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A revision of *Geostiba* of the Western Palaearctic region. XIX. New species from Turkey and Iran and additional records, with an updated key and a catalogue of the species of the Eastern Mediterranean, the Caucasus, and adjacent regions (Coleoptera: Staphylinidae: Aleocharinae)

V. ASSING

A b s t r a c t : Eight species of *Geostiba* THOMSON from Turkey and Iran are described and illustrated: *Geostiba* (*Tropogastrosipalia*) *gecmisica* nov.sp. (Turkey: Kastamonu), *G.* (*T.*) *heliophila* nov.sp. (Turkey: Kastamonu), *G.* (*T.*) *hasanica* nov.sp. (Turkey: Kastamonu), *G.* (*T.*) *erecta* nov.sp. (Turkey: Hatay), *G.* (*T.*) *sarica* nov.sp. (Iran: Mazandaran), *G.* (*T.*) *impressiventris* nov.sp. (Iran: Gilan), *G.* (*Sibiota*) *carinipennis* nov.sp. (Turkey: Hatay), and *G.* (*S.*) *tuberifera* nov.sp. (Turkey: Kahramanmaraş). Six species previously treated as incertae sedis are attributed to the subgenus *Sibiota* CASEY 1906: *G. scheerpeltziana* (FAGEL 1966), *G. confusa* ASSING 2001, *G. occaecata* ASSING 2004, *G. gibbera* ASSING 2005, *G. bigibbera* ASSING 2005, *G. spinosula* ASSING 2007, and *G. sultanica* ASSING 2008. Additional records are reported for 22 species. An updated key to species and an updated catalogue of the *Geostiba* fauna of the Eastern Mediterranean, including the Caucasus region and Iran, are provided. At present, 169 species in five subgenera are known from the region.

K e y w o r d s : Coleoptera, Staphylinidae, Aleocharinae, *Geostiba*, Palaearctic region, Mediterranean region, Caucasus, taxonomy, new species, new subgeneric assignment, new records, key to species, catalogue.

1. Introduction

According to recent revisions, the *Geostiba* fauna of the Eastern Mediterranean east of Italy, including the Caucasus region and Iran, previously comprised 161 species in five subgenera. The region with the highest diversity was Turkey with 67 described species (62 of them exclusive), followed by Greece with 45 described species, 41 of them exclusive. Only two species were previously known from Iran (ASSING 2005a, 2005b, 2006, 2007, 2008, and references therein).

Since the latest contribution, more material has become available primarily through three recent field trips conducted by Volker Brachat (Geretsried) and Heinrich Meybohm (Großhansdorf) to central southern Turkey in spring 2009, by Paul Wunderle and the author to central northern Turkey in spring 2009, and by Andreas Pütz (Eisenhüttenstadt) to northern Iran in spring 2008. Additional material was received from some private and

public collections. An examination of this material yielded eight undescribed species, six of them from Turkey and two from Iran, and more records of 22 previously described species. Thus, the *Geostiba* fauna of the region as defined above now includes 169 species in five subgenera: *Geostiba* (2 species), *Sibiota* CASEY (40 species), *Sipalotricha* SCHEERPELTZ (37 species), *Tropogastrosipalia* SCHEERPELTZ (88 species), and *Typhlusida* CASEY (2 species). Turkey now hosts as many as 73 described species, with 68 of them exclusively known from Turkish territory.

A comprehensive key to the species of the region and a catalogue were provided by ASSING (2005a). However, since then, 33 additional species (including the new taxa described below) have been described in five contributions. In order to facilitate the identification of *Geostiba* material, the previously published key and catalogue are updated to include all the recent additions to the *Geostiba* fauna of the Eastern Mediterranean east of Italy, the Caucasus region, and Iran.

2. Material and methods

The material referred to in this study is deposited in the following public institutions and private collections:

MNHUB..... Museum für Naturkunde der Humboldt-Universität Berlin (J. Frisch)

NMP..... Národní Muzeum v Praze (M. Fikáček)

OÖLL..... Oberösterreichisches Landesmuseum/Biologiezentrum Linz (F. Gusenleitner)

cAss..... author´s private collection

cGon..... private collection Andrej Gontarenko, Odessa

cPüt ..... private collection Andreas Pütz, Eisenhüttenstadt

cWun..... private collection Paul Wunderle, Mönchengladbach

The morphological studies were carried out using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena). For the photographs a digital camera (Nikon Coolpix 995) was used.

Head length was measured from the anterior margin of the clypeus to the posterior margin; elytral length was measured along the suture from the apex of the scutellum to the posterior margin of the elytra.

3. Species descriptions and additional records

Geostiba (*Geostiba*) *circellaris* (GRAVENHORST 1806)

Material examined: Austria: 1 ex., Steiermark, Mixnitz (NMP); 1 ex., Steiermark, Zirbitzkogel (NMP). Czech Republic: 2 exs., Bohemia, Malá Skála, leg. Obenberger (NMP); 3 exs., Bohemia, Cibulka, 1.IV.1923, leg. Rambousek (NMP); 1 ex., same data, but 23.II.1906 (NMP); 1 ex., Cibulka, 8.XII.1906 (NMP); 1 ex., Bohemia, Spičák, 6.VIII.1928, leg. Rambousek (NMP); 1 ex., Bohemia, Č. Brod, Dolanky, IX.1920, leg. Rambousek (NMP); 6 exs., Bohemia, Strašice, leg. Heyrovsky (MNP); 3 exs., Bohemia, Závist, leg. Pfleger, Smolka (NMP); 10 exs., W-Bohemia, Frant. Lázně-Soos, 12.III.1961, leg. Smetana (NMP); 14 exs., same data, but 29.V.-3.VI.1960 (NMP); 3 exs., same data, but 13.III.1960 (NMP);

2 exs., same data, but 24.IV.1960 (NMP); 2 exs., same data, but 13.VII.1960 (NMP); 3 exs., same data, but 22.X.1960 (NMP); 2 exs., same data, but 28.XI.1960 (NMP); 1 ex., Bohemia, Skuhrov (NMP); 6 exs., Bohemia, Knžvart, leg. Syrovátka (NMP); 1 ex., Bohemia, Smečno, leg. Syrovátka (NMP); 2 exs., Bohemia, Borkovice (NMP); 3 exs., Bohemia, Blatno, leg. Heyrovsky (MNP); 25 exs., Bohemia, Písek, leg. Tyl, etc. (NMP); 1 ex., Bohemia, Jince, leg. Pfeffer (NMP); 21 exs., Bohemia, Vrané (NMP); 3 exs., Bohemia, Kunratice, 1.V.1949 (NMP); 3 exs., Praha, 10.IV.1902 (NMP); 15 exs, Praha env., leg. Duchon, Pfleger (NMP); 8 exs., Čelakovice, leg. Heyrovsky (MNP); 1 ex., Silesia, "Karlsbrunn", leg. Heyrovsky (MNP); 2 exs., Silesia, Smrk Beskidy, leg. Hlisnikowski (NMP); 2 exs., Klínovec ["Keilberg"] (NMP); 2 exs., "Spindelmühle", 18.VI.1903 (NMP); 3 ex., Bohemia, "Neudau", 24.X.1937 (NMP); 3 exs., Přibram (NMP); 2 exs., Brno (NMP); 2 exs., Zapole (NMP); 1 ex., Jílové, 26.IV.1943 (NMP); 1 ex., Pustá Rybná, 13.VI.1943 (NMP); 12 exs., Kostelec n. Č. L., IV.1954 (NMP); 6 exs., Okolí Prahy, X.1940, leg. Pfeffer (NMP); 13 exs., Moravia, Praděd, VIII.1948, leg Pfeffer (NMP); 4 exs., same data, but IV.1950 (NMP); 1 ex., Moravia, locality not specified (NMP); 1 ex., Plumlov, IV.1944 (NMP); 1 ex., Hluboká, 4.VI.1905 (NMP); 4 exs., Rejštejn (NMP); 2 exs., Otradovice, 9.IV.1911 (NMP); 2 exs., Jiřina, 13.III.1910 (NMP); 1 ex., Poříčany, leg. Rambousek (NMP); 1 ex., Tuchoměřice, 18.VI.1906 (NMP). Slovakia: 1 ex., Jezersko (NMP); 1 ex., Detvianska Huta (NMP); 1 ex., N. Zámky (NMP); 1 ex., Hrabušice, VIII.1939, leg. Pfeffer (NMP); 2 exs., Komárno, leg. Pfeffer (NMP); 1 ex., Trenčin (NMP). Ukraine: 3 exs., NE Kowelj, Tsheremoshno (NMP); 2 exs., Kiev (cAss); 1 ex., Lvov, Sikhov beech forest park, leaf litter, 27.IV.2007, leg. Gontarenko (cGon). Romania: 1 ex., "Koroniez" (cAss). Croatia: 3 exs., Bosna (NMP). Bosnia-Herzegovina: 3 exs., Sarajevo, V.1907 (NMP); 1 ex., Trebevic, V.1907 (cAss); 1 ex., Brcko (cAss). Bulgaria: 1 ex., Sofia, Sv. Ivan, VIII.1908, leg. Rambousek (NMP); 1 ex., Vitoša, Knjaževo, 16.III.1909, leg. Rambousek (cAss). Iran: 1♀, Esfahan province, 15 km NNE Semirom, 31°32'N, 51°37'E, 2650 m, 12.V.2007, leg. Frisch & Serri (MNHUB).

Though common in Central Europe, the trans-Palaearctic *G. circellaris* is rare in the Balkans. The above specimen from Esfahan represents the first record from Iran.

Geostiba (*Tropogastrosipalia*) *chyzeri* (EPPELSHEIM 1883)

Material examined: Slovakia: 1 ex., Zvolen, leg. Roubal (NMP); 2 exs., Kunerad, VIII.1971, leg. Pfeffer (NMP); 2 exs., Kostolany, leg. Machulka (NMP, cAss); 1 ex., locality illegible, 10.VI.1026, leg. Kavan (NMP); 4 exs., Košice, leg. Machulka (NMP, cAss).

Geostiba chyzeri has become known only from Slovakia and Hungary. Its distribution is mapped in ASSING (2005a).

Geostiba (*Tropogastrosipalia*) *mihoki* (BERNHAUER 1932)

Material examined: Romania: 1 ex., "Hung." (NMP); 1 ex., Bihar (cAss).

The species is endemic in the southwestern Carpathians and the Bihor range (ASSING 2005a).

Geostiba (*Tropogastrosipalia*) *spinicollis* (KRAATZ 1862)

Material examined: Croatia: 3 exs., Zagreb, "Tuskanac Zelengaj", leg. Hochetlinger (NMP, cAss); 2 exs., Zagreb, leg. Hochetlinger (NMP); 1 ex., Zagreb, Zelengal, 21.II.1912, leg. Hochetlinger (NMP); 1 ex., Zagreb, Zelengam, 21.II.1912, leg. Hochetlinger (NMP); 4 exs., Medvednica, Ponikve, 30.VI.2008, leg. Ozimec (cAss).

The known distribution of *G. spinicollis* is confined to several localities in Croatia, Slovenia, and Austria (Koralpe); for a map see ASSING (2005a).

***Geostiba* (*Tropogastrosipalia*) *moczarskii* (SCHEERPELTZ 1951)**

M a t e r i a l e x a m i n e d : Greece: 2 exs., Pilion (NMP, cAss).

This species is endemic to the Pilion mountain range in Greece (ASSING 1999).

***Geostiba* (*Tropogastrosipalia*) *meschniggiana* (BERNHAUER 1936))**

M a t e r i a l e x a m i n e d : Greece: 1 ex., Chelmos, IV.1936, leg. Pfeffer (NMP).

Geostiba meschniggiana is one of the few Greek representatives of the subgenus *Tropogastrosipalia* that occur in two separate mountain ranges, in this case the Aroania (including Chelmos) and the Panahaiko ranges (ASSING 1999, 2000a).

***Geostiba* (*Tropogastrosipalia*) *tiflisensis* PACE 1996**

M a t e r i a l e x a m i n e d : Georgia: 2 exs., Ananuri Forest, 8.V.2006, leg. Chalandze (cAss).

This species has become known only from the Ananuri forest in the vicinity of the type locality near Tiflis (ASSING 2005a). To my knowledge, the above specimens represent the first record since the original description.

***Geostiba* (*Tropogastrosipalia*) *winkleri* (BERNHAUER 1915)**

M a t e r i a l e x a m i n e d : Ukraine: 2 exs., Krym, north slope of Ai Petri mountain, 900 m, beech forest, 20.-24.VII.2001, leg. Koval (cAss).

Geostiba winkleri is endemic to the Crimea, Ukraine (ASSING 2005a), where, according to GONTARENKO (pers. comm.), it is quite common and widespread.

***Geostiba* (*Tropogastrosipalia*) *kastamonuensis* PACE 1983**

M a t e r i a l e x a m i n e d : Turkey: 31 exs., Kastamonu, 15 km N Tosya, Ilgaz geç., 41°08'N, 34°04'E, 1660 m, margin of fir forest, *Formica* nest, sifted, 6.IV.2009, leg. Assing, Wunderle (cAss, cWun); 2 exs., same data, but sifted from the leaf litter of a mixed pine and fir forest (cWun).

The above specimens were collected near the type locality and represent the first record since the original description (disregarding some specimens that were collected practically together with the types, but not included in the type series) (ASSING 2000b). Remarkably, almost all the above specimens were sifted from a *Formica* nest; only two specimens were found in the litter of the adjacent fir and pine forest.

***Geostiba* (*Tropogastrosipalia*) *marasica* ASSING 2004**

M a t e r i a l e x a m i n e d : Turkey: 1 ex., Kahramanmaraş, Başkonuş Yaylası, 37°34'N, 36°34'E, 1250 m, 24.IV.2009, leg. Brachat & Meybohm (cAss).

The above specimen was collected at or near the type locality.

***Geostiba* (*Tropogastrosipalia*) *dibekiana* ASSING 2005**

M a t e r i a l e x a m i n e d : Turkey: 7 exs., Adana, Eyüplü, 37°57'N, 36°06'E, 1550-1560 m, 17.IV.2009, leg. Brachat & Meybohm (cAss).

This recently described species has become known only from the area to the northeast of

Kozan, Adana province (ASSING 2005b). The above specimens were collected at or near the type locality.

***Geostiba* (*Tropogastrosipalia*) *gecmisica* nov.sp.** (Figs 1-8)

Holotype ♂: "TR [35] - Kastamonu, 25 km SE Tosya, 40°56'20"N, 34°12'30"E, 1580 m, pasture, 8.IV.2009, V. Assing / Holotypus ♂ *Geostiba gecmisica* sp. n. det. V. Assing 2009" (cAss). Paratypes: 1♂, 3♀♀: same data as holotype (cAss); 3♂♂, 2♀♀: same data as holotype, but leg. P. Wunderle (cWun, cAss).

Description: Body length 2.2-2.8 mm. Habitus as in Fig. 1. Coloration: head and abdomen blackish, occasionally with abdominal segments III-IV somewhat paler brown; pronotum reddish; elytra yellowish to reddish-yellow; legs yellowish; antennae brown, with antennomeres I-III reddish.

Head weakly oblong, 1.05-1.10 times as long as wide (Figs 2-3); punctation extremely fine, barely noticeable; surface with shallow microreticulation. Eyes of moderate size, approximately half as long as postocular region in dorsal view (Fig. 4).

Pronotum 1.15-1.25 times as wide as head, with pronounced sexual dimorphism (Figs 2-3); punctation extremely fine, barely noticeable; microreticulation similar to that of head or slightly more pronounced.

Elytra with pronounced sexual dimorphism, 0.50-0.55 times as long as pronotum (Figs 2-3); microsculpture very shallow, less pronounced than that of head and pronotum. Hind wings reduced.

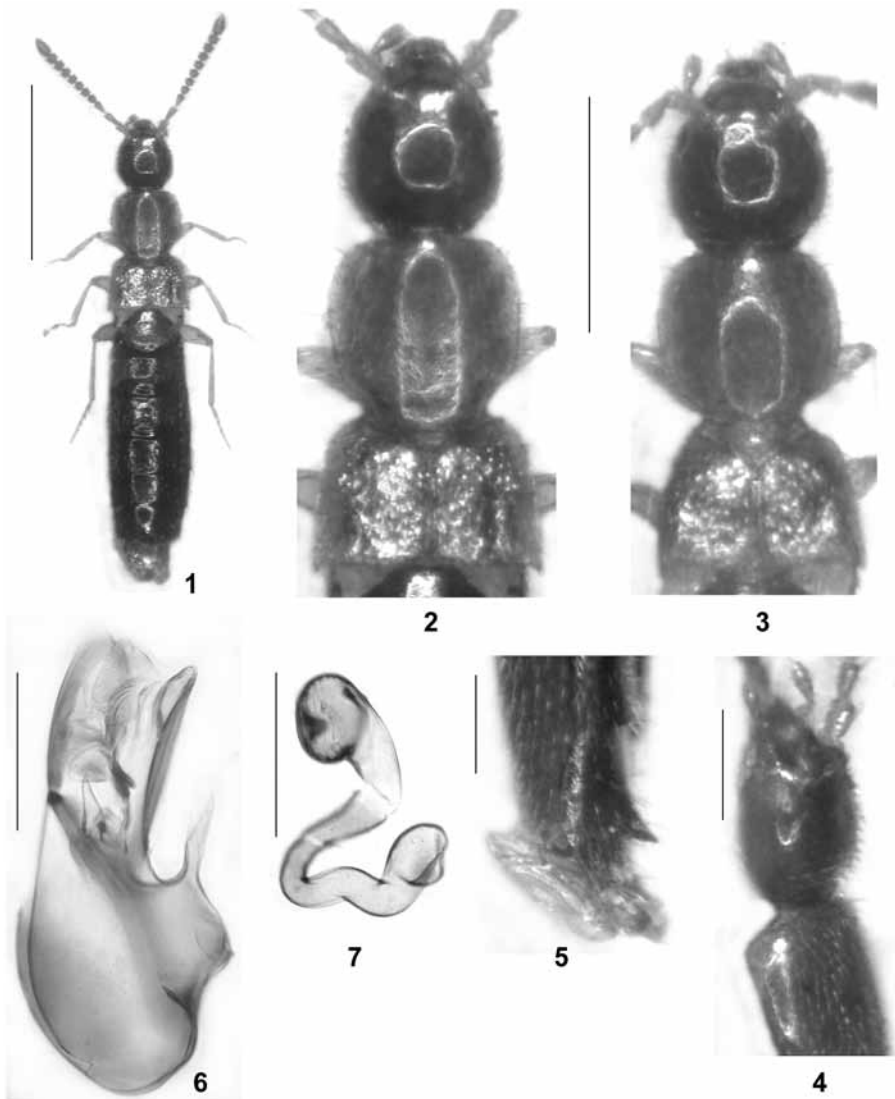
Abdomen as wide as, or slightly wider than elytra; punctation very fine and sparse; microreticulation distinct, but shallow; posterior margin of tergite VII without palisade fringe; anterior tergites without, tergite VII with pronounced sexual dimorphism; posterior margin of tergite VIII weakly convex in both sexes.

♂ (with fully developed secondary sexual characters): pronotum distinctly produced posteriorly, middle of posterior margin broadly truncate, lateral margins posteriorly distinctly sinuate; elytra with sparse and distinctly granulose punctation, sutural carinae absent, lateral margins with somewhat oblique carinae, these carinae most pronounced in posterior half, (almost) reaching posterior margin of elytra (Fig. 2); tergite VII posteriorly with moderately long and apically acute (lateral view), semi-erect median spine-like process (Fig. 5); median lobe of aedeagus as in Fig. 6.

♀: pronotum with almost regularly and broadly convex posterior margin, lateral margins not distinctly sinuate; elytra with finer, at most weakly granulose punctation and without lateral carinae (Fig. 3); tergite VII unmodified; spermatheca not distinctive (Fig. 7).

Etymology: The name (adjective) is derived from the Geçmiş Dağı, the mountain range where the type locality is situated.

Comparative notes: Using the key in ASSING (2005a), *G. gecmisica* would key out at couplets 71-72, together with *G. kastamonuensis* (Kastamonu: Ilgaz Dağları) and *G. artvinensis* ASSING 2001 (Artvin). It is distinguished from the latter by the darker coloration of the head and the pronotum, the smaller size and more slender body, the differently shaped male pronotum (*G. artvinensis*: more oblong, lateral margins posteriorly at most weakly sinuate, posterior margin in the middle concave), the presence of lateral carinae and absence of sutural carinae on the male elytra, the strongly granulose punctation of the male elytra, the longer spine on the male tergite VII, and the differently



Figs 1-7: *Geostiba gecmisica* nov.sp. (1-2, 4-7: holotype): (**1**) male habitus; (**2**) male forebody; (**3**) female forebody; (**4**) head in lateral view; (**5**) male tergites VI-VIII in lateral view; (**6**) median lobe of aedeagus in lateral view; (**7**) spermatheca. Scale bars: 1: 1.0 mm; 2-3: 0.5 mm; 4-5: 0.2 mm; 6-7: 0.1 mm.

shaped cristal process of the aedeagus. From *G. kastamonuensis*, its geographically closest consubgener, it is separated by smaller average size, paler average coloration of the pronotum and the elytra, the differently shaped male pronotum (*G. kastamonuensis*: lateral margins not distinctly sinuate, posterior margin not broadly truncate), the presence of lateral carinae and absence of sutural carinae on the male elytra, the more slender and apically more acute spine on the male tergite VII (lateral view), and by the differently

shaped cristal process of the aedeagus. For illustrations of *G. kastamonuensis* and *G. artvinensis* see ASSING (2000b, 2001a).

D i s t r i b u t i o n a n d b i o n o m i c s : As can be inferred from the restricted distributions of other Turkish representatives of the subgenus *Tropogastrosipalia*, the species is probably endemic to the Geçmiş Dağı, Kastamonu province, northern Anatolia. The type specimens were collected in a stony pasture, under stones near snowfields, at an altitude of 1580 m (Fig. 8).

Fig. 8: Type locality of *G. gecmisica* nov.sp. (photo: P. Wunderle).

***Geostiba* (*Tropogastrosipalia*) *heliophila* nov.sp.** (Figs 9-15)

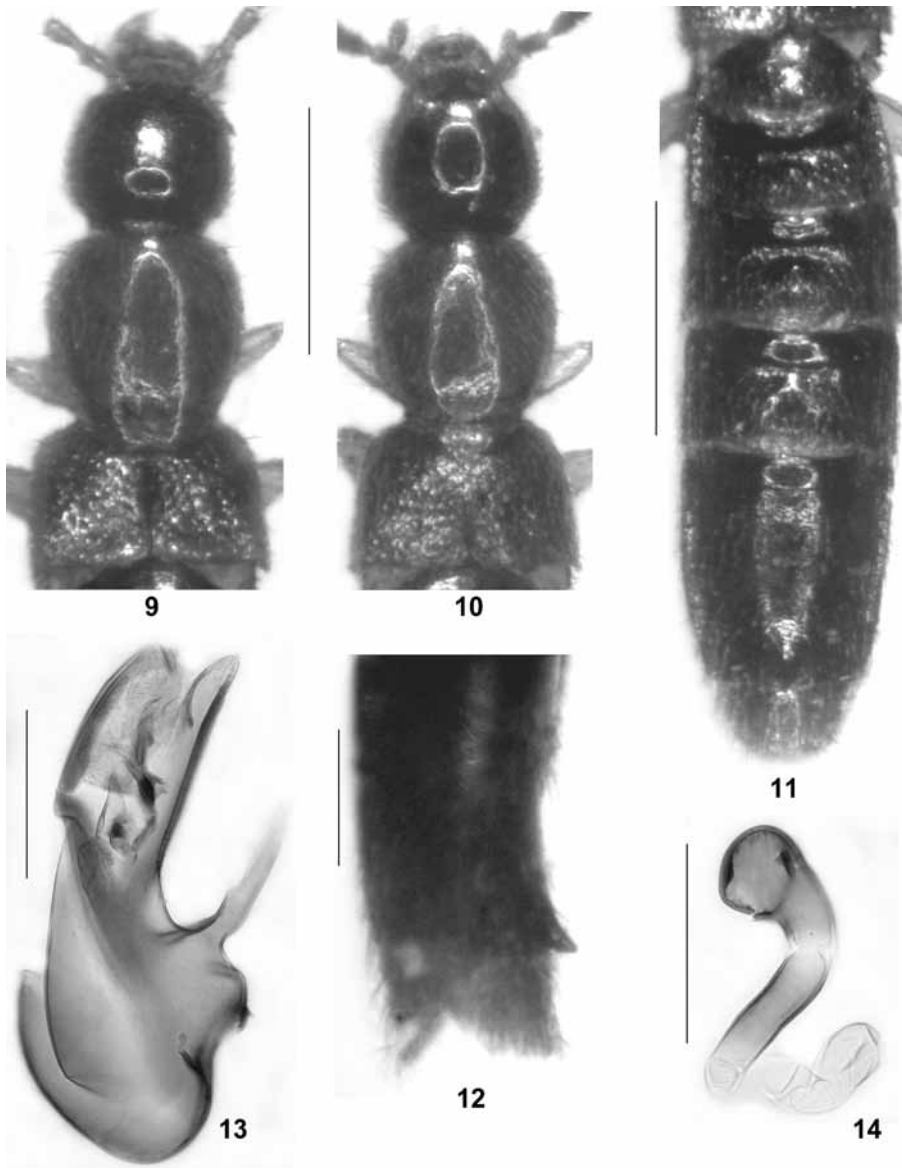
Holotype ♂: "TR [36] - Kastamonu, 40 km NW Kastamonu, 41°42'05"N, 33°28'17"E, 1090 m, calcareous slope, 9.IV.2009, V. Assing / Holotypus ♂ *Geostiba heliophila* sp. n. det. V. Assing 2009" (cAss). Paratypes: 10♀♀: same data as holotype (cAss, OÖLL); 2♂♂, 9♀♀: same data as holotype, but leg. P. Wunderle (cWun).

D e s c r i p t i o n : Body length 2.4-3.0 mm. Coloration variable: head and abdomen blackish, occasionally with abdominal segments III-IV and VIII-X more or less distinctly paler brown; pronotum and elytra reddish to dark brown; legs yellowish; antennae brown to dark brown, with the basal 2-3 antennomeres paler.

Head approximately as long as wide (Figs 9-10); punctation extremely fine, barely noticeable; surface with shallow microreticulation. Eyes approximately half as long as postocular region in dorsal view, or smaller.

Pronotum with pronounced sexual dimorphism (Figs 9-10); punctation extremely fine, barely noticeable; microreticulation similar to that of head or slightly more pronounced.

Elytra with moderately pronounced sexual dimorphism, 0.42-0.50 times as long as pronotum (Figs 9-10); microsculpture very shallow, less pronounced than that of head and pronotum. Hind wings reduced.



Figs 9-14: *Geostiba heliophila* nov.sp. (9, 11-13: holotype): (**9**) male forebody; (**10**) female forebody; (**11**) male abdomen; (**12**) male tergites VI-VIII in lateral view; (**13**) median lobe of aedeagus in lateral view; (**14**) spermatheca. Scale bars: 9-11: 0.5 mm; 12: 0.2 mm; 13-14: 0.1 mm.

Abdomen (Fig. 11) approximately as wide as elytra; punctation very fine and sparse; microreticulation distinct, but rather shallow; posterior margin of tergite VII without palisade fringe; tergites IV, V, and VII with sexual dimorphism; posterior margin of tergite VIII weakly convex in both sexes.

♂ (with fully developed secondary sexual characters): pronotum elongated, of oblong ovoid shape, produced posteriorly, approximately 1.15 times as long as wide, lateral margins not sinuate posteriorly, posterior margin weakly and narrowly concave in the middle; elytra with short and rather weakly elevated sutural carinae in anterior half, postero-laterally with oblique impressions, punctation distinctly granulose (Fig. 9); abdominal tergites III and IV with median tubercle (Fig. 11); process of tergite VII rather short and not very slender in lateral view (Fig. 12); median lobe of aedeagus as in Fig. 13.

♀: pronotum of shortly ovoid shape, weakly transverse or, at most, approximately as long as wide, posterior margin truncate or weakly convex; elytra with, at most, weakly granulose punctation (Fig. 10); tergites III, IV, and VII unmodified; spermatheca with proximal portion of capsule conspicuously transparent (Fig. 14).

E t y m o l o g y : The name (adjective) refers to the fact that, surprisingly, the type material was collected on a SW-slope.

C o m p a r a t i v e n o t e s : Using the key in ASSING (2005a), *G. heliophila* would key out at couplet 68, together with *G. brachati* ASSING 2000 (Antalya) and *G. bitlisensis* ASSING 2001 (Bitlis). It is distinguished from both species by the more slender habitus and smaller average size, the slightly more slender antennae, the shape of the male pronotum (more oblong, posterior margin more distinctly concave in the middle), the shape of the cristal process of the aedeagus, and by the proximally completely transparent spermatheca. In addition, it is separated from *G. brachati* by the less pronounced microsculpture of the forebody and by the shorter, stouter, and less erect spine-like process of the male abdominal tergite VII. From *G. kastamonuensis*, its geographically closest consubgener, it is separated by smaller average size and more slender habitus, the more slender and more oblong male pronotum, the presence of tubercles on the male abdominal tergites III and IV, as well as by the shape of the process of the male abdominal tergite VIII and of the cristal process of the aedeagus. For illustrations of *G. brachati*, *G. bitlisensis*, and *G. kastamonuensis* see ASSING (2000b, 2001a).

D i s t r i b u t i o n a n d b i o n o m i c s : As can be inferred from the restricted distributions of other Turkish representatives of the subgenus *Tropogastrosipalia*, the species is probably endemic to the Karyatağı Dağı and possibly also adjacent mountain ranges to the northwest of Kastamonu, Kastamonu province, northern Anatolia. The type specimens were collected by turning stones on a grassy calcareous SW-slope at an altitude of 1090 m (Fig. 15).

Fig. 15: Type locality of *G. heliophila* nov.sp. (photo: P. Wunderle).

***Geostiba* (*Tropogastrosipalia*) *hasanica* nov.sp.** (Figs 16-23)

Holotype ♂: "TR [38] - Kastamonu, 30 km SE Inebolu, 41°45'39"N, 34°02'36"E 1370 m, calcareous slope, 10.IV.2009, V. Assing / Holotypus ♂ *Geostiba hasanica* sp. n. det. V. Assing 2009" (cAss). Paratypes: 14♂♂, 17♀♀: same data as holotype (cAss, OÖLL); 10♂♂, 19♀♀: same data, but leg. Wunderle (cWun).

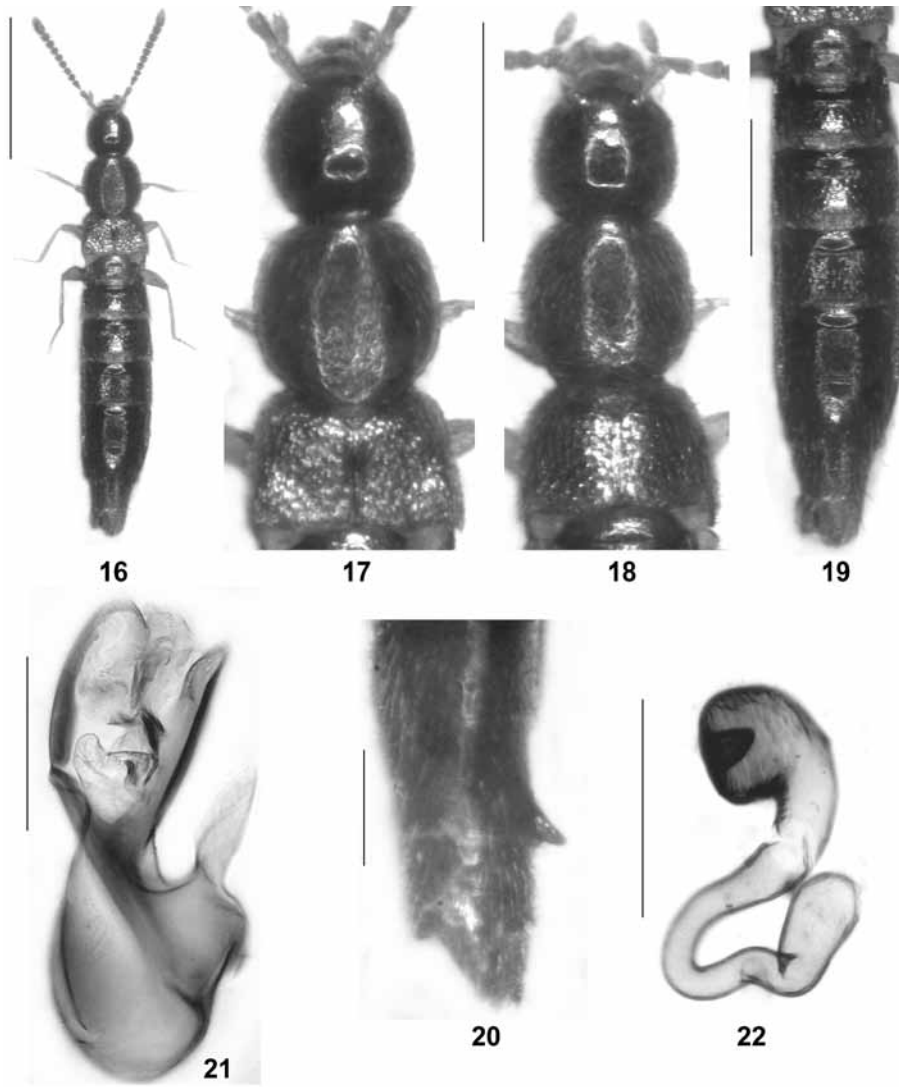
D e s c r i p t i o n : Body length 2.3-3.1 mm. Habitus as in Fig. 16. Coloration variable: head reddish brown to blackish; pronotum and elytra reddish to dark brown; abdomen blackish, occasionally with abdominal segments III-IV and VIII-X more or less distinctly paler brown; legs yellowish; antennae brown, with the basal 2-3 antennomeres paler.

Head 1.00-1.07 times as long as wide (Figs 17-18); punctation extremely fine, barely noticeable; surface with very shallow, sometimes almost obsolete microreticulation. Eyes relatively small, 0.35-0.45 times as long as postocular region in dorsal view.

Pronotum with rather weakly pronounced sexual dimorphism (Figs 17-18); punctation extremely fine, barely noticeable; microreticulation somewhat more distinct than that of head.

Elytra with moderately pronounced sexual dimorphism, 0.50-0.55 times as long as pronotum (Figs 17-18); microsculpture very shallow, less pronounced than that of pronotum. Hind wings reduced.

Abdomen (Fig. 19) approximately as wide as elytra; punctation very fine and sparse; microreticulation distinct; posterior margin of tergite VII without palisade fringe; tergites IV and V without, VII with sexual dimorphism; posterior margin of tergite VIII weakly convex in both sexes.



Figs 16-22: *Geostiba hasanica* nov.sp. (16-17, 19-20: holotype): (**16**) male habitus; (**17**) male forebody; (**18**) female forebody; (**19**) male abdomen; (**20**) male tergites VI-VIII in lateral view; (**21**) median lobe of aedeagus in lateral view; (**22**) spermatheca. Scale bars: 16: 1.0 mm; 17-19: 0.5 mm; 20: 0.2 mm; 21-22: 0.1 mm.

♂ (with fully developed secondary sexual characters): pronotum 1.00-1.05 times as long as wide, posterior margin convex in the middle, lateral margins smoothly and weakly convex; elytra with short and rather weakly elevated sutural carinae in anterior half, postero-laterally with oblique impressions, punctation weakly to moderately granulose (Fig. 17); abdominal tergites III and IV without distinct median tubercle, occasionally tergite III with very weak indication of such a tubercle (Fig. 18); process of tergite VII

moderately long, slender and apically rounded in antero-dorsal view, broad-based and apically acute in lateral view (Fig. 20); median lobe of aedeagus with broad dagger-shaped cristal process (Fig. 21).

♀: pronotum weakly transverse, posterior margin broadly convex; punctation of elytra not distinctly granulose (Fig. 18); tergites III, IV, and VII unmodified; spermatheca not distinctive (Fig. 22).

E t y m o l o g y : The name (adjective) is derived from the Hasan Dağı, where the type locality is situated.

C o m p a r a t i v e n o t e s : Using the key in ASSING (2005a), *G. hasanica* would key out at couplets 83-86, together with two species from central southern Anatolia (*G. simulans* PACE 1983, *G. marasica* ASSING 2004, and *G. arganthonia* PACE 1983 from Istanbul. It is distinguished from all these species by the shape of the cristal process of the aedeagus, from *G. arganthonia* additionally by the sexual dimorphism of the pronotum (in *G. arganthonia* absent), as well as by the longer and more erect process of the male abdominal tergite VII, from *G. simulans* and *G. marasica* also by the modifications of the male elytra. For illustrations of *G. arganthonia*, *G. simulans*, and *G. marasica* see PACE (1983b) and ASSING (2004a). From the geographically closest consubgeners, *G. kastamonuensis* and *G. heliophila*, the new species is readily distinguished by the shallower microreticulation of the head, the weakly pronounced sexual dimorphism of the male pronotum (posterior margin of the male pronotum convex in the middle), and by the shape of the cristal process of the aedeagus, from *G. heliophila* additionally by the absence of distinct tubercles on the male abdominal tergites III and IV, and by the proximally more distinctly sclerotised spermatheca.

Fig. 23: Type locality of *G. hasanica* nov.sp. (photo: P. Wunderle).

D i s t r i b u t i o n a n d b i o n o m i c s : The species is probably endemic to the Hasan Dağı to the northeast of Kastamonu, Kastamonu province, northern Anatolia. The

type specimens were collected by turning stones, partly near snow, on a calcareous slope near a forest margin at an altitude of 1370 m (Fig. 23).

***Geostiba* (*Tropogastrosipalia*) *erecta* nov.sp.** (Figs 24-31)

Holotype ♂: "N36°25'01 E036°06'40, TR Hatay Kizildag, E Madenli, 1120 m, 11.4.2009, Brachat & Meybohm / Holotypus ♂ *Geostiba erecta* sp. n. det. V. Assing 2009" (cAss). Paratypes: 4♀♀: same data as holotype (cAss).

Description: Body length 2.8-3.2 mm. Habitus as in Fig. 24. Coloration: head dark-brown to blackish; pronotum and elytra reddish to dark-brown; abdomen brown, with segments VI-VII dark-brown, or completely dark-brown to blackish-brown; legs yellowish; antennae brown to dark-brown, usually with antennomeres I-II at least slightly paler.

Head 1.00-1.09 times as long as wide (Figs 25, 27); punctation extremely fine, barely noticeable; surface with very shallow microreticulation. Eyes relatively small, 0.30-0.45 times as long as postocular region in dorsal view.

Pronotum without apparent sexual dimorphism (Figs 25, 27), approximately 1.05 times as wide as long, posterior margin in both sexes weakly and broadly convex, in the middle almost truncate; punctation extremely fine, barely noticeable; microreticulation somewhat more distinct than that of head.

Elytra with moderately pronounced sexual dimorphism, 0.6-0.7 times as long as pronotum (Figs 25, 27); punctation in both sexes fine, not granulose; microsculpture very shallow, less pronounced than that of pronotum. Hind wings reduced.

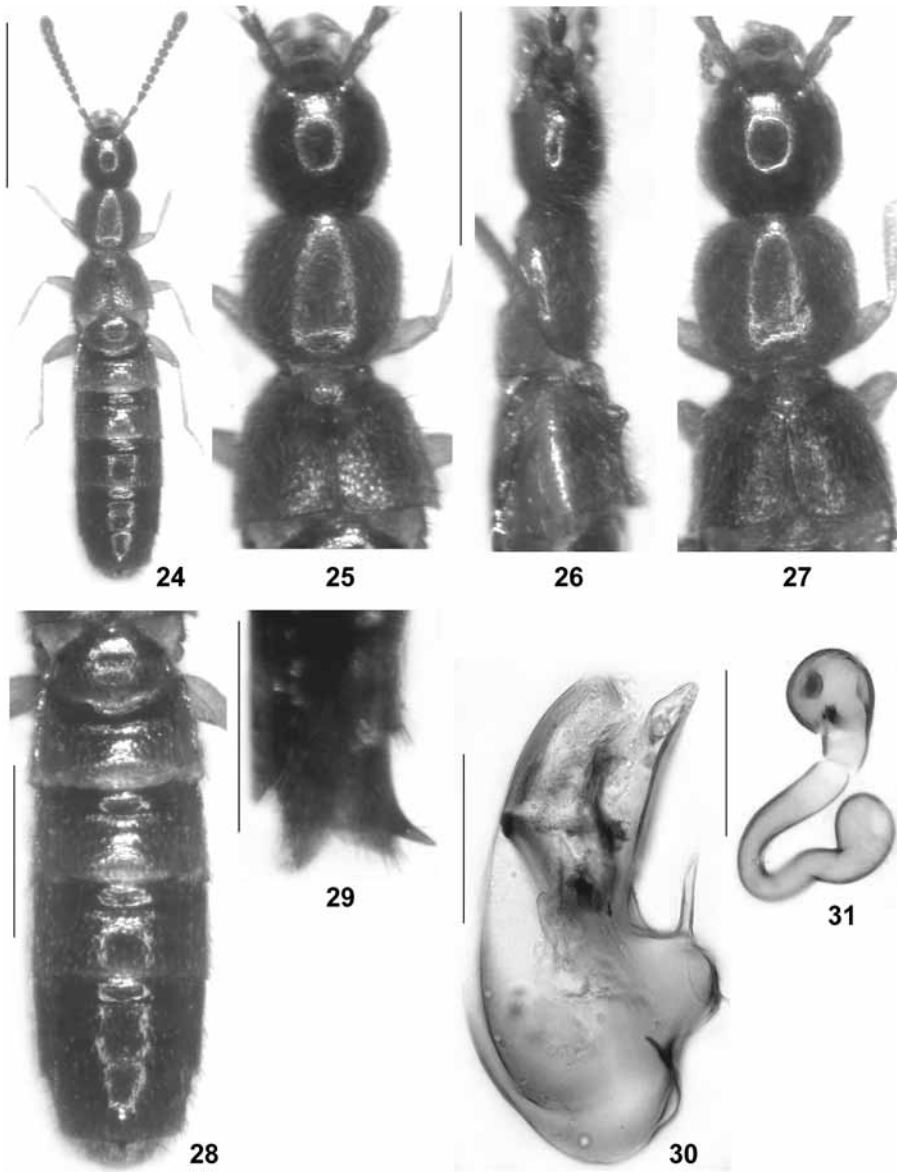
Abdomen (Fig. 28) usually at least slightly wider than elytra; punctation moderately fine and sparse; microreticulation distinct; posterior margin of tergite VII usually with narrow rudiment of a palisade fringe; tergites IV and V without, VII with sexual dimorphism; posterior margin of tergite VIII weakly convex in both sexes.

♂ (with fully developed secondary sexual characters): elytra with pair of erect tubercles near apex of scutellum (Fig. 26), surface without distinct impressions; abdominal tergite VII with long, slender, remarkably erect, and apically acute spine-like process at posterior margin (Fig. 29); median lobe of aedeagus with very slender cristal process (Fig. 30).

♀: spermatheca not distinctive (Fig. 31).

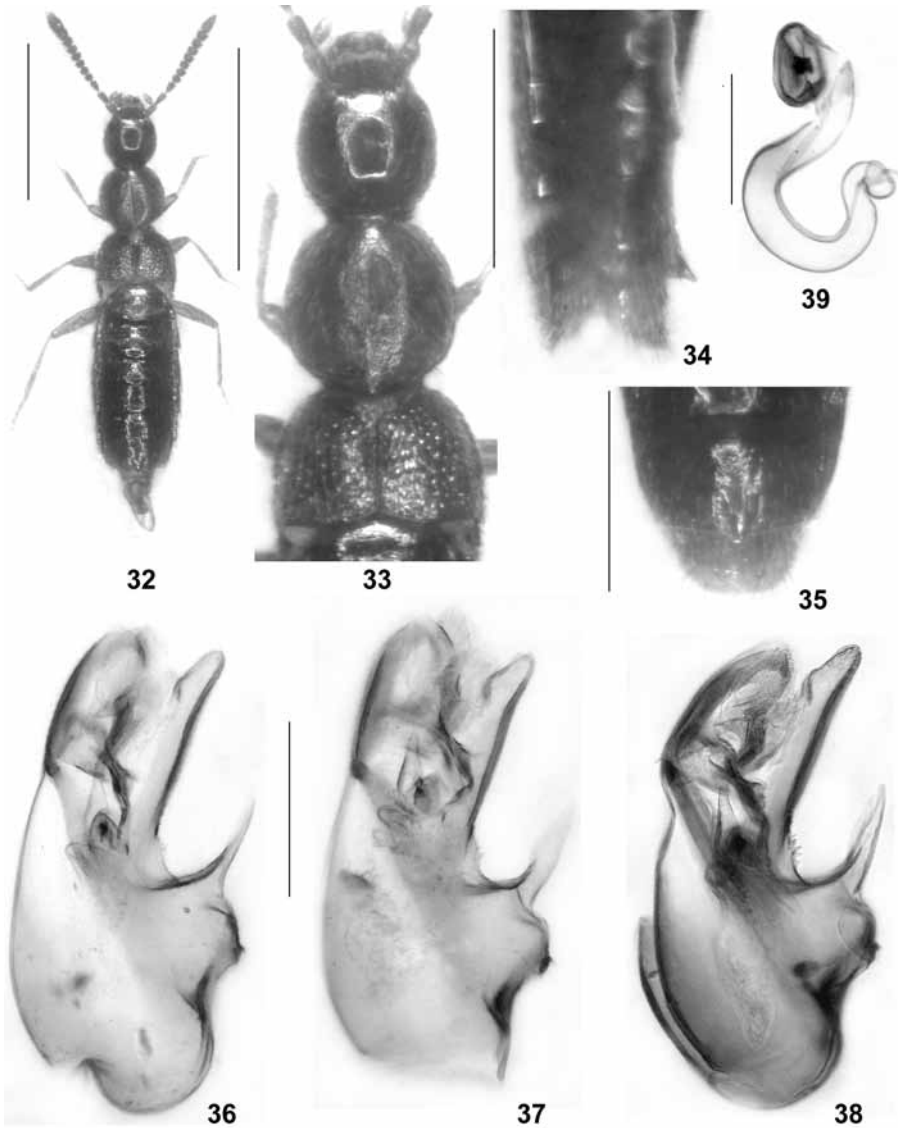
Etymology: The name (Latin, adjective) alludes to the erect tubercles on the male elytra and the erect process of the male abdominal tergite VII.

Comparative notes: Using the key in ASSING (2005a), the new species would key out at couplets 84-86, together with the geographically close *G. simulans* PACE 1983 (Hatay), *G. marasica* ASSING 2004 (Kahramanmaraş), *G. hamata* ASSING 2003 (Hatay), and *G. adunca* ASSING 2004 (Kahramanmaraş). It is distinguished from all these species particularly by the erect tubercles on the male elytra, as well as by the shape of the process of the male tergite VII. It is additionally separated from *G. simulans* and *G. marasica* by the absence of a dimorphism of the male pronotum and from *G. hamata* and *G. adunca* by the short and very slender cristal process of the median lobe of the aedeagus. For illustrations of *G. simulans*, *G. marasica*, *G. hamata*, and *G. adunca* see PACE (1983b) and ASSING (2003, 2004a), respectively.



Figs 24-31: *Geostiba erecta* nov.sp. (24-26, 28-30: holotype): (**24**) male habitus; (**25-26**) male forebody in dorsal and in ventral view; (**27**) female forebody; (**28**) male abdomen; (**29**) male tergites VI-VIII in lateral view; (**30**) median lobe of aedeagus in lateral view; (**31**) spermatheca. Scale bars: 24: 1.0 mm; 25-29: 0.5 mm; 30-31: 0.1 mm.

D i s t r i b u t i o n a n d b i o n o m i c s : The species is probably endemic to the Kızıl Dağı in western Hatay province, central southern Anatolia. The type specimens were collected by sifting litter and by turning stones at an altitude of 1120 m.



Figs 32-39: *Geostiba sarica* nov.sp. from the environs of Sangdeh (type locality): (**32**) male habitus; (**33**) male forebody; (**34**) male abominal segments VI-VIII in lateral view; (**35**) male abominal segments VII-VIII in dorsal view; (**36-38**) median lobe of aedeagus in lateral view; (**39**) spermatheca. Scale bars: 32: 1.0 mm; 33-35: 0.5 mm; 36-39: 0.1 mm.

Geostiba (*Tropogastrosipalia*) *sarica* nov.sp. (Figs 32-47)

Holotype ♂: "Iran, Prov. Mazandaran [IR08-01], Sari County, Mohammadabad, Elburz Mts., N-Slope, NE Sangdeh, 1533 m, 36°04'06.6"N, 53°09'57.8"E [recte: 36°04.066'N, 53°09.578"E], Fagus forest, leaves debris, sifted, 29.V.2008, leg. A. Pütz / Holotypus ♂ *Geostiba sarica* sp. n.

det. V. Assing 2009" (cPüt). Paratypes: 5♂♂, 6♀♀: same data as holotype (cPüt, cAss); 1♂, 2♀♀: "Iran, Prov. Mazandaran [IR08-03], Sari County, Mohammadabad, Elburz Mts., N-Slope, E Qolqol, 36°10'26.7"N, 53°16'29.2"E [recte: 36°10.267'N, 53°16.292'E], 916 m, leaves debris, sifted, 29.V.2008, leg. A. Pütz" (cPüt, cAss).

Description: Body length 2.1-3.2 mm. Habitus as in Figs 32, 40. Coloration variable: body uniformly reddish to more or less distinctly bicoloured, with the head and the abdomen blackish to blackish-brown and the pronotum, elytra, and the abdominal apex paler reddish to brown; legs yellowish to yellowish-brown; antennae reddish to brown.

Head 1.0-1.1 times as long as wide (Figs 33, 41); punctation extremely fine, barely noticeable; surface with shallow, but distinct microreticulation. Eyes weakly convex and relatively small, approximately 1/3 the length of postocular region in dorsal view.

Pronotum with moderately pronounced sexual dimorphism (Figs 33, 41), weakly oblong (♂) to weakly transverse (♀), and approximately 1.2 times as wide as head; punctation as fine as that of head; microreticulation clearly more distinct than that of head.

Elytra with moderately pronounced sexual dimorphism, very short, 0.45-0.55 times as long as pronotum; in small specimens approximately 1.2 times, in large specimens almost 1.4 times as wide as pronotum; punctation much more distinct than that of head and pronotum (Figs 33, 41).

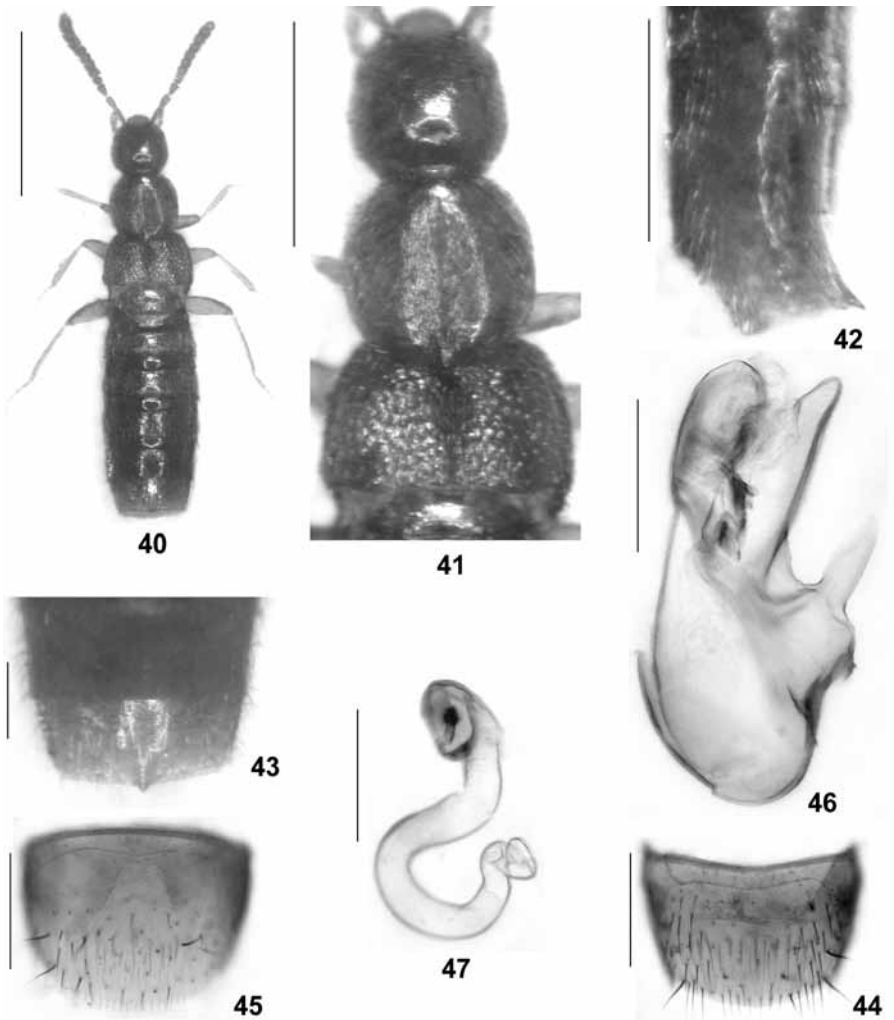
Abdomen at least slightly wider than elytra; anterior tergites without sexual dimorphism; punctation moderately fine and moderately sparse on anterior tergites, very fine and very sparse on posterior tergites; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII weakly convex in both sexes (Fig. 44).

♂ (with fully developed secondary sexual characters): pronotum approximately as long as wide or weakly oblong, posterior margin in the middle distinctly pointed, posterior half of midline usually indistinctly keeled (Figs 33, 41); elytra with granulose punctation, at anterior half of suture with not very pronounced elevation composed of dense granula, surface without distinct impressions; tergite VII with short and apically acute median process at posterior margin (Figs 34-35, 42-43); posterior margin of sternite VIII broadly convex (Fig. 45); aedeagus with cristal process of highly variable shape (Figs 36-38, 46).

♀: pronotum weakly transverse, approximately 1.05 times as wide as long, posterior margin weakly convex, in the middle truncate; punctation of elytra not granulose; spermatheca as in Figs 39, 47.

Etymology: The specific epithet (adjective) is derived from the name of the county where the species was collected.

Intraspecific variation: Coloration, size, and proportions are subject to pronounced variation; the body tends to be more slender in smaller than in larger specimens. Also, as is usual with species of the subgenus *Tropogastrosipalia*, the male secondary sexual characters are almost or completely obsolete in small males. Remarkably, the cristal process of the aedeagus is highly variable, too, even in material from the same locality (Figs 36-38). The male from the environs of Qolqol differs from the males from the type locality not only by the much larger and broader cristal process (Fig. 46), but also by the slightly denser and more distinctly granulose punctation of the elytra (Fig. 41) and by the dorso-ventrally slightly more compressed process of the abdominal tergite VII (Fig. 42). In view of the variability observed in the material from the type locality, these differences are attributed to intra- rather than interspecific variation.



Figs 40-47: *Geostiba sarica* nov.sp. from the environs of Qolqol: (**40**) male habitus; (**41**) male forebody; (**42**) male abdominal segments V-VII in lateral view; (**43**) male abdominal segments VI-VII in dorsal view; (**44**) male tergite VIII; (**45**) male sternite VIII; (**46**) median lobe of aedeagus in lateral view; (**47**) spermatheca. Scale bars: 40: 1.0 mm; 41-42: 0.5 mm; 43-45: 0.2 mm; 46-47: 0.1 mm.

Comparative notes: Previously, only two species of the subgenus *Tropogastrosipalia* were known from Iran, *G. sengleti* PACE 1983 (Mazandaran province, 37°20'N, 55°44'E] and *G. huberi* PACE 1983 (between Bonjurd and Shapasand). The latter is a species of doubtful status, since its description is based on a single female; *Tropogastrosipalia* species can be distinguished only based on the male sexual characters. The new species differs from *G. sengleti* by the posteriorly more distinctly pointed male pronotum, the absence of distinct sutural carinae and the presence of distinctly granulose punctation on the male elytra, the shape of the cristal process of the aedeagus,

and the completely different shape of the spermatheca. For figures of *G. sengleti* see PACE (1983a) and ASSING (2005a), for an illustration of the spermatheca of *G. huberi* see PACE (1983b).

D i s t r i b u t i o n a n d b i o n o m i c s : *Geostiba sarica* is known from two localities in Sari county, Mazandaran province, northern Iran. The type specimens were sifted from leaf litter, at least partly in a beech forest, at altitudes of approximately 920 and 1530 m.

***Geostiba* (*Tropogastrosipalia*) *impressiventris* nov.sp.** (Figs 48-52)

Holotype ♂: "Iran, Prov. Gilan [IR08-25], Siahkal County, Elburz Mts., S-Slope, Deylaman-Barresar road, sifted, 1688 m, 36°51'07.9"N, 49°49'67.3"E [recte: 36°51.079'N, 49°49.673'E], 07.VI.2008, leg. A. Pütz / Holotypus ♂ *Geostiba impressiventris* sp.n. det. V. Assing 2009" (cPüt). Paratype ♂: same data as holotype (cAss).

D e s c r i p t i o n : Small and slender species; body length 2.1-2.7 mm. Habitus as in Fig. 48. Coloration: head and abdomen, except for the paler apex, blackish; pronotum reddish-brown; elytra yellowish to yellowish-brown; legs yellowish; antennae reddish brown, with antennomeres I-III yellowish.

Head 1.0-1.1 times as long as wide (Fig. 49); punctation extremely fine, barely noticeable; surface with shallow microreticulation. Eyes weakly convex and moderately small, approximately half the length of postocular region in dorsal view.

Pronotum with weakly pronounced sexual dimorphism (Fig. 49), weakly transverse, approximately 1.05 times as wide as long, and approximately 1.2 times as wide as head; punctation as fine as that of head; microreticulation clearly more distinct than that of head.

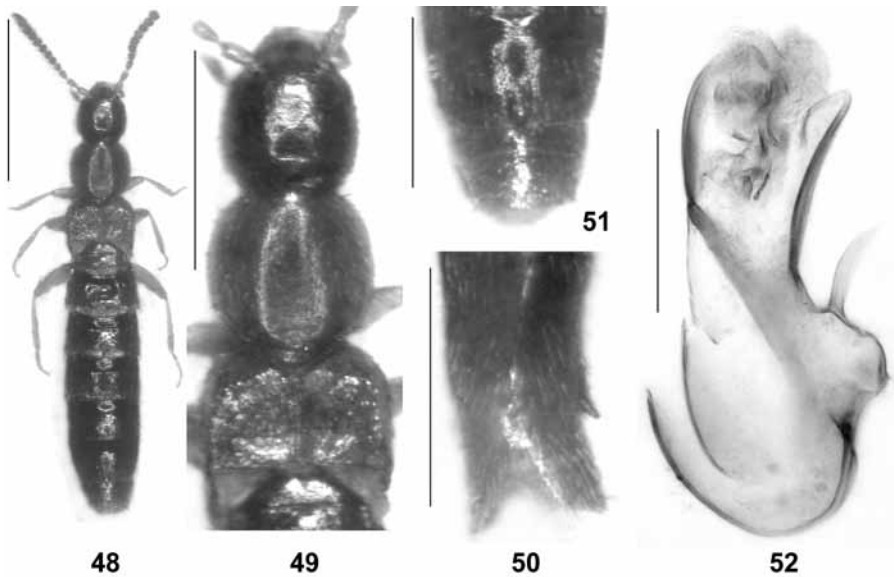
Elytra with moderately pronounced sexual dimorphism, approximately 0.5 times as long and 1.10-1.15 times as wide as pronotum; punctation more, microsculpture less distinct than that of head and pronotum (Fig. 49).

Abdomen slightly wider than elytra; tergite III apparently with, tergites IV-V without sexual dimorphism; punctation fine and sparse; posterior margin of tergite VII with narrow rudiment of a palisade fringe; posterior margin of tergite VIII weakly convex in both sexes (Fig. 51).

♂ (with fully developed secondary sexual characters): pronotum in the middle of posterior margin weakly pointed (Fig. 49); elytra with rather sparse granulose punctation, shallowly and extensively depressed or impressed across both elytra, without sutural carinae or elevations (Fig. 49); abdominal tergite III with rather large median impression of somewhat semicircular shape (Fig. 48); tergite VII with short, apically acute, suberect median process at posterior margin (Figs 50-51); posterior margins of tergite and sternite VIII broadly convex; aedeagus with slender cristal process (Fig. 52).

♀: unknown.

E t y m o l o g y : The specific epithet (Latin, adjective) alludes to the impressed male abdominal tergite III.



Figs 48-52: *Geostiba impressiventris* nov.sp. from the environs of Qolqol: (**48**) male habitus; (**49**) male forebody; (**50**) male abdominal segments VII-VIII in lateral view; (**51**) male abdominal segments VII-VIII in dorsal view; (**52**) median lobe of aedeagus in lateral view. Scale bars: 48: 1.0 mm; 49-51: 0.5 mm; 52: 0.1 mm.

Comparative notes: *Geostiba impressiventris* is readily distinguished from the other three species of *Tropogastrosipalia* known from Iran, *G. sengleti*, *G. huberi*, and *G. sarica*, by the small and slender body, the modifications of the male elytra, the characteristic impression on the male abdominal tergite III (a unique autapomorphy distinguishing this species from all other *Geostiba*!), and by the shape of the cristal process of the aedeagus.

Distribution and bionomics: This species is known only from one locality in Siahkal county, Gilan province, northern Iran, where the two type specimens were sifted at an altitude of almost 1700 m.

Geostiba (*Sibiota*) *samai* PACE 1977

Material examined: Macedonian or Serbian territory: 2 exs., Šar planina, Ljuboten (NMP, cAss).

Geostiba samai is endemic to the Šar Planina (ASSING 2001b, 2005a).

Geostiba (*Sibiota*) *oertzeni* (EPPELSHEIM 1888)

Material examined: Ukraine: 1 ex., Odessa oblast, Berezovka district, Raukhovka, deciduous forest, leaf litter, 21.IV.2009, leg. Gontarenko (cGon).

The above specimen represents the second record from Ukraine. For the first record and a distribution map see ASSING (2006).

Geostiba (*Sibiota*) *helvetiorum* PACE 1983

Material examined: Turkey: 22 exs., Osmaniye, Nur Dağları, S Zorkun, Küllü, 36°57'N, 36°22'E, 1630 m, 19.IV.2009, leg. Brachat & Meybohm (cAss); 8 exs., Osmaniye, Nur Dağları, Zorkun, 36°58'N, 36°22'E, 1700-2000 m, 8.V.2009, leg. Meybohm (cAss); 3 exs., Hatay, Nur Dağları, E Dörtyol, 36°51'N, 36°17'E, 300 m, 20.IV.2009, leg. Brachat & Meybohm (cAss).

Geostiba helvetiorum is the most common representative of the genus in the northern Nur Dağları; for a map illustrating its distribution and previous records see ASSING (2001a, 2004a, 2007).

Geostiba (*Sibiota*) *tuberosa* ASSING 2004

Material examined: Turkey: 12 exs., Kahramanmaraş, Başkonuş Yaylası, 37°34'N, 36°34'E, 1250 m, 23.-24.IV.2009, leg. Brachat & Meybohm (cAss); 12 exs., Kahramanmaraş, W Başkonuş Yaylası, 37°34'N, 36°34'E, 1160 m, 23.IV.2009, leg. Brachat & Meybohm (cAss); 3 exs., Kahramanmaraş, Torlar, 37°33'N, 36°26'E, 1110 m, 23.IV.2009, leg. Brachat & Meybohm (cAss).

The above specimens were collected at or near the type locality; for a distribution map see ASSING (2005b).

Geostiba (*Sibiota*) *carinipennis* nov.sp. (Figs 53-61)

Holotype ♂: "N36°03'30 E036°08'36, TR Hatay Senköy, 730 m, 13.4.2009, Brachat & Meybohm (8) / Holotypus ♂ *Geostiba carinipennis* sp. n. det. V. Assing 2009" (cAss). Paratypes: 2♀♀: same data as holotype (cAss); 1♂: "N36°01'43 E036°07'16, TR Hatay Senköy, 900 m, 13.4.2009, Brachat & Meybohm (9)" (cAss).

Description: Body length 2.2-2.6 mm. Habitus as in Fig. 53. Coloration: whole body uniformly reddish-yellow; legs yellowish.

Head approximately as long as wide (Fig. 54); punctation extremely fine, barely noticeable; surface with very shallow microreticulation. Eyes extremely reduced, rudiments barely visible, subequal to protarsomere IV in cross-section or even smaller. Antennae distinctly incrassate apically (Fig. 55).

Pronotum weakly transverse, approximately 1.05 times as wide as long and 1.1 times as wide as head (Fig. 54); punctation extremely fine, barely noticeable; microreticulation slightly more distinct than that of head.

Elytra with distinct sexual dimorphism, 0.55-0.60 times as long as pronotum (Fig. 54). Hind wings completely reduced.

Abdomen slightly wider than elytra (Fig. 53); punctation sparse and very fine; microsculpture shallow, but distinct; tergite VII with sexual dimorphism; posterior margin of tergite VII without palisade fringe.

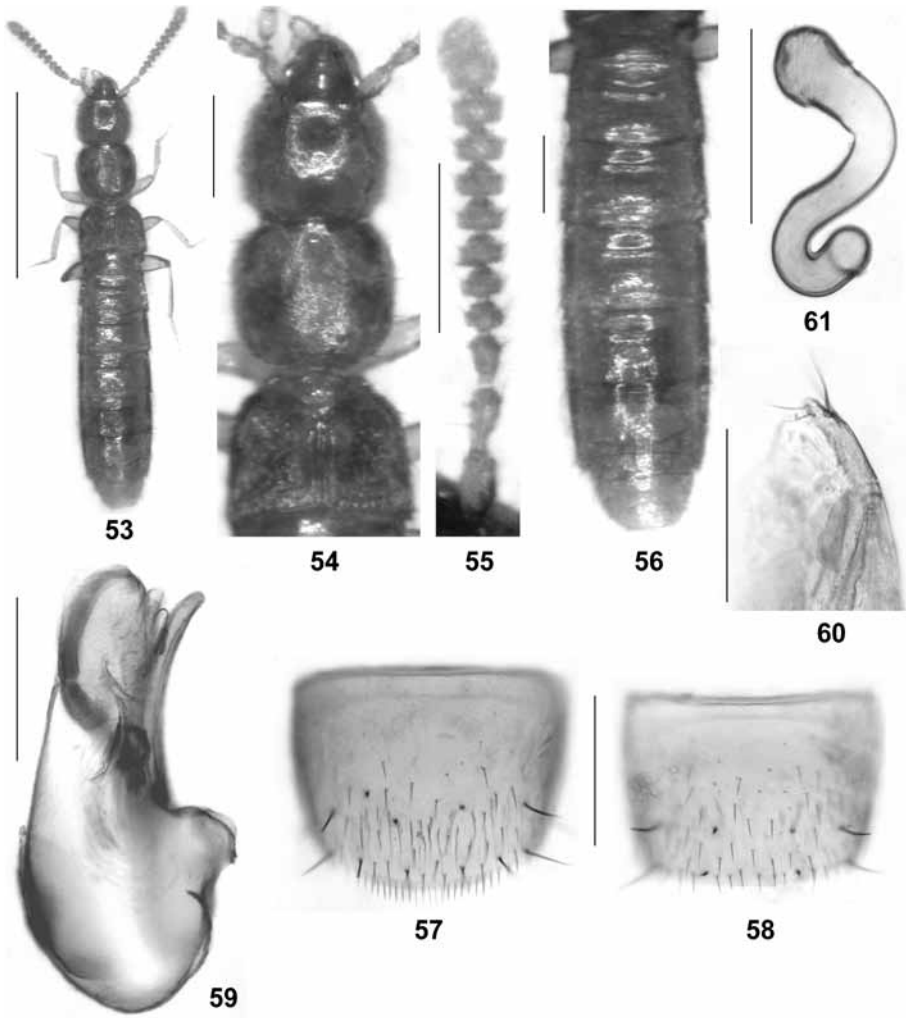
♂ (with fully developed secondary sexual characters): elytra with rather pronounced sutural carinae extending from apex of scutellum to posterior elytral margin, punctation somewhat granulose (Fig. 54); tergite VII posteriorly with pair of weakly pronounced carinae of almost 2/5 the length of tergite (Fig. 56); posterior margin of tergite VIII weakly concave in the middle; posterior margin of sternite VIII convex; median lobe of aedeagus approximately 0.26 mm long (measured from apex of ventral process to base) (Fig. 59); apical lobe of paramere as in Fig. 60.

♀: elytra unmodified, with very fine punctation; tergite VIII with weakly convex poste-

rior margin (Fig. 58); posterior margin of sternite VIII broadly convex (Fig. 57); spermatheca as in Fig. 61.

E t y m o l o g y : The specific epithet (Latin, adjective) alludes to the presence of pronounced sutural carinae on the male elytra.

I n t r a s p e c i f i c v a r i a t i o n : In the male paratype, the sutural carinae are very weakly pronounced and the carinae on the abdominal tergite VII are practically obsolete.



Figs 53-61: *Geostiba carinipennis* nov.sp.: (**53**) male habitus; (**54**) male forebody; (**55**) antenna; (**56**) male abdomen; (**57**) female sternite VIII; (**58**) female tergite VIII; (**59**) median lobe of aedeagus in lateral view; (**60**) apical portion of paramere; (**61**) spermatheca. Scale bars: 53: 1.0 mm; 54-58: 0.2 mm; 59-61: 0.1 mm.

Comparative notes and systematics: Based on the similar morphology of the aedeagus and the spermatheca, as well as on the similar external characters, *G. carinipennis* is evidently closely related to *G. seleucica*, which was collected in localities very close to the type locality of *G. carinipennis*. The new species is distinguished from *G. seleucica* by the even smaller eye rudiments (*G. seleucica*: larger than protarsomere IV in cross-section), the pronounced modifications of the male elytra (*G. seleucica*: unmodified), the presence of a pair of carinae on the male tergite VII (absent in *G. seleucica*), and the larger median lobe of the aedeagus (*G. seleucica*: 0.30-0.32 mm). For illustrations of *G. seleucica* see PACE (1983b) and ASSING (2004a).

The presence of carinae on the male abdominal tergite VII of *G. carinipennis* and its evidently close relationship to *G. seleucica* once again confirms that the absence of such carinae in the latter is in fact a reduction. Based on the similar morphology of the primary sexual characters, *G. scheerpeltziana* (FAGEL 1966), too, is closely related to G. *carinipennis* and *G. seleucica* and should likewise be attributed to the subgenus *Sibiota* CASEY 1906.

Distribution and bionomics: This species is known only from two localities in southern Hatay (=Antakya) province, central southern Anatolia. The type specimens were collected by sifting leaf litter and grass beneath shrubs at altitudes of 730 and 900 m (MEYBOHM pers. comm.).

Geostiba (*Sibiota*) *gibbera* ASSING 2005

Material examined: Turkey: 15 exs., Kahramanmaraş, Imalı, 37°21'N, 36°44'E, 850 m, 21.IV.2009, leg. Brachat & Meybohm (cAss).

This recently described species has become known only from the area to the northeast of Kozan, Adana province (ASSING 2005b). The above specimens were collected at or near the type locality.

Geostiba (*Sibiota*) *tuberifera* nov.sp. (Figs 62-69)

Holotype ♂: "N37°19'31 E036°42'17, TR Kahramanmaras, SW Imali, 1050-1100 m, 21.4.2009, Brachat & Meybohm (25) / Holotypus ♂ *Geostiba tuberifera* sp. n. det. V. Assing 2009" (cAss). Paratypes: 3♀♀: same data as holotype (cAss).

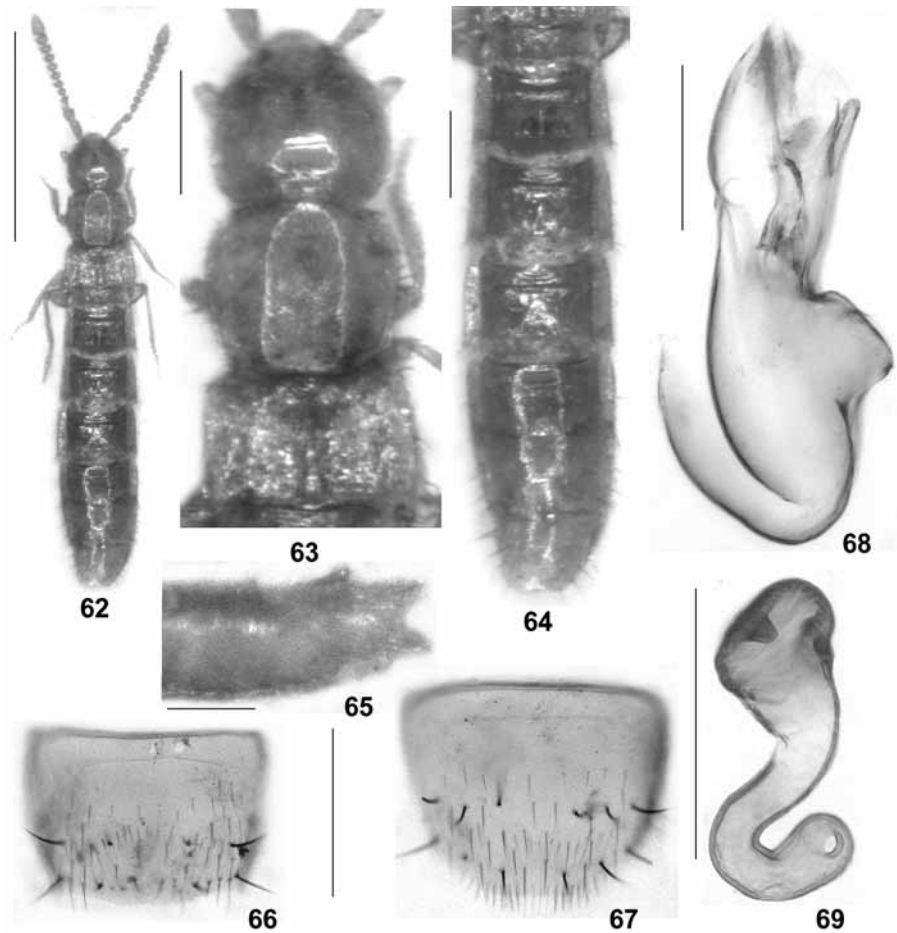
Description: Very small species, body length 1.9-2.2 mm. Habitus as in Fig. 62. Coloration: whole body uniformly yellowish.

Head weakly oblong; punctation extremely fine, barely noticeable; surface glossy, with or without extremely shallow traces of microreticulation. Eyes reduced to minute oblong rudiments without ommatidia and pigmentation. Antennae distinctly incrassate apically, antennomere X approximately twice as wide as long.

Pronotum weakly transverse, approximately 1.1 times as wide as long and 1.1 times as wide as head; posterior margin truncate in the middle (Fig. 63); punctation extremely fine, barely noticeable; surface with distinct, but shallow microsculpture.

Elytra with pronounced sexual dimorphism, depressed and with fine punctation in both sexes, approximately 0.55 times as long as pronotum (Fig. 63); microsculpture more or less pronounced. Hind wings completely reduced. Mesotarsomeres IV and V not distinctly fused.

Abdomen distinctly wider than elytra (Fig. 62); punctation sparse and fine; microsculpture shallow, but distinct; tergites III, IV, and VII with sexual dimorphism; posterior margin of tergite VII without palisade fringe; posterior margin of tergite VIII convex in both sexes (Fig. 67).



Figs 62-69: *Geostiba tuberifera* nov.sp.: (**62**) male habitus; (**63**) male forebody; (**64**) male abdomen; (**65**) male abdominal segments VI-VIII in lateral view view; (**66**) female tergite VIII; (**67**) female sternite VIII; (**68**) median lobe of aedeagus in lateral view; (**69**) spermatheca. Scale bars: 62: 1.0 mm; 63-67: 0.2 mm; 68-69: 0.1 mm.

♂: elytra with pronounced tubercle on either side of scutellum, lateral margins sharply angled in the middle; abdominal tergite III with pronounced, tergite IV with weaker median tubercle (Fig. 64); tergite VII posteriorly with short, stout, and smooth median tubercle (Figs 64-65); posterior margin of sternite VIII convex; median lobe of aedeagus as in Fig. 68.

♀: posterior margin of sternite VIII weakly concave in the middle (Fig. 67); spermatheca as in Fig. 69.

E t y m o l o g y : The specific epithet (Latin: carrier of a bump) alludes to the shape of the process of the male abdominal tergite VII, one of the characters distinguishing this species from similar congeners.

C o m p a r a t i v e n o t e s : Based on the similar external morphology, the male secondary sexual characters (modifications of the elytra and abdominal tergites III, IV, and VII) and the shapes of the aedeagus and the spermatheca, *G. tuberifera* undoubtedly belongs to the *G. confusa* group, which previously included six species: *G. confusa* ASSING 2001 (Adana: Karatepe), *G. tuberosa* ASSING 2004 (Kahramanmaraş), *G. bigibbera* ASSING 2005 (Kahramanmaraş), *G. gibbera* ASSING 2005 (Kahramanmaraş), *G. spinosula* ASSING 2007 (Osmaniye), and *G. occaecata* ASSING 2004 (Gaziantep). It is distinguished from the geographically close species by the primary sexual characters and additionally as follows:

from *G. confusa* by the shallower microsculpture of the elytra and the abdomen, the non-fused mesotarsomeres IV and V, the more pronounced tubercles on the male elytra and on the male abdominal tergites III and IV, the laterally sharply edged male elytra, and the shape of the process of the male tergite VII (*G. confusa*: distinctly longer, more slender, and more acute);

from *G. tuberosa* by much smaller body size, paler coloration, the much less pronounced microsculpture of the forebody, the different position of the tubercles on the male elytra (*G. tuberosa*: slightly behind the middle of suture), the sharply edged lateral margins of the male elytra, the different shape of the elytra (*G. tuberosa*: lateral margins distinctly diverging posteriad), the presence of tubercles on the male tergites III and IV, and the presence of a median process on the male tergite VII (*G. tuberosa*: pair of carinae);

from *G. bigibbera* by slightly smaller size, smaller and more oblong eye rudiments, the less pronounced and more widely separated tubercles on the male elytra, the more pronounced tubercle on the male tergite III, the less pronounced microsculpture on the male tergites III and IV (*G. bigibbera*: tubercles and surrounding tergal area with distinct microsculpture), and by the much shorter, stouter, less erect, and less acute process of the male tergite VII;

from *G. gibbera* by slightly smaller body size, smaller and more oblong eye rudiments, much less pronounced microsculpture of the elytra, shorter elytra, less pronounced lateral carinae on the male elytra, more pronounced tubercles on the male tergites III and IV, and by the much shorter, stouter, less erect, and less acute process of the male tergite VII;

from *G. spinosula* by the presence of distinct tubercles on the male elytra, the more pronounced tubercles on the male tergites III and IV, and by the distally less dilated capsule of the spermatheca.

The evidently close relationship of the species of the *Geostiba confusa* group is supported by the similar morphology of the primary sexual characters, the similar external morphology, the similar ecology, the fact that they all are distributed in the same region, and above all by the following, undoubtedly synapomorphic character states: presence of tubercles on the male elytra (reduced in *G. occaecata* and *G. spinosula*), the sharply edged laterally margins of the elytra (absent or indistinct in *G. tuberosa*, *G. occaecata*, and *G. confusa*), the presence of tubercles or elevations on the male abdominal tergites

III and IV (exception: *G. tuberosa*), and the presence of a median process at the posterior margin of the male abdominal tergite VII (exception: *G. tuberosa*). The presence of a pair of carinae on the male tergite VII of *G. tuberosa* suggests that the median process of the male tergite VII in the remaining five species is a derived synapomorphic character state, so that all the species of the *G. confusa* group should be attributed to the subgenus *Sibiota*. For illustrations of the previously described species of this group see ASSING (2001a, 2004a, 2005b, 2007).

Distribution and bionomics: The type locality is situated in the south of Kahramanmaraş province, central southern Anatolia, approximately 40 km to the southwest of Kahramanmaraş. The type specimens were collected by sifting deep litter layers beneath shrubs near a temporary stream at an altitude of 1050-1100 m (MEYBOHM pers. comm.).

Geostiba (*Sibiota*) *krzysztofi* (ROUBAL 1913)

Material examined: Russia: 4 exs., Karatchay-Tcherkessia, Teberda (NMP, cAss).

Geostiba krzysztofi has been recorded only from the type locality in Karatchay-Tcherkessia (Russia) (ASSING 2005a).

Geostiba (*Typhlusida*) *flava* (KRAATZ 1856)

Material examined: Austria: 2 exs., Steiermark, Mixnitz, 22.VII.1903 (NMP, cAss); 4 exs., Steiermark, Graz env. (NMP); 2 exs., Steiermark, Turnau (NMP, cAss). Locality not specified: 3 exs., "Styria" (NMP).

The distribution of this species is confined to southeastern Austria and Slovenia. For more details see ASSING (2000c).

Geostiba (*Sipalotricha*) *lucens* (BENICK 1970)

Material examined: Turkey: 4 exs., Sinop, 30 km NNE Boyabat, Dıranaz geç., 41°38'N, 34°52'E, calcareous grassland, under stones, 5.IV.2009, leg. Assing (cAss); 2 exs., Niğde, Demirkazık, 37°50'N, 35°06'E, 1900 m, under *Berberis*, 16.V.2009, leg. Meybohm (cAss); 1 ex., Niğde, Demirkazık, 37°51'N, 35°06'E, 1700 m, under *Berberis*, 16.V.2009, leg. Meybohm (cAss); 1 ex., Adana, Eyüplü, 37°57'N, 36°06'E, 1560 m, 17.IV.2009, leg. Brachat & Meybohm (cAss); 1 ex., Hatay, Kızıldağ, Madenli, 36°25'N, 36°07'E, 1120 m, 11.IV.2009, leg. Brachat & Meybohm (cAss).

Geostiba lucens is one of the most widespread species of the genus in the Eastern Mediterranean, its distribution ranging from Turkey across the Balkans to southeastern Central Europe (ASSING 2005a); for a recent distribution map see ASSING (2006).

Geostiba (*Sipalotricha*) *infirma* (WEISE 1878)

Material examined: Ukraine: 8 exs., Pozyzevska mt., 18.VI.1911, leg. Lokay (NMP, cAss); 3 exs., same data, but 11.IX.1911 (NMP); 7 exs., Chornohora, leg. Obenberger, etc. (NMP); 10 exs., Chornohora, 10.IX.1908 (NMP, cAss); 1 ex., Vorokhta, 30.VIII.1911, leg. Lokay (NMP); 2 exs., same data, but 12.XI.1911 (NMP); 6 exs., same data, but 20.VI.1911 (cAss); 8 exs., Hoverla, VII.1924, leg. Pfeffer (NMP, cAss); 5 exs., Hoverla, VI.1935, leg. Hlisnikowski (NMP); 9 exs., Hoverla, VI.1936, leg. Hlisnikowski (NMP, cAss); 1 ex., "Arendarski Potok", 15.VI.1911,

leg. Lokay (NMP); 1 ex., "Dolina ř. Pihy", 9.VI.1911, leg. Lokay (NMP); 2 exs., Pop Ivan, leg. Fleischer (NMP). Romania: 1 ex., Munții Rodna (NMP); 1 ex., "Alp. Transsylv.", leg. Lokay (NMP); 3 exs., "Siebenbg"/"Siebenbürgen" (NMP); 8 exs., "Koroniez" (NMP); 1 ex., "M. Koronjes", leg. Lokay (NMP); 4 exs., "Transsylv.", leg. Deubel (NMP, cAss). Locality not identified or not specified: 11 exs., "Jez. Samowite", 17.-19.VI.1911, leg. Lokay (NMP, cAss); 13 exs., "Karpaty" (NMP).

This species is endemic to the Carpathians, where it is widespread and common (ASSING 2005a).

Geostiba (*Sipalotricha*) *cuneiformis* (KRAATZ 1856)

Material examined: Slovakia: 8 exs., Trenčin, leg. Duchon, etc. (NMP); 1 ex., Trenčin, VI.1921, leg. Hlisnikowski (cAss); 2 exs., VI.1919 (cAss); 2 exs., Trenčin, VIII.1921 (NMP). Locality not specified: 1 ex. (NMP).

The known distribution of *G. cuneiformis* is confined to Slovakia and Hungary (ASSING 2005a).

Geostiba (*Sipalotricha*) *arida* (EPPELSHEIM 1871)

Material examined: Montenegro: 11 exs., Kameno, leg. Paganetti (NMP, cAss); 4 exs., Topla, leg. Paganetti (NMP, cAss); 9 exs., Herzeg-Novi, leg. Hilf, Paganetti, Reitter, etc. (NMP); 4 exs., "Boc. di Cattaro", leg Matcha (NMP, cAss); 1 ex., Lovćen mt., IV.1916 (cAss). Bosnia-Herzegovnia: 6 exs., Ravno, leg. Zoufal (NMP, cAss).

The known distribution of the species includes Montenegro and the southern parts of Croatia and Bosnia-Herzegovina (ASSING 2005a).

Geostiba (*Sipalotricha*) *rhodiensis* PACE 1983

Material examined: Turkey: 1 ex., Adana, road Kozan-Feke, 37°41'N, 35°51'E, 775 m, 17.IV.2009, leg. Brachat & Meybohm (cAss); 6 exs., Adana, road Kozan-Mansurlu, 37°35'N, 35°30'E, 500 m, 18.IV.2009, leg. Brachat & Meybohm (cAss).

Geostiba rhodiensis is widespread and common in southern Anatolia and Rhodos. Its distribution is mapped by ASSING (2006).

4. Key to the species of *Geostiba* and *Paraleptusa* of the Eastern Mediterranean, eastwards to the Caucasus region and Iran

The following key includes all the species reported from the study region, except for the doubtful *G. huberi* from Iran. Two further species dubiae from Romania (*G. bernhaueri*) and Georgia (*G. zerchei*) are tentatively incorporated mainly based on geographic information and by inferring certain male secondary sexual characters from closely related species. Since the species of the genus *Paraleptusa* PEYERIMHOFF are highly similar to those of *Geostiba*, they, too, are incorporated.

In most cases, a reliable identification requires an examination of the male primary and especially the secondary sexual characters, the latter of which are the key characters for the subgeneric concept currently in use. The male secondary sexual characters are essential for the identification of species not only of the speciose subgenus *Tropogastrosipalia*, but also of many other species groups. When identifying individual specimens or small

samples, however, it should be taken into account that these characters are subject to considerable intraspecific variation and may be pronounced only in part of the male population. Males with more or less reduced secondary sexual characters are not uncommon.

Since most *Geostiba* species have more or less restricted distributions, geographic information is incorporated in the key in order to facilitate identification.

The references to maps and to illustrations of distinguishing characters in the literature in the key below, as well as references used in the catalogue in the following section are abbreviated as follows: A99 = ASSING (1999), A00a = ASSING (2000a), A00b = ASSING (2000b), A00c = ASSING (2000c), A01a = ASSING (2001a), A01b = ASSING (2001b), A03 = ASSING (2003), A04a = ASSING (2004a), A04b = ASSING (2004b), A05a = ASSING (2005a), A05b = ASSING (2005b), A06 = ASSING (2006), A07 = ASSING (2007), A08 = ASSING (2008), App = ASSING (present paper; used only in the catalogue), P83a = PACE (1983a), P83b = PACE (1983b), P84 = PACE (1984), P90 = PACE (1990), P96 = PACE (1996), P02 = PACE (2002); Z88 = ZERCHE (1988); Z02 = ZERCHE (2002).

1 Mesotarsus four-jointed. Eyes small, but with ommatidia and pigmentation. ♂: elytra and abdominal tergites III-VIII unmodified. Species from Greece. Genus *Paraleptusa* PEYERIMHOFF 2

\- Mesotarsus five-jointed or, if with partly or completely fused fourth and fifth tarsomere, eyes reduced to minute rudiments (without ommatidia and pigmentation). ♂: elytra and abdominal tergites III-VIII often modified. Genus *Geostiba* THOMSON 3

2 Body entirely testaceous. Aedeagus and spermatheca as figured in A00a. Evritania, Oros Timfristós ..... *P. wunderlei* ASSING

\- Body darker, preapical abdominal segments infuscate. Kefallinía ..... *P. graeca* (BERNHAUER)

3 Eyes reduced to minute rudiments, without ommatidia and almost always without pigmentation 4

\- Eyes sometimes small, but always with ommatidia and pigmentation. For two species with barely noticeable ommatidia, predominantly yellowish coloration, and a smooth, oblong, broad median elevation (not a median process at the posterior margin) of the ♂ tergite VII follow this alternative 27

4 Eyes with pigmentation, blackish (Fig. A07: 12). Aedeagus and spermatheca as in Figs A07: 15-17, 22-23. Southern Anatolia: eastern Antalya province (Map A07: 1). Subgenus *Sipalotricha* (partim) ..... *G. atrioculata* ASSING

\- Eyes without pigmentation. 5

5 Colour of body entirely testaceous. Mesotarsus five-jointed or with partly or completely fused fourth and fifth tarsomeres. Species from the Middle East and southern Anatolia 6

\- Colour of body in most species yellowish red to reddish. Species absent from the Middle East and southern Anatolia. Subgenus *Sibiota* (partim) 19

6 Species from southern Anatolia 7

\- Species from the Middle East (Lebanon, Israel). Subgenus *Sibiota* (partim) 18

7 Eye rudiments extremely small, barely noticeable, distinctly oblong, vertical diameter approximately 0.015 mm. ♀: spermatheca highly distinctive, proximal part of capsule short, simple (not twisted or curved), and strongly dilated proximally (Fig. A05b: 73). Kahramanmaraş (Map A05b: 3) ..... *G. excepta* ASSING

\- Eye rudiments less minute, mostly of oval shape. ♀: spermatheca of completely different shape. Subgenus *Sibiota* (partim) 8

8 ♂: abdominal tergite VII modified, with pair of carinae, median tubercle, or spine-like process posteriorly (note: this character may not be present in all the males of a population) 9

- ♂: abdominal tergite VII unmodified..... 17

9 ♂: tergite VII with pronounced long median tubercle, in large males extending approximately from anterior 1/4 of tergite to posterior margin, this tubercle smooth, glossy, and tapering in posterior 1/4 of tergite (Figs A08: 13-14); elytra at suture strongly elevated, forming pronounced and sharp sutural carinae extending over full length of suture, these carinae highest and broadest anteriorly, and decreasing in height and width posteriad (Fig. A08: 11); median lobe of aedeagus with long flagellum in internal sac (Figs A08: 16-18); ♀: spermatheca minute, only 0.08 mm long, capsule with conspicuously short and simply curved duct proximal portion (Fig. A08: 21). Konya: Sultan Dağları ..... *G. sultanica* ASSING

- ♂: tergite VII with pair of carinae, much shorter median tubercle or spine-like process at posterior margin; elytra at suture not strongly elevated; median lobe of aedeagus without long flagellum in internal sac. ♀: spermatheca of different shape. Distribution different..... 10

10 ♂: tergite VII with pair of carinae posteriorly; lateral margins of elytra smoothly curved in cross-section; abdominal tergites III-IV unmodified. Mesotarsus 5-jointed..... 11

- ♂: tergite VII with median tubercle or spine-like process at posterior margin; lateral margins of elytra often sharply edged; tergite III, sometimes also IV, usually with more or less pronounced median elevation or tubercle. Mesotarsus 4- or 5-jointed 12

11 ♂: elytra near suture with pair of more or less circular tubercles shortly behind the middle (Fig. A04: 57); abdominal tergite VII with pair of carinae converging posteriad; median lobe of aedeagus as in Figs A04a: 60-61. ♀: spermatheca as in Fig. A04a: 64. Kahramanmaraş..... *G. tuberosa* ASSING

- ♂: elytra with rather pronounced sutural carinae extending from apex of scutellum almost to posterior elytral margin, punctation somewhat granulose (Fig. 54); carinae on abdominal tergite VII parallel; median lobe of aedeagus as in Fig. 59. ♀: spermatheca as in Fig. 61. S-Hatay ..... *G. carinipennis* nov.sp.

12 ♂: elytra posteriorly with weakly elevated suture, otherwise unmodified; tergite III with rather large, dorsally smooth and shining median elevation in posterior half (Fig. A04a: 77); tergite IV with minute median elevation; posterior margin of tergite VII with stout, short, and erect spine-like median process (Figs A04a: 81-82); median lobe of aedeagus as in Figs A04a: 83-84. ♀: spermathecal capsule with long and twisted proximal portion (Figs A04a: 87-88). Mesotarsomeres IV and V partly fused (Fig. A04a: 80). Gaziantep (Map A04a: 2)..... *G. occaecata* ASSING

- ♂: elytra with pair of tubercles near apex of scutellum (sometimes very small in *G. confusa*, absent in *G. spinosula*), or laterally sharply edged; tergite VII with median process of different shape. Mesotarsomeres IV and V in most species not fused. ♀: proximal portion of spermathecal capsule shorter and usually not twisted. Kahramanmaraş, Osmaniye, and Adana..... 13

13 ♂: elytra with pair of minute circular tubercles near apex of scutellum, lateral margins (mostly) weakly edged in the middle (Fig. A01a: 105); tergite III with more or less extensive, rather weakly pronounced median elevation; tergite VII at posterior margin with or without long and acute, weakly erect median process (Fig. A01a: 104); aedeagus with ventral process of median lobe in lateral view almost straight (Fig. A01a: 98-99). ♀: spermatheca as in Fig. A01a: 101. Mesotarsomeres IV and V partly fused. East of Adana province (Karatepe) (Map A05b: 4) ..... *G. confusa* ASSING

- ♂: elytra usually with pronounced tubercles near apex of scutellum (absent in *G. spinosula*); lateral margins sharply edged. Mesotarsomeres IV and V not fused. Kahramanmaraş, Osmaniye..... 14

14 ♂: elytra without distinct pair of tubercles near scutellum; abdominal tergite VII posteriorly with very short, erect median process of triangular shape (antero-dorsal view); tergite III with pronounced glossy tubercle (Fig. A07: 36), tergite IV with weakly pronounced tubercle; median lobe of aedeagus as in Figs A07: 38-39. ♀: spermathecal capsule with relatively short and simply curved proximal portion (Fig. A07: 42. Osmaniye (Map A07: 1) ..... *G. spinosula* ASSING

\- ♂: elytra with pair of tubercles near apex of scutellum; abdominal tergite VII posteriorly with tubercle or process of different shape. Kahramanmaraş 15

15 ♂: abdominal tergite VII posteriorly with short, stout, and smooth median tubercle (Figs 64-65); tergite III with pronounced, tergite IV with weaker shiny median tubercle (Fig. 64); median lobe of aedeagus as in in Fig. 68. ♀: posterior margin of sternite VIII weakly concave in the middle (Fig. 67); spermatheca as in Fig. 69 .... *G. tuberifera* nov.sp.

\- ♂: abdominal tergite VII posteriorly with spine-like process; tergite III with weakly pronounced median elevation or tubercle 16

16 ♂: elytral tubercles on average smaller, less elevated, more circular, and more shiny (Figs A05b: 57-58); elytral surface more distinctly flattened, usually without distinct impressions and with more pronounced microsculpture; abdominal tergite III with, IV without median elevation; posterior process of tergite VII apically rounded to truncate in lateral view and distinctly convex in cross-section (Fig. A05b: 59); median lobe of aedeagus as in Figs A05b: 62-64. ♀: spermatheca as in Fig. A05b: 66. Distribution: Map A05b: 5. ..... *G. gibbera* ASSING

\- ♂: elytral tubercles more pronounced and of different shape (Figs A05b: 43, 45); elytral disc with extensive shallow impression (Fig. A05b: 43); abdominal tergites III and IV with more or less extensive median elevations with pronounced microsculpture (Fig. A05b: 46); posterior process of tergite VII long, erect, dorso-ventrally flattened, and apically acute (Figs A05b: 47-48); median lobe of aedeagus as in Figs A05b: 50-52. ♀: spermatheca as in Fig. A05b: 54. Distribution: Map A05b: 5 ..... *G. bigibbera* ASSING

17 ♂: elytra unmodified; aedeagus with ventral process of median lobe in lateral view distinctly curved (Figs P83b). ♀: spermatheca as in Fig. A04a: 66. S-Hatay (Map A04a: 2) ..... *G. seleucica* PACE

\- ♂: elytra with distinctly elevated suture, this elevation smooth, broader and higher anteriorly than posteriorly; disc of elytra with extensive impression (Fig. A04a: 68); median lobe of aedeagus as in Figs A04a: 72-73. Kahramanmaraş (Map A05b: 3)..... ..... *G. giaurica* ASSING

18 Species from Lebanon. ♂: elytra and apical abdominal tergites unmodified..... ..... *G. scheerpeltziana* (FAGEL)

\- Species from Israel (Mt. Hermon). ♂: elytra with pronounced (i. e. strongly elevated and extending over full length of suture) sutural carinae; tergites VII and VIII each with pair of carinae near posterior margin. Aedeagus and spermatheca as figured in P84 ..... *G. loebliana* PACE

19 Species from the Caucasus region 20

\- Species from the Balkans 23

20 ♂: elytra with extensive diagonal impressions and with pronounced sutural carinae extending over full length of suture; tergite VII with pair of not very pronounced, but long and posteriorly distinctly converging carinae; median lobe comparatively broad in ventral view (Figs P96: 90-91). ♀: spermathea with relatively long and slender duct (Fig. P96: 94). Georgia: surroundings of Batumi ..... *G. batumiensis* PACE

\- ♂: elytra with less pronounced impressions; tergite VII with shorter carinae. Primary sexual characters and distribution different 21

21 Forebody with pronounced microsculpture. Pronotum slender, not distinctly transverse (Fig. A05a: 181). ♂: elytra with distinct impressions and with pronounced, distinctly elevated sutural carinae extending over full length of suture, these carinae broad anteriorly and rather narrow posteriorly, their dorsal surface smooth, i. e. without aggregations of granula (Fig. A05a: 181); tergite VII

posteriorly with pair of moderately pronounced, posteriorly converging carinae (Fig. A05a: 183); median lobe of aedeagus relatively large and broad in ventral view, internal sac with long and partly somewhat sclerotised flagellum (Figs A05a: 185-186). ♀: spermatheca as in Fig. A05a: 188. Likhskiy Khrebet, N Khashuri, Georgia ..... *G. bituberculata* (EPPELSHEIM)

- Pronotum usually at least weakly (about 1.05 x) transverse. ♂: aedeagus smaller and with shorter flagellum in internal sac. Distribution different 22

22 Species from the central Caucasus. ♂: elytra rather broad and with long sutural carinae extending over full length of suture (Fig. A05a: 202); tergite VII posteriorly with pair of relatively long carinae, these carinae more than half the length of tergite and narrower posteriorly than anteriorly (Fig. A05a: 203); median lobe of aedeagus as in Figs P96: 96-97. ♀: spermatheca as in Fig. P96: 98. Georgia: southern slopes of central Caucasus to the north of Tiflis ..... *G. kobrisensis* PACE

- Species from the eastern Caucasus. ♂: elytra with narrow sutural carinae (especially anteriorly) (Fig. A05a: 189); pair of carinae on tergite VII weakly pronounced, occasionally confluent; median lobe of aedeagus as in Figs A05a: 190. ♀: spermatheca as in Fig. A05a: 192. Daghestan ..... *G. carinicollis* (EPPELSHEIM)

23 ♂: elytra with pronounced - i. e. broad, long, and distinctly elevated - carinae near scutellum (Figs A05a: 174, 176-177) and with shallow impressions; abdominal tergite VII with pair of weakly pronounced carinae in posterior half, separated from each other by about 1/4-1/5 the width of tergite; tergite VIII posteriorly with very sparse pubescence; median lobe of aedeagus rather slender and of distinctive shape in lateral view (Fig. A05a: 178). Southern Montenegro (Map A05a: 10) ..... *G. stussineri* (BERNHAUER)

- ♂: elytra without or with much less pronounced carinae 24

24 Very small species, 1.6-1.8 mm. Body of uniformly testaceous coloration. Eye rudiments minute. ♂: tergite VII unmodified; median lobe of aedeagus as in Figs A01b: 20-21. ♀: spermatheca as in Fig. A01b: 22. SW-Macedonia: Bušova planina ..... *G. excaecata* ASSING

- Larger and usually darker species. Eye rudiments less minute. ♂: tergite VII mostly with pair of carinae 25

25 Eye rudiments slightly larger. ♂: elytra and tergite VII unmodified; median lobe of aedeagus as in Figs A00a: 27-28. ♀: spermatheca with shorter duct (Fig. A00a: 30). SW-Macedonia: Galičica ..... *G. galicicana* ASSING

- Eye rudiments smaller. ♂: elytra and tergite VIII often modified; median lobe of aedeagus smaller. ♀: spermatheca with longer duct 26

26 ♂: median lobe of aedeagus smaller and with more pronounced lateral folds (Figs A01b: 13-14). ♀: spermatheca as in Figs A01b: 16-17. N-Macedonia: Šar planina ..... *G. samai* PACE

- ♂: median lobe of aedeagus larger and with less pronounced lateral folds (Figs A00a: 21-22). ♀: spermatheca as in Fig. A00a: 24. N-Albania ..... *G. sculpticollis* (APFELBECK)

27 ♂: tergite VII at posterior margin with pronounced median tubercle or with distinct spine-like process 28

- ♂: tergite VII at posterior margin unmodified, or with pair of more or less pronounced carinae, or with broad, smooth, oblong median elevation (Fig. A05a: 208), or with sparse granula in posterior half, or with indistinct median tubercle (2 species from the Caucasus and Greece (Taygetos) 113

28 ♂: elytra with very dense granulose punctation, almost mat, and anteriorly each with subcircular tubercle; tergite VII with apically rounded median tubercle (not spine-like process) at hind margin (Fig. A01a: 9); tergite VIII with median pair of short carinae at posterior margin (Fig. A01a: 10); median lobe of aedeagus without cristal process. Subgenus *Geostiba* 29

- ♂: elytra with less dense, though often granulose punctation, more shining, and anteriorly without subcircular elevation (but often with carinae near scutellum); tergite VII in large ♂♂ of most species with distinct process of variable shape,

rarely with oval elevation; tergite VIII unmodified. Median lobe of aedeagus with cristal process. Subgenus *Tropogastrosipalia* (partim) 30

29 On average larger species. Coloration of body usually lighter, pronotum and elytra yellowish to reddish brown. ♂: aedeagus larger, median lobe with base of ventral process in lateral view bulging, and ventral process in ventral view broader (Figs A01a: 1-2). ♀: spermatheca with longer and proximally wider duct (Fig. A01a: 4). Widespread wing-dimorphic species, Palaearctic region; in southern Balkans and Turkey very rare ..... *G. circellaris* (GRAVENHORST)

- On average smaller species, 2.6-3.2 mm. Coloration of body darker, pronotum dark brown to blackish brown, elytra brown. ♂: aedeagus smaller, median lobe with base of ventral process in lateral view straight, and ventral process in ventral view more slender (Figs A01a: 5-6). ♀: spermatheca with shorter and more slender duct (Fig. A01a: 8). Northeastern Anatolia ..... *G. sororcula* ASSING

30 Species from Iran and the Caucasus region (including Armenia, but exclusive of NE-Anatolia) 31

- Distribution different 35

31 Species from Iran 32

- Species from the Caucasus region 34

32 Body small and slender (Fig. 48). ♂: abdominal tergite III with rather large median impression of somewhat semicircular shape (Fig. 48); elytral disc extensively impressed, without sutural carinae or elevations near apex of scutellum; pronotum in the middle of posterior margin weakly pointed (Fig. 49); process of tergite VII short, apically acute, and suberect (Figs 50-51); aedeagus with slender cristal process (Fig. 52). N-Iran: Gilan province ..... *G. impressiventris* nov.sp.

- Body larger and broader (Figs 32, 40, A05a: 80). ♂: abdominal tergite III without median impression; elytra without impressions and with sutural carinae or with pair of elevations composed of dense granula near apex of scutellum. Distribution different 33

33 ♂: elytra at suture with pronounced, distinctly elevated, relatively narrow, and rather long sutural carinae, which are highest near apex of scutellum and gradually slope down posteriad, almost reaching posterior margin (Figs A05a: 81-82); posterior margin of pronotum in the middle indistinctly pointed and with minute shining tubercle (Fig. A05a: 82); abdominal tergite VII with short, weakly erect, and narrow process (Fig. A05a: 83); median lobe of aedeagus as in Figs P83a: 2-3. N-Iran: Mazandaran province ..... *G. sengleti* PACE

- ♂: elytra at anterior half of suture with pair of elevations composed of dense granula; posterior margin of pronotum in the middle distinctly pointed, posterior half of midline usually indistinctly keeled (Figs 33, 41); tergite VII with short and apically acute median process at posterior margin (Figs 34-35, 42-43); aedeagus with cristal process of highly variable shape (Figs 36-38, 46). N-Iran: Mazandaran province ..... *G. sarica* nov.sp.

34 Eyes very small, less than 1/3 the length of postocular region in dorsal view. ♂: pronotum relatively large in relation to head, posterior margin obtusely pointed; tergite VII with short, wide-based, suberect process; median lobe of aedeagus in lateral view with relatively stout cristal process (Figs P96: 57, 61). Georgia: surroundings of Tiflis ..... *G. tiflisensis* PACE

- Eyes larger. ♂: pronotum large in relation to head, in large ♂ distinctly oblong, about 1.10-1.15 times as long as wide, posteriorly distinctly projecting caudad and covering scutellum, posterior margin in the middle with distinct concave excision; elytra with short, narrow, and weakly elevated sutural carinae (Fig. A05a: 71); abdominal tergite VII with rather long, slender, apically acute, suberect process (Figs A05a: 72-73); aedeagus as in Figs P83a: 6-7. Armenia ..... *G. khnzoriani* PACE

35 Species from Ukraine. ♂: pronotum in large ♂ distinctly elongated posteriad, projecting over scutellum, and large in relation to head; posterior margin in ♂ with strongly elongated pronotum weakly concave in the middle, in ♂ with less distinctly modified pronotum more or less truncate to weakly convex; elytra

without distinct sutural carinae, but with carinate lateral margins, these lateral fold highest near posterior margin and somewhat flexed mediad (only in ♂ with pronounced secondary sexual characters) (Figs A05a: 75-76); process of tergite VII moderately long, somewhat flattened, suberect, and apically rounded in antero-dorsal view (Fig. A05a: 77); median lobe of aedeagus with moderately long and slender cristal process. Crimean peninsula..... *G. winkleri* (BERNHAUER)

- Distribution and male sexual characters different 36

36 Species from the Balkans and southeastern Central Europe..... 37

- Species from Turkey 77

37 Species from the region to the north and northwest of Greece and Bulgaria 38

- Species from Greece and Bulgaria 49

38 Species from Romania 39

- Species absent from Romania 40

39 ♂: pronotum (in large ♂) up to 1.40 times as wide as head and about 1.1 times as long as wide; posteriorly sharply convex (not distinctly pointed) and projecting over scutellum (Figs A05a: 13, 15); elytra in anterior half of suture with weakly to distinctly elevated sutural carinae, these carinae narrow and parallel in normal ♂, broader and anteriorly diverging in very large ♂ (Figs A05a: 13, 15); tergite VII at posterior margin with short suberect process, this process apically rounded or obtuse in antero-dorsal view (Figs A05a: 16-17); posterior margin of tergite VIII of variable shape, often in the middle projecting posteriad and with pair of (sometimes fused) tooth-like processes (Figs A05a: 18-21); median lobe of aedeagus with minute and slender cristal process (Figs A05a: 22-23). W- and SW-Romania ..... *G. mihoki* (BERNHAUER)

- Species of doubtful identity from E-Romania. ♂ sexual characters unknown..... *G. bernhaueri* (BREIT)

40 ♂: pronotum (in large ♂) elongated, its posterior margin distinctly truncate or concave in the middle..... 41

- ♂: pronotum (in large ♂) unmodified or elongated, its posterior margin convex or pointed in the middle..... 42

41 Head and pronotum with distinct shine, microsculpture very shallow (Fig. A05a: 36). ♂: pronotum (in large ♂) distinctly oblong, its posterior margin projecting over scutellum, broadly concave, and with pronounced posterior angles; lateral margins in very large ♂ weakly sinuate anterior to posterior angles; lateral margins of elytra more or less distinctly elevated (Fig. A05a: 36); process of segment VII moderately long and distinctly erect, apically acute in antero-dorsal and in lateral view, not flattened dorso-ventrally (Fig. A05a: 37); median lobe of aedeagus with slender and relatively short cristal process (Fig. A05a: 38). NE-Italy, N-Croatia (Map A05a: 3)..... *G. armicollis* (BREIT)

- Pronotal microsculpture more pronounced (Fig. A05a: 62). ♂: posterior margin of pronotum truncate in the middle (Fig. A05a: 62), process of male tergite VII apically obtuse (Figs A05a: 63-64); median lobe of aedeagus as in Fig. A05a: 65. Croatia: Mosor planina (Map A05a: 3) ..... *G. mosorica* ASSING

42 Posterior margin of ♂ pronotum pointed or abruptly convex in the middle 43

- ♂ pronotum posteriorly broadly convex 46

43 ♂ pronotum with posterior margin obtusely or convexly pointed in the middle; elytra without impressions (Fig. A05a: 30), along anterior two thirds of suture with weakly elevated, narrow sutural carinae (Figs A05a: 31-32); process of segment VII distinctly erect, apically acute in antero-dorsal view, and rather flattened dorso-ventrally (Fig. A05a: 33); median lobe of aedeagus with moderately long and slender cristal process (Fig. A05a: 34). N-Serbia: Fruška Gora (Map A05a: 2)..... *G. hummleri* (BERNHAUER)

- ♂ pronotum more distinctly pointed in the middle. Distribution different 44

44 Smaller species, 2.0-2.3 mm. Antennae very short (Fig. A05a: 56). ♂: pronotum approximately as long as wide, moderately projecting caudad over scutellum; elytra

without impressions and with weak sutural carinae near apex of scutellum (Fig. A05a: 54); process of segment VII relatively short, slender, and erect, apically acute both in lateral and in antero-dorsal view (Fig. A05a: 55); aedeagus as in Fig. P90: 8. Croatia, Bosnia-Herzegovina (Map A05a: 4)..... *G. biokovensis* PACE

- On average larger species. Antennae longer and more massive. ♂ sexual characters different.....45

45 ♂: pronotum large in relation to head, in large ♂ moderately oblong, about 1.10 times as long as wide and approximately 1.35 times as wide as head; elytra usually with very shallow extensive impression, along anterior two thirds of suture with moderately elevated narrow sutural carinae (Fig. A05a: 25); process of segment VII distinctly erect, apically convex in antero-dorsal view, and rather flattened dorso-ventrally (Figs A05a: 26-27); median lobe of aedeagus with short and slender cristal process (Fig. A05a: 28). SE-Austria, Slovenia, Croatia (Map A05a: 2)..... *G. spinicollis* (KRAATZ)

- ♂: pronotum very weakly oblong, about 1.05 times as long as wide and approximately 1.20 times as wide as head; elytra without impressions and without sutural carinae (Fig. A05a: 50). Process of tergite VII acute and slender (Figs A05a: 51-52); aedeagus with small and slender cristal process (Fig. A05a: 53). Croatia: Korčula (Map A05a: 4) ..... *G. curzolae* (BERNHAUER)

46 Pronotum without appreciable sexual dimorphism and distinctly (1.3-1.4 x) wider than head; posterior margin broadly convex (Fig. A05a: 57). ♂: elytra in anterior half with short, but distinctly elevated and moderately narrow sutural carinae (Figs A05a: 57-58); process of tergite VII slender, dorso-ventrally somewhat compressed, and apically acute both in lateral and in antero-dorsal view (Figs A05a: 59-60); median lobe of aedeagus with slender cristal process (Fig. P96: 20). Central Albania (Map A05a: 4)..... *G. winkleriana* PACE

- Pronotum with sexual dimorphism. Modifications of ♂ elytra different 47

47 ♂: elytra near scutellum with carinae of distinctive shape and arrangement: anteriorly diverging and at some distance from suture (Fig. P96: 25); pronotum in large ♂ weakly oblong, up to about 1.10 times as long as wide and up to approximately 1.30 times as wide as head; posterior margin of pronotum broadly convex (Fig. P96: 25), in ♂ with very pronounced secondary sexual characters weakly concave in the middle; process of segment VII long and slender, distinctly erect, and apically acute both in lateral and in antero-dorsal view; median lobe of aedeagus as in Fig. A05a: 48. S-Montenegro, NW-Albania (Map A05a: 4)..... *G. spizzana* (BERNHAUER)

- ♂ elytra with carinae of different shape and orientation. Species from Bosnia-Herzegovina 48

48 On average larger species. ♂: pronotum large in relation to head, in large ♂ distinctly oblong, about 1.15 times as long as wide, posterior margin usually moderately convex, rarely slightly concave in the middle; elytra often with extensive transversely diagonal impression, along anterior half of suture with distinctly elevated, but very narrow sutural carinae (Figs A05a: 39-41); process of segment VII distinctly erect, apically acute both in antero-dorsal and in lateral view; aedeagus as in Figs A05a: 42-43 and Fig. P96: 14. Surroundings of Sarajevo (Map A05a: 3)..... *G. apfelbecki* EPPELSHEIM

- Smaller species, 1.8-2.3 mm. Pronotum with less pronounced microsculpture and rather weak sexual dimorphism. ♂: elytra near apex of scutellum with small, weakly defined, indistinct elevation, without distinct carinae and without impressions (Fig. A05a: 44); segment VII posteriorly only with oblong median tubercle, not with erect or suberect process (Fig. A05a: 45); aedeagus with rather massive cristal process (Fig. A05a: 46). Surroundings of Sarajevo (Map A05a: 4)..... *G. paganettiana* (BERNHAUER)

49 Species from Bulgaria 50

- Species from Greece.....53

50 Pronotum without distinct sexual dimorphism, in both sexes about as wide as long.....51

- Pronotum with distinct sexual dimorphism, in large ♂ 1.05-1.10 times as wide as long, about 1.35-1.40 times as wide as head, and with broadly truncate posterior margin partly or completely covering scutellum 52

51 ♂: elytra shallowly impressed and with short, narrow, and moderately elevated sutural carinae extending from apex of scutellum to middle of suture or slightly beyond (Fig. A05a: 66); process of tergite VII relatively short, slender, and apically acute (Figs Z02: 5-6); cristal process of median lobe of aedeagus rather variable (Figs Z02: 11-17). Slavianka range and adjacent parts of Pirin (Map A05a: 5) ..... *G. slaviankaensis* ZERCHE

- ♂: elytra with sutural carinae even shorter and less distinctly elevated, anteriorly usually not reaching scutellar apex (Fig. A05a: 67); process of tergite VII shorter, even in specimens with fully developed ♂ secondary sexual characters (Figs Z02: 27-28); median lobe of aedeagus with very slender cristal process (Figs Z02: 21-22). SW-Bulgaria: Ossogovska planina (Map A05a: 5) ..... *G. ossogovskensis* ZERCHE

52 ♂: posterior margin of pronotum broadly convex; elytra with more or less diagonal impressions, with posteriorly somewhat elevated lateral margins, and with short sutural carinae extending from scutellar apex to middle of suture or slightly beyond (Figs A05a: 68-69); process of tergite VII rather short and stout (Figs Z02: 31-32); median lobe of aedeagus with straight and moderately stout cristal process (Figs Z02: 37-38). SW-Bulgaria: Maleshevska planina (Map A05a: 5) ..... *G. ilievi* ZERCHE

- ♂: posterior margin of pronotum weakly concave and with more pronounced posterior angles; elytra with similar modifications, but punctation denser and on average more distinctly granulose (Fig. A05a: 70); process of tergite VII similarly short, but apically acute (Figs Z02: 41-42); median lobe of aedeagus with more slender cristal process (Figs Z02: 47-48). SW-Bulgaria: Belasiza planina (Map A05a: 5) ..... *G. belasizaensis* ZERCHE

53 Species from the Pelopónnisos 54

- Species absent from the Pelopónnisos 61

54 ♂: anterior abdominal tergites III, III-IV, or III-V modified, i. e. with median tubercle, keel, or impression either in anterior transverse impression or in posterior half. (These modifications are occasionally indistinct especially in smaller ♂.) 55

- ♂: anterior abdominal tergites unmodified 60

55 Pronotum with pronounced sexual dimorphism, i. e. in ♂ posteriorly distinctly tapering, elongated and (in normal position) covering most or all of scutellum 56

- Pronotum with weak sexual dimorphism, in ♂ not distinctly elongated posteriorly; scutellum visible 58

56 ♂: elytra with aggregation of granula or small tubercle near apex of scutellum, lateral margins in or near the middle elevated, almost folded; tergite III with transverse or crescent-shaped median impression near hind margin 57

- ♂: elytra with deep subcircular impressions, without granula or tubercle near apex of scutellum, lateral margins unmodified; tergites III and IV with round or oblong median tubercle in anterior impression, that of tergite IV often indistinct; aedeagus as in Figs A99: 130-131. Parnon Oros (SE-Pelopónnisos) ..... *G. parnoniensis* ASSING

57 Larger species. ♂: pronotum 0.45 mm wide and 0.54 mm long, more strongly elongated posteriorly (ca. 1.18 x as long as wide); aedeagus with cristal process as in Fig. A99: 153. Taygetos (SW-Pelopónnisos) ..... *G. taygetana* (BERNHAUER)

- Smaller species. ♂: pronotum in larger specimens 0.40-0.42 mm wide and 0.44-0.47 mm long, less strongly elongated posteriorly (1.10-1.15 x as long as wide); aedeagus with cristal process as in Figs A99: 137-140. Erimanthos (NW-Pelopónnisos) ..... *G. zercheana* ASSING

58 ♂: elytra with longitudinal tubercle near apex of scutellum, deeply and extensively impressed; tergites III and IV with smooth central elevation in anterior impression, that of tergite IV often very indistinct; aedeagus as in Figs A99: 121-124. Killini (N-Pelopónnisos) ..... *G. killiniensis* ASSING

- ♂: elytra without tubercle near apex of scutellum; primary and secondary sexual characters different. Species absent from the Killini range 59

59 ♂: tergites III-IV with median keel, tergite V with weak median elevation in anterior impression; process of tergite VII more slender (Figs A99: 119-120); aedeagus as in Figs A99: 113-115. Menalon Oros ..... *G. menalonensis* ASSING

\- ♂: tergites III-V with subcircular or oval median elevation in anterior impression, those of tergites IV and V often indistinct; process of tergite VII in antero-dorsal view broader (Fig. A99: 112); aedeagus as in Figs A99: 104-107. Aroania, Panahaiko (N-Pelopónnisos) ..... *G. meschniggiana* (BERNHAUER)

60 ♂: elytra with long sutural carina; process of tergite VII and aedeagus as in Figs A99: 98-99, 102-103. Taygetos (S-Pelopónnisos) ..... *G. meschniggi* PACE

\- ♂: elytra with weak to moderately long sutural carina; process of tergite VII and aedeagus as in Figs A99: 146-148, 151-152. Erimanthos (NW-Pelopónnisos)..... ..... *G. acifera* ASSING

61 Species from Evvoia.....62

\- Species from mainland Greece.....63

62 Large species, width of pronotum > 0.4 mm. ♂: elytra with extensive and deep impressions; process of tergite VII and aedeagus as in Figs A99: 71-74. Likhás peninsula (NW-Evvoia)..... *G. aculeata* (COIFFAIT)

\- Small species, width of pronotum < 0.4 mm. ♂: elytra weakly impressed; process of tergite VII often more or less reduced; cristal process of aedeagus very thin (Figs A99: 77-78). Dirfys Oros (central Evvoia)..... *G. matsakisi* (COIFFAIT)

63 ♂: abdominal tergites III-IV modified, i. e., with median elevation either in or just behind anterior transverse impression. (These modifications are occasionally indistinct especially in smaller ♂.).....64

\- ♂: anterior abdominal tergites unmodified. (Extremely weak, barely noticeable median elevations may be present in *G. siculifera* from the Pangéo.) 66

64 Shape of pronotum with moderate sexual dimorphism, hind margin more convex. ♂: elytra without sutural carina, dorsal surface with weak impression; tergites III and IV with subcircular tubercle behind anterior impression; process of tergite VII shorter (Figs A99 16-17); cristal process of aedeagus of characteristic shape (Fig.A99: 13). Pilion Oros (Thessalía) ..... *G. moczarskii* (SCHEERPELTZ)

\- Shape of pronotum with weak sexual dimorphism. ♂: elytra with sutural carina and distinct impression; tergites III and IV with oval or circular median elevation in anterior impression; tergite VII (in large ♂♂) with longer process. Distribution different.....65

65 ♂: elytra in large ♂ longer, but less strongly projecting sutural carina; tergites III and IV with oblong median elevation in anterior impression; process of tergite VII and aedeagus as in Figs A99: 1-4, 8-9. Makedhonía, Thessalía, Ipiros..... ..... *G. armata* (EPPELSHEIM)

\- ♂: elytra with shorter, but more strongly projecting sutural carina; tergites III and IV with subcircular median elevation in anterior impression; process of tergite VII and aedeagus as in Figs A99: 28-29, 32-33. Pangéo (NE-Greece); one doubtful record also from the Athos peninsula..... *G. pangeoensis* ASSING

66 Head and pronotum with extremely weak microsculpture and very shiny. ♂: elytra without carina, tubercle or elevation at suture, but with fold-like elevations near postero-lateral angles; process of tergite VII long and acute (Figs A99: 87-88); aedeagus as in Figs A99: 82-83. Vermion (Makedhonía) ..... *G. vermionensis* ASSING

\- Head and pronotum with less shine. ♂: elytra with carina, tubercle or elevation at suture, postero-lateral angles unmodified. Primary sexual characters and distribution different.....67

67 Pronotum with pronounced sexual dimorphism, in ♂ distinctly tapering and elongated posteriorly, in normal position covering most or all of scutellum (large ♂!).....68

\- Pronotum with weak sexual dimorphism, in ♂ not distinctly tapering and elongated posteriorly, scutellum visible 72

68 ♂: posterior margin of pronotum concave in the middle (large ♂) 69

\- ♂: posterior margin of pronotum not concave 70

69 ♂: posterior concavity of pronotum shallower and narrower; pronotum more strongly tapering posteriorly; process of tergite VII more narrow-based (antero-dorsal view); aedeagus as in Figs A99: 63-64. Pilion Oros (Thessalía)..... *G. pauli* ASSING

\- ♂: posterior concavity of pronotum deeper and broader; pronotum less strongly tapering posteriorly (Fig. A01b: 12); process of tergite VII more wide-based in antero-dorsal view (Fig. A01b: 6); aedeagus as in Figs A01b: 1-2. Thessalía: Oros Othris..... *G. othrisensis* ASSING

70 Species known from eastern Evritania and western Fthiotis. ♂: posterior margin of pronotum obtusely angled in the middle (Fig. A00a: 6); process of tergite VII more slender; aedeagus as in Figs A00a: 1-2 ..... *G. obtusicollis* ASSING

\- Species from northeastern Greece. ♂: posterior margin of pronotum not angled, but rounded in the middle; process of tergite VII broader.....71

71 ♂: elytra with short tubercle at some distance behind apex of scutellum; process of tergite VII apically rounded in antero-dorsal view (Fig. A99: 41); aedeagus with cristal process of distinctive shape (Figs A99: 35, 37). Pangéo ..... *G. siculifera* ASSING

\- ♂: elytra with long sutural carinae; process of tergite VII apically acute in antero-dorsal view (large ♂!) (Fig. A99: 51); aedeagus with cristal process of different shape (Figs A99: 44, 46). Falakró ..... *G. falakroensis* ASSING

72 ♂: elytra with short sutural carinae or indistinct elevations near apex of scutellum 73

\- ♂: elytra with pronounced sutural carinae extending almost to posterior margin of elytra 76

73 ♂: process of tergite VII in large ♂ shorter (e. g., Figs A06: 68-69); cristal process of aedeagus short and slender. Species from northeastern Greece 74

\- ♂: process of tergite VII in large ♂ longer and more erect (e. g., Figs A04b: 45-46); cristal process of aedeagus larger. Species from northwestern or central Greece 75

74 ♂: process of tergite VII in antero-dorsal view slender and apically rather acute (Figs A99: 59-60); elytra with relatively dense and not particularly coarse punctation, and with more slender and less abruptly elevated carina near apex of scutellum; aedeagus as in Figs A99: 53-56. Menikio, Vrontóus (NE-Greece)..... ..... *G. menikioensis* ASSING

\- ♂: process of tergite VII in antero-dorsal view broader and apically rounded (Figs A06: 68-69); elytra with sparser, coarse, and somewhat granulose punctation; sutural carinae near apex of scutellum abruptly elevated and relatively broad (Figs A06: 65, 67); median lobe of aedeagus as in Fig. A06: 70. Chalkidiki..... ..... *G. calcidica* ASSING

75 ♂: aedeagus with larger cristal process (Figs A99: 20, 22). Ipiros: Xerovuni Oros..... ..... *G. xerovuniana* (SCHEERPELTZ)

\- ♂: aedeagus with more slender cristal process (Fig. A04b: 48). Thessalia: Ossa Oros..... *G. ossaica* ASSING

76 ♂: process of tergite VII very long, not distinctly erect, almost horizontally projecting caudad (Figs A00a: 11-12); sutural carinae long and broad, not closer to apex of scutellum than to posterior elytral margin; aedeagus as in Figs A00a: 7-8. Northern Greece (Flórina, Kozani) ..... *G. torisuturalis* ASSING

\- ♂: process of tergite VII distinctly erect; sutural carinae shorter and narrower, closer to apex of scutellum than to posterior elytral margin; aedeagus as in Figs A99: 91-93. Fthiótis, Fokis (Map A01b: 1)..... *G. itiensis* ASSING

77 ♂: posterior margin of pronotum broadly truncate or (broadly or narrowly) concave in the middle (large ♂). (Note that in small ♂ of *G. kastamonuensis*, a species with a distinctive cristal process of the median lobe of the aedeagus, the pronotal hind margin is smoothly convex.) 78

\- ♂: posterior margin of pronotum weakly to distinctly pointed or smoothly convex, not truncate or concave. For one species from central southern Anatolia with enormous sutural carinae and without appreciable sexual dimorphism of the pronotum, in which the pronotal hind margin is of intermediate and variable condition (*G. lunata*), follow this alternative 91

78 ♂: abdominal tergites III and/or IV each with smooth subcircular tubercle near anterior impression. (*G. biformis*, in which tergites III and IV may or may not have indistinct tubercles, will key out in both alternatives.) 79

- ♂: abdominal tergites III and IV unmodified 84

79 ♂: pronotum (even in large ♂) approximately as wide as long or weakly oblong, at most approximately 1.05 times as long as wide, posterior margin weakly projecting posteriad 80

- ♂: pronotum (in large ♂) distinctly oblong, approximately 1.1 times as long as broad or longer, posterior margin distinctly projecting posteriad 82

80 ♂: tubercles on tergites III and IV minute, almost indistinct (Fig. A06: 58); elytra with short and weakly elevated sutural carinae (Figs A: 55, 57); process of tergite VII stout, short, erect, and apically rounded in antero-dorsal view (Figs A06: 59-60); median lobe of aedeagus as in Fig. A06: 61. Western Anatolia (Muğla, W-Denizli) (Map A06: 3). ..... *G. biformis* ASSING

- ♂: tubercles on abdominal tergites III and IV more distinct; elytra with sutural carinae longer and/or more elevated. Species from eastern and northeastern Anatolia 81

81 Eyes larger, approximately half the length of postocular region in dorsal view or nearly so (Fig. A01a: 44). Pronotum with shallow microsculpture, more glossy; ♂: elytra with sutural carinae longer, reaching well beyond middle of suture; posterior margin of pronotum indistinctly concave to smoothly convex, margins between this concavity and posterior angles sinuate, i. e., pronotum posteriorly more abruptly tapering (Fig. A01a: 44); tubercles on tergites III-IV more pronounced and with somewhat more shine than surrounding area; process of tergite VII broad-based and apically acute (i. e., of triangular shape) in antero-dorsal view (Fig. A01a: 43); median lobe of aedeagus with more slender cristal process (Figs A01a: 40-41). Bitlis ..... *G. bitlisensis* ASSING

- Eyes smaller (Fig. A06: 21), approximately one third the length of postocular region in dorsal view. Pronotum with more pronounced microsculpture and subdued shine. ♂: posterior margin of pronotum usually broadly concave, margins between this concavity and posterior angles straight, i. e., pronotum posteriorly gradually tapering (Fig. A06: 22); tubercles on tergites III-IV less pronounced and not more glossy than surrounding area; process of tergite VII more slender, with almost parallel sides, and apically rounded in antero-dorsal view (Fig. A06: 25); median lobe of aedeagus with slightly stouter cristal process (Fig. A06: 27). Erzurum: Mescit Dağları (Map A06: 4) ..... *G. solodovnikovi* ASSING

82 ♂: pronotum gradually tapering posteriad, i.e., lateral margins regularly converging, not sinuate near posterior angles (Fig. 9); process of tergite VII short, acute, and suberect (Fig. 11); elytra with short and weakly elevated sutural carinae in anterior half, postero-laterally with oblique impressions, punctation distinctly granulose (Fig. 9); median lobe of aedeagus as in Fig. 13. ♀: spermatheca with proximal portion of capsule conspicuously transparent (Fig. 14). Kastamonu: Karyatağı Dağı ..... *G. heliophila* nov.sp.

- ♂: pronotum abruptly narrowed posteriad, lateral margin at least weakly sinuate near posterior angles; process of tergite VII longer, more erect, and distinctly stouter. Species from southern Anatolia 83

83 Pronotum with pronounced microsculpture; abdomen with very fine and sparse punctation. ♂: pronotum posteriorly with less distinctly sinuate lateral margins and with more broadly concave posterior margin; elytra with short sutural carinae (Fig. A00b: 10); process of tergite VII erect, less stout, and apically more acute; aedeagus as in Figs A00b: 11-12. Antalya ..... *G. brachati* ASSING

- Pronotum with shallow microsculpture and more shine; punctation of abdomen less sparse and less fine. ♂: pronotum posteriorly with more distinctly sinuate lateral margins and with more narrowly concave posterior margin; elytra with long sutural carinae reaching well beyong the middle of suture (Figs A05b: 9-10); process of tergite VII stout, less erect, and apically rounded in antero-dorsal view (Fig. A05b: 11); median lobe of aedeagus as in Fig. A05b: 12. N-Adana: Dibek Dağları (Map A05b: 1). ..... *G. dibekiana* ASSING

84 ♂: elytra without sutural carinae, at most with indistinct tubercles near apex of scutellum, lateral margins posteriorly with sharp carinae; pronotum approximately as wide as long, very weakly oblong at most 85

- ♂: elytra with sutural carinae, lateral margins in some species bulging, but without sharp carinae 86

85 ♂: pronotum with lateral margins distinctly sinuate near posterior angles, posterior margin broadly truncate; elytra without tubercles near apex of scutellum, carinae at lateral margins straight, not distinctly oblique, punctation sparse and distinctly granulose (Fig. 2); spine-like process of tergite VII apically acute (lateral view) and semi-erect (Fig. 5); median lobe of aedeagus as in Fig. 6. Kastamonu: Geçmiş Dağı .... *G. gecmisica* nov.sp.

- ♂: pronotum with lateral margins regularly convex or straight, not sinuate near posterior angles, with truncate or indistinctly concave posterior margin (Fig. A06: 72); elytra with indistinct tubercles near apex of scutellum, lateral carinae oblique; process of tergite VII in antero-dorsal view slender and apically somewhat acute, in lateral view rather massive (Figs A06: 74-75); median lobe of aedeagus as in Fig. A06: 76. Ankara: Elma Dağı (Map A06: 4) ..... *G. elmaica* ASSING

86 ♂: pronotum (in large ♂) distinctly oblong, more or less extensively depressed, strongly projecting posteriorly, and with broadly and distinctly concave hind margin (Fig. P83b: 1); elytra with distinctly elevated (bulging) lateral margins and short sutural carinae; process of tergite VII wide-based, apically rounded, and in lateral view rather slender; aedeagus: Figs P83b: 2-3. Southern Anatolia: Konya..... ..... *G. iconiensis* PACE

- ♂: pronotum not depressed, either less oblong, or with posterior margin of different shape, or elytra with long sutural carinae. Distribution different 87

87 ♂: pronotum (in large ♂) more oblong (up to 1.25 times as long as wide) and more strongly projecting posteriorly (Fig. A06: 46); elytra with more strongly elevated and long sutural carina extending to posterior elytra margin (or nearly so), with pronounced oblique impressions posteriorly, and with coarser and more distinctly granulose punctation (Figs A06: 46, 48); process of tergite VII and median lobe of aedeagus as in Figs A06: 49-51. West Anatolia (Aydın): Aydın Dağları (Map A06: 3) ..... *G. aydinica* ASSING

- ♂: pronotum much less oblong and less strongly projecting posteriorly; elytra with shorter and less elevated sutural carinae not reaching posterior elytral margin, impressions, if present, shallower 88

88 ♂: pronotum less strongly tapering posteriad, posterior margin broad, weakly concave to truncate. Northwestern Turkey, western Anatolia..... 89

- ♂: pronotum strongly tapering posteriad, posterior margin narrow and usually distinctly concave. Northern and northeastern Antatolia 90

89 ♂: pronotum with lateral margins distinctly sinuate near posterior angles (Fig. A06: 55); elytra with weakly pronounced (i. e., weakly elevated) sutural carina (Figs 55, 57); process of abdominal tergite VII short and stout (Figs A06: 59-60); median lobe of aedeagus as in Fig. A06: 61. West Anatolia: Muğla, W-Denizli (Map A06: 3) ..... *G. biformis* ASSING

- ♂: pronotum with lateral margins straight, not distinctly concave near posterior angles; process of tergite VII more slender and apically more acute; aedeagus with cristal process of median lobe very short and thin. Istanbul ..... *G. turcica* (BERNHAUER)

90 ♂: pronotum relatively larger, shaped as in Fig. A00b: 1; elytra with relatively long sutural carinae reaching well beyond middle of suture; process of tergite VII in antero-dorsal view slender and apically rounded, almost acute, in lateral view more massive (Figs A00b: 3-4); aedeagus with cristal process of median lobe of characteristic shape (Figs A00b: 2, P83b: 25-26). Kastamonu: Ilgaz Dağları..... ..... *G. kastamonuensis* PACE

- ♂: pronotum relative less massive, shaped as in Fig. A01a: 14; process of tergite VII wide-based and apically rounded or obtuse (Fig. A01a: 19); cristal process of aedeagus shaped as in Figs A01a: 12-13. Artvin..... *G. artvinensis* ASSING

91 ♂: abdominal tergites III-IV or III-V each with median tubercle 92

- ♂: tergites III-V unmodified; for three species from Hatay, Gaziantep and Kahramanmaraş with very indistinct and ill-delimited elevations on tergites (III-)IV follow this alternative.....94

92 ♂: abdominal tergite III with tubercle at posterior margin and tergite IV with median tubercle; elytra with pronounced impression and with very dense and coarsely granulose punctation (Fig. A01a: 32); aedeagus with stouter cristal process (Figs A01a: 27-28). ♀: elytra with shallow impression and with dense and distinctly granulose punctation (but less so than in ♂). Central southern Anatolia (Mersin) .... *G. granulipennis* ASSING

- ♂: abdominal tergite IV with median tubercle near anterior impression (additional tubercles may be present on tergites III and V); elytra with sparser and less distinctly granulose punctation; aedeagus with more slender cristal process.....93

93 ♂: abdominal tergites III-V with tubercles; process of tergite VII wide-based and short (Fig. P96: 49); elytra with sparser punctation; median lobe of aedeagus at base of ventral process not strongly excavate in lateral view; cristal process slightly bent dorsad (Figs P96: 50-51). Northeastern Anatolia (Rize) .....*G. pontica* PACE

- ♂: abdominal tergites III-IV with tubercles; process of tergite VII long and slender (Fig. A01a: 38); elytra with denser and distinctly granulose punctation; median lobe of aedeagus larger, at base of ventral process strongly excavate in lateral view; cristal process very slender (Figs A01a: 33-34). Central southern Anatolia (Mersin). (Similar to this species is *G. marasica* from Kahramanmaraş with sometimes weakly modified tergites III-IV; see couplet 111).....*G. balkarensis* ASSING

94 ♂: tergite VII posteriorly only with oval tubercle, without distinct process; cristal process of median lobe of aedeagus long and thin (Figs A03: 13-14). Muğla: Ak Dağlar.....*G. cingarae* ASSING

- ♂: tergite VII (in large ♂) posteriorly with process; cristal process of aedeagus of different shape. Distribution different 95

95 ♂: elytra with fold-like elevation or tubercle near posterior angles, or with bulging lateral margins.....96

- ♂: elytra without fold-like elevation or tubercle, lateral margins not bulging.....101

96 Pronotum without, or with weakly pronounced sexual dimorphism (up to 1.15 times as long as wide, posterior margin broadly convex) in large males, posterior margin more or less distinctly convex (Figs 2, 30, 37). Western Anatolia.....97

- Pronotum with more pronounced sexual dimorphism, either distinctly elongated posteriorly (and covering scutellum) or posterior margin pointed in the middle. Southern Anatolia (Antalya, Mersin) 99

97 ♂: process of tergite VII short, stout, and apically obtuse (Figs A06: 41-42); aedeagus with larger cristal process (Fig. A06: 43). Muğla: Oyuklu Dağı (Map A06: 3) ..... *G. renneri* ASSING

- ♂: process of tergite VII long, slender, and apically acute (Figs A06: 5, 32); median lobe of aedeagus with smaller and more slender cristal process (Figs A06: 8-9, 33). Distribution different.....98

98 Pronotum without appreciable sexual dimorphism (Fig. A06: 2). ♂: carina in posterior angles of elytra narrow and not covered with coarse granula (Figs A06: 2, 4); process of tergite VII more erect (Fig. A06: 5). Izmir: Nif Dağı (Map A06: 3) .... *G. nifica* ASSING

- ♂: pronotum in large ♂ weakly oblong (Fig. A06: 30); carina in posterior angles of elytra broader, or more irregular shape, and usually with more or less coarse granula (Figs A06: 30-31); process of tergite VII less erect (Fig. A06: 32). Manisa: Karadağ (Spil Dağ) (Map A06: 3).....*G. atromontis* ASSING

99 Forebody very shiny; microsculpture almost obsolete. ♂: pronotum posteriorly distinctly pointed, but only weakly projecting (Fig. A00b: 5); elytra with shallower impressions and with sutural carinae near apex of scutellum (Fig. A00b: 5); process of tergite VII in antero-dorsal view wide-based and of triangular shape; aedeagus: Figs A00b: 6-7. W-Mersin, north of Anamur.....*G. taseliensis* ASSING

- Forebody with distinct microsculpture. ♂: pronotum (in large ♂) distinctly oblong and posteriorly projecting over scutellum; elytra, including suture, deeply impressed 100

100 ♂: middle of posterior margin of pronotum not bent ventrad; elytra with sutural carina and with broadly bulging lateral margins (Fig. A03: 1); process of tergite VII as in Figs A03: 2-3; cristal process of median lobe of aedeagus short and thin (Fig. A03: 4). E-Antalya, surroundings of Akseki ..... *G. attaleensis* PACE

- ♂: middle of posterior margin of pronotum bent ventrad (Fig. A01a: 26); elytra without sutural carinae near apex of scutellum, lateral margins with long sinuate folds (Fig. A01a: 26); aedeagus with longer cristal process (Figs A01a: 20-21). Mersin, Akçeli Dağları ..... *G. akceliensis* ASSING

101 ♂: elytra with enormous, in lateral view crescent-shaped sutural carinae 102

- ♂: elytra near apex of scutellum only with tubercles, or with short or with weakly elevated sutural carinae 104

102 ♂: elytra with sutural carinae in lateral view abruptly sloping down posteriorly (Figs A04a: 28-29) ; process of tergite VII as in Fig. A04a: 30; aedeagus as in Fig. A04a: 33. Gaziantep: Kartal Dağı ..... *G. kartalana* ASSING

- ♂: elytra with sutural carinae evenly and smoothly rounded posteriorly 103

103 ♂: elytra with sutural carinae extending from apex of scutellum to posterior elytral margin (or nearly so) (Fig. A01a: 50); process of tergite VII almost vertically erect, very long and apically acute (Fig. A01a: 49); aedeagus as in Figs A01a: 45-46. Mersin ..... *G. lunata* ASSING

- ♂: elytra with sutural carinae not reaching posterior elytral margin (Figs A04a: 16-17); process of tergite VII as in Figs A04a: 18-20; aedeagus as in Fig. A04a: 23. Gaziantep: Northern Nur Dağları ..... *G. sinuosa* ASSING

104 Eyes very small, less than 1/3 the length of postocular region in dorsal view (Fig. A06: 80). ♂: elytra with long sutural carinae; elytra with long (but weakly elevated) sutural carinae; median lobe of aedeagus with needle-shaped cristal process (Fig. A06: 83). Northeastern Anatolia: Gümüşhane (Map A06: 4) ..... *G. priva* ASSING

- Eyes more than 1/3 the length of postocular region in dorsal view. ♂: elytra without or with short sutural carinae. Distribution different 105

105 Larger species; pronotum without appreciable sexual dimorphism. ♂: process of tergite VII short and very weakly erect; aedeagus with cristal process of median lobe extremely short. Facies and aedeagus: Figs P83b. Northwestern Turkey (Istanbul) ..... *G. arganthonia* PACE

- Smaller and more slender species; pronotum with or without weak sexual dimorphism. ♂: process of tergite VII either hook-shaped or longer and at least sub-erect; aedeagus with cristal process of median lobe of different shape. Distribution different 106

106 Pronotum with weak to moderate sexual dimorphism. ♂: pronotum obtusely pointed or abruptly convex posteriorly; process of tergite VII not hook-shaped 107

- Pronotum without sexual dimorphism. ♂: posterior margin of pronotum broadly and weakly convex (Figs 26, A03: 5) 111

107 ♂: pronotum with posterior margin convex in the middle; elytra with short and rather weakly elevated sutural carinae in anterior half, postero-laterally with oblique impressions (Fig. 17); process of tergite VII moderately long, slender and apically rounded in antero-dorsal view, broad-based and apically acute in lateral view (Fig. 20); median lobe of aedeagus with broad dagger-shaped cristal process (Fig. 21). Kastamonu: Hasan Dağı ..... *G. hasanica* nov.sp.

- ♂: pronotum with posterior margin (in *G. nemrutica* indistinctly) pointed in the middle. Southern Anatolia 108

108 ♂: elytra with long sutural carinae reaching well beyond middle of suture (Figs A07: 2, 4); pronotum posteriorly sharply pointed (Fig. A07: 2); process of abdominal tergite VII relatively short and stout, apically rounded in antero-dorsal view (Figs A07: 5-6); median lobe of aedeagus as in Fig. A07: 7. Eastern Antalya (Map A07: 1) ..... *G. janbellini* ASSING

- ♂: elytra with tubercles near scutellum or with short sutural carina not reaching beyond middle of suture; pronotum often less sharply pointed; process of tergite VII often long, slender, and apically acute. Central southern Anatolia 109

109 ♂: process of tergite VII conspicuously long, slender, and apically acute (shaped like a sharp spine); elytra with pair of small, weakly elevated tubercles (not carinae) near apex of scutellum separated by distance approximately equal to their diameter; elytral disc not impressed. Facies and aedeagus: Figs P83b: 12-14. S-Hatay .... *G. simulans* PACE

- ♂: process of tergite VII shorter, less slender, and apically less acute; elytra with short sutural carinae near apex of scutellum, disc at least shallowly impressed. Distribution different.....110

110 ♂: posterior margin of pronotum very weakly pointed in the middle (Fig. A05b: 2); sutural carinae less pronounced, shorter and less elevated (Figs A05b: 2-3); process of tergite VII and median lobe of aedeagus as in Figs A05b: 4-5. Adıyaman: Nemrut Dağı (Map A05b: 1)..... *G. nemrutica* ASSING

- ♂: posterior margin of pronotum more distinctly pointed in the middle; sutural carinae more pronounced, longer and more distinctly elevated (Fig. A04a: 36); process of tergite VII and median lobe of aedeagus as in Figs A04a: 36-38. Kahramanmaraş (Map A05b: 1)..... *G. marasica* ASSING

111 ♂: elytra with pair of erect tubercles (not carinae) near apex of scutellum (Fig. 26); process of tergite VII long, slender, acute, and remarkably erect (Fig. 29); median lobe of aedeagus with very slender cristal process (Fig. 30). W-Hatay: Kızıl Dağı..... ..... *G. erecta* nov.sp.

- ♂: elytra with sutural carinae; process of tergite VII relatively short, in lateral view hook-shaped 112

112 ♂: elytra with short sutural carinae (Figs A03: 5-6); process of tergite VII relatively short, in lateral view hook-shaped and in antero-dorsal view broadly triangular (Figs A03: 7-8); median lobe of aedeagus as in Fig. A03: 9. Hatay: Southern Nur Dağları..... *G. hamata* ASSING

- ♂: elytra with more slender and tightly contiguous sutural carinae in dorsal view (Figs A04a: 6-7); process of tergite VII much more slender (andero-dorsal view) and dorso-ventrally not flattened (Figs A04a: 8-9); aedeagus as in Fig. A04a: 12. Kahramanmaraş (Map A05b: 1)..... *G. aduncа* ASSING

113 ♂: tergite VII near hind margin with pair of longitudinal carinae or impressions 114

- ♂: tergite VII unmodified, or with sparse granula in posterior half, or with distinct oblong median elevation, or with small subcircular median granulum near posterior margin; elytra unmodified, or on either side of suture weakly elevated and with dense, coarsely granulose punctation 133

114 Pronotum with pronounced sexual dimorphism. ♂: pronotum large and oblong, in large ♂ at least 1.10 times as long as wide; median lobe of aedeagus with cristal process (e. g. Figs 36-38). ♀: posterior margin of sternite VIII with very weakly modified marginal setae; spermatheca similar to those illustrated in Figs 7, 14, 22. Subgenus *Tropogastrosipalia* (partim).....115

- ♂: pronotum not oblong; median lobe of aedeagus without cristal process. ♀: posterior margin of sternite VIII usually with distinctly modified marginal setae; spermatheca of different morphology. Subgenus *Sibiota* (partim).....116

115 Eyes usually approximately half the length of postocular region in dorsal view, but occasionally distinctly smaller, always with clearly more than 20 ommatidia (Fig. A05a: 2-3). ♂: pronotum (in large ♂) up to 1.20-1.25 times as wide as head and distinctly elongated, up to 1.20 times as long as wide and projecting over scutellum, posterior margin weakly convex to almost truncate (Fig. A05a: 2); elytra often with more or less pronounced transverse impression, and in anterior two thirds of suture with distinctly elevated sutural carina of characteristic shape (lateral view) (Figs A05a: 2, 4); tergite VII in posterior half with pair of posteriorly converging carinae (Fig. A05a: 5); tergite VIII near hind margin generally with rudiments of such carinae (Fig. A05a: 6), in large ♂ usually projecting beyond posterior margin in the

form of minute dents; median lobe of aedeagus with relatively large spear-shaped cristal process (Fig. 7). Slovakia, Hungary (Map A05a: 2) ..... *G. chyzeri* (EPPELSHEIM)

- Eyes strongly reduced, composed of about 15 ommatidia. ♂: pronotum approximately 1.10-1.15 times as long as wide, posterior margin broadly convex (Fig. A05a: 9); elytra near apex of scutellum with weakly pronounced, narrow sutural carina; tergite VII in posterior half with pair of diagonal (posteriorly converging!), weakly pronounced carinae; aedeagus as in Figs P90: 29. Bulgaria: northern Rodope mountains ..... *G. rodopensis* PACE

116 Eyes larger, composed of distinctly more than 20 ommatidia. ♂: elytra with or without short, weakly pronounced carinae near scutellum 117

- Eyes of reduced size, composed of less than 20 ommatidia (e. g., Fig. A05a: 195). ♂: elytra otherwise modified, carinae usually longer and more pronounced; carinae of tergite VII in most species longer and/or converging posteriad; aedeagus of different morphology 119

117 Coloration of body dark, brown to dark-brown. Eyes relatively large, slightly more than half the length of postocular region in dorsal view. Elytra more than 0.7 times as long as pronotum (Figs A05a: 168-169). ♂: elytra without sutural carinae, with dense and coarsely granulose punctation especially near suture (Figs A05a: 168-169); tergite VII in posterior half with pair of straight and conspicuously parallel carinae, the latter not reaching the middle of tergite (Fig. A05a: 170); aedeagus as in Figs P83A: 39-41. Bosnia-Herzegovina, Croatia (Map A05a: 10) ..... *G. zoufali* (RAMBOUSEK)

- Body usually of paler coloration, more or less reddish-brown. Eyes mostly less than half the length of postocular region in dorsal view. ♂: elytra with short carinae near scutellum; aedeagus of different morphology 118

118 Elytra longer, at suture usually > 0.7 times as long as pronotum. ♂: aedeagus: Figs A99: 158-161. ♀: spermatheca of distinctive morphology, S-shaped, duct relatively short, wide, and untwisted (Figs A99: 163-165). Widespread species: Ukraine, Balkans (including Crete, Rhodos, and other Greek islands), and Turkey (Map A06: 5) ..... *G. oertzeni* (EPPELSHEIM)

- Elytra about 0.6 times as long as pronotum. ♂: aedeagus as in Figs A00a: 13-14. ♀: duct of spermatheca more slender, and twisted. SW-Macedonia ..... *A. kasyi* (SCHEERPELTZ)

119 Species from the Caucasus region 120

- Distribution different 121

120 ♂: elytra with extensive diagonal impressions and with long, well-defined, distinctly elevated, narrow, but anteriorly somewhat dilated sutural carinae extending over full length of suture; punctation indistinctly granulose (Fig. A05a: 194); tergite VII with pair of short, but well-defined, posteriorly distinctly converging carinae in posterior half (Fig. A05a: 196); tergite VIII posteriorly broadly concave (Fig. A05a: 197); median lobe of aedeagus and apical lobe of paramere as in Figs A05a: 198-199. ♀: spermatheca with short helicoid duct (Fig. A05a: 201). Karatchay-Tcherkessia ..... *G. krzysztofi* (ROUBAL)

- ♂ sexual characters unknown. ♀: spermatheca as in Fig. P96: 165. Georgia: Caucasus minor ..... *G. zerchei* PACE

121 Species from Turkey 122

- Species from the Balkans 129

122 ♂: elytra with suture elevated, forming a narrow carina; carinae on tergite VII relatively long and converging posteriad; median lobe of aedeagus with very long flagellum 123

- ♂: elytra with long carinae or oblong elevations on either side of suture; median lobe of aedeagus with short flagellum 124

123 ♂: elytral suture more strongly elevated; carinae on tergite VII fold-like (i. e. acute in cross-section) and (in large ♂♂) meeting posteriorly; median lobe of aedeagus with shorter flagellum (Figs P83a: 23-24). ♀: spermatheca: Fig. P83a: 25. Northwestern Anatolia ..... *G. uhligi* PACE

- ♂: elytral suture weakly elevated; carinae on tergite VII wider, in cross-section convex, and not meeting posteriorly; median lobe of aedeagus with longer flagellum (Figs P02: 82-83). Konya: Aladağ ..... *G. lycaonica* PACE

124 ♂: elytra near apex of scutellum and along anterior 2/3 of suture each with more or less strongly elevated carina of variable breadth parallel to suture; tergite VII with pair of subparallel carinae, in large ♂ extending over posterior 2/5 of tergite and separated by a distance approximately equal to their width or greater; tergite VIII posteriorly more or less convex, weakly to distinctly emarginate in the middle, and with pair of flat, sometimes indistinct tubercles (Figs A01a: 68-70); aedeagus as in Figs A01a: 61-62. ♀: spermatheca of highly variable shape (Figs A01a: 64-67). Central southern Anatolia: Nur Dağları and adjacent mountain ranges (Map A04a: 2) ..... *G. helvetiorum* PACE

- ♂: elytra with sutural carinae extending over whole length of suture; carinae on tergite VII either separated by a distance greater than their width or converging posteriad; tergite VIII without pair of tubercles; aedeagus of different morphology. Species from northern or western Anatolia 125

125 Colour of body entirely testaceous. ♂: elytra with narrow, distinctly elevated, anteriorly only weakly widened sutural carina; each elytron with extensive, but rather shallow impression; tergite VII with very narrow, distinctly elevated, relatively long, straight, and posteriorly weakly converging pair of carinae at hind margin, separated (even posteriorly) by a distance greater than their width; posterior margin of tergite VIII convex, in the middle with distinct emargination; aedeagus as in Figs P83b: 68-69. Western Anatolia (surroundings of Izmir). ♀: spermatheca as in Fig. P83b: 70 ..... *G. smyrnensis* PACE

- Colour of body testaceous to ferrugineous; preapical abdominal segments often infuscate. ♂: primary and secondary sexual characters different; posterior margin of tergite VIII without central emargination. Species from northeastern Anatolia 126

126 ♂: abdominal tergite VII with weakly pronounced (short and weakly elevated) carinae (Fig. A05b: 31); median lobe of aedeagus and apical lobe of paramere as in Figs A05b: 36-39. ♀: spermatheca proximally conspicuously enlarged (Fig. A05b: 40). Adıyaman: Nemrut Dağı (Map A05b: 3) ..... *G. asperipennis* ASSING

- ♂: abdominal tergite VII with pronounced carinae (Figs A01a: 56, 59). ♀: spermatheca proximally not conspicuously enlarged. Northeastern Anatolia 127

127 ♂: sutural carinae anteriorly narrower, less strongly elevated, and without coarse punctation or sculpture; tergite VII with usually pronounced, though relatively short pair of carinae, these carinae separated by a distance distinctly less than their width and posteriorly merging (Fig. A01a: 56); median lobe of aedeagus apically more acute (ventral view) and less slender (Figs A01a: 51-52). ♀: spermatheca as in Figs A01a: 54-55. Northeastern Anatolia: Artvin ..... *G. fabaeformis* ASSING

- ♂: sutural carinae anteriorly wider and strongly elevated, decreasing in width and elevation posteriad, coarsely and granulosely sculptured, matt; pair of carinae at posterior margin of tergite VII almost straight and parallel, sometimes separated by a distance greater than their width (Figs 90, A01a: 59). Northeastern Anatolia: Rize 128

128 ♂: sutural carinae narrower, less granulosely sculptured, and more sharply delimited; median lobe of aedeagus with pronounced crista apicalis and with fewer and longer spines in internal sac (Figs P83b: 90-91); apical lobe of paramere with one very long basal and three much shorter subapical and apical setae. ♀: spermatheca with slender capsule of conical shape (Fig. A01a: 58). Rize: area to the south of Ikizdere ..... *G. rizensis* PACE

- ♂: sutural carinae broader, more granulosely sculptured, and less sharply delimited (Figs A06: 87, 89); median lobe of aedeagus with reduced crista apicalis and with more numerous and shorter spines in internal sac (Fig. A06: 92); apical lobe of paramere as in Fig. A06: 93, with long subapical and apical setae. ♀: spermathecal capsule distinctly enlarged (Figs A06: 96-97). Rize: area to the east of Ikizdere (Map A06: 8) ..... *G. aucta* ASSING

129 ♂: elytra with pronounced longitudinal elevation along suture, extending almost from apex of scutellum to hind margin, laterad of this elevation with deep and large impression extending from just behind the humeral angles to the hind margin; tergite VII with pair of impressions; chaetotaxy of tergite VIII as in Fig. A99: 192; median lobe of aedeagus as in Figs A99: 188-189; apical lobe of paramere broader and with three long setae (Fig. A99: 190). Greece: Timfristós (Fthiótis)..... ..... *G. cassagnaui* (COIFFAIT)

- ♂: modifications of elytra different; tergite VII with pair of carinae; chaetotaxy of tergite VIII and aedeagus different; apical lobe of paramere more slender and with one long seta. Distribution different.....130

130 Rather small species, 2.0-2.6 mm. ♂: elytra each with subcircular tubercle near scutellum (Figs A05a: 206-207); carinae on tergite VII weakly elevated, sharply folded, and widely separated (Fig. A05a: 210); posterior margin of tergite VIII shaped as in Figs A05a: 211-212; median lobe of aedeagus with weakly pronounced crista apicalis and crista proximalis, and with distinct long spines in internal sac (Figs A05a: 213-215); apical lobe of paramere slender (Fig. 216). ♀: spermatheca as in Figs A05a: 219-220. Croatia: Dinaric Alps near the border to Bosnia-Herzegovina .....*G. dinarica* ASSING

- ♂: elytra without subcircular tubercles, but with oblong carinae; carinae on tergite VII of different shape; posterior margin of tergite VIII of different shape and chaetotaxy; primary sexual characters of different morphology 131

131 Larger species of slightly darker coloration, body reddish. ♂: elytra with pair of short well-defined sutural carinae near apex of scutellum and with extensive impressions; carinae on tergite VII more widely separated (Fig. P02: 67); posterior margin of tergite VIII in the middle distinctly concave; aedeagus as in Figs P02: 68-69. ♀: spermatheca as in Fig. A03: 17. Bosnia-Herzegovina .... *G. meixneri* (BERNHAUER)

- Smaller species of paler coloration, body predominantly yellowish to yellowish-red. ♂: elytra with broad, posteriorly tapering sutural elevation immediately behind apex of scutellum, the elevations of both elytra together forming a ± triangular elevation only narrowly interrupted by the suture; posterior margin of tergite VIII not distinctly concave in the Middle. Primary sexual characters of different morphology. Greece and Bulgaria.....132

132 ♂: elytra with long sutural carinae, the two carinae forming a ± distinct keel usually extending over the full length of the suture, and with weak to moderate, often ± diagonal impression; posterior margin of tergite VIII crenulate and with more setae (Fig. A99: 186); aedeagus with 4 large spines in internal sac (Figs A99: 180-181). ♀: duct of spermatheca proximally more dilated (Figs A99: 183-184). NE-Greece: Falakró; S-Bulgaria: Pirin .....*G. weiratheri* PACE

- ♂: elytra with shorter, posteriorly tapering sutural elevation immediately behind apex of scutellum, the elevations of both elytra together forming a ± triangular elevation only narrowly interrupted by the suture; remainder of elytral surface with usually shallow, ± extensive impression; posterior margin of tergite VIII not crenulate and in the middle with only two short setae (Fig. A99: 178); aedeagus without spines in internal sac (Figs A99: 172-173). ♀: duct of spermatheca proximally more slender (Figs A99: 175-176). Kato Olympos (Thessalía) .... *G. schuelkei* ASSING

133 Coloration of body usually more or less yellowish to yellowish red. ♂: tergite VII with distinct smooth, broad, oblong median elevation. Subgenus *Typhlusida* 134

- ♂ tergite VII unmodified or with small subcircular median tubercle near posterior margin 135

134 ♂: elytra on either side of suture with broader long oblique elevation; abdominal tergite VII in posterior half with less well-defined smaller elevation or tubercle; median lobe of aedeagus and apical lobe of paramere as in Figs P83b: 45, 46, 48. ♀: spermathea with long and slender duct (Fig. P84b: 47). Bulgaria (Map A05a: 11). .....*G. rhilensis* (RAMBOUSEK)

- ♂: elytra with suture forming a narrow carina; abdominal tergite VII with larger, more strongly elevated, and more well-defined oblong tubercle; aedeagus as in Figs A00c: 1-3. ♀: spermathea with shorter duct (Figs A00c: 4-5). SE-Austria, Slovenia..... ..... *G. flava* (KRAATZ)

135 Abdominal segment III conspicuously elongated, ratio of width (across posterior margin) and length (from anterior margin of paratergite to posterior margin of tergite): < 1.3 (Fig. A06: 15). ♂: elytra with pronounced lateral folds (Figs A06: 14, 16); posterior margin of tergite VIII with pair of pronounced processes (Fig. A06: 17); median lobe of aedeagus as in Fig. A06: 19. Western Anatolia: Izmir province (Map A06: 3). Subgenus *Tropogastrosipalia* (partim)..... *G. anlasi* ASSING

- Abdominal segment III strongly transverse, at least 1.5-1.6 times as wide as long. ♂: elytra without pronounced lateral folds; tergite VIII without pair of pronounced processes; aedeagus of different morphology, without cristal process. Subgenus *Sipalotricha* (partim).....136

136 ♂: tergite VII near posterior margin with - often weakly defined - subcircular median tubercle (Fig. A99: 200, Fig. A05a: 162), which may be reduced to various degrees; elytra with distinct microsculpture and almost or completely matt. Species confined to the Taygetos range (Greece: Pelopónnisos) or the Caucasus region 137

- ♂ tergite VII unmodified. 138

137 Larger species. Eyes approximately half the length of postocular region in dorsal view. Pronotum with pronounced microreticulation and almost matt (Figs A05a: 160-161). ♂: elytral punctation finer, denser, and not coarsely granulose (Fig. A05a: 160); aedeagus as in Figs A05a: 164-165. ♀: spermatheca as in Figs A05a: 166, P96: 167. Caucasus region (Map A05a: 9)..... *G. cingulata* (EPPELSHEIM)

- Smaller species. Eyes distinctly less than half the length of postocular region in dorsal view. Pronotum with shallow microsculpture and some shine. ♂: elytral punctation coarsely granulose and sparser; aedeagus as in Figs A99: 196-197. ♀: spermatheca as in Fig. A99: 199. Greece, SW-Pelopónnisos: Taygetos range .... *G. ulcerifera* ASSING

138 Dark-coloured wing-dimorphic species; whole body dark-brown to blackish. Macropterous morph somewhat resembling species of *Atheta* THOMSON, with the elytra at suture approximately as long as pronotum and hind wings fully developed. Brachypterous morph with elytra at suture approximately 0.85 times as long as pronotum. Abdominal tergite VII with palisade fringe. ♂: aedeagus as in Figs A01a: 89-90. ♀: spermatheca as in Figs A01a: 92-94. Widespread species, southeastern Central Europe, SE-Europe, Turkey (Maps A06: 6)..... *G. lucens* (BENICK)

- Predominantly pale-coloured and, except for *G. leucadiae* from Levkás, brachypterous species with distinctly shorter elytra. If similarly dark (one species from Ukraine), tergite VII without palisade fringe.....139

139 Small, slender, and dark-coloured species with testaceous legs and antennae (Fig. A05a: 151); head and abdomen blackish, pronotum and elytra brown to dark-brown. Head and pronotum with very shallow microsculpture and distinctly glossy (Fig. A05a: 152). ♂: aedeagus as in Figs A05a: 155-156. ♀: spermatheca as in Fig. A05a: 158. Ukraine ..... *G. gontarenkoi* ASSING

- Body either distinctly paler or, if dark-brown, with weak shine and broader 140

140 Species from the Carpathians 141

- Distribution different.....142

141 Forebody with shallow microsculpture. Elytra with sexual dimorphism. ♂: elytra with rather dense and distinctly granulose punctation, surface almost completely matt (Figs A05a: 84-85); median lobe of aedeagus as in Fig. A05a: 88. ♀: sternite VIII posteriorly convex (Figs A05a: 89-90); spermatheca as in Figs A05a: 91-92. Southern Carpathians (Romania) (Map A05a: 7)..... *G. deubeli* (BERNHAUER)

- Elytra without sexual dimorphism, in both sexes finely punctate (Fig. A05a: 93). ♂: aedeagus with larger median lobe (Figs A05a: 95-97). ♀: posterior margin of sternite VIII in the middle often concave (Figs A05a: 100-101); spermatheca as in Figs A05a: 102-106. Widespread in the Carpathians (Slovakia, Poland, Ukraine, Romania) (Map A05a: 6) ..... *G. infirma* (WEISE)

142 Species from NE-Italy, Slovenia, Hungary, and the southeast of Central Europe 143

- Distribution different.....144

143 Larger and darker species. Forebody with pronounced microreticulation and almost matt. Antennae much more massive. ♂: elytra usually with some granulose punctures; median lobe of aedeagus with distinctly bent ventral process in lateral view (Figs A00c: 8-9). ♀: spermatheca with shorter, less twisted, and in the middle stouter duct. Slovenia, NE-Italy (Map A05a: 6)..... *G. matajurensis* (SCHEERPELTZ)

- Smaller and paler species. Forebody with shallow microsculpture and some shine (Figs A05a: 108-110). Antennae shorter and less massive. Elytra very finely punctured in both sexes (Figs A05a: 108-110). ♂: median lobe of aedeagus with almost straight ventral process in lateral view (Figs A05a: 114-118). ♀: spermatheca with longer, more strongly twisted, and in the middle more slender duct (Fig. A05a: 121). Slovakia, Hungary (Map A05a: 6)..... *G. cuneiformis* (KRAATZ)

144 Species from the Balkans (exclusive of Rhódos) and Cyprus 145

- Species from Turkey, Rhódos, and Lebanon.....161

145 Elytra with sexual dimorphism. ♂: elytra usually with more or less pronounced impression, punctation more or less granulose, near scutellum and suture usually more or less elevated and with aggregations of coarse granulose punctures (Fig. A05a: 144); tergite VIII posteriorly truncate and with very sparse marginal setae (Fig. 145); median lobe of aedeagus as in Figs A05a: 146-147. ♀: elytra with fine sparse punctation, without aggregations of granulose punctures near scutellum and near suture; spermatheca as in Fig. A05a: 150. Southern Croatia, Bosnia-Herzegovina, Montenegro (Map A05a: 8) ..... *G. arida* (EPPELSHEIM)

- Mostly without sexual dimorphism of elytra. Absent from the Balkans to the north and northwest of Greece and Bulgaria 146

146 Species from Bulgaria 147

- Species from Greece and Cyprus 148

147 Coloration darker, body on average slightly larger. ♂: posterior margin of tergite VII at most weakly concave in the middle (Fig. A05a: 122); median lobe of aedeagus larger and with less pronounced crista proximalis (Figs A05a: 123-127). ♀: duct of spermatheca proximally enlarged and distally comparatively slender (Figs A05a: 129-133). Widespread: Vitoša, western and central Stara Planina, Maleschevska Planina (Map A05a: 7).....*G. bulbifera* ZERCHE

- Coloration of body paler, on average smaller. ♂: posterior margin of tergite VIII more or less distinctly concave in the middle (Fig. A05a: 125); median lobe of aedeagus smaller, with crista apicalis of different shape and with more strongly projecting crista proximalis (Figs A05a: 136-138). ♀: spermathecal capsule shorter, with longer and more acute apical cuticular invagination, and with somewhat shorter duct (Figs A05a: 141-142). Eastern Stara planina (Map A05a: 7) ....*G. incognita* ASSING

148 Winged species, elytra at suture 0.75-0.80 times as long as pronotum, hind wings present. ♂: hind margin of tergite VIII not emarginate (Fig. A99: 219); median lobe of aedeagus as in Figs A99: 214-215; apical lobe of paramere relatively short and broad (Fig. A99: 216). ♀: spermatheca as in Figs A99: 217-218. Levkás: Megan Oros..... *G. leucadiae* (SCHEERPELTZ)

- Brachypterous species. (The wide range of *G. euboica* suggests that that species may be wing-dimorphic, but winged specimens have not yet been observed.) Elytra distinctly shorter, hind wings reduced. Primary and secondary sexual characters different.....149

149 Coloration usually darker, eyes larger. ♂: hind margin of tergite VIII convex (Fig. A99: 210); median lobe of aedeagus as in Figs A99: 203-204; apical lobe of paramere relatively slender (Fig. A99: 205). ♀: spermatheca as in Figs A99: 206-209. Widespread species: Albania, central Greece, Pelopónnisos, Zákinthos, Levkás, Kefallinía, Thessalía, Evvoia, Kárpathos, W-Turkey (Map A06: 7)..... .....*G. euboica* PACE

- Coloration usually paler, eyes smaller. ♂: hind margin of tergite VIII at least shallowly concave in the middle; aedeagus of different morphology. ♀: spermatheca different. Species with more restricted distributions 150

150 Species from mainland Greece and the Pelopónnisos 151

- Species from Crete and Cyprus 155

151 ♂: posterior margin of tergite VIII strongly emarginate in the middle (Fig. A99: 242); median lobe of aedeagus with slender ventral process (ventral view) (Fig. A99: 239); lateral aspect as in Fig. A99: 238. ♀: spermatheca as in Fig. A99: 240. Ipiros: Tsumerka ..... *G. beieri* (SCHEERPELTZ)

- ♂: hind margin of tergite VIII weakly emarginate in the middle; median lobe of aedeagus with broader ventral process (ventral view) and in lateral view of different shape. Distribution different 152

152 Species from northern Greece 153

- Species from southern mainland Greece and Pelopónnisos 154

153 Body smaller, 1.6-2.1 mm; forebody with weakly pronounced microsculpture and rather shiny, punctation much finer (Fig. A05b: 15). ♂: median lobe of aedeagus with weakly pronounced crista apicalis (Figs A05b: 20-22); apical lobe of paramere as in Fig. A05b: 23. ♀: spermatheca with proximal part of capsule long and twisted (Figs A05b: 24-26). Óros Varnous ..... *G. varnousica* ASSING

- Body slightly larger, forebody with distinct microsculpture and punctation, and with subdued shine. ♂: ventral process of median lobe with more pronounced crista apicalis (Figs A00a: 34-35); apical lobe of paramere as in Figs A00a: 34-35. ♀: spermatheca with very short capsule, highly distinctive (Fig. A00a: 240). Oros Voras ..... *G. breviuter* ASSING

154 Elytra with distinct sexual dimorphism, in ♂ with dense and coarsely granulose punctation. Aedeagus and spermatheca as in Figs A99: 229-233. Fthiotis: Iti Óros ..... *G. fthiotisensis* ASSING

- Elytra without sexual dimorphism. Aedeagus and spermatheca as in Figs A99: 222-225. NW-Pelopónnisos: Erimanthos Oros ..... *G. ahaiaensis* ASSING

155 Species endemic to Cyprus. ♂: aedeagus and spermatheca as in Figs A99: 269-272 ..... *G. cyprensis* PACE

- Species endemic to Crete 156

156 ♂ posterior margin of tergite VIII more or less strongly concave in the middle; aedeagus smaller and with distinct long spines in internal sac. Distribution: central or eastern Crete 157

- ♂: posterior margin of tergite VIII distinctly emarginate in the middle; aedeagus larger, with or without spines in internal sac. Distribution: central or western Crete 159

157 ♂: posterior margin of tergite VIII strongly concave in the middle (Fig. A01b: 33-34); aedeagus with two long and distinctly sclerotized spines in internal sac (Figs A01b: 27-28); spermatheca: Figs A01b: 30-32. E-Crete: Thryptis range ..... *G. thryptisensis* ASSING

- ♂: posterior margin of tergite VIII less strongly concave in the middle; internal sac of aedeagus with more numerous and shorter spines. Absent from the Thryptis range, more western distribution 158

158 ♂: posterior margin of tergite VIII weakly concave in the middle (Fig. A99: 251); median lobe of aedeagus with more slender ventral process (Fig. A99: 247); apical lobe of paramere short and broad (Fig. A99: 248). ♀: spermatheca as in Figs A99: 249-250. Central Crete: Idhi Óros (= Ida) ..... *G. idaea* PACE

- ♂: posterior margin of tergite VIII on average more distinctly incised (Figs A00a: 47-48); median lobe of aedeagus as in Figs A00a: 42-43; apical lobe of paramere more slender (Fig. A00a: 44). ♀: spermatheca as in Figs A00a: 45-46. E-Crete: Dikti Oros ..... *G. meybohmi* ASSING

159 ♂: tergite VIII more strongly emarginate in the middle (Fig. A99: 259); median lobe of aedeagus with relatively longer and more slender ventral process (Figs A99: 254-255). ♀: capsule of spermatheca relatively smaller and less distinctly delimited from duct (Figs A99: 257-258). Central Crete: Idhi Óros (= Ida) ..... *G. exsecta* ASSING

- ♂: tergite VIII less strongly emarginate in the middle (Figs A99: 266, A07: 24); median lobe of aedeagus with relatively shorter and broader ventral process (Figs A99: 262-263). Western Crete: Lefka Ori 160

160 ♂: median lobe of aedeagus with two long spines in internal sac (Figs A07: 26-30). ♀: spermathecal capsule with smaller and more slender distal portion, and with distinctly longer proximal portion (Figs A07: 33-34) ..... *G. albimontis* ASSING

- ♂: median lobe of aedeagus without long spines in internal sac (Figs A99: 262-263). ♀: distal portion of spermathecal capsule larger, proximal portion shorter (Fig. A99: 265) ..... *G. icaria* PACE

161 Elytra with sexual dimorphism. ♂: elytra on either side of suture slightly elevated and/or with dense and coarse punctures; tergite VII either with scattered granula in posterior half or with microreticulation distinctly contrasting with the more transverse microsculpture of the anterior tergites 162

- Elytra without or with weaker sexual dimorphism, in ♂ on either side of suture not distinctly elevated or more coarsely and more densely punctured than elsewhere 164

162 Larger species, 2.5-2.8 mm, and of darker coloration, reddish to brownish yellow. ♂: median lobe of aedeagus with long spines in internal sac (Figs A04a: 48-50). ♀: spermatheca as in Figs A04a: 54-55. Kahramanmaraş: Ahır Dağı ..... *G. ahirana* ASSING

- Smaller species, 1.8-2.3 mm, and of paler coloration. Sexual characters different. More western distributions 163

163 Eyes small, about as large as antennomere IV in cross-section. ♂: elytra on either side of suture slightly elevated and with coarsely granulose punctures; tergite VII in posterior half with some distinct granula, its microsculpture similar to that of anterior tergites; aedeagus smaller and with spines in internal sac (Figs A01a: 77-78). ♀: unknown. Western central Anatolia: Emir Dağları (Afyon) ..... *G. emirdaghensis* ASSING

- Eyes distinctly larger than antennomere IV in cross-section. ♂: elytra on either side of suture not distinctly elevated, but with rather dense and coarsely granulose punctures, which (in large ♂) are denser and coarser near apex of scutellum than elsewhere; tergite VII without granula, but with isodiametric microreticulation distinctly contrasting with the more transverse microsculpture of tergite VI; aedeagus larger and more slender (Figs A01a: 82-83). ♀: spermatheca as in Figs A01a: 85-86. Southern Anatolia: Taşeli Yaylası range, north of Anamur (western Mersin) ..... *G. itschiliensis* ASSING

164 Species from Lebanon. Antennae relatively short; preapical antennomeres more than twice as wide as long. ♂: aedeagus and spermatheca as in Figs A03: 19-20 ..... *G. libanensis* PACE

- Species from Anatolia 165

165 Species from northeastern Anatolia 166

- Species from southern and western Anatolia 169

166 Posterior margin of tergite VIII concave in the middle, especially in ♂ (Figs A06: 101, 105). ♂: median lobe of aedeagus with strongly reduced crista apicalis (Fig. A06: 103); apical lobe of paramere as in Fig. A06: 104. ♀: spermatheca as in Fig. A06: 107. Ordu (Map A06: 8) ..... *G. orduica* ASSING

- Posterior margin of tergite VIII even in ♂ not or only very indistinctly concave in the middle. ♂: crista apicalis of median lobe not reduced. Trabzon 167

167 Smaller, width of pronotum < 0.35 mm; coloration of antennae darker, usually brown to dark brown; eyes smaller, composed of few ommatidia (Fig. 110), at most about 1/4 the length of postocular region in dorsal view. ♂: median lobe of aedeagus smaller, 0.25-0.26 mm long (Fig. A06: 113); apical lobe of paramere with very short apical and subapical setae (Fig. A06: 114). ♀: spermathecal capsule with longer, distally more slender, and proximally more strongly dilated proximal portion (Figs A06: 117-118). Trabzon: Soğanlı Dağları (Map A06: 8) ..... *G. soganlica* ASSING

- Larger, width of pronotum > 0.35 mm; coloration of antennae paler, usually yellowish to yellowish brown; eyes larger, more than 1/4 the length of postocular region in dorsal view. ♂: median lobe of aedeagus larger, < 0.26 mm long; apical lobe of paramere with longer apical and subapical setae. ♀: spermathecal capsule with shorter, distally less slender, and proximally less strongly dilated proximal portion. Trabzon: surroundings of Maçka 168

168 Eyes slightly larger, maximal diameter approximately equal to the length of antennomere III; antennomere III only slightly shorter than antennomere II. ♀: capsule of spermatheca distally enlarged (Figs P02: 36)..... *G. macronorum* PACE

- Eyes slightly smaller, maximal diameter shorter than antennomere III; antennomere III distinctly shorter than antennomere II. ♀: distal portion of spermathecal capsule somewhat coniform (Fig. P83b: 173)..... *G. euxina* PACE

169 Abdomen relatively wider, 1.15-1.25 times as wide as elytra. Pronotum distinctly transverse, approximately 1.20 times as wide as head and 1.20 times as wide as long. ♂: aedeagus as in Figs A01a: 72-73. ♀: spermatheca of distinctive morphology, duct wide, short, and untwisted (Fig. A01a: 75). Adana..... ..... *G. extorta* ASSING

- Abdomen more slender, less than 1.15 times as wide as elytra. Pronotum less transverse. Genitalia, especially spermatheca, of different morphology. Southwestern Anatolia eastwards to Mersin 170

170 Coloration uniformly testaceous to ferrugineous, preapical abdominal segments at most very indistinctly infuscate. Eyes very small, less than one third the length of postgenae (Fig. A03: 22). ♂: posterior margin of tergite VIII in the middle with distinct concavity, which is laterally delimited by carinae (Fig. A03: 23); aedeagus in lateral view strongly bent (Figs A03: 27-29). ♀: spermatheca as in Figs A03: 31-32. W-Antalya: Bey Dağları..... *G. beydaghensis* ASSING

- At least preapical abdominal segments distinctly infuscate. Eyes larger, more than one third the length of postgenae in dorsal view. Widespread species..... 171

171 Colour of body usually brown to dark-brown; eyes usually more than half the length of postocular region in dorsal view. ♂: posterior margin of tergite VIII convex, not emarginate in the middle (Fig. A99: 210); median lobe of aedeagus as in Figs A99: 203-204. ♀: spermatheca as in Figs A99: 206-209. Widespread species: Albania, central Greece, Pelopónnisos, Zákinthos, Levkás, Kefallinía, Thessalía, Evvoia, Kárpathos, W-Turkey (Map A06: 7)..... *G. euboica* PACE

- Coloration of body usually reddish-yellow to yellowish-brown, with the preapical abdominal segments infuscate. Eyes usually less than half the length of postocular region in dorsal view. ♂: posterior margin of tergite VIII in the middle weakly concave; median lobe of aedeagus as in Figs P83b: 159-160. ♀: spermatheca as in Fig. P83b: 163. Widespread in southern and southwestern Anatolia (Muğla to Kahramanmaraş and Osmaniye) and in Rhódos (Map A03: 2)..... *G. rhodiensis* PACE

5. Catalogue of the *Geostiba* species of the Eastern Mediterranean, the Caucasus region, and Iran

Below, the species are listed by subgenus and in alphabetical order. The reference column indicates the revisionary parts where the respective species are treated; those parts that contain descriptive details and/or illustrations are given in bold type. For explanations of the abbreviations see the introduction to the key in the preceding section.

species/subgenus	distribution	references
***Geostiba* THOMSON 1858** = *Evanystes* GISTEL, 1856		
circellaris (GRAVENHORST, 1806) = *contigua* (STEPHENS 1832) = *inquinalis* (MANNERHEIM 1830) = *rufescens* (STEPHENS 1832) = *venustula* (HEER 1839)	Palaearctic region; adventive in North America	**A01a**, A05a, A05b, A08, App
sororcula ASSING 2001	Turkey: Erzincan, ?Ardahan	**A01a**, A03
***Sibiota* CASEY 1906** = *Ditroposipalia* SCHEERPELTZ 1951 = *Callosipalia* COIFFAIT 1968 = *Tetratropogeostiba* PACE 1983		
asperipennis ASSING 2005	Turkey: Adıyaman: Nemrut Dağı	**A05b**
aucta ASSING 2006	Turkey: Rize	**A06**
batumiensis PACE 1996	SW-Georgia	**A05a**
bigibbera ASSING 2005	Turkey: Kahramanmaraş	**A05b**
bituberculata (EPPELSHEIM 1878)	Georgia	**A05a**
carinicollis (EPPELSHEIM 1878) = *medea* PACE 1996	E-Caucasus	**A05a**
carinipennis nov.sp.	Turkey: S-Hatay	**App**
cassagnaui (COIFFAIT 1968)	Greece: Timfristós (Fthiótis)	**A99**
confusa ASSING 2001	Turkey: Adana: Karatepe	**A01a**, A03
dinarica ASSING 2006	Croatia: Dinaric Alps	**A06**
excaecata ASSING 2001	Macedonia: Bušova planina	**A01b**
fabaeformis ASSING 2001	Turkey: Artvin	**A01a**
galicicana ASSING 2000	Macedonia: Galičica	**A00a**, A05a
giaurica ASSING 2004	Turkey: Kahramanmaraş	**A04a**, A05b
gibbera ASSING 2005	Turkey: Kahramanmaraş	**A05b**, App
helvetiorum PACE 1983 = *helvetiorum humicola* PACE 1983 = *helvetiorum obscura* PACE 1983	Turkey: Hatay, Osmaniye: Nur Dağları	**A01a**, A03, A04a, A07, App
kasyi (SCHEERPELTZ 1959)	Macedonia: Pelister	**A00a**, A05a
kobrisensis PACE 1996 = *crucis* PACE 1996	Georgia	**A05a**
krzysztofi (ROUBAL 1913)	Russia: Karatchay-Tcherkessia	**A05a**, App
loebliana PACE 1984	Israel: Mt. Hermon	A04a
lycaonica PACE 2002	Turkey: Konya	**A03**
meixneri (BERNHAUER 1910) = *mostarensis* PACE 2002	Bosnia-Herzegovina	**A03**, A05a
occaecata ASSING 2004	Turkey: Gaziantep	**A04a**
oertzeni (EPPELSHEIM 1888) = *balcanica* ZERCHE 1988 = *dirfysensis* (COIFFAIT 1968) = *franziana* (COIFFAIT 1968) = *lichadensis* (COIFFAIT 1968) = *kanellidis* (SCHEERPELTZ 1962) = *mandli* (SCHEERPELTZ 1963) = *minoica* PACE 1996 = *oertzeni cnidia* PACE 2002 = *oertzeni scyrosensis* PACE 2002 = *solitaria* (FAGEL 1968) = *solitaria aksekiensis* PACE 1996	Balkans, Ukraine, Turkey	**A99**, A00a, A01a, A01b, A04a, A05a, A05b, A06, A07, A08, App

species/subgenus	distribution	references
= *solitaria ancyrensis* PACE 1983 = *solitaria tmola* PACE = *solitaria ulensis* PACE 1983 = *strongylensis* (COIFFAIT 1968) = *tenenbaumi* (BERNHAUER 1940)		
rizensis PACE 1983 = *trapezusensis* PACE 2002	Turkey: Rize, Trabzon	**A01a**, A01b, A03, A06
samai PACE 1977 = *coiffaiti* PACE 1983	Macedonia: Šar planina	**A01b**, A05a, App
scheerpeltziana (FAGEL 1966)	Lebanon	**A03**, A05a
schuelkei ASSING 1999	Greece: Thessalía: Kato Olympos	**A99**
sculpticollis (APFELBECK 1907) = *albanica* (BERNHAUER 1936) = *temporalis* (APFELBECK 1907)	N-Albania	**A00a**, A05a
seleucica PACE 1983	Turkey: S-Hatay	**A01a**, **A04a**
smyrnensis PACE 1983	Turkey: Izmir	**A01a**
spinosula ASSING 2007	Turkey: Osmaniye	**A07**
stussineri (Bernhauer 1914)	Montenegro	**A05a**
sultanica ASSING 2008	Turkey: Konya: Sultan Dağları	**A08**
tuberifera nov.sp.	Turkey: Kahramanmaraş	**App**
tuberosa ASSING 2004	Turkey: Kahramanmaraş	**A04a**, A05b, A07, App
uhligi PACE 1983 = *mysia* PACE 1983	Turkey: NW-Anatolia	**A01a**, A05a
weiratheri PACE 1984 = *behnei* ZERCHE 2002	Bulgaria: Pirin, Greece: Falakró (Makedhonía)	**A99**, A00a, A01b, A05a
zerchei PACE 1996, species dubia	Georgia	**A05a**
zoufali (RAMBOUSEK 1915) = *optima* PACE 1983	Croatia, Bosnia-Herzegovina	**A05a**, A08
***Sipalotricha* SCHEERPELTZ 1931** = *Lioglutosipalia* SCHEERPELTZ 1951		
ahaiaensis ASSING 1999	Greece: Pelopónnisos: Erimanthos	**A99**
ahirana ASSING 2004	Turkey: Kahramanmaraş	**A04a**
albimontis ASSING 2007	Greece: Crete: Lefka Ori	**A07**
arida (EPPELSHEIM 1881)	Croatia, Bosnia-Herzegovina, Montenegro	**A99**, App
atrioculata ASSING 2007	Turkey: E-Antalya	**A07**
beieri (SCHEERPELTZ 1959)	Greece: Ipiros: Tsumerka	**A99**
beydaghensis ASSING 2003	Turkey: W-Antalya: Bey Dağları	**A03**
breviuter ASSING 2000	Greece: Makedhonía: Oros Voras	**A00a, A01b**
bulbifera ZERCHE 1988	Bulgaria	**A05a**
cingulata (EPPELSHEIM 1878) = *tbilisensis* PACE 1996	Caucasus region	**A05a**, A05b
cuneiformis (KRAATZ 1856) = *gyorffyi* (BERNHAUER 1929) = *hcejkai* (ROUBAL 1932) = *kocsii* (Bernhauer 1910)	Slovakia, Hungary	**A05a**, A05b, App
cyprensis PACE 1983	Cyprus	**A99**
deubeli (BERNHAUER 1909)	Romania	**A05a**, A08
emirdaghensis ASSING 2001	Turkey: Afyon	**A01a**
euboica PACE 1990 = *elatensis* PACE 1996	Albania, Greece, W-Turkey	**A99**, A00a, A01b, A05a, A05b, A06

species/subgenus	distribution	references
= *leucadiae* (SCHEERPELTZ 1959) = *samensis* PACE 1996 = *winkleri* (Bernhauer 1936)		
euxina PACE 1983	Turkey: Trabzon	**A01a**, A06
exsecta ASSING 1999	Greece: Crete: Ídhi	**A99**, A07
extorta ASSING 2005	Turkey: Adana	**A01a** (as *medea*), **A05a**
fthiotisensis ASSING 1999	Greece: Fthiótis, Evritania	**A99**, A00a,
gontarenkoi ASSING 2005	Ukraine	**A05a**, A05b
icaria ASSING 1999	Greece: Crete: Lefka Ori	**A99**, A01b
idaea PACE 1996	Greece: Crete: Ídhi	**A99**, A07
incognita ASSING 2005	Bulgaria: Stara planina	**A05a**
infirma (WEISE 1878) = *ruthena* (ROUBAL 1924) = *pacei* ZERCHE 1988	Carpathians (SE-Poland, NE-Slovakia, Ukraine, Romania)	**A05a**, A05b, A08, App
itschiliensis ASSING 2001	Turkey: Mersin	**A01a**
leucadiae (SCHEERPELTZ 1931)	Greece: Levkás	**A99**
libanensis PACE 1983	Lebanon	**A03**
lucens (BENICK 1970) = *glaberima* (BENICK 1981)	southeastern Central Europe, SE-Europe, Turkey	**A01a**, A01b, A03, A04a, A05b, A06, A07, A08, App
matajurensis (SCHEERPELTZ 1957)	Slovenia, NE-Italy	**A00c**, A05a
macronorum PACE 2002	Turkey: Trabzon	**A03**
meybohmi ASSING 2000	Greece: Crete: Dikti	**A00a**, A01b
orduica ASSING 2006	Turkey: Ordu	**A06**, A08
rhodiensis PACE 1983 = *besuchetiana* PACE 1983 = *lyciorum* PACE 2002 = *taurica* PACE 1996	Greece: Rhodos; Turkey: southwestern and central southern Anatolia	A99, **A01a**, A01b, A03, A05b, A07, A08, App
soganlica ASSING 2006	Turkey: Trabzon: Soğanlı Dağları	**A06**
thryptisensis ASSING 2001	Greece: Crete: Thrypti	**A01b**
ulcerifera ASSING 1999	Greece: Pelopónnisos: Taygetos	**A99**, A00a, A05a
varnousica ASSING 2005	N-Greece: Oros Varnous	**A05b**
***Tropogastrosipalia* SCHEERPELTZ 1951** = *Chondrogastrosipalia* SCHEERPELTZ 1951		
acifera ASSING 1999	Greece: Pelopónnisos: Erimanthos	**A99**
aculeata (COIFFAIT 1968)	Greece: Evvoia	**A99**
adunca ASSING 2004	Turkey: Kahramanmaraş	**A04a**, A05b, A07
akceliensis ASSING 2001	Turkey: Mersin	**A01a**, A04a
anlasi ASSING 2006	Turkey: Izmir: Ak Dağ	**A06**
apfelbecki EPPELSHEIM 1892 = *wunderlei* PACE 1996	Bosnia-Herzegovina	**A05a**
arganthonia PACE 1983	Turkey: Istanbul	**A00b**, A01b, A08
armata (EPPELSHEIM 1878) = *loebli* PACE 1983	Greece: Makedhonía, Thessalía, Ipiros	**A99**, A00a, A01b, A03, A05b
armicollis (BREIT 1917) = *tergestina* PACE 1988	NE-Italy, Croatia	**A05a**
artvinensis ASSING 2001	Turkey: Artvin	**A01a**
atromontis ASSING 2006	Turkey: Manisa: Karadağ	**A06**
attaleensis PACE 1983	Turkey: Antalya	A00b, **A03**
aydinica ASSING 2006	Turkey: Aydın: Aydın Dağları	**A06**

species/subgenus	distribution	references
balkarensis ASSING 2001	Turkey: Mersin	**A01a**
belasizaensis ZERCHE 2002	Bulgaria: Belasiza planina	**A05a**
bernhaueri (BREIT 1912), species dubia	Romania	**A05a**, A05b
biformis ASSING 2006	Turkey: Muğla, Denizli	**A06**
biokovensis PACE 1990 = *cribripennis* PACE 1990	Bosnia-Herzegovina, S-Croatia	**A05a**
bitlisensis ASSING 2001	Turkey: Tatvan	**A01a**
brachati ASSING 2000	Turkey: SW-Antalya: Bey Dağları	**A00b**, A01b, A03, A08
calcidica ASSING 2006	Greece: Chalkidike	**A06**
chyzeri (EPPELSHEIM 1883)	Slovakia, Hungary	**A05a**, A05b, App
cingarae ASSING 2003	Turkey: Muğla	**A03**
curzolae (BERNHAUER 1932)	Croatia: Korčula	**A05a**
*dibekiana*ASSING 2005	Turkey: Adana: Dibek Dağları	**A05b**, App
*elmaica*ASSING 2006	Turkey: Ankara: Elma Dağı	**A06**
erecta nov.sp.	Turkey: S-Hatay	**App**
falakroensis ASSING 1999	Greece: Falakró (Makedhonía)	**A99**, A00a, A01b
gecmisica nov.sp.	Turkey: Kastamonu	**App**
granulipennis ASSING 2001	Turkey: Mersin	**A01a**, A04a
hamata ASSING 2003	Turkey: Hatay	**A03**, A04a
hasanica nov.sp.	Turkey: Kastamonu	**App**
heliophila nov.sp.	Turkey: Kastamonu	**App**
huberi PACE 1983, species dubia	Iran	**A05a**
hummleri (BERNHAUER 1932)	Yugoslavia: Fruška Gora	**A05a**
iconiensis PACE 1983	Turkey: Konya	**A00b**, A04a
ilievi ZERCHE 2002	Bulgaria: Maleschevska planina	**A05a**
impressiventris nov.sp.	Iran: Gilan	**App**
itiensis ASSING 1999	Greece: Fthiotis: Iti	**A99**, A01b
janbellini ASSING 2007	Turkey: E-Antalya	**A07**
kartalana ASSING 2004	Turkey: Gaziantep	**A04a**
kastamonuensis PACE 1983	Turkey: Kastamonu	**A00b**, App
khnzoriani PACE 1983	Armenia	**A05a**
killiniensis ASSING 1999	Greece: Pelopónnisos: Killini	**A99**, A00a,
lunata ASSING 2001	Turkey: Mersin	**A01a**
marasica ASSING 2004	Turkey: Kahramanmaraş	**A04a**, A05b, A07, App
matsakisi (Coiffait 1968)	Greece: Evvoia	**A99**, A00a, A01b
menalonensis ASSING 1999	Greece: Pelopónnisos: Menalon	**A99**
menikioensis ASSING 1999	Greece: Makedhonía: Menikio	**A99**, A00a, A01b
meschniggi PACE 1996	Greece: Pelopónnisos: Taygetos	**A99**, A05a
meschniggiana (BERNHAUER 1936) = *pfefferi* (ROUBAL 1940)	Greece: Pelopónnisos: Aroania, Panahaiko	**A99**, A00a, App
mihoki (BERNHAUER 1932) = *biharica* PACE 1990	Romania	**A05a**, App
moczarskii (SCHEERPELTZ 1951) = *peninsulaemagnesiae* PACE 1996 = *p. moczarskii* PACE 1996	Greece: Thessalía: Pilion	**A99**, App
mosorica ASSING 2005	Croatia: Mosor planina	**A05a**
nemrutica ASSING 2005	Turkey: Adıyaman: Nemrut Dağı	**A05b**
nifica ASSING 2006	Turkey: Izmir: Nif Dağı	**A06**
obtusicollis ASSING 2000	Greece: Evritania, Fthiótis	**A00a**, A01b

species/subgenus	distribution	references
ossaica ASSING 2004	Greece: Thessalía: Ossa	**A04b**, A06
ossogovskaensis ZERCHE 2002	Bulgaria: Ossogovska planina	**A05a**
othrisensis ASSING 2001	Greece: Thessalía: Othris	**A01b**
paganettiana (BERNHAUER 1936)	Bosnia-Herzegovina	**A05a**
pangeoensis ASSING 1999	Greece: Makedhonía: Pangéo, ?Athos	**A99**, A00a, A01b, A03
parnoniensis ASSING 1999	Greece: Pelopónnisos: Parnon	**A99**, A00a,
pauli ASSING 1999	Greece: Thessalía: Pilion	**A99**, A01b
pontica PACE 1996	Turkey: Rize	A00b
priva ASSING 2006	Turkey: Gümüşhane	**A06**
renneri ASSING 2006	Turkey: Muğla: Oyuklu Dağ	**A06**
rodopensis PACE 1990	Bulgaria: Rhodope mts.	**A05a**
sarica nov.sp.	Iran: Mazandaran	**App**
sengleti PACE 1983	Iran: Mazandaran	**A05a**, A08
siculifera ASSING 1999	Greece: Makedhonía: Pangéo	**A99**, A00a, A01b
simulans PACE 1983	Turkey: Hatay	**A00b**, A03, A04a
sinuosa ASSING 2004	Turkey: Gaziantep, Osmaniye: northern Nur Dağları	**A04a**, A05a, A07
slaviankaensis ZERCHE 2002	Bulgaria: Slavianka, Pirin	**A05a**
*solodovnikovi*ASSING 2006	Turkey: Erzurum: Mescit Dağları	**A06**
spinicollis (KRAATZ 1862) = *carinthiaca* (SCHEERPELTZ 1957) = *croatica* (EPPELSHEIM 1880) = *krapinensis* PACE 1990	SE-Austria, Slovenia, Croatia	**A05a**, A05b, A06, App
spizzana (BERNHAUER 1932) = *maderi* PACE 1996	Yugoslavia: Montenegro	A03, **A05a**
taseliensis ASSING 2000	Turkey: Antalya	**A00b**,
taygetana (BERNHAUER 1936)	Greece: Pelopónnisos: Taygetos	**A99**, A05a
tiflisensis PACE 1996 = *amica* PACE 1996	Georgia	**A05a**, App
torisuturalis ASSING 2000	Greece: Makedhonía: Vérno, Askio, Varnous	**A00a**, A05a, A05b
turcica (BERNHAUER 1900)	Turkey: Istanbul	**A00b**, A01b, A05a
vermionensis ASSING 1999	Greece: Makedhonía: Vermion	**A99**, A00a
winkleri (BERNHAUER 1915)	Ukraine: Crimea	A01b, **A05a**, A05b A06, App
winkleriana PACE 1996	Albania	A01b, **A05a**
xerovuniana (SCHEERPELTZ 1959)	Greece: Xerovuni Oros (Ipiros)	**A99**
zercheana ASSING 1999	Greece: Pelopónnisos: Erimanthos	**A99**
***Typhlusida* CASEY 1906** = *Tylosipalia* SCHEERPELTZ 1951		
flava (KRAATZ, 1856) = *carnica* (SCHEERPELTZ 1958) = *ganglbaueri* (EPPELSHEIM 1887)	SE-Austria, Slovenia	**A00c**, A05a, A05b, A08, App
rhilensis (RAMBOUSEK 1924) = *bulgarica* PACE 1983	Bulgaria	**A05a**
incertae sedis		
excepta ASSING 2005	Turkey: Kahramanmaraş	**A05b**

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Zusammenfassung

Acht Arten der Gattung *Geostiba* THOMSON werden aus der Türkei und dem Iran beschrieben und abgebildet: *Geostiba* (*Tropogastrosipalia*) *gecmisica* nov.sp. (Türkei: Kastomonu), *G.* (*T.*) *heliophila* nov.sp. (Türkei: Kastamonu), *G.* (*T.*) *hasanica* nov.sp. (Türkei: Kastamonu), *G.* (*T.*) *erecta* nov.sp. (Türkei: Hatay), *G.* (*T.*) *sarica* nov.sp. (Iran: Mazandaran), *G.* (*T.*) *impressiventris* nov.sp. (Iran: Gilan), *G.* (*Sibiota*) *carinipennis* nov.sp. (Türkei: Hatay) und *G.* (*S.*) *tuberifera* nov.sp. (Türkei: Kahramanmaraş). Sechs bislang keiner Untergattung zugeordnete Arten werden in das Subgenus *Sibiota* CASEY 1906 gestellt: *G. scheerpeltziana* (FAGEL 1966), *G. confusa* ASSING 2001, *G. occaecata* ASSING 2004, *G. gibbera* ASSING 2005, *G. bigibbera* ASSING 2005, *G. spinosula* ASSING 2007 und *G. sultanica* ASSING 2008. Für 22 Arten werden weitere Nachweise gemeldet. Eine aktualisierte Bestimmungstabelle und ein Katalog der *Geostiba*-Fauna des östlichen Mediterrangebiets, einschließlich der Kaukasusregion und des Irans, werden erstellt. Aus dem Gebiet sind derzeit 169 Arten aus fünf Untergattungen bekannt.

References

ASSING V. (1999): A revision of the species of *Geostiba* THOMSON 1858 from Greece and Cyprus (Coleoptera, Staphylinidae, Aleocharinae). — Linzer biologische Beiträge **31** (2): 845-928.

ASSING V. (2000a): A revision of the species of *Geostiba* THOMSON 1858 and *Paraleptusa* PEYERIMHOFF 1901 of Greece: Supplement I, including some species from Albania, Macedonia, Bulgaria, and Turkey (Coleoptera: Staphylinidae, Aleocharinae). — Linzer biologische Beiträge **32** (2): 1007-1031.

ASSING V. (2000b): The Turkish species of *Geostiba* s.str. THOMSON 1858 (Coleoptera: Staphylinidae, Aleocharinae). — Linzer biologische Beiträge **32** (2) 1033-1042.

ASSING V. (2000c): On some species of *Geostiba* THOMSON, 1858 from the eastern Alps (Coleoptera: Staphylinidae, Aleocharinae). — Koleopterologische Rundschau **70**: 79-85.

ASSING V. (2001a): A revision of the Turkish species of *Geostiba* THOMSON 1858 and *Tropimenelytron* PACE 1983 (Coleoptera: Staphylinidae, Aleocharinae). — Linzer biologische Beiträge **33** (1): 137-185.

ASSING V. (2001b): A revision of the species of *Geostiba* THOMSON of the Balkans and Turkey. V. New species, a new synonym, new combinations, and additional records (Coleoptera: Staphylinidae, Aleocharinae). — Linzer biologische Beiträge **33** (2): 686-707.

ASSING V. (2003): A revision of the species of *Geostiba* THOMSON of the Eastern Mediterranean. VI. (Coleoptera: Staphylinidae, Aleocharinae). — Linzer biologische Beiträge **35** (1): 103-129.

ASSING V. (2004a): A revision of the Turkish species of *Geostiba* THOMSON. V. New species and additional records (Coleoptera: Staphylinidae, Aleocharinae). — Linzer biologische Beiträge **36** (2): 615-638.

ASSING V. (2004b): New species and records of Staphylinidae from Greece (Insecta: Coleoptera). — Linzer biologische Beiträge **36** (2) 593-613.

ASSING V. (2005a): A revision of the species of *Geostiba* THOMSON and *Tropimenelytron* PACE of the Eastern Mediterranean, the Caucasus, and adjacent regions (Coleoptera: Staphylinidae, Aleocharinae). — Linzer biologische Beiträge **37** (2): 903-1006.

ASSING V. (2005b): New species and new records of Eastern Mediterranean *Geostiba* THOMSON (Coleoptera: Staphylinidae, Aleocharinae). — Linzer biologische Beiträge **37** (2): 1047-1070.

ASSING V. (2006): Thirteen new species and additional records of Eastern Mediterranean *Geostiba* THOMSON (Coleoptera: Staphylinidae, Aleocharinae). — Linzer biologische Beiträge **38** (2): 1179-1215.

ASSING V. (2007): Four new species and additional records of *Geostiba* from Turkey and Crete, and a new synonymy (Coleoptera: Staphylinidae, Aleocharinae). — Linzer biologische Beiträge **39** (2): 777-790.

ASSING V. (2008): New species and additional records of *Geostiba* from the Eastern Mediterranean region and from Middle Asia (Coleoptera: Staphylinidae: Aleocharinae). — Linzer biologische Beiträge **40** (2): 1327-1335.

PACE R. (1983a): Nuove specie europee ed asiatiche del genere *Geostiba* THOMSON (Coleoptera Staphylinidae). — Giornale italiano di Entomologia **1**: 129-139.

PACE R. (1983b): Specie del genere *Geostiba* THOMSON raccolte dal Dr. C. Besuchet e collaboratori in Marocco, nella Penisola Iberica e Balcanica, e nel Medio Oriente (Coleoptera, Staphylinidae). — Revue suisse de Zoologie **90**: 3-46.

PACE R. (1984): Nuove Aleocharinae microftalme mediterranee e dell'Iran, del Muséum d´Histoire naturelle di Ginevra (Coleoptera Staphylinidae). — Archives Scientifiques Genève **37**: 211-219.

PACE R. (1990): Nuove specie e sottospecie del genere *Geostiba* THOMSON. 93° contributo alla conscenza delle Aleocharinae (Coleoptera, Staphylinidae). — Mémoires du Muséum National d'Histoire Naturelle (A) **147**: 115-154.

PACE R. (1996): Descrizione di nuove specie e sottospecie del genere *Geostiba* (Coleoptera, Staphylinidae). — Bollettino dell'Associazione Romana di Entomologia **50** (1995): 7-43.

PACE R. (2002): Nuove specie del genere *Geostiba* THOMSON (Coleoptera Staphylinidae) - 152° Contributo alla conoscenza delle Aleocharinae. — Bollettino del Museo Civico di Storia naturale di Verona **26**: 3-25.

ZERCHE L. (1988): Zur Taxonomie der Gattung *Geostiba* THOMSON, 1858 (Coleoptera, Staphylinidae, Aleocharinae). — Beiträge zur Entomologie, Berlin **38**: 155-168.

ZERCHE L. (2002): *Geostiba*-Arten aus Bulgarien (Coleoptera: Staphylinidae: Aleocharinae). — Beiträge zur Entomologie, Keltern **52**: 205-224.

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