

Mahnert, V. 1982. The pseudoscorpion genus *Corosoma* Karsch, 1879, with remarks on *Dasychernes* Chamberlin, 1929, (Pseudoscorpiones, Chernetidae). J. Arachnol., 10: 11-14.

THE PSEUDOSCORPION GENUS *COROSOMA* KARSCH, 1879,
WITH REMARKS ON *DASYCHERNES* CHAMBERLIN, 1929
(PSEUDOSCORPIONES, CHERNETIDAE)

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ABSTRACT

After re-examination of the type specimen of *Corosoma sellowi* Karsch, the genus is transferred from the chernetid subfamily Lamprochernetinae to the Chernetinae (no tactile seta on tibia of leg IV, flagellum of three blades). Probably it is closely related to *Dasychernes* Chamberlin. Some external adaptive characters suggest a way of life similar to that of *Dasychernes*, which is known to inhabit nests of meliponine bees.

INTRODUCTION

In 1879 Karsch described the new genus and species *Corosoma sellowi*, based on a single dried specimen collected at St. Paul (Sao Paulo), Brazil, and mentioned the following characters for the genus: carapace very broad at the posterior margin and narrowed anteriorly, with two distinct transverse furrows; abdomen broader than long, the tergites divided, the margins of the scuta forming nearly a right angle at the median line; no eyes; sclerotic parts shining (smooth), setae numerous ("Behaarung. . . ziemlich dicht, gelb-grau"). To Karsch the genus seemed to be nearest related to the genus *Garypus* L. Koch, 1873.

In 1930 Beier gave a complementary description, illustrating the chelicera, the left pedipalp, and legs I and IV, and considered *Corosoma* Karsch a junior subjective synonym of *Lamprochernes* Tömösvary. He revised this point of view in his world monograph (1932) and placed *Corosoma* as an uncertain genus in the Lamprochernetinae. Roewer (1936) illustrated the chelal finger of *C. sellowi* showing a number of "Chitinkegel" on the inner and outer sides of the fixed finger. He followed Beier (1932) in accepting the uncertain position of the genus.

Dasychernes was proposed by Chamberlin in 1929 for the new species *inquilinus* from nests of meliponine bees in Colombia, the most important characters of the new genus being: carapace almost smooth, setae non-denticulate; garypoid in form; two strongly developed transverse furrows; leg IV without tactile seta, claws and subterminal seta simple; tergites distinctly hairy especially laterally and posteriorly, divided; setae numerous and evenly distributed over the scuta; flagellum of three blades. This somewhat fragmentary description was supplemented subsequently by the author in 1931 with figures of cephalothorax, flagellum, galea, pedipalp, trichobothrial pattern, male genitalia, and some other morphological details.

The descriptions of the two species suggest a degree of similarity if not a synonymy of *Corosoma* and *Dasychernes*.

To establish the identity and taxonomic position of *Corosoma sellowi* Karsch, the type specimen is redescribed below.

Corosoma sellowi Karsch

Corosoma sellowi Karsch 1879:95.

Lamprochernes sellowi: Beier 1930:298-300, figs. 9-12.

Corosoma sellowi: Beier 1932:105 ("unsicheres Genus"); Roewer 1936:56, fig. 31; 1937:291 ("unsicheres Genus").

Type specimen.—Adult, dried and pinned; pedipalp, chelicera and legs I and IV mounted on four microscope slides (Zoological Museum Berlin, ZMB no. 880); St. Paul, Brasilien, Sellow lg.

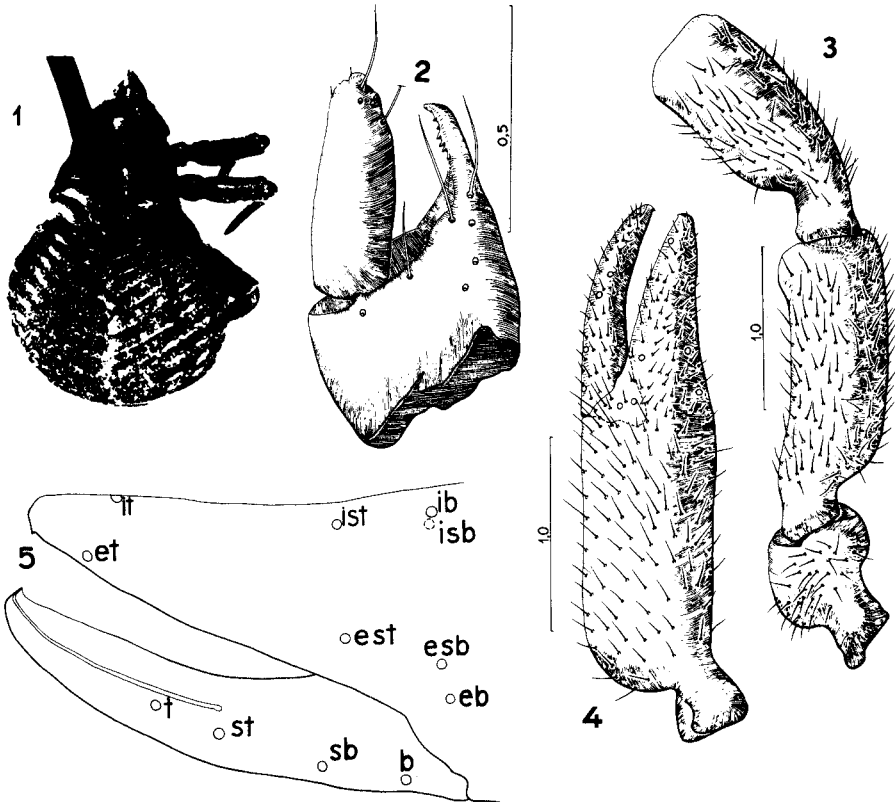
Description.—Sex indeterminable, genital area destroyed by the pin; carapace smooth, reddish brown, apparently with numerous setae, strongly trapezoid in form; two indistinct eyespots; two distinct transverse furrows, the subbasal clearly nearer to the posterior margin than to the submedian furrow; tergites smooth, I to X divided, with numerous evenly distributed long and finely dentate setae (clustered at the lateral margin); chelicera with 7 setae on palm, movable finger with 4 galeal setae (two of them broken), and a small tooth-like subapical lobe; galea broken (probably multi-branched); serrula exterior of approximately 50 lamellae, flagellum of three long blades (the distal one dentate); fixed finger with 6 pointed teeth and two distal granular ones; coxae smooth, with numerous simple and long setae. Setae of pedipalps and legs long and simple; pedipalp smooth; trochanter without protuberance; femur 3.2x as long as broad; tibia 2.7x; hand cylindrical, elongate, with pedicel 2.3x as long as broad and 1.53x longer than finger; chela with pedicel 3.7x, without pedicel 3.3x as long as broad; each finger with approximately 46 small teeth, fixed finger with 16 external and 1 internal (distal) accessory teeth, movable finger with 9 external accessory teeth, none medially; nodus ramosus situated at the level of trichobothrium *st*; sense spot area on fixed finger well developed, fingers not gaping. Trichobothria: *est* and *ist* in basal third of fixed finger, only *et* and *it* (situated at the same level) in the distal half of the finger. Leg I: basifemur 1.2x as long as broad, telofemur 2.0x as long as broad and 1.43x longer than basifemur; tibia 2.8x; tarsus 5.0x; claws simple. Leg IV: all joints with numerous setae, femur 2.9x, tibia 4.6 x, tarsus 5.5x as long as broad; no tactile seta on tibia or on tarsus; subterminal setae slightly curved, simple. Legs as figured by Beier (1930).

Measurements (in mm).—Pedipalp: femur 1.88/0.59; tibia 1.71/0.62; hand with pedicel 1.65/0.70, length of pedicel 0.27, length of movable finger 1.08; chela length with pedicel 2.61, without pedicel 2.35; leg I: basifemur 0.76/0.63; telofemur 1.09/0.54; tibia 1.06/0.38; tarsus 1.04/0.21; leg IV: femur (total) 1.90/0.65; tibia 1.55/0.34; tarsus 1.21/0.22. The differences in measurements given by Beier (1930) and here may be explained by the fact that Beier himself did not check the type specimen but published measurements taken by Roewer; there are some obvious discrepancies between the measurements given and the drawings (e.g. length of tibia).

The re-examination of the type specimen of *Corosoma sellowi* Karsch revealed two facts: *Corosoma* has to be considered as a good genus, and it should be placed not in the Lamprochernetinae but in the Chernetinae (absence of tactile setae from tibia and tarsus

of leg IV). Within this sub-family it shares quite a number of characters with the genus *Dasychernes* Chamberlin: garypoid form of cephalothorax, which is nearly smooth; numerous setae evenly distributed on tergites; no tactile setae on leg IV. The two genera differ in the number of galeal setae on the movable finger of the chelicera (4 in *Corosoma*, 1 in *Dasychernes*), in the trichobothrial pattern on the chelal fingers (*est* nearer to *esb* than to *et* in *Corosom*, but nearer to *et* than to *esb* in *Dasychernes*; *sb* a little nearer to *b* than to *st* in *Corosoma*, much nearer to *b* than to *st* in *Dasychernes*), and in the general shape of the pedipalp (cf. Chamberlin 1931, fig. 27C).

Unfortunately, I was not able to check the type specimens of *Dasychernes inquilinus* Chamberlin, but my colleague, Dr. W. B. Muchmore, University of Rochester, had examined the specimens and kindly sent me his worksheets. Since no measurements are mentioned in the original description, we give here the principal ones: ♂-holotype and ♀-allotype (JC-439.01002, JC-439.01001) (in mm).-Length of carapace of ♂ 1.98 (♀ 1.78). Pedipalps: femur 1.61/0.58 (1.55/0.49), tibia 1.48/0.60 (1.36/0.49), chela (without pedicel) 2.67/0.78 (2.44/0.66), hand (without pedicel) 1.11/0.80 (1.04/0.65), length of pedicel 0.31 (0.23), length of movable finger 1.70 (1.52). Leg IV: femur (total length) 1.77/0.46 (1.74/0.46), tibia 1.34/0.28 (1.27/0.24), tarsus 1.17/0.21 (1.12/0.20). Female spermatheca consists of a pair of short, apically slightly enlarged tubes.



Figs. 1-5.—*Corosoma sellowi* Karsch; 1, habitus; 2, left chelicera; 3, 4, pedipalp; 5, trichobothrial pattern on chelal fingers. Scales in mm.

Conclusions.—The pseudoscorpion genera *Corosoma* Karsch and *Dasychernes* Chamberlin both belong to the Chernetinae and are differentiated from one another mainly by trichobothrial pattern and number of galeal setae. The presence of numerous setae on cephalothorax and tergites in both genera may be explained by convergence and suggests that *Corosoma*, like *Dasychernes*, inhabits nests of (meliponine?) bees. The affinities of the two genera can be ascertained only by study of more material in future.

ACKNOWLEDGEMENTS

I am greatly indebted to Dr. M. Moritz, Zoological Museum of Berlin, for giving me the opportunity to check the type specimen of *Corosoma sellowi* Karsch, and to Dr. W. B. Muchmore, University of Rochester, for sending me his notes on *Dasychernes inquilinus* Chamberlin and for his linguistic help.

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Manuscript received November 1980, accepted December 1980.