

## Contribute to the guiding theme "Freshwater Science for Nature and Society"

### A) Integrative approaches

1. Structural biodiversity: from genes to ecosystems
2. Functional biodiversity: mechanisms and interactions
3. New ecological concepts and meta-analyses
4. Food web connections within and across habitats

### B) Evolution and population genetics

1. Molecular phylogenetics, DNA barcoding and classical taxonomy
2. Biogeography, dispersal, metapopulations
3. Environmental variability and evolution at different time scales
4. Host-parasite interactions and co-evolution

### C) Pressure on environments and biota

1. Stressors and short-term cellular/behavioral responses
2. Chronic/sublethal effects of environmental stress
3. Global change: extreme events and long-term trends
4. Invasive alien species

### D) Exploitation and critical review of information

1. Novel tools and methods – advantages and constraints
2. Large datasets: statistical vs. ecological significance
3. Modelling paradigms and approaches
4. Viability of ecological metrics and indices

### E) Environmental policy/societal concerns

1. Ecosystem services, human ecology, bioethics
2. Ecological quality assessment
3. Restoration, conservation, sustainability
4. Water and education

### F) General fields of freshwater science

1. Ecosystems: rivers, streams, hyporheic zone, groundwater, lakes, wetlands...
2. Special biological aspects of freshwater organisms and communities
3. Microbial processes
4. Biogeochemistry
5. Hydrodynamics and physical processes

### G) Special Sessions

- SS1 LIFE for freshwater ecosystems: challenges and achievements of an EU funding instrument
- SS2 Advances in ecohydrological research at surface-groundwater interfaces
- SS3 Approaches of using benthic algae for monitoring running waters according to the European Water Framework Directive (WFD)
- SS4 Biodiversity and functional processes in high alpine river ecosystems
- SS5 Biodiversity of Freshwater Ecosystems: Status, Trends, Pressures, and Conservation Priorities
- SS6 Ecological and taxonomic classification of freshwater biota: complementary or alternative tools to investigate freshwater biodiversity patterns?
- SS7 Freshwater Science and capacity development
- SS8 Implications of hydromorphological alterations to the littoral zone for the functioning of freshwater ecosystems
- SS9 Integrating temporary rivers into river ecology and management
- SS10 Microbial food web dynamics associated with mineral and organic surfaces (biofilms)
- SS11 Models of Freshwater Ecosystems: advances, challenges and new applications
- SS12 Organic carbon and nutrient dynamics in freshwaters under global change
- SS13 Real-time (Hydro-)Ecology
- SS14 Recreational fisheries science and management
- SS15 Salinisation of running waters
- SS16 Symbiotic and parasitic interactions in aquatic organisms: Gain or pain?
- SS17 Urban water bodies
- SS18 Using ecological principles to assess xenobiotic effects on freshwater communities and ecosystem functions

### Contact and further information

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