

Communication

On the Finding of the Rare Crab *Paragalene longicrura* (Nardo, 1868) (Crustacea, Decapoda, Brachyura, Progeryonidae) from Thermaikos Gulf, Northwest Aegean Sea, Greece

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Abstract: The finding of a rare crab, *Paragalene longicrura*, is herein recorded from Thermaikos Gulf. This constitutes the northmost record of the species in Greek waters. The species is only known from sporadic records in the eastern Mediterranean basin. Ecological remarks on the habitat of *P. longicrura* and other decapod species are described for the first time for the Mediterranean.

Keywords: decapoda; brachyura; rare species; biodiversity; Aegean Sea

1. Introduction

It is well acknowledged that the Mediterranean Sea is a biodiversity hotspot where 309 different native decapod species are found [1]. Also, during the last years more than 86 non-indigenous decapod species have been introduced with many different vectors [1]. Although the Mediterranean Sea is bordered by some 21 countries, basic biological and distributional knowledge is still absent or very limited for many species [2].

Currently, *Paragalene* (Kossmann, 1878) includes two rare species, *Paragalene danieleae* (Tavares and Melo, 2010) from the western Atlantic and *Paragalene longicrura* (Nardo, 1868) from the eastern Atlantic [3] as well as the west Mediterranean according to sporadic records [4–6]. See Gönülal et al. [7] for the most updated information on Mediterranean occurrences. In Greek waters, occurrences of these species have been reported only from Kastelorizo [8] and Rhodes [9] islands in the Levantine and south Aegean Seas, respectively. Also, there is one report off Skyros Island in the north Aegean Sea [10], but not in the Thermaikos Gulf [11]. This study presents the first record of *P. longicrura* in the Thermaikos Gulf, being the third report of this species in Aegean Sea and the fourth in Greek territorial waters. Also, some ecological notes on the species' habitat and co-occurrence with other decapod species—most being reported for the first time for the Mediterranean Sea—are discussed.

2. Results

Species identification was based on the literature [3,7–10]. The carapace length (CL) was 37.47 mm, the carapace width (CW) was 45.73 mm, and the wet weight (W) was 37.74 g. The specimen was caught at a depth range of 69.5 to 72 m, over a hard bottom with patches of algal mats. *P. longicrura* was caught with other decapod species, namely the Brachyura *Calappa granulata* (Linnaeus, 1758), *Dromia personata* (Linnaeus, 1758), *Homola barbata* (Fabricius, 1793), *Liocarcinus corrugatus* (Pennant, 1777), *Pisa armata* (Latreille, 1803), and *Pisa tetraodon* (Pennant, 1777), as well as the Anomura

Dardanus arrosor (Herbst, 1796) and *Dardanus calidus* (Risso, 1827), and the spiny lobster *Palinurus elephas* (Fabricius, 1787) (Figure 1).



Figure 1. Male *Paragalene longicrura* (Nardo, 1868) from the Thermaikos Gulf, northwest Aegean Sea, Greece. Carapace length (CL) 37.47 mm, carapace width (CW) 45.73 mm.

3. Discussion

This finding is the northmost and westmost record of the species in Greek waters. The specimens from the Thermaikos Gulf occur in hard bottom regions, as described in earlier studies [4,9]; however, some individuals were caught at muddy substratum [7]. The present study enriches the existing knowledge on the species' distribution and ecology in the Aegean Sea by providing data on an important distribution extension to the northwest Aegean and on the species' habitat and co-occurrence with other decapod species, most of them being reported for the first time, such as *H. barbata*, *P. armata*, *P. tetraodon*, *D. arrosor*, *D. calidus*, and *P. elephas* [10].

4. Materials and Methods

One male *P. longicrura* was caught at the west coast of the Thermaikos Gulf (40°05'09.0" N, 23°17'28.0" E) by tangle nets with a 36-mm mesh size from knot to knot.

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Conflicts of Interest: The authors declare no conflict of interest.

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