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THE CRUSTACEA DECAPODA OF CYPRUS

by

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and

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An account of the species of Crustacea Decapoda so far known from Cyprus, based on (1) material collected during the 1967-1970 Hebrew University - Smithsonian Institution Joint Program "Biota of the Red Sea and the Eastern Mediterranean", (2) Cyprus material from other sources, and (3) published records of Cyprus Decapoda.

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INTRODUCTION (by L. B. Holthuis)

When on 25 May 1983 Prof. Dr. Chanan Lewinsohn of Tel-Aviv University, Israel, passed away at the age of 56 years, he left a few unfinished manuscripts, one of which dealt with the Decapod Crustacea of Cyprus collected there during various expeditions. Most of these expeditions formed part of the Hebrew University - Smithsonian Institution Joint Program "Biota of the Red Sea and the Eastern Mediterranean" (see Por, Steinitz, Ferber &

Aron, 1972). During 1967-1970 the Hebrew University of Jerusalem, Tel-Aviv University, the Sea Fisheries Research Station of Haifa and individual scientists cooperated under this project. All Decapod material obtained in the course of this program was identified by Prof. Lewinsohn and a complete list was found among his notes. After the death of Prof. Lewinsohn this list was checked against the material by Mr. Alex Shlagman, who corrected the few minor errors and omissions. I am most thankful to Mr. Shlagman for carrying out this thankless task.

As so little is known about the Decapod fauna of Cyprus, it seemed useful to publish this list. To Prof. Lewinsohn's enumeration I have added records of Decapod material from Cyprus recently received by the Rijksmuseum van Natuurlijke Historie, Leiden. Also I have tried to compile all the literature dealing with Cyprus Decapoda, and have included in the present text references to the species mentioned therein. In my search for Cyprus literature I received the most cordial help from Mrs. M. Hadjichristophorou of the Department of Fisheries, Nicosia, Cyprus. It is hoped that in this way the present paper will give an up to date account of our present knowledge of the Cyprus Decapoda.

The text is mostly written by myself, and I also assume the responsibility for the nomenclature used.

The following abbreviations have been adopted in the present paper: BT, beam trawl; Dec., Decapoda; Dg, dredge; G, Emery grab (1/20 square meter area); HUI, Hebrew University of Jerusalem; ODg, Ockelmann detritus sledge; RDg, rectangular dredge; RMNH, Rijksmuseum van Natuurlijke Historie, Leiden; SFERS, Sea Fisheries Research Station, Haifa; SLM, field numbers of the Hebrew University-Smithsonian Institution joint Program on the Biota of the Eastern Mediterranean (SLMB is the lab no. of the sample); TAU, Tel-Aviv University, Zoology Department. The extent and location of the numbered and lettered off-shore profiles on which collections were made are shown on map 1.

HISTORIC REVIEW

The first records of Decapod Crustacea from Cyprus were those published by Heller (1863) in his monograph of the south-European stalk-eyed Crustacea. Six marine and one freshwater species were mentioned by Heller from Cyprus, all collected there by Dr. Th. Kotschy. Unger & Kotschy (1865) in their book on Cyprus mentioned four marine Decapoda and the freshwater crab *Potamon potamios cyprion* (as *Thelphusa fluviatilis*). This freshwater

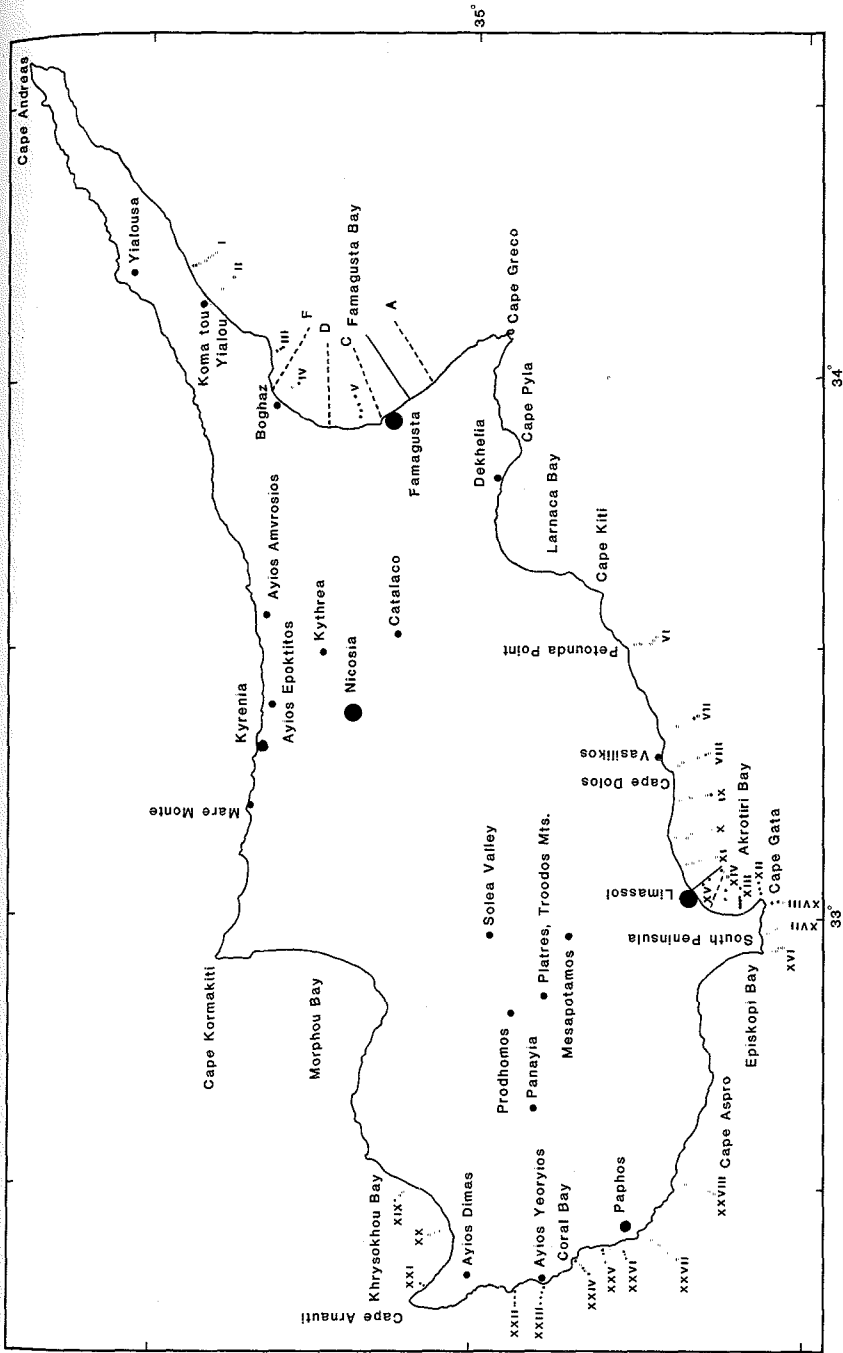


Fig. 1. Map of Cyprus, showing localities mentioned in the text (adapted from Por, Steinitz, Ferber & Aron, 1972, map 2).

crab was also reported upon by Plateau (1884) and several later authors. Plateau (1884) also mentioned a *Dromia* from Cyprus. In his report on the Decapoda collected by the "Pola" in the eastern Mediterranean, Adensamer (1898) listed six pelagic stations in the Cyprus area (34°-36°N, 32°-35°E) where the planktonic *Lucifer typus* was found and one deep bottom station (Sta. 175, with a depth of 315 m) with *Parapenaeus*, *Ebalia nux* and *Ergasticus*. The "Pola" was the only plankton and deep sea expedition in the area of which the Decapoda have been studied, and of the four species taken, only the commercially important *Parapenaeus* has been reported again from the island area. Until 1961 only 12 species of Decapoda were known from Cyprus: 2 Penaeoidea, 1 Caridean, 1 Oxyrynch crab, 1 Oxystome crab, 3 Grapsids, 2 Xanthids, 1 Potamid and 1 Portunid. In 1961 Fodera added 9 species to the list (2 Aristeids, 1 Palaemonid, 1 Scyllarid, 1 Palinurid, 1 Pagurid, 1 Majid and 2 Portunids). In 1969 Demetropoulos & Neocleous again published a list of the Cyprus Decapoda and brought the total up to 36 species of marine Decapoda (and 2 Stomatopoda).

The present explorations increased the number of known Cyprus Decapoda threefold as 114 species are now known (39 Macrura, 15 Anomura and 60 Brachyura).

LIST OF THE SPECIES

Suborder PENAEIDEA Sergestidae

***Lucifer typus* H. Milne Edwards, 1837**

Leucifer Reynaudii — Adensamer, 1898: 597, 599-605, 608, 626.

No material from Cyprus has been examined by us, but Adensamer (1898: 603, 626) reported the species from six plankton stations of the research vessel "Pola", made between 15 and 27 September 1892 in the area of Cyprus. These stations are the following: no. 162 at 34°8'N 34°22'E, no. 163 at 34°10'N 33°59'E, no. 166 at 34°44'N 34°8'E, no. 169 at 35°11'N 34°33'E, no. 170 at 35°49'N 34°38'E, and no. 177 at 35°39'N 32°7'E. In all these stations the material was taken on the surface with a small net. So far as is known to us this is the only record of the species from Cyprus waters.

Solenoceridae

Solenocera membranacea (Risso, 1816)

not *Penaeus membranaceus* — Adensamer, 1898: 599, 603, 604, 628 (= *Parapenaeus longirostris*).

Material examined. — Famagusta Bay, 75 fms (= 137 m), BT; 6 March 1969; SFRS, SLM 791 Dec. 1356; 1♂.

During the previous century the specific name *membranaceus* has often, incorrectly, been applied to *Parapenaeus longirostris*. It is clear that also Adensamer's specimens reported upon as *Penaeus membranaceus* belong to *Parapenaeus* and not to *Solenocera*.

The species is known from the entire Mediterranean, but had so far not been reported from Cyprus.

Aristeidae

Aristaomorpha foliacea (Risso, 1827)

Aristeomorpha foliacea — Fodera, 1961: 77; Demetropoulos & Neocleous, 1969: 17.

Material examined. — Larnaca Bay, 34-42 fms (= 62-77 m), trawl; 16 January 1967; Fisheries Department, Nicosia, leg. et det. Renos Livadas; 3 specimens.

Fodera (1961) was the first to report this species from Cyprus but did not indicate the locality where his material was obtained. Demetropoulos & Neocleous (1969) reported it from Larnaca Bay, possibly their material was the same as that reported upon here, although they indicated as depth 30 to 50 fathoms (= 55-73 m).

Aristeus antennatus (Risso, 1816)

Aristeus antennatus — Fodera, 1961: 77; Demetropoulos & Neocleous, 1969: 17.

Fodera (1961) reported this species from Cyprus without a more accurate locality. Demetropoulos & Neocleous (1969) repeated that record without having seen any material themselves. We did not see any material either. The species occurs throughout the Mediterranean, but seems to be far more common in the western part than in the east.

N. W. of Cape Pyla, on rocks, 4-5 m deep, poisoning; 26 October 1969; HUI, SLM 3518 Dec. 558; 1♂.

Petounda Point, profile VI, 7-10 fms (= 13-18 m), Dg; 24 October 1968; HUI, SLM 646 Dec. 1057; 1♂.

Ayios Yeoryios, shallow rocky lagoon, 0-50 cm deep; 23 August 1970; TAU, SLM 7533 Dec. 1055; 1♂. — among rocks covered with algae and among *Posidonia*, 10 m deep; 23 August 1970; TAU, SLM 7531 Dec. 1053; 1♂.

The species is known from the entire Mediterranean, but, because of its small size may have often been overlooked. In the eastern Mediterranean it is known from Greece, Turkey and Israel, but undoubtedly will be found elsewhere also. The present specimens are the first to be reported from Cyprus.

In most papers the species is indicated as *Catapaguroides timidus*, but as shown by De Saint Laurent (1968: 547), the species has to be assigned to the genus *Cestopagurus*.

Anapagurus laevis (Bell, 1845)

Material examined. — Famagusta Bay, 20 fms (= 37 m), BT; 15 February 1968; SFRS, SLMB 1538 Dec. 1043; 1♂. — 12 fms (= 22 m), Dg; 5 March 1969; SFRS, SLM 781 Dec. 1040; 5 specimens (1 ovigerous ♀). — 75 fms (= 137 m), BT; 6 March 1969; SFRS, SLM 791 Dec. 1039; 1♂. — 50 fms (= 91 m), BT; 20 May 1969; SFRS, SLM 2008 Dec. 1038; 8 complete and about 40 badly damaged specimens. — 50 fms (= 91 m), BT; 20 May 1969; SFRS, SLM 2008 Dec. 1041; 3 specimens.

Anapagurus laevis has been reported a few times before from the eastern Mediterranean (Greece and Israel). As pointed out by Lewinsohn (1976: 245) the European and Mediterranean species of the genus are still rather unsatisfactorily known and a revision of the genus is urgently needed.

Anapagurus petiti Dechancé & Forest, 1962

Material examined. — Famagusta Bay, 3 fms (= 5.5 m), Dg; 5 March 1969; SFRS, SLM 783 Dec. 1042; 9 specimens. — 7 fms (= 13 m), Dg; 20 May 1969; SFRS, SLM 799 Dec. 1044; 20♂, 23♀ (21 ovigerous).

As until 1962 *Anapagurus petiti* was not distinguished from *A. bicorniger* A. Milne Edwards & Bouvier, 1892, the older records of *A. bicorniger* might pertain to the present species. So far *A. petiti* has not been reported from the eastern Mediterranean, but *A. bicorniger* has. Neither was known from Cyprus.

Anapagurus spec.

Material examined. — Akrotiri Bay, 12 fms (= 22 m), Dg; 23 June 1967; SFRS, SLMB 1502 Dec. 1037; 1♂.

The specimen is damaged and can not be assigned to its proper species.

Galatheidae

Galathea squamifera Leach, 1814

Material examined. — Famagusta Bay, 15 fms (= 27 m), Dg; 2 September 1967; SFRS, SLMB 1528 Dec. 1086; 1♀. — 17-20 fms (= 31-37 m), BT; 16 February 1968; SFRS, SLMB 1545 Dec. 1085; 1♂. — profile IV, 25-27 fms (= 46-49 m), ODg; 23 October 1968; HUI, SLM 636 Dec. 311; 1♂.

Galathea squamifera has been reported several times from the eastern Mediterranean, but this is the first record of finds in Cyprus waters.

Galathea intermedia Lilljeborg, 1851

Material examined. — N.E. of Koma tou Yialou, profile I, 30-35 fms (= 55-64 m); 22 October 1968; HUI, SLM 626 Dec. 305; 1 ovigerous ♀.

Famagusta Bay, 30 fms (= 55 m), BT; 28 June 1967; SFRS, SLMB 1550 Dec. 1089; 1♂. — 45 fms (= 82 m), BT; 15 February 1968; SFRS, SLMB 1536 Dec. 1088; 1 ovigerous ♀. — 20 fms (= 37 m), BT; 16 February 1968; SFRS, SLMB 1551 Dec. 1087; 1♂, 2♀ (1 ovigerous).

Akrotiri Bay, 30 fms (= 55 m), Dg; 13 February 1968; SFRS, SLMB 1531 Dec. 1106; 8 specimens.

The species, although found repeatedly in the eastern Mediterranean, had so far not been reported from Cyprus.

Suborder BRACHYURA

Dromiidae

Dromia personata (Linnaeus, 1758)

Dromia vulgaris — Plateau, 1884: cclx; Demetropoulos & Neocleous, 1969: 18.