

A NEW SPECIES OF *MUNNA* KRØYER FROM NIGERIA
(CRUSTACEA: ISOPODA: MUNNIDAE)

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Abstract.—A new species of marine isopod, *Munna powelli*, is described from a mangrove creek in Nigeria, west Africa. The subgenera of *Munna* are discussed, and the unsatisfactory state of the taxonomy of *Munna* is commented on. Possible criteria for subgeneric separation are suggested.

Amongst some crustaceans submitted for identification to the Smithsonian Institution by Mr. C. B. Powell of the University of Port Harcourt, Nigeria, were several small munnids. These proved to be an undescribed species of *Munna*. As the shallow-water intertidal and mangrove fauna of west Africa is poorly known, it was thought useful to describe the species.

Suborder ASELLOTA
Family Munnidae*Munna powelli*, new species
Figs. 1, 2

Description.—Body widest at pereonites 3 and 4. Integument with diffuse red-brown pigmentation, forming denser blotches middorsally. Anterior margin of cephalon broadly convex; shallow curved impression running across cephalon anterior to eyes. Coxae visible on pereonites 2-7, latter each with shallow transverse dorsal groove. Pereonite 3 widest and longest. Pleon consisting of single anterior segment lacking free lateral margins, plus globose pleotelson; margin between uropods broadly convex.

Antennule of 2 broad basal segments followed by 2 shorter and narrower segments and 2 slender more elongate articles; single aesthetasc on terminal segment. Antennal peduncle of 3 short basal segments followed by 2 more elongate segments, fourth segment almost five-eighths length of fifth; flagellum equal in length to peduncle, of 14 articles. Mandible lacking palp; incisor of 3 cusps; lacinia present unilaterally, distally expanded into 4 teeth; spine row of 3 or 4 fringed spines; molar process stout, distally truncate with rounded tubercles on margin of grinding surface. Maxilla 1 inner ramus narrow, distally curved, bearing 2 spines; outer ramus with about 9 stout spines. Maxilla 2 with rami tipped with fringed and simple spines. Maxillipedal epipod oval, reaching second palpal segment; endite bearing several fringed spines/setae at inner distal angle, 3 retinaculæ on inner margin; palp

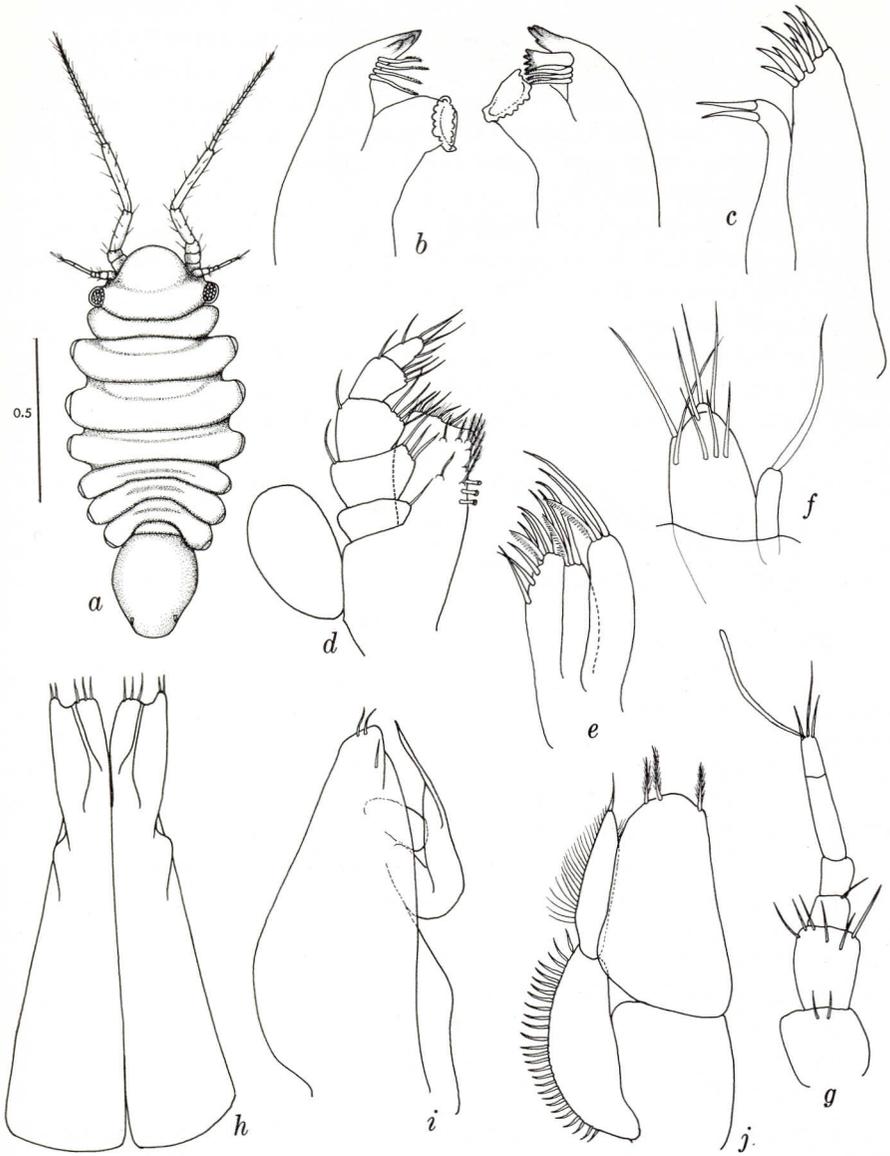


Fig. 1. *Munna powelli*: a, Female in dorsal view; b, Left and right mandibles; c, Maxilla 1; d, Maxilliped; e, Maxilla 2; f, Uropod; g, Antennule; h, Pleopod 1 ♂; i, Pleopod 2 ♂; j, Pleopod 3 ♂.

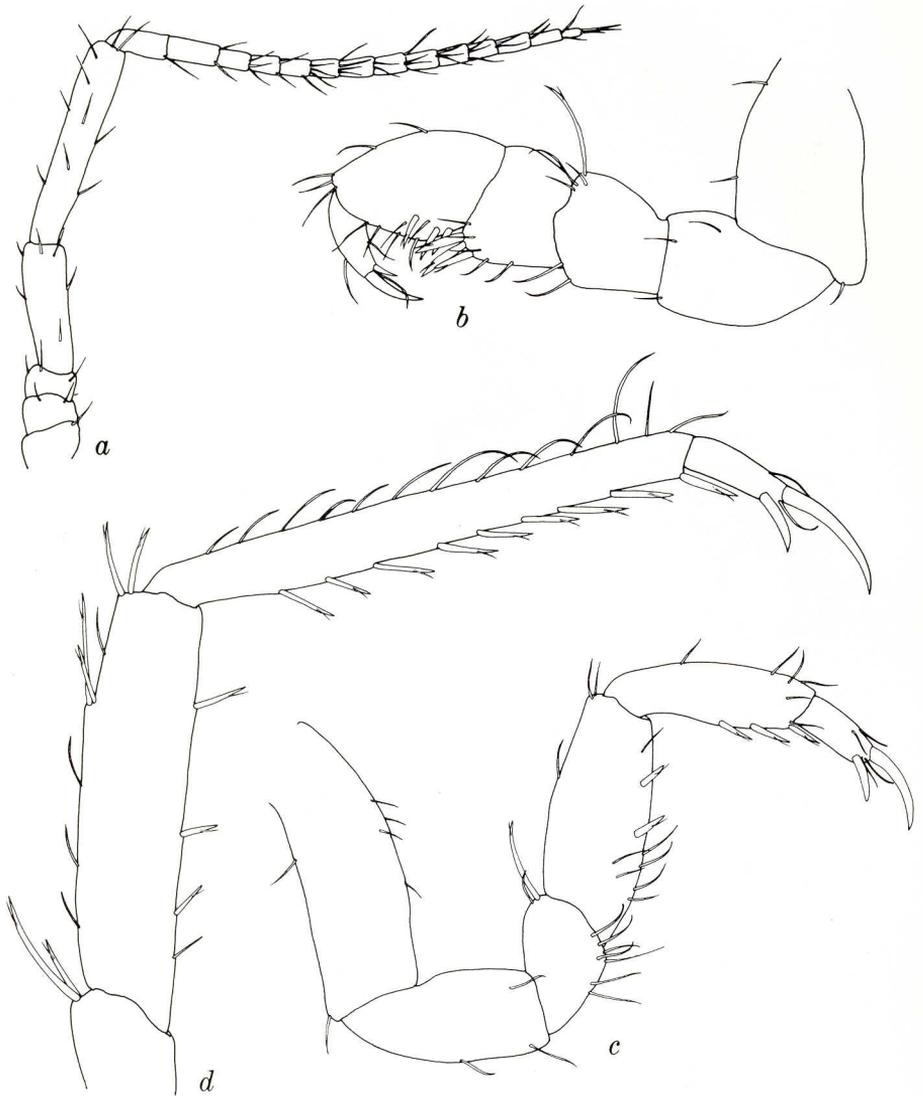


Fig. 2. *Munna powelli*: **a**, Antenna; **b**, Pereopod 1; **c**, Pereopod 2; **d**, Three distal segments of Pereopod 7.

of 5 segments each bearing setae on inner margins. Pereopod 1 much shorter than following legs, similar in ♀ and ♂; unguis almost half length of curved dactylus, with short supplementary spine; propodus narrowing distally, with 3 spines on inner margin; carpus shorter than propodus, with 3 spines at

ventrodorsal angle. Pereopods 2–7 increasing in length; pereopod 2 unguis equal in length to rest of dactylus, with stout supplementary spine; propodus 3 times longer than wide, with 3 spines on distal half of ventral margin; carpus longer than propodus, with 2 spines on ventral margin; merus almost triangular, with single spine on distodorsal angle. Pereopod 7 unguis longer than rest of dactylus; propodus 9 times longer than wide, with series of 8 stout ventral sensory spines; carpus 4 times longer than wide, with 3 ventral sensory spines, 4 dorsodistal spines; merus with 2 dorsodistal spines. Operculum of ♀ as long as broad, apex truncate-rounded. Pleopod 1 ♂ basally broad; inner lobe of apex truncate, slightly shorter than narrowly rounded outer lobe. Pleopod 2 ♂ apex rounded. Pleopod 3 ♂ endopod broader than exopod; latter with single terminal setae, former with 3 distal plumose setae. Uropod lacking peduncle; inferior ramus about twice length and 4 times width of superior ramus; former with 8 distal setae, latter with single elongate seta.

Material.—Holotype, USNM 172997, ovigerous ♀ TL 1.3 mm. Allotype, USNM 172998, ♂ TL 1.2 mm. Paratypes, USNM 172999, 11 ♂, 15 ♀ Port Harcourt, Nigeria: 4°47.3'N, 6°56.6'E. Collected 25 November 1978. Taken from colonies of hydroid *Garveia franciscana* (Torrey), growing in mesohaline mangrove creek.

Etymology.—The species is named for Mr. C. B. Powell, who collected the material, as well as other interesting crustaceans.

Remarks.—Menzies (1952:118) discussing the genus *Munna* (s.l.) states "Even today this genus remains inadequately understood and contains a vast number of species." In the ensuing 27 years the situation has hardly altered, except that several new species names have been added to the list. At least 50 names now exist in the literature. Although Menzies (1952) indicated a possible division of the genus based on uropodal, pleopod 1 ♂, ♀ and ♂ gnathopods, and pleopod 3 ♂, in 1962a he proposed the formation of 3 subgenera (*Uromunna*, *Neomunna*, and *Munna*), based solely on uropodal structure, a very difficult feature to see with certainty in such small animals. That the genus requires reevaluation is obvious; the basis for such reevaluation should probably be a combination of features, including the presence or absence of a mandibular palp. This latter is used to separate *Coulmannia* Hodgson from the rest of the munnid genera (Menzies, 1962b, Wolff, 1962) but within the genus *Munna* (s.l.) are species both possessing (e.g. *ubiquita* Menzies, *stephensi* Menzies, *nana* Nordenstam) or lacking (e.g. *reynoldsi* Frankenberg and Menzies, *santaluciae* Gascon and Mañe-Garzon, *sheltoni* Kensley) mandibular palps. From these 2 groups, *M. ubiquita* and *M. reynoldsi* both belong to the subgenus *Urommunna*. The value of the mandibular palp as a generic and/or subgeneric character requires assessment.

The present species possesses a rounded inferior uropodal ramus lacking

recurved spines, which places it in the subgenus *Munna*. However, it lacks a mandibular palp, while the gnathopods (pereopod 1) of the ♂ and ♀ are similar. *M. powelli* quite closely resembles *M. (M.) sheltoni* Kensley, 1977 from South Africa, in the general structure of the appendages, especially the gnathopods, posterior pereopods, and mouthparts. The South African species, however, is a relatively squatter form, with a broader pleotelson; the apex of pleopod 1 ♂ is not as obviously bilobed as in *M. powelli*, and the inferior uropodal ramus is less setose. Finally, the distinctive cruciform pigmentation of *M. sheltoni* is not seen in the Nigerian species.

Acknowledgments

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