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Review of the genus *Dirocephalus* SILVESTRI, 1938 and related genera in the Neotropical region (Coleoptera: Staphylinidae: Osoriinae)

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Abstract

Genera and species related to the Neotropical Osoriinae genus *Dirocephalus* were studied. Among the material of the Snow Entomological Collections of the Kansas Natural History Museum the new genus *Quadricephalus* with the new species *Q. obstrusus* is described. Among that material 8 new species of the genus *Dirocephalus* have been found and are described here. These are the species *D. andinus, D. mirabilis, D. obtusus, D. arcuatus, D. acutiformis, D. elongatus, D. politus,* and *D. rugosus*. The new species *Pardirocephalus minor* from the Institut royal des Sciences Naturelles de Belgique is described also. New generic combinations are made concerning *Diplopsis laevipennis* BERNHAUER, 1906, which is conspecific with *Euctenopsia ogloblini* BRUCH, 1942. The species is now named *Euctenopsia laevipennis*. For the species *Fauva becki* IRMLER, 2001 the new genus *Verhaaghiella* is established with the single species *Verhaaghiella becki*. Notes relating to the geographical distribution of the species and genera are given.

Key words: Osoriinae, Staphylinidae, Neotropics, new species

Introduction

The first species of the genus *Dirocephalus* were described as *Diplopsis* by FAUVEL, 1902 on the basis of three species with one specimen each, which he got from imported tobacco sent from the Brazilian city of Salvador de Bahía. In those times Salvador de Bahía was the most important harbour for the export of Brazilian tobacco, which makes it impossible to get the exact location of these three species. It may be from elsewhere in Brazil. FAUVEL (1902) emphasised the elongate abdominal segments 2 and 3 as main character for the genus. The next species was described as *Diplopsis laevipennis* by BERNHAUER, 1906 from Paraguay also based on one specimen. *Dirocephalus myrmecophilus* was then described by SILVESTRI (1938) from Sapucai (Paraguay) as a new genus and species in the oxyteline subfamily without comparing the species with the four already described *Diplopsis* species. SILVESTRI (1938) was the first author, who gave the information that the species lives together with the ant species *Pheidole lignicola* var. *levocciput* FAUREL 1908, which is a synonym of the nominate *Pheidole lignicola* MAYR, 1887. BRUCH (1942) described three genera in the piestine subfamily which he found nearly related to *Dirocephalus* also without comparing his species with the *Diplopsis* species described by FAUVEL (1902) and BERNHAUER (1906). Fortunately, BRUCH (1942) also gave information on the myrmecophilous behaviour of the species. He found the species *Pardirocephalus cordobensis* BRUCH, 1942 living together with the ant species *Pheidole obtusopilosa* MAYR, *P. loretoensis* with *Pheidole* sp., *Pselaphomimus amphiphilus* with *Iridomyrmex humilis* MAYR and *Brachymyrmex patagonicus* MAYR, and *Euctenopsia ogloblini* BRUCH, 1942 with *Camponotus* sp.

Later, BLACKWELDER (1952) synonymised *Diplopsis* and fixed the name *Fauva*. The genus *Dirocephalus* SILVESTRI, 1938, and the three genera described by BRUCH (1942) were moved to the Osoriinae subfamily by HERMAN (1970). The redescription of the *Fauva* species of FAUVEL (1902) and BERNHAUER (1906) together with the description of *Fauva becki* IRMLER, 2001 was the occasion to begin a more detailed study of the whole group of genera. With the exception of *Pselaphomimus amphiphilus* all species have the typical carinate elytra. The original main character, the elongate abdominal segments 2 and 3 mentioned by FAUVEL (1902), can be regarded as the typical common character for the reviewed genera. I follow the taxonomy of BRUCH (1942) who differentiated several genera. The genus *Fauva* BLACKWELDER, 1952 is synonymised with *Dirocephalus* SILVESTRI, 1938 and for *Fauva becki* IRMLER, 2001 a new genus must be created that should be named *Verhaaghiella*. A new genus was found in the Snow Entomological Collections of the Kansas Natural History Museum, which is described as *Quadricephalus* here. Thus the following six closely related genera exist: *Dirocephalus, Pardirocephalus, Euctenopsia, Pselaphomimus*, *Verhaaghiella* and *Quadricephalus*.

Material and methods

Specimens from the following collections have been investigated (abbreviations in brackets): Institute royal des sciences naturelles de Belgique (IRSN), Brussels; Field Museum of Natural History (FMNH), Chicago; Snow Entomological Collections of the Kansas Natural History

Museum (SEC), Lawrence; Museo del Universidad Nacional de la Plata (MUNP), Buenos Aires; Museo Argentino de Ciencias Naturales "Bernardino Rivadia" (MACN), Buenos Aires; Collezioni di Dipartimento di Entomologia e Zoologia Agraria (CEZA), Universita degli Studi di Napoli, Naples, Italy. The type specimen of *Dirocephalus myrmecophilus* is deposited in CEZA, but unfortunately dissected, which prevents a detailed study of the surface

Measurements were performed as follows: width was measured at the widest part of head between base of antennae and also of pronotum and elytra, length of head and pronotum in the middle, and length of elytra at the lateral edge.

Key to genera and species

1. Antennae slender, antennomeres longer than wide (Fig. 3b) 2
– Antennae thick, antennomeres wider than long or globular (Fig. 4b) 3
2. Pronotum longer than wide, sides parallel in the anterior half, prosternum distinctly carinate (Fig. 3a) . . . . . ***Quadricephalus obstrusus* n. gen. n.sp.**
– Pronotum much wider than long, sides arcuate, prosternum not carinate . . . . . ***Euctenopsia laevipennis* (BERNHAUER, 1906)**
3. Neck not divided from head by a notch, without process . . . . . ***Verhaaghiella becki* (IRMLER, 2001)**
– Neck divided from the head by a deep notch and with distinct process (Fig. 18D, M) 4
4. Elytra not longitudinally carinate, pronotum without transverse depression and without lateral furrow, head anteriorly without longitudinal carina, process of neck broadly triangular . . . . . ***Pselaphomimus amphiphilus* BRUCH, 1942**
– Elytra longitudinally carinate, pronotum with transverse depression, head anteriorly with longitudinal carinae, process of neck smaller 5
5. Head with two longitudinal carinae on the central prominence, neither head nor neck with glandular hairy fields (Fig. 18D) . . . . . ***Pardirocephalus* BRUCH, 1942**
– Head with one longitudinal central carina, head posteriorly and/or neck at lateral lobes with glandular hairy fields (Fig. 18M) . . . . . ***Dirocephalus* SILVESTRI, 1938**
6. Antennae with 10 antennomeres, larger, 2.8 mm long . . . . . ***P. loretoensis* BRUCH, 1942**
– Antennae with 11 antennomeres, smaller, not longer than 2.4 mm 7
7. Head laterally margined, elytra 1.3 times longer than pronotum, nearly quadrate (Fig. 5a) . . . . . ***P. cordobensis* BRUCH, 1942**
– Head laterally not margined, elytra shorter, as long as pronotum and distinctly wider than long (Fig. 6a) . . . . . ***P. minor* n.sp.**
8. Only head posteriorly with glandular hairs, lateral prominence of neck widely arcuate and without glandular hairs (Fig. 7e) . . . . . ***D. mirabilis* n.sp.**
– Glandular hairs at head on the posterior edge of the lateral carina and at the lateral lobe of neck (Fig. 18M) 9
9. Large species of 3.4 mm length with black colour . . . . . ***D. andinus* n.sp.**
– Species shorter than 3.3 mm with piceous colour . . 10
10. Elytra with three carinate stripes on the disc (Fig. 9a) 11
– Elytra with six distinct carinae, pronotum with strigae (Fig. 18G) . . . . . ***D. multicostatus* (FAUVEL, 1902)**
11. Second stripe of elytra distinctly arcuate in the posterior part (Fig. 10a) . . . . . ***D. arcuatus* n.sp.**
– Second stripe of elytra in the posterior half more or less straight or extremely weak (Fig. 9a) 12
12. Central process of neck widely arcuate, at the top wider than lateral lobe (Fig. 9e) . . ***D. obtusus* n.sp.**
– Central process of neck more slender, at the top as wide or smaller than lateral lobe (Fig. 10e) 13
13. Temples behind eyes extremely short and acute (Fig. 16e) . . . . . ***D. alternans* (FAUVEL, 1902)**
– Temples behind eyes well developed, widely arcuate or rectangular 14
14. Central process of neck long and slender, longer than wide, acute at top (Fig. 11e) . . ***D. acutiformis* n.sp.**
– Central process obtuse, wider than long, not acute at top 15
15. Head at posterior edge straight (Fig. 15e) 16
– Head at posterior edge emarginate, elytral stripes distinct . . . . . ***D. elongatus* n.sp.**
16. Elytral stripes very fine, in the posterior half extremely weak or even absent, pronotum with fine punctuation in the anterior part (Fig. 18F) . . . . . ***D. laeviusculus* (FAUVEL, 1902)**
– Elytral stripes also in the posterior half distinct . . . 17
17. Temples behind eyes obtusely arcuate, cheek-like; front edge of head deeply emarginate, with arcuate angles (Fig. 18E), surface of pronotum distinctly coriaceous (Fig. 18L) . . . . . ***D. rugosus* n.sp.**
– Temples behind eyes parallel and acute at posterior angles (Fig 13e); front edge of head scarcely emarginate or straight 18
18. Smaller in size, 2.3 to 2.4 mm long . . . . . ***D. politus* n. sp.**
– Larger in size, 2.7 mm long . . . . . ***D. myrmecophilus* SILVESTRI, 1938**

Description and new combinations of genera and species

Euctenopsia laevipennis (BERNHAUER, 1906) new combination

Figs. 2c, d; Fig. 19

Diplopsis laevipennis BERNHAUER, 1906: 323.
Euctenopsia ogloblini BRUCH, 1942: 138 new synonymy.

REMARKS: A comparison of type specimens of *Diplopsis laevipennis* and *Euctenopsia ogloblini* indicates that they are conspecific. As *Diplopsis* FAUVEL, 1902 is a junior homonym, *Euctenopsia* BRUCH, 1942 becomes the valid generic name for the species. A graph of the aedeagus and the last abdominal tergite, which exhibits characteristic structures compared to the most related genus *Quadricephalus* is added here (Fig. 2).

***Verhaaghiella* n. gen.**

DIAGNOSIS: The new genus is represented in the Neotropical fauna by the species *Verhaaghiella becki* (IRMLER, 2001), described as *Fauva becki* IRMLER, 2001. It seems to represent an ancient form of the generic group, because none of the apomorphic characters existing in the genera *Pselaphomimus, Pardirocephalus* and *Dirocephalus* is developed. The neck is hardly smaller than the head, not separated by a deep furrow and without any process; eyes are well developed, but small and visible in lateral view; no supraocular longitudinal furrow exists; sides of the pronotum are distinctly margined, but without a broad lateral furrow. Antennae are similarly built as in *Dirocephalus* and *Pardirocephalus*. A graph of the species is given in IRMLER (2001). Apparently 4 tarsomeres are developed (Fig. 15). The number of tarsomeres is hard to identify, because the first one seems to exhibit a semicomplete suture. This structure seems not to divide the first tarsomere and might be the result of the two basal tarsomeres being connate.

ETYMOLOGY: The generic name *Verhaaghiella* is a diminutive and derives from the name of my colleague M. Verhaagh, who collected the specimen at Panguana, Peru, Dep. Loreto.

***Verhaaghiella becki* (IRMLER, 2001) new combination**

Fauva becki IRMLER, 2001: 125

REMARKS: The species is already sufficiently described. It is the smallest species in the presently known genera among the dirocephalid relatives.

***Pselaphomimus amphiphilus* BRUCH, 1942**

Figs. 1c, d, Fig. 19

REMARKS: The description and graphs of BRUCH (1942) are very informative and sufficient to determine the species. As the structure of the last abdominal tergite provides characteristic structures compared to the related species, I add a graph of it together with the one of the aedeagus. BRUCH (1942) mentioned that the genus exhibits the same number of tarsomeres as in *Dirocephalus*, which seems reasonable considering the near relationship between the two genera. I did not prepare the tarsae of the genus, because only one type specimen exists. SILVESTRI (1938) counted 4 tarsomeres in *Dirocephalus*. Analysing the tarsae of *Dirocephalus* under the microscope, I had the impression that the first tarsomere is not really divided into two tarsomeres (Fig. 15). The division is very indistinct and seems to be more like a suture, which does not allow a flexible motion. Thus, I decided that only three distinctly developed tarsomeres exist in these three genera.

***Quadricephalus* n. gen.**

DIAGNOSIS: The new genus resembles the genus *Euctenopsia* BRUCH, 1942 due to the elongate antennae with antennomeres distinctly longer than wide. The eyes are very small also as in *Euctenopsia* with 6 ommatids only. However, the head is much longer than the neck and the neck is without a prominent process. In contrast to all other genera of the dirocephalid group, the pronotum exhibits no lateral furrow. Legs have 4 tarsomeres as in *Euctenopsia* with tarsomeres 1 and 2 very short and 4 about 2.5 times longer than the 3 basal ones (Fig. 15). The anterior angles of the shoulders are well developed and distinctly prominent anteriorly. The last abdominal tergite, with the exception of two distal setae, is without hairs.

ETYMOLOGY: The genetic epithet is a combination of the Latin word *quadratus* meaning quadrate and the Greek word *cephale* meaning head referring to the relatively broad head compared to the other genera of the group.

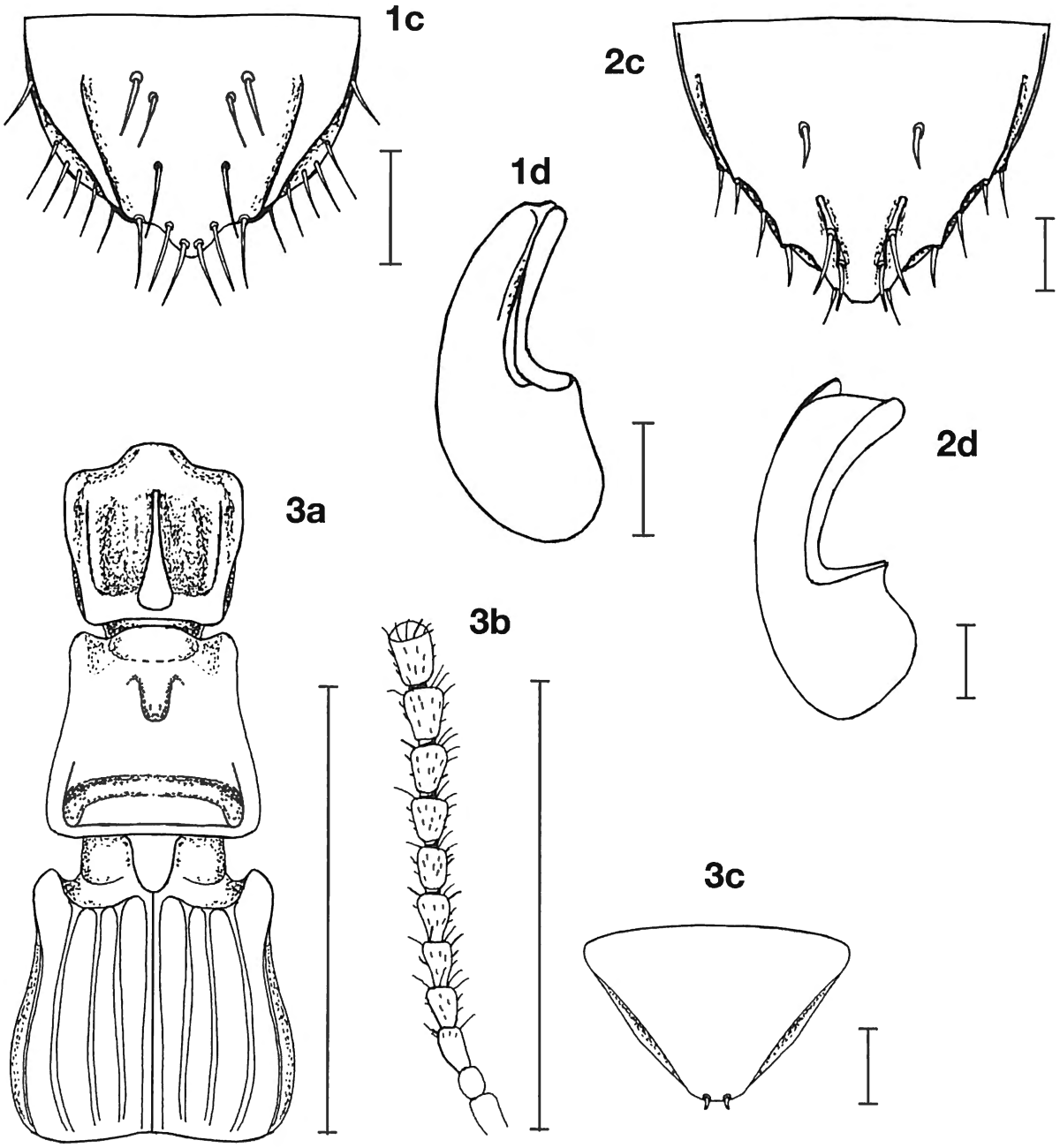
***Quadricephalus obstrusus* n.sp.**

Figs. 3a-c, Fig. 19

TYPE MATERIAL: Holotype: PERU: Loreto, 1.5 m N. Teniente Lopez (76°06'92''W, 2°35'66''S), 1 female, 210 – 240 m elevation, 22 July 1993, leg. R. Leschen, by flight intercept trap, Qd. 17, #165 (SEC).

DIAGNOSIS: The species may easily be distinguished from all other species of the group by the generic characters. It most resembles *Euctenopsia laevipennis* due to the long antennae, but the head is totally different and the specific structure of the shoulders are only found in this species.

DESCRIPTION: *Length*: 2.4 mm. *Colour*: piceous; elytra reddish, posterior edge of abdominal tergites 2 to 4 lighter red, tergites 5 to 7 yellow; legs red. *Head*: 0.30 mm long, 0.40 mm wide; widest at the base of antennae, in front of antennae broadly emarginate, with a central prominent lobe; the acute tip of the lobe with four yellow hairs; head behind the base of antennae at least twice as long as the head, straightly narrowed to the posterior angles; posterior angles rectangular and deeply separated from the broad neck; anterior edge finely margined, emarginate, posterior edge not margined; on the disc in the posterior half a well developed longitudinal central carina widened posteriorly into a thicker prominence, laterally a similar less developed carina on each side; disc without punctuation, more or less polished and shiny; lateral part of the head with a deep anterior emargination behind the base of



Figs. 1-3 – **1.** *Pselaphomimus amphiphilus*. **2.** *Euctenopsia laevipennis*. **3.** *Quadricephalus obstrusus* (**a**: front of body, **b**: antenna, **c**: last abdominal tergite, **d**: aedeagus; scale bar a, b: 1 mm, c, d: 0.1 mm).

antennae; with an elongate acute process ventrally; a distal carina divides the lateral part from the ventral head. *Antennae*: with 11 antennomeres, 2nd antennomere globular, the following antennomeres on average 1/3 longer than wide; 4th to 11th antennomere with long black setae at apex. *Pronotum*: 0.50 mm long, 0.48 mm wide; widest at posterior edge; straightly narrowed to anterior edge; without lateral margin and lateral furrow; a deep transverse depression in front of the posterior edge, deepened laterally; on the front part of the disc a short longitudinal depression not reaching the anterior edge nor the posterior depression; surface smooth without punctuation and therefore shiny. *Elytra*: 0.60 mm long, 0.70 mm wide; without punctuation and microsculpture, surface shiny; beside the suture line with four indistinct longitudinal stripes, each stripe divided by two lines into three fine carinae; anterior edge broadly emarginate with shoulders distinctly prominent. *Abdomen*: segments 2 and 3 longer than the followings; with fine longitudinal strigae at base; all tergites without hairs, only at the tip of the last tergite two very short setae.

ETYMOLOGY: The specific name *obstrusus* is derived from the same Latin word meaning tight and refers to the tight posterior process of the prosternum.

***Pardirocephalus cordobensis* BRUCH, 1942: 130**
Figs. 5a-d; Fig. 18A; Fig. 19

TYPE MATERIAL: Holotype: ARGENTINA: Cordoba, Alta Gracia (64°24'W, 31°39'S), La Granja, Sierras de Cordoba, 1 male, under a stone together with the ant species *Pheiole obtusopilosa*, 1931, leg. Bruch (MACN, holotype seen).

DIAGNOSIS: The species is most similar to the *P. minor* n. sp. due to the 11 antennomeres (Fig. 5b), but it is distinctly larger (Fig. 5a), lateral edge of anterior head more distinctly margined and process of posterior part of head slightly smaller. Last abdominal tergite with a row of four yellow hairs, while in *P. minor* only three hairs exist (Fig. 5c). The surface of pronotum is more longitudinally strigose than in the congeneric species (Fig. 18A).

DESCRIPTION: *Length*: 2.4 mm. *Colour*: piceous; elytra, posterior edge of abdominal tergites and last abdominal tergite lighter reddish; legs red. *Head*: 0.42 mm long, 0.32 mm wide; divided into an anterior and a posterior part; anterior part widest at the base of antennae, emarginate to the anterior edge, straightly narrowed to the posterior edge; posteriorly with a bicarinate prominence; between the central prominence and the lateral edge a distinct carina on each side, anteriorly reaching the widest part of the head; eyes at lower edge of the head, visible in dorsal view; posterior part of head with a wide central, broadly margined process and two more or less acute lateral processes. *Antennae*: with 11 antennomeres, each antennomere more or less globular and quadrate. *Pronotum*: 0.40 mm long, 0.52 mm wide; widest in the middle, distinctly narrowed to the anterior angles, scarcely narrowed to posterior angles; anterior angles acutely prominent; lateral margin beginning in the first 1/3, widened to posterior angles; a wide furrow between lateral margin and disc; disc smooth in the anterior half, with longitudinally coriaceous ground sculpture in the posterior half, which is divided by a transverse depression; surface of anterior half shiny, surface of posterior half dull. *Elytra*: 0.60 mm long, 0.68 mm wide; without punctuation and microsculpture, surface shiny; beside the suture line with four indistinct longitudinal stripes, each stripe divided by two lines into three fine carinae. *Abdomen*: segments 2 and 3 longer than the following ones; with fine longitudinal strigae at base; tergites 4 to 6 laterally with a transverse row of yellow hairs; last tergite finely carinate at lateral edge, with three yellow hairs laterally and four yellow hairs on each side of the middle.

***Pardirocephalus loretoensis* BRUCH, 1942: 132**
Figs. 4a-c; Figs. 18B, D; Fig. 19

TYPE MATERIAL: Holotype: ARGENTINA: Misiones, Loreto (57°16'W, 27°47'S), 1 female, leg. A. Ogloblin, without information about date (MACN, holotype seen).

DIAGNOSIS: The species can be easily distinguished from the related species of the genus *Pardirocephalus* by the antennae, which contain only 10 antennomeres (Fig. 4b). Furthermore, the species is larger than the two congeneric ones (Fig. 4a). The lower lobe of the head carrying the eyes is less developed than in *P. cordobensis*. Thus, eyes are scarcely visible in dorsal view. The surface of the pronotum is longitudinally coriaceous (Fig. 18B).

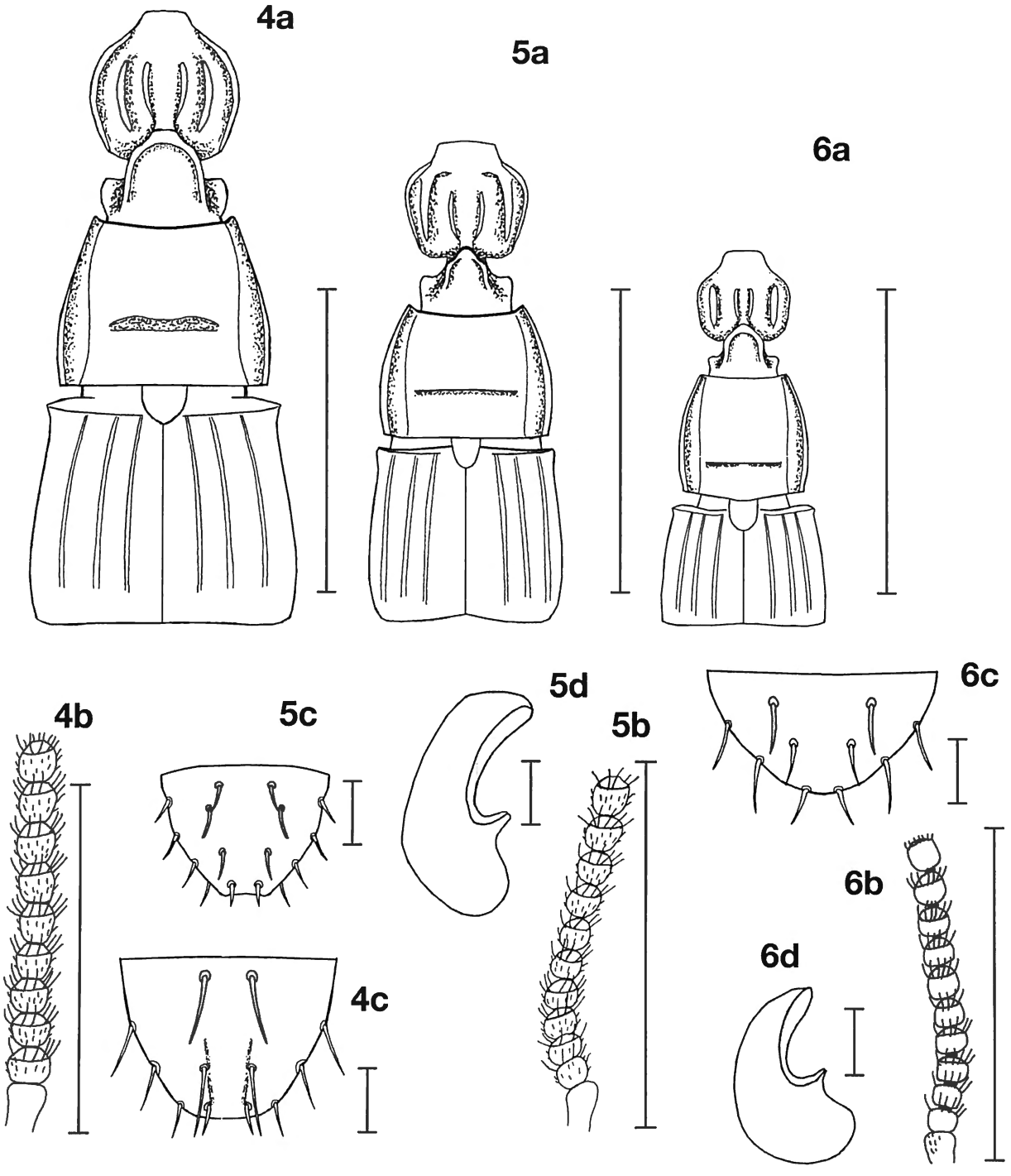
DESCRIPTION: *Length*: 2.8 mm. *Colour*: piceous; elytra, posterior edge of abdominal tergites and last abdominal tergite lighter reddish; legs red. *Head*: 0.55 mm long, 0.42 mm wide; divided into an anterior and a posterior part; anterior part widest at the base of antennae, emarginate to the anterior edge, straightly narrowed to the posterior edge; laterally margined, central prominence of anterior part with two carinae, between the central prominence and lateral margin another carina on each side; clypeus with yellow hairs, posterior part of head smooth, surface shiny; eyes at lower edge of head, scarcely visible from dorsal view; posterior part of head with a central lobe containing a deep depression, laterally with a more or less acute prominence on each side. *Antennae*: very thick with only 10 antennomeres, each antennomere more or less globular and wider than long; the basal antennomeres thicker than apical ones. *Pronotum*: 0.50 mm long, 0.65 mm wide; widest in the middle, distinctly narrowed to the anterior angles, scarcely narrowed to posterior angles; anterior angles acutely prominent; lateral margin beginning in the first 1/3, widened to posterior angles; a wide furrow between lateral margin and disc; disc with ground sculpture, ground sculpture fine and sparse near the front edge, dense and coriaceous near the posterior edge; thus, surface near front edge slightly shiny, near the posterior edge dull. *Elytra*: 0.70 mm long, 0.85 mm wide; without punctuation and microsculpture, surface shiny; beside the suture line with four indistinct longitudinal stripes, each stripe divided by two lines into three fine carinae. *Abdomen*: segments 2 and 3 longer than the following ones; with fine longitudinal strigae at base; tergites 4 to 6 laterally with a transverse row of yellow hairs; last tergite finely carinate at lateral edge, with three yellow hairs laterally and also a row of three yellow hairs on each side of the middle.

***Pardirocephalus minor* n.sp.**
Figs. 6a-d; Fig. 18C; Fig. 19

TYPE MATERIAL: Holotype: ARGENTINA: Misiones, Iguazù (54°23'32''W, 25°43'09''S), 1 male, 22.09. 1998, leg. Leponce & Roisin, by berlese extraction of leaf litter. # T3L8 (IRSN).

Paratypes: ARGENTINA: Misiones, Iguazù (54°26'00''W, 25°43'00''S), 1 female, 22.09. 1998, leg. Leponce & Roisin, by Berlese extraction of leaf litter. # T1L8 (IRSN); (54°21'17''W, 25°42'16''S) 1 male; 22.09. 1998, leg. Leponce & Roisin, by Berlese extraction of leaf litter. # T2L8 (UIC).

DIAGNOSIS: The species is most similar to *P. cordobensis* due to the 11 antennomeres and the size (Figs. 6a, b), but



Figs. 4-6 – **4.** *Pardirocephalus loretensis*. **5.** *P. cordobensis*. **6.** *P. minor* (**a**: front of body, **b**: antenna, **c**: last abdominal tergite, **d**: aedeagus; scale bar a, b: 1 mm, c, d: 0.1 mm).

it is slightly smaller, lateral edge of anterior head not margined, and elytra much shorter, distinctly wider than long. Last abdominal tergite with a row of three yellow hairs (Fig. 6c), whereas in *P. cordobensis* four hairs exist. Surface of the pronotum rugate and more shiny than in the two congeneric species (Fig. 18C).

DESCRIPTION: *Length*: 2.0 mm. *Colour*: piceous; elytra, posterior edge of abdominal tergites and last abdominal tergite lighter reddish; legs red. *Head*: 0.42 mm long, 0.30 mm wide; divided into an anterior and a posterior part; anterior part widest at the base of antennae, emarginate to the anterior edge, straightly narrowed to the posterior edge; posteriorly with a bicarinate prominence; between the central prominence and the lateral edge a distinct carina on each side; lateral edge of head not margined; eyes at lower edge of the head prominent, visible in dorsal view; posterior part of head with a wide central process and two more or less acute lateral processes; central process in the anterior part triangular and

with a deep depression. *Antennae*: with 11 antennomeres, each antennomere more or less globular and slightly wider than long; antennomeres 2 to 11 of same size. *Pronotum*: 0.42 mm long, 0.48 mm wide; widest in the middle, distinctly narrowed to the anterior angles, scarcely narrowed to posterior angles; anterior angles acutely prominent; lateral margin beginning in the first 1/3, widened to posterior angles; a wide furrow between lateral margin and disc; disc with ground sculpture, scarce and fine in the anterior third, longitudinally coriaceous in the posterior half; divided by a transverse depression; surface of anterior half slightly shiny, surface of posterior half dull. *Elytra*: 0.48 mm long, 0.60 mm wide; without punctuation and microsculpture, surface shiny; beside the suture line with four indistinct longitudinal stripes, each stripe divided by two lines into three fine carinae. *Abdomen*: segments 2 and 3 longer than the following ones; with fine longitudinal strigae at base; tergites 4 to 6 laterally with a transverse row of yellow hairs; last tergite finely carinate at lateral edge, with tow yellow hairs laterally and three yellow hairs on each side of the middle.

ETYMOLOGY: The specific name *minor* is a derivative of the Latin word *minus* meaning smaller and refers to the smaller size compared to the two other species of the genus.

Dirocephalus andinus n. sp.

Figs. 8a-e; Figs. 18H, M; Fig. 19

TYPE MATERIAL: Holotype: PERU: Loreto, 1.5 m N. Teniente Lopez (76°06'92''W, 2°35'66''S), 1 male, 210 – 240 m elevation, 15 July 1993, leg. R. Leschen, at night, #106 (SEC).

Paratypes: PERU: Loreto, 1.5 m N. Teniente Lopez (76°06'92''W, 2°35'66''S), 1 male, 210 – 240 m elevation, 23 July 1993, leg. R. Leschen, by flight intercept trap, Qd. 17, #190 (SEC) 1 male, 22. July 1993, #165 (UIC); BOLIVIA: Cochabamba, 67.5 km NE Cochabamba, Estacion Biologico Valle del Sajita do Univ. de San Simon, 300 m elevation, (17°06'33''S, 64°47'52''W), 1 female, 7.-9. February 1999, leg. F. Genier, by flight intercept trap 1, BOL 1G99 041 (SEC).

DIAGNOSIS: The species is larger than the congeneric species and the colour is darker. Furthermore, it is characterised by the polished and shiny surface of the pronotal disc (Fig. 18H) and the absence of a distinct transverse depression. The aedeagus is more slender and arcuate at the apex in lateral view.

DESCRIPTION: *Length*: 3.4 mm. *Colour*: black; posterior edge of elytra and of abdominal tergites 2 to 5 reddish, abdominal tergites 6 and 7 yellow, legs piceous. *Head*: 0.62 mm long, 0.62 mm wide; divided into an anterior part and a posterior neck; widest at the base of antennae, broadly emarginate to an anterior central lobe which is slightly emarginate in the middle, straightly narrowed to the posterior edge; lateral edge not margined; disc smooth without punctuation, surface shiny; with a long central carina; between the central carina and the lateral edge another elongate carina on each side; eyes at lower edge of the head prominent, visible in dorsal view; neck with a long elongate central process and two obtuse lateral protrusions; central process with a distinctly longitudinal depression; glandular hairs at each lateral prominence and in front of it at the posterior edge of the lateral carinae. *Antennae*: with 11 antennomeres, each antennomere more or less globular and quadrate, 2nd antennomere as wide as 11th. *Pronotum*: 0.62 mm long, 0.85 mm wide; widest in the posterior third, straightly narrowed to the anterior angles, scarcely narrowed to posterior angles, anterior angles acute and prominent; lateral margin beginning in the first 1/3, widened to posterior angles; a wide furrow between lateral margin and disc; disc without ground sculpture and punctuation, surface smooth and shiny (Fig. 18H), only in front of the posterior edge surface with weak microsculpture and dull; a transverse depression not developed. *Elytra*: 0.90 mm long, 1.05 mm wide; without punctuation, but with longitudinally reticulate microsculpture and surface less shiny than on pronotum; adjacent to the suture line with four indistinct longitudinal stripes, each stripe divided by two lines into three fine carinae. *Abdomen*: segments 2 and 3 longer than the following ones, sparsely covered with very short yellow hairs and some longer hairs; tergites 4 to 6 laterally with a transverse row of long yellow hairs; last tergite finely carinate at lateral edge, with three yellow hairs laterally and four yellow hairs on each side of the middle.

ETYMOLOGY: The specific name *andinus* derives from the Andean mountains, where the species was found.

Dirocephalus mirabilis n.sp.

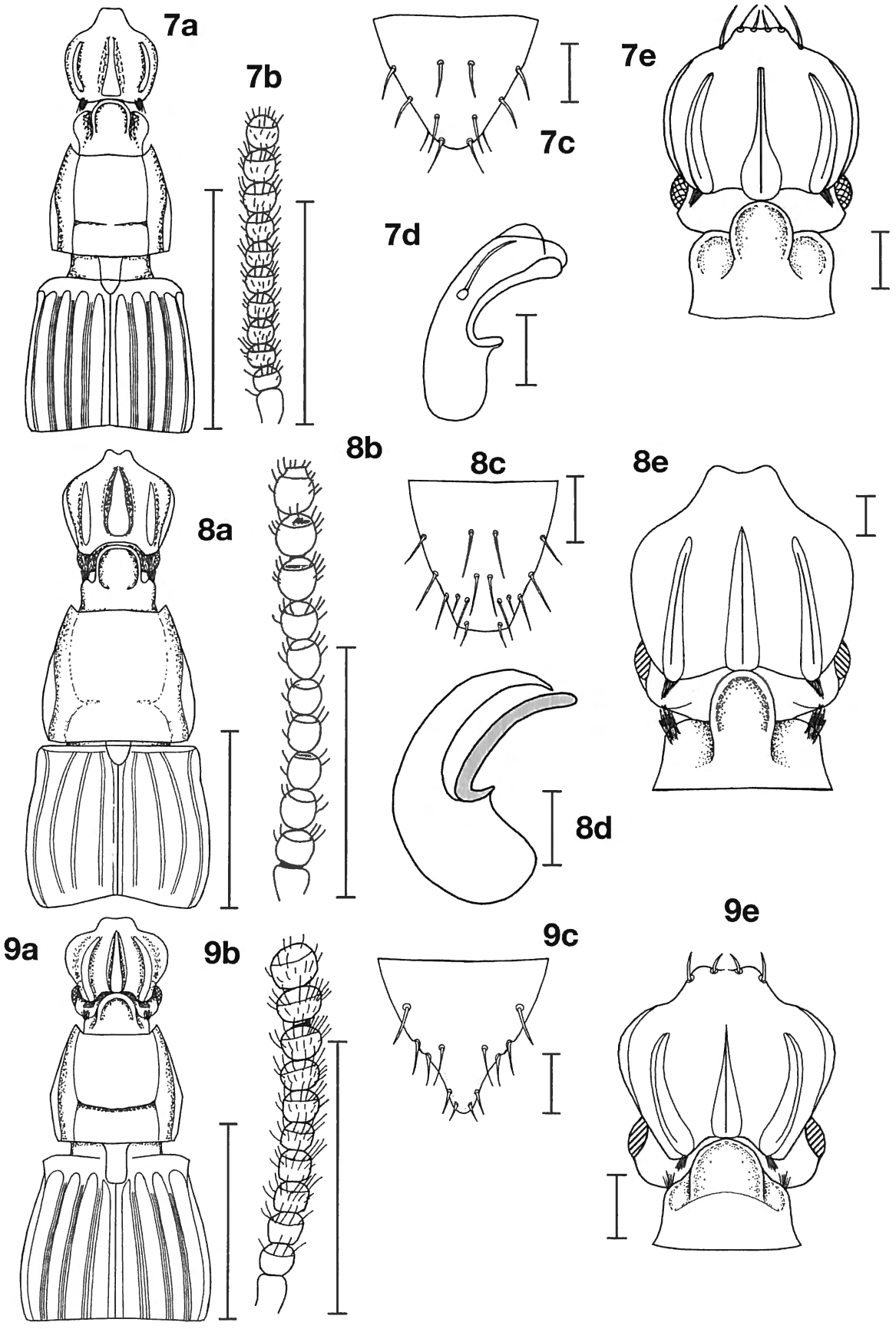
Figs. 7a-e; Fig. 18I; Fig. 19

TYPE MATERIAL: Holotype: GUYANA: Region B, Iwokrama Forest, 1 km W. Kurupukari, Iwokrama Field Station, (58°41'4''W, 4°40'19''N), 1 male, 60 m elevation, 20.-25 May 2001, leg. R. Brooks and Z. Falin, GUY 1BF01 034, by flight intercept trap (SEC).

Paratypes: GUYANA: 2 males, data as for holotype, 26.-29 May 2001, leg. R. Brooks and Z. Falin, GUY 1BF01 064 (SEC, UIC); Region B, Iwokrama Forest, Kabokalli Field Station, (58°30'35''W, 4°17'4''N), 1 female, 60 m elevation, 3.-5 June 2001, leg. R. Brooks and Z. Falin, GUY 1BF01 146, by flight intercept trap (SEC).

DIAGNOSIS: The species is differentiated from all other known *Dirocephalus* species by the number of glandular hair fields (Fig. 7e). Whereas the other congeneric species exhibit two glandular fields, one at the posterior edge of the lateral prominence of head and one at the lateral lobe of the neck, in this species the glandular field of the head is developed only.

DESCRIPTION: *Length*: 2.4 mm. *Colour*: piceous, lateral margin of pronotum and elytra dark reddish, posterior



Figs. 7-9 – **7.** *Dirocephalus mirabilis*. **8.** *D. andinus*. **9.** *D. obtusus* (**a**: front of body, **b**: antenna, **c**: last abdominal tergite, **d**: aedeagus, **e**: head; scale bar a, b: 1 mm, c, d, e: 0.1 mm).

edge of abdominal tergites lighter red, legs light brown. *Head*: 0.50 mm long, 0.40 mm wide; widest near the base of antennae; distinctly emarginate to the clypeus, which is less than 1/3 as wide as head near antennae; behind antennae straightly narrowed to posterior edge of front head; without punctuation; on the disc without microsculpture, surface shiny; laterally with weak microsculpture, surface less shiny; with a central and two lateral longitudinal prominences; the central prominence divided by a distinct central carina, prominence scarcely wider than the carina in the anterior part, much wider in the posterior part; few hairs at the anterior margin in front of the base of antennae; a small glandular hair field at the outer angles of posterior edge of the front head; eyes prominent and distinctly visible in dorsal aspect, temples behind the eyes shortly rounded; neck with spoon-like central process and semicircular lateral lobes; surface of neck without punctuation and microsculpture, polished. *Antennae*: long, as long as head, pronotum and half of the elytra; antennomeres thick and as wide as the width of the clypeus; antennomeres 2 to 11 globular, scattered with hairs, in particular at the top of each antennomere. *Pronotum*: 0.40 mm long, 0.50 mm wide; with distinct acute anterior angles; behind the neck deeply emarginate; laterally with a distinct margin, which is very small at the anterior angles and much wider behind the middle; a deep furrow developed between the lateral margin and the disc, which is polished and shiny; disc at anterior edge smooth, surface polished; shortly behind this polished transverse stripe, disc with deep coriaceous ground sculpture (Fig. 18I), surface dull; at posterior third a transverse depression dividing the disc. *Elytra*: 0.55 mm long, 0.75 mm wide; anteriorly margined; with very weak microsculpture and without punctuation, surface nearly polished; on the disc with three stripes, each containing four very fine carinae; laterally a fourth distinctly developed carina separating the disc from the lateral part. *Abdomen* with abdominal segments 2 and 3 longer than the following ones; abdominal tergites with longitudinally reticulate microsculpture at the base and netlike microsculpture at posterior edge; a transverse row of short yellow hairs at the posterior edge; last tergite with a longitudinal row of three hairs, partly inserted in a carinate structure.

ETYMOLOGY: The specific epithet derives from the same Latin word *mirabilis* meaning wonderful or extraordinary and refers to the extraordinary character that only one glandular hair field exists in this species.

Dirocephalus obtusus n.sp.

Figs. 9a-e; Fig. 18J; Fig. 19

TYPE MATERIAL: Holotype: GUYANA: Region B, Iwokrama Forest, Pakatau hills (59°1'36''W, 4°44'54''N), 1 female, 70 m elevation, 25.-29 May 2001, leg. R. Brooks and Z. Falin, GUY 1BF01 061, by flight intercept trap (SEC).

DIAGNOSIS: The species is easy to differentiate by the wide and obtuse central process of the neck (Fig. 9e). Although only the female is known, the species can be easily recognised, because the aedeagus is very simply structured in the genus and usually give no significant differentiating characters. The head is relatively wide near the antennae and distinctly narrowed to the front and posterior edge and the last abdominal tergite is also specific by its elongate form.

DESCRIPTION: *Length*: 3.1 mm. *Colour*: black; elytra dark red with suture lighter reddish; posterior edge of abdominal tergites also lighter red. *Head*: 0.60 mm long, 0.55 mm wide; widest near the base of antennae, deeply emarginate to the front edge; clypeus triangularly emarginate; behind the base of antennae straightly narrowed to the posterior edge; posterior edge slightly emarginate; with a central and two lateral longitudinal protrusions; central prominence with an obtuse carina in the middle; posteriorly distinctly wider than anteriorly; surface of disc without microsculpture, surface shiny and polished; disc laterally with microsculpture, less shiny; eyes distinctly prominent; well visible in dorsal aspect; temples well developed, shortly rounded; neck with wide central process and relatively short lateral lobes; hairy glandular fields exist at posterior edge of the lateral protrusions of front head and the lateral lobes of the neck; hairs relatively short; surface of neck without punctuation, surface shiny; posteriorly with weak transversely reticulate microsculpture. *Antennae* thick; as long as head and pronotum; antennomeres 2 to 11 globular, slightly wider than long, and similarly structured; scattered with yellow hairs: *Pronotum*: 0.55 m long, 0.65 mm wide; with prominent and acute anterior angles; front edge between anterior angles deeply emarginate; with lateral margin, which is very small at anterior angles, much wider in the middle and already small at posterior angles; lateral furrow wide, without punctuation and shiny surface; surface of disc with moderately weak longitudinally coriaceous ground sculpture (Fig. 18J), surface scarcely shiny; in the posterior fourth with flat transverse depression dividing the disc and still partly the lateral furrow; ground sculpture in front of the depression weaker than behind. *Elytra*: 0.75 mm long, 0.90 mm wide; anterior margin weak; surface with extremely weak longitudinally reticulate microsculpture; surface shiny; disc with three stripes, each consisting of four weak carinae; the fourth lateral stripe distinctly carinate and dividing the disc from the lateral part. *Abdomen* with 2nd and 3rd segment longer than the following ones; abdominal tergites 2 and 3 with weak longitudinally reticulate microsculpture; surface slightly shiny; the posterior abdominal tergites with netlike reticulate microsculpture, surface less shiny; the last tergite elongate; laterally weakly emarginate and with an indistinct spoon-like depression posteriorly.

ETYMOLOGY: The specific name *obtusus* is derived from the same Latin word and means obtuse. It refers to the wide obtuse central process of the neck.

***Dirocephalus arcuatus* n.sp.**
Figs. 10a-e; Fig. 19

TYPE MATERIAL: Holotype: ECUADOR: Napo, Yasumi Research Station, on middle Rio Tiputini (76°24'W, 0°40.5'S), 1 female, Fit #6, 26. July - 4. August 1999, leg. A. Tishechkin, Lot #115 (SEC).

Paratypes: ECUADOR: Napo, Yasumi Research Station, on middle Rio Tiputini (76°24'W, 0°40.5'S), 1 female, Fit #M1, 18. - 20. June 1999, leg. C. Carlton & A. Tishechkin, AKT #0085 (UIC).

DIAGNOSIS: The species resembles *D. politus* und *D. elongatus* due to the form of the central process of neck (Fig. 10e). However, in *D. politus* surfaces of the elytra are polished without microsculpture, whereas in *D. arcuatus* elytra are finely reticulate and their surface is scarcely shiny. The surface of elytra is similar in *D. elongatus*. The main differentiating character of *D. arcuatus* is the form of the 2nd stripe of elytra, which is unique in the known Neotropical *Dirocephalus* species (Fig. 10a).

DESCRIPTION: *Length*: 2.8 mm. *Colour*: black; sides of pronotum and elytra dark reddish, abdominal tergites lighter reddish, legs brown. *Head*: 0.50 mm long, 0.45 mm wide; widest at base of antennae; widely emarginate to the elongate clypeus; at lateral and anterior edge of clypeus several hairs; behind base of antennae straightly narrowed to posterior angles of front head; with a central and two lateral carinae; disc without punctuation and microsculpture; surface polished; clypeus with transversely reticulate microsculpture; eyes well developed; scarcely prominent and visible in dorsal view; temples elongate and arcuate; neck with relatively elongate central process and two small lateral lobes; glandular hairy fields exist at anterior angle of lateral lobes of neck and in front at the posterior edge of lateral carina of front head; surface of neck without microsculpture, polished: *Antennae* thick, as long as head and pronotum; antennomeres 2 to 11 globular and scattered with long yellow hairs. *Pronotum*: 0.45 mm long, 0.60 mm wide; with acute and prominent anterior angles; front edge between the anterior angles deeply emarginate; lateral margin small at anterior angles, behind the middle much wider and again smaller at posterior angles; lateral furrow without microsculpture and surface extremely polished; a moderately wide transverse stripe behind the anterior edge with weak longitudinally reticulate microsculpture; disc behind this stripe with deep coriaceous ground sculpture, surface dull; in the posterior fourth with a transverse depression dividing the disc and continuing on the lateral furrow into a circular depression. *Elytra*: 0.65 mm long, 0.85 mm wide; with very weak longitudinally reticulate microsculpture, surface shiny; on the disc with three stripes, each consisting of four fine carinae; 2nd stripe reflected to outer side in the middle, thus, in the posterior half space between inner stripe and 2nd stripe distinctly wider than between 2nd stripe and outer stripe; laterally a well developed carina dividing the disc from the lateral part. *Abdomen* with abdominal segments 2 and 3 longer than the following ones; surface with very weak microsculpture, surface shiny; the following tergites with more distinct microsculpture; abdominal tergites 2 and 3 with two transverse rows of yellow hairs; the following tergites only with one row; last tergite slightly carinate at lateral edge and with several stout setae; in the middle two longitudinal rows of four stout setae.

ETYMOLOGY: The specific name *arcuatus* is derived from the same Latin word and means arcuate. It refers to the curved 2nd stripe of elytra.

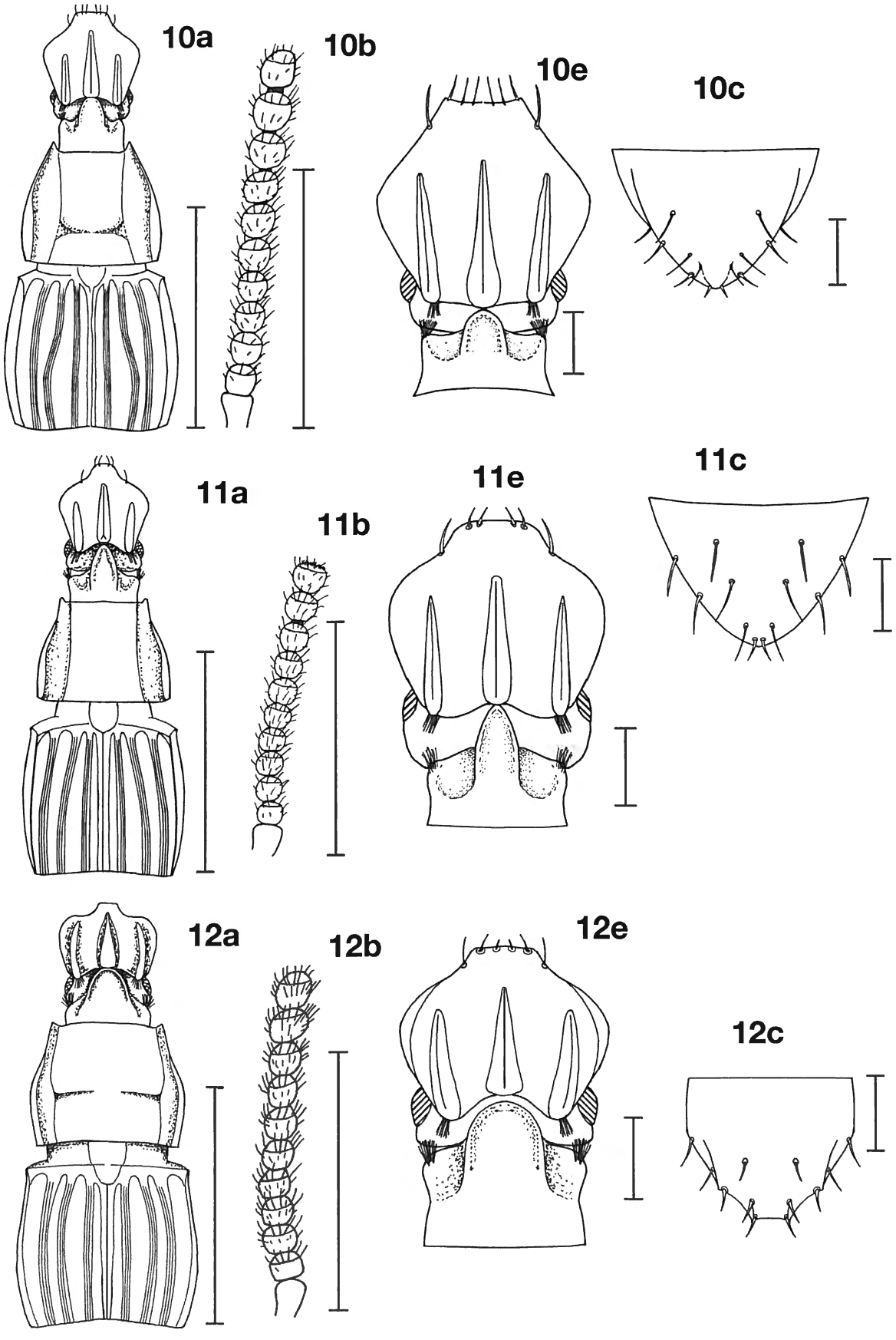
***Dirocephalus acutiformis* n.sp.**
Figs. 11a-e; Fig. 19

TYPE MATERIAL: Holotype: COSTA RICA: Puntarenas, Rincon, 17 km NE Cerro Helado, 250 m elevation, 1 female, 21. – 25. June 1997, leg. S. & J. Peck, CR1P197 026 (SEC).

Paratypes: COSTA RICA: Puntarenas, Osa Peninsula, Fundacion Neotropical, 10 km W. Rincon (83°31'30''W, 8°42'30''N), 1 female from forest litter extracted by Berlese funnal, 22. June 1997, leg. R. Anderson, CR1A97 026 (UIC).

DIAGNOSIS: *D. acutiformis* is similar to *D. arcuatus* and *D. elongatus* in size and location of the glandular fields on the head. It is differentiated from *D. elongatus* only by the form of the central process of the neck, which is long and acute (Fig. 11e), whereas it is obtuse in *D. elongatus* (Fig. 12e). The form of the 2nd elytral stripe is identical with that in *D. elongatus* and differs from *D. arcuatus* by the absence of the strong bend in the middle (Fig. 11a).

DESCRIPTION: *Length*: 2.6 mm. *Colour*: Brown; elytra dark reddish, lighter reddish at the posterior edge; abdominal tergites also reddish at posterior edge; legs light brown. *Head*: 0.45 mm long, 0.40 mm wide; widest at base of antennae; deeply emarginate to the clypeus and straightly narrowed to the posterior angles of front head; surface without punctuation and with very weak transversely reticulate microsculpture, shiny; with a central carina, which is slightly widened posteriorly, and two lateral carinae; at the posterior edge of lateral carinae a very small glandular hairy field; neck with long and acute central process and two lateral lobes, each with a field of short glandular hairs; central process with a flat depression; eyes distinct and prominent, visible in dorsal aspect; with well developed temples behind the eyes. *Antennae* scarcely longer than head and pronotum; all antennomeres of same width and antennomeres 2 to 11 globular and of same length, each with long straight yellow hairs. *Pronotum*: 0.45 mm long, 0.55 mm wide; widest in the middle; distinctly narrowed to the acute and prominent anterior angles, scarcely narrowed to posterior angles; front edge widely emarginate; lateral margin small in the anterior half and abruptly widened in the middle;



Figs. 10-12 – **10.** *Dirocephalus arcuatus*. **11.** *D. acutiformis*. **12.** *D. elongatus* (**a**: front of body, **b**: antenna, **c**: last abdominal tergite, **d**: aedeagus; **e**: head; scale bar a, b: 1 mm, c, d, e: 0.1 mm).

between lateral margin and disc a deep and wide furrow that is without punctuation and microsculpture; surface polished; disc at the anterior edge without or with weak longitudinally reticulate microsculpture; behind that shiny transverse band with nearly coriaceous ground sculpture; surface dull; at the posterior third with a transverse depression. *Elytra*: 0.70 mm long, 0.80 m wide; with three longitudinal stripes on the disc, which are slightly bent towards the outer side; each stripe consisting of three fine carinae; the outer fourth stripe distinctly carinate and separating the disc from the lateral part; surface of disc with very weak longitudinally reticulate microsculpture; surface shiny. *Abdomen* with abdominal segments 2 and 3 longer than the following ones; abdominal tergites 4 to 6 with a transverse row of short yellow hairs at posterior edge; last tergite with several hairs at the lateral edge and two parallel rows of four yellow hairs in the middle.

ETYMOLOGY: The specific epithet is a combination of the Latin words *acutus* meaning acute and *formare* meaning forming and refers to the structure of the acute central process of neck.

***Dirocephalus elongatus* n.sp.**
Figs. 12a-e; Fig. 19

TYPE MATERIAL: Holotype: VENEZUELA: Aragua, 28 km N. Rancho Grande Biological Station at km 48 (67°41'0''W, 10°28'0''N), 120 m elevation, 1 female caught by flight intercept trap, 6.-18. July 1994, leg. T. Philipps, VEN1P94 011 (SEC).

DIAGNOSIS: *D. elongatus* is most similar to *D. acutiformis* concerning size and form of elytral stripes and surface, which reveals a weak longitudinally reticulate microsculpture. Both species are mainly differentiated by the form of the central process of the neck (Fig. 12e). Furthermore, the structure of the temples is different between the two species. In *D. elongatus* temples are more or less parallel behind the eyes forming rectangular angles with a straight posterior edge, whereas temples are convergent in *D. acutiformis* forming more obtuse angels with the posterior edge.

DESCRIPTION: *Length*: 2.2 mm. *Colour*: Dark brown; elytra dark reddish, abdominal tergites lighter red; legs brown. *Head*: 0.37 mm long, 0.40 mm wide; widest at base of antennae, nearly straightly narrowed to the small clypeus, which is finely margined; behind base of antennae shortly and straightly narrowed to the posterior angles of front head; surface with weak netlike microsculpture, slightly shiny; with a central longitudinal prominence and two lateral prominences; posterior edge of each lateral prominence with a hairy glandular area; neck with wide obtuse central process and two lateral lobes; at the top of each lateral lobe a glandular area with short hairs; central process with flat depression; the large eyes prominent and visible in dorsal view; temples behind the eyes short and parallel forming a more or less rectangular angle with the posterior edge. *Antennae* with antennomeres 2 to 11 of similar width and length, globular, each antennomere with several straight yellow hairs. *Pronotum*: 0.45 mm long, 0.55 mm wide; widest at the middle, straightly narrowed to the short acute anterior angles; front edge deeply emarginate between anterior angles, sides behind the middle more or less parallel; lateral margin small at anterior angles, behind anterior angles continuously widened to the middle, behind the middle more or less parallel and already small in front of the posterior angles; with wide impunctuate and polished furrow between lateral margin and disc; surface of disc behind posterior edge with weak longitudinally reticulate microsculpture; behind that transverse moderately shiny stripe with more distinct ground sculpture and with surface dull; shortly behind the middle with a transverse depression. *Elytra*: 0.60 mm long, 0.70 m wide; with three longitudinal stripes, each consisting of three very fine carinae; the fourth outer stripe distinctly carinate and separating the disc from the lateral part; surface of disc with fine longitudinally reticulate microsculpture, shiny. *Abdomen* with segments 2 and 3 longer than the following ones; abdominal tergites 4 to 6 with a transverse row of relatively long yellow hairs; last abdominal tergite with several lateral hairs and two longitudinal rows of hairs in the middle, some of the hairs inserting in a carinate structure.

ETYMOLOGY: The specific name *elongatus* is derived from the same Latin word meaning elongate and refers to the structure of the central process of neck.

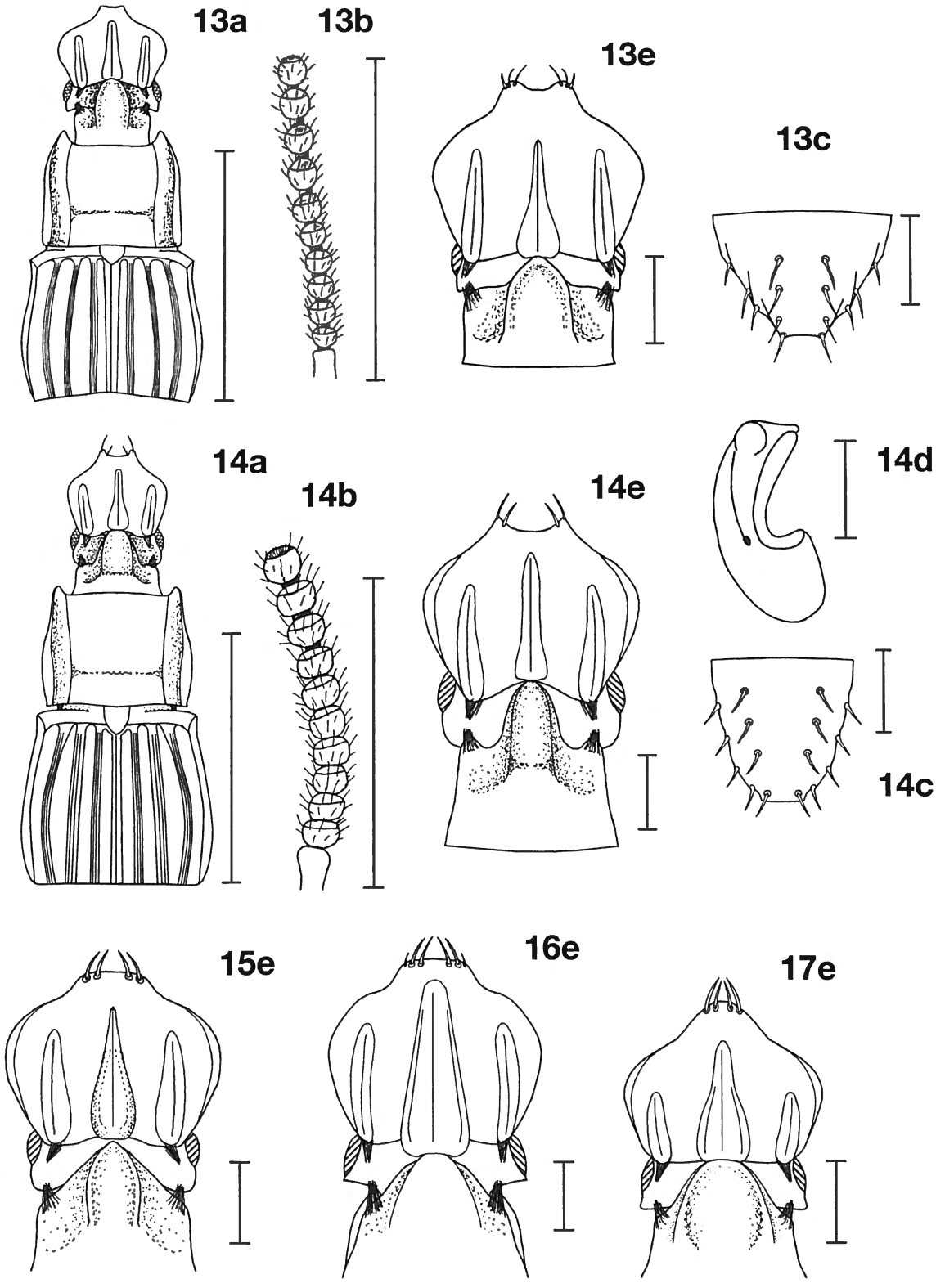
***Dirocephalus politus* n.sp.**
Figs. 13a-e; Fig. 18K; Fig. 19

TYPE MATERIAL: Holotype: PERU: Tambopata Prov., 15 km NE. Puerto Maldonado (69°05'W, 12°28'S), 1 female caught by flight intercept trap, 22. June 1989, leg. J.S. Ashe & R.A. Leschen, #195 (SEC).

Paratypes: PERU: Madre de Dios, Cocha Cashu Bio. Station, Manu National Park (71°24'24''W, 11°53'45''S), 350 elevation, 1 female by flight intercept trap, 17.-19. October 2000, leg. R. Brooks, #PERUB00 042 (SEC).

DIAGNOSIS: The species resembles *D. arcuatus* and *D. rugosus* in size and structure of the head. It is characterised by the polished surface of the elytra. Surface of pronotum is rugate similar to *D. rugosus*, but distinctly more shiny (Fig. 18K). Additionally, *D. politus* can be differentiated from *D. arcuatus* by the less bent second elytral stripe and from *D. rugosus* by the much weaker elytral stripes and the slightly wider central process of the neck. It is also very close to *D. myrmecophilus* in relation to the structure of the head and the elytra. Unfortunately, the type specimen of *D. myrmecophilus* is dissected and the surface of pronotum and elytra cannot be carefully studied.

DESCRIPTION: *Length*: 2.4 mm. *Colour*: Reddish brown; sides of pronotum, elytra, and abdominal tergites lighter



Figs. 13-17 – **13.** *Dirocephalus politus*. **14.** *D. rugosus*. **15.** *D. laeviusculus*. **16**. *D. Alternans*. **17.** *D. multicostatus* (**a**: front of body, **b**: antenna, **c**: last abdominal tergite, **d**: aedeagus; **e**: head; scale bar a, b: 1 mm, c, d, e: 0.1 mm).

reddish; legs dark yellow. *Head*: 0.40 mm long, 0.35 m wide; Widest at base of antennae, sides anteriorly more or less straightly narrowed, clypeus prominent, slightly emarginate in the middle; between disc and clypeus a nearly rectangular angle; posteriorly to the base of antennae sides straightly narrowed; disc without punctuation and microsculpture, surface polished; with a central and two lateral carinae; a glandular area at the posterior edge of each lateral carina; eyes well developed and slightly prominent; temples behind eyes nearly as long as eyes

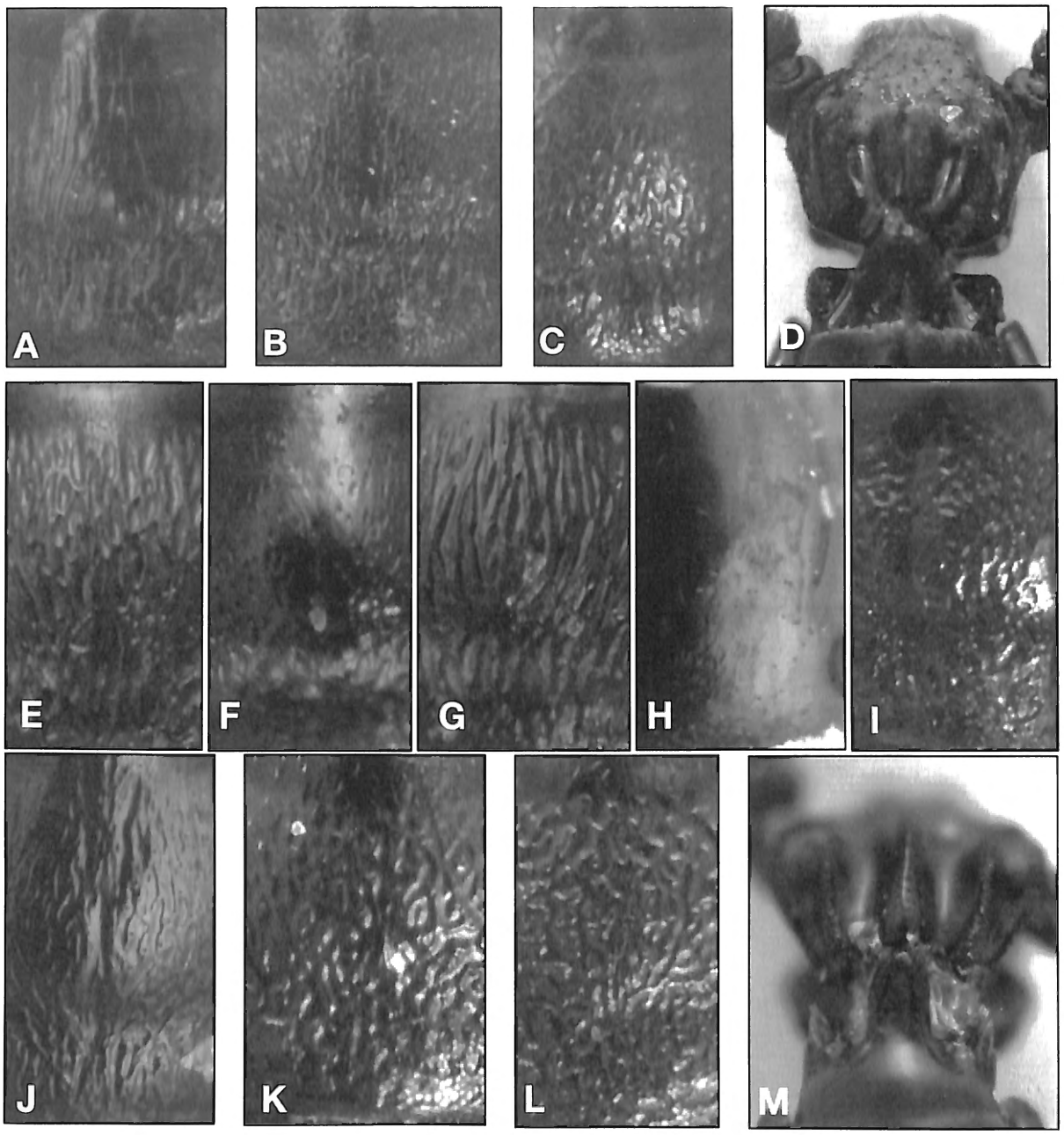


Fig. 18 – Surface of pronotum of A: *Pardirocephalus cordobensis*, B: *P. loretoensis*, C: *P. minor*; D: head of *P. loretoensis*; Surface of pronotum of E: *Dirocephalus alternans*, F: *D. laeviusculus*, G: *D. multicostatus*, H: *D. andinus*, I: *D. mirabilis*, J: *D. obtusus*; K: *D. politus*; L: *D. rugosus*; M: head of *D. andinus*.

forming a rectangular angle with the posterior edge; neck with a broad and obtuse central process and two small lateral lobes that carry each a glandular area at their anterior edge; central lobe with an indistinct central depression; surface without punctuation and microsculpture, shiny. *Antennae* with antennomeres nearly identical in width and length, globular and with short, straight yellow hairs. *Pronotum*: 0.49 mm long, 0.55 mm wide; widest in the middle, slightly narrowed to the prominent obtuse anterior angles and more or less parallel to the posterior angles; front edge between anterior angles deeply emarginate; lateral margin fine and over its total length nearly of same width; between lateral margin and disc a smooth furrow with polished surface; disc with anterior ¼ smooth and surface shiny (Fig. 18K), behind that transverse stripe with coriaceous ground sculpture, surface dull; in the posterior half a transverse depression. *Elytra*: 0.55 mm long, 0.70 mm wide; without punctuation and microsculpture, surface polished; with three longitudinal stripes on the disc, each separated into three fine carinae; first stripe straight, 2nd and 3rd stripe slightly curved to outer side in the middle; a fourth stripe more distinctly carinate separates the disc from the lateral part. Abdomen with segments 2 and 3 longer than the following ones; each abdominal tergite with a transverse row of short yellow hairs at its posterior edge; last tergite with

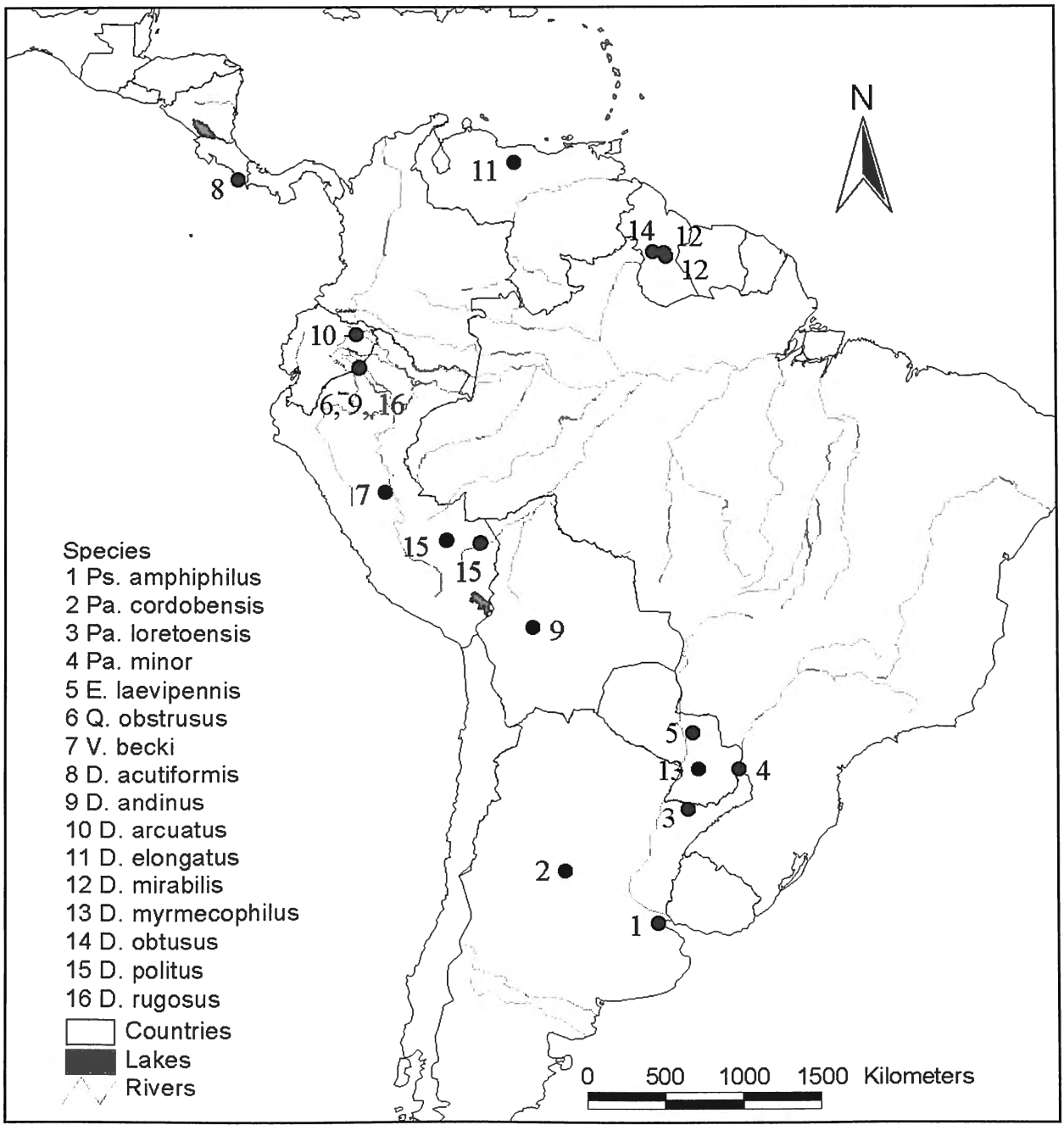


Fig. 19 – Distribution of the dirocephalid species group with exception of *D. laeviusculus, D. alternans,* and *D. multicostatus*, which are known from tabacco from Bahia only.

fine carinate structures laterally and several lateral hairs, two parallel rows of four hairs in the middle.

ETYMOLOGY: The specific name *politus* meaning polished refers to the polished surface of the elytra.

***Dirocephalus rugosus* n.sp.**
Figs. 14a-e; Fig. 18L; Fig. 19

TYPE MATERIAL: Holotype: PERU: Dept. Loreto, 1.5 km N of Teniente Lopez (76°06'92''W, 2°35'66''S), 210-240 elevation, 1 male caught by flight intercept trap, 18. July 1993, leg. R.A. Leschen, #119, Quadrat 17 (SEC).

Paratypes: Dept. Loreto, Teniente Lopez (76°06'92''W, 2°35'66''S), 210 – 240 m elevation, 1 female sampled by fruitfall berlese, leg R. Leschen, #112 (UIC).

DIAGNOSIS: *D. rugosus* is most similar to *D. politus* concerning size and structure of the head. The central process of the neck is smaller (Fig. 14e), the surface of elytra is dull owing to a weak microsculpture, and the longitudinal elytral stripes are much more distinct than in *D. politus*. Furthermore, the ground-sculpture of pronotum is deeper in *D. rugosus* than in *D. politus* (Fig. 18L). The last abdominal tergite is more slender and without carinate structures laterally (Fig. 14c).

DESCRIPTION: *Length*: 2.4 mm. *Colour*: Brown; elytra scarcely lighter reddish; abdominal tergites lighter red at posterior edge and last abdominal tergite totally red; legs brown. *Head*: 0.42 mm long, 0.35 mm wide; widest at base of antennae; sides anteriorly emarginate and posteriorly straightly narrowed; clypeus deeply emarginate in the middle and with acute outer angles; disc with a long central and two shorter lateral carinae; lateral carinae with small posterior glandular areas; surface of disc smooth in the middle and with weak microsculpture on the lateral carinae; eyes well developed and prominent; temples at least as long as eyes and with obtuse posterior angles; neck with relatively long and small central process and small lateral lobes, which carry each a glandular area at their anterior edge; surface polished with central process less shiny owing to a weak microsculpture. *Antennae* with antennomeres nearly identical in width and length, globular and with short, straight yellow hairs. *Pronotum*: 0.40 mm long, 0.50 mm wide; widest in the middle; straightly narrowed to the prominent anterior angles, more or less parallel to posterior angles; lateral margin small at anterior angles, widened to the middle and continuing with same width to posterior angles; between lateral margin and disc with a deep furrow that is smaller at its anterior edge and much wider at its posterior edge; with polished surface; disc at anterior edge with a smooth transverse stripe with polished surface; behind that stripe with deep coriaceous ground sculpture and dull surface (Fig. 18L); a transverse depression in the posterior half. *Elytra*: 0.55 m long, 0.70 mm wide; with three longitudinal stripes on the disc, each stripe consisting of three distinct carinae; the fourth stripe more distinctly carinate separates the disc from the lateral part; surface with weak longitudinally reticulate microsculpture, surface slightly shiny. *Abdomen* with segments 2 and 3 longer than the following ones, laterally with short yellow hairs; the following abdominal tergites with a transverse row of yellow hairs; last tergite with a row of lateral hairs and two parallel rows on the disc.

ETYMOLOGY: The specific name *rugosus* means rugose and refers to the deeply wrinkled ground sculpture of the pronotum.

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