

Abstract

During the period 1992-2003 the specific composition and distribution of the zoobenthos along the Syrian coast was studied from the surface to 200 m. A total of 579 species were recorded, most belong to the Atlantic and Mediterranean fauna, whereas 45 are Lessepsian and Indopacific species: 20 Gastropoda, 10 Bivalvia, 14 Crustacea and 1 Ascidiacea. Some of these species became dominant. Some migrants tolerate pollution.

Keywords: Lessepsian, Benthos, Gastropoda, Crustacea, Red Sea

Introduction

Recent interest in the biogeography of the Mediterranean led to the development of a data bank of the marine fauna. Indo-Pacific species constitute 5% of the overall marine fauna of the Mediterranean [1], whereas they are the 12 % in the southeastern Mediterranean, 4.68% of the macrozoobenthos of the Lebanese coast [2] and only 1% of the soft bottom macrobenthic fauna of Cyprus [3]. In this study we report on the Red Sea and Indo-Pacific species recorded from the littoral and sublittoral zoobenthos of the coast of Syria [4, 5, 6].

Material and Methods

In the period 1992-2003, samples were collected down to 200 m depth by diving and by Van-Veen grab and dredge, to study both benthos and granulometry.

Results and Discussion

A total of 579 species belonging to 16 macrotaxa are recorded: 11 Porifera, 8 Cnidaria, 7 Bryozoa, 6 Sipunculida, 45 Polychaeta, 232 Gastropoda, 136 Bivalvia, 86 Crustacea, 19 Echinodermata, 4 Brachiopoda, 6 Ascidiacea and 19 species belonging to Oligochaeta, Nemertini, Placophora, Cephalopoda, Scaphopoda [7, 8].

The composition of the macrofauna was dominated by Gastropoda (40.10%), Bivalvia (23.49%), Crustacea (14.85%) and Polychaeta (7.77%).

Lessepsian migrants

They represented 7.77 % of the total zoobenthos. The majority belongs to 3 major taxa:

- **Crustacea** (14 species 16.80 %): *Penaeus japonicus*, *Trachypenaeus curvirostris*, *Metapenaeus stebbingi*, *Erugsquilla masseveris*, *Ixa monodi* (first record from Syria, observed at Lattakia sites), *Myra subgranulata*, *Portunus pelagicus*, *Charybdis helleri*, *Thalamita poissonii*, *Atergatis roseus*, *Heteropanope laives*, *Macrophthalmus graeffei* (first record from Syria, observed at Lattakia sites), *Leptochela aculeocaudata*, *L. pugnax*, *Alpheus migrans* (first record from Syria, observed at Banias sites).

- **Bivalvia** (10 species 7.53 %): *Anadara secticostata*, *Brachidonta pharaonis*, *Chama pacifica*, *Gafrarium pectenatum*, *Pinctada radiata*, *Mallius regula*, *Crassostrea cucullata*, *Saccostrea cucullata*, *Spondylus spinosus*, *Tapes bruguieri*, *Tellina rastellum*.

- **Gastropoda** (20 species 8.62 %): *Cerethium scabridum*, *C. kochi*, *Euchilus atratus*, *Diodora ruppelli*, *Conus flavidus*, *C. kermadecensis*, *Peristernia nussatula*, *Bullia rogersi*, *Nassarius deshaysiana*, *Strombus decorus persicus*, *S. oldi*, *S. gibberulus*, *Thais carnifera*, *Cypraea caurica*, *C. pulchra*, *C. helvola*, *C. chinensis*, *C. gangranosa*, *Rissonia bertholetii*, *Pirenella conica*,

- **Ascidiacea** : *Phallusia nigra* is dominant, especially inside the port of Banias.

Distribution and dominance

The Lessepsian migrant shrimp *Penaeus japonicus* is commercially important, and is more abundant at the depth 50-70 m on muddy and sandy bottoms. *Portunus pelagicus* is common at depths comprised between 50 and 70 m. The tow species *Erugsquilla mantis* (Atlantic) and *S. massawenses* (Lessepsian migrant) are found together at depths over 50 m. The crab *Subgranulata fugax* is dominant on muddy bottoms at depth over than 50 m, together with *Charybdis helleri*. *Leptochela aculeocaudata*, *Heteropanope laives* are common on rocky bottoms. *Brachidonta pharaonis* is dominant along the rocky shores at all sites, as also the tow species *Malleus regula* and *Gafrarium pectenatum*. *Pinctada radiata* can be locally abundant. *Cerethium scabridum* is dominant along the shores in the littoral and infralittoral of all sites. *C. kochi* appears as common species on muddy-sand bottoms between 13 and 20 m near BETS (Banias electro-thermal station), being still more abundant at 70 m.

Thais carnifera occurs near shore, together with the local species *T. haemostoma*. *Bolinus brandris* is common on soft bottoms between 50 and 70 m. *Strombus decorus* is dominant on muddy - sandy bottom down to 70 m. *Diodora ruppelli* is common on rocky shores

Another species still waiting to be defined. These species are more abundant near the Banias electro thermal station [9] (Fig. 1).

Laboratory studies and the correlation index between specimen conditions and their content of petroleum hydrocarbons and heavy metals suggest that the migrant species in the littoral are either pollution-tolerant sessile species or opportunistic species [10].

56 Species of Mollusca and Crustacea live both along the Syrian coast and in the Black Sea, 12 species of Mollusca belonging to the Mediterranean Western Basin fauna have been recorded recently from the Syrian Coast.

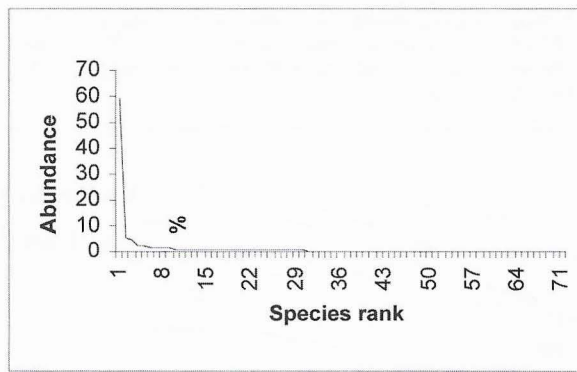


Fig. 1. Dominance curve of species at BETS.

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