

## First Record of the Ciliate *Praethecacineta halacari* (Ciliophora: Suctorea) Epibiont on *Copidognathus* Halacarid Mite from Portugal

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Geliş : 15.12.2015

Kabul : 11.04.2016

**Research Article / Araştırma Makalesi**

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Basılı ISSN: 1300 – 4891 E.Dergi ISSN: 1308 - 7517

### Abstract

The present study report a first record of the marine suctorian species *Praethecacineta halacari* (Schulz,1933) on a *Copidognathus* sp. collected from Algarve region of Albufeira coast, Portugal.

*Key words:* *Praethecacineta halacari*, *Copidognathus* sp., suctorian ciliate, Portugal

### *Copidognathus* Cinsi Üzerinde Epibiont *Praethecacineta halacari* (Ciliophora: Suctorea) Siliyatının Portekiz'den İlk Kaydı

#### Özet

Bu çalışmada, Portekiz'in Algarve bölgesindeki Albufeira kıyılarından *Copidognathus* sp. cinsi üzerinde tespit edilen deniz suctorian'larından *Praethecacineta halacari* (Schulz,1933)' nin Portekiz'den ilk kaydı rapor edilmiştir.

*Anahtar kelimeler:* *Praethecacineta halacari*, *Copidognathus* sp., suctorian siliyat, Portekiz

## INTRODUCTION

*Thalassarachna basteri* (Johnston, 1836) is first halacarid mite which is described by Johnston also was the first mentioned host of a suctorian and then, two suctorian (*Vorticella* sp. and *Acineta* sp.) was found on this mite by Gosse in 1855. Since those days several more records of suctorians on halacarid mites have been published but still the number of species is limited. Suctorian ciliates present both marine and fresh water. They inhabit both anorganic and organic material, plants and animals and feed microalgae and other ciliates. Several species of suctorian ciliates are common epibionts of benthic marine and interstitial invertebrates. Marine and fresh water mites have been identified as hosts of suctorian ciliates which may be commensals, ecto - or endoparasites. A number of suctorian ciliates have been observed as epibionts on various halacarid mites and other invertebrates. Most records are from shallow waters. A deep – sea record of an epibiont on Halacaridae is from the Mid- Atlantic Ridge, Snake Pit, 3500 m (Dovgal et al., 2008; Dovgal et al., 2009; Bartsch and Dovgal, 2010).

While studying on halacarid mites in Praia da Falésia, Albufeira, Portugal we found this suctorian ciliates which are reported here for the first time from Portugal.

## MATERIALS and METHODS

The halacarid mite genus, *Copidognathus* sp., which is the most rich genus in the halacaridae family, with suctorians (4 individuals) were collected from Praia da Falésia, Albufeira, South - West of Portugal (Atlantic Ocean) (37° 05' 01" N, 8° 13' 49" W), among intertidal coralline algae (Figure 1). The samples were sorted at the University of Algarve, CCMAR, Ecology and Restoration of Estuarine and Coastal Habitats laboratory, Faro, Portugal. For microscopical studies of halacarid mites and the suctorian species were identified in University of Suleyman Demirel, Fisheries Faculty, Ecology and Limnology Laboratory, Isparta, Turkey.

## RESULTS and DISCUSSION

### Systematics

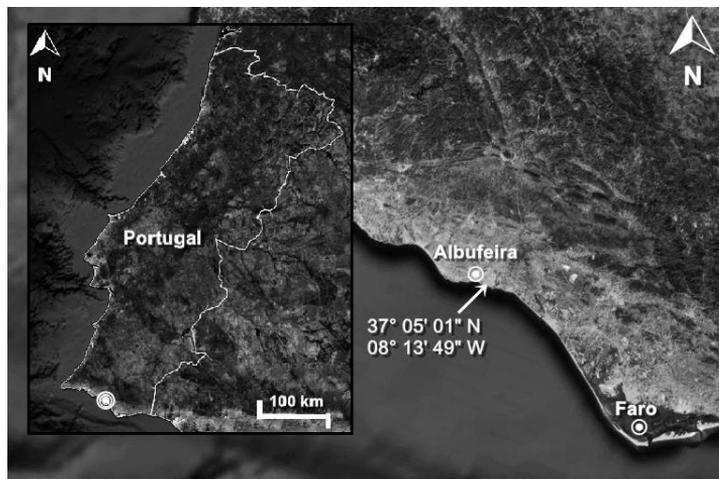
Class SUCTOREA Claparede et Lachmann, 1858  
 Subclass EXOGENIA Collin, 1912  
 Order METACINETIDA Jankowski, 1978  
 Family PRAETHECACINETIDAE Dovgal, 1996  
*Praethecacineta halacari* (Schulz, 1933)

### Material Examined

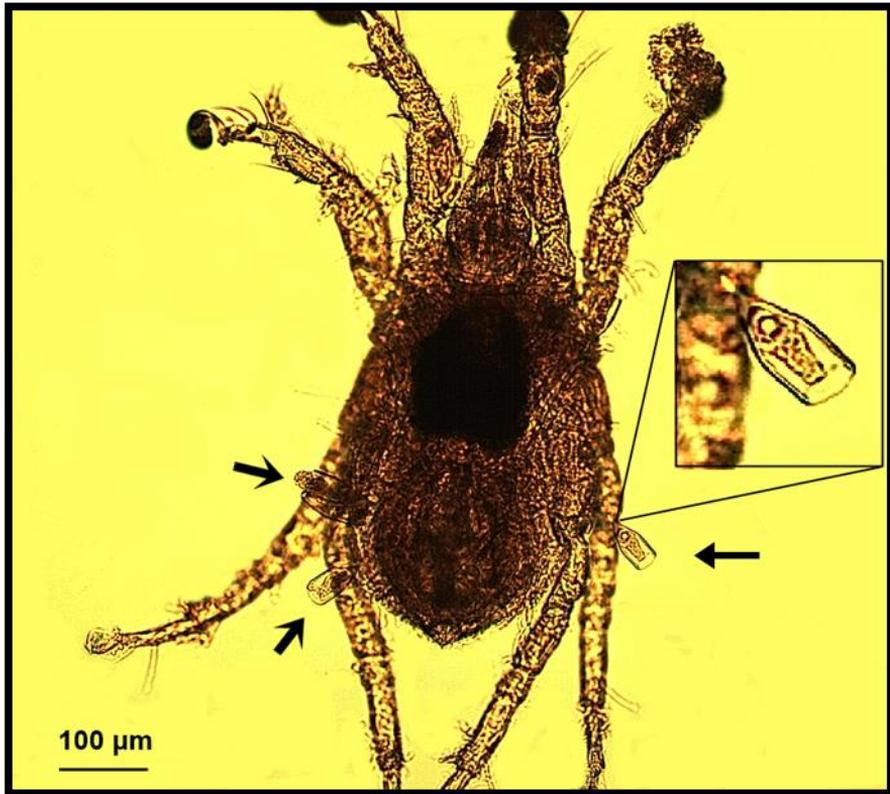
Four individuals of *Praethecacineta halacari* suctorian ciliates were attached to ventral side of *Copidognathus* sp. All ciliates are attached to ventral side of the *Copidognathus* sp. halacarid mite. 3 of them found around the genitoanal plate region of mite. 1 of them attached to third leg of the mite.

### Diagnosis

Marine suctorians with stylothecca. Cell body slightly laterally flattened entirely filling the lorica and attached to its posterior margin. Apical part of the body narrowed. Macronucleus spherical, posteriorly located. Stylothecca smooth, without ribbing (Dovgal et al., 2008; 2009).



**Figure 1.** Map of the study area showing the sampling station.



**Figure 2.** Ventral view of posterior part of *Copidognathus* sp. with *P.halacari* marked with on arrows

### **Distrubition of *Praethecacineta halacari***

Bulgaria and Ukraine (Black Sea), Norwegian coast (Tromsø), Kiel Bay of North Sea, Caspian Sea, Western Australia, Atlantic coast of Brazil, west coast of India (Arabian Sea), Taiwan, Tanzania, Canada (Dovgal et al. 2009) and South West of Portugal, Praia da Falésia, Albufeira (present report).

### **Host Specificity**

*P. halacari* were found attached to *Copidognathus* sp. The host, *Copidognathus*, the largest halacarid genus comprises ¼ of all halacarid species.

### **Acknowledgements**

Special thanks are due to Dr. Pedro Range and all ECOREACH laboratory personel for their kind support first author's field work and training activities at CCMAR, Universidade do Algarve, Portugal. Thanks are due to Dr. Igor Dovgal (National Academy of Sciences of Ukraine) for taxonomic identification of *P.halacari*.

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