



Some scleractinian corals (Scleractinia: Anthozoa) of Larak Island, Persian Gulf

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Abstract

There is a shortage of knowledge about taxonomy and distribution of coral reef communities in the Persian Gulf. One of the main steps in the conservation and evaluation of such an environment is to locate and identify the communities and their inhabited fauna and flora. In the present study scleractinian corals were collected from depths of 3 to 9 meter around Larak Island, Persian Gulf. Underwater photographs of the sampled specimens were obtained in the natural habitat before sampling. 37 species have been identified via morphological characteristics of exoskeletons. The following study provided a pictorial reference to enhance the basic knowledge about coral reef communities in the Persian Gulf.

Keywords: Cnidaria, coral identification, coral taxonomy, hard coral, Iran

Introduction

Coral reefs contain the highest biodiversity among aquatic ecosystems and sustain millions of people around the world (Eakin et al, 2008). Today these precious ecosystems are vulnerable to a combination of climatic factors (warming, ocean acidification, increase in frequency and intensity of critical climatic events, changes in sea currents and increase in ultra-violet radiation) which make them one of the most vulnerable ecosystems in face of global climate change (IPCC, 2007). From 1880 to 2008 sea surface water temperature anomalies showed that the water temperature around the reefs of Indian Ocean and Middle East had been raised by 0.5 °C which could cause the higher probability of coral bleaching (Heron et al, 2008). Fringing coral reefs and communities are distributed around the 16 islands and some Iranian coastal waters of the Persian Gulf (Maghsoudlou et al, 2008). Corals living in the Persian Gulf are adapted to live at the lowest winter and highest summer temperatures and also highest salinities; these make the Persian Gulf a unique living laboratory to study evolutionary adaptation of corals to climate change (Burke et al, 2011). However these precious ecosystems are threatened by not only the global warming but also other human induced factors including oil pollution, breakwater construction, sedimentation caused by coastal development, dredging, ornamental fishing, extensive anchor damage and discharge of nutrients and sewage (Maghsoudlou et al, 2008).

Clearly one of the most fundamental steps for conservation of coral reefs is the identification of their inhabited fauna and flora. Nonetheless, as yet there is not much published data about coral reef communities in the Persian Gulf (Samimi et al, 2008). Although the extreme temperature and salinity have been suggested as the reason for the low coral biodiversity in the Persian Gulf (Sheppard et al, 2010), the low number of published reports reveal the lack of sufficient taxonomic effort. Although a comprehensive pictorial article about some of soft corals of the Persian Gulf has been recently released (Samimi and Ofwegen, 2009), there is no such internationally accessible report about hard corals of the Persian Gulf.

Recently a short note has been published about the unique coral community of Larak Island in which some physical characteristics of the island and its community structure has been briefly explained (Samimi et al, 2008). Here we describe coral specimens collected from Larak Island.