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Six new Palaearctic 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 Palaearctic 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* SCHEERPELTZ are figured. *Gabrius quadripunctatus* sp. nov. and *Gabrius philonthoides* sp. nov. are compared with *Gabrius fimetarioides* SCHEERPELTZ. 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* SCHEERPELTZ comb. nov. (= *Philonthus fimetarioides* SCHEERPELTZ).

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 Zoologia, Universita "La Sapienza", Roma (E. Colonnelli)
NMW Naturhistorisches Museum, Wien
TMB Természettudomanyi Múzeum, Budapest (G. Szél)
ZML Zoological Museum, Lund (R. Danielson)
ZSM Zoologische Staatssammlung, München (G. Scherer)

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Gabrius kahleni sp. nov.

Holotype: ♂, N-ITALY: "Südtirol, Kalterer See, 230m, 11.8.1990, Lichtfang; leg. Kahlen" (CKH).

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 unregularly rounded apical part of the median lobe. In its lateral view it is totaly 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.

Holotype: ♂, USSR: "Werchne-Udinsk, Transbaikal.; leg. Mandl (NMW).

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.

Holotype: ♂, ITALY: "Sardinien, S. Teresa, VI. 1968; leg. Palm" (ZML).

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.

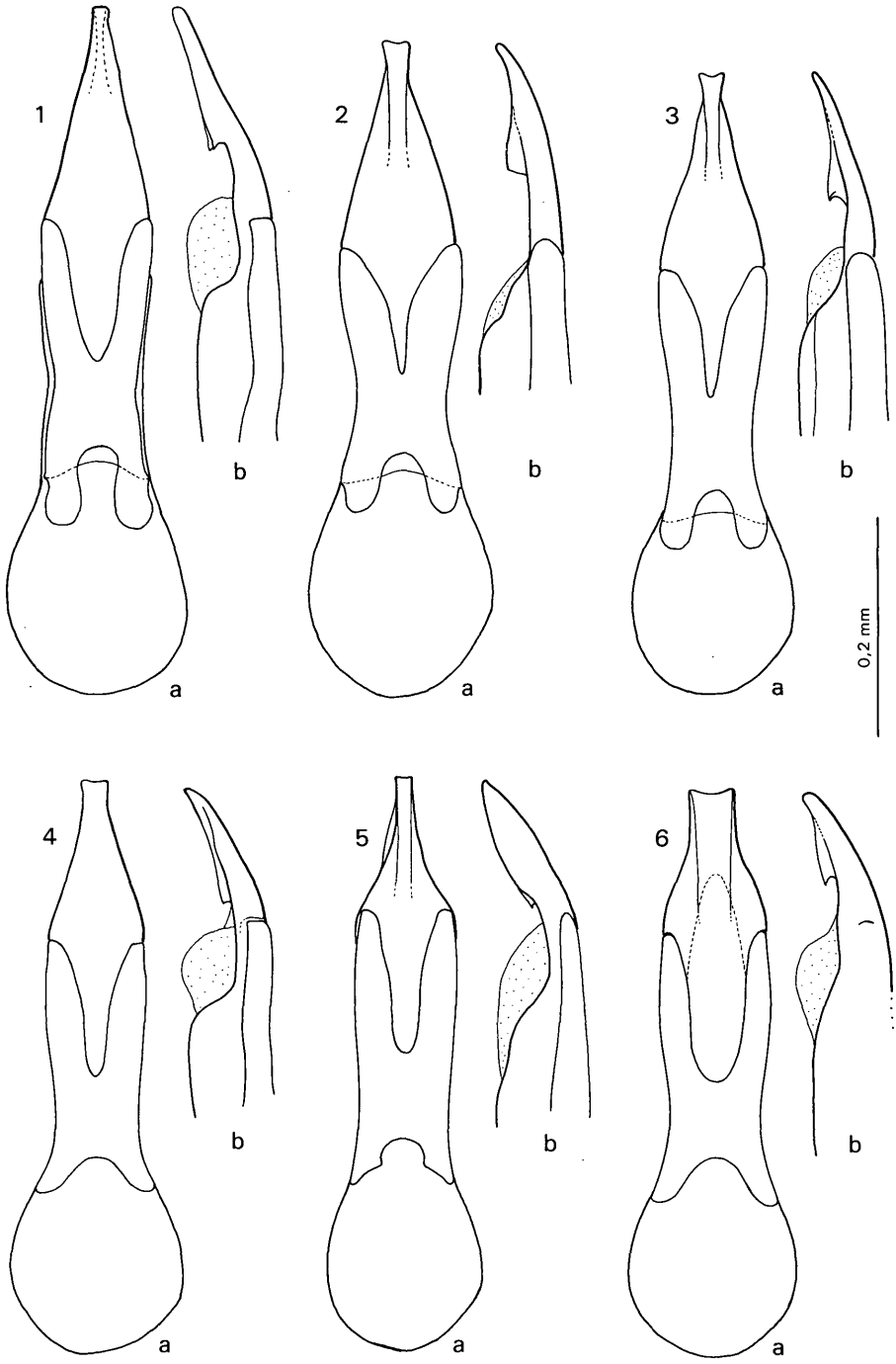

Fig. 1 - 6: Aedeagus a) ventral view, b) lateral view: 1) *Gabrius keysianus* SHARP; 2) *Gabrius dieckmanni* SMETANA; 3) *Gabrius mandli* sp. nov.; 4) *Gabrius palmi* sp. nov.; 5) *Gabrius gagliardii* GRIDELLI; 6) *Gabrius mengensis* SMETANA.

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 tergits; 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).

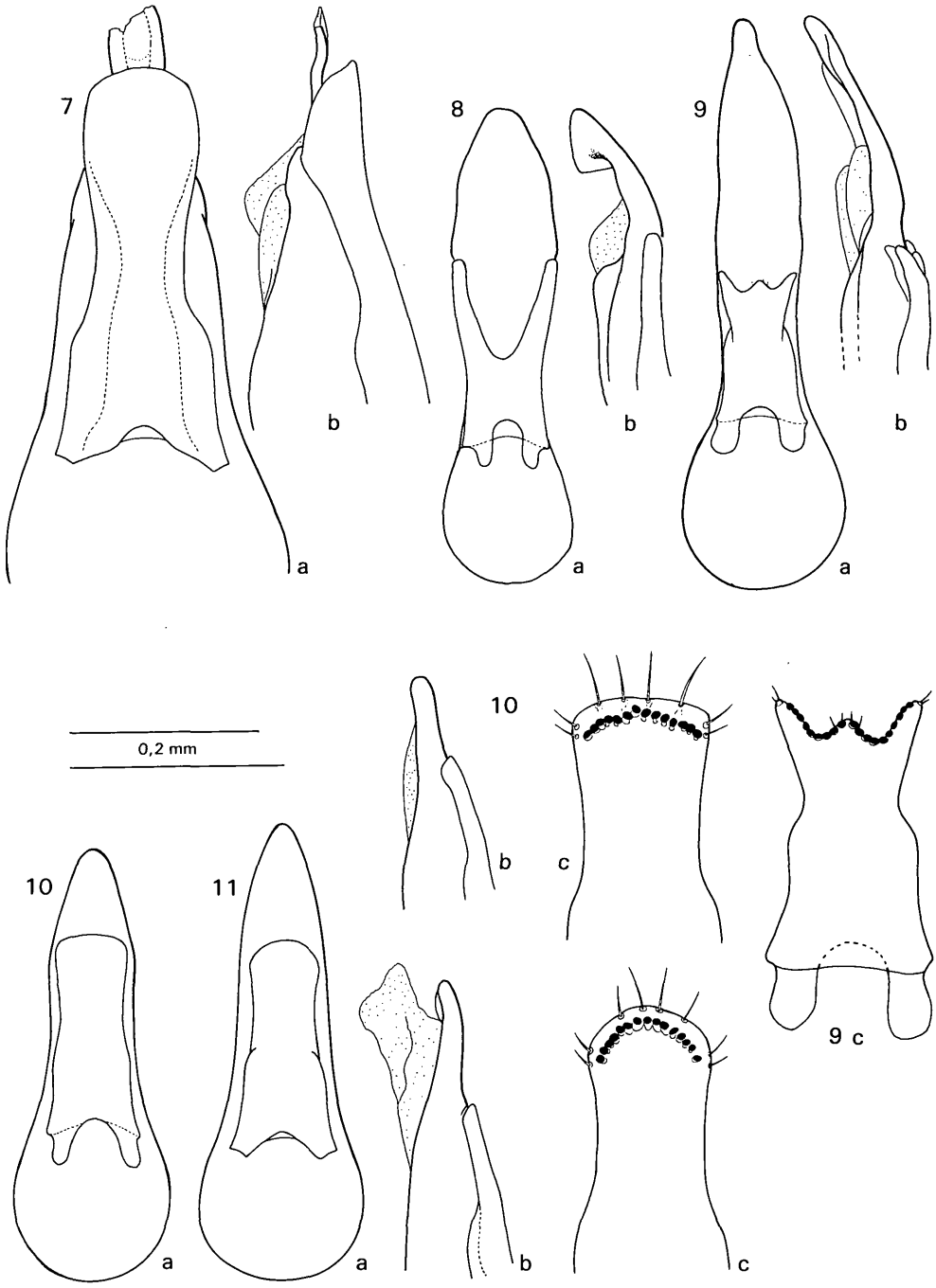

Fig. 7 - 11: Aedeagus a) ventral view, b) lateral view, c) inner face of the paramere: 7) *Gabrius philonthoides* sp. nov.; 8) *Gabrius kahleni* sp. nov.; 9) *Gabrius trifidus* sp. nov.; 10) *Gabrius fimetarioides* SCHEERPELTZ; 11) *Gabrius quadripunctatus* sp. nov. (larger scale: inner face of the paramere).

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 tokatensis* 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 ♀ 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* (♂ and ♀). The dissection of the ♂ 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.

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 (= *Philonthus eppelsheimi* COIFFAIT syn. nov.).- Neue Kombinationen: *Craspedomerus nepalicus* (COIFFAIT) comb. nov. (= *Philonthus nepalicus* COIFFAIT); *Gabrius fimetarioides* (SCHEERPELTZ) comb. nov. (= *Philonthus fimetarioides* SCHEERPELTZ).

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