. Choe, S.H. Park, M. Yoon. The adverse effects of selenomethionine on skeletal muscle, liver, and brain in the steelhead trout (*Oncorhynchus mykiss*). *Environmental Toxicology and Pharmacology* (accept)
6. 2019 Jiang, M., Zhao, H.H., Zai, S.W., Newton, J.R., Shepherd, B., Tian, J., Lofald, G.A., Teh, S., Binkowski, F. **Deng, D.F** Nutritional quality of different starches in feed fed to juvenile Yellow Perch, *Perca flavescens*. *Aquacult Nutr*. DOI: 10.1111/anu.13026
7. 2019 [Lin, CY](#), [Huang LH](#), [Deng DF](#), [Lee SH](#), [Liang HJ](#), [Hung SSO](#). Metabolic adaptation to feed restriction on the green sturgeon (*Acipenser medirostris*) fingerlings. *Sci Total Environ*. 684, 77-88. doi: 10.1016/j.scitotenv.2019.05.044
8. 2019 Yang, S, Zhai, S, Shepherd, B, Binkowski, F.P., Hung, S.S.O., Sealey, W.M., **Deng, D-F**. Determination of optimal feeding rates for juvenile lake sturgeon (*Acipenser fulvescens*) fed a formulated dry diet. *Aquacult Nutr*. 2019; 00: 1– 12. <https://doi.org/10.1111/anu.12932>
9. 2018 Jiang, M., Zhao, H.H., Zai, S.W., Shepherd, B., Wen, H., **Deng, D.F**. A defatted microalgae meal (*Haematococcus pluvialis*) as a partial protein source to replace fishmeal for feeding juvenile yellow perch *Perca flavescens*. *J.of Applied Phycology*, **31**, pages 1197–1205
10. 2018 Seunghyung Lee, Hongxia Zhao, Yuquan Li, Fred P. Binkowski, **Dong-Fang Deng*** Brian S. Shepherd, Silas S.O. Hung, Sungchul C. Bai. Evaluation of formulated feed for juvenile lake sturgeon (*Acipenser fulvescens*) based on growth performance and nutrient retention. *North American Journal of Aquaculture*, 80:223-236.
11. 2018 Jiang, M., H. Wen, G.W. Gou, T.L. Liu, X. Lu, **D.F. Deng**. Preliminary study to evaluate the effects of dietary bile acids on growth performance and lipid metabolism of juvenile genetically improved farmed tilapia (*Oreochromis niloticus*) fed plant ingredient-based diets. *Aquaculture Nutrition*, 24, 1175-1183. <https://doi.org/10.1111/anu.12656>
12. 2016 W.F Wang, S.H Lee, S.S.O. Hung, & **D.F. Deng***. Response of heat shock protein 70 and caspase-3/7 to dietary selenomethionine in juvenile white sturgeon. *Animal Nutrition*, 2: 45-50.