

**Two New Terrestrial Isopoda (Crustacea, Isopoda, Philosciidae)
from Northern Luzon, the Philippines of *Burmoniscus***

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ABSTRACT

Two new species of the genus *Burmoniscus* Collinge, 1914, *B. ifugaoensis* and *B. taitii* are described from Banaue and adjacent area, mountainous district in the northern Luzon, the Philippines. *B. ifugaoensis* is morphologically similar to *B. novabritannicus* (Vandel, 1973) and *B. yunnanensis* Kwon and Taiti, 1993, but is distinguished by the much elongated distal part of male pleopod 1 exopod and the peculiar setation on the distal part of male pleopod 1 endopod. *B. taitii* is similar to *B. punctatus* Taiti, Ferrara and Kwon, 1992 in the shape of male pleopod 1 endopod, but is easily distinguished by the peculiar coloration of male, the morphology of cephalon, and the shorter distal part of male pleopod 1 exopod.

Key words: Isopoda, Oniscidea, Philosciidae, *Burmoniscus*, new species, Philippines

INTRODUCTION

The genus *Burmoniscus* includes about sixty nominal species distributed in the Ethiopian, Oriental and Australian Region. In the Philippines only two species of *Burmoniscus* are recorded from Palawan Island (Kim and Kwon, 2002). Two new species of *Burmoniscus* collected from Banaue and adjacent area, mountainous district in the northern Luzon, are described.

The specimens examined are deposited in the Museo Zoologico "La Specola" dell'Università, Firenze (MZUF) and the Department of Biology, Inje University, Kimhae (IJB).

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DESCRIPTIONS

Genus *Burmoniscus* Collinge, 1914

***Burmoniscus ifugaoensis*, new species (Figs. 1-2)**

Type material. 1 ♂ (holotype), Luzon I., Ifugao, Banaue, 7.i.2000, leg. D. H. Kwon and M. H. Kim (MZUF); 5 ♂♂, 10 ♀♀ (paratypes), same data as holotype (MZUF); 12 ♂♂, 10 ♀♀

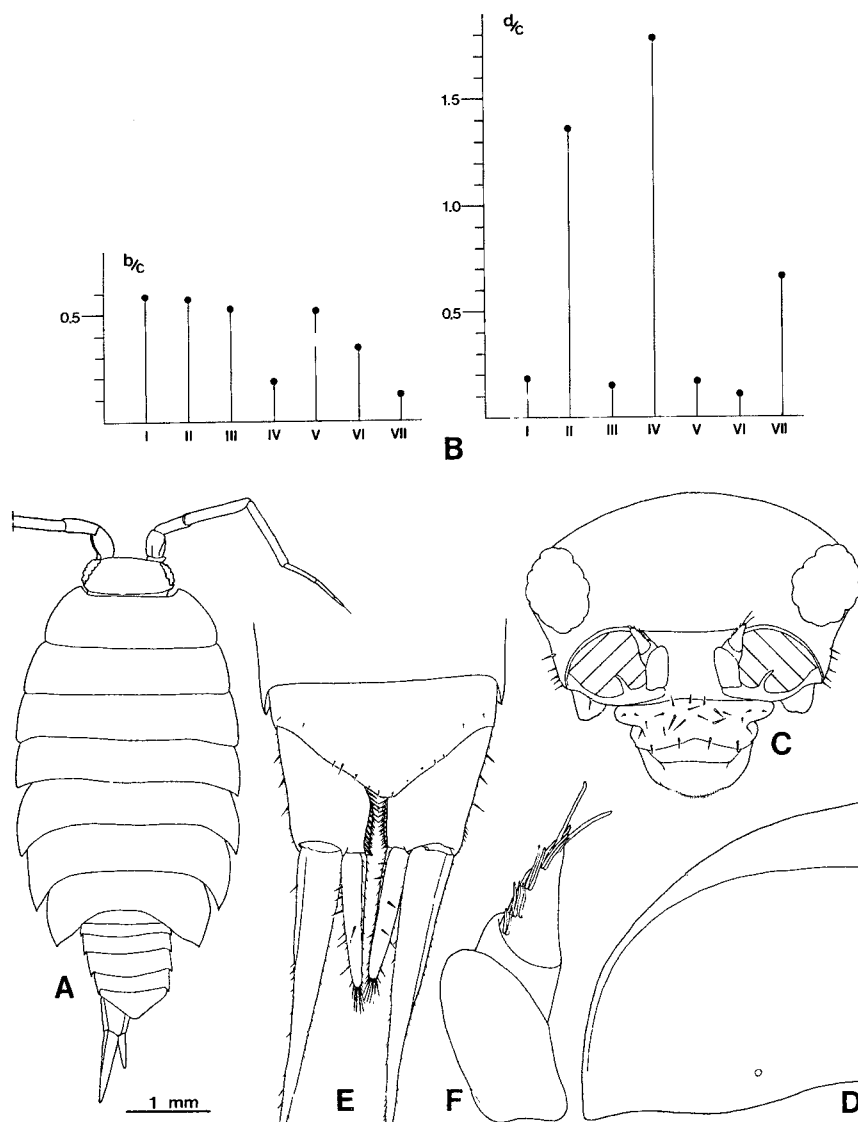


Fig. 1. *Burmoniscus ifugaoensis*, n. sp.: A, habitus in dorsal view, male; B, co-ordinates of noduli laterales; C, cephalon in frontal view; D, left epimeron of pereonite 7; E, pleonite 5, telson and uropods; F, antennule.

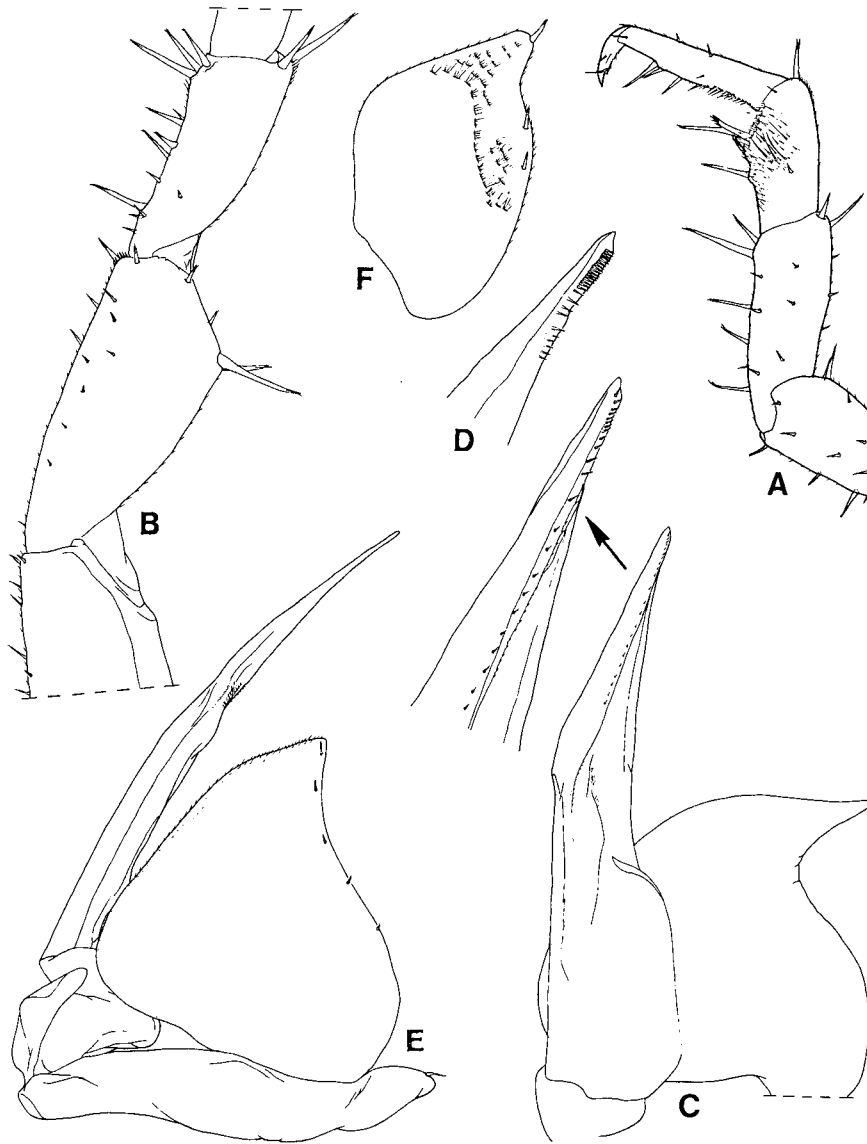


Fig. 2. *Burmoniscus ifugaoensis*, n. sp., male: A, pereopod 1; B, pereopod 7, merus and ischium; C, pleopod 1, in caudal view; D, apex of pleopod 1 endopod, in rostral view; E, pleopod 2; D, pleopod 5 exopod.

(paratypes), same data (IJB).

Non-type material examined. 2 ♀♀, Luzon I., Ifugao, Lagawe, Cudog, 8.i.2000, leg. D. H. Kwon and M. H. Kim (IJB).

Description. Maximum length of male 6.4 mm, of female 6.8 mm. Color in alcohol dark brown with usual pigmentless muscle spots; cephalon with 2 transverse rows of larger spots medially and posteriorly; pereonites 2-6 with 2 larger colorless spots sublaterally at each epimeron. Dorsum smooth, highly convex. Pereonites 1 and 2 with several (5 to 10 per side) gland pores along

antero-lateral margins; 3-6 with numerous (30 to 40 per side) and 7 with about 10 along lateral margins. Noduli laterales with b/c and d/c co-ordinates as in Fig. 1B. Eye with 18-20 ommatidia. Cephalon twice as wide as long with straight supra-antennal line. Pereonites 1-3 with postero-lateral corners rounded, 4 right-angled, 5-6 acute-angled, 7 right-angled with posterior margin slightly sinuous at sides. Pleonal epimera reduced, with short posterior points on pleonites 3-5 clearly visible in dorsal view. Telson with almost straight sides and widely rounded apex. Antennule with 2 long apical aesthetascs and 4 rows of a few superimposed ones on mesial margin of third article. Antenna with fifth article of peduncle slightly longer than flagellum; ratio of flagellar articles 6:5:3; flagellar articles 2 and 3 each with 2 aesthetascs. Buccal pieces characteristic of the genus *Burmoniscus*; viz., mandible with a molar penicil consisting of a single plumose seta, maxillule with exopod bearing 4+6 (5 cleft) teeth on distal margin, endopod bearing 2 unequal penicils and a small posterior point, and endite of maxilliped with a penicil. Uropodal exopod twice as long as endopod.

Male. Pereopod 1 as in Fig. 2A. Pereopod 7 without particular modifications. Pleopod 1 exopod with elongated, triangular posterior part bent outwards, a few short indentations on outer margin; endopod with straight distal part, bearing a row of fine setae subapically on rostral surface. Pleopod 2 exopod slightly longer than wide with concave outer margin; endopod with styliform distal part, much longer than exopod. Pleopod 5 exopod as in Fig. 2E.

Etymology. The specific name of this species refers to Ifugao Province where the material was collected.

Remarks. *Burmoniscus ifugaoensis* n. sp. is morphologically similar to *B. novabritannicus* (Vandel, 1973) from the Bismarck and Solomon archipelagoes and *B. yunnanensis* Kwon and Taiti, 1993 from Yunnan, southern China. It is distinguished by the much elongated distal part of male pleopod 1 exopod and the peculiar setation on the distal part of male pleopod 1 endopod.

***Burmoniscus taitii*, new species (Figs. 3-4)**

Type material. 1 ♂ (holotype), Luzon I., Ifugao, Banaue, 7.i.2000, leg. D. H. Kwon and M. H. Kim (MZUF); 5 ♂♂, 10 ♀♀ (paratypes), same data as holotype (MZUF); 12 ♂♂, 47 ♀♀ (paratypes), same data (IJB).

Non-type material examined. 1 ♂, 1 ♀, Luzon I., Ifugao, Lagawe, Cudog, 8.i.2000, leg. D. H. Kwon and M. H. Kim (IJB).

Description. Maximum length of male 8.1 mm, of female 12.0 mm. Color in alcohol dark brown or red brown with usual colorless muscle spots; male with pereonites 3 and 6 almost pigmentless. Dorsum smooth. Pereonites 1 and 2 with several gland pores (5 to 11 per side) along antero-lateral margins, 3-6 with numerous (35 to 50 per side) along the whole lateral margins, 7 with about 17 along lateral margins. Noduli laterales with b/c and d/c co-ordinates as in Fig. 3B. Eye with 20-27 ommatidia. Cephalon 1.9 times as wide as long with almost straight supra-antennal line. Pereonites 1-3 postero-lateral corners rounded, 4 right-angled, 5-6 progressively more acute, 7 right-angled with posterior margin sinuous at sides. Pleonal epimera reduced, with short posterior points on pleonites 3-5 clearly visible in dorsal view. Telson with sides concave submedially and apex rounded. Antennule with 2 long apical aesthetascs and 3 rows of a few superimposed ones on mesial margin of third article. Antenna with fifth article of peduncle slightly longer than

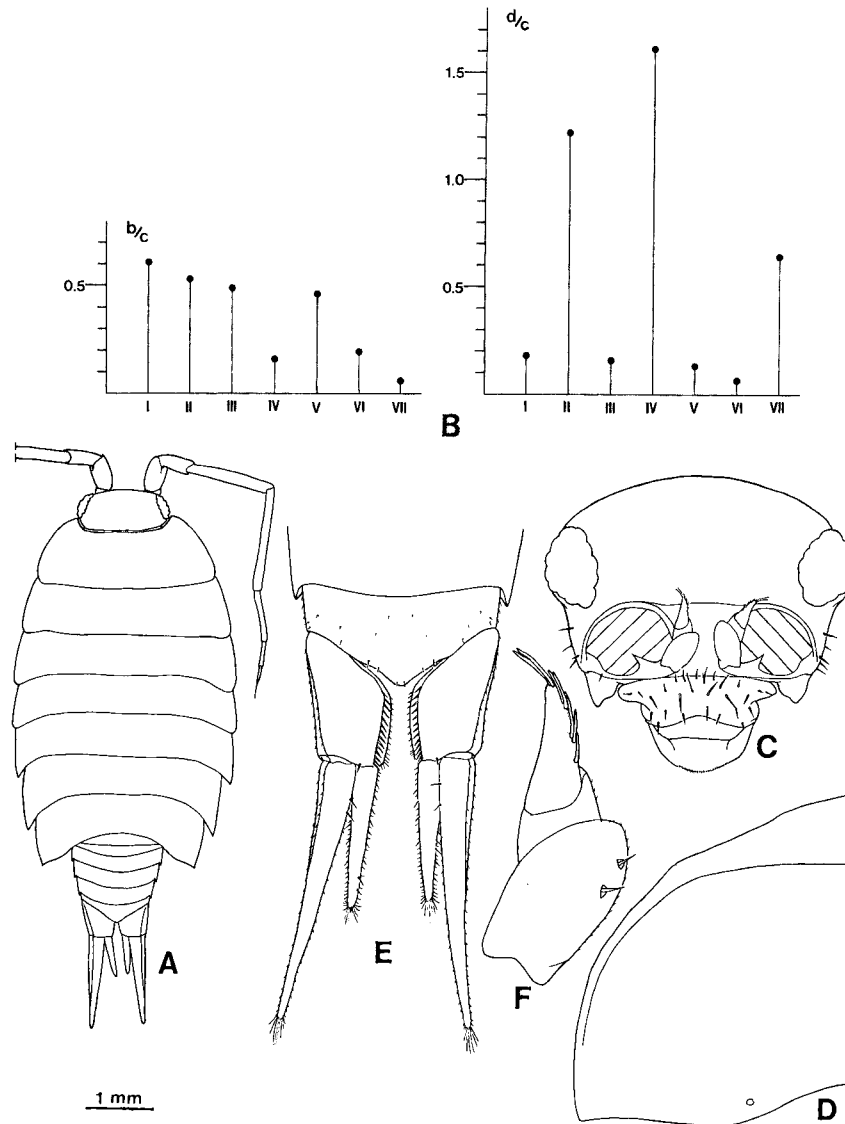


Fig. 3. *Burmoniscus taitii*, n. sp.: A, habitus in dorsal view, female; B, co-ordinates of noduli laterales; C, cephalon in frontal view; D, left epimeron of pereonite 7; E, pleonite 5, telson and uropods; F, antennule.

flagellum; ratio of flagellar articles 8 : 4 : 3; flagellar articles 2 and 3 with 3 and 2 aesthetascs, respectively. Buccal pieces characteristic of the genus *Burmoniscus*. Uropod with exopod 1.9 times as long as endopod.

Male. Pereopod 1 as in Fig. 4A. Pereopod 7 without particular modifications. Pleopod 1 exopod with triangular posterior part bent outwards and acute apex, a short indentation on outer margin; endopod with a small lobe subapically on outer margin. Pleopod 2 exopod slightly longer than wide with concave outer margin; endopod longer than exopod. Pleopod 5 exopod as in Fig. 4E.

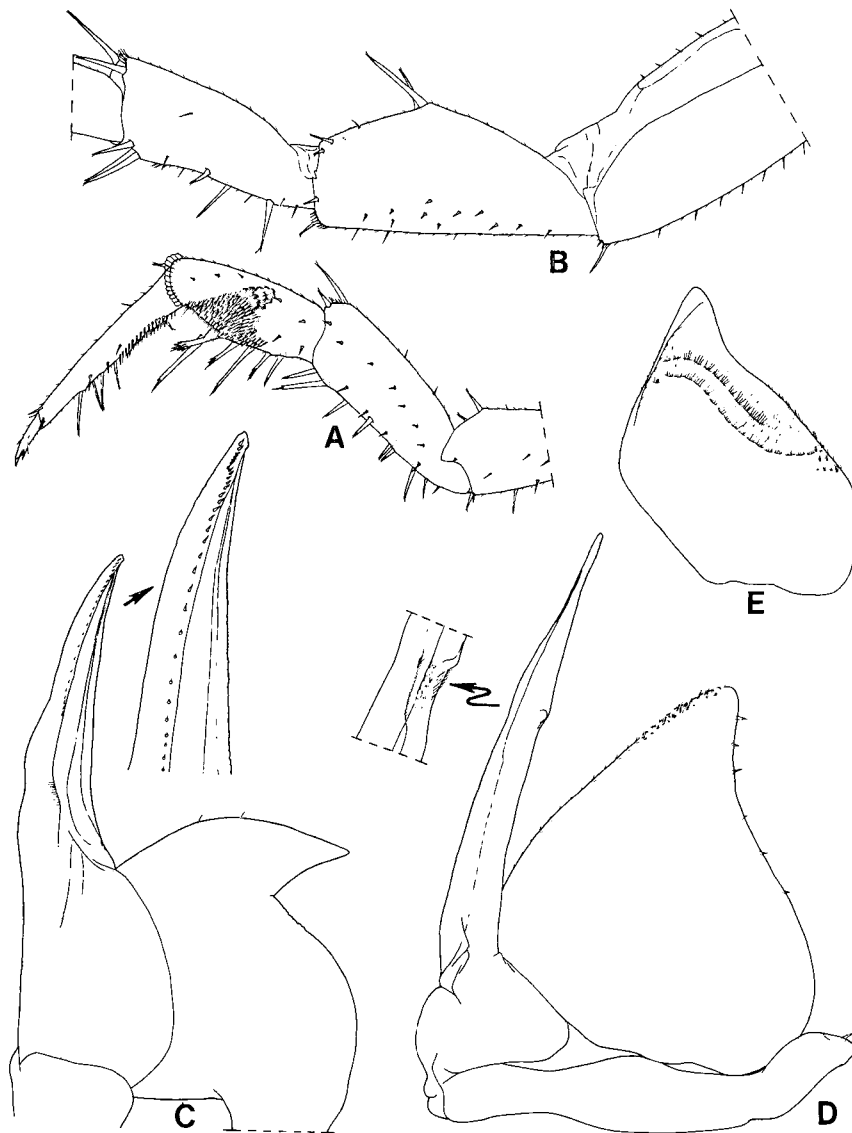


Fig. 4. *Burmoniscus taitii*, n. sp., male: A, pereopod 1; B, pereopod 7, merus and ischium; C, pleopod 1; D, pleopod 2; E, pleopod 5 exopod.

Etymology. This species is named after Dr. Stefano Taiti (Florence).

Remarks. *Burmoniscus taitii* n. sp. is similar to *Burmoniscus punctatus* Taiti, Ferrara and Kwon, 1992 from the Togian Islands, Indonesia, in the shape of male pleopod 1 endopod, but is easily distinguished by the peculiar coloration of male, the morphology of cephalon (compare Fig. 18C in Taiti *et al.*, 1992 and Fig. 3C), and the shorter distal part of male pleopod 1 exopod.

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필리핀의 루손섬 북부에서 채집된 육서 등각류의 2신종 *Burmoniscus ifugaoensis*와 *B. taitii* (갑각아문, 등각목, 남방쥐며느리과)

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요약

필리핀의 루손섬 북부의 산악지대인 바나우에와 인근에서 채집된 *Burmoniscus* Collinge, 1914 속의 2신종을 *B. ifugaoensis*와 *B. taitii*로 명명하고 기재하였다. *B. ifugaoensis*는 *B. novabritannicus* (Vandel, 1973)나 *B. yunnanensis* Kwon and Taiti, 1993과 형태가 유사하나, 수컷의 제1복지 외지의 말단부가 훨씬 더 신장되었고, 내지의 말단부에 독특한 강모열을 갖는 점에서 구분된다. *B. taitii*는 *B. punctatus* Taiti, Ferrara and Kwon, 1992과 수컷의 제1복지 내지의 형태가 유사하지만 수컷의 독특한 반문, 머리의 형태, 수컷의 제1복지 외지의 짧은 말단부로 쉽게 식별된다.