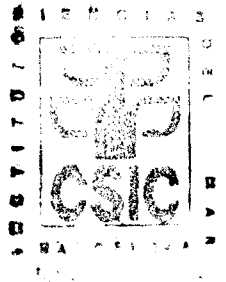


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CRUSTACEA DECAPODA FROM THE CRUISES OF "CALYPSO" 1955, 1960, IN THE GREEK WATERS

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Introduction

The French oceanographic vessel "Calypso" collected benthic samples from the Aegean Sea twice, first in 1955 and the later in 1960. During the cruise of 1955, samples were collected from 152 sampling stations, located mainly in the South Aegean Sea. The information concerning decapods are included, among others, in the publications by Pérès & Picard (1958) and Jacquotte (1962). These authors obviously examined a part of the decapod material and reported the presence of 36 species (7 Natantia, 5 Macrura Reptantia, 8 Anomura and 16 Brachyura). During the cruise of 1960, samples were taken from 122 sampling stations in the N. Aegean Sea. Only few information exists on the collected decapods, given by Jacquotte (1962), who records the presence of 8 species (2 Anomura and 6 Brachyura).

Materials and Methods

The decapod material we examined, comes from 77 of the 152 sampling stations of the cruise of 1955 in the S. Aegean and from 47 of the 122 stations of the cruise of 1960 in the N. Aegean Sea. This material, which included 550 individuals, was kindly offered to us by Dr. Helmut Zibrowius (Station Marine d'Endoume, Marseille). A small part of the decapod material collected by "Calypso" in the Aegean Sea is deposited in the "Museum National d' Histoire Naturelle" in Paris.

Presentation of the examined material

The examined 550 individuals were found to belong to 79 decapod species, 19 of which were Natantia, 3 Macrura Reptantia, 13 Anomura and 44 Brachyura. These species are given in table 1. Among these species, the 31 of the 36 species reported by Pérès & Picard (1958) and Jacquotte (1962) are included.

The presence of the following 10 species, out of the 79 identified ones, gives new taxonomic, zoogeographical and habitat information on the decapod fauna of the Aegean Sea.

Alpheus platydactylus Coutière, 1897.

13 individuals of this species were found in various localities in the Aegean Sea, on corraligenous or sand-silty substrates at depths from 45 to 180 m. In some cases, this species was found together with the species *A. macrocheles* and *A. dentipes*. After the examination of this material we think that the species *A. platydactylus* and *A. macrocheles* are well distinguished from each other on the basis of their morphological features given by Coutière (1897), Forest (1965) and Crosnier & Forest (1966, 1973). No transitional forms of these species were found. So, we assumed that they are two different species which can coexist. That means that *A. platycheles* does not seem to replace *A. macrocheles* in deeper waters as Coutière (1897) suggested. Up to this date, this species was reported only from the Mediterranean near Ibiza in Balearic Islands, where it was found by Forest (1965), in depths between 135 and 200 m. According to Holthuis (1951) and Forest (1965) it was also identified in Cape Verde, Azores and Madeira Islands, in depths between 55 and 75 and 600 m. This is the first record of this species from the Eastern Mediterranean.

Automate branchialis Holthuis & Gottlieb, 1958.

Only one individual of this species was found between Paros and Naxos Islands, in a depth of 46 m, on a substrate consisting of gravels and algae. It has been previously found on the coasts of Israel (18-73 m) (Holthuis & Gottlieb, 1958), in the South-Western Adriatic Sea, on sandy-muddy bottoms, 18 m deep (Froglia, 1975) and on the coasts of Malta (Stevcic, 1979). Its collection for the first time in the Aegean Sea supports the aspect that it is a true Mediterranean species (Froglia, 1975).

Athanas amazone Holthuis, 1951.

One individual from Patraikos Gulf (48 m deep, silty substrate). It was known in the Mediterranean from numerous localities off the coasts of Israel (Holthuis & Gottlieb, 1958), from the gulf of Lion (Crosnier & Forest, 1973) and from an indefinite location of the Aegean Turkish coasts (Kocatas, 1981). Recently, it was found in the gulf of Naples and the gulf of Venice (Froglia & Argenti, in press).

Table 1. Decapod species found in the examined material.

N A T A N T I A

- Alpheus dentipes* Guérin, 1832
Alpheus glaber (Olivi, 1792)
Alpheus macrocheles (Hailstone, 1835)
Alpheus platydactylus Coutière, 1897
Athanas amazone Holthuis, 1951
Athanas nitescens (Leach, 1814)
Automate branchialis Holthuis & Gottlieb, 1958
Eualus occultus (Lebour, 1936)
Palaemon xiphias Risso, 1816
Pandalina brevirostris (Rathke, 1843)
Periclimenes scriptus (Risso, 1822)
Pontocaris cataphractus (Olivi, 1792)
Pontonia flavomaculata Heller, 1864
Pontonia pinnophylax (Otto, 1821)
Processa macrophthalma Nouvel & Holthuis, 1957
Processa modica Williamson, 1979
Solenocera membranacea (Risso, 1816)
Synalpheus gambarelloides (Nardo, 1947)
Thoralus cranchii (Leach, 1817)

MACRURA REPTANTIA

- Callianassa tyrrhena* (Petagna, 1792)
Scyllarus pygmaeus (Bate, 1888)
Upogebia talismani (Bouvier, 1915)

ANOMURA

- Anapagurus bicorniger* A. Milne Edwards & Bouvier, 1892
Cestopagurus timidus (Roux, 1830)
Clibanarius erythropus (Latreille, 1818)
Dardanus arrosor (Herbst, 1796)
Galathea intermedia Lilljeborg, 1851
Galathea squamifera Leach, 1814
Munida curvimana A. Milne Edwards & Bouvier, 1894

- Munida iris rutilanti* Zariquiey Alvarez, 1952
Pagurus anachoretus Risso, 1827
Pagurus cuanensis Bell, 1845
Pagurus excavatus (Herbst, 1791)
Pagurus prideaux Leach, 1815
Pisidia longimana (Risso, 1816)

BRACHYURA

- Achaeus cranchii* Leach, 1817
Atelecyclus rotundatus (Olivi, 1792)
Bathynectes longipes (Risso, 1816)
Dromia personata (Linnaeus, 1758)
Ebalia deshayesi Lucas, 1846
Ebalia granulosa H. Milne Edwards, 1837
Ebalia nux A. Milne Edwards, 1883
Ebalia tuberosa (Pennant, 1777)
Ergasticus clouei Studer, 1883
Ethusa mascarone (Herbst, 1785)
Eurynome aspera (Pennant, 1777)
Goneplax rhomboides (Linnaeus, 1758)
Inachus communissimus Rizza, 1839
Inachus dorsettensis (Pennant, 1777)
Inachus leptochirus Leach, 1817
Inachus parvirostris (Risso, 1816)
Inachus phalangium (Fabricius, 1775)
Inachus thoracicus Roux, 1830
Liocarcinus arcuatus (Leach, 1814)
Liocarcinus corrugatus (Pennant, 1777)
Liocarcinus depurator (Linnaeus, 1758)
Liocarcinus maculatus (Risso, 1827)
Liocarcinus zariquieyi (Gordon, 1968)
Lissa chiragra (Fabricius, 1775)
Macropodia linaresi Forest & Zariquiey Alvartz, 1964
Macropodia longipes (A. Milne Edwards & Bouvier, 1899)
Macropodia rostrata (Linnaeus, 1761)
Medorippe lanata (Linnaeus, 1767)
Merocryptus boletifer A. Milne Edwards & Bouvier, 1894
Monodaeus guinotae Forest, 1976

Palicus caronii (Roux, 1830)
Paractaea monodi Guinot, 1969
Parthenope expansa (Miers, 1879)
Parthenope macrochelos (Herbst, 1790)
Parthenope massena (Roux, 1830)
Pilumnus spinifer H. Milne Edwards, 1834
Pirimela denticulata (Montagu, 1808)
Pisa armata (Latreille, 1803)
Pisa corallina (Risso, 1816)
Pisa muscosa (Linnaeus, 1758)
Pisa nodipes Leach, 1815
Portumnus latipes (Pennant, 1777)
Xantho granulicarpus Forest, 1953
Xantho pilipes A. Milne Edwards, 1867

Scyllarus pygmaeus (Bate, 1888).

8 individuals from various localities of the N. and S. Aegean Sea (37-90 m deep, coralligenous bottoms and *Posidonia* meadows). It was known from the NE coasts of Rhodos Island (Lewinsohn, 1974). Its presence has been also reported from the coasts of Cyprus and Israel, as well as from various localities of the Adriatic and Western Mediterranean (Forest & Holthuis, 1960; Frogli, 1976; Lewinsohn, 1974).

Upogebia talismani Bouvier, 1915.

Four individuals from N. coasts of Limnos Island, 100 m deep. This species was known in the Mediterranean only from the coasts of Lybia (Saint Laurent, 1971), coasts of Malta (Stevcic, 1979) and Rhodos Island (Thessalou-Legakis, 1986). Its presence in the N. Aegean Sea extends significantly its northern limit of distribution.

Liocarcinus zariguieyi (Gordon, 1968).

Four individuals from Pagasitikos Gulf (70 m deep, silty substrate), between Tinos and Andros Islands (45 m deep, coralligenous bottom) and between Paros and Naxos Islands (45 m deep, sandy-silt substrate). The only known report of this species from the Aegean Sea is that by Lewinsohn (1976), from the coasts of Rhodos. It is known from various localities of the Mediterranean under the name *M. pussilus* (Manning & Frogli, 1982).

Monodaeus guinotae Forest, 1976.

Five individuals from various localities of the N. Aegean Sea, in depths between 100 and 150 m, on sandy-silt bottoms. The presence of this species in the N. Aegean has been reported by Türkay & Koukouras (1988) from the south coasts of Sithonia Peninsula, in depths between 200 and 550 m. Pérès & Picard (1958) recorded the presence of *M. couchi* in the SW coast of Kea Island in depths between 70 and 80 m. In our opinion it must be *M. guinotae*, the only *Monodaeus* species present in the material we examined. Furthermore, in our large decapod collections coming from various areas off the coasts of Crete, only individuals of the species *M. guinotae* have been found. So, it seems possible that *M. couchi* does not live at least in the eastern basin of the Mediterranean. The latter may be an Atlantic species that is confined west of the central Mediterranean. However, further studies are needed to support this assumption.

Paractaea monodi Guinot, 1969.

One individual from the Gulf of Kalamata (38-40 m deep, on biogenic detritus). This is the first record of this species from the Aegean Sea. It has been found in various localities of the Western and Eastern Mediterranean under the name *Actaea rufopunctata* (Moncharmont, 1969; Zariquiey Alvarez, 1968; Ramadan & Dowidar, 1976 etc.).

Palicus caronii (Roux, 1830).

6 individuals from various localities of the Aegean (50-130 m deep, on coralligenous substrates). This species was known in the E. Mediterranean only from the coasts of Israel (Holthuis & Gottlieb, 1958) and Saronikos Gulf in the S. Aegean Sea (Vamvakas, 1971). It is also known from the Adriatic Sea and the Western Mediterranean (Zariquiey Alvarez, 1968; Stevcic, 1969; etc.).

Inachus parvirostris (Risso, 1816).

31 individuals from various localities of the Aegean Sea, in depths between 60 and 160 m, mainly on sand-silty and silty or coralligenous substrates. It is distributed in the Aegean Sea from Cape Matapan (Tenaron) to the south coasts of Chalkidiki Peninsula. Manning & Froglià (1982) have given its distribution in the Adriatic and the western basin of the Mediterranean. This is the first record of this species from the Aegean and the E. Mediterranean, but because it was confused with *I. dorsettensis* (Manning & Froglià, 1982), it is possible that it has been misidentified from other areas.

Taking into account the new species added after the examination of the material collected by "Calypso", the number of the decapods in the Aegean Sea

reaches the 225 species. However, this number is much smaller than the number of the Mediterranean decapods which reach the 325 species.

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