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REDESCRIPTION OF GNATHIA JOHANNA MONOD, 1926 (ISOPODA) FROM ST. JOHN, VIRGIN ISLANDS

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SUMMARY

Based on the type material, Gnathia johanna Monod, 1926, from St. John, Virgin Islands, is redescribed.

RÉSUMÉ

Redescription de l'Isopode Gnathia johanna Monod, 1926, basée sur le matériel-type provenant de St. John, îles Vierges.

INTRODUCTION

The fauna of Gnathiidae in the Caribbean Sea has received only sporadic attention in the past. Whilst working with a collection of this family from the Santa Marta area, northern Colombia, the author came across two species described by Monod: *Gnathia johanna* and *Gnathia virginalis* (1926), which were overlooked by all subsequent workers refering to Caribbean Gnathiidae in general (Kensley 1984, Menzies & Glynn, 1968, Menzies & Kruczynski, 1983).

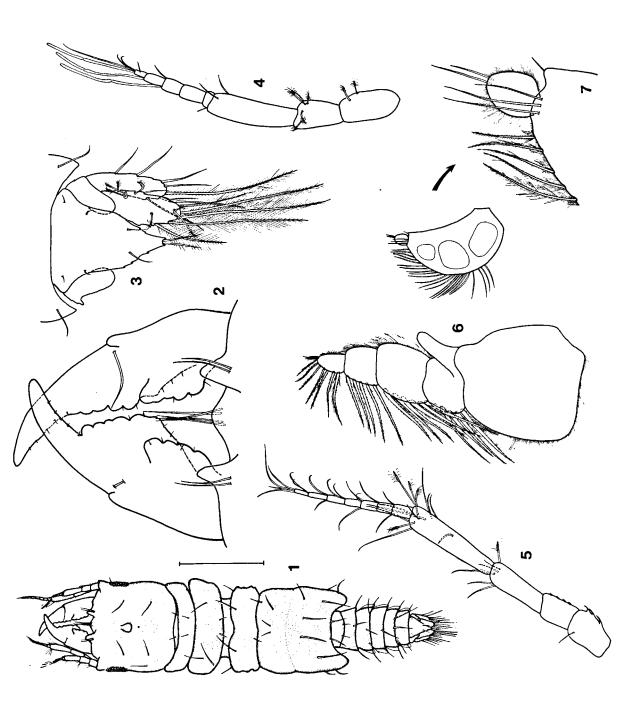
Whereas *G. virginalis* will be redescribed in a separate paper dealing with the genus *Gnathia* in northern Colombia (Müller, in prep.), *G. johanna* is treated here separately. Gnathia Leach, 1814 Gnathia johanna Monod, 1926 (figs. 1-12)

Gnathia johanna Monod., 1926: 410-414, figs. 164-167 (d).

Because Monod did not indicate a holotype in his original description, the male from Whistling Island is choosen as lectotype. The other male has the pleon damaged and was dissected to figure the appendages.

Material

o (lectotype) from St. John ("St. Jean"), Whistling Is-



Figs. 1-7. Gnathia johanna Monod, 1926: of 1, dorsal view, scale line 0.5 mm; 2, frontal margin of head and mandibles; 3, telson and uropods; 4, left antenna 1; 5, left antenna 2; 6, right maxil-liped; 7, left pylopod. Figs. 1 and 2 drawn from the lectotype.

land (Virgin Islands, Antilles), 29 m, Th. Mortensen coll., 2 March 1906, Zoologisk Museum, Copenhagen. σ (paratype) from St. John, Ram's Head, 46 m, Th. Mortensen coll., 10 March 1906, Zoologisk Museum, Copenhagen.

DESCRIPTION

♂ lectotype.- Total length 2.04 mm. Cephalon smooth, without tubercles, as long as wide, bearing only few setae; frontal margin of head with three projections; medial projection lowest, apically rounded, with 4 setae inserting at its ventral surface; lateral projections largest, apically rounded, bearing 2 setae at its dorsal surface (figs. 1, 2). Medial part of head excavated; lateral eyes with several small ocellae, no pigmentation visible, probably lost during the long time of preservation. Pereonite 1 short, lacking free lateral margins, with 1 pair of short setae: pereonite 2 shorter than pereonite 3; pereonite 4 anteromedially notched, lateral margins somewhat granular; pereonites 5-6 longest, poorly defined; pereonite 7 very short, hidden beneath posterior margin of pereonite 6, bearing 2 short setae at its posterior margin; pereonites 2-6 only with few setae of different lengths. Pleon straight; pleonites subequal in length, each with 2-5 setae at posterior margin. Lateral margins of telson distally serrate, sinuous (fig. 3).

Appendages (after paratype).- Antenna 1 with 3 peduncular articles; third article longest, setation as in fig. 4; flagellum of 5 articles, second article longest; third, fourth and fifth articles with 1 aestetasc. Antenna 2 with 4 peduncular articles; fourth article longest, setation as in fig. 5; flagellum of 7 articles (fig. 5). Mandibles shorter than length of cephalothorax, with a simple seta at inner dorsal margin and with inner lobe; inner edges with rounded teeth and some minute setae (fig. 2). Maxilliped of 5 segments; large basal segment with elongate lobe at inner distal corner; 4 distal segments bearing finely fringed setae; apical segment moreover with 4 short, simple

setae (fig. 6). Pylopod with broad basal segment bearing finely fringed setae on convex medial margin, also 3 simple setae apically; distal ovate segment small, with 2 simple setae at tip. Pereopods 1-5 relatively long and slender, with only few tubercles. The most characteristic features of the walking legs are the long, simple setae at basis of pereopods 1-5 (figs. 8-12). Uropodal exopod narrower but subequal in length to endopod; both rami with long setae, partly plumose; endopod with 7 feather-like bristles at dorsal surface.

Affinities

In having three projections at the frontal margin of the head this species may be close to *Gnathia puertoricensis* Menzies & Glynn, 1968 and *Gnathia virginalis* Monod, 1926. It differs from both species in being smaller and in having an inner lobe on the mandible (cf. Menzies & Glynn, 1968: 96, fig. 6 and Monod, 1926: 552-554, fig. 251).

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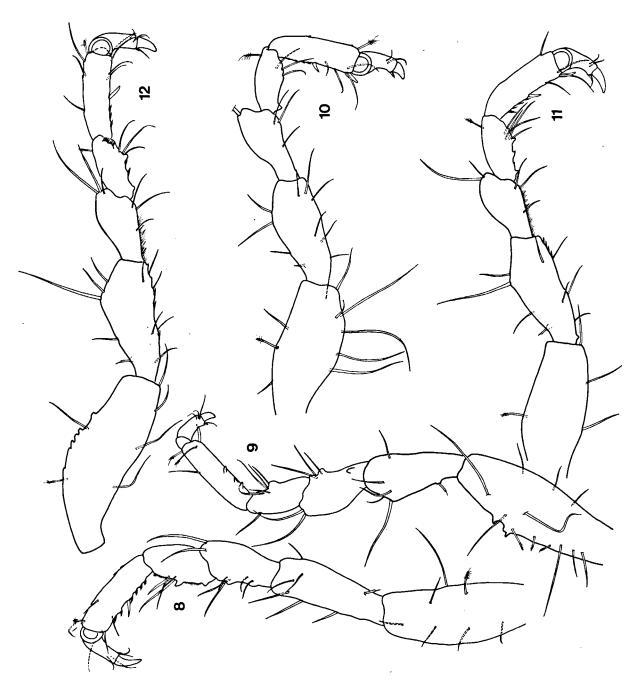
REFERENCES

KENSLEY, B., 1984. The Atlantic barrier reef ecosystem at Carrie Bow Cay, Belize, III: New marine Isopoda.-Smiths. Contrib. mar. Sci., <u>24</u>: 1-181.

MENZIES, R.J. & P.W. GLYNN, 1968. The common marine isopod Crustacea of Puerto Rico.- Stud. Fauna Curaçao other Caribb. Isl., <u>27</u>: 1-133.

MENZIES, R.J. & W.L. KRUCZYBNSKI, 1983. Isopod Crustacea (exclusive of Epicaridea).- Mem. Hourglass Cruises, <u>6</u>: 1-126.

MONOD, T., 1926. Les Gnathiidae, essai monographique (morphologie, biologie, systématique).- Mém. Soc. Sci. nat. Maroc, <u>13</u>: 1-667, 1 pl.



Figs. 8-12. Gnathia johanna Monod, 1926: d; 8, left pereopod 1; 9, right pereopod 2; 10, right pereopod 3; 11, right pereopod 4; 12, right pereopod 5.

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