

New and interesting *Gabrius*, *Rabigus* and *Philonthus* from Turkey (Coleoptera, Staphylinidæ) (107th contribution to the knowledge of Staphylinidæ)

by

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With 4 figures

ABSTRACT

Gabrius tokatensis (exiguus Group) and *Philonthus besucheti* (micans Group), both from Turkey, are described as new. Distributional records in Turkey for several other species of *Gabrius* Curt., *Rabigus* Muls. et Rey and *Philonthus* Curt. are given. The validity of the genus *Paragabrius* Coiff. is disputed.

Recently, I received from Dr. C. Besuchet, Genève, Switzerland, material of some Staphylinini collected in Turkey for study. The material contained two new species and several interesting records which are presented here.

The material studied is deposited in the collection of the Museum d'Histoire naturelle, Genève, and in the Canadian National Collection, Ottawa, Canada.

I wish to thank Dr. C. Besuchet for making this material available for study and for permitting some of the specimens studied to be deposited in the Canadian National Collection. I would also like to thank my colleagues, Drs. E. C. Becker, D. E. Bright and J. M. Campbell, for their criticisms of the manuscript.

Gabrius femoralis (Hochh.)

Philonthus femoralis Hochhuth, 1851, *Bull. Soc. Nat. Moscou* 24 (3): 19
Gabrius femoralis; SMETANA 1957, *Ent. Bl. Biol. Syst. Käfer* 53: 58, 74, Fig. 7
Gabrius femoralis; COIFFAIT 1974, *Col. Staph. rég. pal. occ.* II: 71

Material examined: Bursa, 22.VII.69, Cl. Besuchet (5).

The species is distributed from the central portions of Southern Europe through the southeastern portions of Central Europe and Southeastern Europe to Asia Minor and the Caucasus.

***Gabrius tokatensis* spec. nov. (fig. 1-3)**

Holotype (male) and allotype (female): "Turquie Tokat, Tokat-Almus, 21.V.67, 1200 m, Cl. Besuchet." In the collection of the Muséum d'Histoire naturelle, Genève, Switzerland.

Piceous with feeble metallic lustre, apical margins of abdominal tergites and apex of abdomen slightly paler; mouthparts, base of antennae and legs pale testaceous.

Head slightly narrower than pronotum, somewhat longer than wide (index 1.15), parallelsided, posterior angles rounded, indistinct. Eyes small and flat, temples considerably longer than length of eyes seen from above (index 2.22). Chaetotaxy similar to that of *exiguus* Nordm. Surface with very fine and dense microsculpture of transverse waves.

Antennae moderately long, moderately thickened towards apex, segments 2 and 3 about equally long, segments 4-6 somewhat longer than wide, outer segments about as long as wide to slightly transverse (in female), last segment of usual shape, shorter than two previous segments combined.

Pronotum longer than wide (index 1.28), feebly narrowed posteriorly. Dorsal rows each with 5 irregularly situated punctures; lateral portions of pronotum with chaetotaxy similar to that of *exiguus*. Surface with microsculpture similar to that of head.

Scutellum moderate in size, with numerous punctures bearing hairs.

Elytra moderately long, slightly widened posteriorly, at base distinctly wider than pronotum posteriorly; at suture about equally long, at sides somewhat longer than pronotum at midline (index 1.11). Punctuation moderately dense and coarse; surface between punctures without microsculpture; pubescence brownish, moderately dense.

Abdomen with apical margin of 5th visible tergite bearing whitish seam. Punctuation of tergites much finer than that of elytra, on each tergite slightly denser basally, 6th visible tergite only sparsely punctate; surface between punctures with extremely fine and dense microsculpture of transverse striae; pubescence decumbent, brownish.

Male. Metafemora simple, not curved and without dense hairs at inner margin. Posterolateral angles of 6th sternite membranously, triangularly extended; actual apical margin bearing long and dense setae, and almost semicircularly emarginate in middle (Fig. 3). Aedoeagus elongate, median lobe bisinuate narrowed towards blunt apex, apical portion in dorsal view with parallel, anteriorly divergent grooves; paramere apically with 2 rather narrow, strongly divergent branches and 1 median triangular lobe, thus having distinct trimerous appearance apically; sensory tubercles situated at inner apical margin of each branch, 2 additional tubercles below and mediad of apical group. See Figs. 1, 2 for details.

Length 5.6-5.9 mm.

Distribution. The species is known at present only from the type locality at the foot of the Yildiz Dagi mountains in North-Central Turkey. Probably more widely distributed.

Bionomics. No details are known about the habits of this species.

Discussion. The species belongs to the *exiguus* Group (see Coiffait 1974: 38-39 for the species included in this Group). Within the group, it is extremely well characterized by the male secondary sexual characters on the 6th abdominal sternite, and by the unique shape of the male aedoeagus (highly modified apex of the median lobe and the trilobed apical portion of the paramere — see Figs. 1, 2); it cannot be confused with any other palaearctic species of this genus.

Etymology. Named for the type locality.

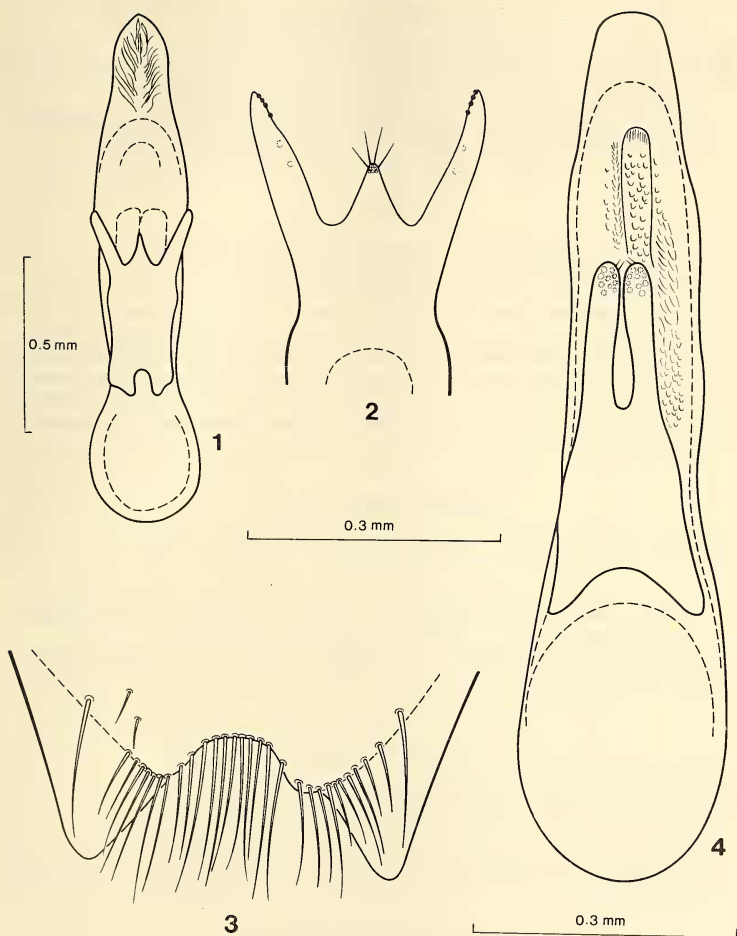


FIG. 1-3.

Gabrius tokatensis.

1. Aedeagus. 2. Apical portion of paramere. 3. Apical portion of male 6th abdominal sternite.

FIG. 4.

Aedeagus of *Philonthus besucheti*.

Gabrius latro Joy

Gabrius latro Joy, 1913, *Entomologist's mon. Mag.* 49: 26, pl. I, Fig. 8

Gabrius latro; SMETANA 1960, *Dt. ent. Z.*, N. F. 7: 321

Material examined: Istanbul, Altinsehir, 28.VII.69, Cl. Besuchet (2).

This is a mediterranean species occurring from Southern France (Alpes Maritimes) through the Balkan Peninsula to Israel, Lebanon, Turkey and the Caucasus.

Gabrius ravasinii Grid.

Gabrius ravasinii Gridelli, 1920, *Annali Mus. civ. Stor. nat. Giacomo Doria* 49: 147

Gabrius spurius SMETANA, 1954, *Acta ent. Mus. nat. Pragae* 29: 178

Gabrius ravasinii; COIFFAIT 1974, *Col. Staph. rég. pal. occ.* II: 55

Material examined: Bursa, 23.VII.69, Cl. Besuchet (2); Izmir, Bergama, 17.VII.69, Cl. Besuchet (7).

The species is distributed from Western Europe (Pyrénées Centrales) through the southern portions of Central and Eastern Europe to Asia Minor and the Caucasus.

It was COIFFAIT (1974: 55) who synonymized *spurius* with *ravasinii* and although the holotypes of these two species were never compared, the synonymy is apparently correct. See SMETANA (1960: 351) for some details on the *ravasinii-spurius* problem.

Rabigus ocaleoides (J. Sahlb.)

Philonthus ocaleoides J. Sahlberg, 1908, *Öfvers. finska Vetensk. Soc. Förh.* 50: 35.

Philonthus ocaleoides; SMETANA 1959, *Acta ent. Mus. nat. Pragae* 33: 212

Rabigus ocaleoides; COIFFAIT 1974, *Col. Staph. rég. pal. occ.* II: 104

Material examined: Izmir, Bahceliköy, 16.VII.69, Cl. Besuchet (22); Izmir, Bergama, 17.VII.69, Cl. Besuchet (6).

The species is distributed from the southern portions of the Balkan Peninsula (Southern Yugoslavia and Albania) to Asia Minor.

Philonthus (Philonthus) picipes Fauv.

Philonthus picipes Fauvel, 1875, *Fn. gallo-rhén.* III, Cat. syst.: XXXI

Philonthus picipes; SMETANA 1958, *Ent. Bl. Biol. Syst. Käfer* 54: 148

Philonthus picipes; COIFFAIT 1974, *Col. Staph. rég. pal. occ.* II: 229.

Material examined: Bolu, Elmalik, 950 m, 25.V.67, Cl. Besuchet (3).

The species is distributed from the southeastern portion of Central Europe through the Balkan Peninsula to Asia Minor, the Caucasus and Transcaucasia.

Philonthus (Philonthus) reitteri Epp.

Philonthus reitteri Eppelsheim, 1889, *Wien. ent. Ztg.* 8: 18

Philonthus reitteri; SMETANA 1955, *Annl. hist.-nat. Mus. nat. Hung.*, N. S. 6: 206.

Philonthus reitteri; COIFFAIT 1974, *Col. Staph. rég. pal. occ.* II: 215

Material examined: Bolu, Elmalik, 950 m, 25.V.67, Cl. Besuchet (3).

The species is distributed throughout the Caucasus, Transcaucasia, and the northern portions of Asia Minor.

***Philonthus (Philonthus) mimus* Smet.**

Philonthus mimus SMETANA, 1959, *Acta ent. Mus. nat. Pragae* 33: 211
Paragabrius mimus; COIFFAIT 1974, *Col. Staph. rég. pal. occ.* II: 93

Material examined: Istanbul, Halkali, 3.VIII.69, Cl. Besuchet (2).

The species is distributed from the southern portions of the Balkan Peninsula (Albania) through the European part of Turkey to Asia Minor.

For the generic status of this species see the discussion under the following species.

***Philonthus (Philonthus) besucheti* spec. nov. (fig. 4)**

Holotype (male): "Turquie Adiyaman, Golbasi, 900 m, 10.V.67, Cl. Besuchet". In the collection of the Muséum d'Histoire naturelle, Genève, Switzerland.

Externally very similar to *oblitus* Jarr., but differing as follows: smaller, narrower and more parallelsided; head less strongly narrowed towards neck; punctuation of elytra slightly denser than in average specimens of *oblitus*; punctuation and pubescence of abdominal tergites very distinctly denser and finer.

Male. First four segments of protarsi distinctly dilated. Sixth abdominal sternite with rather shallow, obtusely triangular median emargination, small triangular area before emargination flattened and smooth. Aedoeagus of similar shape as that of *oblitus*, however different as follows: smaller and narrower, apical portion of median lobe laterally slightly concavely narrowed towards subarcuate apical margin; paramere shorter, with apical branches much shorter, only about equally long as basal plate. See Fig. 4 for details.

Length 5.90 mm.

Distribution. The species is known only from the type locality near Ankara.

Bionomics. No details are known about the habits of this species.

Discussion. The aedoeagus of this species also resembles to some extent that of *berytensis* Jarr., however, in the latter the branches of the paramere diverge anteriorly, and the apical portion of the median lobe is distinctly asymmetrical; also, in *berytensis* the punctuation of the abdominal tergites is coarser and considerably sparser.

The species belongs to the *micans* Group in the broad sense, which includes many species both in the palaearctic and nearctic regions. The group actually could be subdivided into several groups, based primarily on the shape of the male aedoeagus. Most of the species, especially those closely allied to *micans*, are so similar to each other externally, that positive identification is possible only by examining the male aedoeagus. The external differences, if any, are so subtle that they are unreliable. It is surprising therefore, that COIFFAIT (1963: 7, 2; 1974: 4, 84) erected for most of the species of the *micans* Group a separate genus *Paragabrius*. He based it virtually on a single character, i. e. that the aedoeagus in these species rests in the abdomen in the primitive position (that is, with the paramere facing ventrally), in contrast to *Philonthus* Curt. with the aedoeagus rotated 90° (that is, with the paramere facing laterally). Under this arrangement most species of the *micans* Group, except for *oblitus*, *berytensis* and *salinus* Kiesw., were assigned to *Paragabrius*. Again, I would like to emphasize that externally, small specimens of *oblitus* can hardly be distinguished from those of *micans* Grav., or specimens of *mimus* (see above) from the holotype of *besucheti*, yet *micans* and *mimus* would belong to *Paragabrius* and *oblitus* and *besucheti* to *Philonthus* because of the different position of the aedoeagus in the abdomen. It is true that the position of the aedoeagus

is different in some closely related genera near *Philonthus* (e. g. *Gabrius* Curt., *Gabronthus* Tottenh.). However, these can also be distinguished by other characters and there is no reason that this one character should outweigh all other characters. Any taxonomic principle, the application of which leads to the generic separation of obviously closely related species is, in my opinion, either misused or incorrectly interpreted.

The fact that the aedeagus rests in the abdomen differently within a group of species which otherwise show unmistakable signs of a close relationship should lead to the conclusion that this character can vary within one genus, and not to the separation of some of the species into a different genus. For these reasons I prefer to keep all species of the *micans* Group in the genus *Philonthus* where they were traditionally, and with good reasons, assigned.

During my study, I dissected several specimens of *micans* and found out, oddly enough, that the aedeagus in all of them rested in the abdomen with the paramere facing dorsally and not ventrally as given subsequently by COIFFAIT (1974: 85) for his genus *Paragabrius*. Therefore in *micans* the aedeagus does not rest in the abdomen in the primitive position with the paramere facing ventrally (as it is e. g. in the genus *Gabrius*), but is rotated a full 180 degrees instead of the 90 degrees characteristic of the vast majority of the species of *Philonthus* (see above).

REFERENCES

- COIFFAIT, H. 1963. Classification des Philonthini européens. Description des formes nouvelles. *Revue fr. Ent.* 30: 5-29.
- 1974. Coléoptères Staphylinidae de la région paléartique occidentale II. Sous famille Staphylininae. Tribus Philonthini et Staphylinini. Suppl. to *Nouv. Revue Ent.* 4 (4). Toulouse, 593 pp.
- EPPELSHEIM, E. 1889. Neue Staphylinen aus den Kaukasusländern, besonders aus Circassien. *Wien. ent. Ztg.* 8: 11-22.
- FAUVEL, A. 1875. Faune gallo-rhénane. Coléoptères. III. Staphylinides. *Caen*, 738 + 82 + XXXVIII pp., 4 pl.
- GRIDELLI, E. 1920. Secondo contributo alla conoscenza delle specie paleartiche del genere *Philonthus*. Revisione delle specie del sottogen. *Gabrius* Steph. sensu A. A. *Annali Mus. civ. stor. nat. Giacomo Doria* 9 (49): 115-157.
- HOCHHUTH, J. H. 1851. Beiträge zur näheren Kenntnis der Staphylinen Russlands. *Bull. Soc. Nat. Moscou* 24 (3): 3-58.
- JOY, N. H. 1913. Some new species of *Gabrius*. *Entomologist's mon. Mag.* 49: 25-26, 1 pl.
- SAHLBERG, J. 1908. Coleoptera mediterranea et rosso-asiatica nova et minus cognita... III. *Öfvers. finsk. Vetensk. Soc. Förh.* 50: 1-94.
- SMETANA, A. 1954. Results of the zoological scientific expedition of the National Museum in Praha to Turkey. 17. Coleoptera VI. Staphylinidae (genera *Philonthus* Curt., *Gabrius* Steph.). *Acta. ent. Mus. Nat. Pragae* 29: 177-180.
- 1955. Beiträge zur Kenntnis der Gattung *Philonthus* Curt. II. *Annls. hist.-nat. Mus. Hungar.*, N. S. 6: 205-211.
- 1957. Bestimmungstabelle der europäischen Arten der Gattung *Gabrius* Steph. *Ent. Bl. Biol. Syst. Käfer* 53: 56-79.
- 1958. Bestimmungstabelle der mitteleuropäischen Arten der Gattung *Philonthus* Curt. sensu lato. *Ent. Bl. Biol. Syst. Käfer* 54: 140-175.

- SMETANA, A. 1959. Zur Kenntnis der Staphyliniden-Fauna Albaniens (Col., Staphylinidae). *Acta ent. Mus. Nat. Pragae* 33: 195-218.
- 1960. Monographische Bearbeitung der paläarktischen Arten der Gattung *Gabrius* Curt. aus der *nigritulus*-Gruppe (Coleoptera). *Dt. ent. Z. N. F.* 7: 295-356.

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