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**ANTHURIDEAN ISOPODS (CRUSTACEA: ISOPODA:
ANTHURIDEA) FROM THE EASTERN ATLANTIC OCEAN
(OFF IBERO-MOROCCAN COASTS). I. TWO NEW SPECIES**

ILEANA NEGOESCU

Abstract. Two new species of anthuridean isopods, *Ananthura antipai* n. sp. and *Bullowanthura kensleyi* n. sp. are reported off Ibero-Moroccan Bay, dichotomous key for identification of *Bullowanthura* species is presented.

Résumé. On décrit deux espèces nouvelles d'isopodes anthuridés, *Ananthura antipai* n. sp. et *Bullowanthura kensleyi* n. sp. du large du golfe ibéro-marocain. On présente la clé dichotomique d'identification des espèces du genre *Bullowanthura*.

Key words: Isopoda, Anthuridea, new species, off Ibero-Moroccan Bay, Eastern Atlantic Ocean.

The Anthuridean isopod fauna of the Eastern Atlantic is much better studied in comparison with the fauna of other regions. There are recorded about 28 species, from European Atlantic coasts, Morocco, Mauritania, Canary and Cape Verde Islands, Gulf of Guinea and Angola Basin.

Despite a long history of crustacean research in the Atlantic Ocean, especially on the European coasts, the waters of Ibero-Moroccan Bay (sometimes called Gulf of Cadiz in a broad sense) still offer a lot of unknown elements regarding the anthuridean isopods.

In the present paper two new species are described: *Ananthura antipai* and *Bullowanthura kensleyi*, sampled in the Eastern Atlantic waters, off the Ibero-Moroccan Bay, collected during the BALGIM 84 cruise.

MATERIAL AND METHODS

The French oceanographical cruise BALGIM 84 organised by the Muséum National d'Histoire Naturelle (Paris), under the direction of Dr. Philippe Bouchet collected material in the period May 22–June 22 1984 aboard R. V. „Cryos” in the Atlantic and Mediterranean waters on both sides of the Gibraltar Strait, at depths between 115 and 2110 m. BALGIM is the abbreviation for „Benthos – Atlantic – Gibraltar – Mediterranean”. The material has been sorted by the Centre National de Tri d'Océanographie Biologique (CENTOB Brest).

The material was collected from two stations, off the Ibero-Moroccan Bay, at depth of 1141 m and 1283 m (Fig. 1). The specimens were preserved in 70% ethanol and dissected parts were mounted on slides in 50:50 ethanol:glycerin solution. The material is preserved in the Muséum National d'Histoire Naturelle (Paris) and in the „Grigore Antipa” National Museum of Natural History (Bucharest).

Abbreviations used in text: C – cephalothorax; P – pereopod; Pln – pleon; Tel – telson; l – left; r – right; MNHN - Muséum National d'Histoire Naturelle, Paris; MGAB – Muzeul Național de Istorie Naturală „Grigore Antipa”, București („Grigore Antipa” National Museum of Natural History, Bucharest).

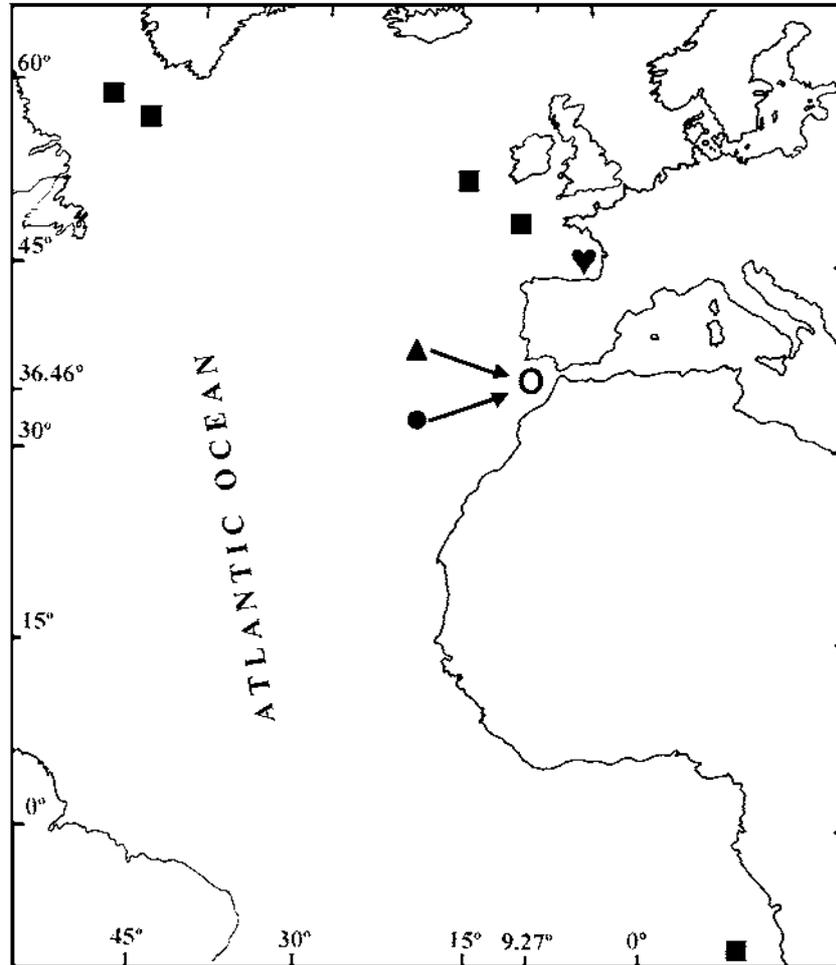


Fig. 1 – Distribution of *Ananthura abyssorum* (Norman & Stebbing, 1886) (■) and *Bullovanthura aquitana* Kensley, 1982 (♥) and collecting places of *Ananthura antipai* n. sp. (▲) and *Bullovanthura kensleyi* n. sp. (●).

RESULTS AND DISCUSSIONS

Family Antheluridae Poore & Lew Ton, 1988

Ananthura Barnard, 1925

***Ananthura antipai* n. sp.**

(Figs 2 - 4)

Material. 6 specimens: *Holotype* non-ovigerous female (dissected, one slide), No. MNHN-Is 5851; *paratypes*: 1 postmanca, 1 manca, No. MNHN-Is 5852; 1 non-ovigerous female, 2 mancass, No. MGAB ISP 898. *Type locality*: E Atlantic Oc.,

BALGIM 84, RV „Cryos”, st. DW 07, 36°46,1 N, 9°27 W, 1141 m, bottom with shells debris, foraminiferans, pteropods, 29.05.1984.

Etymology. The species is dedicated to the memory of Grigore Antipa, the father of hydrobiology in Romania and founder of the National Museum of Natural History from Bucharest.

Description of non-ovigerous female (holotype)

Integument thin, smooth, not pigmented.

Body (Fig. 2 A): length 11 mm, about 13.5 times longer than greatest width; proportions: $C < 1 < 2 < 3 < 4 \approx 5 > 6 > 7 < P1 \approx Tel.$ *Cephalothorax* almost quadrate, about same length as pereonite 7; rostrum small and acute, not exceeding anterolateral lobes. Eyes absent. Pereonites 4 and 5 longest. *Pleon* (Fig. 2 A) 1.3 times longer than greatest width, about same length as pereonite 1, 1.4 times longer than pereonite 7 and about same length with telson; pleonites 1-6 free, pleonite 5 longest, dorsally visible suture between pleonite 6 and telson.

Telson (Fig. 2 A-C): 2 times longer than greatest width, linguiform, domed proximally; distally submarginal fine short setae; rounded apex, with a slight excavation bordered by four fine short setae. Dorsally proximally longitudinal slit-like pore of statocyst.

Antennula (Fig. 3 A, B): peduncle article 1 about as long as articles 2 and 3 together; article 2 and 3 subequal; laterally articles 1 and 2 with fine plumose sensory setae. Flagellum of four articles; article 1 with one plumose sensory seta; article 2 as long as articles 1, 3 and 4 together; articles 2-4 distally with a broad aesthetasc each, article 4 the smallest, apically with four long simple setae.

Antenna (Fig. 3 C, D): flagellum of five articles decreasing in size, with some short aesthetascs and a bunch of long setae on last article.

Mandible (Fig. 3 E): pars incisiva strongly chitinised; lamina dentata with seven teeth, pars molaris with an excavation. Palp: article 1 1.3 times longer than article 3, with one distolateral seta; article 2 1.8 times longer than article 3, with one distolateral seta; article 3 smallest, distally with comb of five unequal simple setae, the second the longest one.

Maxilla (Fig. 3 F): lateral endite with six teeth.

Maxilliped (Fig. 3 G): basis 0.7 times shorter than palp; endite broad, 2 times longer than wide, surpassing the first two palpal articles, distally with two short setae. Palp of four articles, about 2 times longer than wide; article 2 with one distomedial seta, article 3 distally with two medial setae and one lateral, article 4 obliquely set on distal margin of article 3, medially with two setae and distomedially with a bunch of four setae.

Pereopods (Fig. 4): P1 strongest and longest, P2 slightly longer than P3, P4 shortest, P7 as long as P3, longer than P5 and P6. P1 (Fig. 4 A, B): merus distoventrally with a row of seven setae; carpus with one distal simple seta; propodus enlarged oval, 1.7 times longer than greatest width, ventral margin of palm slightly concave, with four setae, distal one the most robust; mesially a row of six simple setae; dactylus 1.4 times longer than unguis. P2 (Fig. 4 C, D) and P3 (Fig. 4 E) quite similar: merus distoventrally with a row of five setae; carpus distoventrally with one simple sensory spine; propodus elongate oval, 2.1 to 2.2 times longer than wide, respectively, ventrally with two simple sensory spines and mesially a row of five setae; dactylus in P2 1.9 and in P3 2.7 times longer than unguis. P4-P6 (Fig. 4 F-I) quite similar: merus ventrally with a row of five setae; carpus in P4 and P5 almost quadrate, 1.06 times longer than wide, and in P6 rectangular, 1.2 times

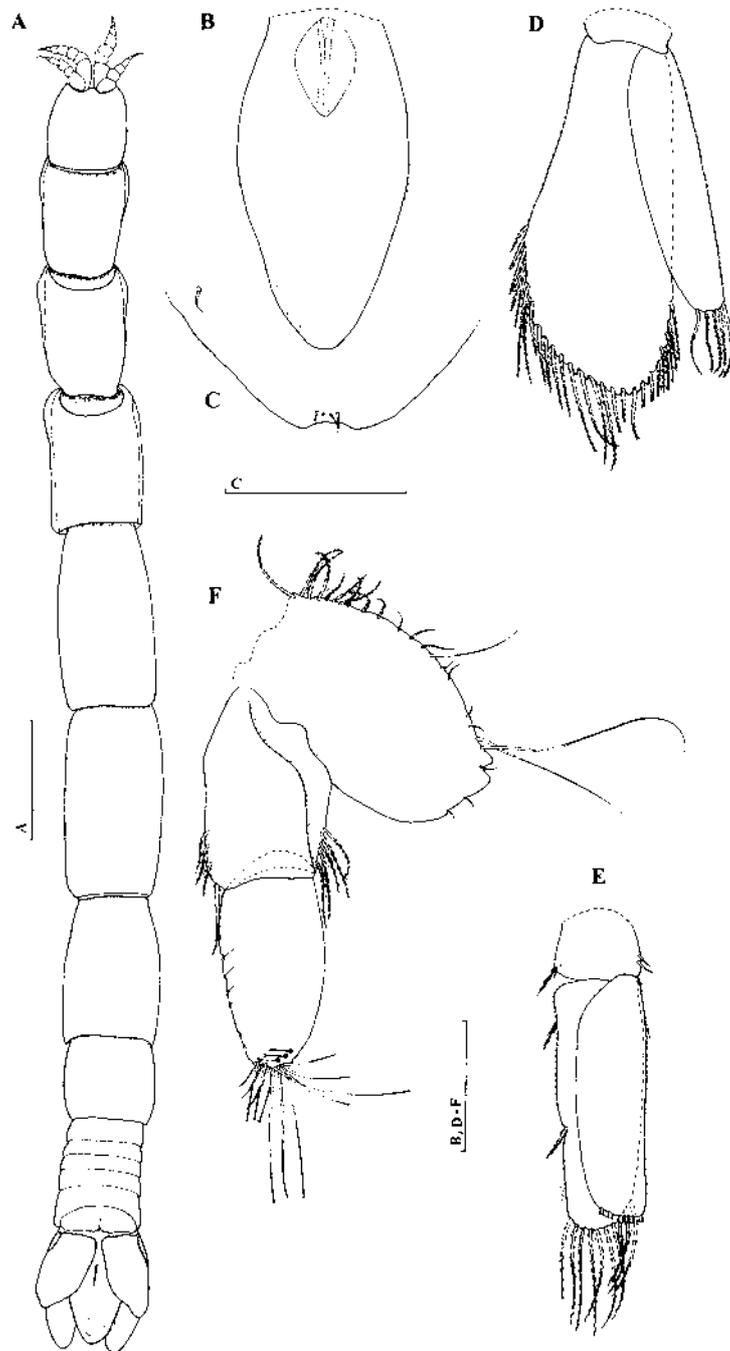


Fig. 2 – *Ananthura antipai* n. sp., non-ovigerous female holotype. A, dorsal view; B, telson; C, apex of telson; D, pleopod 1 (r); E, pleopod 2 (r); F, uropod (r, ventral view). Scale (in mm): A 1; B,D-F 0.3; C 0.1.

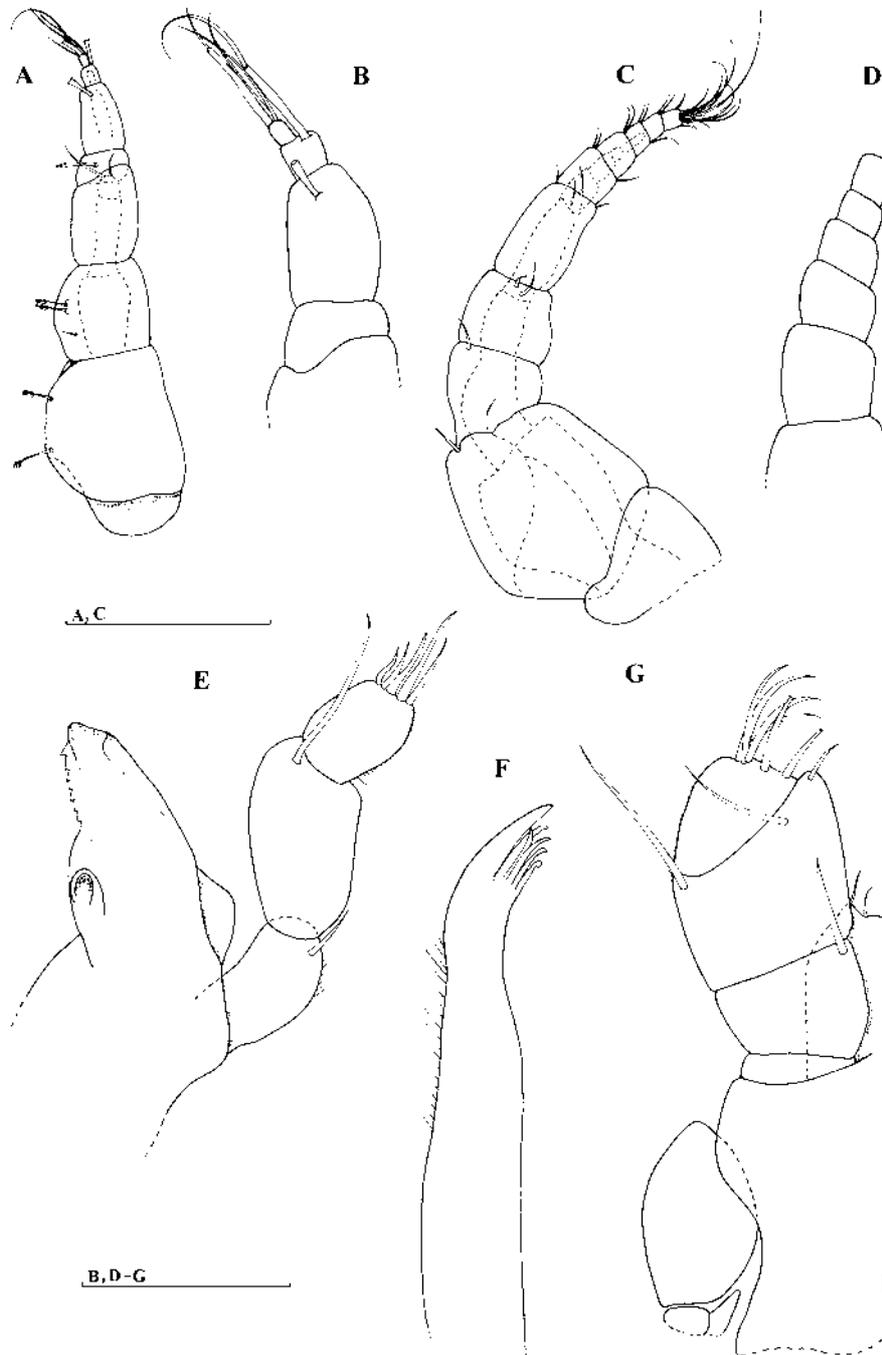


Fig. 3 – *Ananthura antipai* n. sp., non-ovigerous female holotype. A, antennula (l, aesthetascs cut off); B, antennular flagellum (l, aesthetascs cut off); C, antenna (l); D, antennal flagellum (l, setae and aesthetascs omitted); E, mandible; F, maxilla; G, maxilliped. Scale (in mm): A,C 0.2; B,D-G 0.1.

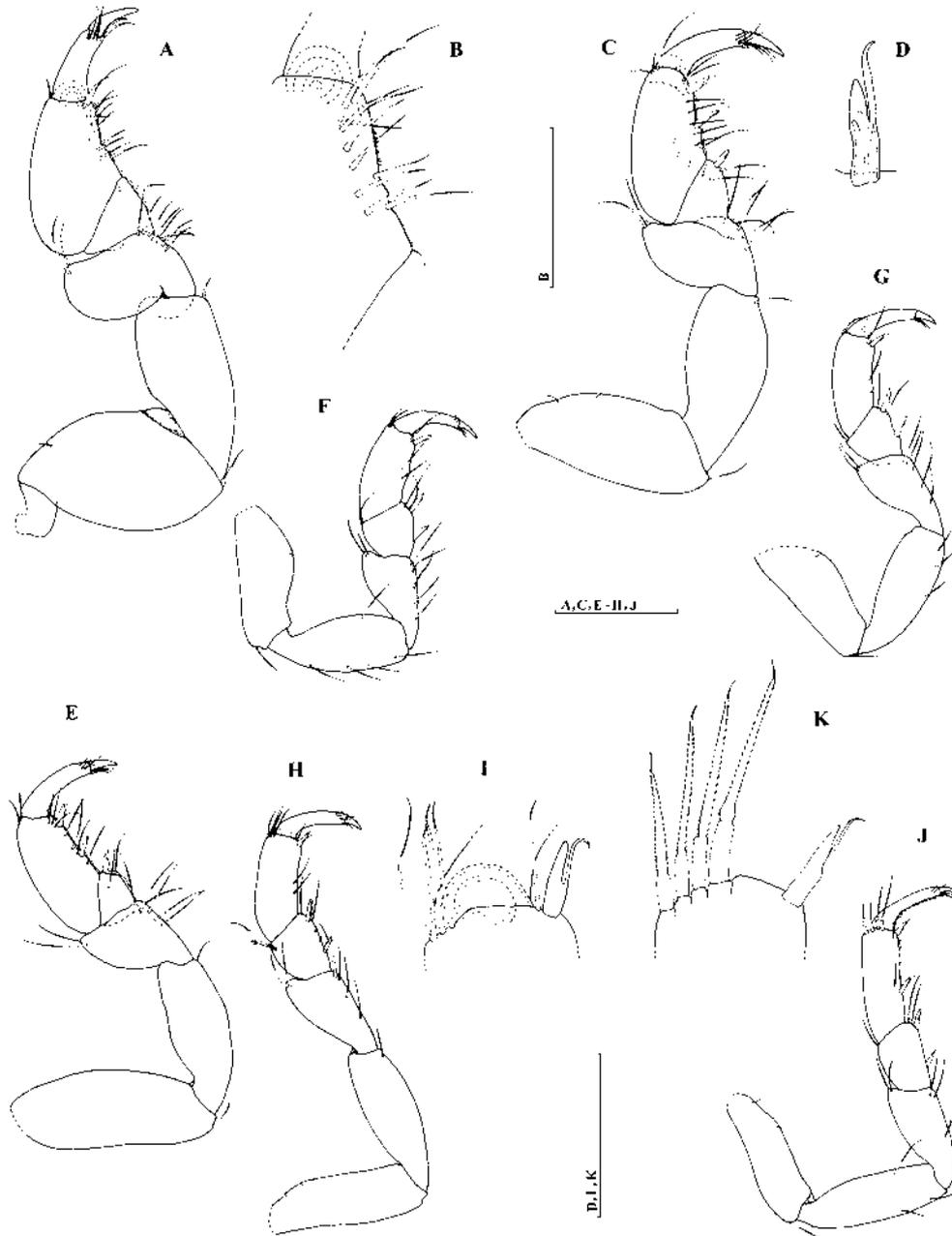


Fig. 4 – *Ananthura antipai* n. sp., non-ovigerous female holotype. Pereopods (r): A, 1; B, 1: propodus palm; C, 2; D, propodal sensory spine; E, 3; F, 4; G, 5; H, 6; I, 6: distal part of propodus; J, 7; K, 7: distal part of propodus. Scale (in mm): A,C,E-H,J 0.3; B 0.2; D,I,K 0.1.

longer than wide, ventrally with two simple sensory spines; propodus elongate oval, in P4 2.4 and in P5-P6 2.6 times longer than wide, distoventrally with one simple sensory spine, in P6 distodorsally and mesially three rigid simple setae (Fig. 4 I); dactylus in P4 2.8, in P5 3.3 and in P6 4.2 times longer than unguis. P7 (Fig. 4 J, K): carpus rectangular, 1.4 times longer than wide, ventrally with two simple sensory spines; propodus elongate rectangular 3.1 times longer than wide, distodorsally and mesially with four strong and rigid setulated setae, ventrally with two simple sensory spines and spinules; dactylus 4 times longer than unguis, ventrally with spinules. In all pereopods at the base of unguis one spinule and two-three fine setae.

Pleopod 1 (Fig. 2 D): exopod operculiform, 2.5 times longer than wide, 1.3 times longer than endopod, surrounded distally by about 30 fine plumose setae. Endopod, 4.4 times longer than wide, 2.3 times the width of exopod, distally five plumose setae. *Pleopod 2* (Fig. 2 E): sympod with two retinaculæ; exopod laterally with two plumose setae and distally with ten ones, and endopod with five plumose setae.

Uropod (Fig. 2 F): sympod rectangular, 1.6 times longer than wide, about same length with endopod, distomedially with four plumose setae and distolaterally with five plumose setae. Endopod elongate oval, with a large rounded apex, 1.9 times longer than greatest width, surrounded distally by about 15 simple long setae; subapically three plumose sensory setae; medially bordered by spinules. Endopod extends slightly beyond apex of telson (Fig. 2 A). Exopod broad oval, 1.7 times longer than wide, 1.4 times longer than sympod, 1.5 times longer than endopod, apically with two small lobes, bordered laterally by some short simple setae, proximally with about ten plumose setae and distally with two long simple setae. Exopods folded over telson not in contact with each other.

Description of other specimens

Length: non-ovigerous female – 9 mm; postmanca – 6.25 mm; mancas – 3.74 mm, 4.21 mm.

Number of setae in article 3 of mandibular palp and spines on pereopods in young stages and adults are the same. In postmanca and in female distodorsally and mesially on P6 three rigid simple setae. Obviously the manca has fewer setae on all articles, i. e. on carpus one spine in P4-P6 and in P6 distodorsally and mesially two rigid simple setae.

Remarks

Ananthura antipai n. sp. is closely allied with *Ananthura abyssorum*, having a very similar morphology. Till now *A. abyssorum* was described only on female specimens. Norman & Stebbing (1886: 127, 128, pl. 27, fig. 2) described it as *Anthelura abyssorum* on a material collected near the entrance of the Davis Strait (3199 m). But the description is incomplete and in the few figures details are missing. Richardson in her „Monograph on the isopods of North America” (1905: 68-70) reproduced the original description and figures of Norman & Stebbing. Barnard (1925: 137) transferred the species to the genus *Ananthura* and noticed: „I am unable to add any details to the original description, which was in many points inadequate, e. g., the shape of the telson and uropodal rami. The type in the British Museum lacks both head and tail-fan.” Kensley (1978: 788-791) created the new genus *Valoranthura* for the species *abyssorum*, and redescribed and figured the species on two syntypes, females (one with cephalothorax and pleon missing) collected in the Davis Strait. He figured only the shape of body, mandible, maxilla,

maxilliped, pereopods 1, 2, 7, pleopod 1. Kensley mentioned also the species in new regions of the Atlantic deep water (1982: 3, 26): South West of Ireland (3859 m - 2 juveniles and 1 sub-male, damaged, first mention of a male in this species) and in the Angola Basin (4596 m - one female). The male remains undescribed, yet. *Ananthura abyssorum* was reported also by Negoescu in 1984 (p. 56) off Labrador Peninsula (3465 m) and in 1985 (p. 460) in Biscay Bay (3548 – 4240 m).

Unfortunately, also the subsequent redescriptions are still „inadequate” and antennula, antenna, P3-P6, pleopod 2 and uropod have not figured. For this reason it is difficult to compare and to separate my new species *A. antipai* from *A. abyssorum*.

A. antipai n. sp. described on female specimens, compared with *Ananthura abyssorum* described in the literature mentioned above, differs slightly in the following features (in brackets the different features of *A. abyssorum*): body more robust, 13.5 times longer than greatest width (15.5 times longer than wider); pleon shorter, 1.8 times longer than pereonite 7; dorsally visible suture between pleonite 6 and telson (suture not visible); telson narrower, linguiform (1.5 times longer than greatest width, apically narrowly rounded); antennae with fewer articles in flagella (antennula six articles and antenna nine articles); in mandible: pars molaris with an excavation (broadly rounded, any excavation mentioned); setal comb of article 3 of mandibular palp of five setae (six fringed setae); endite of maxilliped shorter (endite longer, 2.8 times longer than wide) and article 4 of palp distomedially with six setae (four setae); on P1 carpus and propodus with simple setae (with fringed setae), P2 and P3 propodus with two sensory simple spines (three spines), P4-P6 propodus with one sensory spine (two spines), P7 carpus and propodus more elongate, propodus distodorsally and mesially with four setulated setae (carpus 1.3 times and propodus 2.3 times longer than wide, propodus with three setae); more numerous setae in pleopod 1 (exopod with nine setae and endopod with four ones); uropod sympod about same length with endopod (sympod shorter than endopod), exopod broad oval (exopod triangular, apically narrowly rounded).

The new species *A. antipai* was collected in the Ibero-Maroccan Bay at a depth of 1141 m (Fig. 1).

Family Leptanthuridae Poore, 2001

Bullovanthura Poore, 1978

***Bullovanthura kensleyi* n. sp**

(Figs 5-10)

Material. 9 specimens: *Holotype* non-ovigerous female (dissected, one slide) No. MNHN-Is 5853; *allotype* adult male (dissected, one slide) No. MGAB-ISP 899; *paratypes*: 2 females, 1 postmanca, 1 manca, No. MNHN-Is 5854; 3 females (one dissected, one slide) No. MGAB-ISP 900. *Type locality*: E Atlantic Oc., BALGIM 84, RV „Cryos”, st. DW 16, 36°45,8 N, 9°29.4 W, 1283 m, bottom with shells debris, foraminiferans, pteropods, 30.05.1984.

Etymology. The species is dedicated to the memory of the late Dr. Brian Kensley (National Museum of Natural History, Smithsonian Institution, Washington, D.C.), well-known isopodologist all over the world, who left us too soon.

Description of non-ovigerous female (holotype) (Figs 5-7)

Integument thin, smooth, unpigmented.

Body (Fig. 5 A): length 8.5 mm, about 14.2 times longer than greatest width; proportions: C<1<2≈3<4<5>6>7<P1n>Tel. *Cephalothorax* almost quadrate; rostrum

small and acute, not exceeding anterolateral lobes. Eyes absent. *Pereonites* ventrally carinate; pereonite 5 longest. *Pleon* 2.1 times longer than greatest width, about same length as pereonite 7 and 1.5 times longer than telson; pleonites 1-5 free, 1 longest, 2-5 subequal; pleonite 6, indicated dorsally, with concave posterior margin, shortest.

Telson (Fig. 7 C, D): 2.7 times longer than greatest width, linguiform, with parallel margins, tapering in the distal third to a narrow apex, with four apical fine setae, median ones longest, distally plumose; dorsally in the distal third a pair of fine short setae. At the base of pleotelson vesicle of statocyst and pore visible.

Antennula (Fig. 5 B, C): peduncle article 1 1.2 times longer than articles 2 and 3 together; article 2 and 3 subequal; distolaterally article 2 with two plumose sensory setae and article 3 with a bunch of long setae. Flagellum of 3 articles; article 1 with one long plumose sensory seta; article 2 1.7 times longer than article 1 and 3 together; article 3 the smallest, apically with two broad aesthetascs and five simple setae.

Antenna (Fig. 5 D, E): distolaterally articles 4 and 5 of peduncle with two long setae and one short, each. Rudimentary flagellum of four articles, shorter than article 5 of peduncle; article 1 2 times longer than the minute articles 2 to 4; short and long filamentous aesthetascs on all articles.

Mandible (Fig. 5 F, G): uniaarticulate palp, 2.5-3 times longer than wide, with one subapical seta.

Maxilla (Fig. 5 H): lateral endite sharp with about 14 teeth.

Maxilliped (Fig. 5 I): basis 2.7 times longer than palp with one distomedial long seta; endite absent. Palp of two articles; article 1 with one lateral seta and four distomedial setae; article 2 minute with four apical long setae.

Pereopods (Fig. 6): P1 longest and strongest, P2 longest of P3-P7, P3 equal in length with P6; P4 and P5 equal in length, shortest; P7 longer than P6. P1 (Fig. 6 A, B): ventrally ischium with four setae, merus with a row of nine setae and carpus mesially with three setae and ventrally one distal simple sensory spine; propodus enlarged, 1.2 times longer than greatest width; palm with straight margin and proximally a prominent thumb-like process, mesially eight hand-like sensory spines and one strong long seta, laterally three setae (one proximal, two distal) and medially two distal setae. P2 and P3 (Fig. 6 C-E) quite similar in shape: ventrally on merus and ischium five setae, each; carpus with two simple sensory spines; propodus broad oval, 1.4 times and respectively 1.5 times longer than greatest width, ventrally margin of palm without thumb-like process, with six simple sensory spines decreasing in length towards distal end, laterally with two strong setae. P4-P7 (Fig. 6 F-K) quite similar in shape: ventrally ischium with five setae, merus with three setae and carpus distoventrally with one long simple sensory spine and two setae; propodus elongate oval, 2.5-2.3 (P4-P5), 2.7 (P6) and 3.2 (P7) times longer than wide, ventrally margin with two sensory spines, the distal spine with two-three teeth and the proximal one with one tooth. In all pereopods on basis two-three plumose sensory setae; ventrally dactylus with three-five fine shovel-like setae. In P1-P3 propodus is longer than dactylus (and unguis together) (1.5 -1.2 times), in P4-P6 propodus is almost equal in length with dactylus, and in P7 dactylus is slightly longer (1.1 times) than propodus.

Pleopod 1 (Fig. 7 A): sympod with three retinaculæ. Exopod operculiform, 4 times longer than wide, 1.1 times longer than endopod, surrounded distally by nine plumose setae. Endopod 0.5 times the width of exopod, distally with six plumose

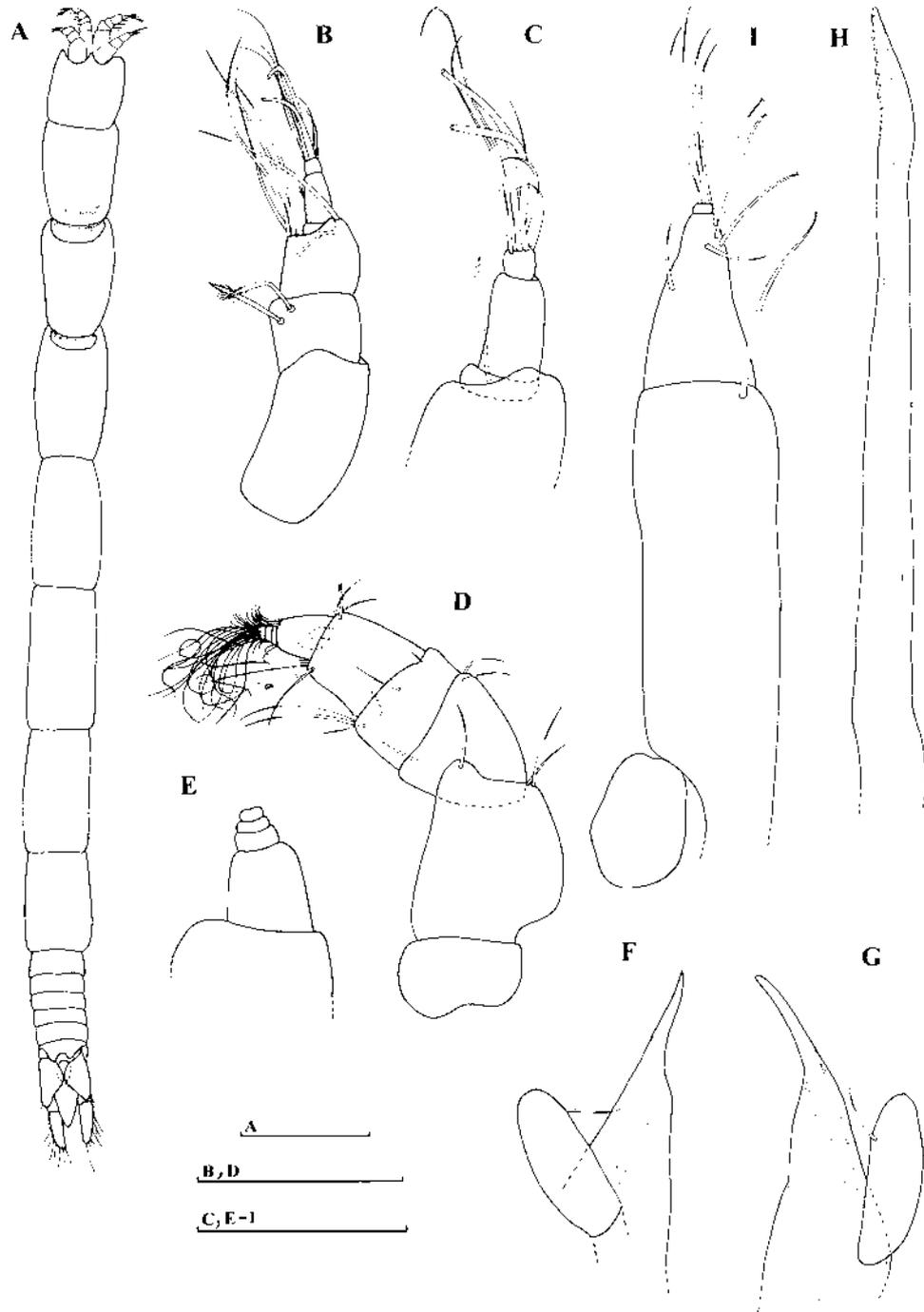


Fig. 5 – *Bullovanthura kensleyi* n. sp., non-ovigerous female holotype. A, dorsal view; B, antennula (r); C, antennular flagellum (r); D, antenna (r); E, antennal flagellum (r, setae and aesthetascs omitted); F, G, mandibles (l, r); H, maxilla; I, maxilliped. Scale (in mm): A 1; B,D 0.2; C,E-I 0.1.

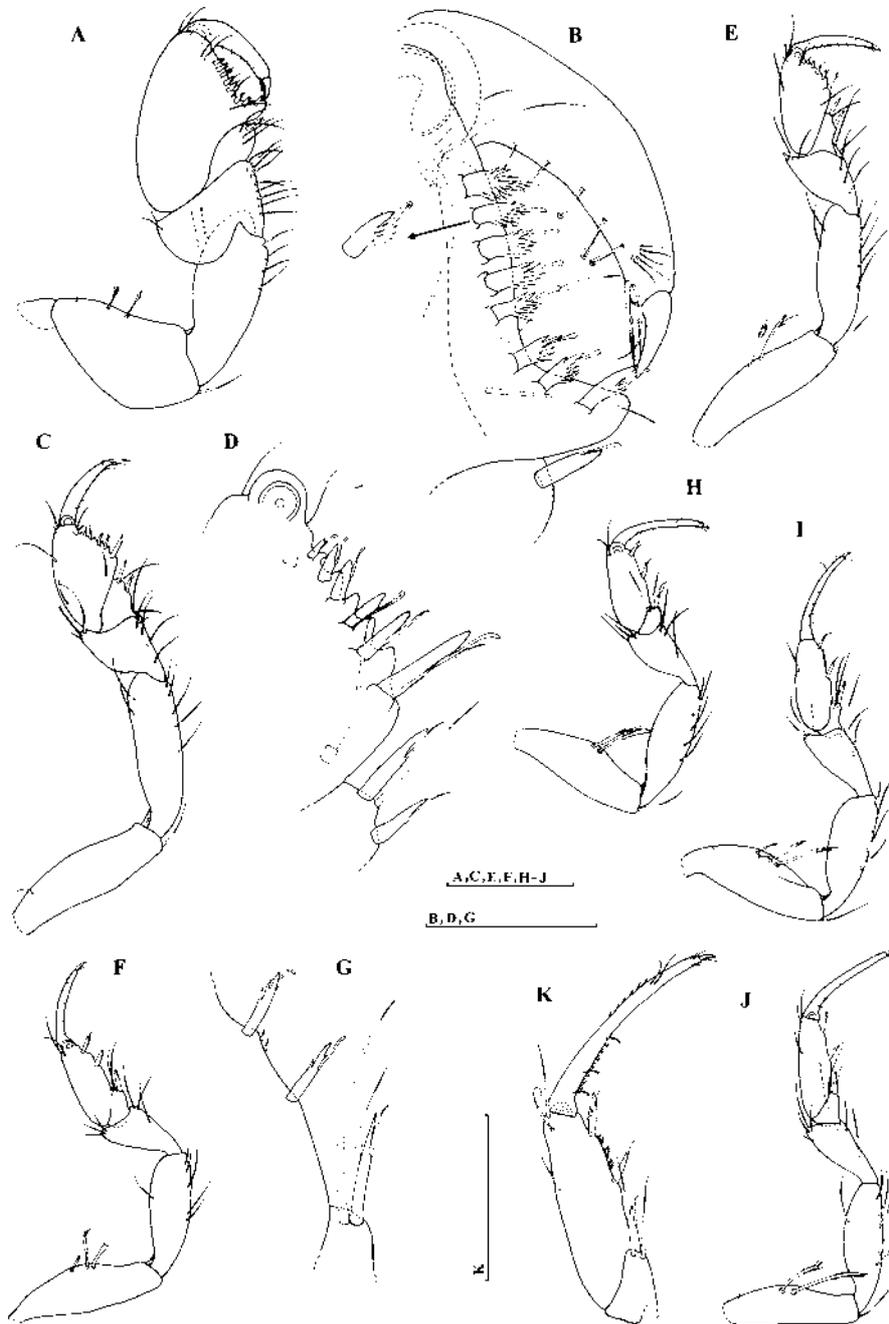


Fig. 6 – *Bullowanthura kensleyi* n. sp., non-ovigerous female holotype. Pereopods (P1-P6 r, P7 l): A, 1; B, 1: distal extremity of carpus, propodus palm, dactylus and unguis; C, 2; D, 2: distal extremity of carpus, propodus palm; E, 3; F, 4; G, 4: distal extremity of carpus, proximal part of propodus palm; H, 5; I, 6; J, 7; K, 7: carpus, propodus, dactylus and unguis. Scale (in mm): A, C, E, F, H, J 0.3; B, D, G 0.1; K, 0.2.

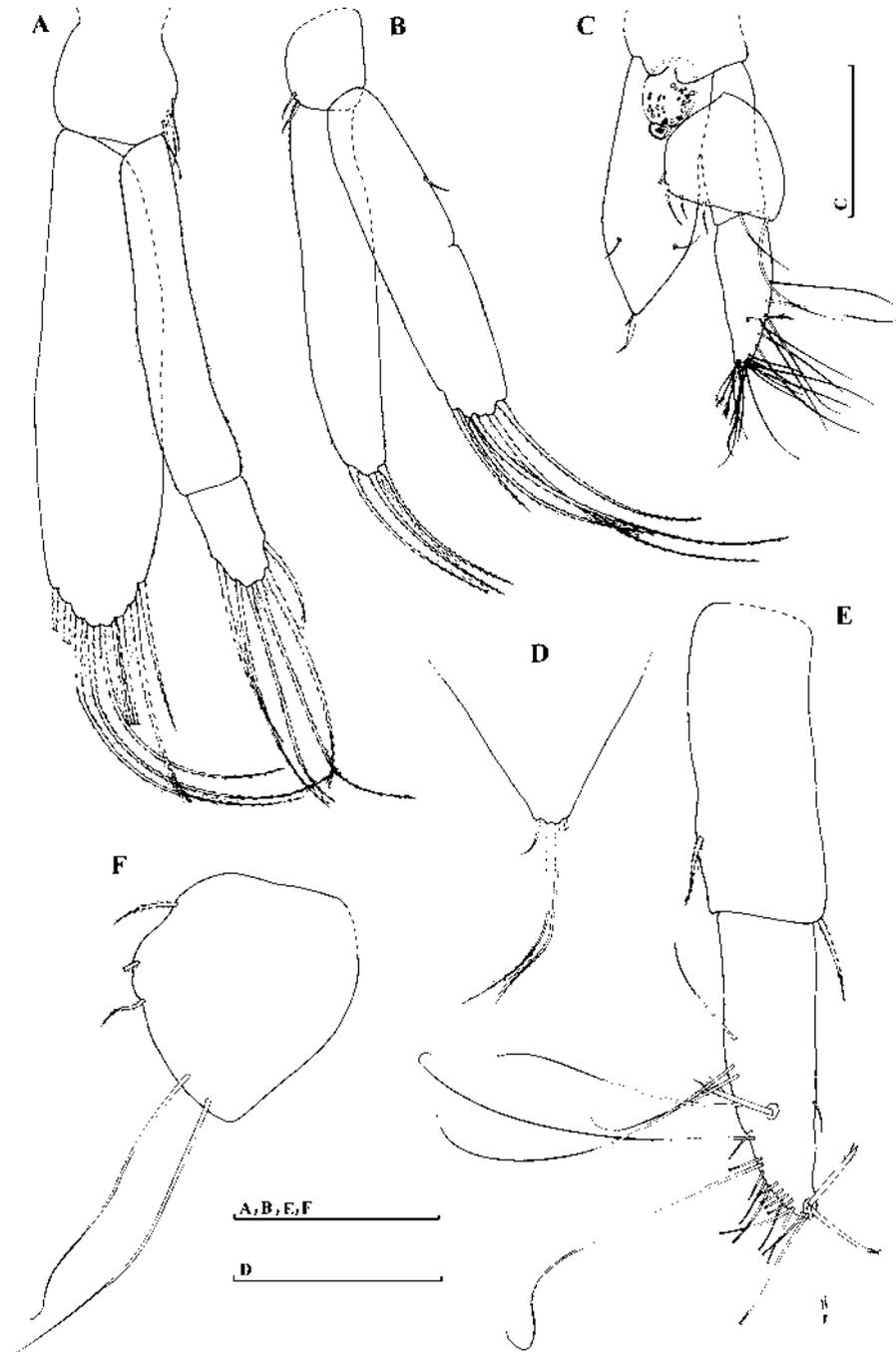


Fig. 7 – *Bullowanthuria kensleyi* n. sp., non-ovigerous female holotype. A, pleopod 1 (r); B, pleopod 2 (r); C, telson and uropod (r); D, apex of telson; E, sympod and endopod of uropod (l); F, exopod of uropod (l). Scale (in mm): A,B,E,F 0.2; C 0.3; D 0.1.

setae; in the distal third a transverse suture. *Pleopod 2* (Fig. 7 B): sympod with two retinaculae; exopod distally with five plumose setae, and endopod with three ones.

Uropod (Fig. 7 C, E, F): sympod rectangular, 2.5 times longer than wide, equal in length with endopod, distomedially and distolaterally with one plumose seta each. Endopod elongate oval, 3.3 times longer than greatest width, tapering to a narrow apex; surrounded distolaterally by about 20 simple long setae; subapically three plumose sensory setae. Endopod extends by one third its length beyond apex of telson (Figs 5 A, 7 C). Exopod broad, almost rounded shape, 1.05 times longer than wide, shorter than sympod; distally margin with some plumose setae and two long simple ones. Exopods folded over telson come in contact each other.

Description of adult male (allotype) (Figs 8-10)

Compared to the female the adult male shows some different morphological features.

Body (Fig. 8 A): length 10 mm, about 14.1 times longer than greatest width. *Pereonites* 3, 4, 5 longest. *Pleon* about 2 times longer than greatest width, 2 times longer than pereonite 7 and 1.6 times longer than telson.

Telson (Fig. 10 A, B): 2.6 times longer than greatest width, linguiform, with parallel margins, slightly tapering in distal third to a narrow apex; dorsally in the distal third 4 fine short setae.

Antennula (Fig. 8 A-C): peduncle article 1 two times longer than articles 2 or 3 which are subequal; distally article 2 with five fine plumose sensory setae and article 3 with about six fine short setae. Flagellum of ten articles decreasing in size, extends slightly beyond cephalothorax; articles 2 to 10 with many long filamentous aesthetascs disposed in circles.

Antenna (Fig. 8 D, E), *mandible* (article of palp 2.5 times longer than wide) (Fig. 8 F), *maxilla* (Fig. 8 G) and *maxilliped* (Fig. 8 H) similar to those of female.

Pereopods elongate (Fig. 9): P1 (Fig. 9 A-D): propodus enlarged, 1.3 times longer than greatest width; mesially palm with eight simple sensory spines, laterally a dense row of 21-23 simple long setae, proximal one longest. P2 and P3 (Fig. 9 E, F) quite similar in shape: propodus elongate pyriform ovate, 2.3 times and respectively 2.6 times longer than greatest width, ventrally with six and respectively five unequal simple sensory spines. P4-P7 (Fig. 9 G-L): propodus elongate oval, 2.6 (P4), 3.1 (P5), 3.4 (P6) and 3.7 (P7) times longer than wide. In P1 propodus is longer than dactylus (and unguis together) (1.2 times), in P2 and P3 propodus is equal in length with dactylus, and in P4-P7 dactylus is slightly longer than propodus (1.1 - 1.3 times).

Pleopod 1 (Fig. 10 D): sympod with five retinaculae. Exopod operculiform, 3.1 times longer than wide, 1.2 times longer than endopod, surrounded distally by 17 plumose setae. Endopod distally with 14 plumose setae. *Pleopod 2* (Fig. 10 E, F): sympod with four retinaculae; exopod distally with 17 plumose setae, and endopod with nine ones. *Appendix masculina*, articulating in the proximal third of endopod, like a simple rod, not extending beyond endopod.

Uropod (Fig. 10 A, C): endopod pyriform, 2.8 times longer than greatest width, surrounded distolaterally by about 20 simple long setae and medially by three long plumose setae. Exopod broad, rounded trapezoidal shape, 1.35 times wider than long.

Length of other specimens: non-ovigerous females - 6 mm; 7.5 mm; 8.2 mm; 8.3 mm; 10 mm; manca - 4.6 mm; postmanca - 6 mm.

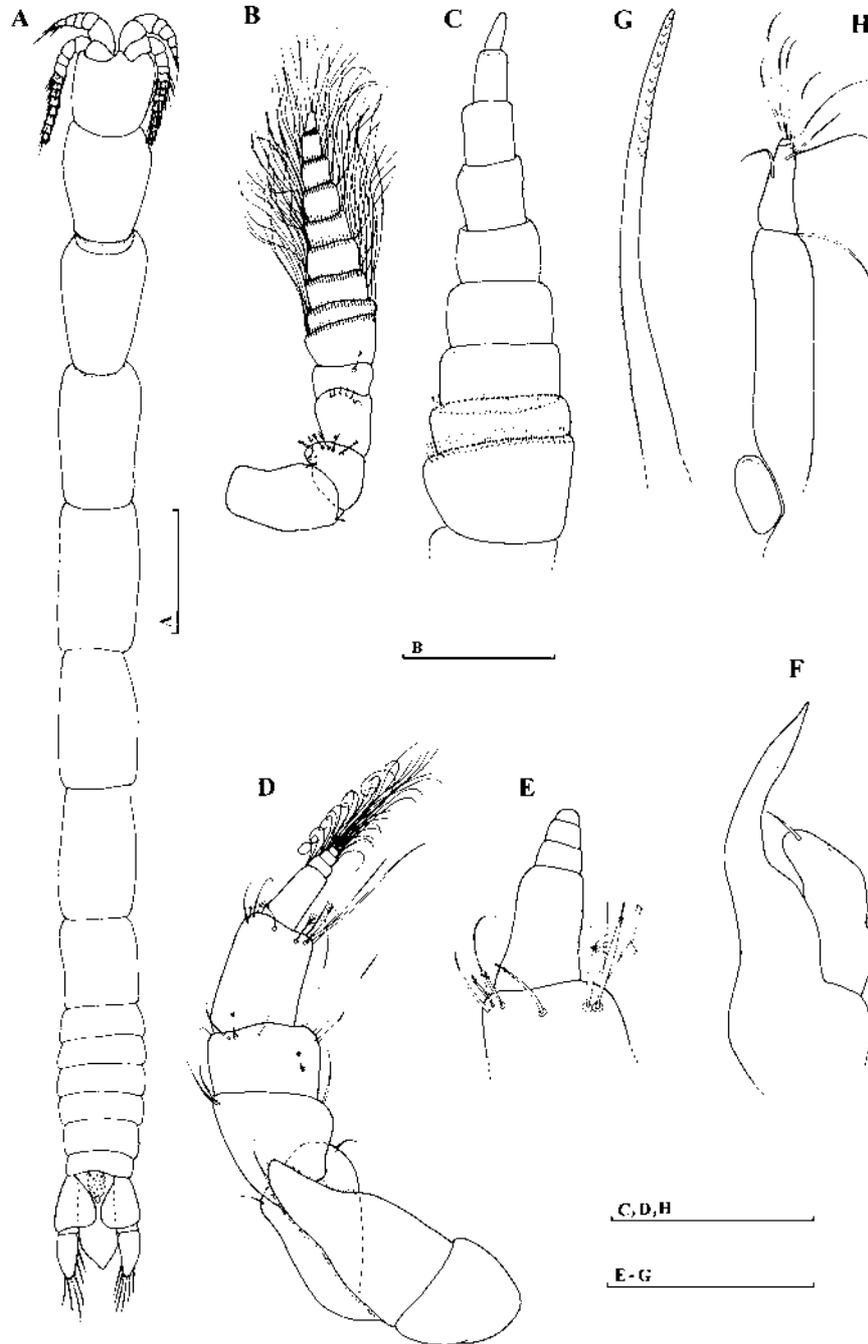


Fig. 8 – *Bullovanthura kensleyi* n. sp., male allotype. A, dorsal view; B, antennula; C, antennular flagellum (article 1, setae and aesthetascs omitted); D, antenna; E, antennal flagellum and distal extremity of peduncular article 5 (setae and aesthetascs omitted); F, mandible; G, maxilla; H, maxilliped. Scale (in mm): A 1; B 0.3; C,D,H 0.2; E-G 0.1.

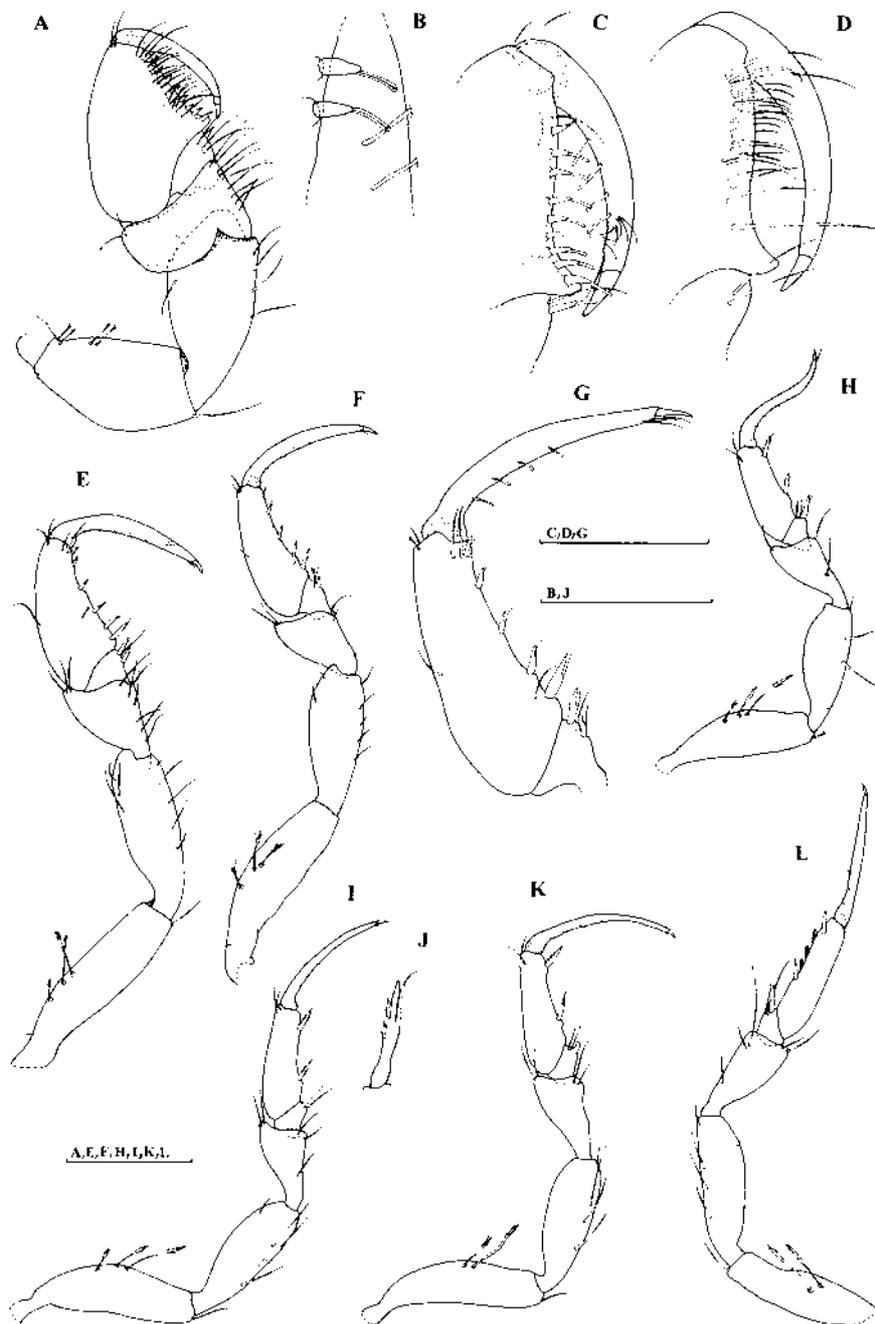


Fig. 9 – *Bullowanthura kensleyi* n. sp., male allotype. Pereopods (r): A, 1; B, 1: propodus sensory spines and dactylus setae; C, 1: distal extremity of carpus, propodus palm, mesially, and dactylus and unguis; D, 1: distal extremity of carpus, propodus palm, laterally; E, 2; F, 3; G, 3: distal extremity of carpus, propodus, dactylus and unguis; H, 4; I, 5; J, 5: distal sensory spine of propodus; K, 6; L, 7. Scale (in mm): A, E, F, H, I, K, L 0.3; B, J 0.1; C, D, G 0.2.

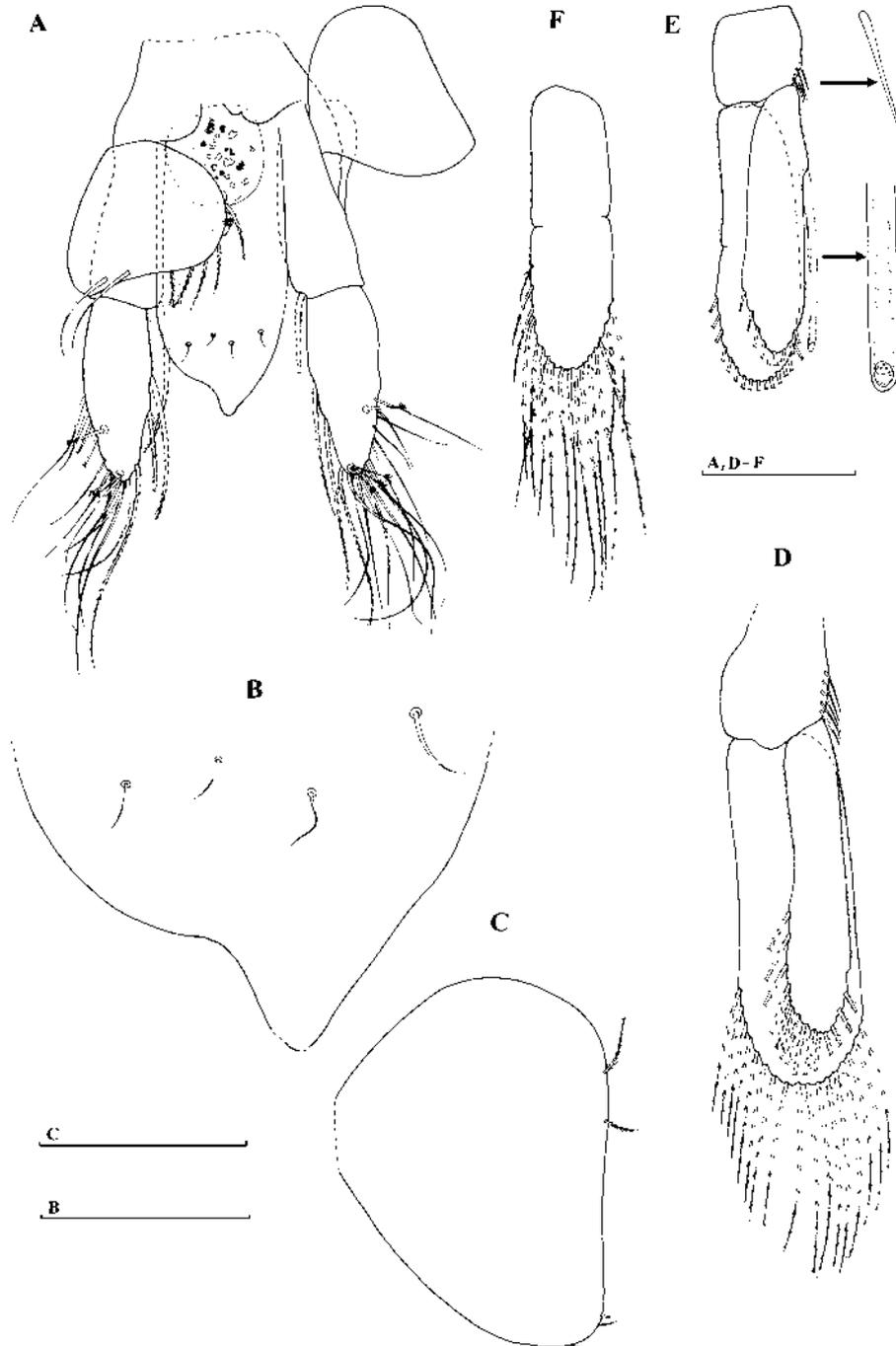


Fig. 10 – *Bullowanthura kensleyi* n. sp., male allotype. A, telson and uropods; B, apex of telson; C, exopod of uropod (r); D, pleopod 1 (r, setae of exopod cut off); E, pleopod 2 (r, setae cut off); F, exopod of pleopod 2 (r). Scale (in mm): A, D-F 0.3; B 0.1; C 0.2.

Remarks on sexual dimorphism.

The male differs dimorphically from the female in the following features: pleon two times longer than pereonite 7; telson slightly wider (the studied specimen has broken apex and an asymmetry – a slight excavation on left side); antennular flagellum with more articles and more numerous aesthetascs; pereopods longer, propodus more elongate in all pereopods, in P1 propodus palm with simple sensory spines and laterally a dense row of setae; presence of *appendix masculina* in pleopod 2; more numerous setae on pleopods and endopod of uropod; endopod of uropod wider than in female and exopod of different shape.

*Remarks on affinities between the new species *Bullowanthura kensleyi* n. sp. and *Bullowanthura aquitanica* Kensley, 1982.*

The new species is in many aspects similar to *B. aquitanica* described by Kensley from Bay of Biscay. *B. kensleyi* n. sp. differs from *B. aquitanica* chiefly in the following external morphological features (in brackets being mentioned differences in *B. aquitanica*): bigger size (ovigerous and non-ovigerous females having a length of 3.9-4.5 mm, males up to 5 mm); pleonite 6 shortest, with concave posterior margin (pleonite 6 slightly longer, with concave posterior margin); telson narrower (in female, 1.9 times longer than greatest width, apex broad rounded); antennular flagellum of three articles in female and ten articles in male (in female two articles and in male nine-ten articles); article of mandibular palp with a subapical seta (article smaller, with terminal seta); maxilliped without endite (with rudimentary endite); P1 propodus palm with eight sensory spines, both in female and male (six spines in both sexes and carpus without spine); P2 propodus palm with six spines, both in female and male (in female three spines); *appendix masculina* short, not extending beyond apex of endopod (*appendix masculina* extending beyond apex of endopod); uropod sympod narrower, equal in length with endopod (sympod 2.2 times longer than wide and longer than endopod), uropod endopod extending by one third its length beyond apex of telson (endopod extending by half its length beyond apex of telson), uropod exopod narrower, in female 0.9 times wider than long and in male 1.3 times, with few setae (exopod broad oval, in female 1.5 times wider than long, with numerous marginal plumose setae). *B. aquitanica* was collected at depths between 641 m and 860 m. The new species *B. kensleyi* is recorded at the greatest depth known for the genus.

The following key to species of *Bullowanthura* genus is modified after Negoescu (1994: 191):

Key to species of *Bullowanthura* Poore, 1978

- 1 - Telson distally with a deep excavation (Negoescu, 1994: 186, fig. 23 D,E) *B. furcillata* (♀)
 - Telson distally broad rounded or narrow rounded 2
- 2 - Article of mandibular palp with one subapical seta *B. kensleyi* n. sp. (♀, ♂)
 - Article of mandibular palp with one apical seta 3
- 3 - Maxilliped with rudimentary endite (Kensley, 1982: 26, fig. 18 e) *B. aquitanica* (♀, ♂)
 - Maxilliped without endite 4
- 4 - Propodal palm of pereopod 1 with no more than seven spines in ♂ and nine spines in ♀; telson distally gently rounded, with deep median notch (Wägele, 1985: 368, figs 24, 26, 30)..... *B. crebrui* (♀, ♂)

- Propodal palm of pereopod 1 with 11-14 spines in ♂ and seven-13 spines in ♀; telson broadly rounded apex, without median notch (Poore, 1978: 147, figs 8 b, 9 a, f, g) *B. pambula* (♀, ♂)

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IZOPODE ANTURIDEE (CRUSTACEA: ISOPODA: ANTHURIDEA) DIN ESTUL OCEANULUI ATLANTIC (LARGUL COASTELOR IBERO-MAROCANE).

I. DOUĂ SPECII NOI

REZUMAT

Prezentul studiu se bazează pe un material colectat în estul Oceanului Atlantic, în largul coastelor ibero-marocane, în timpul expediției franceze BALGIM 84 cu vasul „Cryos”, din două stații la adâncimi de 1141 m și 1283 m.

Sunt descrise două specii noi: *Ananthura antipai* n. sp. (Fam. Antheluridae) care prezintă afinități morfologice cu specia atlantică *Ananthura abyssorum* (Norman & Stebbing, 1886) și *Bullowanthura kensleyi* n. sp. (Fam. Leptanthuridae) care prezintă afinități cu *Bullowanthura aquitanica* Kensley, 1982, descrisă din Golful Gascogne. Este prezentată cheia de determinare a speciilor genului *Bullowanthura* Poore, 1978.

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Muzeul Național de Istorie Naturală „Grigore Antipa”
Șos. Kiseleff nr. 1, 011341 București 2, România
e-mail: negoescu@antipa.ro