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Revision of the East Palaearctic and Oriental species of *Philonthus* STEPHENS Part 3. The *politus* complex (Coleoptera: Staphylinidae, Staphylininae)

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Abstract

The *politus* complex of the genus *Philonthus* STEPHENS, 1829 is revised, comprising thirty-three species. Three species are described as new: *Philonthus incisus* sp.n. (Russia: Kamtschatka), *P. saphyreus* sp.n. (China: Shaanxi, Sichuan) and *P. tractatoides* sp.n. (Bhutan, Nepal). A new name (*P. alberti* nom.n.) is proposed for the preoccupied *P. picipes* FAUVEL, 1875 (nec STEPHENS, 1832). *Philonthus politus* ssp. *temperei* COIFFAIT, 1987 is synonymized with *P. politus* s.str. Lectotypes are designated for *P. azuripennis* CAMERON, 1928, *P. japonicus* SHARP 1874, *P. oberti* EPPELSHEIM, 1889, *P. poephagus* CAMERON, 1928 and *P. tripunctatus* CAMERON, 1919. The male genitalia of all species and morphological details of some species are illustrated. Keys to the species groups and the species of the *politus* complex are provided.

Key words: Coleoptera, Staphylinidae, Staphylininae, Staphylinini, Philonthina, *Philonthus*, *politus* complex, new species, new name, new synonym, lectotype designation, systematics, taxonomy, zoogeography.

Introduction

When I started the revision of the East Palaearctic and Oriental species of *Philonthus* STEPHENS, 1829, many of my colleagues complained that particularly the "large" species from East Asia are a hopeless mess. Now, when the study on this group is accomplished, several results of general interest are noteworthy:

- The above mentioned mess is not to be wondered at, since in the past only limited material was available, and the authors (mainly Bernhauer and Cameron) did not study genitalia and had absolutely no idea of the intraspecific variability. Additionally, this fact was probably the main reason for numerous misidentifications, resulting in erroneous records (e.g. *P. carbonarius* GYLLENHAL and *P. chalceus* STEPHENS for India). During the last few years an enormous material has been collected in Nepal, China and Far East Russia, which almost overwhelmed me but, on the other hand, enabled me to comprehend the tremendous variability displayed in most species of this group (the variability will be treated in a separate chapter).
- As another result, I became aware that the title of this revision was actually ill-chosen. Had I treated the entire Palaearctic region (which to some extent I have practiced anyway) the design of the revision would have changed little. Most Palaearctic *Philonthus* have an incredibly wide distribution range, only five of the thirty-three species (species incertae sedis not counted) treated herein are restricted to Europe with two species (*P. tenuicornis* MULSANT & REY, *P. alberti* nom.n.) reaching the Caucasus. All other "West-Palaearctic" species either occur in the entire Palaearctic (or even Holarctic) region, or at least reach the

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Altai mountains (there is a similar situation in most other species groups). To prevent unnecessary confusion I will not alter the title, but I will provide descriptions of all West Palaearctic species and include them in the respective keys. However, the list of examined material mentions only East Palaearctic and Oriental specimens.

Acknowledgement and abbreviations

The material used for this study was made available by the following institutes and private collectors. Their cooperation is greatly appreciated.

CAH coll. V. Assing, Hannover
CASS Chinese Academy of Sciences, Institute of Applied Ecology, Shenyang (L. Ji)
CGO coll. V. Gollkowski, Oelsnitz
CGP coll. V. Gusarov, St. Petersburg
CHK coll. G. Hirthe, Kluess
CHP coll. L. Hromádka, Praha
CKB coll. A. Kleeberg, Berlin
CKC coll. P. Krásenský, Chomutov
CKS coll. E. Kučera, Soběslav
CNC Canadian National Collection, Ottawa (A. Smetana)
CPE coll. A. Pütz, Eisenhüttenstadt
CRL coll. G. de Rougemont, London
CSB coll. M. Schülke, Berlin
CSO coll. A. Smetana, Ottawa
CST coll. Y. Shibata, Tokyo
CTL coll. M. Tronquet, Llimburga
CZV coll. A. Zanetti, Verona
DEI Deutsches Entomologisches Institut, Eberswalde (L. Zerche)
FMC Field Museum of Natural History, Chicago (A.F. Newton, P. Parillo)
HUB Museum für Naturkunde der Alexander Humboldt Universität, Berlin (M. Uhlig)
ISEZ Institute of Systematics and Evolution of Animals, Polish Academy of Sciences, Kraków (G. Pasnik)
MHNG Muséum d'Histoire naturelle, Genève (I. Löbl)
MHNP Muséum national d'Histoire naturelle, Paris (N. Berti)
NHML The Natural History Museum, London (M. Brendell)
NMB Naturhistorisches Museum, Basel (M. Brancucci)
NME Naturkundemuseum Erfurt (M. Hartmann)
NMW Naturhistorisches Museum Wien
SMF Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt (D. Kovac)
SMNS Staatliches Museum für Naturkunde, Stuttgart (W. Schawaller)[1]
SMT Staatliches Museum für Tierkunde, Dresden (O. Jäger)
SNMB Slovenské Národné Múzeum, Bratislava (V. Jánsky)
TMB Természettudomanyi Múzeum, Budapest (G. Szél, O. Merkl)
ZIS Zoological Institut, Russian Academy of Sciences, St. Petersburg (A. Solodovnikov)
ZMM Zoological Museum, Moscou (N. Nikitski)

* Taxa and references in the synonymy lists marked with an asterisk were not studied and the references do not appear in the bibliography.

Additionally, I thank L. Herman (American Museum of Natural History, New York) who allowed me to use the name he intentionally proposed for the preoccupied *P. picipes* FAUVEL, A. Smetana for his valuable comments on the manuscript, and R. Schuh for "crash-testing" the key.

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Type material

The original material of all East Palaearctic and Oriental taxa has been studied, except for *P. latiusculus* HOCHHUTH and *P. transbaicalia* HOCHHUTH and their synonyms. The types of all taxa described from Europe or the Caucasus remained unstudied, the recent concepts of the species have been accepted, although some cases require a closer look (see the "Note" on *P. chalceus* STEPHENS under "List of species").

Lectotypes

In a few cases it was necessary to designate lectotypes to ensure taxonomic stability. This was particularly the case when a type series was composed of both sexes in taxa, females of which can not be separated with certainty from the neighbouring species.

Characters

Some characters used have either never been previously taken into consideration, or have been treated in a different way, and thus need explanation.

1) The row of setiferous punctures along the anterior margin of the pronotum (between the foremost puncture of the dorsal row and the lateral margin) is characteristically developed in terms of the number and position of the individual punctures, and to some extent also in the length of the setae. In one case (*P. oberti*, *P. addendus*), it is the only reliable character to separate the female specimens.

2) The group of punctures situated on the disc of the pronotum between the dorsal row and the lateral margin has been used by SMETANA (1995) to define the *politus* group, naming it "sublateral row". This group of punctures is usually composed of four punctures in a rhombic arrangement and is therefore difficult to recognize as a "row", thus I decided to call it "sublateral group". The medial and posterior punctures of this group are subject to various reductions, which to a large extent are constant and are herein used (in combination with other characters) to define species groups.

3) Chaetotaxy of elytra: In addition to the scutellar seta, the lateral portions of the elytra bear large setae, which according to their position are named humeral, posthumeral and lateral setae. The posthumeral seta is situated approximately at level of the scutellar seta and is developed in all species groups of the *politus* complex, the lateral seta in all except the *decorus* group and two species of the *tractatus* group, the humeral seta is developed only in a few species (e.g. *P. splendens*, *P. purpuripennis*). Frequently, these setae are broken off, but their presence and position can be recognized by their large sockets.

4) The last segment of the antennae is usually evenly covered by tomentose pubescence and setation. In the *politus* group, and particularly in the *succicola* group, each side of the segment shows two more or less glabrous areas (most conspicuous in the *succicola* group) which most likely are sensorial areas bearing sensillae. It can be assumed that this character is of particular phylogenetic importance.

5) The measurements have been taken as described in SCHILLHAMMER (1997). In addition to that, the length of the elytra is measured from the elevated basal line of the scutellum to the sutural angle.

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Variability

As mentioned in the introduction, some characters are subject to an enourmous intraspecific variability, a fact that makes the interpretation at the specific level difficult and also makes it virtually impossible to contrive a key which covers all possibilities of external appearance. In the following some of these characters are discussed in detail.

Color: Metallic colors, particularly of the elytra, display a wide spectrum of tinges. As a consequence, this character has been used in the key only exceptionally (e.g. in *P. purpuripennis*, where the color is constant).

Dorsal rows of pronotum: The number of setiferous punctures in the two rows along the midline of the pronotum has been a favourable basic character to subdivide this large genus. However, the study of large series during this revision revealed an incredible variability. In species which usually have four punctures in the dorsal rows, I have come across numerous specimens with only three or even five punctures. These exceptions are frequently developed only in one of the two rows, but there were specimens with reduced or additonal punctures in both rows. Usually, these irregularities can be easily recognized, e.g. when the space between two punctures in longitudinal direction is exceptionally wide. Only the symmetrical absence of the last punctures may cause problems in interpreting the character state. Nevertheless, I have used the dorsal rows in the key to some extent, but the user should always bear in mind the high variability.

Aedeagus: As if the variability of external characters were not enough, also the aedeagus is highly variable in most species. While the shape of the paramere and the number and arrangement of the peg setae are subject to a genetic variability, the different shapes of the median lobe are often caused by artificial deformation due to the weak sclerotization. I have tried to illustrate at least some of the different aedeagus shapes that I have met with.

The *Philonthus politus* complex

My original intention was to combine all species in one large species group (*politus* group) and to form infra groups for the monophyla. However, this concept had to be abolished because: 1) this action would have rendered the *cyanipennis* group (SCHILLHAMMER 1998) an infra group of the *politus* group; 2) the interspecific diversity was simply too tremendous to justify such a melting pot of character states. Eventually, the grouping of the species turned out easier than expected and all species groups (except maybe the *tenuicornis* group) could be defined satisfactorily; 3) *Philonthus transbaicalia* HOCHHUTH would have become a member of the *politus* group. Its systematic position within *Philonthus* (at the species group level) is still enigmatic because of the deviating genital characters (see diagnosis of the *transbaicalia* group)

The above mentioned diversity is also the reason why the diagnoses of the species groups are kept very short and are reduced to the characters sufficient for recognition.

RECOGNITION: Above 10 mm long (abdomen not extraordinarily retracted), head transversely quadrangular or suborbicular, with medial interocular punctures moderately widely separated, average distance 1.5 times distance between medial and lateral interocular puncture; dorsal rows of pronotum usually with 1 - 4 punctures, sides at least slightly sinuately emarginate in front of base, rarely regularly convex; elytra in most species with distinct or slight metallic lustre, rarely dull black or orange-red; elevated area between two basal lines on second and third visible tergites usually punctate, at least on third visible tergite; male sternite VI not extended posteriad (the extended sternite VI is an autapomorphy of the *rotundicollis* group, which stands very close to some groups of the *politus* complex), male sternite VIII with 2 - 4 large setae and with

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variably developed semi-membranous extension, male sternite IX with two large subapical setae, tergite X at least partly with distinct pigmentation, usually entirely pigmented in females.

List of species:

Philonthus addendus SHARP, p. 133
Philonthus aeger EPPELSHEIM, p. 140
Philonthus alberti nom.n., p. 134
Philonthus aletes SMETANA, p. 138
Philonthus azuripennis CAMERON, p. 150
Philonthus bisinuatus EPPELSHEIM, p. 138
Philonthus brevithorax BERNHAUER, p. 147
Philonthus coelestis BERNHAUER, p. 144
Philonthus cognatus STEPHENS, p. 135
Philonthus decoloratus KIRSHENBLAT, p. 128
Philonthus decorus GRAVENHORST, p. 153
Philonthus donckieri BERNHAUER, p. 126
Philonthus emdeni BERNHAUER, p. 155
(*Philonthus fugax* FALDERMANN), p. 159
Philonthus ghilarovi TICHOMIROVA, p. 157
Philonthus incisus sp.n., p. 128
Philonthus japonicus SHARP, p. 123
Philonthus laetus HEER, p. 154
Philonthus latiusculus HOCHHUTH, p. 154
Philonthus mannerheimi FAUVEL, p. 136
Philonthus nitidus FABRICIUS, p. 137
Philonthus oberti EPPELSHEIM, p. 131
(*Philonthus parajaponicus* LI & CHEN, p. 159)
Philonthus politus LINNÉ, p. 122
Philonthus punctativentris BERNHAUER, p. 152
Philonthus purpuripennis REITTER, p. 142
Philonthus saphyreus sp.n., p. 149
Philonthus simpliciventris BERNHAUER, p. 124
Philonthus splendens FABRICIUS, p. 141
Philonthus splendens ssp. *sideropterus* KOLENATI, p. 142
Philonthus succicola THOMSON, p. 127
Philonthus temporalis MULSANT & REY, p. 136
Philonthus tenuicornis MULSANT & REY, p. 130
Philonthus tractatus EPPELSHEIM, p. 145
Philonthus tractatoides sp.n., p. 148
Philonthus transbaicalia HOCHHUTH, p. 157

NOTE: *Philonthus chalceus* STEPHENS, 1832, which has been listed as a synonym of *P. succicola* by several authors (e.g. COIFFAIT 1974), has not been considered because a study of the typical specimens might reveal a different identity. According to TOTTENHAM (1937), the type series consists of four different species!

Key to species groups

The *cyanipennis* group has been included because it actually belongs to the *politus* complex. However, in the key to species it is not included.

1 Last antennal segment (Fig. 57) with large, glabrous, usually oval areas, bearing sensillae, male front tarsi simple, posterior sublateral puncture of pronotum usually developed..... ..... ***succicola* group**

\- Last antennal segment without glabrous areas, uniformly setose and tomentose, if with glabrous areas (*politus* group) then posterior sublateral puncture of pronotum absent and first four segments of male front tarsi strongly dilated 2

2 Elytra with humeral and posthumeral seta (Fig. 53), posterior sublateral puncture of pronotum usually absent 3

\- Humeral seta of elytra not developed (Figs. 51, 52), posterior sublateral puncture of pronotum usually developed, rarely absent (*politus* group) 4

3 Dorsal rows of pronotum each reduced to one puncture, medial sublateral puncture absent, peg setae of paramere few, arranged in two apico-lateral, regular rows ..... ***splendens* group**

\- Dorsal rows of pronotum each at least with two punctures, medial sublateral puncture usually developed, peg setae of paramere numerous, arranged in irregular apical cluster..... ..... ***purpuripennis* group**

4 Elytra with posthumeral and lateral seta (Fig. 52) 5

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- Lateral seta of elytra absent (Fig. 51) ..... ***decorus* group**

5 Paramere without peg setae..... ***transbaicalia* group**

- Paramere with peg setae.....6

6 Posterior sublateral puncture of pronotum usually absent, median lobe with a pair of teeth on face adjacent to paramere..... ***politus* group**

- Posterior sublateral puncture of pronotum usually present, median lobe either without tooth or with single tooth on face adjacent to paramere.....7

7 First four segments of male front tarsi strongly dilated, sub-bilobed, distinctly wider than long.....8

- First four segments of male front tarsi simple, in some cases conspicuously dilated, but segments hardly wider than long and at least segment 1 not sub-bilobed.....10

8 Peg setae of paramere numerous, arranged in four longitudinal, more or less regular, rows or apical cluster ..... ***tractatus* group**

- Peg setae of paramere few, arranged in two regular apico-lateral rows, or numerous and arranged in irregular mid-longitudinal cluster.....9

9 Peg setae of paramere arranged in two regular, apico-lateral rows..... ***azuripennis* group**

- Peg setae arranged in irregular, mid-longitudinal cluster..... ***latiusculus* group**

10 Medial margin of left mandible with bicuspid tooth ..... ***tenuicornis* group**

- Medial margin of left mandible with unicuspid tooth ... ***cyanipennis* group** (SCHILLHAMMER 1998)

***Philonthus politus* group**
P. politus
P. japonicus
P. simpliciventris
P. donckieri

***Philonthus succicola* group**
P. succicola
P. incisus
P. decoloratus

***Philonthus tenuicornis* group**
P. tenuicornis
P. oberti
P. addendus
P. cognatus
P. mannerheimi
P. alberti
P. temporalis
P. nitidus
P. aletes
P. bisinuatus
P. aeger

***Philonthus splendens* group**
P. splendens
P. splendens ssp. sideropterus

***Philonthus purpuripennis* group**
P. purpuripennis
P. coelestis

***Philonthus tractatus* group**
P. tractatus
P. brevithorax
P. tractatoides
P. saphyreus

***Philonthus decorus* group**
P. decorus
P. laetus

***Philonthus azuripennis* group**
P. azuripennis
P. punctativentris

***Philonthus latiusculus* group**
P. latiusculus
P. emdeni
P. ghilarovi

***Philonthus transbaicalia* group**
P. transbaicalia

species incertae sedis
P. fugax
P. parajaponicus

Key to species of the *Philonthus politus* complex

1 Elytra metallic purple-coppery, forebody shiny black but not metallic, without meshed microsculpture, but with dense micropunctation..... *P. purpuripennis*

- Elytra differently colored, forebody frequently with slight or distinct metallic hue, if simply black then with meshed microsculpture.....2

2 Each dorsal row of pronotum reduced to 1 puncture close to anterior margin (exceptions exceedingly rare)..... *P. splendens*

- Each dorsal row of pronotum consisting of at least 2 punctures 3

3 Each dorsal row of pronotum usually with 2 punctures, elytra brilliant metallic blue, head and pronotum with very faint microsculpture; exceedingly rarely dorsal rows with 3 or 4

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punctures, but all other species with 4-punctate dorsal rows have distinct transverse microsculpture on head and pronotum ..... *P. coelestis*

- Each dorsal row of pronotum usually with 3 or 4 punctures 4

4 Elytra red, with black suture and base, each dorsal row of pronotum usually with 3 punctures. ..... *P. transbaicalia*

- Elytra entirely red or otherwise, each dorsal row of pronotum usually with 4 punctures 5

5 Elytra red 6

- Elytra otherwise 7

6 Tarsus of middle leg longer than tibia, segment 3 of tarsus longer than segment 4 ..... *P. aletes*

- Tarsus of middle leg shorter than tibia, segment 3 of tarsus as long as segment 4 ..... *P. nitidus*

7 First antennal segment bicolorous, yellowish ventrally, black dorsally ..... *P. cognatus*

- First antennal segment unicolorous, black or reddish 8

8 Basal two segments of antennae bright red, color markedly differing from subsequent segments ..... *P. latiusculus*

- Basal segments of antennae usually black, at least not markedly differing in color from subsequent segments 9

9 Apex of tergite X with exceedingly deep excision in both sexes (Figs. 59 - 61), excision occupying 1/3 to 1/2 of length of tergite, second basal line on second and third visible tergites extended posteriad medially, last antennal segment with well delimited, glabrous areas 10

- Apex of tergite X much less or not emarginate, second basal line on second and third visible tergites as above or straight, last antennal segment without glabrous areas, sometimes with rather indistinct glabrous areas (*politus* group), in this case posterior sublateral puncture of pronotum absent 11

10 Aedeagus as in Fig. 6, median lobe almost parallel for entire length, shortly before apex narrowed in straight line; paramere very long, apical portion not clearly delimited from basal portion, gradually narrowed toward apex, female tergite X with exision occupying almost half of length of tergite (Fig. 59b) ..... *P. succicola*

- Aedeagus as in Figs. 8, 9, median lobe very narrow, gradually narrowed from base toward very sharply pointed apex, paramere short, apical portion very narrow, well delimited from basal portion, conically or slightly truncately narrowed toward variably pointed apex, female tergite X with exision occupying only 1/3 of length of tergite (Fig. 60b) ..... *P. decoloratus*

- Aedeagus as in Fig. 7, median lobe similar to that of *P. succicola*, but slightly shorter, paramere well delimited from basal portion, with apical portion parallel-sided, apex obtusely rounded, female tergite X similar to that of *P. decoloratus* but exision distinctly wider (Fig. 61b) ..... *P. incisus*

11 Entirely black, more or less dull; elytra exceedingly finely and densely punctate, in transverse direction punctures almost contiguous, surface between punctures rugosely microreticulated (at least on a large portion); antennal segments 8 - 10 not transverse, even slightly oblong 12

- Elytra metallic blue, green or bronze (with transitions between these colors), or at least with greenish or brassy metallic hue (in some cases the metallic color is indistinct and the elytra might appear black, e.g. dark specimens of *P. temporalis*, *P. oberti*, *P. mannerheimi*; in these cases the antennal segments 8 - 10 are distinctly transverse) 13

12 Head and pronotum with isodiametrical microsculpture (always conspicuous on lateral portions) ..... *P. ghilarovi*

- Head and pronotum with long-meshed transverse microsculpture ..... *P. emdeni*

13 All abdominal tergites with distinct, dense microreticulation between punctures, more or less opaque 14

- Abdominal tergites without distinct microreticulation, shining or strongly iridescent 16

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14 Pronotum wider than long, head and pronotum with transverse, long-meshed microsculpture, elytra with slightly rugose microsculpture between punctures, forebody quite shiny..... ..... *P. punctativentris*

- Pronotum as long as wide, head and pronotum with microsculpture of very short meshes, in places even isodiametrical, elytra with distinct, isodiametrical, almost scale-like microsculpture between punctures, forebody almost opaque, lateral seta of elytra absent.....15

15 Elytra bronze-green..... *P. decorus*

- Elytra blue..... *P. laetus*

16 Elytra metallic blue, head and pronotum dark metallic blue or greenish-blue, eyes distinctly longer than tempora, second basal line on second and third visible tergites sharply extended posteriad medially, all tergites coarsely but sparingly punctate, hardly iridescent..... *P. aeger*

- Elytra metallic bronze, green or brassy green, if metallic blue, then eyes shorter than tempora (*P. bisinuatus*), or second basal line on second and third visible tergites straight (*P. tractatus*, *P. saphyreus*, *P. azuripennis*).....17

17 Abdominal tergites rather sparingly and partly even irregularly punctate, interstices between punctures usually exceeding 3 - 4 puncture diameters in transverse direction (except base of tergites where punctation is usually denser), elevated area between two basal lines on second and third visible tergites rather sparingly punctate, particularly on second visible tergite punctation usually forming a single row, frequently even reduced to a few punctures (rarely with an inconspicuous second row laterally), tergites strongly iridescent in most cases (problematic species are mentioned in both choices).....18

- Abdominal tergites densely and uniformly punctate, interstices between punctures usually not exceeding 2 puncture diameters in transverse direction, elevated area between two basal lines on second and third visible tergites densely punctate, on second visible tergite punctation usually forming at least a double row (even medially), tergites moderately iridescent.....29

18 Eyes longer than tempora (ratio 1.1 - 1.7) - *P. azuripennis* with a ratio of 1.0 - 1.1 is mentioned in both choices.....19

- Eyes as long as or shorter than tempora.....23

19 Antennae with segments 8 - 10 strongly transverse, segment 10 twice as wide as long (specimens of the *politus* group with exceptionally sparsely punctate elevated area between two basal lines on second visible tergite).....29

- Antennae with segments 8 - 10 as wide as long or only slightly transverse.....20

20 Eyes as long as or inconspicuously longer than tempora (ratio 1.0 - 1.1), head and pronotum with profound, rather short-meshed microsculpture, without golden-brown iridescence, elytra brilliant metallic blue, greenish-blue or bronze, frequently with rugose microsculpture between punctures..... *P. azuripennis*

- Eyes distinctly longer than tempora (ratio 1.15 - 1.70), head and pronotum with long-meshed, moderately profound microsculpture, head and especially pronotum (at least on lateral portions) usually with distinct golden-brown iridescence (depending on cleanness of specimens; in *P. tractatus* this character is frequently not apparent).....21

21 Pronotum slender, as wide as long or inconspicuously wider than long (ratio 1.00 - 1.02), antennal segments 4 - 7 oblong, segments 8 - 10 as long as wide, elytra brilliant metallic brassy green, golden green or greenish-coppery, or (specimens from China) dark blue ..*P. tractatus*

- Pronotum broad, conspicuously wider than long (ratio 1.06 - 1.12), antennal segments 4 - 5 oblong, segments 8 - 10 moderately transverse, elytra distinctly less brilliant metallic brassy green to dark olivaceous-green.....22

22 Large species (6.0 - 6.3 mm, abdomen excluded) with very large eyes (eyes : tempora = 1.4 - 1.7 : 1), male front tarsi moderately dilated (Distribution: Himalaya and southern portion of China)..... *P. brevithorax*

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- Smaller species (5.0 - 5.5 mm, abdomen excluded) with smaller eyes (eyes : tempora = 1.15 - 1.40 : 1), male front tarsi simple (Distribution: W Palaearctic) ..... *P. tenuicornis*

23 Tempora markedly longer than eyes, ratio 1.4 - 1.95 (male) or about 1.1 (female), entire postocular region coarsely punctate, sides of pronotum distinctly concavely emarginate posteriorly in front of base, emargination occupying almost half of length of pronotum..... ..... *P. bisinuatus*

- Tempora as long as eyes or inconspicuously longer (ratio 1.03 - 1.09, rarely up to 1.19), in this case sides of pronotum without distinct emargination, area between posterior margin of eye and postocular seta almost impunctate 24

24 Tarsi and usually also palpi reddish, antennal segments 8 - 10 not transverse ..... *P. alberti*

- Tarsi and palpi black, terminal segments of palpi sometimes paler, antennal segments 8 - 10 at least slightly transverse 25

25 Elytra brilliant metallic blue, green or bronze, head and pronotum with distinct greenish metallic hue, male front tarsi distinctly dilated 26

- Elytra dark metallic olicaveous-green to bronze-green, but not brilliant, head and pronotum shiny black, frequently with very slight greenish metallic hue, male front tarsi simple 28

26 Abdominal tergites not or only very slightly iridescent, rather densely punctate, lateral seta of elytra developed ..... *P. azuripennis*

- Abdominal tergites strongly iridescent, sparingly punctate, lateral seta of elytra reduced 27

27 Large species (6.3 - 7.0 mm, abdomen excluded), elytra (measured from basal line of scutellum to sutural angle) longer than pronotum, elytra brilliant metallic blue or green (Distribution: China) ..... *P. saphyreus*

- Smaller species (5.4 - 5.7 mm, abdomen excluded), elytra shorter than pronotum, elytra brilliant metallic green with brassy tinge (Distribution: Nepal, Bhutan) ..... *P. tractatoides*

28 Row of large setiferous punctures along anterior margin of pronotum (between foremost puncture of dorsal rows [not counted] and lateral margin) consisting of 4 - 6 almost equidistant punctures (Figs. 54, 55), between front angle and large lateral seta without additional seta differing in length from antero-marginal setae ..... *P. addendus*

- Row of large setiferous punctures along anterior margin of pronotum consisting of 7 - 9 punctures, usually more densely arranged laterally than medially (Fig. 56), between front angle and large lateral seta usually with one seta conspicuously longer than antero-marginal setae... ..... *P. oberti*

29 Eyes markedly longer than tempora (ratio 1.2 - 1.8, rarely 1.16), posterior sublateral puncture of pronotum usually absent, antennal segments 8 - 10 strongly transverse, segment 10 twice as wide as long, male front tarsi distinctly dilated 30

- Eyes not or only slightly longer than tempora (rarely up to 1.1 times), posterior sublateral puncture of pronotum usually developed, antennal segments 8 - 10 inconspicuously transverse, if distinctly transverse then eyes not longer than tempora, male front tarsi simple or dilated 33

30 Second basal line on second and third visible tergites extended posteriad medially, extensions usually distinctly acute, paramere with about 40 peg setae ..... *P. politus*

- Second basal line on second and third visible tergites not or only weakly extended posteriad medially, if developed (frequently only on third visible tergite) then extensions obtusely rounded, paramere with more than 80 peg setae 31

31 Paramere with peg setae very dense and numerous, forming almost uniform cluster, extension of second basal line on second and third visible tergites usually developed (Distribution more northerly: Japan, Korea, Russia Far East, north temperate China) ..... *P. japonicus*

- Paramere with peg setae arranged in two well separated longitudinal clusters, extension of second basal line on second and third visible tergites usually lacking (Distribution more southerly: Himalaya, Central and South China, India, Sri Lanka) 32

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32 Aedeagus with paramere larger, in ventral view entirely covering basal half of median lobe; eyes larger, 1.7 - 1.8 times as long as tempora in females and small males (about 1.4 times in large males, but these can be identified by the shape of the aedeagus), pronotum usually shorter, 1.10 - 1.15 times as wide as long ..... *P. donckieri*

- Aedeagus with paramere smaller, basal half of median lobe usually visible in ventral view; eyes smaller, 1.4 - 1.5 times as long as tempora in females and small males (about 1.1 - 1.3 times in large males), pronotum usually longer, 1.02 - 1.07 times as wide as long..... ..... *P. simpliciventris*

33 Species from Europe; elytra black, sometimes with slight metallic greenish hue 34

- Species from East Asia; elytra metallic blue, greenish blue or bronze, rarely black, or with only slight greenish metallic lustre 35

34 Head rectangular, distinctly transverse (ratio 1.2 - 1.4), only slightly narrower than pronotum. ..... *P. temporalis*

- Head suborbicular, only slightly wider than long (ratio 1.05 - 1.10), distinctly narrower than pronotum ..... *P. mannerheimi*

35 Sides of pronotum distinctly concavely emarginate posteriorly in front of base ..... *P. bisinuatus*

- Sides of pronotum regularly convex or narrowed toward base in almost straight line 36

36 Head suborbicular, inconspicuously wider than long ..... *P. emdeni*

- Head rounded quadrangular, conspicuously wider than long ..... *P. azuripennis*

The *Philonthus politus* group

DIAGNOSIS: First four segments of male front tarsi distinctly dilated, sub-bilobed (Figs. 79 - 81); posterior sublateral puncture of pronotum usually absent; antennal segments 8 - 10 strongly transverse, last segment with two, usually oval, glabrous areas, bearing sensillae (not as well delimited as in the *succicola* group, thus sometimes difficult to perceive); median lobe of aedeagus flat, face adjacent to paramere with a pair of small but distinct teeth, paramere with numerous peg setae, arranged in two longitudinal, apically confluent (less distinctly confluent in *P. politus*) clusters.

Philonthus politus (LINNÉ)

* *Stapyhlinus politus* LINNÉ 1758: 683
* *Philonthus laticeps* (ZETTERSTEDT 1828: 73)
* *Philonthus cyanicornis* (MANNERHEIM 1830: 27)
* *Philonthus puncticollis* (STEPHENS 1835: 439)
* *Philonthus mandibularis* KIRBY 1837: 92
* *Philonthus harrisii* MELSHEIMER 1844: 35
* *Philonthus angulicollis* MOTSCHULSKY 1860: 121
* *Philonthus amblyterus* OLLIFF 1887: 502
* *Philonthus laeus* (OLLIFF 1887: 503)
Philonthus politus ssp. *temperei* COIFFAIT 1987: 497 (nom.n. for ssp. *altaicus*) **syn.n.**
Philonthus politus ssp. *altaicus* COIFFAIT 1967b: 352 (preoccupied; nec BERNHAUER 1923)

TYPE MATERIAL: I have made no attempt to study the original material of *P. politus* ssp. *altaicus*. The subspecies was based on a variable genital character and is therefore synonymized.

DESCRIPTION: 9.5 - 13.5 mm long (5.2 - 6.0 mm, abdomen excluded). - Black to piceous-black (including appendages), tips of palpi frequently paler, base of antennal segment 2 usually reddish, elytra sometimes rufo-brunneous (especially in older specimens), usually black with distinct bronze-metallic lustre, head and pronotum with slight metallic hue, tergites usually slightly iridescent, tarsi usually black, sometimes paler.

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Head rounded quadrangular, distinctly wider than long (ratio about 1.35 in females and small males, up to 1.8 in large males), slightly narrower than pronotum (females and small males) or slightly wider (large males); eyes moderately large, 1.15 (large males) to 1.6 times as long as tempora (SMETANA (1995) mentions large males with eyes shorter than tempora, but I was not able to confirm this fact from the material I have studied); tempora parallel or slightly divergent, hind angles conspicuous but obtusely rounded, postocular region glabrous between posterior margin of eye and postocular puncture, posteriorly moderately densely and coarsely punctate; antennae with segment 4 slightly oblong, segment 5 as long as wide or inconspicuously oblong, segments 8 - 10 strongly transverse, segment 10 almost or exactly twice as wide as long; pronotum slightly wider than long (ratio 1.05 - 1.09), widest in middle, sides angulate in middle, slightly or distinctly emarginate posteriorly in front of base, dorsal rows usually with 4 punctures (various reductions are possible), posterior sublateral puncture absent, anterior margin between foremost puncture of dorsal row and lateral margin with about 7 larger setiferous punctures, with numerous shorter ones in between, head and pronotum with distinct or obsolete microsculpture of transverse meshes; elytra along suture slightly shorter than pronotum, sides slightly widened posteriad, punctation moderately fine, dense, distance between punctures hardly exceeding two puncture diameters in transverse direction; abdominal tergites almost as densely punctate as elytra, punctation becoming sparser toward posterior margin on fourth and fifth visible tergites; second basal line on second and third visible tergites extended posteriad medially, extension usually sharply pointed; elevated area between two basal lines on second and third visible tergites variably punctate, but usually dense, forming a double row (except medially); posterior margin of tergite VIII subtruncate, slightly convexly produced; male sternite IX: Fig. 64; male sternite VII with very shallow medio-apical emargination, male sternite VIII (Fig. 67) with moderately deep triangular medio-apical emargination, semi-membranous extension weakly developed; tergite X with truncate or slightly emarginate apex, emargination usually filled up by inconspicuous semi-membranous portion; male front tarsus: Fig. 79.

Aedeagus (Figs. 1, 2) with median lobe rather slender, almost rod-like, with concavely narrowed apical portion, apex sharply pointed, with two narrowly separated teeth on face adjacent to paramere (in ventral view frequently hidden by paramere); paramere (Figs. 1c, 2c) moderately broad, apex variably pointed (usually obtuse, but sometimes more acute), with about 40 peg setae either arranged in medio-longitudinal cluster or in two longitudinal, apically confluent sublateral clusters. The latter constellation inspired COIFFAIT (1967) to describe the subspecies *altaicus*, which is not justified due to the variability range of the species of this group; additionally, this character is frequently found throughout the entire distribution area.

MATERIAL EXAMINED:

R U S S I A: KAZAKHSTAN: "E.Siberia Nadiezhdinski R. Vitim 23.iX.1925. M. Burr. \ Brit.Mus. 1926-107. \ Philonthus chalceus M. Bernhauer det." (NHML); IRKUTSKAYA OBL. (?):"Siberia Baikal \ Sharp Coll. 1905-313. \ Philonthus politus L. Det. Tottenham" (NHML); NOVOSIBIRSKAYA OBL.: "Barnaul am Ob Westsibirien \ H. Frieb leg. 1918-1920" (NMW); "Barnaul am Ob P. Barbiy 15.V.1920" (NMW); TOMSKAYA OBL.: "Tomsk Sib. Gassner" (NMW).

M O N G O L I A: "Mongolische VR Central Aimak, Ulan Bator, Umg., Bogd Uul / Tola Aue, 30.06.1988, leg. Zphel U." (CSB); "Mongolia S of Ulaan Baatar, 22. - 23.VI.1990, L. & M. Bocak" (NMB).

C H I N A: "China \ 55 12/3/49 \ Bowring 63.47" (NHML); XINJIANG: "Ost-Turkestan Dagratsch-Kul." (NMW).

I N D I A: "Österreichische Karakorum Expedition leg. Dr. E. Piffl \ Haramosch-Massiv Jatschot, feuchte Wiese" (NMW); "Hessville India V \ proximus Kr. det. Bernhauer Staudinger. \ Chicago NHMus M.Berhauer Collection" (FMC).

DISTRIBUTION: Cosmopolitan. Originally, the species has most likely been Palaearctic, but has been carried by man to almost every place in the world and is now particularly common in the temperate parts of the New World (northern and southern) and in New Zealand.

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Philonthus japonicus SHARP

Philonthus japonicus SHARP 1874: 40
Philonthus binderi ROUBAL 1910: 263; SCHILLHAMMER 1999b
Philonthus seishinensis BERNHAUER 1936: 10; SCHILLHAMMER 1999b
Philonthus hauserianus BERNHAUER (manuscript name)

TYPE MATERIAL: *Philonthus japonicus*: **Lectotype** ♂ (present designation): "Type (round label) \ Japan. G. Lewis \ Sharp Coll. 1905-313. \ Philonthus japonicus ♂ Type DS. \ Japan (little oval yellow label)". - **Paralectotype**: 1 ♂ with same data as holotype (both specimens in NHML).

Philonthus binderi: **Holotype** ♀ "Iturup (Kurily) \ Typus \ Binderi m. Roubal \ japonicus Shp. var.? od. n.sp.? Ich besitze eine Anzahl japonicus, die untereinander stark variieren u. vielleicht verschiedenen Arten angehören. 1 Expl. ist mit Ihrem vollkommen gleich nur hat das Halssch. je 4 Punkte. [folded label, handwritten] \ Philonthus japonicus Shp. Smetana det. 1966" (SNMB). – **Paratype** ♀: "Kurillen a coll. Roubal \ japonicus \ v. Bernhaueri Roubal det. \ Typus. \ Binderi Roub. (Bernhaueri Roub.) Cotypus ded. Roub. \ Chicago NHMus M.Bernhauer Collection" (FMC).

Philonthus seishinensis: **Holotype** ♂: "Seishin Korea \ seishinensis Bernh. Typus Philonthus \ Chicago NHMus M.Bernhauer Collection". - **Paratype** ♀: "Seishin Korea \ japonicus Shp. det. Bernhauer \ Hinterl. dichter punktiert \ seishinensis Bernh. Cotypus \ Chicago NHMus M.Bernhauer Collection" (both specimens in FMC).

DESCRIPTION: 11.5 - 13.8 mm long (5.4 - 6.4 mm, abdomen excluded). - In build and coloration scarcely differing from *P. politus*, but elytra more constantly metallic bronze, sometimes even with slight coppery hue; head generally less wide, 1.28 - 1.35 (females) or 1.4 - 1.6 (males) times as wide as long; eyes slightly larger, 1.4 - 1.7 (females and small males) or about 1.2 (large males) times as long as tempora, tempora parallel or slightly convergent; anterior margin of pronotum slightly less densely setose, second basal line on second and third visible tergites with or without medial extension, frequently developed only on third visible tergite, extension obtusely rounded, not sharply pointed; male front tarsus slightly wider than in *P. politus* (Fig. 80).

Aedeagus (Fig. 3) with apical portion of median lobe longer, median lobe distinctly widened ventro-basally (lateral view, Fig. 3b), therefore paramere not closely attached to median lobe, teeth on face adjacent to paramere widely separated, situated sublaterally; paramere (Fig. 3c) broader, bearing more than 150 peg setae, densely arranged in longitudinal cluster, but showing inconspicuous midline.

ADDITIONAL MATERIAL EXAMINED:

R U S S I A: PRIMORSKIY KRAY: "Seitengraben des Perwaja Rjetschka \ Tales nrdl. Vladivostok \ H. Frieb leg. 1918-1920" (NMW); "USSR E-Sibirien Primorskij kr. Arsenev env. \ 27.V.-5.VII.1991 leg. O. Sausa" (NMW); "Vladivostok, coll. Obenb." (CHP); "Asia or. SSSR Zapovednik Kedrovaja pad apud Meles meles Vasiljev leg. 28.IV.58" (CSO); "USSR, Primorskij Kraj, Ussurijskij Sapovednik, Kamenuschka, 22.VII.1990, leg. A. Pütz" (CPE); "Ussuri, Maritime Terr. Blue Mt. ch. 30km S Spassk-Dalnyy 16. - 18.VI.1990, S. Kasantsev" (NMB).

K O R E A (North): "Korea 11.6.1974 Phjongjang Exp. Inst. Zool. Cr." (ISEZ, NMW); "Korea Hiesan pr. Jonkang-do 9.1971 leg. Pawlowski" (ISEZ).

C H I N A: XINJIANG: "Nordwestl. China Chinkiang Col. Reitter \ seishinensis Bh. det. Bernhauer don. Em. Reitter \ Chicago NHMus M.Bernhauer Collection" (FMC); SHANXI: Wutai Shan, 4. - 5.VI.1993 (CRL); BEIJING: Beijing, 20.IX.1985 (CRL).

J A P A N: "Japan Iwate Nippon IV.36 \ Iwate NIPPON H. Yamamoto 4.1936 No. \ seishinensis B. det. Bernhauer Koch don. \ Chicago NHMus M.Bernhauer Collection" (FMC); "Hakodate \ Japan G.Lewis. 1910-320." (CSO); "Japan G.Lewis 1910-320." (NHML); "Miyanoshita \ Japan G.Lewis. 1910-320." (NHML); "Shiraoi 18.8.80. \ Japan G.Lewis. 1910-320." (NHML); "Osaka 23.XII.1937 \ C.E. Tottenham Collection B.M. 1974-587." (NHML); "Aburakawa Aomori Jap. 8.5.44 J.K." (CSO); "(Sounkyo) Kamikawa-cho Hokkaido, Japan, VIII.1979 Coll. N. Yasuda" (CST); "1982. 6. 20. Minami-Aizu, Fukushima Pref. Col. S. Ohmomo" (DEI); "1987.7.27. Marunuma Nikko, Gunma, Col. S. Ohmomo" (DEI).

DISTRIBUTION: The species occurs in temperate East Asia: Russian Far East (incl. Sakhalin, Kuril Islands), northern China, Korea, Japan.

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Philonthus simpliciventris BERNHAUER

Philonthus simpliciventris BERNHAUER 1933a: 39
Philonthus proximus KRAATZ 1859: 80 (preoccupied; nec WOLLASTON 1857)
Philonthus explanipes TOTTENHAM 1939: 218 (nom.n. for *P. proximus* KRAATZ); SCHILLHAMMER 1999b

TYPE MATERIAL: *Philonthus simpliciventris*: **Holotype** ♂: "Giufu-Shan Szechuan Em. Reitter \ simpliciventris Brh. Typ \ simpliciventris Bernh. Typus don. Em. Reitter \ Chicago NHMus M.Bernhauer Collection" (FMC). - **Paratypes** (3 exs.): 1 ♀ ("Cotypus") with same data as holotype (FMC); 1 ♂: "♂ \ Giufu Shan Szechuan 1500 \ 2000 m. [1500 - 2000 m] Reitter E. \ Reitter donavit IV. 1935 \ Philonthus simpliciventris Brnh. \ Cotypus Philonthus simpliciventris Bernhauer" (NMW); 1 ♂ with same data as holotype (NMW), but this specimen was misidentified and belongs to *P. donckieri*. **Note**: There are two specimens (from "Tatsienlu" and from "Hwa-Yin-Shan") in NHML marked as "Cotype", but they do not belong to the type series (see "Additional material") as well as a ♀ specimen without locality data but bearing a label with Bernhauer's script "Phil. simpliciventris Brh. n.sp." (Coll. E. Reitter. B.M.1934-449). I am also doubtful about the type status of this specimen.

Philonthus proximus: **Holotype** ♂ (by monotypy): "India or. Bacon leg. \ Philonthus proximus Kr. \ coll. Kraatz \ coll. DEI Eberswalde" (DEI).

DESCRIPTION: 9.0 - 12.5 mm long (5.0 - 6.1 mm, abdomen excluded). - Black, elytra with distinct metallic lustre, most frequently bronze, but also dark olivaceous-green or even black with only inconspicuous metallic sheen.

In most characters identical with *P. politus*, but differing as follows: elytra on average darker, pronotum slightly longer (1.02 - 1.07 times as wide as long), with sides less angulate, more regularly convex or sometimes even subparallel, second basal line on second and third visible tergites straight or only slightly obtusely extended, male front tarsi more dilated (as in *P. donckieri*), basal segments asymmetrical; male sternite VIII: Fig. 68; male tergite X: 58a; female tergite X: 58b.

Aedeagus (Fig. 4) similar to that of *P. japonicus* (ventral view), median lobe not widened ventrobasally (lateral view, Fig. 4b), paramere thus almost closely attached to median lobe, face adjacent to paramere with a pair of very tiny teeth, in ventral view almost hidden by paramere, frequently with a second pair of teeth situated more basad; paramere (Fig. 4c) slightly concavely narrowed in basal third, peg setae arranged in two longitudinal, apically confluent, clusters of slightly more than 60 peg setae each.

ADDITIONAL MATERIAL EXAMINED:

C H I N A: GANSU: "Kansu Tukiang" (HUB); SHAANXI: Foping Nature Reserve, 33°45'N 107°48'E, 1600 m, 6. - 11.IV.1999 (CSB); SICHUAN: "China Washanberg, 1700 - 3500 meist 2000 - 2500 m, 24.II - 8.V.15 Weigold G." (HUB); "Nitou Tatsienlu [Kangding] Szechuan China Em. Reitter \ C.E. Tottenham Collection B.M. 1974-587." (NHML); "Hwayin-shan Mittelszechuan 1600 m Reitter \ C.E. Tottenham Collection B.M. 1974-587." (NHML); Wolong, Sanjiangkou, 7.X.1934, leg. Friedrich (NMW); 30 km W Nanping, Jiuzhaigou, 3100 m, 13. - 15.VI.1992 (NMW); Xiangcheng, 2700 m, 29.VI.1996, 29°00'N 99°46'E, leg. Smetana et al. [C46] (CSO); Gongga Shan, Moxi, 1300 m, 3.VII.1996, 29°13'N 102°10'E, leg. Smetana et al. [C49] (CSO, NMW); Jinfo Shan, 1750 m, 27.VI.1998, 29°01'N 107°14'E, leg. Smetana et al. [C71] (CSO); 20km N Sabdé, 3200 m, 13.VII.1998, 29°35'N 102°23'E, leg. Smetana et al. [C80] (CSO); YUNNAN: Gaoligongshan, 2200 - 2500 m, 24°57'N 98°45'E, 8. - 16.V.1995 (CST); NW-Yunnan, Deqen - Yanjing, 10 km W Deqen, 28°28'N 98°53'E, 21. - 22.VI.1997 (CSB, NMW); FUJIAN: "Kuatun (2300m) 27.40 nBr. 117.40 o.L. J. Klapperich 6.3.1938 (Fukien)" (NMW); ibid., 3.IV., 5.IV., 6.IV., 7.IV., 8.IV., 11.IV., 12.IV., 14.IV., 18.IV., 21.IV., 23.IV., 28.IV. (NMW); ibid., 4.IV. (CSO); ibid., 16.V.1946, leg. Tschung sen. (NMW).

T A I W A N: Kaohsiung Hsien, Tengchin, 1565 m, 24.IV.1990, leg. Smetana [T22] (CSO); Taichung Hsien, Anmashan, 2690 m, 4.V.1990, Route for. abandonnée, LL90-39 (CSO); Taichung Hsien, Sungmao, 1550 m, 14.V.1990, leg. Smetana [T58] (NMW); Pingtung Hsien, Peitawushan, Kuai-Ku Hut, 2130 m, 30.IV.1992, leg. Smetana [T109] (CSO).

N E P A L: (District?): "Syabnu 12.V. 2200 - 3350 m \ Nepal 1978 Bhakta B." (NMB); "Bhandar 26.V.1979 2100 m \ O Nepal Bhakta B." (NMB); "Padmara Khari Lagna 3400 m - Bumro 2750 m, Nepal 28.V.1977, W. Wittmer" (NMB); JUMLA: Uthu env., 17. - 25.IX.1972, leg. H. Franz (NMW); 2 km W Gothichaur, 2700 m, 20./21.V.1995, leg. M. Hartmann (NME, NMW); MUGU: Lake Rara, 2920 m, 2.VI.1977, leg. W. Wittmer

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(NMB); RUKUM: S Dhaulagiri, Dhorpatan, 3000 - 3200 m, 7. - 25.V.1973, leg. J. Martens, C 15063 (SMF) [**Note**: these specimens were identified as *P. donckieri* by COIFFAIT (1982)]; PARBAT: between Chitre and Ghandrung, Chitre-Side of pass, 4. - 7.V.1980, 2800 - 2900 m, leg. Martens & Ausobsky (172), Tsuga-Rhodod. (SMNS, NMW); MUSTANG: Lete, 2550 m, 2.X.1983, leg. Smetana & Löbl (CSO); MANANG: Latha Manang W Bagarchhap, 2450 m, 23.IX.1983, leg. Smetana & Löbl); Manaslu Himal, Meme Pokhari Lekh Bara Pokhari, 3000 m, 2.IX.1995, leg. Schmidt (DEI); KASKI: Ghorepani, 2800 - 3200 m, 6.VI.1992, leg. J. Moravec (NMB); Chitre, Ghar Khola, 2400 m, 26. - 31.V.1984, leg. C.J. Rai (NMB); SINDHUPALCHOK: Jangtang Ridge NE Barahbise, 3300 m, 5.V.1981, leg. Löbl & Smetana (CSO); SOLUKHUMBU: Lughla env., leg. H. Franz (NMW); Thodung/Those, 3200 m, 3. - 9.IV.1973, leg. J. Martens, C 15062 (SMF); ILAM: Wai Pokhari, 2150 - 2250 m, 23. - 25.VIII.1983, leg. Martens & Daams [254] (SMNS).

I N D I A: "India \ P. chalceus Steph." (NHML); KASHMIR: Gulmarg, VI. - VII.1931, leg. Cameron (NHML); HIMACHAL PRADESH: Simla Hills, Matiana 7900 ft., 11.IX.1921, leg. Cameron (NHML); Manali, 2300 m, 14.V.1977, leg. Wittmer, Brancucci [these specimens were identified as *P. donckieri* by Coiffait] (NMB, NMW); UTTAR PRADESH: Chakrata dist., Chulli Khud, 14.V.1922, leg. Cameron (NMHL); Almora, Sunderdhunga, 8000 - 12000 ft., VI.1919, leg. H.G. Champion (NMHL); Haridvar - Chila, 5. - 14.VIII.1994, leg. M. Valenta (CKB); Badrinath 3200 - 3600 m, 1.VIII.1989, leg. A. Riedel (SMNS).

DISTRIBUTION: The species is widely distributed in the southern portion of the eastern Palaearctic region: China (as far north as Gansu province), Taiwan, northern India, Nepal. It obviously prefers higher altitudes, all localities are above 2000 m.

Philonthus donckieri BERNHAUER

Philonthus donckieri BERNHAUER 1915: 254
Philonthus tripunctatus CAMERON 1919: 253
Philonthus crebrior BERNHAUER 1931b: 129; SCHILLHAMMER 1999b.

TYPE MATERIAL: *Philonthus donckieri*: **Holotype** ♂: "Chambanganoor Madura, Ind. Donckier 1912 \ donckieri Brnh. Typus \ Chicago NHMus M.Bernhauer Collection" (FMC). - **Paratype**: 1 ♀ with same data as holotype (NMW). **Note**: There are five specimens from the type locality in the Scheerpeltz collection bearing "Cotypus" labels, but I am very doubtful if these specimens really belong to the type series (see "Additional material").

Philonthus tripunctatus: **Lectotype** ♂ (present designation): "Ceylon. G.Lewis. 1910-320. \ Dikoya. 3.800-4.200 ft. 6.XII.81.-16.I.82." (NHML). - **Paralectotypes** (4 exs.): same data as lectotype (NHML).

Philonthus crebrior: **Holotype** ♂: "55 10/4/57 [handwritten on round label) \ China \ Hongkong John Bowring \ Bowring. 63.47* \ China Brit. Mus. don. Arrow \ crebrior Brnh. n.sp. \ crebrior Bernh. Typus \ Chicago NHMus M.Bernhauer Collection" (FMC). - **Paratypes**: 4 exs. with similar label data as holotype (1 FMC, 3 NHML).

DESCRIPTION: 10.5 - 12.5 mm long (5.3 - 5.6 mm, abdomen excluded). - Coloration more or less identical with that of *P. politus*. In build similar to *P. simpliciventris* but with much larger eyes (eyes : tempora = about 1.4 : 1 in large males, 1.70 - 1.85 : 1 in females and small males), pronotum shorter than in all preceding species, 1.10 - 1.15 times as wide as long, elevated area between two basal lines on second and third visible tergites very frequently with rather sparse punctation, second basal line in almost all specimens nearly straight, only inconspicuously, sinuately extended; male front tarsus: Fig. 81.

Aedeagus (Fig. 5) very long, apical portion of median lobe distinctly bent dorsad, face adjacent to paramere with a pair of conspicuous, widely separated teeth, forming slight lateral carinae; paramere (Fig. 5c) very broad and long, almost entirely covering basal two thirds of median lobe, peg setae arranged in two widely separated, apically confluent, longitudinal clusters each consisting of about 40 - 45 peg setae.

ADDITIONAL MATERIAL EXAMINED:

C H I N A: SICHUAN: "Nitou Tatsienlu [Kangding] Szechuan China Em. Reitter" (NHML); JIANGXI: "Kiukiang [Jiujiang] China" (NHML); GUANGDONG: "Canton 3.1925 \ Museum Paris J. Duchaine 1928" (MHNP); FUJIAN: "Kuatun (2300m) 27.40 nBr. 117.40 o.L. J. Klapperich 21.3.1938 (Fukien)" (NMW); ibid., 28.3., 31.3., 1.4., 8.4. 12.4. (NMW); ibid., 5.IV. (NHML); MACAO: "Macao China I.07" (NHML).

I N D I A: "Madura Ind. or." (NMW).

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N E P A L: DOTI: "W.Nepal: Silgarhi-Doti. Dhalaum Area. 10.000ft. 16.vii.1953. J.B.Tyson." (NHML); MUSTANG: Lete, 2550 m, 2.X.1983, leg. Smetana & Löbl (CSO, NMW); right banks of Lethe Khola near Lethe, 2400 m, 5. - 7.V.1995, leg. Martens & Schawaller (SMNS).

L A O S: "Laos" (NMW).

V I E T N A M: "Tonkin Montes Mauson April, Mai 2-3000 H. Fruhstorfer" (HUB); "Hoa-Binh Tonkin 1930 Clermont" (FMC); "Museum Paris Tonkin reg. de Hoa-Binh A. de Cooman 1927" (MHNP); "Tonkin P. Lemée 1903-1906" (MHNP); "Süd-Annam Pha-Rang März H. Fruhstorfer" (MHNP).

DISTRIBUTION: The distribution range of *P. donckieri* widely overlaps that of *P. simpliciventris* (China, Nepal), but also extends to the Oriental region (southern India, Laos, Vietnam). The species is not restricted to higher elevations. **Note**: the Nepal records given by COIFFAIT (1982) are a misidentification of *P. simpliciventris*.

The *Philonthus succicola* group

DIAGNOSIS: First four segments of male front tarsi simple, not dilated (Fig. 82); posterior puncture of pronotal sublateral row usually developed, antennal segments 8 - 10 strongly transverse, last antennal segment (Fig. 57) with two, usually oval, glabrous areas bearing sensillae (these areas are well delimited and easy to recognize), tergite X with deep medio-apical excision in both sexes, occupying about 1/3 to 1/2 of length of tergite, median lobe of aedeagus rather flat, face adjacent to paramere with a pair of small but distinct teeth, paramere with moderately large number of peg setae, arranged in two single, subparallel rows.

Philonthus succicola THOMSON

* *Philonthus succicola* THOMSON 1860: 157
* *Staphylinus nigritus* RUNDE 1835: 7
* *Philonthus chalceus* ab. *wohlgrothi* R. DVOŘAK 1952:79 (unavailable name)

DESCRIPTION: 10.0 - 13.5 mm long (4.9 - 6.6 mm, abdomen excluded). - Black, shining, tips or entire last segments of palpi reddish, last antennal segment frequently conspicuously paler than penultimate segment, legs black, tibiae frequently to some extent reddish-brown, claws reddish, elytra shiny black, either not metallic or with slight metallic lustre (dark olivacous or even dark steel blue).

Head of rounded quadrangular or slightly trapezoidal shape, distinctly wider than long (ratio 1.55 - 1.60 in large males, 1.25 - 1.40 in females and small males), about as wide as (large males) or narrower than pronotum, tempora subparallel or slightly convergent, eyes as long as or slightly longer than tempora (ratio 1.00 - 1.17, in one exceptionally small female even 1.40), area between posterior margin of eye and postocular seta impunctate except for a pair of fine punctures, posterior portion finely and moderately densely punctate, antennae with segment 4 as long as wide, segment 5 slightly wider than long, segments 8 - 10 strongly transverse, segment 10 almost twice as wide as long; pronotum 1.07 - 1.14 times as wide as long, widest in middle, sides variably emarginate posteriorly in front of base, dorsal rows usually with four rather fine punctures, head and pronotum usually with well developed, long-meshed, transverse microsculpture; elytra slightly widened posteriad, along suture about as long as pronotum, densely punctate, distance between punctures hardly exceeding two puncture diameters in transverse direction; abdominal tergites with slightly finer and less dense punctation than on elytra, elevated area between two basal lines on second and third visible tergites variably densely punctate, on second visible tergite frequently reduced to a few (about 10) punctures, second basal line medially sharply extended posteriad (exceptions are very rare), fourth visible tergite frequently with irregular, crenulate, transverse line, indicating a rudimentary second basal line, surface of tergites slightly iridescent, basal lines of first two visible sternites medially indented,

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male tergite X (Fig. 59a) with very deep and narrow, fissure-like excision, occupying half or more than half of length of tergite, female tergite X (Fig. 59b) similar but excision slightly wider; male sternite VIII with deep triangular medio-apical emargination, semi-membranous extension well developed, sternite VII with shallow medio-apical emargination; male front tarsus: Fig. 82.

Aedeagus (Fig. 6) with median lobe long and rod-like, subparallel, apical portion narrowed toward acutely pointed apex in almost straight line, face adjacent to paramere with a pair of teeth, situated at distal third, in ventral view not hidden by paramere; paramere (Fig. 6c) slender, almost gradually narrowed toward rather obtusely pointed apex, also in lateral view gradually narrowed toward apex, peg setae arranged in two apically not confluent rows each consisting of 13 - 14 peg setae.

MATERIAL EXAMINED:

R U S S I A: NOVOSIBIRSKAYA OBL.: "USSR: Novosibirsk Region, Cherny Mes 21-29.VI.1991 FIT-pans, lake shore S. A. Marshall" (CSO); "Barnaul am Ob Westsibirien \ H. Frieb leg. 1918-1920" (NMW); Barnaul, Tjagun, 4. - 7.VIII.1993, leg. Snizek (NMW); KEMEROVSKAYA OBL.: "Kusnezk Altai, Gassner" (NMW); ALTAYSKIY KRAY: "USSR: Altai Teletskoya Lake 11-16.VII.1991 Carrion trap S. A. Marshall" (CSO).

DISTRIBUTION: The species is widely distributed in the western portion of the Palaearctic region and reaches as far east as the river Yennisey and the Altai mountains. It was also recorded from northeastern China by LI & CHEN (1993: 37), and from Mongolia by SMETANA (1967: 202, as *P. chalceus*) and by COIFFAIT (1974: 222), but these records are most likely based on a misidentification of *P. decoloratus*. At the very eastern border of its distribution range (between the rivers Ob and Yenissey) it is sympatric with *P. decoloratus*.

Philonthus incisus sp.n.

Holotype ♂: "02.08.1991 Sevo-See (Milkovo) Kamtschatka leg. R. Predel" (CSB).

Paratypes (3 exs.): 1 ♀ with same data as holotype (NMW); 2 ♂♂: "25.07.1991 Mutnovski-Vulkan Süd-Kamtschatka leg. R. Predel" (CSB, NMW).

DESCRIPTION: In size and external characters hardly differing from *P. succicola*: in large males tempora slightly longer than eyes (ratio 1.03 - 1.06), excision of tergite X (Figs. 61a, b) less deep, but conspicuously wider in both sexes (the variability range can not be assessed due to the limited number of specimens).

Aedeagus (Fig. 7) with median lobe similar to that of *P. succicola*, but narrowed toward apex more concavely; apical portion of paramere (Fig. 7c) parallel, apex obtusely rounded, in lateral view distinctly widened in middle (as in *P. decoloratus*), number and arrangement of peg setae as in *P. succicola*.

DISTRIBUTION: Known only from the Kamtschatka Peninsula in the Far East of Russia.

Philonthus decoloratus KIRSHENBLAT

Philonthus decoloratus KIRSHENBLAT 1933: 101; BOHAČ 1988: 552.
Philonthus caliginosus BERNHAUER (ms name).

TYPE MATERIAL: In the collection of the ZIS where the Kirshenblat collection should be deposited, there is an empty space in the drawer where the specimens were supposed to be. Despite intensive search, our colleague A. Solodovnikov was not able to find out anything about the whereabouts of the type specimens. Type locality: "Tschita". **Note**: The original description was sufficient to enable me to assign this species to the *succicola* group and since the type locality lies far from the distribution limits of the other two species, I have no doubt that the specimens I have studied belong to *P. decoloratus*.

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DESCRIPTION: Externally almost identical with *P. succicola*, but excision of tergite X (Figs. 60a, b) usually less deep and slightly wider in both sexes; male sternite VIII: Fig. 69.

Aedeagus (Figs. 8, 9) conspicuously differing from those of both preceding species. Median lobe very slender, gradually narrowed toward very acute apex, teeth on face adjacent to paramere shifted mediad, in ventral view almost hidden by paramere; paramere (Figs. 8c, 9c) very slender, shorter than in *P. succicola*, quite variably shaped, two rows of peg setae almost contiguous due to very narrow paramere, each consisting of 12 - 13 peg setae.

MATERIAL EXAMINED:

R U S S I A: NOVOSIBIRSKAYA OBL.: "USSR: Sibirien, Novosibirsk, Umg. Akademgorodok, 23.-31.V.1986, leg. W. Schawaller" (SMNS, NMW); KEMEROVSKAYA OBL.: "Kusnezk Altai, Gassner" (NMW); KRASNOYARSKIY KRAY: "Krasnojarsk Ienniseisgeb. \ ex coll. Scheerpeltz" (NMW); BURYATSKAYA ASSR: "Ostsibirien Quellgebiet des Irkut Leder 1891" (NMW); "Transbaik. Beresovka b.Werchna-Udinsk Neupärtl" (NMW); "Tritzkosawsk Transbaikalg. Gassner" (NMW); "Transbaicalia Selenga Tal V-VI 1908 \ chalceus \ ex. coll. Scheerpeltz" (NMW); CHITINSKAYA OBL.: "Pjestschanka 8 km öst. Tschita Transbaikalien \ H. Frieb leg. 1918 - 1920 \ chalceus \ ex coll. Scheerpeltz" (NMW); AMURSKAYA OBL.: "Amursk. obl. Tygdynskiy r-n; p. Tygda smyeschanniy les. 23.6.76, V. Kusnezov [in Russian]" (DEI); PRIMORSKIY KRAY: Arsenev env., 27.V. - 5.VII.1991, leg. O. Šauša (NMW); Chernigovskij r-n, Gribnoe, 22.VII.1995, leg. Viktor Kusnecov (CSB); "Seitengraben des Perwaja Rjetschka \ Tales, nördl. Wladiwostok \ H. Frieb leg., 1918 - 1920 \ chalceus \ ex. coll. Scheerpeltz" (NMW); Ussurijsk, Kajmanovka, 2. - 9.VIII.1992, leg. Snizek (NMW); Ussuri reg., Lazo Nat. Res. Kordon Amerika, 18.V.1993, leg. Sundukow (HUB); Ussuri reg., Roschdestwenka rajon, Schkotowsk (HUB); Ussurijskij Sapovednik, Kamenuschka, 22.VI.1990, leg. A. Pütz (CPE); ibid., 20. - 25.VI.1990, leg. S. Kasantsev (NMB); ibid., 14. - 15.VII.1992, leg. S. & K. Belobozodov (NMB, NMW); Black Mts., Grjaznaja riv., 27.V. - 19.VI.1990, leg. Plutenko (CGO); Sikhote-Alin, Biol. Stat., 30 km SE Chuguyevka, 44°05'N 134°12'E, 1.VI.1993, 850 m, leg. L. Zerche (DEI); "proximus Kr Wladiwostok Amur. leg. Graeser" (NMW); Vladivostok env., Sedanka, 1. - 19.VII.92, leg. S. & K. Belobozodov (NMB); ibid., 20.VI.1993, leg. L. Zerche et al. (DEI); SAKHALIN: Kriljon, Kalinino env., 4. - 9.VII.1992, leg. Jan Farkač (NMB); Aniva distr., Vysokoye vill., valley of Lyutoga river, 22./23.VII.1993, leg. Pütz & Wrase" (CPE, CSB, NMW); Aniva distr., Zolotaribnoye, 7 km S Aniva, 20.VII.1993, leg. Pütz & Wrase (CPE); Aniva distr., Novo Alexandrovsk, 10 km N Yushno Sakhalinsk, Zuzuya river, 12.VII.1993, leg. Pütz & Wrase (CPE, CSB, NMW); Aniva distr., Oghon'ki vill., Partizanka riv., 4. - 26.IV.1996, leg. A. Plutenko (CSO, NMW); Korsakov distr., 3 km W Kirillovo vill., Uryun river, 22. - 23.VII.1993, leg. Pütz & Wrase (CSB); Korsakov distr., Ismenshyroye lake, 21. - 22.VII.1993, leg. Pütz & Wrase (CSB).

M O N G O L I A: "Mongolische VR Central Aimak Ulan Bator, Umg. Bogd Uul / Tola-Aue 30.06.1988 leg.: Zöphel, U." (CSB); "Mongolia/Ulanbator Zaisan 1400 m 107el/48nw 28.V.1989 S.&J.Kolibác leg." (NMB, NMW).

K O R E A (South): "Südkorea Mt. Tae baek san 1986.8.1. leg. Kwang Seob Lee" (CSB).

J A P A N: HOKKAIDO: "(Sounkyo) Kamikawa-cho, Hokkaido, Japan, VIII.1979 Coll. N. Yasuda" (CST); "Konpoku-toge, Shari, Hokkaido, Japan 3-VI-1992 M. Ohara leg." (CST); "Otaru Hokkaido, Naebo, Nagahashi 31-V-1991 M. Ohara leg." (CST); "Nopporo, Hokkaido, Japan 27.VI.1986 M. Ohara leg." (CST); "On'nenai, Tsuri Kushiro moor, Hokkaido, Japan 9-VI-1992 M. Ohara leg." (CST); "Japan, Hokkaido, Horokanai, Butokamabetsu Riv., \ 300 m, 6.VIII.1991, A. Smetana (J35)" (CNC); HONSHU: "Japan: Iwate Pref., Mt. Hayachine, 19.VII.1989, 400 m Makiharas & Sharkey" (CSO).

C H I N A: (Province?): "Mandchuria \ M.Cameron Bequest. B.M. 1955-147" (NHML); GANSU: 120 km S Lanzhou, Guanghe Xian Mai Jia, 2300 m, 8.VII.1994, leg. Smetana [C3] (CSO); Yonghai, ca 20 km SW Yuzhong, 2700 - 2800 m, 9.VIII.1994, leg. A. Smetana [C34] (CSO, NMW); SHANXI: Wutai Shan, 4. - 5.VI.1993 (CRL); SICHUAN: "Tatsien-lu Grenze Thibet Ost Em. Reitter. \ = chalceus St. det. Bernhauer \ caliginosus Brnh. Typus \ Chicago NHMus M.Bernhauer Collection" (FMC); 2 exs. with same data as preceding but with Cotype labels and a label "C.E. Tottenham Collection. B.M. 1969-77" (NHML); "Tatsien-lu Grenze Thibet Ost \ Em. Reitter. \ Reitter donavit IV.1935 \ Typus \ ex. coll. Scheerpeltz \ Cotypus Philonthus caliginosus Bernhauer" (NMW); Daxue Shan, W env. of Kangding, 30°03'N 101°57'E, 2600 - 2700 m, 22./24.V.1997 (CSB, CPE); Pass Sheduo - Shankou, W Kangding, E slope, 3850 m, 29°35'N 102°23'E, 11.VII.1998, leg. Smetana et al. [C77] (CSO); road Qianning - Danba, pass 15 km NE Qianning, 30°35'N 101°41'E, 11.VII.1998, alpine meadows (NMW); TIBET: Bomi env. 29°52'N, 95°45'E, 3000 m, 9. - 10.VII.1997 (CSB, NMW); YUNNAN: Zhongdian City env., 3400 m, 3.VII.1998, leg. A. Gorodinski (CST); road Deqen - Yanjing, 10 km W Deqen, 28°28'N 98°53'E, 3600 m, 21. - 22.VI.1997 (CSB); Zhongdian, 27°49'N 99°43'E, ca. 3600 m, 19. - 25.VI.1994 (CSO, NMW).

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DISTRIBUTION: The species is widely distributed in temperate East Asia: Russia (from the river Ob to Sakhalin), Mongolia, Korea, Japan; in China only in the northern, central and south-western portion. The further south the species goes, the more it is restricted to higher altitudes (in Sichuan, Yunnan and Tibet far above 2000 m). Between the rivers Ob and Yennisey the distribution ranges of *P. succicola* and *P. decoloratus* narrowly overlap. This fact might pose difficulties in separating female specimens with atypically developed tergites X.

The *Philonthus tenuicornis* group

This group contains all species which could not be assembled in well defined species groups. In this case I partly follow Smetana's concept of the *furvus* group (SMETANA 1995, 77: "There is no evidence for the monophyly of this group. I have retained this assemblage, which is based on phenetic similarity, for practical reasons, ..."). The phenetic similarity is only partly true for the species assembled here. Actually, the problem is that phenetically almost identical species show not even a remote aedeagal similarity (e.g. *P. oberti*, *P. addendus*), while species, which from the aedeagal point of view seem closely related, hardly share any other character state which would justify to place them in the same species group (e.g. *P. nitidus*, *P. aeger*).

Philonthus tenuicornis MULSANT & REY

* *Philonthus tenuicornis* MULSANT & REY 1853: 58

DESCRIPTION: 11 - 12 mm long (5.0 - 5.5 mm, abdomen excluded). - Black, shining, elytra usually with slight metallic bronze or dark olivaceous-green lustre, antennae black, frequently with last or even outer 4 or 5 segments distinctly paler reddish-testaceous, tips or distal halves of last segments of palpi reddish, legs black, bases of tibiae and partly tarsi reddish-testaceous, tergites strongly iridescent.

Head rather flat, rounded quadrangular or slightly trapezoidal, distinctly wider than long (ratio 1.35 in large males, 1.2 - 1.3 in females and small males, tempora regularly arcuate or straightly convergent (large males) immediately behind eyes, eyes 1.16 (large males) - 1.40 times as long as tempora, tempora almost impunctate between posterior margin of eye and postocular seta, posterior portion moderately densely, coarsely punctate, antennae slightly variable, usually segment 4 slightly oblong, segment 5 as long as wide, segments 8 - 10 slightly transverse, in some specimens segments 4 and 5 conspicuously oblong, segment 6 slightly oblong, segments 8 - 10 inconspicuously transverse; pronotum also rather flat, 1.09 - 1.12 times as wide as long, wider than head (even in large males), sides distinctly sinuately emarginate posteriorly in front of base, rarely narrowed toward base in almost straight line, dorsal rows each with 4 punctures; head and pronotum with profound and dense, long-meshed, transverse microsculpture, usually with distinct golden-brown iridescence, at least visible on marginal portions of pronotum; elytra along suture about as long as pronotum, moderately widened posteriad, with dense and strong punctation, punctures separated by one puncture diameter in transverse direction; abdominal tergites with punctation finer than on elytra, very sparse, punctures separated 3 - 4 puncture diameters or even more, only at base of third to fifth visible tergites somewhat denser, elevated area between two basal lines on second and third visible tergites distinctly but variably punctate, especially on second visible tergite often reduced to a few sublateral punctures, second basal lines straight; first four segments of male front tarsi simple (Fig. 83).

Aedeagus (Figs. 10, 11) rather small, median lobe variably shaped (depending on degree of sclerotization), usually rod-like, slightly widened in middle, face adjacent to paramere with medial tooth shortly before apex, exactly at level of apex of paramere; paramere (Figs. 10c, 11c)

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long, subparallel, with obtusely pointed apex, peg setae arranged in two almost regular longitudinal rows of 9 - 10 peg setae each, rows almost confluent apically.

DISTRIBUTION: West Palaearctic as far east as the Caucasus and Iran; Nearctic (introduced). The record from India (Darjeeling) by CAMERON (1928: 563) is a misidentification of *P. industanus* FAUVEL.

Philonthus oberti EPPELSHEIM

Philonthus oberti EPPELSHEIM 1889: 174
Philonthus diffusiventris BERNHAUER 1933a: 41; SCHILLHAMMER 1999b
Philonthus beckeri BERNHAUER 1933b: 30; SCHILLHAMMER 1999b
Philonthus pseudojaponicus BERNHAUER 1936: 9; SCHILLHAMMER 1999b
Philonthus reflexiventris TICHOMIROVA 1972: 164; SCHILLHAMMER 1999b
Philonthus oberti var. *nigrus* COIFFAIT 1974: 202 (unavailable name)

TYPE MATERIAL: *Philonthus oberti*: **Lectotype** ♂ (present designation): "Daur. m. \ Oberti mihi Dauria. Obert. \ c. Eppelsh. Steind. d." (NMW). - **Paralectotype**: 1 ♀ with same data as lectotype (NMW).

Philonthus diffusiventris: **Holotype** ♀: "Tatsienlu-Kiulung China Em. Reitter [cut in two] \ diffusiventris Brh. Typ. \ diffusiventris Brnh. Typus \ Chicago NHMus M.Bernhauer Collection" (FMC). - **Paratype**: 1 ♀ with similar label data as holotype (NMW).

Philonthus beckeri: **Holotype** ♂ (by monotypy): "Kinfushan Prov. Szechuen West-China IV/V 29 Coll. H. Becker \ Beckeri Brh. don. Kaiser \ Beckeri Brnh. Typus unic. \ Chicago NHMus M.Bernhauer Collection" (FMC); the specimen is lacking the left hind tarsus. **Note**: There are two specimens (NMW, NHML) from "Tatsienlu, don. Reitter" bearing "Cotype" labels, but these are no types since Bernhauer (1933: 30) explicitly wrote "Ein einziges, von Ing. Kaiser erhaltenes Stück." (see "Additional material").

Philonthus pseudojaponicus: **Holotype** ♂: "Kamikochi North. Alp. Jap. Suenson 13.9.34 \ pseudojaponicus Brnh. Typ. \ pseudojaponicus Brnh. Typus \ Chicago NHMus M.Bernhauer Collection" (FMC). - **Paratypes** (2 ♂♂): "Otam [handwritten, not clearly legible] \ Insel Jesso Japan. Rost \ japonicus Shp. det. Bernhauer \ pseudojaponicus Brnh. Cotypus \ Chicago NHMus M.Bernhauer Collection" (FMC); "S. \ Jesso. Sapporo Japan. Rost. \ pseudojaponicus Brnh. Cotypus \ Chicago NHMus M.Bernhauer Collection" (FMC). **Note**: There are two specimens from "Jenpingfu" (don. Reitter) in the Scheerpeltz collection bearing "Cotype" labels but there is no evidence that these belong to the type series as this locality was not mentioned by BERNHAUER (1936) in his description (see "Additional material").

Philonthus reflexiventris: I have studied part of the type series (deposited in ZMM) on an earlier occasion, but unfortunately the note with the label data got lost. Recently I was able to study a ♀ paratype: "Yushnoe primorye sap-k Kerdovaya Pad Podstilka v poime 7.V-1967 Tichomirova [handwritten in Russian]" (NHML).

DESCRIPTION: 10 - 14 mm long (5.2 - 6.3 mm, abdomen excluded). - Black, shining, elytra black, either not metallic or (usually) with distinct metallic bronze or dark olivaceous-green lustre, tips of palpi slightly paler.

Head rounded quadrangular or slightly trapezoidal, distinctly wider than long (ratio 1.4 - 1.5 in large males, 1.15 - 1.30 in females and small males), eyes on average as long as tempora, tempora narrowed toward base in almost regular arc (in very large males the tempora might be shortly straight immediately behind eyes), punctation as in *P. tenuicornis*, antennae with segments 4 and 5 (or 4 - 6) slightly oblong, segments 8 - 10 moderately transverse (females usually with slightly shorter antennal segments 4 - 6); pronotum (Fig. 56) variably shaped, 1.05 - 1.12 times as wide as long, in large males wider than head (ratio 1.07 - 1.10), sides either slightly sinuately emarginate posteriorly in front of base, or straight, sometimes even gently rounded, dorsal rows each usually with 4 punctures, anterior margin with 7 - 9 setiferous punctures between foremost puncture of dorsal row and large lateral seta, with outermost puncture situated short distance posteriad of front angle and bearing seta conspicuously longer than antero-marginal setae, lateral portions of pronotum frequently with oblique golden-brown iridescence;

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head and pronotum with dense and profound, long-meshed, transverse microsculpture; elytra along suture about as long as or slightly longer than pronotum, slightly widened posteriad, densely punctate, interstices hardly exceeding puncture diameter in transverse direction; abdominal tergites sparsely punctate, punctures separated by 2 - 5 puncture diameters in transverse direction (in posterior portion of tergites even more), elevated area between two basal lines on second and third visible tergites as in *P. tenuicornis*, second basal lines straight; male sternite VIII: Fig. 70; male sternite IX: Fig. 65; first four segments of male front tarsi simple (Fig. 84).

Aedeagus (Figs. 12 - 14) larger than in *P. tenuicornis*, very variably shaped, median lobe either subparallel or widened in middle, slightly concavely narrowed toward distinctly but obtusely pointed apex, face adjacent to paramere with subapical tooth, situated almost exactly at level of apex of paramere; paramere (Figs. 12c, 13c, 14c) long, usually parallel, sometimes slightly bent to left side, peg setae arranged in two long rows of 14 - 16 peg setae each, rows almost confluent apically.

DIAGNOSIS: Fortunately, this species is not sympatric with *P. tenuicornis*, from which (due to the wide variability range of both species) it could be separated only by the slightly smaller eyes and the shape of the aedeagus. From *P. addendus*, which also looks very similar, it can be separated by the straight second basal lines of the tergites, or by the setation of the anterior margin of the pronotum, if the second basal lines are straight (most East Palaearctic specimens of *P. addendus*).

NOTE: There seem to be slight, but obvious differences between the various populations of this species, e.g. specimens from high altitudes in Sichuan and Yunnan generally have darker elytra, specimens from Russian Far East and Japan tend to be larger.

ADDITIONAL MATERIAL EXAMINED:

R U S S I A: BURYATSKAYA ASSR: "Ostsibirien Quellgebiet des Irkut Leder 1891" (NMW); AMURSKAYA OBL.: "Sibirien Amur Christoph" (FMC); KHABAROVSKIY KRAY: SE Boitsovo, 12 km NE Bikin, 250 - 350 m, 26.V. - 4.VI.1990, leg. W. Schawaller (SMNS); PRIMORSKIY KRAY: "B. v. Bodemeyer Sibiria orient. Schipka-Gora" (FMC); B. v. Bodemeyer Sibiria orient. Sotka-Gora" (FMC, NHML); Partisanskiy Dist. Alexeyevskiy khrebet, 20 km E Sergeyevka, forests nr. Andreyevka river, 400 - 800 m, 26. - 29.VII.1993, leg. Pütz & Wrase (CSB, CPE); Partisanskiy Dist., Olkhovy riv., 15. - 17.V.1995, leg. Sundukov (CPE); Black Mts., Grjaznaja river, 20. [sic] - 5.VIII.1977, leg. Plutenko (CGO); same locality 13. - 19.V.1992, leg. Farkač (NMB); Pidan Mts., Anisimovka vill., 18. - 25.VI.1990, leg. Plutenko (CGO); "Ussuri Kasakewitsch 1907 Korb" (NMW); Ussuri region, Kamenuschka 14. - 15.VII.1992, leg. S. & K. Belobozodov (NMB); same locality, 24. - 28.VII.1989, leg. Nikodym (NMB); same locality 4. - 6.VI.1990, leg. S. Kasantsev (NMB); same locality VI. 1990, leg. A. Pütz (CPE); Ussuri region, Yasnoe, 400 m, 12. - 19.VII.1990, leg. Nikodym (NMB); Ussuriysk Dist., Kaymanovka, 25. - 28.VII.1992, leg. S. & K. Belobozodov (NMB); S Ussuriysk Banevurovo, 43°42'N 132°01'E, 150 m,10.VI.1993, leg. A. Taeger (DEI); 30 km SE Ussuriysk, 43°37'N 132°18'E, 200 m, 12.VI.1993, leg. L. Zerche (DEI); Sikhote - Alin, Biol. Stat. 30km SE Chuguyevka, 44°05'N 134°12'E, 650 m, 1.VI.1993, leg. L. Zerche (DEI); same locality but 3.VI.1993 (DEI, NMW); Ussuri region, Maritime Terr. Hasan Dist., 25. - 30.V.1990, leg. S. Kasantsev (NMB); "Sibir. or. Ussuri Vladivostok [typed and handwritten] \ oberti Epp. det. Dr. Rambousek \ Field Mus. Nat. Hist. Bierig Colln. Acc. Z-13812" (FMC); Vladivostok Ussuri Sibirien Vladivostok, Oceanskaya, 26.VII.1989, leg. Kusnezov (CSB); same locality, 6.VII.1993, leg. Kusnezov (HUB); Vladivostok, 16.VII.1990, leg. A. Pütz (CSB); same locality but 26.VII.1990 (CPE); Ussuri region, Lazo Nat. Res., Kordon Sokolowka, 1.V.1993, leg. Sundukow (HUB); SAKHALIN: Korsakov distr., 3 km W Kirillovo vill., Uryun river, 22. - 23.VII.1993, leg. Pütz & Wrase (CSB); Dolinsk, 25.II.1987, leg. Kusnezov (HUB); Aniva Dist., Kamiyshoviye Khr., 30 km W Aniva, Bryanka riv., 200 m, 14.VII.1993, leg. Pütz & Wrase (CPE); Aniva Dist., Vysokoye vill., valley of Lyutoga riv., 22./23.VII.1993, leg. Pütz & Wrase (CPE); Aniva Dist., 5 km W Petropavlovskiy, tributary of Lyutoga riv., 20./21.VII.1993, leg. Pütz & Wrase (CPE); Aniva Dist., Oghon'ki vill., Partizanska riv., 4. - 26.IV.1996 leg. A. Plutenko (CSO, NMW); KUNASHIR: "7.7.77 R. Kunashir Mendeleyevo Sokototschiv. Beresov. Pen. Potoskaya" [handwritten in Russian and erroneously identified as *P. japonicus*] (CNC).

M O N G O L I A: "Nördl. Mongolei Changai Leder" (NMW).

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K O R E A (North): "PuRyong Korea" (FMC); "Corea sept. 1983 Mjohjang montes Exp. Inst. Zool. Cr." (ISEZ); "Corea sept. 1987 Cagang Exp. Inst. Zool. Cr." (ISEZ); "Corea sept. 1987 Machon-riong Exp. Inst. Zool. Cr." (ISEZ); "Korea 23.5.1974 Kvanmo-bong Mt. Exp. Inst. Zool. Cr." (ISEZ); "Korea 23-24.5.74 Onpho-ri ad Dzuyr Exp. Inst. Zool. Cr." (ISEZ, NMW);

K O R E A (South): "South Korea Mt. Jirisan 1987.10.2-3 leg. Kuang Seob Lee" (CSB, NMW).

J A P A N: HOKKAIDO: "Japan G. Lewis \ Hakodate" (NHML); "Kurodake in Mt. Taisetsu (Hokkaido) July 15.1954 coll. M. Takeshita" [erroneously identified as *P. japonicus*] (CNC); "On'nenai, Tsuri Kushiro moor, Hokkaido, Japan 9-VI-1992 M. Ohara leg." (CST); "Kushiro Zoo, Yamahana, Kushiro, Hokkaido, Japan 9-VI-1992 Masahiro Ohara leg." (CST); "Kamikochi N. Japan Sept. 1934" (NMW); Furano Exp. Forest, 43°15'N 142°20'E, 9. - 10.VIII.1996, 500 m, leg. L. Masner, YPT grass (CSO); HONSHU: Yamato, Mt. Inamuradake, 6.VIII.1988, leg. K. & M. Ando (DEI); Gumma Pref. Nikko distr. L. Maranuma, 1430 - 1500 m, 11. - 12.VIII.1980, leg. Hammond (NHML); Iwate Pref., Kawai, Yoshibezawa, 39°34'N 141°33'E, 24. - 26.VIII.1996, 1000 m, leg. L. Masner, YPT.for.J-33 (CSO, NMW); Aomori Pref., Towadako, Yakeyama, nr. Tsuta riv., 40°35'N 140°59'E, 22. - 23.VIII.1996, 250 m, leg. L. Masner, YPT J-21 (CSO); KYUSHU: "Nagasaki Japan" (NMW); "Japan Nagano Pr. Shiga-Kumanoyu 1600m 23.VII.80 A. & Z. Smetana" (NMW); "Japan Nikko N.P. Konsei Pass 1800m 15.VII.80 A. & Z. Smetana" (NMW);

C H I N A: (Province?) "Manchuria \ M.Cameron Bequest. B.M. 1955-147" (NHML); GANSU: 120 km S Lanzhou, Guanghe Xian Mai Jia, 2300 m, 8.VII.1994, leg. Smetana [C3] (CSO); SHAANXI: S Shaanxi, pass 15 km N of Xunyangba, 1700 m, 11. - 13.VII.1998 (CST); BEIJING: Longjingxia, 21.VI.1993 (CRL); Xiaolongmen, 28. - 29.VI.1993 (CRL); Dongliang Shan, 1.VII.1993 (CRL); SHANXI: Wutai Shan, 4. - 5.VI.1993 (CRL); SICHUAN: "Szetschwan Sunpanting Exp. Stötzner" (FMC, NHML); Emeishan, 1000 m, 2500 m, 4. - 20.V.1989 (NMB, NMW); Emeishan, 500 - 1200 m, 4. - 18.V.1989 (NMB); Emeishan, 2640 m, 6.V.1989 (NMB, NMW); "Tatsien-lu [Kangding] Grenze Thibet Ost Em. Reitter. \ Reitter donavit IV.1935 \ ex coll Scheerpeltz \ Typus \ Cotypus Philonthus beckeri Bernhauer" (NMW) [**Note**: this specimen is no type!]; identical locality data as preceding but with two determination labels "beckeri Brnh" \ " diffusiventris Brh. det. Bernhauer" (FMC); "Szechuan China Em. Reitter \ Tatsienlu Tjiji Urwaldrodungen \ Philonthus Beckeri Brnh." (NHML) [**Note**: this specimen bears a Cotype label but definitely is no type]; Kangding, 2900 m, 2.VII.1996, 30°03'N 102°02'E, leg. Smetana et al. [C48] (CSO, NMW); Kangding env., 2400 - 2500 m, 5. - 9.VII.1995 (CSO); Daxue Shan W Kangding 30°03.13N 101°57.11E 2700 - 2800 m, 24.V.1997 (CSB); same locality, 2600 - 2700 m, 22./24.V.1997 (CSB, CPE); 10 km S Kangding, 29°59'N 101°55'E 3150 m, 25.V.1997 (CSB); Gongga Shan, Hailuogou, Lake above Camp 2, 2750 m, 29°35'N 102°00'E, 4.VII.1998, leg. Smetana [C74] (CSO, NMW); same locality, 2800 m, 5.VII.1998 [C75] (CSO); Gongga Shan, 2800 m, 29°41'N 101°58'E14. - 19.VI.1999 (CSB); 20km N Sabdê, 3200 m, 29°35'N 102°23'E, 14.VII.1998, leg. Smetana et al. [C81] (CSO); Daliang Shan, road Meigu - Leibo vill., pass 15km NE Meigu, 28°25'N 103°17'E, 9. - 11.VI.1998 (CSO); Shuajingsi, ca. 2700 m, 21.VI.1991 (NMW); Barkam, 4500 m, VI.1994 (CSO); road Deqen - Yanjing, 10 km W Deqen, 28°28'N 98°53'E, 3600 m, 21. - 22.VI.1997 (CSB); 30 km NW Muli (Bowa), 28°00'N 101°05'E, ca. 3500 m, 24.VII.1995 (NMW); Xiangcheng, 2700 m, 29°00'N 99°46'E, 29.VI.1996, leg. Smetana et al. [C46] (CSO); Sanjiangkou, Salong, 4000 m, VII. - VIII.1934 (NMW); Jinfo Shan, 1750 m, 27.VI.1998, 29°01'N 107°14'E, leg. Smetana et al. [C71] (CSO); YUNNAN: 25 km E Zhongdian, 3300 - 4000 m, 12. - 14.VII.1995, leg. Bolm (NMB); Zhongdian, 27°49'N 99°43'E, ca. 3600 m, 19. - 25.VI.1994 (CSO); Zhongdian, 17. - 19.VI.1995 (CKS); Zhongdian env., 3200 - 3300 m, 21. - 22.VI.1996, 27°50'N 99°36'E, leg. Smetana et al. [C35] (CSO); 15 km W Zhongdian, 27°49'N 99°34'E, 3800 - 4200 m, 22. - 24.VI.1994 (CSO); Lugu Lake, Luo Shui, 27°45'N 100°45'E 8. - 9.VII.1992 (NMW); Dali W env., 20. - 25.VIII.1998, (CSO, NMW); Gaoligongshan, 2200 - 2500 m, 24°57'N 98°45'E, 8. - 16.V.1995 (CST); 100 km W Baoshan, Gaoligongshan Nat. Res. 14. - 21.VI.1993 (NMW); Jizushan, 25°58'N 100°21'E, 2800 m, 30.V. - 3.VI.1993 (NMB, NMW); Lijiang, 2600 m, 30.VI. - 2.VII.1990 (NMB); 35 km N Lijian, Heishui, 1. - 19.VII.1992, 18.VI. - 4.VII.1993 (NMW); 50 km N Lijiang, Yulongxueshan, VII.1996, leg. leg. B. Siska (CST); Yulongxueshan, road Ganhaizi - Lijiang, 2500 - 2800 m, 24. - 26.VII.1990 (NMB); Habashan, E - slope, 27°20'N 100°09'E, 3000 - 3800 m, 13. - 17.VII.1992 (NMB) Habashan SE - slope, 27°20'N 100°11'E, 4. - 5.VI.1995, 3800 - 4500 m (NMW); FUJIAN: "Jenpingfu [Nanping]" (NMW).

DISTRIBUTION: *Philonthus oberti* is exclusively East Palaearctic: Russia (east of the river Ob), Mongolia, Korea, Japan, China. The distribution range is almost identical with that of *P. decoloratus* (except Fujian).

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Philonthus addendus SHARP

* *Philonthus addendus* SHARP 1867: 440
Philonthus temporalisoides DRUGMAND 1988: 249; SCHILLHAMMER 1999b

TYPE MATERIAL: The type specimens of *P. temporalisoides* were not available, but the description and illustration were sufficient to recognize it as identical with *P. addendus*.

DESCRIPTION: 9.5 - 11.5 mm long (5.1 - 5.5 mm, abdomen excluded). - In coloration, build and variability range almost identical with *P. oberti*, but on average smaller, with less transverse head and different punctation of anterior margin of pronotum. Since almost all specimens of *P. addendus* from the area where they occur sympatric with *P. oberti* have straight second basal lines on second and third visible tergites (all West Palaearctic specimens as far as the Altai mountains have medially extended second basal lines), there is only one reliable character (in addition to the shape of the aedeagus) which allows separation from *P. oberti*: anterior margin of pronotum (Figs. 54, 55) with 5 - 6 (rarely 4) setiferous punctures between foremost puncture of dorsal row and large lateral seta, outermost puncture situated almost exactly on front angle and bearing seta not differing in length from remaining antero-marginal setae, punctures almost equidistant; male front tarsus: Fig. 85.

Aedeagus (Figs. 15, 16) rather small, median lobe flat, rod-like, with obtusely rounded apex, face adjacent to paramere without tooth; paramere (Figs. 15c, 16c) very flat, long, apex obtusely rounded, peg setae arranged in two very short rows of 3 - 4 peg setae each, situated close to apex.

NOTE: The fact that in the East Palaearctic specimens the second basal lines on second and third visible tergites are almost constantly straight, might point to a subspecific difference (the available name would be *P. a. temporalisoides* DRUGMAND), but at the moment this action would be fairly premature.

MATERIAL EXAMINED:

R U S S I A: NOVOSIBIRSKAYA OBL.: Novosibirsk, old Botanical Garden in City, 15.VI. - 15.VII.1991, leg. S. A. Marshall (CSO); Barnaul, Tjagun, 4. - 7.VII.1993, leg. Snizek (NMW); ALTAYSKIY KRAY: Teletskoya Lake, various dates between 8. - 20.VII.1991, leg. S. A. Marshall [collected with FIT, carrion traps, pan traps]" (CSO, NMW); IRKUTSKAYA OBL.: "Kultuk Baicalsee Gv. Irkutsk" [identified as *P. oberti*] (FMC); BURYATSKAYA ASSR: "Ost-Sibirien. Quellgebiet des Irkut. Leder 1891" (NMW); KHABAROVSKIY KRAY: 5 km SE Boitsovo, 20 km N Bikin, 47°02'N 134°21'E, 250 m, 26.V.1993, leg. L. Zerche (DEI); Bolshe Khekhtsyrsky Reserve, 400 - 450 m, 6. - 10.VI.1990, leg. W. Schawaller (SMNS); PRIMORSKIY KRAY: "Sibiria Orient. Sotka-Gora B.v.Bodemeyer" [several specimens identified as *P. oberti* and *P. japonicus*] (FMC); "Sibiria Orient. Schipka-Gora B.v.Bodemeyer" [one specimen identified as *P. oberti* as well as *P. japonicus*] (FMC); Black Mts., Grjaznaja riv., 13. - 19.VI.1992, leg. J. Farkač (NMB); Chlachnaya Mt., 800 m, 15.VII.1989, leg. Nikodym (NMB); Jasnoe Mt., Oblachnaya, 400 - 800 m, 12. - 16.VII.1989, leg. S. Becvar (CSB); Sikhote - Alin, Biol. Stat. 30km SE Chuguyevka, 44°05'N 134°12'E, 650 m, 1.VI.1993, leg. L. Zerche (DEI, NMW); Novochuguyevka, 26. - 31.VII.1992, leg. Snizek (NMW); SAKHALIN: Kriljon, 4. - 9.VII.1992, Kalinino env., leg. J. Farkač (NMB, NMW); Kalinino vill., 4. - 20.VII.1992, leg. Plutenko (CGO); Aniva Dist., 5 km W Petropavlovskiy, tributary of Lyutoga riv., 20./21.VII.1993, leg. Pütz & Wrase (CPE); Aniva Dist., Zolotaribnoye, 7 km S Aniva, 20.VII.1993, leg. Pütz & Wrase (CPE); Aniva Dist. Zunayiskiy Khr., 10 km E Novo Alexandrovsk, Mt. Tshekhov, 1000 m, 13.VII.1993, leg. Pütz & Wrase (CSB, CPE); Aniva Dist., Novo Alexandrovsk, 10km N Yushno Sachalinsk, Zazuya riv., 12.VII.1993, leg. Pütz & Wrase (CSB); Aniva Dist., Oghon'ki vill., Partizanska riv., 4. - 26.IV.1996 leg. A. Plutenko (CSO, NMW); mys Kril'On, Kabonovo vill., 20. - 28.VIII.1994, leg. Plutenko (CSO); Korsakov Dist., 3 km W Kirillovo vill., Uryun river, 22. - 23.VII.1993, leg. Pütz & Wrase (CSB, CPE).

M O N G O L I A: "Nörd. Mongol. Changai Leder" (NMW).

K O R E A (North): "Corea sept. 1983 Hamgjong, Chaju-Rong, Exp. Inst. Zool. Cr." (ISEZ); "Korea, Phote chn, distr. Samdzijon, lg. Pawlowski, 9.1971" (ISEZ, NMW); "Korea, Kymgang-san Mts. 16-18.06.'74 Exp. ISEZ Cr." (ISEZ); "(Sinheungsa) near Mt. Seola, Republic of Korea, 5-7, July, 1981 S. Saito leg." (CST).

J A P A N: HOKKAIDO: "(Sounkyo) Kamikawa-cho, Hokkaido, Japan, [date illegible) 1978 Coll. N. Yasuda" (CST); "On'nenai, Tsuri Kushiro moor, Hokkaido, Japan 9-VI-1992 M. Ohara leg." (CST).

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C H I N A: (Province?): "Gaolinzsy 19.7.49 Mandschurei" (NMW); "Gaolinzsy Manshukuo leg. W. Alin 2.8.1940 \ Mus. Germ. Sachtleben d. \ Philonthus oberti Epp. \ Chicago NHMus M.Bernhauer Collection" (FMC).

DISTRIBUTION: Palaearctic, but restricted to the temperate areas.

Philonthus alberti nom.n.

Philonthus picipes FAUVEL 1875: XXXI (preoccupied; nec STEPHENS 1832).

DESCRIPTION: 11.5 - 12.5 mm long (4.9 - 5.5 mm, abdomen excluded). - Black, fore-body usually with slight greenish metallic hue, legs dark brown, with large portions of femora and tibiae testaceous, tarsi entirely reddish, antennae dark brown, base of basal three segments broadly reddish, last segment usually entirely reddish-testaceous, palpi usually entirely reddish, basal segments sometimes darkened.

Head rounded, moderately transverse, 1.19 - 1.21 times as wide as long in both sexes, tempora regularly rounded, as long as eyes or slightly longer (ratio 1.16), finely and moderately densely punctate behind postocular seta, between postocular seta and posterior margin of eye with a few (3 or 4) fine setiferous punctures, antennae with segments 4 - 6 conspicuously oblong, segment 7 slightly oblong, segments 8 - 10 as wide as long; pronotum 1.08 - 1.11 times as wide as long, widest in middle, distinctly wider than head, sides moderately rounded, narrowed toward base in almost straight line, rarely inconspicuously sinuately emarginate in front of base, dorsal rows usually with 4 punctures each, punctation of anterior margin as in *P. addendus*; head and pronotum with distinct, long-meshed, transverse microsculpture, slightly more profound than in preceding species, thus less shining; elytra very narrow, hardly wider than pronotum, subparallel, not widened posteriad, along suture slightly shorter than pronotum; punctation of elytra and abdominal tergites as in preceding species, second basal lines of second and third visible tergites straight; first four segments of male front tarsi simple.

Aedeagus (Fig. 18) very similar to that of *P. tenuicornis*, but with slightly broader paramere, tooth on median lobe not subapical, situated at half length of apical portion of paramere; paramere (Fig. 18c) with peg setae arranged in two rather dense but irregular longitudinal rows of about 15 peg setae each.

DISTRIBUTION: West Palaearctic as far east as the Caucasus.

ETYMOLOGY: The species is named in honour of Albert Fauvel (1840-1921).

Philonthus cognatus STEPHENS

* *Philonthus cognatus* STEPHENS 1832: 229
* *Philonthus fuscipennis* (MANNERHEIM 1830: 28) (preoccupied; nec BLOCK 1799)
* *Philonthus maculicornis* STEPHENS 1832: 229
* *Philonthus melanopterus* STEPHENS 1832: 229
* *Philonthus microcephalus* STEPHENS 1832: 229

DESCRIPTION: 9.5 - 13.0 mm long (4.5 - 5.5 mm, abdomen excluded). - Black, moderately shining, head and pronotum with slight metallic greenish lustre, elytra with dark greenish or slightly dark bluish metallic hue, mouthparts black, antennae black with each first segment brightly yellowish ventrally, legs black, medial faces of front tibiae sometimes paler, abdominal tergites moderately iridescent.

Head suborbicular, inconspicuously wider than long (ratio 1.08 - 1.10), eyes longer than tempora (ratio 1.52 - 1.64 in both sexes), tempora regularly rounded, densely punctate, antennae with segments 4 - 7 distinctly (male) or slightly (female) oblong, segments 8 - 10 as long as wide; pronotum distinctly wider than head, as long as wide or inconspicuously wider (ratio 1.04),

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widest in middle, sides only slightly convex, weakly narrowed toward base in almost straight line or very slightly sinuately emarginate in front of base, dorsal rows each with four weakly impressed, equidistant punctures, anterior margin between foremost puncture of dorsal row and lateral margin with sparse row of 4 - 5 setiferous punctures; head and pronotum with dense and profound, rather short-meshed, transverse microreticulation; elytra along suture slightly shorter than pronotum, slightly widened posteriad, very densely punctate, interstices between punctures hardly exceeding puncture diameter in transverse direction, pubescence very short; abdominal tergites uniformly and densely punctate, punctures separated by about 2 puncture diameters in transverse direction, elevated area between two basal lines on second and third visible tergites densely punctate; male sternite VIII (Fig. 71) with moderately deep medio-apical emargination, semi-membranous extension inconspicuous, male tergite X distinctly pigmented, apex truncate to rounded, female tergite X with truncate or slightly emarginate apex, emargination often partly filled by semi-membranous extension; first four segments of male front tarsi weakly dilated (Fig. 87).

Aedeagus (Figs. 27, 28) rather small, median lobe almost rod-like, apex broadly rounded, face adjacent to paramere without tooth; paramere (Figs. 27c, 28c) long, almost as long as median lobe, apical portion rather broad, subparallel or slightly widened, 26 - 28 peg setae arranged in almost regular, uninterrupted row along lateral and apical margin.

MATERIAL EXAMINED:

R U S S I A: NOVOSIBIRSKAYA OBL.: "Barnaul am Ob Westsibirien \ H. Frieb leg. 1918-1920" (NMW).

T A D Z H I K I S T A N: "SU: Tads.: Pamir: Muksu-Gebiet, Hochfläche bei Kishlak \ Ljarsch, 3000 m, VII.1990, leg. Schmidt" (DEI, NMW); "S. Anzob-Pass env. Ziddy \ 2100-2700m 12-20.VII.92 \ Tadzhikistan Hissar Mts. S.Kasantsev" (NMB, NMW); "Tadzhikistan Samron-Schlucht 2000-2400m 2.07.1991. W.Dolin (NMB).

I N D I A: "Khilanmarg b. Gulmarg 3300m VII.1975 \ Kashmir India - D. Müting" (NMB).

DISTRIBUTION: Palaearctic (excluding Japan) as far south as Kashmir, the record from north-eastern China by LI & CHEN (1993: 37) requires confirmation; Nearctic.

Philonthus mannerheimi FAUVEL

* *Philonthus mannerheimi* FAUVEL 1869: 488

DESCRIPTION: 9.5 - 11.5 mm long (4.4 - 5.0 mm, abdomen excluded). - Black, moderately shining, elytra black, sometimes with very slight dark metallic bluish or slaty hue, head and pronotum variably colored, slightly metallic green, greenish-blue or dark blue, rarely black, legs black, front tibiae and front tarsi to a various extent reddish-testaceous, middle and hind tibiae with lateral faces reddish-testaceous and medial faces black, rarely entirely black, antennae unicolorous black, mouthparts dark brown to reddish-testaceous.

In general appearance very similar to *P. cognatus* but differing as follows: eyes smaller, about as long as tempora, first segment of antennae unicolorous, antennae shorter, segment 4 slightly oblong, segments 8 - 10 distinctly transverse, elytra slightly shorter, abdominal tergites with punctation slightly less dense, male sternite VIII with similar medio-apical emargination, but more distinctly developed semi-membranous extension.

Aedeagus (Figs. 19, 20) small, median lobe variably shaped, apex obtusely pointed, face adjacent to paramere with distinct tooth situated close to apex of paramere; paramere (Figs. 19c, 20c) much shorter than median lobe, with narrow apical portion, peg setae arranged in two contiguous admedian rows, each row consisting of about 8 peg setae.

DISTRIBUTION: West Palaearctic.

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Philonthus temporalis MULSANT & REY

* *Philonthus temporalis* MULSANT & REY 1853: 61
* *Philonthus punctiventris* KRAATZ 1857: 578 (preoccupied; nec STEPHENS 1832)

DESCRIPTION: 10.5 - 12.5 mm long (5.3 - 5.8 mm, abdomen excluded). - Black shining, elytra frequently with slight dark metallic olivacous-green hue, legs black, sometimes tibiae and frequently front tarsi to a various extent reddish-testaceous, abdominal tergites moderately iridescent.

Head rounded quadrangular, distinctly wider than long (ratio 1.4 in large males, 1.22 - 1.24 in females and small males), hind angles obtuse but well marked, tempora slightly to distinctly longer than eyes in large males (ratio 1.03 - 1.22), slightly shorter than eyes in females and small males (ratio 0.92 - 0.96), subparallel, postocular region densely and coarsely punctate, antennae with segments 4 - 6 as long as wide (rarely segment 4 slightly oblong), segments 8 - 10 distinctly transverse; pronotum 1.07 - 1.13 times as wide as long, wider than head in females and small males, about as wide as head in large males, widest about in middle, sides slightly but conspicuously sinuately emarginate posteriorly in front of base, dorsal rows each with four punctures, anterior margin between foremost puncture of dorsal row and lateral margin with dense row of setiferous punctures, even denser than in *P. oberti* and *P. tenuicornis*; head and pronotum with dense and profound, long-meshed, transverse microreticulation; elytra along suture slightly longer than pronotum, slightly widened posteriad, wider than pronotum, very densely punctate, interstices between punctures hardly exceeding puncture diameter in transverse direction, pubescence rather pale; abdominal tergites densely and coarsely punctate, punctures separated by 1 - 2 puncture diameters in transverse direction, elevated area between two basal lines on second and third visible tergites densely punctate, even that on first visible tergite with distinct row of setiferous punctures; male sternite VIII with quite deep triangular medio-apical emargination and with well developed, but rather narrow semi-membranous extension, male tergite X rather long, apex truncate, mędio-apically with very tiny triangular semi-membranous portion; first four segments of male front tarsi weakly dilated (Fig. 86).

Aedeagus (Fig. 17) quite similar to that of *P. addendus*, but median lobe broader in lateral view; paramere (Fig. 17c) shorter, peg setae similarly arranged as in *P. addendus*, with variable number of 2 - 4 setae in each row.

DISTRIBUTION: West Palaearctic.

Philonthus nitidus (FABRICIUS)

* *Staphylinus nitidus* FABRICIUS 1787: 220
* *Philonthus coenosus* (GRAVENHORST 1806: 51)

DESCRIPTION: 10.5 - 16.0 mm long (5.3 - 7.5 mm, abdomen excluded). - Black, shining, elytra brick-red, legs black, tarsi to a variable extent reddish-testaceous.

Head rounded quadrangular, as wide as pronotum in large males, hind angles rounded or well marked, distinctly wider than long (ratio about 1.4 in large males, about 1.25 in females and small males), tempora either parallel (specimens with well marked hind angles), or slightly convergent to slightly divergent, longer than eyes (ratio 1.16 - 1.23 in males, about 1.05 in females), tempora exceedingly densely and coarsely punctate, punctural grooves partly confluent and often forming a kind of temporal carina, punctate area medially delimited by imaginary line from posterior margin of eye to middle of base of head, antennae with segments 4 and 5 as wide as long or slightly oblong (not depending on sex), segments 8 - 10 moderately transverse; pronotum 1.08 - 1.20 times as wide as long, sides distinctly sinuately emarginate posteriorly in front of base, dorsal rows each with 4 punctures (rarely with additional accessorial punctures in

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between), anterior margin except middle and lateral margins with numerous densely arranged setiferous punctures, head and pronotum with dense but (especially on pronotum) fine, moderately long-meshed, transverse microreticulation, along midline of pronotum frequently very oblique or even lacking; elytra along suture about as long as pronotum, slightly widened posteriad, densely but finely punctate, interstices between punctures hardly exceeding puncture diameter in transverse direction, pubescence pale, semi-erect, larger discal and sutural setae only slightly more erect and slightly longer, difficult to recognize among ground pubescence; abdominal tergites densely but finely punctate, punctures separated by 1 - 2 puncture diameters in transverse direction, elevated area between two basal lines on second and third visible tergites very densely punctate, even that on first visible tergite with a row of sparse punctures, punctation at base of fourth and fifth visible tergites distinctly denser, becoming increasingly sparser toward posterior margin; male sternite VIII: Fig. 72.

Aedeagus (Fig. 24) rather small, median lobe with more or less distinct lateral protuberances, slightly concavely narrowed toward obtusely pointed apex, face adjacent to paramere with distinct tooth close to apex of paramere; paramere (Fig. 24c) with slender, subparallel apical portion, with two subapical rows of usually 6 peg setae.

MATERIAL EXAMINED:

R U S S I A: ALTAYSKIY KRAY: "USSR: Altai, Teletskoya Lake, 11.-16.VII.1991, Carrion trap, S. A. Marshall" (CSO); BURYATSKAYA ASSR: "Transbaikalgebiet, Troitskosavsk, coll. Gassner" (NMW); CHITINSKAYA OBL.: "Amur superior, Strjetinsk, Carl Rost" (HUB).

M O N G O L I A: "Mongolei, Ulan Bator" (NMW); "MONGOLIA centr., ULAANBAATAR env.; 23.VII.1990, L. & M. Bocák lgt." (NHMB).

DISTRIBUTION: Known from most parts of the Palaearctic region, except Japan. During the last few decades the species has been gradually replaced by *P. spinipes* SHARP and thus has become very rare in many areas (see SCHILLHAMMER 1999a: 59).

Philonthus aletes SMETANA

Philonthus aletes SMETANA 1967: 200

TYPE MATERIAL: **Holotype** ♂ (by monotypy): "MONGOLIA: Chentej aimak zw. Somon Zenchermandal u. Somon Zargaltchaan 1400 m Exp. Dr. Z. KASZAB, 1965 \ Nr. 312 27.VII.1965 \ Holotypus 1966 Philonthus aletes Smetana" (TMB).

DESCRIPTION: The species is exceedingly similar to *P. nitidus* and differs only in the longer and more slender tarsi, middle tarsus longer than tibia, hind tarsus as long as tibia (in *P. nitidus* the tarsi are shorter than the tibia), and slightly different measurements: head 1.18 (holotype, small male!) - 1.30 (large male) times as wide as long (1.23 in female), tempora 1.07 (holotype) - 1.2 (large male) times as long as eyes (1.00 in female), pronotum 1.02 (holotype) - 1.1 (large male) times as wide as long (1.03 in female).

Aedeagus (Fig. 25) with median lobe almost identical with that of *P. nitidus* but longer; paramere (Fig. 25c) more slender and slightly longer.

ADDITIONAL MATERIAL EXAMINED:

R U S S I A: CHITINSKAYA OBL.: "Transbaikal Tschita aus dem Kot des Tarbagan 4.1924 Dr. Jettmar S.G.", 1 ♂ (HUB), 1 ♀ (NMW).

DISTRIBUTION: Hitherto known only from Mongolia (type locality) and one locality in eastern Siberia.

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Philonthus bisinuatus EPPELSHEIM

Philonthus bisinuatus EPPELSHEIM 1889: 175

TYPE MATERIAL: **Holotype** ♂ (by monotypy): "♂ \ Sze-tchnan [sic!] 1885 G. Patanin ["26/VII" on underside] \ Typus" (NMW).

DESCRIPTION: 10.5 - 14.5 mm long (5.5 - 7.1 mm, abdomen excluded). - Black, shining, elytra very variably colored, either black, hardly metallic or metallic blue, dark green or bronze, appendages black, tarsi to a various extent and last segments of palpi frequently paler brown to reddish testaceous.

Head rounded quadrangular, as wide as or slightly narrower than pronotum, in large males wider than pronotum, wider than long (ratio 1.17 - 1.22, in very large males up to 1.32), tempora usually subparallel, sometimes more evenly rounded, slightly longer than eyes (ratio 1.40 - 1.95 in males, about 1.1 in females), punctation of tempora coarse and dense, similar to that of *P. nitidus*, but not forming carinae, antennae with segments 4 and 5 slightly, sometimes inconspicuously oblong, segments 8 - 10 moderately (segment 10 more conspicuously) transverse; pronotum short and rather small, 1.09 - 1.13 times as wide as long, widest slightly in front of middle, sides distinctly sinuately emarginate posteriorly in front of base, emargination occupying half of length of pronotum, dorsal rows each with 4 punctures, punctures of anterior and lateral margins distinctly less dense than in *P. nitidus*, head and pronotum usually with more distinct microreticulation, but on disc of pronotum also sometimes becoming oblique; elytra along suture about as long as or slightly longer than pronotum (see remark!), distinctly widened posteriad, less densely punctate than in *P. nitidus*, interstices between punctures 1 - 2 puncture diameters in transverse direction, pubescence black; abdominal tergites moderately densely punctate, punctures separated by 1 - 3 puncture diameters in transverse direction, second basal line on second and third visible tergites straight or medially extended posteriad (see remark!), elevated area between two basal lines on second and third visible tergites variably but fairly densely punctate, on third visible tergite usually much denser than on second, male sternite VIII with rather wide and deep medio-apical emargination, semi-membranous extension moderately developed; first four segments of male front tarsi simple (Fig. 88).

Aedeagus (Figs. 21 - 23) with median lobe weakly sclerotized, thus variably shaped, generally similar to that of *P. nitidus*, but slightly larger and with less distinct lateral extension; paramere (Figs. 21c, 22c, 23c) exceedingly variable in width and length, usually also similar to that of *P. nitidus* but less parallel and with rows of peg setae more medially, almost contiguous, each row consisting of 5 - 7 peg setae.

REMARK: It is very obvious that the character state of the medially extended second basal line on second and third visible tergites is correlated with the blue metallic, slightly longer elytra. However, this fact does not coincide with the different aedeagus shapes and there is no evidence for a certain geographical pattern, since both "varieties" occur sympatric. It might well be that the specimens with blue metallic elytra and extended second basal lines represent a distinct species, but this has to be verified by other than morphotypical methods.

ADDITIONAL MATERIAL EXAMINED:

C H I N A: GANSU: Ponggartang, 30.VI.1992 (SMNS); Pass 45 km SW Luqu, 3600 m, 13.VII.1994, leg. Smetana [C13] (CSO, NMW); Xinlong Shan, ca. 70 km S Lanzhou, 2225 - 2380 m, 7.VIII.1994, leg. Smetana [C32] (CSO); Yonghai, ca. 20 km SW Yuzhong, 2700 - 2800 m, 9.VIII.1994, leg. SMetana [C34] (CSO); QINGHAI: "China - N. Qinghai, East Chilien Shan Mts. Papao (=Chilien) \ 3600 - 3800 m, 16.-21.VII.1995, leg. A. Wrzecionko" (CHP); SICHUAN: Chola Shan, road Dege - Maninganggo, 40 km E Dege, picea forest, 31°55'N 98°53'E, 19.VII.1997 (CSB); W Kangding, pass Zheduo Shankou, E - slope, 29°58'N 101°23'E, 3850 m, 18.VII.1998, leg. Smetana [C85] (CSO); Kangding, VII.1992 (NMW); N Kangding, Mu-ge-cuo lake, 3500 - 3900 m, 22.VII.1994, leg. Heinz (CSO);Kangding Distr., Yala valley N Zhonggu vill., 3700 - 3900 m, 20.VII.1996, leg. A. Zamotajlov & A. Miroshnikov (CGP); SE - env. of Litang, 29°52'N 100°20'E, 4100 - 4300

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m, 22.VI.1992 (NMW); Hongyuan, ca. 4200 m, 21.VII. - 3.VIII.1991 (NMW); 60km S Hongyuan, ca. 4200 m, 27. - 29.VI.1991 (NMW); 30 km N Muli (Bowa), 28°07'N 101°05'E, ca. 3500 m, 24.VII.1995 (NMW); Pauma Shan, 29°55'N 102°02'E, 4200 - 4900 m, 12. - 14.VII.1994 (CSO); road Sertar - Dancang, 20 km SSE Dancang, 4000 m, 15. - 16.VII.1995 (CSO); Luhuo - Sertar, pass 35 km NNE Luhuo, 3500 - 4000 m, 27. - 28.VII.1994 (NMW); Serxü env., 32°59'N 98°06'E, 3700 m, 3./15.VII. 1992 (NMW); 25 km NW Serxü, Seki Semie, 33°07'N 97°54'E, 3600 m, 15.VII.1995 (NMW); road Qianning - Danba, pass 15 km NE Qianning, 30°35'N 101°41'E, 11.VII.1998 (NMW); TIBET: Shong La Shan pass, 5 km E Markam, 3. - 6.VIII.1998, ca. 4100 m (CKC); YUNNAN: 35 km N Lijiang, Heishui, 18.VI. - 4.VII.1993 (NMW); mts. 15 km W Zhongdian, 27°49'N 99°34'E, 3800 - 4200 m, 22. - 24.VI.1994 (CSO); Xue Shan nr. Zhongdian, 27°49'N 99°34'E, 4200 m, 23.VI.1996, leg. Smetana et al. [C37] (CSO); same locality, 3800 m, 23. - 26.VI.1996, [C45] (CSO); Habaxue Shan, W - slope between Tuguancun and Xiaozhongdian, 27°27'N 99°58'E, 3700 - 3900 m, 29.VI.1998, conferous forest/alpine meadows, leg. Brezina (No. 3) (CSO); same locality but leg. Janata (No. 3) (CSO); Habashan, 27°20'N 100°09'E, 3000 - 3800 m, E - slope, 13. - 17.VII.1992 (NMB).

DISTRIBUTION: The species is known only from China (Gansu, Qinghai, Sichuan, Yunnan) where it occurs up to very high altitudes (about 2200 - 4300 m). The distribution (Mongolia) given by COIFFAIT (1967a: 393) is most certainly based on an error or a misidentification.

Philonthus aeger EPPELSHEIM

Philonthus aeger EPPELSHEIM 1895: 59

TYPE MATERIAL: 2 **syntypes** (♀ ♀): "Himalaya Simla \ aeger Epp. \ c. Eppelsh. Steind. d." (NMW).

DESCRIPTION: 10.0 - 13.5 mm long (4.7 - 6.0 mm, abdomen excluded). - Black including appendages, shining, elytra distinctly metallic blue or greenish-blue, head and pronotum with distinct bluish or greenish metallic hue.

Head rounded quadrangular to inconspicuously trapezoidal, narrower than pronotum, only in large males wider than pronotum, distinctly wider than long (ratio 1.45 - 1.55 in medium-sized and large males, 1.29 - 1.36 in females and small males), eyes longer than tempora (ratio 1.18 in large males, 1.4 - 1.5 in medium-sized males and large females, 1.6 - 1.7 in small females and small males), tempora usually slightly convergent, more or less straight behind eyes or regularly rounded, punctation moderately dense and coarse, almost impunctate between posterior margin of eye and postocular seta, antennae with segment 4 slightly oblong, segment 5 inconspicuously oblong, segment 6 as long as wide, segments 8 - 10 moderately but conspicuously transverse; pronotum of subquadrate shape, 1.0 - 1.1 times as wide as long, sides almost straightly and very slightly narrowed toward base or (especially in smaller specimens) more distinctly narrowed toward base with sides conspicuously sinuately emarginate posteriorly in front of base, dorsal rows each with 4 punctures, punctation of anterior and lateral margins hardly differing from that of *P. bisinuatus*, much sparser than in *P. nitidus*; elytra along suture slightly longer than pronotum, slightly widened posteriad, punctation rather coarse, moderately dense, punctures separated by 1 - 2 puncture diameters in transverse direction; abdominal tergites with punctation almost as dense as on elytra, somewhat sparser on posterior portion of tergites, second basal line on second and third visible tergites medially distinctly extended posteriad, elevated area between two basal lines on first three visible tergites distinctly, sometimes even coarsely punctate, forming double row on third and single row on second visible tergite, male sternite VIII (Fig. 73) with medio-apical emargination similar to that of *P. bisinuatus*, with similarly developed semi-membranous extension, but less numerous apico-marginal setae; first four segments of male front tarsi simple (Fig. 89).

Aedeagus (Fig. 26) much smaller than in *P. nitidus* and *P. bisinuatus*, median lobe similarly shaped, face adjacent to paramere with distinct tooth close to apex of paramere; paramere (Fig. 26c) short, with slender apical portion, peg setae arranged in two contiguous mid-longitudinal rows, each usually consisting of 4 peg setae.

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ADDITIONAL MATERIAL EXAMINED:

I N D I A: HIMACHAL PRADESH: Simla (HUB); "Bajaura (Kangra district) (Indes Angl.) \ Mai 1914 \ G.B." (MHNP); UTTAR PRADESH: Chakrata Dist., Kanasar, 7050 ft., 14. - 22.V.1922, leg. Cameron (NHML, NMW); Chakrata Dist., Deoban, 9331 ft., 3.VI.1921, leg. Cameron (NHML); Chakrata Dist., Bodyar, 8300 ft., 3. - 12.V.1922, leg. Cameron (NHML); Kumaon, Gori Valley, Sukhatal, 8000 ft., V.1920, leg. H.G.C. Champion (NHML); Uttarkashi, Bhaghirathi riv., 1158 m, 21.X.1997, leg. J. Stastny (CKC); SIKKIM: "Sikkim, Gnatong, Août 1901" (MHNP); "Sikkim. de Padamtsin a Lingtou, Juillet 1901" (MHNP).

N E P A L: MYAGDI: Lulang Phalai Gaon, 1820 - 2100 m, 12.III.1994, leg. Ahrens (NMW); S Dhaulagiri Mts., Phalai Gaon - Takum, 1400 - 1800 m, 13.III.1994, leg. Ahrens (DEI); Babichor - Beni, 900 - 1000 m, 16.III.1994, leg. Ahrens (DEI); KASKI: WNW Phokara, Dhampus, 1600 m, 22.III.1978, leg. Erber (NMW); Birethani - Ghorepani, 4. - 9.VI.1992, leg. I. Jenis (NMW); Nyauli Kharka, S Sikles, 2400 m, 21. - 24.IV.1996, leg. Schmidt (DEI); Modi Khola, Ghandruk - Landrung, 1500 m, 26.III.1994, leg. Ahrens (DEI); GORKHA: Ganesh Himal, Arbuthum Lekh, upp. keronja, 2900 - 3200 m, 18.V.1996, leg. Ahrens, Kulbe, Rulik (NME); SINDHUPALCHOK: Jangtang Ridge NE Barahbise, 3300 m, 5.V.1981, leg. Löbl & Smetana (CSO); SOLUKHUMBU: Thodung, 3100 m, 1. - 3.VI.1962, leg. G. Ebert (NMW); SANKHUA SABHA: Ridge NE Mangmaya, 2800 m, 7,IV.1984, leg. Löbl & Smetana (MHNG); Induwa Khola Valley, 1750 m, 14.IV.1984, leg. Smetana & Löbl (NMW).

C H I N A: SICHUAN: Jinfo Shan, 29°01'N 107°14'E, 1750 m, 27.VI.1998, leg. Smetana et al. [C71] (CSO).

DISTRIBUTION: The species occurs along the main range of the Himalaya (North India, Nepal). The specimen from China (Sichuan) is a single female that does not differ externally from the Himalayan specimens. Although the occurence in China is not at all surprising (see also distribution of *P. tractatus*, *P. brevithorax*, *P. azuripennis*), males are needed to confirm the identity.

The *Philonthus splendens* group

DIAGNOSIS: First four segments of male front tarsi inconspicuously dilated (Fig. 90); pronotum with dorsal rows reduced to one puncture close to anterior margin, posterior and medial sublateral puncture lacking, elytra with humeral seta (Fig. 53), median lobe of aedeagus with distinct subapical tooth on face adjacent to paramere (similar to *azuripennis* group); all other character states correspond to those of the *tenuicornis* group.

Philonthus splendens (FABRICIUS)

* *Staphylinus splendens* FABRICIUS 1792: 523
* *Staphylinus niger* O. MÜLLER 1764: 23
* *Staphylinus sextus* SCHAEFFER 1766: 12

DESCRIPTION: 12.0 - 16.5 mm long (6.0 - 8.0 mm, abdomen excluded). - Black, very shining, elytra with distinct dark green metallic lustre, base of second antennal segment reddish, tarsi and last segments of palpi frequently paler brown.

Head rounded quadrangular, as wide as or slightly wider than pronotum in large males, slightly narrower in females and small males, distinctly wider than long (ratio 1.50 - 1.62 in large males, 1.30 - 1.45 in females and small males), eyes about as long as or slightly shorter than tempora in large males (ratio 0.93 - 1.00), slightly or distinctly longer than tempora in females and small males (ratio 1.07 - 1.23), hind angles of head obtuse but well marked, tempora subparallel, postocular seta shifted posteriad, situated almost at posterior margin of head, area between posterior margin of eye and postocular seta almost impunctate, but with a group of punctures at level of medial margin of eye, mandibles exceedingly long, sickle-shaped in large males, antennae rather short, segment 4 inconspicuously oblong (male) or as long as wide (female), segments 8- 10 moderately but markedly transverse; pronotum 1.05 - 1.12 times as wide as long, widest in middle, hardly narrowed toward anterior margin, distinctly narrowed toward base, sides

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distinctly sinuately emarginate posteriorly in front of base, emargination occupying 1/3 of length of lateral margin, dorsal rows each reduced to one puncture at anterior margin (there are very rare exceptions: I have seen a specimen from Latvia (HUB) with three punctures in each row), anterior margin with row of numerous (about 10) setiferous punctures between puncture of dorsal row and lateral margin, setae comparably long; disc of head and pronotum usually devoid of microsculpture, marginal parts with oblique rudiments of transverse, long-meshed microreticulation, disc of head with dense, but inconspicuous micropunctation; elytra along suture about as long as pronotum, slightly widened posteriad, moderately densely punctate, punctures separated by 1 - 3 puncture diameters in transverse direction, sides with humeral seta (rarely with an additional seta between humeral and posthumeral seta); abdominal tergites moderately densely punctate, punctation different on various tergites, first visible tergite with basal half almost impunctate, second and third visible tergites with almost uniform but comparably sparse punctation, fourth and fifth visible tergites with denser but finer punctation basally; male tergite X well pigmented, apex subtruncate, male sternite VIII with very deep medio-apical emargination and extensively developed semi-membranous extension; male front tarsi inconspicuously dilated, almost simple (Fig. 90).

Aedeagus (Fig. 29) very long and slender, median lobe rod-like, face adjacent to paramere with distinct and acute subapical tooth; paramere (Fig. 29c) almost as wide as median lobe, subparallel, with acutely pointed apex, peg setae arranged in two slightly curved, apico-lateral rows, each consisting of 5 - 8 peg setae.

MATERIAL EXAMINED:

R U S S I A: ALTAYSKIY KRAY: Teletskoya Lake, 11. - 16.VII.1991, carrion trap, leg. S. A. Marshall (CSO); ibid., 16. - 20.VII.1991, pans in wet meadow (CSO, NMW).

K O R E A (North): "Korea, Kymgang-san Mts. 16-18.06.'74 Exp. ISEZ Cr." (ISEZ).

DISTRIBUTION: The species seems to occur across the temperate parts of the Palaearctic region (except Japan), but records from the eastern portion of Asia are scarce. It was also recorded from north-eastern China by LI & CHEN (1993: 35).

Philonthus splendens ssp. *sideropterus* KOLENATI

* *Philonthus splendens* var. *sideropterus* KOLENATI 1846: 18; SMETANA 1958: 155.

The status of this subspecies, which differs from the nominate form only by the blue metallic elytra, has been handled differently by different authors. The specimens I studied show slight aedeagal differences (tooth of median lobe more distally, smaller number of peg setae), but these might be explained by variability. Since specimens with blue elytra are restricted to the Caucasus and north-eastern Turkey, I will keep the subspecific concept of this taxon.

The *Philonthus purpuripennis* group

DIAGNOSIS: First four segments of male front tarsi weakly (*P. coelestis*, Fig. 92) or more distinctly (*P. purpuripennis*, Fig. 91) dilated; posterior puncture of pronotal sublateral group absent, elytra with humeral seta, median lobe of aedeagus rather thick, face adjacent to paramere without tooth, paramere with numerous peg setae, arranged in irregular subapical cluster.

Philonthus purpuripennis REITTER

Philonthus purpuripennis REITTER 1887: 214.
Philonthus poephagus CAMERON 1928: 562; SCHILLHAMMER 1999b.
Philonthus magnificus BERNHAUER 1933a: 39; SMETANA 1963.

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Philonthus coiffaiti HROMÁDKA 1992: 97; SCHILLHAMMER 1999b.

TYPE MATERIAL: *Philonthus purpuripennis*: Type locality: Several places (mainly names of rivers like "Bytchu", "Kong-tchum-tchu", "By-djun") in China (Qinghai). I have not seen the original material which was already studied by SMETANA (1963) when he synonymized *P. magnificus*. A lectotype was obviously never designated. In the collection of the NMW there are two specimens (Xinjiang, Qinghai: "Amdo") bearing type labels, but their type status is very doubtful (see "Additional material").

Philonthus poephagus: **Lectotype** ♂ (present designation): "Tibet: Rongshar Valley. 15.000 ft. 2.VII.1924. Maj. R.W.G. Hingston. \ Everest Exped. Brit. Mus. 1924-386. \ M.Cameron. Bequest. B.M. 1955-147." (NHML). – **Paralectotypes** (7 exs.): 5 exs.: same data as lectotype; 1 ex.: "Tibet: Ling-Ka. 14.000 ft. 15.VII.1924. Maj. R.W.G. Hingston. \ Everest Exped. Brit. Mus. 1924-386." (NHML); 1 ex.: "Tibet: Kampa Dzong. 14.500 ft. 29.IV.1924. Maj. R.W.G. Hingston. \ Everest Exped. Brit. Mus. 1924-386." (NHML). **Note**: There are two more specimens from the same expedition, but they were not explicitely mentioned by Cameron in his description (see "Additional material").

Philonthus magnificus: Type locality: Tatsienlu-Kiulung [Sichuan: Kangding]. I have seen 4 paratypes (3 ♂♂, 1 ♀, NMW) with the same data as the holotype.

Philonthus coiffaiti: **Holotype** ♂: "Nepal - Manang, 15.10.80, A. Rousek \ coll Hromádka \ Philonthus coiffaiti sp.n. L.Hromádka det. 1987 \ Holotypus" (CHP).

DESCRIPTION: 8.5 - 15.5 mm long (4.8 - 7.0 mm, abdomen excluded). - Black, exceedingly shining, elytra brilliant metallic purple-coppery, with brassy-greenish tinge at base, appendages black.

Head rounded quadrangular, wider than long (ratio 1.28 - 1.42 in both sexes, depending on size of specimen), as wide as pronotum in large specimens, tempora very long, parallel for fairly long distance behind eyes, usually much longer than eyes (ratio 1.50 - 1.55 in males, about 1.20 in females - in one remarkably small male tempora as long as eyes, but this is surely a rare exception), postocular seta situated almost at base of head, between postocular seta and posterior margin of eye impunctate, except for a small puncture, infraorbital area and area behind postocular seta densely and rather coarsely punctate, lateral interocular punctures surrounded by a group of 3 - 4 setiferous punctures, antennae with segment 4 inconspicuously oblong, segment 5 as long as wide, segments 8 - 10 distinctly transverse, mandibles rather short and stout; pronotum 1.08 - 1.13 times as wide as long, hardly narrowed toward anterior margin, distinctly narrowed toward base, sides conspicuously sinuately emarginate posteriorly in front of base, dorsal rows each with 2 or 3, rarely 4 punctures (frequently not symmetrical), anterior margin except medially and lateral margins very densely setose, as in the *cinctulus* and *spinipes* groups (SCHILLHAMMER 1999), head and pronotum without transverse, meshed microreticulation, with dense micropunctation instead, particularly dense on head along medial margin of eye and anterior margin; elytra along suture about as long as pronotum, hardly wider than pronotum, rather coarsely but moderately densely punctate, erect setae on disc and along suture very long, about half as long as large lateral or scutellar seta, along sides with numerous long and erect setae; abdominal tergites moderately densely and almost uniformly punctate, punctures separated by about 2 puncture diameters in transverse direction, elevated area between two basal lines on second and third visible tergites variably punctate, punctures usually forming double row on third and single row on second tergite, that on 1st visible tergite rarely with a few punctures, lateral portions of sternites also densely setose, tergite X strongly pigmented in both sexes, apex usually rounded or inconspicuously pointed, very rarely subtruncate; male sternite VIII with moderately deep, triangular medio-apical emargination, semi-membranous extension weakly developed; first four segments of male front tarsi slightly dilated (Fig. 91).

Aedeagus (Fig. 30) short, median lobe parallel-sided, with truncate apex, face adjacent to paramere without tooth; paramere (Fig. 30c) flat in lateral view, slightly shorter than median

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lobe, in ventral view slightly widened toward rounded apex, peg setae arranged in variably extended subapical cluster.

ADDITIONAL MATERIAL EXAMINED:

N E P A L: MUSTANG: "Chungpa-La-Tal Sangda, 4220 m, 23.6.70 \ Nepal-Expedition Jochen Martens" (SMF); "Nepal 440 Mustang Distr., Yak Kharka above Tukche, 4000 m 12.V.1995, Martens & Schawaller" (SMNS, NMW); "Nepal 441 Mustang Distr., Yak Kharka above Tukche, 3800 m 13.V.1995, Martens & Schawaller" (SMNS); MANANG: Manang to Thorong pass trail, 3600 - 4000 m, 27.IX.1983, leg. Löbl & Smetana (MHNG); W Manang, Kangsar env., 3500 - 4400 m, 1. - 3.X.1992, leg. Schmidt (DEI); W Manang, above Kangsar, 4000 - 4600 m, 5.VI.1993, leg. J. Schmidt (CKB); N Manang, Churi Lattar, 3800 - 4000 m, 7.VI.1993, leg. J. Schmidt (CKB); same data but 4100 - 4900 m (CKB, NMW); E Manang, Kang La Pass, W - slope, 4200 m, 3.VI.1994, leg. J. Schmidt (DEI).

I N D I A: SIKKIM: "Sikkim: Teesta Vy. Tungu. 13-14.000 ft. 1-15.VII.03. Tibet Exped. 1905-172" (NHML).

C H I N A: XINJIANG: "Ostturkestan (Schitaschar) \ Philonthus purpuripennis m. II. \ Type" (NMW); QINGHAI: "Amdo 1884 Przevalsky \ Semenov 1895 \ Type" (NMW); Ertala, 3800 m, 20. - 21.VI.1992 (NMW); Huashixia, 4200 m, 27.VI.1992 (NMW); ca. 30 km N Chumda, 4200 m, 9. - 12./16.VII.1992 (NMW); Daotanghe, 3200 m, 25. - 27.VII.1992 (NMW); E Qilian Shan, 4200 m, 29.VII. - 1.VIII.1992 (NMW); Qingshuihe, 4200 m, 1. - 5.VII.1992 (NMW); SICHUAN: 60 km S Hongyuan, ca. 4200 m, 27. - 29.VI.1991 (NMW); Hongyuan, ca. 4200 m, 21.VII. - 3.VIII.1991 (NMW); S - env. of Dege, 31°39'N 98°37'E, 3100 - 4300 m, 4. - 9.VI.1992 (NMW); Chola Shan, SW - env. of Maniganggo, 31°50N 99°07'E, 4000 - 4600 m, 12.VI.1992 (NMW); SE - env. of Litang, 29°52'N 100°20'E, 4100 - 4300 m, 22.VI.1992 (NMW); road Qianning - Danba, pass 15 km NE Qianning, 30°35'N 101°41'E, 11.VII.1998 (NMW); Daxue Shan, 5 km W Tsheto-La Pass, 30°04'N 101°47'E, 3900 - 4000 m, 26.V.1997 (CSB); Daxue Shan, W Kangding, E Tsheto-La Pass, 30°01'N 101°52'E, 3500 m, 25.V.1997 (CSB); Daxue Shan, ca. 10 km W Kangding, 30°01'N 101°52'E, 3500 - 3600 m, 25.V.1997 (CPE); Wolong, Sanjiangkou, VII. - VIII.1934, leg. Friedrich (NMW); Zhangla env., 4200 - 4700 m, 9. - 11.VII.1991, (CZV); Pass betw. Zhangla and Huanglong, 4000 m, 27.VI.1996, leg. Erber (CAH); N Matang, Zhendu Pass, N - slope, 4000 m, 23.VI.1996, leg. Erber (CAH); Tagu VII.1992 (NMW); Kangding VII.1992 (NMW); Kangding Dist., pass Zheduo (Dzhelalongu) vic., 4400 m, 26.VII.1996, leg. A. Zamotajlov & A. Miroshnikov (CGP); road Xiancheng - Dérong, pass 10 km NW Xiancheng, 3500 m, 14.VII.1994 (NMW); TIBET: "Tibet: Tasam, Rongshar Valley. 12.000 ft. 20.VI.1924. Maj. R.W.G. Hingston. \ Everest Exped. Brit. Mus. 1924-386." (NHML); "Tuna: Tibetan plateau. 14.500 ft. IV.1924. Maj. R.W.G. Hingston. \ Everest Exped. Brit. Mus. 1924-386." (NHML); "S.E.Tibet: Zayul. [China - Myanmar border] 12-13.000 ft. 1-10.X.1936 \ R.J.H. Kaulback. B.M. 1937-547." (NHML); Demula, 4500 m, 1.VII.1992, coll. H. Sawada (DEI); Rawu, 29°32'N 96°45'E, 4000 - 4700 m, 9. - 12.VII.1992 (NMW); Tuntala Shan, road Markam - Zogang, 29°40'N 98°08'E, 4500 m, 29.VI. - 3.VII.1997, picea forest (CSB, NMW).

DISTRIBUTION: Widely distributed in the western portion of China (Xinjiang, Qinghai, Sichuan, Tibet), also in Nepal and north-eastern India (Sikkim). The species prefers very high altitudes (above 3000 m up to 4900 m).

Philonthus coelestis BERNHAUER

Philonthus coelestis BERNHAUER 1933a: 40

TYPE MATERIAL: **Holotype** ♂ (by monotypy): "Tatsienlu-Kiulung, China Em. Reitter (on two labels) \ pretiosus Brh. Typ.un. \ praeoccup. \ coelestis Bernh. Typus un. \ Chicago NHMus M.Bernhauer Collection" (FMNH).

DESCRIPTION: 9.6 - 15.0 mm long (5.6 - 7.2 mm, abdomen excluded). - Black, very shining, elytra brilliant metallic blue or greenish-blue, head and pronotum with distinct metallic greenish lustre, appendages black.

Head rounded quadrangular, with well marked hind angles (due to temporal carina), distinctly wider than long (ratio 1.24 - 1.44 in males, 1.29 - 1.32 in females), tempora subparallel to slightly convergent for short distance behind eyes, about as long as or longer than eyes (ratio 1.00 - 1.08, up to 1.24 in large males), postocular seta almost at base of head, postocular area thus largely impunctate, punctures restricted almost to base of head, punctural grooves confluent laterally, forming temporal carina, lateral interocular punctures without group of setiferous punctures, mandibles longer than in *P. purpuripennis*, in large males almost sickle-shaped,

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antennae almost as in *P. purpuripennis*, but segments slightly longer; pronotum 1.02 - 1.09 times as wide as long, wider than head (even in large males), shape as in *P. purpuripennis*, but with distinctly less dense setation along anterior and lateral margins, dorsal rows usually each with 2, sometimes 3 and very rarely 4 (holotype) punctures, head and pronotum with very oblique, transverse, meshed microreticulation, often only marginally, micropunctation finer than in *P. purpuripennis*, similarly arranged on head, almost invisible on pronotum; elytra along suture slightly longer than pronotum, conspicuously wider than pronotum, punctation denser but erect setae on disc shorter than in *P. purpuripennis*, sides also with numerous erect setae; abdominal tergites rather finely and moderately densely punctate, lateral portions of sternites less densely setose, elevated area between two basal lines on second and third visible tergites variably but moderately densely punctate, fourth visible tergite frequently with oblique second basal line, tergites X in both sexes hardly differing from those of *P. purpuripennis*; male sternite VIII with similar medio-apical emargination as *P. purpuripennis*, but with slightly more distinctly developed semi-membranous extension; first four segments of male front tarsi simple (Fig. 92).

Aedeagus (Figs. 31, 32) similar to that of *P. purpuripennis* but with longer and slenderer median lobe, apex subtruncate; paramere (Figs. 31c, 32c) longer, peg setae also arranged in irregular subapical cluster, but slightly more extended basad.

ADDITIONAL MATERIAL EXAMINED:

C H I N A: GANSU: 120 km SW Lanzhou, Ponggartang, 30.VI. - 2.VII.1992 (NMW); Dalijia Shan, 46 km W Linxia, 2980 m, 10.VII.1994, leg. Smetana [C5] (CSO, NMW); 10 km S Xiahe, 3100 - 3200 m, 4.VIII.1994, leg. Smetana [C29] (CSO); QINGHAI: Pass 30 km S Huizu, 3600 m, 1. - 3.VIII.1992 (NMW); SICHUAN: "Chi-ti, Szech. 27 May 1929 13.600 ft.elev. \ Field Museum Kelley Roosevelt Asiatic Exped. 1929 H. Stevens leg." (FMC); 30 km W Nanping, Jiuzhaigou, 3100 m, 13. - 15.VIII.1992 (NMW); same locality, but 13. - 15.VI.1992 (SMNS); E Songpan, 3100 - 3300 m, 7.VIII.1994, leg. Tronquet (CTL); Zhilong, VII.1992 (NMW); 60 km S Hongyuan, 4200 m, 27. - 29.VI.1991 (NMW); 15 km W Kangding, Rte. 138, 29°57'N 102°54'E, 3250 m, 19.VII.1998, leg. Smetana et al [C86] (CSO); 7 km SSE Luding, W Erlang Shan Pass, 29°51'N 102°15'E, 2600 m, 22.VI.1999 (CSB); TIBET: Basum Tso, 90 km W Gyamdo, 3800 m, 8. - 9.VI.1997 (CKS, NMW); YUNNAN: Xue Shan nr. Zhongdian, 27°49'N 99°34'E, 4000 m, 24. - 26.VI.1996, leg. Smetana et al [C42] (CSO); same locality but, 3800 m, 26.VI.1996 [C43] (CSO); same data but [C45] (CSO); Haba Shan, E - slope, 27°20'N 100°09'E, 3000 - 3800 m, 13. - 17.VII.1992 (NMB, NMW); Haba Shan, SE - slope, 27°20'N 100°11'E, 2500 - 3800 m, 3. - 6.VI.1995 (NMW); 35 km N Lijiang, Heishui, 27°13'N 100°19'E, 1. - 19.VII.1992 (NMW, CASS); ca. 30 km N Lijiang, Yulongxue Shan, nr. Baishui, 2900 - 3200 m, 7. - 11.VII.1994 (NMW); Yulongshan, 27°07'N 100°13'E, 3300 - 3500 m, 20. - 21.VI.1993 (NMB); Yulongshan, 27°10'N, 100°13'E, 3500 - 4000 m, 16. - 19.VI.1993 (NMB); 27°02'N 100°11'E, 3600 - 4100 m, 27.V.1993 (NMB); 50 km N Lijiang, Yulongshan Nat. Res., 24. - 29.VIII.1993 (NMW).

DISTRIBUTION: With the exception of Nepal the distribution range is more or less identical with that of *P. purpuripennis* (mountainous western and south-western China: Gansu, Qinghai, Sichuan, Tibet, Yunnan), but at slightly lower elevations (2600 - 4200 m).

The *Philonthus tractatus* group

DIAGNOSIS: First four segments of male front tarsi distinctly dilated, sub-bilobed (Figs. 93 - 96); abdominal tergites rather sparingly punctate, strongly iridescent, elytra with posthumeral and lateral seta (*P. tractatus*, *P. brevithorax*) or lateral seta absent (*P. tractatoides*, *P. saphyreus*), median lobe of aedeagus with very small or without tooth on face adjacent to paramere, paramere with numerous peg setae closely arranged in four, more or less regular, longitudinal rows or in irregular apico-longitudinal cluster (*P. tractatoides*).

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Philonthus tractatus EPPELSHEIM

Philonthus tractatus EPPELSHEIM 1895: 61
Philonthus proximatus SCHUBERT 1908: 616; SCHILLHAMMER 1999b
Philonthus cupreipennis CAMERON 1926: 350

TYPE MATERIAL: *Philonthus tractatus*: **Holotype** ♂ (by monotypy): "Himalaya Simla \ tractatus Epp. \ c. Eppelsh. Steind. d." (NMW).

Philonthus proximatus: **Holotype** ♀ (by monotypy): "Kulu [and something illegible, looks like "7"] \ Philonthus proximatus m. type \ Zool. Mus. Berlin \ proximatus m. \ Philonthus tractatus EPP. det. Schillhammer 99" (HUB).

Philontus cupreipennis: 2 **syntypes** (♀ ♀) with almost identical label data: "Dhauli Ganga, V. Almora, 9520' \ R.N. Parker 21.VII.23 \ M.Cameron Bequest. B.M.1955-147 \ Philonthus cupreipennis Cam." (NHML).

DESCRIPTION: 11.5 - 13.5 mm long (5.5 - 6.0 mm, abdomen excluded). - Black, shining, elytra brilliant metallic brassy green to bronze green, or dark metallic blue (specimens from China: Yunnan), last segments of palpi and sometimes front tarsi somewhat paler brown.

Head rounded quadrangular, distinctly transverse (ratio 1.23 - 1.37 in both sexes), eyes 1.3 - 1.4 times as long as regularly rounded tempora, area between posterior margin of eye and postocular seta impunctate, behind postocular seta densely and moderately coarsely punctate, punctures bearing rather thick setae, antennae long, segments 4 - 7 distinctly oblong and segments 8 - 10 inconspicuously oblong (male) or segments 4 - 6 oblong and segments 8 - 10 as long as wide (female); pronotum slightly wider than head (ratio 1.1 - 1.2), about as long as wide, widest in middle, sides weakly convex or subparallel, rarely more distinctly narrowed toward base, sides distinctly sinuately emarginate posteriorly in front of base, dorsal rows each with four punctures, surface with distinct golden-brown iridescence, usually more conspicuous laterally and basally, head and pronotum with dense, rather fine, long-meshed, transverse microreticulation; elytra along suture slightly longer than pronotum, slightly widened posteriad, densely and moderately coarsely punctate, punctures separated by 1 - 2 puncture diameters in transverse direction; abdominal tergites sparsely or moderately densely punctate, punctures separated by 2 - 4 puncture diameters in transverse direction, fourth and fifth visible tergites with finer but denser punctation at base, elevated area between two basal lines on second and third visible tergites variably punctate, especially on second visible tergite often reduced to a few punctures, surface of tergites strongly iridescent; male sternite VIII (Fig. 75) with very deep medio-apical emargination and very extensively developed semi-membranous extension; tergite X in both sexes truncate with small medio-apical triangular semi-membranous portion or slightly triangularly emarginate; male tergite X: Fig. 62; male front tarsus: Fig. 93.

Aedeagus (Figs. 33, 34) long and slender, median lobe subparallel or slightly conical, slightly concavely narrowed toward sharply pointed apex, apical portion slightly bent ventrad, face adjacent to paramere without tooth; paramere (Figs. 33c, 34c) long and slender, hardly widened apically, peg setae arranged in four very regular longitudinal rows, lateral rows each consisting of about 14 peg setae, medial rows each consisting of about 16 - 24 peg setae.

ADDITIONAL MATERIAL EXAMINED:

C H I N A: TIBET: Rongshar Valley, 11000 ft., 27.VI.1924, leg. Maj. R.W.G. Hingston; YUNNAN: Haba Shan, E - slope, 27°20'N 100°09'E, 3000 - 3800 m, 13. - 17.VII.1992 (NMW); Yulong Shan, Baishui, 27°08'N 100°14'E, 2900 - 3500 m, 7. - 12.VII.1990 (NMB).

N E P A L: JUMLA: Talphi, NE Maharigaun, 3300 m, 20.VI.1997, leg. A. Weigel (NME); DOLPA: N Dhaulagiri, Gompa / Tarakot, 3300 - 3400 m, 2. - 6.VI.1973, leg. J. Martens (SMF); MANANG: Latha Manang, W Bagarchhap, 2350 m, 22.IX.1983, leg. Smetana & Löbl (CSO; NMW); E Annapurna, valley to Bagarchhap, 1700 - 2200 m, 25.IX.1992, leg. Schmidt (DEI, NMW); Manaslu Himal, Meme Pokhari Lekh, upp. Taksar vill., 2500 -2700 m, 1.IX.1995, leg. Schmidt (DEI); KASKI: Kali Gandaki Khola, Kalopani, 2500 - 2800 m, 21. - 25.VI.1986, leg. Holzschuh (NMB); W Pokhara, Panchhase, 2000 - 2300 m, 18.V.1997, leg. Schmidt (DEI); RASUWA: "Langshisa Kharka 4,125 m - Kyanjin Gompa 3,885 m Langtang Valley C. Nepal 10.vii.1981 leg.

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W. Suzuki" (CST); "Mangengot 2,900 m alt. C. Nepal 17-18.vii.1981 W. Suzuki leg." (CST); SANKHUA SABHA: above Pahakhola, 2600 - 2800 m, 31.V. - 3.VI.1988, leg. Martens & Schawaller [404] (SMNS).

DISTRIBUTION: The species occurs along the main range of the Himalaya (North India, Nepal) as far as mountainous southwestern China (Tibet, Yunnan), at elevations from ca. 2000 m to almost 4000 m.

Philonthus brevithorax BERNHAUER

Philonthus brevithorax BERNHAUER 1934: 8

TYPE MATERIAL: **Holotype** ♂: "Nitou Tatsienlu Szechuan China Em. Reitter \ brevithorax Bernh. Typus [two identical labels, one white, one yellow] \ Chicago NHMus M.Bernhauer Collection" (FMC). - **Paratypes**: 6 exs. with same data as holotype (1 FMC, 1 NMW, 4 NHML).

DESCRIPTION: 13.5 - 14.5 mm long (6.0 - 6.3 mm, abdomen excluded). - Black, shining, elytra with dark green metallic lustre, head and pronotum black or with slight greenish metallic hue, last segments of palpi usually paler brown.

Head rounded quadrangular to slightly trapezoidal, distinctly transverse (ratio about 1.5 in males, about 1.3 in females), eyes very large, 1.4 - 1.7 times as long as almost regularly rounded tempora, punctation of tempora as in *P. tractatus*, but setae slightly finer, interocular punctures as in *P. tractatus*, antennae with segments 4 - 6 oblong (less distinctly in females), segments 8 - 10 about as long as wide; pronotum about as wide as head (males) or distinctly wider (females), 1.05 - 1.08 times as wide as long, sides only slightly convex, almost subparallel, slightly but conspicuously sinuately emarginate posteriorly in front of base, dorsal rows each with four punctures, surface usually with distinct golden-brown iridescence, at least marginally, frequently also head with golden-brown iridescence, head and pronotum with fine and dense, long-meshed, transverse microreticulation; elytra distinctly wider and along suture about as long as pronotum, slightly widened posteriad, punctation dense, interstices between punctures hardly exceeding a puncture diameter in transverse direction; abdominal tergites with punctation similar to that of *P. tractatus*, but even sparser, punctation on elevated area between two basal lines on second and third visible tergites on average sparser than in *P. tractatus*, that on second visible tergite frequently impunctate, male and female tergite X and male sternite VIII hardly differing from those of *P. tractatus*; male front tarsus: Fig. 94.

Aedeagus (Figs. 35, 36) very similar to that of *P. tractatus*, but median lobe with small but conspicuous tooth on face adjacent to paramere; paramere (Figs. 35c, 36c) with more conspicuously widened apical portion, peg setae less regularly arranged.

DIAGNOSIS: This species is very difficult to separate from *P. tractatus* by sexual characters, but both species are very different externally. In addition to the characters given in the key and description (body size, size of eyes, proportions of pronotum, color of elytra), they may also be separated by the dentation of the medial margin of the left mandible: in *P. tractatus* it bears a bicuspid tooth, while in *P. brevithorax* the tooth is unicuspid.

ADDITIONAL MATERIAL EXAMINED:

C H I N A: SICHUAN: Emei Shan, 29°30'N 103°20'E, 2600 m, 4. - 18.V.1989 (NMB); FUJIAN: "Kuatun (2300m) 27,40 n.Br. 117,40 ö.L. J. Klapperich 3.3.1938 (Fukien)" (NMW); ibid., 4.IV., 2.V. (NMW).

I N D I A: HIMACHAL PRADESH: Kulu env., ca. 2500 m, 15. - 17.VII.1989, leg. M. Hiermeier (NMW); UTTAR PRADESH: Chakrata Dist., Bodyar, 8300 ft., 3. - 12.V.1922, leg. M. Cameron (FMC).

N E P A L: MANANG: Bagarchhap - Temang, 2400 - 2700 m, 17.IV.1999, leg. Krüger & Hirthe (CHK); PATAN: Kathmandu, Phulcoki, 2400 - 2800 m, 28. - 30.IV.1984, leg. Löbl & Smetana (MHNG).

B H U T A N: Gogona, 3100 m, VII.1972, leg. F. Maurer (NMB).

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DISTRIBUTION: The distribution area reaches from North India along the main range of the Himalaya (Nepal, Bhutan) to China (Sichuan, Fujian). The distribution pattern is comparable to that of *P. simpliciventris*.

Philonthus tractatoides sp.n.

Holotype ♂: "BHUTAN: Thimpu District Taba, 2800m 20.-30.6.1988 leg. Holzschuh (B 805)" (NMW).

Paratypes (223 exs.): N E P A L: MANANG/LAMJUNG: 54 exs.: Annapurna, Taprang Danda, 3300 - 3500 m, 6.V.1997, leg. J. Schmidt (46 DEI, 8 NMW); 35 exs.: Annapurna, Telbrung Danda, 3600 - 3700 m, 9.VI.1997, leg. Schmidt (14 DEI, 16 NME, 5 NMW); 11 exs.: same locality, ca. 3200 m, 10.VI.1997 (10 DEI, 1 NMW); 9 exs.: Krapa Danda, 2900 m, 2.VI.1997, leg. Schmidt (8 DEI, 1 NMW); 10 exs.: Annapurna, E Lamjun, S Sundar Danda, 2000 - 3500 m, 15.V.1994, leg. Schmidt (DEI); 5 exs.: same locality, 2650 - 2800 m. 17.V.1994, leg. J. Schmidt (4 DEI, 1 NMW); 10 exs.: same locality, 2800 - 3150 m, 20.V.1994 (DEI); 1 ex.: Ghorepani - Deorali, 2800 - 3000 m, 2.V.1999, leg. Krüger & Hirthe (CHK); 3 exs.: S Lamjung Himal, 10 km SE Sikles, Taunja Dada, 3600 - 4000 m, 21.V.1993, leg. Schmidt (CKB); 1 ex.: Lamjung Himal, 5 km NE Sikles, W Taunja Danda, 2200 - 3000 m, 19.V.1993, leg. Schmidt (CKB); 3 exs.: Lamjung Himal, 10 km NE Sikles, W Taunja Dada, 3600 - 4000 m, 21.V.1993, leg. Schmidt (DEI); 1 ex.: Manaslu Himal, Meme Pokhari Lekh - Bara Pokhari, 3250 m, 5.IV.1999, leg. Krüger & Hirthe (CHK); 2 exs.: same locality, 3000 m, 2.IX.1995, leg. Schmidt (DEI); 8 exs.: Meme Pokhari Lekh - upp. Bara Pokhari, 3300 - 3500 m, 5.IX.1995, leg. Schmidt (DEI); 2 exs.: Manaslu Himal, Baudha, W - slope, Uut Kharka, 3500 m, 10.IX.1995, leg. Schmidt (DEI); 7 exs.: Manaslu Himal, Dudh Pokhari Lekh, betw. Simia Kharka and Malamche Kharka, 3300 - 3500 m, 12./13.IX.1995, leg. Schmidt (6 DEI, 1 NMW); SINDHUPALCHOK: 23 exs.: Jangtang Ridge NE Barahbise, 3300 m, 4./5./6.V,1981, leg. Löbl & Smetana (14 CSO, 6 MHNG, 3 NMW).

B H U T A N: 1 ex.: Paro District, Chiley-La, 3000 m, 21.VI.1988. leg. Holzschuh [B 806] (NMW); 1 ex.: Dorjee Khandu, Beguna, 23.VIII.1976 (NMB); 3 exs.: Dorjee Khandu, Charee, 27.VIII.1976 (2 NMB, 1 NMW); 1 ex.: Dorjee Khandu, Dorjula, 3100 m, 2.IX.1976 (NMB); 2 exs.: same locality, but 3.IX.1976 (NMB); 4 exs.: same locality, but 22.VI.1972 (NMB); 18 exs.: same locality, but 26.VI.1972 (17 NMB, 1 NMW); 2 exs.: Decchi Paka, 3300 m, 19. - 20.VI.1972 (NMB); 2 exs.: Gogona, 3100 m, VII.1972 (NMB); 2 exs.: same locality, but 10. - 12.VI.1972 (NMB, NMW); 1 ex.: Sampa Kotoka, 1400 - 2600 m, 9.VI.1972 (NMB); 1 ex.: Kotoka - Gogona, 2600 - 3400 m, 10.VI.1972 (NMB). - **Note**: The specimens collected in 1972 were identified as *P. proximatus* (COIFFAIT 1977), the 1976 specimens as *P. aeger* (COIFFAIT 1982a).

DESCRIPTION: 10.5 - 12.5 mm long (5.4 - 5.7 mm, abdomen excluded). - Black, very shining, elytra brilliant metallic brassy green to darker bluish-green, head and pronotum with greenish metallic hue, tips of palpi or entire last segments paler brown, tergites strongly iridescent.

Head rounded quadrangular, 1.21 - 1.27 times as wide as long on both sexes, tempora parallel or slightly divergent for short distance behind eyes, then regularly rounded toward neck, as long as eyes or slightly longer (ratio 1.0 - 1.09), postocular seta distinctly shifted posteriad, portion between posterior margin of eyes and postocular seta impunctate except for a very few fine, occasional punctures, portion behind postocular seta densely and moderately coarsely punctate, setae moderately thick, antennae with segments 4 - 7 distinctly oblong (slightly less distinctly in females), segment 8 inconspicuously oblong, segment 10 as long as wide; pronotum 1.10 - 1.16 times as wide as long, distinctly wider than head, widest about in middle, variably shaped, sides either parallel in basal half or distinctly narrowed toward base with sides slightly sinuately emarginate in front of base, dorsal rows each with four punctures, head and pronotum with dense but fine, long-meshed, transverse microreticulation, but without golden-brown iridescence; elytra along suture slightly shorter than pronotum, slightly widened posteriad, punctation rather fine, moderately dense, punctures separated on average by 2 puncture diameters in transverse direction, bearing rather short setae, surface usually very shining, very rarely slightly rugose; abdominal tergites as sparingly punctate as in preceding species, punctation at base of fourth and fifth visible tergites only inconspicuously denser, elevated area between two basal lines on second and third visible tergites on average very sparsely punctate, usually forming single row

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even on third visible tergite, male sternite VIII (Fig. 76) almost as in *P. tractatus*; male front tarsus: Fig. 95.

Aedeagus (Fig. 37) similar to that of *P. tractatus* and *P. brevithorax* but apical portion of median lobe straight or slightly bent dorsad (lateral view), face adjacent to paramere with small but conspicuous tooth, situated at fair distance proximally of apex of paramere; paramere (Fig. 37c) almost straight in lateral view, in ventral view apical portion distinctly, sometimes even spoon-like dilated, peg setae irregularly arranged.

DIAGNOSIS: The species may be easily distinguished from *P. tractatus* and *P. brevithorax*, with which it is partly sympatric, by the small eyes.

DISTRIBUTION: The species is at present known only from the main range of the Himalaya in Nepal and Bhutan, where it seems to be fairly common.

Philonthus saphyreus sp.n.

Holotype ♂: "CHINA (W Sichuan) (13) Daxue Shan, Hailuogou Glacier Park (Gongga Shan) Camp 1, 2100 m 29.38N / 102.04E 27./28./31.V.'97 Wrase" (CSB).

Paratypes (26 exs.): C H I N A: SICHUAN: 4 exs.: same data as holotype (3 CSB, 1 NMW); 1 ex.: "China: Sichuan, Daxue Shan Gongga Shan Mt., Hailougou [sic!] Glacier Park env. Camp II, 2650m, softed, 30.V.1997, leg. A. Pütz" (CPE); 5 exs.: "China: Sichuan, Daxue Shan Gongga Shan Mt., Hailougou [sic!] glacier park 102.04E, 29.36N, river valley ca. 1 km above Camp I, 2100m, 28./31.V.1997 leg. A. Pütz" (3 CPE, 2 NMW); 1 ex.: "China: W-Sichuan, Daxue Shan 40 km W Mianning, - 2750m 28° 34' N; 102° 00'E, 7.-8.VII., leg. Siniaev & Plutenko" (CSB); 1 ex.: "W.Szechuan, China Sankiangkou leg. Friedrich \ Wolung 2000 m Wassuland 7.-10.1934" (NMW); 1 ex.: "CHINA C Sichuan Xiling Snow Mts 2100-3100 m 1-3.viii.1996 leg. S. Kasantsev" (NMB); 4 exs.: "CHINA S Sichuan Luojishan 2200-2800 m 16-25.vii.1996 leg. S. Kasantsev" (2 NMB, 2 NMW); SHAANXI: 6 exs.: "China: Shaanxi 1999 Foping Nat. Res., Panda area 1600m, 33°45'N, 107°48'E 6. - 11.4.; Siniaev & Plutenko" (4 CSB, 2 NMW); 2 exs.: "China: Shaanxi 1999 Qinling Shan, Taibaishan Range, Houzhenzi env., 1900m 33°53'N, 107°49'E, 1.-12.8. leg. Siniaev & Plutenko" (CSB); 1 ex.: "China: Shaanxi Qin Ling Shan 107.56 E, 33.45 N, Autoroute km 93 S of Zhouzhi, 108 km SW Xian Mountain Forest, sifted, 1850m 1.-2.09.1995, leg. M. Schülke" (CSB).

DESCRIPTION: 11.0 - 14.0 mm long (6.3 - 7.0 mm, abdomen excluded). - Black, elytra brilliant metallic blue (China: Sichuan) or brassy green to bluish green (China: Shaanxi), head and pronotum with distinct greenish metallic hue, tips of palpi frequently paler brown, base of second antennal segment sometimes reddish.

Head rounded quadrangular, 1.22 - 1.36 times as wide as long, tempora as long as eyes, parallel or slightly convergent for short distance behind eyes, narrowed toward neck in regular convex arc, punctation as in *P. tractatoides* but tempora slightly more densely punctate with postocular seta situated slightly less posteriorly, antennae almost as in *P. tractatoides*, but with segments even slightly longer; pronotum 1.07 - 1.11 times as wide as long, distinctly wider than head, usually subquadrate with subparallel sides, but with variability as in *P. tractatoides*; elytra along suture longer than pronotum, more densely punctate than in *P. tractatoides*, punctures usually separated by less than 2 puncture diameters in transverse direction; abdominal tergites with punctation hardly differing from that of *P. tractatoides*, surface also strongly iridescent; male front tarsus: Fig. 96.

Aedeagus (Fig. 38) of similar shape but much larger than in *P. tractatoides*; median lobe with tooth on face adjacent to paramere very small, inconspicuous; paramere (Fig. 38c) with peg setae less numerous and arranged in almost regular rows.

DISTRIBUTION: The species is at present known only from China: a few places in Sichuan and the Qinling range in Shaanxi.

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The *Philonthus azuripennis* group

DIAGNOSIS: First four segments of male front tarsi strongly dilated, sub-bilobed (Figs. 97, 98); elytra with posthumeral and lateral seta (Fig. 52), median lobe of aedeagus slender with large subapical tooth on face adjacent to paramere, paramere very long and slender, peg setae moderately numerous, arranged in two slightly irregular longitudinal rows.

Philonthus azuripennis CAMERON

Philonthus azuripennis CAMERON 1928: 563
Philonthus stoetzneri BERNHAUER 1929: 109; SCHILLHAMMER 1999b
Philonthus trisulensis COIFFAIT 1982b: 60; SCHILLHAMMER 1999b

TYPE MATERIAL: *Philonthus azuripennis*: **Lectotype** ♂ (present designation): "Sikkim: Tangu 14.000ft. 27.iv.1924. Maj.R.W.G.Hingston. \ M.Cameron. Bequest. B.M. 1955-147." (NHML). - **Paralectotypes** (4 exs.): 1 ♂: "Sikkim: Deutang 15.000ft. 27.iv.1924. Maj.R.W.G.Hingston. \ M.Cameron. Bequest. B.M. 1955-147."; 2 ♂♂: "Tibet: Gautsa. 13.000ft. 5.iv.1924. Maj.R.W.G.Hingston. \ Everest Exp. Brit. Mus. 1924-386." (NHML); 1 ♂: "Jelap La: Tibetan side. 12.000ft. 1.iv.1924. Maj.R.W.G.Hingston. \ Everest Exp. Brit. Mus. 1924-386." (NHML).

Philonthus stoetzneri: **Holotype** ♀: "Szetschwan Sunpanting Exp. Stötzner \ Stötzneri Bernh. Typus" (FMC). - **Paratypes**: 2 ♀♀ "Cotypes" with same data as holotype (FMC). **Note**: There are specimens with Cotype labels (7 NMW, 1 NHML) from "Tatsienlu-Kiulung, Reitter" which definitely do not belong to the type series and one specimen (NHML) from the type locality which might be a "Cotype" but is not labelled accordingly.

Philonthus trisulensis: **Holotype** ♂: "Trisuli Tal Gosainkund, 3200 m, 23.-26.IV.1973 \ Nepal-Expeditionen J. Martens \ Type \ Holotypus (SMF C 15091 [on underside]) \ Philonthus trisulensis H. Coiffait 1979" (SMF). - **Paratype**: 1 ♀ with same data as holotype [SMF C 15092] (SMF).

DESCRIPTION: 9.5 - 13.5 mm long (5.3 - 6.2 mm, abdomen excluded). - Black, shining to moderately shining, elytra brilliant metallic blue to greenish-blue, green or bronze, rarely with coppery hue, appendages black, front tarsi and last segments of palpi to some extent paler brownish.

Head rounded quadrangular, rarely almost suborbicular, 1.11 - 1.22 times as wide as long, distinctly narrower than pronotum, eyes as long as or slightly longer than tempora (ratio 1.0 - 1.1), tempora narrowed toward neck in almost regular arc, postocular seta situated at half distance between posterior margin of eye and base of head, between eye and seta with only a few (2 - 3) setiferous punctures, between seta and base of head densely but rather finely punctate, antennae with segments 4 - 6 conspicuously oblong, segments 8 - 10 as long as wide; pronotum slightly wider than long (ratio 1.04 - 1.10), widest in middle, sides evenly convex or narrowed toward base and anterior margin in almost straight line, dorsal rows each with 4 punctures, anterior margin between foremost puncture and lateral margin with only 4 - 5 setiferous punctures, head and pronotum with dense, variably profound, rather short-meshed, transverse microreticulation (very rarely with longer meshes); elytra along suture about as long as pronotum, slightly widened posteriad, very densely punctate, interstices between punctures hardly exceeding a puncture diameter in transverse direction (specimens from Nepal have a slightly sparser punctation), surface between punctures very often slightly to distinctly rugose; abdominal tergites usually densely punctate, punctures separated on average by 2 puncture diameters in transverse direction, but many specimens show either sparser or even denser punctation, elevated area between two basal lines on second and third visible tergites variably, usually densely punctate, second basal lines straight; male sternite VIII (Fig. 74) with very deep medio-apical emargination, occupying almost half of length of sternite, semi-membranous extension at apical margin and at very base of emargination, tergite VIII frequently slightly produced medially and with very slight medio-apical emargination; male sternite IX: Fig. 66;

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first four segments of male front tarsi strongly dilated, almost bilobed, first segment distinctly asymmetrical (Fig. 97).

Aedeagus (Figs. 42 - 44) very long and slender, median lobe acutely pointed, in lateral view (Fig. 42b) slightly bisinuately bent ventrad, face adjacent to paramere with distinct subapical tooth; paramere (Figs. 42c, 43c, 44c) almost as long as median lobe, rows of peg setae variable, rather irregularly arranged, each consisting of 9 - 12 peg setae, normal setae exceedingly long.

REMARK: This is one of the most polymorphic species within the group by virtue of shape, coloration, punctation and microsculpture. It most likely forms subspecies, but the recognition would be almost impossible due to the wide variability range.

ADDITIONAL MATERIAL EXAMINED:

C H I N A: GANSU: env. of Xiahe, 3000 - 3200 m, 25.VII. - 3.VIII.1993 (CSO); Mts. 25 km E Xiahe, 2805 - 2925 m, 3.VIII.1994, leg. Smetana [C28] (CSO, NMW); ibid., 2700 - 2900 m, 30.VII. - 2.VIII.1993 (CSO, NMW); Bagatan Bridge, 27 km E Xiahe, 2750 m, 6.VIII.1994, leg. Smetana [C31] (CSO); 120 km SW Lanzhou, Ponggartang, 30.VI. - 2.VII.1992 (NMW); ibid., 30.VI.1992 (SMNS, NMW); valley E of Ponggartang, 35°13'N 102°56'E, 2700 - 3900 m, 10.VII.1995 (CSO); Xinlong Shan nr. Yuzhong, Yangzhai, 2500 - 3000 m, 22. - 26.VII.1993 (CSO); QINGHAI: Laji Shan, env. of Gushan, - Yao Shuichuan, 2600 - 2700 m, 16. - 20.VII.1993 (CSO, NMW); SICHUAN: "above Uulong-kong July 1-6 1929; Szech. alt. 12000-15000 \ Field Museum Kelley.Roosevelt Asiatic Exped. 1929 H. Stevens leg." (FMC); "Tatsienlu - Kiulung [Kangding] \ China Em. Reitter" (FMC, NHML, NMW - the specimens from NHML and NMW were erroneously labelled as Cotypes); env. of Kangding, 3000 - 3100 m, 21./22.VII.1994 (CSO); Kangding, 30°03'N 102°02'E, 2900 m, 2.VII.1996, leg. Smetana [C48] (CSO); ibid., 30°04'N 101°58'E, 2800 m, [C88] (CSO); ca. 7 km W Kangding, 29°59'N 101°55'E, 3150 m, 25./26.V.1997 (CPE); W env. of Kangding, 30°03'N 101°57'E, 2600 - 2700 m, 22./24.V.1997 (CSB); ibid., 2700 - 2800 m, 24.V.1997 (CSB); W Kangding, E Tsheto-La Pass, 30°00'N 101°51'E, 3500 m, 25.V.1997 (CSB); ca. 10 km W Kangding, 30°01'N 101°52'E, 3500 - 3600 m, 25.V.1997 (CPE); Pass 30 km W Kangding, 3600 - 3700 m, 16.VI.1995 (CSO); river valley 10 km S Kangding, 29°59'N 101°55'E, 3150 m, 25.V.1997 (CSB); ibid., 26. - 30.VI.1999 (CSB); Pame, VII.1992 (NMW); Zhilong, VII.1992 (NMW); 20 km N Sabdé, 29°35'N 102°23'E, 3200 m, 15.VII.1998, leg. Smetana et al [C83] (CSO); Langmusi, 3600 m, 14.VII.1994, leg. Smetana [C15] (CSO); road Qianning - Danba, pass 15 km NE Qianning, 30°35'N 101°41'E, 11.VII.1998 (NMW); Chola Shan, SW env. of Maninganggo, 31°50'N 99°07'E, 4000 - 4600 m, 12.VI.1992 (NMW); Chola Shan, road Dege - Maninganggo, 40 km E Dege, picea forest, 31°55'N 98°53'E, 19.VII.1997 (CSB); S env. of Dege, 31°39'N 98°37'E, 3100 - 4300 m, 4. - 9.VI.1992 (NMW); 30 km N Muli (Bowa), 28°07'N 101°05'E, ca. 3500 m, 1. - 2.VII.1998 (NMW); Balang, Sanjiangkou, VII./VIII.1934 (NMW); Sanggarpar env., 5. - 8.VIII.1991 (NMW); Shuajingsi, ca. 2700 m, 10. - 11.VIII.1991 (NMW); Zhangla env., 4200 - 4700 m, 9. - 11.VII.1991 (NMW); 60 km S Hongyuan, ca. 4200 m, 27. - 29.VI.1991 (NMW); Hongyuan, ca. 4200 m, 21.VII. - 3.VIII.1991 (NMW); Litang - Yajiang, pass 20 km W Yajiang, 3200 - 3500 m, 23. - 25.VII.1994 (NMW); SE env. of Litang, 29°52'N 100°20'E, 4100 - 4300 m, 22.VI.1992 (NMW); Qionglai Shan, Wolong Valley, 69 km WSW Dijiangyan, 30°45'N 102°59'E, 3900 m, 15.VII.1999 (CSB); 30 km W Nanping, Jiuzhaigou, 3100 m, 13. - 15.VI.1992 (NMW, SMNS); pass betw. Zhangla and Jiuzhaigou, 3400 - 3500 m, 30.VI.1996 (CSO); Shalui Shan, river valley 6 km WSW Yajiang, 30°01'N 100°57'E, 3250 m, 4.VII.1999 (CSB); Zhangla env., 4200 - 4700 m, 9. - 11.VII.1991, (CZV); Mts. 70 km NNW Barkam, 3000 - 4000 m, 22.VII.1995, (CHP); valley SW of Barkam, 31°53'N 102°12'E, 3000 - 3800 m, 22.VII.1995 (CSO); S env. of Barkam, 31°53'N 102°12'E, 2900 - 3700 m, 22.VI.1994 (CSO); SE env. of Shuamaluko, 31°56'N 102°40'E, 3300 - 3800 m, 25.VI.1994 (CSO); TIBET: Nyingtri, Serkyim-La, SW - slope, 3800 - 3900 m, 27./28.VII.1995 (CSO, NMW); road Markam - Zogang, Tuntala Shan, 40 km E Zogang, 29°40'N 98°08'E, 4500 m, 29.VI. - 3.VII.1997 (CSB); YUNNAN: road Xiangcheng - Zhongdian, pass 35 km S Xiangcheng, 15 km N Wengshui, 3500 m, 10. - 13.VII.1994 (NMW); Xue Shan nr. Zhongdian, 27°49'N 99°34'E, 4050 m, 24.IV.1996, leg. Smetana et al. [C39] (CSO); Deqen, 20. - 24.VI.1995 (CHP, CKS); Deqen, 3300 m, 29.VI.1998 (CST); SE env. of Deqen, 28°25'N 99°00'E, 4100 - 4600 m, 27. - 30.VI.1992 (NMW); ibid., 28°28'N 98°51-55'E, 3300 - 3500 m, 1.VII.1992 (NMW); Haba Shan, SE - slope, 27°20'N 100°11'E, 2500 - 3800 m, 3. - 6.VI.1995 (NMW); Yulong Shan, 27°10'N 100°13'E, 3900 m, 27.V./16. - 19.VI.1993 (NMB).

N E P A L: DOLPA: N Dhaulagiri, Gompa/Tarakot. 3300 - 3400 m, 2. - 6.VI.1973, leg. J. Martens (SMF); W Dhaulagiri, Cheng Khola, 3100 - 3600 m, V.1973, leg. J. Martens (SMF); MUSTANG: Thaksang, 3150 - 3400 m, 26./29.IV.1980, at light, leg. Martens [157] (SMNS); Yak Kharka above Tukche, 3800 m, 13.V.1995, leg. Martens & Schawaller [441] (SMNS); MANANG: Annapurna II, above Pisang, Base Camp, 3500 - 3900 m, 29.V.1994, leg. Schmidt (DEI); N Manang, Churi Lattar, 3800 - 4000 m, 7.VI.1993, leg. Schmidt (CKB);

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RASUWA: trail Gosainkunde to Folung monastery, IX./X.1971, leg. H. Franz (NMW); Langtang Valley, Langshisa Kharka, 4125 m, 9.VII.1981, leg. W. Suzuki (CST); Langtang N.P., Kyunjin Gompa, 4000 m, 12.V.1988, leg. Bíly (NMB, NMW); N slope above Syabru, 3700 - 3900 m, 17. - 19.IV.1985, leg. Smetana (CSO, NMW); ibid., 3800 m, 17./18.IV.1985 (CSO); GORKHA: Chuling Khola, S Kalo Pokhari, 3600 m, 7.VIII.1983, leg. Martens & Schawaller [235] (SMNS); NE Rupina La, Kalo Pokhari to Tabruk Kharka, 3700 - 4000 m, 7.VIII.1983, leg. Martens & Schawaller [236] (SMNS); N Rupina La, Tabruk Kharka, 4000 m, 7. - 8.VIII.1983, leg. Martens & Schawaller [237] (SMNS); Ganesh Himal, Arbuthum Lekh, upp. keronja, 2900 - 3200 m, 18.V.1996, leg. Ahrens, Kulbe, Rulik (NME, NMW); SOLUKHUMBU: Namche Bazar (SMF); 2 km N Namche Bazar, Khumjung, 3900 m, 12. - 16.VI.1962, leg. G. Ebert (NMW); ibid., 30.VI.1964, leg. Löffler (NMW); SANKHUA SABHA: E Thudam, lower Kangla Khola, 3850 - 3600 m, 25.V.1988, leg. Martens & Schawaller [389] (SMNS, NMW); Thudam, 3550 - 3650 m, 25. - 27.V.1988 [390] (SMNS); Thudam - Gabri Khola, 4000 - 4250 m, 27.V.1988, leg. Martens & Schawaller [392] (SMNS); Arun Valley, Chichila, 1900 - 2000 m, 18. - 20.VI.1988, leg. Martens & Schawaller [414] (SMNS); TAPLEJUNG: Yamputhin, ascent to pass Deorali, 2100 - 2600 m, 16.V.1988, leg. Martens & Schawaller [365] (SMNS).

BHUTAN: Paro Dist., Chiley-La, 3000 - 3500 m, 10. - 13.VII.1990, leg. Holzschuh (NMW).

DISTRIBUTION: Widely distributed and very common along the main range of the Himalaya (North India, Nepal, Bhutan) and the mountainous western and south-western portion of China (Gansu, Qinghai, Sichuan, Tibet, Yunnan), at elevations from ca. 2000 m to fairly above 4000 m.

Philonthus punctativentris BERNHAUER

Philonthus punctativentris BERNHAUER 1933a: 41

TYPE MATERIAL: **Holotype** ♂: "Tatsienlu China \ Kiulung Reitter \ Philonth. punctativentris Brnh. Typ. \ punctativentris Bernh. Typus. \ Chicago NHMus M.Bernhauer Collection" (FMC). - **Paratypes**: 4 exs. with almost same data as holotype (♀ FMC, ♂ NHML, ♂♀ NMW). **Note**: Only the FMC and NHML specimens bear Bernhauer's "Cotypus" labels, the type status of the NMW specimens is doubtful.

DESCRIPTION: 9.5 - 12.5 mm long (5.3 - 6.2 mm, abdomen excluded). - This species is very similar to *P. azuripennis*, but differing as follows: coloration similar but blue elytra are rare, usually green to bronze-green, eyes somewhat smaller, tempora usually longer than, rarely as long as eyes (ratio 1.00 - 1.14), abdominal tergites rather opaque, with very distinct, rather short-meshed microreticulation between punctures and slight greenish-coppery iridescence (*P. azuripennis* at most with oblique micro-striae, tergites shining and slightly golden-brownish iridescent).

Male sternite VIII with slightly wider and less deep medio-apical emargination, occupying about 1/3 of length of sternite, first four segments of male front tarsi slightly less distinctly dilated, first segment almost symmetrical (Fig. 98).

Aedeagus (Fig. 39) shorter than in *P. azuripennis*, median lobe in lateral view less distinctly sinuate, paramere (Fig. 39c) with more slender apical portion, peg setae arranged in two distinctly longer, more regular rows, each consisting of 13 - 15 peg setae.

ADDITIONAL MATERIAL EXAMINED:

C H I N A: QINGHAI: ca. 30 km N Chumda, 4200 m, 9. - 16.VII.1992 (NMW); TIBET: Tuntala Shan, road Markam - Zogang, 40 km E Zogang, 29°40'N 98°08'E, 4500 m, 29.VI. - 3.VII.1997 (CSB, NMW, CKS); SICHUAN: "Tatsienlu-Kiulung [Kangding] China Reitter" (NHML; identified as *P. emdeni* by Bernhauer); pass ca. 30 km W Kangding, 3600 - 3700 m, 14.VI.1995 (CSO); betw. Shuamaluko and Zhegushan pass, 3700 m, 24./25.VI.1996 (CSO); Luhuo - Sertar, pass 35 km NNE Luhuo, 3500 - 4000 m, 27. - 28./29.VII.1994 (NMW); env. of Serxü, 32°59'N 98°06'E, 3700 m, 3./15.VII.1992 (NMW); Shuajingsi, ca. 2700 m, 10. - 11.VIII.1991 (NMW); ca. 20 km N Shuajingsi, ca. 2700 m, 26.VI.1991 (NMW); S env. of Dege, 31°39'N 98°37', 3100 - 4300 m, 4. - 9.VI.1992 (NMW); road Qianning - Danba, pass 15 km NE Qianning, 30°35'N 101°41'E, 11.VII.1998 (NMW); pass 15 km E Xiwu, 33°09'N 97°30'E, 4000 m, 14.VII.1995 (NMW).

DISTRIBUTION: At present known only from China (Qinghai, Tibet, Sichuan) from elevations of 2700 - 4500 m.

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The *Philonthus decorus* group

DIAGNOSIS: First four segments of male front tarsi simple (Fig. 99); entire forebody with isodiametrical microreticulation, lateral seta of elytra lacking (Fig. 51), median lobe of aedeagus with large subapical tooth on face adjacent to paramere, forming sharp carina in ventral view, peg setae very small, few, arranged in apico-lateral rows, not confluent apically.

Philonthus decorus (GRAVENHORST)

* *Staphylinus decorus* GRAVENHORST 1802: 19
* *Palaeophilonthus rossicus* COIFFAIT 1965: 616

DESCRIPTION: 11.5 - 15.5 mm long (5.6 - 6.6 mm, abdomen excluded). - Black, head and pronotum metallic green in clean specimens, sometimes with bronze tinge, elytra metallic bronze-green (dirty or oily specimens might appear entirely black), scutellum and abdomen black, entire body moderately shining to opaque due to distinct microsculpture, tergites with slight greenish iridescence, front legs to a large extent reddish-testaceous, sometimes tibiae somewhat infuscate, mid and hind legs generally darker, but at least tarsal segments 2 - 5 reddish-testaceous, palpi entirely reddish or partly piceous.

Head suborbicular, as wide as long or inconspicuously wider than long (ratio 1.00 - 1.07), distinctly narrower than pronotum, tempora as long as or slightly longer than eyes (ratio 1.00 - 1.13), evenly convex, densely but finely punctate, especially behind postocular seta, postocular seta situated at half distance between posterior margin of eye and base of head, antennae with segments 4 - 6 conspicuously oblong, segment 7 inconspicuously (rarely more distinctly) oblong, segments 8 - 10 about as long as wide; pronotum about as long as wide, widest slightly in front of middle, of hexagonal shape, dorsal rows each with 4 punctures, anterior margin between foremost puncture of dorsal row and lateral margin usually with five punctures bearing rather short setae, head and pronotum with dense and profound isodiametrical microsculpture; elytra along suture slightly shorter than pronotum, slightly widened posteriad, densely punctate, punctures hardly discernible in dense, isodiametrical, almost scale-like microsculpture; abdominal tergites densely and uniformly punctate, punctures separated by 1 - 2 puncture diameters in transverse direction, surface densely and distinctly microreticulated, elevated area between two basal lines on first to third visible tergites densely punctate, male sternite VIII with rather deep medio-apical emargination, but emargination mostly filled up by semi-membranous extension; male front tarsus: Fig. 99.

Aedeagus (Fig. 40) long and slender, median lobe with apical portion concavely narrowed to acutely pointed apex, face adjacent to paramere with distinct and acute subapical tooth, in ventral view appearing as subapical mid-longitudinal carina; paramere (Fig. 40c) long, subparallel, slightly spoon-like dilated apically, apex obtusely or more acutely rounded, peg setae arranged in two lateral rows, not confluent apically, each row consisting of about 7 irregularly spaced peg setae.

MATERIAL EXAMINED:

R U S S I A: ALTAYSKIY KRAY: Altai, Teletskoya Lake, various dates betw. 10. and 20.VII.1991, pan traps, leg. S. A. Marshall (CSO, NMW); NOVOSIBIRSKAYA OBL::"USSR: Novosibirsk Region, Cherny Mes 21-29.VI.1991 FIT-pans, lake shore S. A. Marshall" (CSO); ibid., pans under MT (CSO); ibid., in cone debris, 25. - 30.VI.1991 (CSO); Barnaul, Tjagun, 4. - 7.VIII.1993, leg. Snizek (NMW); PRIMORSKIY KRAY: "Seitengraben des Prwaja Rjetschka Tales b. Wladiwostok \ leg. M. Frieb 1918-1920 \ decorus Gravh. \ ex coll. Scheerpeltz" (NMW).

DISTRIBUTION: Widely distributed in the northern temperate parts of the Palaearctic region (except Japan).

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Philonthus laetus HEER

* *Philonthus laetus* HEER 1839: 259
* *Philonthus ghilianii* KRAATZ 1857: 574

DESCRIPTION: 10 - 13 mm (5.0 - 5.8 mm, abdomen excluded). - Externally almost identical with *P. decorus*, but differing as follows: body size on average smaller, elytra dark metallic blue, eyes conspicuously longer (tempora : eyes = 0.96 - 1.07 : 1), legs and palpi generally darker.

Aedeagus (Fig. 41) with apex of median lobe more obtusely pointed; paramere (Fig. 41c) with apical portion slightly broader, peg setae smaller, more densely arranged, situated more apically.

DISTRIBUTION: The species has a very restricted distribution in the western Alps (France, Italy); also recorded from Sardegna.

The *Philonthus latiusculus* group

DIAGNOSIS: First four segments of male front tarsi distinctly dilated, almost sub-bilobed (Figs. 100, 101); elytra exceedingly densely punctate, with posthumeral and lateral seta, median lobe of aedeagus without tooth on face adjacent to paramere, peg setae numerous, arranged in irregular midlongitudinal cluster.

Philonthus latiusculus HOCHHUTH

Philonthus latiusculus HOCHHUTH 1851: 15 (cited as "*latiusculus* Motsch."; probably a mansucript name of Motschulsky)
Philonthus immutatus MOTSCHULSKY 1860: 569

TYPE MATERIAL: I have made no attempt to study the original material of *P. latiusculus*, as well as that of *P. immutatus*. The concept of previous authors has been accepted.

DESCRIPTION: 9.5 - 14.0 mm long (5.0 - 5.6 mm, abdomen excluded). - Black, shining, elytra dark metallic bronze-green, head and pronotum often with slight greenish or brassy metallic hue, antennae black, two basal segments brightly reddish, tip of last segment frequently brightened, last segments of palpi frequently paler brown, pubescence on tempora, elytra and tergites golden-yellow.

Head suborbicular, 1.11 - 1.13 times as wide as long, distinctly narrower than pronotum (ratio about 1.5), eyes longer than tempora (ratio 1.15 - 1.27), tempora narrowed toward rather broad neck in regularly convex arc, postocular seta situated at half distance between posterior margin of eye and base of head, area behind postocular seta densely and moderately coarsely punctate, punctures bearing rather long and thick setae, punctation extending on infra-orbital area, antennae with segments 4 - 7 slightly to conspicuously oblong, segments 8 - 10 as long as wide or inconspicuously oblong; pronotum 1.07 - 1.12 times as wide as long with regularly convex sides, dorsal rows each with 4 punctures, foremost puncture very fine and sometimes missing, anterior margin between foremost puncture of dorsal row and lateral margin with a sparse row of 3 - 4 very fine setiferous punctures, head and pronotum with fine and dense, sometimes oblique, long-meshed, transverse microreticulation; elytra along suture distinctly shorter than pronotum (ratio about 0.8), distinctly widened posteriad, very densely punctate, punctures almost contiguous in transverse direction, surface between punctures smooth and shiny but frequently slightly or more distinctly rugose; abdominal tergites very densely punctate, interstices between punctures about a puncture diameter in transverse direction, elevated area between two basal lines on first three visible tergites very densely punctate, male sternite VIII with moderately deep medio-apical emargination, semi-membranous extension weekly developed, tergite X with

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acutely pointed apex; first four segments of male front tarsi distinctly dilated, sub-bilobed (Fig. 100), but not as strongly dilated as in the *politus* or *tractatus* groups.

Aedeagus (Figs. 45, 46) with short median lobe, slightly sinuately narrowed toward obtusely rounded apex, face adjacent to paramere without tooth; paramere (Figs. 45c, 46c) exceedingly variably shaped, 40 - 50 peg setae arranged in narrow, basally widened mid-longitudinal stripe, irregularly spaced.

MATERIAL EXAMINED:

R U S S I A: KRASNOYARSKIY KRAY: "Krasnojarsk Jenissei Gassner" (NMW); BURYATSKAYA ASSR: "Quell d. Irkut Reitter" (NMW); "Werchne -Udinsk Transbaikal. Mandl" (NMW); "Sibirien" (NHML); "Sibirien Burjat ASSR \ Archan X.89 l. Shilenkov" (NMW); CHITINSKAYA OBL.: "Pjestschanka 8 km öst. Tschita Transbaikalien \ H. Frieb leg. 1918 - 1920" (NMW).

M O N G O L I A: "Museum Paris Mongolie Bords du Tarim Mssiion [sic!] de Lacoste Dr du Chazaud 1909" (MHNP); "Mongolia Ulan Bator Zaisan 1400m 107el/48nw 28.V.1989 S. & J. Kolibac leg." (NMB); ibid., 30.IV.1989 (NMB); ibid., 30.IV. and 28.V.1989, leg. L. Bocak (NMB).

C H I N A: XINJIANG: "Chan-Tengri. Mont. merid." (NMW).

DISTRIBUTION: The species is known from Russia east of the river Ob, Mongolia and north-western China (most likely also in northeastern China). RYABUKHIN (1999) recorded the species from the Magadan area in the Northeast of Russia. In the NMW (coll. Scheerpeltz) there is a specimen from "Mesopotamia Mosul" (Iraq); the specimen is probably mislabelled.

Philonthus emdeni BERNHAUER

Philonthus emdeni BERNHAUER 1931a: 2
Philonthus kiulungensis BERNHAUER 1933a: 42; SCHILLHAMMER 1999b

TYPE MATERIAL: *Philonthus emdeni*: **Holotype** ♂: "7 19 \ 1923 4 \ Szetschwan Sunpanting Exp. Stötzner \ Philonthus Emdeni Brnh. Typus \ Emdeni Bernh. Typus ♂ \ Chicago NHMus M.Bernhauer Collection" (FMC). - **Paratypes**: 1 ♀ with same locality data as holotype (FMC); according to the description there should be additional type material in the SMT. **Note**: Three specimens in the NMW from "Tatsienlu-Kiulung China Em. Reitter" bear "Cotypus" labels, but they definitely do not belong to the type series. The specimen with a locality label identical to that of the holotype in NHML is not indicated as belonging to the type series.

Philonthus kiulungensis: **Holotype** ♂ (by monotypy): "Tatsienlu-Kiulung China Em. Reitter [original label cut in two] \ kiulungensis Brnh. Typ. un. \ kiulungensis Bernh. Typus unic. don. Reitter \ Chicago NHMus M.Bernhauer Collection" (FMC).

DESCRIPTION: 9.5 - 15.5 mm long (5.2 - 6.4 mm, abdomen excluded). - Black, fore-body shining, elytra moderately shining or almost dull, rarely elytra and fore-body with slight dark greenish or bronze-greenish metallic hue (specimens from north-western Yunnan).

Head suborbicular, inconspicuously wider than long (ratio 1.04 - 1.08), eyes longer than tempora (ratio 1.08 - 1.31, in specimens from north-western Yunnan 1.42 - 1.68), postocular seta situated at half distance between posterior margin of eye and base of head, area behind postocular seta densely punctate, punctures bearing rather thick setae, antennae long, segments 4 - 7 conspicuously oblong, segments 8 - 10 as long as wide or slightly oblong; pronotum 1.02 - 1.12 times as wide as long, widest slightly before middle, sides evenly convex or narrowed toward base in almost straight line, dorsal rows each with four punctures, anterior margin between foremost puncture of dorsal row and lateral margin with only 3 - 4 setiferous punctures, head and pronotum with dense but in places sometimes oblique, long-meshed, transverse microreticulation; elytra along suture as long as pronotum or slightly shorter, conspicuously widened posteriad, exceedingly densely punctate, punctures almost contiguous in transverse direction, surface usually rugosely sculptured, pubescence dark, very short; abdominal tergites densely and uniformly punctate, punctures separated on average by a puncture diameter in transverse direction, elevated area between two basal lines on second and third visible tergites

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densely punctate, even that on first visible tergite with conspicuous row of punctures, tergite X in both sexes strongly pigmented (male tergite X: Fig. 63), usually with pointed or rounded apex, rarely slightly emarginate apically; male sternite VIII: Fig. 77; male front tarsus: Fig. 101.

Aedeagus (Figs. 47, 48) with median lobe bisinuately narrowed toward obtusely pointed apex, face adjacent to paramere without tooth; paramere (Figs. 47c, 48c) variably shaped, with rather short and slender apical portion, about 40 peg setae variably densely arranged in mid-longitudinal cluster, normal setae rather short.

REMARK: The specimens from northwestern Yunnan have remarkably large eyes and elytra with bronze-greenish metallic hue and most likely represent a distinct subspecies. For reasons explained above (see *P. saphyreus* and *P. azuripennis*) I refrain from naming it.

ADDITIONAL MATERIAL EXAMINED:

C H I N A: GANSU: Dalijia Shan, 46 km W Linxia, 2980 m, 10.VII.1994, leg. Smetana [C5] (CSO, NMW); pass betw. Hezuo and Amqog, 3300 m, 12.VII.1994, leg. Smetana [C10] (CSO); Hua er Ge Lingke riv., 5 km SSW Luqu, 3400 m, 12.VII.1994, leg. Smetana [C11] (CSO); QINGHAI: 20 km N Nanqen, 32°16'N 96°29'E, 3300 m, 5. - 6.VII.1995 (NMW); SICHUAN: "Szetschwan Sunpanting Exp. Stötzner" (NHML); "China: Szechuan; nr. Tatsienlu. E1. 9200 ft. June 10-20, 1929 H. Stevens leg. \ Field Museum Kelley Roosevelt Asiatic Exped. 1929 H. Stevens leg." (FMC); "Tatsienlu-Kiulung China Em. Reitter" (FMC, NMW; the NMW specimens are labelled as "Cotypes"); "Tatsien-lu Grenze Thibet Ost Em. Reitter" (FMC); Kangding, VII.1992 (NMW); Kangding, 2800 m, 10. - 12.VII.1995 (CSO); Daxue W Kangding, 30°03'N 101°57'E, 2700 - 2800 m, 24.V.1997 (CSB); ibid., 2600 - 2700 m, 22./24.V.1997 (CSB); ibid., same lat. and long. but N [!] Kangding (CPE); W Kangding, E Theto-La Pass, 30°01'N 101°52'E, 3500 m, 25.V.1997 (CSB); ibid., 3500 - 3600 m, sifted (CPE); 15 km S Kangding, 29°56'N 101°58'E, 2800 - 3000 m, 14. - 15.VII.1994 (CSO); Kangding Dist., Valley of Yala, N vill. Zhonggu, 2900 - 3450 m, 17. - 19.VII.1996, leg. A. Zamotajlov & A. Miroshnikov (CGP); S env. of Dege, 31°39'N 98°37', 3100 - 4300 m, 4. - 9.VI.1992 (NMW); Chola Shan, SW env. of Maninganggo, 31°50'N 99°07'E, 4000 - 4600 m, 12.VI.1992 (NMW); Tagu, VII. 1992 (NMW); Pame, VII.1992 (NMW); Sanjiangkou, Balang, VII./VIII.1934, leg. Friedrich (NMW); W Songpan, 3100 - 3300 m, 7.VIII.1994 (CTL); Mts. ca. 20 km NNW Sabdé, 2000 - 3500 m, 18. - 20.VI.1994 (NMW); Barkam, ca. 2300 m, 22. - 26.VI.1991 (NMW); S env. of Barkam, 31°53'N 102°12'E, 2900 - 3700 m, 22.VI.1994 (CSO); env. Barkam, Aba Co., Shuamallko, 4000 m, VII.1994 (CSO); Daliang Shan, pass betw. Xichang and Meigu vill., env. of Zhaojue vill., 12. - 14.VI.1998 (CSO); 60 km S Hongyuan, ca. 4200 m, 27. - 29.VI.1991 (NMW); Hongyuan, 21.VII. - 3.VIII.1991 (NMW); 70 km N Zoigê, 3400 m, 14.VII.1994, leg. Smetana [C16] (CSO); Zhendu-Paá, N Matang, S - slope 4000 m, 23.VI.1996, leg. Erber (CAH); 15 km N Muli (Bowa), 27°55'N 101°19'E, ca. 3100 m, (NMW); 30 km N Muli (Bowa), 28°07'N 101°05'E, ca. 3500 m, 24.VII.1995 (NMW); road Luhuo - Sertar, 20 km N Luhuo, 31°32'N 100°42'E, 3800 m, 21.VII.1997 (CSB); TIBET: W great bend of Brahmaputra [Yarlung Tsangpo], 29°40-45'N 94°44'E, 3400 m, 21.VII.1992 (NMW); road Bomi - Rawu, 30 km W Rawu, 29°33'N 96°30'E, 3800 m, 11.VII.1997 (CSB, NMW); Nyingtri, Serkyim-La, SW - slope, 3800 - 3900 m, 27. - 28.VI.1995 (CSO); Nyingtri env. of Basum-tso, 3400 - 3500 m, 25. - 26.VI.1995 (CSO); YUNNAN: Yulong Shan, 27°08'N 100°14'E, 2900 - 3500 m, 7. - 12.VII.1990 (NMB); ibid., 2500 - 2800 m, 24. - 26.VII.1990 (NMB); ibid., 27°10'N 100°13'E, 3500 - 4000 m, 16. - 19.VI.1995 (NMB); 35 km N Lijiang, Heishui, 27°13'N 100°19'E, 1. - 19.VII.1992 (NMW); Deqen env., 3300 m, 29.VI.1998, leg. A. Gorodinski (CST); ibid., 20. - 24.VI.1995 (CKS); road Deqen - Yanjing,, 10 km W Deqen, 28°28'N 98°53'E, 21. - 22.VI.1997 (CSB); Zhongdian env., 3400 m, 3.VII.1998, leg. A. Gorodinski (CST, NMW); Zhongdian env., 27°50'N 99°36'E, 3200 - 3300 m, 21. - 22.VI.1996, leg. Smetana et al [C35] (CSO); Haba Shan, E - slope, 27°20'N 100°09'E, 3000 - 3800 m, 13. - 17.VII.1992 (NMB); Haba Shan, SE - slope, 27°20'N 100°11'E, 2500 - 3800 m, 3. - 6.VI.1995 (NMW); Dongchuan, 28.VI. - 3.VII.1994 (CKS).

DISTRIBUTION: The species occurs in mountainous western and south-western China (Gansu, Qinghai, Sichuan, Tibet, Yunnan). The distribution area is identical with that of *P. azuripennis* in China.

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Philonthus ghilarovi TICHOMIROVA

Philonthus ghilarovi TICHOMIROVA 1972: 167

TYPE MATERIAL: I have studied the holotype (♀) at an earlier occasion but, unfortunately, did not record the exact label data (type locality: Russia Far East, Suputinskiy Zapovednik). According to the original description there is also a ♂ paratype (aedeagus lost). Both type specimens are in the ZMM.

DESCRIPTION: 11 - 13 mm long (5.8 - 5.9 mm, abdomen excluded). - In most respects identical with *P. emdeni* and differing only by the generally smaller eyes (1.05 - 1.15 times as long as tempora), but above all by the isodiametrical microreticulation of the head and the pronotum.

Aedeagus (Fig. 49) with median lobe longer, more abruptly narrowed apically; paramere (Fig. 49c) much longer, blade-like, with rather acutely pointed apex and small lateral extensions at base of apical portion, peg setae arranged in narrow mid-longitudinal strip.

ADDITIONAL MATERIAL EXAMINED:

R U S S I A: PRIMORKIY KRAY: 30 km NE Vladivostok, Tajvaza, FIT 29.VII. - 5.VIII.1992, B.D. Gill" (CNC); Pidan Mts., Anisimovka vill., 18. - 25.VI.1990, leg. Plutenko (CGO); 70 km E Vladivostok, Anisimovka, pitfall trap, 43°11'N 132°41'E, 250 m 5. - 10.VI.1993, leg. Zerche (DEI); Shikote-Alin, Biol. Station, 30 km SE Chuguyevka, 44°05'N 134°12'E, 3.VI.1993, leg. Zerche (DEI, NMW); ibid., 650 m, 31.V.1993 (DEI); ibid., 650 m, 1.VI.1993 (DEI); Ussuriyskiy Nat. Res., Kordon 1, 14.VI.1993, leg. V. Kuznezow (HUB); Ussuriykiy Res., 30 km SE Ussuriysk, 43°30'N 132°00'E, 200 m, 28.VII. - 1.VIII.1993, pitfall trap, leg. Groll & Kutzscher (DEI); Ussuriyskiy Zapovednik, 33 km SE Ussuriysk, 43°37'N 132°18'E, 300 m, 14.VI.1993, mushrooms, leg. Zerche (DEI); Ussuriyskiy Zapovednik, Kamenuschka, 22.VII.1990, leg. Pütz (CPE); ibid., 1. - 3.VI.1990, leg. S. Kasantsev (NMB); ibid., 4. - 6.VI.1990 (NMB, NMW); ibid., 10. - 26.VII.1992, leg. S. & K. Belobozodov (NMB); Hasan Dist., pr. Primorskiy, 25. - 30.V.1990, leg. S. Kasantsev (NMB); Partisansk Dist., Alexandreyeskiy Khr., 20 km E Sergeyevka, forests nr. Andreyevka riv., 400 - 800 m, 26. - 29.VII.1993, leg. Pütz & Wrase (CSB, CPE, NMW); Vladivostok, Bot. Garden, 2.VII.1991, leg. Schröder & Kriska (CSB); Jasnoe Mt., Oblatschnaya, 400 - 800 m, 12. - 16.VII.1989, leg. S. Becvar (CSB); Black Mts., Gryaznaya riv., 13. - 19.VI.1992, leg. Farkač (NMB, NMW); Lazo env., Lasowka vall., 26.V.1993, leg. Sundukow (HUB).

C H I N A: SHANXI: Wutai Shan, 4. - 5.VI.1993 (CRL); BEIJING: Xiaolongmen, 28. - 29.VI.1993 (CRL, NMW); Dongling Shan, 1.VII.1993 (CRL).

DISTRIBUTION: Known only from the Far East of Russia (Primorskiy Kray) and the northeastern portion of China (Shanxi, Beijing).

The *Philonthus transbaicalia* group

DIAGNOSIS: First four segments of male front tarsi distinctly dilated, sub-bilobed (Fig. 102); elytra with posthumeral and lateral seta, median lobe of aedeagus with apex hook-like bent dorsad, without tooth on face adjacent to paramere; paramere without peg setae, usual setae reduced to four apical setae (eight setae in all other groups of the *politus* complex). **Note**: COIFFAIT (1974) included *P. transbaicalia* (as *P. suturalis*) in his subgenus *Kenonthus* (*montivagus* group in the recent concept), which to some extent seems reasonable. The appearance of the paramere without peg setae and the reduced number of usual setae might point towards a relationship with the *montivagus* group. However, because of its external appearance, and because the "montivagoid" paramere might be based on a convergence, the species has been tentatively treated within the *politus* complex.

Philonthus transbaicalia HOCHHUTH

Philonthus transbaicalia HOCHHUTH 1851: 10
Philonthus suturalis NORDMANN 1837: 91 (preoccupied; nec MARSHAM 1802, nec STEPHENS 1832)

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TYPE MATERIAL: I have made no attempt to study any type material. The concept of this distinctive species as treated by previous authors has been accepted (e.g. GUSAROV 1992: 785).

DESCRIPTION: 10.5 - 13.5 mm long (5.0 - 5.9 mm, abdomen excluded). - Black, shining, elytra red, with blackened base and suture, blackened basal portion with greenish metallic hue, blackened sutural portion with purplish metallic hue, head and pronotum with distinct greenish metallic lustre, mouthparts and palpi to a various extent paler brownish or testaceous.

Head rounded quadrangular, about 1.3 - 1.4 times as wide as long (regardless of sex, males have larger heads, but the proportions change insignificantly), eyes longer than tempora (1.07 in large males, 1.27 - 1.36 in females and small males) tempora parallel for quite long distance behind eyes, entirely densely and coarsely punctate, punctures bearing long and thick setae, punctation not restricted to portion behind postocular seta, punctation extending on infra-orbital portion, postocular seta situated at half distance between posterior margin of eye and base of head, antennae with segment 4 as long as wide, segments 8 - 10 distinctly transverse; pronotum 1.05 - 1.12 times as wide as long, wider than head (even in large males), widest in middle, sides narrowed toward base in straight line or slightly sinuately emarginate posteriorly in front of base, dorsal rows each with 3 punctures (very rarely with 2 or 4 in one or both rows), anterior margin between foremost puncture of dorsal row and lateral margin with dense row of about 8 setiferous punctures, all punctures of pronotum bearing very long setae, head and pronotum with dense and distinct, long-meshed, transverse microreticulation, becoming somewhat oblique along midline of pronotum; elytra along suture slightly shorter than pronotum, slightly to distinctly widened posteriad, very densely punctate, interstices between punctures usually less than a puncture diameter in transverse direction, but punctures not contiguous, ground pubescence orange-red, with discal row of 3 conspicuous punctures bearing long black setae of almost same length as scutellar seta, also postero-lateral corner with group of large black setae; abdominal tergites moderately densely punctate, punctures separated by 1 - 3 puncture diameters in transverse direction, elevated area between two basal lines on second and third visible tergites very densely punctate, even that on first visible tergite frequently with a few punctures, male sternite VIII (Fig. 78) with moderately deep medio-apical emargination, semi-membranous extension well developed; male front tarsus: Fig. 102.

Aedeagus (Fig. 50) with blade-like median lobe, widest in middle, slightly concavely narrowed toward rather acutely pointed apex, in lateral view apex hook-like bent dorsad; paramere (Fig. 50c) short, slender, devoid of peg setae, with only four normal setae, situated at apex.

MATERIAL EXAMINED:

R U S S I A: (district ?): "Sibirien Reitter. Leder." (NMW); "suturalis Nordm. Sibir. orient. Epp. dedit" (NMW); "Dauria Sahlberg" (NMW); ALTAYSKIY KRAY: "Kusnezk Altaigeb., Gassner" (NMW); KRASNOYARSKIY KRAY: "Barnaul am Ob Westsibirien \ H.Frieb leg. 1918-1920" (NMW); "Krasnojarsk, Ienisseisgeb." (NMW); IRKUTSKAYA OBL.: "Siberia Irkuck" (NMW); BURYATSKAYA ASSR: "Ostsibirien Werchne-Udinsk" (NMW); CHITINSKAYA OBL.: "Pjestschanka 8 km öst. Tschita Transbaikalien \ H.Frieb leg. 1918-1920" (NMW).

M O N G O L I A: "suturalis Nordm. Nördl. Mongol. Shangai. Leder 1892." (NMW); Ulan Bator env., Zajsan, 28.V.1989, leg. L. Bocak (NMB, NMW); 20 km S Ulan Bator, 22. - 23.VI.1990, leg. L. & M. Bocak (NMB, NMW); Ulanbator env., 23.VII.1990, leg. L. & M. Bocak (NMB, NMW); ibid., 27.VI.1990, leg. V. Kuban (NMB); ibid., VI.1984, leg. Maly (NMW).

C H I N A: XINJIANG: NW - slope of Bogda Shan, 115 km E Urumqi, 10 km N Tianchi, 1500 - 2000 m, 18. - 19.V.1993 (NMW); Bogda Feng, Tianchi, 12. - 14.VII.1991 (CKS); GANSU: Mts. 25 km E Xiahe, 2805 - 2925 m, 3.VIII.1994, leg. Smetana [C28] (CSO, NMW); Mts. 10 km S Xiahe, 3100 - 3200 m, 4.VIII.1994, leg. Smetana [C29] (CSO); SICHUAN: Hongyuan, ca. 4200 m, 21.VII. - 3.VIII.1991 (NMW).

DISTRIBUTION: The species occurs in the northern temperate parts of the eastern Palaearctic region: Russia east of the river Ob, Mongolia, north-western China. Towards the southern distribution limit (Gansu, Sichuan) it is restricted to high elevations (2800 m to fairly above 4000 m).

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species incertae sedis

The following two species could not with certainty be assigned to any of the species groups because on the one hand the type specimens are not available and on the other hand the descriptions are insufficient. In the case of *P. parajaponicus* LI & CHEN it is not even sure whether it belongs to the *politus* complex or not.

Philonthus fugax (FALDERMANN)

Staphylinus fugax FALDERMANN 1835: 125

TYPE MATERIAL: According to HORN et al. (1990: 114) the Faldermann collection should be deposited in the ZIS, but this fact could not be confirmed by the curators.

According to the description the species should be closely related to *P. politus*, but the description is not precise enough to enable me to assign *P. fugax* to any of the species groups of the present concept.

Philonthus parajaponicus LI & CHEN

Philonthus parajaponicus LI & CHEN 1993: 61

TYPE MATERIAL: The description does not mention any type depository and correspondence with the author is possible only in a commercial manner, so I have made no attempt to study the typical material of this species.

The description (in Chinese) does not provide means for recognition when translated and the illustration (apical portion of the paramere) could go with a dozen even remotely related species. I have included *P. parajaponicus* only because its name refers to a species of the *politus* complex.

Addenda and Corrigenda

In part 2 of the "*Philonthus* revision" (SCHILLHAMMER 1999a), I mentioned that the mainland specimens of *Philonthus spinipes* SHARP most likely represent a distinct subspecies. I had overlooked that a subspecies was already named: *Philonthus spinipes* ssp. *hulunbeierensis* LI & CHEN (1993: 35); however this name is younger than *P. kabardensis* (BOLOV & KRYZHANOVSKIY, 1969) which has also been described from the mainland.

In the same paper a lapsus happened in combination with the scale bars on all illustration tables, which represent only half the length as indicated (e.g. on p. 56 it should be 0.5 mm instead of 1 mm and 0.25 mm instead of 0.5 mm).

Zusammenfassung

Der dritte Teil der Revision der Gattung *Philonthus* STEPHENS, 1829 behandelt den *politus*-Komplex der zur Zeit 33 Arten (incertae sedis nicht mitgerechnet) zählt. Drei Arten werden neu beschrieben: *Philonthus incisus* sp.n. (Russland: Kamtschatka), *P. saphyreus* sp.n. (China: Shaanxi, Sichuan) und *P. tractatoides* sp.n. (Bhutan, Nepal). Ein neuer Name (*P. alberti* nom.n.) wird für den praeokkupierten *P. picipes* FAUVEL, 1875 (nec STEPHENS, 1832) vorgeschlagen. *Philonthus politus* ssp. *temperei* COIFFAIT wird als Synonym zu *P. politus* s.str. eingezogen. Lectotypen werden designiert für *P. azuripennis* CAMERON, 1928, *P. japonicus* SHARP, 1874, *P. oberti* EPPELSHEIM, 1889, *P. poephagus* CAMERON, 1928 und *P. tripunctatus* CAMERON, 1919. Die männlichen Kopulationsorgane aller Arten sowie morphologische Details einiger Arten werden abgebildet. Ein Schlüssel dient zur Bestimmung der Artgruppen und Arten des *politus*-Komplexes.

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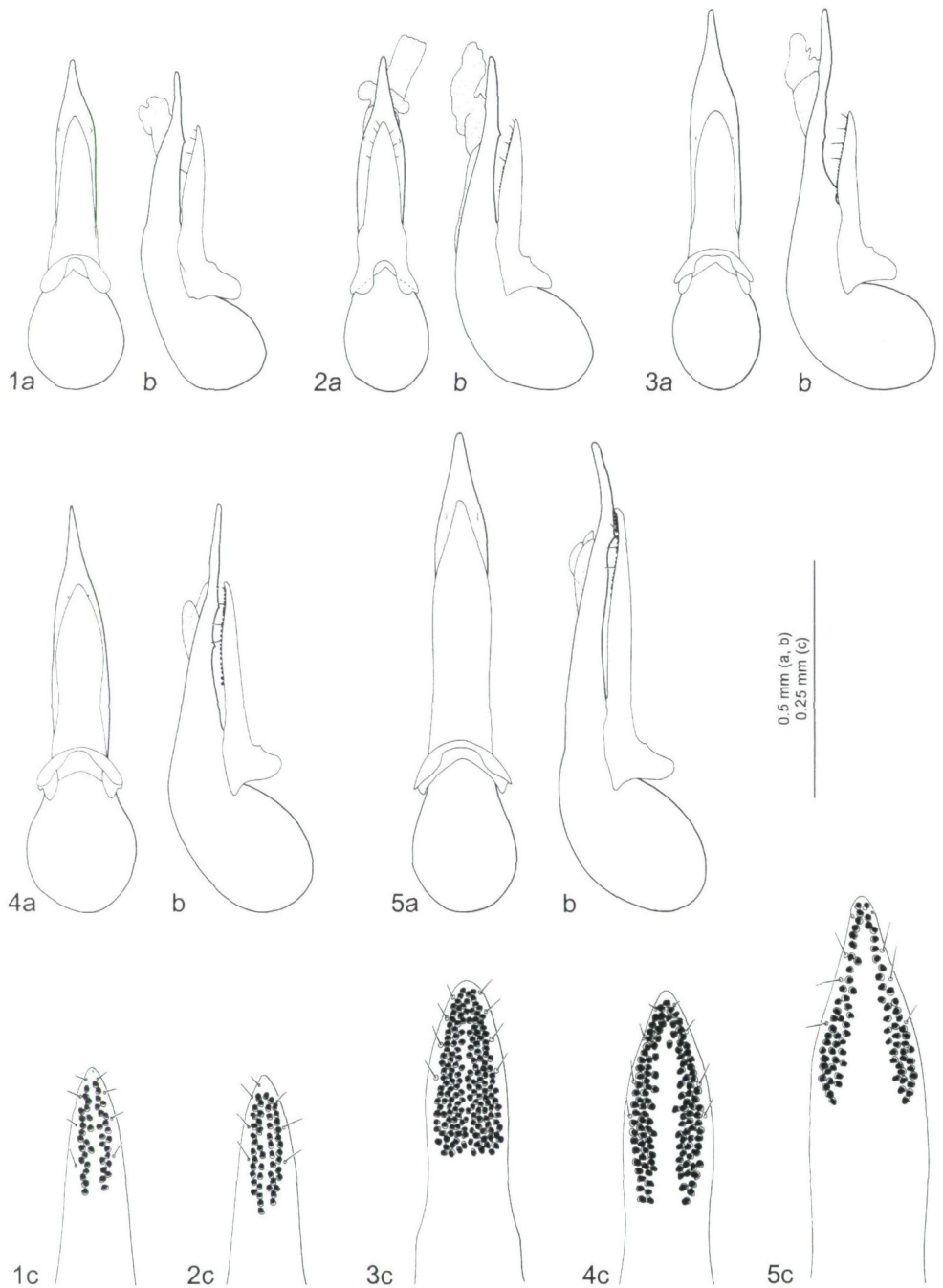

Figs. 1 - 5: aedeagus of 1, 2) *Philonthus politus*; 3) *P. japonicus*; 4) *P. simpliciventris*; 5) *P. donckieri* - a) ventral view, b) lateral view, c) apical portion of paramere.

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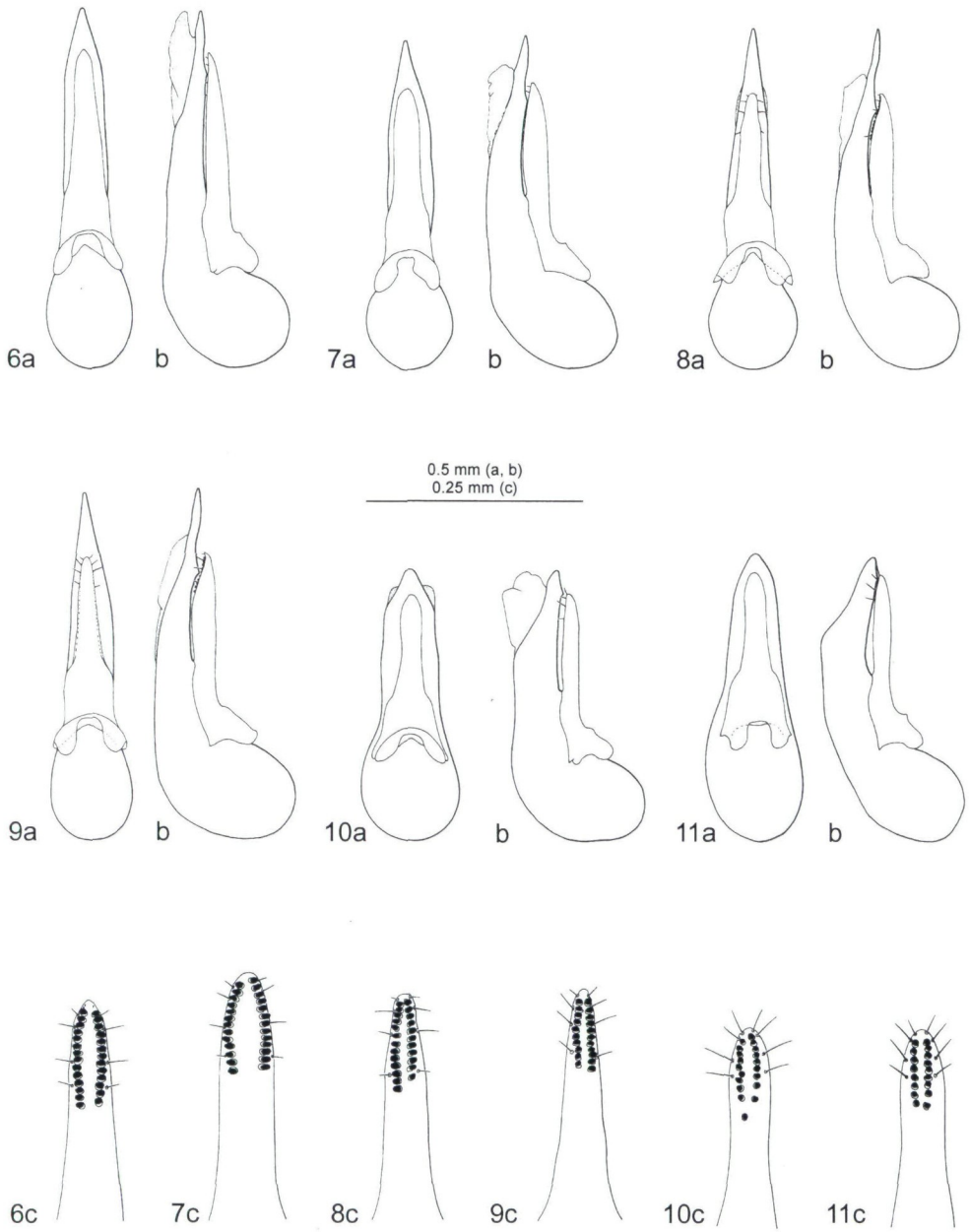

Figs. 6 - 11: aedeagus of 6) *Philonthus succicola*; 7) *P. incisus*; 8, 9) *P. decoloratus*; 10, 11) *P. tenuicornis* - a) ventral view, b) lateral view, c) apical portion of paramere.

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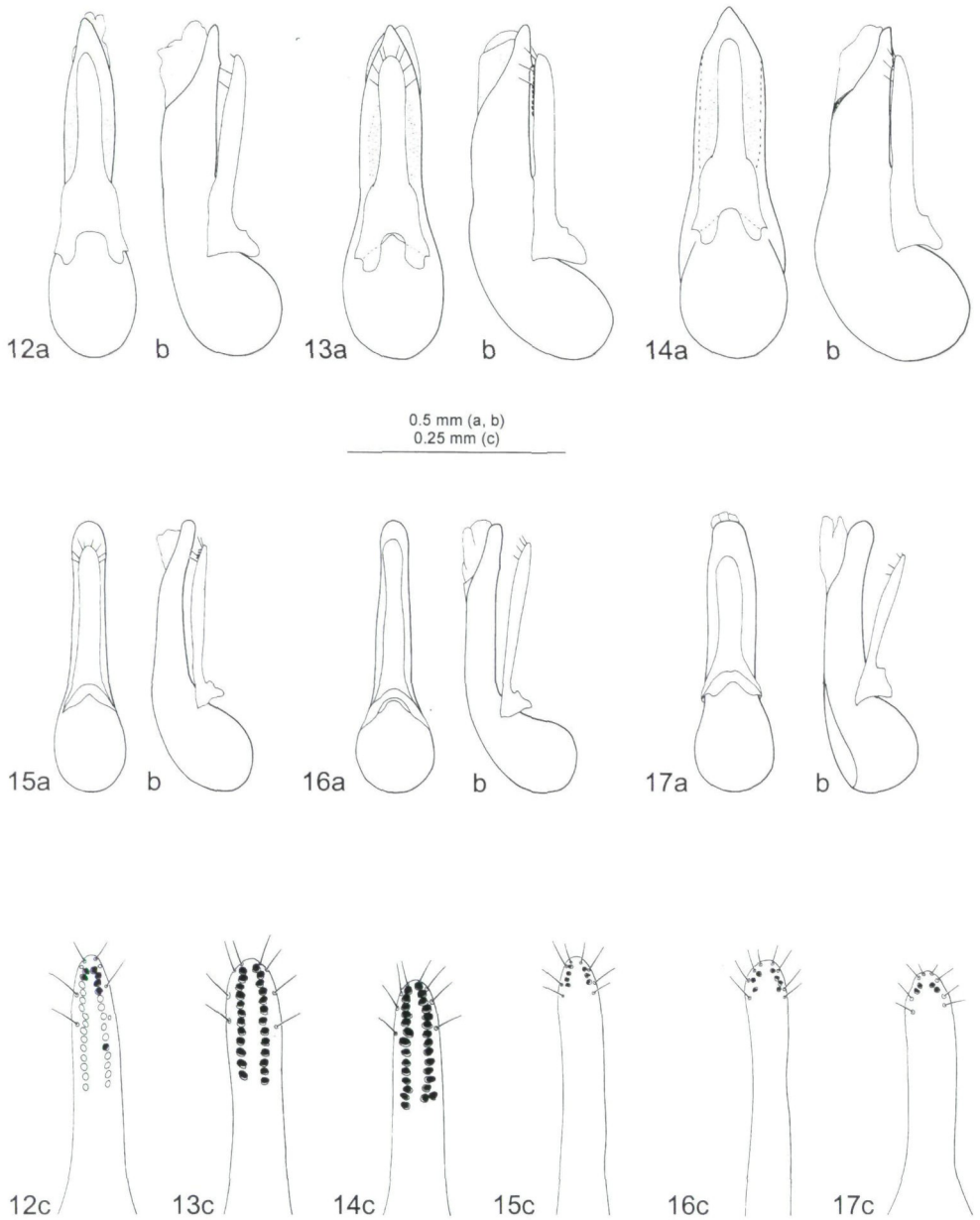

Figs. 12 - 17: aedeagus of 12 - 14) *Philonthus oberti* (12, holotype); 15, 16) *P. addendus*; 17) *P. temporalis* - a) ventral view, b) lateral view, c) apical portion of paramere.

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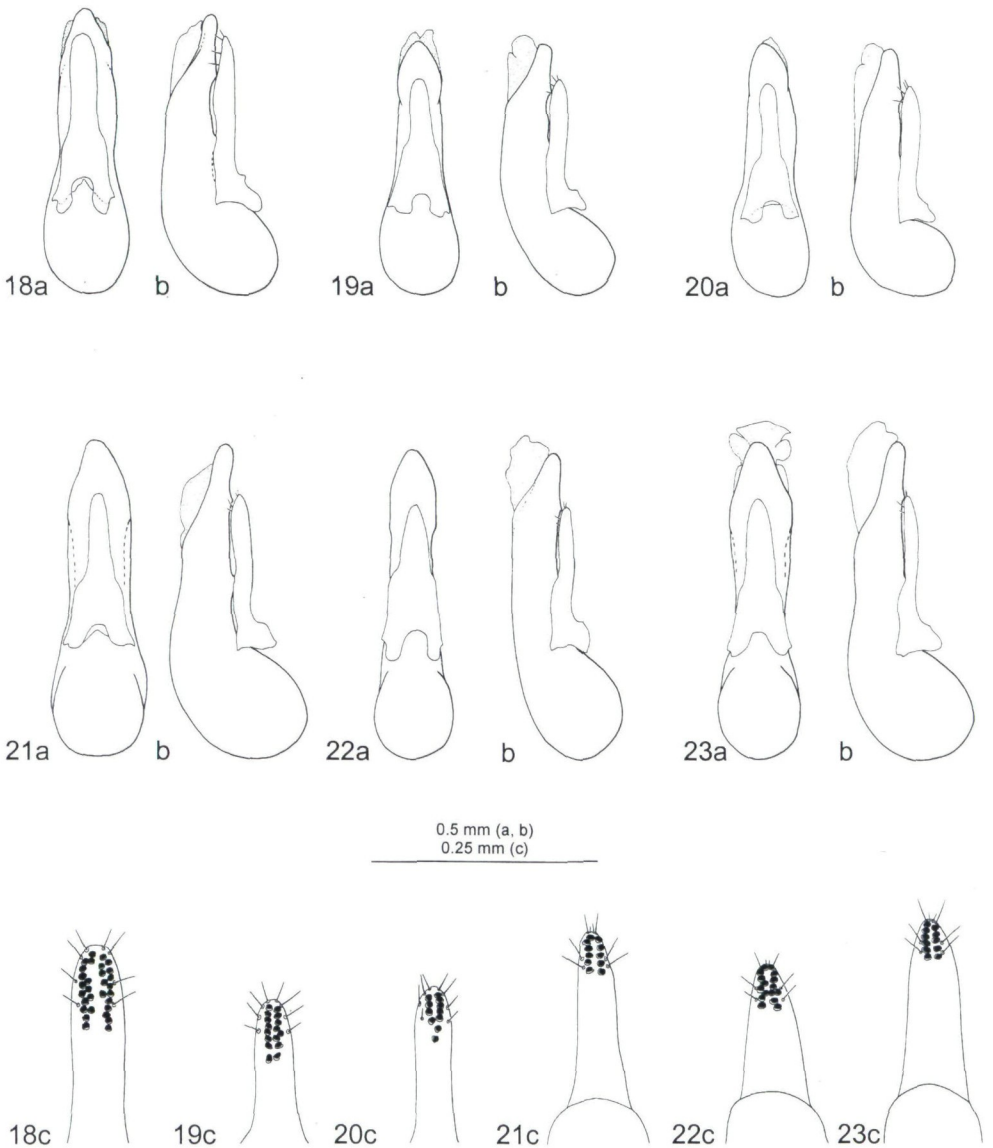

Figs. 18 - 23: aedeagus of 18) *Philonthus alberti*; 19, 20) *P. mannerheimi*; 21 - 23) *P. bisinuatus* - a) ventral view, b) lateral view, c) apical portion of paramere.

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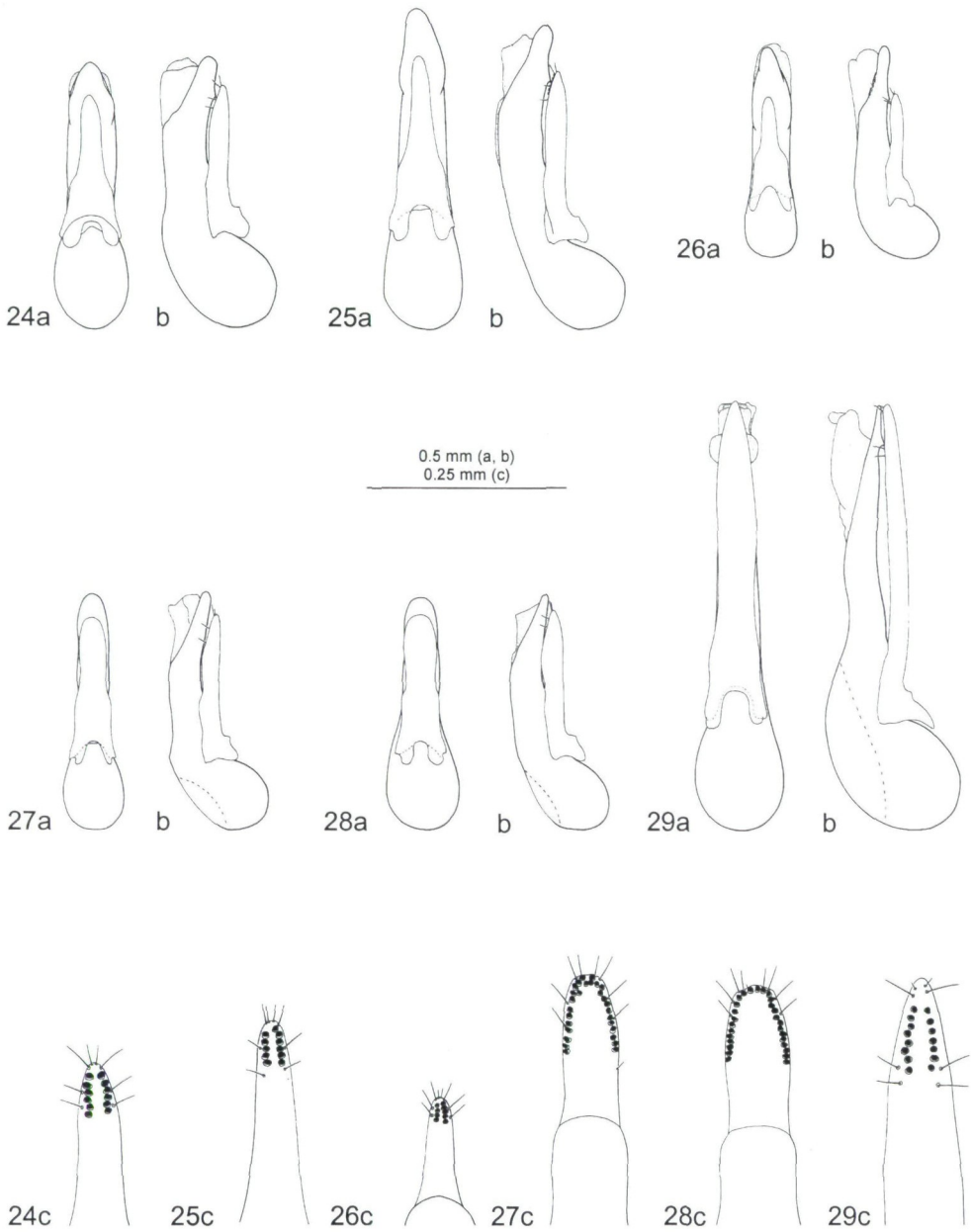

Figs. 24 - 29: aedeagus of 24) *Philonthus nitidus*; 25) *P. aletes*; 26) *P. aeger*; 27, 28) *P. cognatus*; 29) *P. splendens* - a) ventral view, b) lateral view, c) apical portion of paramere.

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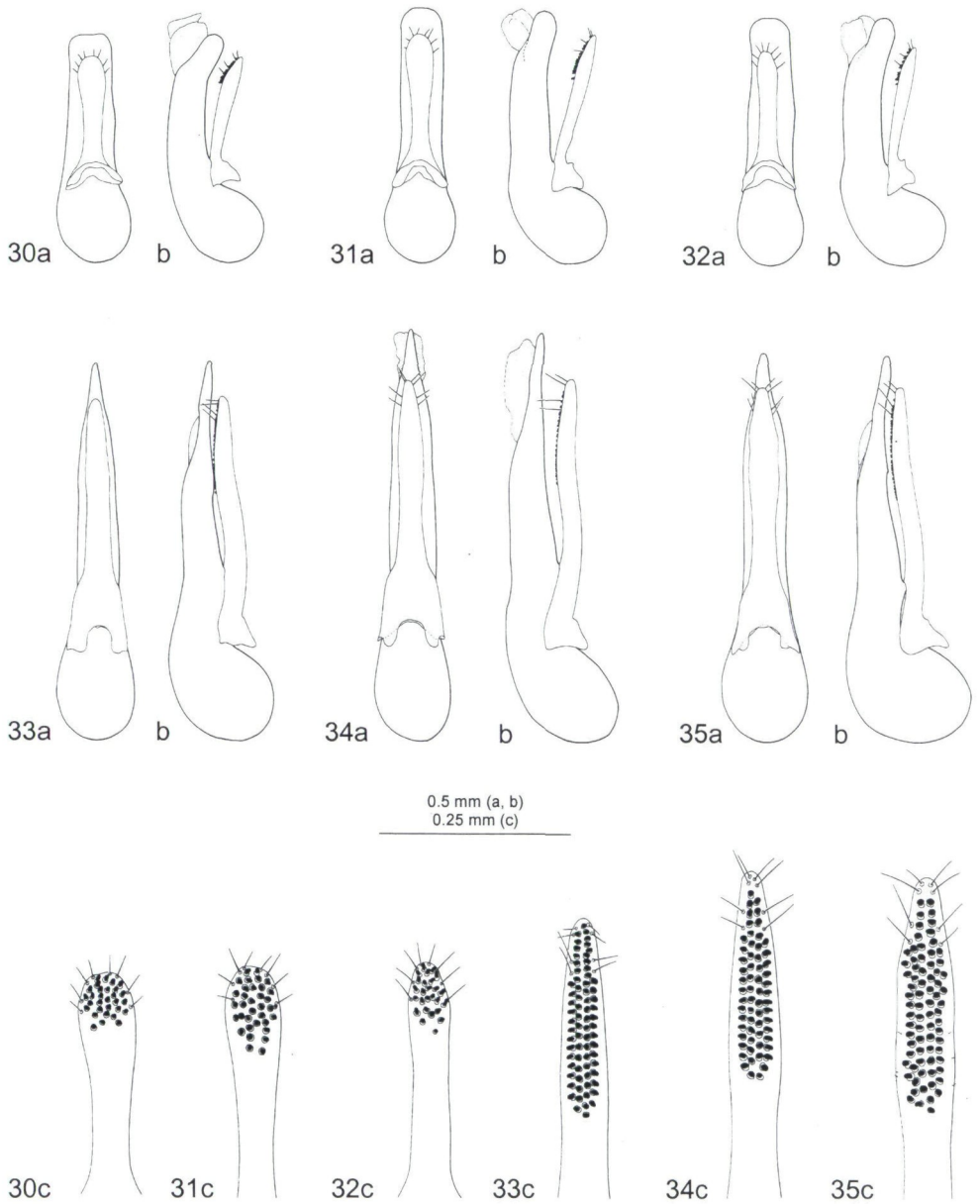

Figs. 30 - 35: aedeagus of 30) *Philonthus purpuripennis*; 31, 32) *P. coelestis*; 33, 34) *P. tractatus*; 35) *P. brevithorax* - a) ventral view, b) lateral view, c) apical portion of paramere.

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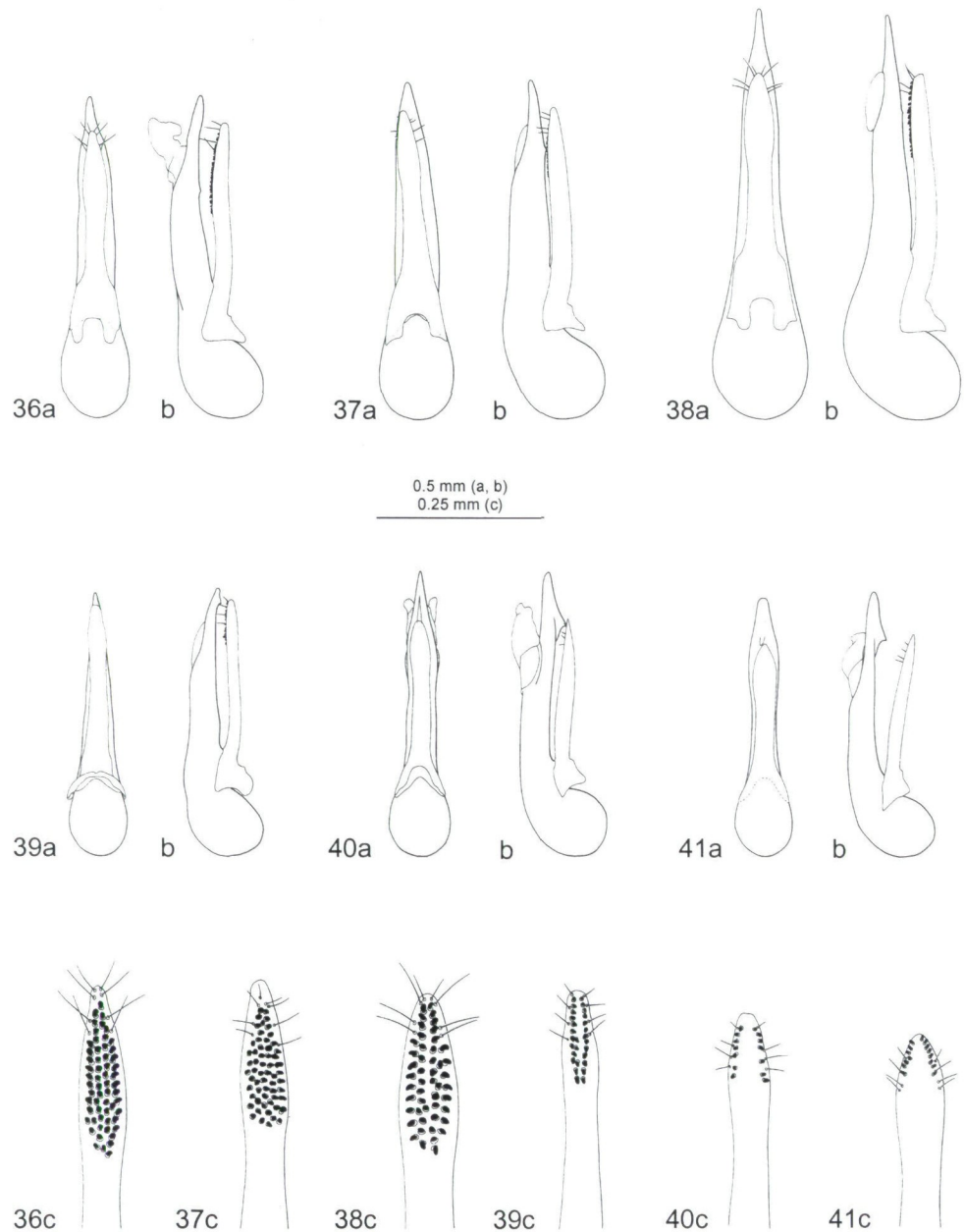

Figs. 36 - 41: aedeagus of 36) *Philonthus brevithorax* (holotype); 37) *P. tractatoides*; 38) *P. saphyreus*; 39) *P. punctativentris*; 40) *P. decorus*; 41) *P. laetus* - a) ventral view, b) lateral view, c) apical portion of paramere.

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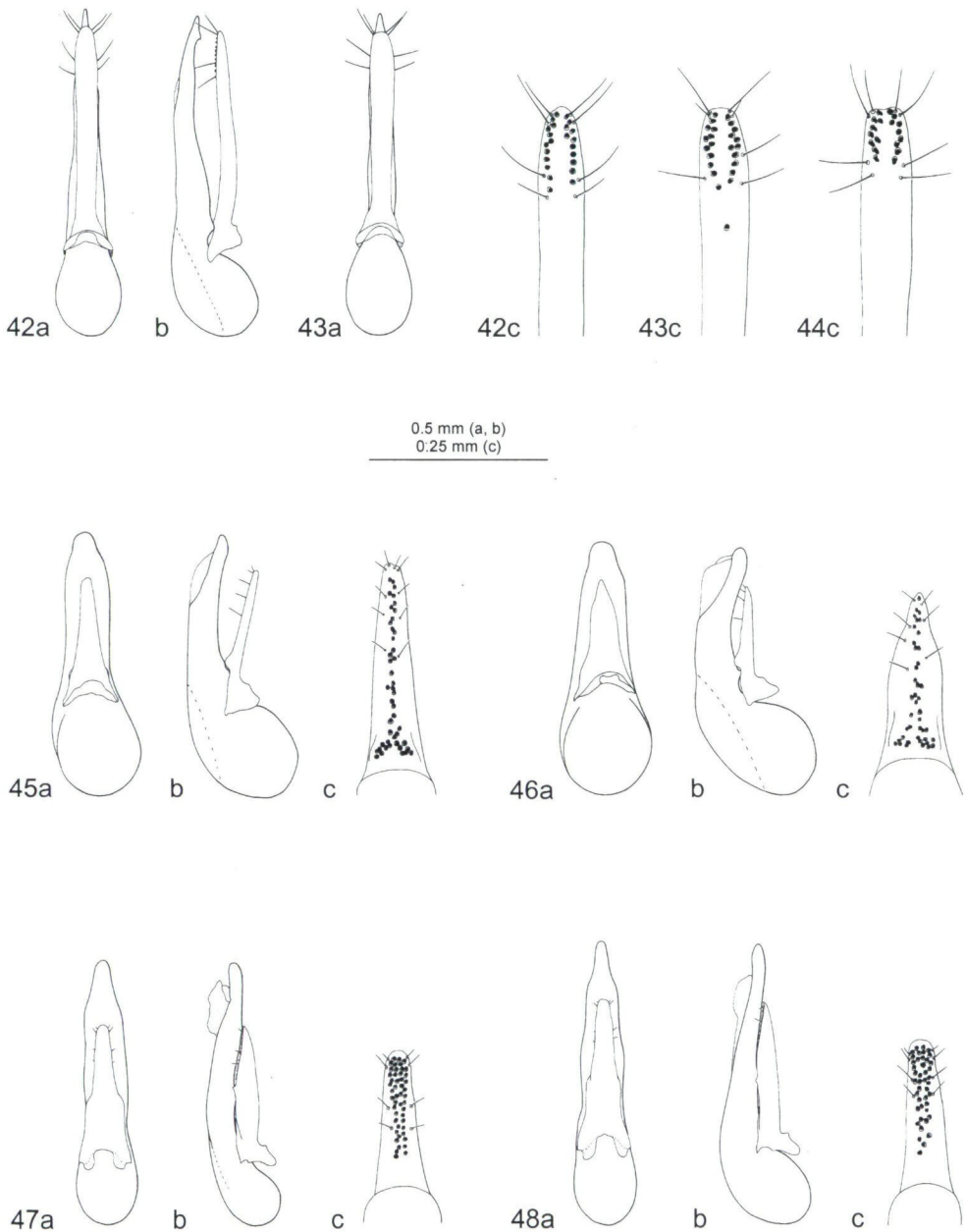

Figs. 42 - 48: aedeagus of 42 - 44) *Philonthus azuripennis*; 45, 46) *P. latiusculus*; 47, 48) *P. emdeni* - a) ventral view, b) lateral view, c) apical portion of paramere.

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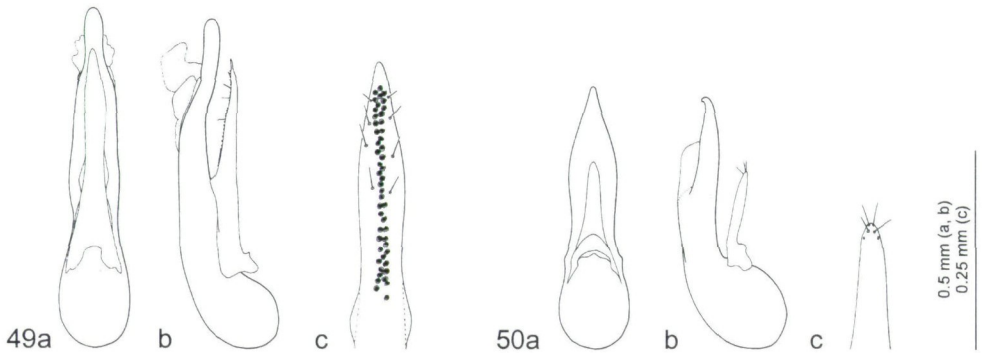

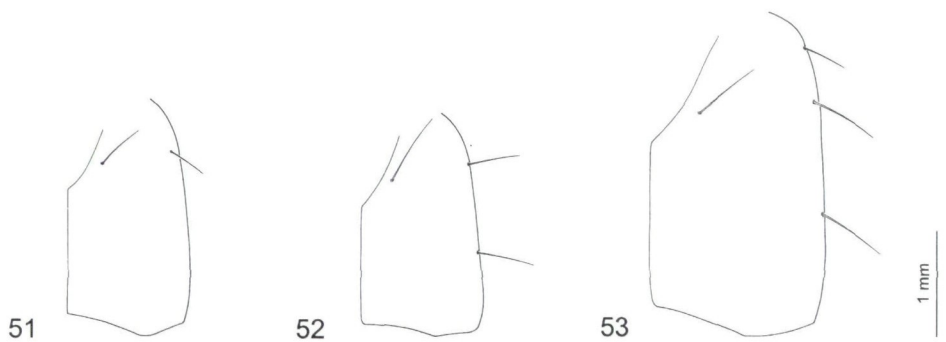

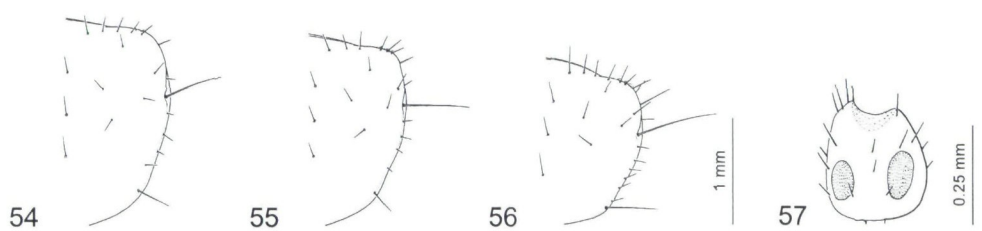

Figs. 49 - 57: 49) *Philonthus ghilarovi*; 50) *P. transbaicalia* - aedeagus, a) ventral view, b) lateral view, c) apical portion of paramere; 51 - 53) right elytron of 51) *P. decorus*; 52) *P. azuripennis*; 53) *P. splendens*; 54 - 56) pronotum of 54, 55) *P. addendus*; 56) *P. oberti*; 57) last antennal segment of *P. decoloratus*.

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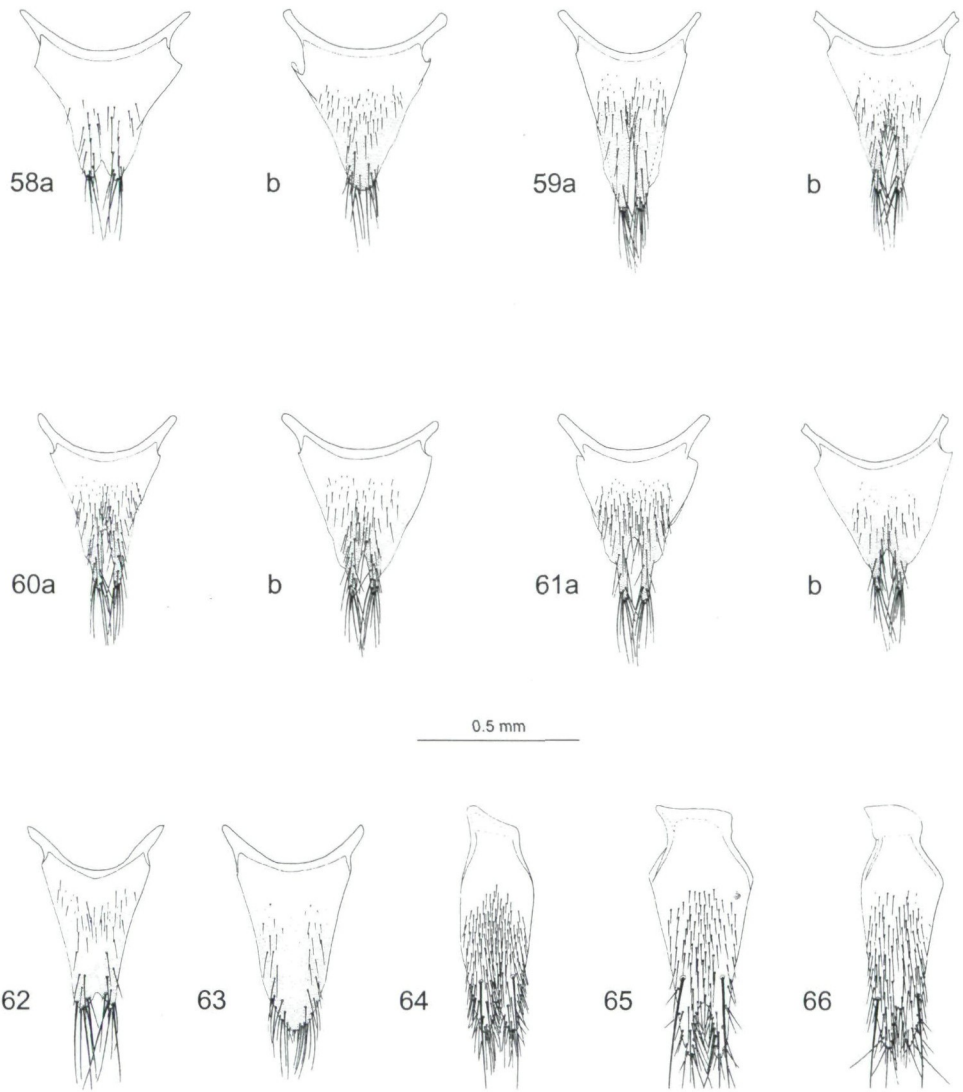

Figs. 58 - 66: 58 - 63) tergite X of 58) *Philonthus simpliciventris*; 59) *P. succicola*; 60) *P. decoloratus*; 61) *P. incisus* - a) male, b) female; 62) *P. tractatus* (male); 63) *P. emdeni* (male); 64 - 66) male sternite IX of 64) *P. politus*; 65) *P. oberti*; 66) *P. azuripennis*.

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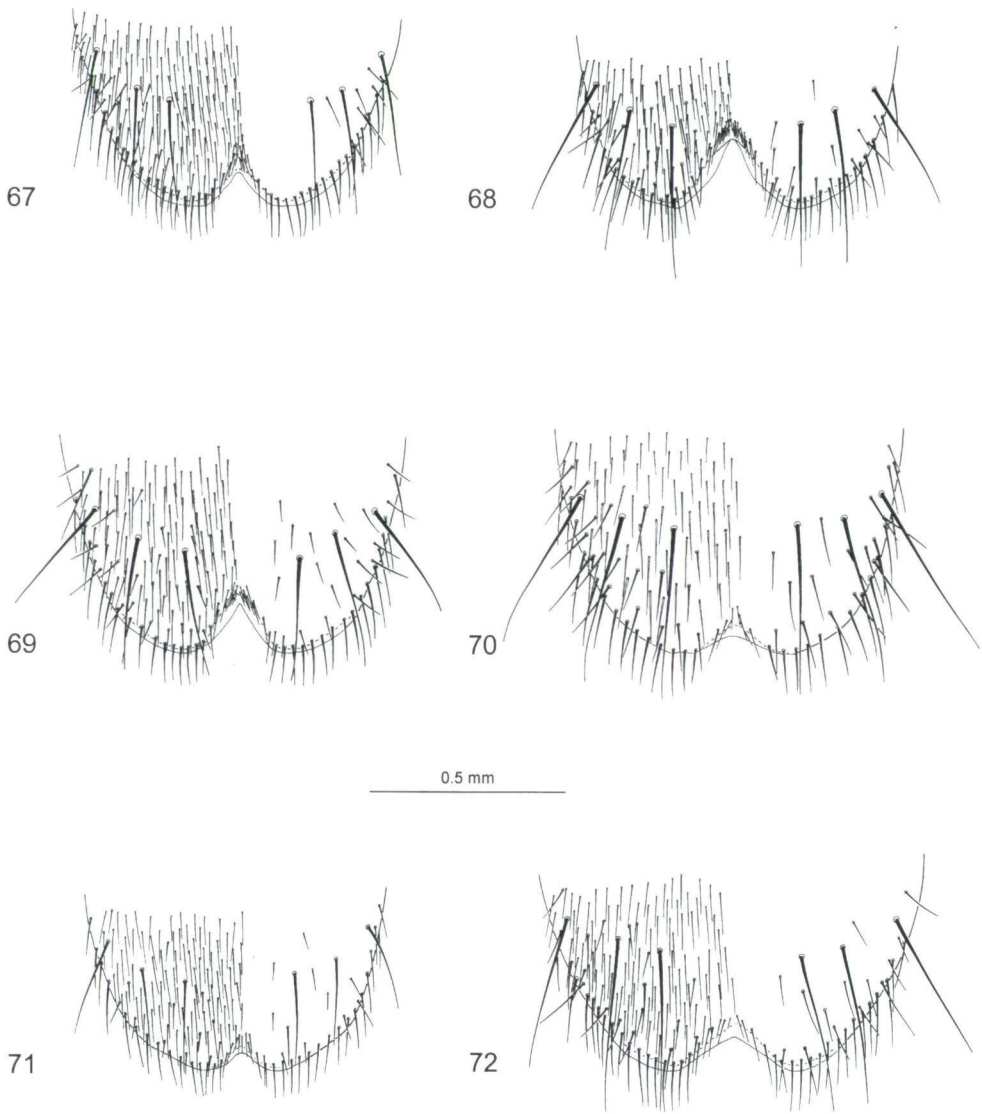

Figs. 67 - 72: male sternite VIII of 67) *Philonthus politus*; 68) *P. simpliciventris*; 69) *P. decoloratus*; 70) *P. oberti*; 71) *P. cognatus*; 72) *P. nitidus*.

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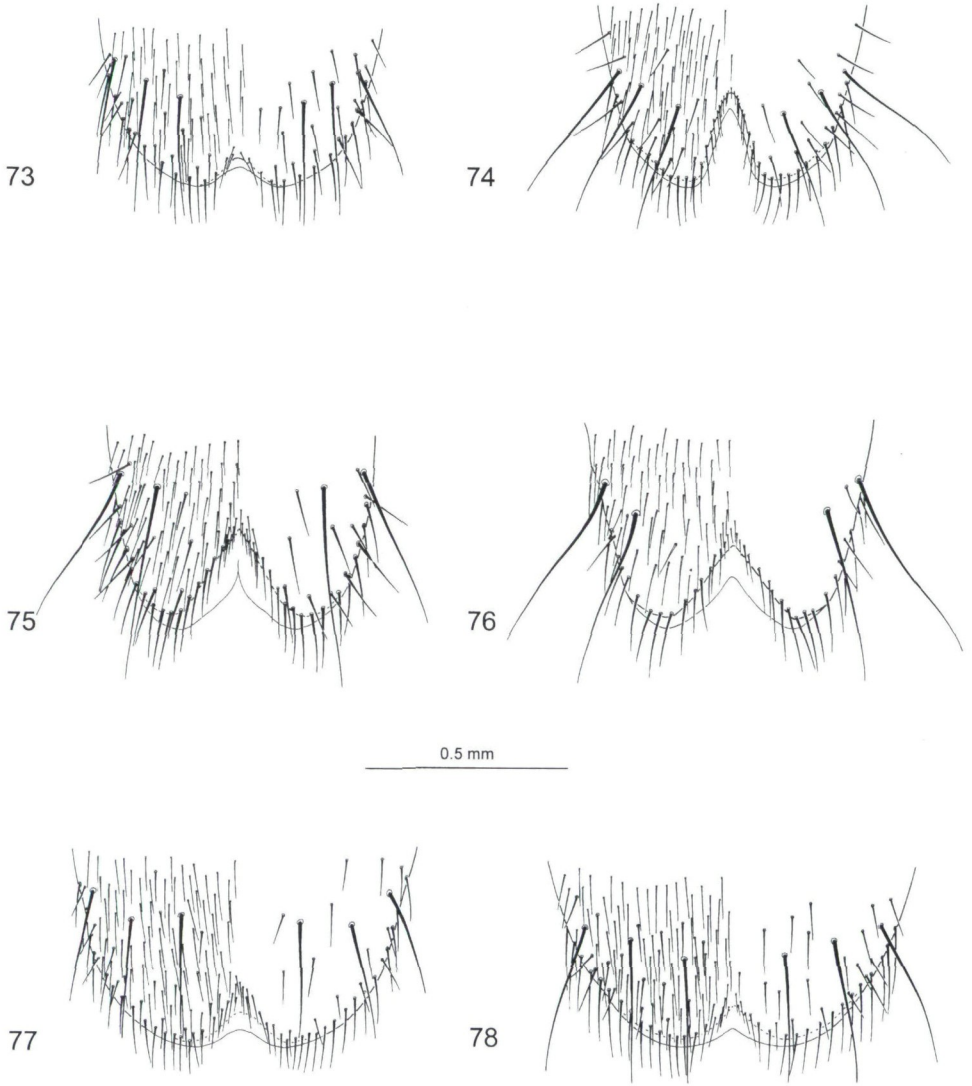

Figs. 73 - 78: male sternite VIII of 73) *Philonthus aeger*; 74) *P. azuripennis*; 75) *P. tractatus*; 76) *P. tractatoides*; 77) *P. emdeni*; 78) *P. transbaicalia*.

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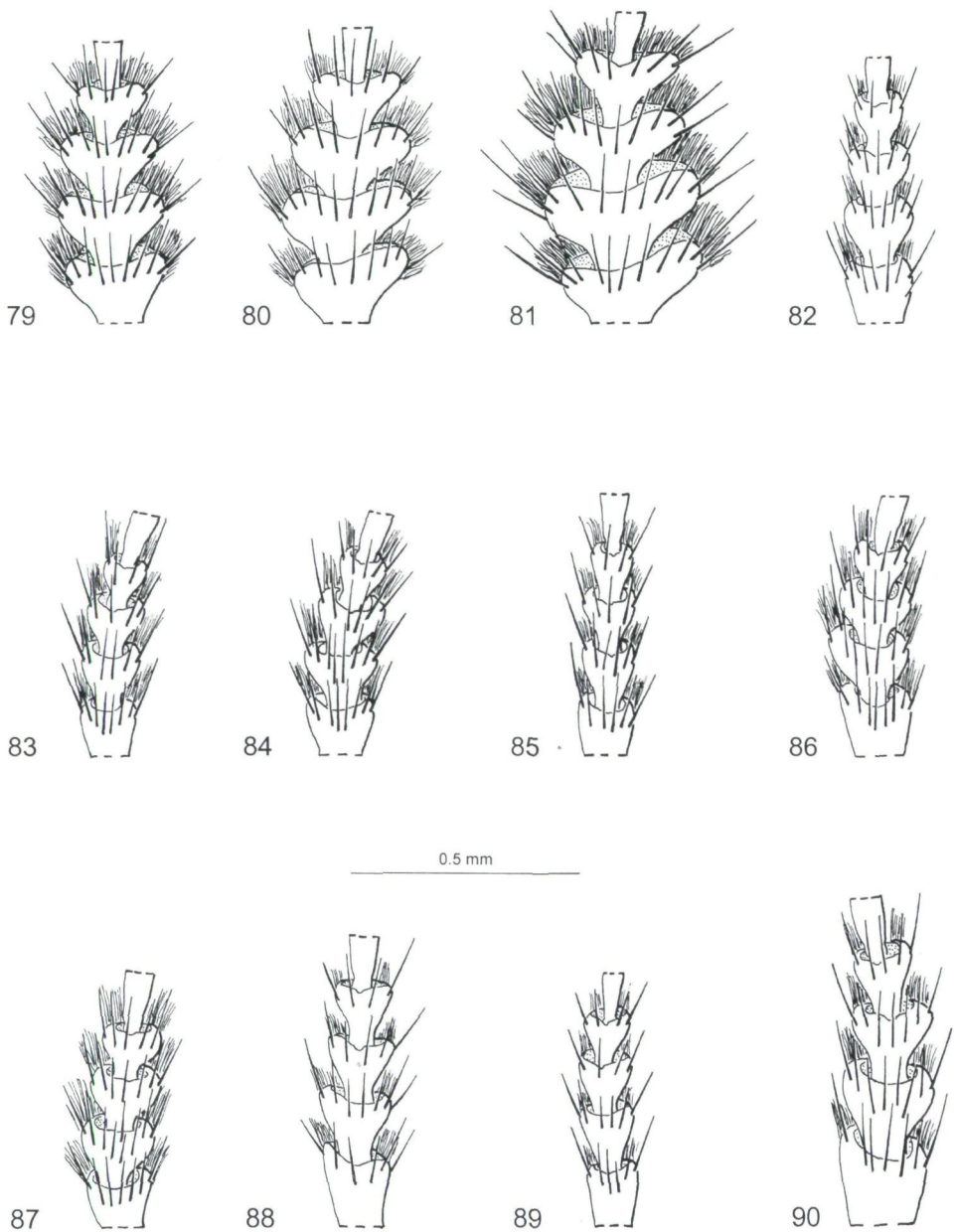

Figs. 79 - 90: male front tarsus of 79) *Philonthus politus*; 80) *P. japonicus*; 81) *P. donckieri*; 82) *P. succicola*; 83) *P. tenuicornis*; 84) *P. oberti*; 85) *P. addendus*; 86) *P. temporalis*; 87) *P. cognatus*; 88) *P. bisinuatus*; 89) *P. aeger*; 90) *P. splendens*.

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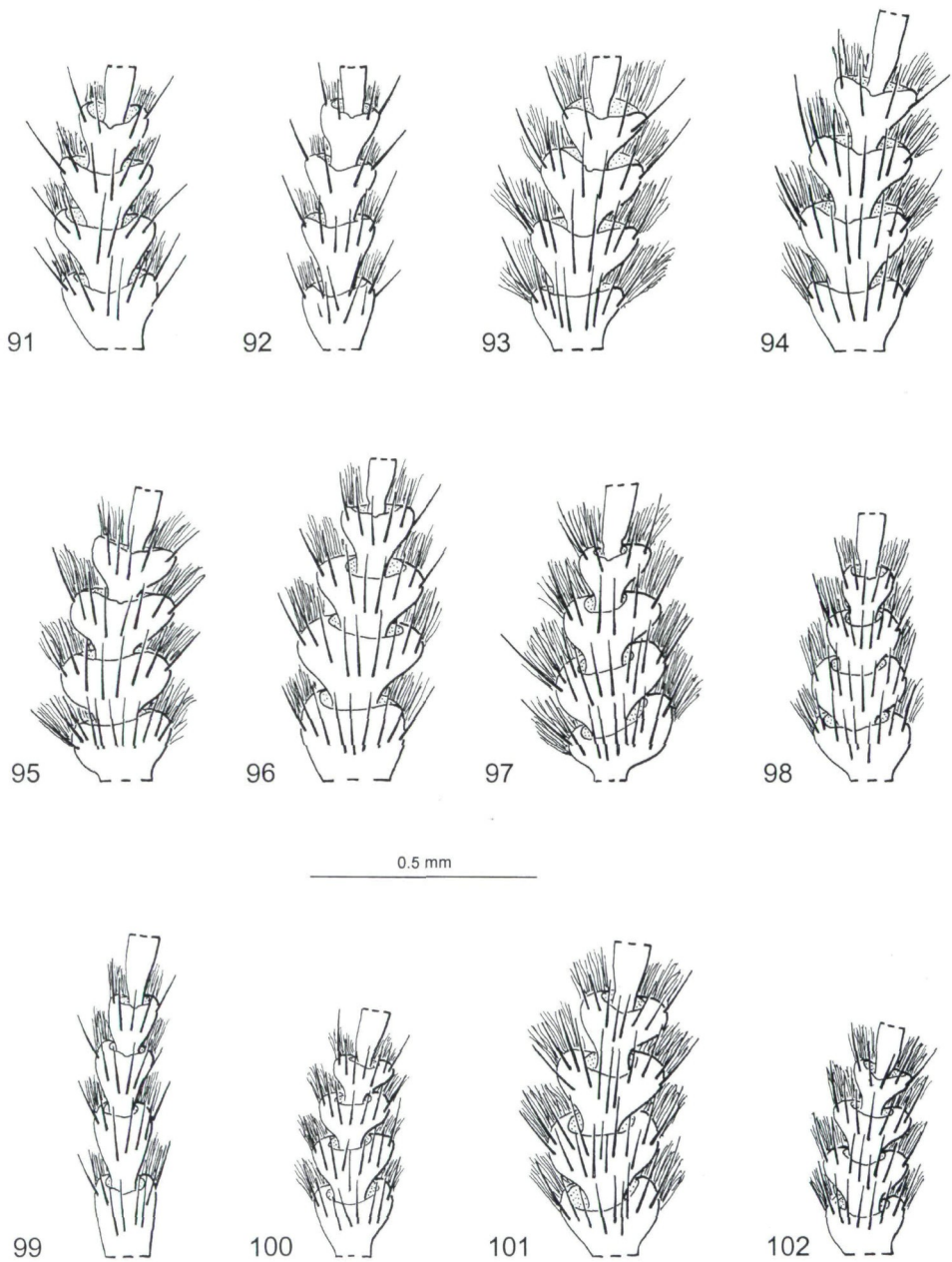

Figs. 91 - 102: male front tarsus of 91) *Philonthus purpuripennis*; 92) *P. coelestis*; 93) *P. tractatus*; 94) *P. brevithorax*; 95) *P. tractatoides*; 96) *P. saphyreus*; 97) *P. azuripennis*; 98) *P. punctativentris*; 99) *P. decorus*; 100) *P. latiusculus*; 101) *P. emdeni*; 102) *P. transbaicalia*.

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