

MYRIAPODOLOGICA



Virginia Museum of Natural History

Vol. 5, No. 1

ISSN 0163-5395

November 1, 1997

Chelodesmid studies. XXVI. A new genus for
Leptodesmus kalobatus Brölemann, 1919
and notes on the related genus *Iphyria*
(Polydesmida: Chelodesmidae: Chondrodesmini)

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ABSTRACT

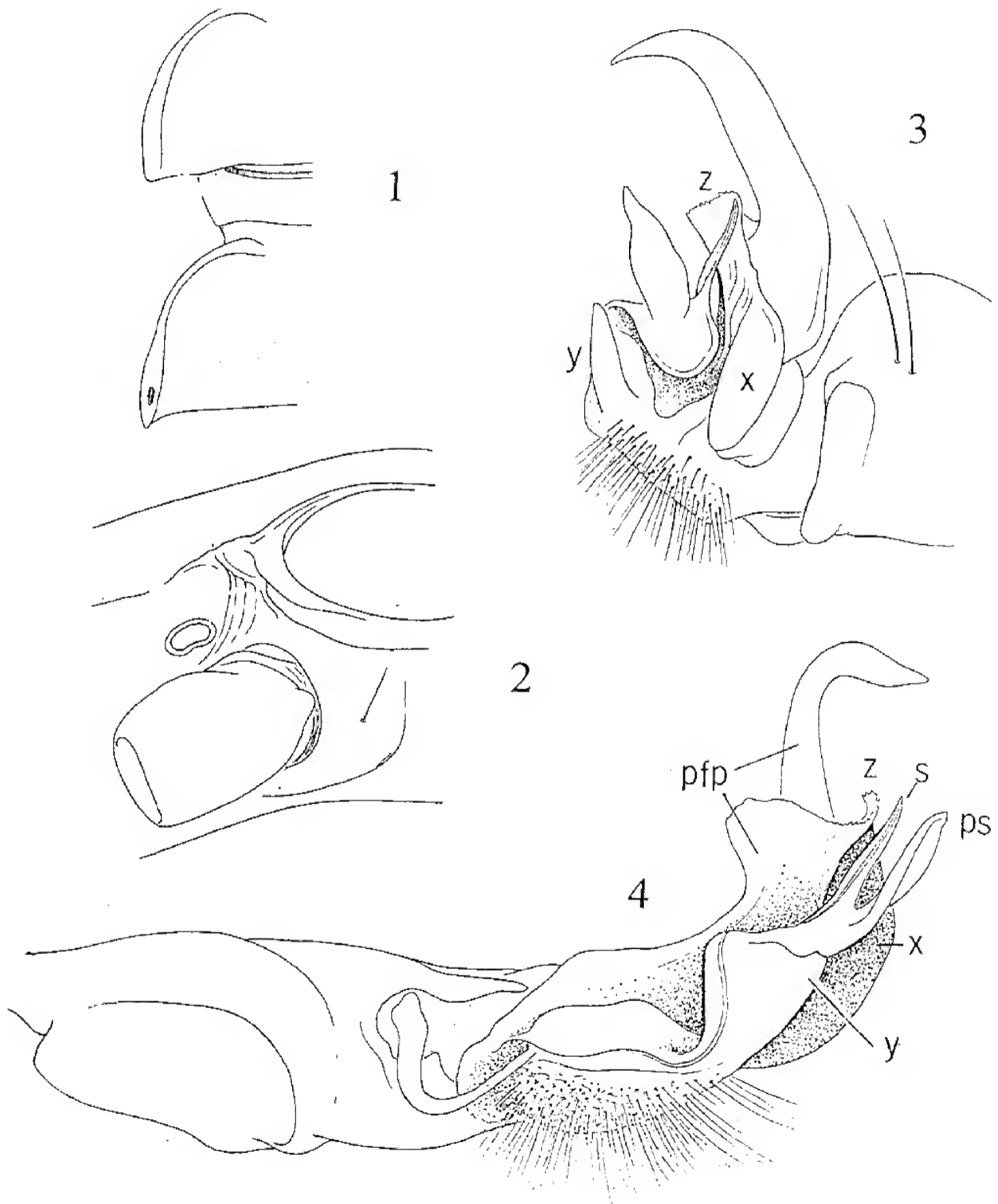
The new genus *Alyssa* is proposed for the Ecuadorian milliped originally named *Leptodesmus kalobatus* by Brölemann in 1919. This taxon is clearly referable to the tribe Chondrodesmini, within which perhaps closest to *Iphyria*. A new key to chondrodesmine genera is provided, as well as notes and drawings for *Iphyria claralata*.

PREFACE

Several decades ago, on the occasion of describing a new genus and species of chelodesmid from Venezuela (1978), I proposed to recognize a new tribe Chondrodesmini to accommodate five genera from northern South America. In a concluding section that summarized each of these taxa, I remarked, in the discussion of *Iphyria*, that "A second possible congener, *Leptodesmus kalobatus* Brölemann 1919, likewise needs a re-examination, although Brölemann's original description leaves no doubt that *kalobatus* belongs in the Chondrodesmini."

Not many years after publication of that observation, during curating of the R. V. Chamberlin collection of millipeds acquired by the National Museum of Natural History in 1971, I came across a jar of specimens from the Andean region which had been loaned to Chamberlin by the California Academy of Sciences. Among the interesting contents of the jar was a specimen of *kalobatus*, taken not far from the type locality in western Ecuador. The opportunity to evaluate the status of this species was thus serendipitously presented, and I can now establish that separate

species was thus serendipitously presented, and I can now establish that separate generic rank is entirely justified, with *Iphyria*, among known chondrodesmine taxa, perhaps the nearest relative.



Figs. 1-4. *Alyssa kalobata*. 1, left paranota of segments 8 and 9, dorsal aspect. 2, right side of segment 7, ventral view showing gonopod aperture. 3, left gonopod, lateral aspect. 4, left gonopod, mesal aspect. Abbreviations: pfp, prefemoral process; ps, parasolenomere; s, solenomere; x, y, z, corresponding structures in both figures.

During the years 1899 to 1906, a French astronomical expedition (the "Mission du Service géographique de l'Armée pour le Mesure d'un Arc de Méridien équatorial en Amérique du Sud") traversed Ecuador accumulating geophysical information. During this time, one of the staff scientists, G. Rivet, assembled a small collection of myriapods at various localities, and this material was placed in Brölemann's hands for study. His account, which appeared in the 10th volume of the Expedition's reports, was a model of detailed description and elegant drawings, and the presentation of *kalobatus* allowed my much-later estimation of the species' taxonomic position. The near topotype male from the California Academy provided a closer look at the gonopod structure and a contrast with *Iphyria claralata*, the type of which I obtained on loan from the American Museum of Natural History. Although I redescribed that specimen in 1953, the gonopod drawing was small and not adequately detailed, and I am glad to be able to provide now a much better account of that appendage and some other aspects of body form.

Tribe Chondrodesmini Hoffman, 1978

Alyssa, new genus

Type species: *Leptodesmus kalobatus* Brölemann, 1919.

Diagnosis: A chondrodesmine genus in which the gonopod coxa is elongated and compressed, but does not extend behind the prefemoral region on the lateral side; a long slender coxal apophysis is present; acropodite reduced in size, distal half strongly reflexed at midlength with a triangular lobe on medial side at flexure, terminating in a long slender solenomere and somewhat larger spatulate parasolenomere; prefemoral process greatly enlarged and complex in structure, consisting of a large rounded basal lobe with a fringed distal edge and a long, apical falcate projection. Paranota moderate to small, overlapping on anterior and posterior segments, widely separated at midbody; caudolateral corners acute, peritreme elongate, slender. Sterna glabrous, with rounded prominences between posterior coxae. Coxae and prefemora glabrous, ventroapical macroseta of latter eccentric, placed anterior to median line; no ventroapical spines present. Anterior edge of gonopod aperture not elevated.

Name: An arbitrary combination of letters, gender feminine.

Alyssa kalobata (Brölemann), new combination
Figures 1-4

Leptodesmus kalobatus Brölemann, 1919, Miss. Arc Mér. equator., v. 10, p. 261, figs. 12, 48, 49. Holotype male (Mus. hist. Nat. Paris) from Santo Domingo de los Colorados, Dpto Pichincha, Ecuador, G. Rivet leg. 1905.

Leptodesmus (Brachyurodesmus) kalobatus: Attems, 1938, Das Tierreich, lief.69, p. 48.

Material: Male (CAS) from Pichilingue, Dpto Los Rios, Ecuador, E. S. Ross & E. Schlinger, leg. 2 February 1955.

Remarks: The original account of this species requires no amplification aside from an illustration of the gonopod in the standard mesal orientation, as Brölemann's figure 48 is from a slightly tilted, dorsomedian aspect. I provide also a drawing of the telopodite in lateral aspect to show the strong retroflexion of the acropodite region.

The general appearance is similar to that in *Iphyria*, the paranota being broad and overlapping on anterior and posterior segments. They differ, however, in that the caudolateral corners are more acute, and the peritreme more slender and elongate than the subovoid condition in *I. claralata* (cf. Figs. 1 and 6).

Genus *Iphyria* Chamberlin

Iphyria Chamberlin, 1941, Bull. Amer. Mus. Nat. Hist., v. 78, p. 500. Type species: *Iphyria claralata* Chamberlin, by original designation and monotypy. – Hoffman, 1953, Proc. Entomol. Soc. Washington, v. 56, p. 219.

Iphyria claralata Chamberlin

Figures 5-8

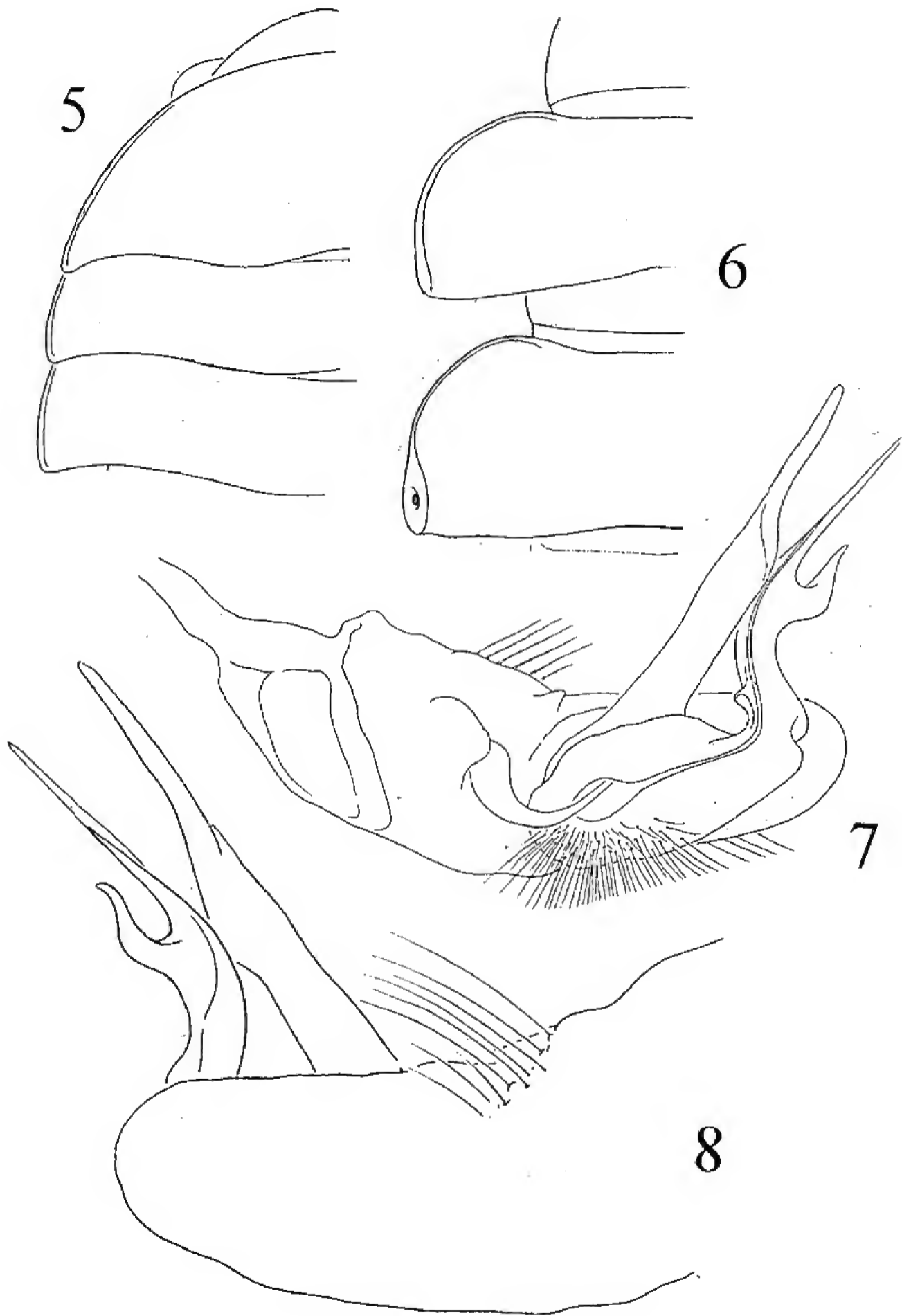
Iphyria claralata Chamberlin, 1941, Bull. American Mus. Nat. Hist., v. 78, p. 500, figs. 222-224. Male holotype (Amer. Mus. Nat. Hist.) from Rio Cainarachi, Dpto ?Loreto, Peru, H. Bassler leg. December 1925. – Hoffman, 1953, Proc. Entom. Soc. Washington, v. 56, p. 219, fig. 2.

The gonopod illustration in my 1953 note is entirely accurate but rather too small to show desired detail, I therefore give here two more adequate drawings made from the holotype. The paranota of this species are relatively large for a chelodesmid, and overlapping at both ends of the body (cf. Fig. 5). Taking this body form into account with the spined prefemora, it is not surprising that Chamberlin referred the genus to the family Xystodesmidae.

Iphyria rubripes Chamberlin

Iphyria rubripes Chamberlin, 1952, Ann. Ent. Soc. America, v. 45, p. 71. Female holotype (Field Mus.) from Hacienda Limon, 10 mi. west of Bulgas, [?Dpto] Peru; Osgood and Anderson leg. 8 May 1912.

Examination of male topotypes is required for confirmation of the generic position of this species, and to define genitalic differences between it and *claralata*.



Figs. 5-8. *Iphyria claralata*. 5, left side of collum and paranota of segments 2 and 3, dorsal aspect. 6, left paranota of segments 11 and 12, dorsal aspect. 7, left gonopod, mesal aspect. 8, left gonopod, lateral aspect. Drawings from holotype.

KEY TO GENERA OF CHONDRODESMINI

1. Prefemoral process of gonopod broadly expanded into a large, laminate shield, with a basal branch on the median side; telopodite reduced to a short, simple, falcate remnant; limbus fringed and/or setose 2
 - Prefemoral process not in the form of a broad concave shield; telopodite relatively larger; limbus broad but neither fringed or setose 3
2. Anterior sterna of males with large, bilobed paramedian processes; prefemoral process of gonopod with a small laminate secondary lobe adjacent to telopodite; side margin of face with labrogenal offset *Eumastostethus*
 - Anterior sterna of males unmodified; prefemoral process of gonopod lacking laminate secondary process; side margin of face without offset *Leptherpum*
3. Coxae of gonopods not notably prolonged distolaterad beyond base of telopodite; dorsal side of coxae with numerous long setae *Chondrodesmus*
 - Coxae of gonopods slightly or considerable prolonged laterally adjacent to base of telopodite; dorsal surface of coxae with one to three or four setae 4
4. Coxal apophysis long and slender, extending nearly to apex *Raima*
 - Coxal apophysis much shorter 5
5. Prefemora of legs with apicoventral spine; sterna, coxae and prefemora setose; hypoproct with elongate median projection; coxa of gonopod projecting beyond base of telopodite on lateral side; telopodite not reflexed *Iphyria*
 - Prefemora without spine; sterna, coxae and prefemora glabrous; hypoproct not prolonged medially; gonopod coxa not projecting beyond base of telopodite on lateral side; telopodite strongly reflexed *Alyssa*

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