

Lectotype designation of *Lispinus granadensis* FAUVEL, 1865 and *Lispinus insularis* CHEVROLAT & FAUVEL, 1863 with description and distribution of the related species (Coleoptera: Staphylinidae: Osoriinae)

by Ulrich IRMLER

Abstract

The study of the neotropical species of the genus *Lispinus* of the Institute royal des sciences naturelles, Bruxelles, has the result that *Lispinus granadensis* FAUVEL, 1865 and *Lispinus insularis* CHEVROLAT & FAUVEL, 1863 are distinct species belonging to different complexes of related species. The lectotypes are designated. A key to the related species *L. granadensis*, *L. costaricensis*, *L. cordobensis* and the new species *Lispinus honduranus*, and the related species *L. insularis*, *L. listenbarthi* and the new species *L. venezuelanus*, are presented and the species are described with their distribution.

Keywords: Central America, Insecta, Coleoptera, Staphylinidae, Osoriinae, *Lispinus*, new species,

Introduction

FAUVEL (1865: 52) differentiated *Lispinus granadensis* FAUVEL, 1865 from *L. insularis* CHEVROLAT & FAUVEL, 1863 by the larger size, the less depressed feature and the more emarginate sides of the pronotum. Although SHARP (1887: 720) supposed that *L. insularis* is only a smaller form of *L. granadensis*, he did not synonymize the two species. However, he listed several localities of *L. insularis* from Mexico (Truqui) and Guatemala (Zapote) of the Central American mainland. Also BERNHAUER & SCHUBERT (1910: 22) listed the two species as different. At first BLACKWELDER (1943: 136) synonymized the two species. He wrote: "The type of *L. insularis* was placed in the British Museum under *L. granadensis*, as a synonym, but the former name has priority. SHARP considered *insularis* to be a variety of *granadensis* but remarked that he had only one Central American example of the former although the latter was the commonest Central American *Lispinus*. The punctuation varies somewhat in density and elongation, but I am unable to separate the two."

Investigating all neotropical *Lispinus* specimens of the "Institut royal des sciences naturelles" (Bruxelles) I found two specimens labelled "*insularis*", Sallé, Santo Domingo and "*granadensis*" Grenada, Nicaragua, Sallé (I suppose that the locality is Granada, Nicaragua and not the Ile of Grenada and Nicaragua. However, FAUVEL often put several labels for different localities at one specimen). I suppose that the two specimens are those that FAUVEL used for his description of the two species. It is likely that the type

specimen in the British Museum that Blackwelder mentioned is one specimen of the syntype series. The specimen of both species were males so that a distinct determination was possible. To avoid further misinterpretations, I put a lectotype label on each specimen. The two specimens are certainly distinct species due to the differences in the aedeagus structure. It seems that *L. insularis* is not distributed on the Central American mainland, while *L. granadensis* could not be found on the Antille islands (Fig. 7 and 8). Within the more than 320 specimens of the Central American mainland, I only found *L. granadensis* and no specimen of *L. insularis*. In my studies on the neotropical *Lispinus*, I also misinterpreted the *L. insularis* and the figured aedeagus of "*L. insularis*" reflects the characteristic structure of the *L. granadensis* aedeagus (IRMLER 1994).

Concerning the aedeagus structure *L. granadensis* is one of the four species forming the *Granadensis*-complex that includes *L. granadensis*, *L. costaricensis*, *L. cordobensis* and the new species *L. honduranus*. The four species of the group are of small or medium size. The sides of the pronotum are emarginate in front of the posterior angles. They are characterised by a characteristic endophallus with extremely much torsions and a characteristic hook in the apical part. The aedeagus of the four species is totally different from the three species forming the *Insularis*-complex, *L. insularis*, *L. listenbarthi* and the new species *L. venezuelanus*. Furthermore, the spermatheca of the species of the *Granadensis*-complex have one or two bubbles in the spermathecal ductus, while the species of the *Insularis*-complex have a long spermathecal ductus with one or two inflections.

Abbreviations of Museums and thanks to curators:

BM	British Natural History Museum, London (Dr. M. Brendell)
CNC	Canadian National Collections, Ottawa (Dr. A. Smetana)
FMNH	Field Museum of Natural History, Chicago (Dr. A. Newton)
IRSN	Institut royale des Sciences naturelles, Bruxelles (Dr. D. Drugmand)
KNHM	Kansas Natural History Museum, Snow Entomological Museum (Dr. J. Ashe)

- MCZ Museum of Comparative Zoology, Cambridge (USA) (Dr. P.D. Perkins)
 NHMW Naturhistorisches Museum, Wien (Dr. H. Schillhammer)
 MNB Museum für Naturkunde, Berlin (Dr. M. Uhlig)
 UIC Ulrich Irmeler collection, Kiel

The number in brackets followed by the collections means the number of specimens examined.

1. Small species, not longer than 3.5 mm 2
 - At least 4.0 mm long 3
2. Punctuation of pronotum sparser, distance between punctures much wider than diameter, endophallus of aedeagus with few torsions
 - *L. insularis* CHEVROLAT & FAUVEL, 1863
 - Punctuation of pronotum denser, distance between punctures as wide as diameter or shorter than diameter, endophallus with numerous torsions
 - *L. granadensis* FAUVEL, 1865
3. Sides of pronotum straightly narrowed from anterior angles to posterior angles 4
 - Sides of pronotum slightly emarginate in front of posterior angles 5
4. Larger, 5.4 mm long, microsculpture of elytra less distinct, spermatheca with one inflection
 - *L. venezuelanus* nov. spec.
 - Smaller, 4.6 mm long, microsculpture of elytra more distinct, meshes closer, less shining, spermatheca with two inflections *L. listenbarthi* IRMLER, 1994
5. Ground sculpture of pronotum and elytra weak, longitudinal undulate, shining, endophallus of aedeagus with even more torsions than in the other species of the Granadensis-complex
 - *L. cordobensis* BERNHAUER, 1929
 - Pronotum and elytra with distinct ground sculpture, dull or scarcely shining, ground sculpture dense longitudinal or netlike reticulate 5
6. Usually larger species, about 4.0–4.3 mm long, ground sculpture longitudinal reticulate, scarcely shining, sides of pronotum distinctly emarginate in front of posterior angles, elytra quadrate
 - *L. costaricensis* IRMLER, 1994
 - Slightly smaller, 4.0 mm long, ground sculpture of pronotum longitudinal reticulate, scarcely shining, elytra dense netlike reticulate, dull, sides of pronotum less distinctly emarginate, elytra longer than wide
 - *L. honduranus* nov. spec.

Description of the species

Granadensis-complex

Lispinus granadensis FAUVEL, 1865: 52

Fig. 1, 8

Description

Length: 3.5 mm, colour: black, elytra and antennae piceous, legs reddish, abdominal tergites piceous, posteriorly

reddish, last abdominal tergite yellow. *Head*: 0.42 ± 0.04 mm long, 0.56 ± 0.04 mm wide; punctuation distinct, distance between punctures scarcely wider than diameter, ground sculpture transverse reticulate on clypeus, netlike reticulate on disk and laterally longitudinal reticulate, the large punctures with setae scarcely depressed, shining, 3rd antennomere scarcely longer than 2nd, 4th antennomere globular, 5th and 6th quadrate, antennomeres 7 to 10 scarcely wider than long. *Pronotum*: 0.51 ± 0.03 mm long, 0.64 ± 0.04 mm wide; punctuation distinct and dense, distance between punctures moderately wide, partly smaller than diameter, partly wider than diameter, adjacent to the smooth midline a more or less coarse punctuation, with sparse micropunctuation, depressions at the posterior angles distinct with coriaceous punctuation, ground sculpture longitudinal reticulate, shining. *Elytra*: 0.71 ± 0.06 mm long, 0.70 ± 0.05 mm wide; punctuation sparser than on pronotum, distance between punctures normally wider than diameter, with sparse micropunctuation, ground sculpture as on pronotum, shining. Abdomen with sparse and distinct punctuation, distance between punctures mostly wider than diameter, ground sculpture transverse or netlike reticulate, more distinct than on pronotum or elytra, less shining.

The species resembles very much the *L. costaricensis* but it is much smaller, the elytra are more quadrate. The size is similar to *L. insularis* but the aedeagus is similar to *L. costaricensis*, *L. cordobensis* and *L. honduranus*.

Material examined

Mexico: Queretaro, 26.5 km S San Luis Potosi, border Hwy 120, 8.7.1990, 1270 m and 8.3 km W San Luis Potosi (12, KNHM); Veracruz, 7 km E. Hualusco, Hwy 125, 16.7.1990, 1230 m, leg. Ashe & Leschen, #195, under bark (13, KNHM, UIC); 1.7 km E. Hualusco, 2250; 23 km S. Jalapa, 13.7.1992, 1320 m, leg. Ashe, under bark (1, KNHM); Chiapas, Palenque ruinas, 200m, 24.4.1992, leg. Brooks, under bark (1, KNHM); Hidalgo, 4.4 km N. Tlanchinol, Hwy 105, 6.7.1992, 1420 m, leg. Ashe, under bark (1, KNHM); Oaxaca, 14.9 km N. Sola de Vega, 20.7.1992, 1820 m, leg. Ashe, sapflow and woodchips (1, KNHM); Jalisco, under bark, 13.9.1971, leg. Newton (1, FMNH); Cordoba (1, IRSN); Mirador, leg. Flohr (1, MNB); San Cristobal de las Casas, under bark, 19.05.1969, leg. Martin, J.E.H (1, CNC); Veracruz, Dos Amates, 18.06.1969, leg. Campbell, J.M. (5, CNC); Malpaso, 24.05.1969, Campbell, J.M (7, CNC, UIC); El Bosque, 06.07.1969, leg. Campbell, J.M. (1, CNC); Gomez Farias, Rancho del Cielo, 06.06.1983, leg. Peck, J. (2, CNC); Oaxaca, Valle Nacional, 19.05.1971, leg. Bright (15, CNC, UIC); Oaxaca, 181 km S., 12.5.1971, leg. Campbell (26, CNC, UIC); Palenque, ruinas, 09.05.1969, leg. Bright (16, CNC, UIC); Teopisca, 24.05.1969, leg. Bright (17, CNC, UIC); Veracruz, Fortin de las Flores, 23.12.1963, leg. O'Brien, C.W. (2, CNC); Catemaco, Lago Catemaco, 01.05.1969, leg. Bright (26, CNC, UIC); Ocozocautla (Chiapas), 01.07.1969, leg. Campbell, J.M (3, CNC); Simojovel, fog forest, 10.06.1969, leg. Campbell, J.M (2, CNC); *Honduras*: Santa Barbara, La Fe, Finca La Roca, 5.3 km S. Peña Blanca,

1457'N 8802'W, 740 m, 21.6.1994, leg. Brooks & Ashe, under bark (1, KNHM); Olanchito, La Muralla, 14 km N. La Union, 1450 m, 25.6.1994, 15°05'N 86°42'W, leg. Ashe & Brooks, under bark (1, KNHM); Lampira, 13.1 km NE. & 7.3 km E Gracias, Mt. Puca, 1320 m, 18.6.1994, 14°41'N 86°31'W, leg. Ashe & Brooks, under bark (14, KNHM, UIC); El Fortin, 8.7.1941, leg. Dybas (1, FMNH); *Guatemala*: Zacapa, 24 km ENE Gualán, 280 m, 26 June 1993, leg. J. Ashe, R. Brooks, #123, under bark and 16 km N. Estancia de la Virgen, 1150 m, 24.6.1993, leg. Ashe & Brooks, #100, under pine bark, with termites (35, KNHM, UIC); Quezaltenango, 8 km SW Zunil, 1340 m, 20.6.1993, leg. Ashe & Brooks, #057, under bark (16, KNHM, UIC); Baja Verapaz, 8 km S Purulha, 1600 m, 29.6.1993, leg. Ashe, under bark (18, KNHM, UIC); Zacapa, 3 km NE San Lorenzo, 09.07.1986, leg. Campbell, J.M (3, CNC); *Nicaragua*: Granada, leg. Sallé (1, IRSN); *Costa Rica*: San José, 1600 m, 3.1994, leg. Hanson (1, KNHM); Guanacaste, Patilla Biolog. Stat. 10°58'N 85°25'W, 650 m, 2.5.1995, leg. Ashe, under bark (1, KNHM); Puntarenas, Golfito, 10.200 m, 28.5.1993, leg. Ashe (20, KNHM, UIC); Monteverde, Campbell's woods 21.5.1989, 1650 m, leg. Ashe, Brooks, Leschen, under bark (1, KNHM); Stanford Biol. Stat., Las Alturas, 29 km NE. San Vito, 25.5.1993, leg. Ashe, under bark (1, KNHM); Naranjo, leg. Bierig (1, FMNH); Puerto Viejo, Sarapiquí, 04.08.1965, leg. Raske, G. (3, CNC); Santa Cruz Turrialba, 20.05.1979, leg. Campbell, J.M (4, CNC); Monteverde, 13.05.1979, leg. Campbell, J.M (2, CNC, UIC); *Panama*: Panama, Cani-El Llano, 7.5 km N Chepo, 370 m, 4.6.1995, 09°13'N 79°05'W, leg. Ashe, Brooks, under bark (1, KNHM); Old Plantation Rd., 09°05'N 79°40'W, 6.9 km S. Gamboa, 80 m, 7.-22.6. 1995, leg. Ashe, Brooks, flight trap (1, KNHM); Fort San Lorenzo, 20 m, 09°00'N 79°38'W, 15.5.1995, leg. Ashe, Brooks, light trap (1, KNHM); Barro Colorado Is., 09°11'N 79°51'W, 15.7.1995, 6.2.1976, leg. Banks, leg. Newton (8, KNHM, FMNH, UIC); Canal Zone, 4.4.59, leg. Dybas (2, FMNH); Gativo, leg. Bierig (1, FMNH); Chiriqui, 27 km W. Vulcan, Hartmann's Finca, 08°45'N 82°48'W, 1470 m, 16.6.1995, leg. Ashe, Brooks, under bark (1, KNHM); Calogramma (Boquete), 1200 m, 8.8.1995, leg. Gillogly (1, KNHM); Colon, Santa Rita Ridge, 400 m, 14 km E. Transisthmus Hwy, 16.6.1996, leg. Gillogly (1, KNHM); Colon, Parque Nac. Soberania, Pipeline Rd. Km 41, 09°07'N 79°45'W, 23.5.1995, leg. Jolly, Chaboo, intercept trap (1, KNHM); Darién, Cana Biol. Stat. 530 m, 7°45'N 77°41'W, 5.6.1996, leg. Ashe, Brooks; (1, KNHM); Armuelles, leg. Bierig (1, FMNH); Cerro Campana, 02.08.1970, Campbell, J.M (2, CNC); *Columbia*: Dibulla, leg. Buginon (1, IRSN).

***Lispinus cordobensis* BERNHAUER, 1929: 187**

Fig. 4, 8

Description

Length: 4.4 mm; colour: black, antennae piceous. *Head*: 0.45 mm long, 0.55 mm wide; medial antennomeres quadrate, last antennomeres wider than long. *Pronotum*: 0.5 mm long, 0.65 mm wide; densely and coarsely punctate,

microsculpture longitudinal reticulate, with smooth midline, longitudinal depression at posterior angles with distinct outer margin, scarcely shining, sides rounded in the anterior half, widest in the middle, straightly narrowed in the posterior third. *Elytra*: 0.8 mm long, 0.75 mm wide; punctuation as on the pronotum and with same microsculpture, scarcely shining. Abdomen with finer and sparser punctuation than elytra, microsculpture netlike.

Within the *Granadensis*-complex similar to the *L. costaricensis* and *L. honduranus* due the size. It can be distinguished by the very weak microsculpture from both species. *L. granadensis* is much smaller in size and has also a more distinct microsculpture.

Material examined

Mexico: La Capila (1, FMNH); Truqui (1, FMNH); Sierra Durango (1, FMNH); Cuautla (1, FMNH); Hidalgo, Tlanchinol, under bark, 06.07.1992, leg. Ashe, J. (1, KNHM); *Costa Rica*: Surrubares (1, IRSN); Puntarenas, San Vito Biol. Stat., Malaise trap, 25.05.1993, leg. Ashe, J. (2, KNHM); Puntarenas, Monteverde Reserve, under bark, 26.05.1989, leg. Ashe, J. (1, KNHM); Hamburg Farm, 22.05.1931, Nevermann (1, KNHM).

***Lispinus costaricensis* IRMLER, 1994: 64**

Fig. 2, 8

Description

Length: 4.3 mm, colour: black, antennae piceous, last tergite posteriorly red, legs piceous. *Head*: 0.49 ± 0.03 mm long, 0.67 ± 0.02 mm wide; segments 2 and 3 of same length, medial segments quadrate or very slightly wider than long, head with fine and dense punctuation, microsculpture netlike, scarcely shining. *Pronotum*: 0.61 ± 0.02 mm long, 0.79 ± 0.03 mm wide, punctuation deeper and denser than on the head, with sparse micropunctuation, microsculpture very dense, longitudinal and partly netlike reticulate, scarcely shining, wide smooth midline, depressions at posterior angles deep and reaching anteriorly the middle, sides widest at apical third, emarginately narrowed in front of posterior angles. *Elytra*: 0.90 ± 0.05 mm long, 0.88 ± 0.05 mm wide, punctuation as coarse and dense as on the pronotum, punctures oval, with micropunctuation, microsculpture dense, longitudinal reticulate, scarcely shining. Abdomen with coarse and dense punctuation, microsculpture netlike. Similar to *L. honduranus* and *L. cordobensis*, compared to *L. honduranus* the microsculpture of elytra is longitudinal reticulate, compared to *L. cordobensis* the microsculpture is much more distinct.

Material examined

Mexico: Omilteme, leg. Smith, H.H. (1, BM); Hidalgo, Tlanchinol, under bark, 06.07.1992, leg. Ashe, J. (6, KNHM); Veracruz, S. Jalapa, 13.07.1992, leg. Ashe, J. (1, KNHM); Veracruz, Fortin de las Flores, 23.12.1963, leg. Campbell, J.M (3, CNC); Potosi, Queretaro, under bark, 08.07.1990, leg. Ashe, J. (1, KNHM); San Cristobal

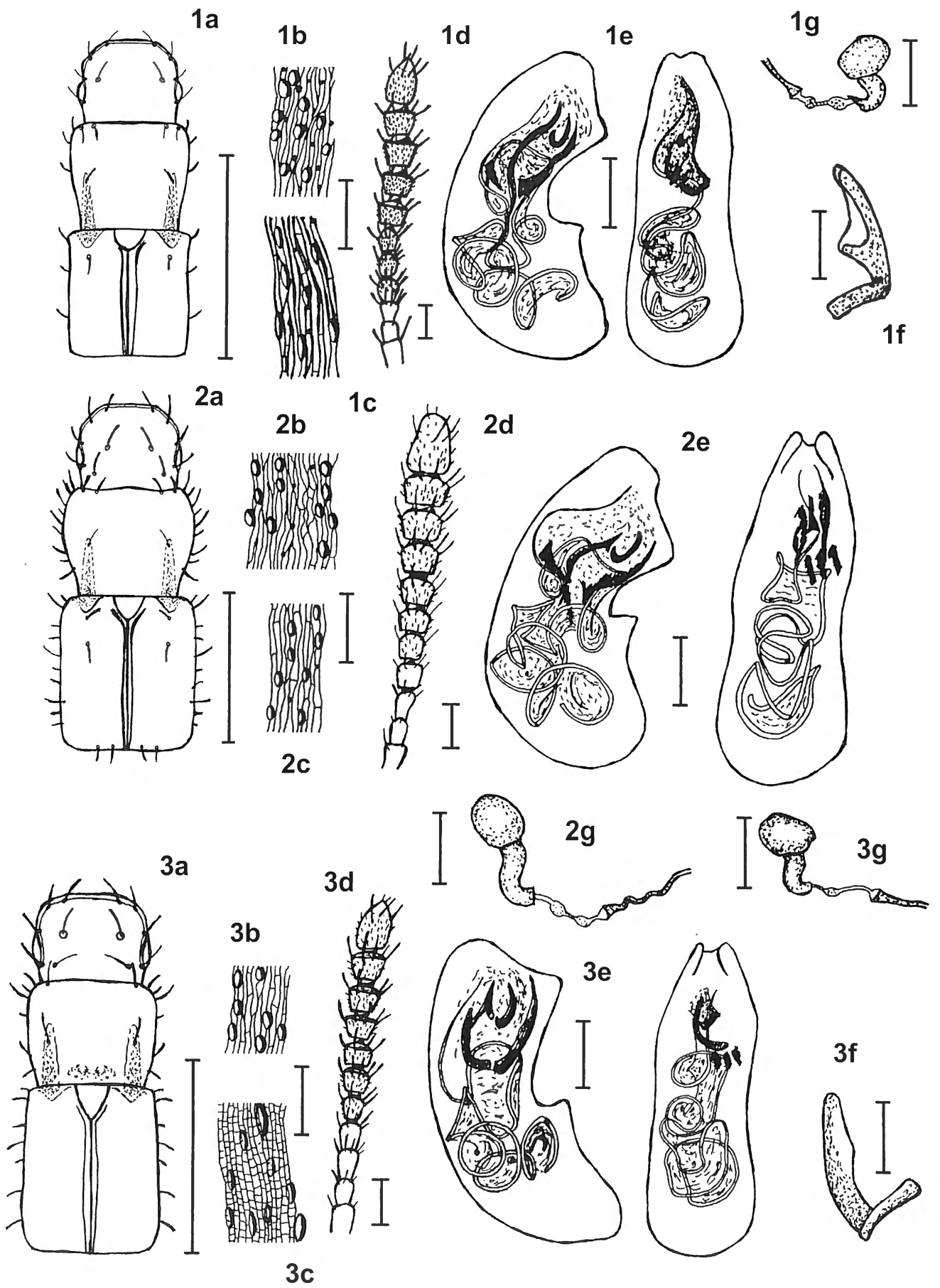


Fig. 1-3

de las Casas, under bark, 05.07.1991, Ashe, J. (1, KNHM), 19.5.1969, leg. Campbell (1, CNC); Oaxaca, under bark, 11.08.1973, leg. Ashe, J. (1, KNHM); Oaxaca, Valle Nacional, 19.05.1971, leg. Bright (CNC); Teopisca, 24.05.1969, leg. Bright (1, CNC); Catemaco, Lago Catemaco, 01.05.1969, leg. Campbell, J.M (1, CNC); Palenque, ruinas, 09.05.1969, leg. Bright (1, CNC); *Guatemala*: Sacatepequez, San Rafael, 29.04.1948, leg. Mitchell, R. (1, FMNH); Alta Verapaz, 04.06.1948, leg. Mitchell, R. (1, FMNH); Quetzaltenango, 8 km SE Zunil, under bark, 20.06.1991, leg. Ashe, J. (16, KNHM, UIC); Baja Verapaz, 8 km S. Purulha, 29.06.1993, leg. Ashe, J. (5, KNHM); Zacapa, Gualán, under bark, 26.06.1993, leg. Ashe, J. (1, KNHM); Zacapa, 3 km NE San Lorenzo, 12.07.1986, leg. Campbell, J.M (2, CNC, UIC); *Honduras*: Santa Barbara, rotting litter, 740 m, 19.06.1994, leg. Ashe, J. (1, KNHM); Nueva Ocotepeque, under bark, 14.06.1994, leg. Ashe, J. (1, KNHM); *Costa Rica*: Palma Norte, 1929, leg. Nevermann (1, FMNH); Puntarenas, Monteverde Reserve, under bark, 26.05.1989, leg. Ashe, J. (32, KNHM, UIC), 13.05.1979, leg. Campbell, J.M. (4, CNC); Carpintera, 1600 m, 24.02.1929, leg. Bierig, A. (2, FMNH); Rabo de Mico, 08.03.1943, leg. Bierig, A. (4, FMNH); *Panama*: Chiriqui, 03.12.1959, leg. Dybas, H.S. (1, FMNH), 17.6.96, leg. Gillogly, 15.6.95, leg. Ashe, J. (6, KHNH), 7.6.1977, leg. Peck (2, CNC); La Fortuna, under bark, 09.06.1995, leg. Ashe, J. (3, KNHM); Cerro Punta, Bajo Grande, 11.07.1979, leg. Wheeler (2, BM); Bocas del Toro, 23.03.1959, leg. Dybas, H.S. (1, FMNH); Barro Colorado, 12.02.1976, leg. Newton, A. (1, FMNH); *Colombia*: Leticia, leaf litter, 10.07.1970, leg. Campbell, J.M (1, CNC); *Ecuador*: Oriente, Joya de los Sachos, under bark, 23.12.1981, leg. Karpela, L. (1, KNHM); Pichincha, 45 km NW Quito, 1600 m, 14.04.1990, Carlton, C.E. (1, KNHM); *Peru*: Pebas (1, IRSN); *Surinam*: Marowijne, under bark, 16.11.1963, leg. Malkin, B. (1, FMNH); *French Guyana*: Maripasoela (1, FMNH).

Lispinus honduranus spec. nov.

Fig. 3, 8

Description

Length: 4.0 mm; colour: black; *Head*: 0.5 mm long, 0.6 mm wide; 3rd segment of antennae scarcely longer than 2nd, segments 4 - 6 quadrate, segments 7 - 10 wider than long, punctuation of head distinct and dense, ground sculpture dense and distinct, dull, transverse reticulate on clypeus, longitudinal reticulate on disk. *Pronotum*: 0.55 mm long, 0.7 mm wide; with distinct and moderately dense punctuation, additionally with sparse micropunctuation, the smooth midline partly marked by a fine furrow, in front of posterior edge on each side of the midline with very dense punctuation, microsculpture with dense longitudinal reticulation, at the base with more netlike reticulation, dull, depressions at posterior angles distinct, coarsely punctuate and with dense ground sculpture, very dull, sides from anterior angles to the middle curved, then more or less straightly narrowed to the

posterior angles. *Elytra*: 0.9 mm long, 0.8 mm wide; more sparsely punctuate than pronotum, laterally with denser punctuation, ground sculpture distinct and dense, dull, on most parts of elytra netlike reticulate but also partly longitudinal reticulate.

Very similar to *L. granadensis*, *L. costaricensis* and *L. cordobensis*. The species is conspicuously larger than *L. granadensis* and differentiated from *L. costaricensis* and *L. cordobensis* by the very distinct and dense microreticulation.

Holotype: 1 male: Honduras, Olotepeque, 24 km E. Ocotepeque, El Guisayote, 14. VI 1994, 2170, 14°24' N 89°04' W, leg. J. Ashe, R. Brooks (KNHM)

Paratypes: 14 males and females, data as for holotype; 3 paratypes, Honduras, El Paraiso, 9.4 km SE Zamaramo & 9.4 km SE Galero, 1450 m, 13°24' N 86°55' W, "Los Lavaderos", 11. VI. 1994, leg. Ashe, R. Brooks, under bark (KNHM, UIC)

Further material examined

Mexico: Durango, 3000m, 20.04.1961, leg. Martin, J.E.H (8, CNC); Teopisca, 24.05.1969, leg. Bright (4, CNC).

Insularis-complex

Lispinus insularis FAUVEL, 1863: 442

Fig. 5, 9

Description

Length: 3.4 mm, colour: black, antennae piceous, last tergite posteriorly yellow, legs black. *Head*: 0.35 mm long, 0.5 mm wide; segments 2 - 4 of same length, segments 5 and 6 quadrate, the following segments slightly wider than long, head regularly rounded, distinctly and densely punctuate, microsculpture transverse reticulate, two supraocular setae, between the posterior seta and the apical edge of pronotum another seta. *Pronotum*: 0.5 mm long, 0.6 mm wide, densely and coarsely punctuate, distance between punctures mostly as wide as diameter of punctures, depressions at posterior angles deep reaching the middle, microsculpture longitudinal undulate, sides apically widest, narrowed conically in the posterior half, at the posterior half with smooth midline. *Elytra*: 0.7 mm long, 0.65 mm wide, densely and coarsely punctuate, microsculpture longitudinal undulate. Abdomen densely punctuate, with coarse, transverse reticulate microsculpture, dull.

Similar to *L. costaricensis* but distinguished by the small size and the longitudinal undulate microsculpture. No specimen was designated as type in IRSN. There was one specimen certainly labelled as *L. insularis* by Fauvel with location Santo Domingo in IRSN. A lectotype is designated and a label is added to that specimen.

Material examined

Cuba: without further data (1, IRSN); Matanzas, Yumuri-Tal, 01.03.1929, leg. Bierig, A. (1, FMNH); Havana,

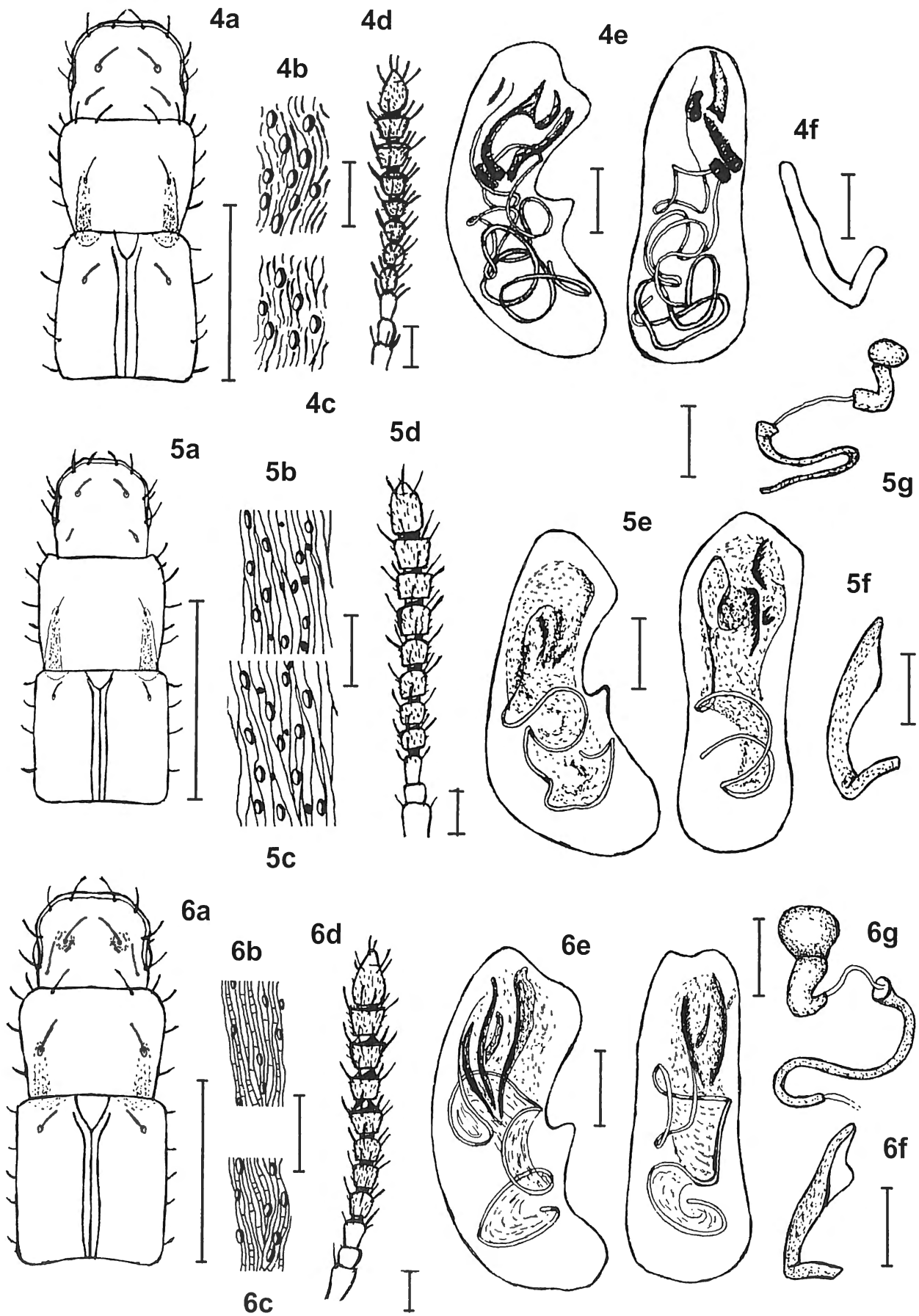


Fig. 4-6

Carimito, 25.10.1928, leg. Bierig, A. (1, FMNH); *Dominican Republic*: Santo Domingo, leg. Sallé (lectotype, IRSN); *Guadeloupe*: Trois Rivières (2, IRSN); *Jamaica*: St. Andrew, Parque Hardwar, 16.12.1973, leg. Peck, J. (9, CNC, UIC)

Lispinus listenbarthi IRMLER, 1994: 66

Fig. 6, 9

Description

Length: 4.6 mm; colour: black, antennae piceous, abdominal tergites at posterior edge reddish, legs red. *Head*: 0.5 mm long, 0.7 mm wide; 3rd segment of antennae scarcely longer than 2nd, the remaining segments more or less quadrate, head moderately dense and distinctly punctate, clypeus netlike or transverse reticulate, disk with longitudinal reticulate microsculpture, scarcely shining. *Pronotum*: 0.6 mm long, 0.8 mm wide; widest at apical edge, straightly narrowed to posterior edge, distinctly but moderately dense punctate, without smooth midline, microsculpture longitudinal undulate or longitudinal reticulate, depressions at posterior angles distinct, scarcely shining. *Elytra*: 0.8 mm long, 0.9 mm wide; punctuation as on head and pronotum, microsculpture still closer longitudinal reticulate than the pronotum, dull. Abdomen sparsely punctate, microsculpture transverse reticulate, more shining than the front body.

Similar to *L. insularis* and *L. venezuelanus*. The species can be differentiated from *L. tardus* by the sparser punctuation of the elytra and the more distinct microsculpture.

The endophalus of the aedeagus with two torsion like in *L. venezuelanus*. Microsculpture of *L. venezuelanus* is scarcely weaker than in *L. listenbarthi*. Spermatheca with one more torsion than that of *L. venezuelanus*.

Material examined

Peru: Pucalpa, Rio Pachitea, Feb. 1986, leg Listenbarth (2, NHMW, UIC); Cuzco, 09.07.1989, leg. Leschen, R. (4, KNHM); Puerto Maldonado, Reserva Cuzco Amazonica, light trap, 19.07.1989, leg. Leschen, R. (1, KNHM); *Ecuador*: Sucumbios, Sacha Lodge, Malaise trap, 26.08.1994, leg. Hibbs (3, KNHM, UIC); *Bolivia*: Rio Beni, under bark, 03.08.1988, leg. BIOLAT (1, KNHM).

Lispinus venezuelanus nov. spec.

Fig. 7, 9

Description

Length: 5.4 mm, colour black, the posterior margin of tergites reddish, antennae piceous and legs red. *Head*: 0.6 mm long, 0.8 mm wide; 3rd segment of antennae scarcely longer than 2nd, segments 4 to 6 quadrate, segments 7 to 10 slightly wider than long, punctuation of head distinct and moderately sparse, distance between punctures wider than diameter, between the large punctures a fine micro-punctuation, ground sculpture of clypeus and disk transverse reticulate or transverse undulate, microsculpture laterally longitudinal reticulate, moderately shining, the two large punctures with setae between the eyes not distinctly depressed. *Pronotum*: 0.75 mm long, 0.9 mm

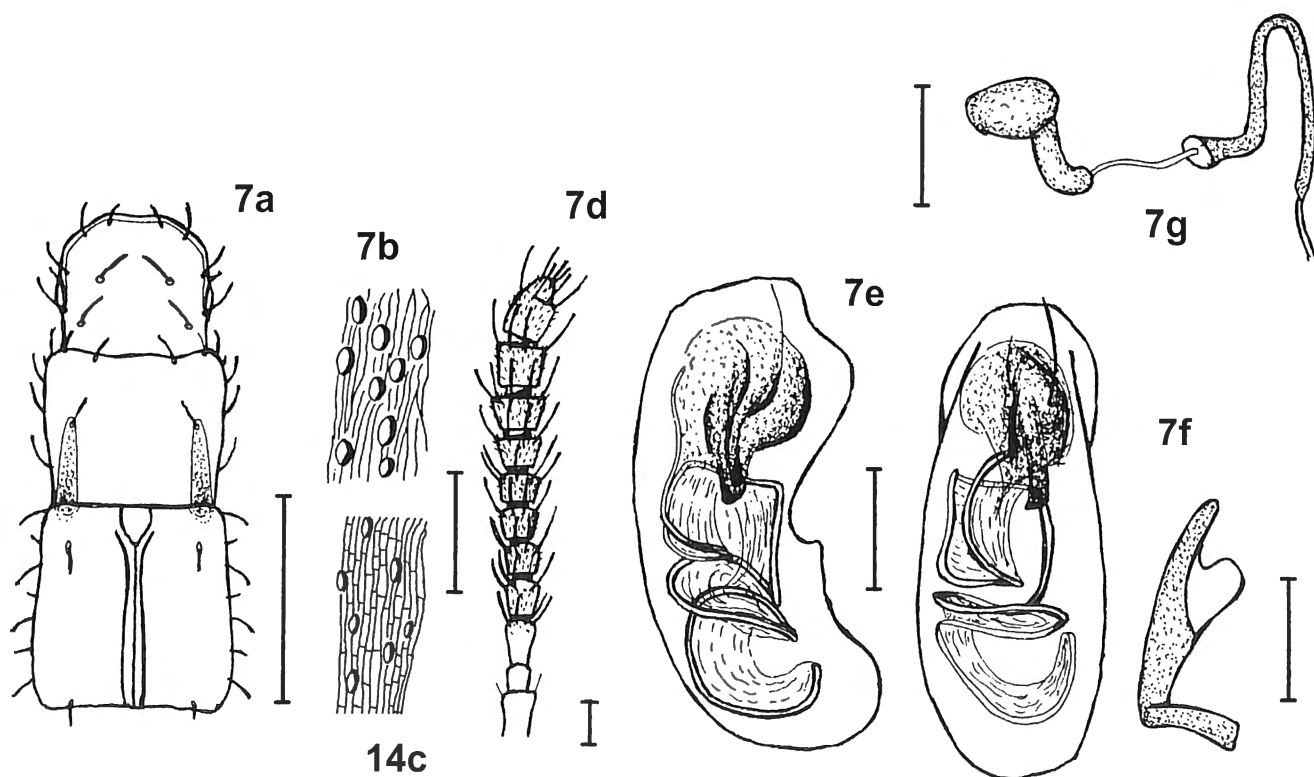


Fig. 7

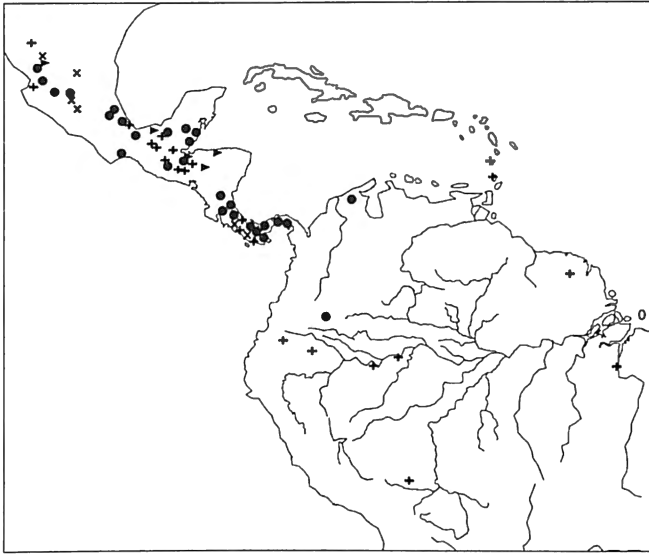


Fig. 8 — Distribution of the species of the *granadensis*-complex (● *L. granadensis* FAUVEL, 1865; + *L. costaricensis* IRMLER, 1964; x *L. cordobensis* BERNHAUER, 1929; ▲ *L. honduranus* n. sp.)



Fig. 9 — Distribution of the species of the *insularis*-complex (● *L. listenbarthi* IRMLER, 1994; + *L. venezuelanus* n. sp.; x *L. insularis* CHEVROLAT & FAUVEL, 1863).

wide; punctuation denser and stronger than on head, distance between punctures partly as wide as diameter, partly shorter as diameter, with sparse micropunctuation, ground sculpture longitudinal undulate, moderately shining, with smooth midline, punctuation adjacent to the

midline and at the posterior edge slightly denser, depressions of hind angles long but not very deep, with coriaceous punctuation, pronotum widest at the anterior third straightly narrowed to the posterior angles. *Elytra*: 1.0 mm long, 1.0 mm wide; as densely and strongly punctate as the pronotum, punctuation deeper and denser in the anterior half than in front of the posterior margin, partly with coriaceous punctuation, ground sculpture more distinct than on the pronotum, dull, longitudinal reticulate. Punctuation of abdominal tergites weaker and sparser at posterior margin than at base, ground sculpture weak and longitudinal reticulate, shining.

The species is very similar to *L. cordilliensis* and *L. canalis* concerning size, punctuation and microsculpture. The endophallus of aedeagus has two spirals instead of one for *L. cordilliensis* or more for *L. canalis* and the spermatheca resembles that of *L. listenbarthi*. *L. listenbarthi* is distinctly smaller and the microsculpture slightly more distinct.

Holotype: 1 male: Venezuela, Bolivar, La Gran, Sabana Chiviton Hotel, 9 km towards Kavanayens, 1310 m, 29 June 1987, leg. Ivie, beating (KNHM)

Paratypes: 1 female, data as for holotype (KNHM) and 1 male, data as for holotype (UIC); 14 specimens: San Antonio del Tachira (Venezuela), 10 km SE San Cristobal, under bark, 29.05.1999, leg. Ashe, P. (KNHM, UIC); 66 specimens: Sanaré (Venezuela), 17.4 km SE Yacumbu N.P., 17.05.1999, leg. Ashe, P. (KNHM, UIC)

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