

Ammothella longiocolata (Arthropoda, Pycnogonida): A Sea Spider New For the Mediterranean Coast of Turkey

Ammothella longiocolata (Arthropoda, Pycnogonida): Türkiye'nin Akdeniz Kıyıları İçin Yeni Bir Deniz Örümceği

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Abstract: Sampling studies on the Turkish Mediterranean coast revealed the presence of a species of Pycnogonida belonging to the genus *Ammothella*. This species is identified as *A. longiocolata* (Faraggiana, 1940). This is herein reported for the first time from the Fethiye Bay and Mediterranean coast of Turkey. Therefore, the record further extends the known distribution of *A. longiocolata* from the Aegean Sea to the Mediterranean coast of Turkey. A distribution map of the species in the Mediterranean Sea is provided, together with photographs of the species. This study is the only scientific report to date of the pycnogonids of the Fethiye Bay in Turkey.

Keywords

- Pycnogonida
- *Ammothella longiocolata*
- Mediterranean coast of Turkey
- Mediterranean Sea
- Turkey

Özet: Fethiye Körfezi'nde yapılan örnekleme çalışmaları, *Ammothella* cinsine ait bir piknogonid türü olan *A. longiocolata* (Faraggiana, 1940)'nın varlığını ortaya koymuştur. *A. longiocolata*, Fethiye Körfezi'nden ve Türkiye'nin Akdeniz Kıyılarından ilk kez bu çalışmada rapor edilmektedir. Bundan dolayı, bu kayıt, türün bilinen dağılımını Ege Denizi'nden Türkiye'nin Akdeniz kıyılarına kadar genişletmektedir. Türün Akdeniz'deki dağılımı ve fotoğrafları çalışmada verilmiştir. Bu çalışma, bugüne kadar Türkiye'de Fethiye Körfezi piknogonidleri üzerine yapılmış tek çalışmadır.

Anahtar kelimeler

- Pycnogonida
- *Ammothella longiocolata*
- Türk Akdeniz kıyıları
- Akdeniz
- Türkiye

1. INTRODUCTION

Pycnogonids form a small but interesting part of most bottom communities. They are a little-known group of strictly marine arthropods that occur from brackish estuaries with salinities as low as 20‰ to the oceans of the world, from intertidal zones to the deepest trenches (Child, 1992).

Ammothella longiocolata (Faraggiana, 1940) is endemic to the Mediterranean Sea. At least twelve studies are indicating the existence of the species in the region (Faraggiana, 1940; Stock, 1958; Krapp, 1973; Arnaud, 1987; Schüller, 1989; Chimenz et al., 1993; Munilla & Nieto, 1999; Vignoli et al., 2006; Kocak & Katagan, 2007; Krapp et al., 2008; Koçak, 2020).

To date, there is no record of pycnogonids from Fethiye Bay. An examination of pycnogonid specimens from Fethiye Bay on the Turkish coast of the Mediterranean Sea yielded one species of pycnogonid, *Ammothella longiocolata*, that is a new record for the Fethiye Bay and Mediterranean coast of Turkey.



2. MATERIALS and METHODS

By snorkeling, one male specimen of the species was collected from *Cystoseira* sp. facies in the upper infralittoral zone (1.5 m depth) of Dalyan Cove, Fethiye Bay (Mediterranean coast of Turkey) (Figure 1). The specimen was fixed in 5% formaldehyde, later rinsed with fresh water, and then preserved in 70% ethanol. The specimen was examined under a stereomicroscope. The following papers were used for the species identification: Faraggiana (1940), Krapp (1973), and Kocak and Katagan (2007). The specimen was deposited in the ESFM (Museum of the Faculty of Fisheries, Ege University, İzmir).

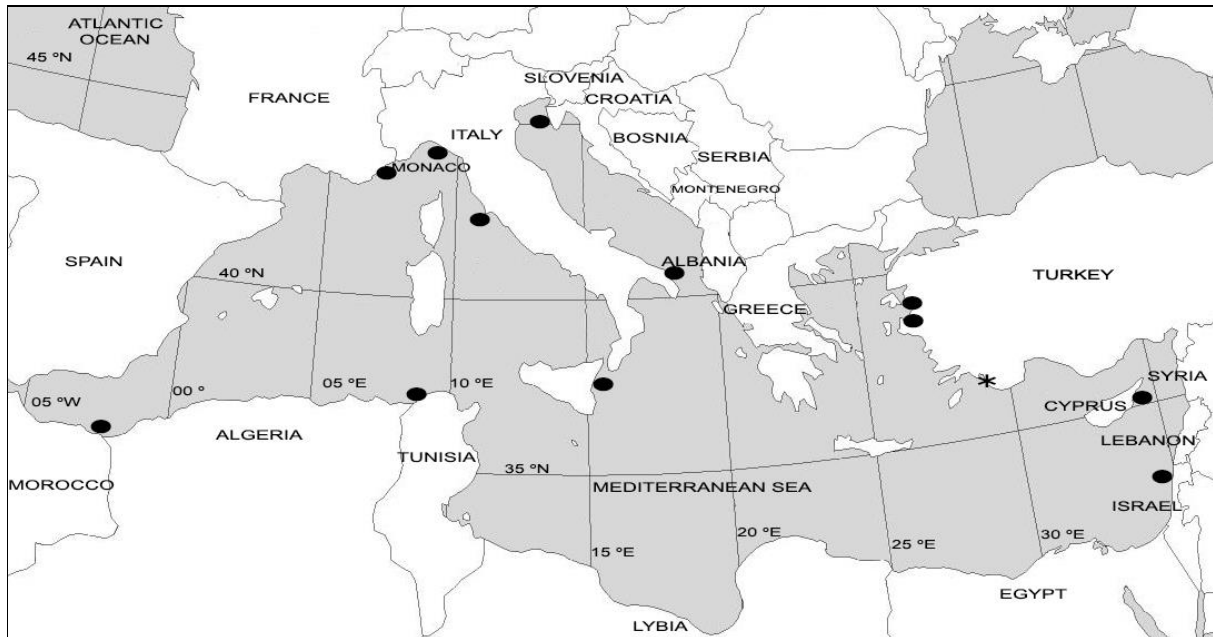


Figure 1. Distribution of *Ammothella longiocularata* (Faraggiana, 1940) in the Mediterranean Sea (filled circle), including the sampling area (asterisk).

3. RESULTS

3.1. Systematics

Class PYCNOGONIDA Latreille, 1810

Order PANTOPODA Gerstaecker, 1863

Family AMMOTHEIDAE Dohrn, 1881

Genus *Ammothella* Verrill, 1900

3.1.1. *Ammothella longiocularata* (Faraggiana, 1940) (Figures 2-3)

Material examined: 1 ♂, (EFSM-PYC/2018-1), Dalyan Cove (Fethiye Bay, Mediterranean coast of Turkey), 36°36'23"N, 29°01'52"E, *Cystoseira* sp., 1.5 m, 19 August 2018.

Measurements (mm): Trunk length (frontal margin of cephalic segment to tip of fourth lateral process), 0.86; Trunk width (across second lateral processes), 0.60; abdomen length, 0.34; proboscis length (in ventral view), 0.58 mm; Leg 3: coxa 1. 0.20 mm, coxa 2. 0.27 mm, coxa 3. 0.22 mm, femur. 0.57 mm, tibia 1. 0.62 mm, tibia 2. 0.61 mm, tarsus. 0.09 mm, propodus. 0.40 mm, main claw. 0.21 mm, auxiliary claw. 0.11 mm.

Remarks: The present specimen agrees well with the specimen given by Krapp (1973) and by Kocak & Katagan (2007). I noted only that the trunk length of the present specimen is slightly larger than those in Krapp's (1973) sample (0.84 mm in a male) and in Kocak and Katagan's (2007) sample (0.83 mm in male).

Worldwide Distribution: Mediterranean Sea.

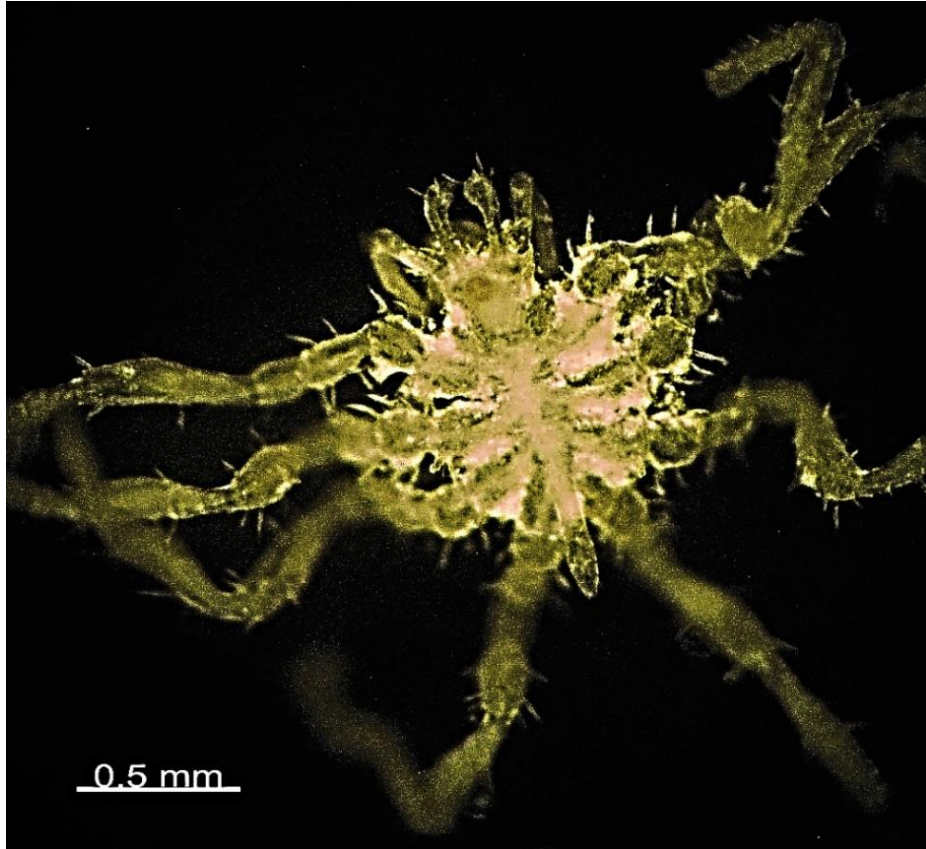


Figure 2. *Ammothella longiocolata* (Faraggiana, 1940), ♂, Fethiye Bay. Dorsal view.

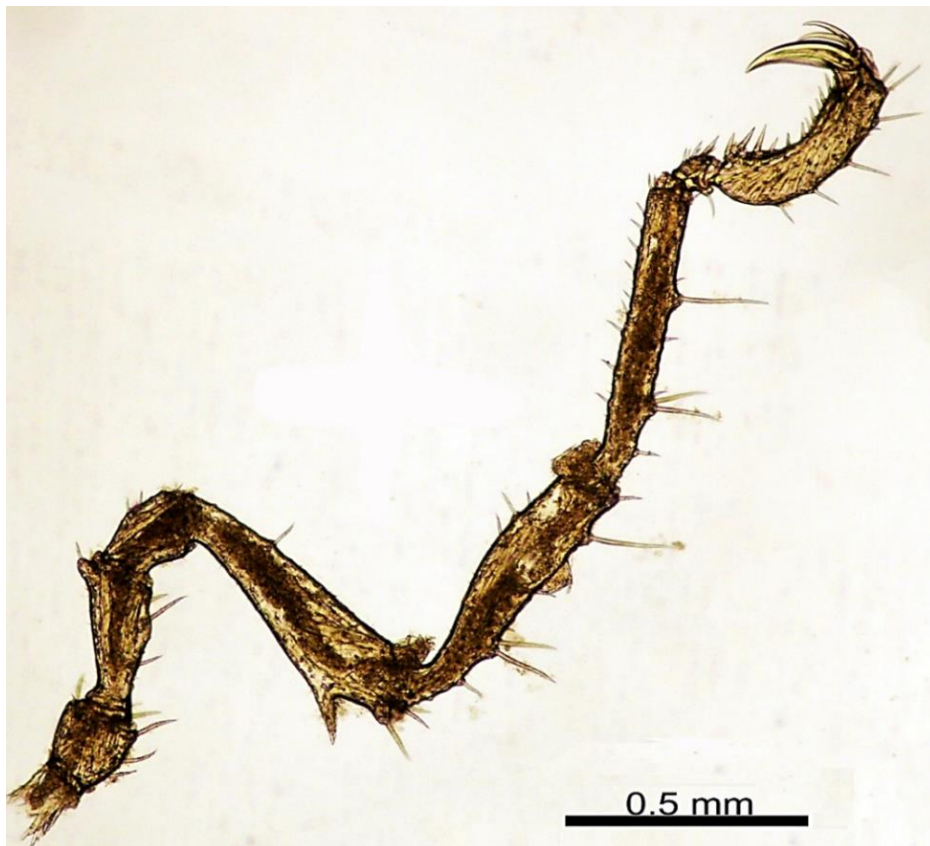


Figure 3. *Ammothella longiocolata* (Faraggiana, 1940), ♂, Fethiye Bay. Left leg 3.

4. DISCUSSION

Ammothella longioculata is only known from the Mediterranean Sea. Spanish coast: Chafarinas Islands, Alboran Sea (Munilla & Nieto, 1999). French coast: Nice (Arnaud, 1987). Tunisian coast: Tabarka (Arnaud, 1987). Italian coast: Levanto, Ligurian Sea (Faraggiana, 1940); Isola Lachea (Krapp, 1973); Apulian coast (Chimenz, et al., 1993); Costa d'Argento (Vignoli et al., 2006). Croatian coast: Rovinj, north Adriatic (Schüller, 1989). Israel coast: Tantura (Stock, 1958). Northern Cypriot coast: Famagusta Bay (Kocak & Katagan, 2007); Turkish coast: Gencelli cove (Krapp et al., 2008); Urla, İzmir Bay (Koçak, 2020) (Figure 1).

Kocak (2015) stated that the number of pycnogonids known from the Mediterranean coast of Turkey was 8 species. In a later study, Ragkousis et al. (2020) recorded *Ammothella hilgendorfi* (Böhm, 1879) from the Mersin Bay. This record increased the total number of species to 9. The record of *A. longioculata* reported herein further raises the total number of known pycnogonids for the Mediterranean coast of Turkey to 10 species. To date, a total number of 30 pycnogonid species are found in Turkish waters. Thus, the reported 10 different species of pycnogonids in the Mediterranean coast of Turkey represent 33.3% of all known pycnogonid species.

This study is the only scientific report to date of the pycnogonids of the Fethiye Bay in Turkey. Therefore, it is believed that more samplings in the Fethiye Bay will result in a more accurate count pycnogonid species.

FUNDING

No financial support was received for the study.

CONFLICT of INTEREST

Author declare that there are no financial interests or personal relationships that may affect this work.

AUTHOR CONTRIBUTIONS

Single author.

ETHICAL STATEMENTS

Local Ethics Committee Approval was not obtained because experimental animals were not used in this study.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable for this article, as no new data was created or analyzed in this study.

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