

## BENTHIC FAUNA OF THE EVVOIA COAST AND EVVOIA GULF

### IV. *MACRURA REPTANTIA* (CRUSTACEA, DECAPODA)

by

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**Summary:** *The Zoology Laboratory of the University of Thessaloniki has undertaken an investigation related to the benthic fauna of the Evvoia coast and Evvoia Gulf, since 1970. The present paper deals with the species of MACRURA REPTANTIA (Crustacea, Decapoda) that have been found in the above areas. There have been examined 82 stations; 9 species of Macrura Reptantia were found, two of which: Callianassa (Callichirus) pestai De Man and Upogebia tipica (Nardo) are recorded for the first time as members of the Greek fauna; the former, is recorded for the first time to exist in the area of the East Mediterranean.*

#### INTRODUCTION

Within the scope of our efforts towards a better knowledge of the—for the most part unknown—benthic fauna of Greece, the Laboratory of Zoology of the Aristotelian University of Thessaloniki has initiated in 1970 a programme for the investigation of the Evvoia coasts and Evvoia Gulf. The area under investigation is almost totally unexplored in spite of the fact that both its position and morphology invest this area with particular interest.

The present study refers to the total of 9 species of *Macrura Reptantia* collected from the 82 stations of the area under investigation. Two of these species have never been recorded as members of the Greek fauna before, and in the case of *Callianassa (Callichirus) pestai* De Man, in particular, we have not been able to find any record of its occurrence in the area of the East Mediterranean (east of 20° E). In presenting each of the species in question, details are given for all of them about their distribution in Greek waters, as well as, information of mainly ecological nature.

For some of the Decapoda we have asked Prof. L. B. Holthuis'

opinion, which was kindly given to us and for which we would like to thank him.

#### MATERIAL AND METHODS.

141 specimens of 9 of the species found, were collected from 82 stations of the area investigated. The specimens in question were preserved mostly in 80% alcohol with a small amount of glycerine, and have been placed in the Museum of the Zoology Laboratory of the University of Thessaloniki. The material in question was collected by means of free diving, fishing nets, dredge, and fishing boats.

### MACRURA REPTANTIA

#### NEPHROPIDAE

##### *Homarus gammarus* (Linnaeus, 1758)

*Homarus vulgaris*, Bouvier, 1940, p. 56, fig. 28, 44, 49.

*Homarus gammarus*, Holthuis & Gottlieb, 1958, p. 115.-Bini, 1965, p. 284.

Material: E.<sub>42</sub>, 1 ♂. L of carapace, 130 mm. Collected from a fissure in a shoreline rock, at a depth of 3 m.

Greece: Used to be fished together with *Palinurus elephas* in the area of Skiathos and Syros at a ratio of 1‰ — according to the information furnished Apostolides — as well as at Thasos - according to written records left by Aristotle - (THOMPSON 1912). Fishmarket of Athens (ATHANASSOPOULOS 1917). Near Rhodes (MALDURA 1938). Aegean Sea (BELLOC 1948, BINI 1965). Thermaikos and Evvoia Gulfs (KOUKOURAS 1972). At 55 localities in Aegean and Ionian Seas (MORAİTOPOULOU-KASIMATI 1973). Although it has only been caught from the st. E.<sub>42</sub>, fishermen have informed us that it is fished in the areas of the stations: E.<sub>13</sub>, E.<sub>31</sub>, E.<sub>33</sub>, E.<sub>34</sub>, E.<sub>39</sub>, E.<sub>45</sub> and E.<sub>46</sub>. This species is often found in the fishmarket of Chalkis.

##### *Nephrops norvegicus* (Linnaeus, 1758)

*Nephrops norvegicus*, Athanassopoulos, 1917, p. 32, pl. 1 fig. 8. - Pesta, 1918, p. 183, fig. 58. - Bouvier, 1940, p. 57, fig. 5, pl. 2 fig. 1.

Material: S.E.<sub>73</sub>, 1 ♂; N.E.<sub>79</sub>, 2 ♂; N.E.<sub>81</sub>, 2 ♀. Lm of carapace ♂, 60 mm. Lm of carapace ♀, 65 mm. One ♀ ovigerous with approximately

1,200 eggs. Collected from the Circalittoral zone, at a depth of 80-100 m, from a mud bottom.

Greece: Phaleron, Saronikos Gulf (ATHANASSOPOULOS 1917). Aegean Sea (KARLOVAC 1953, BINI 1965). Gulfs of Thessaloniki (Thermaikos) and Evvoia (KOUKOURAS 1972). According to the information furnished by fishermen this species is also fished in many other parts of Greece, such as the gulfs of Toroneos (Kassandras), Korinthiakos, Messiniakos etc.

## PALINURIDAE

### *Palinurus elephas* (Fabricius, 1787)

*Palinurus vulgaris*, Heller, 1863, p. 119, pl. 6 fig. 8. - Carus, 1885, p. 487. - Bouvier, 1940, p. 80, fig. 59, 60, 61A-B.

Material: E.<sub>13</sub>, 1 ♂; E.<sub>33</sub>, 1 ♂; E.<sub>42</sub>, 1 ♂ 1 ♀. Lm of carapace ♂, 110 mm. L of carapace ♀, 115 mm. Collected from fissures in precipitous rocks, at a depth of 3-5 m.

Greece: Island of Syros (GUERIN 1832). Skiathos; Syros; also mentioned by Aristotle in the area known as Sigeum (Siggitikos Gulf?) and the peninsula of Athos - Mt. Athos - (THOMPSON 1912). Saronikos Gulf (ATHANASSOPOULOS 1924). The Islands of Skyros and Kyra Panagia (ATHANASSOPOULOS 1926). Islands of Greece (SANTUCCI 1927-30). The Islet of Fournoi near Samos; the Islet of Levitha (= Levita) in the Dodecanese; Patmos; Leros; Kos; Chalki; Tilos (= Piskopi) (MALDURA 1838). The Islet of Chalki close to Rhodes (TORTONESE 1947). The Dodecanese and the Island of Corfou (= Kerkyra) (BELLOC 1948). Gulf of Thessaloniki (Thermaikos) (KOUKOURAS 1972). At 55 localities in Aegean and Ionian Seas (MORAITOPOULOU - KASSIMATI 1973). According to the information obtained by fishermen, the species is also fished in the area of the stations E.<sub>31</sub>, E.<sub>34</sub>, E.<sub>39</sub>, E.<sub>45</sub> and E.<sub>46</sub>. This species is often found in the fishmarket of Chalkis.

## SCYLLARIDAE

### *Scyllarus arctus* (Linnaeus, 1758)

*Scyllarus arctus*, Heller, 1863, p. 195, pl. 6 fig. 7. - Pesta, 1918, p. 172, fig. 56. - Bouvier, 1940, p. 89, fig. 62, 63. - Zariquiey Alvarez, 1968, p. 218, fig. 86c, 87a, b.

Material: E.<sub>19</sub>, 1 ♀. L of carapace, 35 mm. Ovigerous with approximately 3,000 eggs. Collected from the Infralittoral zone, at a depth of

5 m, from a bottom consisting of large pebbles, in water of low salinity.

Greece: Lakonikos Gulf (GUERIN 1832). Phaleron, Saronikos Gulf (ATHANASSOPOULOS 1917, 1921). West of Crete 35°50' N 21°30' E; Gulf of Aegina 37°52' N 23°09' E; North Aegean 40°02' N 25°55' E, 38°49' N 25°09' E & 38°13' N 24°48' E; South Aegean 37° 52' N 26°22' E, 36°12' N 27°16' E & 35°59' N 28°14' E (STEPHENSEN 1923). Rhodes (TORTONESE 1947). Aegean Islands; Rhodes; Kos (BELLOC 1948). Harokopio (gulf of Messinia) 36°51'05'' N 21°57'30'' E, «Calypso» st. 733; Cape Lithion (Crete) 34°54'42'' N 24°45' E, «Calypso» st. 737; Cape Kafireus (Evvoia) 38°09'30'' N 24°36'55'' E, «Calypso» st. 795 (PERES & PICARD 1958). Gulfs of Evvoia and Thessaloniki (Thermaikos) (KOUKOURAS 1972).

### *Scyllarides latus* (Latreille, 1803)

*Scyllarus latus*, Heller, 1863, p. 198.

*Scyllarides latus*, Pesta, 1918, p. 169, fig. 55. - Bouvier, 1940, p. 88, pl. 3 fig. 5. - Holthuis & Gottlieb, 1958, p. 55, pl. 1 fig. 3.

Material: E.<sub>33</sub>, 1 ♀. L of carapace, 90 mm. Collected from the Infralittoral zone, at a depth of 5 m, from a bottom consisting of large pebbles.

Greece: Lakonikos and Saronikos (Aegina) Gulfs and the Island of SYROS (GUERIN 1832). Rhodes (MALDURA 1938, TORTONESE 1947, 1947a). Greek waters; Rhodes (BELLOC 1948). Gulf of Thessaloniki (Thermaikos) (KOUKOURAS 1972).

## AXIIDAE

### *Calocaris macandreae* Bell, 1846

*Calocaris macandreae*, Pesta, 1918, p. 191, fig. 59. - Bouvier, 1940, p. 96, pl. 4 fig. 1, 2. - Zariquiey Alvarez, 1968, p. 225, fig. 88b.

Material: N.E.<sub>79</sub>, 1 ♂. L of carapace, 11 mm. Collected from the Circalittoral zone, at a depth of 80 m, from a mud bottom.

Greece: The only known report of this species in connection with Greece was from West Saronikos Gulf —area of Epidaurus— (VAMVAKAS 1970, 1971).

## CALLIANASSIDAE

### *Callianassa (Callichirus) pestai* De man, 1928 (Fig. 1)

*Callianassa (Callichirus) pestai*, Zariquiey Alvarez, 1968, p. 229, 230.

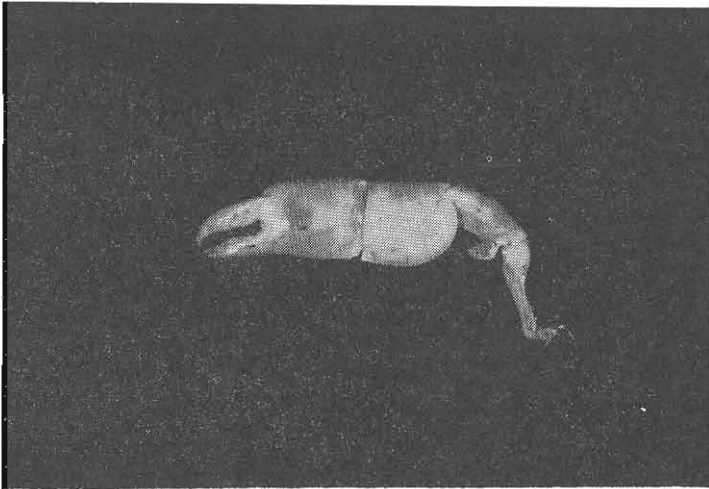


Fig. 1. *Callianassa pestai*; Larger first pereopod in lateral view; specimen from the st. E<sub>42</sub>



Map showing the sampling stations of the Evvoia coast and Evvoia gulf

Material: E.<sub>42</sub>, 1 ♀ ovigerous with approximately 200 eggs. L of carapace, 21 mm. Collected from the Infralittoral zone, at a depth of 4 m, from a bottom consisting of sand and large pebbles joined together by means of various plant and animal organisms.

Greece: Not only the species is reported for the first time in Greece, but to the best of our knowledge, there is no other report in connection with it from any part of the East Mediterranean.

#### **Upogebia pusilla** (Petagna, 1792)

*Gebia littoralis*, Heller, 1863, p. 205, pl. 5 fig. 12-15. - Carus, 1885, p. 450.  
*Upogebia littoralis*, Pesta, 1918, p. 197, fig. 61. - Bouvier, 1940, p. 107, fig. 71.

*Upogebia pusilla*, Lewinsohn & Hothuis, 1964, p. 54.

Material: E.<sub>17</sub>, 3 ♂ 1 ♀; E.<sub>21</sub>, 2 ♂ 2 ♀; S.E.<sub>78</sub>, 2 ♀. Lm of carapace ♂, 19 mm. Lm of carapace ♀, 20 mm. Collected from the Infralittoral zone, at a depth of 5-10 m, from a bottom consisting of mud mixed with sand. At st. E.<sub>17</sub>, water of low salinity.

Greece: Gulf of Argolis (Argolikos) (GUERIN 1832). Coasts of Crete (LUCAS 1853, RAULIN 1870). In the area of Port-Parekhia of the Island of Paros, «Calypso» st. 824 (PERES & PICARD 1958). Porto Lagos, Thraki (HOLTHUIS 1961). Gulf of Thessaloniki (Thermaikos) (KOUKOURAS 1972).

#### **Upogebia tipica** (Nardo, 1869)

*Upogebia tipica*, Holthuis & Gottlieb, 1958, p. 65. - Zariquiey Alvarez, 1968, p. 231.

Material: E.<sub>17</sub>, 4 ♂ 8 ♀; E.<sub>21</sub>, 4 ♂ 9 ♀; S.E.<sub>77</sub>, 5 ♂ 7 ♀; S.E.<sub>78</sub>, 16 ♂ 13 ♀; N.E.<sub>79</sub>, 10 ♂ 16 ♀; N.E.<sub>82</sub>, 8 ♂ 17 ♀. Lm of carapace ♂, 23 mm. Lm of carapace ♀, 22 mm. Collected from the Infralittoral zone, at a depth of 5-50 m, from a bottom consisting of mud or mud mixed with sand.

Greece: This is the first time that this species is found in Greece. In the East Mediterranean it has been only found in the coasts of Egypt and Israel. (HOLTHUIS & GOTTLIEB 1958).

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ΠΕΡΙΛΗΨΙΣ

ΒΕΝΘΙΚΗ ΠΑΝΙΣ ΤΩΝ ΑΚΤΩΝ ΤΗΣ ΕΥΒΟΙΑΣ  
ΚΑΙ ΤΟΥ ΕΥΒΟΪΚΟΥ ΚΟΛΠΟΥ

IV. *MACRURA REPTANTIA* (CRUSTACEA, DECAPODA)

ὁ π ὀ

Μ. ΚΑΤΤΟΥΛΑ καὶ ΑΘ. ΚΟΥΚΟΥΡΑ

(*Ἐργαστήριον Ζωολογίας Πανεπιστημίου Θεσσαλονίκης*)

Ἐξετάζονται τὰ *MACRURA REPTANTIA* (Crustacea, Decapoda) τῆς βενθικῆς πανίδος τῶν ἀκτῶν τῆς Εὐβοίας καὶ τοῦ Εὐβοϊκοῦ κόλπου, ἐντὸς τῶν πλαισίων τῆς ἐρεῦνης τὴν ὁποίαν διενεργεῖ τὸ Ἐργαστήριον Ζωολογίας τοῦ Πανεπιστημίου Θεσσαλονίκης, ἀπὸ τοῦ ἔτους 1970. Ἐκ τῶν 82 ἐν συνόλῳ γενομένων σταθμῶν, ἀλιεύθησαν 141 ἄτομα, ἀνήκοντα εἰς 9 εἶδη. Δύο ἐκ τῶν εἰδῶν τούτων ἦσαν πρότερον ἄγνωστα διὰ τὴν πανίδα τῆς Ἑλλάδος, ἐνὸς δὲ ἐξ αὐτῶν ἦτοι τοῦ *Callianassa* (*Callichirus*) *pestai* De Man, δὲν γνωρίζομεν ἄλλας ἀναφορὰς διὰ τὴν Ἀνατολικὴν Μεσόγειον. Τὴν παρουσίαν ἐκάστου εἴδους, συνοδεύει λεπτομερὴς παρέθεσις ὄλων τῶν κατὰ καιροὺς περιοχῶν ἀνευρέσεώς του ἐντὸς τοῦ Ἑλλαδικοῦ χώρου, ὡς καὶ οἰκολογικαὶ τινὰ καὶ βιολογικαὶ πληροφορίες.