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ABSTRACT BOOK

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phospholipid scrambling of the erythrocyte cell membrane, an effect in part requiring p38 MAP kinase activity.

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2. Pagano M, Faggio C. The Use of erythrocyte fragility to assess xenobiotic cytotoxicity. Cell Biochem Funct 2015;33(6):351-5.

PRELIMINARY INVESTIGATION OF AN INTERTIDAL ZONE'S FAUNAL ASSEMBLAGE (BEACH ROCK, R.N.O. CAPO PELORO, NE SICILY)

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The so-named "beach-rock", is a peculiar sedimentary formation commonly appearing as a layered deposit inclined towards the sea. Its units originate under a thin cover of sediment and generally overlying unconsolidated sand. This formation is a hard substratum of natural origin, which represents a transition between the terrestrial and the marine environments. Beach rock acts also as a resistant barrier to coastal erosion. The Messina's beach rock is a sedimentary formation, also present in many other parts of Italy, which is located in the north-eastern part of the island, included in the oriented natural reserve of Capo Peloro. For its characteristics and position this zone creates a very particular ecosystem, representing part of the intertidal zone located between Ganzirri (38°25'69"N, 15°61'24"E) and Faro (38°15'43"N, 15°38'13"E). In some parts of the beach rock tidal ponds occur, and due to their jagged shape the water from the sea flows in. For this reason, the different ponds have been sorted in three types: 1. Closed, 2. Open 3. Semi open. In this research, we investigated both water variables and the faunal assemblages (benthic fauna and fishes). The water parameters reach a wide range of fluctuation, also in few hours, depending on both ponds type and weather/sea conditions. Despite this variability, biocenosis composition are various and heterogeneous, and a lot of taxa are present. In this preliminary investigation has been noted a very important feature: juveniles represent the 90% of fishes recorded. For this reason, can be assumed that these environments can represent a natural nursery zone and have to be protected more strictly.

PROKARYOTIC COMMUNITY OF SUBTIDAL SANDY SEDIMENTS IN THE KONGSFJORDEN (SVALBARD ISLANDS, NORWAY)

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The Kongsfjorden (79° N, 12° E) is a glacial open fjord located on the west coast of the Svalbard Archipelago. It is about 20 km long and its width varies from 4 to 10 km. The fjord, whose volume was estimated at 29.4 km³, has different depth zones: the outer part, in connection with the ocean, is the deepest, while the inner area, which is near the glacier, is approximately around 100 m deep. In this study, subtidal sandy sediment samples were collected along a coastal transect with the aim to investigate the prokaryotic abundance and diversity by flow cytometry and Ion Torrent, respectively. The total prokaryotic abundance was on average 6.6±4.3 x10⁷ cells/g, with higher values assessed in sediments collected at the glacier front area. Different bacterial phyla were retrieved from sediment samples, with the predominance of *Proteobacteria*, followed by *Bacteroidetes* and *Actinobacteria*. Minor groups occurred (i.e. *Chlorobi*, *Chloroflexi*, *Firmicutes*, *Gemmatimonadates*, *Nitrospirae*, *Acidobacteria* and *Cyanobacteria*). Our results demonstrated a direct relation between the prokaryotic community composition and the freshwater gradient formation, owing to ice melting and release of a greater concentration of organic matter in the inner site (A) than in the open sea site (D). In conclusion, this study provides further information on the prokaryotic community inhabiting the Kongsfjorden, contributing to the existing knowledge on microbial ecology dynamics in extreme cold environments.

DETECTION OF LIPOLYTIC ACTIVITY BY PLATE ASSAY OF ENVIRONMENTAL YEASTS ISOLATED IN MOROCCO

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Lipases (triacylglycerol hydrolases, E.C. 3.1.1.3) are a class of hydrolases which catalyze the hydrolysis of triglycerides to glycerol and free fatty acids. These enzymes are also able to catalyze the hydrolysis and transesterification of other esters including the synthesis of these molecules. In the light of the different applications, such as pharmaceutical, food and leather industries, it is of great interest to seek new fungal sources of lipases. Yeasts isolated from environmental samples (Olive pomace, black olive, rancid butter, rotten strawberry and rotten orange), taken from two different regions of Morocco: Meknes (Coordinates: 33°53'42" N 5°33'17" W) and Beni Mellal (Coordinates: 32°20'22" N 6°21'39" W), were tested for their lipase and esterase production ability using plate assays. The tests were performed using CaCl₂ Tween 20 agar and rhodamine olive-oil agar, respectively, for esterase and lipase activity detection. Eleven yeasts showed a zone of precipitation formed around the inoculated wells on Tween agar plates; indicating the esterase production. Three of these yeasts showed an intense orange fluorescence around the inoculated wells on rhodamine olive-oil agar,