



**Name: Kai FENG**

Date of Birth: 21 October 1994

Place of Birth: Cangzhou Hebei China

E-mail: feng.kai@blki.hu;  
fengkai3609@gmail.com  
375726569@qq.com

Tel: +36 301789714 (Hungary)

+86 18064092013 (China)

ORCID: 0000-0001-6072-8763

Google Scholar:

<https://scholar.google.com/citations?hl=en&user=5dqd5GcAAAAJ>

ResearchGate: <https://www.researchgate.net/profile/Kai-Feng-47>

## SELF INTRODUCTION

I am fascinated by the diversity and dynamics of freshwater fish communities—from the wetlands of the Yellow River to the floodplain lakes of the Yangtze, the Seine's branching riverscapes, the Danube's vast floodplains, and the unique streams and lake ecosystem of the Balaton catchment.

My work bridges theoretical ecology and real-world conservation, driven by a passion for understanding how biodiversity sustains ecosystem function in a rapidly changing world.

I use R daily, GIS regularly, MATLAB when I must, and I'm not afraid to call in AI, sonar, remote sensing when things get murky.

## RESEARCH INTERESTS

- Multidimensional diversity of freshwater fish communities**, with a particular focus on functional, phylogenetic, and taxonomic diversity based on species traits, and their spatiotemporal variation across multiple scales.
- Theoretical ecology**, especially **metacommunity ecology** and the relationship between biodiversity and ecosystem functioning. Emphasis on dynamic metacommunity processes and mechanisms in relation to ecosystem productivity, stability, and service provision.
- Community assembly mechanisms under multiple environmental stresses** in freshwater ecosystems, particularly under pressures such as eutrophication, land use change, habitat fragmentation, and invasive species.
- Conservation and restoration of freshwater fish communities and aquatic ecosystems** (lakes, rivers, streams, floodplains, and wetlands), with a focus on key habitats and species through ecological restoration measures and strategic management planning.

## EDUCATION AND RESEARCH EXPERIENCE

Bachelor degree

September 2013 - June 2017

**China Agricultural University**

College: College of Biological Science

Specialty: Biological Science

Phd

September 2017 - June 2023

**University of Chinese Academy of Sciences**

Institute: Institute of Hydrobiology Chinese Academy of Sciences

Specialty: Hydrobiology

Straight-to-PhD Student

Supervisor: Prof. Zhongjie LI; Associate Prof. Qidong WANG

Joint-Phd

February 2022 - February 2023

**University Toulouse III Paul Sabatier, France**

Lab: Laboratoire Évolution & Diversité Biologique (EDB), UMR 5174

Specialty: Ecologie, biodiversité et évolution

Supervisor: Prof. Bernard HUGUENY; Prof. Sovan LEK.

Postdoctoral Researcher

November 2023 - Now

**HUN-REN Balaton Limnological Research Institute, Hungary**

Research Group: Fish and Conservation Ecology Research Group

Supervisor: Prof. Tibor ERŐS.

## First-Authored Publications

[1] **Feng, K.**, Czeglédi, I., Funk, A., Hein, T., Pont, D., Meulenbroek, P., Valentini, A., & Erős, T. (2025). Drivers of metacommunity dynamics in river-floodplain fish: a path modeling approach. *Ecological Monographs*, 95(3), e70036.

**IF: 7.5, D1 in Ecology, Evolution, Behavior and Systematics**

[2] **Feng, K.**, Du, X., Tao, K., Zhang, Y., Wang, Y., Yuan, J., Erős, T., Wang, Q., & Huguény, B. (2025). A unified model explaining the unimodal relationship between productivity and species richness in fish communities. *Ecology Letters*, 28(11), p.e70256.

**IF: 7.9, D1 in Ecology, Evolution, Behavior and Systematics**

[3] **Feng, K.**, Deng, W., Li, H., Guo, Q., Tao, K., Yuan, J., Liu, J., Li, Z., Lek, S., Huguény, B., & Wang, Q. (2023). Direct and indirect effects of a fishing ban on lacustrine fish community do not result in a full recovery. *Journal of Applied Ecology*, 60(10), 2210-2222.

**IF: 4.8, D1 in Ecology**

[4] **Feng, K.**, Tao, K., Zhang, Y., Wang, Y., Yuan, J., Wang, Q., Huguény, B., & Erős, T. (2026). Evaluating restoration success: Ecosystem-level shifts in lake fish biodiversity consistent with China's fishing ban. *Biological Conservation*, 315, 111733.

**IF: 4.4, D1 in Ecology, Evolution, Behavior and Systematics**

[5] **Feng, K.**, Takács, P., Czeglédi, I., & Erős, T. (2024). Patterns and drivers in the functional diversity decomposition of invaded stream fish communities. *Diversity and Distributions*, e13914. **IF: 4.2, D1 in Ecology, Evolution, Behavior and Systematics**

[6] **Feng, K.**, Czeglédi, I., Funk, A., Hein, T., Pont, D., Meulenbroek, P., Preiszner, B., Valentini, A., & Erős, T. (2024). Composition, divergence and variability: A comprehensive analysis of fish trait responses to connectivity. *Ecological Indicators*, 167, 112670.

**IF: 7.4, D1 in Ecology, Evolution, Behavior and Systematics**

[7] **Feng, K.**, Wang, Q., Tao, K., Zhang, Y., Wang, Y., Yuan, J., Li, Z., Huguény, B., & Erős, T. (2025). Ecological threshold responses of fish communities to lake eutrophication. *Journal of Environmental Management*, 384, p.125599.

**IF: 8.4, D1 in Environmental Engineering**

- 
- [8] **Feng, K.**, Wang, Q., Tao, K., Zhang, Y., Yuan, J., Li, Z., Erős, T., & Hugueny, B. (2025). Environmental vs. biotic filtering: what if species traits contribute to both? *Oikos*, e11438. **IF: 3.0, D1 in Ecology, Evolution, Behavior and Systematics**
- [9] **Feng, K.**, Deng, W., Zhang, Y., Tao, K., Yuan, J., Liu, J., Li, Z., Lek, S., Wang, Q., & Hugueny, B. (2023). Eutrophication induces functional homogenization and traits filtering in Chinese lacustrine fish communities. *Science of The Total Environment*, 857, 159651. **IF: 8.0, D1 in Environmental Engineering**
- [10] **Feng, K.**, Wang, Q., Tao, K., Deng, W., Yuan, J., Liu, J., Li, Z., Erős, T., & Hugueny, B. (2024). Life history strategies predict responses of lacustrine fish communities to eutrophication. *Science of The Total Environment*, 951, 175684. **IF: 8.0, D1 in Environmental Engineering**
- [11] **Feng, K.**, Yuan, J., Zhang, Y., Qian, J., Liu, J., Li, Z., Lek, S., & Wang, Q. (2023). Application of artificial spawning substrates to support lacustrine fish recruitment and fisheries enhancement in a Chinese lake. *Frontiers in Ecology and Evolution*, 10, 1062612. **IF: 2.6, Q1 in Ecology, Evolution, Behavior and Systematics**
- 

#### Ongoing or Submitted Manuscripts

- [1] **Feng, K.**, Czeglédi, I., Funk, A., Hein, T., Pont, D., Meulenbroek, P., Valentini, A., & Erős, T. (**R1 major revision under review**). Unveiling the internal structure of metacommunities: integrating site and species attributes to ecological processes. *Ecography*.
- [2] **Feng, K.**, Tao, K., Zhang, Y., Wang, Y., Yuan, J., Wang, Y., Erős, T., Wang, Q., & Hugueny, B. (**under review**). Decomposing the relationship between fish productivity and species richness reveals antagonistic effects of nutrient enrichment on diversity. *Diversity and Distributions*.
- 

#### Co-authored Publications

- [1] Czeglédi, I., Takács, P., **Feng, K.** & Erős, T. (2025). Non - native species affect the long - term dynamics of native stream fish assemblages. *Oikos*, p.e11222.
- [2] Czeglédi, I., Preiszner, B., Morocz, A., **Feng, K.**, Sallai, Z., & Erős, T. (2024). Environmental DNA revealed the recent colonization of a protected Middle-Danube floodplain by the invasive Amur sleeper (*Perccottus glenii* Dybowski, 1877). *BioInvasions Record*, 13(4).
- [3] Zhang, Y., **Feng, K.**, Song, D., Wang, Q., Ye, S., Liu, J., & Kainz, M. J. (2023). Dietary fatty acid transfer in pelagic food webs across trophic and climatic differences of Chinese lakes. *Science of The Total Environment*, 169562.
- [4] Huang, G., Wang, Q., Du, X., **Feng, K.**, Ye, S., Yuan, J., Liu, J., Li, Z., & De Silva, S. S. (2020). Modeling trophic interactions and impacts of introduced icefish (*Neosalanx taihuensis* Chen) in three large reservoirs in the Yangtze River basin, China. *Hydrobiologia*, 847(17), 3637-3657.
- [5] Wang, Q., **Feng, K.**, Du, X., Yuan, J., Liu, J., & Li, Z. (2022). Effects of land use and environmental gradients on the taxonomic and functional diversity of rotifer assemblages in lakes along the Yangtze River, China. *Ecological Indicators*, 142, 109199.
- [6] Xiong, X., Xie, S., **Feng, K.**, & Wang, Q. (2022). Occurrence of microplastics in a pond-river-lake connection water system: How does the aquaculture process affect microplastics in natural water bodies. *Journal of Cleaner Production*, 352, 131632.
- [7] Wang, Z., Wang, Q., Wang, J., Wei, H., Qian, J., Zhang, Y., **Feng, K.**, Chen, Q., Yuan, J., Liu, J., & Li, D. (2022). Evaluation of the control effect of bighead carp and silver carp on cyanobacterial blooms based on the analysis of differences in algal digestion processes. *Journal of Cleaner Production*, 375, 134106.
- [8] Qian, J., Xiao, L., **Feng, K.**, Li, W., Liao, C., Zhang, T., & Liu, J. (2022). Effect of dietary protein levels on the growth, enzyme activity, and immunological status of *Culter mongolicus* fingerlings. *Plos one*, 17(2), e0263507.
- 

#### Research Projects (Participation)

- [1] **National Key Research and Development Program of China** (No. 2019YFD0900600)  
Participated in germplasm assessment and development of stock enhancement technologies for lake fish.
- [2] **National Key Research and Development Program of China** (No. 2018YFD0900701)  
Contributed to threshold modeling of pond aquaculture impacts on adjacent lake fish communities.
- [3] **National Natural Science Foundation of China Youth Project** (No. 32002396)  
Supported analysis of fish community responses to the Yangtze River fishing ban and evaluation of assembly models.
- [4] **Chinese Academy of Sciences Youth Innovation Promotion Association Talent Program** (No. 2022344)  
Involved in modeling interactive effects of eutrophication and land use on fish communities in Yangtze-connected lakes.
- [5] **Major Technological Innovation Project, Hubei Province** (No. 2017ABA061)  
Assisted in fish surveys and construction of a germplasm database for national aquatic conservation zones.
- [6] **Austrian-Hungarian Bilateral Project** (FWF I5006; OTKA 141884)  
Conducted data analysis and co-authored publications on river-floodplain fish metacommunity organization.
- [7] **National Water Science Laboratory, Hungary** (RRF-2.3.1-21-2022-00008)  
Contributed to functional diversity analysis of stream fish and eDNA-based fish community profiling in Lake Balaton.
- 

#### International Collaborations

**China:** *Institute of Hydrobiology*, Chinese Academy of Sciences: Prof. Zhongjie Li, Associate Prof. Qidong Wang; **Wuhan University:** Prof. Jianbo Chang; **Sichuan Agricultural University:** Associate Prof. Xue Du; **Hebei University:** Prof. Hongjie Wang  
**France:** *Université Toulouse III:* Prof. Bernard Hugueny, Prof. Sovan Lek, Prof. Pablo Tedesco, Prof. Thierry Oberdorff; **SPYGEN**, Dr. Alice Valentini  
**Hungary:** *HUN-REN Balaton Limnological Research Institute:* Prof. Tibor Erős, Senior Researcher István Czeglédi and Péter Takács  
**Austria:** *University of Natural Resources and Life Sciences:* Prof. Thomas Hein, Didier Pont, Paul Meulenbroek, and Andrea Funk  
**Spain:** *Rey Juan Carlos University:* Dr. Ignasi Arranz  
Secured **Chinese Academy of Science PIFI visiting scholar grants** for Prof. Bernard Hugueny and Prof. Tibor Erős to visit China.

---