

Call for Papers: Thematic Issue on Microbial Ecotoxicology of Contaminants of Emerging Concern

Guest Editors:

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FEMS Microbiology Ecology invites submissions to a thematic issue on “Microbial Ecotoxicology of Contaminants of Emerging Concern”. The thematic issue will be associated with the 4th International Conference on Microbial Ecotoxicology - EcotoxicoMic 2024, 12 -14 November 2024, Gothenburg, Sweden.

Please visit the conference website for more information: <https://ecotoxicomic24.sciencesconf.org>

Microbial ecotoxicology seeks to assess the toxicokinetics (fate) and toxicodynamics (effects) of interactions between contaminants and both prokaryotic and microeukaryotic microorganisms. Contaminants of Emerging Concern (CECs) represent recently identified environmental contaminants which may pose significant threats to humans and ecosystems or have recently been shown to be hazardous. CECs include synthetic compounds (e.g. pharmaceuticals, personal care products, per- and polyfluoroalkyl substances, phthalates, bisphenols, antibiotics, nanoparticles, microplastics) and natural toxins (e.g. cyanotoxins) or biological agents (e.g. antibiotic-resistant microorganisms, antibiotic resistant genes, viruses or biomolecular contaminants). There is an urgent need to assess and characterize microbe-CEC interactions and associated environmental and human health risks.

The scope of this thematic issue includes but is not limited to the following topics:

- Impacts of CECs on microbial diversity and function
- Microbial transformation of CECs and bioremediation
- Methods for studying microbe-CEC interactions; e.g. association of classical ecotoxicology endpoints such as growth, biomass, species composition or community functions with omics approaches such as metagenomics, transcriptomics or metabolomics
- Microorganisms as tools for environmental risk assessment of CECs
- Antimicrobial resistance in the environment
- Microbiome-aware ecotoxicology

FEMS Microbiology Ecology will consider original research articles, reviews, and perspectives that address these topics for publication in the context of this thematic issue.

SUBMISSION TARGET DATE: 31 July 2025

Authors should specify in their cover letter that their paper is submitted in the frame of the ‘Thematic issue on Microbial Ecotoxicology of Contaminants of Emerging Concern’. For instructions on submitting a manuscript, please consult FEMS Microbiology Ecology journal instructions at <https://academic.oup.com/femsec>. All manuscripts will undergo regular review by members of the Editorial Board and other appropriate experts.

Accepted manuscripts will be published in regular issues of the journal upon acceptance, and the Thematic Issue will be compiled and made available online upon completion.



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