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## Contaminant Toxicity Monitoring and Assessment of Freshwater Ecosystems

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### Message from the Guest Editor

The quality of freshwater environments can be impacted by emerging and existing pollutants. Water and sediment quality is typically monitored employing targeted analytical methods for regulated substances that are known to pose a significant risk to or via the aquatic environment. However, chemical analysis does not account for the potential cumulative effects of complex mixtures of chemicals present in water and sediment. Effect-based methods such as *in vivo* whole-organism bioassays and *in vitro* assays have emerged in recent years, overcoming these shortcomings. So, combining effect-based approaches with chemical screening tools is the most promising method of connecting chemical contamination and ecological status by detecting, unravelling and prioritizing mixtures and compounds that drive adverse effects.

The main objective of the Special Issue is to bring together current research and reviews that address the application of bioassays in a battery, using a high number of test species of several taxa across major ecological or trophic positions, and chemical analysis in parallel, in order to provide a comprehensive and realistic picture of the potential effects on exposed biota.



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**Special** Issue



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## Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

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