Six new Palaeartic species of the genus Gabrius Stephens and synonymical notes on some Philonthini (Coleoptera: Staphylinidae)

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Abstract

Six new species of the genus Gabrius Stephens from the Palaeartic Region are described: Gabrius kahleni sp. nov. (N-Italy), G. palmi sp. nov. (Sardinia), G. mandli sp. nov. (E-Siberia), G. quadripunctatus sp. nov. (China), G. philonthoides sp. nov. (China) and G. trifidus sp. nov. (China). The aedeagi of all new species as well as those of all species of the keysianus group and Gabrius fimetarioides Scheerpelztz are figured. Gabrius quadripunctatus sp. nov. and Gabrius philonthoides sp. nov. are compared with Gabrius fimetarioides Scheerpelztz. New synonyms: Gabrius latro Joy (= Gabrius latroides Coiffait syn. nov.); Philonthus carbonarius Gravenhorst (= Philonthus pindeus Coiffait syn. nov.); Philonthus juvenilis Peyron (= Philonthus thaseus Coiffait syn. nov.); Philonthus indubius Luze is removed from synonymy with umbratilis Gravenhorst - Philonthus indubius Luze (= Philonthus eppelsheimi Coiffait syn. nov.).- New combinations: Craspedomerus nepalicus Coiffait comb. nov. (= Philonthus nepalicus Coiffait); Gabrius fimetarioides Scheerpelztz comb. nov. (= Philonthus fimetarioides Scheerpelztz).

Key words: Coleoptera, Staphylinidae, Gabrius, Philonthus, taxonomy, nomenclature.

The species treated herein represent some new taxa as a result of several years' determination work of miscellaneous and undetermined material from different collections. Additionally this paper is used to work off the different kinds of new synonymical situations that are due to the latest type studies.

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CFM  coll. Franz (Mödling)
CKH  coll. Kahlen, Hall/Tirol
CRL  coll. Rougemont, London
CSO  coll. Smetana, Ottawa
MNG  Muséum d'histoire Naturelle, Genève (I. Löbl)
MNT  Museo di Storia Naturale, Trieste (G. Alberti)
MZR  Museo di Zoolgia, Universita "La Sapienza", Roma (E. Colonnelli)
NMW  Naturhistorisches Museum, Wien
TMB  Természettudományi Múzeum, Budapest (G. Szél)
ZML  Zoological Museum, Lund (R. Danielson)
ZSM  Zoologische Staatssammlung, München (G. Scherer)

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Gabrius kahleni sp. nov.

Paratypes: 2 ♀♂, same locality as Holotype, 8.7.1990 (CKH, NMW).
DESCRIPTION: 4.5 - 4.9 mm long.- Externally this species hardly shows any difference to
Gabrius velox SHARP except for the distinctly shorter elytra. Like many species of the nigritulus-group G. kahleni sp. nov. is also very variable: while the holotype has parallel temples and lateral margins of the pronotum, the smaller of the two paratypes has convergent temples and the pronotal margins tightened anteriorly.

Aedeagus (Fig. 8a, b): In its ventral view also similar to velox SHARP, but with a broader and more irregularly rounded apical part of the median lobe. In its lateral view it is totally different from velox and somehow resembles bishopi SHARP, but with a remarkably shorter apical part.

DERIVATIO NOMINIS: Named after its collector Manfred Kahlen, one of the most eager local collectors in Central Europe.

The Gabrius keysianus group

Four species of this group have been described as yet: Gabrius keysianus SHARP (Fig. 1a, b), G. gagliardii Gridelli (Fig. 5a, b), G. mengensis Smetana (Fig. 6a, b) and G. dieckmanni Smetana (Fig. 2a, b). Their relationship manifests itself not only by morphological and aedeagal features, but also by their bionomics. Except for G. mengensis Smetana, which was found at an altitude of 1500 m, all the species seem to prefer salty habitats, keysianus is strictly bound to the European litoral. Nothing is known about the habitats of the two species which are described in the following, but the type locality of G. palmi sp. nov. lies on the north coast of Sardinia what makes a litoral habitat likely.

Gabrius mandli sp. nov.

Paratypes: 10 ex. with identical label data (NMW).

DESCRIPTION: 4.9 - 5.6 mm long.- Externally this species is nearly identical with dieckmanni Smetana. The only remarkable differences are the shorter temples (temples : eyes - 1.68 : 1 in dieckmanni - 1.54 : 1 in mandli), the slightly shorter elytra, and a smaller pronotum, especially in the ♀. Aedeagus (Fig. 3a, b): Median lobe similar to dieckmanni in ventral view, but in lateral view its apical part is distinctly narrower and its dorsomedian process more pointed. Additionally the parameres of mandli are not as large as those of dieckmanni.

DERIVATIO NOMINIS: This species is named in honour of Prof. Karl Mandl (†).

Gabrius palmi sp. nov.

Paratypes: 20 ex., same data as Holotype (ZML); 4 ex. with identical label data (NMW).

DESCRIPTION: 4.6 - 5.0 mm long.- Closely related to G. keysianus SHARP, but generally smaller (Gabrius palmi sp. nov. is less robust than all the other species of the keysianus group, in its shape it resembles G. pennatus SHARP more closely). Normally the head is quadrate, but in very small specimens it may be slightly oblong. Gabrius keysianus always has an oblong head (especially the ♀). Aedeagus (Fig. 4a, b): Similar to keysianus, but with a broader apical part of the median lobe, which is even broader than that of dieckmanni. The paramere is also similar to keysianus, but the angle formed by the two branches is more acute than in keysianus.

DERIVATIO NOMINIS: Named after its recoveror, who did a lot of precious collecting all over the world.
Fig. 1 - 6: Aedeagus a) ventral view, b) lateral view: 1) Gabrius keysianus SHARP; 2) Gabrius dieckmanni SMETANA; 3) Gabrius mandli sp. nov.; 4) Gabrius palmi sp. nov.; 5) Gabrius gagliardi GRIDELLI; 6) Gabrius mengensis SMETANA.
**Gabrius fimetarioides (ScheerpelTZ) comb. nov.**

*Philonthus fimetarioides* ScheerpelTZ; 1976, Khumbu Himal, V: 125.

TYPE MATERIAL: I have seen the ♂ holotype (ZSM), with the following label data - "NEPAL, Prov. Nr.3, East Khumjung, 3800m/ 1.-3.VII.1964, leg. Löffler".

DESCRIPTION: 4.5 - 4.9 mm long.- Black, shining; elytra brown with a slight brassy reflex (sometimes the whole insect seems weakly metallic); abdomen dark brown with ± reddish posterior margins of the tergites; antennae dark brown, with the basal three joints and the last one remarkably paler; legs yellow, the inner face of the posterior tibiae slightly infuscate; head, pronotum and basal tergites with transverse microreticulation.

Head a little longer than wide (1.1 : 1) with parallel or weakly convergent temples, which are 1.7 times longer than the longitudinal diameter of the eyes. Pronotum parallel sided, longer than wide (1.14 : 1) with only four punctures in the dorsal row. In the Palaearctic and Oriental Regions the four-punctate dorsal row is unique to this and the following two species. This feature gives the insect a very *Philonthus*-like look, especially resembling small species of the *sordidus* group.

Elytra densely and coarsely punctured.

Aedeagus: Fig. 10a, b, c

DISTRIBUTION: Himalayan region - Nepal, N-India, N-Pakistan. The whole list of examined specimens will be published in near future in the revision of the Oriental species of *Gabrius* Stephens.

**Gabrius quadripunctatus sp. nov.**

Holotype: ♂, "CHINA: Gansu, Meijishan, VIII. 1986; leg. Rougemont" (CRL).

DESCRIPTION: 5.9 mm long.- Larger than *fimetarioides* and almost of the same coloration, but with the antennae being black. In this species only two basal joints are paler, but this might be variable. Additionally, the temples, which are only 1.4 times longer than the eyes, are distinctly convergent. Elytra as densely, but more finely punctured.

Aedeagus (Fig. 11a, b, c): Very similar to that of *fimetarioides*, but with a more rounded top of the paramere and a relatively longer apical part of the median lobe.

**Gabrius philonthoides sp. nov.**

Holotype: ♂, "CHINA: Gansu, Meijishan, VIII. 1986; leg. Rougemont" (CRL).

DESCRIPTION: 7 mm long.- Similar to *quadripunctatus* and *fimetarioides*, but at once distinguishable by its size, the entirely black antennae, the parallel temples (1.4 times longer than the eyes) and the inner sides of all tibiae being ± infuscate.

Aedeagus (Fig. 7a, b): Very robust with a voluminous shovel-like paramere but with a very small and feeble apical part of the median lobe (unfortunately the very top was already broken off).

As the descriptions of these two species are based on unique specimens it was not possible to figure out whether the external features are subject to a certain variability or not. This mainly concerns the shape of the head and the coloration.

**Gabrius trifidus sp. nov.**

Holotype: ♂, "CHINA: Gansu, Meijishan, VIII. 1986; leg. Rougemont" (CRL).

Paratype: 1 ♀, same data as Holotype (NMW).
Fig. 7 - 11: Aedeagus a) ventral view, b) lateral view, c) inner face of the paramere: 7) Gabrius philonthoides sp. nov.; 8) Gabrius kahleni sp. nov.; 9) Gabrius trifidus sp. nov.; 10) Gabrius fimetarioides SCHEERPELTZ; 11) Gabrius quadripunctatus sp. nov. (larger scale: inner face of the paramere).
DESCRIPTION: 5.5 - 5.9 mm long.- Dark brown, with somewhat paler elytra; antennae with the basal two joints and the last one reddish; legs yellow, the inner faces of the hind tibiae strongly those of the middle tibiae weakly infuscate; posterior margins of the tergites reddish.

Head exactly as long as wide; the rounded temples are longer than the eyes (1.55 : 1.25); pronotum with six punctures in the dorsal row, a little longer than wide (4.6 : 4.0), the sides slightly narrowed towards the anterior margin. Both head and pronotum bear a distinct transverse microreticulation. Punctation of elytra and abdominal tergites without any striking difference to the majority of the dark brown species of this size (nigritulus-group, imitator-group).

Aedeagus: Fig. 9a, b, c

DIAGNOSIS: The remarkable feature of Gabrius trifidus sp. nov. is its trilobed paramere, which, together with the species' external shape (convex head and pronotum), points to a relationship to a subgroup of the imitator-group with some yet undescribed species, which mainly occur in the northern parts of the Oriental Region. Gabrius tokaiensis SMETANA has a similar paramere but does not at all belong to this species group.

Synonymical notes on some Philonthini

Gabrius latro JOY (= latroides COIFFAIT) syn. nov.: In 1953 Coiffait published the aedeagus of Gabrius latro JOY on a specimen from Seranon - Alpes maritimes (coll. Ochs). In 1963 he described a new species (latroides), the description obviously basing on his conclusion from 1953. The study of the types of Gabrius latro JOY (TMB) revealed their identity with latroides COIFFAIT, while the specimen from Seranon (MNG) is nothing else than a Gabrius nigritulus (GRAVENHORST) with the top of the median lobe broken off.

Philonthus carbonarius (GRAVENHORST) (= Philonthus pindeus COIFFAIT) syn. nov. - Philonthus juvenilis PEYRON (= Philonthus thaseus COIFFAIT) syn. nov.: In 1976 Coiffait described two new species of Philonthus from Greece (pindeus and thaseus) giving very vague distinguishing characters from their next relatives. I was able to study the types of both species deposited in the MZR. It turned out that Coiffait saw differences where there were not any.

Philonthus indubius LUZE species propria (= Philonthus eppelsheimi COIFFAIT syn. nov.): Philonthus indubius LUZE was synonymized with Philonthus umbratilis (GRAVENHORST) by BOHAC (1988) after studying the δ holotype deposited in the Zoological Institute of St. Petersburg (Leningrad). The major part of Luze's type material is deposited in the NMW also including two syntypes of Philonthus indubius (δ and φ). The dissection of the δ proved that it is quite distinct from umbratilis, but that it is identical with Philonthus eppelsheimi COIFFAIT, a species originally separated from the type series of Philonthus variabilis EPPELSHEIM. During my correspondence with Bohac he affirmed that he could not realize any difference between indubius and umbratilis and indeed, there is hardly any distinguishing external character. As all the specimens were found at the same location it can be assumed that they belong to the same species.

Craspedomerus nepalicus (COIFFAIT) comb. nov. (= Philonthus nepalicus COIFFAIT, 1976): Coiffait (1979) already transferred two species of Philonthus (sinetuber COIFFAIT, 1977 and tricoloricornis COIFFAIT, 1977) to the genus Craspedomerus BERNHAUER. Philonthus nepalicus COIFFAIT (holotype in CFM) also belongs to Craspedomerus BERNHAUER.

Zusammenfassung

Sechs neue Arten der Gattung Gabrius STEPHENS aus der Palaearktischen Region werden beschrieben: Gabrius kahleni sp. nov. (N-Italien), G. palmi sp. nov. (Sardinien), G. mandli sp.
SCHILLHAMMER: New species of the genus Gabrius (STAPHYLINIDAE) 67

nov. (O-Sibirien), G. quadripunctatus sp. nov., G. philonthoides sp. nov. und G. trifidus sp. nov. (alle drei aus China). Gabrius palmi sp. nov. und G. mandli sp. nov., die beide zur keysianus-Gruppe gehören, werden mit den anderen Arten dieser Gruppe verglichen. Die Aedeagi aller neuen Arten, die der keysianus-Gruppe und von Gabrius fimetarioides SCHEERPELTZ sind abgebildet. Neue Synonyme: Gabrius latro JOY (= Gabrius latroides COIFFAIT syn. nov.); Philonthus carbonarius GRAVENHORST (= Philonthus pindeus COIFFAIT syn. nov.); Philonthus juvenilis PEYRON (= Philonthus thaseus COIFFAIT syn. nov.); die Synonymie von Philonthus indubius LUZE zu Philonthus umbratilis GRAVENHORST wird rückgängig gemacht - Philonthus indubius LUZE ist Philonthus eppelsheimi COIFFAIT syn. nov. - Neue Kombinationen: Craspedomerus nepalicus (COIFFAIT) comb. nov. (= Philonthus nepalicus COIFFAIT); Gabrius fimetarioides (SCHEERPELTZ) comb. nov. (= Philonthus fimetarioides SCHEERPELTZ).

References


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