

PROJECT "ALIENS IN THE SEA"



"Aliens in the sea", a scientific-cultural Citizen Science Project, has the aim of making aware citizens and the mainly interested stakeholders (fishermen, divers, boaters) to the biological invasion phenomenon through a correct information and active participation.



Caulerpa cylindracea



Caulerpa taxifolia var. *distichophylla*



Caulerpa taxifolia



Asparagopsis taxiformis



Asparagopsis armata

The green algae belonging to the genus *Caulerpa* (A,B,C) are well known for their invasive character. They grow on different substrate and compete with native species. The red algae belonging to the genus *Asparagopsis* (D,E) grow on rock substrate. Their behaviour seem to be less invasive.



Halophila stipulacea

This plant (F), coming from the Indian Ocean and Red Sea, grows on shallow sandy substrate and it is able to compete with native plants.



Rhopilema nomadica

A jellyfish (G) entered through the Suez Canal. It can inflict painful injuries to bathers and have impact on biodiversity, tourism and fishing.



Aplysia dactylomela



Pinctada radiata

The «sea slug» (H) is an herbivorous feeder, consuming filamentous algae. It is different from the «sea hare». The «rayed pearl oyster» (I) cover enormous surfaces.



Trachysalambria palaestinensis



Portunus segnis



Percnon gibbesi

Shrimp (L) and crab (M), with a commercial interest, come from the south-eastern Mediterranean Sea and the Indo-Pacific Ocean respectively. The sally lightfoot crab (N), is an opportunistic herbivorous feeder occurring along shallow infra-littoral rocky shores, under boulders, or in narrow crevices.



Seriola fasciata



Siganus luridus



Fistularia commersonii



Stephanolepis diaspros



Pterois miles



Kyphosus vaigiensis



Lagocephalus scleratus

In the Mediterranean Sea very voracious alien species are frequent, for example *Seriola fasciata* (O), *Fistularia commersonii* (Q) and *Pterois miles* (S). The last one is also a poisonous species (fishbones) as *Siganus luridus* (P). Another poisonous species (toxic substance) is *Lagocephalus scleratus* (U). *Stephanolepis diaspros* (R) and *Kyphosus vaigiensis* (T) are rare species in the Mediterranean Sea.

Photos by: Andrea Bonifazi, Mariolina Corsini Foka, Puccio Di Stefano, Alfio Germanà, Maria Ghelia, Gianni Insacco, Fabio Liberto, Gianni Neto, Fabio Russo, Marco Toccaceli, Vito Vaccaro

Animals:

Number of individuals

Plants and algae:

% Coverage within a 20x20 cm quadrat



1(1-20%) 2(20-50%) 3(>50%)

Information

- Date and site of record
- Depth
- Substrate:
- sand, mixed or rock

Contacts and information:

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