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BOOK OF ABTRACTS

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MARINE ALIEN SPECIES IN THE MEDITERRANEAN CROSSROAD: A CRITICAL REVIEW AROUND SICILY

The Mediterranean Sea is the most invaded marine area in the world, with ~1,000 alien species, some of which are invasive. These latter are a risk for ecosystems, and sometimes for the economy and even for human health. Sicily is at the crossroad of the basin, being located in the centre of the Mediterranean Sea. Moreover, with its high diversity of habitats and environmental conditions, it has a key role in receiving newcomers from the Atlantic and non-indigenous species from the Indo-Pacific. In this review, we focused on the main taxonomic groups of interests for biological invasions, analysing the most up-to-date available literature. These groups include: macrophytes, foraminifers, cnidarians, ctenophores, molluscs, polychaetes, crustaceans, bryozoans, and fishes. Generally, only large-sized and obvious species, largely related to fishing activities, such as some stomatopods, decapods and fishes, attracted the most attention, both from public and researchers. Among these, some invasive species (*e.g.*, the blue crab *Callinectes sapidus*) are assuming an ever growing commercial interest and/or have given rise to heated debates in the scientific community. On the other hand, other less conspicuous species, generally represented by macrophytes and small invertebrates, are less recorded because not strictly related to fishing activities, although some can deeply change the habitat and interfere with local biodiversity, as for the green algae of the genus *Caulerpa*. Since it is more likely that some alien species have not yet been detected in waters around Sicily, although present for more or less long periods in nearby areas, we need to address the problem linked to biological invasions with an all-comprehensive taxonomic and ecological approach. The data provided here may be used as a tool for subsequent management and monitoring strategies.