## 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 given 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); HUJ, Hebrew University of Jerusalem; ODg, Ockelmann detritus sledge; RDg, rectangular dredge; RMNH, Rijksmuseum van Natuurlijke Historie, Leiden; SFRS, 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

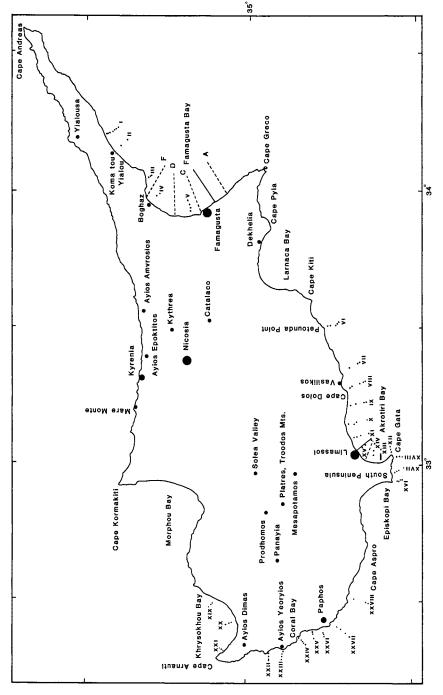


Fig. 1. Map of Cyprus, showing localities mentioned in the text (adapted from Por, Steinitz, Ferber & Aron, 1972, map 2).

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 Oxyrhynch 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;  $1\delta$ .

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

# Aristaemorpha 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.

#### Penaeidae

## Penaeus iaponicus Bate, 1888

Penaeus sulcatus p.p. — Demetropoulos & Neocleous, 1969: 17. (Not Penaeus sulcatus) (Olivier, 1811), which is Penaeus kerathurus (Forskål, 1775); see also under Metapenaeus monoceros below).

Material examined. — Cyprus, without other information; Fisheries Department, Nicosia; 2 specimens.

Three specimens identified by Renos Livadas as *Penaeus sulcatus* and reported as such by Demetropoulos & Neocleous (1969) were examined by the first author (Ch. L.). Two of the specimens proved to belong to *Penaeus japonicus*, the third being *Metapenaeus monoceros* (q.v.). According to Demetropoulos & Neocleous (1969) the material was obtained between Cape Greco and Cape Andreas at a depth of 12 fathoms (= 22 m). *Penaeus japonicus* is an Indo-West Pacific species, that, through the Suez Canal, has reached the eastern Mediterranean. It had not been reported before from Cyprus.

Penaeus sulcatus (Olivier, 1811) is a junior synonym of Penaeus kerathurus (Forskål, 1775). This species, which is found throughout the Mediterranean, is the only autochthonous species of the genus in the area. So far, however, it is not known from Cyprus.

#### Parapenaeus longirostris (Lucas, 1846)

Penaeus membranaceus — Adensamer, 1898: 599, 603, 604, 628. (Not Peneus membranaceus Risso, 1816).

Parapenaeus longirostris — Fodera, 1961: 77; Demetropoulos & Neocleous, 1969: 17.

Material examined. — Famagusta Bay, 45 fms (= 83 m), BT; 16 February 1968; SFRS, SLMB 1549 Dec. 1366; 1°. — 50 fms (= 91 m), BT; 6 March 1969; SFRS, SLM 790 Dec. 1368; 1°. — 75 fms (= 137 m); 6 March 1969; SFRS, SLM 791 Dec. 1367; 2¢, 3°. — 100 fms (= 183 m), BT; 6 March 1969; SFRS, SLM 792 Dec. 1365; 2¢, 1°.

Adensamer (1898: 603, 628) was the first to report the present species from the Cyprus area, namely from N. of Cyprus, 35°57′N 32°51′E, where between 1 and 3 females were dredged by the "Pola" at a depth of 315 m from a bottom of loose yellow sand and encrusted stones (27 September 1892, Sta. 175). Adensamer used the incorrect name *Penaeus membranaceus* Risso for the species, while he gave the name *Solenocera siphonoceros* to the true

Solenocera membranacea. The identity of the name Penaeus membranaceus and the correct names for the two species involved have only recently been settled by the International Commission on Zoological Nomenclature in their Opinion 611 (1961, Bull. zool. Nomencl., 18(5): 306-311, pl. 4).

Fodera (1961) also reported on Cyprus material of the species but gave no further details. Demetropoulos & Neocleous (1969) mentioned the species from "Cyprus waters" indicating that this means "occurring in more than 3 areas" of the seven specifically listed by them for Cyprus; their material was taken at depths between 20 and 250 fathoms (= 37-460 m).

Parapenaeus longirostris occurs throughout the Mediterranean and is of commercial importance both in the western and eastern half.

# Metapenaeus monoceros (Fabricius, 1798)

Penaeus sulcatus (p.p.). — Demetropoulos & Neocleous, 1969: 17.

Material examined. — Cyprus, no other information; Fisheries Department, Nicosia; 1 specimen.

The above specimen formed part of a lot of three identified as *Penaeus sulcatus* by Renos Livadas; this evidently is the lot mentioned by Demetropoulos & Neocleous (1969) under that name from between Cape Greco and Cape Andreas, depth 12 fathoms (= 22 m). The two other specimens proved to be *Penaeus japonicus* (see there). The true *Penaeus sulcatus* (Olivier, 1811) (an invalid junior synonym of *Penaeus kerathurus* (Forskål, 1775)) has so far not been found in Cyprus.

Metapenaeus monoceros, like Penaeus japonicus, is an Indo-West Pacific species that through the Suez Canal has entered the eastern Mediterranean and settled there. It had not before been reported from Cyprus.

Suborder CARIDEA

Palaemonidae

Palaemoninae

#### Palaemon xiphias Risso, 1816

Material examined. — Cape Kiti, 3 m deep, poisoning; 25 October 1969; HUJ, SLM 3486 Dec. 555; 2 specimens.

Mare Monte, in the bay, rock poisoning; 26 October 1968; HUJ, SLM 1591 Dec. 375; 30 specimens. — id., SLM 1595 Dec. 379; 1 specimen.

The species has been reported from the entire Mediterranean, but we know of no previous report from Cyprus.

## Palaemon serratus (Pennant, 1777)

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Palaemon serratus — Fodera, 1961: 77.

Palaemon sp. (p.p.) — Demetropoulos & Neocleous, 1969: 17.
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Material examined. — Cape Dolos, 1 m deep, poisoning; 23 October 1969; HUJ, SLM 3421 Dec. 551; 1 specimen.

Fodera (1961) was the first to list this species from Cyprus, however, he did not provide a more accurate locality. Demetropoulos & Neocleous' (1969) record of *Palaemon* sp. refers to Fodera's report; as Fodera listed both *Palaemon serratus* and *P. elegans*, the record of *Palaemon* sp. evidently covers both those species.

Palaemon serratus has been reported from many localities in the eastern and western Mediterranean. The present record is the second for Cyprus and the first with a detailed locality.

#### Palaemon elegans Rathke, 1837

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Palaemon squilla — Heller, 1863: 267; Carus, 1885: 474. (Not Palaemon squilla (L.)) Palaemon elegans — Fodera, 1961: 77. Palaemon sp. (p.p) — Demetropoulos & Neocleous, 1969: 17.
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Material examined. — NW. of Cape Pyla, tide pools, poisoning; 26 October 1969; HUJ, SLM 3512 Dec. 557; 8 specimens. — id., 27 October 1969; HUJ, SLM 3576 Dec. 560; 9 specimens. Cape Dolos, intertidal; 29 October 1968; HUJ, SLM 1689 Dec. 392; 7 specimens.

Coast N. of Paphos, S of the Tombs of the Kings, in rock pools; 21 May 1984; RMNH, L. D. Brongersma; 1 ovigerous ?.

Ayios Yeoryios, tide pools, poisoning; 1 November 1968; HUJ, SLM 1790 Dec. 402; 88 specimens. — rock pools, 0-50 cm deep; 22 August 1970; TAU, SLM 7506 Dec. 1358; 10 specimens.

Mare Monte, on rocky platform, poisoning; 26 October 1968; HUJ, SLM 1587 Dec. 373; 16 specimens. — rocks in the bay, poisoning; 26 October 1968; HUJ, SLM 1591, Dec. 375; 14 specimens.

Yialousa, intertidal; 23 October 1968; HUJ, SLM 916 Dec. 344; 8 specimens.

Heller (1863: 268) reported upon material collected by Th. Kotschy in Cyprus under the name *Palaemon squilla*. The specific name *squilla* L., 1758 has been suppressed by the International Commission on Zoological Nomenclature in their Opinion 564 (1959, Opin. Decl. Int. Comm. zool. Nomencl., 20 (31): 337-358), the correct name for the present species now being *Palaemon elegans* Rathke, 1837. Carus' (1885) record was based on that by Heller. Under *Palaemon* sp., Demetropoulos & Neocleous, 1969 referred to Fodera (1961) who listed two species of *Palaemon* for Cyprus: *P. elegans* and *P. serratus*; evidently Demetropoulos & Neocleous' record thus refers to both species. Neither they nor Fodera gave any more detailed information about the occurrence of the species in Cyprus.

Palaemon elegans is a very common tide pool shrimp throughout the Mediterranean.

### Brachycarpus biunguiculatus (Lucas, 1846)

Material examined. — Boghaz, 1-2 m deep, poisoning near rocks; 25 August 1970; TAU, SLM 7594 Dec. 1339; 5 specimens (1 ovigerous ♀).

E. of Dekhelia, 5-6 m deep, poisoning between rocks; 24 August 1970; TAU, SLM 7554 Dec. 1341; 6 specimens (1 ovigerous  $\mathfrak{P}$ ). — 1-2 m deep, poisoning of sheltered rocky area; 24 August 1970; TAU, SLM 7575 Dec. 1338; 2 ovigerous  $\mathfrak{P}$ ..

N.W. of Cape Pyla, 4-5 m deep, rock poisoning; 26 October 1969; HUJ, SLM 3518 Dec. 558; 6 specimens.

Cape Kiti, 3 m deep, poisoning; 25 October 1969; HUJ, SLM 3486 Dec. 555; 6 specimens. — 1-2 m deep, poisoning near rocks; 27 August 1970; TAU, SLM 7644 Dec. 1340; 15 specimens (9 ovigerous ?).

Ayios Yeoryios, 2 m deep, poisoning; 20 October 1969; HUJ, SLM 3368 Dec. 546; 1 specimen. Mare Monte, rocks in the bay, poisoning; 26 October 1968; HUJ, SLM 1595 Dec. 379; 1 specimen.

E. of Kyrenia, 2 m deep, rock poisoning; 28 October 1969; HUJ, SLM 3621 Dec. 562; 7 specimens. — rock pools, poisoning; 28 October 1968; HUJ, SLM 3649 Dec. 564; 6 specimens.

Brachycarpus biunguiculatus is considered a rare species in the Mediterranean. It has been found a few times in the western half, and so far has only been found in Israel waters in the eastern half. The fact that it has been taken in numerous localities in Cyprus, and often in considerable numbers, may be an indication that the species in less rare than thought so far. A proper knowledge of its ecology and biology and of the right methods to capture it, may show its presence in many other localities.

#### **Pontoniinae**

### Pontonia pinnophylax (Otto, 1821)

Material examined. — Koma tou Yialou, from inside *Pinna nobilis* L.; 22 October 1968; HUJ, SLM 905 Dec. 341; 13, 1 ovigerous 9.

Famagusta, 75-80 fms (= 137-147 m); 8 March 1969; SFRS, SLMB Dec. 1389; 1 specimen. Coral Bay, from inside *Pinna nobilis* L., 2-8 m deep; 31 October 1968; HUJ SLM 1740 Dec. 398; 3 specimens.

Mare Monte, from inside *Pinna nobilis* L.; 25 October 1968; HUJ, SLM 1573 Dec. 370; 18,

Yialousa, from inside Pinna nobilis L.; 23 October 1968; HUJ, SLM 942 Dec. 353; 1 juvenile.

This commensal of *Pinna* has been found throughout the Mediterranean, but had not before been reported from Cyprus.

## Alpheidae

# Athanas nitescens (Leach, 1814)

Material examined. — Boghaz, 1-2 m deep, poisoning near rocks; 25 August 1970; TAU, SLM 7599 Dec. 1360; 1 specimen.

Famagusta Bay, 30 fms (= 55 m), BT; 15 February 1968; SFRS, SLMB 1542 Dec. 1362; 1 specimen. — 20 fms (= 37 m), BT; 16 February 1968; SFRS, SLMB 1551 Dec. 1364; 1 specimen. — 10 fms (= 18 m), BT; 5 March 1969; SFRS, SLM 785 Dec. 1412; 1 specimen. — 30 fms (= 55 m), BT; 20 May 1969; SFRS, SLM 2005 Dec. 1407; 1 specimen.

Cape Kiti, 1-2 m deep, poisoning near rocks; 27 August 1970; TAU, SLM 7646 Dec. 1359; 1 specimen.

Akrotiri Bay, 30 fms (= 55 m), Dg; 13 February 1968; SFRS, SLMB 1531 Dec. 1361; 2 specimens. — 10-12 fms( = 18-22 m), Dg; 9 November 1969; SFRS, SLM 6035; 1 specimen.

Athanas nitescens is a rather common species throughout the Mediterranean, but had not been reported before from Cyprus, where, as shown by the above material, it is not rare either.

### Synalpheus gambarelloides (Nardo, 1847)

Material examined. — Famagusta Bay, 45 fms (= 82 m), BT; 15 February 1968; SFRS, SLMB 1536 Dec. 1351; 2 specimens. — 17-20 fms (= 31-37 m), BT; 16 February 1968; SRFS, SLMB 1545 Dec. 1347; 19 specimens. — 10-15 fms (= 18-27 m), BT; 16 February 1968; SFRS, SLMB 1544 Dec 1342; 4 specimens. — 45 fms (= 82 m), BT; 16 February 1968; SFRS, SLMB 1549 Dec. 1343; 1 specimen. — 20 fms (= 37 m), BT; 16 February 1968; SFRS, SLMB 1551 Dec. 1350; 7 specimens. — 50 fms (= 91 m), BT; 6 March 1969; SFRS, SLM 790 Dec. 1346; 3 specimens (1 ovigerous ?). — 30 fms (= 55 m), BT; 20 May 1969; SFRS, SLM 2005 Dec. 1344; 1 ovigerous ?

E. of Dekhelia, 6 m deep, from a sponge; 24 August 1970; TAU, SLM 7559 Dec. 1349; 21 specimens (7 ovigerous  $\circ$ ).

Ayios Yeoryios, 5-6 m deep, from sponge; 22 August 1970; TAU, SLM 7505 Dec. 1345; 5 specimens.

W. of Kyrenia, 4-5 m deep, from sponge; 26 August 1970; TAU, SLM 7627 Dec. 1348; 15 specimens (1 ovigerous ?).

Yialousa, inside a sponge; 23 October 1968; HUJ, SLM 951 Dec. 355; 10 specimens.

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

## Alpheus macrocheles (Hailstone, 1835)

Alpheus macrocheles - Lewinsohn & Galil, 1982: 207, 208.

Material examined. — E. of Dekhelia, 5-6 m deep, poisoning between rocks; 24 August 1970; TAU, SLM 7555 Dec. 1330; 8 specimens (2 ovigerous ?). — 0-2 m deep, poisoning of sheltered rocky area; 24 August 1970; TAU, SLM 7575 Dec. 1331; 1 specimen.

N.W. of Cape Pyla, lagoon, poisoning; 27 October 1969; HUJ, SLM 3583 Dec. 561; 1 specimen. — 4-5 m deep, poisoning of rocky area; 26 October 1969; HUJ, SLM 3518 Dec. 558; 2 specimens.

Cape Kiti, 1-2 m deep, poisoning near rocks; 27 August 1970; TAU, SLM 7648 Dec. 1329; 3 specimens (2 ovigerous ?).

Although the species is known from both the western and the eastern part of the Mediterranean, it has so far not been reported from the extreme east coast (Israel and Lebanon), notwithstanding the intensive exploration of the Israel coast. Its existence in Greek and Turkish waters, however, has been demonstrated. Lewinsohn & Galil (1982) mentioned its occurrence on the southeastern coast of Cyprus, this record is based on the above listed specimens.

# Alpheus dentipes Guérin, 1832

Material examined. — E. of Dekhelia, 5-6 m deep, poisoning between rocks; 24 August 1970; TAU, SLM 7555 Dec. 1326; 4 specimens (1 ovigerous ?). — 0-1 m deep, inside of stones; 24 August 1970; TAU, SLM 7578 Dec. 1328; 7 specimens (1 ovigerous ?).

N.W. of Cape Pyla, 4-5 m deep, poisoning of rocky area; 26 October 1969; HUJ, SLM 3518 Dec. 558; 2 specimens. — tide pools, poisoning; 27 October 1969; HUJ, SLM 3576 Dec. 560; 2 specimens.

Cape Kiti, 1-2 m deep, poisoning near rocks; 28 August 1970; TAU, SLM 7649 Dec. 1327; 3 specimens (1 ovigerous 9).

Mare Monte, among rocks; 25 October 1968; HUJ, SLM 1515 Dec. 364; 2 specimens. — among rocks; 26 October 1968; HUJ, SLM 1607 Dec. 372; 3 specimens.

Alpheus dentipes is quite common both in the eastern and western Mediterranean, but so far had not been reported from Cyprus.

## Alpheus glaber (Olivi, 1792)

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

Akrotiri Bay, 20 fms (= 37 m), BT; 9 November 1969; SFRS, SLM 6036 Dec. 1332; 1 specimen.

The species had not before been reported from Cyprus, but it has been found in the eastern and western Mediterranean, in rather deep water.

## Hippolytidae

## Hippolyte inermis Leach, 1815

Material examined. — Famagusta Bay, 5 fms (= 9 m), Dg; 7 March 1969; SFRS, SLM 793 Dec. 1393; 1 specimen. — 75-80 fms (= 137-147), Dg; 8 March 1969; SFRS, SLM 796 Cr. 1411; 1 specimen.

Cape Kiti, 3 m deep, poisoning; 25 October 1969; HUJ, SLM 3486 Dec. 555; 3 juv. Cape Dolos, on *Posidonia*; 29 October 1968; HUJ, SLM 1670 Dec. 387; 1 specimen. Akrotiri Bay, 10-12 fms (= 18-22 m), Dg; 9 November 1969; SFRS, SLM 6035; 1 specimen. Mare Monte, on *Posidonia*; 25 October 1968; HUJ, SLM 1554 Dec. 369; 1 specimen.

The species is frequently found on eelgrass and is known from both the eastern and western Mediterranean. It is now reported for the first time from Cyprus.

### Hippolyte longirostris (Czerniavsky, 1868)

Material examined. — Akrotiri Bay, 10-12 fms (= 18-22 m), Dg; 9 November 1969; SFRS, SLM 6035; 1 specimen.

Coral Bay, among rocks; 31 October 1968; HUJ, SLM 1754; 1 specimen.

The species is now reported for the first time from Cyprus. It inhabits the entire Mediterranean and has several times been found in the eastern half.

## Hippolyte holthuisi Zariquiey Alvarez, 1953

Material examined. — Famagusta Bay, 20 fms (= 37 m), BT; 28 June 1967; SFRS, SLMB 1516 Dec. 1399; 2 specimens. — 15 fms (= 27 m), BT; 21 May 1969; SFRS, SLM 2015 Dec. 1398; 3 specimens (2 ovigerous  $\mathfrak{P}$ ).

So far as known to us the species has only once before been reported from the eastern Mediterranean, namely by Ledoyer (1969: 285) who reported upon material from Kalolimniones on the south coast of Crete (about 34°56′N 24°50′E).

## Thoralus cranchii (Leach, 1817)

Material examined. — Famagusta Bay, 30 fms (= 55 m), BT; 15 February 1968; SFRS, SLMB 1542 Dec. 1401; 2 specimens. — 40-45 fms (= 73-82 m), BT; 16 February 1968; SFRS, SLMB 1547 Dec. 1400; 1 ovigerous ?. — 20 fms (= 37 m), BT; 16 February 1968; SFRS, SLMB 1551 Dec. 1402; 1 specimen. — 25 fms (= 46 m), BT; 20 November 1969; SFRS, SLM 6041 Dec. 1404; 1 specimen. — 35 fms (= 64 m), BT; 20 November 1969; SFRS, SLM 6042 Dec. 1405; 1 specimen.

Akrotiri Bay, 10-12 fms (= 18-22 m), Dg; 9 November 1969; SFRS, SLM 6035; 1 specimen. — 60-80 fms (= 110-146 m), BT; 9 November 1969; SFRS, SLM 6039 Dec. 1403; 1 specimen.

A rather common species, known from the entire Mediterranean, but so far not yet recorded from Cyprus.

### Lysmata seticaudata (Risso, 1816)

Material examined. — Boghaz, 1-2 m deep, poisoning near rocks; 25 August 1970; TAU, SLM 7594 Dec. 1333; 8 ovigerous ♀.

E. of Dekhelia, 5-6 m deep, poisoning between rocks; 24 August 1970; TAU, SLM 7554 Dec. 1334; 1 specimen. — 0-2 m deep, poisoning of sheltered rocky area; 24 August 1970; TAU, SLM 7575 Dec. 1336; 19 specimens (2 ovigerous ?). — 5-6 m deep, poisoning between rocks; 24 August 1970; TAU, SLM 7555 Dec. 1337; 3 specimens.

N.W. of Cape Pyla, 4-5 m deep, poisoning among rocks; 26 October 1969; HUJ, SLM 3518 Dec. 558; 3 specimens. — tide pools, poisoning; 27 October 1969; HUJ, SLM 3756 Dec. 560; 1 specimen. — lagoon, poisoning; 27 October 1969; HUJ, SLM 3583 Dec. 561; 1 specimen.

Cape Kiti, 3 m deep, poisoning; 25 October 1969; HUJ, SLM 3450 Dec. 553; 1 specimen. — 3 m deep, poisoning; 25 October 1969; HUJ, SLM 3486 Dec. 555; 3 specimens. — 1-2 m deep, poisoning near rocks; 27 August 1970; TAU, SLM 7645 Dec. 1335; 1 ovigerous ?

Cape Dolos, on sandy bottom; 29 October 1968; HUJ, SLM 1651 Dec. 385; 1 specimen. Yialousa, intertidal; 23 October 1968; HUJ, SLM 918 Dec. 345; 1 juvenile.

Lysmata seticaudata is known from the entire Mediterranean and has also been frequently reported from the eastern part, but so far as we know this is the first record of the species from Cyprus.

#### Processidae

## Processa edulis (Risso, 1816)

Material examined. — Famagusta Bay, 10-15 fms (= 18-27 m), BT; 20 November 1969; SFRS, SLM 6040 Dec. 1375; 1 specimen.

Cape Dolos, profile VIII, 10 fms (= 18 m), RDg; 25 October 1968; HUJ, SLM 654 Dec. 323; 1 specimen.

N. of Paphos and S.W. of Coral Bay, profile XXV, 10 fms (= 18 m), RDg; 31 October 1968; HUJ, SLM 1825 Dec. 405; 1 specimen.

The species occurs throughout the Mediterranean. As shown by a recent revision of the European species of the genus *Processa* (Nouvel & Holthuis, 1957) several species probably were confused in the older literature under the name *Processa* (or *Nika*) edulis. Therefore Holthuis & Gottlieb (1958: 113) were doubtful of all the records of "Nika edulis" from the eastern Mediterranean published until then. Afterwards, however, the species has definitely been shown to be present in Greek and Turkish waters. The present record is the first for Cyprus.

#### Processa acutirostris Nouvel & Holthuis, 1957

Material examined. — Famagusta Bay, 20 fms (= 37 m), BT; 15 February 1968; SFRS, SLMB 1541 Dec. 1372; 1 specimen. — 17-20 fms (= 31-37 m), BT; 16 February 1968; SFRS, SLMB 1545 Dec. 1374; 1 specimen. — 75-80 fms (= 137-146 m), Dg; 8 March 1969; SFRS, SLM 796 Dec. 1410; 1 specimen. — 10-15 fms (= 18-27 m), BT; 20 November 1969; SFRS, SLM 6040; 23 specimens (2 ovigerous ?).

S. of Paphos, profile XXVIII, 10 fms (= 18 m), RDg; 31 October 1968; HUJ, SLM 1837 Dec. 1373; 1 specimen.

So far as known to us this is the first record of the present species from the eastern Mediterranean. It is well known from the western part of that sea.

# Processa macrophthalma Nouvel & Holthuis, 1957

Material examined. — Akrotiri Bay, 30 fms (= 55 m), Dg; 13 February 1968; SFRS, SLMB 1531 Dec. 1379; 1 ovigerous <sup>♀</sup>.

Cape Andreas, 65 fms (= 119 m), BT; 22 May 1969; SFRS, SLM 2027; 1 specimen.

Like the previous species, P. macrophthalma has so far only been reported from the western Mediterranean.

# Processa n. nouveli Al-Adhub & Williamson, 1975

Material examined. — Famagusta Bay, 45 fms (= 82 m), BT; 16 February 1968; SFRS, SLMB 1549; 1 ovigerous  $\circ$ . — profile IV, 60 fms (= 110 m), ODg; 23 October 1968; HUJ, SLM 635; 1 specimen.

Al-Adhub & Williamson (1975) showed that the type specimen of *Processa canaliculata* Leach, 1815 belongs to the species indicated with the name *Processa mediterranea* (Parisi, 1915) by Nouvel & Holthuis (1957: 41, figs. 205-220) and that the species that these authors named *Processa canaliculata* Leach, needed a new name, for which Al-Adhub & Williamson proposed *Processa nouveli*, the typical subspecies, *P. n. nouveli* of which occurs in the Mediterranean.

The present species has been reported from the eastern Mediterranean under the name *Processa canaliculata* (Israel: Holthuis & Gottlieb, 1958: 52. Turkey: Holthuis & Gottlieb, 1958: 52. Greece: Holthuis & Gottlieb, 1958: 52; Koukoura, 1973: 751; Koukouras & Kattoulas, 1974: 377). So far the species had not been reported from Cyprus.

#### Pandalidae

## Pandalina brevirostris (Rathke, 1843)

Material examined. — Akrotiri Bay, 45-50 fms (= 82-91 m), BT; 9 November 1969; SFRS, SLM 6038; 1 specimen.

The specimen lacks all legs, and therefore its identity is not fully certain. The only records from the eastern Mediterranean of this species that we know are from Greece (Adensamer, 1898: 623; Vamvakas, 1971; Koukoura, 1972; Koukouras & Kattoulas, 1974).

#### Crangonidae

#### Philocheras sculptus (Bell, 1847)

Material examined. — Famagusta Bay, 20 fms (= 37 m), BT; 15 February 1968; SFRS, SLMB 1541 Dec. 1384; 1 specimen. — 45 fms (= 82 m), BT; 15 February 1968; SFRS, SLMB 1543 Dec. 1386; 1 specimen. — 40-45 fms (= 73-82 m), BT; 16 February 1968; SFRS, SLMB 1547 Dec. 1392; 1 specimen. — 15 fms (= 27 m), BT; 21 May 1969; SFRS, SLM 2015 Dec. 1385; 1 ovigerous

So far as we know, the species has only once before been reported from the eastern Mediterranean namely from the Saronic Gulf, Greece (Vamvakas, 1971: 251); it has a rather wide distribution in the western part of that sea.

## Philocheras bispinosus (Hailstone, 1835)

Material examined. — Famagusta Bay, 3 fms (= 5.5 m), Dg; 5 March 1969; SFRS, SLM 783 Dec. 1387; 1 ovigerous %. — 75-80 fms (= 137-146 m), Dg; 8 March 1969; SFRS, SLM 796 Dec. 1409; 2 specimens (1 ovigerous %). — 7 fms (= 13 m), BT; 20 May 1969; SFRS, SLM 2000 Dec. 1408; 3 specimens.

This species has several times been reported from the eastern Mediterranean as far east as the coasts of Israel and Lebanon, but so far was not known from Cyprus.

## Philocheras monacanthus (Holthuis, 1961)

Material examined. — Famagusta Bay, 3 fms (= 5.5 m), Dg; 5 March 1969; SFRS, SLM 783 Dec. 1378; 46 specimens (21 ovigerous ?). — 3 fms (= 5.5 m), BT; 5 March 1969; SFRS, SLM 784 Dec. 1388; 2 specimens. — 7 fms (= 13 m), BT; 20 May 1969; SFRS, SLM 2000 Dec. 1413; 1 specimen.

Cape Dolos, sandy bottom; 29 October 1968; HUJ, SLM 1634 Dec. 384; 1 ovigerous 9.

This species has been found throughout the Mediterranean, with several records from the eastern part. It was not reported before from Cyprus.

## Pontocaris cataphracta (Olivi, 1792)

Aegeon cathaphractus — Demetropoulos & Neocleous, 1969: 17.

No material of this species was collected by the Hebrew University - Smithsonian Institution Joint Program, but it has been reported by Demetropoulos & Neocleous (1969) from the south-east coast of the island between Akrotiri Bay and Cape Greco, 30-40 fms (= 55-73 m), where it was said to be common.

#### Suborder PALINURA

#### Palinuridae

## Palinurus elephas (Fabricius, 1787)

Palinurus vulgaris — Fodera, 1961: 77; Demetropoulos & Neocleous, 1969: 17.

Material examined. — Cyprus; Fisheries Department, Nicosia; 1 dry specimen.

This is a well-known species in the eastern Mediterranean (already reported from there by Aristotle). Fodera (1961) reported it for the first time from Cyprus, without any specified locality. Demetropoulos & Neocleous (1969) mentioned that it occurs occasionally in Cyprus waters, the expression "in Cyprus waters" was used by them if the species was known from more than three of the seven areas in which they had divided the Cyprus coastal waters.

# Scyllaridae

### Scyllarus pygmaeus (Bate, 1888)

Scyllarus pygmaeus - Lewinsohn, 1974: 43, figs. 1, 2.

Material examined. — N.E. of Boghaz, profile I, 30-35 fms (= 55-64 m), Dg; 22 October 1968; HUJ, SLM 626; 1 juvenile.

Famagusta Bay, 15 fms (= 27 m), Dg; 2 September 1967; SFRS, SLMB 1528 Dec. 1354; 1 specimen. — 35 fms (= 64 m), BT; 2 September 1967; SFRS, SLMB 1530 Dec. 1353; 2 specimens (1 ovigerous female). — 40-45 fms (= 73-82 m), BT; 16 February 1969; SFRS, SLMB 1547 Dec. 1352; 3 specimens (2 ovigerous  $^{\circ}$ ). — 35 fms (= 64 m), Dg; 6 March 1969; SFRS, SLM 788 Dec. 1357; 1 ovigerous  $^{\circ}$ .

Akrotiri Bay, 30 fms (= 55 m), Dg; 13 February 1968; SFRS, SLMB 1531 Dec. 1355; 2 specimens (1 ovigerous  $\circ$ ).

N.W. of Paphos, 15 fms (= 27 m), RDg; 31 October 1968; HUJ, SLM 1829 Dec. 409; 1 specimen.

Lewinsohn (1974) discussed the occurrence of *Scyllarus pygmaeus* in the Mediterranean, and especially in the eastern part. In his paper (on p. 44) he reported upon the above listed material from Cyprus.

## Scyllarus arctus (Linnaeus, 1758)

Scyllarus arctus — Fodera, 1961: 77; Demetropoulos & Neocleous, 1969: 17.

Material examined. — Akrotiri Bay, 20 fms (= 37 m), BT; 9 November 1969; SFRS, SLM 6036 Dec. 1390; 1 juvenile.

This species is found throughout the Mediterranean, and is not rare. It was first reported from Cyprus by Fodera (1961), without a more accurate locality indication. Demetropoulos & Neocleous (1969) reported it as common in Cyprus coastal waters, and had found it in more than three of the seven areas in which they had divided the Cyprus coastal region, but here again no definite localities were mentioned. Specimens of this species evidently are sometimes used as ornaments: Prof. Dr. L. D. Brongersma, former Director of the Leiden Museum, observed two dry specimens of Scyllarus arctus among other marine objects on a display board in a restaurant at Ayios Yeoryios during a visit there in May 1984. Photographs of the display were taken by him.

#### Scyllarides latus (Latreille, 1803)

Scyllarides latus — Demetropoulos & Neocleous, 1969: 17.

Material examined. — Coral Bay, 2-8 m deep; 31 October 1968; HUJ, SLM 1744 Dec. 414; 19. Ayios Yeoryios, bought from local fisherman; 22 August 1970; TAU, SLM 7501 Dec. 1369; 19.

Demetropoulos & Neocleous (1969) indicated the species as common in Cyprus waters and stated that records were known to them from more than half of the seven areas in which they had divided the Cyprus coast; no accurate localities were given. Like the previous species, *Scyllarides latus* also is used as an ornament in Cyprus. The display board photographed by Dr. Brongersma mentioned above showed 2 specimens and a carapace of the present species.

# Suborder THALASSINIDEA

### Callianassidae

### Callianassa candida (Olivi, 1792)

Material examined. — Boghaz, under stones, 0-1 m deep; 25 August 1970; TAU, SLM 7602 Dec. 1100; 2 specimens (1 ovigerous ?).

Mare Monte, rocks in the bay, poisoning; 26 October 1968; HUJ, SLM 1593 Dec. 377; 9 specimens.

The species is known from the entire Mediterranean and the Black Sea. It has been reported several times from the eastern Mediterranean.

Its nomenclature is rather complicated. So far it was generally known as *Callianassa pontica* Czerniavsky, 1884, or *Callianassa pestae* De Man, 1928, while for the latter name also the spelling *pestai* was frequently used. However, two older synonyms do exist: *Gebios davianus* Risso, 1822, and *Cancer candidus* Olivi, 1792.

As to the question pestae vs. pestai, De Man (1928: 34) when describing the species, used the name pestae. Some authors (e.g., Holthuis, 1953: 96) maintained that since De Man expressly named the species for Otto Pesta, who is a man, the orthography should be corrected to pestai as the Rules of Zoological Nomenclature required that a specific name derived from the personal name of a man should be formed by adding the suffix -i to that patronym (see Article 31 of the 1961 International Code of Zoological Nomenclature). In the 1964 edition of the Code Art. 31 was reduced to the status of a recommendation, and had no force of law anymore. In the latest (= third) edition of the International Code of 1985 (p. 61) the situation as it is at present is made quite clear in Art. 31 a(i), where it is said that a speciesgroup name, if a noun in the genitive case formed from a personal name that is Latin or has been latinized, is to be formed in accordance with the rules of Latin grammar. The example given with Art. 31a(i) shows that names like Poda (thus also Dana, Pesta, etc.) may be considered Latin names and their genitive thus become podae (and for the others thus danae, pestae, etc.). De Man (1928) evidently considered Pesta as a Latin name and made the genitive pestae. Had he considered it a modern name the genitive should have been pestai. In either case the original orthography has to be used and one is therefore not allowed in the present case to "correct" pestae to pestai.

The name pontica was used by Czerniavsky (1884: 81) as "A. Forma pontica m."; it was rejected by Holthuis (1953: 95) on the ground that Czerniavsky in his paper used the term "forma" for categories below "varietas" and that therefore his formae were infra-subspecific categories, so that the names given to these are not available names. De Saint Laurent & Božić (1976: 26) did not agree: although in other works Czerniavsky subdivided species into varieties and those into formae, in his 1884 work these categories are not "hiérarchisées" in that way. Indeed, Czerniavsky (1884: 79-81) divided Callianassa subterranea into five categories:" a) Forma typica; b) Var. laticauda; c) Forma intermedia; d) ?Var. major; A. Forma pontica". There

seems indeed hardly any rhyme or reason to his use of the terms Var. and Forma, nor to his use of capital and lower case letters to indicate the categories. Something almost similar is observed under Virbius Brullei Guérin, which is divided by Czerniavsky (pp. 18, 19) into two categories: a) Var. elongata and b) Forma fortior. That these categories, although lettered a) and b) are not of equal status is shown by the explanation of pl. II fig. 3 (on p. 258) where the taxon is named "Virbius Brullei (Guérin) var. elongata forma fortior m.", and forma thus clearly is considered a category below varietas. Evidently Czerniavsky was rather casual in lettering his categories. In many cases, however, the varieties are marked with a capital letter and the formae below them with a lower case letter, as e.g. with Leander Edwardsi brevidigitata (pp. 54-55), Steiracrangon orientalis (pp. 73-74), Porcellanides Rissoi (pp. 112-115). Sometimes the variety is marked with a lower case letter and the forma below it with the same lower case letter but with an apostrophe, like in Porcellanides longimana on pp. 118-120: a) Var. typica, a') Forma gracilis; b) Var. armata, b') Forma nicaeensis. That categories marked with the same type of letter not necessarily have the same status also is shown with Leander Latreillianus where (on pp. 44-48) the categories numbered a) to e) include 2 varietates, 2 formae and 1 monstrositas. But everywhere forma is lower (or seemingly equal) to var., but it is never treated as a higher category. A seeming exception is on p. 116 under Porcellanides Rissoi, where "g. Forma intermedia m." is followed by "g". Variatio picta m.". This, however, is explained by the fact that the term "variatio" (written in full by Czerniavsky) stands for "variation", while his "Var." is an abbreviation of Varietas and stands for the higher category "variety". It seems clear that Czerniavsky used the term Forma in this paper practically exclusively for a category below variety, but this cannot be definitely proven. Also it is impossible to prove whether or not he used by mistake the term forma for Callianassa subterranea forma pontica, instead of var. Fortunately this question has become entirely academic, as Art. 45(g) (ii) (1) of the third edition of the International Code of Zoological Nomenclature dealing with the interpretation of the terms "variety" and "form", states that such a term, if published before 1961 is to be treated as subspecific unless the contents of the work reveals that an infrasubspecific rank is meant, in which case it has to be treated as infrasubspecific. But if prior to 1985 such a name has been treated as an available name it is deemed to be subspecific from the date of its establishment. Even if the name pontica Czerniavsky, 1884, were an infrasubspecific name, the fact that before 1985 it has been treated as an available name (first by Makarov, 1938: 73; later by Caroli, 1946: 71, by De Saint Laurent & Božić, 1976: 24; and others) makes it an available name as from Czerniavsky, 1884.

De Saint Laurent & Božić (1976) thus are right in considering C. pontica Czerniavsky, 1884 to have priority over C. pestae De Man, 1928.

This, however, is not the end of the complications in regard to the correct name of the species. There are namely two names, published before 1884, that prove to be based on the present species. Holthuis (1977: 57, under Callianassa tyrrhena) showed that Gebios Davianus Risso (1822) is a species of Callianassa, although identification was made difficult because there are some errors in Risso's description. De Man (1928: 37), who examined specimens kept in the British Museum that had been identified by White (1847: 70) as Callianassa Davyana, found these to belong to Callianassa pestae. Because of the errors in Risso's description, De Man was not sure that the specimens had been correctly identified. He concluded that the true Gebios Davianus was a species incerta. The fact that Risso (1822: 243) described the telson and uropods ("les écailes caudales") as rounded makes it clear that the species is neither Callianassa truncata Giard & Bonnier, nor C. acanthura Caroli, as in those species the telson is squarish rather than rounded. It is most likely that C. daviana is either C. tyrrhena or C. pontica, the commonest species of the genus in the Mediterranean, which both have the telson as well as the uropods rounded. The fact that Risso described his species as being "d'un blanc nacré" shows that it cannot be C. tyrrhena (as Holthuis, 1977, thought likely) as that species is of a pink colour. C. pontica, in contrast to C. tyrrhena, is of a white colour and also for this reason is more likely to be the species described by Risso; White's (1847) identification of his material thus was correct.

Finally, another species sometimes considered of doubtful status is Cancer candidus Olivi, 1792. Holthuis (1953: 94) postulated that it is either Callianassa tyrrhena Petagna, 1792, or C. pontica Czerniavsky, 1884. Although Olivi's (1792: 51) description is quite short and his figure (pl. 3 fig. 3) rather crude, the identity of Cancer candidus with Callianassa pontica can be convincingly shown, thanks to our modern knowledge of the species of Callianassa of the Mediterranean. As shown by the name candidus (= white or snow white), the animal is of a white colour and thus cannot be C. tyrrhena which is pink, while C. pontica is indeed white. Furthermore Olivi's figure shows the merus of the large cheliped with a triangular pointed process on the lower margin as is found in C. pontica; this process in C. tyrrhena is rounded and of a quite different shape.

We have followed the International Code of Zoological Nomenclature strictly and used the name *candida* for the present species as (1) it is the oldest available and thus only valid name for the species, (2) as it makes *Gebios davianus* a junior synonym and thus no longer a threat to stability, and (3) it

makes an end to the controversy about the names pontica vs. pestae. Also the considerable age of the name makes it unlikely that older synonyms will ever be discovered. The strict application of priority in this case will be in the interest of stability. Also the question whether Cancer tyrrhenus Petagna, 1792, is older or younger than Cancer candidus Olivi, 1792, ceases to be a potential threat to the validity of the former name.

# Gourretia denticulata (Lutze, 1937)

Material examined. — Famagusta Bay, 20 fms (= 37 m), BT; 15 February 1968; SFRS, SLMB 1541 Dec. 1098; 1 specimen. — 10 fms (= 18 m), BT; 16 February 1968; SFRS, SLMB 1552 Dec. 1096; 1 specimen. — 10 fms (= 18 m), BT; 16 February 1968; SFRS, SLMB 1552 Dec. 1103; 2 specimens. — 30 fms (= 55 m), BT; 16 February 1968; SFRS, SLMB 1546 Dec. 1097; 1 specimen. — 12 fms (= 22 m), Dg; 5 March 1969; SFRS, SLM 781 Dec. 1095; 1 specimen. — 5 fms (= 9 m), Dg; 7 March 1969; SFRS, SLM 793 Dec. 1104; 2 specimens. — 75-80 fms (= 137-146 m), Dg; 8 March 1969; SFRS, SLM 796 Dec. 1093; 1 specimen.

N. of Paphos, profile XXVI, 15 fms (= 27 m), RDg; 31 October 1968; HUJ, SLM 1829 Dec. 408; 3 specimens.

The species is known from both the western and eastern Mediterranean, but so far had not been reported from Cyprus waters.

The species is best known under the name Callianassa minor. It was first described by Gourret (1887) as Callianassa subterranea var. minor, and was later placed by De Saint Laurent (1973: 514) in a separate genus Gourretia of which it was made the type species. In 1979 De Saint Laurent (in De Saint Laurent & LeLoeuff, 1979: 79, footnote) drew the attention to the fact that the name Callianassa subterranea minor Gourret, 1887, is a junior primary homonym of Callianassa minor Fischer, 1866 (in Falsan & Locard, Monographie géologique du Mont d'Or Lyonnais: 435, pl. 1 fig. 2) a fossil species from the Miocene of southern France. At the same time De Saint Laurent proposed a new replacement name, Gourretia serrata nom. nov., for the species. She overlooked, however, that there is another available replacement name, viz., Callianassa denticulata Lutze (1937: 5-12, figs. 1-7), which species De Saint Laurent & Božić (1976: 27) had already correctly synonymized with Callianassa minor Gourret. The correct name for the present species thus is Gourretia denticulata (Lutze, 1937). It is pleasant to know that at least the name of one of the new species described by Lutze is saved from oblivion. Johannes Lutze, after his retirement from a 40 years service as minister of the Lutheran church in Germany, started his biology studies in 1930. In 1938, when 73 years old, he obtained his Ph. D. on a thesis on Callianassa. His taxonomic work in this was severely criticized by contemporaries, and justifiedly

so. He described three new species, all of which were sunk as synonyms of existing species. His *C. denticulata* can now be saved, as the name of its senior synonym (*C. minor*) proves to be a junior homonym itself. The valiant efforts of the septuagenarian thus have not been entirely in vain.

# Upogebiidae

## Upogebia deltaura (Leach, 1815)

Material examined. — Famagusta Bay, 10 fms (= 18 m), BT; 15 February 1968; SFRS, SLMB 1540 Dec. 1105; 1 specimen. — 10 fms (= 18 m), BT; 16 February 1968; SFRS, SLMB 1552 Dec. 1101; 1 specimen. — 10 fms (= 18 m), BT; 16 February 1968; SFRS, SLMB 1552 Dec. 1099; 2 specimens. — 10 fms (= 18 m), Dg; 16 February 1968; SFRS, SLMB 1553 Dec. 1091; 1 specimen. — 10 fms (= 18 m), BT; 5 March 1969; SFRS, SLM 785 Dec. 1094; 3 specimens. — 10 fms (= 18 m), Dg; 7 March 1969; SFRS, SLM 793 Dec. 1090; 2 specimens. — 75-80 fms (= 137-146 m), Dg; 8 March 1969; SFRS, SLM 796 Dec. 1092; 1 specimen.

N.W. of Cape Pyla, 4-5 m deep, poisoning among rocks; 26 October 1969; HUJ, SLM 3518 Dec. 558; 1 specimen.

Upogebia deltaura is known throughout the Mediterranean, but the records from the eastern part are very few. This is the first time that the species is reported from Cyprus.

## Upogebia tipica (Nardo, 1869)

Material examined. — Cape Kiti, 1-2 m deep, poisoning near rocks; 27 August 1970; TAU, SLM 7647 Dec. 1102; 3 specimens.

Mare Monte, rocks in the bay, poisoning; 25 October 1968; HUJ, SLM 1594 Dec. 378; 1 specimen.

The species is known from both the western and eastern part of the Mediterranean, but so far had not been reported from Cyprus.

### Suborder ANOMURA

# Diogenidae

### Diogenes pugilator (Roux, 1829)

Material examined. — Koma tou Yialou, 4 m deep; 22 October 1968; HUJ, SLM 904 Dec. 340; 1 &.

Boghaz, sand between rocks, 1-2 m deep, poisoning; 25 August 1970; TAU, SLM 7603 Dec. 1024; 2 specimens.

Famagusta Bay, 3 fms (= 5.5 m), Dg; 5 March 1968; SFRS, SLM 783 Dec. 1023; 24 specimens. Cape Kiti, sand near rocks, 1-2 m deep, poisoning; 27 August 1970; TAU, SLM 7652 Dec. 1025; 1 specimen.

Cape Dolos, sandy bottom, 29 October 1968; HUJ, SLM 1626 Dec. 382; 4 specimens. — 3 m deep, poisoning; 23 October 1969; HUJ, SLM 3440 Dec. 552; 2 specimens.

Khrysokhou Bay, 4 m deep, poisoning; 19 October 1969; HUJ, SLM 3297 Dec. 1022; 1 ovigerous 9.

Mare Monte, 2-3 m deep; 25 October 1968; HUJ, SLM 1541 Dec. 367; 4 specimens (1 ovigerous  $\mathfrak{P}$ ).

W. of Kyrenia, on rocks; 26 August 1970; TAU, SLM 7621 Dec. 1026; 4 specimens (1 ovigerous ?). — on sand, 5 m deep; 26 August 1970; TAU, SLM 7636 Dec. 1027; 5 specimens. Yialousa, infralittoral; 23 October 1968; HUJ, SLM 929 Dec. 350; 2 specimens.

A common species from fine sandy beaches throughout the Mediterranean. Although repeatedly reported from the eastern Mediterranean, *Diogenes pugilator* so far was not known from Cyprus.

# Paguristes eremita (Linnaeus, 1767)

Paguristes oculatus - Demetropoulos & Neocleous, 1969: 18.

Material examined. — Boghaz, under a stone, 0-1 m deep; 25 August 1970; TAU, SLM 7601 Dec. 1066; 13.

Famagusta Bay, 15 fms (= 27 m), Dg; 2 September 1967; SFRS, SLMB 1528 Dec. 1064; 2 specimens. — 40 fms (= 73 m), ODg; 15 February 1968; HUJ, SLM 606 Dec. 304; 1 specimen. — 40-45 fms (= 73-82 m), BT; 16 February 1968; SFRS, SLMB 1547 Dec. 1071; 2 specimens. — 40-45 fms (= 73-82 m), BT; 16 February 1968; SFRS, SLMB 1547 Dec. 1072; 2 specimens. — 45 fms (= 82 m), BT; 16 February 1968; SFRS, SLMB 1549 Dec. 1070; 1 specimen. — profile V, 10 fms (= 18 m), Dg; 23 October 1968; HUJ, SLM 640 Dec. 314; 3 specimens. — 50 fms (= 91 m), BT; 20 May 1969; SFRS, SLM 2008 Dec. 1073; 1 ovigerous \( \frac{9}{2} \). — 25 fms (= 46 m), BT; 20 November 1969; SFRS, SLM 6041 Dec. 1059; 1 specimen. — 50 fms (= 91 m), BT; 20 November 1969; SFRS, SLM 6043 Dec. 1060; 1\( \frac{9}{2} \).

E. of Dekhelia, 5-6 m deep; 24 August 1970; TAU, SLM 7562 Dec. 1074; 12 specimens. N.W. of Cape Pyla, tide pool; 27 October 1969; HUJ, SLM 3576 Dec. 560; 1 juvenile.

Petounda Point, profile VI, 25 fms (= 46 m), Dg; 23 October 1968; HUJ, SLM 645 Dec. 316; 3 specimens. — profile VI, 7-10 fms (= 13-18 m), Dg; 24 October 1968; HUJ, SLM 646 Dec. 318; 25, 3° (1°2 with attached glaucothoe).

S.E. of Vasilikos, profile VII, 50 fms (= 91 m), ODg; 24 October 1968; HUJ, SLM 648 Dec. 319; 1°. — profile VII, 25 fms (= 46 m), Dg; 24 October 1968; HUJ, SLM 649 Dec. 320; 2 specimens.

Cape Dolos, profile VIII, 75 fms (= 137 m), ODg; 24 October 1968; HUJ, SLM 651 Dec. 511; 1 juvenile in *Dentalium* shell. — profile VIII, 50 fms (= 91 m), ODg; 25 October 1968; HUJ, SLM 652 Dec. 512; 1 juvenile in *Dentalium* shell. — profile VIII, 32 fms (= 59 m), RDg; 25 October 1968; HUJ, SLM 653 Dec. 513; 2 juveniles in *Dentalium* shells. — profile VIII, 32 fms (= 59 m), RDg; 25 October 1968; HUJ, SLM 653 Dec. 322; 3 ovigerous ?.

S.W. of Cape Dolos, profile IX, 15 fms (= 27 m), ODg; 25 October 1968; HUJ, SLM 658 Dec. 325;  $1\delta$ .

Akrotiri Bay, 20 fms (= 37 m), Dg; 23 June 1967; SFRS, SLMB 1504 Dec. 1063; 1 ovigerous ?.-20 fms (= 37 m), BT; 23 June 1967; SFRS, SLMB 1505 Dec. 1065; 1?.-30 fms (= 55 m), Dg; 13 February 1968; SFRS, SLMB 1531 Dec. 1067: 1&...2?.-20 fms (= 37 m), Dg; 13 February 1968; SFRS, SLMB 1533 Dec. 1069; 1&...-20 fms (= 37 m), Dg; 13 February 1968; SFRS, SLMB 1533 Dec. 1068; 1 juvenile, probably from *Dentalium* shell. -20 fms (= 37 m), BT; 9 November 1969; SFRS, SLM 6036 Dec. 1058; 11 specimens (8 ovigerous ?.-40-50 fms (= 73-91 m), BT; 9 November 1969; SFRS, SLM 6038 Dec. 1075; 2&...2 ovigerous ?.-60-80 fms (= 110-146 m), BT; 9 November 1969; SFRS, SLM 6039 Dec. 1076; 3 specimens. -30-35 fms (= 55-64 m), BT; 9 November 1969; SFRS, SLM 6037 Dec. 1061; 5 specimens.

South of Paphos, profile XXVIII, 10 fms (= 18 m), RDg; 31 October 1968; HUJ, SLM 1837 Dec. 413; 2 specimens.

N.W. of Paphos, profile XXVI, 25 fms (= 46 m), ODg; 31 October 1968; HUJ, SLM 1828 Dec. 407;  $1\delta$ .

Khrysokhou Bay, 4 m deep, poisoning; 19 October 1969; HUJ, SLM 3297 Dec. 544; 19. Mare Monte, 2-3 m deep; 25 October 1968; HUJ, SLM 1541 Dec. 1062; 19.

This species, which evidently is quite common in shallow offshore waters of Cyprus, was only once before reported from the island, namely by Demetropoulos & Neocleous (1969) who reported it as common in depths between 5 and 15 fms (= 9 and 27 m) in Larnaca Bay between Akrotiri Bay and Cape Greco.

The species is best known under the name *Paguristes oculatus* (Fabricius, 1775), but as pointed out by Holthuis (1977: 58) there can be no doubt that it was first described by Linnaeus (1767: 1049) under the name *Cancer Eremita*. It seems best in this instance to keep strictly to the International Code of Zoological Nomenclature, and use the oldest available, and thus valid, name for the species. This hermit crab is neither of economic importance, nor has its name often been used in applied scientific literature. The change of the name therefore will not cause too much confusion.

#### Clibanarius erythropus (Latreille, 1818)

Material examined. — Koma tou Yialou, intertidal; 22 October 1968; HUJ, SLM 856 Dec. 336; 6 juveniles. — 4 m deep; 22 October 1968; HUJ, SLM 903 Dec. 1032; 2 specimens. — jetty area, sand between rocks, 1-3 m deep; 25 August 1970; TAU, SLM 7609 Dec. 1028; 9 specimens.

Boghaz, under stones, 0-1 m deep; 25 August 1970; TAU, SLM 7601 Dec. 1029; 13 specimens (4 ovigerous ?).

E. of Dekhelia, under stones, 0-1 m deep; 24 August 1970; TAU, SLM 7569 Dec. 1033; 45 specimens (8 ovigerous <sup>9</sup>). — under stones, 0-2 m deep; 24 August 1970; TAU, SLM 7583 Dec. 1034; 15 specimens (4 ovigerous <sup>9</sup>).

Cape Kiti, 3 m deep, poisoning; 25 October 1969; HUJ, SLM 3450 Dec. 554; 1 specimen. Cape Dolos, among *Posidonia*; 29 October 1968; HUJ, SLM 1672 Dec. 388; 1 specimen. — 29 October 1968; HUJ, SLM 1680 Dec. 389; 1 specimen. — 1 m deep; 23 October 1969; HUJ, SLM 3418 Dec. 550; 2 specimens.

Paphos, intertidal; 30 October 1968; HUJ, SLM 1688 Dec. 391; 2 juveniles. — beach rock, 1 m deep; 30 October 1968; HUJ, SLM 1702 Dec. 393; 1 specimen.

Ayios Yeoryios, intertidal; 20 October 1969; HUJ, SLM 3344 Dec. 545; 4 specimens. — shallow rocky lagoon, 0-1 m deep; 22 August 1970; TAU, SLM 7511 Dec. 1035; 93 specimens (14 ovigerous ?). — rock pools, 0-50 cm deep; 23 August 1970; TAU, SLM 7534 Dec. 1036; 72 specimens (18 ovigerous ?).

Khrysokhou Bay, 4 m deep, poisoning; 19 October 1969; HUJ, SLM 3297 Dec. 1031; 1 specimen.

Mare Monte, Karavas, under stones; 24 October 1968; HUJ, SLM 976 Dec. 357; 5 specimens. — 25 October 1968; HUJ, SLM 1505 Dec. 362; 1 specimen. — 2-3 m deep, 25 October 1968; HUJ, SLM 1541 Dec. 1030; 3 specimens. — intertidal; 25 October 1968; HUJ, SLM 992 Dec. 361; 16 juveniles. — rocks, poisoning; 26 October 1968; HUJ, SLM 1596 Dec. 380; 6 specimens. — on rocky plateau, poisoning; 26 October 1968; HUJ, SLM 1580 Dec. 374; 4 specimens.

Yialousa, intertidal; 23 October 1968; HUJ, SLM 911 Dec. 343; 116 specimens. — intertidal; 23 October 1968; HUJ, SLM 921 Dec. 348; 11 specimens.

Clibanarius erythropus is a common intertidal and subtidal species in the Mediterranean and has repeatedly been reported from the eastern Mediterranean. So far it was not known from Cyprus.

## Calcinus tubularis (Linnaeus, 1767)

Material examined. — Koma tou Yialou, 4 m; 22 October 1968; HUJ, SLM 896 Dec. 514; 1 juvenile. — 4 m; 22 October 1968; HUJ, SLM 903 Dec. 1006; 3 specimens.

E. of Dekhelia, 5-6 m deep; 24 August 1970; TAU, SLM 7562 Dec. 1008; 2\$, 2\$ (1 ovigerous). Cape Kiti, 3 m deep, poisoning; 25 October 1969; HUJ, SLM 3450 Dec. 1002; 1 specimen. Petounda Point, profile VI, 7-10 fms (= 13-18 m), Dg; 24 October 1968; HUJ, SLM 646 Dec. 1007; 1\$.

Cape Dolos, intertidal; 22 October 1969; HUJ, SLM 3410 Dec. 617; 1 specimen.

Akrotiri Bay, profile XVII, 12 fms (= 22 m), RDg; 27 October 1968; HUJ, SLM 689 Dec. 1004: 1 specimen.

Ayios Yeoryios, shallow rocky lagoon, 0-1 m deep; 22 August 1970; TAU, SLM 7511 Dec. 1003; 3 specimens.

Mare Monte, Karavas; 25 October 1968; HUJ, SLM 1505 Dec. 1005; 1s.-25 October 1968; HUJ, SLM 1514 Dec. 363; 1 specimen.

W. of Kyrenia, on rocks, 1-5 m deep; 26 August 1970; TAU, SLM 7621 Dec. 1001; 5 &, 2 \chi.

Calcinus tubularis occurs throughout the Mediterranean and has been reported several times from the eastern part. It is considered rather uncommon and had not been reported before from Cyprus. As the above material shows, it probably is not as rare as it was thought to be.

The species is best known as *Calcinus ornatus* (P. Roux, 1830), but as pointed out by Holthuis (1977: 59) there can be no doubt that *Cancer tubularis* L., 1767 is the oldest name for it. As *Calcinus tubularis* is generally considered a rare species, and as it is not of commercial importance and seldom is mentioned in papers dealing with applied science, the change of its name will not cause undesirable confusion.

### Dardanus arrosor (Herbst, 1796)

Pagurus arrosor — Demetropoulos & Neocleous, 1969; 18.

Material examined. — Akrotiri Bay, 45-50 fms (= 82-91 m), BT; 9 November 1969; SFRS, SLM 6038 Dec. 1084: 19.

Episkopi Bay, 130 fms (= 238 m); 9 November 1959; TAU; 1 specimen.

Dardanus arrosor is a well known species throughout the Mediterranean and there are several records from the eastern basin. Demetropoulos & Neocleous (1969) reported it as common in Cyprus waters, indicating that it has been found in more than half of the seven areas in which they had subdivided the Cyprus coastal waters.

### Dardanus calidus (Risso, 1827)

Material examined. — Ayios Yeoryios, shallow rocky lagoon, 0-1 m deep; 22 August 1970; TAU, SLM 7507 Dec. 1083; 1°.

Cyprus; collection of the Fisheries Department, Nicosia; 3 dry specimens.

Dardanus calidus, although not reported before from Cyprus, was known from Greece, Turkey, Israel and Lybia.

## Paguridae

#### Pagurus cuanensis Bell, 1845

(?) Eupagurus bernhardus — Demetropoulos & Neocleous, 1969: 18.

Material examined. — Koma tou Yialou, infralittoral; 22 October 1968; HUJ, SLM 872 Dec. 338; 1 specimen. — 4 m deep; 22 October 1968; HUJ, SLM 903 Dec. 1021; 1 &.

Famagusta Bay, 15 fms (= 27 m), Dg; 2 September 1967; SFRS, SLMB 1528 Dec. 1011;  $1^{\circ}$ . — 10 fms (= 18 m), BT; 15 February 1968; SFRS, SLMB 1540 Dec. 1019; 1 specimen. — 10 fms (= 18 m), Dg; 16 February 1968; SFRS, SLMB 1553 Dec. 1015; 1 ovigerous  $^{\circ}$ . — profile V, 10 fms (= 18 m), Dg; 23 October 1968; HUJ, SLM 640 Dec. 1017;  $1^{\circ}$ . — 12 fms (= 22 m), Dg; 5 March 1969; SFRS, SLM 781 Dec. 1020; 1 ovigerous  $^{\circ}$ . — 10 fms (= 18 m), BT; 5 March 1969; SFRS, SLM 785 Dec. 1018; 1 ovigerous  $^{\circ}$ .

E. of Dekhelia, 5-6 m deep; 24 August 1970; TAU, SLM 7562 Dec. 1016; 35, 29.

Petounda Point, profile VI, 6-7 fms (= 11-13 m), Dg; 24 October 1968; HUJ, SLM 646 Dec. 1014; 18.

Cape Gata, profile XVIII, 50 fms (= 91 m), ODg; 27 October 1968; HUJ, SLM 692 Dec. 333;  $1^{\circ}$ .

South Peninsula, profile XVII, 12 fms (= 22 m), RDg; 27 October 1968; HUJ, SLM 689 Dec. 331;  $1\delta$ .

Pagurus cuanensis is found throughout the Mediterranean and has repeatedly been reported from the eastern part, as far east as the coast of Israel. It is now recorded for the first time from Cyprus, unless Demetropoulos & Neocleous (1969) record of "Eupagurus bernhardus" refers to the present species (see under P. prideaux).

# Pagurus excavatus (Herbst, 1791)

Material examined. — Famagusta Bay, 45 fms (= 82 m), BT; 16 February 1968; SFRS, SLMB 1549 Dec. 1010; 19. — 100 fms (= 183 m), BT; 6 March 1969; SFRS, SLM 792 Dec. 1009; 28. Akrotiri Bay, 45-50 fms (= 82-91 m), BT; 9 November 1969; SFRS, SLM 6038 Dec. 1013; 48, 49 (3 ovigerous). — 60-80 fms (= 110-146 m), BT; 9 November 1969; SFRS, SLM 6039 Dec. 1012; 18.

The name Pagurus alatus Fabricius, 1775 was recently commonly employed for this species, until Ingle (1985: 762, 763) showed that the type of Fabricius' species belonged to the species until then indicated as Pagurus variabilis A. Milne Edwards & Bouvier, 1892. The name Pagurus alatus Fabr. thus has to be used for this northern species, the oldest available name for the Mediterranean species proves to be Pagurus excavatus (Herbst, 1791), a name often used for it by older authors.

Pagurus excavatus is known from the entire Mediterranean and has several times been mentioned from the eastern part of this sea (Greece, Turkey, Israel). This is the first time that it is reported from Cyprus.

### Pagurus anachoretus Risso, 1827

Material examined. — Koma tou Yialou, 4 m deep; 22 October 1968; HUJ, SLM 903 Dec. 339; 1 &. — jetty area, sand and rocks, 1-3 m deep; 25 August 1970; TAU, SLM 7609 Dec. 1078; 4 specimens (2 ovigerous §).

Famagusta Bay, profile V, 10 fms (= 18 m), Dg; 23 October 1968; HUJ, SLM 640 Dec. 1082; 1 ovigerous  $\circ$ .

E. of Dekhelia, 5-6 m deep; 24 August 1970; TAU, SLM 7561 Dec. 1079; 1 ovigerous <sup>Q</sup>. — 5-6 m deep; 24 August 1970; TAU, SLM 7562 Dec. 1081; 2 δ, 1 Q.

Akrotiri Bay, profile X, 15 fms (= 27 m), ODg; 25 October 1968; HUJ, SLM 661 Dec. 326; 1 specimen. — profile XI, 10 fms (= 18 m), ODg; 25 October 1968; HUJ, SLM 666 Dec. 328; 1.8.

Coral Bay, 5 m deep; 31 October 1968; HUJ, SLM 1761 Dec. 400; 18.

Ayios Yeoryios, shallow rocky lagoon, 0-1 m deep; 22 August 1970; TAU, SLM 7511 Dec. 1077; 1 specimen.

W. of Kyrenia, on rocks; 26 August 1970; TAU, SLM 7621 Dec. 1080; 28.

Yialousa; 23 October 1968; HUJ, SLM 963 Dec. 356; 3 specimens.

This species is widely distributed in the Mediterranean and has been reported from several localities in the eastern part (Greece, Turkey, Israel, Egypt). So far, however, it was not known from Cyprus.

## Pagurus prideaux Leach, 1815

Eupagurus prideauxi — Demetropoulos & Neocleous, 1969: 18. ? Eupagurus bernhardus — Demetropoulos & Neocleous, 1969: 18.

Material examined. — Famagusta Bay, 20 fms (= 37 m): 28 June 1967; SFRS, SLMB 1516 Dec. 1052;  $3\delta$  (2 in shell with *Adamsia*). — 30 fms (= 55 m), BT; 15 February 1968; SFRS, SLMB 1537 Dec. 1048;  $1^{\circ}$  (in shell with *Adamsia*). — 20 fms (= 37 m), BT; 15 February 1968; SFRS, SLMB 1541 Dec. 1045; 1 specimen in shell with *Adamsia*. — 30 fms (= 55 m), BT; 16 February 1968; SFRS, SLMB 1546 Dec. 1049;  $1\delta$ ,  $2^{\circ}$  (1 ovigerous). — 40-45 fms (= 73-82 m), BT; 16 February 1968; SFRS, SLMB 1547 Dec. 1046; 1 specimen in shell with *Adamsia*. — 25 fms (= 46 m), Dg; 23 October 1968; HUJ, SLM 634 Dec. 309;  $1\delta$ . — 30 fms (= 55 m), BT; 20 May 1969; SFRS, SLM 2005 Dec. 1051; 1 ovigerous  $^{\circ}$ .

Akrotiri Bay, 20 fms (= 37 m), BT; 23 June 1967; SFRS, SLMB 1510 Dec. 1047; 1 ovigerous 2. — 30 fms (= 55 m), Dg; 13 February 1968; SFRS, SLMB 1531 Dec. 1050; 18.

Pagurus prideaux, well known by its association with the actinian Adamsia palliata (Bohadsch), occurs throughout the Mediterranean and has several times been reported from the eastern basin. Demetropoulos & Neocleous were the first to cite it for Cyprus, they found the species common in depths of 10 to 12 fathoms (= 18-22 m) in Episkopi Bay.

The same authors also reported "Eupagurus bernhardus" as common in Cyprus waters. So far there has not been any substantiated record of Pagurus bernhardus (L.) from the Mediterranean, most such records proved to be based on Pagurus prideaux material. In the present case this is rather unlikely as Demetropoulos & Neocleous reported upon that species under its true name (be it placed in the genus Eupagurus and the species name misspelled prideauxi). It is possible that what Demetropoulos & Neocleous named Eupagurus bernhardus actually is Pagurus cuanensis, a species well represented in the present material and sometimes confused with P. bernhardus. Only examination of Demetropoulos & Neocleous' material can solve this problem.

## Cestopagurus timidus (P. Roux, 1830)

Material examined. — Famagusta Bay, profile III, 25 fms (= 46 m), Dg; 23 October 1968; HUJ, SLM 634 Dec. 1054; 13.

E. of Dekhelia, among stones, 0-1 m deep; 24 August 1970; TAU, SLM 7580 Dec. 1056; 28.

N.W. of Cape Pyla, on rocks, 4-5 m deep, poisoning; 26 October 1969; HUJ, SLM 3518 Dec. 558; 18.

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

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;  $1 \, \delta$ . — 12 fms (= 22 m), Dg; 5 March 1969; SFRS, SLM 781 Dec. 1040; 5 specimens (1 ovigerous  $^{\circ}$ ). — 75 fms (= 137 m), BT; 6 March 1969; SFRS, SLM 791 Dec. 1039;  $1 \, \delta$ . — 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;  $20 \, \delta$ ,  $23 \, \circ$  (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;  $1 \delta$ .

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; 1δ. — profile IV, 25-27 fms (= 46-49 m), ODg; 23 October 1968; HUJ, SLM 636 Dec. 311; 1δ.

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; HUJ, 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.

Material examined. — Famagusta Bay, 10 fms (= 18 m), Dg; 16 February 1968; SFRS, SLMB 1553 Dec. 1292; 1°. — 55-60 fms (= 101-110 m), Dg; 16 February 1968; SFRS, SLMB 1548 Dec. 1293; 1°. — 30 fms (= 55m), BT; 16 February 1968; SFRS, SLMB 1550 Dec. 1295; 1 °.

E. of Dekhelia, 5-6 m deep, poisoning; 24 August 1970; TAU, SLM 7557 Dec. 1370; 1 &. S.E. of Vasilikos, profile VII, 25 fms (= 46 m), Dg; 24 October 1968; HUJ, SLM 649 Dec. 1294: 1 \cdot .

Akrotiri Bay, 30 fms (= 55 m), Dg; 13 February 1968; SFRS, SLMB 1531 Dec. 1296; 18. — 45-50 fms (= 82-91 m), BT; 9 November 1969; SFRS, SLM 6038 Dec. 1291; 18.

Cape Andreas, 20 fms (= 37 m), BT; 22 May 1969; SFRS, SLM 2025 Dec. 1297; 1 juvenile & .

The first record of this species from Cyprus is a rather dubious one. Plateau (1884), namely states that "l'animal aurait été trouvé aux sources de la Ballahusa, à 3 ou 4 kilomètres de la mer, courant avec rapidité d'une pierre à l'autre". Neither the habitat (a freshwater source) nor the behaviour (running fast from one stone to another) fits the present species, which is an inhabitant from the deeper infra-littoral sea waters (6-110 m) and moves slowly. Plateau remarked that there could be no doubt as to the correctness of the identification. He thought therefore that the animal had accidentally been carried inland by fishermen, or by birds, and escaped there. It seems more likely, however, that the locality label was incorrect.

Demetropoulos & Neocleous mentioned the species as being taken occasionally on the north coast between Cape Andreas and Cape Kormakiti and on the southeast coast between Cape Greco and Cape Andreas, where it has been found at a depth of 20 fms (= 37 m).

## Dorippidae

#### Ethusa mascarone (Herbst, 1785)

Ethusa mascarone — Demetropoulos & Neocleous, 1969: 18.

Material examined. — Famagusta Bay, 45 fms (= 82 m), Dg; 15 February 1968; SFRS, SLMB 1535 Dec. 1304;  $1\circ.$  — 10 fms (= 18 m), BT; 15 February 1968; SFRS, SLMB 1540 Dec. 1308;  $1\circ.$  — 20 fms (= 37 m), BT; 15 February 1968; SFRS, SLMB 1541 Dec. 1305;  $2\circ.$  — 45 fms (= 82 m), BT; 16 February 1968; SFRS, SLMB 1549 Dec. 1307;  $1\circ.$  — 20 fms (= 37 m), BT; 16 February 1968; SFRS, SLMB 1551 Dec. 1310;  $2\circ.$  — 20 fms (= 37 m), BT; 16 February 1968; SFRS, SLMB 1551 Dec. 1311;  $4\circ.$  2 $\circ.$  — 40-45 fms (= 73-82 m), BT; 16 February 1968; SFRS, SLMB 1547 Dec. 1312;  $1\circ.$  — profile V, 10 fms (= 18 m), Dg; 23 October 1968; HUJ, SLM 640 Dec. 313;  $1\circ.$  — 30 fms (= 55 m), BT; 21 May 1969; SFRS, SLM 2017 Dec. 1306.

Petounda Point, 25 fms (= 46 m), Dg; 24 October 1968; HUJ, SLM 645 Dec. 315; 19. Cape Dolos, profile VIII, 32 fms (= 59 m), RDg; 25 October 1968; HUJ, SLM 653 Dec. 321; 13.

Akrotiri Bay, 30 fms (= 55 m), Dg; 13 February 1968; SFRS, SLMB 1531 Dec. 1309; 3 &, 3 \, 2. S. of Paphos, profile XXVIII, 10 fms (= 18 m), RDg; 31 October 1968; HUJ, SLM 1837 Dec. 412; 1 \, \.

The species was reported from the north coast of Cyprus between Cape Andreas and Cape Kormakiti by Demetropoulos & Neocleous, they found it to be rare and occurring in depths of 5 to 15 fms (= 9-27 m). Ethusa mascarone occurs throughout the Mediterranean.

# Medorippe lanata (Linnaeus, 1767)

Material examined. — Cyprus, 20-30 fms (= 37-55 m), trawl; 30 November 1968; Fisheries Department, Nicosia; 2 specimens.

Medorippe lanata is a well known species found throughout the Mediterranean, but so far had not been reported for Cyprus.

## Calappidae

# Calappa granulata (Linnaeus, 1758)

Calappa granulata — Demetropoulos & Neocleous, 1969: 18.

Material examined. — Morphou Bay, 40-48 fms (= 73-88 m); 17 October 1967; Fisheries Department, Nicosia, no. 514; 18 (det. Renos Livadas).

Demetropoulos & Neocleous reported the species as rare from the S.W. coast of Cyprus between Arnauti and Cape Aspro. Dr. L. D. Brongersma of the Leiden Museum, in May 1984, noticed a dry specimen of this species on a display board among other marine life, shown in a restaurant in Ayios Yeoryios; a photograph of the board was taken by him.

#### Leucosiidae

## Ilia nucleus (Linnaeus, 1758)

Ilia nucleus - Demetropoulos & Neocleous, 1969: 18.

Material examined. — Famagusta Bay, 55-60 fms (= 101-110 m), Dg; 16 February 1968; SFRS, SLMB 1548 Dec. 1316;  $1^{\circ}$ . — 20-25 fms (= 37-46 m), BT; 7 March 1969; SFRS, SLM 794 Dec. 1320;  $1^{\circ}$ . — 75-80 fms (= 137-146 m), Dg; 8 March 1969; SFRS, SLM 796 Dec. 1318;  $1^{\circ}$ . — 50 fms (= 91 m), BT; 20 May 1969; SFRS, SLM 2008 Dec. 1319;  $1^{\circ}$ . — 30 fms (= 55 m), BT; 21 May 1969; SFRS, SLM 2017 Dec. 1315;  $1^{\circ}$ .

Akrotiri Bay, 30 fms (= 55 m), Dg; 13 February 1968; SFRS, SLMB 1531 Dec. 1321; 1\$\delta\$, 1\$\varphi\$. — 20 fms (= 37 m), BT; 9 November 1969; SFRS, SLM 6036 Dec. 1314; 1\$\varphi\$. — 45-50 fms (= 82-91 m), BT; 9 November 1969; SFRS, SLM 6038 Dec. 1317; 1\$\varphi\$.

Demetropoulos & Neocleous reported *Ilia nucleus* from depths between 0 and 10 fms (= 0-18 m) from Larnaca Bay, from the N.W. coast between Cape Arnauti and Cape Kormakiti, and from the north coast between Cape Andreas and Cape Kormakiti; it was said to be of occasional occurrence.

## Ebalia granulosa H. Milne Edwards, 1837

Material examined. — Akrotiri Bay, 60-70 fms (= 110-128 m), BT; 9 November 1969; SFRS, SLM 6039 Dec. 1371; 1 specimen.

The specimen is damaged and lacks all the legs. Therefore the identification is not fully certain, and the possibility exists that it belongs to *E. cranchii* Leach.

Ebalia granulosa is not a well known species. It has been reported from the western Mediterranean, from Greece and from the coast of Israel.

#### Ebalia nux A. Milne Edwards, 1883

Ebalia nux — Adensamer, 1898: 597-601, 603-608, 617.

The only record of this species from the Cyprus area is the one by Adensamer (1898: 603, 617), who reported material from N. of the island at 35°57′N 32°51′E, dredged at 315 m from a bottom of loose yellow sand with encrusted rocks (27 September 1892, "Pola" Sta. 175).

Ebalia nux has been found throughout the Mediterranean and has been reported from depths between 80 and 2400 m. Adensamer (1898) reported upon specimens from many localities in the eastern Mediterranean, and so did Vamvakas (1970).

## Pirimelidae

# Pirimela denticulata (Montagu, 1808)

Material examined. — Limassol, washed ashore on beach; 13-19 April 1983: RMNH, J.A.W. Lucas; 10 specimens.

The dry specimens found washed ashore provide the first record of the species for Cyprus. *Pirimela denticulata* had been reported from various parts of the eastern Mediterranean and is quite common in the western basin.

## Sirpus zariquieyi Gordon, 1953

Material examined. — Famagusta Bay, 14 fms (= 26 m), Dg; 20 May 1969; SFRS, SLM 2002 Dec. 1289; 3 &.

Akrotiri Bay, 10-12 fms (= 18-22 m), Dg; 9 November 1969; SFRS, SLM 6035 Dec. 1288; 19.

Originally described from the western Mediterranean Sirpus zariquieyi has been found to be widely distributed in the entire Mediterranean and has also been reported from the Sea of Marmara and the Black Sea, as well as from Turkey and Israel. It is now reported for the first time from Cyprus.

#### Portunidae

#### Carcinus aestuarii Nardo, 1847

Carcinus moenas — Fodera, 1961: 77. Carcinus maenas — Demetropoulos & Neocleous, 1969: 19.

The species was reported from Cyprus by Fodera without any more accurate indication of locality or other details. Demetropoulos & Neocleous cited Fodera's record, but did not add anything new. No Cyprus material has been seen by us.

The nomenclature of the species needs some remarks. Until the middle of this century the Mediterranean shore crab was not distinguished from the Atlantic species, and the name Carcinus maenas was used for both. When it was shown that the two species are distinct, the Mediterranean species received the very appropriate name Carcinus mediterraneus Czerniavsky, 1884. In a recent publication (Manning & Holthuis, 1981: 74, 75) it was mentioned that an older name for the Mediterranean shore crab is available, viz., Carcinus aestuarii Nardo, 1847. Nardo's (1847: 16-19) account of the species provides hardly any morphological details of it, and only after careful considerations it was decided that the name aestuarii could be used. The information on the species in Nardo's (1847) publication is provided in tabular form. The first column of the table contains the vernacular name "Granzo", the second the scientific name "Carcinus maenas, Leac. var. aestuarii, nob. an sp. dist.

Cancer maenas-var, Chier., sp. 11, fig. 11-28.". The reference to Chiereghin is to an unpublished manuscript, which only much later was extensively dealt with, namely by Nardo (1869). In the third column the size of the species is indicated "2 poll. circa". As this is only a global indication (about 2 inches), it can hardly count as a description. The following columns deal with the habitat, the months in which the species occurs in Venice, the fishing method and the human usage of the animals. In the last column, entitled "Particolarità" the following information, dealing with the behaviour of the species is provided [p. 17]: "Il maschio dopo l'anno, a detto de'pescatori, mutasi due volte, cioè in primavera ed in autunno, e la femmina in autunno soltanto posteriormente alla muta de'maschi. Il maschio protegge la femmina per tutto il tempo della sua muta, e seco la trasporta gelosamente sul [p. 19:] dorso, così preparandone la fecundazione. Quando si preparano alla muta diventano come immobili, ed allora diconsi spiantani. Quando è loro caduta la vecchia crosta diconsi moleche perchè allora hanno la nuova ancora molle e membranosa. Resistono i granzi per più giorni fuor d'acqua e senza mangiare.". The description of the habits of the species combined with the rough indication of the size is sufficient, we think, to make the specific name aestuarii an available name; nowhere in the Code it is stated that the description of a species has to be a description of morphological characters. Therefore the name aestuarii Nardo, 1847 has to be used in preference to mediterraneus. Nardo (1847a: 1, 2) in another paper published the same year used also the name "Carcinus moenas. Var., Aestuarii" as the modern name for what Chiereghin in his manuscript named "Can[cer]. moenas, var., Ch.". In this publication Nardo provided no description or other remark whatever, so that this Aestuarii, if published first would have been a nomen nudum. In his more elaborate account on the Adriatic Crustacea and especially those mentioned and described in Chiereghin's manuscript, Nardo (1869: 25, 87-89) only used the name Carcinus maenas and referred Chiereghin's variety to that species. The name aestuarii is not at all mentioned by Nardo (1869) in connection with Carcinus. Until revived by Manning & Holthuis (1981) the name aestuarii has been overlooked by all authors subsequent to Nardo.

Carcinus aestuarii is commonly found in the eastern Mediterranean, and it is surprising that there are not more records for Cyprus.

## Portumnus latipes (Pennant, 1777)

Material examined. — Limassol, beach, washed ashore; 13-19 April 1983; RMNH, J.A.W. Lucas; 1 specimen.

The present species is not uncommon in the eastern Mediterranean, but had not been reported before from Cyprus.

## Xaiva biguttata (Risso, 1816)

Material examined. — Cape Kiti, 1-2 m deep, poisoning near rocks; 27 August 1970; TAU, SLM 7654 Dec. 1234; 18.

Limassol, beach, washed ashore; 13-19 April 1983; RMNH, J.A.W. Lucas; 1 specimen. Mare Monte, rocks in the bay, poisoning; 26 October 1968; HUJ, SLM 1592 Dec. 1220; 15,

W. of Kyrenia, 5-6 m deep, on sand; 26 August 1970; TAU, SLM 7622 Dec. 1229; 19.

The species has been found throughout the Mediterranean and there are several reports from the eastern basin, but so far it was not known from Cyprus.

## Liocarcinus arcuatus (Leach, 1814)

Macropipus arcuatus — Lewinsohn & Galil, 1982: 208.

2♀.

Material examined. — Famagusta Bay, 20 fms (= 37 m), BT; 15 February 1968; SFRS, SLMB 1541 Dec. 1242;  $1^\circ$ . — 20 fms (= 37 m), BT; 15 February 1968; SFRS, SLMB 1541 Dec. 1240; 1 ovigerous  $^\circ$ . — 20 fms (= 37 m), BT; 15 February 1968; SFRS, SLMB 1541 Dec. 1241;  $1^\circ$ ,  $3^\circ$ . — 30 fms (= 55 m), BT; 15 February 1968; SFRS, SLMB 1542 Dec. 1237;  $1^\circ$ . — 45 fms (= 82 m), Dg; 15 February 1968; SFRS, SLMB 1535 Dec. 1236;  $1^\circ$ . — 30 fms (= 55 m), BT; 15 February 1968; SFRS, SLMB 1537 Dec. 1238;  $1^\circ$ . — 20 fms (= 37 m), BT; 16 February 1968; SFRS, SLMB 1551 Dec. 1244;  $2^\circ$ . — 20 fms (= 37 m), BT; 16 February 1968; SFRS, SLMB 1551 Dec. 1235;  $4^\circ$  (1 ovigerous). — 40-45 fms (= 73-82 m), BT; 16 February 1968; SFRS, SLMB 1547 Dec. 1247;  $1^\circ$ . — profile V, 20 fms (= 37 m), Dg; 23 October 1968; HUJ, SLM 639 Dec. 312;  $1^\circ$ . — profile V, 10 fms (= 18 m), Dg; 23 October 1968; HUJ, SLM 640 Dec. 213; 1 juvenile  $^\circ$ . — 35 fms (= 64 m), BT; 20 November 1969; SFRS, SLM 6042 Dec. 1239;  $4^\circ$ .

Petounda Point, profile VI, 7-10 fms (= 13-18 m); 24 October 1968; HUJ, SLM 646 Dec. 317;  $1^\circ$ .

Cape Dolos, profile VIII, 10 fms (= 18 m), RDg; 25 October 1968; HUJ, SLM 654 Dec. 324; 13, 19.

Akrotiri Bay, 30 fms (= 55 m), Dg; 13 February 1968; SFRS, SLMB 1531 Dec. 1245;  $1\delta$ ,  $2^{\circ}$ . — 10 fms (= 18 m), Dg; 13 February 1968; SFRS, SLMB 1534 Dec. 1246;  $1^{\circ}$ . — profile XI, 10 fms (= 18 m), ODg; 25 October 1968; HUJ, SLM 666 Dec. 329;  $1\delta$ ,  $1^{\circ}$ . — profile XIII, 40 fms (= 73 m), ODg; 26 October 1968; HUJ, SLM 674 Dec. 438;  $1\delta$ . — 20 fms (= 37 m), BT; 9 November 1969; SFRS, SLM 6063 Dec. 1243;  $3\delta$ .

Cape Gata, profile XVIII, 50 fms (= 91 m), ODg; 27 October 1968; HUJ, SLM 692 Dec. 332;  $1 \delta$ .

The only record of the species from Cyprus is by Lewinsohn & Galil (1982), who saw the above listed material and remarked about the peculiar

phenomenon that this species which has commonly been reported from the eastern Mediterranean (Greece, Turkey, Egypt and Lybia), and is far from rare in Cyprus so far has not been found in Israel waters notwithstanding the intensive scientific exploration of those.

### Liocarcinus corrugatus (Pennant, 1777)

Portunus corrugatus — Unger & Kotschy, 1865: 43; Demetropoulos & Neocleous, 1969: 19.

Material examined. — Famagusta Bay, 35 fms (= 64 m), BT; 20 November 1969; SFRS, SLM 6042 Dec. 1230; 19.

Akrotiri Bay, profile XIII, 40 fms (= 73 m), ODg; 26 October 1968; HUJ, SLM 674 Dec. 330;  $1^{\circ}$ .

In their "Verzeichniss der am Salzsee bei Larnaka vorkommenden Petrefakten" Unger & Kotschy (1865: 36, 43) listed the present species as fossil (or subfossil?). Demetropoulos & Neocleous (1969) reported it from the north coast of Cyprus between Cape Andreas and Cape Kormakiti as being common in depths between 10 and 30 fathoms (= 18-55 m).

The species is found throughout the Mediterranean, and in the eastern basin it has been reported from Greece, Turkey and Egypt.

## Liocarcinus maculatus (Risso, 1827)

Material examined. — Famagusta Bay, 20 fms (= 37 m), BT; 15 February 1968; SFRS, SLMB 1541 Dec. 1232;  $1\delta$ .

S.E. of Vasilikos, profile VII, 25 fms (= 46 m), Dg; 24 October 1968; HUJ, SLM 649 Dec. 319: 18.

Cape Dolos, profile VIII, 32 fms (= 59 m), RDg; 25 October 1968; HUJ, SLM 653 Dec. 321;

Akrotiri Bay, 30 fms (= 55 m), Dg; 13 February 1968; SFRS, SLMB 1531 Dec. 1233; 1 ovigerous  $\circ$ .

The present species, until recently, was generally known as *Liocarcinus* (or *Macropipus*, or *Portunus*) pusillus (Leach, 1816). In 1982, however, Froglia & Manning (1982: 260, fig. 2) showed that the Mediterranean form is a distinct species different from the Atlantic *L. pusillus*, and that it should be known as *Liocarcinus maculatus* (Risso).

L. maculatus is known from the entire Mediterranean and has several times been reported from the eastern basin. However, this is the first record from Cyprus.

# Liocarcinus depurator (Linnaeus, 1758)

Portunus depurator - Demetropoulos & Neocleous, 1969: 19.

Material examined. — N.E. of Koma tou Yialou, profile I, 30-35 fms (= 55-64 m), Dg; 22 October 1968; HUJ, SLM 626 Dec. 1208; 1 ovigerous  $\circ$ .

Famagusta Bay, 13 fms (= 24 m), G; 5 March 1969; SFRS, SLM 782 Dec. 1209;  $1^{\circ}$ . — 50 fms (= 91 m), BT; 6 March 1969; SFRS, SLM 790 Dec. 1215;  $2^{\circ}$ . — 50 fms (= 91 m), BT; 20 May 1969; SFRS, SLM 2008 Dec. 1210;  $3^{\circ}$ ,  $5^{\circ}$ . — 30 fms (= 55 m), BT; 20 May 1969; SFRS, SLM 2005 Dec. 1207;  $3^{\circ}$ ,  $2^{\circ}$ . — 35 fms (= 64 m), BT; 20 November 1969; SFRS, SLM 6042 Dec. 1212;  $1^{\circ}$ .

Akrotiri Bay, 30-35 fms (= 55-64 m), BT; 9 November 1969; SFRS, SLM 6037 Dec. 1214; 12. — 45-50 fms (= 82-91 m), BT; 9 November 1969; SFRS, SLM 6038 Dec. 1213; 12. — 20 fms (= 37 m), BT; 9 November 1969; SFRS, SLM 6036 Dec. 1211; 12.

The only previous record of this species from Cyprus is the one by Demetropoulos & Neocleous (1969) who mentioned that the species was found in more than half of the seven areas in which they had divided the Cyprus coastal waters; the species was common there in depths of 40 to 60 fathoms (= 73-110 m). The species occurs throughout the Mediterranean.

## Liocarcinus vernalis (Risso, 1816)

Portunus holsatus — Fodera, 1961: 77; Demetropoulos & Neocleous, 1969: 19 (not Portunus holsatus Fabr., 1798).

Material examined. — Famagusta Bay, 7 fms (= 13 m), Dg; 20 May 1969; SFRS, SLM 799 Dec. 1231; 2 specimens.

The species Liocarcinus vernalis was formerly not distinguished from L. holsatus of the Atlantic coasts of Europe. Therefore most of the records of Liocarcinus (or Portunus) holsatus from the Mediterranean pertain to the present species. The species was first reported from Cyprus by Fodera (1961), who gave no further details about it. Demetropoulos & Neocleous' (1969) record is solely based on the one by Fodera.

Liocarcinus vernalis occurs throughout the Mediterranean and has been repeatedly reported from the eastern basin.

### Charybdis longicollis Leene, 1938

Material examined. — Famagusta Bay, 20-25 fms (= 37-46 m), Dg; 7 March 1969; SFRS, SLM 794 Dec. 1227;  $1 \, \delta$ ,  $1 \, \circ$ .

Charybdis longicollis is a species that originally lived in the western Indo-West Pacific region, but that through the Suez Canal has entered the eastern Mediterranean and has become very numerous in the extreme eastern part of the eastern basin, being found off the south coast of Turkey and in Lebanese, Israel, and Egyptian coastal waters (Lewinsohn & Holthuis, 1964: 57). It is now reported for the first time from Cyprus.

# Thalamita poissonii (Audouin, 1826)

Material examined. — Famagusta Bay, 20 fms (= 37 m), BT; 28 June 1967; SFRS, SLMB 1516 Dec. 1228; 2&. — 10 fms (= 18 m), Dg; 16 February 1968; SFRS, SLMB 1553 Dec. 1219; 1&,  $1<math>^{\circ}$ . — 10 fms (= 18 m), BT; 16 February 1968; SFRS, SLMB 1552 Dec. 1217; 2 ovigerous  $^{\circ}$ . — 10 fms (= 18 m), BT; 16 February 1968; SFRS, SLMB 1552 Dec. 1218;  $1<math>^{\circ}$ . — 12 fms (= 22 m), Dg; 5 March 1969; SFRS, SLM 781 Dec. 1262; 2&,  $3<math>^{\circ}$ . — 5 fms (= 9 m), Dg; 7 March 1969; SFRS, SLM 793 Dec. 1216; 2&,  $3<math>^{\circ}$  (1 ovigerous).

Like the previous species, *Thalamita poissonii* is an Indo-West Pacific immigrant into the eastern Mediterranean. It is known there from Egypt, Israel, the Lebanon and the south coast of Turkey. So far it had not been reported from Cyprus.

### Callinectes sapidus Rathbun, 1896

Callinectes sapidus — Demetropoulos & Neocleous, 1969: 19.

Material examined. — Cyprus; collection of Fisheries Department, Nicosia. — 1 preserved  $\mathfrak{P}$ , and 2 live specimens.

Demetropoulos & Neocleous (1969) reported the species from the S.E. coast of Cyprus between Cape Andreas and Cape Greco as occurring occasionally in water of 0-10 fms (= 0-18 m) deep.

The species is a native from the east coast of America (Nova Scotia, Canada, to Uruguay) and has become established in the eastern Mediterranean (Greece, Turkey, Lebanon, Israel and Egypt). It has been found at a few occasions in the western Mediterranean.

### Portunus hastatus (Linnaeus, 1767)

Material examined. — Boghaz, 1-2 m deep, poisoning on sand near rocks; 25 August 1970; TAU, SLM 7596 Dec. 1222; 1 &.

Famagusta Bay, 3 fms (= 5.5 m), Dg; 5 March 1969; SFRS, SLM 783 Dec. 1226; 19. E. of Dekhelia, 5-6 m deep, poisoning; 24 August 1970; TAU, SLM 7558 Dec. 1224; 18. Cape Kiti, 1-2 m deep, poisoning near rocks; 27 August 1970; TAU, SLM 7651 Dec. 1223; 19. Mare Monte, rocks in the bay, poisoning; 26 October 1968; HUJ, SLM 1592 Dec. 1221; 28,

W. of Kyrenia, 5-6 m deep, poisoning on sand near rocks; 26 August 1970; TAU, SLM 7624 Dec. 1225;  $4\delta$ ,  $1\circ$ .

Portunus hastatus is found throughout the Mediterranean and occurs as far east as Israel, but it is nowhere very common. It is now reported for the first time from Cyprus.

## Portunus pelagicus (Linnaeus, 1758)

Neptunus pelagicus — Demetropoulos & Neocleous, 1969: 19.

Material examined. — Damietta, 20-30 fms (= 37-55 m), trawl net; 28 November 1968; Fisheries Department, Nicosia; 1 specimen, det. D. Neocleous.

According to Demetropoulos & Neocleous (1969) the species has occasionally been found in the S.E. area of Cyprus between Cape Greco and Cape Andreas. The specimen seen by the first author (Ch. L.) in the collection of the Fisheries Department of Nicosia was labelled "Damietta". We have been unable to find any locality of that name on our maps of Cyprus and wonder whether it might not have been taken off Damietta on the Mediterranean coast of Egypt.

Portunus pelagicus is an originally Indo-West Pacific species, which has entered the eastern Mediterranean through the Suez Canal. It is known from the south coast of Turkey, Syria, Lebanon, Israel and Egypt; it has also been found near Sicily in the western Mediterranean.

### Xanthidae

## Pilumnus spinifer H. Milne Edwards, 1834

Material examined. — Famagusta Bay, 20 fms (= 37 m), BT; 2 September 1967; SFRS, SLMB 1527 Dec. 1269; 1 dec. 1269; 1 dec. 1270; — 50 fms (= 91 m), BT; 20 May 1969; SFRS, SLM 2008 Dec. 1273; 1 ovigerous 9. — 30 fms (= 55 m), BT; 20 May 1969; SFRS, SLM 2005 Dec. 1274; 1 9.

Akrotiri Bay, 12 fms (= 22 m), BT; 23 June 1967; SFRS, SLMB 1502 Dec. 1268;  $1\delta$ ,  $1^{\circ}$ . — profile XI, 25 fms (= 46 m), ODg; 25 October 1968; HUJ, SLM 665 Dec. 327; 1 juvenile. — 45-50 fms (= 82-91 m), BT; 9 November 1969; SFRS, SLM 6038 Dec. 1275;  $1\delta$ .

The species is known from the entire Mediterranean and has repeatedly been reported from the eastern basin (Greece, Turkey, Israel and Egypt). No previous records from Cyprus are known to us.

### Pilumnus hirtellus (Linnaeus, 1761)

Pilumnus hirtellus — Heller, 1863: 72, pl. 2 fig. 8; Unger & Kotschy, 1865; 544, 545, 547; Demetropoulos & Neocleous, 1969: 19.

Material examined. — Koma tou Yialou, 0-2 m deep; 25 August 1970; TAU, SLM 7608 Dec. 1271; 1 ovigerous 9.

Boghaz, 1-2 m deep, poisoning near rocks; 25 August 1970; TAU, SLM 7595 Dec. 1270; 19. Cape Kiti, 1-2 m deep, poisoning near rocks; 27 August 1970; TAU, SLM 7642 Dec. 1272; 28, 19.

Limassol, washed ashore on beach; 13-19 April 1983; RMNH, J. A. W. Lucas; 1 specimen. Mare Monte, among rocks; 26 October 1968; HUJ, SLM 1607 Dec. 372; 19. Yialousa, among rocks; 23 October 1968; HUJ, SLM 935 Dec. 352; 3 specimens.

Unger & Kotschy (1865: 544), in their description of Larnaka, mentioned "einer in dieser Gegend häufigen kleine Krabbe, dem *Pilumnus hirtellus* Risso", of which they thought to have found myriads of eggs in foam blown ashore in a salt lake. Their identification of the eggs found in the foam as those of *Pilumnus* is clearly erroneous as the females of the crab carry the eggs until hatching. Their statement that the species occurred in Cyprus was correct: Heller (1863: 73) had already reported the species from there, his record was based on material in the Vienna Museum, which very likely was collected by Kotschy, although this is not specifically mentioned. Demetropoulos & Neocleous (1969) reported the species as being common in 10 to 30 fms (= 18-55 m) between Cape Andreas and Cape Greco, between Cape Greco and Akrotiri Bay, and on the north coast between Cape Kormakiti and Cape Andreas. It is possible that their record is (partly) based on *Pilumnus spinifer*, which as a rule occurs deeper than *P. hirtellus*.

Pilumnus hirtellus is a common species throughout the Mediterranean and has repeatedly been reported from the eastern basin.

### Eriphia verrucosa (Forskål, 1775)

Eriphia verrucosa — Demetropoulos & Neocleous, 1969: 19.

Material examined. — Koma tou Yialou, intertidal; 22 October 1968; HUJ, SLM 852 Dec. 335; 19. — 4 m deep; 22 October 1968; HUJ, SLM 906 Dec. 342; 18. Limassol, washed ashore on the beach; 13-19 April 1983; RMNH, J. A. W. Lucas; 9 specimens.

Shore north of Paphos, south of Tombs of the Kings; 21 May 1984; RMNH, L. D. Brongersma; 1 specimen.

Ayios Yeoryios, poisoning in small pools; 1 November 1968; HUJ, SLM 1789 Dec. 401;  $2\delta$ , 19.

Mare Monte, tide pools on plateau, poisoning; 25 October 1968; HUJ, SLM 1578 Dec. 371; 3, 3 juveniles.

E. of Kyrenia, rock pools; 28 October 1969; HUJ, SLM 3648 Dec. 563; 18.

This species was found by Demetropoulos & Neocleous to be common in more than half of the 7 areas in which they had divided the Cyprus coast. *Eriphia verrucosa* is a very frequent littoral species throughout the Mediterranean, with numerous records from the eastern basin.

## Xantho poressa (Olivi, 1792)

Xantho rivulosus — Heller, 1863: 66, 67; Unger & Kotschy, 1865: 43. Xantho rivulosa — Carus, 1885: 512.

Material examined. — Boghaz, 1-2 m deep, poisoning near rocks; 25 August 1970; TAU, SLM 7595 Dec. 1264;  $2^{\circ}$  (1 ovigerous). — 0-1 m deep, under a stone; 25 August 1970; TAU, SLM 7600 Dec. 1267;  $10^{\circ}$ ,  $6^{\circ}$ .

E. of Dekhelia, 0-1 m deep, from under a stone; 24 August 1970; TAU, SLM 7579 Dec. 1266;  $1 \delta$ . — 0-1 m deep, under a rock; 24 August 1970; TAU, SLM 7560 Dec. 1263;  $1 \circ$ . — 0-2 m deep; 24 August 1970; TAU, SLM 7582 Dec. 1265;  $2 \delta$ .

Cape Dolos, among rocks; 29 October 1968; HUJ, SLM 1623 Dec. 381;  $1\delta$ , 19. — among rocks; 29 October 1968; HUJ, SLM 1667 Dec. 386;  $1\delta$ . — among rocks; 22 October 1969; HUJ, SLM 3416 Dec. 549; 19.

Limassol, washed ashore on beach; 13-19 April 1983; RMNH, J. A. W. Lucas; 6 specimens. Ayios Yeoryios, in small pools, poisoning; 1 November 1968; HUJ, SLM 1791 Dec. 403;  $2\delta$ . Mare Monte, from lagoon; 24 October 1968; HUJ, SLM 978 Dec. 358;  $1\delta$ .

Yialousa, intertidal; 23 October 1968; HUJ, SLM 920 Dec. 347; 18.

Heller (1863) was the first to mention (under the old name Xantho rivulosus) this species from Cyprus, his record was based on material collected by Dr. Th. Kotschy. This possibly is the same as the (sub?)fossil material reported upon by Unger & Kotschy (1865: 43) from a salt lake near Larnaka. Carus' (1885) record is again just a citation of Heller's.

Xantho poressa is a common intertidal species throughout the Mediterranean, and has been reported quite often from the eastern basin.

## Xantho granulicarpus Forest, 1953

Material examined. — Boghaz, 1-2 m deep, poisoning near rocks; 25 August 1970; TAU, SLM 7595 Dec. 1279; 18.

E. of Dekhelia, 0-1 m deep, from under a stone; 24 August 1970; TAU, SLM 7579 Dec. 1283;  $2^{\circ}$ . — 0-2 m deep, sheltered rocky and stony area; 24 August 1970; TAU, SLM 7576 Dec. 1281;  $1^{\circ}$ . — 0-1 m deep; 24 August 1970; TAU, SLM 7563 Dec. 1284;  $1^{\circ}$ .

Cape Kiti, 1-2 m deep, poisoning near rocks; 27 August 1970; TAU, SLM 7643 Dec. 1278; 18, 19.

Limassol, washed ashore on the beach; 13-19 April 1983; RMNH, J. A. W. Lucas; 5 specimens. Coral Bay, 2-8 m deep; 31 October 1968; HUJ, SLM 1739 Dec. 397; 1?.

Ayios Yeoryios, 0-0.5 m deep, rocky lagoon; 23 August 1970; TAU, SLM 7532 Dec. 1287; 18. — shallow rocky lagoon; 23 August 1970; TAU, SLM 7541 Dec. 1285; 19.

Mare Monte, among rocks; 26 October 1968; HUJ, SLM 1607 Dec. 372;  $1\delta$ . — rocks in the bay, poisoning; 26 October 1968; HUJ, SLM 1592 Dec. 376;  $4\delta$ ,  $1\circ$ .

W. of Kyrenia, 5-6 m deep, poisoning on rocks and sand; 26 August 1970; TAU, SLM 7623 Dec. 1282; 1\$\delta\$. — 5-6 m deep, poisoning in rocky area; 26 August 1970; TAU, SLM 7625 Dec. 1286; 1\$\delta\$. — 0-1 m deep; 26 August 1970; TAU, SLM 7630 Dec. 1280; 1\$\delta\$.

The species is known from the entire Mediterranean, and has also been frequently reported from the eastern basin (Greece, Turkey, Lebanon, Israel, Egypt), but so far there were no records from Cyprus.

## Microcassiope minor (Dana, 1852)

Material examined. — W. of Kyrenia, 5-6 m deep, poisoning on rocks and sand; 26 August 1970; TAU, SLM 7623 Dec. 1277; 19.

Under the name Micropanope rufopunctata (A. Milne Edwards, 1869) this species has been reported several times from the eastern Mediterranean, namely from Israel (see Lewinsohn & Holthuis, 1964: 59, for a discussion of those finds) and Egypt (see Ramadan & Dowidar, 1976: 133); this is the first record of the species for Cyprus. So far there are no records for the western Mediterranean, although the species is known from West Africa (the main land from Spanish Sahara to Ghana, the islands of NW Africa (Azores, Madeira, Canary and Cape Verde Islands), as well as the islands in the Gulf of Guinea), St. Helena and tropical East America (Bahamas and Antilles).

Manning & Holthuis (1981: 138) showed that the correct name of the species is *Microcassiope minor*.

## Paractaea monodi Guinot, 1969

Material examined. — W. of Kyrenia, 5-6 m deep, on sand; 26 August 1970; TAU, SLM 7620 Dec. 1276; 2 carapaces.

At a few occasions this species (but under the name Actaea rufopunctata (H. Milne Edwards, 1834)) has been reported from the Mediterranean; an enumeration of these has been provided by Guinot (1969: 261, 262), who also pointed out that these specimens do not belong to Paractaea rufopunctata, but to her new species Paractaea monodi, possibly forming a subspecies of the typical P. monodi from the islands off N.W. Africa.

The only previous records of this species from the eastern Mediterranean are those by Balss (1936: 37, 63) and by Ramadan & Dowidar (1976: 132) both from Egypt, and by Holthuis & Gottlieb (1956: 287) from Mersin Bay, S.E. Turkey. The species is now reported for the first time from Cyprus.

## Potamidae

### Potamon potamios cyprion Pretzmann, 1962

Thelphusa fluviatilis — Heller, 1863: 97 (p.p.); Unger & Kotschy, 1865: 77; Plateau, 1884: cclx. Telphusa fluviatilis — Unger & Kotschy, 1865: 77, 573.

Potamon (Potamon) potamios — Rathbun, 1904: 257 (p.p.); Colosi, 1919: 44; Pretzmann, 1971: 491, tab. (p.p.); Starobogatov & Vassilenko, 1979: 1795 (p.p.).

Potamon (Potamon) edule potamios — Colosi, 1920: 27, 28, 30 (p.p.).

Potamon potamios — Pesta, 1926: 624 (p.p.); Pesta, 1937: 237 (p.p.); Pesta, 1937a: 94, 100, 104 (p.p.); Pretzmann, 1983a: 109 (p.p.).

Potamon (Potamon) potamios cyprion Pretzmann, 1962: 218, figs. 6, 31; Pretzmann, 1965: 520;
Pretzmann, 1967: 221; Starobogatov & Vassilenko, 1979: 1795; Pretzmann, 1980: 669; Pretzmann, 1983: 369, 370, 373, 386, 387, pl. 6 fig. 16, pl. 9 fig. 25, pl. 10 fig. 36, pl. 13 fig. 44;
Pretzmann, 1983b: 114.

Potamon (Potamon) potamios potamios cyprion — Bott, 1967: 22.

Potamon potamios potamios — Bott, 1970: 137 (p.p.).

Potamon potamios cypriensis Pretzmann, 1983a: 112.

Material examined. — Near Ayios Dimas, near Neokhorio, 35°01'N 32°20'E, in a well; 12 May 1984; RMNH, A. Pistentis leg., L. D. Brongersma don. 1 &.

All modern authors agree that the freshwater crab found in Cyprus belongs to the species *Potamon potamios* (Olivier, 1804), which has its main distribution in Asia Minor. Some, like Pretzmann, consider it a separate subspecies *Potamon potamios cyrprion*, while others, like Bott, rank it only as a form of the nominate subspecies and use for it the name *Potamon p. potamios cyprion*.

The present subspecies (or form) is restricted to the island of Cyprus. The records in the literature are the following: Cyprus (Heller, 1863; Plateau, 1884; Rathbun, 1904; Colosi, 1920; Pesta, 1926, 1937, 1937a; Pretzmann, 1962, 1965, 1967, 1971, 1983, 1983a; Bott, 1967, 1970; Starobogatov &

Vassilenko, 1979), Prodhromos, 34°57'N 32°50'E (Unger & Kotschy, 1865; as Ad. Prodromo), Platres, Troodos Mts., 34°53′N 32°52′E (Pesta, 1937a; Pretzmann, 1962, 1983, 1983a, 1983b; as Platraes, Tordos (or Tardos) Gebirge), Solea Valley, about 35°05'N 32°55'E (Pretzmann, 1965), 34°53'N 32°54'E (Pretzmann, 1980; as Mesapotamos monastery, Mesopotamos), 6 km E. of Panayia, 34°55′N 32°42′E (Pretzmann, 1980; as Panagia), Ayios Epoktitos, 35°20' N 33°24' E (Colosi, 1919; as Aghios Epoktitos), Kythrea, upper source (Kephalo vrisi), 35°14′N 33°30′E (Unger & Kotschy, 1865; as Kythraea), Katoloco (=? Catalaco, 35°01' N 33°32'E) (Unger & Kotschy, 1865), Ayios Amvrosios, 35°22′N 33°35′E (Colosi, 1919; as Aghios Ambrosios). The locality indication 3 km E. of Gueves, 39°N 23°16'E (Pretzmann, 1980) possibly is erroneous as this is not situated on Cyprus but on the island of Euboea, as the collector, Dr. Hans Malicky kindly informed us. Dr. Malicky also provided us with the exact localities of other material of this species collected by him and reported upon by Pretzmann (1980).

The following altitudes have been reported for these crabs: ? 65 m (= 200 ft) and 226 m (= 696 ft) (Unger & Kotschy, 1865), 340 m, at 12 km from the coast (Plateau, 1884), 1400 m (Pesta, 1937a; Pretzmann, 1962, 1983), 800 m (Pretzmann, 1962, 1983). Dr. H. Malicky (in litt.) gave the altitude of the Mesapotamos locality as 1000 m, and that 6 km E of Panayia as 550 m; the material that the collected there was published by Pretzmann (1980). The species has been reported from fresh water wells and sources.

### Pinnotheridae

### Pinnotheres pisum (Linnaeus, 1767)

Material examined. — Koma tou Yialou, from *Pinna*, 2-4 m deep; 22 October 1968; HUJ, SLM 880 Dec. 456; 13.

Yialousa, from Pinna; 23 October 1968; HUJ, SLM 943 Dec. 354; 18, 1 ovigerous 9.

Although one would expect *Pinnotheres pinnotheres* (L., 1758) rather than *P. pisum* to be associated with *Pinna*, the present specimens definitely are *P. pisum*. There are previous records of this species from *Pinna*: both Ortmann (1894: 699) and Graeffe (1900: 44) reported *P. pisum* from *Pinna nobilis* L., 1758 (Graeffe indicated that species with the name *Pinna squamosa*).

Pinnotheres pisum is a well known Mediterranean species, which has repeatedly been reported from the eastern basin. So far as we know this is the first record from Cyprus.

#### Palicidae

### Palicus caronii (Roux, 1830)

Material examined. — Famagusta Bay, 10 fms (= 18 m), BT; 28 June 1967; SFRS, SLMB 1513 Dec. 1302; 1 ovigerous %. — 20 fms (= 37 m), BT; 28 June 1967; SFRS, SLMB 1516 Dec. 1299; 1 ovigerous %. — 20 fms (= 37 m), BT; 2 September 1967; SFRS, SLMB 1527 Dec. 1303; 1 ovigerous %. — 20 fms (= 37 m); 15 February 1968; SFRS, SLMB 1541 Dec. 1298; 2%. — 20 fms (= 37 m), BT; 16 February 1968; SFRS, SLMB 1551 Dec. 1300; 1%. — 30 fms (= 55 m), BT; 20 May 1969; SFRS, SLM 2005 Dec. 1301; 1%.

A rather uncommon species, known from the western basin of the Mediterranean, and only twice reported from the eastern basin, viz., from the Israel coast by Holthuis & Gottlieb (1958: 104), and from the Saronic Gulf, Greece by Vamvakas (1971: 251, 262; as *Paliscus c.*).

## Goneplacidae

### Goneplax rhomboides (Linnaeus, 1758)

Material examined. — Famagusta Bay, 13 fms (= 24 m), G; 5 March 1969; SFRS, SLM 782 Dec. 1290;  $1\delta$ .

The species is common throughout the Mediterranean and has repeatedly been found in the eastern basin. This is the first record for Cyprus.

## Ocypodidae

### Ocypode cursor (Linnaeus, 1758)

Ocypode cursor — Demetropoulos & Neocleous, 1969: 19; Pretzmann, 1983a: 109.

Material examined. — Shore north of Paphos, south of Tombs of the Kings, sandy beach; 21 May 1984; RMNH, L.D. Brongersma; 1 juvenile.

W. of Kyrenia, from sandy beach; 26 August 1970; TAU, SLM 7631 Dec. 1313; 18.

Yialousa, intertidal; 23 October 1968; HUJ, SLM 920 Dec. 347; 1 juvenile. — on the beach; 23 October 1968; HUJ, SLM 932 Dec. 351; 4 juveniles.

The species has a peculiar discontinuous distribution. It occurs on the coast of W. and N.W. Africa (Mauritania to S.W. Africa (Namibia)), and in the eastern Mediterranean (Greece, S. Turkey, Syria, Lebanon, Israel, Egypt),

but it lacks in the western Mediterranean. Demetropoulos & Neocleous (1969) indicate that it is common on the beaches of more than half of the seven areas in which they had divided the coast of Cyprus. Pretzmann (1983a) reported it from the beach near Larnaca.

## Grapsidae

## Pachygrapsus marmoratus (Fabricius, 1787)

Pachygrapsus marmoratus — Heller, 1863: 111, 112; Carus, 1885: 523; Demetropoulos & Neocleous, 1969: 19.

Grapsus varius - Unger & Kotschy, 1865: 573.

Material examined. — Koma tou Yialou, intertidal; 22 October 1968; HUJ, SLM 852 Dec. 1324;  $1 \, \delta$ ,  $5 \, \circ$ . — 0-1 m deep; 25 August 1970; TAU, SLM 7612 Dec. 1322; 1 juvenile.

N.W. of Cape Pyla, tide pool, poisoning; 22 October 1969; HUJ, SLM 3526 Dec. 559; 18. Limassol, beach, found washed ashore; 13-19 April 1983; RMNH, J. A. W. Lucas; 8 specimens.

Paphos, intertidal; 30 October 1968; HUJ, SLM 1687 Dec. 390; 18, 3 juveniles.

N. of Paphos, south of Tombs of the Kings, sandy beach; 21 May 1984; RMNH, L.D. Brongersma; 4 specimens.

Coral Bay, intertidal; 31 October 1968; HUJ, SLM 1727 Dec. 396; 18. — intertidal; 31 October 1968; HUJ, SLM 1724 Dec. 395; 1 juvenile. — among rocks; 21 October 1969; HUJ, SLM 3388 Dec. 547; 1 juvenile.

Ayios Yeoryios, small pool, poisoning; 1 November 1968; HUJ, SLM 1791 Dec. 403; 1&. — small pool; 1 November 1968; HUJ, SLM 1789 Dec. 401; 1&, 2\oplus. — rock pool, 0-20 cm deep; 22 August 1970; TAU, SLM 7508 Dec. 1325; 1&, 1\oplus.

Mare Monte, from the lagoon; 24 October 1968; HUJ, SLM 978 Dec. 358;  $1^{\circ}$ . — intertidal; 25 October 1968; HUJ, SLM 990 Dec. 360;  $1^{\circ}$ . — rocks in the bay, poisoning; 26 October 1968; HUJ, SLM 1592 Dec. 376;  $1^{\circ}$ , 1 \(\frac{1}{2}\). — tide pools on rocky platform, poisoning; 26 October 1968; HUJ, SLM 1578 Dec. 371;  $2^{\circ}$ .

Yialousa, intertidal; 23 October 1968; HUJ, SLM 920 Dec. 347; 19. — among rocks; 23 October 1968; HUJ, SLM 935 Dec. 352; 2 juveniles.

This common littoral rock crab is widely distributed throughout the Mediterranean and has repeatedly been reported from all over the eastern basin. The first Cyprus record was by Heller (1863), who mentioned material collected by Dr. Th. Kotschy in Cyprus, without giving a more accurate locality indication. Neither was such a locality given in the book by Unger & Kotschy (1865). Carus' record was based on that by Heller. Demetropoulos & Neocleous (1969) reported the species as common in more than half of the 7 areas in which they had divided the Cyprus coast, without giving more detailed information either; as depth they gave 1 to 5 fms (= 2-9 m).

## Pachygrapsus transversus (Gibbes, 1850)

Material examined. — N.W. of Cape Pyla, tide pools, poisoning; 26 October 1969; HUJ, SLM 3526 Dec. 559: 19.

Beach east of Limassol; 12 May 1984; RMNH, L. D. Brongersma; 19. Coral Bay, intertidal; 31 October 1968; HUJ, SLM 1724 Dec. 395; 1 juvenile. Yialousa, among rocks; 23 October 1968; HUJ, SLM 935 Dec. 352; 3 juveniles.

Pachygrapsus transversus is not rare in the eastern Mediterranean. It has been reported from Greece (Kinzelbach, 1964), the south coast of Turkey (Holthuis, 1961), Lebanon (Shiber, 1981), Israel (Holthuis & Gottlieb, 1958), and Egypt (Ramadan & Dowidar, 1976). Apart from a record of two specimens accidentally introduced in Marseilles harbour, the species has not been reported from the western Mediterranean. Outside the Mediterranean it has a wide distribution in tropical East and West Atlantic and East Pacific waters. So far the species was not known from Cyprus.

## Planes minutus (Linnaeus, 1758)

Nautilograpsus minutus — Heller, 1863: 114; Carus, 1885: 524.

Heller (1863) reported upon material "von Kotschy bei Cypern... gefunden". Carus' record evidently is based on Heller's. There are no other records from Cyprus known to us, neither did we examine Cyprus material of it. The species is rare in the Mediterranean and in the eastern basin, apart from the Cyprus record we only know of one certain record from Israel (Lewinsohn & Holthuis, 1964: 60).

### Brachynotus sexdentatus (Risso, 1816)

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Heterograpsus Lucasi — Heller, 1863: 105-107.
Brachynotus sexdentatus — Carus, 1885: 521, 522.
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At present 3 species of *Brachynotus* are recognized in the Mediterranean. Heller's specimens, judging by his description most likely belong to *B. sexdentatus*; but, as he had not only material from Cyprus but also from the Adriatic, it is not certain whether the description is really based on the Cyprus specimens. Heller's figure of the animal is copied from Lucas (1846) and thus is no help either to identify his Cyprus material.

Both *Brachynotus sexdentatus* (Risso, 1816) and *Brachynotus foresti* Zariquiey, 1968 have been reported from the eastern Mediterranean.

## Parthenopidae

### Parthenope angulifrons Latreille, 1825

Lambrus angulifrons — Demetropoulos & Neocleous, 1969: 19.

Material examined. — Famagusta Bay, 10 fms (= 18 m), BT; 28 June 1967; SFRS, SLMB 1513 Dec. 1249; 23, 49. — 20 fms (= 37 m), BT; 28 June 1967; SFRS, SLMB 1516 Dec. 1251; 13, 19. — 20 fms (= 37 m), BT; 2 September 1967; SFRS, SLMB 1527 Dec. 1252; 19. — 3 fms (= 5.5 m), Dg; 5 March 1969; SFRS, SLM 783 Dec. 1250; 13. — 75 fms (= 137 m), BT; 21 May 1969; SFRS, SLM 2012 Dec. 1248; 13.

The species is not common in the eastern Mediterranean, but has been reported from Greece, Turkey and Israel. Demetropoulos & Neocleous reported on the occasional occurrence of the species off the north coast of Cyprus between Cape Kormakiti and Cape Andreas at a depth of 20 fms (= 37 m).

## Parthenope massena (Roux, 1830)

Lambrus massena — Demetropoulos & Neocleous, 1969: 19.

Material examined. — Famagusta Bay, 20 fms (= 37 m), BT; 15 February 1968; SFRS, SLMB 1541 Dec. 1254; 1 juvenile. — 45 fms (= 82 m), BT; 16 February 1968; SFRS, SLMB 1549 Dec. 1258; 1 &. — 10 fms (= 18 m), BT; 16 February 1968; SFRS, SLMB 1552 Dec. 1255; 1 \cdot 2. — 15 fms (= 27 m), BT; 21 May 1969; SFRS, SLM 2015 Dec. 1253; 1 &, 1 \cdot 2.

Petounda Point, profile VI, 7-10 fms (= 13-18 m), Dg; 24 October 1968; HUJ, SLM 646 Dec. 1256; 15.

S.E. of Vasilikos, profile VII, 25 fms (= 46 m), Dg; 22 October 1968; HUJ, SLM 649 Dec. 319; 1 specimen.

Akrotiri Bay, 12 fms (= 22 m), Dg; 23 June 1967; SFRS, SLMB 1501 Dec. 1260;  $1^\circ$ . — 12 fms (= 22 m), BT; 23 June 1967; SFRS, SLMB 1502 Dec. 1259;  $1^\circ$ . — 30 fms (= 55 m), G; 23 June 1967; SFRS, SLMB 1506 Dec. 1257;  $1^\circ$ . — 30 fms (= 55 m), Dg; 13 February 1968; SFRS, SLMB 1531 Dec. 1261;  $1^\circ$ .

N.W. of Paphos, profile XXVI, 25 fms (= 46 m), ODg; 31 October 1968; HUJ, SLM 1828 Dec. 406;  $1\delta$ .

The species is known from the entire Mediterranean; in the eastern basin it has been reported from Greece, Turkey, Lebanon and Israel. Demetropoulos & Neocleous (1969) listed it as common in 60-70 fms (= 110-128 m) off S.E. Cyprus between Cape Andreas and Cape Greco.

### Majidae

## Maja crispata Risso, 1827

Maja verrucosa — Demetropoulos & Neocleous, 1969: 19.

Material examined. — Koma tou Yialou, infralittoral; 22 October 1968; HUJ, SLM 871 Dec. 1189: 18.

N.E. of Koma tou Yialou, profile I, 20-25 fms (= 37-46 m), Dg; 22 October 1968; HUJ, SLM 627 Dec. 1185; 15.

Boghaz, 1-2 m deep, poisoning near rocks; 25 August 1970; TAU, SLM 7595 Dec. 1176; 1 juvenile  $\delta$ .

Famagusta Bay, 10 fms (= 18 m), BT; 28 June 1967; SFRS, SLMB 1513 Dec. 1191;  $1\delta$ .  $2\circ$  (1 ovigerous). — 45 fms (= 82 m), BT; 15 February 1968; SFRS, SLMB 1536 Dec. 1184;  $1\delta$ . — 30 fms (= 55 m), BT; 15 February 1968; SFRS, SLMB 1537 Dec. 1198;  $1\circ$  — 30 fms (= 55 m), BT; 15 February 1968; SFRS, SLMB 1542 Dec. 1193;  $1\circ$ . — 20 fms (= 37 m), BT; 15 February 1968; SFRS, SLMB 1538 Dec. 1192; 1 juvenile  $\circ$ . — 10 fms (= 18 m), Dg; 16 February 1968; SFRS, SLMB 1553 Dec. 1186;  $1\circ$ . — 40-45 fms (= 73-82 m), BT; 16 February 1968; SFRS, SLMB 1547 Dec. 1187;  $1\delta$ . — profile V, 10 fms (= 18 m), Dg; 23 October 1968; HUJ, SLM 640 Dec. 1190;  $1\delta$ . — 12 fms (= 22 m), Dg; 5 March 1969; SFRS, SLM 781 Dec. 1183;  $2\delta$ ,  $1\circ$ .

Akrotiri Bay, 12 fms (= 22 m), Dg; 23 June 1967; SFRS, SLMB 1501 Dec. 1188;  $1\delta$ , 1?. — 12 fms (= 22 m), BT; 23 June 1967; SFRS, SLMB 1502 Dec. 1181;  $2\delta$ , 2?. — 10 fms (= 18 m), Dg; 13 February 1968; SFRS, SLMB 1534 Dec. 1179;  $1\delta$ , 1?.

Limassol, washed ashore on beach; 13-19 April 1983; RMNH, J. A. W. Lucas; 7 specimens. Ayios Yeoryios; 18 May 1984; RMNH, leg. A. Pistentis, don. L. D. Brongersma; 1 &.

The species is quite common throughout the Mediterranean and has repeatedly been reported from the eastern basin. Demetropoulos & Neocleous (1969) reported it as occurring occasionally in depths of 15 fms (= 27 m) on the southcoast of Cyprus between Akrotiri Bay and Cape Greco.

The name Maja verrucosa H. Milne Edwards, 1834, has often been used for this species instead of the correct Maja crispata Risso, 1827, which is older.

### Maja squinado (Herbst, 1788)

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Maya squinado — Fodera, 1961: 77.

Maja squinado — Demetropoulos & Neocleous, 1969: 19.
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Material examined. — Famagusta Bay, 50 fms (= 91 m), BT; 20 May 1969; SFRS, SLM 2008 Dec. 1206:  $1 \delta$ .

Photographs of dried local marine specimens used as a wall decoration in a restaurant in Ayios Yeoryios were taken by Dr. L. D. Brongersma in May 1984. They showed one specimen which undoubtedly is *Maja squinado*, while a second might be either this or the previous species.

The species is known from the entire Mediterranean and there are records from many localities in the eastern basin. Fodera (1961) was the first to report it from Cyprus, but no accurate locality indication was provided by him. Demetropoulos & Neocleous (1969) indicated it as common in Cyprus waters, occurring in four or more of the seven areas in which they had divided the Cyprus coast.

# Pisa tetraodon (Pennant, 1777)

Material examined. — Boghaz, 1-2 m deep, poisoning near rocks; 25 August 1970; TAU, SLM 7595 Dec. 1109; 13.

Limassol, washed ashore on beach; 13-19 April 1983; RMNH, J.A.W. Lucas; 6 specimens. Mare Monte, north slope of platform; 25 October 1968; HUJ, SLM 1552 Dec. 368; 18.

Pisa tetraodon is common in the Mediterranean, especially in the western part. Confusion with other species of the genus viz., with P. muscosa (L.) and P. corallina (Risso, 1816), makes that some of the older records cannot fully be trusted. However, reliable records of P. tetraodon are known from Greece, Turkey, Lebanon, Israel and Egypt. It is now reported for the first time from Cyprus. Demetropoulos & Neocleous (1969: 18) reported "Pisa sp." from Cyprus without giving more details. The identity of their species can therefore not be ascertained.

## Pisa corallina (Risso, 1816)

Pisa corallina — Lewinsohn, 1976: 250.

Material examined. — Famagusta Bay, 20 fms (= 37 m), BT; 2 September 1967; SFRS, SLMB 1527 Dec. 1118; 1\$\delta\$, 1\$\frac{1}{2}\$. — 15 fms (= 27 m), Dg; 2 September 1967; SFRS, SLMB 1526 Dec. 1117; 1\$\delta\$. — 30 fms (= 55 m), BT; 15 February 1968; SFRS, SLMB 1537 Dec. 1144; 1\$\delta\$, 1\$\frac{1}{2}\$. — 10 fms (= 18 m), BT; 15 February 1968; SFRS, SLMB 1540 Dec. 1143; 1\$\delta\$. — 10 fms (= 18 m), BT; 16 February 1968; SFRS, SLMB 1552 Dec. 1142; 1\$\delta\$, 1\$\delta\$. — 20 fms (= 37 m), BT; 16 February 1968; SFRS, SLMB 1551 Dec. 1146; 1\$\delta\$. — 30 fms (= 55 m), BT; 20 May 1969; SFRS, SLM 2005 Dec. 1145; 1\$\delta\$, 1\$\delta\$. — 10-15 fms (= 18-27 m), BT; 20 November 1969; SFRS, SLM 6040 Dec. 1108; 1\$\delta\$.

Akrotiri Bay, 10 fms (= 18 m), Dg; 13 February 1968; SFRS, SLMB 1534 Dec. 1141; 18, 19.

Pisa corallina has been reported both from the western and the eastern part of the Mediterranean. Due to the fact that this species, P. muscosa (L.) and P. tetraodon have often been confused, or synonymized, the old records in the literature are usually not reliable, and therefore the exact range of the

species is not known. It was reported for the first time from Cyprus by Lewinsohn (1976) who mentioned the above Cyprus material without giving exact localities.

### Pisa muscosa (Linnaeus, 1758)

Material examined. — Famagusta Bay, 10 fms (= 18 m), BT; 16 February 1968; SFRS, SLMB 1552 Dec. 1140; 18. — 75-80 fms (= 137-146 m), Dg; 8 March 1969; SFRS, SLM 796 Dec. 1113; 18.

Cape Dolos, profile VIII, 10 fms (= 18 m), RDg; 25 October 1968; HUJ, SLM 654 Dec. 324; 18.

Akrotiri Bay, 12 fms (= 22 m), Dg; 23 June 1967; SFRS, SLMB 1501 Dec. 1139;  $2\delta$ . — 12 fms (= 22 m), BT; 23 June 1967; SFRS, SLMB 1502 Dec. 1138;  $2\delta$ , 39 (2 ovigerous).

S.W. of Paphos, profile XXVII, 15 fms (= 27 m), RDg; 31 October 1968; HUJ, SLM 1833 Dec. 411; 1 ovigerous ?.

The species is reported here for the first time from Cyprus. It is known with certainty from various eastern Mediterranean localities, but many of the old records cannot be trusted as *P. muscosa*, *P. corallina* and *P. tetraodon* have often been synonymized or confused with one another.

## Pisa nodipes (Leach, 1815)

Pisa nodipes - Demetropoulos & Neocleous, 1969: 18.

Material examined. — S.W. of Paphos, profile XXVII, 15 fms (= 27 m), RDg; 31 October 1968; HUJ, SLM 1833 Dec. 411; 19.

The species has been recorded from the entire Mediterranean; in the eastern part it is known at least from Greece, Turkey, Israel and Egypt. A Cyprus record is provided by Demetropoulos & Neocleous (1969) who mentioned that the species is occasionally found in 20 fms (= 37 m) off the south east coast between Cape Andreas and Cape Greeco.

## Pisa armata (Latreille, 1803)

Material examined. — Famagusta Bay, 45 fms (= 82 m), BT; 15 February 1968; SFRS, SLMB 1536 Dec. 1148; 2\(\frac{1}{2}\). — 30 fms (= 55 m), BT; 15 February 1968; SFRS, SLMB 1542 Dec. 1149; 1\(\frac{1}{2}\). — 40-45 fms (= 73-82 m), BT; 16 February 1968; SFRS, SLMB 1547 Dec. 1152; 1\(\delta\). — 55-60 fms (= 101-110 m), BT; 16 February 1968; SFRS, SLMB 1548 Dec. 1155; 1\(\delta\). — 45 fms (= 82 m), BT; 16 February 1968; SFRS, SLMB 1549 Dec. 1153; 1\(\delta\), 1\(\delta\). — 20 fms (= 37 m), BT; 16

February 1968; SFRS, SLMB 1551 Dec. 1151;  $1\delta$ . — 30 fms (= 55 m) BT; 16 February 1968; SFRS, SLMB 1550 Dec. 1156;  $1\delta$ . — 40-45 fms (= 73-82 m), BT; 16 February 1968; SFRS, SLMB 1547 Dec. 1197;  $4\delta$ ,  $2\circ$  (1 ovigerous). — 30 fms (= 55 m), BT; 16 February 1968; SFRS, SLMB 1546 Dec. 1147;  $2\delta$ ,  $3\circ$ . — 30 fms (= 55 m), BT; 20 May 1969; SFRS, SLM 2005 Dec. 1167;  $2\delta$ ,  $1\circ$ . — 30 fms (= 55 m), BT; 20 May 1969; SFRS, SLM 2005 Dec. 1150; 1 ovigerous  $\frac{1}{2}$ . — 30 fms (= 55 m), BT; 21 May 1969; SFRS, SLM 2017 Dec. 1107;  $3\delta$ . — 50 fms (= 91 m), BT; 6 March 1969; SFRS, SLM 790 Dec. 1154;  $1\circ$ .

The species occurs throughout the Mediterranean, but there are relatively few records from the eastern part, viz., from Greece, Turkey and Egypt. So far it has not been found in Israel waters, although those belong to the zoologically best explored regions of the eastern basin. The species was so far not known from Cyprus.

## Herbstia condyliata (Fabricius, 1787)

Material examined. — Boghaz, 1-2 m deep, poisoning near rocks; 25 August 1970; TAU, SLM 7595 Dec. 1137; 18.

Ayios Yeoryios, 5 m deep; 22 August 1970; TAU, SLM 7503 Dec. 1136; 1 &.

So far as is known to us, *Herbstia condyliata*, although not rare in the western Mediterranean, has not been reported before from the eastern basin except for Tortonese's (1959: 12) record of this species from the Sea of Marmara.

### Lissa chiragra (Fabricius, 1775)

Lissa chiragra — Demetropoulos & Neocleous, 1969: 18.

Material examined. — Famagusta Bay, 30 fms (= 55 m), BT; 20 May 1969; SFRS, SLM 2005 Dec. 1180; 23, 23.

Akrotiri Bay, S. of Limassol, 10 fms (= 18 m), Dg; 13 February 1968; SFRS, SLMB 1534 Dec. 1199; 18.

Kocatas (1971: 34, pl. 6 fig. 6) reported this species from Izmir, Turkey, and Pérès & Picard (1958: 217) mentioned it from Greece (S. of Cervi Island, Peloponnesos). The only other record of *L. chiragra* from the eastern Mediterranean known to us is the one by Demetropoulos & Neocleous (1969), who found it occasionally in depths between 15 and 70 fms (= 27-128 m) on the south coast of Cyprus, viz., in Episkopi Bay and between Cape Greco and Cape Andreas.

## Eurynome aspera (Pennant, 1777)

Material examined. — Famagusta Bay, 30 fms (= 55 m), BT; 15 February 1968; SFRS, SLMB 1542 Dec. 1195; 1 ovigerous ?. — 35 fms (= 64 m), BT; 20 November 1969; SFRS, SLM 6042 Dec. 1174;  $2\delta$ .

Akrotiri Bay, 30 fms (= 55 m), Dg; 13 February 1968; SFRS, SLMB 1531 Dec. 1172; 2 ovigerous  $\circ$ . — 30 fms (= 55 m), Dg; 13 February 1968; SFRS, SLMB 1531 Dec. 1175;  $1\circ$ ,  $1\circ$ , — 20 fms (= 37 m), BT; 9 November 1969; SFRS, SLM 6036 Dec. 1171;  $1\circ$ . — 30-35 fms (= 55-64 m), BT; 9 November 1969; SFRS, SLM 6037 Dec. 1173;  $1\circ$ ,  $1\circ$ .

S.W. of Paphos, profile XXVII, 15 fms (= 27 m), RDg; 31 October 1968; HUJ, SLM 1833 Dec. 1194; 19.

The species, widely distributed throughout the Mediterranean, in the eastern basin has been reported from Greece, Turkey, Israel and Egypt. It is now reported for the first time from Cyprus.

### Acanthonyx lunulatus (Risso, 1816)

Material examined. — Boghaz, 1-2 m deep, poisoning near rocks; 25 August 1970; TAU, SLM 7597 Dec. 1110; 2 juvenile  $\delta$ .

E. of Dekhelia, 0-1 m deep, from a stone; 24 August 1970; TAU, SLM 7581 Dec. 1119; 2 juveniles.

E. of Limassol, beach; 12 May 1984; RMNH, L. D. Brongersma; 18.

Limassol, washed ashore on the beach; 13-19 April 1983; RMNH, J. A. W. Lucas; 27 specimens.

Paphos; 30 October 1968; HUJ, SLM 1721 Dec. 394; 2 juveniles.

Mare Monte; 25 October 1968; HUJ, SLM 1516 Dec. 365; 1 juvenile. — from algae; 25 October 1968; HUJ, SLM 989 Dec. 359; 1 juvenile.

The species, commonly found in branching algae like *Cystoseira*, is known from all over the Mediterranean, and has been frequently reported from the eastern basin, but so far no records from Cyprus were known to us.

### Ergasticus clouei Studer, 1883

Ergasticus Clouei — Adensamer, 1898: 598, 601, 603, 605, 614.

The only record of this species from the Cyprus area is by Adensamer (1898: 603, 614) who reported it from N. of the island at 35°57′N 32°51′E, in a depth of 315 m, on a bottom of loose yellow sand with encrusted rocks (27 September 1892, "Pola" Sta. 175). The species was found together with Ebalia nux and Parapenaeus longirostris.

Ergasticus clouei is known from the entire Mediterranean; in the eastern basin it has been reported from the Sporades and N. of Crete (also by Adensamer).

### Inachus communissimus Rizza, 1839

Material examined. — Famagusta Bay, 30 fms (= 55 m), BT; 15 February 1968; SFRS, SLMB 1537 Dec. 1132;  $3 \, \delta$ ,  $1 \, \circ$ . — 30 fms (= 55 m), BT; 15 February 1968; SFRS, SLMB 1542 Dec. 1133;  $2 \, \delta$ ,  $1 \, \circ$ . — 20 fms (= 37 m), BT; 16 February 1968; SFRS, SLMB 1551 Dec. 1158;  $7 \, \delta$ ,  $7 \, \circ$  (2 ovigerous). — 10 fms (= 18 m), Dg; 16 February 1968; SFRS, SLMB 1553 Dec. 1131; 1 ovigerous  $\, \circ$ .

Akrotiri Bay, 12 fms (= 22 m), BT; 23 June 1967; SFRS, SLMB 1502 Dec. 1134; 1º (with Rhizocephala). — 30 fms (= 55 m), Dg; 13 February 1968; SFRS, SLMB 1531 Dec. 1130; 28.

Inachus communissimus is known from the entire Mediterranean, but has often been confused with *I. dorsettensis*. In the eastern Mediterranean it is definitely reported from Turkey and Egypt, but will certainly also occur in other areas. The present material is the first to be reported from Cyprus.

### Inachus dorsettensis (Pennant, 1777)

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

Famagusta Bay, 45 fms (= 82 m), BT; 15 February 1968; SFRS, SLMB 1536 Dec. 1121; 13, 13, -40-45 fms (= 73-82 m), BT; 16 February 1968; SFRS, SLMB 1547 Dec. 1122; 43, 43 (2 ovigerous, 1 with Rhizocephala). -30 fms (= 55 m), BT; 16 February 1968; SFRS, SLMB 1546 Dec. 1123; 13, 33 (1 ovigerous). -14 fms (= 26 m), BT; 20 May 1969; SFRS, SLM 2003 Dec. 1115; 1 ovigerous 3.

Akrotiri Bay, 30 fms (= 55 m), Dg; 13 February 1968; SFRS, SLMB 1531 Dec. 1124;  $3\delta$ , 29 (1 ovigerous).

This species occurs throughout the Mediterranean. It has often been confused with the previous, and older records can usually not be fully relied upon. There are many reports of *Inachus dorsettensis* from the eastern Mediterranean, but it is now recorded for the first time from Cyprus.

### **Inachus phalangium** (Fabricius, 1775)

Material examined. — Famagusta Bay, 10 fms (= 18 m), BT; 5 March 1969; SFRS, SLM 785 Dec. 1114; 13.

Cape Andreas, 65 fms (= 119 m), BT; 22 May 1969; SFRS, SLM 2027 Dec. 1135; 19.

Inachus phalangium (also known as I. dorynchus Leach) is known from the entire Mediterranean, but there are only few records from the eastern basin (viz., from Egypt). So far it was not known from Cyprus.

### Inachus thoracicus (Roux, 1830)

Inachus thoracicus — Demetropoulos & Neocleous, 1969: 18.

Material examined. — Famagusta Bay, 20 fms (= 37 m), BT; 28 June 1967; SFRS, SLMB 1516 Dec. 1125;  $1 \circ$ ,  $1 \circ$ . — 45 fms (= 82 m), BT; 15 February 1968; SFRS, SLMB 1536 Dec. 1164;  $6 \circ$ ,  $5 \circ$ . — 45 fms (= 82 m), BT; 15 February 1968; SFRS, SLMB 1543 Dec. 1128;  $2 \circ$ ,  $3 \circ$  (1 ovigerous, 1 with Rhizocephala). — 30 fms (= 55 m), BT; 15 February 1968; SFRS, SLMB 1537 Dec. 1157;  $5 \circ$ , 2 ovigerous  $\circ$ . — 20 fms (= 37 m), BT; 15 February 1968; SFRS, SLMB 1538 Dec. 1169; 1 specimen. — 20 fms (= 37 m), BT; 15 February 1968; SFRS, SLMB 1541 Dec. 1162;  $3 \circ$ ,  $2 \circ$ . — 30 fms (= 55 m), BT; 15 February 1968; SFRS, SLMB 1542 Dec. 1161;  $3 \circ$ ,  $3 \circ$ . — 10 fms (= 18 m), Dg; 16 February 1968; SFRS, SLMB 1553 Dec. 1127;  $1 \circ$ ,  $1 \circ$ . — 30 fms (= 55 m), BT; 16 February 1968; SFRS, SLMB 1550 Dec. 1163;  $2 \circ$ . — 30 fms (= 55 m), BT; 16 February 1968; SFRS, SLMB 1540 Dec. 1163;  $2 \circ$ . — 30 fms (= 73-82 m), BT; 16 February 1968; SFRS, SLMB 1551 Dec. 1169;  $5 \circ$ ,  $2 \circ$ . — 20 fms (= 37 m), BT; 16 February 1968; SFRS, SLMB 1551 Dec. 1160;  $5 \circ$ ,  $12 \circ$  (3 ovigerous). — 30 fms (= 55 m), BT; 16 February 1968; SFRS, SLMB 1546 Dec. 1168;  $10 \circ$ ,  $7 \circ$  (1 ovigerous).

Akrotiri Bay, 12 fms (= 22 m), BT; 23 June 1967; SFRS, SLMB 1502 Dec. 1165;  $7\delta$ , 4%. — 30 fms (= 55 m), Dg; 13 February 1968; SFRS, SLMB 1531 Dec. 1170;  $1\delta$ , 2% (1 ovigerous). Khrysokhou Bay, profile XXI, 50 fms (= 91 m), ODg; 29 October 1968; HUJ, SLM 1805 Dec. 1166;  $1\delta$ .

Inachus thoracicus occurs throughout the Mediterranean; in the eastern basin it has been reported from Greece, Turkey and Egypt. Demetropoulos & Neocleous (1969) reported it from the S.E. coast of Cyprus between Cape Greco and Cape Andreas where it was found occasionally at a depth of 20 fms (= 37 m).

#### Achaeus cranchii Leach, 1817

Material examined. — Famagusta Bay, 75-80 fms (= 137-146 m), Dg; 8 March 1969; SFRS, SLM 796 Dec. 1111; 1 ovigerous  $\circ$ . — 50 fms (= 91 m), Dg; 21 May 1969; SFRS, SLM 2019 Dec. 1120;  $1 \circ$ .

Until 1955 the deepwater species of Achaeus of the Mediterranean was usually indicated with the name Achaeus cursor A. Milne Edwards & Bouvier, 1898, while the name A. cranchii was applied to the species living in shallower water. Then Forest & Zariquiey (1955) showed that the deepwater form was actually conspecific with the Atlantic Achaeus cranchii Leach, 1817, and they

proposed the new name A. gordonae for the shallow water form. Later Manning & Holthuis (1981: 253) showed that an earlier name, A. gracilis O.G. Costa, 1839, is available for the latter species.

Due to this confusing situation, older Mediterranean records of A. cranchii have to be regarded with some reserve, as they may actually pertain to A. gracilis. A. cranchii is known from the entire Mediterranean. In the eastern basin it has been reported from Greece, Lebanon and Egypt, but there is a possibility that these records actually are based on A. gracilis. The species is now reported for the first time from Cyprus.

### Achaeus gracilis O.G. Costa, 1839

Material examined. — Famagusta Bay, 7 fms (= 13 m), BT; 20 May 1969; SFRS, SLM 2000 Dec. 1112; 1S, 1S,

Cape Kiti, 1-2 m deep, poisoning near rocks; 27 August 1970; TAU, SLM 7650 Dec. 1116; 18.

As discussed under the previous species, the present one before 1955 was usually indicated with the incorrect name *Achaeus cranchii*. After 1955 the name *A. gordonae* Forest & Zariquiey Alvarez, 1955, was mostly used, while in 1981 it was pointed out that its valid name is *Achaeus gracilis* O.G. Costa, 1839.

The species occurs throughout the Mediterranean and is not rare. In the eastern basin it has been reported (as A. gordonae) from Turkey and Israel. Greek and Egyptian records of A. cranchii may be based on the present species. The species is now reported for the first time from Cyprus.

### Macropodia rostrata (Linnaeus, 1761)

Material examined. — Famagusta Bay, 45 fms (= 82 m), BT; 15 February 1968; SFRS, SLMB 1536 Dec. 1202; 2\$, 2\$ (1 ovigerous). — 40-45 fms (= 73-82 m), BT; 16 February 1968; SFRS, SLMB 1547 Dec. 1204; 1\$. — 40-45 fms (= 73-82 m), BT; 16 February 1968; SFRS, SLMB 1547 Dec. 1205; 1 ovigerous \$\cdot \cdot \cdot \cdot 10\$ fms (= 18 m), BT; 16 February 1968; SFRS, SLMB 1552 Dec. 1196; 3\$, 1\$\cdot \cdot \cdot \cdot 30\$ fms (= 55 m), BT; 16 February 1968; SFRS, SLMB 1550 Dec. 1203; 3\$, 1\$\cdot \cdot \cdot \cdot 20\$ fms (= 37 m), BT; 16 February 1968; SFRS, SLMB 1551 Dec. 1182; 6\$ (2 ovigerous). — 75 fms (= 137 m), BT; 6 March 1969; SFRS, SLM 791 Dec. 1177; 1\$.

Akrotiri Bay, 30 fms (= 55 m), Dg; 13 February 1968; SFRS, SLMB 1531 Dec. 1201; 18, 19.

Macropodia rostrata is a common species throughout the Mediterranean, both in the western and in the eastern basin. It had not been reported before from Cyprus.

## Macropodia longirostris (Fabricius, 1775)

Macropodia longirostris — Demetropoulos & Neocleous, 1969: 18.

Material examined. — Akrotiri Bay, 30 fms (= 55 m), Dg; 13 February 1968; SFRS, SLMB 1531 Dec. 1200; 19.

Cape Andreas, 65 fms (= 119 m), BT; 22 May 1969; SFRS, SLM 2027 Dec. 1178; 15.

Macropodia longirostris is known from the entire Mediterranean and there are many records from the eastern basin. The only previous mention of its occurrence in Cyprus waters is by Demetropoulos & Neocleous (1969), who reported it as common in depths between 10 and 45 fms (= 18-82 m) on the north coast between Cape Andreas and Cape Kormakiti and on the south-east coast between Cape Greco and Cape Andreas.

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