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OCEANS

THE IMPACT OF GLOBAL CHANGE OF THE SEA

Monograph coordinated by Carles Pedrós-Alió, Josep M. Gasol and Rafel Simó

A phenomenon of exceptional importance such as global change and its multiple effects has been discussed in several Mètode monographs. In recent years, public concern about what we already perceive to be the greatest threat to humanity has not stopped growing; at the same time, the United Nations have proclaimed the period 2021-2030 as the Decade of Ocean Sciences for Sustainable Development, recognising the close relationship between the oceans, climate, and social welfare. The sea is a climate regulator and a reservoir of biodiversity, a source of food and other resources, a transport route, a cultural asset, and the driving force behind the tourism industry; it is also a natural hazard and, unfortunately, a dumping ground for waste and refuse.

Consequently, in this new monograph we examine some of the main, but as yet unexplained, impacts of climate and environmental change on the sea. The papers we present here analyse global phenomena such as acidification, deoxygenation, and the rise in sea level, as well as the impact of pollution. We also have room for more local studies, which take the Mediterranean Sea as an example of phenomena that are taking place everywhere: the increase in sea temperature and coastal algae growth and the loss of biodiversity.

Scientific knowledge, based on informed observations and interpretations, would have to guide resource and environmental management decisions, including the way we obtain energy. As researchers who work studying the marine environment, we generate much of the necessary knowledge, as we explain in this monograph, while at the same time warning about the consequences of continuing to operate as we currently do. Regarding political action, we expect policy to be based on this knowledge.



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The work of the artist Garcia Bel (Tortosa, Spain, 1969) accompanies this issue devoted to the impact of the global change in the oceans.

Everything he creates with lives a double life: one for the useful life of each material, and the one he gives them after they become waste. The artworks in the following pages are part of the series «From the sea». The collection is brimming with meaning, with nature rebelling against human dominance.

Garcia Bel. *The cold statistics*, 2018. Iron sculpture and paint, 120 × 55 × 24 cm.

