Linzer biol. Beitr.	51/2	717-730	20.12.2019

A revision of *Geostiba* of the West Palaearctic region. XXVII. New species from Georgia and Kyrgyzstan, and additional records (Coleoptera, Staphylinidae, Aleocharinae)

Volker ASSING

A b s t r a c t : Five species of *Geostiba* THOMSON, 1858 from Georgia and East Kyrgyzstan are described and illustrated: *Geostiba* (*Tropogastrosipalia*) *simplicicollis* nov.sp. (Georgia: Kakheti); *G*. (*Sibiota*) *kakhetiana* nov.sp. (Georgia: Kakheti); *G*. (*S.*) *frischi* nov.sp. (Kyrgyzstan: Issyk-Kul); *G*. (*S.*) *prominens* nov.sp. (Kyrgyzstan: Issyk-Kul); *G*. (*S.*) *dentata* nov.sp. (Kyrgyzstan: Issyk-Kul). Based on a study of recently collected material, *Geostiba zerchei* PACE, 1996 is moved from the subgenus *Sibiota* CASEY, 1906 to *Sipalotricha* SCHEERPELTZ, 1931; the male sexual characters of this previously doubtful taxon are described and illustrated for the first time. Additional records of eight species are reported from the Caucasus region.

K e y w o r d s : Coleoptera, Staphylinidae, Aleocharinae, Geostibini, *Geostiba*, Caucasus region, Georgia, Middle Asia, Kyrgyzstan, new subgeneric assignment, new species, new records.

Introduction

The Caucasian fauna of the speciose genus *Geostiba* THOMSON, 1858 has been addressed in several previous contributions (ASSING 2005, 2016a, b, 2017a, c, 2018). As many as 46 species had been recorded from the region including Northeast Turkey (from Ordu to the border with Georgia), Georgia, Armenia, Azerbaijan, and the Russian part of the Greater Caucasus. Most of these species (28 species) belong to the subgenus *Sibiota* CASEY, 1906, ten to *Tropogastrosipalia* SCHEERPELTZ, 1951, six to *Sipalotricha* SCHEERPELTZ, 1951, and two to the nominal subgenus. Two wing-dimorphic species are widespread, the remainder, with one exception micropterous, is composed of regional or local endemics.

Remarkably, only a single *Geostiba* species was previously known from Middle Asia: *G. kirghisica* ASSING, 2008 of the subgenus *Sibiota* from Northwest Kyrgyzstan.

Recently examined material of *Geostiba* from Georgia and East Kyrgyzstan included five undescribed species, one of *Tropogastrosipalia* from East Georgia and four of *Sibiota* from East Georgia (one species) and East Kyrgyzstan (three species). Aside from providing descriptions and illustrations of these species, the present paper also reports additional records of eight species from the Caucasus region.

Material and methods

The material treated in this study is deposited in the following collections:

MNB ..... Museum für Naturkunde, Berlin (incl. coll. Schülke; J. Frisch, M. Schülke)

cAss..... author´s private collection

cGon..... private collection Andrey Gontarenko, Odessa

The morphological studies were conducted using a Stemi SV 11 microscope (Zeiss), a Discovery V12 microscope (Zeiss), and a Jenalab compound microscope (Carl Zeiss Jena). The images were created using digital cameras (Nikon Coolpix 995, Axiocam ERc 5s), as well as Labscope and Picolay stacking software.

Body length was measured from the anterior margin of the labrum to the abdominal apex, the length of the forebody from the anterior margin of the labrum to the posterior margin of the elytra, head length along the middle from the anterior margin of the clypeus to the posterior carina of the head, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra, and the length of the median lobe of the aedeagus from the apex of the ventral process to the base of the capsule. The "parameral" side (i.e., the side where the sperm duct enters) is referred to as the ventral, the opposite side as the dorsal aspect.

Results

Geostiba (*Tropogastrosipalia*) *defecta* ASSING, 2018

Material examined: **RUSSIA**: 3 exs., Krasnodar region, Lazarevsky district, Soloniki env., 300 m, rotton oak and chestnut wood, 6.VI.2017, leg. Gontarenko (cGon); 1 ex., same data, but 400 m, deciduous forest, leaf litter, 10.VI.2017 (cAss); 1♀, Krasnodar region, Tuapse district, Krivenkonvskoe env., 600 m, rotten wood, 26.V.2017, leg. Gontarenko (cGon).

The above specimens were partly collected together with the type material of this recently described species.

Geostiba (*Tropogastrosipalia*) *reducta* ASSING, 2018

Material examined: **RUSSIA**: 3 exs., Krasnodar region, Tuapse district, Olginka env., Saray-Gora, 300 m, rotten wood, 20.V.2017, leg. Gontarenko (cGon, cAss).

The above specimens were collected together with the type material.

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

Material examined: **GEORGIA**: 1♀, Kakheti, Gombori-Pass, 41°51'43"N, 45°17'59"E, 1440 m, deciduous forest, litter sifted, 12.V.2019, leg. Brachat & Meybohm (cAss); 1♀, Kartli, Saguramo Reserve, 41°52'21"N, 44°46'12"E, 1140 m, deciduous forest with dense herb undergrowth, litter sifted, 13.V.2019, leg. Brachat & Meybohm (cAss).

Comment: The identification of the above females is based on the vicinity of the localities to a male-based record from the region to the southwest of Telavi (ASSING 2016a).

***Geostiba* (*Tropogastrosipalia*) *simplicicollis* nov.sp. (Figs 1-7)**

Type material: Holotype ♂: "N42°13'07 E45°18'40, GG Kakheti Birkiani N, 750 m, 11.5.2019, leg. Meybohm & Brachat (6) / Holotypus ♂ *Geostiba simplicicollis* sp. n. det. V. Assing 2019" (cAss). Paratypes: 1♂, 1♀: same data as holotype (cAss); 1♀: "N42°13'24 E45°19'15, GG Kakheti Birkiani N, 760 m, 11.5.2019, leg. Brachat & Meybohm (5)" (cAss).

Etymology: The specific epithet (Latin, adjective) alludes to the unmodified male pronotum.

Description: Body length 2.9-3.4 mm; length of forebody 1.1-1.3 mm. Habitus as in Fig. 1. Coloration: body reddish to brown with abdominal segments VI and VII more or less distinctly infuscate; legs yellow; antennae dark-reddish to brown with the basal 2-3 antennomeres reddish.

Pronotum (Fig. 2) without evident sexual dimorphism, approximately as broad as long and with weakly convex posterior margin. Elytra with very weakly pronounced sexual dimorphism.

Large ♂: elytra (Fig. 2) with noticeably granulose punctation, without other modifications such as carinae or impressions; anterior tergites unmodified; tergite VII with pronounced and apically acute median spine near posterior margin (Figs 3-4); median lobe of aedeagus 0.27-0.28 mm long and shaped as in Figs 5-7.

♀: elytra with very fine and non-granulose punctation.

Comparative notes: Five species of the subgenus *Tropogastrosipalia* SCHEERPELTZ, 1951 were previously known from the Greater Caucasus and its western extensions. The geograpically closests representatives are *Geostiba gibberiventris* ASSING, 2017 (Georgia: Mtskheta-Mtianeti) and *G. tiflisensis* PACE, 1996 (Georgia: Ananuri and region to the southwest of Telavi) (ASSING 2017b). *Geostiba simplicollis* is distinguished from both of them by the unmodified male pronotum, the shape of the cristal process of the aedeagus, and additionally as follows:

from *G. gibberiventris* by weakly modified male elytra (*G. gibberiventris*: elytra with sutural carinae) and unmodified male tergites III and IV (*G. gibberiventris*: male tergites III and IV with a median tubercle;

from *G. tiflisensis* by weakly modified male elytra (*G. tiflisensis*: male elytra largely and distinctly impressed, near scutellum with dense and very coarsely granulose punctation.

For illustrations of *G. gibberiventris* and *P. tiflisensis* see ASSING (2017c).

Distribution: The type specimens were found in two geographically close localities to the northwest of Telavi, Kakheti region, at an altitude of approximately 750 m. They were sifted from leaf litter in deciduous forests.

***Geostiba* (*Sipalotricha*) *cingulata* (EPPELSHEIM, 1878)**

Material examined: **GEORGIA**: Samtskhe-Javakheti: 1♂, 1♀, Trialeti Range, N Bakuriani, E Tsaghveri, 41°47'25"N, 43°32'27"E, 1150 m, stream valley with mixed forest, litter near stream sifted, 8.VII.2019, leg. Assing (cAss); 2♂♂, 1♀♀, Meskheti Range, ca. 30 km WSW Borjomi, 41°45'03"N, 43°05'39"E, 1100 m, grassy clearing with bushes, litter sifted, 9.VII.2019, leg. Assing (cAss); 2♀♀, Meskheti Range, ca. 30 km WSW Borjomi, 41°43'52"N, 43°06'34"E, 1020 m, moist road margin with alder, oak, etc., litter sifted, 9.VII.2019, leg. Assing (cAss); 6♂♂, 10♀♀, same data, but forest margin, roots of herbs and soil sifted (cAss); 1♂, 2♀♀, Meskheti Range, SE Borjomi, 41°48'38"N, 43°26'15"E, 950 m, grassy forest margin with *Fagus*, *Crataegus*, and bushes, litter sifted, 9.VII.2019, leg. Assing (cAss). Imereti:

3♂♂, 3♀♀, S Bagdati, 42°00'50"N, 42°48'56"E, 270 m, deciduous forest margin with herbs, litter sifted, 21.VII.2019, leg. Assing (cAss); 1♀, same data, but soil washing (cAss); 1♂, Meskheti Range, N Sairme, 41°57'24"N, 42°46'10"E, 650 m, moist deciduous forest with predominant alder and chestnut, litter sifted, 21.VII.2019, leg. Assing (cAss). Imereti: 1♀, Shavsheti Range, SW Khulo, 41°34'19"N, 42°16'59"E, 800 m, slope with walnut, herbs, and grass undergrowth, litter and roots sifted, 13.VII.2019, leg. Schülke (MNB).

Comment: For a map illustrating the distribution of this widespread Caucasian species see ASSING (2018).

Geostiba (*Sipalotricha*) *manca* ASSING, 2018

Material examined: **GEORGIA**: Imereti: 2♀♀, Meskheti Range, S Sairme, 41°52'46"N, 42°46'22"E, 1510 m, stream valley, moist deciduous forest margin, soil washing, 22.VII.2019, leg. Assing (cAss); 3 exs., Meskheti Range, SE Sairme, 41°52'07"N, 42°46'53"E, 1820 m, degraded forest with predominant spruce, litter sifted, 20.VII.2019, leg. Schülke (MNB). Adjara: 2♂♂, 7♀♀, Meskheti Range, NNW Khulo, 41°47'19"N, 42°17'25"E, 2010 m, mixed beech and spruce forest, forest margin, beech litter, mushroom, and debris in ditch with *Tussilago* sifted, 14.VII.2019, leg. Assing (cAss).

Comment: The original description of this recently described species is based on type material from several localities in the vicinity of Sairme, Imereti region (ASSING 2018).

Geostiba (*Sipalotricha*) *zerchei* PACE, 1996 (Figs 8-12)

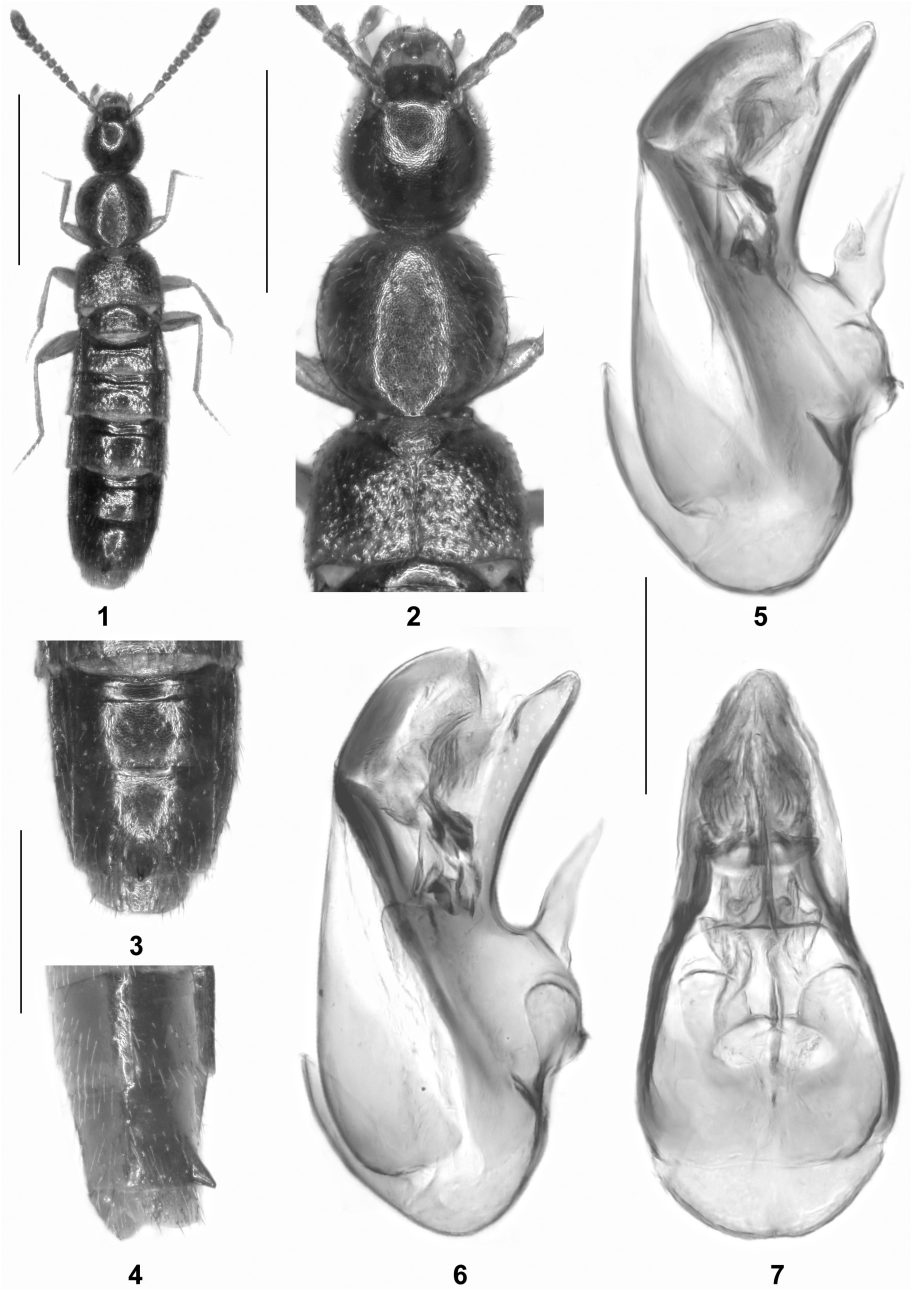
Material examined: **GEORGIA**: Samtskhe-Javakheti: 3♂♂, 5♀♀, Trialeti Range, S Bakuriani, 41°42'21"N, 43°30'08"E, 2090 m, birch trees at tree line, litter and grass sifted, 6.VII.2019, leg. Assing & Schülke (MNB, cAss); 1♂, 4♀♀, same data, but 10.VII.2019, leg. Assing (cAss).

Comment: In the original description, which is based on a unique female (erroneously sexed as a male) from "Cauc. Min. Bor., Trialetskij Chreb, Bakuriani, 1800-2200 m", PACE (1996) assigned the species to *Lioglutosipalia* SCHEERPELTZ, 1951, now a synonym of *Sipalotricha* SCHEERPELTZ, 1931. Based on a revision of the holotype, Assing (2005) treated *G. zerchei* as a species of doubtful status and moved it to *Sibiota*.

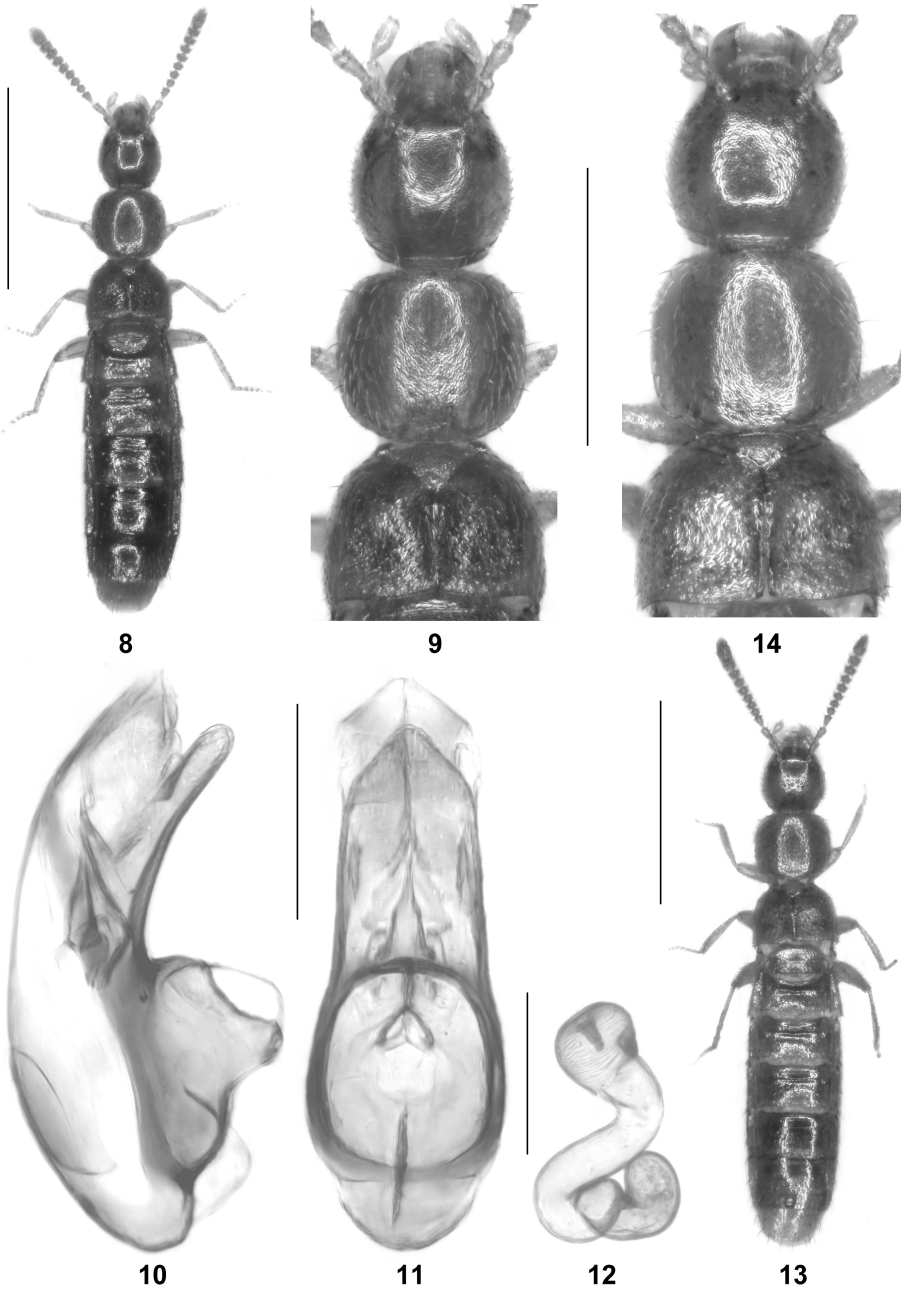
During a field trip to Southwest Georgia, Michael Schülke and the author succeeded in collecting a series of specimens including males in the environs of the type locality, thus rendering a clarification of the identity of *G. zerchei* finally possible. An examination of the males revealed that the species does not belong to *Sibiota*, but to *Sipalotricha*. The male is characterized by a pronounced sutural carina on the elytra (unique in the subgenus) (Fig. 9). The external and sexual characters are illustrated in Figs 8-12.

Geostiba (*Sibiota*) *batumiensis* PACE, 1996

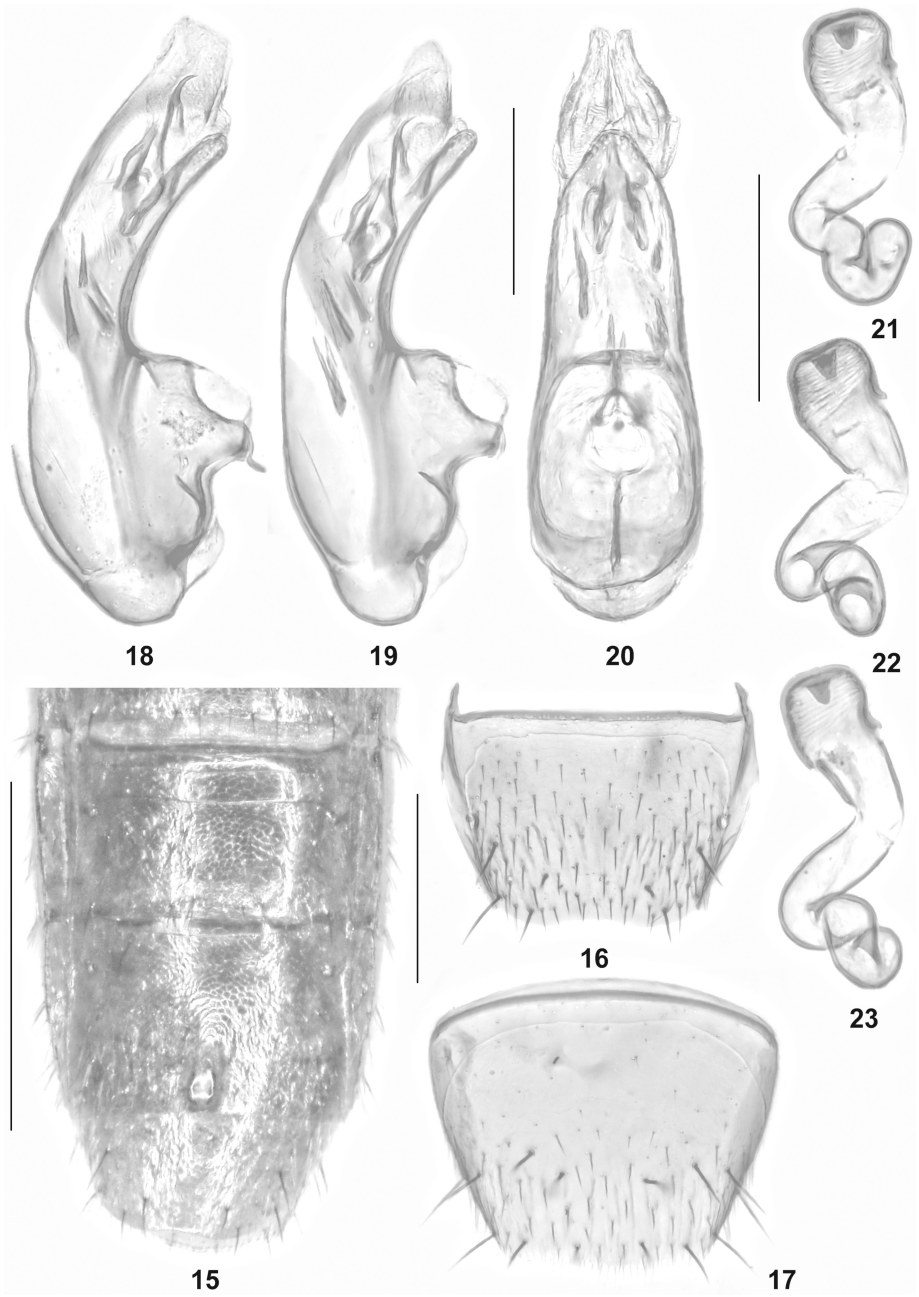
Material examined: **GEORGIA**: Adjara: 5♂♂, 5♀♀, Chakvistavi, 41°40'47"N, 41°52'19"E, 330 m, stream valley in deciduous forest, litter sifted, 17.V.2019, leg. Brachat & Meybohm (cAss); 2♂♂, 4♀♀, W Chakvistavi, 41°41'27"N, 41°49'48"E, 150 m, beech forest with rhododendron, litter sifted, 18.V.2019, leg. Brachat & Meybohm (cAss); 2♂♂, 2♀♀, E Chakvistavi, 41°40'44"N, 41°53'09"E, deciduous forest, litter sifted, 400 m, 19.V.2019, leg. Brachat & Meybohm (cAss); 4♀♀, E Chakvistavi, 41°40'34"N, 41°52'30"E, 320 m, rhododenron litter sifted, 20.V.2019, leg. Brachat & Meybohm (cAss); 2♂♂, 1♀, E Chakvistavi, 41°40'34"N, 41°52'49"E, 360 m, road margin, deciduous forest margin, litter sifted, 20.V.2019, leg. Brachat & Meybohm (cAss); 4♂♂, 5♀♀, Achi, 41°49'52"N, 42°00'25"E, 330 m, deciduous forest, litter near stream sifted, 21.V.2019, leg. Brachat & Meybohm (cAss); 22♂♂, 27♀♀, Meskheti Range, NE Batumi, Mtirala National



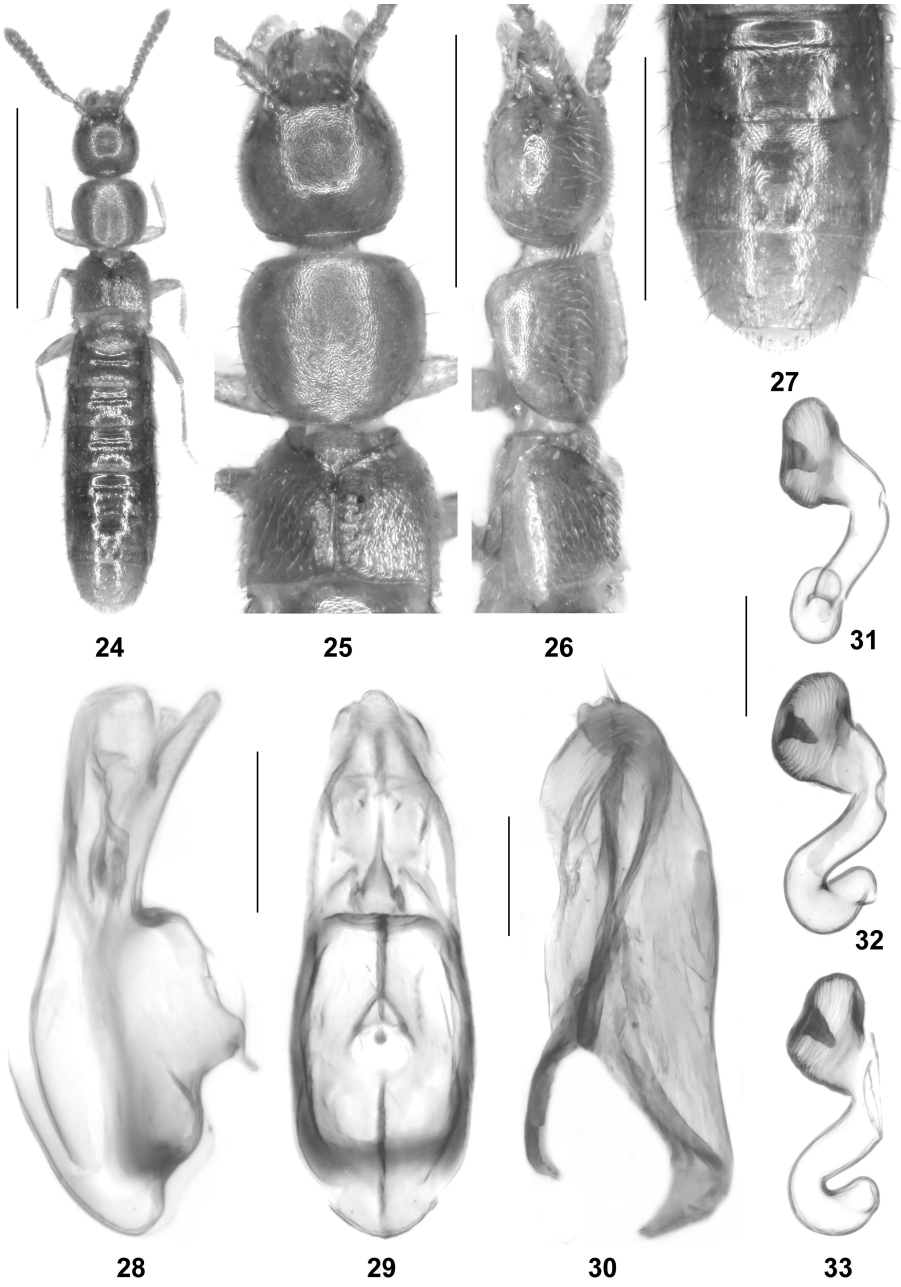
Figs 1-7: *Geostiba simplicicollis*: (**1**) male habitus; (**2**) male forebody; (**3**) male abdominal segments VI-VIII in dorsal view; (**4**) male abdominal segments VI-VIII in lateral view; (**5-7**) median lobe of aedeagus in lateral and in ventral view. Scale bars: 1: 1.0 mm; 2-4: 0.5 mm; 5-7: 0.1 mm.



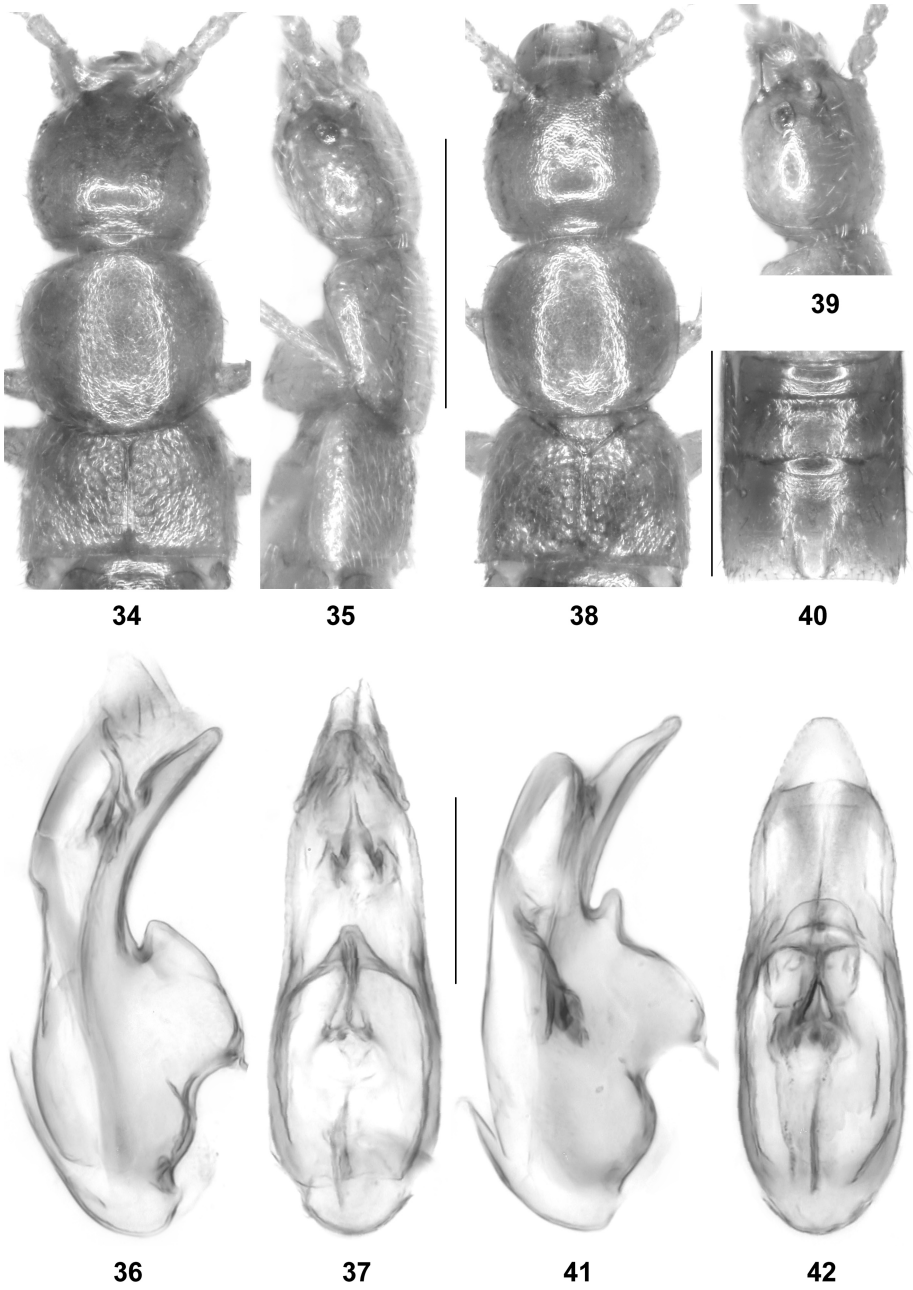
Figs 8-14: *Geostiba zerchei* (**8-12**) and *G. kakhetiana* (**13-14**): (**8, 13**) male habitus; (**9, 14**) male forebody; (**10-11**) median lobe of aedeagus in lateral and in ventral view; (**12**) spermatheca. Scale bars: 8, 13: 1.0 mm; 9, 14: 0.5 mm; 10-12: 0.1 mm.



Figs 15-23: *Geostiba kakhetiana*: (**15**) male abdominal segments VI-VIII; (**16**) male tergite VIII; (**17**) male sternite VIII; (**18-20**) median lobe of aedeagus in lateral and in ventral view; (**21-23**) spermatheca. Scale bars: 15: 0.5 mm; 16-17: 0.2 mm; 18-23: 0.1 mm.



Figs 24-33: *Geostiba frischi*: (**24**) male habitus; (**25**) male forebody in dorsal view; (**26**) male forebody in lateral view; (**27**) male abdominal segments VI-VIII; (**28-29**) median lobe of aedeagus in lateral and in ventral view; (**30**) paramere; (**31-33**) spermatheca. Scale bars: 24: 1.0 mm; 25-27: 0.5 mm; 28-33: 0.1 mm.



Figs 34-42: *Geostiba prominens* (**34-37**) and *G. dentata* (**38-42**): (**34, 38**) male forebody in dorsal view; (**35**) male forebody in lateral view; (**36-37, 41-42**) median lobe of aedeagus in lateral and in ventral view; (**39**) head in lateral view; (**40**) male abdominal segments VI-VII. Scale bars: 34-35, 38-40: 0.5 mm; 36-37, 41-42: 0.1 mm.

Park, 41°40'36"N, 41°52'23"E, 300 m, deciduous forest with predominant alder, chestnut, and rhododendron, litter sifted, 18.VII.2019, leg. Assing (cAss); 10♂♂, 11♀♀, same data, but soil washing (cAss, MNB); 20♂♂, 39♀♀, Meskheti Range, NE Batumi, Mtirala National Park, 41°40'35"N, 41°52'29"E, 330 m, moist deciduous forest with predominant alder, chestnut, and rhododendron, litter sifted, 18.VII.2019, leg. Assing (cAss); 3♂♂, 3♀♀, same data, but soil washing (cAss).

Comment: *Geostiba batumiensis* has been recorded only from the vicinity of Batumi in the Adjara region (ASSING 2016b).

Geostiba (*Sibiota*) *breviflagellata* ASSING, 2018

Material examined: **GEORGIA**: Imereti: 5♂♂, 7♀♀, Imereti, Meskheti Range, N Sairme, 41°58'54"N, 42°47'21"E, 370 m, stream valley with predominant chestnut, alder, and rhododendron, litter sifted, 21.VII.2019, leg. Assing (cAss); 2♀♀, Imereti, Meskheti Range, N Sairme, 41°57'24"N, 42°46'10"E, 650 m, moist deciduous forest with predominant alder and chestnut, litter sifted, 21.VII.2019, leg. Assing (cAss); 2♀♀, same data, but soil washing (cAss); 2♂♂, Imereti, Meskheti Range, S Sairme, 41°52'46"N, 42°46'22"E, 1510 m, stream valley, moist deciduous forest margin, soil washing, 22.VII.2019, leg. Assing (cAss). Guria: 1♂, Kvabgha, 41°54'51"N, 42°23'51"E, 750 m, deciduous forest, leaf litter and dead wood with ants sifted, 14.V.2019, leg. Brachat & Meybohm (cAss); 1♂, 3♀♀, NE Bakhmaro, 41°54'03"N, 42°22'31"E, 1080 m, pasture with alder and streams, 15.V.2019, leg. Brachat & Meybohm (cAss); 2♀♀, NE Bakhmaro, 41°53'10"N, 42°21'40"E, 1640 m, secondary forest with rhododendron, laurel, and *Carpinus*, lirtter sifted, 15.V.2019, leg. Brachat & Meybohm (cAss); 1♂, 4♀♀, Kvaghba-Zoti, 41°54'25"N, 42°25'44"E, 680 m, stream valley with water fall and with deciduous forest, litter sifted and soil-washing, 16.V.2019, leg. Brachat & Meybohm (cAss).

Comment: This recently described species was previously known only from two localities in the Imereti region (ASSING 2018).

Geostiba (*Sibiota*) *kakhetiana* nov.sp. (Figs 13-23)

Type material: Holotype ♂: "N42°14'27 E45°29'42, GG Kakheti Lechuri N, 1510 m, 9.5.2019, Brachat & Meybohm (1) / Holotypus ♂ *Geostiba kakhetiana* sp. n. det. V. Assing 2019" (cAss). Paratypes: 3♂♂, 20♀♀: same data as holotype (cAss).

Etymology: The specific epithet (adjective) is derived from Kakheti, the region where the type locality is situated.

Description: Body length 2.1-2.8 mm; length of forebody 0.8-1.1 mm. Habitus as in Fig. 13. Coloration: body reddish with yellow legs. Eyes weakly pigmented and composed of approximately 5-8 ommatidia. External characters (Figs 13-14) as in other species of the *G. carinicollis* group, except as follows:

♂: elytra (Fig. 14) shallowly impressed and with pronounced sutural carinae, these carinae broader and somewhat tuberculose in anterior half, sharp and narrow in posterior half; tergite VII (Fig. 15) with a relatively small, but distinct median tubercle at posterior margin; tergite VIII (Fig. 16) truncate or weakly concave in the middle; sternite VIII (Fig. 17) with convex posterior margin; median lobe of aedeagus (Figs 18-20) 0.27 mm long, with pronounced crista apicalis and with a short flagellum and 4-6 moderately sclerotized spines in internal sac.

♀: elytra shallowly impressed, these impressions less extensive than in male; tergite VIII of similar shape as in male; sternite VIII with weakly convex posterior margin, marginal setae weakly modified and rather long; spermatheca as in Figs 21-23.

Intraspecific variation: In one of the males, the sutural carinae are significantly less pronounced and the tubercle on tergite VII is practically obsolete.

Comparative notes: *Geostiba kakhetiana* is most easily distinguished from all other representatives of the *G. carinicollis* group recorded from Georgia and from the Greater Caucasus by the small median tubercle at the posterior margin of the male tergite VIII. In addition, it is characterized by the shapes of the median lobe of the aedeagus and of the spermatheca. The only other species of the *G. carinicollis* group with one median elevation (not a pair of carinae) on the male tergite VIII known from the Great Caucasus is *G. uniplicata* ASSING, 2011 from the environs of Krasnaya Polyana in the West Caucasus. In this species, however, the median elevation is much longer and distinctly oblong.

Distribution and natural history: The type locality is situated to the north of Telavi, East Georgia, in the southern slopes of the Greater Caucasus. The specimens were sifted from leaf litter in a stream valley with deciduous forest at an altitude of 1510 m. The sex ratio appears to be biased in favour of females: only four out of 24 specimens are males.

***Geostiba* (*Sibiota*) *frischi* nov.sp. (Figs 24-33)**

Type material: Holotype ♂: "Kyrgyzstan: Issyk-Kul, NE Karakol: SE Ak-Bulak (Turgenaksu River), 2080 m (*Picea schrenkiana*-forest) N42°34'40" E078°53'12", 27.06.2011, leg. J. Frisch / Holotypus ♂ *Geostiba frischi* sp. n. det. V. Assing 2019" (MNB). Paratypes: 3♀♀: same data as holotype (MNB, cAss).

Etymology: This species is dedicated to Johannes Frisch (MNB), who collected the type material all three species described from Kyrgyzstan in the present paper.

Description: Body length 2.3-2.7 mm; length of forebody 1.1 mm. Habitus as in Fig. 24. Coloration: body reddish-yellow with yellow legs. Eyes weakly pigmented and small (though of somewhat variable size), approximately as large as antennomere I in cross-section or slightly larger, composed of approximately 5-8 ommatidia (Fig. 26). Antenna 0.6-0.7 mm long. Head and pronotum with extremely fine and sparse punctation and with more or less pronounced microreticulation. Elytra (Fig. 25) approximately 0.55 times as long as pronotum and with moderately pronounced sexual dimorphism. Hind wings completely reduced. Posterior margin of abdominal tergite VII with very narrow and indistinct rudiment of a palisade fringe. Tergite VIII with very weakly pronounced sexual dimorphism.

♂: head and pronotum with pronounced microreticulation and nearly matt (Fig. 25); elytra (Figs 25-26) near suture distinctly elevated, this elevation broader and more pronounced anteriorly than posteriorly and with rather coarse granules; abdominal tergite VII (Fig. 27) in postero-median portion with a pair of short and narrow oblong tubercles (not carinae); posterior margin of tergite VIII truncate in the middle; sternite VIII strongly convex posteriorly; median lobe of aedeagus (Figs 28-29) 0.35 mm long, with long crista apicalis; internal sac without spines; paramere (Fig. 30) 0.45 mm long, with short and stout apical lobe.

♀: head and pronotum with less pronounced microreticulation and some shine; posterior margin of tergite VIII weakly convex; posterior margin of sternite VIII weakly concave in the middle, with rather long marginal setae; spermatheca (Figs 31-33) with strongly dilated distal portion and with short untwisted proximal portion.

Comparative notes: Based on several - presumably synapomorphic - similarities (median lobe of aedeagus with long crista apicalis, long crista proximalis, and with strongly bisinunate basal portion in lateral view; short and stout apical lobe of the

paramere; spermatheca with short and untwisted proximal portion), *G. frischi* is closely allied to *G. kirghisica* from Northwest Kyrgyzstan. It is distinguished from this species by the strongly elevated and granulose sutural portion of the male elytra, the presence of short tubercles rather than carinae on the male tergite VII, a posteriorly truncate male tergite VIII (*G. kirghisica*: posterior margin distinctly concave in the middle), a ventral process of the aedeagus with a longer and more slender apical portion (lateral view), and a spermatheca with a strongly dilated distal portion. For illustrations of *G. kirghisica* see ASSING (2008).

D i s t r i b u t i o n a n d n a t u r a l h i s t o r y : The type locality is situated in the extreme east of Kyrgyzstan. The specimens were sifted in a *Picea schrenkiana* forest at an altitude of 2080 m.

***Geostiba* (*Sibiota*) *prominens* nov.sp. (Figs 34-37)**

T y p e m a t e r i a l : Holotype ♂: "Kyrgyzstan: Issyk-Kul, SE Kyzyl-Tuu, 2750 m (*Picea schrenkiana*-forest) N42°03'54" E077'08'22", 22.06.2011, leg. J. Frisch / Holotypus ♂ *Geostiba prominens* sp. n. det. V. Assing 2019" (MNB).

E t y m o l o g y : The specific epithet (Latin, adjective: prominent, standing out) alludes to the shape of the crista apicalis of the aedeagus.

D e s c r i p t i o n : External characters (Figs 34-35) as in *G. frischi*, distinguished only by the sexual characters:

♂: elytra (Figs 34-35) near suture not elevated, with dense and somewhat granulose punctation; abdominal tergite VII with pair of very weakly indicated carinae in postero-median portion; posterior margin of tergite VIII weakly concave in the middle; sternite VIII strongly convex posteriorly; median lobe of aedeagus (Figs 36-37) 0.28 mm long; crista apicalis long and triangularly produced at base of ventral process (lateral view); internal sac without spines; paramere of similar shape as that of *G. frischi*.

♀: unknown.

C o m p a r a t i v e n o t e s : *Geostiba prominens* is distinguished from other *Sibiota* species recorded from Kyrgyzstan particularly by the shape of the crista apicalis in lateral view.

D i s t r i b u t i o n a n d n a t u r a l h i s t o r y : The type locality is situated in East Kyrgyzstan, to the south of Issyk-Kul lake. The holotype was sifted in a *Picea schrenkiana* forest at an altitude of 2750 m.

***Geostiba* (*Sibiota*) *dentata* nov.sp. (Figs 38-42)**

T y p e m a t e r i a l : Holotype ♂: "Kyrgyzstan: Issyk-Kul, Kyzyl-Tuu - Kyzyl-Suu: S Barskoon: Barskaun Pass, N-slope, 3230 m, N41°54'15" E077'38'36", 24.06.2011, leg. J. Frisch / Holotypus ♂ *Geostiba dentata* sp. n. det. V. Assing 2019" (MNB).

E t y m o l o g y : The specific epithet (Latin, adjective: dentate) alludes to the tooth-shaped process of the crista apicalis of the aedeagus.

D e s c r i p t i o n : External characters (Figs 38-39) as in *G. frischi* and *G. prominens*, distinguished only by the sexual characters:

♂: elytra (Fig. 38) distinctly elevated at suture, this elevation with coarse granules;

abdominal tergite VII (Fig. 40) with a pair of long, narrow, and weakly elevated carinae in postero-median portion; posterior margin of tergite VIII convex, in the middle indistinctly concave; sternite VIII strongly convex posteriorly; median lobe of aedeagus (Figs 41-42) 0.29 mm long; crista apicalis long, sinuate, and near base of ventral process with a pronounced tooth-shaped process (lateral view); internal sac without spines; paramere of similar shape as that of *G. frischi*.

♀: unknown.

C o m p a r a t i v e n o t e s : *Geostiba dentata* is distinguished from other *Sibiota* species recorded from Kyrgyzstan particularly by the shape of the crista apicalis in lateral view.

D i s t r i b u t i o n a n d n a t u r a l h i s t o r y : The type locality is situated in East Kyrgyzstan, to the south of Issyk-Kul lake, at an altitude of 3230 m.

Acknowledgements

I am indebted to the colleagues indicated in the material section for the loan of material, in particular to Volker Brachat (Geretsried) and Heinrich Meybohm (Großhansdorf) for the generous gift of Staphylinidae collected in Georgia.

Zusammenfassung

Fünf Arten der Gattung *Geostiba* THOMSON, 1858 aus Georgien und Kirgisistan werden beschrieben und abgebildet: *Geostiba* (*Tropogastrosipalia*) *simplicicollis* nov.sp. (Georgien: Kakheti); *G.* (*Sibiota*) *kakhetiana* nov.sp. (Georgien: Kakheti); *G.* (*S.*) *frischi* nov.sp. (Kirgisistan: Issyk-Kul); *G.* (*S.*) *prominens* nov.sp. (Kirgisistan: Issyk-Kul); *G.* (*S.*) *dentata* nov.sp. (Kirgisistan: Issyk-Kul). *Geostiba zerchei* PACE, 1996 wird aus der Untergattung *Sibiota* CASEY, 1906 in die Untergattung *Sipalotricha* SCHEERPELTZ, 1931 transferiert; die männlichen Sexualmerkmale dieser zuvor ungeklärten Art werden erstmals beschrieben und abgebildet. Weitere Nachweise von acht Arten werden aus der Kaukasusregion gemeldet.

References

ASSING V. (2005): 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. (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.

ASSING V. (2016a): A revision of *Geostiba* of the West Palaearctic region. XXII. Two new species from Jordan and the Caucasus, and additional records (Coleoptera: Staphylinidae: Aleocharinae). — Linzer Biologische Beiträge **48** (1): 221-228.

ASSING V. (2016b): A revision of *Geostiba* of the West Palaearctic region. XXIII. On the *Sibiota* species of the Caucasus region exclusive of Turkey (Coleoptera: Staphylinidae: Aleocharinae). — Linzer Biologische Beiträge **48** (2): 1097-1117.

ASSING V. (2017a): On the *Geostiba* fauna of Armenia (Coleoptera: Staphylinidae: Aleocharinae). — Linzer Biologische Beiträge **49** (2): 1075-1092.

ASSING V. (2017b): A revision of *Geostiba* of the West Palaearctic region. XXV. New species from Georgia and Greece, and additional records (Coleoptera: Staphylinidae: Aleocharinae). — Linzer Biologische Beiträge **49** (2): 1093-1106.

ASSING V. (2018): A revision of *Geostiba* of the West Palaearctic region. XXVI. New species and additional records, primarily from the Caucasus region (Coleoptera: Staphylinidae: Aleocharinae). — Linzer Biologische Beiträge **50** (2): 1033-1054.

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

Author´s address: Dr. Volker ASSING
Gabelsbergerstr. 2
D-30163 Hannover, Germany
E-mail: vassing.hann@t-online.de