

A PRELIMINARY STUDY ON TWO SEAMOUNTS IN THE EASTERN MEDITERRANEAN SEA

Bayram Öztürk^{1*}, Eda N. Topcu¹ and Bülent Topalolu¹

¹ Istanbul University, Fisheries Faculty, Ordu cad. No 200. Laleli, Istanbul – Turkey / Turkish Marine Research Foundation (TUDAV) P.K: 10 Beykoz, Istanbul - Turkey - ozturkb@istanbul.edu.tr

Abstract

Two seamount plateau were sampled which are very little known in terms of deep sea habitat in the Eastern Mediterranean Sea. A total of 11 fish, 7 crustaceans and a cephalopod species were found between 880-1107 m depths. *Galeus melastomus* and *Squalus acanthias* were common species for fish and *Aristaeomorpha foliacea* in both seamount areas for crustaceans.

Keywords: Eastern Mediterranean, Deep Sea Ecology, Biodiversity

Introduction

In 2006-2007 and 2008, a three year survey was conducted in the Eastern Mediterranean Sea to better understand deep and high sea marine biodiversity. Samplings were performed by beam trawl in two locations in Eastern Mediterranean Sea. Finike Seamount were sampled at depths ranging from 880 to 1000m depths and Turgut Reis Seamount between 989 to 1107m depths in August 2008 period (Fig 1). Beam Trawls were conducted for sampling with a speed kept at 2,5-2,7 knots and lasted 30 minutes. The opening of net was 21.6 m with a mesh size of 22 mm. Samples were kept in Formalin.

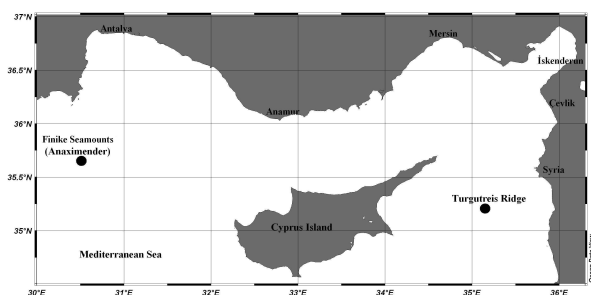


Fig. 1. Map of the Eastern Mediterranean with locations of sampling stations.

Results and Discussion

A total of eight fish species, four crustaceans and a cephalopod species were found in Finike Seamount (Anaximander Seamounts) (Table 1). Majority of these fish were deep sea fishes. All crustaceans also known as deep sea decapods and *P. longirostris* and *A. foliacea* were commercially important species in the eastern Mediterranean Sea. *A. veranyi*, also a deep sea cephalopod, is a preferable prey of the striped and Risso's dolphins [1]. Mud volcanoes with a methane cold seeps community were reported from this area and this community is unique and quite different from all other known cold seep communities in that location [2]. This fragile ecosystem is under the threat of mainly bottom trawling. In Turgut Reis Ridge, only three fish and three crustacean species were found. All crustacean species were also of commercial importance (Table 1). Turgut Reis Ridge was also important in terms of deep sea fishes and crustaceans. This area is also under the threat of bottom trawling. Our suggestion is to designate this two sensitive seamount areas as high sea marine protected area or sensitive deep sea habitats such as Eratosthenes Seamount which is decided by GFCM recommendation 30/2006/3 that no fishing activities any more [4]. Ichthyofaunal richness is correlated with the intensity of research in the Eastern Mediterranean Sea [3]. More detailed and long term study is needed for the protection of these unique habitats in the Eastern Mediterranean Sea

Tab. 1. List of fishes and invertebrates sampled in the Finike (Anaximander) and Turgut Reis Seamounts.

Finike Seamounts (Anaximander)		Turgutreis Ridge	
Family	Species	Family	Species
Pisces			
Scyliorhinidae	<i>Galeus melastomus</i> (Rafinesque, 1810)	Scyliorhinidae	<i>Galeus melastomus</i> (Rafinesque, 1810)
Delatidae	<i>Etmopterus spinax</i> (Linnaeus, 1758)	Squalidae	<i>Squalus acanthias</i> (Linnaeus, 1758)
Squalidae	<i>Squalus acanthias</i> (Linnaeus, 1758)	Phycidae	<i>Phycis blennoides</i> (Brünnich, 1768)
Crustaceans			
Netastomatidae	<i>Netastoma melanurum</i> (Rafinesque, 1810)	Pandalidae	<i>Plesionika martia</i> (A. Milne-Edwards, 1883)
Trachichthyidae	<i>Hoplostethus mediterraneus</i> (Cuvier, 1829)	Aristeidae	<i>Aristaeomorpha foliacea</i> (Risso, 1827)
Macrouridae	<i>Hymenoccephalus italicus</i> (Giglioli, 1884)	Aristeidae	<i>Aristeus antennatus</i> (Risso, 1816)
Congridae	<i>Rhynchoconger trewavasae</i> (Jordan & Hubbs, 1925)		
Ophiidae	<i>Ophidion barbatus</i> (Linnaeus, 1758)		
Cephalopod			
Teuthidae	<i>Abralia veranyi</i> (Rüppell, 1844)		

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