



*toxins*



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## Detection and Current Challenges in Marine and Freshwater Biotxin Monitoring

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Deadline for manuscript  
submissions:

**closed (15 November 2021)**

### Message from the Guest Editor

Marine and Freshwater toxins have in common the fact that they can have potent effects on human health. The monitoring of these toxins is challenging for several reasons: (i) the monitoring system put in place should be able to apprehend the known and the emerging toxins; (ii) this involves a great diversity of toxins of different chemical nature and properties, with only a small number of them being common to marine and freshwater environments; (iii) toxin standards are not always commercially available, thus impeding the development of the methods of analysis and toxin quantification; (iv) different methods of analysis (chemical methods and biomolecular assays) are available with pros and cons, but for many toxin groups, there is no reference method identified; (v) the complexity of the matrices to be analyzed can be problematic for the method of analysis used; (vi) toxicological data are necessary to take into account the toxicity of the different toxin analogues via the use of toxic equivalency factors, for instance, which are rarely available; and (vii) the sampling strategy is primordial and should be thought through to guarantee sample representativeness.



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# Special Issue



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## Editor-in-Chief

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## Message from the Editor-in-Chief

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