

New species and records of Oriental and East Palaearctic *Gabrius* STEPHENS, 1829 (Insecta: Coleoptera: Staphylinidae)

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Abstract

New and additional records of East Palaearctic and Oriental species of *Gabrius* STEPHENS, 1829 are provided and eleven species are described as new: *Gabrius apomontis* sp.n. (Philippines), *G. confusoides* sp.n. (Nepal), *G. fissiceps* sp.n. (Philippines), *G. hapsui* sp.n. (Nepal), *G. hartmanni* sp.n. (Nepal), *G. hirthei* sp.n. (Nepal), *G. linauensis* sp.n. (Philippines), *G. linearis* sp.n. (Philippines), *G. malickyi* sp.n. (Nepal), *G. philomimus* sp.n. (Russian Far East) and *G. schmidtii* sp.n. (Nepal). *Gabrius gabrioides* (BERNHAEUER, 1913) and *Gabrius trossuloides* (CAMERON, 1933) are redescribed and their aedeagi illustrated for the first time. The aedeagi of all new species, as well as morphological details of some of them, are illustrated.

Key words: Insecta, Coleoptera, Staphylinidae, Staphylininae, Staphylinini, Philonthina, *Gabrius*, new species, new records, systematics, taxonomy, zoogeography.

Zusammenfassung

Neue und ergänzende Meldungen von ostpaläarktischen und orientalischen Arten der Gattung *Gabrius* STEPHENS, 1829 werden vorgestellt, sowie folgende 11 Arten neu beschrieben: *Gabrius apomontis* sp.n. (Philippinen), *G. confusoides* sp.n. (Nepal), *G. fissiceps* sp.n. (Philippinen), *G. hapsui* sp.n. (Nepal), *G. hartmanni* sp.n. (Nepal), *G. hirthei* sp.n. (Nepal), *G. linauensis* sp.n. (Philippinen), *G. linearis* sp.n. (Philippinen), *G. malickyi* sp.n. (Nepal), *G. philomimus* sp.n. (Russisch Fernost) und *G. schmidtii* sp.n. (Nepal). *Gabrius gabrioides* (BERNHAEUER, 1913) und *Gabrius trossuloides* (CAMERON, 1933) werden redeskribiert und ihre Aedeagi zum ersten Mal illustriert. Die Aedeagi aller neuen Arten, sowie morphologische Details eines Teils der Arten werden abgebildet.

Introduction

Since the revision of *Gabrius* STEPHENS, 1829 had been published (SCHILLHAMMER 1997), I received numerous specimens of this genus which not only yielded another eleven species new to science, but also provided additional geographical data of already described species. The species are listed according to SCHILLHAMMER (1997), the new species are assigned to the respective species groups. With *G. gabrioides* (BERNHAEUER, 1913) and *G. trossuloides* (CAMERON, 1933), which have been recently transferred from *Philonthus* (SCHILLHAMMER 1997, SCHILLHAMMER 1999), I take the opportunity to illustrate the aedeagi for the first time. For most references mentioned in this paper, see the respective chapter in SCHILLHAMMER (1997: 135). Those which do not appear there are listed herein.

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Acknowledgement and abbreviations

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CHK	coll. G. Hirthe, Kluess
CSB	coll. M. Schülke, Berlin
CSO	coll. A. Smetana, Ottawa
CTL	coll. M. Tronquet, Llimburga (France)
CZW	coll. H. Zettel, Wien
DEI	Deutsches Entomologisches Institut, Eberswalde (L. Zerche)
FMC	Field Museum of Natural History, Chicago (A. Newton, P. Parillo)
HUB	Museum für Naturkunde der Alexander Humboldt Universität, Berlin (M. Uhlig)
MHNG	Muséum d'Histoire naturelle, Genève (I. Löbl)
NKE	Naturkundemuseum Erfurt (M. Hartmann)
NMB	Naturhistorisches Museum, Basel (M. Brancucci)
NMW	Naturhistorisches Museum, Wien
SMNS	Staatliches Museum für Naturkunde, Stuttgart (W. Schawaller)
SMT	Staatliches Museum für Tierkunde, Dresden (O. Jäger)
UPLB	Museum of Natural History, University of the Philippines, Los Banos (A. Sumalde)

In addition to the above mentioned colleagues I thank Volker Puthz for the gift of the specimen which eventually turned out as *G. malickyi* sp.n., and A. Smetana for reviewing the manuscript.

The *Gabrius fimetarioides* group

Gabrius fimetarioides (SCHEERPELTZ, 1976)

MATERIAL EXAMINED:

- I N D I A:** HIMACHAL PRADESH: Rohtangpass, S - slope, 2500 - 3500 m, leg. H. Franz [Pa 360] (NMW).
N E P A L: JUMLA: 10 km E Churta, 3500 m, 5./6.V.1995, leg. M. Hartmann (NME, NMW); 2 km W Gorthichaur, 2700 m, 20.V.1995, leg. A. Weigel (NME); N Khari Lagna, 3280 m, 29°22.14'N 82°09.17'E, 21.VI.1999, leg. M. Hartmann (NME); DOLPA: 5 km NW Chaurikot, 3200 m, 16.V.1995, leg. A. Weigel (NME); Kagmara Lekh, Garpung Khola, 3000 - 3800 m, 10.V.1995, leg. M. Hartmann (NME, NMW); MUSTANG: Thaksang, 3150 m, 26. - 29.IV.1980, leg. Martens & Ausobsky [157a] (SMNS); *ibid.*, 3400 m, [157c] (SMNS); MYAGDI: Myagdi Khola N Dobang, 2800 - 3100 m, 22. - 24.V.1995, leg. Martens & Schawaller [464] (SMNS, NMW); KASKI: W Pokhara, Ghorepani env., IX/X.1971, leg. H. Franz [Pa 140] (NMW); N Pokhara, above Chipli, Nyaulikharka, 2400 m, 22.IV.1996, leg. Schmidt & Jäger (SMT); MANANG/LAMJUNG: SE Annapurna Mts. Below Rambrong Danda, S - slope 3700 m, 6.V.1997, leg. O. Jäger (SMT, NMW); below Taunja Danda, E - slope, 3900 m, 11./12.VIII.1995, leg. Jäger (SMT); Manaslu Himal, Bara Pokhari Lekh - Meme Pokhari, 3250 m, 5.IV.1999, leg. C. Krüger & G. Hirthe (CHK).
B H U T A N: PARO: Chiley-La, 3000 - 3500 m, 10. - 13.VII.1990, leg. Holzschuh [001] (NMW).

The material provides new records for the Jumla and Dolpa districts in Nepal and for Bhutan. Meanwhile I have also seen specimens from Shaanxi Province in China, which extends the distributional area of this species far into the Northeast (the Chinese data will be published in a separate paper dealing with the Chinese species of *Gabrius*).

***Gabrius mcneilli* SCHILLHAMMER, 1997**

MATERIAL EXAMINED:

N E P A L: MANANG/LAMJUNG: SE Annapurna Mts. Below Rambrong Danda, S - slope 3700 m, 6.V.1997, leg. O. Jäger (SMT); Manaslu Himal, Bara Pokhari Lekh - Meme Pokhari, 3250 m, 5.IV.1999, leg. C. Krüger & G. Hirthe (CHK); S Lamjung Himal, Source of Khudi Khola, 4000 m, 25.V.1993, leg. J. Schmidt (CKB, NMW); SOLUKHUMBU: env. Junbesi, 20.IV.1993, leg. Kleeberg (CKB, NMW); env. Sete, Lamjura pass, 26.IV.1993, leg. Kleeberg (CKB).

***Gabrius ultimus* SCHILLHAMMER, 1997**

MATERIAL EXAMINED:

N E P A L: SOLUKHUMBU: "Umg. Sutje bei Lughla Khumbu, Nepal, lg. Franz [Pa 269]" (NMW).

This is the second known specimen of this species; the holotype is from Patan district.

The *Gabrius nigriritulus* group

***Gabrius hartmanni* sp.n.**

Holotype ♂: "NEPAL, Prov. Karnali Distr. Jumla, 2km E Churta, Wiese 3100 m NN, 19.V.1995 leg. M. Hartmann" (NME).

Paratypes (8 ♀♀): same data as holotype (5 NME, 3 NMW).

DESCRIPTION: 3.6 - 4.3 mm long (2.1 - 2.2 mm, abdomen excluded). - Black, shining, basal two segments of antennae dark brown, last antennal segment, palpi, femora and tibiae paler brown to brownish-testaceous, tarsi reddish-testaceous, medial faces of hind tibiae infusate, posterior margins of tergites dark reddish-testaceous.

Head rounded quadrangular, as long as wide, almost as wide as pronotum, tempora parallel, 1.73 - 1.86 times as long as eyes, antennae rather short, segment 4 as long as wide, segment 5 slightly, segments 8 - 10 distinctly transverse; pronotum subparallel-sided, 1.13 - 1.16 times as long as wide, dorsal rows each with 6 punctures; head and pronotum with distinct transverse microsculpture of moderately long meshes, obsolete on clypeus and on a narrow midlongitudinal strip on posterior third of pronotum; elytra along suture slightly shorter than pronotum, sparsely punctate, punctures separated by about 3 - 5 puncture diameters in transverse direction, pubescence greyish-yellow; abdominal tergites very finely and moderately sparsely, almost uniformly punctate, on first three visible tergites forming irregular transverse rows, surface with fine but distinct transverse microsculpture, elevated area between two basal lines on first three visible tergites impunctate, that of third visible tergite frequently with a very few setae laterally, pubescence of tergites of same color as on elytra; female tergite X: Fig. 32.

Aedeagus (Figs. 1a, b) very similar to that of *G. tornus* JOY, 1913 but apex of median lobe less weakly sclerotized (in *G. tornus* the apex is almost semi-membranous), additionally differing by distinctly shorter parameral branches. Also somehow similar to that of *G. keysianus* SHARP, 1910 and related species but with distinctly slenderer parameral branches. Paramere: Fig. 1c.

DIAGNOSIS: In the respective area the species is readily recognized by the shape of the aedeagus. Externally, it resembles *G. ignobilis* (CAMERON, 1943), but differs by the

shorter antennae (in *G. ignobilis* segment 4 slightly oblong, segment 5 as long as wide) and by the shorter and broader pronotum (1.2 times as long as wide in *G. ignobilis*). Phyletically, it is very closely related to *G. tornus*, from which it differs mainly by the broader and more parallel-sided pronotum.

DISTRIBUTION: Known only from the type locality.

ETYMOLOGY: Named in honour of Matthias Hartmann (Naturkundemuseum Erfurt, Germany) who collected this species in a part of Nepal which is poorly explored.

Gabrius ignobilis (CAMERON, 1943)

MATERIAL EXAMINED:

I N D I A: KASHMIR: Yichensar, 19.VII.1981, leg. G. Ledoux (CTL).

The *Gabrius deceptor* group

Gabrius deceptor (CAMERON, 1932)

MATERIAL EXAMINED:

N E P A L: PARBAT: betw. Deorali and Chitre, 2700 m, 1. - 2.V.1995, leg. Martens & Schawaller [430] (SMNS); MYAGDI: Myagdi Khola, N Dobang, 2800 - 3100 m, 22. - 24.V.1995, leg. Martens & Schawaller [464] (SMNS); KASKI: Tatopani - Chuile, 2450 - 2550 m, 4.V.1999, leg. C. Krüger & G. Hirthe (CHK); MANANG: Latha Manang W Bagarchhap, 2350 m, 22.IX.1983, leg. Smetana & Löbl (CSO); Bagarchhap - Temang, 2400 - 2700 m, 17.IV.1999, leg. C. Krüger & G. Hirthe (CHK).

Gabrius confusus (CAMERON, 1932)

MATERIAL EXAMINED:

I N D I A: HIMACHAL PRADESH: Rohtang Pass, 2550 - 3500 m, leg. H. Franz [Pa 360] (NMW).

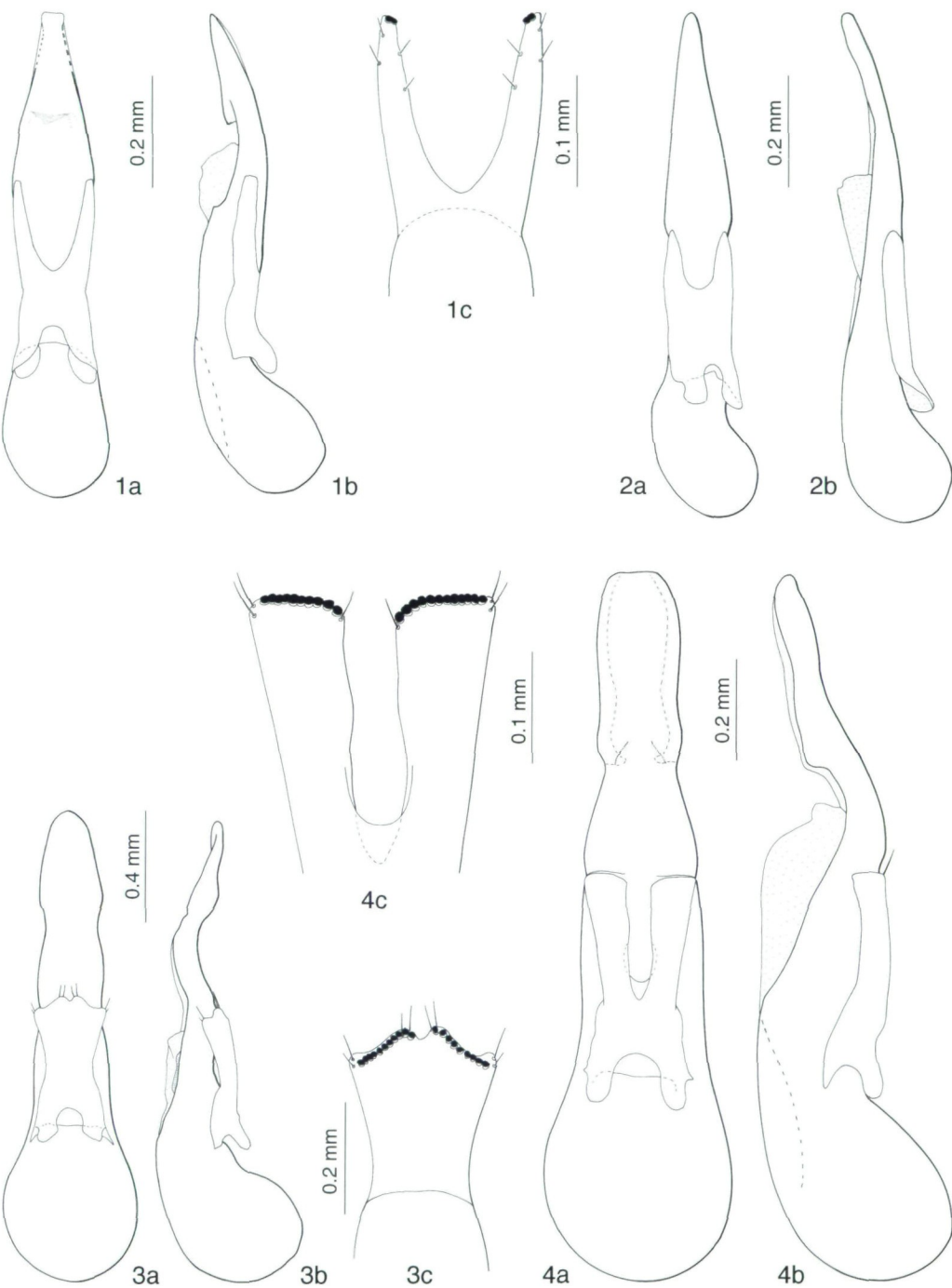
N E P A L: JUMLA: Maharigaon env., 3000 - 3500 m, leg. H. Franz [Pa 200] (NMW).

The species was originally known only from the Northwest of India; this is the first record from Nepal. It probably has its distributional limit in westernmost Nepal.

Gabrius confusoides sp.n.

Holotype ♂: "NEPAL Parbat Distr. Ghoropani Pass N slope 2700m 6.X.1983 Smetana & Löbl" (CSO).

Paratypes (21 exs.): 1 ex.: same data as holotype but 2800 m, 5.X.1983 (MHNG); 6 exs.: "169 Parbat Distr., Chitre 2400m, gebüschreiches Bachbett; auch Berlese MARTENS & AUSOBSKY leg. 4 Mai 1980" (5 SMNS, 1 NMW); 1 ex.: "NEPAL - Expeditionen Jochen Martens \ 169 Parbat Distr. Chitre Bachbett 4. Mai 1980 MARTENS & AUSOBSKY leg." (SMNS); 2 exs.: "Nepal 430 Parbat Distr. betw. Deorali and Chitre 2700 m, 1. - 2.V.1995 MARTENS & SCHAWALLER" (SMNS, NMW); 2 exs.: "NEPAL Mustang Distr. Lete 2550m 2.X.83 Smetana & Löbl"; 1 ex.: "Nepal 435 Mustang Distr. banks of Lethe Khola nr. Lethe, 2400 m, 5. - 7.V.1995 MARTENS & SCHAWALLER" (SMNS); 2 exs.: "Nepal 462 Myagdi Distr. Myagdi Khola, Dobang 2400 m, 21.V.1995 MARTENS & SCHAWALLER" (SMNS); 2 exs.: "NEPAL Annapurna Mts. Ghorepani-Deurali 2800 - 3000 m, 2.5.99 leg. C. Krüger, G. Hirthe" (CHK); 4 exs.: "NEPAL Annapurna Mts. Tadapani - Chuile 2450 - 2550 m, 4.5.1999 leg. C. Krüger, G. Hirthe" (2 CHK, 2 NMW).



Figs. 1 - 4: Aedeagus of 1) *Gabrius hartmanni*, 2) *G. confusoides*, 3) *G. schmidtii*, 4) *G. hirthei*. - a) ventral view, b) lateral view, c) paramere.

REMARK: The specimen which is now the holotype was already mentioned in SCHILLHAMMER (1997: 21) as a single male which I was reluctant to describe. The numerous additional specimens which I have since received, have removed my doubts about the status of this species.

DESCRIPTION: 4.1 - 5.6 mm long (2.1 - 2.3 mm, abdomen excluded). - Dark brown to dark amber with darker, almost piceous head, pronotum and elytra brownish-testaceous with disc somewhat darker, appendages yellow to reddish-yellow.

Head broadly ovoid, 1.02 - 1.08 times as long as wide, tempora slightly divergent, 1.75 - (usually) 2.00 times as long as eyes, antennae with segment 4 slightly oblong, segment 5 as long as wide, segments 8 - 10 distinctly transverse; pronotum 1.19 - 1.23 times as long as wide, slightly wider than head (ratio 1.06 - 1.10), widest in anterior third, slightly convergent toward base, dorsal rows each with 6 punctures; head and pronotum with dense, fine, transverse microsculpture of moderately long meshes; elytra along suture distinctly shorter than pronotum, moderately densely punctate, punctures separated by 2 - 5 puncture diameters in transverse direction, pubescence rather long but inconspicuous due to grey colour; abdominal tergites moderately densely, uniformly punctate, pubescence yellowish-grey, elevated area between two basal lines on first three visible tergites almost impunctate, on third visible tergite frequently with a very few punctures.

Aedeagus (Figs. 2a, b) very similar to that of *G. deceptoroides* SCHILLHAMMER, 1997 but with apical portion of median lobe more acutely pointed and more straightly narrowed toward apex, in lateral view less distinctly bent dorsad; paramere (not figured) hardly differing from that of *G. confusus* (CAMERON, 1932).

DIAGNOSIS: Externally, the species is very similar to *G. pakistanicus* SCHILLHAMMER, 1997 particularly in the size and coloration, and differs mainly by the more profound microsculpture of the fore-body (especially that of head). From the other non-metallic species of the *deceptor* group (*G. confusus*), it can be readily distinguished by the distinctly smaller size.

DISTRIBUTION: At present the species is known only from the central parts of Nepal (surroundings of Annapurna).

ETYMOLOGY: The name refers to the fact that originally I had tentatively associated this species with *G. confusus*.

***Gabrius curvipenis* SCHILLHAMMER, 1997**

MATERIAL EXAMINED:

N E P A L: SANKHUA SABHA: N Fure, 27°30.44'N 87°16.14'E, 2100 m, 7.XII.1998, leg. M. Hartmann (NME); PANCHTHAR: Paniporua, 2300 m, 16. - 20.IV.1988, leg. Martens & Schawaller [328] (SMNS, NMW); ILAM: Mai Pokhari, 2100 - 2200 m, 9. - 10.IV.1988, leg. Martens & Schawaller [319] (SMNS).

The *Gabrius autumnalis* - *almorensis* group

I combine the two groups because the discovery of *G. hirthei* sp.n. obscures the borders between these groups. *Gabrius schmidtii* sp.n. fits perfectly in the *almorensis* group, while *G. hirthei* is very similar to *G. autumnalis* (CAMERON, 1932), but has the male sternite VIII almost identical with that of *G. schmidtii*. This shows that the characteristical

setation of the male sternite VIII of *G. autumnalis* is just a state in a transition line. The separation of the two groups would still seem justified because of the different shapes of the parameres and the punctuation of the elevated area between two basal lines on first three visible tergites, but for practical reasons I am tentatively merging the groups.

Gabrius schmidtii sp.n.

Holotype ♂: "Dudh Pokhari Lekh zw. Simia Kharka & Malamche Kharka 33-3500m, 12/13.9. \ NEPAL HIMALAYA Manaslu-Mts. Ig. Schmidt 1995" (DEI).

Paratypes (10 exs.): 8 exs.: same data as holotype (7 DEI, 1 NMW); 2 exs.: "Badha-W-slope Uut Kharka 3500m, 10.9. \ NEPAL HIMALAYA Manaslu-Mts. Ig. Schmidt 1995" (DEI, NMW).

DESCRIPTION: 7.0 - 7.5 mm long (3.4 - 3.6 mm, abdomen excluded). - Black, moderately shining, last segments of palpi pale yellowish-brown, legs dark brown with middle and front femora slightly paler.

Head oblong, 1.15 - 1.17 times as long as wide, tempora parallel, 1.79 - 1.86 times as long as eyes, antennae long, segments 4 - 6 distinctly oblong, segment 10 about as long as wide; pronotum slightly wider than head (ratio 1.04 - 1.07), long and narrow, 1.29 - 1.31 times as long as wide, subparallel-sided, dorsal rows each with 6 punctures; head and pronotum with distinct, transverse, rather short-meshes microsculpture, meshes becoming very short along midline, almost isodiametrical; elytra long, along suture slightly longer than pronotum, densely punctate, punctures separated by about 2 puncture diameters in transverse direction, pubescence moderately long, dark; abdominal tergites finely and densely, uniformly punctate, punctures separated by 1 - 2 puncture diameters in transverse direction, surface with dense and very fine microsculpture of transverse striae, elevated area between two basal lines on first three visible tergites impunctate; male sternite VIII (Fig. 16) with deep and wide medio-apical emargination, semi-membranous extension lacking; male sternite IX: Fig. 24; female tergite X (Fig. 34) almost identical with what I published as *G. almorensis* (CAMERON, 1932) (SCHILLHAMMER 1997: 130, Fig. 450).

Aedeagus (Figs. 3a, b) similar to that of *G. almorensis*, but with median lobe more slender and distinctly constricted laterally and paramere (Fig. 3c) with middle lobe notched medio-apically;

DIAGNOSIS: The species is very similar to *G. almorensis* but differs by the conspicuously longer tempora (1.54 - 1.69 times as long as eyes in *G. almorensis*).

REMARK: The striking similarity of the female tergites X raises the question if the illustration of *G. almorensis* is correct. The specimen which I illustrated (from Afghanistan) may belong to a yet undescribed species. Unfortunately, 1) the members of this group seem to be comparatively rare and 2) the chances to receive further material from the East of Afghanistan are very low.

DISTRIBUTION: *Gabrius schmidtii* sp.n. is as yet known only from the Manaslu Himal in Nepal.

ETYMOLOGY: Patronymic; the species is named in honour of its collector, Joachim Schmidt, an excellent specialist of Carabidae who has taken upon him the almost hopeless task of revising the Oriental *Colpodes* sensu lato.

Gabrius* sp. prope *almorensis* (CAMERON, 1932)*MATERIAL EXAMINED:**

N E P A L: PARBAT: betw. Deorali and Chitre, 2700 m, 1. - 2.V.1995, leg. Martens & Schawaller [430] (SMNS).

This single female is most certainly conspecific with that mentioned in SCHILLHAMMER (1997: 74, *Gabrius* sp. 1). I hope that one of the numerous expeditions to Nepal will sooner or later reveal a male specimen, so that this species can be named and described.

***Gabrius hirthei* sp.n.**

Holotype ♂: "NEPAL Annapurna Mts. Upper Larjung 2550-2800m, 28.4.1999 leg. C. Krüger, G. Hirthe" (CHK).

Paratypes (2 ♂♂): same data as holotype (CHK, NMW).

DESCRIPTION: 6.1 - 6.4 mm long (2.9 - 3.0 mm, abdomen excluded). - Black, shining, antennae with segment 2 testaceous or basal 2 segments paler, legs yellowish, medial faces of hind tibiae variably distinctly infuscate, mandibles reddish-testaceous, palpi yellowish.

Head oblong, 1.15 - 1.18 times as long as wide, tempora almost parallel, inconspicuously convex, 1.45 - 1.62 times as long as eyes, antennae long and slender, segments 4 - 5 distinctly, 6 slightly oblong, segment 10 about as long as wide; pronotum long and narrow, 1.33 - 1.36 times as long as wide, widest in anterior third, conspicuously and slightly sinuately narrowed toward base, inconspicuously wider than head (ratio 1.03), dorsal rows each with 6 punctures; head and pronotum with rather fine but very dense, long-meshed, tranverse microsculpture, meshes becoming isodiametrical along midline; elytra moderately long, along suture conspicuously shorter than pronotum, punctuation dense, punctures separated by about 2 puncture diameters in transverse direction, pubescence comparatively long, yellowish-grey; abdominal tergites exceedingly densely punctate, punctures separated by approximately a puncture diameter in transverse direction, sometimes punctures almost contiguous; elevated area between two basal lines on first three visible tergites sparsely punctate; male sternite VIII: Fig. 18; male sternite IX: Fig. 25.

Aedeagus (Figs. 4a, b) with apical portion of median lobe long, bisinuate laterally; paramere (Fig. 4c) bifurcate, each lobe truncate apically, peg setae arranged along apical margin of each lobe.

Female unknown.

DIAGNOSIS: Externally, *G. hirthei* sp.n. is very similar to *G. autumnalis*, but differs by the markedly longer head (ratio 1.11 - 1.13 in *G. autumnalis*) due to the much longer tempora (about 1.25 times as long as eyes in *G. autumnalis*).

DISTRIBUTION: The species is at present known only from the type locality in Nepal (Kaski district).

ETYMOLOGY: Patronymic; I dedicate this new species to Gunnar Hirthe (Kluess, Germany), a newcomer among Staphylinidologists, who contributed to its discovery and by this has earned his first merits as a knowledgeable field entomologist.

The *Gabrius astutus* group

Gabrius gabrioides (BERNHAEUER, 1913)

TYPE MATERIAL: **Holotype** ♂: "B. v. Bodemeyer Sibiria orient. Schipka-Gora [Shilka Gora] \ gabrioides Bernh. Typus \ Chicago NHMus M.Bernhauer Collection" (FMC). - **Paratype**: 1 ♀ with same data as holotype (FMC).

DESCRIPTION: 3.7 - 4.9 mm long (2.0 - 2.3 mm, abdomen excluded). - Black, shining, elytra black-brown, palpi pale yellowish-brown, basal two segments of antennae and legs reddish-testaceous, medial faces of hind tibiae infusate, posterior margins of tergites obscurely reddish.

Head subquadrate, 1.02 - 1.04 times as wide as long, tempora subparallel, inconspicuously convergent toward base, 1.27 - 1.44 times as long as eyes, antennae moderately long, segment 4 as long as wide or inconspicuously oblong, segments 8 - 10 conspicuously transverse; pronotum rather short, 1.15 - 1.16 times as long as wide, about as wide as head, widest in anterior third, very slightly narrowed toward base in almost straight line, dorsal rows each with 5 punctures; microsculpture of head distinct, formed by moderately long, transverse meshes, between interocular punctures very irregular, eddy-like, microsculpture of pronotum very oblique, almost lacking along midline, pronotum thus very shining; elytra along suture about as long as pronotum, sparsely punctate, punctures separated by 3 - 5 puncture diameters in transverse direction, pubescence yellowish-grey; abdominal tergites finely, moderately densely, almost uniformly punctate, punctures separated by 3 - 4 puncture diameters in transverse direction, surface with distinct microsculpture of transverse striae, first five (!) visible tergites with two basal lines, elevated area between basal lines impunctate; male sternite VIII (Fig. 17) with very shallow medio-apical emargination, filled up by semi-membranous extension.

Aedeagus (Figs. 7a, b) very small, median lobe rod-like, sinuately narrowed toward rather acute apex; paramere (Fig. 7c) short, entire, apical margin slightly produced medially, peg-setae densely arranged along apical margin.

DIAGNOSIS: Within the *astutus* group the species is easily recognized by the remarkably small size and by having two basal lines on first five visible tergites. In general habitus it rather looks like a small member of the *nigritulus* group. The character state of the basal lines and the fact that the elevated areas between them are impunctate would justify the separation of a distinct species group, but since the internal structures of the aedeagus fit well into the *astutus* group I have tentatively placed the species there.

ADDITIONAL MATERIAL EXAMINED:

R U S S I A: PRIMORSKIY KRAY: Ussuriyskiy Zapovednik, 33 km SE Ussuriysk, from dropping, 43°37'N 132°18'E, 14.VI.1993, 200 m, leg. L. Zerche (DEI, NMW).

DISTRIBUTION: The species is at present known only from Eastern Siberia (type locality) and from the Far East of Russia (Primorskiy Kray).

Gabrius philomimus sp.n.

Holotype ♂: "RUSSIA: Primorskiy Kray Sikhote-Alin, Biol.Stat. 30km SE Chuguyevka 44.05 N 134.12 E 31.V.1993 650m leg. L. ZERCHE" (DEI).

Paratypes (18 exs.): 1 ex.: same data as holotype (NMW); 2 exs.: *ibid.*, but 1.VI.1993 (DEI); 3 exs.: "RUSSIA: Primorskiy Kray 5km SE Samarka, 70km N Chuguyevka, Gordeyevskaya \ Mtn., 44.46 N 134.13 E 29.V.1993, 300m leg. L. ZERCHE" (2 DEI, 1 NMW); 1 ex.: "RUSSIA: Primorskiy Kray Ussuriyskiy Zapovednik, 33km SE Ussuriysk, 43.37 N 132.18 E, 11.IV.1993, 300m, leg. L. ZERCHE" (DEI); 2 exs.: "RUSSIA: Khabarovskiy Kray 3 km SE Boitsovo, 20 km N Bikin, 47.02 N 134.21 E, 26.V.1993, leg. L. ZERCHE" (DEI, NMW); 1 ex.: "Rußland: Primorie (S34) Schutzgebiet Lazowskij Kordon Prosjolotschnyi 1. - 5.V.1997 leg. J. Sundukow" (CSB); 2 exs.: "Rußland: Primorie (S32) Schutzgebiet Lazowskij Kl. S-j. Log 5.VI.1997 leg. J. Sundukov" (CSB); 2 exs.: "Rußland: Primorie (S12) Lazovski R., Lazo Tal der Lazowka, 1. - 12.VI.1998 leg. J. Sundukov" (CSB); 1 ex.: *ibid.*, but (S18), 4. - 5.IV.1998 (NMW); 1 ex.: "Rußland: Primorie (S14) Schutzgebiet Lazowskij Kordon Amerika 24. - 29.IV.1997 leg. J. Sundukov" (NMW); 1 ex.: *ibid.*, but (S39), 24. - 28.IV.1998 (CSB); 1 ex.: "Rußland: Primorie (S16) Schutzgebiet Lazowskij Kordon Petrowa 22. - 24.VIII.1997 leg. J. Sundukow" (CSB).

DESCRIPTION: 4.7 - 5.9 mm long (2.5 - 2.7 mm, abdomen excluded). - Black, shining, elytra usually with dark metallic olivaceous-green reflex, rarely black, antennae dark brown to black brown, basal two or three segments and frequently tip of last segment reddish-testaceous, palpi dark brown, legs reddish-yellow, medial faces of hind tibiae infuscate.

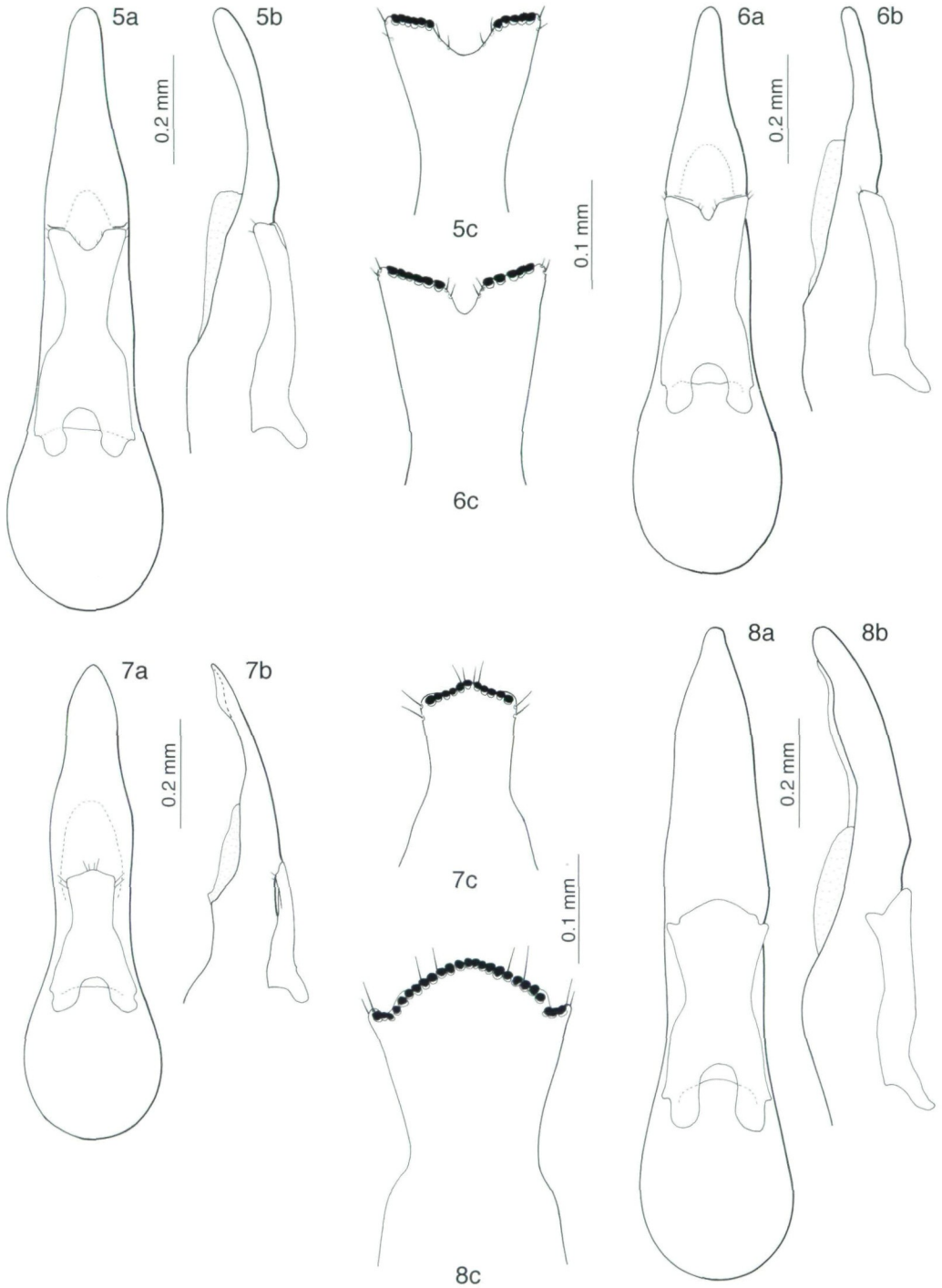
Head broadly ovoid, 1.05 - 1.21 times as long as wide, tempora slightly divergent, forming almost regular convex arc with base, variably long, 1.52 - 1.87 times as long as eyes, antennae rather short, segment 4 as long as wide or inconspicuously oblong, segments 7 - 10 distinctly transverse; pronotum 1.11 - 1.17 times as long as wide, distinctly wider than head (ratio 1.09 - 1.16), sides straight or slightly convex, dorsal rows each with 6 punctures (various reductions possible); head and pronotum with dense and distinct, long-meshed, transverse microsculpture, meshes becoming shorter toward midline, frequently even isodiametrical; elytra along suture slightly longer than pronotum, rather densely punctate, punctures separated by about 2 - 3 puncture diameters in transverse direction, pubescence moderately long, greyish-golden; abdominal tergites rather densely, uniformly punctate, punctures separated by about 2 puncture diameters in transverse direction, surface with exceedingly fine transverse microsculpture, elevated area between two basal lines on first three visible tergites distinctly but not very densely punctate, fourth visible tergite frequently with a rudimentary second basal line, pubescence as on elytra.

Aedeagus (Figs. 6a, b) very similar to that of *G. philo* SMETANA, 1984 (Figs. 5a, b) but with apical portion of median lobe shorter and more distinctly narrowed toward apex; paramere (Fig. 6c) with medio-apical notch distinctly less deep than in *G. philo* (Fig. 5c).

DIAGNOSIS: Externally, *G. philomimus* most closely resembles *G. kuanshanensis* (BERNHAEUER, 1914) but differs by the darker antennae and palpi. *Gabrius kuanshanensis* usually has reddish antennae with middle segments slightly darkened, last (or two outer segments) distinctly paler than middle segments, palpi entirely reddish-yellow, rarely last segment of maxillary palpi slightly darker. I have not yet studied the secondary sexual characters because this only makes sense when all neighbouring species are treated.

DISTRIBUTION: The species is at present known only from the Far East of Russia (Khabarovskiy Kray and Primorskiy Kray).

ETYMOLOGY: The name refers to the similarity of the aedeagus with that of *G. philo*.



Figs. 5 - 8: Aedeagus of 5) *Gabrius philo*, 6) *G. philomimus*, 7) *G. gabrioides*, 8) *G. malickyi*. - a) ventral view, b) lateral view, c) paramere.

Gabrius furtivus* (CAMERON, 1932)*MATERIAL EXAMINED:**

N E P A L: JUMLA: 14 km E Jumla, Jharjwala, 2600 m, 23.V.1995, leg. M. Hartmann (NME).

This is the first record for Nepal, but since the locality lies not very far from the localities in Uttar Pradesh it does not markedly extend the known distributional area of the species.

***Gabrius malickyi* sp.n.**

Holotype ♂: "Godawri [Godavari] 1700 m, 27°35', 85°23' GPS 25.4.1995, Malicky" (NMW).

DESCRIPTION: 5.3 mm long (2.7 mm, abdomen excluded). - Black, very shining, head and pronotum with dark metallic greenish hue, elytra dark metallic blueish-green, antennae with basal 3 segments black, remaining segments reddish-testaceous, palpi black-brown, legs black to black-brown with slightly paler tarsi.

Head rounded quadrangular, 1.07 times as long as wide, tempora slightly convergent, 1.45 times as long as eyes, antennae with segments 4 and 5 slightly oblong, segments 8 - 10 weakly transverse; pronotum 1.3 times as long as wide, hardly wider than head (ratio 1.03), almost parallel-sided, inconspicuously narrowed toward base, dorsal rows each with 6 punctures; head and pronotum with rather indistinct, transverse, long-meshed microsculpture; elytra along suture shorter than pronotum, rather densely punctate, punctures separated by 1 - 3 puncture diameters in transverse direction, pubescence fine and moderately long, dark yellowish-grey; abdominal tergites rather finely and moderately densely punctate, at base with denser tufts of silvery hairs pointing postero-laterad; elevated area between two basal lines on first three visible tergites finely and sparsely punctate, on third visible tergite somewhat denser; male sternite VIII (Fig. 19) with rather wide and moderately deep medio-apical emargination, medially with weakly developed semi-membranous extension; male sternite IX: Fig. 26.

Aedeagus (Figs. 8a, b) very similar to that of *G. humidulus* (CAMERON, 1932) but with apical margin of paramere (Fig. 8c) not notched medially.

Female unknown.

DIAGNOSIS: Closely resembling *G. humidulus* externally, but differing by the robuster body shape, the coloration of the antennae (in *G. humidulus* also the basal segments are more or less reddish-testaceous) and by the less brilliant metallic elytra.

DISTRIBUTION: At present known only from the type locality.

ETYMOLOGY: Patronymic; the species is dedicated to its collector, the famous caddis-fly specialist Prof. Dr. H. Malicky.

Gabrius piger* SCHILLHAMMER, 1997*MATERIAL EXAMINED:**

I N D I A: KASHMIR: Sonamarg, 12., 13., 14. and 17.VII.1981, leg. G. Ledoux (CTL, NMW).

***Gabrius tilakholensis* SCHILLHAMMER, 1997**

MATERIAL EXAMINED:

N E P A L: JUMLA: before pass SE Churta, 3400 m, 17.V.1995, leg. J. Weipert (NME, NMW); 2 km W Churta, 2900 m, 19.V.1995, leg. A. Weigel, pitfall trap (NME, NMW); 10km E Churta, 3500 m, 5./6.V.1995, leg. M. Hartmann (NME, NMW); MYAGDI: Myagdi Khola, N Dobang, 2800 - 3100 m, 22. - 24.V.1995, leg. Martens & Schawaller [464] (SMNS).

Shortly after the description of this species was published, I received a fairly large series from the vicinity of the type locality (Nepal: Jumla district), as well as a single specimen from a place further east (Myagdi district).

***Gabrius perexcelsus* TOTTENHAM, 1939**

Gabrius perexcelsus TOTTENHAM, 1939: 233

Gabrius excelsus (CAMERON, 1932)

MATERIAL EXAMINED:

N E P A L: MYAGDI: Myagdi Khola, Dobang, 2400 m, 25.V.1995, leg. Martens & Schawaller [465] (SMNS).

In my revision (SCHILLHAMMER 1997: 34) I misinterpreted the nomenclatural situation and erroneously used the preoccupied *G. excelsus* (CAMERON, 1932) as valid name and, above all, I had overlooked that the species had already been renamed by TOTTENHAM (1939).

***Gabrius parkeri* (CAMERON, 1932)**

MATERIAL EXAMINED:

N E P A L: JUMLA: 14 km E Jumla, Jharjwala, 2600 m, 23.V.1995, leg. M. Hartmann (NME); KASKI: Upper Larjung, 2550 - 2800 m, 28.IV.1999, leg. C. Krüger & G. Hirthe (CHK, NMW); Sokung, 2500 - 2550 m, 29.IV.1999, leg. C. Krüger & G. Hirthe (CHK, NMW); Annapurna Mts., Kali Gandaki Valley nr. Tukche, 2600 m, 10.VI.1993, leg. J. Schmidt (CKB); MANANG: Annapurna Mts., Pisang, 3200 m, 31.V.1993, leg. J. Schmidt (CKB).

The *Gabrius imitator* group

***Gabrius haptui* sp.n.**

Holotype ♂: "Nepal 426 Kaski Distr. above Pothana 2000 m, 27. - 29.IV.1995 MARTENS & SCHAWALLER" (SMNS).

Paratypes (8 exs.): 7 exs.: same data as holotype (5 SMNS, 2 NMW); 1 ex.: "NEPAL Annapurna Mts. Bhickok - Deurali 2100 m, 7.5.1999 leg. C. Krüger, G. Hirthe" (CHK).

DESCRIPTION: 4.3 - 5.0 mm long (2.10 - 2.25 mm, abdomen excluded). - Dark brown to reddish-brown, elytra with brown disc, suture, lateral and posterior margins reddish-testaceous, clypeus reddish-testaceous, antennae yellowish-red, distal halves of middle segments darkened, palpi and legs entirely reddish-yellow, posterior margins of tergites reddish-testaceous.

Head rounded quadrangular to broadly ovoid, rather flat, 1.00 - 1.04 times as long as wide, tempora subparallel, 1.66 - 1.73 times as long as eyes, antennae rather slender, segments 4 and 5 slightly oblong, segments 8 - 10 inconspicuously transverse; pronotum

broad, 1.09 - 1.13 times as long as wide, distinctly wider than head (ratio 1.23 - 1.25), sides subparallel to weakly convex, dorsal rows each with 6 punctures; head and pronotum with dense, moderately profound, wavy microsculpture, hardly forming meshes; elytra along suture distinctly shorter than pronotum (ratio 1.17, rarely 1.10), moderately densely punctate, punctures separated by 2 - 4 puncture diameters in transverse direction, pubescence short, pale; abdominal tergites finely and rather sparsely punctate, punctures separated by 3 - 5 puncture diameters in transverse direction, surface with fine and very dense transverse microsculpture, elevated area between two basal lines on first three visible tergites impunctate; male sternite VIII (Fig. 20) with rather deep and narrow medio-apical emargination and well developed semi-membranous extension; male sternite IX: Fig. 27; female tergite X: Fig. 33.

Aedeagus (Figs. 9a, b) similar to that of *G. besucheti* SCHILLHAMMER, 1997 but with more distinctly bifurcate paramere; peg-setae (Fig. 9c) arranged along medio-apical margin but sparing out base of emargination, toward base of emargination gradually removing from medial margin.

DIAGNOSIS: Externally very similar to *G. xanthipes* SCHILLHAMMER, 1997 but slightly darker and with much shorter tempora (in *G. xanthipes* the tempora are more than 2 times as long as the eyes).

DISTRIBUTION: *Gabrius haptui* is at present known only from the Annapurna area in Nepal.

ETYMOLOGY: The species is dedicated to Paulette Koubek, a zoologist who as a student worked in our department for a short time and who joined me on my collection trip to Java in 1995. The derivation of the name is onomatopoeic (literally) and refers to Paulette's extraordinary sneezing noises frequently disturbing the tranquillity of the halls of the NHMW's Coleoptera section.

***Gabrius successorius* SCHILLHAMMER, 1997**

MATERIAL EXAMINED:

N E P A L: JUMLA: "Gebiet von Jumla Westnepal, lg. H. Franz [Pa 218]" (NMW); Jumla env., 23.V.1995, leg. A. Weigel (NME); MUSTANG: "Taksanggeb. b. Tukche, Takola Zentralnepal lg. H. Franz [Pa 127]" (NMW); MANANG: Latha Manang W Bagarchhap, 2400 m, 24.IX.1983, leg. Smetana & Löbl (CSO).

***Gabrius capucinus* SCHILLHAMMER, 1997**

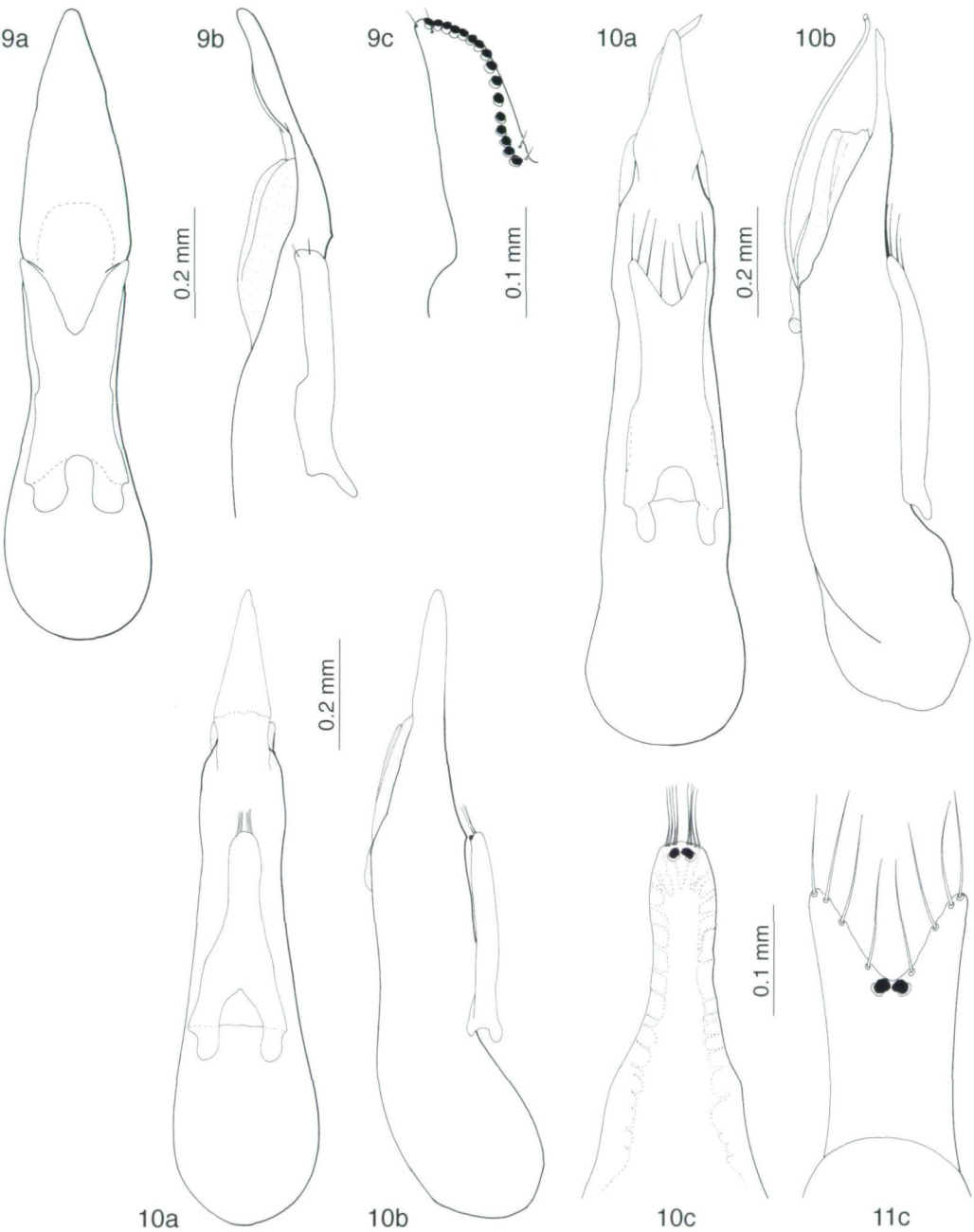
MATERIAL EXAMINED:

N E P A L: SINDHUPALCHOK: "Barabhise geg. Ting-Sang-La Nepal lg. H. Franz [Pa 7]" (NMW); ILAM: Mai Pokhari, 2100 - 2200 m, 9. - 10.IV.1988, leg. Martens & Schawaller [319] (SMNS, NMW);

***Gabrius martensi* SCHILLHAMMER, 1997**

MATERIAL EXAMINED:

N E P A L: PATAN: Phulcoki, 2550 m, 28.IV.1984, leg. Smetana & Löbl (CSO, NMW); TAPLEJUNG: above Yamputhin, left bank of Kabeli Khola, 1800 - 2000 m, 27. - 29.IV.1988, leg. Martens & Schawaller [352] (SMNS).



Figs. 9 - 11: Aedeagus of 9) *Gabrius haptusui*, 10) *G. fissiceps*, 11) *G. trossuloides*. - a) ventral view, b) lateral view, c) paramere.

***Gabrius neptunus* SCHILLHAMMER, 1997**

MATERIAL EXAMINED:

N E P A L: TAPLEJUNG: above Yamputhin, left bank of Kabeli Khola, 1800 - 2000 m, 27. - 29.IV.1988, leg. Martens & Schawaller [352] (SMNS, NMW); ILAM: Mai Pokhari, 2100 - 2200 m, 9. - 10.IV.1988, leg. Martens & Schawaller [319] (SMNS).

***Gabrius loebli* SCHILLHAMMER, 1997**

MATERIAL EXAMINED:

I N D I A: UTTAR PRADESH: Rishikesh, Laxman Bridge, 3. - 4.VII.1989, leg. A. Riedel (SMNS).

N E P A L: LAMJUNG: Marsyandi, Jagat, 1200 m, 11.IV.1980, leg. Martens & Ausobsky [135a] (SMNS, NMW); PATAN: Gokarna Forest, 1300 m, 9.IV.1985, leg. Smetana (CSO); Baneshwar, 1400 m, 3.III. - 2.IV. 1988, leg. Martens & Schawaller [303] (SMNS).

The *Gabrius disjunctus* group

***Gabrius disjunctus* (BERNHAUER & SCHUBERT, 1914)**

MATERIAL EXAMINED:

C H I N A: SICHUAN: 160 km S Chengdu, Emei Shan, 1400 m, 28.VI.1991, leg. Holzschuh (NMW).

N E P A L: TERHATHUM: Tinjura Dara, 2450 - 2850 m, 17.IX.1983, leg. Martens & Daams [297] (SMNS).

***Gabrius propinquus* (CAMERON, 1933)**

MATERIAL EXAMINED:

INDONESIA: JAVA: E Java, Ijen Pl. NP, 1800 m, Sodong, 26. - 27.II.1994, leg. Bolm (SMNS); BALI: Danau Buyan, 1300 m, 19. - 21.II.1994, leg. Bolm (SMNS, NMW).

In my revision I mentioned that the name of this species is preoccupied and that it would be renamed soon by R. Lundgren (together with the also preoccupied *G. viduus* CAMERON, 1933; see SCHILLHAMMER 1997: 49, 63). In fact, both species will now be renamed by L. Herman in a nomenclatural paper preceding his world catalog of Staphylinidae.

The *Gabrius rufocinctus* group

***Gabrius taplejungensis* SCHILLHAMMER, 1997**

MATERIAL EXAMINED:

N E P A L: SANKHUA SABHA: Arun Valley 8 km ENE Chainpur, 8100', 26.III.1975, rhododendron for., rotten branch, leg. H. Marks (FMC); above Pahakhola, 2600 - 2800 m, 31.V. - 3.VI.1988, leg. Martens & Schawaller [404] (NMW); PANCHTHAR: Paniporua, 2300 m, 16. - 20.IV.1988, leg. Martens & Schawaller [328] (SMNS).

***Gabrius spatulipenis* SCHILLHAMMER, 1997**

MATERIAL EXAMINED:

N E P A L: MYAGDI: Myagdi Khola, Dobang, 2400 m, 25.V.1995, leg. Martens & Schawaller [465] (SMNS); KASKI: Tadapani - Chuile, 2450 - 2550 m, 4.V.1999, leg. C. Krüger & G. Hirthe (CHK).

Gabrius rufocinctus SCHILLHAMMER, 1997

MATERIAL EXAMINED:

N E P A L: MUSTANG: betw. Ghasa and Lethe, IX./X.1971, leg. H. Franz [Pa 115/116] (NMW); S Lethe, 2600 - 2950 m, 30.IV. - 1.V.1980, leg. Martens & Ausobsky [161a] (SMNS, NMW); S Lethe, 2450 - 2600 m, 30.IV./1.V.1980, leg. Martens & Ausobsky [161] (SMNS); right banks of Lethe Khola near Lethe, 2400 m, 26.IV. - 1.V.1988, leg. Martens & Schawaller [435] (SMNS, NMW); MYAGDI: N of Bega Deorali, 2400 m, 16. - 17.V.1995, leg. Martens & Schawaller [451] (SMNS); PARBAT: Chitre, 2400 m, 4.V.1980, leg. Martens & Ausobsky [169] (SMNS); MANANG: Marsyandi, above Bagarchhap, 2200 m, 12./13.IV.1980, leg. Martens & Ausobsky [138a] (SMNS); PATAN: Phulchoki, 2600 - 2650 m, 21. - 22.III.1980, leg. Martens & Ausobsky [108] (SMNS); SINDHUPALCHOK: Shermatang - Malemchi Bridge leg. H. Franz [Pa 373a] (NMW); TAPLEJUNG: upper Tamur valley, resthuth, 2450 m, 19.V.1988, leg. Martens & Schawaller [376] (SMNS); ILAM: Gitang Khola, 2550 m, 28. - 31.III.1980, leg. Martens & Ausobsky [121, 121a] (SMNS).

Gabrius rufocinctus ssp. *dubiosus* SCHILLHAMMER, 1997

MATERIAL EXAMINED:

N E P A L: TAPLEJUNG: Yamputhin, 1650 - 1800 m, 26.IV. - 1.V.1988, leg. Martens & Schawaller [351] (SMNS). The series also contains one specimen which I erroneously designated as paratype of *G. schawallerianus* SCHILLHAMMER, 1997.

Gabrius schawallerianus SCHILLHAMMER, 1997

MATERIAL EXAMINED:

N E P A L: TAPLEJUNG: Omje Kharka, NW Yamputhin, 2300 - 2500 m, 1. - 6.V.1988, leg. Martens & Schawaller [356] (SMNS, NMW).

The *Gabrius sagittifer* group

Gabrius sagittifer SCHILLHAMMER, 1997

MATERIAL EXAMINED:

N E P A L: JUMLA: N Maharigaon, 29°20.24'N 82°23.21'E, 3250 m, 8./9.VII.1999, leg. M. Hartmann (NME); KASKI: N-Pokhara, Annapurna Mts., Madi Khola, Kyojo Khola, 1850 m, 2.V.1996, leg. O. Jäger (SMT).

The *Gabrius submetallicus* group

Recently, when I was studying some Caucasian *Gabrius*, I found out that *G. piliger* MULSANT & REY, 1876 also belongs to that species group. My attention has been drawn to this fact by the similarity of the aedeagi of *G. fissiceps* sp.n. and *G. piliger*. A closer study revealed that also the secondary sexual characters are conform. It is difficult to understand this from the zoogeographical point of view. However, it shows how maculate our knowledge of the Asian fauna still is.

Gabrius fissiceps sp.n.

Holotype ♂: "Mindanao IX.2.30 P.I. \ Seliban Riv. Mt. Apo \ Altitude 7000 Ft. \ Coll. by C.F. Clagg" (FMC).

Paratype ♀: "Mindanao IX.7.30 P.I. \ Galog Riv. Mt. Apo \ Altitude 6000 Ft. \ Coll. by C.F. Clagg" (NMW).

DESCRIPTION: 4.4 - 4.7 mm long (2.2 - 2.4 mm, abdomen excluded). - Dark brown to brownish-testaceous, head piceous, antennae black, basal three and last segments reddish, mandibles reddish-testaceous, palpi pale reddish-yellow, legs pale yellowish, posterior margins of tergites reddish-testaceous.

Head quadrangular, 1.04 (female) - 1.17 (male) times as wide as long, with well marked hind angles, about as wide as pronotum in female, markedly wider than pronotum in male (ratio: 1.15), tempora slightly convergent toward base, 1.13 times as long as eyes in male, about as long as eyes in female, frons conspicuously sulcate in both sexes, antennae short and stout, segment 4 about as wide as long, segments 6 - 10 distinctly transverse (in the male holotype the left antenna is missing from segment 6, the right antenna from segment 2); pronotum 1.20 (male) - 1.22 (female) times as long as wide, sides slightly narrowed toward base in almost straight line, dorsal rows each with 6 punctures; head and pronotum with distinct, long-meshed, transverse microsculpture; elytra along suture inconspicuously shorter than pronotum, rather coarsely but moderately densely punctate, punctures separated by approximately four puncture diameters in transverse direction; abdominal tergites finely, moderately densely and, especially on first three visible tergites rather irregularly punctate, punctation more dense and more regular on distal tergites, first four visible tergites with two basal lines, elevated area between basal lines impunctate, except on fourth visible tergite, there bearing a few setiferous punctures; male sternite VIII (Fig. 37) almost identical with that of *G. submetallicus* (CAMERON, 1933), but semi-membranous extension more convexly extended medially; male sternite IX (Fig. 28) shaped like the cuttle bone of a cephalopod, with a pair of larger preapical and a pair of smaller apical setae, additionally, apical portion finely pubescent; female tergite X: Fig. 36.

Aedeagus: Figs. 10a, b; median lobe with weakly sclerotized, lancet-shaped apical portion, inner sac with exceedingly long and slender sclerite, extruding from inner sac and surpassing apex of median lobe; paramere (Fig. 10c) bifurcate, at base of lobes with two peg-setae and eight very long normal setae along medial margins.

DISTRIBUTION: The species is at present known only from Mount Apo (Philippines: Mindanao).

ETYMOLOGY: The name (from Latin *fissus*, meaning cloven) of the species refers to the sulcate frons which is characteristic for all members of the *submetallicus* group.

***Gabrius trossuloides* (CAMERON, 1933)**

Philonthus trossuloides CAMERON, 1933: 389; SCHILLHAMMER 1999.

TYPE MATERIAL: **Lectotype** ♂ (present designation): "Syntype [round label with blue margin] \ Fort de Kock [handwritten with pencil] \ *Gabrius trossuloides* Cam. \ M.Cameron. Bequest. B.M. 1955-147" (NHML).

ADDITIONAL MATERIAL (2 ♀♀): "Sumatra. Fort de Kock. E.Jacobson. B.M.1932-202. \ Fort de Kock (Sumatra) 920 M. 1926 leg. E. Jacobson \ *Philonthus trossuloides* Cam. M. Cameron det." (NHML).

REMARK: It is not clear whether these two specimens belong to the type series or not. Since there are more specimens in the NHML, and because CAMERON (1933) does not mention on how many specimens the description is based, it was necessary to designate a lectotype, for which I chose the only male of the series.

DESCRIPTION: 3.6 - 3.9 mm long (1.95 - 2.10 mm, abdomen excluded). - In shape and coloration very similar to *G. fissiceps*, but distinctly smaller, sexual dimorphism of head less apparent, 1.09 times as wide as long in male, 1.07 in female, tempora more distinctly longer than eyes (ratio 1.22 in male, 1.05 in female), more conspicuously convergent; punctuation of elytra slightly denser; male sternite VIII damaged, but from the fragments a slight and very shallow emargination of the posterior margin can be estimated; female tergite X (Fig. 35) hardly differing from that of *G. fissiceps*; stylus of tergite IX and gonocoxites of female genital segment: Fig. 31.

Aedeagus (Figs. 11a, b) with median lobe similar to that of *G. fissiceps*, but weakly sclerotized apical portion more slender, inner sac also with a long and slender sclerite, but shorter than in *G. fissiceps* and not extruding from inner sac; paramere (Fig. 11c) with entire, rounded apex, with two peg-setae close to apical margin and two groups (each with 4 setae) of finer and shorter, normal setae.

DISTRIBUTION: The species is at present known only from the type locality: Sumatra, "Fort de Kock" (today Bukittinggi). However, the species probably has a wider distribution, since most recently I have received specimens from Taiwan, which most likely belong to *G. trossuloides*.

***Gabrius* sp. prope *submetallicus* (CAMERON, 1933)**

MATERIAL EXAMINED:

INDONESIA: JAVA: E Java, Ijen Pl. NP, 1800 m, Sodong, 26. - 27.II.1994, leg. Bolm (SMNS).

In the revision (SCHILLHAMMER 1997: 74) I had already published the data of a single female from the Philippines (Leyte). The above specimen from Java most certainly also belongs to a new species, but without a male specimen subsequent recognition would be virtually impossible.

Island groups

The following three species are the first records of this species group from the Philippines which actually should harbour a great species diversity in the genus *Gabrius*. Unfortunately, this complex of islands is still very badly explored. In face of the regrettable ecological situation of most islands (large scale deforestation), the assessment of their diversity is tiresome work and depends on the chance of finding either mountains or ravines of rivers where a remnant of the original vegetation could survive.

One of the species was already mentioned in SCHILLHAMMER (1997: p. 74, *Gabrius* sp. 3) but at that time only females were available.

***Gabrius apomontis* sp.n.**

Holotype ♂: "PHIL: Mindanao, Davao Prov., Lk. Linau, N slope Mt. Apo Phil. Zool. Exped. (7900'), 25-IX-9-XI-1946, \ FMHD #46-3035, mossy for. soaked out of moss from ground, F.G. Werner" (FMC).

Paratypes (11 exs.): 8 exs.: same data as holotype (6 FMC, 2 NMW); 3 exs.: ibid., but "30-X-1946 \ FMHD #46-3001, mossy for., moss at lake edge, H. Hoogstraal" (2 FMC, 1 NMW).

ADDITIONAL MATERIAL: There is one female specimen (FMC, same data as holotype) with the typical tergite X of *G. apomontis*, but the specimen is so small and shows a such a deviating head shape that I could not with certainty say whether it is a very aberrant specimen of *G. apomontis* or another new species.

DESCRIPTION: 6.9 - 7.3 mm long (3.3 - 3.5 mm, abdomen excluded). - Dark brown to black-brown, elytra and sometimes also pronotum paler brownish-testaceous, head black, clypeus reddish-brown, antennae reddish-brown to reddish-testaceous, basal three segments frequently darker brown, mandibles and palpi reddish-testaceous, legs reddish-yellow to reddish-brown, abdominal tergites becoming paler toward apex of abdomen.

Head ovoid, 1.09 - 1.17 times as long as wide, tempora parallel for short distance behind eyes, narrowed toward base in wide and regular convex arc, forming no angle with base, 1.86 - 2.04 (male) or 1.74 - 1.82 (female) as long as eyes, antennae with segments 4 and 5 slightly oblong, segments 8 - 10 weakly transverse; pronotum 1.32 - 1.36 times as long as wide, widest in anterior third, wider than head (ratio 1.09 - 1.13), sides almost straight, moderately but conspicuously narrowed toward base, dorsal rows each usually with 7 punctures, but frequently with additional punctures in one or both rows, sometimes slightly irregular; head and pronotum with distinct, long-meshed, transverse microsculpture, slightly confused and less profound on head, on pronotum very distinct, meshes almost isodiametrical along midline, very narrow in basal third, causing slight iridescence; elytra short, along suture markedly shorter than pronotum, along shoulders about as long as pronotum, punctation rather strong and dense, punctures separated by about 2 - 3 puncture diameters in transverse direction, pubescence very fine, moderately long, hairs inconspicuously grey; abdominal tergites uniformly and moderately densely punctate, punctures separated by about 2 punctures diameters in transverse direction, first three visible tergites with two basal lines, elevated area between basal lines distinctly but moderately densely punctate, punctures usually forming a single row; male sternite VIII: Fig. 21; male tergite X: Fig. 38; female tergite X: Fig. 39.

Aedeagus: Fig. 12a, b, 13a; median lobe long and slender, apical portion slightly asymmetrically twisted; paramere (Figs. 12c, 13c) bifurcate, lobes somehow recalling the astutoid type, at base of medio-apical emargination with an additional notch, variably wide and deep; peg-setae densely arranged along medial margins but sparing out medio-basal notch.

DISTRIBUTION: The species is at present known only from the type locality: Mount Apo (Philippines: Mindanao).

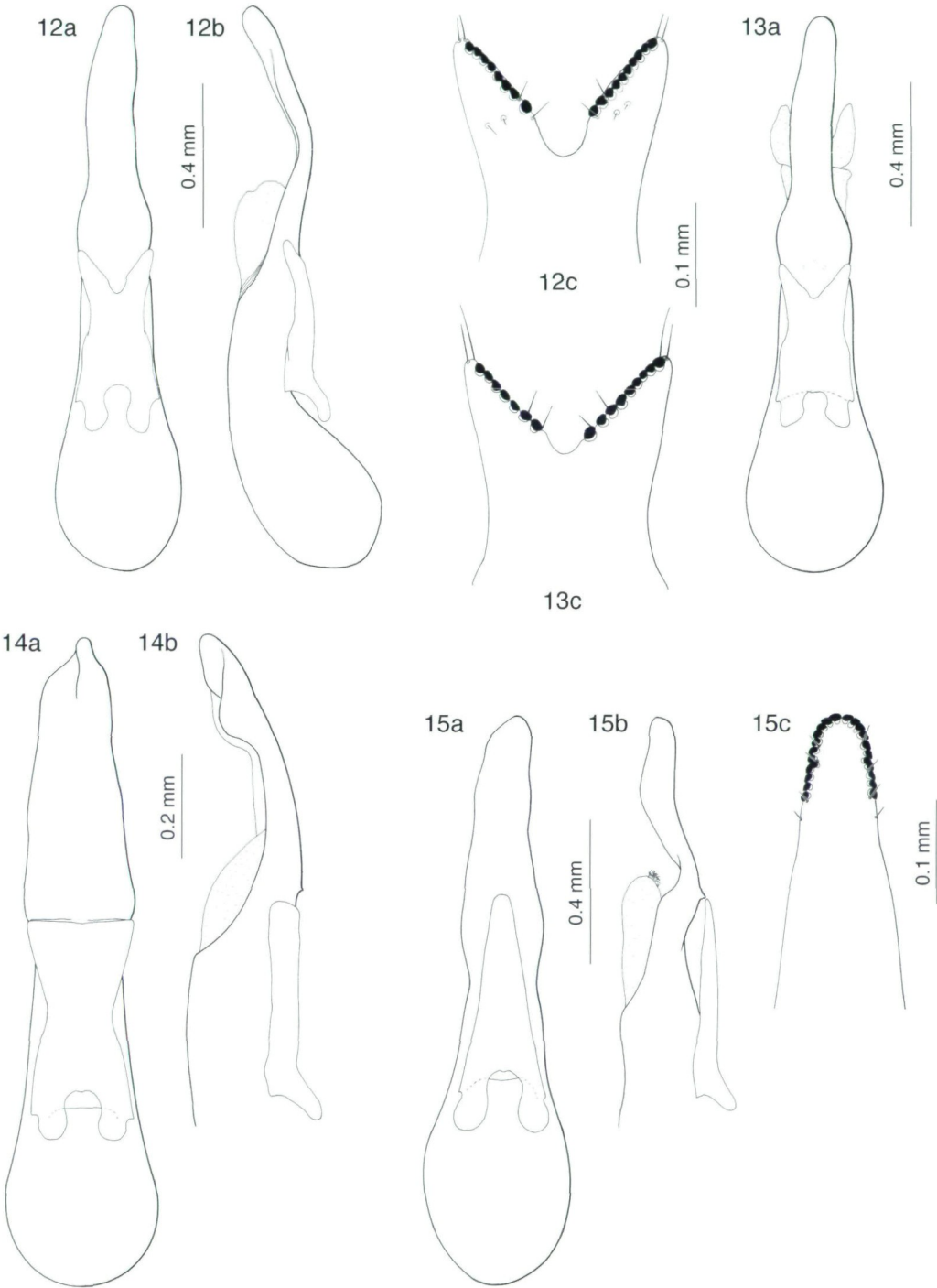
ETYMOLOGY: The specific epithet refers to the type locality, Mount Apo, the highest mountain of the island of Mindanao, meanwhile a refuge for many endangered Philippine species.

Gabrius linauensis sp.n.

Holotype ♂: "Lake Linau, N. slope Mt. Apo, Davao Prov., MINDANAO, E1, 7900 ft. mossy forest, XI-1946 \ on surface of lake \ CNHM-Philippine Zool. Exped. (1946-47) F.G. Werner leg." (FMC).

Paratype ♀: "PHIL: Mindanao, Davao Prov., Crater Lake, Mt. Apo, Phil. Zool. Exped. (9000'), 15-XI-1946 \ FMHD #46-3002, H. Hoogstraal" (NMW).

DESCRIPTION: 6.6 - 7.3 mm long (3.3 - 3.4 mm, abdomen excluded). - Black, moderately shining, antennae dark brown to black-brown, basal three segments reddish-brown,



Figs. 12 - 15: Aedeagus of 12, 13) *Gabrius apomontis*, 14) *G. linearis*, 15) *G. linauensis*. - a) ventral view, b) lateral view, c) paramere.

mandibles reddish-testaceous, palpi pale yellowish-brown, legs reddish-testaceous, medial faces of hind tibiae weakly infusate, posterior margins of tergites and entire tergite VIII brownish-testaceous.

Head 1.09 (female) - 1.19 (male) times as long as wide, subrectangular with broadly rounded hind angles, medial interocular punctures very close to lateral interocular punctures but distinctly shifted anteriorly, tempora subparallel, 1.69 (female) - 1.95 (male) times as long as eyes, antennae long and slender, segments 4 - 7 distinctly oblong, but gradually decreasing in length, segment 10 about as long as wide; pronotum 1.3 times as long as wide, inconspicuously wider than (male) or as wide as (female) head, sides conspicuously or slightly narrowed toward base, dorsal rows rather irregular, each with 6 - 7 punctures; head and pronotum with profound, long-meshed, transverse microsculpture (also along midline of pronotum), in frontal depression of head short-meshed and around it eddy-like confused; elytra along suture inconspicuously longer than pronotum, densely punctate, punctures separated by 1 - 2 puncture diameters in transverse direction, pubescence rather short, yellowish-grey; abdominal tergites with punctation hardly differing from that of elytra, first three segments with two basal lines, elevated area between basal lines quite densely punctate on first two visible tergites, punctures forming irregular single row, that of third visible impunctate; male sternite VIII: Fig. 22; male sternite IX: Fig. 29.

Aedeagus: Figs. 15a, b; median lobe with asymmetrical apical portion, somehow similar to that of *G. plumosus* LAST, 1981; paramere (Fig. 15c) simple, entire, narrowed to obtusely pointed apex in almost straight line, normal setae very short.

DIAGNOSIS: *Gabrius linauensis* is exceedingly similar to *G. viduus* (CAMERON, 1933) and *G. plumosus*, but differs by the markedly longer tempora. In addition, it differs from *G. viduus* by the paler legs.

DISTRIBUTION: The species is at present known only from two spots on Mount Apo (Philippines: Mindanao).

ETYMOLOGY: The specific epithet is derived from the type locality (Lake Linau).

Gabrius linearis sp.n.

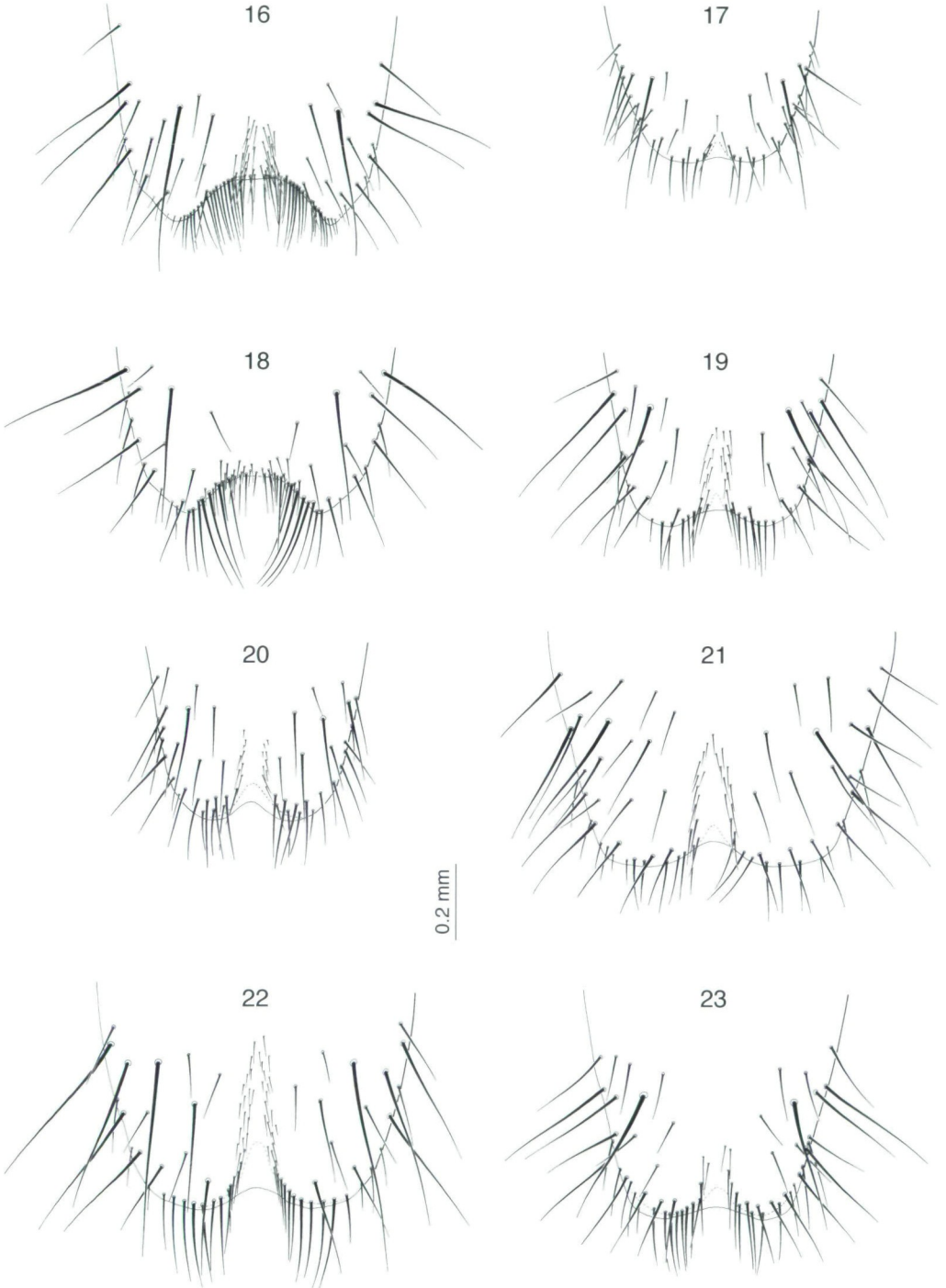
Philonthus linearis BERNHAUER (manuscript name)

Philonthus parallellicollis BERNHAUER (manuscript name)

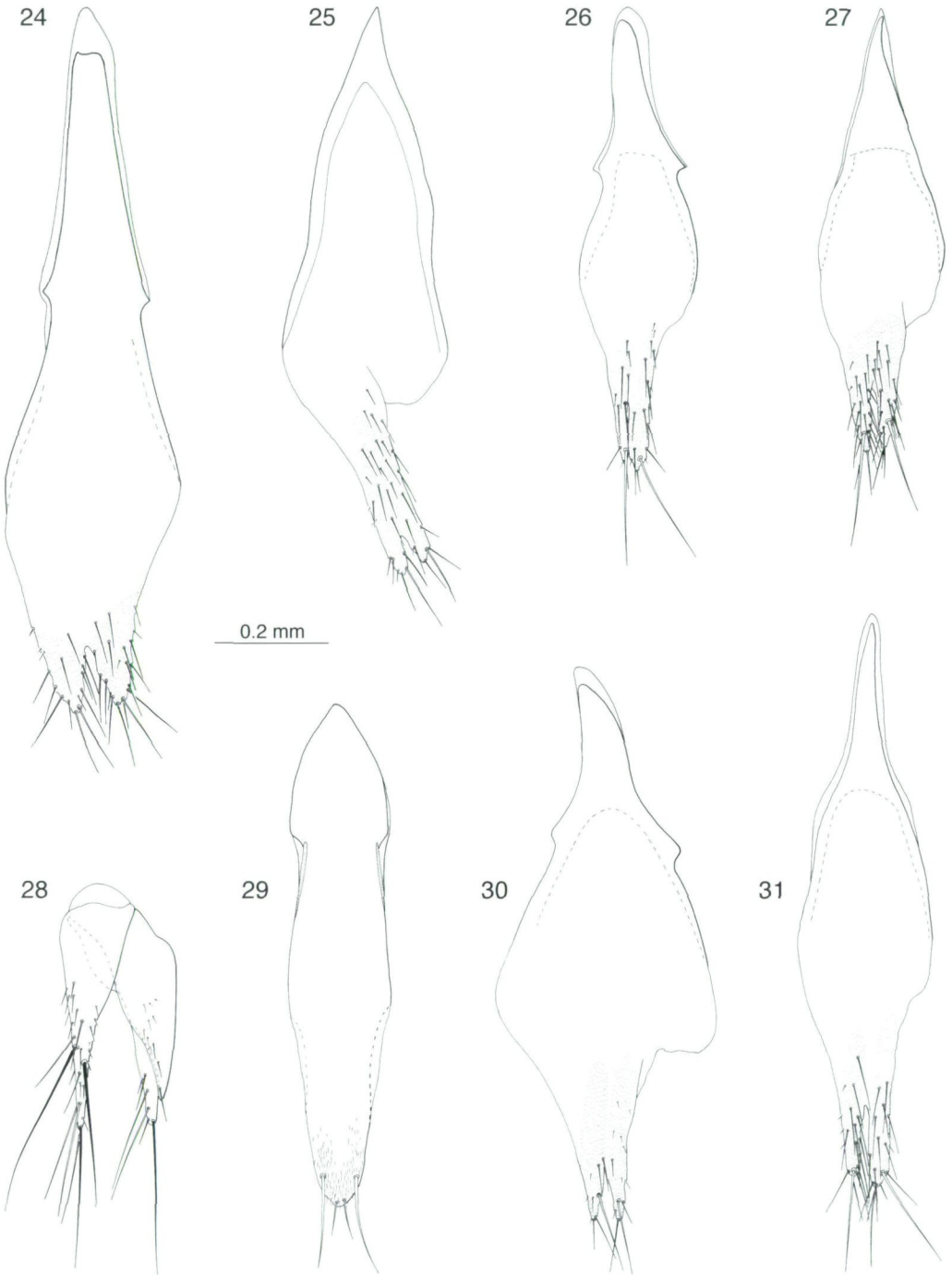
Holotype ♂: "Balbalan Luzon \ Philippinen Coll. Boettcher don. Staudinger \ linearis Brh. typ. un \ Chicago NHMUS M. Bernhauer Collection" (FMC).

Paratypes (16 exs.): LUZON: 2 ex.: "Mt. Polis Luzon \ Philippinen Coll. Boettcher don. Staudinger" (NMW) [one specimen bears an additional handwritten label "Philonthus parallellicollis Bernh."]; 1 ex.: "Heightsplan N. Luzon \ Philippinen Coll. Boettcher don. Staudinger \ parallellicollis Bernh. typ." (FMC); 1 ex.: ibid., but indicated as "paratype" (HUB); 5 exs.: Mountain Prov., Mt. Data NP, 2300 m, 25.II.1999, leg. Schödl [22] (3 NMW, 1 CZW, 1 UPLB); 1 ex.: Mountain Prov., Sagada, Echo Valley, Underground River, 22. - 23.II.1999, 1500 m, leg. H. Zettel [186] (CZW); 1 ex.: Mt. Tabayoc, 2300 m, 22. - 24.IX.1997, leg. Mey, Ebert, Nuß (HUB); MINDANAO: 1 ex.: "Mindanao IX.26.30 P.I. \ Galog Riv. Mt. Apo \ Altitude 6000 Ft. \ Coll. by C.F. Clagg" (FMC); 2 exs.: Mindanao VII.3.30 P.I. \ LaLun Mts. Davao Prov. \ Coll. by C.F. Clagg \ Altitude 5500 Ft." (FMC); 1 ex.: "Seliban Riv. Mt. Apo \ Mindanao IX.6.30 P.I. \ Coll. by C.F. Clagg \ Altitude 7000 Ft." (FMC); 1 ex.: "Mainit Riv. Mt. Apo \ Mindanao IX.10.30 P.I. \ Coll. by C.F. Clagg" (FMC).

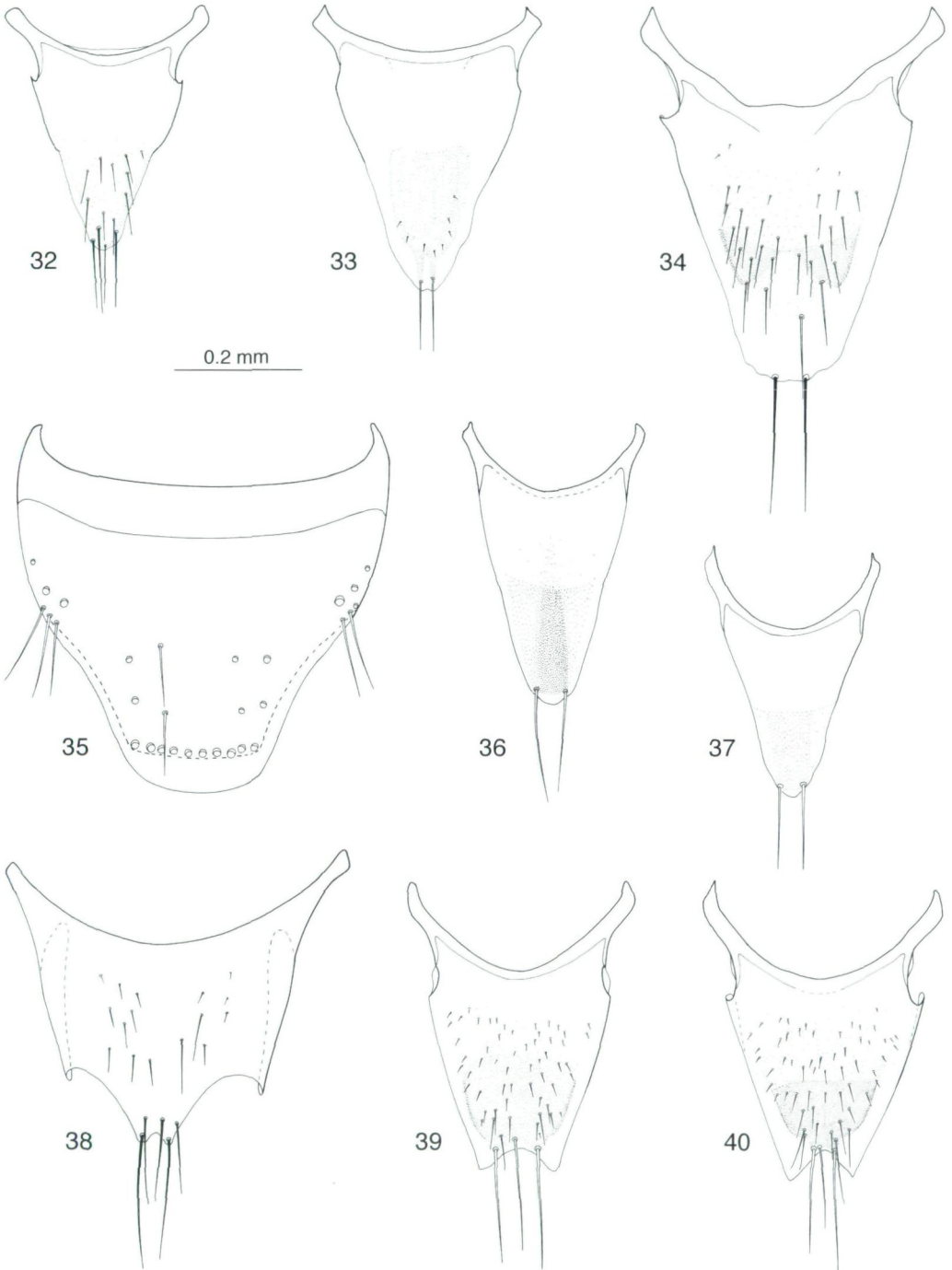
DESCRIPTION: 6.2 - 6.6 mm long (3.1 - 3.4 mm, abdomen excluded). - Black, very shining, elytra with faint or more distinct metallic olivaceous-green reflex, last segment



Figs. 16 - 23: Male sternite VIII of 16) *Gabrius schmidtii*, 17) *G. gabrioides*, 18) *G. hirthei*, 19) *G. malickyi*, 20) *G. haptui*, 21) *G. apomontis*, 22) *G. linauensis*, 23) *G. linearis*.



Figs. 24 - 31: 24 - 30) male sternite IX of 24) *Gabrius schmidtii*, 25) *G. hirthei*, 26) *G. malickyi*, 27) *G. haptui*, 28) *G. fissiceps*, 29) *G. linauensis*, 30) *G. linearis*; 31) stylus of tergite IX and gonocoxites of female genital segment of *G. trossuloides*.



Figs. 32 - 40: 32 - 36) female tergite X of 32) *Gabrius hartmanni*, 33) *G. haptui*, 34) *G. schmidtii*, 35) *G. trossuloides*, 36) *G. fissiceps*; 37) male sternite VIII of *G. fissiceps*; 38) male tergite X of *G. apomontis*; 39 - 40) female tergite X of 39) *G. apomontis*, 40) *G. linearis*.

of antennae reddish, sometimes apex narrowly blackened, legs with femora yellowish to reddish-brown, front tibiae black, narrowly reddish proximally, middle and hind tibiae reddish-brown, medial faces entirely infusate, maxillary palpi dark brown with two outer segments fuscous, labial palpi entirely fuscous.

Head 1.11 - 1.17 times as long as wide, subrectangular, tempora parallel or inconspicuously divergent, 1.40 - 1.52 times as long as eyes, antennae with segments 4 and 5 inconspicuously oblong, segments 8 - 10 slightly transverse; pronotum inconspicuously wider than head, about 1.3 times as long as wide, sides straight, slightly narrowed toward base, dorsal rows each usually with 6 punctures (various irregularities frequently occur); head and pronotum with rather fine, very short-meshed microsculpture, on a broad portion along midline of head and pronotum almost isodiametrical; elytra along suture slightly longer than pronotum, rather densely punctate, punctures separated by 2 - 3 puncture diameters in transverse direction, pubescence moderately long, very fine, hairs inconspicuously silvery-grey; abdominal tergites finely, uniformly, densely punctate, punctures separated by 1 - 2 puncture diameters in transverse direction, first three visible tergites with two basal lines, elevated area between basal lines distinctly but moderately densely punctate, punctures forming single row; male sternite VIII: Fig. 23; male sternite IX: Fig. 30; female tergite X: Fig. 40.

Aedeagus (Figs. 14a, b) with asymmetrical apical portion of median lobe, apex characteristically knobbed; paramere with apical margin straight, inconspicuously notched medially.

DIAGNOSIS: Among the Philippine species, *G. linearis* is easily recognized by the distinctly bicolorous legs, and by the characteristic microsculpture on head and pronotum. Externally, it is to some extent similar to *G. hammondi* SCHILLHAMMER, 1997 from Sulawesi (except for the secondary sexual characters), but it differs by the larger size, larger head, wider pronotum and shorter antennae.

DISTRIBUTION: The species is probably widespread over the Philippine islands, although at present it is known only from Luzon and Mindanao. However, the occurrence on these two widely separated islands makes it very likely that *G. linearis* also occurs on the islands in between.

ETYMOLOGY: I have used one of Bernhauer's two manuscript names he attached to various specimens he had studied; *linearis* is derived from *linea*, -ae (Latin: line or thread) and means stretched or slender. Actually, both manuscript names (the other name is "*parallelicollis*") would have characterized the species well.

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Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Annalen des Naturhistorischen Museums in Wien](#)

Jahr/Year: 2000

Band/Volume: [102B](#)

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Gabrius STEPHENS, 1829 \(Insecta: Coleoptera: Staphylinidae\). 117-142](#)