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## *Benthanoscia longicaudata*, a New Genus and Species of Terrestrial Isopod of the Family Oniscidae (Isopoda, Oniscoidea)<sup>1</sup>

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The author has sometimes found it difficult to place Brazilian terrestrial isopods in their correct genera, owing to imperfect descriptions and the unrestricted use of older European genera. In the present case the convenience of establishing a new genus for a species from Estado do Rio seems advisable, instead of stretching the generic concept of *Benthana* Budde-Lund, into which it could be forced.

Deep appreciation is here expressed to Drs. Dorothy E. Bliss, Assistant Curator of Invertebrates, and Libbie H. Hyman, Research Associate in Invertebrates, in the Department of Fishes and Aquatic Biology of the American Museum of Natural History, for their helpful assistance.

### BENTHANOSCIA, NEW GENUS

GENERIC DIAGNOSIS: Integument hard and moderately shining. Dorsal body surface covered with small low tubercles. Head small, not narrowed behind, sides subparallel. Frontal line not individualized. Frontal lamina present. Lateral lobes of head very small, downwardly directed. Inner teeth of the first maxillae ctenate. Endite of maxillipeds toothed, without penicilli. Epimera well developed on all thoracic seg-

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ments. Abdomen abruptly narrower than the thorax, its posterolateral parts well developed. Exopodite of the first male pleopods with a large tooth. Protopodite of uropods much longer than the telson, exopodite and endopodite closely inserted. Sexual dimorphic characters on the three first pereopods.

TYPE SPECIES: *Benthanoscia longicaudata*.

*Benthanoscia*, new genus, is closely related to *Benthana* Budde-Lund, both having the inner teeth of the first maxillae ctenate, the endopodite of the first male pleopods with a large tooth on the posterior margin, and the protopodite of the uropods detached from the telson above. Their distinguishing characters are:

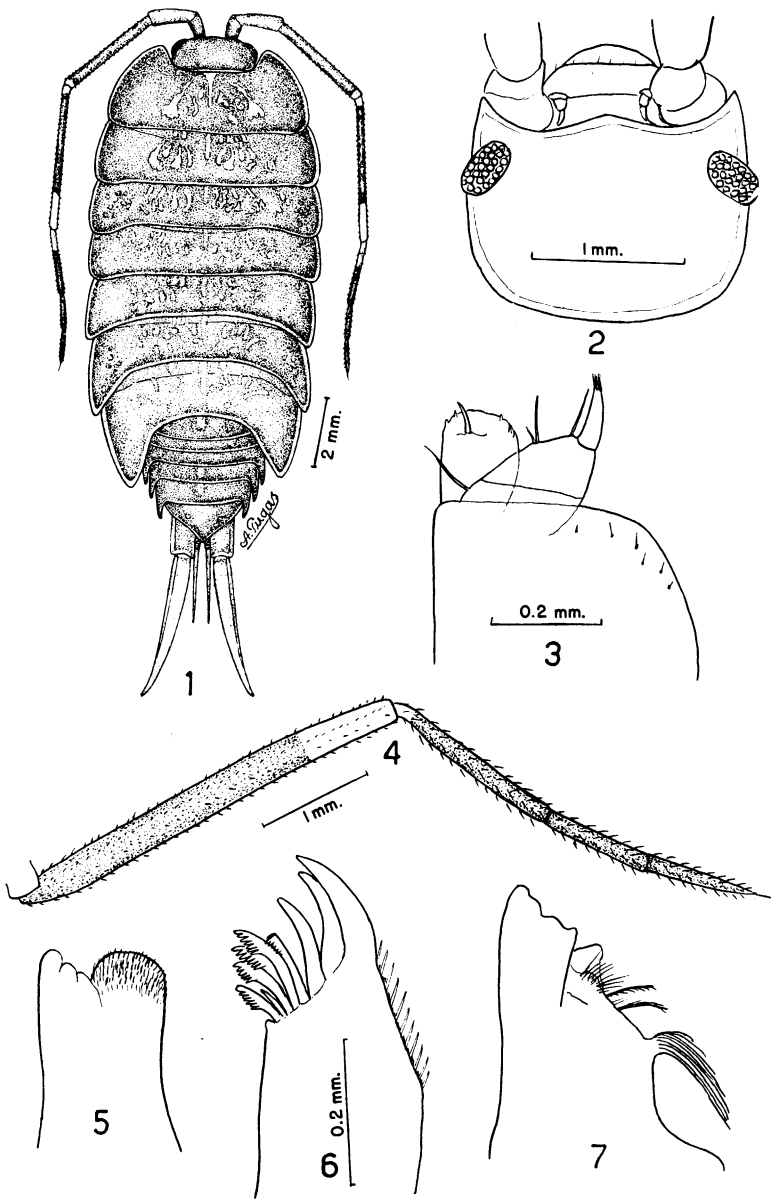
<i>Benthanoscia</i>	<i>Benthana</i>
Integument hard and slightly shining, faintly tuberos	Integument smooth, shining, and rather soft
Head wide behind, the sides almost parallel, and with a visible posterior margin	Head narrower behind, posterior outline semicircular
Thoracic epimera very expanded and rather laterally directed, especially first ones	Thoracic epimera relatively short and obliquely downward directed
Abdomen as long as wide	Abdomen distinctly longer than wide
Posterolateral angles of the abdominal segments rather expanded and obliquely directed backward	Posterolateral angles of the abdominal segments sharply directed backward into long, narrow, rather appressed spines

### ***Benthanoscia longicaudata*, new species**

Figures 1-14

Body surface with scattered granules or minute tubercles. Head and abdomen very small in comparison to thorax.

Head profoundly set in thorax, wider than long, gently convex in front when seen from above and distinctly sinous when tilted up. The lateral lobes, situated under the eyes, are rounded but extend downward much more than forward or laterally; they are not visible in a dorsal view when the head is in its ordinary position. Frontal line not individualized, only indicated by a change of plan on the vertex. Frontal lamina semicircular in outline, occupying laterally the whole distance between the first antennae, and its length being about two-thirds of the post-frons. Supra-antennal line distinctly marked.



FIGS. 1-7. *Benthanoscia longicaudata*. 1. Dorsal aspect of male. 2. Head from above. 3. Maxilliped. 4. Second antenna. 5. Second maxilla. 6. First maxilla. 7. Right mandible. Same scale for figures 5-7.

Distal joint of first antennae twice as long as second. Second antennae very long and slender, reaching the anterior part of the seventh thoracic segment when well drawn back; flagellum as long as fifth joint, triarticulate, setose, its proximal joint as long as next two together, these are equal or the distal is slightly shorter. Eyes relatively small, very prominent, with about 25 ocelli. Mandibles with two penicilli on the right appendage and three penicilli on the left. Outer branch of the first maxillae with three plus six teeth (tooth 1 ctenate and truncate, teeth 2-3-4-6 ctenate, tooth 5 small and acute). Second maxillae with the inner lobe richly setose and relatively larger than the outer. Endite of the maxillipeds with two or three teeth on each side and one spine between these teeth; last joint of the palp much narrower than the others.

Thoracic epimera very large laterally. Thorax a little convex on middle, becoming concave laterally in the first segments. The anterior angles of the first segment very much developed forward, involving the head laterally and extending about as far as the anterior border of the eyes. There are few pores of epimeral glands, visible only on anterior corners of the first segment. "Noduli laterali" well developed. Only the last three thoracic segments have the rear corners angular and produced backward.

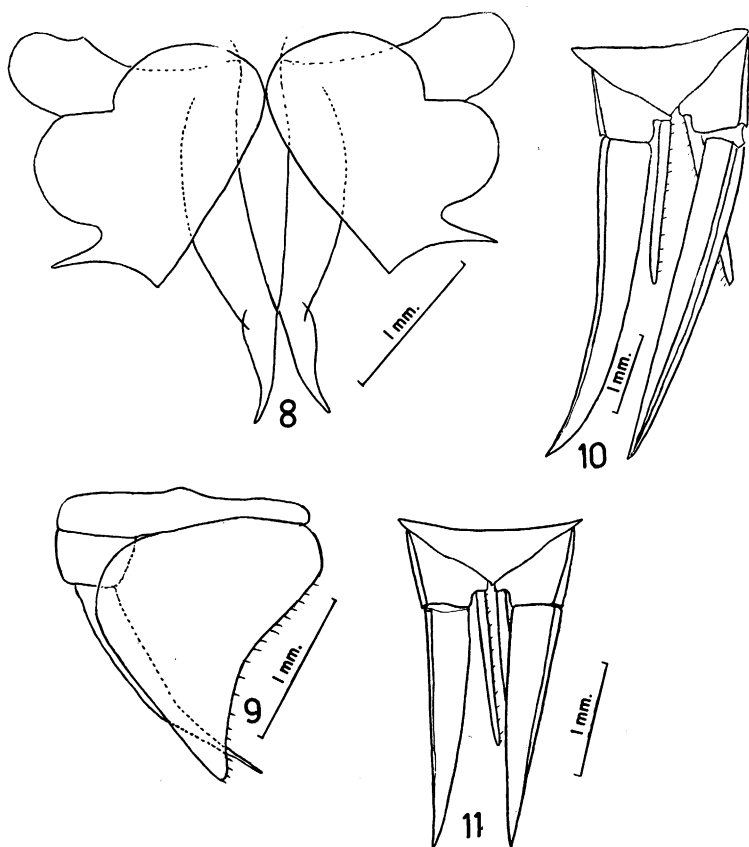
Pereiopods long, increasing considerably in length towards the rear of the body. There are notable sexual differences in the three first legs; in the males the merus and carpus are very widened and with a dense brush of stiff hairs on the inner aspect, similar to those of species of *Philoscia*, *sensu stricto*. No sexual differences in the seventh legs.

Abdomen abruptly narrower than the thorax. The third, fourth, and fifth abdominal segments with posterior lateral parts ("neopleurons") rather expanded and not appressed towards the abdomen, its extremities distinctly separated when seen from above.

First male pleopods, as in the species of the genus *Benthana* Buddenlund, with the exopodites provided with a sharp curved tooth on their posterior margins. Genital appendage long, exceeding the rear border of the exopodites. Endopodites with the extremities divergent.

Telson twice as wide as long, the sides only slightly sinuous, and the tip prominent and acute.

The uropods show a remarkable sexual difference. In the male the exopodites are very much longer than in the females, exceeding the length of the abdomen (the telson included). The basal joint of the uropods is rather long, and they are conspicuously furrowed on their external aspect; the exopodites are also furrowed laterally on the

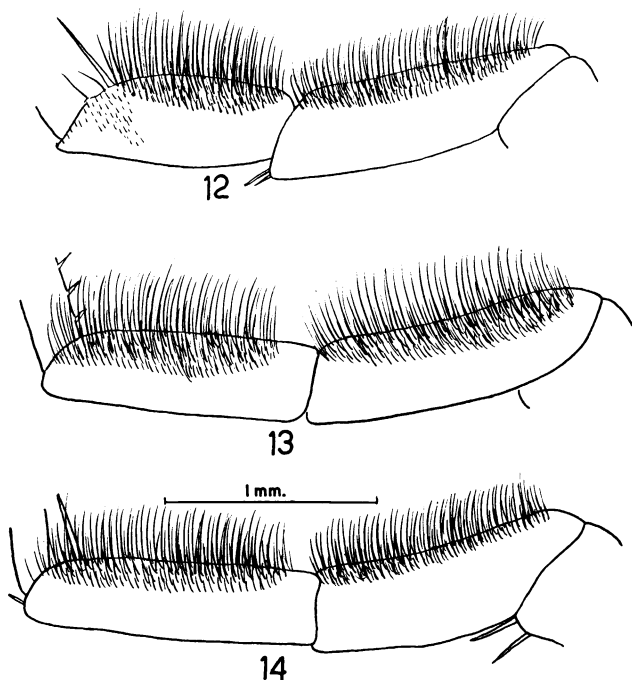


FIGS. 8-11. *Benthanoscia longicaudata*. 8. First male pleopods. 9. Second male pleopods. 10. Telson and uropods of male. 11. Telson and uropods of female.

whole length. Endopodites relatively long, reaching two-thirds of the length of the exopodites in the females and one-half or less in the males. The endopodites and exopodites are inserted in different levels, but very near.

Color of dorsal surface brown or dark brown, with a median series of light spots on each thoracic segment, separated by a thin light line, more distinctly visible on the anterior half of the segments. Terminal fourth of fifth joint of the antennae and proximal end of first flagellar joint whitish. Ventral surface yellow, with the joints of the legs, maxillipeds, and pleopods spotted with brown. Lower aspect of the epimera brown.

Length of largest specimens: male, 20 mm.; females, 16 mm.



FIGS. 12-14. *Benthanoscia longicaudata*. 12. Merus and carpus of first male pereopod. 13. Merus and carpus of second male pereopod. 14. Merus and carpus of third male pereopod. All to same scale.

LOCALITY: Alto da Mosela, Petropolis, Estado do Rio (Brazil). Five specimens (three males and two females), all collected by Dalcy Albuquerque, zoologist of the Museu Nacional do Rio de Janeiro, between 1955 and 1957. This species inhabits rather elevated altitudes, being found in very damp situations.

HOLOTYPE: One male specimen deposited in the American Museum of Natural History (A.M.N.H. No. 11774).

The allotype female and the three paratypes will be deposited in the Museu Nacional, Rio de Janeiro.

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