

{rokbox title=|Number of NIS, cryptogenic (CRY) and data deficient (DD) species, detected in each Mediterranean country by December 2020 :: Image:

Authors|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-validated-inventories-species-carbonell-2023-thumb-et-al.jpg|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-validated-inventories-species-carbonell-2023-et-al.jpg{/rokbox}

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[Validated Inventories of Non-Indigenous Species \(NIS\) for the Mediterranean Sea as Tools for Regional Policy and Patterns of NIS Spread.](https://doi.org/10.3390/d15090962)

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Abstract: This work presents refined, updated subregional and regional non-indigenous species (NIS) inventories for the Mediterranean Sea, validated by national and taxonomic experts, with species records observed until December 2020. These datasets will be used as the baselines for the implementation of the Integrated Monitoring and Assessment Programme for the Mediterranean (IMAP) and the Mediterranean Quality Status Report 2023. In total, 1006 non-indigenous species have been found in Mediterranean marine and brackish waters. The highest numbers of NIS were observed in Israel, Türkiye, Lebanon and Italy. Approximately 45 species were categorized as data deficient, either due to lack of consensus on their alien status or the validity of their identification. Polychaeta, Foraminifera and macroalgae were the groups with the highest numbers of controversial species. There was a general increase in the yearly rate of new NIS introductions after the late 1990s, which appears to be slowing down in the last decade, but this may be confounded by reporting lags and differential research efforts. Between 1970 and 2020 there has been a steep increase in the proportion of shared species present throughout all four Mediterranean subregions, which are predominantly transported via shipping and recreational boating. While Lessepsian species are gradually spreading westwards and northwards, there is still a considerable invasion debt accumulating in the eastern and central Mediterranean.

Keywords:non-indigenous species,mediterranean sea,validation,NIS baselines,IMAP.