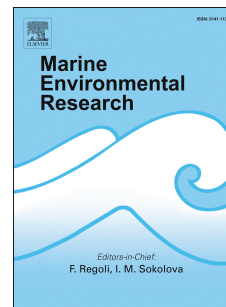


# Accepted Manuscript

Are submarine groundwater discharges affecting the structure and physiological status of rocky intertidal communities?

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1           **Are submarine groundwater discharges affecting the structure and**  
2                           **physiological status of rocky intertidal communities?**

3  
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16           **Added/edited text**

17           **Reviewer 1:**

18           **Reviewer 2:**

19           **Authors**

20           **Abstract**

21           This study evaluated the impacts of submarine groundwater discharges (SGD) on a rocky  
22           intertidal community of South Portugal, during April-November 2011. Chlorophyll-a  
23           concentration was higher at the SGD site in respect to the Reference site. Epibenthic  
24           community structure differed between sites, with an increase in *Chthamalus* spp. and a  
25           decrease in macroalgae coverage at the SGD site. The abundance and body size of *Mytilus*  
26           *galloprovincialis* were consistently higher at the SGD site. During mid-spring, under potentially  
27           higher SGD and less favorable conditions for coastal phytoplankton, the ecophysiological  
28           condition of *M. galloprovincialis* and *G. umbilicalis* was also higher at the SGD site. These  
29           beneficial effects on filter-feeders and herbivores probably resulted from local increases in  
30           prey availability, supported by SGD-driven nutrient inputs. Conversely, *P. depressa* was not

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