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Anomurans of the Aegean Coasts of Turkey and Reported Species from Turkish Seas

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Abstract: The Anomurans of the Aegean coasts of Turkey were studied between 1987 and 1997, in the region from the Gulf of Saros in the north to Marmaris in south at 17 stations; the 811 specimens obtained were identified as belonging to 28 species. Moreover, all of the early studies were reviewed on the Anomuran fauna of Turkish coasts and it was determined that 3 species were reported from the Black Sea coasts of Turkey, 20 species from the Sea of Marmara, 27 species from the Aegean coasts of Turkey and 17 species from the Turkish coasts of the Mediterranean Sea. From the 28 species determined during this study, 5 species (*Galathea nexa*, *Galathea cenarroï*, *Munida tenuimana*, *Pagurus chevreuxi* and *Paguristes syrtensis*) are new records for the Aegean coasts of Turkey, and 3 species (*P. chevreuxi*, *P. syrtensis*, and *G. cenarroï*) are new records for the Turkish coasts.

Key Words: Arthropoda, Anomura, Crustacea, Decapoda

Türkiye'nin Ege Denizi kıyılarının Anomurları ve Türkiye Denizlerinden Bildirilen Türler

Özet: 1987-1997 yılları arasında Ege Denizi'nde kuzeyde Saros Körfezi'nden güneyde Marmaris'e kadar uzanan sahada belirlenen 17 istasyonda örnekleme yapılmıştır. Örnekleme sonucunda 811 örnek incelenmiş ve 28 Anomur türü tespit edilmiştir. Ayrıca Türkiye Denizlerinin Anomura faunası üzerindeki ilk çalışmalar incelenerek Karadenizden 3 tür, Marmara Denizi'nden 20 tür, Ege Denizi'nden 27 ve Akdeniz sahillerinden 17 türün rapor edildiği saptanmış olup, bunların bir listesi verilmiştir. Bu sonuçlara göre Ege Denizi'nden saptanan 28 türden 5'i (*Galathea nexa*, *Munida tenuimana*, *Pagurus chevreuxi*, *Paguristes syrtensis*, *Galathea cenarroï*) Türkiye'nin Ege Denizi kıyıları için; 3'ü (*P. chevreuxi*, *P. syrtensis*, *G. cenarroï*) ise Türkiye kıyıları için yeni kayıtlardır.

Anahtar Sözcükler: Arthropoda, Anomura, Crustacea, Decapoda

Introduction

Anomurans belong to the crustacean decapod infra-order Anomura. They form a significant part of the marine ecosystem because of their body shapes, symbiotic relationships (1), significance on the benthic biomass (2) and activities in the food chain (3,4,5,6).

In the research area, which is the Aegean coasts of Turkey, the first study on the Anomurans was carried out by Geldiay and Kocataş (7), who reported 18 species from the coastal strip between Dikili and Bodrum. In a later study by Kocataş (8), 25 Anomuran species from the Aegean coasts were included in the list of Decapod species of the Turkish Seas. Two species were first reported from the bathyal zones of the same area (9). Thus, the number of Anomuran species from the Aegean coasts of Turkey increased to 27.

Although investigations carried out along the Aegean coasts are very recent, records of the Anomurans of Turkish coasts are rather old. In the earliest investigations, which are generally on the decapods, 14 anomuran species were reported from the Dardanelles, the Sea of Marmara and the Mediterranean Sea coasts of Turkey. Then 9 species were reported from the Bosphorus and the Sea of Marmara (13), 11 species from the Black Sea, the Sea of Marmara and the Mediterranean Sea coasts of Turkey (14), 25 species from Turkish coasts (8), 3 species from the Sea of Marmara (15) and 2 species from the Turkish Black Sea coasts (16). Consequently there were 32 Anomuran species known from the Turkish coasts. From the 28 species determined during the study period, 5 species (*G. nexa*, *G. cenarroï*,

M. tenuimama, *P. chevreuxi* and *P. syrtensis*) are new records for the Aegean coasts of Turkey and 3 species (*P. chevreuxi*, *P. syrtensis* and *G. cenarroi*) are new for the Turkish coasts.

As mentioned above, the most important investigation on Anomurans of the Turkish coasts of Aegean was carried out by Geldiay and Kocataş (7). These researchers conducted their work based on limited samplings at 7 localities between Dikili and Bodrum, and principally at İzmir Bay. Thus, more samplings are targeted so as to enlarge the research area on the Aegean coasts of Turkey. In addition, all of the early studies have been reviewed with the aim of determining the distribution of Anomuran fauna and the species present on the Turkish coasts.

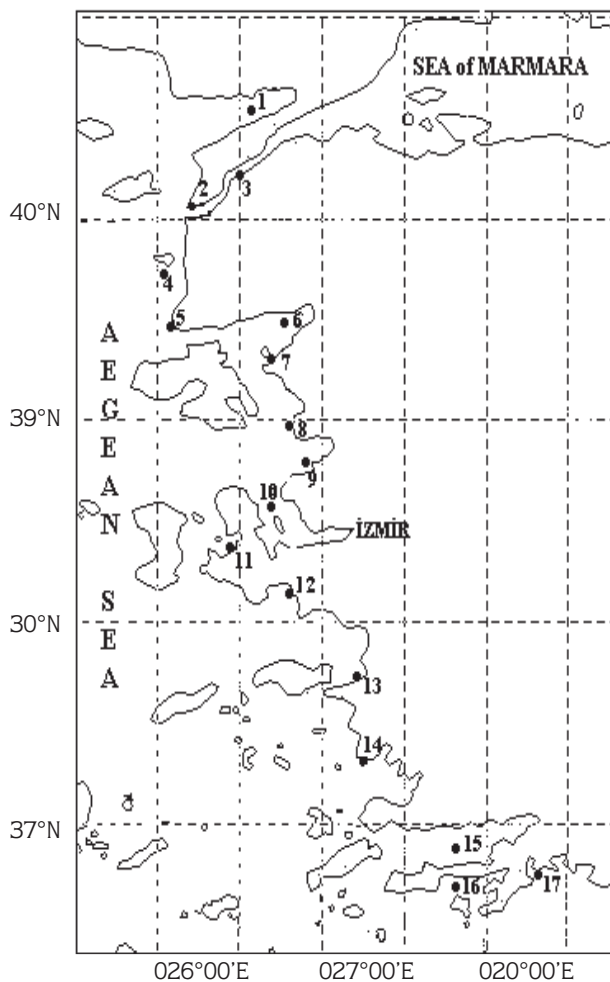


Figure 1. Sampling stations.

Materials and Methods

Anomuran specimens were collected at 17 sampling stations from the Aegean coasts of Turkey between 1987 and 1997 (Figure). The offshore samplings were carried out on board the R/V K.Piri Reis via bottom trawl, beam-trawl and dredge studies, whereas coastal samplings were performed either by diving or hand collection. A total of 79 sampling surveys were conducted. The taxonomical keys of Zariquey-Álvarez (19) and Noel (20) were used for identifying the specimens. Moreover, ERMS (18) are considered for variations in the nomenclature.

Results

A total of 79 sampling surveys were made at 17 sampling localities on the Turkish coasts of the Aegean (Figure) and 28 Anomuran species were identified from the region. The Diogenidae were represented by 6 species, the Paguridae by 10 species, the Galatheididae by 9 species and the Porcellanidae by 3 species. Five species (*G. nexa*, *G. cenarroi*, *M. tenuimama*, *P. chevreuxi* and *P. syrtensis*) are new records for the Aegean coasts of Turkey, and three species (*P. chevreuxi*, *P. syrtensis* and *G. cenarroi*) are new records for the Turkish coasts.

FAM: DIOGENIDAE

Paguristes eremita (Linné, 1767)

Material: St. 9 (2♂, 12.05.1991); St. 10 (35m., 26.10.1996, 1 ovigerous ♀; 5♀, 2♂, 38-65 m., 07.11.1997, 1 ovigerous ♀)

This species has been reported by Ostroumoff from the Marmara Sea as *Pagurus maculatus* (11), and also under the name *Paguristes oculatus* from the the Aegean and Mediterranean coasts of Turkey (7).

Paguristes syrtensis Saint Laurent, 1971

Material: St. 9 (1♂, 12.05.1991); St. 10 (1♂, 48 m., 07.11.1997); St. 14 (1♂, 4 m., 23.07.1995)

This species has been recorded from the coasts of Tunisia (21), and is also known from the Mediterranean Sea between the coasts of North Africa and Southern of Italy (20).

P. syrtensis is recorded for the first time from Turkish waters.

Clibanarius erythropus (Latreille, 1818)

Material: St. 1 (1 ♀, 1 ♂, 1.5 m., 05.07.1995); St. 2 (2 ♂, 1 m., 05.07.1995); St. 6 (1 ♀, 2 ♂, 0-1 m., 27.09.1995); St. 8 (2 ♂, 0-1 m., 07.07.1995); St. 9 (1 ♂, 18 m., 12.05.1991); St.10 (1 ♂, 1 ♀, 0.5 m., 03.03.1994; 6 ♀, 7 ♂, 0-1.5 m., 07.07.1995, 4 ovigerous ♀; 2m, 0-1.5 m., 08.05.1996; 4 ♀, 1 ♂, 0-1 m., 14.06.1995, 1 ovigerous ♀; 1 ♀, 48 m., 07.11.1997; 3 ♀, 9 ♂, 2 m., 09.05.1996); St. 12 (1 ♀, 2 ♂, 0-1.5 m., 22.06.1995); St. 13 (3 ♀, 4 ♂, 0-2 m., 14.06.1996); St. 16 (2 ♀, 1 ♂, 0-1.5 m., 20.07.1995, 1 ovigerous ♀)

This species has been reported by Ostroumoff (11) and Demir (13) as *C. misanthropus* from the Marmara Sea; it has also been reported by Geldiay and Kocataş (7) from the Aegean coasts of Turkey, and by Kocataş (8) from the Turkish coasts of the Black Sea and the Mediterranean Sea.

Dardanus arrosor (Herbst, 1796)

Material: St. 1 (1 ♂, 18-20 m., 09.06.1996); St. 16 (1 ♂, 01.07.1991)

This species has been reported from the Marmara Sea (13) under the name *Pagurus striatus*, and has also been reported by Geldiay and Kocataş (7) from the Turkish coasts of the Aegean.

Diogenes pugilator (Roux, 1829)

Material: St. 10 (1 m., 01.04.1997, 1 ovigerous ♀; 17 ♀, 12 ♂, 0-0.5 m., 14.05.1997, 1 ovigerous ♀; 12 ♀, 10 ♀, 0-0.5 m., 06.06.1997, 1 ovigerous ♀)

This species has been reported by Colombo (10) and Ostroumoff (11) under the name *D. varians* from the Marmara Sea. It has also been reported by Demir (13) and Holthuis (14) from the same sea, by Holthuis (14) and Ateş (16) from the Black Sea coasts of Turkey, by Geldiay and Kocataş (7) from the Aegean coasts of Turkey and by Kocataş (8) from the Turkish coasts of the Mediterranean Sea.

Calcinus tubularis (Linné, 1767)

Material: St. 9 (1 m., 18.06.1991, 1 ovigerous ♀)

This species has been recorded by Holthuis (14) under the name *C. ornatus* from the Turkish coasts of the Mediterranean Sea, and by Kocataş (8) from the Aegean coasts of Turkey.

FAM: PAGURIDAE

Cestopagurus timidus (Roux, 1830)

Material: St. 1 (6 ♀, 2 ♂, 0-2 m., 05.07.1995, 3 ovigerous ♀); St. 6 (4 ♀, 0-2 m., 06.07.1995); St. 7 (12 ♀, 4 ♂, 0-4 m., 06.07.1995); St. 8 (4 ♂, 1 m., 07.07.1995); St. 9 (3 ♀, 18.06.1991); St. 10 (1 ♀, 1 ♂, 0.5 m., 03.03.1994; 6 ♀, 0.5 m., 07.07.1995, 3 ovigerous ♀; 2 ♀, 1 ♂, 1-4 m., 20.09.1995, 1 ovigerous ♀; 5 ♀, 0-4 m., 08.05.1996); St. 11 (5 ♀, 2 ♂, 0.5-2.5 m., 20.09.1995); St. 12 (1 ♂, 0-1 m., 22.06.1995); St. 13 (1 ♀, 2 ♂, 0-3.5 m., 14.06.1996); St. 15 (2 ♀, 6 ♂, 4.5 m., 20.07.1995); St. 16 (2 ♀, 0-1.5 m., 20.07.1995); St. 17 (1 ♂, 1 m., 21.07.1995)

This species, represented by *Catapaguroides timidus*, has been reported by Holthuis (14) from the Turkish coasts of the Mediterranean Sea, by Kocataş (8) from the Turkish coasts of the Aegean, and by Müller (15) from the coasts of the Marmara Sea.

Anapagurus bicorniger A. Milne Edwards and Bouvier, 1892

Material: St. 10 (1 ♀, 33 m., 03.07.1997)

Anapagurus laevis (Bell, 1846)

Material: St. 3 (1 ♀, 7 m., 22.10.1997); St. 4 (1 ♀, 80 m., 03.09.1992); St. 9 (2 ♀, 2 ♂, 12.05.1991); St. 10 (1 ♂, 35 m., 24.10.1996); 7 ♀, 48 m., 07.11.1997, 2 ovigerous ♀)

Anapagurus petiti Dechancé and Forest, 1962

Material: St. 10 (2 ♀, 35 m., 24.10.1996; 1 ♀, 3 m., 03.07.1997, 1 ovigerous ♀)

Pagurus alatus Fabricius, 1775

Material: St. 1 (3 ♂, 630-680 m., 04.04.1989, 1 ovigerous ♀; 5 ♂, 630 m., 09.06.1996, 3 ovigerous ♀)

This species has been reported by Colombo (10) under the name *Eupagurus angulatus* from the Marmara Sea and by Adensamer (12) from the Mediterranean Sea coasts of Turkey. It has also been reported by Geldiay and Kocataş (7) from the Aegean coasts of Turkey.

Pagurus prideaux Leach, 1815

Material: St. 4 (1 ♂, 110 m., 03.09.1992)

This species, as *P. prideauxi*, has been reported from the Aegean coasts of Turkey (7).

Pagurus chevreuxi (Bouvier, 1896)

Material: St. 1 (1 ♀, 1 ♂, 1.5 m., 05.07.1995); St. 8 (1 ♀, 0-1 m., 07.07.1995); St. 9 (1 ♀, 2 ♂, 18.06.1991); St. 10 (1 ♀, 2 ♂, 0.5 m., 07.07.1995; 1 ♀, 0-1.5 m., 08.05.1996); St. 11 (2 ♀, 1 ♂, 0.5 m., 20.09.1995); St. 16 (2 ♀, 0.7 m., 20.07.1995)

This species is known between 1 and 25 m. in the Mediterranean Sea (20); it has also been reported by Koukouras et al. (17) from the Aegean coasts.

P. chevreuxi is recorded for the first time from the Turkish coasts.

Pagurus anachoretus Risso, 1827

Material: St. 1 (1 ♀, 4 m., 22.07.1996); St. 7 (1 ♀, 0.5-4 m., 06.07.1995); St. 9 (1 ♀, 1.5 m., 03.03.1994); St. 10 (2 ♀, 0.5 m., 07.07.1995, 1 ovigerous ♀); St. 15 (1 ♀, 4.5 m., 20.07.1995)

This species has been reported by Colombo (10) and Ostroumoff (11) under the name *Eupagurus anachoretus* from the Marmara Sea. It has also been recorded by Geldiay and Kocataş (7) from the Aegean coasts of Turkey.

Pagurus cuanensis Bell, 1846

Material: St. 9 (1 ♀, 18 m., 12.05.1991; 3 Geldiay & Kocataş, 18.06.1991); St. 11 (1 ♀, 1 Geldiay & Kocataş, 2.5 m., 20.09.1995)

This species has been reported by Colombo (10) and Ostroumoff (11) as *Eupagurus lucasi* from the Marmara Sea. It has also been reported by Geldiay and Kocataş (7) from the Aegean coasts of Turkey.

Pagurus forbesii Bell, 1845

Material: St. 9 (3 ♀, 18 m., 12.05.1991); St. 10 (1 ♀, 30 m., 02.07.1997; 1 ♀, 2 ♂, 38-65 m., 07.11.1997); St. 11 (1 ♀, 2.5 m., 20.09.1995)

This species has been reported by Ostroumoff (11) from the Marmara Sea. It has also been reported by Kocataş (8) from the Turkish coasts of the Aegean Sea and the Mediterranean Sea.

FAM: GALATHEIDAE

Galathea nexa Embleton, 1834

Material: St. 6 (1 ♀, 40 m., 21.11.1990); St. 15 (4 ♀, 3 ♂, 55 m., 14.05.1990)

This species has been reported from the Marmara Sea (11), from the Turkish coasts of the Mediterranean Sea (22) and from the Aegean coasts (17).

G. nexa is recorded for the first time from the Turkish coasts of the Aegean.

Galathea dispersa Bate, 1859

Material: St. 1 (1 ♂, 630 m., 09.06.1996); St. 10 (1 ♀, 38-65 m., 07.11.1997); St. 15 (4 ♂, 55 m., 14.05.1990)

Galathea squamifera Leach, 1814

Material: St. 1 (1 ♂, 2 m., 05.07.1995); St. 9 (1 ♀, 18 m., 12.05.1991); St. 15 (1 ♂, 4.5 m., 20.07.1995)

Galathea intermedia Lilljeborg, 1851

Material: St. 9 (5 ♀, 12.05.1991, 2 ovigerous ♀); St. 10 (3 ♀, 1 ♂, 40-60 m., 07.11.1997, 2 ovigerous ♀); St. 15 (32 ♀, 12 ♂, 55 m., 14.05.1990, 24 ovigerous ♀)

Galathea bolivari Zariquiey Álvarez, 1950

Material: St. 1 (1 ♀, 2 m., 05.07.1995); St. 7 (1 ♀, 1 ♂, 0-4 m., 06.07.1995); St. 9 (1 ♀, 12.05.1991); St. 10 (0-1 m., 14.06.1995, 1 ovigerous ♀; 1 ♂, 0.5 m., 07.07.1995; 1 ♂, 1.5 m., 20.09.1995); St. 11 (3 ♀, 2 ♂, 0-2.5 m., 20.09.1995); St. 15 (4 ♀, 5 ♂, 4.5 m., 20.07.1995, 1 ovigerous ♀); St. 16 (32 ♀, 3 ♂, 1.5-4 m., 20.07.1995, 2 ovigerous ♀)

Galathea cenarroi (Zariquiey Álvarez, 1968)

Material: St. 9 (1 ♀, 18.06.1991); St. 11 (3 ♀, 1 ♂, 1 m., 20.09.1995, 2 ovigerous ♀); St. 12 (3 ♀, 2 ♂, 0-1.5 m., 22.06.1995)

This species is known from the Mediterranean Sea (19), and has also been recorded by Koukouras et al. (17) from the Aegean coasts.

G. cenarroi is recorded for the first time from the Turkish coasts.

Munida tenuimana G.O. Sars, 1872

Material: St. 1 (8 ♀, 6 ♂, 630 m., 09.06.1996)

This species has been reported by Ostroumoff (11) from the Marmara Sea and by Koukouras et al. (17) from the Aegean coasts.

M. tenuimana is a new record from the Aegean coasts of Turkey.

Munida rutllanti Zariquiey Álvarez, 1952

Material: St. 4 (1 ♀, 80 m., 03.09.1992); St. 5 (8 ♀, 8 ♂, 320 m., 13.05.1991); St. 15 (4 ♂, 320 m., 31.08.1998); St. 16 (6 ♀, 8 ♂, 240 m., 14.09.1990; 16 ♀, 6 ♂, 240 m., 15.05.1990; 4 ♀, 9 ♂, 230-244 m., 23.05.1991, 1 ovigerous ♀)

Munida intermedia A. Milne-Edwards and Bouvier, 1899

Material: St. 1 (1 ♂, 520 m., 19.08.1987)

FAM: PORCELLANIDAE

Porcellana platycheles (Pennant, 1777)

Material: St. 1 (1 ♀, 2 m., 05.07.1995); St. 2 (2 ♀, 3 ♂, 0-1 m., 05.07.1995); St. 7 (1 ♀, 2 ♂, 0-0.5 m., 06.07.1995); St. 10 (2 ♀, 0.5 m., 03.03.1994; 9 ♀, 8 ♂, 0-1 m., 14.06.1995; 1 ♂, 1 m., 20.09.1995); St. 11 (3 ♀, 2 ♂, 0-1 m., 20.09.1995); St. 17 (1 ♂, 0.6 m., 21.07.1995)

Pisidia bluteli (Risso, 1816)

Material: St. 1 (17 ♀, 1.5-2 m., 05.07.1995, 13 ovigerous ♀; 1 ♀, 4 m., 22.07.1996); St. 2 (8 ♀, 3 ♂, 0-1 m., 05.07.1995); St. 7 (8 ♀, 3 ♂, 0-0.5 m., 06.07.1995, 2 ovigerous ♀); St. 8 (4 ♀, 1 ♂, 0-1 m., 07.07.1995); St. 9 (4 ♀, 18.06.1991, 3 ovigerous ♀); St. 10 (7 ♀, 7 ♂, 0-1 m., 14.06.1995, 1 ovigerous ♀; 16 ♀, 0-0.5 m., 07.07.1995, 4 ovigerous ♀; 4 ♀, 1 m., 20.09.1995); St. 11 (28 ♀, 0-1 m., 20.09.1995); St. 15 (2 ♀, 4.5 m., 20.07.1995); St. 17 (5 ♀, 3 ♂, 1 m., 21.07.1995)

Pisidia longimana (Risso, 1816)

Material: St. 1 (7 ♀, 2 m., 05.07.1995, 4 ovigerous ♀); St. 2 (5 ♀, 0-1 m., 05.07.1995); St. 3 (44 ♀, 33 ♂, 7 m., 22.10.1997); St. 7 (30 ♀, 3 ♂, 0-4 m., 06.07.1995, 3 ovigerous ♀); St. 9 (18.06.1991, 3 ovigerous ♀); St. 10 (2 ♀, 0.5 m., 03.03.1994, 1 ovigerous ♀; 10 ♀, 0-1 m., 14.06.1995, 5 ovigerous ♀; 6 ♀, 3 ♂, 0-0.5 m., 07.07.1995, 1 ovigerous ♀); St. 11 (3 ♀, 3 ♂, 0.5-2.5 m., 20.09.1995); St. 15 (11 ♀, 4.5 m., 20.07.1995); St. 16 (6 ♀, 2 ♂, 1.5 m., 20.07.1995, 4 ovigerous ♀); St. 17 (2 ♀, 1 ♂, 0-1 m., 21.07.1995)

This species has been reported by Ostroumoff (11) as *Porcellena Rissoi* from the Marmara Sea. It has also been reported from all of the Turkish coasts (7,8,11,14,16).

Discussion

In this study, 28 Anomuran species were identified, 6 of which belong to the Diogenidae, 10 to the Paguridae, 9 to the Galatheidae and 3 to Porcellanidae (Table).

Five species (*G. nexa*, *G. cenarroi*, *M. tenuimama*, *P. chevreuxi* and *P. syrtensis*) are new records for the Aegean coasts of Turkey, and 3 species (*P. chevreuxi*, *P. syrtensis*, *G. cenarroi*) are new records for the Turkish coasts.

Ecological distributions of the species show that *P. eremita*, *P. syrtensis*, *D. pugilator* and *P. forbesii* occur only in sandy biotopes; *P. alatus*, *P. prideaux*, *M. tenuimana*, *M. intermedia* and *G. nexa* only in muddy biotopes; *A. petiti* and *A. bicorniger* in sandy-muddy biotopes; and *C. tubularis* and *P. cuanensis* in biotopes with Posidonia. Other species have been observed in various biotopes.

As a result of studies carried out in order to review the Anomuran fauna of the Turkish seas and the distribution of species (Table), it was determined that 3 species were reported from the Black Sea, 20 species from the Sea of Marmara, 32 species from the Aegean coasts of Turkey, and 17 species from the Turkish Mediterranean, indicating the presence of 35 Anomuran species inhabiting the Turkish seas in general.

Koukouras et al. (17) reported 35 Anomuran species from the Aegean coasts, which seems to be in accordance with the 32 species known from the Turkish Aegean coasts. Consequently, it is clear that the majority of studies conducted along the Turkish coasts over the century were based mainly on inshore samplings. Examination of the bathymetrical distributions of 107 species reported from European seas (18) reveals that a significant proportion of species hitherto unrecorded from Turkish coasts are deep-sea dwellers. Therefore, it is believed that deep-sea samplings in Turkish seas and more detailed examinations along the Turkish Mediterranean will result in a more accurate count Anomuran species.

Table 1. Anomurans recorded from the Turkish waters.

Species	Black Sea	Sea of Marmara	Aegean Sea	Mediterranean Sea
DIOGENIDAE				
<i>Paguristes eremita</i> (Linné, 1767)	-	2	7,8,12	8
<i>Paguristes syrtensis</i> Saint Laurent, 1971	-	-	12	-
<i>Clibanarius erythropus</i> (Latreille, 1818)	6,8	2,5,8	7,8,12	6,8
<i>Dardanus arrosor</i> (Herbst, 1796)	-	5	7,8,12	-
<i>Dardanus calidus</i> (Risso, 1826)	-	-	7,8	-
<i>Diogenes pugilator</i> (Roux, 1829)	6,8,11	1,2,5,6,8	7,8,12	8
<i>Calcinus tubularis</i> (Linné, 1767)	-	-	8,12	6
PAGURIDAE				
<i>Cestopagurus timidus</i> (Roux, 1830)	-	9	7,8,12	6
<i>Anapagurus bicorniger</i> A. Milne Edwards & Bouvier, 1892	-	9	7,8,12	-
<i>Anapagurus petiti</i> Dechancé and Forest, 1962	-	-	8,12	-
<i>Anapagurus laevis</i> (Bell, 1846)	-	-	8,12	-
<i>Anapagurus breviaculeatus</i> Fenizia, 1937	-	5	8	-
<i>Anapagurus chiroacanthus</i> (Lilljeborg, 1856)	-	-	8	-
<i>Anapagurus longispina</i> A. Milne Edwards & Bouvier, 1900	-	-	8	-
<i>Pagurus alatus</i> Fabricius, 1775	-	1	7,8,12	3,8
<i>Pagurus prideaux</i> Leach, 1815	-	-	7,8,12	-
<i>Pagurus chevreuxi</i> (Bouvier, 1896)	-	-	12	-
<i>Pagurus anachoretus</i> Risso, 1827	-	1,2	7,8,12	6
<i>Pagurus cuanensis</i> Bell, 1846	-	1,2	7,8,12	8
<i>Pagurus forbesii</i> Bell, 1845	-	2	8,12	8
GALATHEIDAE				
<i>Galathea nexa</i> Embleton, 1834	-	2	12	4
<i>Galathea dispersa</i> Bate, 1859	-	-	7,8,12	8
<i>Galathea strigosa</i> (Linné, 1767)	-	5	-	-
<i>Galathea squamifera</i> Leach, 1814	-	1,5	7,8,12	8
<i>Galathea intermedia</i> Lilljeborg, 1851	-	5	7,8,12	6,8
<i>Galathea bolivari</i> Zariquiey Álvarez, 1950	-	-	7,8,12	6,8
<i>Galathea cenarroii</i> (Zariquiey Álvarez, 1968)	-	-	12	-
<i>Munida tenuimana</i> G.O.Sars, 1872	-	2	12	-
<i>Munida rutlantii</i> Zariquiey Álvarez, 1952	-	-	10,12	-
<i>Munida intermedia</i> A. Milne Edwards & Bouvier, 1899	-	-	10,12	-
<i>Munida rugosa</i> (Fabricius, 1775)	-	2	-	-
PORCELLANIDAE				
<i>Pisidia bluteli</i> (Risso, 1816)	-	-	7,8,12	6,8
<i>Pisidia longimana</i> (Risso, 1816)	6,11	2,6,8	7,8,12	6,8
<i>Pisidia longicornis</i> (Linné, 1767)	-	2,5	-	-
<i>Porcellana platycheles</i> (Pennant, 1777)	-	2,5,8,9	7,8,12	6,8

1- Colombo (1885); 2- Ostroumoff (1896); 3- Adensamer (1898); 4- Monod (1931); 5- Demir (1952); 6- Holthuis (1961); 7- Geldiay and Kocataş (1970); 8- Kocataş (1981); 9- Müller (1986); 10- Katağan et al., (1988); 11- Ateş (1997); 12- Present study

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