

Data Paper**Unpublished Mediterranean records of marine alien and cryptogenic species**

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Abstract

Good datasets of geo-referenced records of alien species are a prerequisite for assessing the spatio-temporal dynamics of biological invasions, their invasive potential, and the magnitude of their impacts. However, with the exception of first records on a country level or wider regions, observations of species presence tend to remain unpublished, buried in scattered repositories or in the personal databases of experts. Through an initiative to collect, harmonize and make such unpublished data for marine alien and cryptogenic species in the Mediterranean Sea available, a large dataset comprising 5376 records was created. It includes records of 239 alien or cryptogenic taxa (192 Animalia, 24 Plantae, 23 Chromista) from 19 countries surrounding the Mediterranean Sea. In terms of records, the most reported Phyla in descending order were Chordata, Mollusca, Chlorophyta, Arthropoda, and Rhodophyta. The most recorded species was *Caulerpa cylindracea*, followed by *Siganus luridus*, *Magallana* sp. (cf. *gigas* or *angulata*) and *Pterois miles*. The dataset includes records from 1972 to 2020, with the highest number of records observed in 2018. Among the records of the dataset, *Dictyota acutiloba* is a first record for the Mediterranean Sea. Nine first country records are also included: the alga *Caulerpa taxifolia* var. *distichophylla*, the cube boxfish *Ostracion cubicus*, and the cleaner shrimp *Urocaridella pulchella* from Israel; the sponge *Paraleucilla magna* from Libya and Slovenia; the lumpfish *Cyclopterus lumpus* from Cyprus; the bryozoan *Celleporaria vermiformis* and the polychaetes *Prionospio depauperata* and *Notomastus aberans* from Malta.

Key words: non-native species, non-indigenous, distribution, citizen science, invasive alien species, geo-referenced records, Mediterranean Sea