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Contaminants of Emerging Concerns in Marine Ecosystems: Evaluation of Presence and Ecotoxicological Effects

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INTRODUCTION

AIMS

Contaminants of Emerging Concern, such as glyphosate (GLY) and its main breakdown product aminomethylphosphonic acid (AMPA), represent a growing threat to marine ecosystems¹. Although these organophosphorus compounds are frequently detected in aquatic environments - particularly following agricultural runoff and heavy rainfall - they are not currently regulated in marine ecosystems, where they can interact with non-target organisms.

Despite GLY is recognized as toxic to aquatic life by ECHA², the effects and mechanisms of action in nontarget organisms remain unclear and poorly documented, while its use has recently been renewed in the EU until 2033³. Meanwhile, AMPA, which is often more persistent in the environment, has been largely overlooked in toxicological assessments. galloprovincialis haemocytes.
To determine whether decreased salinity scenarios exacerbate the biological effects of AMPA in two M. galloprovincialis ecotypes, and to compare the sensitivity of these mussel populations, adapted to different environmental regimes, to combined salinity shifts and AMPA exposure.

GLYPHOSATE AND AMPA EFFECTS IN NON-TARGET SPECIES

