

MARINE AMPHIPODS OF THE CANARY ISLANDS WITH DESCRIPTION OF A NEW SPECIES OF *ELASMOPUS*

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Krapp-Schickel, G. & Ruffo, S. 1990. Marine amphipods of the Canary Islands with description of a new species of *Elasmopus*. *Misc. Zool.*, 14: 53-58.

Marine amphipods of the Canary Islands with description of a new species of Elasmopus.—Thirty-two amphipod species were found in the phytal of Gran Canaria island, 15 of them new to the fauna of the Canary Islands. The presence of *Ampithoe kaneohe* J.L. Barnard (first described from the Hawaiian Islands) is confirmed, and *Elasmopus canarius* n. sp. is described. This new species is very closely related to a group of almost entirely Indo-Pacific species, with intertropical distribution. The species is characterized in the male by a large, obtuse tooth on palmar margin of gnathopod 2 and a castelloserrate posterior margin in pereopods 6 and 7.

Key words: *Elasmopus canarius* n. sp., Amphipods, Canary Islands.

(*Rebut*: 28 III 90; *Acceptació condicional*: 13 IX 90; *Acc. definitiva*: 9 I 91)

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INTRODUCTION

The Amphipods of the Canary Islands are still poorly known and have never been the subject of specific research (cfr. CEJAS et al., 1983; CEJAS & BRITO, 1984). This is clearly demonstrated by the fact that occasional samplings, such as the one in the present paper, lead to the discovery of species never before reported for the fauna of these islands, or even to the discovery of new species.

MATERIAL AND METHODS

Between the 1st and the 10th of December of 1975, 1120 specimens belonging to 32 species from phytal-samples (0-3 m) and 2 species from sponges of Playa del Inglés (Gran Canaria) were sampled.

The samples were taken by diving down to the algae site, and collecting them with a tight net. Once out of the water the algae were rinsed in fresh water mixed with alcohol until

even those specimens that were clinging fast to their hiding places came loose. The amphipods were immediately preserved in a 70% alcohol solution.

RESULTS

Species identified

Amphilocheus neapolitanus Della Valle
**Ampithoe helleri* G. Karaman
Ampithoe kaneohe J.L. Barnard
Ampithoe ramondi Audouin
Aora spinicornis Afonso
**Apherusa alacris* Krapp-Schickel
**Caprella acanthifera* Leach
**Caprella danilewskii* Czerniawski
**Caprella grandimana* Mayer
**Caprella liparotensis* Haller
**Corophium acutum* Chevreux
**Colomastix pusilla* Grube
**Cressa mediterranea* Ruffo
Cymadusa filosa Savigny

**Elasmopus canarius* n. sp.
Elasmopus pecteniscrus (Bate)
Elasmopus rapax A. Costa
**Elasmopus vachoni* Mateus & Mateus
**Eusiroides dellavallei* Chevreux
**Gammaropsis ulrici* Krapp-Schickel & Myers
**Guerneia coalita* (Norman)
Hyale camptonyx (Heller)
Hyale schmidtii (Heller)
Jassa sp.
Maera inaequipes (A. Costa)
Melita sp.
Microdeutopus damnoniensis (Bate)
**Microprotopus longimanus* Chevreux
Podocerus variegatus Leach
Stenothoe monoculoides (Montagu)
Stenothoe tergestina (Nebeski) (= *spinimana* Chevreux)
Sunamphithoe pelagica (Milne Edwards)

The species with an asterisk (*) are cited for the first time from the Canary Islands. All of these species were already known from the Mediterranean Sea (RUFFO, 1982; 1989), except for *Elasmopus canarius* n. sp., described below, and *Ampithoe kaneohe* J.L. Barnard, first described from the Hawaiian Islands, but already cited for the Canary Islands by CEJAS et al. (1983). The specimens of *A. kaneohe* correspond perfectly with the original description (BARNARD, 1970). As for the huge distance between these two localities, one could presume that the presence of this species in the Canary Islands might be the result of passive transport.

The samples came from:

1) Shrubby brown algae (*Cystoseira*, *Sargassum*) and their epiphytes, with little detritus and strong water movement. Dominant species: *Ampithoe* spp., *Sunamphithoe pelagica*, *Elasmopus canarius*, *E. pecteniscrus*, *E. va-*

choni, *Microdeutopus damnoniensis*, *Hyale camptonyx*.

2) Short red algae (*Corallina*, *Jania*, *Peyssonelia*) with much detritus. Dominant species: *Aora spinicornis*, *Apherusa alacris*, *Elasmopus rapax*, *Hyale schmidtii*, *Caprella liparotensis*, *C. grandimana*.

3) Sponges with their typical inhabitant, *Colomastix pusilla*.

Elasmopus canarius n. sp.

Diagnosis

An *Elasmopus* with inner face of palmar margin of gnathopod 2 of male defined by an obtuse, large tooth, posterior margin with a dense fringe of long setae; basis of pereopods 6-7, in male, with posterior margin deeply serrate (castelloserrate).

Examined material

Gran Canaria, Playa del Inglés, Molo Aquamarina; fine green algae, 1-2 m deep, XII 1975, 10 ♂♂ 4 ♀♀, G. Krapp-Schickel leg. The holotype (♂ MVR Cr 331, slides 3775-3777) and the paratypes have been deposited at the Museo Civico di Storia Naturale, Verona.

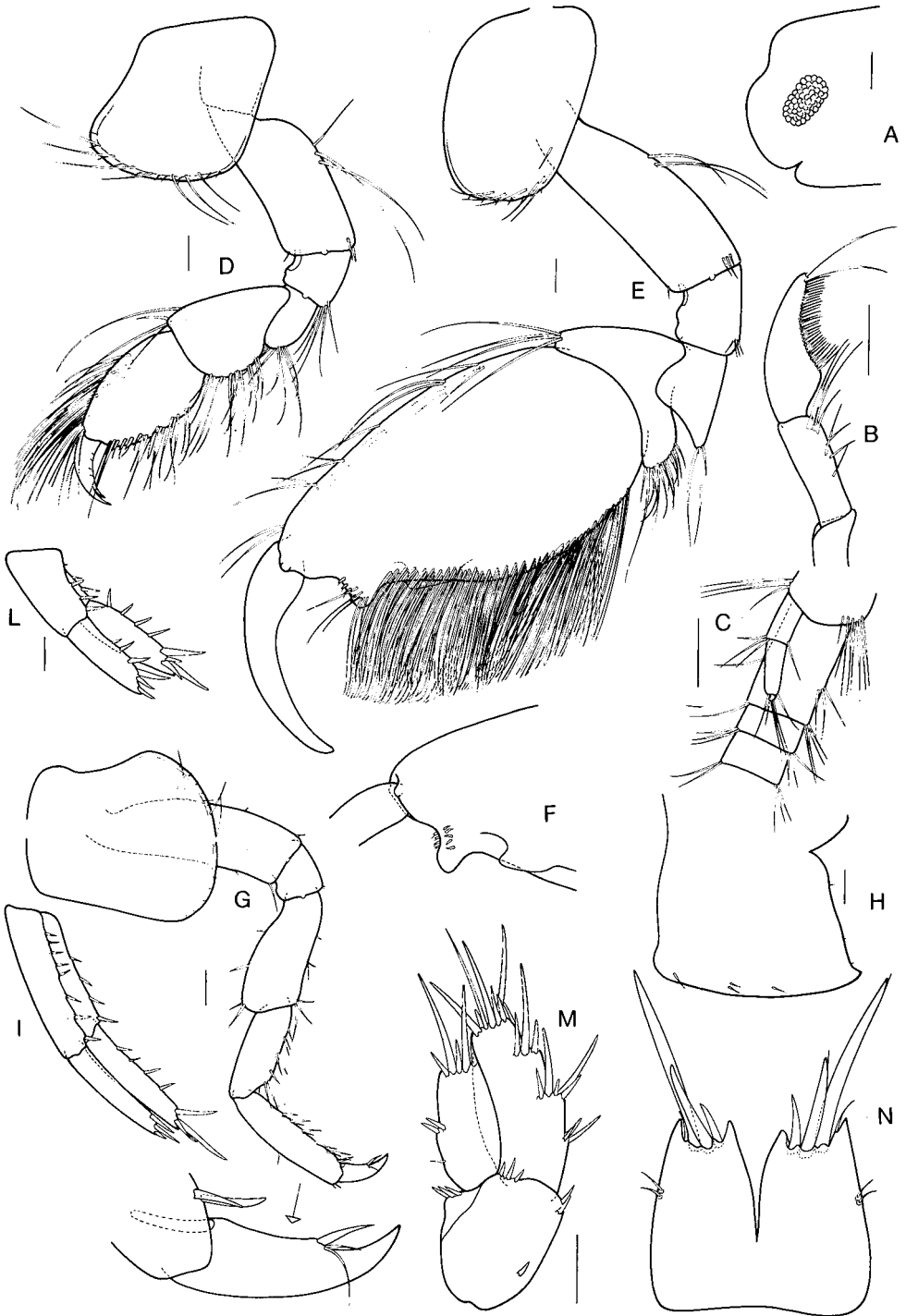
Description of ♂ (4.5 mm)

Head (fig. 1A): with subocular notch; eyes relatively short, suboval and dark; antenna 1 slightly longer than 1/2 of body, main flagellum with 18-19 articles, accessory flagellum (fig. 1C) as long as first article of main flagellum, triarticulate, article 3 rudimentary; antenna 2 half as long as antenna 1, flagellum with 7-9 articles.

Mandibular palp (fig. 1B): ratio of articles 1:2:2.5; article 3 deeply falcate, with comb-

Fig. 1. *Elasmopus canarius* n. sp. ♂ holotype, 4.5 mm, Gran Canaria: A. Head; B. Mandibular palp; C. Accessory flagellum; D, E. Gnathopods 1-2; F. Gnathopod 2, distal part, on inner face; G. Pereopod 4; H. Epimeral plate 3; I, L, M. Uropods 1-3; N. Telson. (Scales: 0.1 mm).

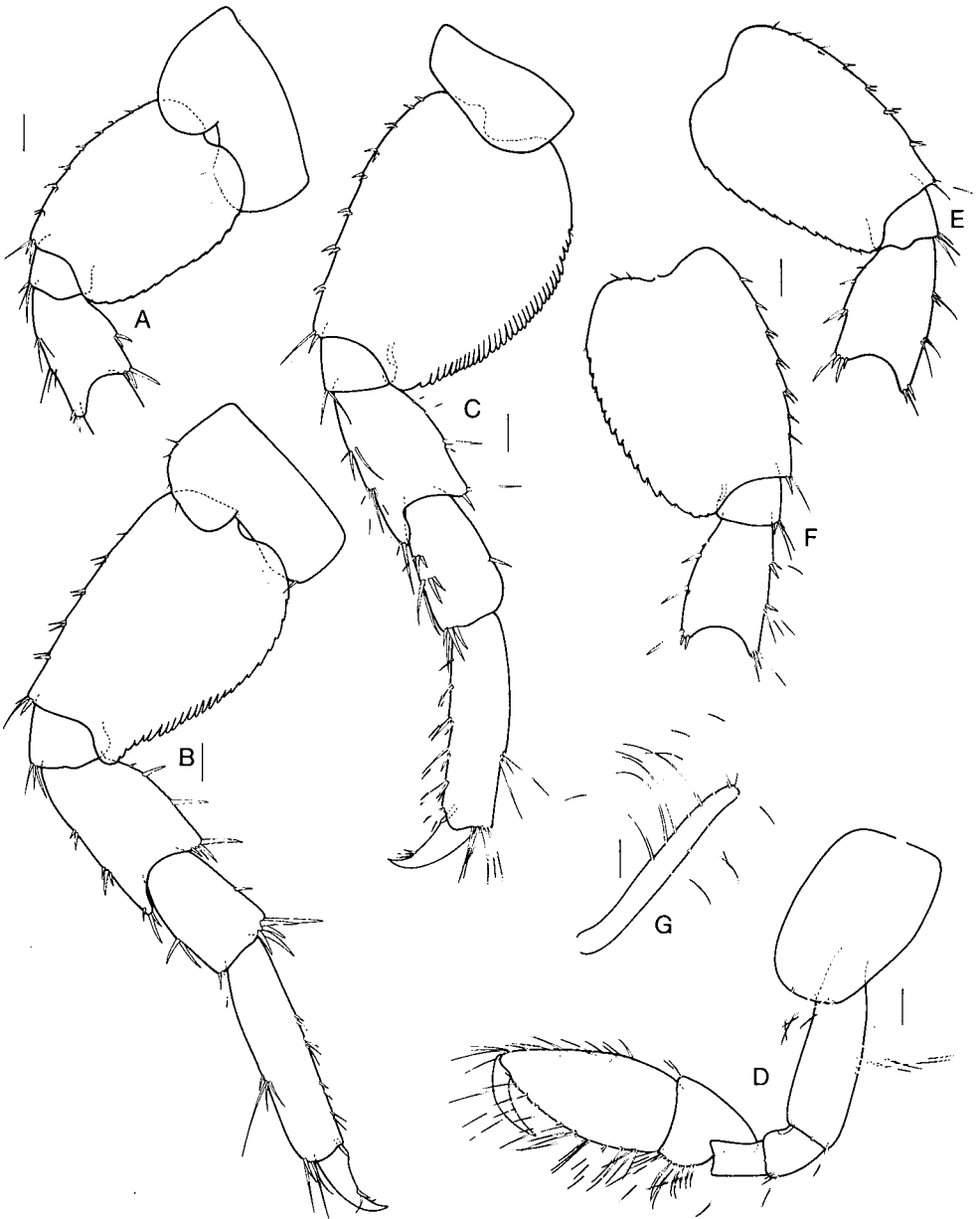
Elasmopus canarius sp. n. ♂ holotipo, 4,5 mm, Gran Canaria: A. Cabeza; B. Palpo mandibular; C. Flagelo accesorio; D, E. Gnatópodos 1-2; F. Gnatópodo 2, parte distal de la cara interna; G. Pereiópodo 4; H. Placa epimeral 3; I, L, M. Urópodos 1-3; N. Telson. (Escala: 0,1 mm).



like row of setae along concave margin and with 2 long distal setae.

Coxal plate 1-4 (figs. 1D, 1E, 1G): inferior margin with sparse long setae; coxal plate 4 (fig. 1G) feebly excavate posteriorly.

Gnathopod 1 (fig. 1D): propodus as long as carpus or slightly longer, suboval, palmar margin defined by one strong spine, with some long setae and sparse short bifid spines; gnathopod 2 (fig. 1E) propodus robust, as



long as remaining segments, subpyriform, posterior margin with subdistal, minutely spinous protrusion, palmar margin defined by a large obtuse tooth on inner face (fig. 1F); posterior margin with a close fringe of long setae.

Pereopods 3-4 (fig. 1G): similar, without noteworthy features, with few short spines and setae, propodus distally with pair of strong locking spines.

Pereopod 5 (fig. 2A): posterior margin of basis weakly serrate, with ca. 13 feeble indentations, each with a short spine. Pereopod 6 (fig. 2B): stronger than pereopod 5, posterior margin of basis weakly constricted distally, with pronounced distal lobe, proximally weakly serrate, with 7-8 indentations, each with a short spine, distal half deeply serrate (castelloserrate), without spines. Pereopod 7 (fig. 2C): slightly shorter than pereopod 6, posterior margin of basis convex, deeply serrate (castelloserrate), without spines.

Epimeral plate 3 (fig. 1H): ventral margin with three spines or group of spines, posterior-inferior corner acutely produced, posterior margin feebly and sparsely crenulate, with short spines.

Uropods 1-2 (figs. 1I, 1L): without noteworthy features, distal spines of peduncle not very long. Uropod 3 (fig. 1M): inner ramus 75% of outer one, both with very long distal spines. Telson (fig. 1N): short, as long as wide, with 3 distal spines, exterior one longer than telson.

Description of ♀ (ovigerous) (4.3 mm)

Antenna 1 half as long as body, main flagellum of 19-21 articles. Gnathopod 2 (fig. 2D): propodus suboval, twice as long as carpus, palmar margin undefined, dactylus short. Pereopods 6-7 (figs. 2E, 2F): posterior margin not castelloserrate, with 14-17 indentations, each with a short spine. Oostegites (fig. 2G): narrow.

Remarks

Elasmopus canarius n. sp. is very closely related to a group of almost entirely Indo-Pacific species with intertropical distribution: *E. pecteniscrus* (Bate, 1862); *E. serricatus* J.L. Barnard, 1969; *E. spinibasus* Sivaprakasam, 1970; *E. yunde* J.L. Barnard, 1974 (very similar to *E. spinibasus*, perhaps synonymous); *E. crenulatus* Berents, 1983; *E. lauffolii* Myers, 1986. This group of species is characterized by the presence of a very dense fringe of long setae on the posterior margin of gnathopod 2 of the male and by a castelloserrate posterior margin of the basis of pereopods 6 and/or 7.

Elasmopus canarius is distinguished by the following combination of characters, which never occur all together in any other species: a large, obtuse tooth on palmar margin of gnathopod 2 in the male and a castelloserrate posterior margin in pereopod 6 and 7. This latter character helps to distinguish *E. canarius* easily from *E. pecteniscrus* Bate, the only other Indo-Pacific species of the above-mentioned group present also in the Atlantic Ocean, which now is penetrating in the Mediterranean Sea via the Suez Canal.

RESUMEN

Anfípodos marinos de las Islas Canarias y descripción de una nueva especie de Elasmopus.

Se citan 32 especies de anfípodos colectados en el litoral de la Gran Canaria, 15 de las cuales son nuevas para la fauna de las Islas Canarias. Se confirma la presencia de *Ampithoe kaneohe* J.L. Barnard, descrita para las Islas Hawai y se describe *Elasmopus canarius* sp. n. afín a un grupo de especies en su gran mayoría indopacíficas con distribución intertropical. El macho de esta especie se caracteriza por la presencia de un gran diente obtuso sobre el margen palmar del gnathopodo 2 y por presentar los márgenes posteriores de los basipoditos de los pereiópodos 6 y 7, profundamente serrados.

Fig. 2. *Elasmopus canarius* n. sp. ♂ holotype, 4.5 mm, Gran Canaria: A, B, C. Pereopods 5-7. *E. canarius* n. sp. ♀ (ovigerous), 4.3 mm: D. Gnathopod 2; E, F. Pereopods 6,7; G. Oostegite 3. (Scales: 0.1 mm).

Elasmopus canarius sp. n., ♂ holotipo, 4,5 mm, Gran Canaria: A, B, C. Pereiópodos 5-7. *E. canarius* sp. n. ♀ (ovígero), 4,3 mm; D. Gnatópodo 2; E, F. Pereiópodos 6,7; G. Oostegite 3. (Escala: 0,1 mm).

REFERENCES

- BARNARD, J.L., 1970. Sublittoral Gammaridea (Amphipoda) of the Hawaiian Islands. *Smithsonian Contr. Zool.*, 34: 1-286.
- CEJAS, J.R. & BRITO, A., 1984. Lista preliminar de anfipodos bentonicos marinos de las Islas Canarias. *An. Fac. Ciencias*, 10(1-2): 51-60.
- CEJAS, J.R., BRITO, A. & LOZANO, G., 1983. Sobre algunos Gammaridos (Crustacea, Amphipoda) nuevos para la fauna marina de Canarias. *Vieraea*, 12(1-2): 317-328.
- RUFFO, S. (Ed.), 1982. The Amphipoda of the Mediterranean. Part 1. Gammaridea (Acanthonotozomatidae to Gammaridae). *Mém. Inst. Océanogr.*, 13: 1-364.
- 1989. The Amphipoda of the Mediterranean. Part. 2 (Haustoriidae to Lysianassidae). *Mém. Inst. Océanogr.*, 13: 365-576.