

## Special Issue

# Interactive Effects of Climate Change and Toxins in Marine Organisms: Current Knowledge and Research Gaps

### Message from the Guest Editors

The increase in the frequency and intensity of harmful algal blooms (HABs) has been associated with changes in global conditions, which may constitute a significant threat to marine organisms frequently exposed to many other pressures. The impacts of climate change are likely to substantially alter the prevailing environmental conditions of certain regions of the planet, exacerbating the ecological problems in sensitive coastal ecosystems. Changes in organisms' behavior and immune response, diminished metabolic rate and energy available for somatic metabolism and growth may result from exposure to marine toxins derived from HABs. Still, the extent to which climate change impacts can interact with toxins' bioaccumulation and toxicity has received less attention. This Special Issue aims to promote discussion on current challenges and advances in the study of the combined effects of HAB toxins, anthropogenic pressures and climate change. Reports focused on empirical, field, and observational works are welcomed, as are reviews of the current state of the art and new technological advances for the determination of biotoxins in marine matrices.

### Guest Editors

Dr. Ana Luísa Maulvault

1. Portuguese Institute of the Sea and Atmosphere - IPMA, Avenida de Brasília, 1449-006 Lisbon, Portugal
2. Associate Laboratory i4HB - Institute for Health and Bioeconomy, UCIBIO - Unit on Applied Molecular Biosciences, Department of Chemistry, School of Science and Technology, NOVA University Lisbon, 2819-516 Caparica, Portugal

Dr. Pedro Reis Costa

Laboratório de Fitoplâncton, Departamento do Mar e Recursos Marinhos, Instituto Português do Mar e da Atmosfera, Rua Alfredo Magalhães Ramalho, 6, 1449-006 Lisboa, Portugal

### Deadline for manuscript submissions

closed (31 October 2023)



## Toxins

an Open Access Journal  
by MDPI

Impact Factor 4.0  
CiteScore 8.2  
Indexed in PubMed



[mdpi.com/si/141886](https://mdpi.com/si/141886)

*Toxins*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[toxins@mdpi.com](mailto:toxins@mdpi.com)

[mdpi.com/journal/  
toxins](https://mdpi.com/journal/toxins)





# Toxins

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.0  
CiteScore 8.2  
Indexed in PubMed



[mdpi.com/journal/  
toxins](https://mdpi.com/journal/toxins)



## About the Journal

### Message from the Editor-in-Chief

Toxinology is an incredibly diverse area of study, ranging from field surveys of environmental toxins to the study of toxin action at the molecular level. The editorial board and staff of *Toxins* are dedicated to providing a timely, peer-reviewed outlet for exciting, innovative primary research articles and concise, informative reviews from investigators in the myriad of disciplines contributing to our knowledge on toxins. We are committed to meeting the needs of the toxin research community by offering useful and timely reviews of all manuscripts submitted. Please consider *Toxins* when submitting your work for publication.

---

### Editor-in-Chief

Prof. Dr. Jay Fox

Department of Microbiology, University of Virginia, Charlottesville, VA,  
USA

---

### Author Benefits

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Embase, CAPlus / SciFinder, AGRIS, and other databases.

#### Journal Rank:

JCR - Q1 (Toxicology) / CiteScore - Q1 (Toxicology)

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.4 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the first half of 2025).