

OCSANTHURA BACESCUI, A NEW ANTHURIDEAN ISOPOD (ISOPODA, ANTHURIDEA) FROM THE OUTER CONTINENTAL SHELF OF NORTH CAROLINA

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On décrit une nouvelle espèce d'Isopode (Anthuridea), *Ocsanthura bacescui*, collectée à 445 m pendant l'expédition du R/V Eastward dans les eaux de la Caroline du nord. On discute les affinités morphologiques de cette nouvelle espèce avec *Ocsanthura vimsae* et *O. gracilis*. On justifie l'introduction du genre *Ocsanthura* dans la famille des Hyssuridae.

The isopod fauna of the North Carolina continental shelf has been recently investigated during the cruises of R/V Eastward. This study revealed the presence of seven anthuridean species (George, unpublished) including an interesting anthuridean isopod which appears to occur in the deeper zones beyond the continental shelf break. A careful analysis of the morphological features confirmed that this deep-living species belongs to the genus *Ocsanthura* (Kensley, 1978).

The range of depth distribution of *O. gracilis* (Kensley, 1982) and *O. vimsae* (Kensley, 1978), both from the Atlantic Ocean, points out that they are upper continental slope inhabitants living between 350 and 2000 meters. *O. bacescui* sp.n. differs distinctly from the two known species of the genus *Ocsanthura*

HYSSURIDAE

Ocsanthura bacescui sp.n.

(Figs 1-3)

Material: 1 ♀, north-western Atlantic Ocean, leg. R. Y. George.

Types: Holotype ♀ under No. 138721 U.S.N.M. (United States National Museum-Smithsonian Institution, Invertebrate Zoology).

Type locality: North-western Atlantic Ocean, off North Carolina, 34°17.5'N, 75°49'W, R/V Eastward, Sta. 738, 445 m, grab, 13.III.1965, leg. R. Y. George.

Diagnosis. Length of body 6 mm. Eyes absent. Telson, rectangular, with apex truncated, with two concave depressions on either side; apex with 10 simple setae. Statocysts absent. Antennular flagellum 3-jointed; antennal

flagellum 8-jointed. *Lamina dentata* of mandible without serrations, *pars molaris* acute. Inner margin of propodus of pereopod I slightly concave. Pleopod I not operculiform. Uropodal exopod broadening distally.

Description of ♀ (Figs 1, 2)

Integument smooth, not indurate. Body proportions: $C < I < II = III < IV = V > VI > VII < \text{pleon} > \text{telson}$. Rostrum blunt and rounded. Eyes absent. Pleonites I–V free, subequal; pleonite VI, the longest, with convex posterior margin (Fig. 1 A, B). Telson, rectangular, with apex truncated with two concave depressions on either side; apex with 10 simple setae (Fig. 1 B). Statocysts absent.

Antennular flagellum 3-jointed; on each of the last two joints an aesthetasc (Fig. 2 A, B). Antennal flagellum 8-jointed; joints 2–8 with few aesthetascs (Fig. 2 C, D). Mandible with: *pars incisiva* with 3 cusps; *lamina dentata* without serrations; *pars molaris* acute; 3-rd joint of palp, the smallest, with two apical setae (Fig. 2 E). Lateral endite of maxilla I with 7 teeth (Fig. 2 F). Maxilliped 7-jointed; a short endite present (Fig. 2 G).

Pereopods I–III, similar, subchelate. Pereopod I, not as robust as the second, with slightly concave inner margin of propodus (Fig. 1 C). Propodus of pereopod II broader than in pereopod I, bearing on palmar margin 3 bifid spines, with fringed scales in between; carpus, triangular, distally tapering (Fig. 1 D). Pereopod III with propodus ovate, smaller than in pereopod I and II, bearing on palmar margin 3 flagellate dentate spines; carpus, triangular, distally with a spiniform process (Fig. 1 E). Pereopods IV–VII similar; propodus and carpus on the inner margin with 2 flagellate dentate spines, the distal one the largest; carpus broadly rectangular, not underriding propodus; carpus of pereopod IV with the inner margin bearing a row of fine spines (Fig. 1 F–H).

Pleopods I–V similar; pleopod I not operculiform. Exopod oval, the distal and the outer margin bearing plumose setae; endopod somewhat rectangular, distally bordered by plumose setae; basis with 2 retinaculae (Fig. 1 I–K). Uropodal exopod, broadening distally, with inner and distal margin with several serrations; distal margin bearing simple setae. Uropodal endopod, equal in length to exopod, distally rounded, with simple setae (Fig. 1 B).

Size: Holotype ♀ length 6 mm, width 0.4 mm.

Etymology. This new species is named in honor of the outstanding carcinologist Prof. Dr. Mihai Băcescu.

Remarks on affinities and distribution. We believe that the genus *Ocsanthura* is characterized by some plesiomorphic features such as an elongated pleon with six free segments, pleopod I not operculiform and maxilliped seven-jointed. Therefore, we agree with W ä g e l e (1981 a, b) in accommodating this genus under the family Hyssuridae despite the fact that K e n s l e y (1978, 1982, a, b) considers this genus belonging to the family Anthuridae. W ä g e l e (1981 a, p. 105) notes: "Bei *Ocsanthura*¹ sind wie bei allen Hyssuridae keine Statocysten vorhanden...". However, the presence or absence of statocysts in the family Hyssuridae and in the genus *Ocsant-*

¹ *Ocsanthura* is the correct spelling. See Kensley, 1978 (p. 558): "Etymology. The 'Ocs' of the generic name is the acronym for Outer Continental Shelf (program)".

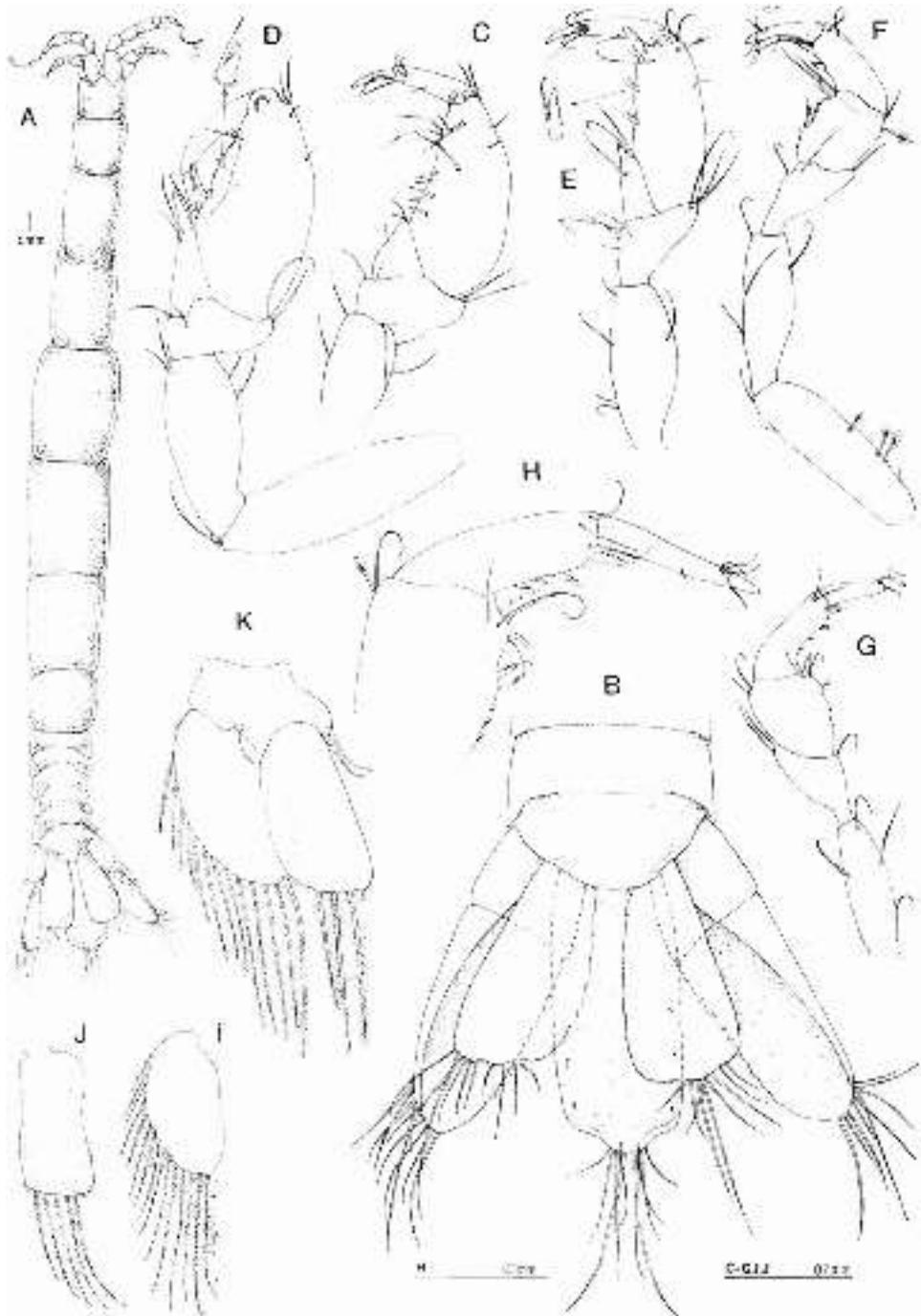


Fig. 1. *Ocsanthura bacescui* sp.n. ♀ holotype. A, dorsal view; B, last two pleonites, telson and uropods; C, pereopod I (r.); D, pereopod II (r.); E, pereopod III (l.); F, pereopod IV (l.); G, pereopod VI (r.); H, carpus, propodus and dactylus of pereopod VI (r.); I, exopod of pleopod I; J, endopod of pleopod I; K, pleopod II.

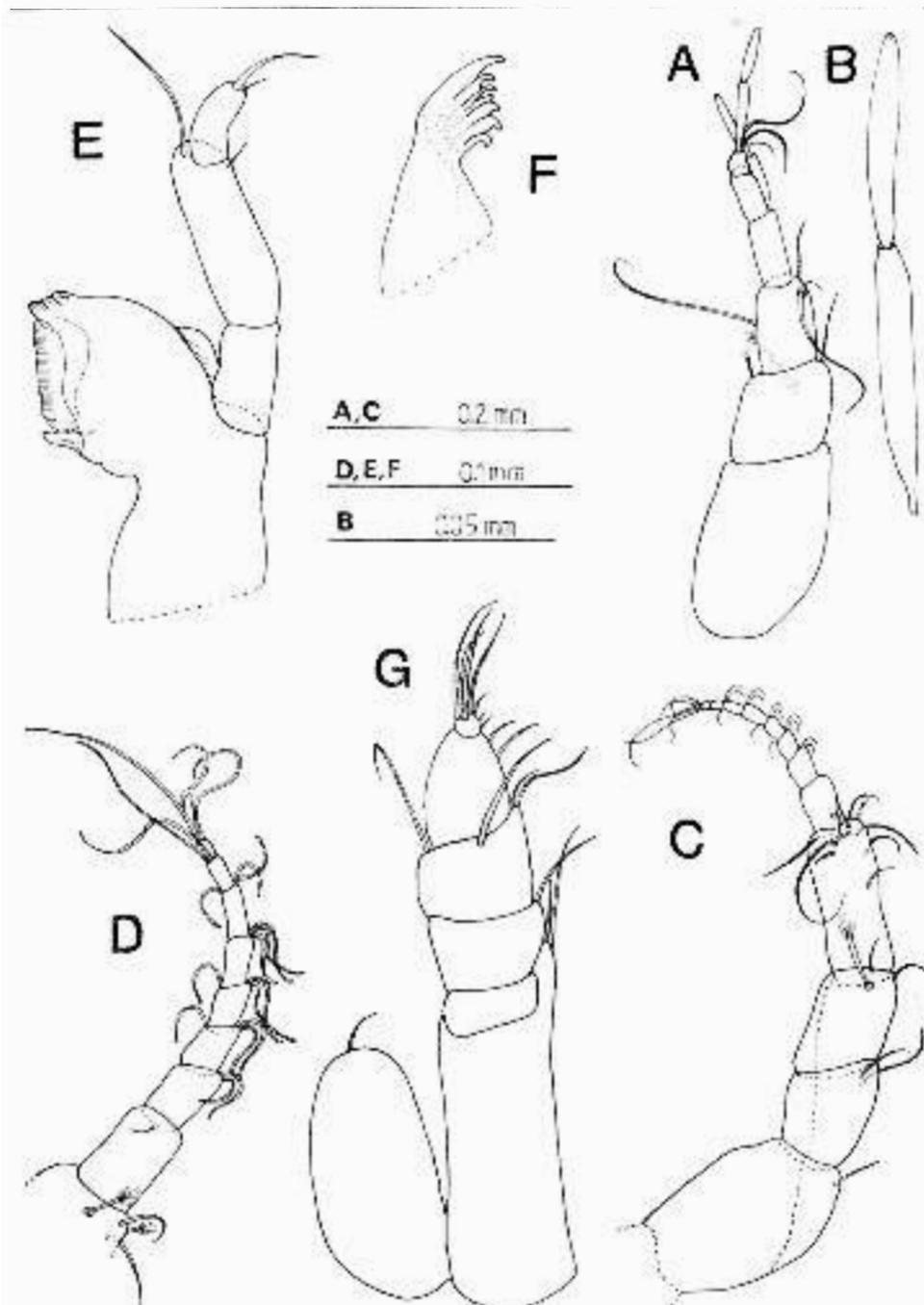


Fig. 2. *Ocsanthura bacescui* sp.n. ♀ holotype. A, antennule (r.); B, aesthetasc of antennule; C, antenna (r.); D, antennal flagellum (r.); E, mandible (r.); F, lateral endite of maxilla 1; G, maxilliped.

hura calls for some discussion. K e n s l e y (1982) pointed out that the two anthurid genera *Minyanthura* and *Ocsanthura* possess basal statocysts on the telson but the genera *Neohyssura* and *Belizanthura* lack statocysts. This situation implies that statocyst is not a valid taxonomic feature in the identification of genera within the family. In fact, we find that the new species *O. bacescui* lacks statocysts whereas the other two known species possess statocysts. Here again, we find some evidence that even within a given genus such as *Ocsanthura* species are known with or without statocysts. A parallel situation is seen in the presence or absence of eyes as exemplified in the genus *Leptanthura* (*L. muelleri* possess eyes — N e g o e s c u , 1980). The most reliable taxonomic feature at the family level is undoubtedly the pleonal configuration, either as an elongated free-segmented type (primitive feature as in Hyssuridae) or as short with fused segments (an advanced or specialized feature as in Anthuridae). In this context we believe that *Belizanthura* with long and free-segmented pleon must belong to the more primitive family

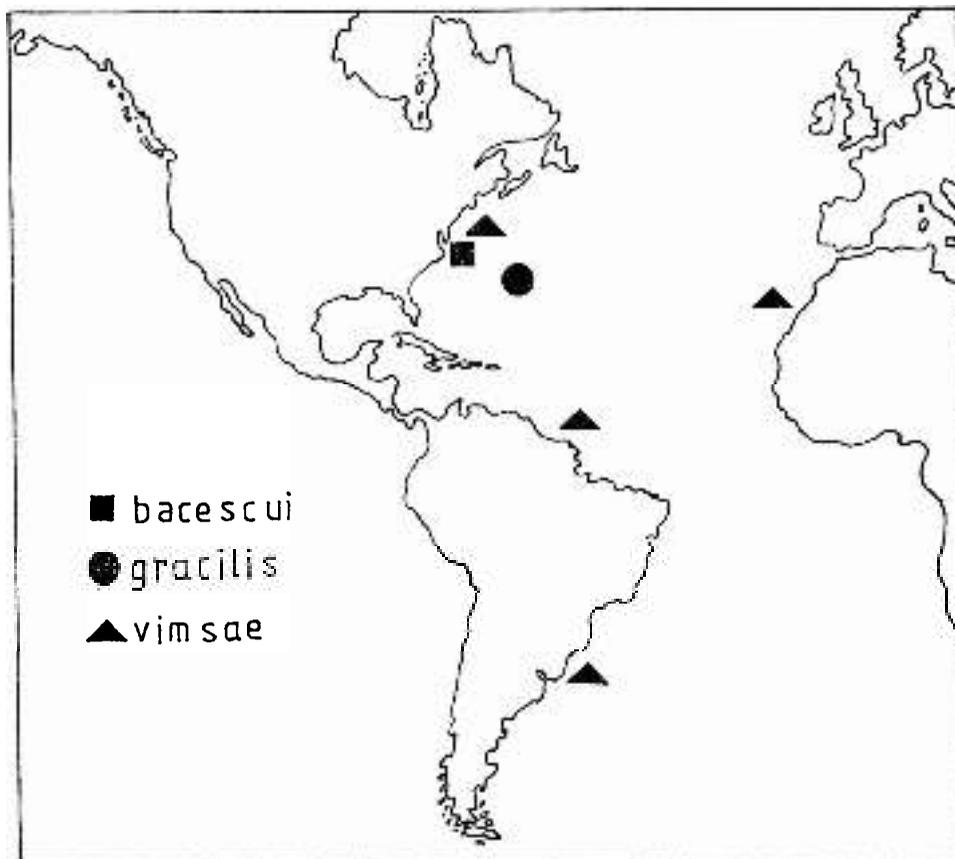


Fig. 3. Distribution of the three known species of the genus *Ocsanthura*.

Hyssuridae whereas *Minyanthura* with a very short and fused pleon must belong to the more specialized family Anthuridae.

Among the three species belonging to the genus *Ocsanthura* (*O. gracilis*, *O. vimsae* and *O. bacescui* sp.n.) only this new species lacks statocysts. Furthermore, the shape of the telson is unique in *O. bacescui* being truncated and the apex with two lateral concavities. The flagellum of the antennule is three-jointed in the new species but is four-jointed in the other two species. The mandible in *O. bacescui* has a *lamina dentata* without any serrations as opposed to the serrated *lamina dentata* in the other two species. First pereopod with a propodus having a concave inner margin lacking spines in *O. bacescui* but both in *O. gracilis* and *O. vimsae* the margin is convex with spines. We believe that this new species bears a closer morphological resemblance to *O. vimsae*, that occurs along the western margin of the Atlantic Ocean, than to *O. gracilis* that occurs off Bermuda at depths between 1500–1700 meters. The uropods of both *O. bacescui* and *O. vimsae* show striking similarity in shape; also on the basis of pleopods I–V with 2 retinaculæ (not 3 as in *O. gracilis*); palp of mandible with 2 apical setae (3 in *O. gracilis*) and particularly maxilliped endite small in both *O. bacescui* and *O. vimsae* but enlarged in *O. gracilis*.

The geographic and vertical distribution of the known species of the genus *Ocsanthura* is of interest because of their absence in inner shelf or intertidal depths. Thus far, the species are known only from the Atlantic Ocean (Fig. 3) mainly from the upper continental slope depths.

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OCSANTHURA BACESCUI, UN NOU IZOPOD ANTURID (ISOPODA, ANTHURIDEA) DE PE PANTA PLATOULUI CONTINENTAL AL CAROLINEI DE NORD

REZUMAT

Din nord vestul Oceanului Atlantic, largul coastei Carolinei de nord, de la o adâncime de 445 m, este descrisă o nouă specie pentru știință, *Ocsanthura bacescui*.

Se fac considerații privind justificarea introducerii genului *Ocsanthura* în familia primitivă Hyssuridae.

Sînt discutate afinitățile morfologice dintre cele 3 specii cunoscute ale genului *Ocsanthura* (*bacescui* sp.n., *gracilis* și *vimsae*), precum și răspîndirea lor pe glob.

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