Short Communication

The first record of the Indo-Pacific benthic ctenophore *Coeloplana (Benthoplana) meteoris* (Ctenophora: Coeloplanidae) in the Arabian-Persian Gulf

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**ABSTRACT**

This report presents the first occurrence of the Indo-Pacific benthic ctenophore *Coeloplana (Benthoplana) meteoris* (Thiel, 1968) in the western part of the Arabian-Persian Gulf, extending its range to 2000km, a record that illustrates a cyclic event observed in the Marine Arabic Province. The seasonal biodiversity influx of invertebrates from the Indian Ocean that establish themselves for a short period of time in the west of the Gulf before the extreme high temperatures takes place in the summer.

Introduction

The Arabian-Persian Gulf is characterized as one of the most intense hyperthermic and hypersaline marine environments in the world (Camp et al 2018). The shallow marine zone in the west coast of the Gulf is more exposed to the heat from the Middle-East deserts and, between June and August, its marine environment presents water temperatures that reach 36°C and salinities up to 55ppt (Price 1981, 1982; Riegl and Purkis 2012; Camp et al 2018), creating, in the west coast of the Gulf, a restricted marine biogeographic zone known as the “Marine Arabic Province” that is physiochemically isolated during the summer by a hyperthermic and hypersaline biogeographic barrier (Al-Ansari et al 2015). In winter and spring, the Marine Arabic Province is characterized by a temperate marine climate (Riegl and Purkis 2012; Al-Ansari et al 2015), which creates the suitable environmental conditions for the establishment of marine species, a perfect condition for the biodiversity that is constantly transported within the influx of water from the Indian Ocean. This report presents the first occurrence of the Indo-Pacific benthic ctenophore *Coeloplana (Benthoplana) meteoris* (Thiel, 1968) in the Arabian-Persian Gulf and discusses the biogeographic significance of this record for this restricted marine province.

Material and methods

For two years, numerous faunal surveys were conducted aboard the RV Janan from Qatar University, where several specimens were manually captured by scuba divers aiming to illustrate the marine fauna that inhabit the Marine Arabic Province in the west of the Gulf. During this faunal survey, *Coeloplana (Benthoplana) meteoris* was collected in soft substrate (muddy) in the deeper underwater valleys (20–30m) between the offshore oyster beds. The specimen was immediately placed in a jar under water, due to its fragility, and subsequently transferred to an aquarium in the vessel, where it was photographed to capture its morphological features. The sampled material was conserved in alcohol and placed in the marine collection at the Environmental Science Centre at Qatar University.

The systematic section comprises the following: the references used in species identification and distribution; the diagnosis, including all geographic coordinates specific to the collection; the previous geographic distribution; the remarks about the species; and some comments about the species.

**Systematic accounts**

- Phylum Ctenophora Eschscholtz, 1829
- Family COELOPLANIDAE Willey, 1896
- Genus Coeloplana Kowalevsky, 1880
- Subgenus Benthoplana Fricke & Plante, 1971

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Coeloplana (Benthoplana) meteoris (Thiel, 1968) (Figure 1)

Coeloplana (Benthoplana) meteoris - Fricke & Plante, 1971:58-68.


Material examined. 1 specimen (approx. 36 mm long), 20m deep, soft bottom, offshore (25° 33’ 25” N - 052° 01’ 52” E), 06 v 15, (ECZQU00026).


Remark. This is the first report of this species in the Arabian Gulf, extending the occurrence of this species by approximately 2000 km.

Conflict of interest

The authors declare that there is no conflict of interest.

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References

