The Andean millipede genus *Peruprion* Verhoeff, 1941 (Diplopoda: Polydesmida: Chelodesmidae), with the description of a new species from Peru

**Introduction**

Among the ca 140 genera of Neotropical Chelodesmidae known to date, only less than half (90+, altogether containing 420+ species) have been assigned to one of the 21 presently recognized tribes of the family [Means *et al.*, 2023]. Amongst the still unassigned members is the small Andean genus *Peruprion* Verhoeff, 1941, which presently encompasses some four species, all endemic to Peru. These are as follows:

- *P. serratum* Verhoeff, 1941, the type species from Sivia, Ayacucho Department, Huanta Province [Verhoeff, 1941];
- *P. affine* Kraus, 1956, from Chanchamayo Department and Valley, between San Ramon and Mina Pichita Caluga, Junin Province [Kraus, 1956];
- *P. azucarense* Kraus, 1959, from both Pan de Azucar, Rio Tarma, and Chanchamayo Department and Valley, between San Ramon and Mina Pichita Caluga, Junin Province [Kraus, 1959]; and

The present note is devoted to a brief review of *Peruprion* in connection with the description of a new species from Peru.

**Material and methods**

The sample underlying this contribution is fully housed in the Zoological Museum of the State University of Moscow (ZMUM), Russia. The pictures were taken with a Canon EOS 5D digital camera and stacked using Zerene Stacker software. Final image processing was performed with Adobe Photoshop CC.

**Taxonomic part**

**Genus Peruprion** Verhoeff, 1941

*Syn.: Watoporus* Chamberlin, 1955, synonymized by Kraus [1956].

**Diagnosis.** A genus of Chelodesmidae with 20 body rings, prominent and upturned paraterga showing conspicuously indented margins, strongly microgranulate metaterga and paraterga, and usual, vague or invisible ozopores.
Peruprion crassifemoratum sp.n.
Figs 1–4. Peruprion crassifemoratum sp.n., ♂ paratype. 1 — habitus, sublateral view; 2–4 — anterior, middle and posterior parts of body, respectively, dorsal view. Photographs by K. Makarov, not taken to scale.

PARATYPES: 2 ♂♂, 4 ♀♀ (ZMUM), same place, together with holotype.

NAME. To emphasize the slightly, but clearly enlarged ♀ femora 5–7.

DIAGNOSIS. Based on the available descriptions and illustrations [Verhoeff, 1941; Chamberlin, 1955; Kraus, 1956, 1959], Peruprion crassifemoratum sp.n. differs readily from all congeners by the generally light colouration. Yet it seems to be particularly similar to P. affine, because both species compared share the presence of paramedian sternal cones only between ♂ coxae 3, coupled with the absence of ozopores even from ring 5 and virtually the same gonopodal structure [Kraus, 1956]. Both differ, however, not only in the generally light colouration in P. crassifemoratum sp.n., but also in the slightly, but clearly enlarged ♀ femora 5–7 (Figs 5–12).

DESCRIPTION. Length of holotype ca 28 mm, width of midbody pro- and metazonae 2.0 and 4.0 mm, respectively.
Figs 5–8. *Peruprion crassifemoratum* sp.n., ♀ paratype, anterior part of body, dorsal, left lateral, right lateral and ventral views, respectively. Photographs by K. Makarov, not taken to scale.

Рис. 5–8. *Peruprion crassifemoratum* sp.n., паратип ♀, передняя часть тела, соответственно сверху, слева сбоку, справа сбоку и снизу. Фотографии К. Макарова, сняты без масштаба.

(♀). Paratypes ca 27–29 mm long (♂, ♀), width of midbody pro- and metazonae 1.9 and 3.8 mm (♂) or 3.2–3.5 and 4.7–5.0 mm (♀), respectively.

Colouration in alcohol uniformly light brown to nearly pallid; antennae, venter, sides of paraterga and legs usually even lighter, up to pallid (Figs 1–12). Body with 20 segments.

Tegument mostly dull, texture very delicately shagreened. Head pilose nearly throughout, with squarish genae and a distinct epicranial suture. Antennae very long and slender; in length, antennomeres 2=3=4=5=6>>1=7, with four apical cones on antennomere 8. Interantennal isthmus about as large as diameter of antennal socket (Figs 5, 8).

In width, head << collum < ring 2 < 3 < 4 < 5=15, thereafter body gradually tapering towards telson (Figs 1–4). Paraterga very strongly developed, set high (at about upper ¼ of midbody height), starting with collum, dorsum subhorizontal (♂) to faintly convex (♀); paraterga very broad and wing-shaped, but short, sigmoid and clearly upturned above dorsum (♂) or considerably broader and slightly de-
Figs 9–12. Peruprion crassifemoratum sp.n., ♀ paratype. 9 — body rings 7 and 8, posterior view; 10 — detached leg 7, lateral view; 11 — body rings 7 and 8 with intact gonopods in situ, ventral view; 12 — body rings 7 and 8 with removed gonopods, ventral view. Photographs by K. Makarov, not taken to scale.

clivous, leaving the dorsum convex (♀). Anterior shoulders of paraterga bordered and mostly straight to only slightly rounded, caudolateral corner of paraterga spiniform and (nearly) pointed, postcollum ones extending increasingly past rear tergal margin, clearly narrowed, subacute and directed caudad (Figs 1–8). Collum generally crescent-shaped, regularly and clearly rounded anterolaterally, but straight, dentate and drawn back centrally (Figs 2, 5). Metaterga very densely and rather regularly microtuberculate, paraterga even more distinctly and more roundly dentate at all margins (Figs 1–9, 11, 12). Ozopores totally wanting even on ring 5. Neither tergal setae nor axial line, nor pleurosternal carinae. Stricture between pro- and metazona wide, shallow and smooth. Limbus very thin and entire. Epiproct short and coniform, microtuberculate above and denticulate on sides (Fig. 4). Hypoproct low and subtrapeziform; caudal, para-
The Andean millipede genus *Peruprion*

Fig. 13–19. *Peruprion crassifemoratum* sp. n., ♀ paratype. 13–15 — both gonopods in block, dorsal, lateral and posterior views, respectively; 16–19 — left gonopod, lateral, dorsal, mesal and posterior views, respectively. Photographs by K. Makarov, not taken to scale. Abbreviations: A — acropodite; b — apicolateral spine; PfP — prefemoral process; sl — solenomere.


Remarks. The genus *Peruprion* presently encompasses five medium-sized species, all ranging from southern to central Peru, at least some of them, including *P. crassifemoratus*.

Sterna without modifications except for a pair of separate paramedian cones between ♀ coxae 3 (Fig. 8). Legs very long and slender, ca 1.9–2.0 (♀) or 1.2–1.3 times (♂) as long as midbody height, densely setose, claws simple, ♀ femora 5–7 slightly, but clearly enlarged (Figs 6–12). In length, tarsus = femur > tibia > prefemur = postfemur > coxa (Fig. 10).

Each ♀ gonopore equipped with a short, vermiform, sigmoid apophysis (Fig. 8). Gonopod aperture very simple and strictly ovoid (Fig. 12).

Gonopods (Figs 11, 13–19) with large, subcylindrical, distoventrally poorly setose coxites loosely fused medially at base through a membranous sternite, the latter devoid of sclerotized remnants; a short, simple and unciniform cannula, as usual. Telopodite elongate, simple and suberect, prefemoral (= densely setose part) about third as long as entire telopodite; the latter clearly bipartite, divided basally into similarly high, simple and erect branches, lateral one a more slender acropodite (A), clearly constricted at midway and apically supplied with a twisted, retrorse, squarish lobule with a very short and dentiform solenomere (sl), and a thicker, mesal, club-shaped, prefemoral process (PfP) rounded apically and carrying a small, sharp, subapical, lateral tooth (b).

REMARKS. The genus *Peruprion* presently encompasses five medium-sized species, all ranging from southern to central Peru, at least some of them, including *P. crassifemo-
ratum sp.n., coming from the eastern macro slope of the Andes. Even though Means et al. [2023] have recently mapped only two species of *Peruprion* as populating the Tropical Andes Biodiversity Hotspot, actually all species of this genus can generally be characterized as tropical, restricted to lowland to mid-montane, apparently Amazonian rainforest habitats within the same hotspot.

**Compliance with ethical standards**

**CONFLICTS OF INTEREST:** The authors declare that they have no conflicts of interest.

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**References**


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