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Identity of Rachis californicus Daday, 1891 (Diplopoda: Polydesmida: Chelodesmidae)

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ABSTRACT

The name *Rachis californicus* Daday, 1891, is shown to have been based upon a specimen referable to the South American genus *Leptherpum* Attems, 1931. Now the oldest species named in the genus, *L. californicus* is apparently very similar to *L. loomisi* Jeekel, 1963, described from Surinam.

NARRATIVE

The pioneer describers working in all groups of organisms were largely at the mercy of the labels — often grossly incorrect — attached to their specimens. Only someone in a later generation with the advantage of immeasurably greater biogeographic knowledge is in a position to assert that a particular specimen could not possibly have originated where its label indicated.

Of course, the older literature is still replete with species names which were so incompletely documented as to defy later identification whenever the original material was lost or destroyed. Often extra trouble was caused by species being described from incorrectly labeled specimens, and therefore being carried along for decades as *nomina dubia* at the end of regional or faunistic lists. The subject of this note belongs in this category but differs in one important respect: the original description is really quite adequate for modern generic placement.

Reference is made to a large polydesmoid milliped named Rachis californicus by Eugenius Daday (1891), who studied a single male specimen labeled only "California." At the time, polydesmoids were embraced in a single family, and use of the name Rachis reflected only a similarity in metatergal shape rather than any implication of relationships with the Mesamerican species later comprising a family Rhachodesmidae. As the paper containing the description of this and other millipeds labeled "California" did not reach C. H. Bollman prior to his untimely demise in 1889. R. californicus was not included in that author's list of Nearctic millipeds posthumously published in 1893. Daday's Spirostreptus flavocingulatus (also labeled "California") was registered as a "species incertae sedis" in Attems' 1914 monograph of the spirostreptids, and he included Rachis californicus in his 1940 synopsis of the family Rhachodesmidae as a possible species of Rhachodesmus, reproducing Daday's drawing of the gonopod and giving a German translation of the original Latin description. Through carelessness, neither of these names was included by the compilers of the "Checklist of the millipeds of North America" (Chamberlin & Hoffman, 1958). Nor, apparently, have either of them been mentioned subsequently.

For a long time, it struck me as improbable that *Rachis californicus* was either a rhachodesmid or a native of California, and it was with some anticipation that I visited the Budapest collection in 1980 to study types of Daday and Tömösvary. Regrettably, although some of the species named in the 1891 paper are still present, the type of *californicus* could not be located, and must be considered lost.

Fortunately, the gonopod illustration published by Daday is quite adequate for generic allocation of the species. It bears a striking likeness to that figured by Attems (1901, 1938) for *Leptherpum huebneri*, a Venezuelan chelodesmid, both having been drawn from the same (ventral) aspect. Attems may be absolved of carelessness in overlooking this similarity, however, when it is recalled that two subsequent authors (Jeekel, 1963, Hoffman, 1966) who considered themselves more attentive to such details also overlooked *californicus* in their synopses of *Leptherpum*.

As noted by both authors just cited, gonopod structure tends to be rather uniform throughout this genus, whereas details of peripheral form vary considerably amongst the several species. By reference to Daday's description, here quoted in a rather free translation from the original Latin, it is possible to identify *californicus* in an approximate way with the keys prepared by Jeekel and by Hoffman. In both, it comes rather readily to *L. loomisi* Jeekel, a species known from the Wilhelmina Mountains, Surinam. The gonopods of this species need to be examined to determine particularly if the accessory prefemoral process is apically clavate as clearly shown for *californicus*, but an a priori judgement suggests that synonymy of the two is unlikely unless it can be shown that *L. loomisi* occurs also in more coastal regions likely to have been sampled by early collectors.

The original description goes as follows:

1 Sp. *Rachis californicus*, n. sp. Tab. VII, Fig 12

Body robust, broad, flattened, somewhat attenuated anteriad and posteriad, reddish brown, granulated; antennae longer than body width; vertigial sulcus deep; first tergal plate wide, its lateral ends acutely rounded, somewhat produced; surface of all terga densely granulate with three transverse series of small tubercles; terga 5-18 with transverse sulcus; ultimate tergum produced into a cylindrical spine which exceeds the anal valves, latter compressed, marginate; anal scale broad, rounded-angulate; repugnatorial pores located in oval pits near margin of segments 5, 7, 9, 10, 12, 13, 15-19; anterior corner rounded, posterior acuminate; antennae and legs long, whitish-yellow; gonopods thick, short, second pair [sic: pari secundo!] extended into a strong, falciform hook.

Length of body: 60 mm; width: 7 mm.

Patria: California.

A single male specimen preserved in wine spirits.

The species may now be cited as

Leptherpum californicum (Daday), comb. nov.

Rachis californicus Daday, 1891, Termes. Fuzetek, v. 14, p. 142, fig. 12. Male holotype, formerly Hungarian Nat. Hist. Mus., now apparently lost, from "California" without further data. Almost certainly the specimen originated from one of the Guyanas, or an adjacent part of Brazil or Venezuela.

The genus now contains eight species endemic to South America north of the Amazon River. That three of them are known only from Surinam suggests that a large number remain to be discovered within the immense generic range.

Finally, it is now reasonable to suspect that the type of *Spirostreptus flavocingulatus* probably originated from some Neotropical locality, perhaps the same as *L. californicum*. As the name was based upon a female specimen, this case will not be so easily closed, even if the type is extant.

Both species mentioned were in a collection sent to Daday by Professor Otto Bütschli of Heidelberg University. In an attempt to trace the possibility that Daday had returned the specimens, I visited the Zoologisches Institut of that university in August 1980 and was advised by Prof. Dr. H. F. Moeller that absolutely nothing from the Bütschli era survived down to the present. Sic transit gloria mundi.

REFERENCES

- Attems, C. 1901. Neue Polydesmiden des Hamburger Museums. Mitt. Naturh. Mus. Hamburg, 18: 85-105, pls. I-III.
- ---. 1914. Die indo-australischen Myriopoden. Arch. Naturg., abt. A, 80(4): 1-398.
- 1938. Fam. Leptodesmidae, Platyrhachidae, Oxydesmidae, Gomphodesmidae. Das Tierreich, 69: 1-487.
- Bollman, C. H. 1893. The Myriapoda of North America. U. S. Nat. Mus. Bull. 46: 1-210.
- Chamberlin, R. V., & R. L. Hoffman. 1958. Checklist of the millipeds of North America. U. S. Nat. Mus. Bull. 212: 1-236.
- Daday, E. 1891. A heidelbergi egyetem zoologiai gyujtemenyenek idegenfoldi Myriapodai (Myriapoda extranea Collectionis zoologicae Universitatis Heidelbergensis). Termesz. Fuzetek 14(304): 135-154, Pl. vii.
- Hoffman, R. L. 1966. Polydesmoid Diplopoda from the Pacaraima Mountains. Journ. Zool. 148: 540-553.
- Jeekel, C. A. W. 1963. Diplopoda of Guiana (1-5), in: Studies on the Fauna of Surinam and other Guyanas, 4 (11): 1-157.

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