

Curriculum Vitae

Ma Xufa

Xufa Ma, a Ph.D. and a professor in aquaculture, was born in January 1975. He works for College of Fisheries, Huazhong Agricultural University as a professor and doctoral supervisor.

He is honored as the National Outstanding Sci-Tech Expert. His wonderful technical serves on aquaculture have been report by China Daily and been highly praised by fish farmers and provincial leaders.

His primarily focus on the sustainable aquaculture technology and conducting research on water environment biological monitoring and regulation, as well as the conservation and utilization of inland aquatic fishery resources. In recent decade, he and his research group engaged in the work on intensive engineering aquaculture technology, precision feeding, fish diseases control, aquaculture modes development, and fisheries conservation. He has presided and participated in over ten national scientific research projects. He has been granted more 10 national patents and published over 30 papers in the field of fisheries and aquaculture. He was recognized by the Ministry of Science and Technology as a Sci-Tech expert to rural areas and received prestigious awards such as National Advanced Individual for Science & Technology Assistance to Precise Poverty Alleviation, Provincial Advanced Worker for Aquatic Technology Promotion.

Family Name: Ma

Given Name: Xufa

Date of Birth: Jan. 01, 1975

Place of Birth: Hubei, China

Citizenship: Chinese

Cell phone: +86-18971044661

Professional address:

College of Fisheries

Huazhong Agricultural University

Wuhan, 430070

P. R. China

E-mail: xufama@mail.hzau.edu.cn

ACADAMIC POSITION

- Professor, College of Fisheries, Huazhong Agricultural University
- Executive Director, Hubei Society of Oceanography and Limnology and Hubei Society of Ecology

EDUCATION

- 1997 – 2003 **College of Fisheries, Huazhong Agricultural University, China**
- Ph.D. in Aquaculture
 - Thesis titled “Studies on Fishery Resource, Environment And Their Ecological Management of Daoguanhe Reservoir”
- 1993 – 1997 **College of Fisheries, Huazhong Agricultural University, China**
- B.A. of Aquaculture

PROFESSIONAL EXPERIENCE

- 2003 – Present Work for the College of Fisheries, Huazhong Agricultural University
- Teaching Science of Fish Culture and Propagation, Nutrition

and Feed of Aquatic Animals, Pond Aquaculture Science, Facility Fishery and Cultivation of Live Feed for undergraduates, and Monitoring and Assessment of Fishery Resources, Waters Environmental Protection and Fisheries Policy and Management for postgraduate.

- Research on the monitoring and regulation of aquatic environment organisms
- Research on protection and utilization of fishery resources in inland large water areas

RESEARCH FIELDS

- Research on breeding technique of representative fish species in Dongjiang River Basin based on biological toxicity test;
- **Aquatic ecology and fish resources:** Investigation of aquatic ecology and fish resources in the North Canal of the Haihe River Basin, cross-border rivers in Xinjiang, and other river basins; The impact of engineering activities on aquatic ecology and fish resource
- **Aquatic biodiversity survey and assessment:** Research on the impact and countermeasures of engineering activities on aquatic ecology and biodiversity
- Research on ecological engineering restoration technology of water quality in concentrated pond
- **Aquaculture in large water bodies:** Study the cultivation capacity and ecological intensive cultivation technology of small and medium-sized reservoirs in the middle reaches of the Yangtze River; Research on water saving, land saving, energy saving, efficient planting and breeding compound mode based on intensive fish pond
- Intensive Aquaculture: Investigation of environmental factors on cultured fish species in different intensive aquaculture mode, application of the intelligent precision feeding system in facility aquaculture

RESEARCH GRANTS AWARDED

- Sub project of National Water Pollution Control and Governance Major Special Project
- Sub project of National Science and Technology Support Program
- Key Project of Hubei Provincial Natural Science Foundation
- National Science and Technology Basic Work Special Project
- Public Welfare Industry (Agriculture) Scientific Research Special Cooperation Project

SELECTED PUBLICATIONS

● JOURNALS

Yang D, Wang L*, **Ma X***. Was acidified eggshell powder suitable food for *Brachionus calyciflorus* growth and reproduction: from antioxidant capacity insight? *Aquaculture Nutrition*, 2024(1): 7875547(co-corresponding author, SCI, IF3.8)

Wang L, Liu J, Bao Z, **Ma X**, Shen H, Chen J, Xie P. Thermocline stratification favors phytoplankton spatial overlap and species diversity in a subtropical deep reservoir.

Science of the Total Environment, 2023, 913: 169712 (SCI, IF9.8)

Wang L, Liu J, Bao Z, **Ma X**, Shen H, Chen J, Xie P. Predictable shifts in diversity and ecosystem function in phytoplankton and zooplankton communities along thermocline stratification intensity continua. Science of the Total Environment, 2024, 912: 168981 (SCI, IF9.8)

Sun W, Dang Y, Dai L, Liu C, Wang J, Guo Y, Fan B, Kong J, Zhou B, **Ma X***, Yu L*. Tris(1,3-dichloro-2-propyl) phosphate causes female-biased growth inhibition in zebrafish: Linked with gut microbiota dysbiosis, Aquatic Toxicology, 2023, 260: 106585 (co-corresponding author, SCI, IF5.2)

Wang L, **Ma X**, Li J, Zhang H, Sun J. Does the spatial aggregation of ponds affect crustacean zooplankton diversity and grazing efficiency in the agricultural multi-pond system? Aquatic Science, 2023, 85(1), 1-12 (SCI, IF2.4)

Zhou C, Lv C, Miao T, **Ma X**, Xia C. Effects of warming and elevated CO₂ on *Vallisneria natans*, *Radix auricularia* and their interactions. Sustainability, 2023, 15(2): 1200 (SCI, IF3.9)

Wang L, **Ma X**, Chen J. Do submerged macrophyte species influence crustacean zooplankton functional group richness and their resource use efficiency in the low-light environment? Frontiers in Plant Science, 2023, 14: 1185947 (SCI, IF5.6)

Ji F, **Ma X**, Qiu L, Kang Z, Shen J. Quantifying the effects of introduced Bighead Carp (Cyprinidae; *Aristichthys nobilis*) stocking on dominant fish species in the Ulungur Lake, China. Biological Invasions, 2022, 24(5): 1253-1265 (SCI, IF2.9)

Sun F, **Ma X**, Cao X, Zhou Y, Song C. Biofiltration system denitrification: Low C/N trigger dissimilatory nitrate reduction to ammonium. Environmental Engineering Science, 2022, 39(5): 484-491 (SCI, IF1.8)

Liang J, Li Y, Xie P, Liu C, Yu L*, **Ma X**. Dualistic effects of bisphenol A on growth, photosynthetic and oxidative stress of duckweed (*Lemna minor*). Environmental Science and Pollution Research, 2022, 29(58): 87717-87729 (SCI, IF5.8)

Wang L, **Ma X**, Li J, Zhang H, Sun J. Does the spatial aggregation of ponds affect crustacean zooplankton diversity and grazing efficiency in the agricultural multi-pond system? Aquatic Science, 2022, 85(1): 1-12 (SCI, IF2.4)

Zhou X, Zhang G, Ji W, Shi Z, **Ma X**, Luo Z, Wei K. The dynamic immune response of yellow catfish (*Pelteobagrus fulvidraco*) infected with *Edwardsiella ictaluri* presenting the inflammation process. Frontiers in Immunology, 2021, 12: 625928 (SCI, IF7.6)

Li Y, Ran C, Wei K, Xie Y, Xie M, Zhou W, Yang Y, Zhang Z, Lv H, **Ma X***, Zhou Z*. The effect of Astragalus polysaccharide on growth, gut and liver health, and anti-viral immunity of zebrafish. Aquaculture, 2021, 540: 736677 (co-corresponding author, SCI, IF4.2)

- Ge Y, Xia C, Wang J, Zhang X, **Ma X**, Zhou Q. The efficacy of DNA barcoding in the classification, genetic differentiation, and biodiversity assessment of benthic macroinvertebrates. *Ecology and Evolution*, 2021, 11(10): 5669-5681 (SCI, IF2.9)
- Ran Chao, Li Yu, **Ma Xufa**, Xie Yadong, Xie Mingxu, Zhang Yuting, Zhou Wei, Yang Yalin, Zhang Zhen, Zhou Li, Wei Kaijian and Zhou Zhigang. Interactions between commensal bacteria and viral infection: insights for viral disease control in farmed animals. *Science China-Life Sciences*, 2020 (co-first author, SCI, IF4.6)
- Peng Xie, Guang Zhao, Jiangong Niu, Jun Wang, Qiong Zhou, Yan Guo, **Xufa Ma***. Comprehensive analysis of population genetics of *Phoxinus phoxinus ujmonensis* in the Irtys River: Abiotic and biotic factors. *Ecology and Evolution*, 2019: 9 (14): 7997-8012(corresponding author, SCI, IF2.4)
- Le Zhang, Xu Zhao, Saihong Yan, Jinmiao Zha*, **Xufa Ma***. The immune responses of the Chinese rare minnow exposed to environmentally relevant concentrations of cypermethrin and subsequently infected by the bacteria *Pseudomonas fluorescens*. *Environmental Pollution*, 2019, 250: 990-997(co-corresponding author, SCI, IF5.7)
- Jie Hou, Xin Wang, Jie Wang, Ling Xia, Yiqing Zhang, Dapeng Li, **Xufa Ma***. Pathway governing nitrogen removal in artificially aerated constructed wetlands: Impact of aeration mode and influent chemical oxygen demand to nitrogen ratios. *Bioresource Technology*, 2018, 257: 137-146(co-corresponding author, SCI, IF5.7)
- Ya Zhu, **Xufa Ma**, Guanyong Su, Liqin Yu, Robert J. Letcher, Jie Hou, Hongxia Yu, John P. Giesy, Chunsheng Liu. Environmentally relevant concentrations of the flame retardant tris (1,3- dichloro-2-propyl) phosphate (TDCIPP) inhibits growth of female zebrafish and decreases fecundity. *Environmental Science and Technology*, 2015, 49, 14579-14587(co-firs author, SCI, IF5.3)
- Ting Zhang, Lian Xu, Junjie Wu, Weiming Wang, Jie Mei, **Xufa Ma***, Jingxia Li*u. Transcriptional responses and mechanisms of copper-induced dysfunctional locomotor behavior in zebrafish embryos. *Toxicological Science*, 2015, 148(1): 299-310(co-corresponding author, SCI, IF3.9)
- Ting Zhang, Xinying Zhou, **Xufa Ma***, Jingxia Liu*. Mechanisms of cadmium-caused eye hypoplasia and hypopigmentation in zebrafish embryos. *Aquatic Toxicology*, 2015, 167: 68-76(co-corresponding author, SCI, IF3.5)
- Jing Jing, Haichao Liu, Huihui Chen, Sifan Hu, Kan Xiao, **Xufa Ma***. Acute effect of copper and cadmium exposure on the expression of heat shock protein 70 in the Cyprinidae fish *Tanichthys albonubes*, *Chemosphere*, 2013, 91(8): 1113-1122 (corresponding author, SCI, IF3.1)
- Haichao Liu, Huihui Chen, Jing Jing, **Xufa Ma***. Cloning and characterization of the HSP90 gene from *Tanichthys albonubes* Lin (Cyprinidae): Effect of copper and cadmium exposure. *Fish Physiology and Biochemistry*, 2012, 38(3): 745-756 (corresponding author, SCI, IF1.6)

- Unisa Conteh Kanu, Guang Zhao, Peng Xie, Yu Li, Dujuan Lei, Jiangong Niu, Xufa Ma. The complete mitochondrial genome of *Triplophysa strauchii* (Cypriniformes, Balitoridae, Cobitoidea): genome characterization and phylogenetic analysis. *Mitochondrial DNA*, 2016, 27(4): 2637-2638(corresponding author; SCI, IF1.8)
- Guang Zhao, Peng Xie, Unisa Conteh Kanu, Yu Li, Jiangong Niu, **Xufa Ma***. The complete mitochondrial genome of *Lucioperca lucioperca* (Perciformes: Percidae). *Mitochondrial DNA*, 2016, 27(5) : 3159-3160(corresponding author, SCI, IF1.8)
- Dujuan Lei, Unisa Conteh Kanu, Guang Zhao, Peng Xie, Hao Yuan, Yu Li, Jiangong Niu, **Xufa Ma***. The complete mtDNA genome of *Triplophysa dorsalis* (Cypriniformes, Balitoridae, Cobitoidea): genome characterization and phylogenetic analysis. *Mitochondrial DNA*, 2016, 27(5) :3745-3746 (corresponding author, SCI, IF1.8)
- Feng Wang, Jiangong Niu, Sifan Hu, Peng Xie, Chengjie Liu, Hong Li, Adahbek Karjan, **Xufa Ma***. The complete mitochondrial genome of *Leuciscus idus* (Cypriniformes, Balitoridae, Cobitoidea): genome characterization and phylogenetic analysis. *Mitochondrial DNA*, 2016, 27(1) : 104-105 (corresponding author, SCI, IF1.8)
- Xi Zhao, Sifan Hu, Peng Xie, Mengjun Ao, Lingang Cai, Jiangong Niu, **Xufa Ma***. The complete mitochondrial genome of *Barbatula nuda* (Cypriniformes: Nemacheilidae). *Mitochondrial DNA*, 2015, 26(5): 692-693(corresponding author, SCI, IF1.2)
- Sifan Hu, Jiangong Niu, Peng Xie, Chengjie Liu, Adahbek Karjan, Feng Wang, **Xufa Ma**. The complete mitochondrial genome of *Leuciscus leuciscus baicalensis* (Cypriniformes: Cyprinidae). *Mitochondrial DNA*, 2015, 26(5): 751-752 (corresponding author, SCI, IF1.2)
- Peng Xie, Mengjun Ao, Chengjie Liu, Zhiming Zhang, Yun Zhang, Jiangong Niu, Adahbek Karjan, **Xufa Ma***. The complete mitochondrial genome of *Phoxinus phoxinus ujmonensis* (Cypriniformes: Cyprinidae). *Mitochondrial DNA*, 2014, 27(1): 212-213 (corresponding author, SCI, IF1.2)
- Mengjun Ao, Peng Xie, Guang Zhao, Feifei Guo, Jiangong Niu, **Xufa Ma***. The complete mitochondrial genome of *Cottus sibiricus altaicus* (Scorpaeniformes: Cottidae). *Mitochondrial DNA*, 2015, 27(2): 1315-1316(corresponding author, SCI, IF1.2)
- Le Zhang, Xiangsheng Hong, Xu Zhao, Saihong Yan, **Xufa Ma**, Jinmiao Zha. Exposure to environmentally relevant concentrations of deltamethrin renders the Chinese rare minnow (*Gobiocypris rarus*) vulnerable to *Pseudomonas fluorescens* infection. *Science of the Total Environment*, 2020, 715: 136943 (SCI, IF6.6)
- Jing Li, **Xufa Ma**, Guanyong Su, John P. Giesy, Yuan Xiao, Bingsheng Zhou, Robert J. Letcher, Chunsheng Liu. Multigenerational effects of tris(1,3-dichloro-2-propyl) phosphate on the free-living ciliate protozoa *Tetrahymena thermophila* exposed to

environmentally relevant concentrations and after subsequent recovery. *Environment Pollution*, 2016, 218:50-58 (SCI, IF4.8)

Wei Chi, **Xufa Ma**, Jiangong Niu, Ming Zou, Genomic-wide identification of genes probably relevant to the adaptation of schizoracins (Teleostei : Cypriniformes) to the uplift of the Qinghai-Tibet Plateau. *BMC Genomics*, 2017, 18(1) :310 (SCI, IF3.6)

Zhiming Zhang, Chengjie Liu, Huiping Ding, Peng Xie, **Xufa Ma**, Yan Guo, Congxin Xie, Reproductive biology of bream *Abramis brama* (L.) in the lower reaches of the Irtys River, China. *Chinese Journal of Oceanology and Limnology*, 2017, 35(6): 1471-1481 (SCI, IF0.5)

Zhiming Zhang, Congxin Xie, Huiping Ding, **Xufa Ma**, Chenjie Liu, Yan Guo, Length-weight and length-length relationships of seven fish species from the Ili River and tributaries, northwest China. *Journal of Applied Ichthyology*, 2016, 32:153-155 (SCI, IF0.8)

Zhiming Zhang, Congxin Xie, Huiping Ding, Chenjie Liu, **Xufa Ma**, Lingang Cai. Age and growth of bream *Abramis brama* (Linnaeus, 1758) in the downstream section of Irtys River in China. *Journal of Applied Ichthyology*, 2016, 32: 105-109 (SCI, IF0.8)

Wei Chi, **Xufa Ma**, Jiangong Niu, Ming Zou, Characterizing the transcriptome and molecular markers information for roach, *Rutilus rutilus*, *Journal of Genetics*, 2016, 95(1): 45-51(SCI, IF1.5)

Wei Meng, Tianyan Yang, Sa Hai, Yanwu Ma, Lingang Cai, **Xufa Ma**, Tianxiang Gao, Yan Guo. Extensive genetic divergence among *Diptychus maculatus* populations in northwest China. *Chinese Journal of Oceanology and Limnology*, 2015, 33(3): 577-584 (SCI, IF0.5)

● BOOKS

Xie, C., **Ma, X.**, Qin, J. Study on the Biodiversity and Conservation Technology of *Protoscoliosis nigromaculata* in the the Yarlung Zangbo River. Beijing: Science Press, 2016. (in Chinese)

Xie, C., Huo, B., Wei, K., Ma, Bao., Qin, Jian., **Ma, Xu.**, et al. Biology and Resource Protection of *Schizothorax* In the Middle Reaches of the Yarlung Zangbo River. Beijing: Science Press, 2019. (in Chinese)

● Achievement appraisal

Xie C, He X, Zhang M, **Ma X**, Ma D, Duan C, Li D, Wang C, Zhang X, Zhou Q, Wang S, Kuang K, Yi C, Tang D, Liu Z, Cheng X, Ding R, Tang Y, Pan Z, Zhang Y, Zeng J. 2015. Research and Demonstration of Ecological Engineering Restoration Technology for Concentrated Pond Water Quality. Hubei Provincial Department of Science and Technology, appraisal result: internationally leading

Wang W, **Ma X**, Wang M, Peng J, Wan X, Guo Q. Biological Research and Breeding Techniques of Carp. Hubei Provincial Department of Science and Technology,

appraisal result: internationally leading

● **Award**

Xie C, He X, Zhang M, **Ma X**, Ma D, Duan C, Li D, Wang C, Zhang X, Zhou Q, Wang S, Kuang K, Yi C, Tang D, Liu Z, Cheng Xi, Ding R, Tang Y, Pan Z, Zhang Y, Zeng J. 2016. Research and Demonstration of Ecological Engineering Restoration Technology for Water Quality in Precision Aquaculture Ponds. Hubei Provincial Department of Science and Technology, Second Prize for Scientific and Technological Progress