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## A new genus and species of the subfamily Osoriinae from the Neotropical Region (Coleoptera: Staphylinidae: Osoriinae)

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### Abstract

A remarkable species representing a new genus due to the setation and an extraordinary hook-like structure on the 5<sup>th</sup> abdominal segment was found in collections originating from Ecuador. The new genus and species *Lispinuncus pulcher* belongs to the subtribe Lispinina of the rove beetle subfamily Osoriinae. The systematic position of the new genus is shortly discussed. Important morphological and anatomical details are illustrated.

**Key words:** Coleoptera, Staphylinidae, Osoriinae, Neotropical Region, new genus, new species, systematics, taxonomy.

### Introduction

In the collections of the Snow Entomological Collections, Natural History Museum, Kansas (SEC) and the Canadian National Collection, Ottawa (CNC), a remarkable species has been found, that is certainly closely related to the genera of the subtribe Lispinina. Several apomorphic characters justify the establishment of a new genus. Thus, at least six genera exist in the subtribe Lispinina, *Lispinus* ERICHSON, 1840, *Neolosus* BLACKWELDER, 1942, *Liberiana* BLACKWELDER 1942, *Nacaeus* BLACKWELDER, 1942, *Tannea* BLACKWELDER, 1952, and the new genus *Lispinuncus* (HERMAN 2001, IRMLER 2003). While the five hitherto known genera are distributed in all tropical and subtropical regions, the new genus seems to be geographically restricted to a small area in Ecuador (Fig. 11). It was collected at adjacent mountainous locations between 1500 and 2500 m elevation a few kilometres south of the city of Baeza.

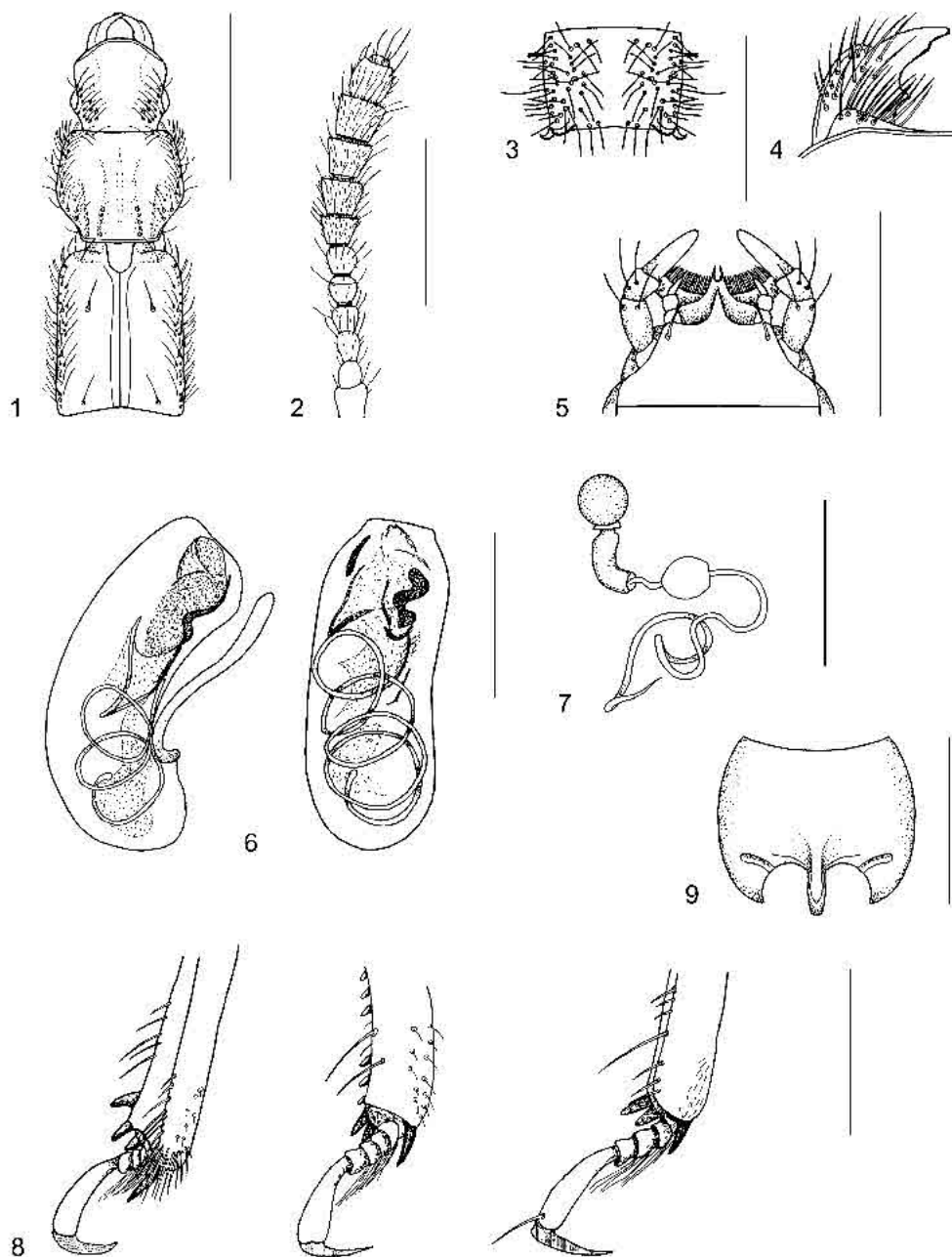
I thank Prof. J.A. Ashe (SEC) and Dr. A. Davies (CNC) for their kind support to study this interesting species and the disposal for my own collections (UIC).

### *Lispinuncus* gen.n.

TYPUS GENERIS: *Lispinuncus pulcher* sp.n.

**DESCRIPTION:** The new genus *Lispinuncus* is characterised mainly by two autapomorphies: a pair of hooks at the posterior edge of the 5<sup>th</sup> abdominal segment and the densely setose portion of the head mediad and posteriad from the eyes.

Like in the other genera of Lispinina, the number of tarsomeres in *Lispinuncus* is five and a prosternal process is existing. The first tarsomere is extremely small and scarcely detectable. The mandibles are relatively strong with an outer prominent carinate structure and a basal tooth at the inner side. In addition to the above mentioned setation, the head has a pair of setae at the anterior margin. The anterior and lateral edges of the pronotum are also densely furnished with setae and several additional setiferous punctures in a depressed diagonal row. The lateral setae of pronotum, elytra, and abdomen are extremely long, the abdominal sternites are lacking a strigose structure but show a coarse punctation and rhomboidly reticulate microsculpture instead.



Figs. 1–9: *Lispinuncus pulcher*; 1) fore body; 2) antenna; 3) 5<sup>th</sup> abdominal tergite; 4) left mandible and labrum; 5) mouth parts in ventral view; 6) aedeagus (left: lateral view, right: ventral view); 7) spermatheca; 8) front leg (left), middle leg (middle), hind leg (right); 9) prosternum. Scale bars: 1, 2, 3, 9 (1 mm); 4, 5, 6, 8 (0.1 mm).

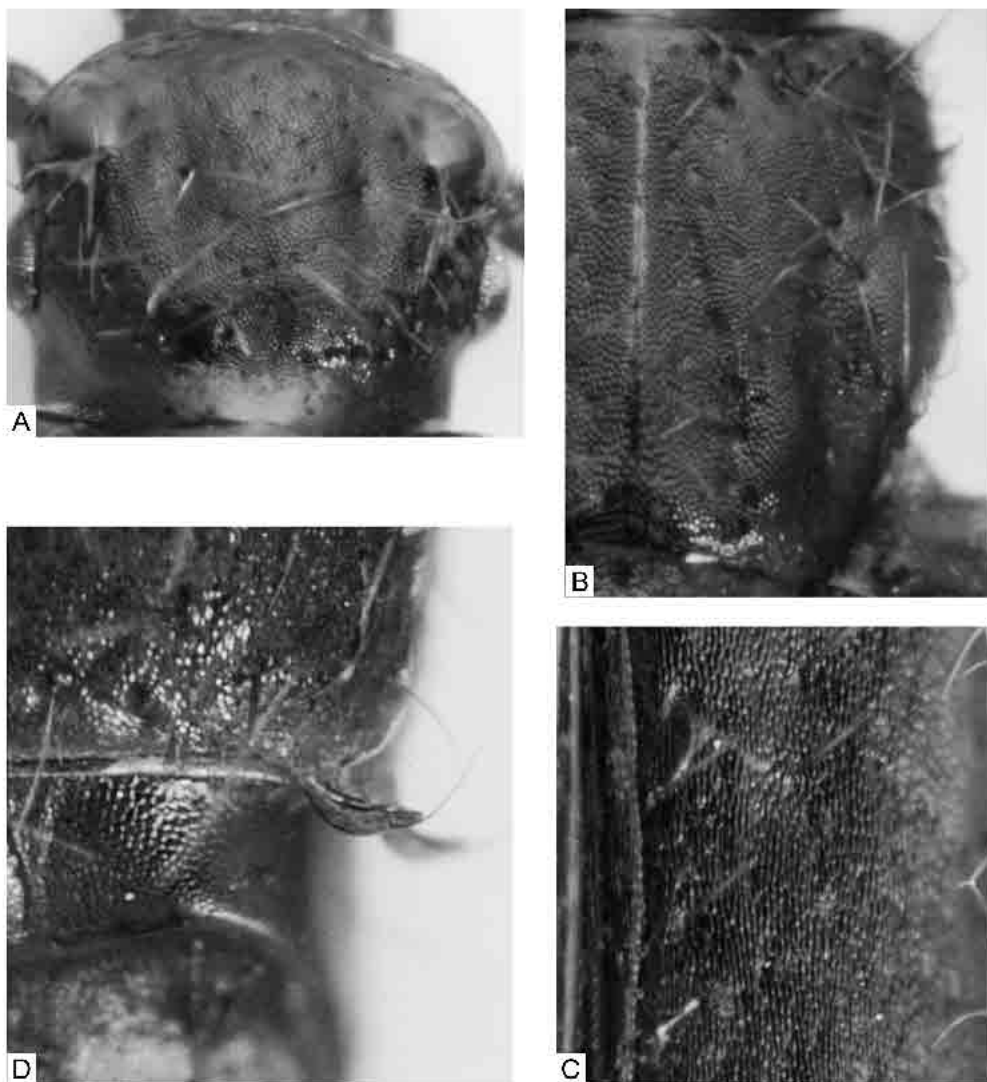


Fig. 10: *Lispinuncus pulcher*; surface of head (A), pronotum (B), elytra (C), and view on the hooks of the 5<sup>th</sup> abdominal segment (D)

**ETYMOLOGY:** The generic epithet is a combination of *Lispinus* and the Latin word *uncus* meaning “hook”. It refers to the systematic placement near *Lispinus* and the pair of hooks on the 5<sup>th</sup> abdominal segment.

**SYSTEMATIC POSITION:** The main character of Lispinina is the presence of a prosternal process. The new genus *Lispinuncus* also has a prosternal process which, at the current state of knowledge, clearly puts it in the same subtribe. It shares a different set of characters with each of the other five genera: the pronotal shape (with a deep lateral emargination) is shared with

*Nacaeus* and *Tannea*; the coarse punctation of the abdominal tergites is shared with *Liberiana*, *Lispinus* and *Neolosus* (punctation fine in *Nacaeus* and *Tannea*); strigae on abdominal sternites are absent as in *Liberiana*, *Nacaeus* and *Tannea* (present in *Lispinus* and *Neolosus*); the spermatheca is built as in *Liberiana*, *Nacaeus* and *Lispinus*.

Finely strigate abdominal sternites are also found in the genus *Allotrochus* FAGEL, which most likely belongs to the subtribe Clavilispinina due to the open procoxal fissure (NEWTON 1990). An open procoxal fissure is also present in the genus *Lispinodes* SHARP, 1880 (placed in the subtribe Glyptomina; see HERMAN 2001), which is similar to *Lispinuncus* in the general surface structure and the dorsoventral depression, but is generally smaller in size (SHARP 1880).

With a phylogenetic analysis at the tribe and subtribe level still pending, it is nearly impossible to evaluate to which of the Lispinina genera *Lispinuncus* is most closely related.

### *Lispinuncus pulcher* sp.n.

TYPE MATERIAL: **Holotype** ♂: Ecuador: “Napo, 4.2 km S of Cosanga of Baeza-Tena Road, then 2.9 km W on pipeline access road, (0°40'55"S, 77°56'09"W) 2350 m elevation, 5.Nov.1999, leg. Z.H. Falin, (ECU1F99 102) collected by pyrethrum fogging of fungusy logs” (SEC). **Paratypes**: Ecuador: 2 ♂♂, 4 ♀♀, “Napo, Baeza-Tena Road, 15 km W of Cosanga, (0°37'19"S, 77°50'01"W) 2150 m elevation, 7.Nov.1999, leg. Z.H. Falin, (ECU1F99 120) collected under bark of downed logs” (SEC, UIC); Ecuador: 1 ♀, “Napo, 2 km S Oritoyacu and 22 km S Baeza, 1500 m elevation, 4–5.III.1976, leg. J.M. Campbell” (CNC).

DIAGNOSIS: The species is easily differentiated from species of the related genera by the characteristic hooks of the 5<sup>th</sup> abdominal segment.

DESCRIPTION (Fig. 1–10): Length: 6.4 mm. Colour: black; legs and antennae brown; abdominal tergites at posterior edge dark reddish. Head: 0.60 mm long, 0.95 mm wide; with distinct isodiametrically reticulate microsculpture on disc and with dull surface; supraantennal bulges well developed with weak microsculpture and shiny surface; punctation on disc distinct, but scarcely visible within dense and deep microsculpture; discal punctures without hairs; distance between punctures slightly wider than diameter of punctures; a diagonal stripe from anterior edge of eyes to neck with coarse punctures, each with an extremely long yellow hair; anterior edge distinctly margined; between middle and supraantennal bulges a long yellow hair on each side near front margin; eyes well developed and prominent; behind the short temples with a small neck, marked dorsally by an indistinct transverse depression. Antennae: short and thick; shorter than head and pronotum combined; antennomere 2 quadrate, following ones conical and with long setae at their anterior edge; antennomeres 3 and 4 not wider than long, following ones wider than long; antennomeres 7–10 much thicker than preceding ones, forming an indistinct club; last antennomere distinctly smaller than penultimate. Pronotum: 0.90 mm long, 1.10 mm wide; widest slightly behind middle; straightly narrowed toward anterior edge and deeply emarginate toward posterior angles; a deep semicircular depression from lateral emargination to anterior angles; sides not margined except for a small part at anterior edge of lateral emargination; with same isodiametrically reticulate microsculpture as on disc of head; surface dull; punctation similar to that on head, but irregularly distributed on disc; with a small smooth impunctate midline; at each side of midline with a curved longitudinal depression; depression and adjacent parts of disc with similar punctation as on disc of head; distance between punctures moderately wider than diameter of punctures; laterally with deeper and denser punctures, each puncture with an extremely long yellow hair; also at anterior edge with a transverse stripe with deep punctures and long yellow hairs; anterior edge not margined, posterior edge finely margined. Elytra: 1.40 mm long, 1.25 mm wide; with dense and deep isodiametrically reticulate microsculpture as on pronotum and with dull surface; punctation well developed, but scarcely visible within dense microsculpture; punctures on disc without hairs;

lateral punctures denser and deeper than on disc and with extremely long yellow hairs; on each side of scutellum with a flat depression; scutellum with isodiametrical microsculpture on disc and smooth areas laterally and posteriorly. Legs: first three tarsomeres with extremely long yellow hairs on underside; tibiae at apex with a row of large spines; middle tibia at its outer apex with a longitudinal row of small spines. Abdomen: abdominal tergites deeply and moderately densely punctate; punctures with extremely long yellow hairs pointing diagonally to middle; surface slightly less dull than on elytra, but with similar microsculpture; abdominal tergite 5 with a pair of hooks laterally.

ETYMOLOGY: The specific name derives from the Latin word for “nice”.

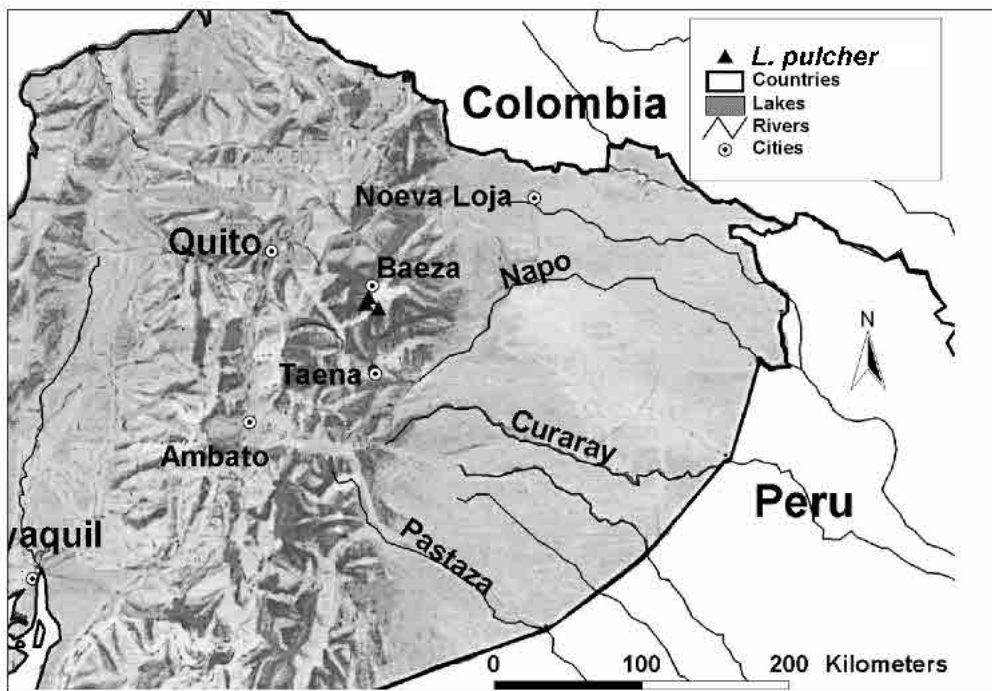


Fig. 11: Sampling locations of *Lispinuncus pulcher* in the Napo district of Ecuador.

### Zusammenfassung

Eine bemerkenswerte neue Art, die gleichzeitig eine neue Gattung repräsentiert, wurde in Aufsammlungen aus Ecuador entdeckt. Die neue Gattung und Art *Lispinuncus pulcher* gehört in die Subtribus Lispinina der Kurzflügler-Unterfamilie Osoriinae. Die systematische Position der neuen Gattung wird kurz diskutiert. Wichtige morphologische und anatomische Merkmale werden abgebildet.

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