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Taxonomy and distribution of the Neotropical species of the genera *Tannea* BLACKWELDER, 1952 and *Nacaeus* BLACKWELDER, 1942 with remarks on the genus *Lispinus* (Coleoptera: Staphylinidae)

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Abstract

The *Nacaeus* material of the following museums were studied: Field Museum of Natural History, Chicago; Museum of Comparative Zoology, Cambridge; British Museum of Natural History, London; Institut royal des Sciences naturelles de Belgique, Brussels; Naturhistorisches Museum, Wien; Museum für Naturkunde, Berlin; Deutsches Entomologisches Institut, Eberswalde. The subgenus *Tannea* (BLACKWELDER 1952) is fixed a genus status. A key for 24 *Tannea* species is provided including the 13 new species: *parallelonota, schubartii, varablancae, paraguensis, fabacicolor, salasi, humibiota, bierigii, resoluta, picata, amazonica, fersa,* and *meridionalis*. The key for the 26 Neotropical *Nacaeus* species includes the following 10 new species: *sulciger, cordiger, inkae, peruvianus, brasiliensis, rufopiceus, surinamensis, collinus, paratenuis,* and *rufonigrus*. Remarks are given to the Neotropical *Lispinus* species: *Lispinus elongatus* (IRMLER 1994) must be changed to *L. elongatulus*; *L. analis* Er. (i.s. IRMLER 1994) has to be cancelled, the correct name is *L. sobrinus* FAUVEL (1865). *Liberiana* is given a genus status. Among the Neotropical *Lispinus* species *L. auratus* IRMLER, 1994 belongs to the genus *Liberiana*.

Key words: Staphylinidae, Osoriinae, Lispinina, *Tannea, Nacaeus,* Neotropics

Introduction

BLACKWELDER (1942) reviewed the genus *Pseudolispinodes* BERNHAUER, 1926 and described for new subgenera for this genus: *Liberiella, Liberiana, Rumeba* and *Nacaeus*. Later, BLACKWELDER (1952) recognised that his use of *Pseudolispinodes* in 1942 was based on a misidentified type species; he placed *Pseudolispinodes* BERNHAUER as a subgenus of *Lispinus*, proposed a new subgeneric name *Tannea* for his 1942 misidentified concept of the subgenus *Pseudolispinodes* s.str., and chose *Nacaeus* as the valid name for the genus including *Tannea* and the other subgenera he described in 1942. At present eleven species of the genus *Nacaeus* are known from the Neotropics and 30 from other regions (HERMAN 2001).

The investigation of these Neotropical species and those listed in the genus *Lispinus* by BLACKWELDER (1944) and HERMAN (2001), but not determined as *Lispinus* by IRMLER (1994), results in the existence of two groups:

The first group including species of the subgenus *Tannea* Blackwelder, 1952 is characterised by the structure of the female spermatheca, which is different from all other genera of the subtribe Lispinina. Additionally, the male antennae are usually prolonged, the eyes are prominent and the neck is smaller than the head in front of eyes (Fig. 1b). Fauvel (1865) already mentioned the typical character of the sexual dimorphism in his description of *Lispinus brevicollis* FAUVEL, 1865: 56: "Cette espèce est très remarquable par la forme de ses antennes dans les sexes; Antennae capite thoraceque tertia parte longiores ..., horum circiter longitudine articulis brevioribus ...". However, none of the later authors mentioned this character, even BLACKWELDER (1942) did not notice this character in his designation of genera and subgenera of the former genus *Lispinus*. WENDELER (1955) even described the male and female of *Lispinus fulvescens* WENDELER, 1955: 190 as different species.

In the second group including species of the subgenus *Nacaeus* s. str. the spermatheca is structured like in the genus *Lispinus*. The male and female antennae usually show no sexual dimorphism, the eyes are prominent and the neck is as wide as the head in front of eyes. Only in two new species the male antennae are prolonged and eyes are prominent, but the neck is not smaller than the head in front of eyes and the typical spermatheca of *Nacaeus* is present. The ground sculpture of the abdomen is similar in both groups and clearly differs from that in the genus *Lispinus*. The genera *Lispinus* and *Nacaeus* were differentiated by BLACKWELDER (1942) and NEWTON (1990) by the presence or absence, respectively, of diagonal strigae of the abdominal sternites. Furthermore, the abdominal punctuation of the Neotropical *Lispinus* species is distinct and moderately coarse, and ground sculpture is feeble, netlike or transversely reticulate. The abdominal microsculpture in both subgenera of *Nacaeus* is diagonally or isodiametrically reticulate and punctuation is extremely fine. The structure of the spermatheca of the subgenus *Tannea* indicates an apomorphic character, which justifies a generic status. *Lispinus tenellus* ERICHSON, 1840 was designated as type species for the subgenus *Tannea* by BLACKWELDER (1952), whereas *Lispinus planellus* SHARP, 1887 was designated as type species of the subgenus *Nacaeus* by BLACKWELDER (1942).

Type species of the subgenera *Rumeba*, *Liberiana*, and *Liberiella* (BLACKWELDER, 1942) were also studied to confirm their placement with respect to the generic names

Nacaeus and *Tannea*. These were the African species *Pseudolispinodes (Liberiella) cooki* BLACKWELDER, 1942 (p. 86, type no. 52590 in NMNH), *Pseudolispinodes (Liberiana) femoralis* BLACKWELDER, 1942 (p. 86, type no. 52589 NMNH), and *Pseudolispinodes (Rumeba) lispinoides* BLACKWELDER, 1942 (p. 87, type no. 52588 NMNH). The middle segments of antennae of all three species are short, wider than long and the eyes are not prominent. BLACKWELDER (1942) recognised the subgenus *Rumeba* based on the less dorsoventrally depressed body of *Pseudolispinodes lispinoides* BLACKWELDER, 1942. This species shows the typical structure of antennae, not prominent eyes, and scarcely visible punctuation of the abdominal tergites, which are found also in the Neotropical *Nacaeus* species. *Pseudolispinodes cooki* BLACKWELDER, 1942 and *Pseudolispinodes femoralis* BLACKWELDER, 1942, show coarse abdominal punctuation as in *Lispinus* species without the diagonal strigae typically found in the genus *Lispinus*. I propose, therefore, to give the subgenus *Liberiana* BLACKWELDER, 1942 a generic status, which is characterised by the coarse punctuation of abdominal tergites and the absence of diagonal strigae on abdominal sternites. In the Neotropical *Lispinus* species the diagonal strigae of abdominal sternites are absent in *Lispinus auratus* IRMLER, 1994, but microsculpture and punctuation is like in *Lispinus* species. This species is here also transferred to the genus *Liberiana* BLACKWELDER, 1952 (new combination).

Additional remarks have to be given concerning the Neotropical species of the genus *Lispinus* published by IRMLER (1994). Two mistakes have to be corrected. *Lispinus elongatus* IRMLER, 1994 is here renamed *L. elongatulus* (new name), because of homonymy with *L. elongatus* BERNHAUER, 1904. *Lispinus analis* is only a manuscript name of the ERICHSON collection and should be cancelled. The correct name for this species is *L. sobrinus* FAUVEL, 1865. The type of *L. boxi* BLACKWELDER, 1943 has been investigated in the mean time. The type specimen is identical with *L. catena* SHARP, 1876. Thus, *L. boxi* is a new synonym of *L. catena*.

Material and methods

The following measurements have been performed: head length from anterior edge of clypeus to anterior edge of neck, head width between eyes including eye width, pronotal length and width in the middle, elytral length from shoulder to posterior edge of elytra and elytral width in the middle. Total length was measured from anterior end of clypeus to posterior end of last abdominal tergite excluding intersegmental space of abdomen.

The species of the following collections have been investigated and thanks are due to the curators of these collections:

FMNH Field Museum of Natural History, Chicago (Dr. A.F. Newton),
MCZ Museum of Comparative Zoology, Cambridge (Dr. P. D. Perkins),
SEMC Natural History Museum and Biodiversity Center of the University of Kansas, Lawrence (Prof. J. S. Ashe)
NMNH National Museum of Natural History, Washington (Ms. G.H. House),
CNC Canadian National Collections, Ottawa (Dr. A. Smetana),
BMNH British Museum of Natural History, London (Dr. R.J.W. Aldridge),
IRSN Institut royal des Sciences naturelles de Belgique, Brussels (Dr. D. Drugmand),
NHMW Naturhistorisches Museum, Wien (Dr. H. Schönmann),
MNB Museum für Naturkunde, Berlin (Dr. M. Uhlig),
DEI Deutsches Entomologisches Institut, Eberswalde (Dr. L. Zerche),
ZMM Zoological Museum Moscow, Lomonosov State University (Dr. Nikitsky),

My own collection is abbreviated as UIC and collections of the Instituto National de Pesquisas da Amazonia, Manaus, Brazil, as INPA.

Keys and Description

KEY TO THE NEOTROPICAL GENERA OF THE SUBTRIBE *LISPININA*

1. Abdomen with more or less dense and deep punctuation, without or with transversely reticulate microsculpture 2
– Abdomen with very fine scarcely visible punctures, with dense diagonally reticulate microsculpture forming either rhomboid or isodiametrical meshes, surface dull, sternites without diagonal strigae 4
2. Abdominal sternites with diagonal strigae 3
– Abdominal sternites without diagonal strigae .... *Liberiana* BLACKWELDER, 1942
3. Hypomeron with a raised line from coxa to front edge ..... *Neolosus* BLACKWELDER, 1942
– Hypomeron without a raised line from coxa to front edge ..... *Lispinus* Erichson, 1840
4. Spermatheca with a pear shaped receptaculum and a straightly or scarcely reflected ductus (Fig. 6f); antennae of male usually prolonged (Fig. 1a); head with prominent eyes and neck smaller than head in front of eyes (Fig. 1b) ..... *Tannea* BLACKWELDER, 1952
– Spermatheca with a spherical receptaculum and a strongly reflected ductus (Fig. 29f); female and male antennae usually short (Fig. 1d); head with scarcely prominent eyes and neck as wide as head in front of eyes (Fig. 1e) ..... *Nacaeus* BLACKWELDER, 1942

KEY TO THE NEOTROPICAL SPECIES OF THE GENUS *TANNEA* BLACKWELDER, 1952

1. Elytra bicoloured, red and brown 2
– Elytra unicoloured, red, brown or black 3

2. Small, about 3.0 mm long, elytra red in the front half and dark in the posterior half (Fig. 2) ..... 20. *T. reversa* (BLACKWELDER, 1943)
– Larger, about 3.5 mm long, elytra red, only the posterior third dark (Puerto Rico) (Fig. 3) ..... 18. *T. punctata* (BLACKWELDER, 1943)
3. Antennae of male very long, middle antennomeres about 4 times longer than wide 4
– Antennae of male shorter, middle antennomeres not more than 2.5 times longer than wide 5
4. Antennae of female very long, 6th antennomere more than 3 times longer than wide, sides of pronotum arcuate, widest at middle (Fig. 4) ..... 12. *T. longicornis* (SHARP, 1887)
– Antennae of female shorter, 6th antennomere only 2 times longer than wide, sides at the apical fourth of pronotum parallel, then arcuately rounded to the middle, with an obsolete transverse depression on the disc (Fig. 5) ..... 15. *T. parallelonota* n. sp.
5. Small species, 2.2 to 2.9 mm long 20
– Larger species, at least 3.2 mm long 6
6. Head of male with two deep depressions, which are margined by a lateral carina (Fig. 8) ..... 22. T. *schubartii* n. sp.
– Head of male without such decoration 7
7. Sides of pronotum parallel in the anterior half, head with isodiametrically reticulate microsculpture, pronotum and elytra with longitudinally reticulate microsculpture (Fig. 10) ..... 11. *T. latinota* n. sp.
– Sides of pronotum arcuately narrowed to anterior edge 8
8. Large species, at least 3.9 mm long 9
– Smaller species not longer than 3.6 mm 13
9. Dark brown or black species 10
– Rufotestaceous, pronotum and elytra with obsolete and sparse punctuation, distance between punctures wider than diameter of punctures, elytra with netlike microsculpture, antennae of female 1/3rd shorter than that of male (Fig. 13) ..... 24. *T. varablancae* n. sp.
10. Punctures of elytra as deep and dense as on pronotum, distance between punctures as short or shorter than diameter of punctures, depressions at posterior angles long, nearly reaching the middle of pronotum (Fig. 11) ..... 14. *T. paraguensis* n. sp.
– Elytra with sparse punctuation, finer than on pronotum, distance between punctures wider than diameter of punctures 11
11. Pronotum and elytra with distinct netlike microsculpture, dull, scarcely shiny, elytral punctuation finer than in the following species (Fig. 6) ..... 4. *T. brevicollis* (FAUVEL, 1865)
– Pronotum with longitudinally reticulate microsculpture, as obsolete as on the elytra, more shiny, punctuation of elytra scarcely finer than of pronotum . 12
12. Pronotum on each side of the smooth midline more coarsely and densely punctuate than laterally (Fig. 12) ..... 6. *T. fabacicolor* n. sp.
– Pronotum on each side of the smooth midline uniformly punctuate (Fig. 7) ..... 3. *T. breviceps* (BERNHAUER, 1905)
13. Pronotum and elytra with netlike microsculpture, dull, punctuation fine and sparse, 3.6 mm long (Fig. 14) ..... 21. *T. salasi* n. sp.
– Only elytra with netlike microsculpture or pronotum and elytra with longitudinally reticulate microsculpture 14
14. Elytra with very obsolete netlike microsculpture, shiny, pronotum with deep punctuation, distance between punctures shorter than the diameter of punctures, between the large punctures with micro-punctulation, punctures on elytra finer and sparser than on pronotum, smaller 3.0 mm long (Fig. 25) ..... 10. *T. humibiota* n. sp.
– Pronotum and elytra with longitudinally reticulate microsculpture 15
15. Pronotum and elytra with obsolete, longitudinally reticulate microsculpture, shiny, punctuation of pronotum coarser than on elytra, distance between punctures smaller than diameter of punctures . 16
– Elytra with distinct longitudinally reticulate microsculpture, dull, punctuation on elytra not finer than on pronotum 17
16. Black, punctuation of elytra distinctly finer and sparser than on pronotum, with longitudinally reticulate microsculpture, depressions at posterior angles of pronotum obsolete (Fig. 9) ... 2. *T. bierigii* n. sp.
– Piceous, punctuation of elytra scarcely finer than on pronotum, with longitudinally reticulate microsculpture, depressions at posterior angles of pronotum distinct (Fig. 15) ..... 17. *T. pulcher* (BERNHAUER, 1942)
17. Elytra with distinct microsculpture, less shiny, punctuation coarser than on pronotum, 3.3 mm long (Fig. 19) ..... 19. *T. resoluta* n. sp.
– Microsculpture of elytra less distinct, more shiny, punctures not coarser than on pronotum 18
18. Pronotum with coarse punctures, distance between punctures shorter than diameter of punctures, punctuation on elytra slightly finer and sparser than on pronotum, 3.6 mm long (Fig. 17) ..... 9. *T. fulvescens* (WENDELER, 1955)
– Distance between punctures of pronotum and elytra as wide or wider than diameter of punctures .. 19
19. Smaller, 3.2 mm long, punctuation on pronotum fine, distance between punctures wider than diameter of punctures, with dense and distinct longitudinally reticulate microsculpture, dull, head with distinct isodiametrically or netlike reticulate microsculpture, male with only slightly prolonged antennae (Fig. 20) ..... 23. *T. tenella* (ERICHSON, 1840)
– Larger, 3.4 mm long, punctuation of pronotum and elytra distinct, distance between pronotal punctures shorter than diameter of punctures, punctuation of elytra slightly finer and sparser than of pronotum, male with clearly prolonged antennae (Fig. 16) ... 16. *T. picata* n. sp.
20. Very small, 2.2 mm long, with indistinct longitudin-

ally reticulate microsculpture, shiny, punctuation distinct, but not coarse (Fig. 22) ..... 8. *T. fulgens* (BERNHAUER, 1941)

– Larger, 2.5 to 2.9 mm long, microsculpture distinct, if microsculpture indistinct, then punctures deep and coarse 21

21. Pronotum and elytra with coarse and dense punctuation, almost coriaceously punctuate (Fig. 24) ..... 1. *T. amazonica* n. sp.

– Pronotum and elytra in some species with deep, but never coarse punctuation 22

22. Head with indistinct longitudinally reticulate microsculpture, shiny, rufotestaceous ... 7. *T. fersa* n. sp.

– Head with distinct diagonally or netlike reticulate microsculpture, less shiny, brown or elytra red . 23

23 Unicoloured brown, head laterally on the disc with distinct bulges, depressions at posterior angles of pronotum distinct and more coarsely punctuate than on the disc (Fig. 21) ... 13. *T. meridionalis* n. sp.

– Elytra reddish with a dark basal spot, which may extend distally, depressions at the posterior angles of pronotum indistinct (Fig. 23) ..... 5. *T. bruchii* (BERNHAUER, 1921)

DESCRIPTION OF THE NEOTROPICAL SPECIES OF THE GENUS *TANNEA* BLACKWELDER, 1952

1. *Tannea amazonica* new species

Fig. 24 a-f, Maps 2

Description

Length: 2.9 mm. *Colour*: Black, anterior part of clypeus reddish, abdominal tergites distally reddish, antennae and legs yellow. *Head*: 0.3 mm long, 0,5 mm wide; densely and coarsely punctuate, clypeus with transversely reticulate microsculpture, posterior part of disc with netlike reticulate microsculpture. *Antennae*: Relatively short, last antennomeres quadrate. *Pronotum*: 0.4 mm long, 0.55 mm wide; sides emarginate posteriorly, densely and coarsely punctuate, with some long, yellow hairs at both sides, with long, distinct depressions at posterior angles, between these and the smooth midline with a flat, obsolete depression. *Elytra*: 0.6 mm long, 0.6 mm wide; densely and coarsely punctuate, microsculpture longitudinally reticulate. *Abdomen*: Finely punctuate, laterally with yellow hairs.

The species is conspicuous by the slightly prominent midline of the pronotum (female without this structure) and the coarse punctuation. Furthermore, the structure of the aedeagus and in particular the paramera are typical for this species. The species shows no sexual dimorphism of antennal length.

Etymology: The specific name is derived from Amazon province in Brazil, where the species was collected near the city of Manaus.

Holotype: Brazil: Manaus, male, 1971, leg. U. Irmler (INPA).

Paratype: Peru: Panguana, female, Dec. - Jan. 1976, leg. W. Hanagarth (UIC).

Further material examined

Peru: Pebas, 2 females, without further data (IRSN).

2. *Tannea bierigii* new species

Fig. 9 a-f, Maps 1

Description

Length: 3.3 mm. *Colour*: Black, antennae piceous, pronotum at posterior edge reddish, posterior margin of abdominal tergites reddish, last abdominal tergites nearly totally reddish. *Head*: 0.3 mm long, 0.5 mm wide; head distinctly and sparsely punctuate, between the deep punctures a fine micro-punctuation; clypeus with transverse reticulate microsculpture, disc with obsolete, longitudinally reticulate microsculpture, shiny; at base of antennae with prominent bulges laterally on the disc. *Antennae*: 2nd antennomere very short, only 1/2 as long as 3rd, 4th to 6th antennomeres of increasing length, 7th-10th antennomeres more or less of same length and scarcely shorter than 6th. *Pronotum*: 0.4 mm long, 0.6 mm wide; widest at middle, scarcely narrowed to the anterior angles, emarginate to posterior angles, deep and partly dense punctuation, in particular on both sides of the smooth midline, distances between punctures distinctly smaller in the posterior half than in the anterior half and there smaller than diameter of punctures, at the anterior margin more sparsely punctuate, obsolete depressions at the posterior angles, between the deep punctures a sparse and fine micro-punctuation, the obsolete microsculpture longitudinally reticulate, shiny, nearly polished. *Elytra*: 0.7 mm long, 0.7 mm wide; more feebly and sparsely punctuate than pronotum, distance between punctures much wider than diameter of punctures, with micropunctulation as on the head, microsculpture as on pronotum, shiny. *Abdomen*: Very feebly and sparsely punctuate, the netlike microsculpture much more distinct than on pronotum and elytra, dull.

The species is similar to *T. brevicollis* and *T. breviceps* in colour, but is distinguished by the smaller length and the shiny pronotum and elytra. The aedeagus is very similar to that of *T. paraguensis*. *T. bierigii* can be also differentiated from that species by the shiny elytra and from *T. pulcher* by the black colour, the more feeble microsculpture and the structure of the aedeagus.

Etymology: The species is dedicated to Alexander Bierig, the collector and scientist of Neotropical rove beetles.

Holotype: Panama: Prov. Chiriqui, Finca Lerida near Boquete, elevation 5650 feet, male, 14.3.1959, leg Dybas, Berlese plot B-489, forest floor litter at base of stump (FMNH).

Paratypes: 4 males, 4 females, data like for holotype (FMNH).

Further material examined
Costa Rica: Heredia, 10°26'N 83°50'W, 5.-11. 3. 1973, leg. Wagner (FMNH); *Panama*: Chiriqui, Cerro Punta, under bark, 20.05.1977, leg. J. Peck (CNC); El Hato del Volcan, 27.7 km W Hartmann's Finca, 16.06.1995, leg. R. Anderson (SEMC); Boquete, La Culebra Trail, flight intercept trap, 16.06.1995, leg. R. Anderson (SEMC); *Columbia*: Villavicencio, 03.03.1972, leg. J. Peck (CNC).

3. *Tannea breviceps* (BERNHAUER, 1905) new combination

Fig. 7 a-f, Maps 1

Lispinus breviceps BERNHAUER, 1905: 9 (holotype: *Mexico*: female, labelled without other data, in FMNH examined).

Description
Length: 3.9 mm. *Colour*: Black, head dark brown, 5th and 6th abdominal tergites reddish, antennae brown, legs red. *Head*: 0.4 mm long, 0.6 mm wide; sparsely punctuate; clypeus with isodiametrically reticulate microsculpture, disc with netlike reticulate microsculpture, slightly shiny. *Antennae*: 4th to 9th antennomeres of increasing length, about twice as long as wide. *Pronotum*: 0.5 mm long, 0.8 mm wide; distinctly punctuate, distance between punctures as wide as diameter of punctures, microsculpture longitudinally reticulate, posterior angles with distinct longitudinal depressions; sides of pronotum emarginate at posterior half. *Elytra*: 0.8 mm long, 0.8 mm wide; coarsely but more sparsely punctuate than pronotum, between the coarse punctures a sparse micropunctulation, microsculpture longitudinally reticulate.

The species is similar to *T. brevicollis* in length and colour. It can be distinguished from this species by the longitudinally reticulate microsculpture of the elytra and coarser punctuation of pronotum and elytra. Further remarks on the differentiation are given in the description of *T. brevicollis*.

Material examined
Mexico: Jalapa, without date, leg. Schneider (MNB); only with label Mexico (IRSN); Puebla, 5 miles NE Teziutlán, 16.-20.7.1973, leg. Newton (FMNH).

4. *Tannea brevicollis* (FAUVEL, 1865) new combination

Fig. 6 a-f, Maps 1

Lispinus brevicollis FAUVEL, 1865: 56 (holotype: *Mexico*: Teapa, not deposited in IRSN).

Description
Length: 3.9 - 4.5 mm. *Colour*: Black, 5th abdominal tergite reddish, legs red, antennae brown. *Head*: 0.4 mm long, 0.6 mm wide; laterally on the disc with bulges, between the bulges slightly depressed with roundly reticulate microsculpture, clypeus anteriorly margined; punctuation fine, nearly invisible between the deep microsculpture; distance between punctures much wider than diameter of punctures; punctuation on posterior head denser and more distinct, dull. *Antennae*: 2nd antennomere much shorter than 1st and 3rd, 4th antennomere slightly shorter than 3rd, 4th - 6th antennomere of increasing length, the last 3 antennomeres more or less of same length. *Pronotum*: 0.6 mm long, 0.8 mm wide; widest at middle, arched to anterior edge, emarginate posteriorly, with deep depressions at posterior angles; at the base between the smooth midline and the posterior angles an indistinct depression, punctuation coarser and denser than on the head, distance between punctures partly smaller and partly wider than diameter of punctures; with netlike narrow microsculpture, slightly more shiny than head, scarcely shiny. *Elytra*: 1.0 mm long, 1.0 mm wide; widest at middle; punctuation as deep as on pronotum but sparser, distance between punctures mostly wider than diameter of punctures; microsculpture netlike reticulate, as distinct as on the pronotum, scarcely shiny. *Abdomen*: Very finely punctuate, with the typical diagonally reticulate microsculpture, laterally with yellow hairs,

T. brevicollis is very similar to *T. breviceps* and *T. fulvescens*. It is distinguished by the fine punctuation, the densely netlike reticulate microsculpture of the elytra and the thick feature of the spermatheca.

Remarks
The status of *T. brevicollis* FAUVEL, 1865 is not certain. No type was designated in IRSN. There were two specimens labelled with location "Mexico" (not Teapa) and determined by FAUVEL as *brevicollis*. They might be the specimens FAUVEL used for his description. However, the aedeagus of the male was lacking (probably prepared and lost later). Both specimens are identical with *Tannea breviceps* (BERNHAUER, 1905: 9). A male specimen from Yuracaris (Bolivia) was also determined by FAUVEL as *brevicollis*, but is certainly different from the Mexican species. The description above refers to the Yuracaris specimen and I propose to use this for *T. brevicollis* until the specimen from Teapa will be found.

Material examined
Costa Rica: Vara Blanca, 8.1939, leg. Bierig (FMNH); Los Nubes, leg. Bierig (FMNH); Carpintera, 25.6.1939, 5.11.1939, leg. Bierig (FMNH); Tres Rios, 21.9.1940, leg. Marini (FMNH); La Palma, 11.1939, leg. Bierig (FMNH); Papagayo, 22.3.1940, leg. Bierig (FMNH); Cervantes, 23.3.1941, leg. Bierig (FMNH); Hamburg Farm, 22.4.1928, leg. Bierig (FMNH); Serrania de Perija near Miss. Socorpa, 27.7.1968, leg. Dybas (FMNH); Volcan Irazu, 22.4.1928, leg. Bierig (FMNH); Rabo de Mico, leg. Nevermann (FMNH); *Panàma*: Canal Zone, leg. Newton (FMNH); *Columbia*: Santa Marta, San Lorenzo, 41 km S San. Marta, 07.05.1973, leg. J.M. Campbell (CNC); *Ecuador*: Chimborazo, Aug. 1897 leg. Rosenberg (IRSN); Baeza, 2 km S. Oritoyacu, 04.03.1976, leg. J.M. Campbell (CNC); Pichincha, old Quito-Sto.

Domingo Rd. Chiriboza, leaf litter, 13.06.1982, leg. J.M. Campbell (CNC); *Bolivia*: Yuracaris, no further description (IRSN).

5. *Tannea bruchii* (BERNHAUER, 1921) new combination

Fig. 23 a-f, Maps 1

Lispinus bruchi BERNHAUER, 1921: 170 (holotype: *Argentina*: Catamarca, 17.12.1912, leg. Bruch, in FMNH examined).

Description

Length: 3.1 mm. *Colour*: Head and pronotum testaceous, clypeus slightly reddish, elytra red, posteriorly dark brown or black, the dark spot in some specimens distally expended, abdomen black, the last tergites posteriorly reddish, antennae and legs red. *Head*: 0.25 mm long, 0.4 mm wide; with fine punctuation, microsculpture on clypeus transversely reticulate, netlike reticulate on the posterior head, scarcely shiny. *Antennae*: Relatively short, the last antennomeres quadrate. *Pronotum*: 0.35 mm long, 0.5 mm wide; distinctly punctuate, with longitudinally reticulate microsculpture and a smooth midline, with obsolete depressions at posterior angles. *Elytra*: 0.55 mm long, 0.55 mm wide; distinctly and sparsely punctuate, with netlike microsculpture, shiny. *Abdomen*: Obsoletely punctuate.

The species is characterised by the colour of the elytra and the indistinct microsculpture. It is similar to *T. fersa*, but microsculpture more distinct and another structure of the endophallus of the aedeagus. It seems that *T. bruchii* is related to *T. fersa* and restricted to southern subtropics of South America, whereas *T. fersa* is distributed in Central America and northern South America.

Material examined

Argentina: Catamarca, 17.12.1912, leg. C. Bruch (FMNH); Tucuman, 14.7.1900, leg. C. Bruch (IRSN); *Brazil*: Nova Teutonia, Prov. Santa Catharina, 12. 1954, leg. Plaumann (FMNH); 1.1951, 1.10.1956, 11.1956, 1.3.1958, 1.6.1957, 7.1959, 1.5.1967, leg. F. Plaumann (MNB, CNC, UIC); São Paulo, 3.1908, leg. Barbiellini and 3.7.1914 leg. Mraz (FMNH); Iguacú, 200 m elevation, 10.02.1970, leg. J.M. Campbell (CNC, UIC); Sinimbu, 200 m elevation, 01.09.1960, leg. F. Plaumann (CNC, UIC); Chapeco, 600 m elevation, 01.07.1960, leg. F. Plaumann (CNC, UIC); Rio Azul, 1000 m elevation, 01.10.1959, leg. F. Plaumann (CNC, UIC).

6. *Tannea fabacicolor* new species

Fig. 12 a-f, Maps 1

Description

Length: 3.9 mm. *Colour*: Dark piceous or black, elytra dark red, antennae dark brown, legs yellow. *Head*: 0.4 mm long, 0.6 mm wide; at base of antennae with distinct lateral bulges on the disc, on both sides of the middle with weak, longitudinal depressions; head anteriorly with isodiametrically reticulate microsculpture, posteriorly with dense longitudinally reticulate microsculpture, punctuation distinct and sparse, distances between punctures wider than diameter of punctures. *Antennae*: 2nd antennomere shorter than 1st and 3rd, 4th antennomere shorter than 3rd, 4th - 6th antennomeres of increasing length, the last antennomeres of same length. *Pronotum*: 0.5 mm long, 0.7 mm wide; widest at middle, sides arched to anterior angles, emarginate to posterior angles, with a smooth midline, on both sides of the midline with coarser and denser punctuation, disc depressed, depressions at the posterior angles margined at the inner side by an obsolete, smooth bulge; obsolete microsculpture longitudinally reticulate, scarcely shiny. *Elytra*: 1.0 mm long, 0.8 mm wide; punctuation sparser than on pronotum, distance between punctures wider than the diameter of punctures, obsolete microsculpture longitudinally reticulate; shiny. *Abdomen*: With the typical microsculpture and the scarcely visible, obsolete punctuation, laterally with yellow hairs.

Similar to *T. brevicollis* and *T. breviceps* in length and colour, distinguished from *T. brevicollis* by the more obsolete microsculpture, from *T. breviceps* by the depressed pronotum. The male differs from both species by the distally narrowed paramera.

Etymology: The specific name was proposed by A. Bierig, who collected the species. The suffix *faba-* meaning bean and refers to the dark brown colour of the species.

Holotype: Costa Rica: San Isidoro - La Estrella, male, 5.5.1940, leg. Bierig (FMNH, no. Z-13812).
Paratypes: Costa Rica: 1 male, 2 females, data like for holotype (FMNH); male, San José 1937, leg. Bierig (FMNH).

Further material examined

Costa Rica: La Palma, 17. 2. 1924, 1500 m elevation, leg. Nevermann and 21.2.1925, leg. Bierig (FMNH); Cartago, 9°42'N 83°47'W, 14. 4. 1973, leg. Wagner (FMNH); Vara Blanca, 8. 1939, leg. Bierig (FMNH); Puntarenas, 8°46'W 82°58'N, leg. Bierig (FMNH); *Panama*: Cerro Colorado, Prov. Chiriqui, leg. Bierig (FMNH); Boquete, 12. 3. 1959, leg. Dybas (FMNH); Chiriqui, Cerro Punta, forest litter, 15.06.1995, leg. J.S. Ashe (SEMC, UIC); San Felix, leaf litter, 08.06.1995, leg. R. Anderson (SEMC, UIC); Boquete, oak forest litter, 19.06.1995, leg. R. Anderson (SEMC); El Hato del Volcan, 27.7 km W Hartmann's Finca, oak forest litter, 16.06.1995, leg. R. Anderson (SEMC, UIC).

7. *Tannea fersa* new species

Fig. 18 a-f, Maps 1

Description

Length: 2.6 mm. *Colour*: Rufotestaceous, abdominal tergites posteriorly yellow, legs and antennae yellow. *Head*:

0.3 mm long, 0.4 mm wide; sparsely punctuate, distance between punctures on average wider than diameter of punctures; microsculpture obsolete, longitudinally reticulate; surface shiny; between the deeper punctures a fine micro-punctuation. *Antennae*: 2nd antennomere shorter than 1st and 3rd, 3rd antennomere scarcely longer than 4th, all antennomeres longer than wide. *Pronotum*: 0.4 mm long, 0.5 mm wide; sides scarcely emarginate in front of posterior angles, widest at middle, arcuately narrowed to anterior angles, with obsolete depressions at posterior angles, punctuation coarse, but distance between punctures on average wider than diameter of punctures, between the coarse punctures a fine micro-punctuation, longitudinally reticulate microsculpture, surface scarcely shiny. *Elytra*: 0.5 mm long, 0.6 mm wide; as deeply and sparsely punctuate as the pronotum, longitudinally reticulate microsculpture, surface shiny. *Abdomen*: Very feebly punctuate and with the typical microsculpture for the genus, more dull than pronotum and elytra.

Antennae of male only scarcely longer than that of female; very similar to *T. meridionalis* and *T. bruchii*, but microsculpture less distinct and surface more shiny. It also resembles *T. tenella*, but surface also more shiny, size smaller, and aedeagus with a more simple endophallus.

Etymology: The specific name was proposed by A. Bierig in his collection. It may derived from the Latin verb *ferire* meaning strike and likely refers to catching event.

Holotype: Costa Rica: Las Mercedes, male, 31.12.1922, leg. Nevermann (FMNH).
Paratypes: Costa Rica: Hamburg Farm, male, 8.8.1929, leg. Nevermann (FMNH); Finca Castilla, male, 6.1938, leg. Bierig (FMNH).

Further material examined
Costa Rica: San Rafael, 2.1940, leg. Moya (FMNH); San Ramon, 23.8.1941, leg. Bierig (FMNH); Guapiles, 9. - 13.2.1940, leg. Bierig, (FMNH); Heredia, 10°26'N 83°59'W, 3.1973, leg. Wagner (FMNH); Borreto Arenas, 10.11.1941, leg. Bierig (FMNH); Chitaria, 23. – 25.7.1941, leg. Bierig (FMNH); Puntarenas, 82°58'W 8°46'N, leg. Wagner (FMNH); Sta. Qua, 3.6.1939, leg. Bierig (FMNH); Zorcero, 6.1943, leg. Bierig (FMNH); Santa Cruz Turrialba, 600 m elevation, 20.05.1979, leg. J.M. Campbell (CNC); Guanacaste, Conservation Area, dry tropical wet forest litter, 13.02.1996, leg. R. Anderson; *Panama*: France Field, 6.1930, leg. Bierig (FMNH); Volcan Chiriqui, 1580 m elevation, 7.1930, leg. Bierig (FMNH); Barro Colorado Is., Canal Zone, 2.1959, leg. Dybas, 07.07.1994, 03.07.1994, 16.08.1994, 11.08.1994, leg. Banks (FMNH, SEMC); Almirante, 28.3.1959, leg. Dybas (FMNH); Madden Lake and Madden Forest, 15.2.1959, leg. Dybas; 6.2.1976, 27.2.1976, 1.7.1976, leg. Newton (FMNH); Cerro Campana, 28.2.1976, leg. Newton (FMNH); El Hato del Volcan, 15 km NW, Hartmann Finca, 20.05.1977, leg. J. Peck (CNC); Colon, Parque Soberania, flight intercept trap, 21.06.1995, leg. J.S. Ashe, 30.05.1995, leg. Jolly (SEMC); Panama City, Old Gamboa Road, flight intercept trap, 19.11.1994, leg. D. Windsor (SEMC); La Fortuna, Hydro Trail, flight intercept trap, 09.06.1995, leg. D. Banks (SEMC); Panama City; Old Plantation Trail; 6.9 km, flight interceptz trap, 07.06.1995, leg. J.S. Ashe (SEMC); Panama City, Parque Soberania; from leaf-, fruitfall, 11.06.1993, leg. M. Jameson (SEMC, UIC); *Venezuela*: Aragua de Barcelona, 10 km E. Ocumare, 20.11.1971, 25.02.1971, leg. J. Peck; *Columbia*: Leticia, leaf litter, 20.02.1972, leg. J. Peck; *Ecuador*: Pichincha, Rio Palenque, 47 km S S. Domingo, leaf litter, 28.02.1976, leg. J.M. Campbell (CNC, UIC).

8. *Tannea fulgens* (Bernhauer, 1941) new combination

Fig. 22 a-f

Lispinus fulgens Bernhauer, 1941: 277 (holotype: *Peru*: Sivia, 520 m, from forest floor, 22.05.1936, leg Titschack, in FMNH examined).

Description
Length: 2.2 mm. *Colour*: Piceous, legs yellow, antennae brown. *Head*: 0.2 mm long, 0.4 mm wide. *Pronotum*: 0.35 mm long, 0.5 mm wide; sides of pronotum emarginate posteriorly, with distinct punctuation, distance between punctures wider than the diameter of punctures, with obsolete longitudinally reticulate microsculpture, shiny, at posterior angles with obsolete depressions. *Elytra*: 0.5 mm long, 0.5 mm wide; punctuation fine, less dense than on the pronotum, the longitudinally reticulate microsculpture more distinct than on the pronotum, elytra and pronotum with feeble micropunctulation, shiny. *Abdomen*: Without visible punctuation.

The species is characterised by the small length and the shiny surface. The spermatheca is also very typical. I only saw the female type specimen.

Material examined
Peru: from this species only the holotype is known (see type description).

9. *Tannea fulvescens* (Wendeler, 1955) new combination

Fig. 17a-f, Maps 2

Lispinus fulvescens Wendeler, 1955: 190 (holotype: *Brazil*: Nova Teutonia, leg. Plaumann, in MNB examined).
Lispinus novoteutonius Wendeler, 1955: 191 (holotype: *Brazil*: Nova Teutonia, leg. Plaumann, in MNB examined) NEW SYNONYMY.

Description
Length: 3.6 - 4,0 mm. *Colour*: Piceous, antennae rufotestaceous. *Head*: 0.4 mm long, 0.6 mm wide; microsculp-

ture of clypeus netlike reticulate, head posteriorly with netlike or longitudinally reticulate microsculpture, shiny; distinctly punctuate; eyes strongly prominent. *Antennae*: Middle antennomeres of male twice as long as wide, 5th and 6th antennomeres of female slightly longer than wide, 7th - 10th antennomeres quadrate. *Pronotum*: 0.4 mm long, 0.7 mm wide; sides emarginate in the basal half, coarsely punctuate, microsculpture longitudinally reticulate, with distinct longitudinal depressions at hind angles, shiny. *Elytra*: 0.7 mm long, 0.7 mm wide; punctuation slightly more sparse than on pronotum, microsculpture longitudinally reticulate.

Similar to *T. brevicollis* (FAUVEL, 1865), but antennae shorter and spermatheca more slender. The aedeagus is very similar to that of *T. brevicollis*. WENDELER did not notice the sexual differentiation in the genus and described the female of *T. fulvescens* with shorter antennae as *Lispinus novo-teutonius*.

Material examined
Brazil: Novo-Teutonia, Santa Catharina, 9.1914, 3.1959, 01.11.1971, 01.07.1961, 01.05.1960, 01.03.1972, 01.06.1972, 01.03.1958, 01.12.1968, leg. Plaumann (MNB, FMNH, CNC, UIC); Rio de Janeiro, 1905, leg. R. Frey (FMNH); Sumaré, 4.10.1959; leg. Schubart (UIC); São Paulo, 21.3.1912, leg. Bryant (BMNH); Salesopolis, 26.12.1969, leg. J.M. Campbell (CNC); Castelo, E. of Santo, 01.11.1976; leg. M. Alvarenga (CNC).

10. *Tannea humibiota* new species
Fig. 25 a-f, Maps 1

Description
Length: 3.0 mm. *Colour*: Rufotestaceous, abdominal tergites distally yellow, legs yellow. *Head*: 0.3 mm long, 0.4 mm wide, with distinct lateral bulges at the base of antennae; eyes scarcely prominent; obsolete and sparse punctuation, distance between punctures distinctly wider than diameter of punctures, obsolete, netlike ground sculpture, surface shiny. *Antennae*: 3rd antennomere longer than 2nd and 4th, 4th to 6th antennomeres of increasing length, last antennomere more or less of same length. *Pronotum*: 0.4 mm long, 0.55 mm wide, widest at middle, arcuately narrowed to anterior edge, emarginate in the posterior third, with smooth midline, on both sides of the midline with dense and deep punctuation, distance between punctures smaller than diameter of punctures, density of punctuation decreasing from midline to sides, on the lateral disc distance between punctures wider than their diameter, between the larger punctures a sparse, very fine micropunctulation; ground sculpture fine and longitudinally reticulate, surface shiny, depressions at posterior angles distinct. *Elytra*: 0.6 mm long, 0.55 mm wide; punctuation as deep as on pronotum, but much sparser, distance between punctures distinctly wider than diameter of punctures; ground sculpture very fine, netlike, surface shiny. *Abdomen*: Ground sculpture with typical diagonally reticulate ground sculpture, punctuation very fine and sparse, with yellow hairs at the sides.

Similar to *T. picata*, particularly the aedeagus is difficult to differentiate between the two species, but ground sculpture on the elytra is much more obsolete and netlike in *T. humibiota* while it is longitudinally reticulate in *T. picata.*

Etymology: The specific name was proposed by A. Bierig in his collection. The suffix *humi-* derived from the Latin word *humus* meaning soil and *-biota* meaning living and certainly refers to the habitat, where the species was found.

Holotype: Costa Rica: Rabo de Mico, 1300 m elevation, male, 6.-8.3.1943, leg. Bierig (FMNH).
Paratypes: Costa Rica: 1 female and 2 males: Rabo de Mico with data as for the holotype (FMNH); El Tablazo, 2 females and 2 males, 20.8.1939 and 3.4.1939, leg. Bierig (FMNH); C^{ob} de Bustamente, 1 female and 1 male, 4.9.1943, leg. Bierig (FMNH).

Further material examined
Costa Rica: Carpintera, 8.1943, leg. Bierig (FMNH); Puriscal 28.7.1940, leg. Ortiz (FMNH); San. Isidro, 4.1940, leg. Bierig (FMNH); Hamburg Farm, 15.4.1938, leg. Nevermann (FMNH); Santo Domingo de Heredia, 1650 m elevation, leg. Bierig (FMNH); La Selva, Prov. Heredia, 10.3.1973, leg. Wagner (FMNH); San Rafael-Gabanilla, 9.8.1941, leg. Bierig (FMNH); Sta. Maria, 1400 m elevation, 13.6.1943, leg. Bierig (FMNH); Guanacaste, 10°42'N, 85°7'W, 8.4.1973, leg. Wagner (FMNH); Tapanti, leg. Bierig (FMNH); Puntarenas, 8°46'N, 82°58'W, 8.4.1973, leg. Wagner (FMNH); Tres Rios, 10.3.1940, leg. Bierig (FMNH); Chitaria, 17.-20.2.1943, leg. Bierig (FMNH); Tablazo, 2.4.1939, leg. Bierig (FMNH); Guapiles, 9.-13.2.1943, leg. Bierig (FMNH); Zorcero, 6.1943, leg. Bierig (FMNH); *Panama*: Chiriqui, 8°34'N, 81°50'W, leg. Dybas (FMNH); Barro Colorado Is., Canal Zone, 27.6.1976, leg. Newton (FMNH); Cerro Colorado, 1475 m elevation, 25.1.1981, leg. Suter (FMNH); Cerro Campana, 2900' elevation, 01.08.1970, leg. J.M. Campbell (CNC); Cerro Campana, 13 km W Capire, flight intercept trap, 05.06.1995, leg. J.S. Ashe (SEMC); La Mesa, N. El Valle, 23.08.1996, leg. Gillogly (SEMC).

11. *Tannea latinota* new species
Fig. 10 a-f, Maps 1

Description
Length: 3.8 mm. *Colour*: Rufotestaceous, head and antennae piceous, abdomen brown, legs yellow.. *Head*: 0.4 mm long, 0.5 mm wide; feebly and densely punctuate, with isodiametrically reticulate microsculpture, scarcely shiny, dorsoventrally depressed. *Antennae*: antennomeres 4 to 7 twice as long as wide. *Pronotum*: 0.4 mm long, 0.6 mm wide; distinctly and densely punctuate, with longitudinally reticulate microsculpture, scarcely shiny,

sides parallel in anterior half and emarginate in front of posterior angles; with distinct depressions at hind angles, depressions less shiny than disc. *Elytra*: 0.7 mm long, 0.7 mm wide; sparsely and feebly punctuate, with longitudinally reticulate microsculpture, scarcely shiny. *Abdomen*: Laterally with long yellow hairs.

The species is characterised by the typical parallel structure of pronotum. Female with shorter antennae, middle antennomeres quadrate.

Etymology: The specific epithet is a combination meaning "wide pronotum" (*latus* = wide) referring to the form of the pronotum.

Holotype: Brazil: Rio de Janeiro, male, 7.8.1960, leg. Schubart (INPA).
Paratypes: Brazil: Rio de Janeiro, male, 7.8.1960 leg. Schubart; female, 29.5.1960, leg. Becker; female, 17.4.1960, leg. Schubart (UIC).

Further material examined
Columbia: Leticia, leaf litter, 11.07.1970, leg. J.M. Campbell (CNC, UIC); *Peru*: Cuzco, 4.10.1982, leg. Watrous (FMNH); *Bolivia*: Yuracaris (IRSN); *Brazil*: Serra do Batavité, Prov. Céarà (IRSN); Benevides, Prov. Parà (IRSN); Rio de Janeiro, 1905, leg Squire (BMNH); Belèm, IPEAN, 27.11.1969, leg. J.M. Campbell (CNC); Paranagua, 80 m elevation, 13.02.1970, leg. J.M. Campbell (CNC, UIC); Caraguatatuba, 26.01.1972, leg. J.M. Campbell (CNC, UIC); Para, São Caetano, 19.03.1970, leg. J.M. Campbell (CNC); Paranagua, 12 km W. Alexandra, 14.02.1970, leg. J.M. Campbell (CNC, UIC).

12. *Tannea longicornis* (SHARP, 1887) new combination

Fig. 4 a-f, Maps 1

Lispinus longicornis SHARP, 1887: 722 (holotype: *Panama*: Volcan de Chiriqui, leg. Champion, in BMNH examined).

Description
Length: 3.7 mm. *Colour*: Rufotestaceous. *Head*: 0.4 mm long, 0.5 mm wide; shiny, with indistinct netlike microsculpture; coarsely punctuate. *Antennae*: Antennomeres of male very long and thin, 5th to 10th antennomere more than 4 times longer than wide. *Pronotum*: 0.5 mm long, 0.6 mm wide; sides of pronotum emarginate at basal half, depressions at hind angles indistinct, microsculpture longitudinally reticulate, punctuation coarse. *Elytra*: 0.8 mm long, 0.7 mm wide; ground sculpture longitudinally reticulate, punctuation distinct.

This species is conspicuous by the very long antennae of the male and female and the rufotestaceous colour.

Material examined
Panama: Vulcano de Chiriqui, leg. Champion (BMNH); 8°34'N 81°50'W, 22.1.1981, leg. Suter (FMNH); Cerro Colorado, 1.11.1981, leg. Suter (FMNH); *Costa Rica*: Tapanti, 9°42'N 83°47'W, leg. Wagner (FMNH); Zorcero, 8°46'N 82°58'W, 15.9.1943, leg. Bierig (FMNH); Heredia, 10°26'N 83°59'W, 10.3.1973, leg. Wagner (FMNH); Puntarenas, 8°46'N 82°58'W, leg. Wagner (FMNH).

13. *Tannea meridionalis* new species

Fig. 21a-f, Maps 2

Description
Length: 2.8 mm. Colour: Rufotestaceous, head piceous, pronotum slightly darker at apical margin, antennae piceous. *Head*: 0.3 mm long, 0,4 mm wide; with distinct and sparse punctuation, netlike reticulate microsculpture; surface shiny; relatively prominent lateral bulges on the disc at base of antennae. *Antennae*: Short, last antennomeres quadrate. *Pronotum*: 0.4 mm long, 0.5 mm wide; punctuation sparse and deep, with obsolete microsculpture, longitudinally reticulate, surface shiny; the lateral yellow hairs relatively long, depressions at posterior angles distinct and with coriaceous microsculpture, surface scarcely shiny. *Elytra*: 0.5 mm long, 0.6 mm wide; sparsely and deeply punctuate, with longitudinally reticulate microsculpture, surface shiny. *Abdomen*: Laterally with sparse, long, yellow hairs, surface scarcely shiny.

This species is similar in length to *T. amazonica* and *T. fersa*. It is distinguished from *T. amazonica* by the lighter colour and the less coarse punctuation of the pronotum. The differences to *T. fersa* are the denser reticulate microsculpture and the longer paramera of the aedeagus.

Etymology: The specific name was proposed by A. Bierig in his collection. The name is derived from the Latin word *meridianus* meaning southern certainly referring to the distribution in southern Central America.

Holotype: *Costa Rica*: Santa Ana, male, 17.6.1939 leg. Bierig (BMNH).
Paratype: *Costa Rica*: Santa Ana, female, 17.6.1939 leg. Bierig (BMNH).

Further material examined
Mexico: Veracruz, Tezonapa, 3.8.1941, leg. Dybas (FMNH); *Costa Rica*: Sta. Ana, 3.6.1939, leg. Bierig (BMNH); Turrubares, 28.8.1940, leg. Bierig (FMNH); El Poro Grecia, 800 m elevation, 18.2.1941 leg. Bierig (FMNH); Otenzes, 13.10.1940, leg. Bierig (FMNH); Costa de Bustamente, 5.9.1943, leg. Bierig (FMNH); Peralta, 17. - 20.2.1943, leg. Bierig (FMNH); Puntarenas, leg. Bierig (FMNH); Heredia, leg. Bierig (FMNH); Turialba, 40 km NE, Facienda Guayacan, 18.05.1979, leg. J.M. Campbell (CNC); Puntarenas, 35 km N Rio San Luis; moist forest leaf litter, 18.05.1988, leg. L. Longino (CNC); *Panama*: Madden Lake, 15.2.1959, leg. Dybas (FMNH); Columbia: Villavicencio, 23 km NW Meta, 1000 m, 05.03.1972, leg. J. Peck (CNC).

14. *Tannea paraguensis* new species
Fig. 11 a-e, Maps 1

Description
Length: 3.5 mm. *Colour*: Black, antennae piceous, legs rufotestaceous. *Head*: 0.4 mm long, 0.4 mm wide; clypeus with isodiametrically reticulate microsculpture; disc with distinct, sparse punctuation and dense, netlike reticulate microsculpture, shiny; disc laterally at base of antennae with distinct bulges. *Antennae*: 6th and 7th antennomeres 2.5 times as long as wide, antennomeres 2 - 5 and 8 - 11 only twice as long as wide. *Pronotum*: 0,5 mm long, 0.8 mm wide; sides emarginate posteriorly, with distinct and dense punctuation, punctures deeper than on head, netlike or longitudinally reticulate microsculpture, scarcely shiny, with smooth midline; distinct depressions at posterior angles, which are conspicuous by the coarse reticulation. *Elytra*: 0.8 mm long, 0.8 mm wide; punctuation as on pronotum, with netlike or longitudinally reticulate microsculpture, scarcely shiny. *Abdomen*: Laterally with long yellow hairs, feebly punctuate.

The species is characterised by its netlike microsculpture of the head and the structure of the aedeagus. It resembles much *T. brevicollis*, but it can be distinguished by the deeper punctuation of the elytra and the structure of the aedeagus.

Etymology: The specific name is derived from the country of Paraguay, where the species was collected.

Holotype: *Paraguay*: Passo-Yobai, male, 18.6.1951, leg. Foerster (coll. Steel, BMNH).
Paratypes: *Brazil*: Rio de Janeiro, 2 males, 1 female, leg. Göldi (IRSN No. 17,479).

15. *Tannea parallelonota* new species
Fig. 5 a-e, Maps 1

Description
Length: 3.7 mm. *Colour*: Rufotestaceous, abdominal tergites posteriorly yellow, sides with yellow hairs, legs yellow. *Head*: 0.4 mm long, 0.6 mm wide; at each side with a lateral bulge and a flat depression at the inner side; prominent in the middle, punctuation distinct, but sparse, distances between punctures wider than diameter of punctures, with obsolete, netlike microsculpture, surface shiny, nearly polished. *Antennae*: 1st antennomere scarcely shorter than 2nd, 3rd and 4th antennomeres of same length, scarcely longer than 2nd, 5th antennomere very long, longer than the following antennomeres, 5th antennomere and the following ones more than 4 times longer than wide. *Pronotum*: 0.45 mm long, 0.5 mm wide; lateral margin behind anterior margin reflected, covered by the prominent front angles in dorsal view, sides of pronotum a shortly behind anterior angles parallel, enlarged to the middle, emarginate in the posterior half; punctuation coarse, on average distance between punctures shorter than diameter of punctures, between the deeper puncture a very fine micro-punctuation, without a smooth midline, at the posterior edge on both sides of the middle with a transverse, obsolete depression; depressions at the hind angles long and distinct, microsculpture fine, longitudinally reticulate, surface shiny. *Elytra*: 0.6 mm long, 0.6 mm wide; punctuation as coarse as on pronotum, distances between punctures shorter than diameter of punctures; microsculpture fine, netlike or longitudinally reticulate, surface shiny. *Abdomen*: With the typical microsculpture, dull, punctuation very feeble and sparse.

Length of male antennae is similar as in *T. longicornis*, but punctuation of pronotum and elytra is much coarser and easily to differentiate by the typical structure of the anterior edge of pronotum. Anterior angles of female are without the male characteristics and may be distinguished from *T. longicornis* by the coarser punctuation and the more distinct depressions of the posterior angles of pronotum.

Etymology: The specific epithet is a combination meaning "parallel pronotum" and refers to the short parallel anterior part of the pronotum.

Holotype: *Costa Rica*: San Isidoro-La Estrella, male, 28.9.1941, leg. Bierig (FMNH).
Paratypes: *Costa Rica*: Tapanti, 2 males and 2 females, 23. – 28. 1. 1941, leg Bierig (FMNH); San Isidoro-La Estrella, 2 females, 16. 10. 1941, leg. Bierig (FMNH).

Further material examined
Costa Rica: La Palma, Prov. San José, 1550 m elevation, leg. Bierig (FMNH); San Vito, Prov. Puntarenas, 4000 ft elevation, 19.3.1973, leg. Wagner (FMNH); Guanacaste, Conservation Area, wet montane forest litter, 20.02.1996, leg. R. Anderson (SEMC, UIC); *Panama*: San José, Prov. La Hondura, 10°3'N 83°58'W, 5.4.1974, leg. Wagner (FMNH); Chiriqui, leg. Bierig (FMNH); Cerro Campana, 1000 m, 29.07.1970, leg. J.M. Campbell (CNC); Cerro Campana near Capira; forest litter, 05.06.1995, leg. J.S. Ashe (SEMC); Chiriqui, Santa Clara, 01.07.1982, leg. B. Gill (CNC); Piedras Gordas, 7.2 km NE El Cope; forest litter, 07.06.1995, leg. R. Anderson (SEMC); El Hato del Volcan, 27.7 km W Hartmann's Finca, oak forest litter, 16.06.1995, leg. R. Anderson (SEMC, UIC); Boquete, 27 km W and 20 km N Gualaca; Finca La Suiza; oak forest litter, 11.06.1995, leg. R. Anderson (SEMC); La Fortuna, Hydrological Station; forest litter, 09.06.1995, leg. R. Anderson (SEMC); *Columbia*: Anchicaya, 1500 m elevation, 26.07.1970, leg. J.M. Campbell (CNC); *Ecuador*: Baeza, 05.03.1976 at 1500 m elevation or 04.03.1976, 2 km S. Oritoyacu, leg. J.M. Campbell (CNC, UIC); Pichincha, 2700 m elevation, 19 km NW Nono, 01.03.1976, leg. J.M. Campbell (CNC).

16. *Tannea picata* new species
Fig. 16 a-f, Maps 1

Description
Length: 3.4 mm. *Colour*: Piceous, head brown, darker

than pronotum, antennae red, abdominal tergites distally reddish, legs yellow. *Head*: 0.3 mm long, 0.5 mm wide; surface shiny, clypeus with obsolete, netlike reticulate microsculpture, disc posteriorly with obsolete, transversely reticulate microsculpture. *Antennae*: Antennomeres 6 - 10 of male 2.5 times longer than wide. *Pronotum*: 0.4 mm long, 0.6 mm wide; distinctly punctuate, distance between punctures wider than diameter of punctures, size of punctures variable, fine and coarse, a smooth midline, surface shiny; microsculpture longitudinally reticulate; sides emarginate in front of posterior angles, with distinct depressions at posterior angles. *Elytra*: 0.6 mm long, 0.6 mm wide; punctuation distinctly finer, but scarcely sparser than on the pronotum, with longitudinally reticulate microsculpture, surface shiny. *Abdomen*: Laterally with few yellow hairs.

The species is similar to *T. humibiota*. It can be distinguished from that species by the longitudinally reticulate microsculpture of the elytra. The aedeagus is also similar to *T. varablancae*, but *T. varablancae* is larger with a more obsolete microsculpture.

Etymology: The specific name was proposed by A. Bierig. The name is possibly derived from *piceatus* meaning piceously coloured.

Holotype: *Costa Rica*: Guapiles, male, 13.2.1943, leg. Bierig (FMNH).
Paratypes: *Costa Rica*: Guapiles, 4 females, 13.2.1943, leg. Bierig (FMNH).

Further material examined
Cuba: Somorostro, Prov. Havana, 14.8.1932, leg. Bierig (FMNH); *Mexico*: El Cameron, Prov. Oaxaca, 6.9.1973, leg. Newton (FMNH); Chapulhuacan, Prov. Hidalgo, 5.7.1976, leg. Newton (FMNH); Puebla, 98°10'W 19°00'N, 16.-20.7.1973, leg. Newton (FMNH); *Honduras*: Santa Barbara, 11.5 km S; 5.6 km W. Pena Blanca, cloud forest litter, 24.08.1994, leg. R. Anderson (SEMC); *Guatemala*: La Union, 3.5 km S., 25.06.1993, leg. J.S. Ashe (SEMC, UIC); *Costa Rica*: Tapanti, 9.9.1939, 22.-28.1.1940, and 21.7.1940, 1100 m elevation, leg. Bierig (FMNH); Guanacaste, 8.4.1943, leg. Wagner (FMNH); Puntarenas, 21.3.1973, leg. Wagner (FMNH); Finca Las Cruces, leg. Wagner (FMNH); Sabanilla, leg. Bierig (FMNH); Cuarto Bocas, Patilla Biol. Station; under bark, 02.05.1995, leg. J.S. Ashe (SEMC); Monteverde, litter sample, 30.06.1992, leg. M. Jameson (SEMC); Heredia, La Selva, from Helconia flowers, 19.05.1993, leg. J.S. Ashe (SEMC); *Panama*: Cerro Campana, 1.2.1976, leg. Newton (FMNH); Canal Zone, 2.1976, leg. Newton (FMNH); Almirante, 28.3.1959, leg. Dybas (FMNH); Cerro Colorado, Prov. Chiriqui, leg. Dybas (FMNH); La Fortuna, Continental Divide Trail, under bark, 21.05.1995, leg. J.S. Ashe (SEMC); La Fortuna, Hydrological Station; forest litter, 09.06.1995, leg. R. Anderson (SEMC); La Reserva Fortuna, 3 km W La Fortuna, 08.08.1995, leg. Gillogly (SEMC); Boquete, 27 km W; 20 km N Gualaca; Finca La Suiza; fungusy log, 12.06.1995, leg. J. S. Ashe (SEMC); Piedras Gordas, 10 km E, 7.2 km NE El Copé, flight intercept trap, 07.06.1995, leg. J.S. Ashe (SEMC); Cerro Tute, 4 km W. Santa Fé, 30.07.1995, leg, Gillogly (SEMC); Cerro Tute, 6.1 km N Santa Fé, under bark, 13.06.1996, leg. J.S. Ashe (SEMC); Serrania de Pirre, Cana Biol. Station; under bark, 06.06.1996, leg. J.S. Ashe (SEMC); *Venezuela*: Maracay, Prov. Aragua, 3.7.1971, leg. Peck (FMNH)); *Columbia*: Leticia, leaf litter, 27.02.1974, leg. J. Peck (CNC, UIC); Meta, 23 km NW Villavicencio, 05.03.1972, leg. J. Peck (CNC); *Peru*: Cuzco, 11.10.1982, leg. Watrous (FMNH).

17. *Tannea pulcher* (BERNHAUER, 1942) new combination

Fig. 15 a-f, Maps 2

Lispinus pulcher BERNHAUER, 1942: 2 (holotype: *Costa Rica*: Hamburg Farm, Reventazon, near Limon, female, 4.10.1928, under bark, leg. F. Nevermann, examined in FMNH).

Description
Length: 3.5 mm. *Colour*: Piceous, antennae red. *Head*: 0.3 mm long, 0.5 mm wide; sparsely punctuate, with very obsolete microsculpture, shiny, lateral bulges on disc at base of antennae present. *Antennae*: Antennomeres 5 to 10 of male 2.5 times as long as wide, 3rd antennomere scarcely shorter than 4th. *Pronotum*: 0.4 mm long, 0.6 mm wide; deeply and densely punctuate, with obsolete microsculpture, longitudinally reticulate, surface shiny, distinct depressions at posterior angles, sides of pronotum emarginate posteriorly. *Elytra*: 0.65 mm long, 0.65 mm wide; punctuation scarcely finer and sparser than pronotum; base of elytra rufotestaceous, with obsolete longitudinally reticulate ground sculpture, shiny. *Abdomen*: With the typical microsculpture, the very obsolete punctuation, and the lateral yellow hairs.

Very similar to *T. reversa*, but darker and without the bicoloured elytra. It is also similar to *T. varablancae* and is distinguished from this species by the coarser punctuation of the pronotum.

Material examined
Costa Rica: La Palma, 1500 m elevation, male, 17.2.1924, leg. Nevermann (FMNH); Sta. Cruz-Turrialba, 1100 m elevation, 1 male and 1 female, 28.5.1939 and 13.-16.2.1939, leg. Bierig (FMNH); La Palma, 2 females with data like for holotype (FMNH); Naranjo, 2.7.1939, leg. Bierig (FMNH); Puntarenas, leg. Bierig (FMNH); Monteverde, 20.05.1979, leg. J.M. Campbell (CNC); *Panama*: Piedras Gordas, 10 km E, 7.2 km NE El Copé, flight intercept trap, 07.06.1995, leg. J.S. Ashe (SEMC); Serrania de Pirre, Cana Biol. Station; under bark, 05.06.1995, 09.06.1995, leg. J.S. Ashe (SEMC, UIC); *Columbia*: Anchicaya, 1500 m elevation, 26.07.1970, 23.07.1970, fungusy log, leg. J.M. Campbell (CNC, UIC), Leticia, leaf litter, 27.02.1974, leg. J. Peck (CNC,

UIC); Meta, 23 km NW Villavicencio, 05.03.1972, leg. J. Peck (CNC); *Ecuador*: Baeza, 1000 m elevation, 04.03.1976, leg. J. Peck (CNC).

18. *Tannea punctata* (BLACKWELDER, 1943) new combination

Fig. 3 a-f

Paralispinus punctatus BLACKWELDER, 1943: 161 (holotype: *Puerto Rico*: El Yunque, male, leg. Darlington, in MCZ examined).

Description

Length: 3.5 mm. *Colour*: Red, the posterior third of elytra dark. *Head*: 0.35 mm long, 0,5 mm wide; with netlike reticulate microsculpture, feebly punctuate, without bulges or depressions. *Antennae*: Male antennae nearly as long as in *T. longicornis*, female antennae distinctly shorter, the middle antennomeres slightly longer than wide. *Pronotum*: 0.5 mm long, 0.6 mm wide; with netlike reticulate microsculpture, punctuation more distinct than on head and elytra, sides emarginate posteriorly. *Elytra*: 0.75 mm long, 0.75 mm wide; microsculpture longitudinally reticulate; punctuation fine; surface scarcely shiny.

The species is similar to *T. longicornis* but differentiated by the colour of elytra.

19. *Tannea resoluta* new species

Fig. 19 a-f

Description

Length: 3.3 mm. *Colour*: Rufotestaceous, pronotum reddish, head and elytra darker than pronotum, elytra reddish at the base and dark on the disc, last abdominal tergites yellow. *Head*: 0.4 mm long, 0.5 mm wide; very feebly and sparsely punctuate, distance between punctures much wider than diameter of punctures; microsculpture distinct, clypeus with transverse reticulate microsculpture, posterior head with netlike microsculpture; surface shiny; with distinct lateral bulges on disc at the base of antennae, eyes very small, shorter than temples and scarcely prominent. *Antennae*: 2nd antennomere nearly as long as 3rd, 4th to 6th antennomere longer than wide, the following antennomeres as long as 5th, but quadrate. *Pronotum*: 0.5 mm long, 0.7 mm wide; widest at middle, sides arcuately narrowed to anterior angles, emarginate posteriorly, posterior angles slightly arched and with obsolete depressions at posterior angles, punctuation distinct, distance between punctures on average wider than diameter of punctures; with distinct, longitudinally reticulate microsculpture and surface shiny as head. *Elytra*: 0.7 mm long, 0.7 mm wide; with distinct and coarse punctuation, distance between punctures on average shorter than diameter of punctures, microsculpture netlike reticulate and as distinct as on pronotum, surface less shiny as head and pronotum. *Abdomen*: With typical microsculpture, very feebly punctuate, laterally with yellow hairs.

This species is similar to *T. tenella* and *T. fersa* by the relatively short antennae of male, but is distinguished by the microsculpture of elytra. The microsculpture of elytra is similar to *T. humibiota*, but much more distinct. Length of antennae varies for male as for *T. tenella*. Also males with prolonged antennae exist.

Etymology: The specific name is derived from the Latin word *resolutus* meaning courageously and refers to relatively thick form of the body.

Holotype: *Costa Rica*: Puntarenas, OTS Sta. 5 km SW Finca Las Cruces, 4700 ft elevation La Fila, male, 15.3.1973, leg. J. Wagner & J. Kethley FM(HD) #73-306, 73CRIII-15d, La Fila, leaf litter, forest slope 3 m^2, 100 cc (Top 3'' of 8'' base) (FMNH).
Paratypes: 1 male, 2 females with data like for holotype (FMNH).

Further material examined

Costa Rica: Heredia, 10°26'N 83°59'W, leg. Wagner (FMNH); Santa Maria, 1400 m elevation, 23.4.1943, leg. Bierig (FMNH); *Panama*: Cerro Colorado, Prov. Chiriqui, 8.1.1981, leg. Suter (FMNH).

20. *Tannea reversa* (BLACKWELDER, 1943) new combination

Fig. 2 a-f

Pseudolispinodes reversa BLACKWELDER, 1943: 122 (holotype: *Dominican Republic*: Constanza, No. 27492, 08.1938 leg. Darlington, in MCZ examined).
Pseudolispinodes morugae BLACKWELDER, 1943: 121 (holotype: *Trinidad*: Moruga, No. 52362, 31.12.1935, leg. Blackwelder in NMNH examined). NEW SYNONYMY.

Description

Length: 3.0 mm. Colour: Red, elytra in anterior half red and in posterior half dark, abdominal tergites anteriorly dark. *Head*: 0.3 mm long, 0.4 mm wide; feebly punctuate, with netlike microsculpture. *Pronotum*: 0.4 mm long, 0.5 mm wide; sides of pronotum emarginate at posterior third, deeply and coarsely punctuate, with smooth midline, depressions at posterior angles not deep but distinct, microsculpture longitudinally reticulate. *Elytra*: 0.5 mm long, 0.6 mm wide; microsculpture longitudinally reticulate, punctuation finer than on pronotum. *Abdomen*: With fine nearly invisible punctuation.

The species is very conspicuous by the typical colour of elytra.

Material examined

Dominican Republic: Constanza, 18°53'N 70°44'W, leg. Darlington (MCZ); *Trinidad*: Moruga, 10°44'N 61°21W, leg. Blackwelder (NMNH); St. Augustin 19.4.1935, leg Weber (FMNH).

21. *Tannea salasi* new species
Fig. 14 a-f, Maps 2

Description
Length: 3.6 mm. *Colour*: Piceous, antennae red. *Head*: 0.4 mm long, 0.5 mm wide; feebly punctuate, with deep microsculpture, isodiametrically or netlike reticulate, dull, on the disc with obsolete, lateral bulges. *Antennae*: Antennomeres 5 to 10 of male 2.5 times as long as wide. *Pronotum*: 0.45 mm long, 0.65 mm wide; sides emarginate posteriorly, punctuation coarser than on head, microsculpture distinct, on the disc longitudinally reticulate, laterally with more netlike microsculpture, scarcely shiny; depressions at posterior angles obsolete. *Elytra*: 0.7 mm long, 0.7 mm wide; more sparsely punctuate than on pronotum, with distinct, longitudinally reticulate microsculpture. *Abdomen*: Laterally with yellow hairs.

Similar to *T. picata* and *T. tenella*. It can be distinguished from both species by the more distinct and netlike microsculpture and the dull surface. It is mainly differentiated by the simple structure of the endophallus of aedeagus.

Etymology: The specific name was proposed by A. Bierig in his collection. A. Bierig was priest in the Salesian Order. The name certainly refers to the name of the priest order.

Holotype: *Costa Rica*: male, 31.11.1942, Guapiles, coll. Bierig (FMNH).
Paratypes: *Costa Rica*: Turrialba, female, 28.5.1939, coll Bierig (FMNH); Guapiles, 3 males, 31.11.1942, coll. Bierig (FMNH).

Further material examined
Mexico: Prov. Vera Cruz, El Fortin, leg. Dybas (FMNH); *Guatemala*: Alta Verapaz, 4.6.1948, leg. Mitchill (FMNH); *Honduras*: Tela (Atlantida), Lancetilla Botan. Graden; under bark, 23.06.1994, leg. J.S. Ashe (SEMC); *Costa Rica*: Puntarenas, 15.3.1973, leg. Wagner (FMNH); *Panama*: Almirante, 25.3.1959, leg. Dybas (FMNH); Canal Zone, Barro Colorado Is., 6.2.1976, leaf litter, leg. Newton (FMNH); La Fortuna, Continental Divide Trail; uner bark, 21.05.1995, leg. J.S. Ashe (SEMC, UIC); *Columbia*: Anchicaya, 1500 m elevation, 26.07.1970, leg. J.M. Campbell (CNC, UIC); Leticia, 09.07.1970, 11.07.1970, leaf litter, leg. J.M. Campbell (CNC); *Ecuador*: Chimborasso, 8.1897, leg. Rombas (FMNH); without further data (IRSN); Pichincha, Rio Palenque, 47 km S S. Domingo, leaf litter, 28.02.1976, leg. J.M. Campbell (CNC, UIC); Pichincha, Tandapi, Cornejo Astorga, 25.06.1975, leg. J. Peck (CNC); Rio Napo, 4 km W Papallacta, 02.03.1976, leg. J.M. Campbell (CNC); *Peru*: Pebas, without further data (IRSN); *French Guyana*: Camopi, without further data (IRSN).

22. *Tannea schubartii* new species
Fig. 8 a-e, Maps 2

Description
Length: 3.8 mm. *Colour*: Piceous, antennae brown, legs yellow. *Head*: 0.5 mm long, 0.6 mm wide; clypeus reddish, head distinctly and densely punctuate, shiny, a distinct lateral carina on the disc and longitudinal depressions on both sides of the middle, which form a prominent bulge at the middle of the head. *Antennae*: 4th to 7th antennomeres twice as long as wide. *Pronotum*: 0.5 mm long, 0.7 mm wide; microsculpture longitudinally reticulate, scarcely shiny, punctuation dense, punctures slightly coriaceous, sides strongly emarginate posteriorly, with distinct depressions at posterior angles. *Elytra*: 0.8 mm long, 0.75 mm wide; densely and deeply punctuate, with longitudinally reticulate microsculpture, shiny. *Abdomen*: With long, but sparse hairs.

This species can be easily distinguished from other *Tannea* species by the typical structure of the male head. Female antennae with quadrate antennomeres. Female head without the typical structure of the male head and with isodiametrically reticulate microsculpture, scarcely shiny.

Etymology: The species is dedicated to the Brazilian scientist Dr. H. Schubart, who collected the species and put his rove beetle collections to my disposal..

Holotype: *Brazil*: Rio de Janeiro, Estr. do Sumaré, male, 6.7.1960, leg. H. Schubart (INPA).
Paratypes: *Brazil*: Rio de Janeiro, 8 males, 16 females, 16.12.1959, 6.7.1969, 7.8.1960, 13.3.62 leg H. Schubart (UIC).

Further material examined
Brazil: Rio de Janeiro, without further data (IRSN); São Paulo, Salesopolis, 26.12.1969, leg. J.M. Campbell (CNC).

23. *Tannea tenella* (Erichson, 1840) new combination
Fig. 20 a-f, Maps 2

Lispinus tenellus Erichson, 1840: 23 (holotype: *St. John*, in MNB examined).
Lispinus obsoletus Bernhauer, 1921: 67 (*Bolivia*: Yuracaris, 1901, coll. Bang-Haas, in FMNH examined). NEW SYNONYMY.
Lispinus impar Cameron, 1913: 322 (holotype: *St. Vincent*: Leeward side, female, leg. H.H. Smith, 1920-353, 250 in BMNH, paratypes: 2 males, 2 females, same data, No. 66, 49, 6, in BMNH examined). NEW SYNONYMY.

Description
Length: 3.2 mm. Colour: Piceous, legs and antennae yellow. *Head*: 0.4 mm long, 0.5 mm wide; with isodiametrically reticulate microsculpture, punctuation obsolete and sparse. *Antennae*: 5th to 8th antennomeres quadrate, antennomeres 9 and 10 slightly transverse. *Pronotum*: 0.4 mm long, 0.6 mm wide; microsculpture obsolete, longitudinally reticulate; punctuation sparse; sides slightly emarginate posteriorly. *Elytra*: 0.6 mm long, 0.6 mm wide; microsculpture dense, longitudinally reti-

culate, dull; punctuation obsolete and sparse, some punctures on the disc with more or less long yellow hairs.

This species is characterised by the dense longitudinally reticulate microsculpture of elytra and the sparse punctuation. The aedeagus has a typical prominent triangle at the top. The length of male antennae is variable. Some male specimens have conspicuously prolonged antennae, others have only slightly prolonged antennae, which are similar to the female antennae. In the male antennae the 6th antennomere is always longer than wide, 6th antennomere of female antennae is quadrate.

Remarks

BERNHAUER & SCHUBERT (1910) and BLACKWELDER (1944) mentioned *L. flavipennis* FAUVEL, 1865: 58 and *L. tenuis* LECONTE, 1863: 60 as synonyms of *T. tenella*. The type specimens of *L. tenuis* LECONTE, 1863 and *L. flavipennis* FAUVEL, 1865 were examined. They are distinct species belonging to the genus *Nacaeus*. Further comments on the type investigation are given there. BERNHAUER & SCHUBART (1910) and BLACKWELDER (1944) also mentioned *Lispinus fauveli* SHARP, 1887: 720 as a synonym of *Tannea tenella* (ERICHSON, 1840). However, IRMLER (1991) found that *Lispinus fauveli* SHARP, 1887 is a synonym of *Clavilispinus exiguus* (ERICHSON, 1840). Types of *Lispinus impar* CAMERON, 1913 were also examined and found conspecific with *Tannea tenella*.

Material examined

Antilles: St. John (NMB); St. Thomas (NHMN); St. Vincent (NHMN); type specimens of *T. impar* and 3 further specimens, leg. H.H. Smith (BMNH,); *Mexico*: El Fortin, 8.7.1941, 31.7.1973, leg. Dybas and leg. Newton (FMNH); Cordoba, Prov. Vera Cruz, 20.7.1936, leg. Dybas (FMNH); Tuxpauqa, 1.8.1941, leg. Dybas (FMNH); *Belize*: without further data (IRSN); *Costa Rica*: Guanacaste, leg. Wagner (FMNH); *Panama*: Canal Zone, Barro Colorado Is., 16.1.1959, leg. Dybas (FMNH); Balboa, 24.10.1975, leg. D.S. Chandler (FMNH); Cerro Colorado, Prov. Chiriqui, 27.1.1981, leg. Suter (FMNH); El Vale, Prov. Cocle, 21.2.1989, leg. Dybas (FMNH); *Venezuela*: Aragua, Dom. Moritz (MNB); *Trinidad*: Balandra Bay, 4.1922, leg. Reynold (FMNH); *Suriname*: Berg en Dal, 1908, leg. C. Heller (NMB); *Ecuador*: Pastaza, Rio Cusuimi, 5.1931, leg. Malkin (FMNH); *Peru*: Cuzco, 10.2.1982, leg. Watrous (FMNH); *Bolivia*: Yuracaris, col. Bernhauer (FMNH, NHMN); *Paraguay*: São Bernadino (MNB); Hohenau (NHMN); *Brazil*: Paso Quatro, Prov. Minas Gerais (NHMN); Nova Teutonia, Prov. Santa Catharina, leg. Plaumann (FMNH); Petropolis (IRSN); *Argentina*: Buenos Aires, without further data (NHMN); leg. Bruch (IRSN).

24. *Tannea varablancae* new species

Fig. 13 a-f, Maps 2

Description

Length: 3.9 mm. *Colour*: Piceous, antennae red, head and abdomen rufotestaceous, last abdominal tergites yellow, legs yellow. *Head*: 0.4 mm long, 0.5 mm wide; finely and distinctly punctuate, clypeus with dense netlike microsculpture, laterally with longitudinally reticulate microsculpture, distinct lateral bulges on disc at base of antennae present, surface shiny. *Antennae*: Antennomeres 5 - 10 of male 2.5 times longer than wide, 4th antennomere shorter than 3rd. *Pronotum*: 0.5 mm long, 0.6 mm wide; distinctly punctuate, distance between punctures wider than diameter of punctures, sides emarginate posteriorly, with longitudinally reticulate microsculpture, on both sides of the smooth midline an obsolete depression at posterior edge, depressions at posterior angles distinct, surface shiny. *Elytra*: 0.8 mm long, 0.7 mm wide; punctuation obsolete and sparser than on pronotum, netlike reticulate microsculpture, surface shiny. *Abdomen*: Laterally with yellow hairs.

The species resembles *T. pulcher* in colour, but is differentiated by the finer punctuation of the pronotum. The aedeagus is much larger than that of *T. pulcher*.

Etymology: The specific name is derived from the village of Vara Blanca, situated in Costa Rica near the city of Turrialba, where the species was collected.

Holotype: *Costa Rica*: Vara Blanca, 2000 m elevation, male, 8.1938, leg. Bierig (FMNH).
Paratypes: *Costa Rica*: Vara Blanca, Tapentin, La Palma, 6 females, 1 male, 18.12.1940, 22.1.1941, 13.2.1924, leg Bierig (FMNH).

Further material examined

Costa Rica: Tapentin, 22.1.1944, leg. Bierig (FMNH); Turito, 13.2.1939, leg. Bierig (FMNH); San José, 1937, leg. Bierig (FMNH); Guanacaste, leg. Bierig (FMNH); Turrialba, 13.2.1939, leg. Bierig, (FMNH); La Palma, 13.4.1941, leg. Bierig (FMNH); Puntarenas, leg. Bierig (FMNH); Heredia, 10.3.1973, leg. Wagner (FMNH); *Panama*: Chiriqui, 81°50' W, 8°34' N, 1856 m elevation, near Escopete, 16.6.1980, leg. Wagner (FMNH); Bocas del Toro, 82°14' W, 9°20' N, 1500 m elevation, near S. Felix, 23.3.1959, leg. Dybas (FMNH); Almirante, 28.3.1959, leg. Dybas (FMNH); El Valle, 21.2.1960, leg. Dybas (FMNH); El Hato del Volcan, 27.7 km W Hartmann's Finca, oak forest litter, 16.06.1995, leg. R. Anderson (SEMC, UIC); *Ecuador*: Baeza, 2 km s Oritoyacu, 04.03.1976, leg. J.M. Campbell (CNC); *Bolivia*: Yungas, 12.7.1964, leg. Malkin (FMNH).

KEY TO THE NEOTROPICAL SPECIES OF THE GENUS *NACAEUS* BLACKWELDER, 1942

1. Antennae of males prolonged like in the genus *Tannea*, at least 6th antennomere longer than wide also in females, eyes prominent 2
– Antennae of males and females short, middle antennomeres wider than long, eyes usually not prominent within the lateral curve of head 3

2. Larger, 3.5 mm, microsculpture of pronotum and elytra netlike reticulate, pronotum without midline (Fig. 50) ..... 24. *N. sulciger* n. sp.
– Smaller, 2.9 mm, microsculpture of elytra weak, pronotum with distinct midline (Fig. 51) ..... 5. *N. cordiger* n. sp.
3. Rufotestaceous, strongly depressed, head short and widely oval (Fig. 26) ..... 18. *N. planellus* (SHARP, 1887)
– Piceous or yellow species, but in that case not strongly depressed, head of normal circular form . 4
4. Pronotum with distinct and deep depressions at posterior angles, depressions with dense ground sculpture, dull (Fig. 27, 52 E) ..... 7. *N. depressus* (SHARP, 1876)
– Pronotum with obsolete depressions at posterior angles, ground sculpture of depressions and disc similar 5
5. Elytra without or with obsolete longitudinally reticulate ground sculpture, strongly shiny 6
– Elytra with distinct isodiametrically or longitudinally reticulate ground sculpture, less shiny, mostly dull 7
6. Large, black species of 3.2 mm length, pronotum and elytra without ground sculpture, between the coarse punctures a fine micropunctulation, strongly shiny (Fig. 34) ..... 11. *N. inkae* n. sp.
– Small, yellow species of 2.6 mm length, pronotum and elytra with obsolete, longitudinally reticulate ground sculpture, obsolete punctuation, shiny (Fig. 29, 52 F) ..... 17. *N. peruvianus* n. sp.
7. Elytra with longitudinally reticulate ground sculpture 10
– Elytra with netlike or isodiametrically reticulate ground sculpture 13
8. Head and pronotum black, elytra red 9
– Unicoloured brown or black 11
9. Elytra with obsolete and sparse, scarcely visible punctuation, distinct longitudinally reticulate ground sculpture, dull, dorsoventrally depressed, 2.5 mm long (Fig. 37) ..... 1. *N. bicolor* (SHARP, 1887)
– Elytra with distinct punctuation, punctures finer than on pronotum, ground sculpture less distinct, shiny 10
10. Larger species, 3.1 mm long, elytra totally red, pronotum with very coarse and dense punctures, punctuation on elytra much more obsolete than on pronotum, lateral margin visible also at anterior angles (Fig. 33) ..... 2. *N. brasiliensis* n. sp.
– Smaller species, 2.5 mm long, elytra at base black, pronotum densely but less coarsely punctuate, lateral margin of pronotum reflected at the anterior angles and covered by the angles in dorsal aspect (Fig. 32) ..... 20. *N. rufopiceus* n. sp.
11. Sides of pronotum smoothly arcuate, not emarginate posteriorly, ground sculpture of pronotum and elytra longitudinally reticulate, 2.4 mm long (Fig. 35, 51 J) ..... 25. *N. surinamensis* n. sp.
– Sides of pronotum emarginate posteriorly 12
12. Larger species, 2.6 mm long, ground sculpture on pronotum and elytra longitudinally reticulate (Fig. 36, 52 I) ..... 4. *N. collinus* n. sp.
– Smaller species, 2.2 mm long, ground sculpture on pronotum netlike reticulate, on elytra longitudinally reticulate (Fig. 31) ..... 16. *N. paratenuis* n. sp.
13. At least pronotum and elytra yellow or rufotestaceous 14
– Only elytra red or totally black or piceous ... 16
14. Totally yellow or rufotestaceous, elytra short, wider than long, with obsolete, netlike reticulate ground sculpture, elytra slightly shiny, pronotum with distinct, obsolete punctuation, 2.6 mm long (Fig. 28, 52 G) ..... 3. *N. claviger* (CAMERON, 1913)
– Only pronotum and elytra yellow, punctures on pronotum and elytra very fine, on elytra scarcely visible, smaller than the micro-reticulation 15
15. Head with isodiametrically reticulate microsculpture, pronotum and elytra with ovally reticulate microsculpture, dull, 2.2 mm (Fig. 40) ..... 14. *N. nigrifrons* (CHEVROLAT & FAUVEL, 1863)
– Pronotum and elytra with netlike reticulate ground sculpture, dull, smaller, 2.0 mm (Fig. 42) ..... 12. *N. laetus* (SHARP, 1876)
16. Totally black or piceous 20
– Elytra red; head, pronotum and abdomen black or piceous 17
17. Larger species, 3.2 mm long, elytra rufotestaceous (Fig. 41) .. 23. *N. spegazzinii* (BERNHAUER, 1933)
– Smaller species, 2.4 – 2.7 mm long, elytra red or yellow 18
18. Antennae longer, nearly as long as head and pronotum together, last antennomeres scarcely wider than long, elytra quadrate, yellow part of elytra not reaching the anterior edge, larger, 2.7 mm long (Fig. 45) ..... 13. *N. nervermannii* (BERNHAUER, 1942)
– Antennae shorter, last antennomeres distinctly wider than long, smaller, 2.4 mm long 19
19. Depressions at posterior angles of pronotum small and obsolete, the smooth midline of pronotum small, 2.4 mm long (Fig. 44) ..... 8. *N. flavipennis* (FAUVEL, 1865)
– Depressions at posterior angles of pronotum distinct, the smooth midline of pronotum wider, 2.4 mm long (Fig. 39) ..... 19. *N. rufonigrus* n. sp.
20. Ground sculpture on pronotum and elytra netlike reticulate 21
– Ground sculpture on pronotum and elytra isodiametrically reticulate 22
21. Larger species, 3.4 mm long, sides of pronotum emarginate posteriorly, punctuation on pronotum and elytra distinct (Fig. 30, 52 H) ..... 10. *N. impressicollis* (MOTSCHULSKY, 1857)
– Smaller species, 2.5 to 3.0 mm long, sides of pronotum posteriorly not emarginate, with distinct, netlike ground sculpture and obsolete punctuation (Fig. 38) ..... 26. *N. tenuis* (LECONTE, 1863)
22. Very small species, 2.0 mm long, dorsoventrally depressed (Fig. 43) .. 22. *N. simplex* (SHARP, 1876)

– Larger, black species, at least 2.5 mm long, dorsoventrally not depressed 23
23. Very large species, 4.2 mm long, pronotum with coarse, but not coriaceous punctuation, distance between punctures on average smaller than diameter of punctures (Fig. 47, 52 A) . . . . . 9. *N. funebris* (BERNHAUER, 1921)
– Smaller species, not longer than 3.6 mm 24
24. Larger species, 3.2 –3.6 mm long, microsculpture of elytra distinctly, but not scaly reticulate, with small oval meshes, surface dull, elytra longer than wide (Fig. 48, 52 C) . . . . 15. *N. opacus* (FAUVEL, 1865)
– Smaller species, 2.6 –3.2 mm long, microsculpture of elytra with scaly or more netlike reticulation . . 25
25 Elytra with scaly reticulate microsculpture, surface very dull, elytra longer than wide (Fig. 46, 52 C) . . . . . 6. *N. dejectus* (SHARP, 1887)
– Elytra with more weakly netlike reticulate microsculpture, surface slightly shiny, elytra quadrate (Fig. 49, 52 D) . . 21. *N. sculpturatus* (SHARP, 1887)

DESCRIPTION OF NEOTROPICAL SPECIES OF GENUS *NACAEUS* BLACKWELDER, 1942

1. *Nacaeus bicolor* (SHARP, 1887) new combination
Fig. 37 a-f, Maps 3

Lispinus bicolor SHARP, 1887, 721 (syntype: *Belize*: R. Hondo leg. Blancaneaux, in BMNH examined).

Description
Length: 2.5 mm. *Colour*: Head piceous, pronotum rufotestaceous, elytra red, abdomen black, abdominal tergites distally red, legs and antennae yellow. *Head*: 0.3 mm long, 0.4 mm wide; without punctuation, ground sculpture netlike reticulate, surface dull. *Pronotum*: 0.35 mm long, 0.5 mm wide; sides slightly emarginate posteriorly, slightly depressed in dorsoventral aspect, punctuation distinct and dense, ground sculpture longitudinally reticulate, surface dull, depressions at hind angles obsolete. Elytra: 0.5 mm long, 0.5 mm wide; dorsoventrally depressed like pronotum, punctuation obsolete, ground sculpture longitudinally reticulate, dull. *Abdomen*: with obsolete punctuation.

Differentiated from the related species by the red elytra and the dense longitudinal reticulate ground sculpture.

Material examined
Mexico: Balzapote, Veracruz, 7.7.1976, leg. Newton (FMNH); Oaxaca, Valle National, under bark, 11.8.1973, leg. Newton (FMNH) and 19.05.1971, leg. D.E. Bright (CNC, UIC); Blanca, Prov. Veracruz, 28.7.1941, leg. Dybas (FMNH); Catemaco, 01.05.1969, leg. J.M. Campbell (CNC); *Belize*: R. Hondo, leg. Blancaneaux (BMNH); *Guatemala*: El Reposo, leg. Champion (BMNH); *Costa Rica*: Hamburg Farm, near Limon, under bark, 14.5.1925, 1.7.1938, 2.1941, leg. Bierig and leg. Nevermann (FMNH); Guapiles, under bark, 14.5.1935 and 13.2.1943, leg. Nevermann (FMNH); Pocora, 23.11.1940, leg. Bierig (FMNH); Puerto Viejo, 04.08.1965, leg. G. Raske (CNC, UIC); *Panama*: Almirante, 24.3.1959, leg. Dybas (FMNH); El Hato del Volcan, 10.3.1959, leg. Dybas (FMNH); Gativo, leg. Bierig (FMNH); Achiote, SW Gatun, leg. Chandler (FMNH); Barro Colorado Is., 19.6.1976 and 2.1976, leg. Newton (FMNH); Altos de Majé, 6.10.1976, leg. Chandler (FMNH); *Columbia*: Villavicencio, 11.7.1938, leg. Dybas (FMNH); Puerto Putumayo, 7.9.1971, leg. Malkin (FMNH); Serrania de Perija, 1500 m, 19.8.1968, leg. Malkin (FMNH); Rio San Miguel, 400 m elevation, 7.9.1971, leg. Malkin (FMNH); Rio Muco, leg. Thieme (MNB); *Venezuela*: Merida, 12.05.1969, leg. D.E. Bright, (CNC, UIC); *Suriname*: Anapaike village, Prov. Marowijne, 16.11.1963, leg. Malkin (FMNH); Langatabbatije, 28.08.1980, under bark, leg Russell (BMNH); *Ecuador*: Pastaza, under bark, 15.5.1971, leg. Malkin (FMNH); *Peru*: Pebas, without further data (IRSN); *Bolivia*: Yuaracaris, without further data (IRSN); *Brazil*: Manaus, 01.09.1971, leg. U. Irmler (UIC); Barra Tapirapé, 11.7.1963 and 24.1.1964, leg. Malkin (FMNH), Benevides without further data (IRSN); Nova Teutonia, 01.10.1972, leg. F. Plaumann (CNC, UIC).

2. *Nacaeus brasiliensis* new species
Fig. 33 a-f, Maps 4

Description
Length: 3.1 mm. *Colour*: Head, pronotum, and abdomen black, elytra red, antennae rufotestaceous, legs yellow. *Head*: 0.3 mm long, 0.4 mm wide; distinctly punctuate, with longitudinally reticulate ground sculpture, surface shiny. *Antennae*: Last antennomeres transverse. *Pronotum*: 0.4 mm long, 0.5 mm wide; densely and coarsely punctuate, with smooth midline; with obsolete ground sculpture, longitudinally reticulate, surface shiny; sides posteriorly emarginate; depressions at posterior angles obsolete. *Elytra*: 0.6 mm long, 0.5 mm wide; less densely and coarsely punctuate than pronotum, the longitudinally reticulate ground sculpture more distinct than on pronotum, surface less shiny than surface of pronotum. *Abdomen*: Without hairs.

The species is differentiated from the other species with red elytra by the indistinct ground sculpture, the coarse punctuation of the pronotum and the longitudinally reticulate ground sculpture of elytra.

Etymology: The specific name is derived from the state of Brazil.

Holotype: *Brazil*: Blumenau, without further data, male, coll. Reitter (BMNH).
Paratypes: *Brazil*: without same data as holotype, 1 male and 2 females, coll. Reitter (BMNH, UIC).

Material examined
Peru: Tambillo, without further data (IRSN); *Brazil*: Santa Catharina, without further data (IRSN).

3. *Nacaeus claviger* (CAMERON, 1913) new status
Fig. 28 a-f, 52 G, Maps 3

Lispinus claviger CAMERON, 1913: 321 (holotype male: St. Vincent, Leeward side, West Indies, leg. H.H. Smith, No. 1920-353, in BMNH, examined).

Description
Length: 2.1 mm. *Colour*: Head and abdomen piceous, tergites distally reddish, last tergite totally rufotestaceous, pronotum and elytra rufotestaceous, pronotum with a small, dark midline, antennae and legs yellow. *Head*: 0.25 mm long, 0.4 mm wide; with very fine and sparse punctures, scarcely visible, ground sculpture on the clypeus and the anterior head transversely reticulate, surface scarcely shiny, ground sculpture on the posterior head indistinct, surface shiny; laterally and on the disc between the eyes with few yellow hairs. *Antennae*: 2nd to 5th antennomeres slightly longer than wide, 6th antennomere quadrate, 7th to 10th antennomeres transverse. *Pronotum*: 0.3 mm long, 0.4 mm wide; punctures distinct and moderately sparse, the indistinct ground sculpture longitudinally reticulate, surface shiny; depressions at hind angles obsolete; widest near anterior angles, arcuately narrowed to the anterior angles, straightly narrowed to posterior angles; few yellow hairs at anterior and lateral margin and one hair on the disc on each side of the middle. *Elytra*: 0.4 mm long, 0.4 mm wide; punctures much sparser and more obsolete than on pronotum; the dense ground sculpture netlike reticulate and more distinct than on pronotum, similar to the ground sculpture of clypeus, surface scarcely shiny; laterally and on the disc with few yellow hairs. *Abdomen*: With the normal diagonally reticulate ground sculpture, surface scarcely shiny, laterally with long yellow hairs.

Similar to *N. peruvianus*, but differentiated by the more slender feature and the netlike reticulate ground sculpture of elytra, while there are only traces of ground sculpture on the elytra in *N. peruvianus*.

Remarks
BLACKWELDER 1943: 122 synonymised *Lispinus claviger* with *Lispinus (Pseudolispiondes) impar*. But *Lispinus impar* CAMERON, 1913 is conspecific with *Tannea tenella* (ERICHSON, 1840).

Material examined
St. Vincent: without further data, leg. H.H. Smith (IRSN); *Costa Rica*: Puntarenas, 15.3., 28.3.1973, leg. Wagner (FMNH, UIC); Heredia, 9.3.1973, leg. Wagner (FMNH); Guanacaste, 8.4.1973, leg. Wagner (FMNH); Puerto Viejo, 06.03.1992, leg. W. Bell (SEMC); Peninsula de Osa, 10 km W. Rincon, forest litter, 21.06.1997, leg. R. Anderson, R. (SEMC, UIC); *Peru*: Cuzco, 12-10.1982, leg. Watrous (FMNH); Manu, 4.10., 12.10., 13.10.1982, leg. Watrous (FMNH); Madre de Dios, 27.10.1982, leg. Watrous (FMNH); Panguana, Rio Pachitea, 7.8.1975, 22.9., 24.9.1975, and 16.5.76, leg. Hanagarth, from litter at river margin (UIC); 20.12.1984, leg. Verhaagh (UIC); Puerto Maldonado, Reserva Cuzco Amazonica, flight intercept trap, 15.06.1989, leg. R. Leschen (SEMC); *Bolivia*: Villa Montes, 17.11.1930, leg. Eisentraut (MNB); *Brazil*: Tefé, without further data (IRSN); Rio Caraguata, 3.1953, leg. F. Plaumann (FMNH); Rondon, 01.05.1952, leg. F. Plaumann (CNC); Brasilia, 06.03.1970, leg. J.M. Campbell (CNC, UIC); Guacui, 08.01.1970, leg. F. Plaumann (CNC); Iguacú, 10.02.1970, leg. J.M. Campbell (CNC); *Argentina*: Iguazu, rain forest litter, 23.09.1998, leg. Leponce (IRSN, UIC).

4. *Nacaeus collinus* new species
Fig. 36 a-f, 52 I, Maps 4

Description
Length: 2.6 mm. *Colour*: Black, abdomen piceous, 5th abdominal tergite distally yellow, 6th totally yellow, antennae piceous, legs yellow. *Head*: 0.3 mm long, 0.4 mm wide; with extremely fine punctures; ground sculpture distinct, transversely reticulate at clypeus and roundly reticulate on posterior head, surface dull; laterally on the disc near the base of antennae an obsolete depression. *Antennae*: 4th and 5th antennomeres nearly as long as wide, the following antennomeres wider than long. *Pronotum*: 0.4 mm long, 0.5 mm wide; punctures much deeper and sparser than on head, distance between punctures wider than diameter of punctures, ground sculpture nearly as distinct than on head, but totally longitudinally reticulate, a smooth, shiny midline without punctures and with indistinct ground sculpture, surface dull; sides arched, slightly emarginate posteriorly; with obsolete depressions at hind angles. *Elytra*: 0.5 mm long, 0.5 mm wide; except a few deeper punctures with longer hairs very feebly punctuate, nearly as fine as on head, ground sculpture as distinct as on pronotum and longitudinally reticulate, surface dull; near scutellum on both sides of the elytra with an obsolete depression. *Abdomen*: With the typical diagonally reticulate ground sculpture, laterally with very fine punctures and yellow hairs, surface more shiny than pronotum and elytra.

The species is very similar to *N. tenuis, N. paratenuis* and *N. surinamensis*, but distinguished from *N. tenuis* and *N. paratenuis* by the longitudinally reticulate ground sculpture of pronotum and from *N. surinamensis* by the wider body and the slightly emarginate sides of pronotum.

Etymology: The specific epiteth is derived from the same Latin word meaning living on mountains.

Holotype: *Costa Rica*: Sta. Cruz de Turrialba, 1100 m elevation, May 28, 1939, leg Bierig, No. 2-13812 (FMNH).
Paratypes: *Costa Rica*: 1 male and 2 females from location and with data like holotype (FMNH); Punta Atenas, female: April 3, 1943, leg Bierig (FMNH).

Material examined
Panama: Barro Colorado Is., Canal Zone, 4.4.1959, leg Dybas, found under bark (FMNH, UIC); *Columbia*: Mag-

dalena, Serrania de Perija, Scorpa Mission, 1350-1400 m elevation, 18.8.1968, leg Malkin (FMNH).

5. *Nacaeus cordiger* new species
Fig. 51 a-g, Maps 4

Description
Length: 2.9 mm. Colour: Pronotum and elytra lighter reddish, head and abdomen piceous, legs yellow. *Head*: 0.3 mm long, 0.45 mm wide; with prominent eyes, only clypeus margined, without supraocular margin, with distinct prominence above the eyes and another prominence in the middle, between the central and the lateral prominence a flat depression, clypeus sparsely and finely punctuate, with transversely reticulate microsculpture, surface shiny, at the depressions with denser netlike micro-reticulation, surface scarcely shiny, disc more distinctly and deeply punctuate, microsculpture very weak, longitudinally reticulate, surface polished. *Antennae*: 3rd antennomere scarcely longer than 2nd, 4th as long as the 2nd, antennomeres 4 to 6 of same length, nearly twice as long as wide, antennomeres 7 to 9 wider, but still longer than wide. *Pronotum*: 0.4 mm long, 0.55 mm wide; with distinct prominent and rounded front edges, sides parallel in the anterior part, distinctly emarginate in front of the posterior edges, punctuation distinct, on each side of the smooth midline with more or less coriaceous punctures, between the normal coarse punctures a very fine micropunctulation, microsculpture anteriorly and laterally more distinct, disappearing at the posterior edges, surface polished. *Elytra*: 0.6 mm long, 0.55 mm wide; punctuation finer and sparser than on the pronotum, one larger puncture with a long yellow seta in the middle of each elytrum, with fine and very sparse micropunctulation, microsculpture very weak, surface polished, a deep line parallel to the suture, the space between line and suture without microsculpture, surface polished, on this polished band a very fine row of micropunctures parallel to the suture; scutellum with few punctures. *Abdomen*: relative distinctly punctuate, punctuation sparse, the rhomboid micro-reticulation distinct at the base and the sides of each segment, surface dull, in the middle of each segment a semicircular space without micro-reticulation, surface polished.

The species forms a conspicuous species group together with *N. sulciger*, which shares the different length of antennae between male and female and the distinct neck, which is similar to the genus *Tannea*. It is differentiated from the similar *N. sulciger* by the weak microsculpture and the punctuation of the pronotum and the elytra.

Etymology: The species was labelled with the name *cordiger* by Fauvel in the collections of IRSN. The same Latin word means carrying a heart and certainly refers to the heart-like structure of the pronotum.

Holotype: *Brazil*: Para (Belém), without further data (IRSN); *Paratype*: *Brazil*: Manaus, Ilha Curarí, 03.1972, 10.1971 leg. U. Irmler (UIC); *Peru*: Panguana, pitfall trap in topical rain forest, 8.12.1984, leg. M. Verhaagh (UIC).

6. *Nacaeus dejectus* (SHARP, 1887) new combination
Fig. 46 a-g, 52 C, Maps 3

Lispinus dejectus SHARP, 1887: 721 (syntype: *Guatemala*: San Jeronimo, Prov. Baja Verapaz, female, leg. Champion, in BMNH examined).

Description
Length: 2.8 - 3.3 mm. *Colour*: Black, antennae and legs brown. *Head*: 0.3 mm long, 0.4 mm wide; with obsolete punctures, ground sculpture roundly reticulate, surface dull. *Antennae*: Short, antennomeres 4th to 10th transverse. *Pronotum*: 0.4 mm long, 0.5 mm wide; sides emarginate posteriorly, very feebly and sparsely punctuate, with smooth midline, ground sculpture roundly reticulate, slightly scaly, surface dull, depressions at posterior angles very obsolete. *Elytra*: 0.6 mm long, 0.6 mm wide; very feebly and sparsely punctuate, with scaly, roundly reticulate ground sculpture, surface dull. *Abdomen*: feebly punctuate, surface dull.

The species is very similar to *N. simplex*, but larger and with less dorsoventrally depressed pronotum. It is still more similar to *N. sculpturatus* and *N. opacus* by the black colour and the dull surface of pronotum an elytra. *N. dejectus* is differentiated from both species by the much weaker punctures and the scaly reticulate microsculpture of elytra and pronotum. It is similar in length to *N. sculpturatus*, but slightly smaller than *N. opacus*.

Material examined
Cuba: Pinar del Rio, Prov. Aspiro, 4.8.1929, leg. Bierig (FMNH); Sierra Bonilla, Sitio Perdido, Sierra Tapaste, Prov. Havana, without further data, leg. Bierig (FMNH); Amiro, Prov. Havana, 16.7.1934, leg. Bierig (FMNH); Havana, without further data, leg. Baker (MNB); *Mexico*: Veracruz, 8.7.1941, leg. Dybas (FMNH); Teapa, and without further data (IRSN); San Cristobal des las Casas, 9.7.1969, 30.5.1969, 19.5.1969, leg. Campbell (CNC, UIC); Bochil, mist forest, 10.5.1969, leg. Campbell (CNC); Jacala, 30.8 km S, Hwy 85, under bark, 12.07.1990, leg. J.S. Ashe (SEMC); *Guatemala*: San Jeronimo, Prov. Baja Verapaz, without further data, leg. Champion (BMNH); Escuintla, 13.7.1948, leg. Mitchell (FMNH); Zacapa, 29.7.1948, leg.-Mitchell (FMNH); Quetzaltenango, 18.5.1951, leg. Becker (DEI) and 20.06.1991, leg Ashe (SEMC); *Costa Rica*: Esparza, without further data, leg. Bierig (FMNH); La Palma, 3.6.1928, leg. Bierig (FMNH); *Panama*: Barro Colorado Is., Canal Zone, 4.4.1959, leg. Dybas (FMNH); *Colombia*: Bogota, 8.9.1877, leg. Thieme (MNB); *Bolivia*: Yuracaris, without further data (IRSN).

7. *Nacaeus depressus* (SHARP, 1876) new combination
Fig. 27 a-f, 52 E, Maps 3

Lispinus depressus SHARP, 1876: 417 (holotype: Tefé, in BMNH examined).
Lispinus planus SHARP, 1876: 416 (holotype: Tefé, Brazil, in BMNH examined). NEW SYNONYMY.

Description
Length: 3.1 mm. Colour: Piceous, posterior margin of pronotum and abdominal tergites posteriorly rufotestaceous, antennae and legs yellow. *Head*: 0.4 mm long, 0.5 mm wide; distinctly, densely and feebly punctuate, ground sculpture coriaceous, surface dull, on the disc with two distinct punctures. *Antennae*: Short, middle antennomeres transverse. *Pronotum*: 0.45 mm long, 0.6 mm wide; moderately dense and distinctly punctuate, the dense ground sculpture longitudinally reticulate, sides strongly emarginate posteriorly, depressions at posterior angles distinct, with a lateral carina, depressions with netlike ground sculpture, surface much more dull than the disc. *Elytra*: 0.6 mm long, 0.6 mm wide; with moderately dense punctuate, the dense ground sculpture longitudinally reticulation, surface dull. *Abdomen*: With obsolete punctuation, surface dull.

This species can be differentiated by the typical structure of the pronotum. The depression at posterior angles are distinctly delimited by a lateral carina and the surface of the depression is dull, with distinct ground sculpture. It is darker than *N. planellus* and less dorsoventrally depressed.

Material examined
Mexico: Teapa, Mexico, determined as *Lispinus linearis* by Fauvel, 1865: 51 (IRSN); *Guatemala*: Quezaltenango, under bark, 29.3.1951, leg. Becker (DEI); *Suriname*: Marowijne, under bark, 16.11.1963, leg. Malkin (FMNH); *French Guyana*: Roura, 8.4 km SSE, flight intercept trap, 29.05.1997, leg. J.S. Ashe (SEMC); *Brazil*: Tefé (BMNH); Rio de Janeiro, 16.12.1959, 23.10.1960, 17.3.1962, leg. Schubart (INPA, UIC) and Gavea, under bark, 04.08.1923, leg. Hancock (CNC); Col. alpina (IRSN).

8. *Nacaeus flavipennis* (Fauvel, 1865) new status
Fig. 44 a-f, Maps 4

Lispinus flavipennis Fauvel, 1865: 58 (lectotype: *Venezuela*: Caracas, without further data, examined in IRSN).

Description
Length: 2.4 mm. *Colour*: Head black, pronotum piceous, elytra yellow reddish with a dark spot near scutellum and a dark suture, legs yellow. *Head*: 0.3 mm long, 0.4 mm wide; the roundly reticulate microsculpture distinct, but weak, surface slightly shiny, punctuation very sparse and obsolete, smaller than meshes of microsculpture. *Antennae*: 2nd to 4th antennomeres slightly longer than wide, 5th quadrate, 6th to 10th wider than long, each antennomere with long hairs at apex. *Pronotum*: 0.35 mm long, 0.45 mm wide; anterior edges prominent, sides more or less parallel in front of the posterior emargination, microsculpture with netlike or roundly reticulate meshes, microsculpture weak, surface slightly shiny; in particular at the posterior part between midline and posterior depressions, punctuation very sparse and fine. *Elytra*: 0.5 mm long, 0.45 mm wide; with obsolete netlike microsculpture, punctuation still much finer and sparser than on pronotum, with one larger point in the middle and another one on the same line in the anterior third. *Abdomen*: With netlike reticulate ground sculpture and nearly invisible punctuation.

Remarks
In the collection of IRSN a specimen was found labelled "*flavipennis*" and "Caracas", both certainly written by Fauvel. Fauvel (1865) published as type locality for *L. flavipennis* "Caracas" and "Teapa, Mexico (leg. Pilate)". I assume that this specimen is the one of the type specimens he mentioned in his paper. I added my lectotypic label to that specimen.

Material examined
Mexico: Teapa, without further data (IRSN); *Cuba*: without further data (MNB and IRSN); Pinar del Rio, 4.8.1929, leg. Bierig (FMNH); *Costa Rica*: Pacora, 23.11.1940, leg. Bierig (FMNH); *Panama*: Barro Colorado Is., Canal Zone, 12.2.1976, leg. Newton (FMNH); Chiriqui, without further data, leg. Dybas (FMNH); *Guadeloupe*: without further data (IRSN); Trois Rivieres, leg. Dufau (IRSN); *Venezuela*: Caracas, same specimen as that of Teapa? (IRSN); *Colombia*: Bogota, 8.9.1877, leg. Thieme (MNB); Rio Muco, 11.1877, leg. Thieme (MNB); Sierra de Perrija, 17.8.1968, leg. Malkin (FMNH); *Peru*: Machupicchu, without further data, leg. Malkin (FMNH); Tantaquillo, without further data (IRSN); *Bolivia*: Prov. Beni, without further data (MNB); *Brazil*: Rio de Janeiro, without further data (IRSN); Porto Santana, 02.07.1961, leg. B. Bechyné (CNC); São Paulo, 10.06.1976, leg. B. Bechyné (CNC); Nova Teutonia, 01.11.1955, leg. F. Plaumann (IRSN).

9. *Nacaeus funebris* (Bernhauer, 1921) new combination
Fig. 47 a-g, 52 A, Maps 3

Lispinus funebris Bernhauer, 1921: 66 (holotype: Bolivia, Rio Beni, Yuracaris, 1891, leg. Balzan, in FMNH examined).

Description
Length: 4.2-4.4 mm. Colour: Black, legs red, antennae piceous. *Head*: 0.5 mm long, 0.6 mm wide; microsculpture distinct, isodiametrically reticulate, surface scarcely shiny; punctuation fine and sparse, distance between punctures much wider than diameter of punctures; on the disc two longitudinal depressions, setae very long, twice as long as eyes, two setae inserted in a line between the anterior edge of eyes, several setae along the anterior margin and two supraocular setae, a transverse row of two setae behind the last supraocular seta. *Antennae*: Thick, 1st to 3rd antennomere slightly longer than wide, 4th and 5th quadrate, the following antennomeres wider than long, *Pronotum*: 0.6 mm long, 0.8 mm wide; widest in

the middle, arcuately narrowed to the anterior angles, emarginate in front of the posterior angles, punctuation distinct, denser and deeper than on the head, with short indistinct smooth midline, another smooth part at the inner side of the flat posterior depressions, microsculpture with oval reticulation, surface scarcely shiny. *Elytra*: 1.0 mm long, 0.9 mm wide; punctuation sparser and finer than on the pronotum, microsculpture with oval reticulation, surface still less shiny than surface of pronotum, at outer edge several larger punctures with setae, one larger puncture with seta on the disc.

Very similar to *N. opacus* due to the colour, the punctuation and the microsculpture. *N. funebris* is distinctly larger and the punctuation of the elytra is slightly deeper. The apex of the aedeagus is acute, while it is obtuse in *N. opacus*.

Material examined
Bolivia: 1901, leg. Bang-Haas (FMNH); Rio Beni, 1891, leg. Balzan (FMNH); *Ecuador*: Quito, Pichincha, old Quito-Sto. Domingo road, Chiriboza, leaf litter, 10.6.1982, leg. H. Frania (CNC, UIC); *Brazil*: Rio de Janeiro, leg. Göldi (FMNH).

10. *Nacaeus impressicollis* (Motschulsky, 1857)
Fig. 30 a-f, 52 H, Maps 3

Lispinus impressicollis Motschulsky, 1857: 495 (syntype: Ind. or., in ZMM examined).
Pseudolispinodes irregularis Blackwelder, 1943: 124 (holotype: *Cuba*: Cayamas, No. 52363, leg. Blackwelder, 28.2.1937, in NMNH; paratype: *Cuba*: Soledad, 4.1936, leg. Darlington, in MCZ examined). NEW SYNONYMY.
Pseudolispinodes danforthi Blackwelder, 1943: 125 (holotype: *Puerto Rico*: Mayaguez, No 52364, leg. Blackwelder, 6.1.1937, in NMNH examined). NEW SYNONYMY.

Description
Length: 3.4 mm. *Colour*: Piceous, antennae and legs rufotestaceous. *Head*: 0.35 mm long, 0.4 mm wide; feebly punctuate, the distinct ground sculpture netlike reticulate, surface hardly shiny. *Antennae*: Relatively long, middle antennomeres quadrate, last antennomeres slightly transverse. *Pronotum*: 0.4 mm long, 0.6 mm wide; slightly emarginate in front of hind angles, with obsolete depressions at posterior angles, distinctly but feebly punctuate, with smooth midline; ground sculpture longitudinally reticulate, surface hardly shiny, sides with long hairs. *Elytra*: 0.65 mm long, 0.6 mm wide; punctuation distinct and coarser than on pronotum, ground sculpture longitudinally reticulate, slightly shiny, sides with long hairs.

This species is particularly conspicuous by the typical structure of the spermatheca. It is also similar to *Tannea* species, by the weakly netlike reticulate microsculpture of the elytra. It can be also differentiated from the other *Nacaeus* species by this characteristic reticulation of the elytra. The species is pantropically distributed (see Herman 2000).

Material examined
Cuba: Havana (IRSN), Soledad, 4.1936, leg. Blackwelder (MCZ); Sierra Bonilla, 25.12.1929, leg. Bierig (FMNH); Somorostro, 14.8.1932, leg. Bierig (FMNH); Havanna, without further data, leg. Baker (MNB); Cojimar, 7.10.1928, leg. Rambousek (FMNH); *Guadeloupe:* Point à Pitre and without data (IRSN); *Puerto Rico*: Mayaguez, 6.1.1937, leg. Blackwelder (NMNH); 25.8.1979, leg. O'Brien (FMNH); *Mexico*: Catemaco, 1.5.1969, leg. Campbell (CNC); *Panama*: Madden Dam, Canal Zone, 12.6.1976, leg. Newton (FMNH); *Brazil*: Ilha do Governador, District Federal, 14.10.1955, leg. Alvarenga (UIC).

11. *Nacaeus inkae* new species
Fig. 34 a-f

Description
Length: 3.2 mm. *Colour*: Black, antennae black. *Head*: 0.4 mm long, 0.5 mm wide; ground sculpture scarcely visible, indistinct, surface polished, punctures feeble and dense, distance between punctures not wider than diameter of punctures, with micropunctulation between the coarser punctures, temples and lateral part of disc with dense coriaceous ground sculpture, surface of temples dull. *Antennae*: Short and thick, the first three antennomeres hardly longer than wide, 4th and following antennomeres shorter and thicker. with long apical hairs, which are longer than one antennomere. *Pronotum*: 0.5 mm long, 0.65 mm wide; ground sculpture still more indistinct than on head, scarcely visible, surface polished; punctures coarser and sparser than on head, distance between punctures in some parts wider than diameter of punctures, between the coarser punctures a fine micropunctulation, with a smooth midline; sides arched, margined, widest near front angles, narrowed to posterior angles, base not margined. *Elytra*: 0.7 mm long, 0,7 mm wide; punctuation as deep and dense as on pronotum, surface polished, ground sculpture and micropunctulation as on pronotum, punctures at base and sides less deep than on the disc. *Abdomen*: Feebly and sparsely punctuate, ground sculpture distinct and dense, surface scarcely shiny.

The species is characterised by the polished pronotum and elytra and the fine micropunctulation.

Etymology: The specific name refers to the Inka as former inhabitants of the department of Cuzco.

Holotype: *Peru*: Dept. Cuzco, Pillahiata, Manu Rd. km 128, male, Sept. 18. 1982, under bark, leg. Watrous & Mazurek (FMNH).
Paratypes: *Peru*: 6 males with data like for holotype, litter along grave stream bed, but also found at Sept. 20 and 25, 1982 (FMNH, UIC).

12. *Nacaeus laetus* (SHARP, 1876) new combination
Fig. 42 a-g, Maps 4

Lispinus laetus SHARP, 1876: 417 (syntype: *Brazil*: São Paulo, Amazonas, in BMNH examined).

Description
Length: 2.0 - 2.5 mm. *Colour*: Head black, abdomen dark brown, pronotum and elytra yellow. *Head*: 0.25 mm long, 0.30 mm wide; punctures sparse and obsolete, the feeble ground sculpture roundly reticulate. *Antennae*: Short, 5th to 10th antennomeres wider than long. Pronotum: 0.25 mm long, 0.30 mm wide; the punctures very sparse and obsolete, nearly invisible, the indistinct, dense ground sculpture netlike reticulate, surface dull. *Elytra*: 0.40 mm long, 0.35 mm wide; punctuation is very obsolete, scarcely visible; ground sculpture roundly or netlike reticulate, surface dull.

The species is characterised by its small size and the colour from all other Neotropical *Nacaeus* species. Unfortunately the sexual structures of the type specimen could not be investigated.

Material examined
Cuba: Pinar del Rio, Prov. Aspiro, without further data, leg. Bierig (FMNH); *Panama*: Darién, Cana Biol. Stat., Serrania da Pira, 05.06.1996, leg. J.S. Ashe (SEMC); Gamboa, 6.9 km S; Old Plantataion Road, 05.06.1996, leg. J.S. Ashe (SEMC, UIC); *Bolivia*: Yuracaris, without further data (IRSN); *French Guyana*: Matoury, 41.5 km SSW Hwy N2, under bark, 28.05.1997, leg. J.S. Ashe (SEMC); Roura, 12.3 km SSE, under bark, 29.05.1997, leg. J.S. Ashe (SEMC); Saül, Les Eaux Claires, forest litter, 31.05.1997, leg. J.S. Ashe (SEMC); *Brazil*: São Paulo d'Olivenca, Prov. Para, without further data (BMNH); Tefé, without further data (IRSN); Belèm, Fazienda Pirelli, 30.03.1970 and IPEAN, 01.04.1970, leg. J.M. Campbell (CNC, UIC); Taperinha, 19.11.1969, leg. J.M. Campbell (CNC); São Caetano, Para, 19.03.1970, leg. J.M. Campbell (CNC); Porto Santana, 02.07.1961, leg. B. Bechyné (CNC, UIC).

13. *Nacaeus nevermannii* (BERNHAUER, 1942) new combination
Fig. 45 a-f, Maps 4

Lispinus nevermanni BERNHAUER, 1942: 3 (holotype: Costa Rica, Western slope of Vulcan Irazu, 1800 – 2000 m elevation, female, 22. 4. 1928, leg. F. Nevermann, examined in FMNH).

Description
Length: 2.7 mm. *Colour*: black; posterior 2/3 of elytra yellow; antennomeres 1 – 4 yellow, 5 – 11 brown; legs reddish. *Head*: 0.35 mm long, 0.45 mm wide; weakly punctuate, distance between punctures moderately wide, between one and four times as wide as the diameter of punctures; microsculpture distinct, isodiametrically reticulate, surface dull, in the anterior half of the disc a distinct depression on each side of the middle, one seta at the anterior margin, two supraocular setae and one seta near the neck. *Antennae*: in total, relatively long, nearly as long as head and pronotum together; antennomeres 2 – 4 equally long, 2nd oval, 3rd and 4th conical, antennomeres 5 and 6 more or less quadrate, 7 – 10 slightly wider than long. *Pronotum*: 0.40 mm long, 0.55 mm wide; punctures larger than on the head, but as sparsely punctuate, distance between punctures on average two times as wide as diameter of punctures; microsculpture similar as on the head, surface dull, but slightly more shiny than on the head; depressions at the posterior angles distinct; sides widest in the anterior third, arcuate in the anterior half, emarginate in the posterior half; five setae along the lateral margin. *Elytra*: 0.60 mm long, 0.60 mm wide; very weakly punctuate, punctures nearly invisible in the ground sculpture, distance between punctures more than four times as wide as diameter of punctures; microsculpture as on the pronotum, surface dull, but still slightly more shiny than on the pronotum and meshes more oblong.

The species is very similar to *N. flavipennis* due to the colour of the elytra, the punctuation and the microsculpture. It is, however, larger. In *N. flavipennis* the elytra are nearly totally yellow except a small triangular spot at the scutellum, while the dark spot is much larger in *N. nevermannii* and reaches the lateral margin. Furthermore, the anterior antennomeres are longer in *N. nevermannii* than in *N. flavipennis*. The aedeagi are also very similar in both species. In *N. nevermannii* the lateral lobe is separated at the end by a deep emargination.

Material examined
Costa Rica: Western slope of Volcan Irazu, 1800 – 2000 m elevation, female, 22. 4. 1928, leg. F. Nevermann (FMNH); Monteverde, 22.05.1989, leg. R. Leschen (SEMC); *Panama*: El Hato del Volcan, 27.7 km W Hartmann's Finca, under bark, 14.06.1995, leg. J.S. Ashe (SEMC, UIC).

14. *Nacaeus nigrifrons* (CHEVROLAT & FAUVEL, 1863)
Fig. 40 a-g, Maps 4

Lispinus nigrifrons CHEVROLAT & FAUVEL, 1863: 443 (lectotype: *Cuba*: leg. Poey, examined in IRSN).
Lispinus sparsepunctatus CAMERON, 1913: 321 (Haiti: not examined in BMNH).

Description
Length: 2.2 mm. *Colour*: Head piceous, pronotum and elytra yellow reddish, abdomen black, posterior margin of tergites reddish, legs yellow, antennae reddish. *Head*: 0.2 mm long, 0.3 mm wide; with dense ground sculpture, isodiametrically reticulate, the obsolete, sparse punctuation nearly invisible, a flat depression on both sides of the middle near the base of antennae. *Antennae*: 2nd to 4th antennomeres slightly longer than wide, 5th antennomere quadrate, the following antennomeres slightly wider than long. *Pronotum*: 0.3 mm long, 0.4 mm wide; ground

sculpture distinct, roundly reticulate, surface dull, punctuation obsolete and sparse, but more distinct than on the head, with small smooth midline, sides deeply emarginate posteriorly, some longer, yellow hairs at both sides; obsolete, small depressions at posterior angles, with a yellow hair at the anterior margin. *Elytra*: 0.5 mm long, 0.4 mm wide; ground sculpture distinct, isodiametrically reticulate, but more obsolete than on the pronotum; punctuation very sparse and indistinct, nearly invisible, punctures still smaller than on pronotum, at the sides with long yellow hairs, at both sides of the middle a long yellow hair. *Abdomen*: With netlike reticulate ground sculpture and nearly invisible punctuation, surface dull shiny, sides with long yellow hairs.

By the yellow pronotum and elytra similar to *N. laetus*. It is differentiated from *N. laetus* by the isodiamterically reticulate ground sculpture and by the structure of the aedeagus.

Remarks

No particularly labelled type specimen existed in the FAUVEL collection in IRSN. There is one specimen with an old label with location ''Cuba'' and the determination ''*nigrifrons*'', both certainly written by FAUVEL. I assume that this might by the specimen that FAUVEL used for the description of *L. nigrifrons*. The description also fits exactly to that specimen. I have added my lectotypic label to the existing labels.

Material examined

Cuba: without further data (IRSN); Pinar del Rio, 04.08.1929, leg. A. Bierig (FMNH); *West Indies*: Montserrat, 19.3.1894, leg. Hubbard (NMNH); St. Vincent, without further data, leg. H.H. Smith (IRSN); *Guadeloupe*: without further data (MNW and MNB); Trois Rivieres, without further data (IRSN); *Grenada*: without further data, leg. Smith (BMNH).

15. *Nacaeus opacus* (FAUVEL, 1865)

Fig. 48 a-g, 52 B, Maps 3

Lispinus opacus FAUVEL, 1865: 55 (lectotype: *Colombia*: female, without further data in IRSN examined).
Lispinus alutipennis BERNHAUER, 1921: 66 (holotype: *Bolivia*: Yuracaris, male, in FMNH examined). NEW SYNONYMY.

Description

Length: 3.3 - 3.6 mm. *Colour*: Black, legs rufotestaceous, antennae dark brown. *Head*: 0.35 mm long, 0.45 mm wide; distinctly but sparsely punctuate, ground sculpture roundly reticulate, surface dull, on the disc on both sides of the middle an obsolete longitudinally depression. *Antennae*: Moderately short, 4th to 6th antennomeres quadrate. *Pronotum*: 0.45 mm long, 0.6 mm wide; distinctly punctuate, ground sculpture very distinct, roundly reticulate, surface dull, depressions at posterior angles distinct, but short; indistinct depressions also on each side of the midline. *Elytra*: 0.75 mm long, 0.7 mm wide; obsolete punctures, ground sculpture roundly reticulate, surface dull. *Abdomen*: With very obsolete punctuation, surface dull.

The species resembles *N. sculpturatus*, but the microsculpture of elytra is partly more longitudinally reticulate and the punctuation on the elytra weaker, in particular, the central puncture with the yellow seta. The type specimen in IRSN was not designated. However, there was a specimen with the labels ''Columbia'' and ''*opacus*'' written by FAUVEL. Another label ''*sculpturatus*'' had been added, probably also by FAUVEL. Concerning location and determination the specimen seems to be that one FAUVEL used for his description of *Lispinus opacus* FAUVEL, 1865: 55. I designated it as lectotype. FAUVEL (1865) described *L. opacus* FAUVEL, 1865: ''.. magis depressus, linearis, nigro-piceus, opacus ..., thorace angustius, subtiliter punctulatum ..''. SHARP (1987) did not compare his *L. sculpturatus* SHARP, 1887 with *L. opacus* FAUVEL, 1865, but he described *L. sculpturatus* SHARP, 1887 as ''.. niger, fere opacus..; prothorace fortiter punctato''. The punctuation of the pronotum of the lectotype specimen is indeed finer than punctuation of *L. sculpturatus* SHARP, 1887. In the FAUVEL collection in IRSN are several specimens (also males) determined as *L. funebris* from the same location (Yuracaris), which are conspecific with *N. opacus* (FAUVEL, 1865).

Material examined

Mexico: San Cristobal de las Casas, 92°37'W, 16°44' N, 9.7.1969, 19.5.1969, 30.5.1969 leg. J.M. Campbell (CNC, UIC); Yerba Buena, 20 mi. N. Bochil, mist forest, 21.5.1969, leg. Bright (CNC, UIC); *Honduras*: Nueva Ocotepeque, 24 km E, under bark, 14.06.1994, leg. J.S. Ashe (SEMC, UIC); El Zamorano, Francisco Morazan, 06.06.1994, leg. J.S. Ashe (SEMC); *Guatemala*: Prov. Sacatepequez, S. Rafael, 91°52'W, 15°00'N, 29.6.1948, leg. Mitchell (FMNH, UIC); Purulhá, 4 km S, under bark, 02.07.1993, leg. J.S. Ashe (SEMC, UIC); Zacapa, Estancia de la Virgen, under bark, 24.06.1993, leg. J.S. Ashe (SEMC); *Colombia*: Colombia, without further data (IRSN); Rio Cauca, 1877, leg. Thieme (MNB); Rio Muco, without further data, leg. Thieme (MNB); Silvia, 20 km E of Rio Cauca, 76°20'W, 2°36'N, 16.7.1970, leg. Campbell (CNC, UIC); *Ecuador*: S. Tena (FMNH); *Peru*: Machupicchu, 3.7.1964, leg. Malkin (FMNH); *Bolivia*: Santa Cruz, 11.5.1969, leg. Spangler (FMNH); Yuracaris, without further data (FMNH, IRSN); *Paraguay*: Hohenau, 28.1.1934, leg. Jakob (NHMN); Villarrica, 1.10.1938, leg. Schade (NHMN and MNB); *Brazil*: Nova Teutonia, Prov. S. Catharina, without further data, leg. Plaumann (FMNH, MNB); São Paulo, 5.3.1941, leg. La Monte (MNB).

16. *Nacaeus paratenuis* new species

Fig. 31 a-f, Maps 4

Description

Length: 2.2 mm. *Colour*: Dark brown, antennae rufotestaceous, legs yellow. *Head*: 0.2 mm long, 0.2 mm wide;

with dense, netlike reticulate ground sculpture, laterally on the disc near base of antennae with an obsolete depression, surface slightly shiny; punctures very feeble, hardly visible. *Antennae*: 2nd and 3rd antennomeres longer than wide, 4th to 6th antennomeres quadrate, last antennomeres 1.5 times wider than long. *Pronotum*: 0.3 mm long, 0.4 mm wide; sides distinctly emarginate posteriorly, punctures very obsolete, not deeper than on the head, ground sculpture netlike reticulate, surface slightly shiny, on both sides of the smooth midline slightly depressed, depressions at the posterior angles obsolete. *Elytra*: 0.5 mm long, 0.4 mm wide; punctuation like on head and pronotum, on both sides of the middle with one coarse puncture, ground sculpture longitudinally reticulate. *Abdomen*: With the normal diagonally reticulate ground sculpture.

Very similar to *N. tenuis* concerning length and colour, but differentiated by the distinctly longitudinally reticulate ground sculpture of the elytra.

Etymology: The specific name refers to the high similarity to *N. tenuis*. The Greek suffix *para-* means close to

Holotype: *Panama*: Canal-Zone, Barro Colorado Is., under bark, fermenting, male, 16. - 22.2.1976, leg. A. Newton (FMNH).
Paratypes: *Panama*: Canal-Zone, Barro Colorado Is., 2 males and 6 females, 10., 16., 22.2.1976, leg. A. Newton (FMNH).

Further material examined
Mexico: Tasquillo, 16.8.1941, leg. Dybas (FMNH); Jalisco, 10 mi W Atenquique, 6700', 13.9.1971, leg. Newton (FMNH); *Guatemala*: Finca el Zapote, 13.7.1948, leg. Mitchell (FMNH); *Costa Rica*: Hamburg Farm, Prov. Limon, 12.4.1934, leg. Nevermann (FMNH); *Panama*: Barro Colorado Is., 20.8.1978, leg. Wheeler (FMNH); 4.4.1959 leg. Dybas (FMNH); *Columbia*: without further data (IRSN); *French Guyana*: Ounary (IRSN); Bas Carsevenne (IRSN).

17. *Nacaeus peruvianus* new species
Fig. 29 a-f, 52 F, Maps 3

Description
Length: 2.4 mm. *Colour*: Head and abdomen piceous, abdominal tergites distally reddish, the two last abdominal tergites red, pronotum and elytra rufotestaceous, antennae and legs yellow. *Head*: 0.3 mm long, 0.35 mm wide; punctures distinct and sparse, ground sculpture indistinct, scarcely visible, transversely reticulate, surface shiny; neck behind the eyes with dense ground sculpture, surface dull; laterally and on the disc between the eyes with few yellow hairs; on the disc between the eyes with an obsolete depression on each side of the middle. *Antennae*: 2nd to 4th antennomeres slightly longer than wide, 5th and 6th antennomeres quadrate, 7th to 10th antennomeres transverse. *Pronotum*: 0.3 mm long, 0.4 mm wide; punctuation distinct and sparse, without ground sculpture, surface polished; widest near anterior angles, slightly emarginate posteriorly; few yellow hairs at anterior and lateral margin and one hair on the disc on each side of the middle; depressions at hind angles obsolete. *Elytra*: 0.38 mm long, 0.45 mm wide; punctuation moderately sparse, slightly sparser than on pronotum; with very obsolete, nearly invisible ground sculpture, surface shiny; laterally and on the disc with few yellow hairs. *Abdomen*: With the normal diagonally reticulate ground sculpture and the long lateral yellow hairs.

The species is very similar to *N. claviger* concerning length and colour. It is conspicuous by the elytra, which are wider than long, and the polished surface of the elytra with only few traces of microsculpture.

Etymology: The specific name is derived from state of Peru, where the species was collected

Holotype: *Peru*: Cuzco, male, 13.10.1982, from litter, leg. Watrous (FMNH).
Paratypes: *Peru*: Cuzco, 12 specimens, 12.10.1982, from litter, leg. Watrous (FMNH); *Brazil*: Manaus, 1 male, April 1972, from litter of inundation forest, leg. U. Irmler (UIC).

Material examined
Costa Rica: Hamburg Farm, 05.10.1932, leg. Nevermann (FMNH); *Columbia*: Leticia, leaf litter, 09.07.1970, leg. J.M. Campbell, 20.02.1972, leg. J. Peck (CNC); *Peru*: Cuzco, leaf litter, 01.10.1982, 04.10.1982, 09.10.1982, 14.10.1982, leg. L.E. Watrous (FMNH); Loreto, Ramon Castilla, Berlese extraction, 23.02.1972, leg. J. Peck (CNC); *Bolivia*: Rio Benicito, 01.08.1960, leg. B. Malkin (FMNH); *Brazil*: Téfé (= Ega), without further location data, 1 female (IRSN); Belèm, Utinga and IPEAN, 18.03.1970, 27.03.1970, leg. J.M. Campbell (CNC); Iguacú, 200 m elevation, 10.02.1970, leg. J.M. Campbell (CNC, UIC).

18. *Nacaeus planellus* (SHARP, 1887)
Fig. 26 a-f, Maps 3

Lispinus planellus SHARP, 1887: 722 (holotype: *Panama*: Volcan de Chiriqui, 1500 m, leg. Champion, in BMNH examined).

Description: Length: 2.0 to 3.0 mm. *Colour*: Unicoloured yellow to rufotestaceous, sometimes head slightly darker. *Head*: 0.4 mm long, 0.5 mm wide; very wide, with lateral depressions on the disc, the obsolete ground sculpture longitudinally reticulate, surface shiny. *Antennae*: Very short, middle antennomeres distinctly transverse, the last antennomeres strongly transverse, nearly twice as wide as long. *Pronotum*: 0.3 mm long, 0.5 mm wide; strongly emarginate posteriorly; with ground sculpture obsolete, longitudinally reticulate, punctuation very obsolete and sparse, surface shiny; depressions at posterior angles

distinct, with same ground sculpture like on disc. *Elytra*: 0.6 mm long, 0.5 mm wide; with obsolete ground sculpture, longitudinally reticulate; punctuation much more obsolete and sparser than on pronotum, nearly invisible, only few coarser punctures at base.

The species is particularly characterised from the other extremely dorsoventrally depressed species, *N. depressus*, by the wide head and the short, thick antennae. It seems variable concerning colour and length. Possibly, this is the result of parthenogenic reproduction, because only very few males were found among more than fifty specimens.

Material examined

Mexico: Palenque, 100 m elevation, 9.5.1969, leg. D.E. Bright (CNC) and 24.4.1992, under bark, leg. R.W. Brooks (SEMC); *Belize*: Orange Walk, Rio Bravo Conservation Area, 25.4.1995, leg. S.E. Carlton (SEMC, UIC); *Costa Rica*: Chitaria, 20.2.1943, leg. Bierig (FMNH); Guapiles, 13.2.1943, leg. Bierig (FMNH); Hamburg Farm, 15.4.1938, leg. Nevermann (FMNH); Llano de Limon, leg. Nevermann (FMNH); Finca Castilla, leg. Bierig (FMNH); Heredia, 14.2.1992, 18.5.1993, leg. Ashe (SEMC); Guanacaste, Patilla Biol. Stn., under bark, 2.5.1995, Maritza Biol. Stn., under bark, 24.4.1995, leg. Ashe (SEMC); Santa Cruz Turrialba, 30.3.1982, C.A.T.I.E. (CNC) and 20.5.1979 on 600 m elevation, leg. J.M. Campbell (CNC); Puerto Viejo, Sarapiqui, 4.8.1965, leg. G. Raske (CNC); Puerto Viejo, 3.2 km SE, La Selva, 1.10.1992, leg. P. Hanson, 15.06.1996, leg. R. Hanley and 3.2.1991, leg. J.S. Noyes (SEMC, UIC); Puntarenas, 24 km W Piedras Blancas, 1.3.1992, leg. P. Hanson (SEMC, UIC); Puntarenas, Aguas Buenas, 7 km W Rincon, 25.6.1997, leg. J. Peck (SEMC); Peninsula de Osa, Corcovado National park, unde bark, 30.6.2000, leg. Z.H. Falin (SEMC); *Panama*: Vulcan de Chiriqui (BMNH); Juan Diaz, 1.5.1930, leg. Dybas (FMNH); France Field, without further data (FMNH); Barro Colorado Is., 27.2.1976, leg. Newton (FMNH) and 11.8.1994, leg. D. Banks (SEMC); Almirante, 28.3.1959, leg. Dybas (FMNH); Cerro Campana, 100 m elevation, 2.8.1970, leg. J.M. Campbell (CNC) and near Capire, under bark, 18.5.1995, leg. J.S. Ashe (SEMC); Colon, 15 km N. Escobal & Pina Rd., 11.6.1996, Parque Soberania, 21.6.1995, leg. J.S. Ashe, 1.7.1995, leg. Gillogly and Santa Rita Ridge, 16.6.1995, leg. Gillogly (SEMC, UIC); Gamboa, 6.9 km S, Old Plantataion Rd., 22.6.1996, leg. J.S. Ashe (SEMC); Darién, Cana Biol. Stat., Serrania da Pira, 7.06.1996, leg. J.S. Ashe (SEMC); Old Gamboa Road, 19.11.1994, leg. D. Windsor (SEMC); Old Plantation Trail, 6.9 km, 7.6.1995, leg. J.S. Ashe (SEMC); *Columbia*: Villavicencio, 11.7.1938, leg. Dybas (FMNH); without further location (IRSN); *Ecuador*: Sucumbios, Sacha Lodge, 25.7.1994, 22.02.1994, leg. P. Hibbs, 04.05.1994, 24.3.1999, leg. R.W. Brooks (SEMC, UIC); Esmeraldas, Bilsa, 5.6.1996, leg. P. Hibbs (SEMC); *Peru*: Panguana, 26.7.1975, 2.1986, 26.03.1984, 29.10.1984, 24.10.1984, leg. Hanagarth, Listhenbart, and Verhaagh (UIC); Pebas, without further data (IRSN); Cuzco, Cocha Cashu Bio. Sta., 19.10.2000, and Manu National Park, Pakitza Bio. Sta., 16.10.2000, leg. R.W. Brooks (SEMC); Iquitos, 5.5.1992, leg. Danoff-Berg (SEMC, UIC); San Jacinto, Campamento, 75°51'W, 2°18'S, 11.07.1993, 5.7.1993, 9.7.1993, leg. R. Leschen (SEMC, UIC); *Bolivia*: San Borja, 30.6.1988, leg. Brooks (SEMC); Cochabamba, 67.5 km NE Estac. Biol; Valle del Sajita, 9.02.1999, leg. F. Genier (SEMC); *Guadeloupe*: without further data (FMNH); *Venezuela*: Rancho Grande Biological Station, 8.7.1994, leg. Phillips (SEMC, UIC); *British Guyana*: Oko River, leg. Malkin (FMNH); *Suriname*: Marowijne, 16.11.1963, leg. Malkin (FMNH) and Nassau Mountain, under bark, 2.7.1999, leg. Z.H. Falin (SEMC, UIC); Saramacca, 108 km SWS Zanderij, under bark, 10.6.1999, leg. Z.H. Falin (SEMC); *French Guyana*: Ouanary and Camopi, without further data (IRSN); Cayenne, 33.5 km S, 8.4 km NW Hwy N2, fungusy logs, 9.7.1997, leg. J.S. Ashe (SEMC); Roura, 27.4 km SSE, 25.05.1997, leg. R.W. Brooks (SEMC); Matoury, 41.5 km SSW Hwy N2, under bark, 28.5.1997, leg. J.S. Ashe (SEMC, UIC); Saül, Les Eaux claires, under bark, 1.7.1997, leg. J.S. Ashe (SEMC, UIC); *Brazil*: Belém, 16.6.1954 (FMNH); IPEAN, 18.03.1970; Utinga, 27.03.1970, leg. J.M. Campbell (CNC); Manaus, 16.8.1976, leg. Adis (UIC), 05.11.1969 at Ponta Negra and 06.11.1969, 20 km southwest, leg. J.M. Campbell (CNC, UIC); Aldeia, Prov. Parà, without further data (FMNH); Barra Tapirapé, Prov. Mato Grosso, 11.7.1963, leg. Malkin (FMNH); São Caetano, Para, 19.03.1970, leg. J.M. Campbell (CNC, UIC); Serra de Navio, Amapa, 15.07.1961, leg. B. Bechyné (CNC).

19. *Nacaeus rufonigrus* new species

Fig. 39 a-f, Maps 4

Description

Length: 2.4 mm. *Colour*: Head, pronotum and abdomen black, elytra red, darker near scutellum, abdominal tergites posteriorly reddish, legs yellow, antennae brown. *Head*: 0.3 mm long, 0.4 mm wide; without punctuation, with coriaceous ground sculpture, roundly reticulate, eyes slightly prominent. *Antennae*: 2nd to 5th antennomeres longer than wide, the last antennomeres transverse. *Pronotum*: 0.3 mm long, 0.4 mm wide; dorsoventrally depressed, without visible punctuation, ground sculpture roundly reticulate with smooth midline, sides emarginate posteriorly, widest at the obtuse anterior angles, posterior angles with short and deep depressions. *Elytra*: 0.5 mm long, 0.4 mm wide; with roundly reticulate ground sculpture, without punctuation. *Abdomen*: With the normal diagonally reticulate ground sculpture and the sparse lateral yellow hairs.

Very similar to *N. nigrifrons* but differentiated by the structure of the aedeagus and the spermatheca.

Etymology: The suffix *rufo-* meaning red and *nigrus* black referring to the bicoloured front body of the species.

Holotype: *Bolivia*: Yuracaris, without further data, male, coll. Fauvel (IRSN).
Paratypes: *Brazil*: Boa Sorta, without further data, 1 male and 1 female, coll. Fauvel (IRSN).

20. *Nacaeus rufopiceus* new species
Fig. 32 a-f

Description
Length: 2.5 mm. *Colour*: Black, elytra red, anterior third of elytra dark, the dark spot prolonged at the suture to apex, last abdominal tergites reddish, antennae and legs yellow. *Head*: 0.3 mm long, 0.35 mm wide; punctures deep and distinct, the obsolete ground sculpture on the posterior head longitudinally reticulate, clypeus with transversely reticulate ground sculpture. *Antennae*: 1st to 3rd antennomeres longer than wide, the following antennomeres shorter, but also the last antennomeres not much wider than long. *Pronotum*: 0.4 mm long, 0.45 mm wide; lateral margin reflected under anterior angles, covered by anterior angles from dorsal aspect, deeply and densely punctuate, punctuation slightly coarser than on head, distance between punctures as wide as diameter of punctures, the distinct ground sculpture longitudinally reticulate, surface shiny, sides slightly emarginate posteriorly, depressions at posterior angles obsolete. *Elytra*: 0.65 mm long, 0.45 mm wide; obsoletely punctuate, much more feebly and sparsely punctuate than pronotum and head, the longitudinal ground sculpture very obsolete, surface shiny. *Abdomen*: With normal diagonally reticulate ground sculpture, laterally more distinct than at middle, the usual abdominal hairs relatively short and dark.

The species is similar to *N. bicolor* by of the red elytra, but with a much more deeper and coarser punctuation on head and pronotum. Furthermore, surface of *N. rufopiceus* is shiny, whereas it is dull in *N. bicolor*.

Etymology: The specific name is a combination of the Latin words *rufus* meaning red and *piceus* meaning black and refers to the bicoloured front body of the species.

Holotype: *Panama*: Chiriqui, 21 km west of El Hato del Volcan, 3800' elevation, male, 27.6.1976, leg. A. Newton (FMNH).
Paratypes: *Panama*: 5 females from the same location an with the same data as the holotype: (FMNH, UIC); Canal-Zone, Barro Colorado Is., 2 females, under bark, 10.6.1976, 25.2.1976, leg. A. Newton (FMNH).

21. *Nacaeus sculpturatus* (Sharp, 1887) new combination
Fig. 49 a-g, 52 D, Maps 3

Lispinus sculpturatus Sharp, 1887: 721 (syntype: *Guatemala*: Guatemala City, leg. Champion, in BNHM examined).

Description:
Length: 2.8 – 3.3 mm. *Colour*: Black, legs and antennae piceous. *Head*: 0.35 mm long, 0.45 mm wide; with distinct punctuation, in average, distance between punctures slightly wider than diameter of punctures; the distinct microsculpture with oval reticulation, surface slightly shiny, on each side an indistinct depression between base of antennae and disc, the prominence at base of antennae without microsculpture, surface polished; several short setae along the anterior margin and another seta at posterior edge of the eyes. *Antennae*: Relatively thick, antennomeres 2 – 4 equally in length, longer than wide, 5th and 6th antennomere quadrate, the following wider than long, the 10th antennomere 1.5 times wider than long. *Pronotum*: 0.45 mm long, 0.6 mm wide; widest in the middle, narrowed to anterior edge in a smooth curve, emarginate in front of posterior angles, punctuation distinct, coarser than on head, punctures as large as two meshes of the microsculpture, distance between punctures not wider than diameter of punctures, microsculpture with oval reticulation like on the head, surface scarcely shiny, the depressions at posterior angles indistinct and flat. *Elytra*: 0.75 mm long, 0.65 mm wide; punctuation much weaker than on the pronotum, punctures on average only as large as one mesh of the microsculpture, microsculpture with oval reticulation, slightly denser than on the pronotum, thus, surface nearly dull, less shiny than pronotum.

The species is closely related to *N. funebris, N. opacus* and *N. dejectus*. It is conspicuously smaller than *N. funebris* and can be differentiated from *N. dejectus* by the much coarser punctuation of the pronotum and the more shiny surface. Microsculpture is not scaly like in *N. dejectus* and similar to *N. opacus*. Compared to *N. opacus* a slightly denser elytral punctuation is found in *N. sculpturatus*. The central large puncture of the elytra is more conspicuous in *N. sculpturatus* than in *N. opacus*. A certain determination is only possible analysing the structure of the aedeagus, in particular the paramera.

Material examined
Cuba: Cuba, without location and data (IRSN); Aspiro, 3.6.1934, leg Bierig (FMNH); Cojimar, 7.10.1928, leg Rambousek (FMNH); Pinar del Rio, 4.8.1929, leg. Bierig (FMNH); Havana, without further data, leg. Baker (MNB); *Jamaica*: without further data (MNB); *Guadeloupe*: without further data (MNB); *Mexico*: without further data (IRSN); Cordoba, 20.7.1936, leg. Dybas (FMNH); Balzapote, Prov. Veracruz, 7.7.1976, leg. Newton (FMNH); Oaxaca, 6.9.1971, leg. Peck (FMNH) and 18.5.1971, leg. D.E. Bright (CNC); 18.5.1971, leg. Bright (CNC); Teapa, and without location (IRSN); Dos Amatos, 1.5.1969, leg. Campbell (CNC); Teopisca, 12.5.1969, 24.5.1969, 18.6.1969, leg. Brigth (CNC); Lago Catemaco, 1.5.1969, leg. Campbell (CNC); San Luis Potosi, under bark, 10.7.1990, 10.07.1990, 29.1 km N Tamazunchale, under bark, and 11.07.1990, 19.4 km S., Hidalgo border, Hwy 85, under bark, leg. J.S. Ashe (SEMC, UIC); *Guatemala*: Guatemala City, leg. Champion (BMNH); San Jeronimo, leg. Champion (BMNH); Chimal, Prov. Zacapa, without further data, leg. Mitchell

(FMNH); Jabuli, Prov. Zacapa, 29.7.1948, leg. Mitchell (FMNH); Finca el Zapote (FMNH); *Honduras*: Santa Barbara, La Fe, Finca la Roca, 5.3 km S. Pena Blanca, under bark 21.6.1994, leg. R.W. Brooks (SEMC); Santa Barbara, 11.5 km S; 5.6 km W. Pena Blanca, cloud forest litter, 20.6.1994, leg. R. Anderson (SEMC); *Costa Rica*: Sabanilla, leg. A. Bierig (FMNH); Baranca, (FMNH); Puriscal, 28.7.1940, leg. Ortiz (FMNH); Hamburg Farm, leg. A. Bierig (FMNH); Monteverde, under bark, 9.5.1989, leg. J.S. Ashe (SEMC); *Panama*: Colon, Parque Soberania, 1.7.1995, leg. Gillogly (SEMC); Caldera, 2 km W, 18.7.1995, leg. Gillogly (SEMC); Cerro Campana, near Capira, 18.5.1995, leg. J.S. Ashe (SEMC); *French Guyana*: Saül, Les Eaux claires, under bark, 2.6.1997, leg. J.S. Ashe (SEMC); Roura, 12.3 km SSE, under bark, 29.5.1997, leg. J.S. Ashe (SEMC).

22. *Nacaeus simplex* (SHARP, 1876) new combination

Fig. 43 a-g, Maps 3

Lispinus simplex SHARP, 1876: 417 (syntype: *Brazil*: Tefé (= Ega), in BMNH examined).

Description

Length: 2.0 mm. *Colour*: Black, only antennae and legs yellow. *Head*: 0.25 mm long, 0.3 mm wide; ground sculpture isodiametrically reticulate, surface dull, without punctuation. *Pronotum*: 0.3 mm long, 0.35 mm wide, dorsoventrally depressed, with obsolete depressions at posterior angles, ground sculpture roundly reticulate, with small smooth midline. *Elytra*: 0.4 mm long, 0.4 mm wide; very feebly and sparsely punctuate, ground sculpture isodiametrically reticulate, surface dull.

The type specimen in BMNH is covered by a glass plate and a dissection was not possible. Thus, the sexual structures of the type specimen could not be investigated. Further specimen were found in IRSN, but I am not sure if they are certainly *N. simplex*. They are very similar to *N. dejectus*, but differentiated by the dorsoventrally depressed pronotum.

Material examined

West Indies: Saint Vincent, leg H.H. Smith (IRSN); *Grenada*: without data, leg. H.H. Smith (IRSN); *Columbia*: Santa Marta, without further data, leg. Buginon (IRSN); Leticia, 9.7.1970, leg. J.M. Campbell (CNC); *Brazil*: Tefé, Amazonas, without further data (BMNH); Belèm, IPEAN, 27.11.1969, leg. J.M. Campbell (CNC, UIC); São Caetano, Para, 19.3.1970, leg. J.M. Campbell (CNC); *Peru*: Puerto Maldonado, Reserva Cuzco Amazonica, under bark, 9.7.1989, leg. R. Leschen (SEMC, UIC).

23. *Nacaeus spegazzinii* (BERNHAUER, 1933) new combination

Fig. 41 a-e, Maps 3

Lispinus spegazzinii BERNHAUER, 1933: 326 (1 holotype and 5 paratypes: *Argentina*: La Plata, 1914 leg. Spegazzini, in FMNH examined).

Description

Length: 3.2 mm. *Colour*: Black, elytra red, legs and antennae light brown. *Head*: 0.35 mm long, 0.45 mm wide; punctuation distinct, but scarcely visible between the ground sculpture, ground sculpture roundly reticulate. *Antennae*: 2nd to 4th antennomeres small, longer than wide, 5th antennomere quadrate, the following antennomeres thicker than the precedings and slightly wider than long. *Pronotum*: 0.45 mm long, 0.6 mm wide; punctuation sparse and feeble, ground sculpture like on head, sides emarginate posteriorly, posterior angles with obsolete depressions. *Elytra*: 0.7 mm long, 0.65 mm wide; very feebly punctuate, punctures more obsolete and much sparser than on head and pronotum, ground sculpture isodiametrically reticulate.

The species is characterised by the long rufotestaceous elytra.

Material examined

Cuba: Havana, without further data, leg. Baker (MNB and IRSN); leg. Richter (MNB); *Costa Rica*: Carpintera, leg. Bierig (FMNH); Vara Blanca, 2.1936, leg. Bierig (FMNH); Vulcan Irazu, 1500 m elevation, 22.4.1928, leg. Bierig (FMNH); Los Nubes, without further data, leg. Bierig (FMNH); *Panama*: Boquete, 12.3.1959, leg. Dybas (FMNH); Nueva California, 6.3.1959, leg. Dybas (FMNH); *Colombia*: Rio Muco, without further data, leg. Thieme (MNB); *Ecuador*: Puyo, Prov. Pastaza, Rio Cusuimi, 19.-23.7. 1971, leg. Malkin (FMNH); Chimborasso, without further data (IRSN); *Peru*: Ucayali, Rio Calleria, Prov. Cuzco, 12.10.1982, leg. Watrous (FMNH); *Suriname*: Paramaribo, without further data (IRSN); *Brazil*: Nova Teutonia, Prov. S. Catharina, leg. F. Plaumann (BMNH, CNC, UIC); São Paulo, without further data (FMNH); Petropolis, without further data (FMNH); Saude, Prov. Bahia, 27.9.1921, leg. Bierig (FMNH); Guarapuava, 1.11.1959, leg. M. Schneider (CNC); *Argentina*: La Plata, 1914, leg. Spegazzini (FMNH).

24. *Nacaeus sulciger* new species

Fig. 50 a-g

Description

Length: 3.5 mm. *Colour*: Dark red, antennae piceous, legs yellow, pronotum and elytra slightly lighter red than abdomen. *Head*: 0.3 mm long, 0.5 mm wide; with prominent eyes, clypeus anteriorly and laterally margined, with supraocular margin and with several long hairs along the margin, above the base of antennae a distinct prominence, another central prominence in the middle of the clypeus, between the central and the lateral prominence on each side of the middle a flat depression, within the depression a larger point with a long yellow seta, punctuation fine and sparse, distance between punctures wider than diameter of punctures; microsculpture weak, trans-

versely reticulate on the clypeus, netlike on the disc and longitudinally reticulate at the temples. *Antennae*: longer than head and pronotum together, 2nd to 6th antennomeres more or less of same length, slightly longer than wide, antennomeres 7 to 10 about as long as wide, 4 to 11 with several long hairs at apex. *Pronotum*: 0.5 mm long, 0.6 mm wide; strongly depressed, the front edges distinctly prominent, in the middle slightly prominent, the front margin therefore widely emarginate on each side of the middle, sides parallel in the apical part, distinctly emarginate in front of the posterior angles and there with a longitudinal depression, sides and front margin with several long yellow hairs, punctuation more distinct than on the head, sparse, distance between punctures wider than diameter of punctures, microsculpture weak, longitudinally reticulate, surface of posterior depressions and of disc shiny. *Elytra*: 0.7 mm long, 0.6 mm wide; sparsely punctuate, punctures as deep as on the pronotum, microsculpture weak, netlike or longitudinally reticulate, a deep line parallel to the suture, the space between line and suture without microsculpture, surface polished, on the polished band a very fine row of micro-punctures parallel to the suture, sides with several long hairs, in the middle of each elytrum a distinct larger point with a seta, scutellum with few very fine punctures. *Abdomen*: With several long yellow hairs at the sides, microsculpture distinct at the base of each segment, weaker posteriorly in the middle, punctures distinct, but weak, posterior margin of segments reddish.

The female antennae are shorter than male antennae, the last three antennomeres are wider than long. The species is slightly larger as the similar *N. cordiger* and the microsculpture is more distinct. The punctuation of the pronotum is sparser and slightly finer than in *N. cordiger* and without a distinct midline. This species was determined as *L. bolivianus* by Fauvel in the collections of IRSN. Indeed, the species also resembles *Lispinus bolivianus* due to the strongly depressed body and the length, but the shiny surface in the posterior depressions at posterior angles of pronotum and the genera differentiations are obvious.

Etymology: The species was labelled with this name by Fauvel in the collections of IRSN. The Latin word *sulcus* means furrow. The specific name certainly refers to the deep furrows on the pronotum.

Holotype: *Guadeloupe*: Trois Rivieres, feuilles, without further data (IRSN).
Paratype: *French Guyana*: Camopi, without further data (IRSN).

25. *Nacaeus surinamensis* new species
Fig. 35 a-f, 52 J, Maps 3

Description
Length: 2.4 mm. *Colour*: Piceous, antennae brown, abdomen brown, abdominal tergites distally reddish, legs yellow. *Head*: 0.25 mm long, 0.3 mm wide; punctuation obsolete, clypeus with distinct netlike reticulate ground sculpture, the ground sculpture at temples more longitudinally reticulate, laterally on the disc near the base of antennae with an obsolete depression. *Antennae*: 1st to 3rd antennomeres longer than wide, antennomeres 4 - 6 quadrate, 7 - 10 wider than long. *Pronotum*: 0.4 mm long, 0.4 mm wide; more coarsely and more sparsely punctuate than on head, distance between punctures mostly wider than diameter of punctures; the distinct ground sculpture longitudinally reticulate, the obsolete depressions at posterior angles and the base on both sides of the middle with netlike reticulate ground sculpture; sides parallel shortly behind the front angles, then straightly narrowed to posterior angles. *Elytra*: 0.45 mm long, 0.4 mm wide; feebly and sparsely punctuate, punctuation nearly invisible; the distinct ground sculpture longitudinally reticulate, surface slightly shiny, more dull than surface of pronotum. *Abdomen*: With long yellow hairs.

The species is similar to *N. tenuis* and *N. laetus*, but it is differentiated from both species by its longitudinally reticulate ground sculpture of pronotum. The parallel sides of anterior pronotum are also very characteristic and differ from *N. tenuis* and *N. laetus*. Sides of pronotum in *N. tenuis* are also very slightly emarginate, but are still more emarginate than in *N. surinamensis*.

Etymology: The specific name is derived from the state of Suriname, where the species was collected.

Holotype: *Suriname*: Marowijne Dist., Anapaike village, male, 16./17.11.1963, leg. B. Malkin (FMNH).
Paratypes: *Suriname*: 5 males and 4 females with same data as holotype (FMNH).

Further material examined
French Guyana: Camopi (IRSN); *Brazil*: Rio de Janeiro (FMNH).

26. *Nacaeus tenuis* (LeConte, 1863)
Fig. 38 a-f, 52 K, Maps 3

Lispinus tenuis LeConte, 1863: 60 (holotype: *USA*: without location data, published by LeConte: Southern States, No: 6608, in MCZ examined).

Description
Length: 2.5 - 3,0 mm. *Colour*: piceous, legs and antennae yellow. *Head*: 0,3 mm long, 0.8 mm wide, without punctuation, ground sculpture roundly reticulate. *Antennae*: 2nd to 4th antennomeres slightly longer than wide, the following antennomeres wider than long, *Pronotum*: 0.4 mm long, 0.45 mm wide; piceous, punctuation very obsolete and sparse, ground sculpture roundly reticulate at front angles and longitudinally or netlike reticulate on the disc, sides smoothly arched. *Elytra*: 0.6 mm long, 0.5 mm wide; with very obsolete punctuation, ground sculpture longitudinally reticulate.

Very similar to *N. opacus* and *N. dejectus*, but pronotum smaller and the ground sculpture on the disc of pronotum longitudinally reticulate. The species is mainly distributed in southern countries of the U.S.A. from California to Florida. Several specimens were examined from Texas.

Material examined
Cuba: Havanna, without further data (MNB); *Mexico*: Jalisco, 18.9.1971, leg. Newton (FMNH); without further data (MNB and IRSN); Real de Arriba, 08.1935, leg Hinton & Usinger (BMNH); Bochil, mist forest, 10.5.1969, leg. J.M. Campbell (CNC); Oaxaca, 181 km S., 30.5.1971, leg. J.M. Campbell (CNC); Teopisca, 7 mi S., 16.05.1969, leg. J.M. Campbell (CNC); Palenque, 100 m elevation, 9.5.1969, leg. D.E. Bright (CNC); Dos Amatos, 16.6.1969, leg. J.M. Campbell (CNC); Huatuxco, 7 km E, Hwy 125, 16.7.1990, leg. J.S. Ashe (SEMC); Jacala, 30.8 km S, Hwy 85, under bark, 12.7.1990, leg. J.S. Ashe (SEMC).

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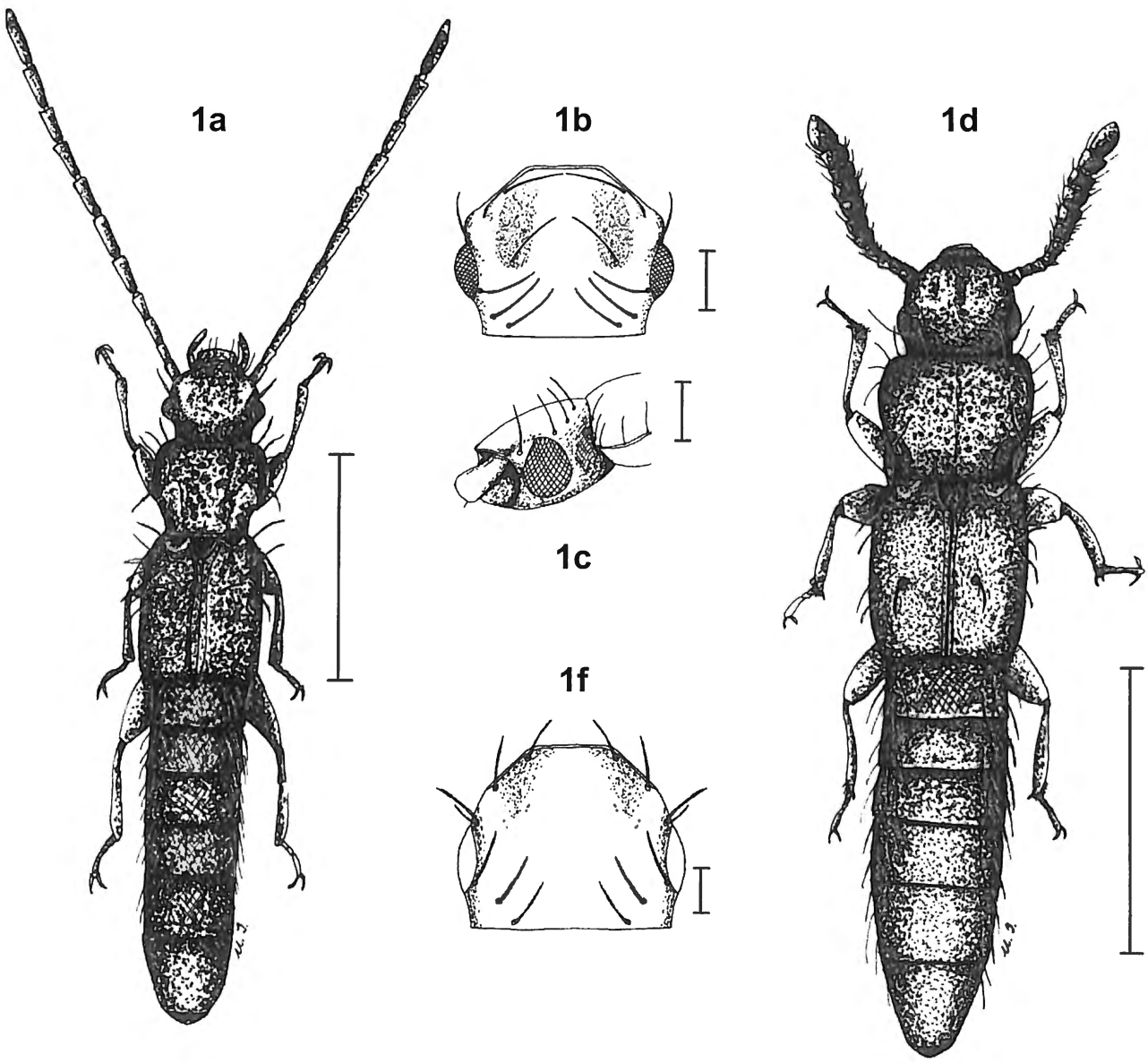


Fig. 1 — a: *Tannea fabacicolor*, b: Head in dorsal view of *T. fabacicolor*, c: head in lateral view of *T. fabacicolor*, d: *Nacaeus opacus*, e: head in dorsal view of *N. opacus*.

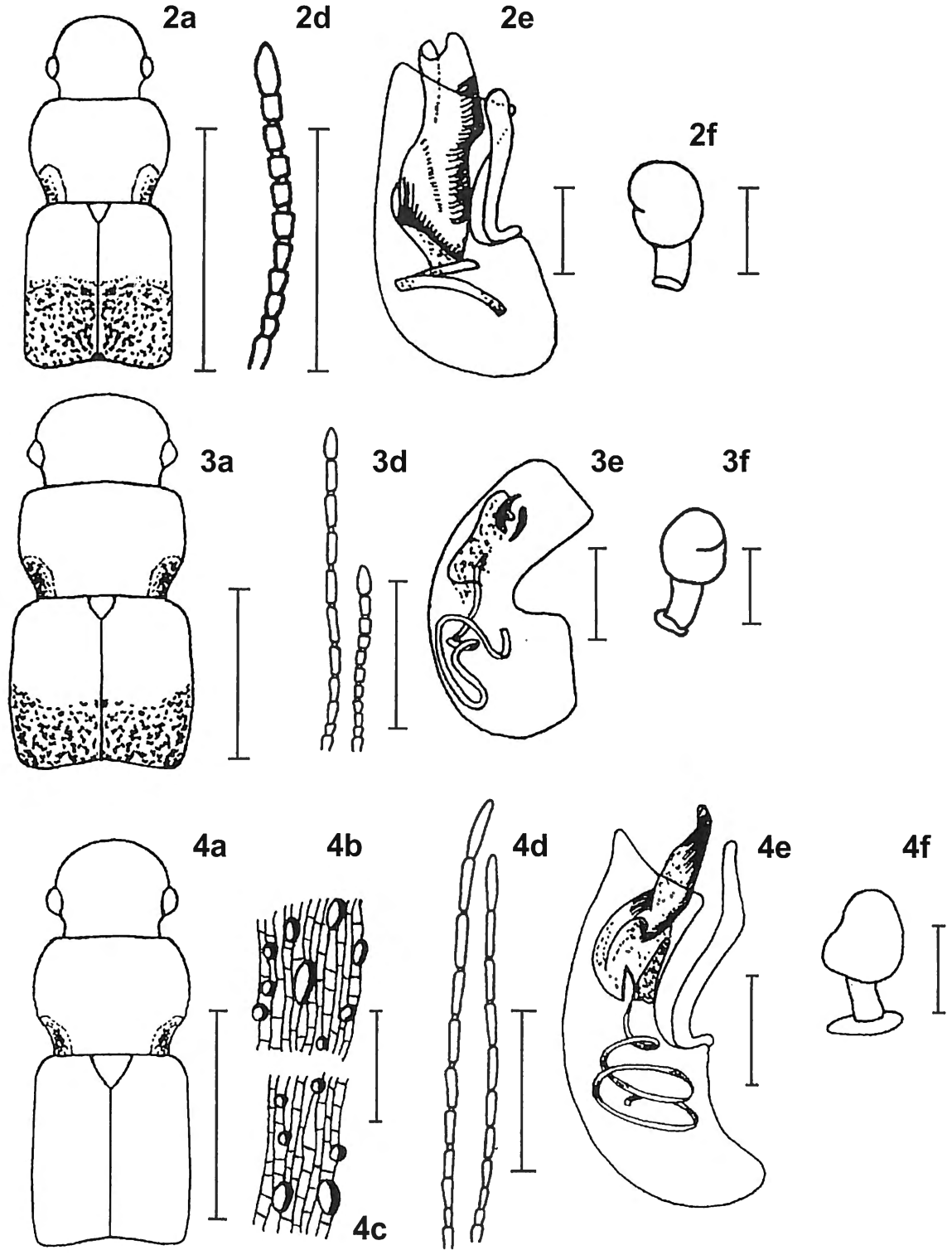


Fig. 2 — *T. reversa*; Fig. 3: *T. punctata*; Fig. 4: *T. longicornis*; a: front body, b: punctuation and microsculpture of pronotum, c: punctuation and microsculpture of elytra, d: male (left) and female (right) antenna, e: aedeagus, f: spermatheca (line a, d: 1 mm; b, c, e, f: 0.1 mm).

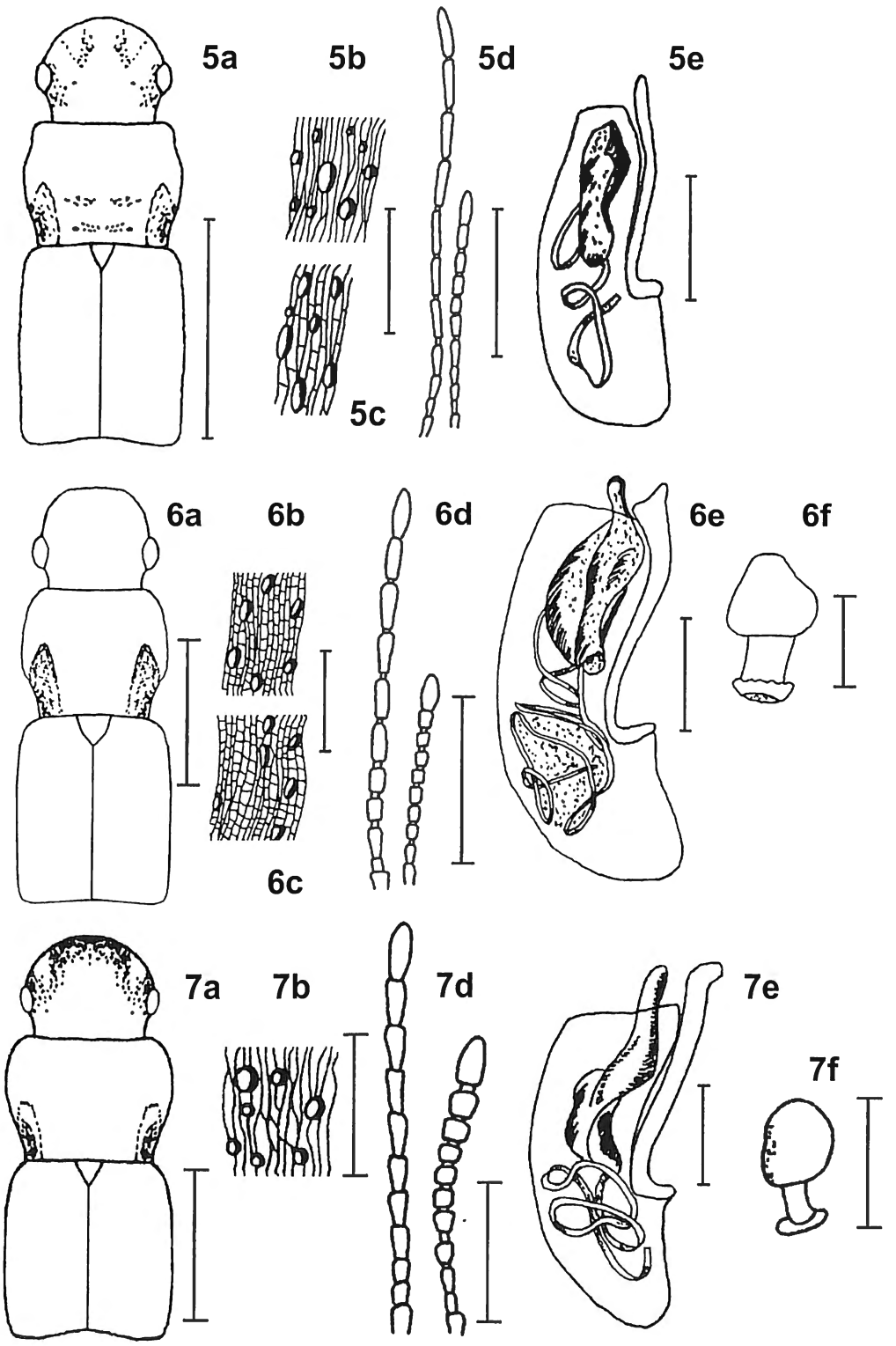


Fig. 5 — *T. parallelonota*, Fig. 6: *T. brevicollis*, Fig. 7: *T. breviceps*; a: front body, b: punctuation microsculpture of pronotum, c: punctuation and microsculpture of elytra, d: male (left) and female (right) antenna, e: aedeagus, f: spermatheca (line a, d: 1 mm; b, c, e, f: 0.1 mm).

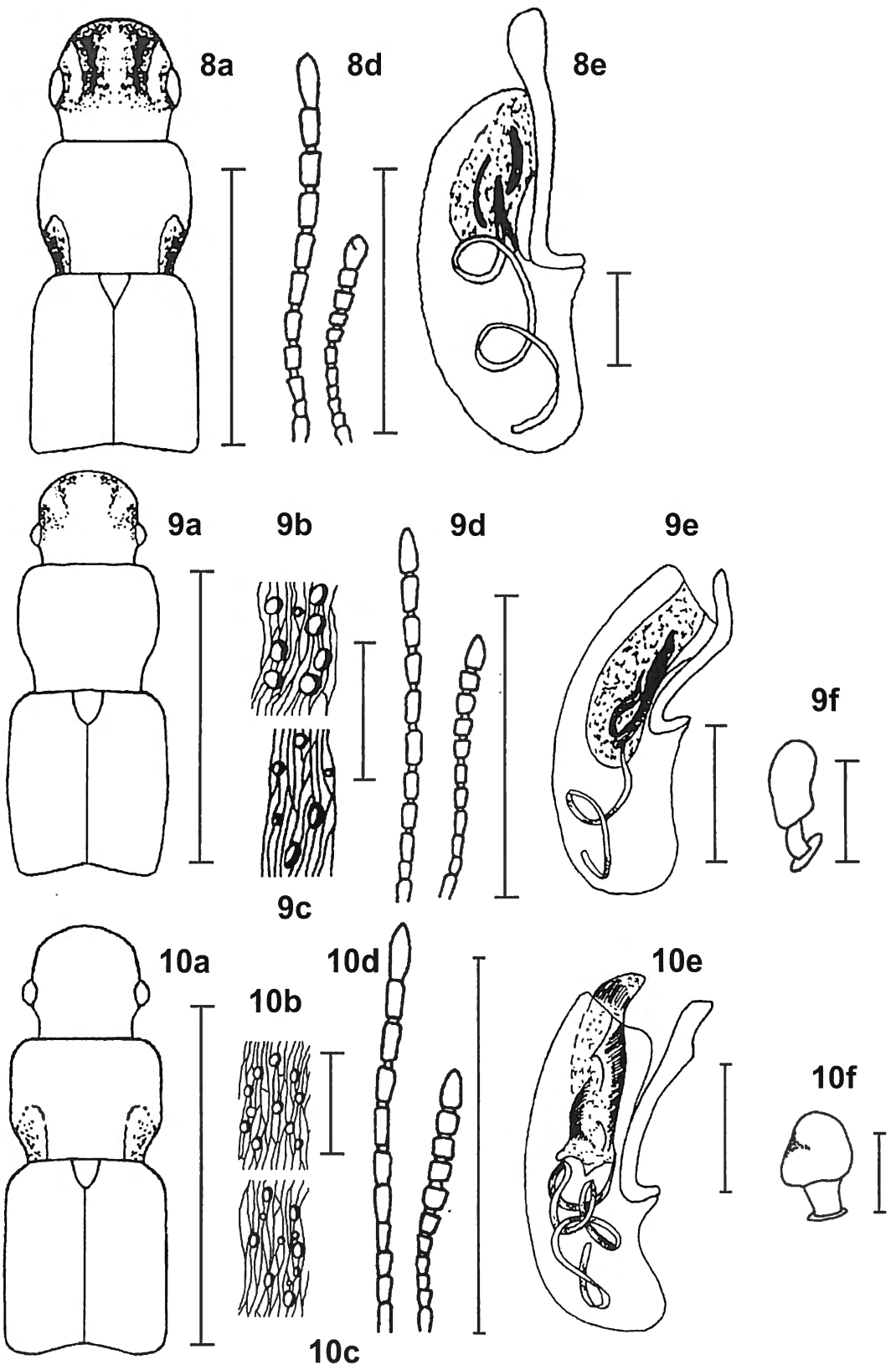


Fig. 8 — *T. schubarti*, Fig. 9: *T. bierigi*, Fig. 10: *T. latinota*; a: front body, b: punctuation and microsculpture of pronotum, c: punctuation and microsculpture of elytra, d: male (left) and female (right) antenna, e: aedeagus, f: spermatheca (line a, d: 1 mm; b, c, e, f: 0.1 mm).

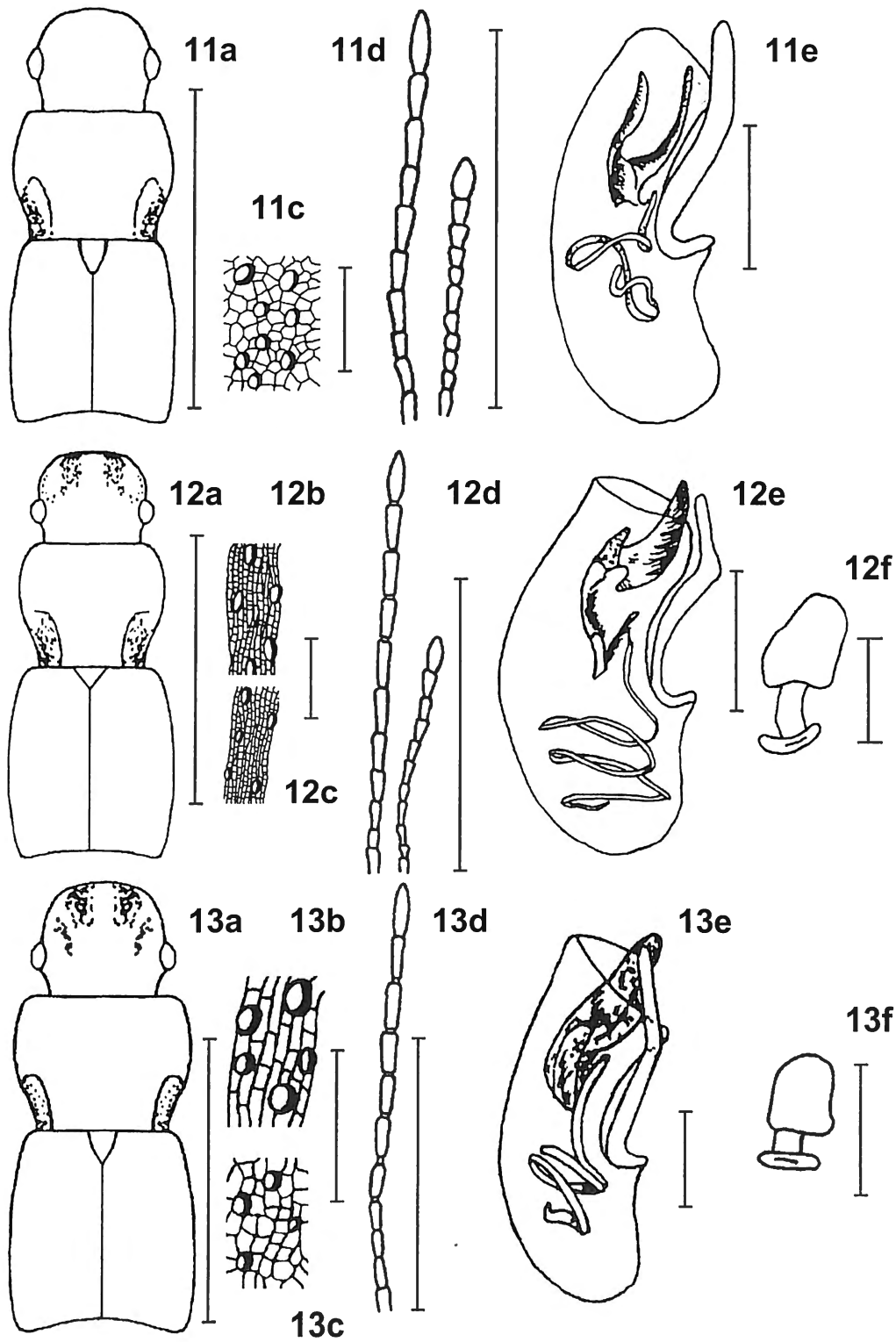


Fig. 11 — *T. paraguensis*, Fig. 12: *T. fabacicolor*, Fig. 13: *T. varablancae*; a: front body, b: punctuation and microsculpture of pronotum, c: punctuation and microsculpture of elytra, d: male (left) and female (right) antenna, e: aedeagus, f: spermatheca (line a, d: 1 mm; b, c, e, f: 0.1 mm).

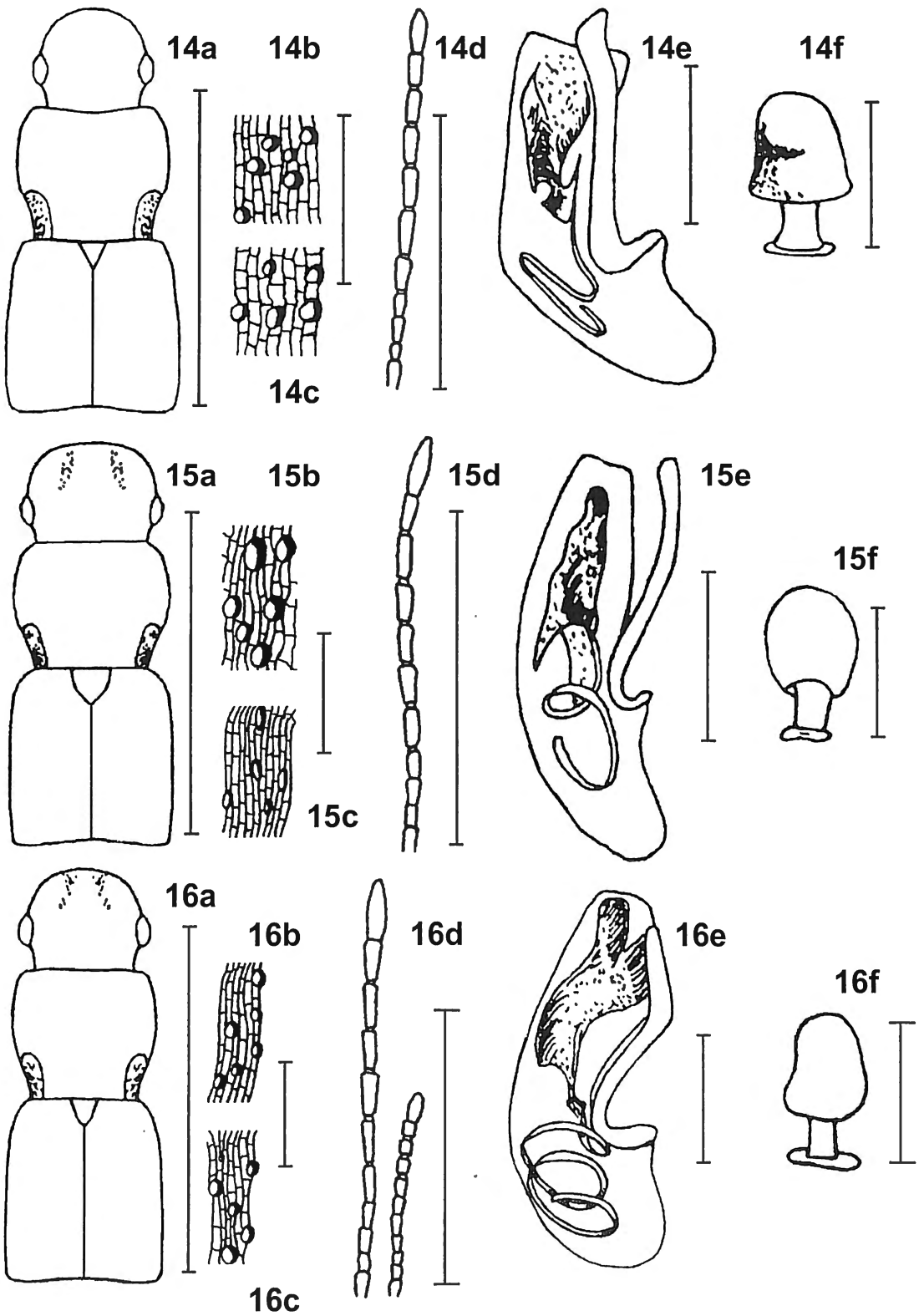


Fig. 14 — *T. salasi*, Fig. 15: *T. turrialbae*, Fig. 16: *T. picata*; a: front body, b: punctuation and microsculpture of pronotum, c: punctuation and microsculpture of elytra, d: male (left) and female (right) antenna, e: aedeagus, f: spermatheca (line a, d: 1 mm; b, c, e, f: 0.1 mm).

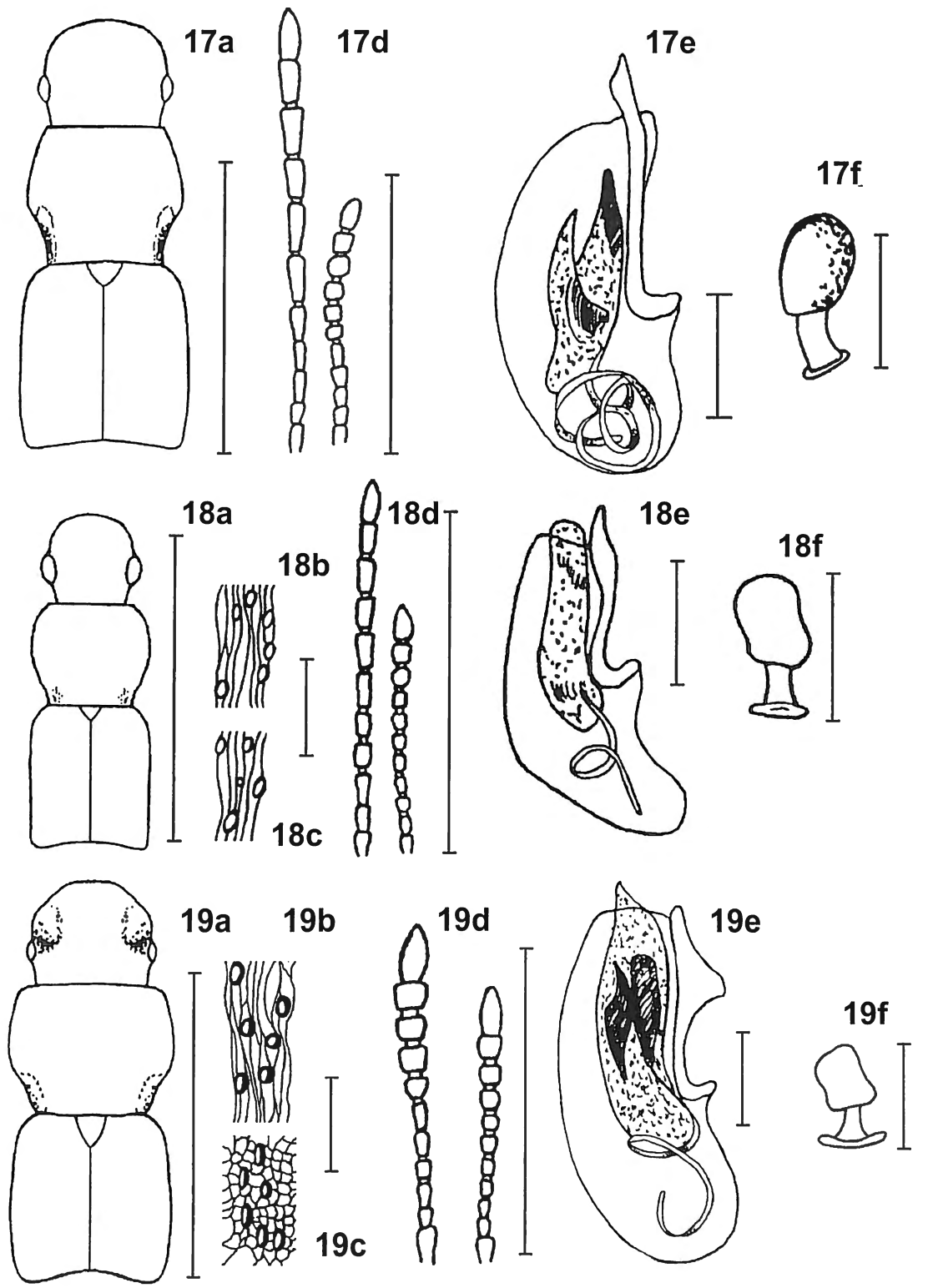


Fig. 17 — *T. fulvescens*, Fig. 18: *T. fersa*, Fig. 19: *T. resoluta*; a: front body, b: punctuation and microsculpture of pronotum, c: punctuation and microsculpture of elytra, d: male (left) and female (right) antenna, e: aedeagus, f: spermatheca (line a, d: 1 mm; b, c, e, f: 0.1 mm).

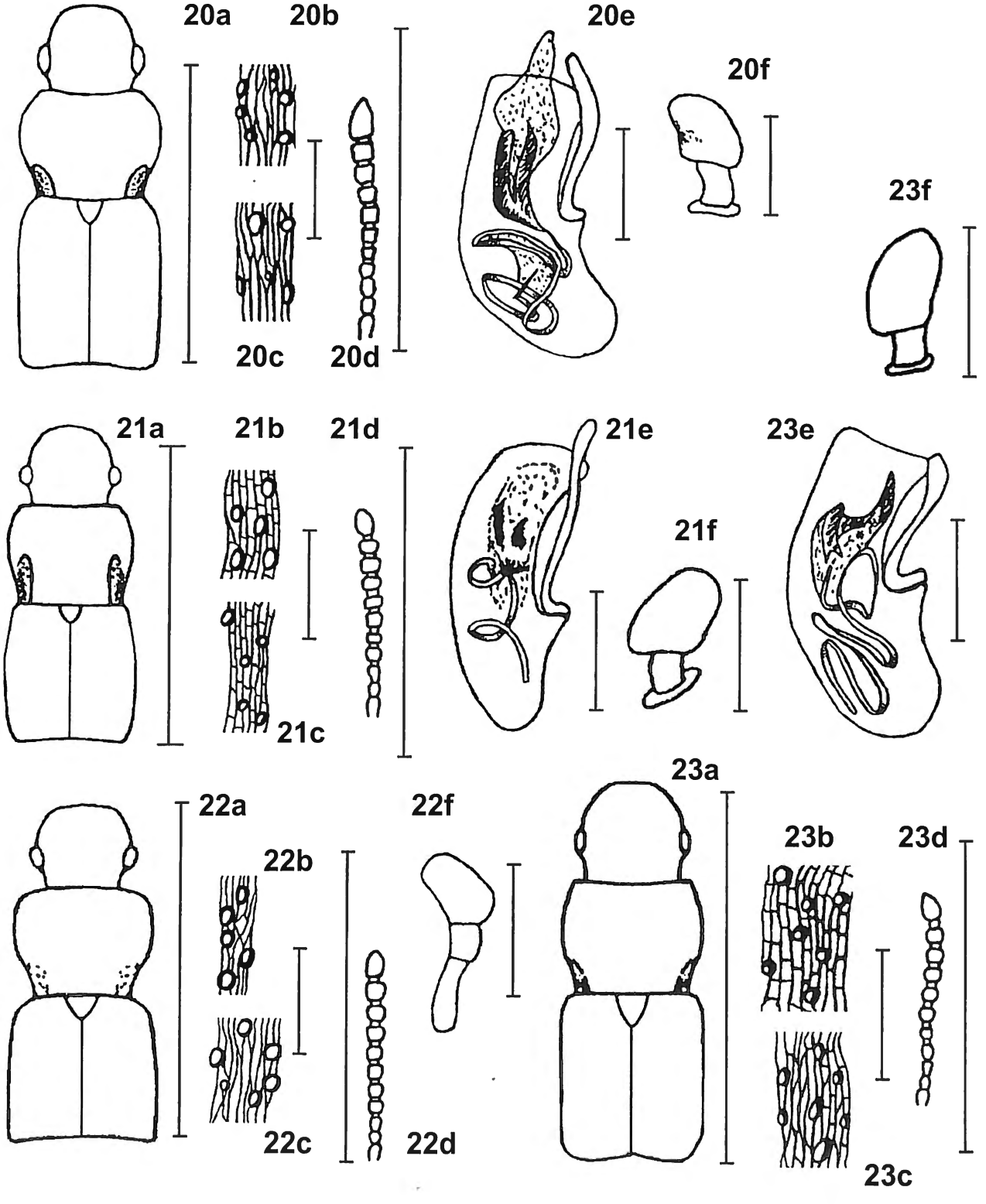


Fig. 20 — *T. tenella*, Fig. 21: *T. meridionalis*, Fig. 22: *T. fulgens*, Fig. 23: *T. bruchi*; a: front body, b: punctuation and microsculpture of pronotum, c: punctuation and microsculpture of elytra, d: antenna, e: aedeagus, f: spermatheca (line a, d: 1 mm; b, c, e, f: 0.1 mm).

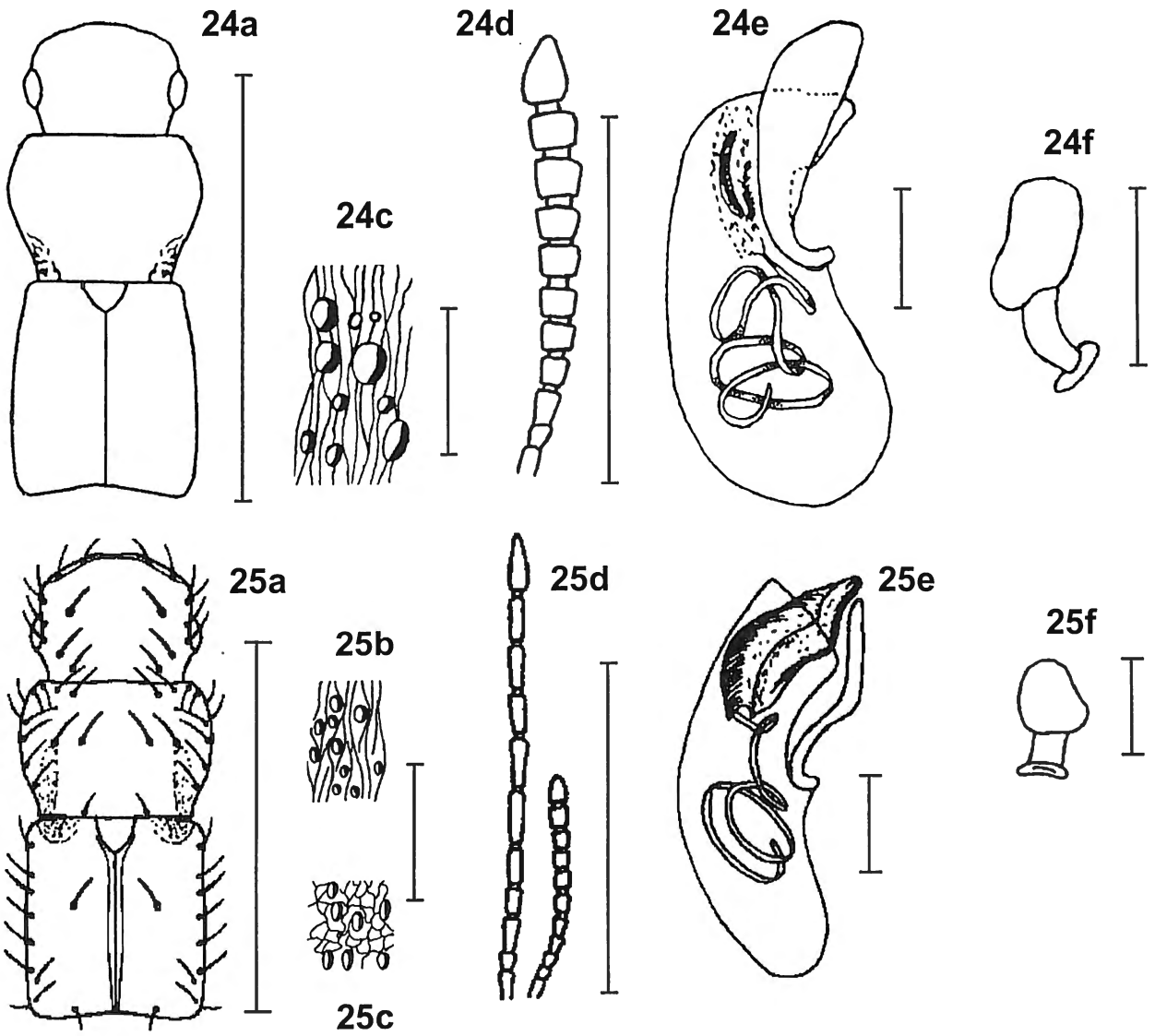


Fig. 24 — *T. amazonica*; Fig. 25: *T. humibiota*; a: front body, c: punctuation and microsculpture of elytra, d: antenna, e: aedeagus, f: spermatheca (line a, d: 1 mm; c, e, f: 0.1 mm).

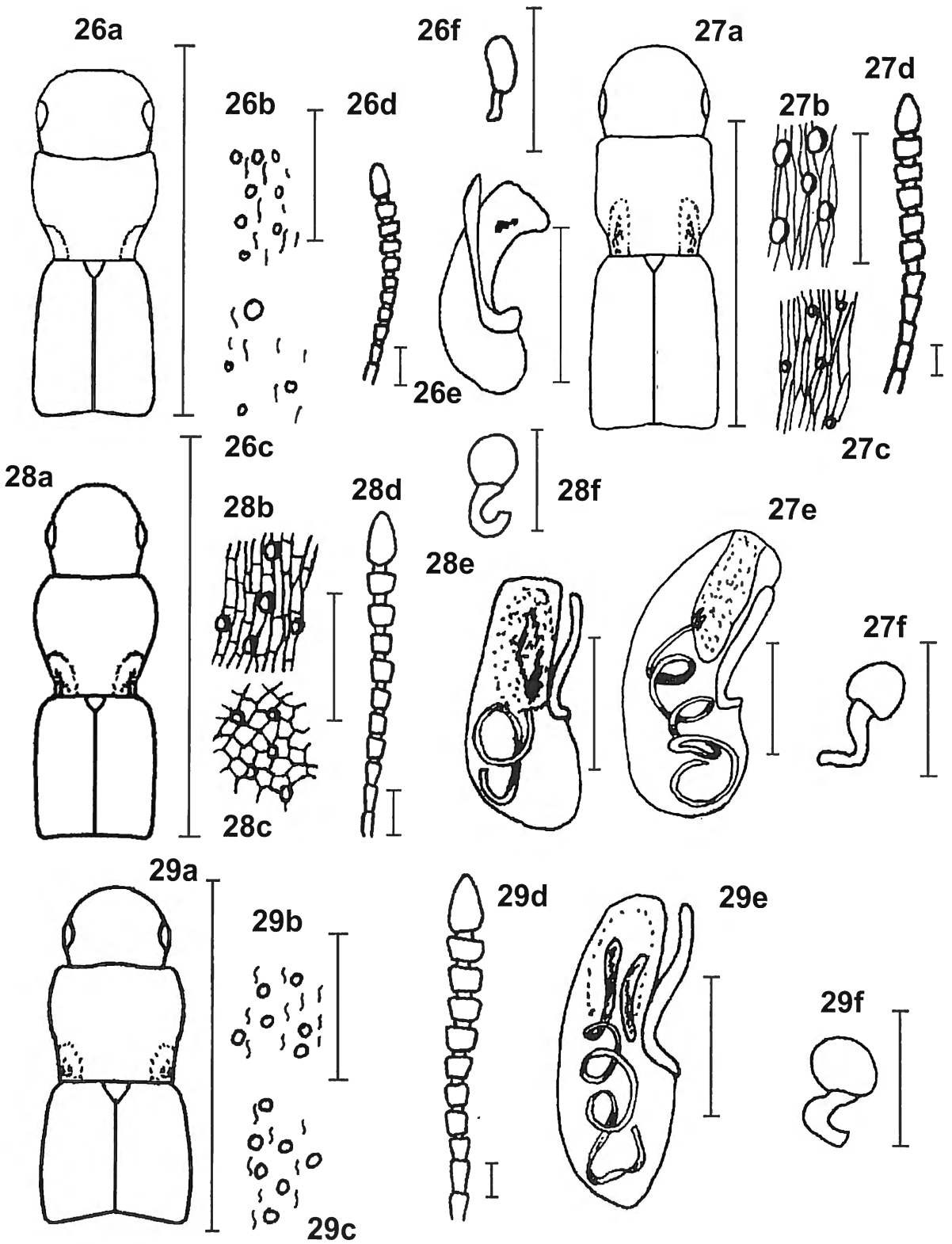


Fig. 26 — *N. planellus*, Fig. 27: *N. depressus*, Fig. 28: *N. claviger*, Fig. 29: *N. peruvianus*; a: front body, b: punctuation and microsculpture of pronotum, c: punctuation and microsculpture of elytra, d: antenna, e: aedeagus, f: spermatheca (line a: 1 mm; b - f: 0.1 mm).

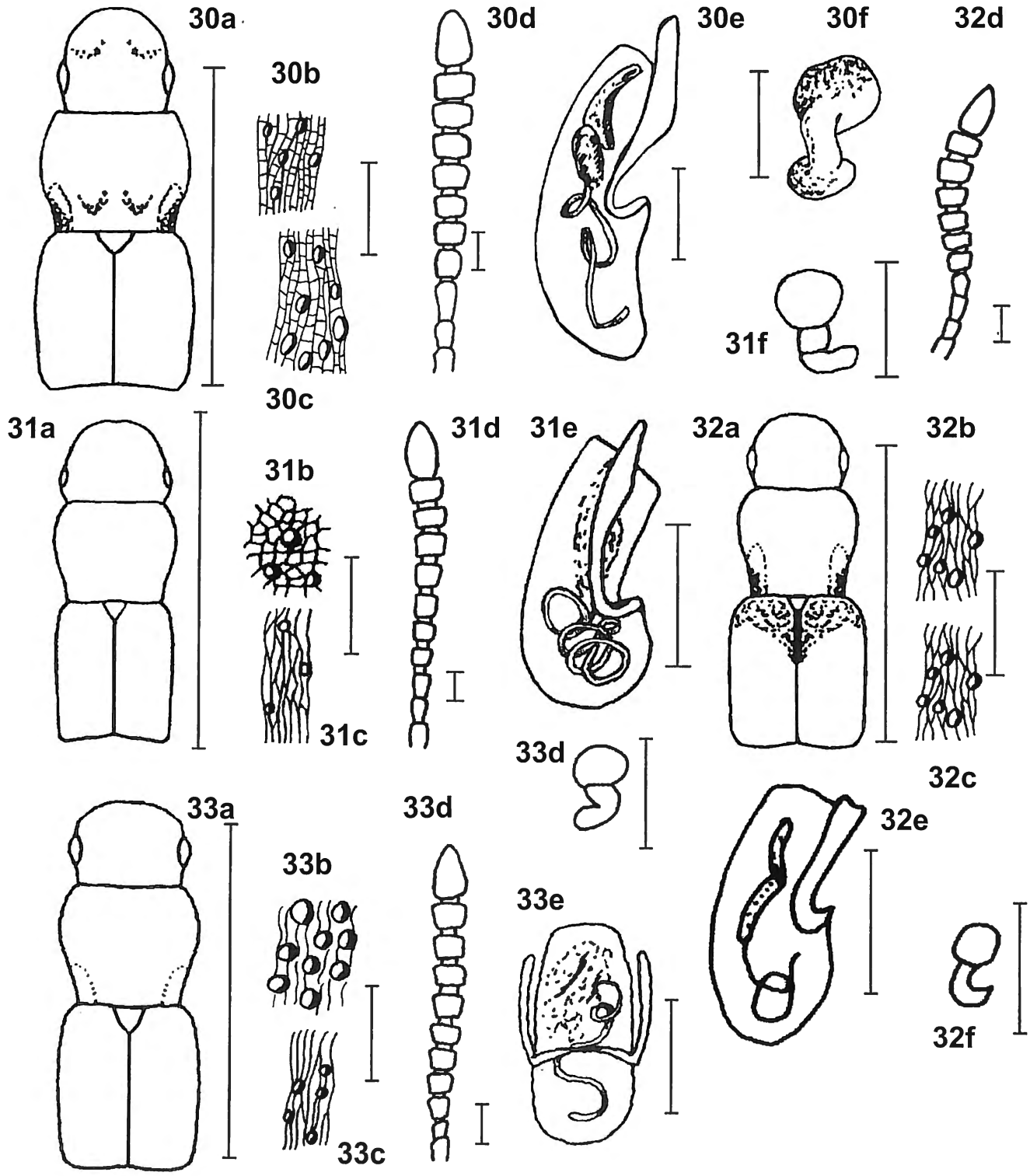


Fig. 30 — *N. impressicollis*, Fig. 31: *N. paratenuis*, Fig. 32: *N. rufopiceus*, Fig. 33: *N. brasiliensis*; a: front body, b: punctuation and microsculpture of pronotum, c: punctuation and microsculpture of elytra, d: antenna, e: aedeagus, f: spermatheca (line a: 1 mm; b - f: 0.1 mm).

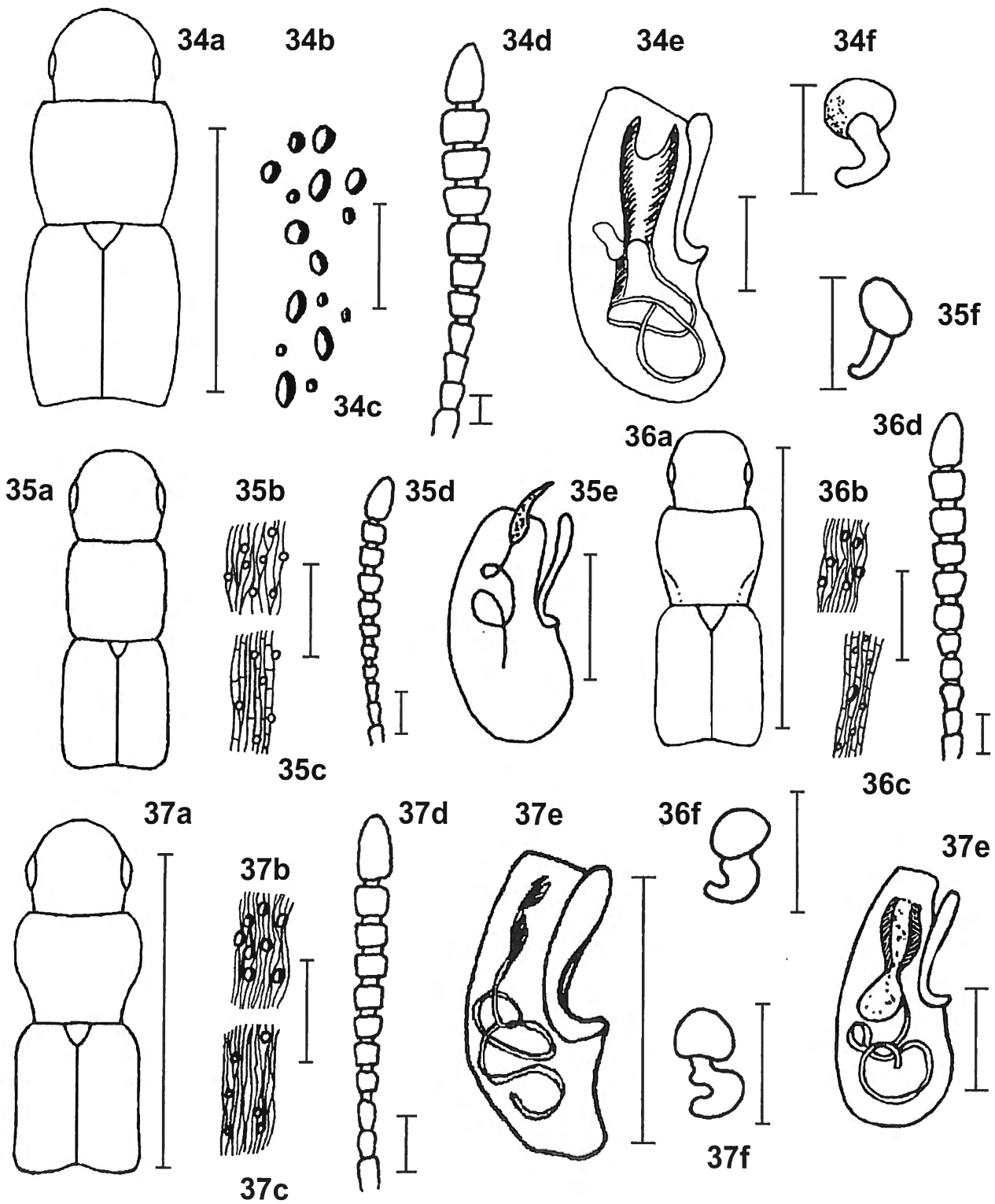


Fig. 34 — *N. inkae*, Fig. 35: *N. surinamensis*, Fig. 36: *N. collinus*, Fig. 37: *N. bicolor*; a: front body, b: punctuation and microsculpture of pronotum, c: punctuation and microsculpture of elytra, d: antenna, e: aedeagus, f: spermatheca (line a: 1 mm; b - f: 0.1 mm).

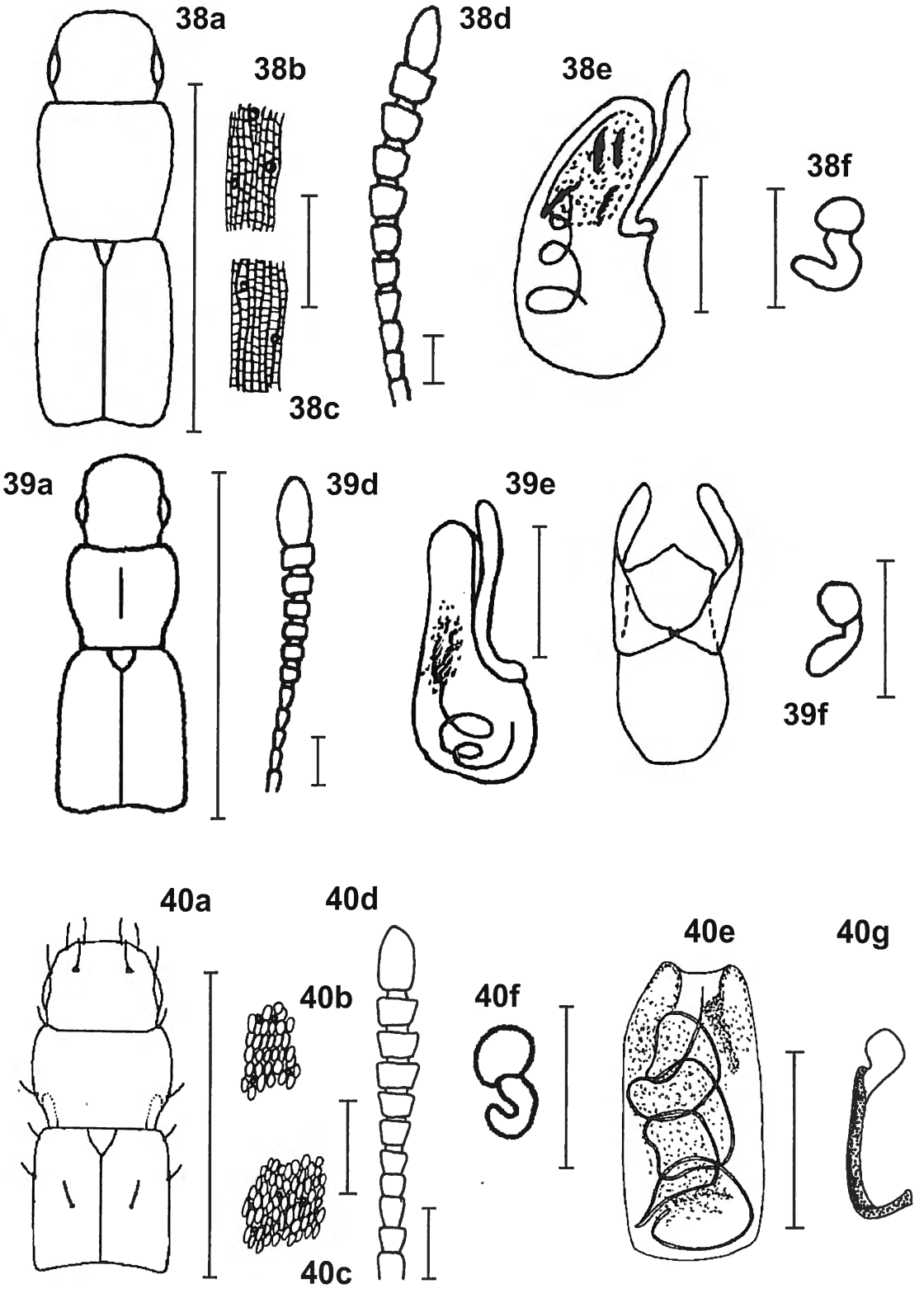


Fig. 38 — *N. tenuis*, Fig. 39: *N. rufonigrus*, Fig. 40: *N. nigrifrons*; a: front body, b: punctuation and microsculpture of pronotum, c: punctuation and microsculpture of elytra, d: antenna, e: aedeagus, f: spermatheca, g: paramera (line a: 1 mm; b - g: 0.1 mm).

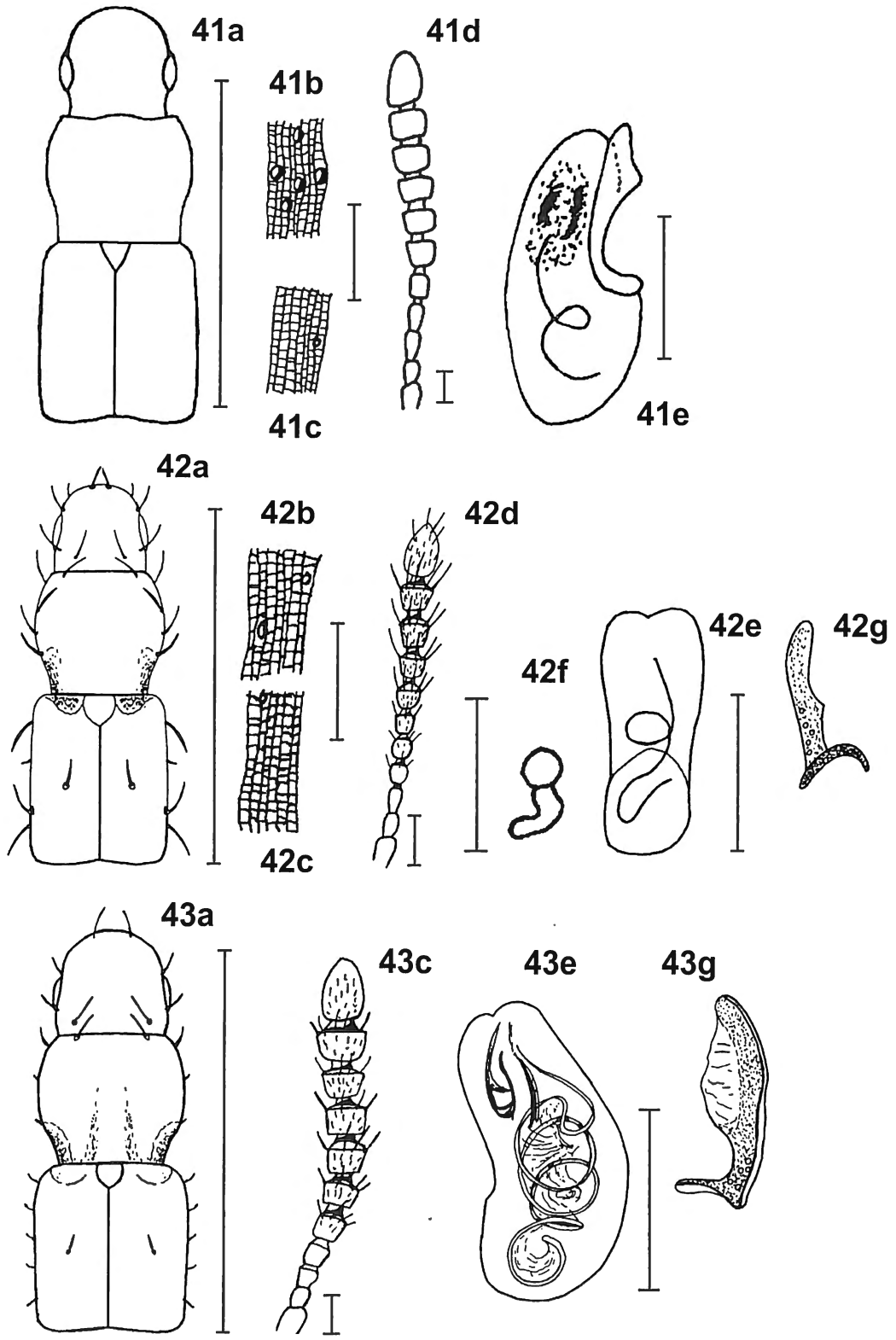


Fig. 41 — *N. spegazzinii*; Fig. 42: *N. laetus*, Fig. 43: *N. simplex*, a: front body, b: punctuation and microsculpture of pronotum, c: punctuation and microsculpture of elytra, d: antenna, e: aedeagus, f: spermatheca, g: paramera (line a: 1 mm; b - g: 0.1 mm).

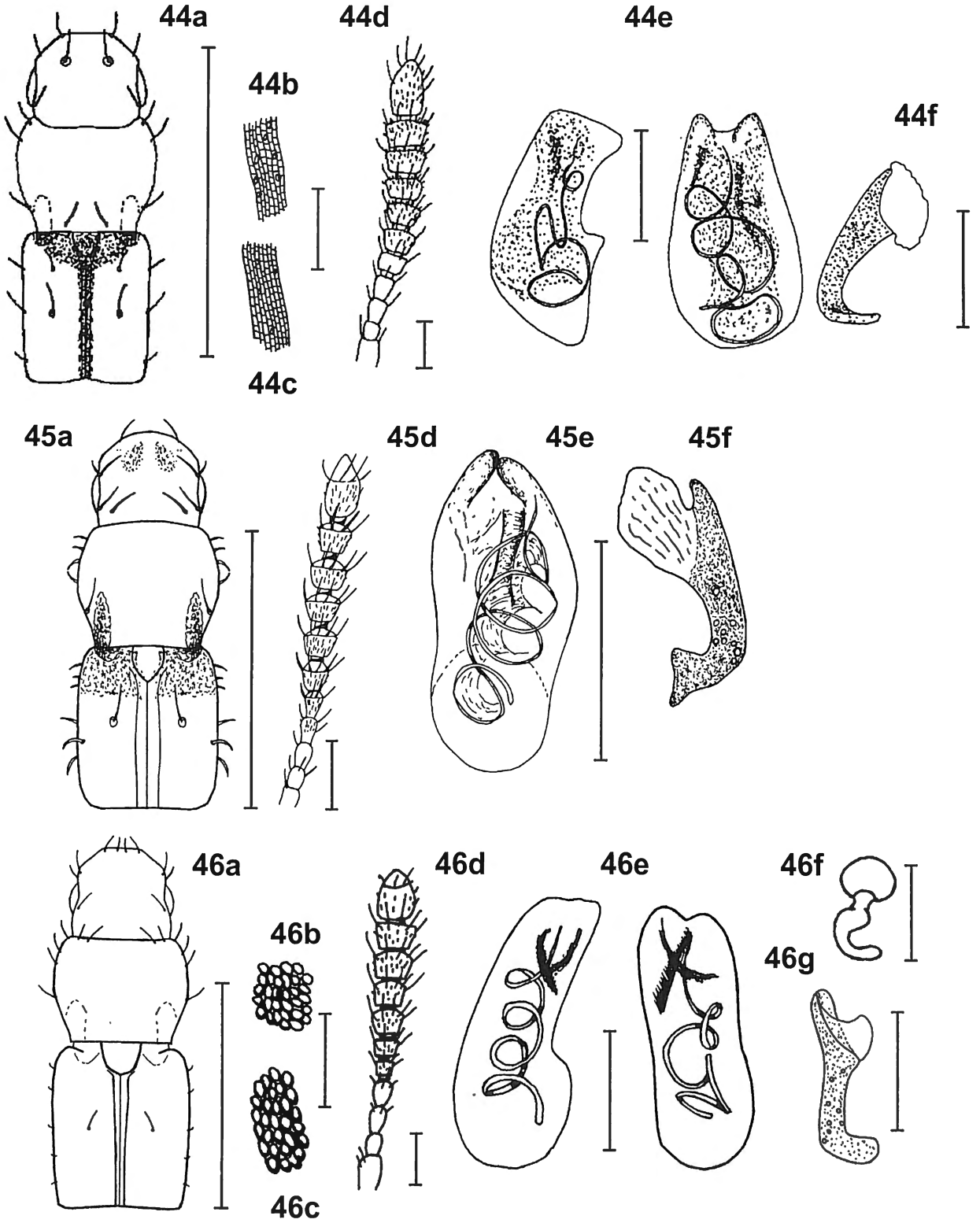


Fig. 44 — *N. flavipennis*, Fig. 45: *N. nevermannii*, Fig. 46: *N. dejectus*; a: front body, b: punctuation and microsculpture of pronotum, c: punctuation and microsculpture of elytra, d: antenna, e: aedeagus, f: spermatheca, g: paramera (line a: 1 mm; b - g: 0.1 mm).

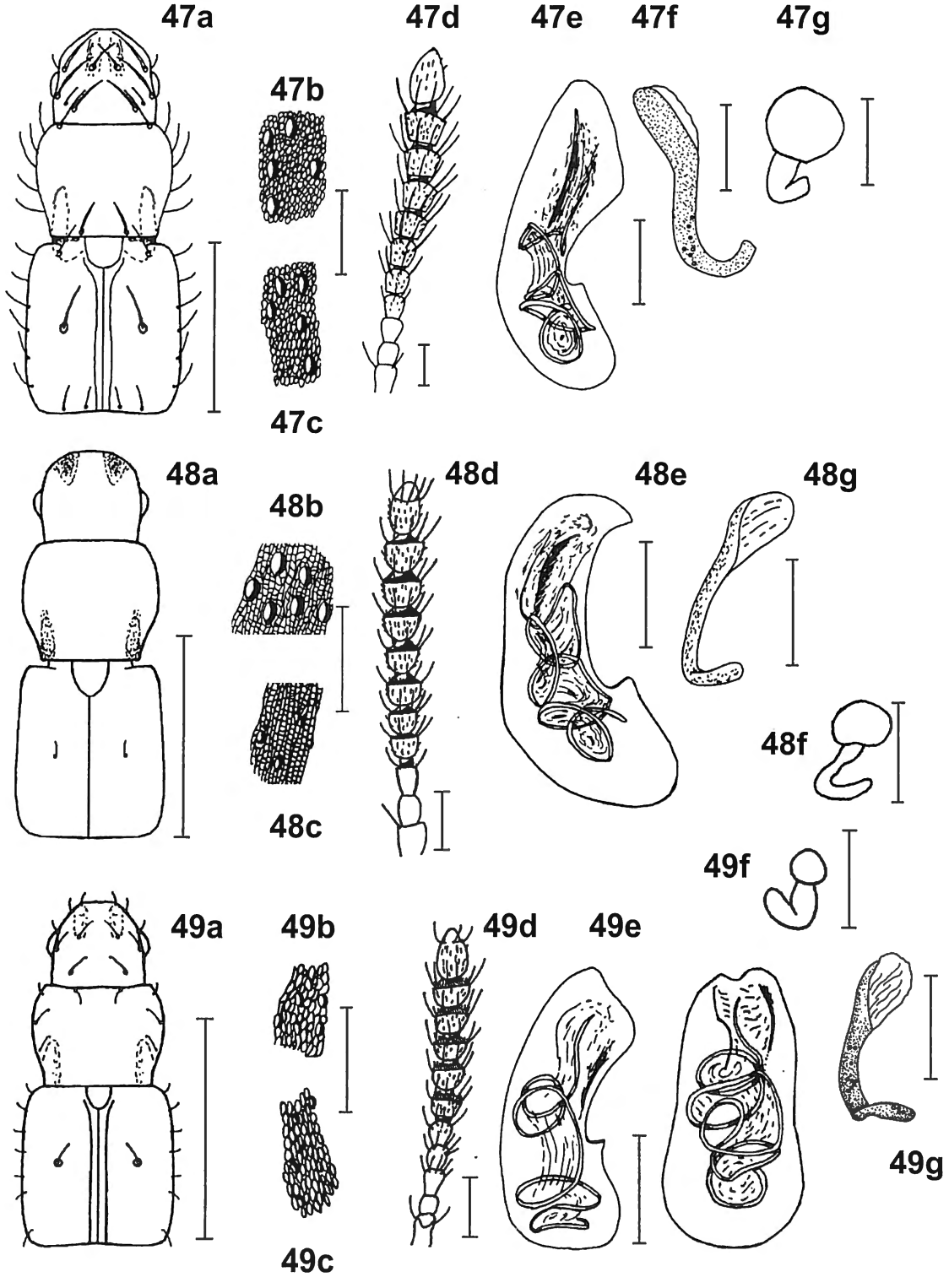


Fig. 47 — *N. funebris*, Fig. 48: *N. opacus*, Fig. 49: *N. sculpturatus*; a: front body, b: punctuation and microsculpture of pronotum, c: punctuation and microsculpture of elytra, d: antenna, e: aedeagus, f: spermatheca, g: paramera (line a: 1 mm; b - g: 0.1 mm).

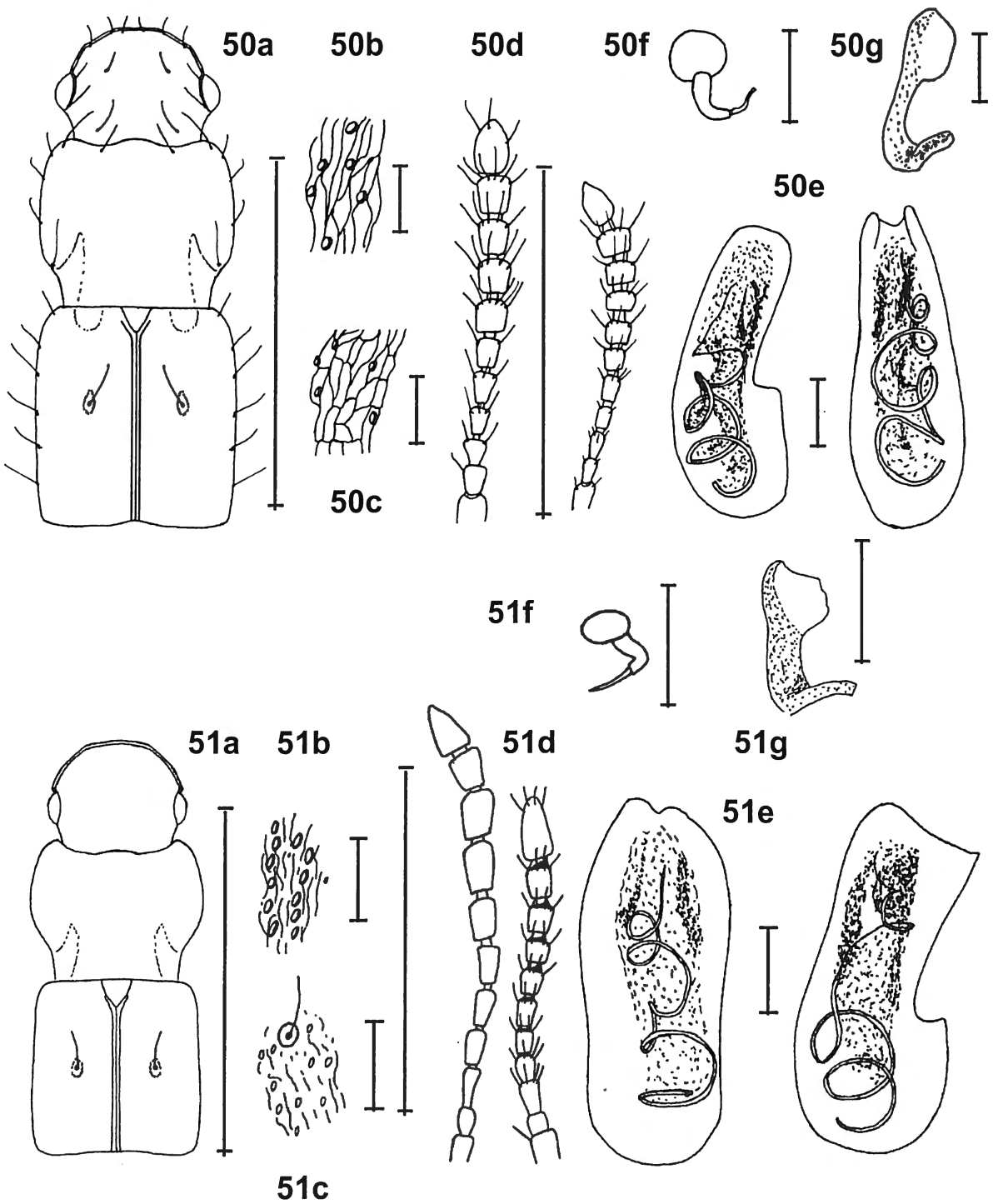


Fig. 50 — *N. sulciger*, Fig. 51: *N. cordiger*; a: front body, b: punctuation and microsculpture of pronotum, c: punctuation and microsculpture of elytra, d: male antenna (left) and female antenna (right), e: aedeagus in lateral view (left) and dorsal view (right), f: spermatheca, g: paramera (line a, d: 1 mm; b, c, e - g: 0.1 mm).

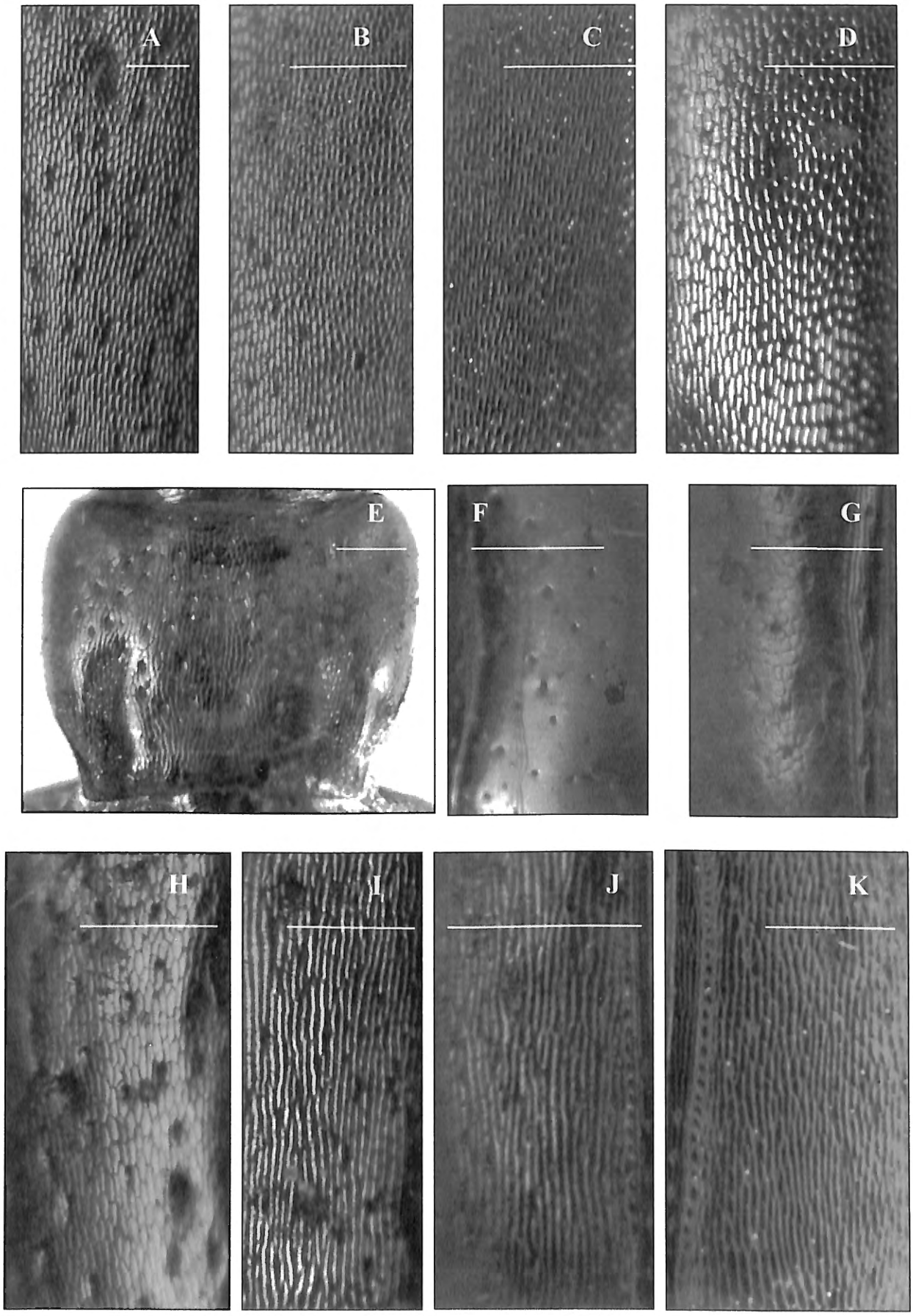
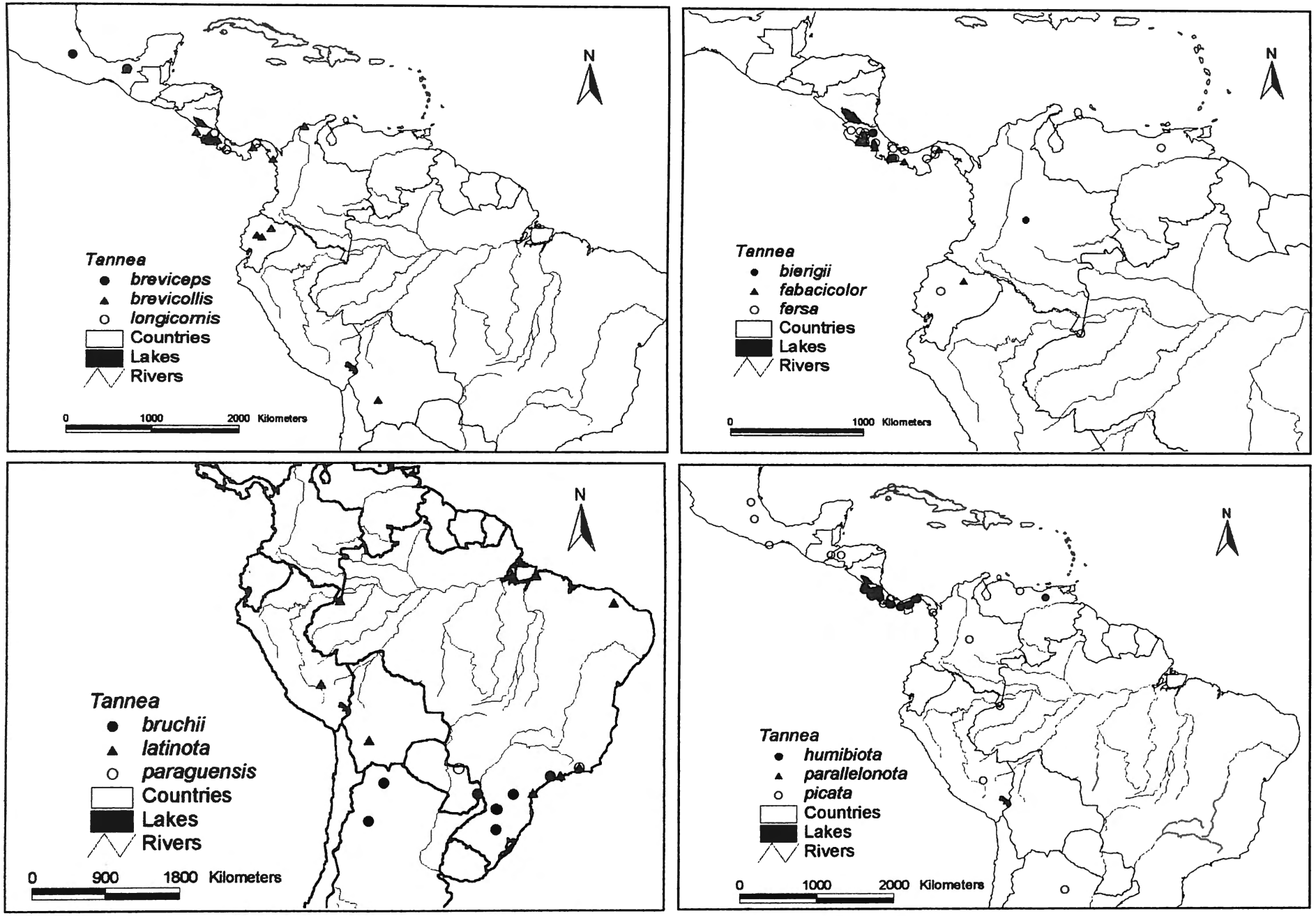
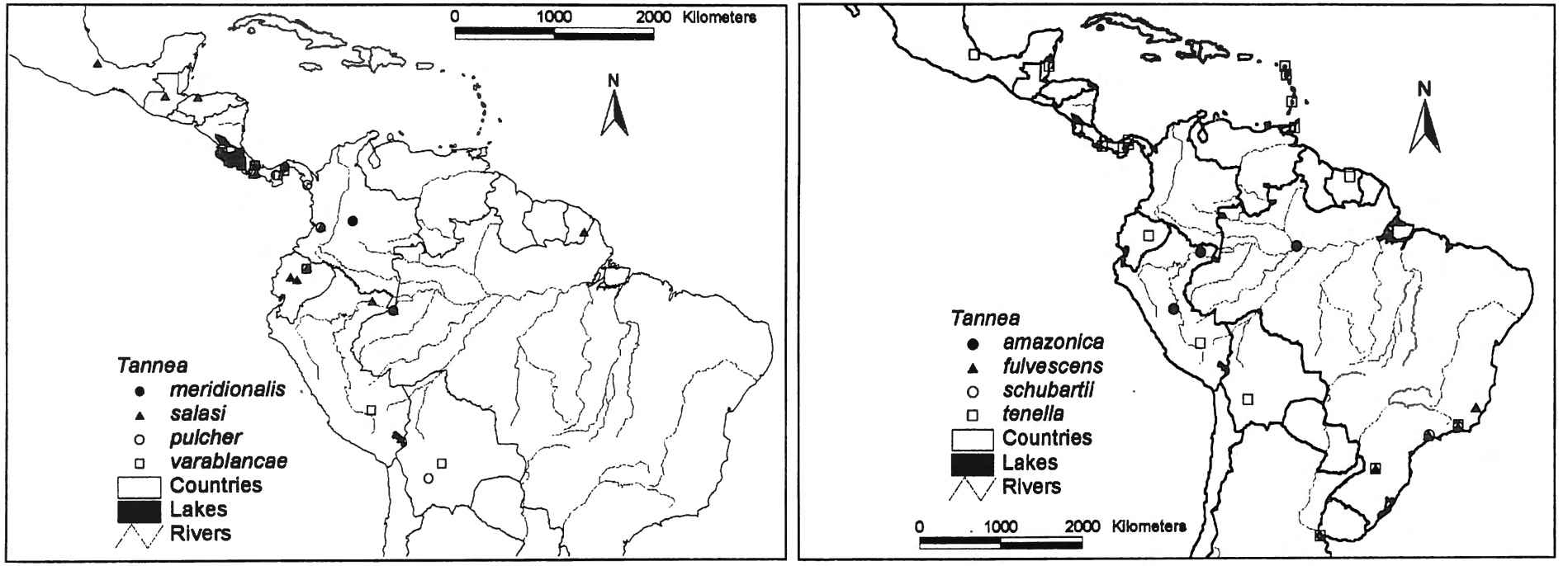


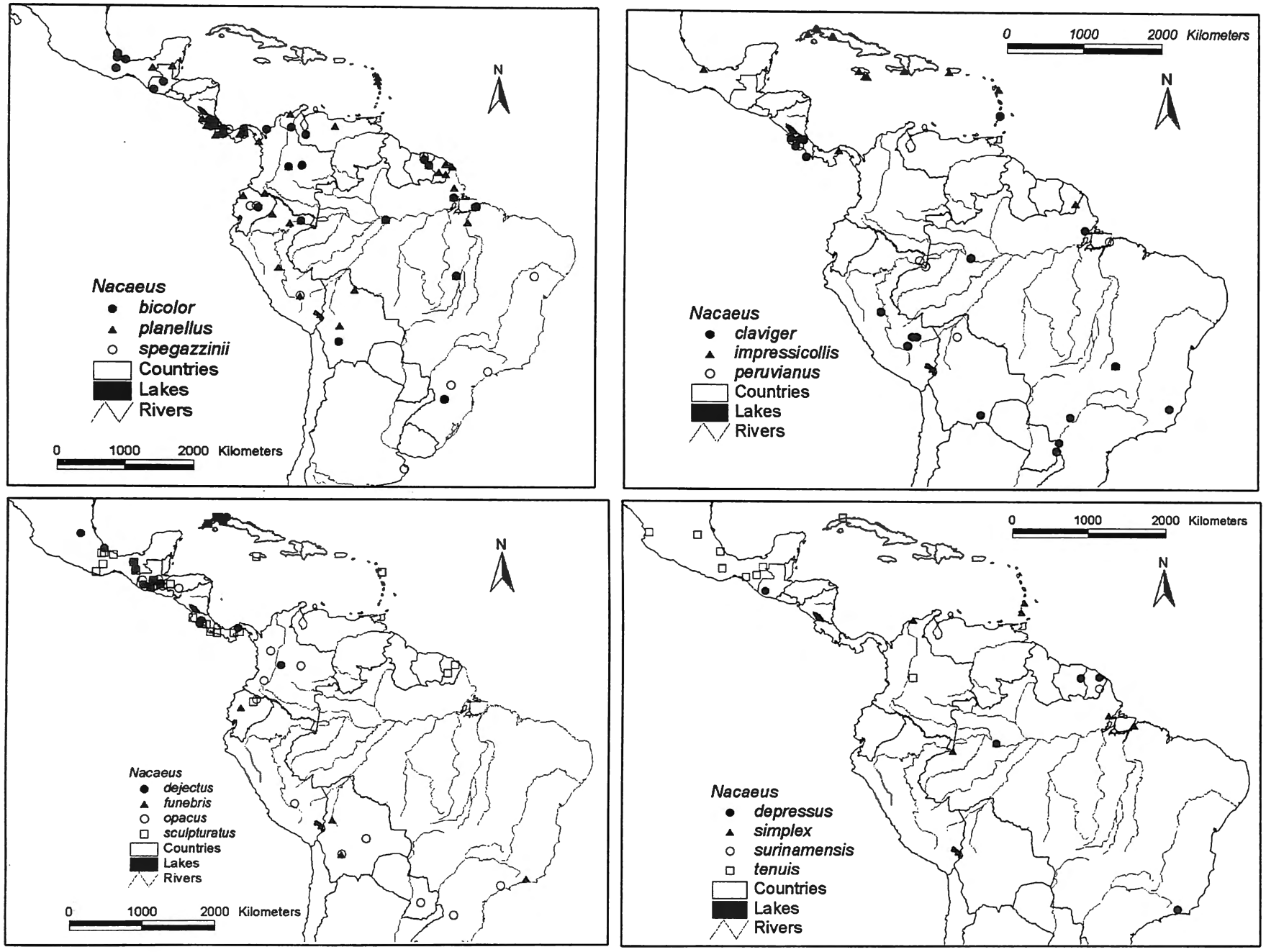
Fig. 52 — Elytra surface: A: *N. funebris*, B: *N. opacus*, C: *N. dejectus*, D: *N. sculpturatus*, F: *N. peruvianus*, G: *N. claviger*, H: *N. impressicollis*, I: *N. collinus*, J: *N. surinamensis*, K: *N. tenuis*; Pronotum: E: *N. depressus* (line: 0.1 mm).



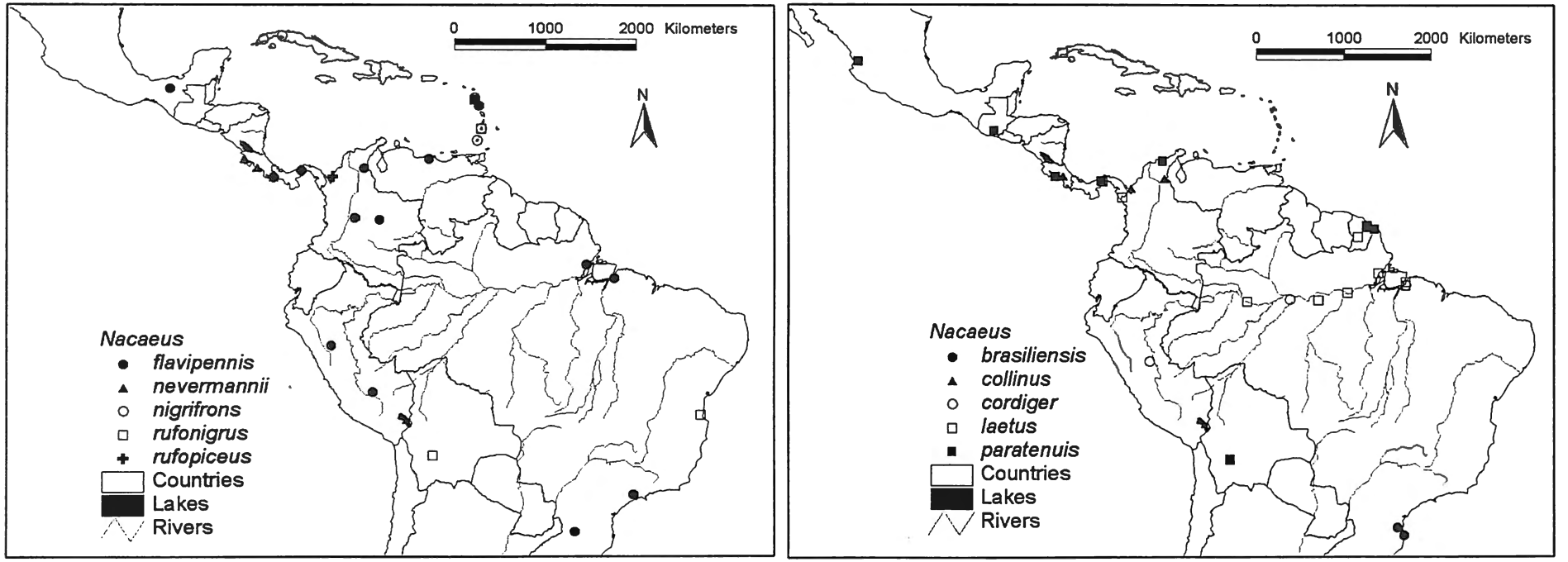
Maps 1 — Distribution of *Tannea* species in central and South America.



Maps 2 — Distribution of *Tannea* species in central and South America.



Maps 3 — Distribution of *Nacaeus* species in central and South America.



Maps 4 — Distribution of *Nacaeus* species in central and South America.