Department of

Chemical Analytics and Biogeochemistry

Dr. Michael Hupfer

Leibniz-Institute of Freshwater Ecology
and Inland Fisheries (IGB)

Address Müggelseedamm 310, D-12587 Berlin
Phone +49 (0)30 64181 605
Fax +49 (0)30 64181 682
Email hupfer@igb-berlin.de

Research group

Biogeochemical processes in sediments and lake restoration

Main research interests

Redox controlled matter transport across boundaries, lake internal nutrient cycles
Lake management, impact of climate and land use changes on lakes

Education

1983–1985	Study in Marine Ecology, University Rostock
1985–1988	Diploma study in the field of Hydrobiology/Limnology, TU Dresden
1988–1993	PhD study at the TU Dresden and Innsbruck/Mondsee (Dr. rer. nat., TU Dresden)

Professional appointments

1988-1992	Research Assistant at the Institute of Hydrobiology, TU Dresden
1992-1994	Postdoc Research Fellow at Eawag, Swiss Federal Institute for Environmental Science and Technology, Department of Biogeochemistry
1994-1995	Scientist at UFZ Centre of Environmental Research Leipzig-Halle Ltd., Mining lake group
1996-2001	Scientist at Leibniz-Institute of Freshwater Ecology and Inland Fisheries (IGB), Berlin
2001-	Senior scientist at IGB

Key publications (last five years)

- Hupfer M, Jordan S, Herzog C, Ebeling C, Ladwig L, Rothe M, Lewandowski J, (2019): Chironomid larvae enhance phosphorus burial in lake sediments: insights form long-term and short-term experiments. Science of the Total Environment.663: 254-264.
- Valerio G, Pilotti M, Lau M P, Hupfer M (2019) Oxycline oscillations induced by internal waves in deep Lake Iseo. Hydrology and Earth System Sciences. - 23(2019)3, S. 1763-1777
- Hupfer M, Kasper R, Kleeberg A, Lewandowski J (2016) Long-term efficiency of lake restoration by chemical phosphorus precipitation: Scenario analysis with a phosphorus balance model. Water Research 97: 153-161
- Rothe M, Kleeberg A, Hupfer M (2016) The occurrence, identification and environmental relevance of vivianite in waterlogged soils and aquatic sediments. Earth-Science Reviews 158:51-64
- Lau MP, Sander M, Gelbrecht J, Hupfer M (2015) Solid phases as important electron acceptors in freshwater organic sediments. Biogeochemistry 123: 49-61

Three main research projects (last five years)

• Leibniz-Pakt für Innovation und Forschung: The Baltic Sea and its Southern Lowlands: Proxy-Environment interaction in times of rapid changes (2017-2020), Coordination: IOW

• DFG: RedoxPhos: How do physical and biogeochemical conditions in pelagic boundaries control vertical transport and generation of phosphorus species? 2011-2016 (HU 740/5-1)

• Leibniz-Pakt für Innovation und Forschung: Coordination (together with G. Nützmann) of the "International Leibniz Graduate School AQUALINK" Aquatic boundaries and linkages in a changing environment, 2012-2016

Current teaching and supervision

Lectures

VL SS Ecohydrology (Nützmann, Hupfer, Lewandowski), Humboldt-Universität zu Berlin, Geography Department (2009-2015)

Graduate students (since 2015)

• Robert Ladwig, UWI (DFG), Impact of water management measures on urban lakes (2019)
• Maximillian Lau, Aqualink (SAW), Solid phase electron acceptors (2016)
• Matthias Rothe, Redoxphos (DFG), Vivianite formation in lake sediments (2016)

• Gregor Scholtysik, BaltRap (SAW), Proxy formation during early diagenesis
• Lena Heinrich, UWI (DFG), Controlling of phosphorus fluxes in urban systems: Analogous processes in limnic sediments and sewage sludges
• Giulia Friedland, GRS Microcluster Signatures (BTU), Immission and effect iron from mining regions - Dispersion mechanisms and biogeochemical signatures

responsible supervisor for 4 master thesis and 3 bachelor thesis (since 2015)

Current services and memberships

Editorial boards

• Editor-in-chief Handbuch Angewandte Limnologie, Wiley-VCH
• Editor-in-chief, Limnologica, Elsevier

Scientific advisory boards and committees

• Consulting commission for the graduate school program 'soil-water-contamination', Hochschule Osnabrück

Other functions

• Member of the executive committee of the *German Limnological Society*

Honours and awards

• Award of the Berlin Brandenburg Academy of Sciences (2005)
• Award of the German Water Chemistry Society (2001)