

POZNÁMKY K RODU GABRIUS STEPH.

REMARKS ON THE GENUS GABRIUS STEPH.
(COL. STAPHYLINIDAE)

(5th Contribution to the Knowledge of the Genus *Gabrius* STEPH. of the
Palearctic Region)

ALEŠ SMETANA

(Přijato pro tisk dne 5. listopadu 1952.)

Tato práce je prvním výsledkem mého studia rodu *Gabrius* v materiálech Národního musea v Praze. Podávám v ní předně popisy dvou nových druhů, a to *G. obenbergeri* z Jugoslaviie a *G. robustus* z Macedonie, dále nový popis *G. mandshuricus* BERNH. a klíče k určení některých skupin rodu *Gabrius*. Dále nutno upozorniti na *G. astutoides* A. STRAND, který byl popsán r. 1946 z okolí Oslo, jehož nález v Beskydách je velmi cenný a mimo jiné potvrzuje názor, že jde skutečně o dobrý samostatný druh.

Považuji za svou milou povinnost poděkovati přednostovi zoologického oddělení Národního musea p. Prof. Dr J. Obenbergerovi za umožnění a podporu studia musejního materiálu.

Gabrius obenbergeri n. sp.

This species is morphologically very interesting and its accurate taxonomic placing is fairly difficult. Ectoskeletally it is reminiscent of the species of the group of *G. splendidulus*, but the oedeagus and especially the shape of the paramera are very different from the morphological structure of the oedeagi of the species of this group, being strikingly reminiscent of the oedeagi of some species of the group of *G. vernalis* (*G. mülleri* GRID. and *insignis* LUZE). The exact taxonomic placing will be possible only after the study of further specimens, and for the present I therefore regard it as a member of the group of *G. splendidulus*.

Coloration: Head and prothorax pitch black with a slight metallic lustre, elytra dark brown with a very distinct metallic lustre, abdominal segments pitch black with light brown apical margins, with a slight

metallic lustre, antennae brown, mouth organs and legs yellowish brown, tarsi yellow.

Head: of square shape, a little longer than wide, slightly convex. Lateral margins entirely parallel, temporal corners little rounded, therefore well characterised. At the anterior margin the head is only very slightly flattened, without any indication of a shallow pit. The eyes are small, fairly convex, so that they somewhat project from the lateral line of the head, temporals twice as long as the larger diameter of the eyes as seen from above. Between the eyes are four dots carrying bristles, of which the outer ones are close to the inner margin of the eyes, the inner ones are twice as far from each other as from the outer ones. The lateral margins behind the eyes and the posterior margin of the head with a greater number of dots carrying bristles. Head with a fine transversal microsculpture, which is distinctly coarser at the anterior margin ($100 \times$ nat. size).

Antennae relatively short and strong, 1. article very long, slightly bent, almost as long as the following two together, slightly broadening in the direction towards the apical margin. Articles 2 and 3 long, at the apical margin spherically enlarged, article 2 somewhat stronger and shorter than 3. Article 4 $1\frac{1}{2} \times$ as long as wide at the basal margin, article 5 somewhat longer than wide at the apical margin, article 6 as long as wide at the apical margin. Articles 7—10 as wide as long, article 11 oval, as wide as 10 and distinctly shorter than the preceding two together.

Prothorax elongated, much longer than wide, at the anterior margin strongly transversally arched; this arching decreases in a posterior direction. Lateral margins straight, posteriorly slightly but distinctly narrowed. Prothorax in the broadest place, which lies at the anterior margin, slightly broader than the head. Median rows composed of 5 fine dots; besides some further dots occur in the anterior part on the sides. Transversal microstructure somewhat more marked than on the head ($100 \times$ nat. size).

Elytra posteriorly enlarged, in the arms broader than the prothorax. Their length in the suture shorter than the maximum length of the prothorax; length at the side margins corresponding to the maximum length of the prothorax. The dotting of the elytra is relatively coarse and very sparse, the interspaces between the dots are $2-3 \times$ greater than the diameter of the dots. Surface very shiny, without microsculpture.

Abdomen elongated, slightly enlarging to the 3. free lying segment, then arrowing to the tip; 7th segment (5th free lying one) at the apical margin finely pale bordered. Dotting very fine and very scattered. Bristles very sparse and fine.

In ♂ the last sternite suddenly narrows at the apical margin, which is very broadly, shallowly and perfectly roundedly indented (fig. 14).

The oedeagus is strikingly large and very characteristic. The apical part is broad, narrowing gradually anteriorly; tip sharply triangularly terminating; lateral margins straight. In a dorsal view the apical part of the oedeagus is spoon-like depressed and close to the tip two raised triangular plates run out from the lateral margins, directed towards the middle of the oedeagus. The paramera is very large and broad, especially in the

anterior part; its apical margin is deeply, broadly and roundedly indented. In a dorsal view the paramera is in the middle part very well visible (fig. 17).

From the other species of the group of *G. splendidulus* this new species is distinguished not only by the shape of the male genital organs and the marking on the last sternite, but especially by the much greater stature with a distinct metallic lustre, by the last but one articles of the antennae being as long as wide (in the other species these articles are transversal), by the distinctly sparser dotting of the elytra, and by the much sparser dotting of the abdomen. Size 6,8 mm.

I venture to dedicate this new species to Prof. Dr J. Obenberger, Director of the Department of Zoology of the National Museum in Prague.

Holotype ♂: Yugoslavia, Sarajevo, V-1907, in coll. Nat. Mus. Praha (ex coll. Dr. Lokay).

Key for the Determination of the Palaearctic Species of the Genus *Gabrius* STEPH. from the Group of *G. splendidulus*.

- 1 (2) Apical region of the oedeagus very broad, anteriorly narrowing evenly, at the tip ending sharply triangularly, lateral margins entirely straight, not rounded. Paramera very wide, with the two arms only very slightly indicated (fig. 17). Last but one articles of the antennae as long as wide, abdomen very sparsely dotted; head, prothorax and abdomen with slight, elytra with strong metallic lustre. Rather large: 6,8 mm. Yugoslavia: Sarajevo
 *G. obenbergeri* n. sp.
- 2 (1) Apical region of the oedeagus of a different shape, its lateral margins are never straight. Paramera divided into two large arms. Last but one articles of the antennae transversal, abdomen densely dotted, surface without any metallic lustre; rather small species: 4,6—5,5 mm.
- 3 (4) Apical region of the oedeagus at the base very broad and anteriorly suddenly strikingly narrowed so that the tip proper is very narrow and relatively sharp (fig. 20). Head short and broad, as a rule as long as wide (only exceptionally slightly longer), in the anterior part between the eyes with a distinct, elongated imprint. Coloration very dark: head, prothorax and abdomen pitch black (only the apical margins of the tergites lighter), antennae from the 4th article distinctly darkened to blackish brown (in immature specimens the antennae are darkened at any rate towards the end). Size 4,5—5,5 mm. Central and Eastern Europe. *G. exspectatus* SMET.
- 4 (3) Apical region of the oedeagus of a different shape, head as a rule distinctly longer than wide, coloration lighter, antennae unicoloured brownish yellow.
- 5 (6) Apical region of the oedeagus short and very broad, anteriorly considerably enlarged, oedeagus as a whole short and broad (fig. 21). Head relatively small and very narrow, distinctly longer

than wide, in the anterior part between the eyes always without elongated imprint. Antennal articles 7—10 strikingly transversal, about twice as broad as long. Stature very narrow, relatively small. Size 4,3—5 mm. Moravia: the Beskydy

. *G. bescidicus* SMET. n. sp. *)

- 6 (5) Apical region of the oedeagus very long and much narrower than in the preceding species, without striking enlargement at the tip; oedeagus as a whole much longer and narrower (fig. 19). Head large and broader than in the preceding species, at the anterior margin between the eyes with a more or less marked longitudinal imprint. Antennal articles 7—10 distinctly transversal, but not twice as broad as long (the antennae have to be compared always from the same direction). Stature broader and more robust, on an average larger. Size: 4,5—5,5 mm. Europe, the Caucasus, Siberia *G. splendidulus* GRAV.

Gabrius robustus n. sp.

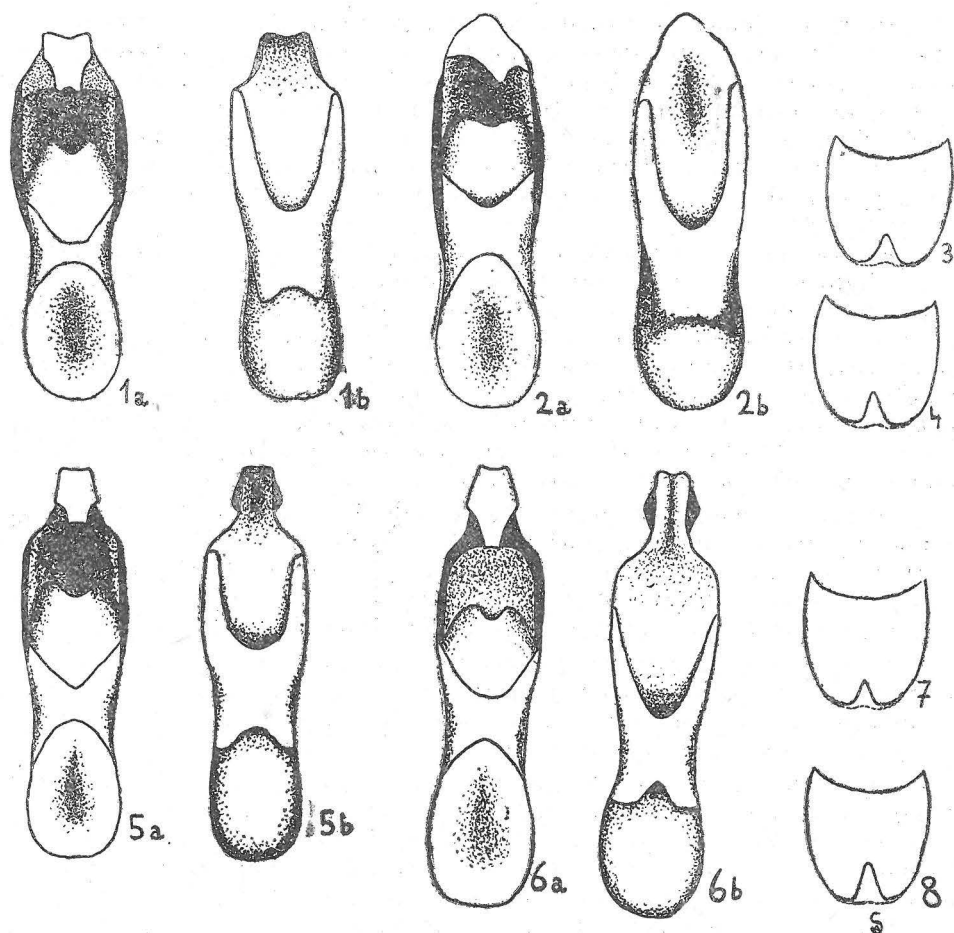
By the shape of the oedeagus the most closely related to *G. toxotes* JOY.

Coloration: darker than in the said species. Head, prothorax and elytra unicoloured black, abdomen pitch black with distinctly lighter apical margins of the segments. Antennae black, only the first three articles blackish brown, base of the 2. article yellowish brown, palpi brownish black, femora and tibiae brown (the last somewhat darker), tarsi light brown.

Head strikingly large, longer than broad, strongly arched, on the sides completely parallel. Temporal corners little rounded and well marked. (In *G. toxotes* the head is much smaller and narrower, less arched, posteriorly slightly narrowed, and the temporal corners in most cases less distinct). At the anterior margin between the eyes the head is slightly flattened and in this flattening a shallow depression is distinctly indicated. Eyes very small so that the temporals are $2\frac{1}{2} \times$ as long as the longest diameter of the eyes visible from above; very flat so that they do not project from the lateral line of the head (in *G. toxotes* the eyes are more arched and project somewhat from the lateral line of the head). Head on the sides behind the eyes with a fairly large number of dots carrying bristles. The arrangement of the dots at the anterior margin of the head between the eyes as in *G. toxotes*. Transversal microsculpture coarser than in *G. toxotes* ($100 \times$ nat. size).

Antennae relatively short and strong. 1. article long and strong, slightly bent, a little shorter than the two following articles together; 2. article long, in the apical part like the 3. article spherically enlarged, a little shorter and broader than the 3.; the 4. article twice as long as broad at the base; the 5. article distinctly longer than broad at the apical margin, articles 6—10 approximately as long as they are broad at the apical margin and slightly increasing in width in the direction towards the apical end

*) This I suppose for a preliminary communication only, the detailed description will be published in the next time in an other journal.



a) dorsal view

b) ventral view

par = paramere

1. Penis of *G. appendiculatus* SHP.2. Penis of *G. roubali* SMET.3. *G. appendiculatus* SHP., last sternit in male.4. *G. roubali* SMET., last sternit in male.5. Penis of *G. toxotes* JOY.6. Penis of *G. robustus* n. sp.7. *G. toxotes* JOY, last sternit in male.8. *G. robustus* n. sp., last sternit in male.

of the antennae, but even the last but one articles are not broader than long. The 11. article at the base somewhat narrower than the 10. article at the apical margin and longer by about one half. The difference from *G. toxotes* lies therefore mainly in the shape of the last but one articles which are in *G. toxotes* broader and sometimes slightly transversal.

Prothorax short and broad, a little longer than broad, slightly narrower than the head, on the sides completely parallel, strongly transversally arched. (In *G. toxotes* the prothorax is distinctly narrower, somewhat flatter and broader than the base of the head). The dots in rows (of six) and outside the rows coarser than in *G. toxotes*. Surface strongly transversally microsculptured (in *G. toxotes* this microsculpture is much finer.) (100 \times nat. size, the microsculpture is slightly visible already at a magnification of 30 \times).

Elytra short and broad, with distinctly retreating arms, posteriorly very slightly enlarged so that the lateral margins are practically parallel. (In *G. toxotes* the elytra are posteriorly, distinctly enlarged.) The length of the elytra in the suture is shorter than the maximum length of the prothorax, the length of the elytra on the sides equals the maximum length of the prothorax. The dotting of the elytra is strikingly coarse and relatively sparse, the radii of the interspaces between the dots are distinctly greater than the radii of the dots. (In *G. toxotes* the dotting is much finer and closer.) The hair of the elytra is sparser than in *G. toxotes*.

Abdomen elongated, slightly broadening as far as to the 5. (3. free lying) tergite and then narrowing to the tip. Tergites on the whole evenly dotted, only the apical parts of the last but one and last tergite more sparsely dotted. (In *G. toxotes* this dotting is distinctly finer.) The 7. (5. free lying) segment at the apical margin finely pale bordered.

In ♂ the last sternite is at the apical margin relatively narrow, deeply and sharply indented. This indentation is for the larger part filled by a membrane and is somewhat narrower and deeper than in *G. appendiculatus* and much deeper and broader than in *G. toxotes* (fig. 8).

The oedeagus is very similar to the oedeagus of *G. toxotes*, but is longer and slimmer; in a dorsal view the apical part is much longer and slimmer and more shifted forwards, and at the apical margin slightly indented (in *G. toxotes* this indentation is mostly quite indistinct). The paramera is slimmer; its arms converge in a gentle arc, are longer, slimmer, anteriorly more narrowed and sharply terminated. In a dorsal view the arms of the paramera are not visible on the sides of the oedeagus (in *G. toxotes* the arms are slightly visible). (fig. 6a, 6b).

Size: 5,2 mm.

Holotype ♂: Macedonia, Kistac, in coll. of the Nat. Mus. Praha.

Key for the Determination of the Palaearctic Species
of the Genus *Gabrius* STEPH. from the Group
of *G. appendiculatus* SHARP.

- 1 (2) Apical region of the oedeagus in a dorsal view of irregular shape, ending bluntly, at the basal margin running out in an asymmetrically situated blunt tooth. Paramera divided into two long arms of unequal length fig. 2a, 2b). The last but one articles of the antennae are distinctly transversal. Size: 4 mm. Caucasus
. *G. roubali* SMET.

- 2 (1) Apical region of the oedeagus in a dorsal view of a characteristic, sharply hexagonal shape. Paramera divided into two long arms of equal length. Last but one articles of the antennae as long as wide (only in *G. toxotes* they are sometimes slightly transversal).
- 3 (4) Coloration light. Palpus, first three articles of the antennae and the legs except the tarsi, which are yellow, unicoloured yellowish brown; the other articles of the antennae light brown, elytra often dark brown. Apical margins of the tergites somewhat lighter. Stature graceful and slender, head narrow, distinctly longer than broad. Oedeagus slender, apical region in a dorsal view narrow, shifted strongly forward (fig. 5 a, 5 b). Size: 3,7—4 mm. Western, Central and Northern Europe, Eastern Siberia: Vladivostok *G. toxotes* JOY
- 4 (3) Coloration dark: palpus and first three articles of the antennae dark brown, the other articles of the antennae blackish brown, legs brown, femora of the last pair and tibiae of all three pairs blackish brown (in some specimens of *G. appendiculatus* the legs are exceptionally somewhat lighter coloured, but at least always darkened). Elytra and abdomen unicoloured black. Stature broader and more robust (especially in *G. robustus* n. sp.), head broad, only slightly longer than broad.
- 5 (6) Oedeagus long and slender, apical region in a dorsal view slender and shifted much forward. Arms of the paramera in a dorsal view not visible on the sides of the oedeagus (fig. 6 a, 6 b). Stature large and robust, head strikingly large and broad, somewhat broader than the prothorax. Dotting of the elytra very coarse. Size: 5,2 mm. Macedonia *G. robustus* n. sp.
- 6 (5) Oedeagus short and broad, apical region in a dorsal view broad and little shifted forward; arms of the paramera in a dorsal view very well visible on the sides of the oedeagus (fig. 1 a, 1 b). Stature smaller and less robust, head not strikingly large and broad and mostly as broad as the prothorax. Dotting of the elytra finer. Size: 3,7—4,2 mm Europe, Siberia *G. appendiculatus* SHARP

Gabrius mandschuricus BERNH.

Gabrius mandschuricus was described by BERNHAUER (1914, p. 66), from South Manchuko. The author's description is: „Dem *Philonthus femoralis* HOCHH. täuschend ähnlich, von demselben aber bei einiger Aufmerksamkeit durch weniger langgestreckten Kopf, kürzeren, nach vorn stärker verengten Halsschild, viel dichtere Punktierung und fehlenden Erzglanz der Flügeldecken und deutlich dichter punktierten Hinterleib verschieden. Weitere Unterschiede konnte ich bisher nicht feststellen. Der Halsschild ist nur mäßig länger als breit, die Fühler lang und schlank, die vorletzten Glieder bei breitester Ansicht nur wenig breiter als lang. Länge 6½ mm. Südliche Mandschurei (Chi-Kuan-Shan, Rost).“ This brief description is

now entirely insufficient, and as it has not been supplemented since 1914, I give below the detailed description of this species together with the description and figuring of the male genital organs.

Most closely related to the species *G. vernalis* Grav.

Coloration: on the whole light, palpi and legs yellowish brown, tibiae somewhat darkened, antennae light brown. Head pitch black, prothorax and elytra dark brown, abdomen blackish brown with lighter apical margins of the segments. Stature relatively large, broader and more robust than in the species mentioned.

Head elongated, moderately arched, broader than in *G. vernalis*, lateral margins less rounded than in *G. vernalis*, almost straight, temporal corners less rounded, more marked. Eyes small and flat; temporals twice as long as the maximum diameter of the eyes visible from above. Arrangement of the dots on the head as in *G. vernalis*. Head with a very fine microsculpture which is somewhat more marked in the anterior part. In *G. vernalis* the microsculpture is more marked ($100 \times$ nat. size).

Antennae relatively short and strong. 1. article long, slightly bent, a little shorter than the following two articles together, towards the apical margin slightly broadened; 2. and 3. articles long and their apical parts spherically enlarged. 2. article a little shorter and stronger than the 3. one; 4. article twice as long as it is broad at the basal margin; 5. article somewhat longer than it is broad at the apical margin; 6. and 7. articles as long as they are broad at the apical margin; articles 8—10 as long as broad; 11. article oval, distinctly shorter than the two preceding ones together.

Prothorax elongated, broad and strongly arched, distinctly narrowing anteriorly, by about $\frac{1}{4}$ longer than broad in the broadest place situated in the posterior third. At the anterior margin the prothorax is either as broad as the head or a little broader. In *G. vernalis* the prothorax is narrower, less narrowed anteriorly, and its margins are more rounded. The median rows are composed of 5 fine dots, and there are still some further dots on the sides. Transversal microsculpture fine, a little more marked than on the head ($100 \times$ nat. size).

Elytra posteriorly slightly broadened, in the arms as broad as the broadest place of the prothorax. Their length in the suture is a little smaller than the maximum length of the prothorax; the length at the lateral margins is either the same or a little greater than the maximum length of the prothorax. In *G. vernalis* the elytra are much shorter, shorter than the prothorax; the dotting of the elytra is somewhat sparser than in *G. vernalis*. Surface completely smooth, without microsculpture.

Abdomen elongated, slightly broadening to the 3. free lying segment, then narrowing to the tip; 7. (5. free lying) segment at the apical margin finely pale bordered. Dotting of the abdomen the same as in *G. vernalis*.

In ♂ the last sternite is at the apical margin very broadly, deeply and sharply triangularly indented. From this indentation two membranaceous plates grow in an anterior direction; they are of roundedly triangular shape; their medial margins diverge somewhat narrowly. In *G. vernalis* this indentation is narrower, much shallower, the membranaceous plates

are smaller, and their medial margins diverge broadly immediately from the base. (Fig. 15, 16.)

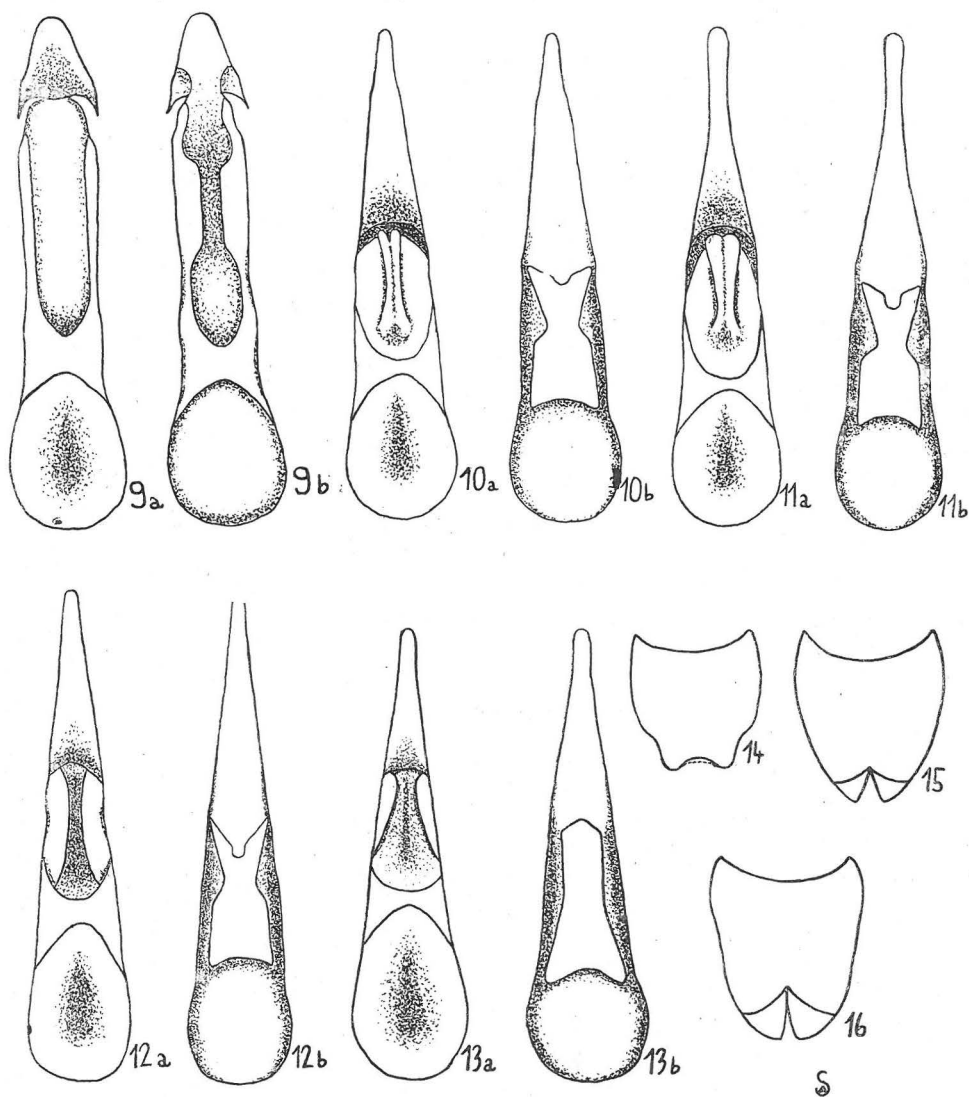
The oedeagus is similar to that of *G. mülleri* GRID. or *insignis* LUZE. In a ventral view the anterior part narrows forward cuneiformly and is raised carinaceously in the middle. In a dorsal view the medial part is of a characteristic shape; its lateral margins are in the anterior third strongly triangularly indented. The apical part has the shape of a high triangle with a blunt point and runs out at the base into a broad triangular processus (fig. 18 a). The paramera is short and broad, and runs out into two very short, broad and roundedly terminated arms which converge in an arc (fig. 18 b).

From *G. femoralis* HOCHH. it differs, apart from the shape of the male genital organs and the marking on the last sternite, by the shorter head, the shorter prothorax more narrowed anteriorly, the distinctly closer dotting of the elytra without a metallic lustre, and the much closer dotting of the abdomen. From *G. insignis* LUZE it is distinguished by the much lighter coloration and the much closer dotting of the elytra and abdomen. From *G. mülleri* GRID. it is distinguished by its larger and more robust stature, the much broader head, and the almost straight lateral margins, the much broader prothorax, the distinctly closer and somewhat more closely dotted elytra, and the more coarsely and closely dotted abdomen.

Material used: Siberia or., Ussuri, Vladivostok, some 20 spec., 1919, leg. Dr. Jureček, coll. Mus. Nat. Praha et coll. mea (3 spec.).

Gabrius astutoides A. STRAND.

This species was described in 1946 by A. STRAND (1946) after some specimens from the vicinity of Oslo. The author writes about this species: "The aedeagus of the two Norwegian ♂♂ which were dissected, appeared to be rather distinct, as will be seen from fig. 4 and 5. The tip of the penis is broader and blunter, also in side view, the parameres are broader and the semi-circular incision in the apical part is deeper and more distinct. Apart from the aedeagus it has not been possible to trace characters enabling a distinct separation of the Norwegian specimens from *astutus*. However, as the difference in the aedeagus seems to be constant, I have found it appropriate to give the Norwegian form a name." In working the material in the collections of the National Museum in Prague I ascertained in the collection of Dr. Jureček one specimen with the locality: "Beskydy, Dr. Jureček", whose oedeagus agreed completely with the author's drawing. I sent this specimen for revision to Mr. Strand in Oslo, who informed me that this specimen corresponds accurately to his types. The find of *G. astutoides* on the territory of our country is very valuable, and confirms the opinion that it is really a good species even though ectoskeletally it resembles indistinguishably *G. astutus*. It also a very interesting fact that *G. astutus* with an absolutely typical shape of the oedeagus also lives in the Beskydy. The indentation of the last sternite in ♂ is in our specimen somewhat broader and deeper than in *G. astutus*, and this also confirms



9. Penis of *G. tibialis* MULS. et REY.
 10. Penis of *G. astutus* ER.
 11. Penis of *G. astutoides* A. STRAND.
 12. Penis of *G. lividipes* BAUDL.
 13. Penis of *G. tirolensis* LUZE.
 14. *G. obenbergeri* n. sp., last sternit in male.
 15. *G. vernalis* GRAV., last sternit in male.
 16. *G. mandschuricus* BERNH., last sternit in male.

our opinion that it is a good species. It is very probable that the distribution of this species in Central Europe is not restricted only to the Beskydy and adjoining territory. New for Czechoslovakia.

Key to the European Species of the Genus *Gabrius* of the Group of *G. astutus* ER.

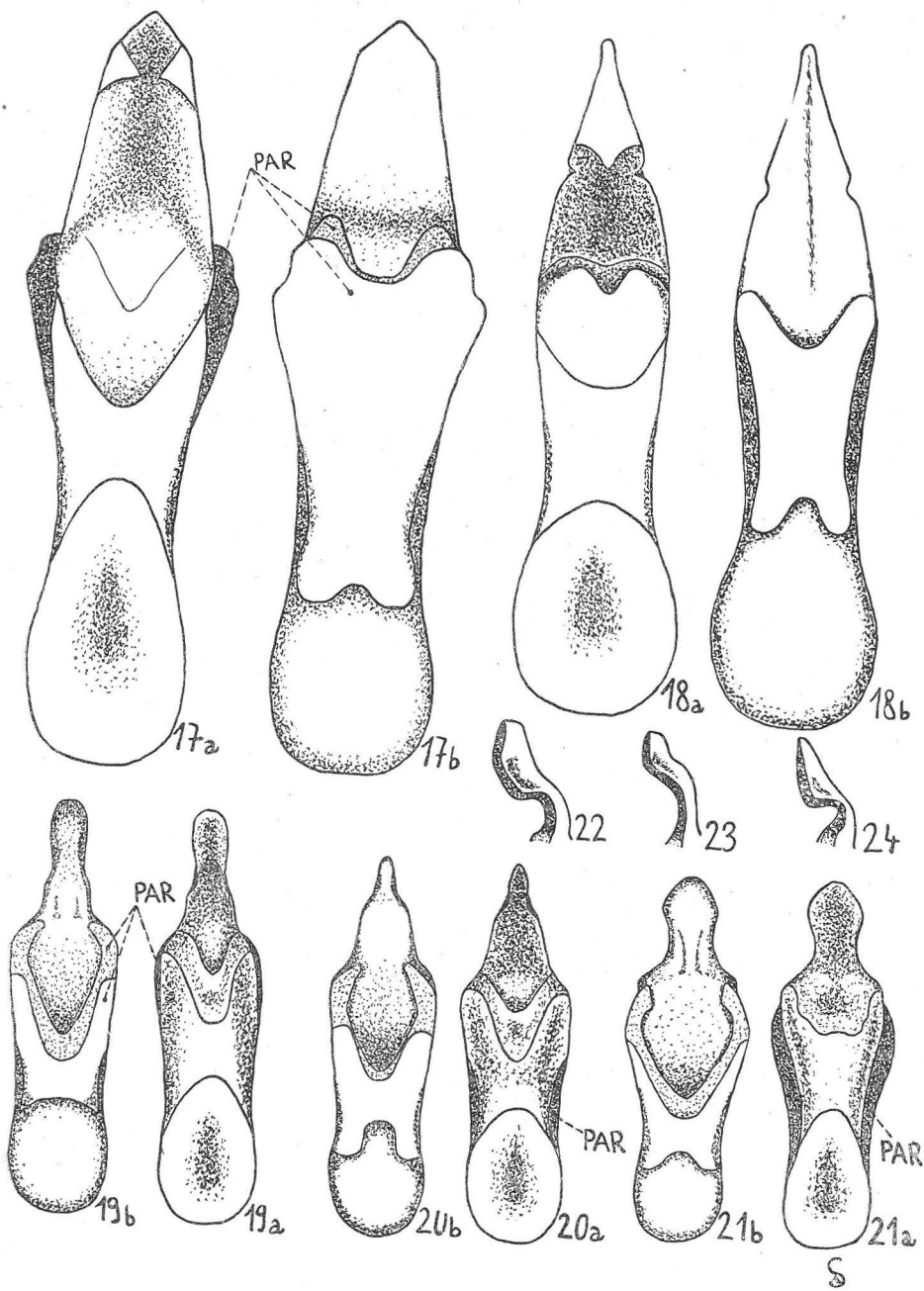
- 1 (8) Head of square or rectangular shape (mostly a little longer than wide, only on *G. badius* KIESW. distinctly longer), angular, relatively flat, at the anterior margin strongly flattened. Lateral margin of the head straight, temporal corners very marked.
- 2 (3) Paramera divided into two long and strong arms which converge in an acute angle. Oedeagus of quite special and characteristic shape. Elytra coarsely and relatively sparsely dotted, abdomen sparsely dotted. Coloration dark: head and prothorax entirely black, elytra brownish black, abdomen brownish black with lighter apical margins of the tergites. Size 6—6,5 mm. Sardinia, Corsica, Sicily, Greece. *G. badius* KIESW.
- 3 (2) Paramera not divided into two distinct long arms. Apical region of the oedeagus long and narrow, anteriorly cuneiformly narrowing (in *G. astutoides* close before the end slightly roundedly enlarged). Elytra finely and closely dotted, abdomen very closely dotted. Coloration lighter.
- 4 (5) Anterior part of the paramera long and relatively narrow, sharply triangularly terminated (fig. 13 a, 13 b). Larger; head larger, prothorax longer, on the sides parallel, much narrower than the elytra. Elytra long, their length at the lateral margins greater than the maximum length of the prothorax. Antennae and legs longer. Elytra always brownish red. Size: 6—7 mm. The whole of the zone of the Alps, the Pyrenees, Slovakia *G. tirolensis* LUZE
- 5 (4) Paramera at the anterior margin with a grooved indentation and with two arms quite faintly indicated (fig. 10 b, 11 b, 12 b). On an average smaller, head smaller, prothorax broader, slightly narrowed posteriorly. Elytra shorter, their length at the lateral margins shorter than or as long as the maximum length of the prothorax. Antennae and legs shorter. Elytra either almost black or blackish brown to dark brown.
- 6 (7) Apical region of the oedeagus narrowing anteriorly, relatively sharply terminated, never enlarged anterior to the end. The indentation of the anterior margin of the paramere shallow (fig. 10 a, 10 b). Europe (outside Scandinavia). Size 6—6,5 mm *G. astutus* ER.
- 7 (6) Apical region of the oedeagus anteriorly narrowed, but the end distinctly enlarged and roundedly terminated. Indentation at the anterior margin of the paramera deeper (fig. 11 a, 11 b). Size 6 mm. Norway, Moravia: the Beskydy *G. astutoides* A. STR.

- 8 (1) Head of elongated or rectangular shape, rounded, more arched, at the anterior margin little flattened. Lateral margins of the head moderately rounded, temporal corners rounded, little marked.
- 9 (10) Apical region of the oedeagus long and narrow, anteriorly cuneiformly narrowing (fig. 12 a, 12 b). Head slender, distinctly longer than broad. Abdomen very closely dotted and hairy, elytra finely and closely dotted. Elytra yellowish red, surface without metallic lustre. Europe. Caucasus. Turkey. 5,6—6,7 mm. ,
 *G. lividipes* BAUDI
- 10 (9) Apical region of the oedeagus running out in a bluntly terminated triangular plate, which sends out at the basal margin two sharp tongue-shaped processes (fig. 9 a, 9 b). Head broad, slightly longer than broad. Abdomen far more sparsely dotted and hairy; dotting of the elytra distinctly coarser and sparser. Elytra blackish brown with a strong metallic lustre, head and prothorax with very weak metallic lustre. Size 6 mm. Southern part of France, Alpes Maritimes *G. tibialis* MULS. REY

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Gabrius tibialis was described by MULSANT et REY in the Ann. Soc. Agr. Lyon, 1875, p. 540, and until recently it has been considered synonym with *G. femoralis* HOCHH., and as such it is also recorded in the catalogue of WINKLER, also by HEYDEN, REITTER, WEISE (1906, p. 168). Also GRIDELLI (1928, p. 46) writes about this species: „Anche il *tibialis* MULS. et REY (Ann. Soc. Agr. Lyon, 1875, p. 540), esemplari di Freiuse e di Linguadoca e con tutta probabilita sinonimo del *femoralis*”. At last, however, COIFFAIT (1951, pp. 105 and 108) ascertained by a comparison with REY's types that *G. tibialis* represents an entirely independent and well defined species with a characteristic shape of the oedeagus, entirely different from that of all other species. But he placed this species in the group of *G. vernalis* GRAV., together with *G. tirolensis* LUZE, which is incorrect, especially for the latter species. *G. tirolensis* is by the shape of the male genital organs as well as ectoskeletally a species closely related to *G. astutus*. Similarly also *G. tibialis* is a species which is certainly more closely related to *G. astutus* than to *G. femoralis* or *vernalis* (total habitus, shape of the head and prothorax agree with the species of the group of *G. astutus*, abdomen towards the tip strongly narrowed, long legs with long posterior tarsi), and I am convinced that it belongs to the group of

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17. Penis of *G. obenbergeri* n. sp.
 18. Penis of *G. mandschuricus* BERNH.
 19. Penis of *G. splendidulus* GRAV.
 20. Penis of *G. exspectatus* SMET.
 21. Penis of *G. bescidicus* n. sp.
 22. *G. splendidulus* GRAV., apex of penis, lateral view.
 23. *G. exspectatus* SMET., apex of penis, lateral view.
 24. *G. bescidicus* n. sp., apex of penis, lateral view.



G. astutus even though the shape of the oedeagus is so different from the shapes in the other species of this group (fig. 9). The number of the dots in the rows on the prothorax is not fully decisive for placing the species in the different groups (markedly e. g. in *G. tirolensis*, which has either 5 or 6 dots in the rows). (I was able to study 1 ♂ sent me by M. Coiffait, and I wish to thank him most sincerely for this courtesy.) Similarly I consider it unsuitable to establish a group of *G. exiguus* (l. c. p. 109, the author places in it *G. lividipes*, *badius*, *astutus*, *laticollis* and *exiguus*). *G. exiguus* similarly as *G. laticollis* belongs to the group of *G. vernalis*, and both species are morphologically completely different from the other species (*lividipes*, *badius* and *astutus*), which are rightly placed in the group of *G. astutus*.*

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Zoogeographical Remarks

- G. insignis* LUZE. — The Caucasus, 1 ♂, Reitter, coll. mea.
- G. badius* KIESW. — Corsica, Vizzavona, V-1928, 1 ♂, leg. Dr. Mařan. — Vizzavona, 1-VI-1906, 1 ♀, leg. Bickhardt.
- G. tirolensis* LUZE. — Bavaria, Partenkirchen, VI, 300—1000 m above sea level, leg. A. Heyne, 1 ♂. — Savinian Alps, Storžič valley, 18-VII-07, 1 ♀, leg. Dr. Rambousek. — Savinian Alps, Vršič, 8-VII-07, 1 ♀, leg. Dr. Rambousek. — Croatia, Skrad, VII-1913, 1 ♀, leg. Dr. Obenberger. In the collections of the Nat. Museum is a further ♀ with the locality "Zlíchov, 1-4-1899" written in pencil. Most probably there is here some confusion of the locality.
- G. lividipes* BAUDI. — USSR, Carpathian Ruthenia, Kuzy, several specimens, leg. Ing. Štěřba. — Moravia, Paskov, several spec., leg. Dr. Graf. — Bohemia, Čelákovice, 27-III-1924, washing, 1 spec., leg. Dr. Rambousek.
- G. tornus* JOY — Aulie-Atta, several specimens.
- G. stipes* SHP. — Savinian Alps, 1906, 1 ♂, leg. Dr. Rambousek. I have recorded this species recently (SMETANA, 1952 b, p. 119—120) as new for Czechoslovakia from the Vihorlat in Eastern Slovakia. Further 9 specimens (6 ♀♀ 3 ♂♂) were found at the same locality, 12-VII-52, coll. mea.
- G. subnigritulus* JOY. — Also this species which up till now has been recorded only from the Caucasus I reported in the same publication as new for Czechoslovakia. In the material of the Nat. Museum I found further specimens (they agree completely with the specimen from the Caucasus) which prove that the distribution of this species is fairly wide. — The Caucasus, Svanetia, 1913, 1 ♂, leg. Dr. Veselý. — Austria, vicinity of Vienna, 1 ♂, leg. Dr. Knirsch. — Bulgaria,

*) When nothing is said to the contrary all proof specimens are in the collections of the Nat. museum, Praha.

"Suflu", 1 ♂, leg. Dr. Purkyně. — Southern Hungary, Orsova, 3 ♂♂, leg. Dr. Obenberger. — Southern Moravia, Mutěnice, 2 ♂♂, leg. Dr. Bechyně.

G. cyphonotus JOY. — Daghestan, 1 ♂, Leder; Reitter. — Transcaucasus, Talysch Mts., 1 ♀, Leder, Reitter. Coll. mea.

G. toxotes JOY. — Eastern Siberia, Ussuri, Vladivostok, 3 ♂♂, 1919, leg. Dr. Jureček. — Savinian Alps, 28-VII-07, 1 ♂, leg. Dr. Rambousek.

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