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 (nee 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 EPPLESHEIM, 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. temuicornis 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
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 Természettudományi múzeum, Budapest (G. Szél, O. Merkl)
ZIS Zoological Institut, Russian Academy of Sciences, St. Petersburg (A. Solodovnikov)
ZMM Zoological Museum, Moscow (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.

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 particularphylogenetic 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.
Variability

As mentioned in the introduction, some characters are subject to an enormous 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 additional 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* HOCCHUTH 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 posteriorly (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
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

   - 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 ................................................. succicola group

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

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

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 ......................................................... purpuripennis 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 .................................................................

4. Elytra with posthumeral and lateral seta (Fig. 52) .................................................................................
1 Lateral seta of elytra absent (Fig. 51) .......................................................... *decoration* group
2 Paramere without peg setae ................................................................. *transbaicalia* group
- Paramere with peg setae ........................................................................
3 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 .............................................
4 First four segments of male front tarsi strongly dilated, sub-bilobed, distinctly wider than long ........................................................................................................
5 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 .............................................
6 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 .............................................
7 Peg setae of paramere arranged in two regular, apico-lateral rows ........... *azuripennis* group
- Peg setae arranged in irregular, mid-longitudinal cluster ............................ *latiusculus* group
8 Medial margin of left mandible with bicuspid tooth .................................... *cyanipennis* group
- Medial margin of left mandible with unicuspid tooth ................................

**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*  
**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*

**Philonthus splendens** group  
*P. splendens*  
*P. splendens ssp. sideropterus*  
**Philonthus purpuripennis** group  
*P. purpuripennis*  
*P. coelestis*  
**Philonthus tractatus** group  
*P. tractatus*  
*P. brevithorax*  
*P. tractatoidea*  
*P. saphyreus*  

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

- 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

Elytra bronze-green.................................................................P. decorus

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

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

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.................20

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

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

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 cleanliness of specimens; in P. tractatus this character is frequently not apparent).........................................................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

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 ............ P. alberti

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

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

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

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

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 ........ P. tractatoides

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 .......... P. politus

- 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 .................................................. P. japonicus

30 Second basal line on second and third visible tergites extended posteriorly 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 posteriorly medially, if developed (frequently only on third visible tergite) then extensions obtusely rounded, paramere with more than 80 peg setae .................................................. P. japonicus

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) ..................................................
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.

- 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.

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

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

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

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

Sides of pronotum distinctly concavely emarginate posteriorly in front of base

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

Head suborbicular, inconspicuously wider than long

- Head rounded quadrangular, conspicuously wider than long.

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.

* Staphylinus politus LINNÉ 1758: 683
* Philonthus laticeps (ZETTERSTEDT 1828: 73)
* Philonthus cyanicorinos (MANNERHEIM 1830: 27)
* Philonthus puncticollis (STEPHENS 1835: 439)
* Philonthus mandibularis KIRBY 1837: 92
* Philonthus harrisi 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.
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 posteriorly, 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 posteriorly 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:
CHINA: "China \ 55 12/3/49 \ Bowring 63.47" (NHML); XINJIANG: "Ost-Turkestan Dagratsch-Kul." (NMW).
INDIA: "Österreichische Karakorum Expedition leg. Dr. E. Piffl \ Hramosch-Massiv Jatschat, feuchte Wiese" (NMW); "Hessville India V \ proximus Kr. det. Bernhauer Staudinger. \ Chicago NHMus M.Bernhauer 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.
Philonthus japonicus SHARP

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. I Expl. ist mit Ihrem vollkommen gleich nur hat das Halssch. je 4 Punkte, [folded label, handwritten] Philonthus japonicus Shp. Smetana det. 1966" (SNJM). - Paratype ♀: "Kurilen a coll. Roubal \ japonicus \ v. Bernhauers Roubal det. \ Typus. \ Binderi Roub. (Bernhauer 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:
RUSSIA: PRIMORSKIY KRAY: "Seitengraben des Perwaja Rjetschka \ Tales nrdl. Vladivostok \ H. Frieb leg. 1918-1920" (NMW); "USSR E-Sibirien Primorski kr. Arsenew env. \ 27.V.-5.VII.1991 leg. O. Sausa" (NMW); "Vladivostok, coll. Obenb." (CHP); "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. I Expl. ist mit Ihrem vollkommen gleich nur hat das Halssch. je 4 Punkte, [folded label, handwritten] Philonthus japonicus Shp. Smetana det. 1966" (SNJM). - Paratype ♀: "Kurilen a coll. Roubal \ japonicus \ v. Bernhauers Roubal det. \ Typus. \ Binderi Roub. (Bernhauer Roub.) Cotypus ded. Roub. \ Chicago NHMus M.Bernhauer Collection" (FMC).

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

Paratypes (3 exs.): 1 σ ("Cotypus") with same data as holotype (FMC); 1 σ: "Giufo Shan Szechuan 1500 \ 2000 m. [1500 - 2000 m] Reitter E. \ Reitter donavit IV. 1935 \ Philonthus simpliciventris Bernh. \ Cypotus Philonthus simpliciventris Bernhauer" (NMW); 1 σ 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 σ 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 σ (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 ventro-basally (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:
CHINA: 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, 24.11 - 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, 7.9.1934, 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, Mexi, 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, 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: "Kuantun (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).


NEPAL: (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.
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 Bmh. 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 crebrior: Holotype ♂: "55 10/4/57 [handwritten on round label) \ China \ Hongkong John Bowring \ Bowring. 63.47* \ China Brit. Mus. don. Arrow \ crebrior Bmh. n.sp. \ crebrior Bernh. Typus \ Chicago NHMus M.Bernhauer Collection" (FMC). - Paraatypes: 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: "Kuikiang [Jiujiang] China" (NHML); GUANGDONG: "Canton 3.1925 \ Museum Paris J. Duchaine 1928" (MHN); 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., 5.1V. (NHML); MACAO: "Macao China 1.07" (NHML).

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.
L A O S: "Laos" (NMW).
VIETNAM: "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" (MHN); "Tonkin P. Lemée 1903-1906" (MHN); "Süd-Annam Pha-Rang März H. Fruhstorfer" (MHN).

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 olivaceous 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, 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 punctuation 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,
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:

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.
Aedeagus (Figs. 8, 9) conspicuously differing from those of both preceding species. Median lobe 60a, b) usually less deep and slightly wider in both sexes; male sternite VIII: Fig. 69.

DESCRIPTION: Externally almost identical with but excision of tergite X (Figs. 23x616).

Philonthus, very slender, gradually narrowed toward very acute apex, teeth on face adjacent to paramere quite variably shaped, two rows of peg setae almost contiguous due to very narrow paramere, each consisting of 12 - 13 peg setae.
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 southwestern 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 Yenisey 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 punctuation, punctures separated by one puncture diameter in transverse direction; abdominal tergites with punctuation 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)
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* **BERNHHAUER 1933a: 41; SCHILLHAMMER 1999b**

*Philonthus beckeri* **BERNHHAUER 1933b: 30; SCHILLHAMMER 1999b**

*Philonthus pseudojaponicus* **BERNHHAUER 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** $\sigma$ (present designation): "Daur. m. \ Oberti mihi Dauria. Obert. \ c. Eppelsh. Steind. d." (NMW). - **Paralectotype:** $1 \varphi$ with same data as lectotype (NMW).

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

*Philonthus beckeri*: **Holotype** $\sigma$ (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** $\varphi$: "Kamikochi North. Alp. Jap. Suenson 13.9.34 \ pseudojaponicus Brnh. Typ. \ pseudojaponicus Brnh. Typus \ Chicago NHMus M.Bernhauer Collection" (FMC). - **Paratypes** (2 $\varphi\sigma$): "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 $\varphi$ 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 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), punctuation 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 posteriorly of front angle and bearing seta conspicuously longer than anteromarginal setae, lateral portions of pronotum frequently with oblique golden-brown iridescence;
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:
KOREA (North): "PuRyong Korea" (FMC); "Corea sept. 1983 Mjohjang montes Exp. Inst. Zool. Cr." (ISEZ);
KOREA (South): "South Korea Mt. Jirisan 1987.10.2-3 leg. Kuang Seob Lee" (CSB, NMW).

JAPAN: HOKKAIDO: "Japan G. Lewis Hakodate" (NHML); "Kurodake in Mt. Taisetsu (Hokkaido) July 15.1954, leg. M. Takeshita" (CNC);

CHINA: (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 et al. [C48] (CSO, NMW);
SHAANXI: S Shaanxi, pass 15 km N of Xunyangba, 1700 m, 11. - 13.VII.1998 (CST); BEIJING: Longjingxia, 21.VI.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);

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).
Philonthus addendus SHARP

*Philonthus addendus* SHARP 1867: 440

*Philonthus temporalisoides* DRUGMANN 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* DRUGMANN), but at the moment this action would be fairly premature.

**MATERIAL EXAMINED:**


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, punctuation 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; punctuation 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 fascipennis (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),
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:
RUSSIA: NOVOSIBIRSKAYA OBL.: "Barmaul am Ob Westsibirien \ H. Frieb leg. 1918-1920" (NMW).
INDIA: "Khilanmarg b. Gulmarg 3300m VII. 1975 \ Kashmir India - D. Muting" (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

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 punctuation 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.
Philonthus temporalis Mulsant & Rey 1853: 61

DESCRIPTION: 10.5 - 12.5 mm long (5.3 - 5.8 mm, abdomen excluded). - Black shining, elytra frequently with slight dark metallic olivaceous-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, medio-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 accessorrial 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, punctuation 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:
MONGOLIA: "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:

DISTRIBUTION: Hitherto known only from Mongolia (type locality) and one locality in eastern Siberia.
**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), punctuation 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 posteriorly, less densely punctuate 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 posteriorly (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:**

CHINA: 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°55'3E, 19.VII.1997 (CSB); Kangding, pass Zheedu Shankou, E - slope, 29°58'N 101°23'E, 3850 m, 18.VII.1998, leg. Smetan [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 102°20'E, 4100 - 4300
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.VI1.1995 (CSO); 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 Serxii, 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 (CSO); 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. - 23.VI.1996, leg. Smetana et al. [C37] (CSO); same locality, 3800 m, 23. - 26.VI.1996, [C45] (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


**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, punctuation 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, punctuation 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 posteriorly, punctuation rather coarse, moderately dense, punctures separated by 1 - 2 puncture diameters in transverse direction; abdominal tergites with punctuation 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 posteriorly, 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.
ADDITIONAL MATERIAL EXAMINED:

INDIA: 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, Ghatong, Août 1901" (MHNP); "Sikkim. de Padamtsin a Lingtou, Juillet 1901" (MHNP).


CHINA: 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 occurrence in China is not at all surprising (see also distribution of Philonthus tracticatus, 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 temporal in large males (ratio 0.93 - 1.00), slightly or distinctly longer than temporal in females and small males (ratio 1.07 - 1.23), hind angles of head obtuse but well marked, tempora subparallel, postocular seta shifted posteriorly, 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...
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 micropunctuation; 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, punctuation different on various tergites, first visible tergite with basal half almost impunctate, second and third visible tergites with almost uniform but comparably sparse punctuation, fourth and fifth visible tergites with denser but finer punctuation 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:
KOREA (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.

**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 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.Hromâdka 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 micropunctuation 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
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 Dist., Yak Kharka above Tukche, 4000 m 12.V.1995, Martens & Schwaller" (SMNS, NMW); "Nepal 441 Mustang Distr., Yak Kharka above Tukche, 3800 m 13.V.1995, Martens & Schwaller" (SMNS); MANANG: Manang to Thorong pass trail, 3600 - 4000 m, 27.IX.1983, leg. Löbl & Smetana (MHNG); W Manang, Kangsr env., 3500 - 4400 m, 1. - 3.X.1992, leg. Schmidt (DEI); W Manang, above Kangsr, 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.1993, leg. J. Schmidt (DEI).

C H I N A: XINJIANG: "Ostturkestan (Schitaschar) \ Philonthus purpuripennis m. II. \ Type" (NMW); QINGHAI: "Amo 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); Daoantange, 3200 m, 25. - 27.VII.1992 (NMW); E Qilian Shan, 4200 m, 29.VII. - 1. V.1992 (NMW); Qingshuihe, 4200 m, 1. - 5.VII.1992 (NMW); SICHUAN: "N - slope, 4000 - 4500 m, 26.V.1997 (CSB); Daxue Shan, 30°04'N 101°52'E, 3500 m, 25.V.1997 (CPE); Wolong, Sanjiangkou, VII. - VIII.1934, leg. Friedric (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 (Dzhehalangou) vic, 4400 m, 26.VII.1996, leg. A. Zamotajlov & A. Miroshnikov (CGP); road Xiancheng - Derong, 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. 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); Tuntaia 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. \ preoccup. \ 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,
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:**

CHI 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.VII.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°5'15'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°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°02'N 100°13'E, 3500 - 4000 m, 16. - 19.VI.1993 (NMB); 27°02'N 100°13'E, 3600 - 4100 m, 27.V.1993 (NMB); 50 km N Lijiang, Yulongshan Nat. Res., 24. - 29.VII.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*).
**Philonthus tractatus** **EPPELSHEIM**

*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 punctuation 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, medianial rows each consisting of about 16 - 24 peg setae.

**ADDITIONAL MATERIAL EXAMINED:**


Philonthus brevithorax BERNAUER

Philonthus brevithorax BERNAUER 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, punctuation 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 posteriorly, punctuation dense, interstices between punctures hardly exceeding a puncture diameter in transverse direction; abdominal tergites with punctuation similar to that of P. tractatus, but even sparser, punctuation 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 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:

CHINA: 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).


BHUTAN: Gogona, 3100 m, VII.1972, leg. F. Maurer (NMB).
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.): NEPAL: 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.: 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 Danda, 3600 - 4000 m, 21.V.1993, leg. Schmidt (DEI); 1 ex.: Manaslu Himal, Meme Pokhari Lekha - Bara Pokhari, 3250 m, 5.IV.1999, R. Krüger & Hirthe (CHK); 2 exs.: same locality, 3000 m, 21.X.1995, leg. Schmidt (DEI); 8 exs.: Meme Pokhari Lekha - 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, Duth 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 Barabibble, 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, Charree, 27.VIII.1976 (2 NMB, 1 NMW); 1 ex.: Dorjee Khandu, Dorjula, 3100 m, 21.X.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.V.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 micoreticulation, but without golden-brown iridescence; elytra along suture slightly shorter than pronotum, slightly widened posteriad, punctuation 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, punctuation 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
even on third visible tergite, male sternite VIII (Fig. 76) almost as in \textit{P. tractatus}; male front tarsus: Fig. 95.

Aedeagus (Fig. 37) similar to that of \textit{P. tractatus} and \textit{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 \textit{P. tractatus} and \textit{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.

\textit{Philonthus saphyreus} sp.n.

\textbf{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).

\textbf{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., Hailuogou [sic!] Glacier Park env. Camp II, 2650m, softed, 30.V.1997, leg. A. Pütz" (CPE); 5 exs.: "China: Sichuan, Daxue Shan Gongga Shan Mt., Hailuogou [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 Mianing, - 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 Zhourlli, 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, punctuation as in \textit{P. tractatoides} but tempora slightly more densely punctate with postocular seta situated slightly less posteriorly, antennae almost as in \textit{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 \textit{P. tractatoides}; elytra along suture longer than pronotum, more densely punctate than in \textit{P. tractatoides}, punctures usually separated by less than 2 puncture diameters in transverse direction; abdominal tergites with punctuation hardly differing from that of \textit{P. tractatoides}, surface also strongly iridescent; male front tarsus: Fig. 96.

Aedeagus (Fig. 38) of similar shape but much larger than in \textit{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.
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 COIFFAÎT 1982b: 60; SCHILLHAMMER 1999b


Philonthus stoetzneri: Holotype ♀: "Szetschwan Sunpanting Exp. Stötzens \ Stötzens Bernh. Tyypus" (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-Expeditonen 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 posteriorly, 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;
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 binuately 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, punctuation and microsculpture. It most likely forms subspecies, but the recognition would be almost impossible due to the wide variability range.

ADDITIONAL MATERIAL EXAMINED:

CHINA: 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, 30.61 - 2.VII.1992 (CSO); Xinlong Shan nr. Yuzhong, Yangzhai, 2500 - 3000 m, 22. - 26.VII.1992 (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 

ADDITIONAL MATERIAL EXAMINED: irregularly arranged, each consisting of 9 - 12 peg setae, normal setae exceedingly long.
Philonthus punctativentris BERNHAUER 1933a: 41

**TYPE MATERIAL:** Holotype ♀: "Tatsienlu China \ Kiulung Reitter \ Philonth. punctativentris Brnh. Typ. \ punctativentris Bemh. 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:**

CHINA: 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, 3500 - 3700 m, 16.VI.1996 (NMW); Luhuo - Sertar, pass 35 km NE Luhuo, 3500 - 4000 m, 27. - 28./29.VII.1996 (CSO); Shuajingsi, ca. 2700 m, 10. - 11.VIII.1991 (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.
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:


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

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

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**Philonthus emdeni BERNHAUER**

*Philonthus emdeni BERNHAUER 1931a: 2; SCHILLHAMMER 1999b*

**TYPE MATERIAL:** *Philonthus emdeni: Holotype ♂: "7 19 \ 1923 4 \ Szetschwan Sünpanting Exp. Stötzer \ 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 BERNHAUER**

*Philonthus kiulungensis BERNHAUER 1933a: 42; SCHILLHAMMER 1999b*

**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 posteriady, 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
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 Nangen, 32°16'N 96°29'E, 3300 m, 5. - 6.VII.1995 (NMW); SICHUAN: "Szentchwan Sunpanting Exp. Stötzer" (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 [1] Kangding (CPE); W Kangding, E Theto-La Pass, 30°01'N 101°52'E, 3500 m, 25.V.1997 (CSB); ibid., 3500 - 3600 m, sifed (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 99°37', 4000 - 4600 m, 12.VII.1992 (NMW); Tagu, VII. 1992 (NMW); Pame, VII.1992 (NMW); Sanjiangkou, Balang, VII/VIII.1934, leg. Friedrich (NMW); W Songpan, 3100 - 3300 m, 7.VII.1994 (CSO); Daliang Shan, pass betw. Xichang and Meigu vili., env. of Zhaojue vili., 12. - 14.VI.1998 (CSO); 60 km S Hongyuan, ca. 4200 m, 27. - 29.V.1991 (NMW); Hongyuan, 21.VII. - 3.VIII.1991 (CSO); 70 km N Zoigê, 3400 m, 14.VII.1994, leg. Smetana [C16] (CSO); Zhendu-Paâ, 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°19'E, 3800 m, 21.VII. 1997 (CSB); TIBET: W great bend of Brahmaputra [Yarlung Tsangpo], 29°40-45'N 96°19'E, 3400 m, 21.VII. 1992 (NMW); road Bom - Rawu, 30 km W Rawu, 29°33'N 99°30'E, 3800 m, 11.VII.1997 (CSB, NMW); Nyingtri env. of Basum-tso, SW slope, 3800 - 3900 m, 27. - 28.VI.1995 (CSO); Nyingtri env. of Basum-tso, 3400 - 3500 m, 25. - 26.VI.1995 (CSO); Haba Shan, 27°08'N 100°14'E, 2900 - 3500 m, 7. - 12.VII.1990 (NMB); ibid., 2500 - 2800 m, 24. - 26.VI.1990 (NMB); ibid., 27°10'N 100°13'E, 3400 - 4000 m, 16. - 19.VI.1996 (NMW); 35 km N Lijiang, Heishui, 27°13'N 100°19'E, 1. - 19.VI.1992 (NMW); Deqen env., 3300 m, 29.VI.1998, leg. A. Gorodinski (CST); ibid., 20. - 24.VI.1995 (CKS); road Deqen - Yajiang, 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.
Philonthus ghilarovi TICHOMIROVA

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:


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 Kenonthis (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)
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, punctuation 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 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 dorsal; paramere (Fig. 50c) short, slender, devoid of peg setae, with only four normal setae, situated at apex.

MATERIAL EXAMINED:
- RUSSIA: (district?): "Sibirien Reitter. Leder." (NMW); "suturalis Nordm. Sibir. orient. Epp. dedit" (NMW); "Dauria Sahlberg" (NMW); ALATSKAYI KRAY: "Kusnezk Altaigeb., Gassner" (NMW); KRASNAYORSKI KRAY: "Barnaul am Ob Westsibirien \ H.Frieb leg. 1918-1920" (NMW); "Krasnojarsk, Ienisseisgeb." (NMW); "Barnaul am Ob Westsibirien \ H.Frieb leg. 1918-1920" (NMW); "Krasnojarsk, Ienisseisgeb." (NMW); IRKUTSKAYA OBL.: "Siberia Irkuck" (NMW); BURYATSKAYA ASSR: "Ostsibirien Werchine-Udinsk" (NMW); CHITINSKAYA OBL.: "Pjestschanka 8 km öst. Tschita Transbaikalien \ H.Frieb leg. 1918-1920" (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).
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)

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


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