CHECK LIST OF PLANKTON IN THE GULF OF VLORE (ALBANIA)

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Abstract
A check list of plankton species in an Albanian coastal area is presented. Data derive from 384 samples collected with 3 different sampling devices at 20 stations over 2 years (2007-2008) in two oceanographic cruises in the framework of the Interreg CISM project coordinated by CoNISMa. A total of 425 plankton organisms were recognized, 300 of them as species. The plankton of the Gulf of Vlore was dominated by Crustacea, Dinophyta, Diatomeae, and Ciliophora. Only Penilia avirostris was collected with all the sampling devices, this demonstrating that an integrated sampling effort provides a more effective description of the reality. The checklist will be useful for studies in neighbouring areas, suchj as that of the FP7 CoCoNET project. The present inventory is also useful in the framework of EU Marine Strategy Directives

Keywords: Biodiversity, Otranto Strait

Introduction
The check list of plankton species in an Albanian coastal area is presented for the first time. This kind of biodiversity assessment will be of interest for present projects in the South Adriatic Sea and Otranto Channel which will describe the connectivity existing between the two (Italian and Balkan) opposite coasts. Furthermore, any reference list will represent the occasion to judge the representativeness of samples, or surveys, to be carried out in the future.

A list of 151 taxa is already available for benthos of the same area (Gulf of Vlore) (Maiorano et al., 2011). The present contribution wants to add information about the biodiversity of a potentially valuable area for economy (fishery and tourism) and nature protection.

Methods
Over a 2-year PERIOD (2007, 2008), 384 samples were collected using various devices (Niskin bottle, sediment core, plankton net) from 20 sampling stations (18 in the water column, 2 on the sea bottom). The sampling was carried out during two oceanografic cruises conducted in the framework of the CISM Interreg Project coordinated by CoNISMa.

Results and Discussion
A total of 425 different categories of organism were recognized, 300 of them at species level. The plankton assemblage was dominated by Crustacea (133 categories, 85 species), followed by Dinophyta (120 categories, 103 species), Diatomeae (42 categories and species), and Ciliofora (37 categories and species).

Among Crustacea, Copepoda were predominant (110 categories, 79 species).

The data are presented in published, peer-reviewed papers (on phytoplankton, microzooplankton, and resting stages) (Moscatello et al., 2011; Rubino et al, 2013), as well as one paper in preparation (on mesozooplankton) (Belmonte et al., 2012).

Eighy-six categories were found in sediment samples (as resting stages), 219 categories were collected by Niskin bottle and 196 categories by plankton net. Only one category (the Cladoceran *Penilia avirostris*) was collected with all sampling devices, demonstrating that an integrated sampling effort can provide a more effective description of reality. In addition, for 60 cases the record derives from resting stages found in the sediments, with no active stages of the same species found in the water column.

Since this is the first complete inventory of plankton biodiversity in an Albanian bay, nothing can be said about the possible presence of Non Indigenous Species.

The present report is the first assessment of the biodiversity of an area which is scheduled to become part of a Marine Protected Area.

The checklist is also be particularly useful for other studies in neighbouring areas, for example, the study of the water column biodiversity of the South Adriatic Sea and Otranto Channel, which was conducted in the framework of the FP7 CoCoNET Project to assess the connectivity of MPAs on opposite sides of the same basin. The present inventory is also useful in the framework of EU Marine Strategy Directives, which call for reliable data on which to base the assessment of the Environmental Status of marine basins.

References
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