A revision of *Medon*. XII. Two new species and a review of the fauna of Georgia (Coleoptera: Staphylinidae: Paederinae)

With 15 figures and 2 maps

**Volker Assing**

1 Gabelsbergerstraße 2, 30163 Hannover, Germany. – vassing.hann@t-online.de
Published on 2021–12–31
DOI: 10.21248/contrib.entomol.71.2.247-254

**Abstract**

Two species of *Medon Stephens, 1833* are described and illustrated: *M. steggiae* spec. nov. (Northwest Georgia: Samegrelo-Zemo Svaneti, Abkhazia) of the *M. fusculus* group and *M. bisinuatus* spec. nov. (China: Zhejiang) of the *M. profundus* group. A revision of previously examined and recently collected material from Georgia revealed that the fauna of this country currently includes six species and that some of the previous records were based on misidentification. All the known records of the genus from Georgia are mapped.

**Taxonomic acts**

*M. steggiae* spec. nov. – urn:lsid:zoobank.org:act:0B7CD2C8-3487-4873-B6B0-45533697760F
*M. bisinuatus* spec. nov. – urn:lsid:zoobank.org:act:8D2E686A-AF4B-45DB-AAEE-103EAB99C309

**Key words**

Coleoptera, Staphylinidae, Paederinae, *Medon*, Palaearctic region, Georgia, China, taxonomy, new species, new records.

**Zusammenfassung**


**Introduction**

The distribution and diversity of the genus *Medon Stephens, 1833* at a worldwide scale is currently unclear, since previous taxonomic studies have revealed that numerous species originally or subsequently assigned to this genus actually belong to other genera of Medonina. According to three major revisions of the faunas of the East Mediterranean region, the Middle East, and the Caucasus region (Assing 2004a), of the Atlantic Islands
and the West Mediterranean region (Assing 2006), and of the East Palearctic region (Assing 2013), as well as eight supplements, Medon was previously represented in the Palearctic by 84 species, four of them of doubtful identity, in five species groups, and only two confirmed species are known from the Oriental region (Assing 2018).

While the East Palearctic Medon fauna has been addressed in only few studies and there is little doubt that numerous additional species remain to be discovered, that of the West Palearctic region can be considered well-known. This, however, is not true of the fauna of Georgia (including Abkhazia), from where only six species and few records have been reported: Medon maronitus (Saulcy, 1865), M. dilutus pythonissa (Saulcy, 1865), M. abantensis Bordoni, 1980, Medon fusculus (Mannerheim, 1830), M. sparsiventris Eppelsheim, 1889, and M. sequax Assing, 2004 (Assing 2004a, b, 2009, 2018).

A study of recently collected specimens and a revision of previously examined material revealed that several previous records were based on misidentification. Moreover, an undescribed species was discovered in this material.

Material and methods

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

- **MNB**: Museum für Naturkunde, Berlin (including coll. Schülke)
- **NMP**: National Museum of Natural History, Praha (J. Hájek)
- **SNUC**: Shanghai Normal University, Shanghai
- **cAss**: author’s private collection
- **cFel**: private collection Benedikt Feldmann, Münster
- **cKoc**: private collection Matúš Kocian, Prague

The morphological studies were conducted using Stemi SV 11 (Zeiss) and Discovery V12 (Zeiss) microscopes, and a Jenalab compound microscope (Carl Zeiss Jena). The images were created using digital cameras (Axioskop ERc 5s, Nikon Coolpix 995), as well as Labscope and Picolay software. The maps were created using MapCreator 2.0 (primap) software.

Body length was measured from the anterior margin of the mandibles (in resting position) to the abd
minal apex, the length of the forebody from the anterior margin of the mandibles to the posterior margin of the elytra, head length from the anterior margin of the frons to the posterior constriction of the head, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra (at the suture), and the length of the aedeagus from the apex of the ventral process to the base of the aedeagal 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

The Medon fauna of Georgia

Based on a revision of previously and recently collected Medon material from Georgia (including Abkhazia), the currently known fauna is rather poor. Six species, one of them newly described, are reported from this country. One recently described species, which was previously known only from Turkey, is recorded from Georgia for the first time. Previous records of two species, M. sparsiventris and M. sequax, were based on misidentification; these species are removed from the Georgian fauna.

Medon maronitus (Saulcy, 1865)  
(Map 1)

Material examined: Georgia: Samtske-Javakheti: 1 ♀, Trialeti Range, N Bakuriani, E Tsagheveri, 41°47′25″N, 43°32′27″E, 1150 m, stream valley with mixed forest, litter near stream sif
ted, 8.VII.2019, leg. Assing (cAss).

Comment: For previous records of this widespread species from Georgia see Assing (2004a, 2018). The distribution in Georgia is illustrated in Map 1.

Medon dilutus pythonissa (Saulcy, 1865)  
(Map 2)

Material examined: Georgia: Samtske-Javakheti: 1 ♀, 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).

Comment: Several previous records from Georgia were reported by Assing (2004a, 2018). All known records are shown in Map 2.

Medon assingi Anlaş, 2015  
(Map 1)

Material examined: Georgia: Adjara: 1 ♀, Chakvistavi, 41°40′47″N, 41°52′19″E, 330 m, soil-washing, 8.VI.2021, leg. Brachat & Meybohm (cAss); 1 ♂, 2 ♀♀, Kintrishi National Park, 41°44′15″N, 41°59′01″E, 430 m, deciduous forest with chestnut, beech, rhododendron, and Hypericum, litter sifted, 10.VI.2012, leg. Brachat & Meybohm (cAss); 2 ♂♂, 1 ♀, 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); 1 ♂, W Chakvistavi, 41°40′42″N, 41°51′10″E, 220 m, stream valley with deciduous forest (old alder and elm trees), litter sifted, 18.V.2019, leg. Brachat & Meybohm (cAss); 2 ♀♀, E Chakvistavi, 41°40′44″N, 41°53′09″E, deciduous forest, litter sifted, 400 m, 19.V.2019, leg. Brachat &
Meybohm (cAss); 1♀, E Chakvistavi, 41°40’38”N, 41°52’38”E, 380 m, dry forest litter sifted, 19.V.2019, leg. Brachat & Meybohm (cAss); 1♀, E Chakvistavi, 41°40’34”N, 41°52’30”E, 320 m, rhododenron litter sifted, 20.V.2019, leg. Brachat & Meybohm (cAss); 1♂, 3♀♀, 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).

Comment: The original description of *M. assingi* is based on three males collected in two localities in Şırnak and Artvin provinces, East Turkey (Anlaş 2015). The above material represents the first records from Georgia, where the known distribution of this species is confined to the southwest (Map 1).
**Medon fuscusclus** (Mannerheim, 1830)  
(Map 2)

**Comment:** This widespread species is currently known from a single locality in eastern Georgia (Assing 2018) (Map 2).

**Medon abantensis** Bordoni, 1980  
(Map 2)

**Material examined:** Georgia: Adjara: 1 ♂, E Chikuneti, 41°30′38″N, 41°52′37″E, 580 m, 23.V.2018, leg. Brachat & Meybohm (cAss); 3 ♂ ♂, E Chikuneti, 41°30′47″N, 41°53′12″E, 800 m, 23.V.2018, leg. Brachat & Meybohm (cAss); 3 ♀ ♂, 4 ♀ ♀, Skhala valley, 41°34′52″N, 42°21′54″E, 800 m, 22.VI.2017, leg. Brachat & Meybohm (cAss); 3 ♀ ♂, 5 ♀ ♀, Skhala valley, 41°33′42″N, 42°26′20″E, 980 m, 22.VI.2017, leg. Brachat & Meybohm (cAss); 1 ♀, Shavsheti Range, 41°53′12″N, 42°52′37″E, 580 m, 23.V.2018, leg. Brachat & Meybohm (cAss); 3 ♀ ♂, 4 ♀ ♀, E Chikuneti, 41°30′34″N, 41°49′04″E, 410 m, mixed forest margin with rhododendron and fern undergrowth, sifted, 15.VII.2019, leg. Assing & Schülke (cAss, MNB); 1 ♀ ♂, Meskheti Range, NE Khulo, 41°42′17″N, 42°21′49″E, 1120 m, E-slope with predominant Corylus, mostly Corylus litter sifted, 12.VII.2019, leg. Schülke (MNB); 1 ♂, Shavsheti Range, SW Khulo, 41°35′04″N, 42°15′01″E, 610 m, mixed forest margin with rhododendron and fern undergrowth, sifted, 13.VII.2019, leg. Schülke (MNB); 1 ♂, 2 ♂ ♂, Shavsheti Range, SW Khulo, 41°34′41″N, 42°15′01″E, 1090 m, slope with various trees, bushes, and fern undergrowth, sifted, 13.VII.2019, leg. Assing & Schülke (cAss, MNB); 1 ♂, Meskheti Range, NW Khulo, 41°44′44″N, 42°14′36″E, 1090 m, stream valley with hazelnut, litter sifted, 14.VII.2019, leg. Schülke (MNB); 2 ♂ ♂, 6 ♀ ♀, 1 ♂, Meskheti Range, NW Shuakhevi, Gobroneti, 41°39′18″N, 42°02′41″E, 710 m, stream valley with deciduous trees and bushes, litter near stream sifted, 15.VII.2019, leg. Assing & Schülke (cAss, MNB); 1 ♂, 1 ♂ ♂, Meskheti Range, NW Shuakhevi, Gobroneti, 41°39′01″N, 42°02′08″E, 430 m, stream valley with deciduous trees and bushes, litter near stream sifted, 15.VII.2019, leg. Assing & Schülke (cAss, MNB); 1 ♀, 1 ♂, Meskheti Range, SE Batumi, Machakhela National Park, 41°28′55″N, 41°51′29″E, 680 m, stream valley with alder, hazelnut, chestnut, and rhododendron, litter sifted, 16.VII.2019, leg. Assing (cAss); 1 ♂, Shavsheti Range, SE Batumi, Machakhela National Park, 41°30′34″N, 41°49′04″E, 170 m, forest margin with ash, walnut, hazelnut, chestnut, and rhododendron, litter sifted, 17.VII.2019, leg. Schülke (MNB).  
**Samskte-Javakehti:** 3 ♂ ♂, 6 ♀ ♀, Trialeti Range, N Bakuriani, E Tsaghveri, 41°47′22″N, 43°32′29″E, 1170 m, mixed forest margin, litter on scree sifted, 8.VII.2019, leg. Assing (cAss).  
**Imerek:** 1 ♂, N Kutaisi, Sataplia Nature Reserve, 42°18′58″N, 42°39′30″E, 330 m, mixed deciduous forest with large rocks, litter sifted, 16.VIII.2021, leg. Schülke (cAss).

**Comment:** *Medon abantensis* was originally described based on a unique male from a locality in Bolu (Bordoni 1980). According to Schülke & Smetana (2015), *M. abantensis* was previously known from Turkey, Georgia (Abkhazia), and Cyprus. The records from Abkhazia had been reported by Assing (2004b, 2009); they all belong to *M. steggiae* (see below). Also, some of the records previously reported and mapped in Assing (2009) were revised in the course of the present study and in fact refer to other species. In view of the confirmed distribution, which ranges from Northwest Turkey across North Turkey to the Lesser Caucasus in Southwest Georgia, the previous record from Cyprus (Anlaş 2012) appears highly doubtful. Some of the above material was erroneously reported as *M. sparsiventris* by Assing (2018). The distribution in Georgia is restricted to the west and southwest (Map 2).

**Medon steggiae** spec. nov.  
urn:lsid:zoobank.org:act:0B7CD2C8-3487-4873-B6B0-45533697760F  
(Figs 1–8, Map 2)

**Type material:** Holotype ♂: "GEORGIA [45] – Zemo Svaneti, N Ivari, 42°49′02″N, 42°01′54″E, 600 m, stream valley, 9.VIII.2021, V. Assing / Holotypus ♂ Medon steggiae sp. n. det. V. Assing 2021" (cAss). Paratypes: 1 ♂, 3 ♀ ♀: same data as holotype; 2 ♀ ♀ [1 teneral]: "GEORGIA [GE2021-45]: Zemo Svaneti, N Ivari, 42°49′02″N, 42°01′54″E, 600 m, stream valley with mixed deciduous forest, litter sifted, 9.VIII.2021, leg. M. Schülke" (MNB); 11 ♂ ♂, 9 ♂ ♀: "GEORGIA [61] – Zemo Svaneti, N Ivari, 42°49′02″N, 42°01′54″E, 600 m, stream valley, 18.X.2021, V. Assing" (cAss); 1 ♂: same data, but "[61a]" (cAss); 5 exs., "GEORGIA [GE2021-61]: Zemo Svaneti, N Ivari, 42°49′02″N, 42°01′54″E, 600 m, stream valley with mixed deciduous forest, litter sifted, 18.X.2021, leg. M. Schülke" (MNB); 2 ♂ ♂: "GEORGIA [GE2021-44]: Zemo Svaneti, N Ivari, 42°49′58″N, 42°01′28″E, 620 m, stream valley with mixed deciduous forest, litter sifted, 9.VIII.2021, leg. M. Schülke" (MNB, cAss); 2 ♀ ♀: "GEORGIA [GE 2021-38]: Zemo Svaneti, S Khaishi, 42°38′46″N, 42°25′40″E, 840 m, 17.X.2021, V. Assing" (cAss); 1 ♀: "GEORGIA [GE2021-32]: Zemo Svaneti, N Khaishi, 43°02′38″N, 42°10′20″E 1250 m, mixed forest, 5.VIII.2021, V. Assing" (cAss); 1 ♀: "GEORGIA [GE2021-32]: Zemo Svaneti, N Khaishi, 43°02′38″N, 42°10′20″E 1250 m, mixed forest, moist litter near small stream sifted, 5.VIII.2021, leg. M. Schülke" (MNB); 1 ♀: "GEORGIA [GE 2021-38]: Zemo Svaneti, S Khaishi, 42°54′45″N, 42°11′39″E, 840 m, alder forest, litter near logs sifted, 7.VIII.1921, leg. M. Schülke" (MNB); 2 ♀ ♀ [1 teneral]: 2 ♀ ♀: "GEORGIA – Svaneti, 10–15 km N Jvari, 42°49′02″N, 42°01′52″E, 600 m, 20.VII.2019, leg. J. & B. Martens [8]" (cAss); 1 ♂: "N42°49′02″ E42°01′52″ (10), Georgien Svaneti, Ivari ca. 20 km N 600 m, Brachat & Meybohm 25.6.2017" (cAss); 5 exs.: "GEORGIA, Svaneti, valley of Khuberi river, leaf litter sifted, 720 m, 42.856190N, 42.039260E, 11.VII.2015 M. Kocijan lgt." (cKoc, cAss); 1 ♂, 1 ♀ [teneral]: "W Caucasus: Abkhazia,
Figs 1–14: *Medon steggiae* spec. nov. (1–9), *M. lanugo* from Samsun (10–13), and *M. bisinuatus* (14): 1, 10 – habitus; 2, 11 – forebody; 3, 14 – male sternite VII; 4–7, 12–13 – aedeagus in lateral and in ventral view; 8–9 – aedeagus in transparent light in lateral and in ventral view. Scale bars: 1–2, 10–11: 1.0 mm; 3–9, 12–14: 0.2 mm.
Assing, V.: A revision of *Medon*. XII. Two new species and a review of the fauna of Georgia

env. Novyi Afon, valley of Psyrtska riv. (Fagus orientalis, Coryllus [sic]) / Pirot env., 30.IV.2002, Under stone on meadow, Hlaváč lgt. (cAss); 1 ♂: “Georgia – Abkhazia, Novyi Afon, Fagus orientalis forest, 22.VII.2002, Koval” (cAss); 1 ♂: “GEORGIA – Abkhazia, Upper course of Mtshishta River [near Otkhara village], 200 m, (Caprinus [sic] + Corylus), 28.viii.2001, Koval” (cAss).

**Etymology**: This species is dedicated to my dear friend and colleague Ina Steggewentz (nickname: Steggi) to reward, and finally put an end to, her determined and relentless nudging, nagging, and pushing me to have a species named after her, at the occasion of her retirement.

**Description**: Body length 4.5–5.8 mm; length of fore-body 2.5–2.9 mm. Habitus as in Fig. 1. Coloration: body reddish-brown to dark-brown with the head mostly blackish-brown to black; legs reddish; antennae dark-reddish.

Head (Fig. 2) approximately as broad as long; punctuation shallow, but defined, very dense, and umbilicate. Eyes weakly convex and rather small, less than half as long as postocular region in dorsal view.

Pronotum (Fig. 2) slightly narrower than head, with shallow, but defined, non-confluent punctuation, narrowly impunctate along midline.

Elytra (Fig. 2) slightly shorter than pronotum. Hind wings present, but possibly of reduced length. Posterior margin of tergite VII with palisade fringe.

♂: sternite VII (Fig. 3) and sternite VIII with similar modifications as many other species of the *M. fusculus* group; aedeagus approximately 0.7 mm long and shaped as in Figs 4–9.

**Comparative notes**: Based on the modifications of the male sternites VII–VIII and on the morphology of the aedeagus, *M. steggiae* belongs to the *M. fusculus* group. This group includes a number of similar species, most of which are distributed in the East Mediterranean, the Caucasus region, and the Middle East. The representatives of this group are distinguished only by slight differences in the morphology of the aedeagus, sometimes also by the shape and chaetotaxy of the male sternite VII and by external characters. The aedeagus of *M. steggiae* is most similar to that of *M. lanugo* Assing, 2004, a species distributed in Turkey where it is widespread and rather common. The new species is distinguished from *M. lanugo* by smaller and less convex eyes, significantly shorter elytra, less coarse and shallower punctuation of the head; much shallower, less coarse, less dense, and non-confluent punctuation of the pronotum, and a slightly longer aedeagus with an apex of different shape (both in

Figs 15–20: *Medon bisinuatus*: 15 – habitus; 16 – male sternite VIII; 17–18 – aedeagus in lateral and in ventral view; 19–20 – aedeagus in transparent light in lateral and in ventral view. Scale bars: 15: 1.0 mm; 16–20: 0.2 mm.
Species from China and Taiwan

*Medon alesi* Assing, 2014

**Material examined:** Taiwan: 1 ♂ [identified by B. Feldmann], Nantou, Ren’ai, 24°03’32"N, 121°09’44”E, 1950 m, deciduous forest, sifted, 27.VII.2018, leg. Hetzel (cFel).

**Comment:** The distribution of *M. alesi* is confined to Taiwan, where it seems to be rather common (Assing 2014, 2018).

*Medon bisinuatus* spec. nov.

urn:lsid:zoobank.org:act:8D2E686A-4F4B-450B-AAEE-103EAB99C309

(Figs 14–20)


**Etymology:** The specific epithet (Latin, adjective) alludes to the bisinuate posterior margin of the male sternite VIII.

**Description:** Body length 4.2–5.2 mm; length of fore-body 2.4–2.7 mm. Habitus as in Fig. 20. Coloration: head blackish; pronotum dark-brown to blackish-brown; elytra brown, with the humeral angles indistinctly paler; abdomen brown to dark-brown; legs dark-yellowish; antennae dark-reddish with antennomere I somewhat darker. Head approximately as broad as long; punctuation fine and dense, coarser on frons; interstices with shallow microreticulation. Eyes moderately large, approximately 0.7–0.8 times as long as postocular region in dorsal view. Pronotum: punctuation dense, fine (though less so than that of head), and granulose. Elytra long and broad, approximately 1.15 times as long as pronotum; punctuation fine, very dense, and weakly granulose. Hind wings fully developed.

Comparison of characteristic shape; internal sac with dark structures of characteristic arrangement.

**Distribution and natural history:** The type material was collected in several localities in Abkhazia and Samegrelo-Zemo Svanetia, Northwest Georgia (Map 2). Some of the specimens had erroneously been reported as *M. abanten-sis* or *M. sequax* by Assing (2004b, 2018). The material was mostly sifted from leaf litter in moist mixed and deciduous forests at altitudes of 200–1250 m. Two specimens were collected by soil-washing. Three paratypes found in April, July, and August are teneral.

**Acknowledgements**

I am indebted to the colleagues indicated in the material section and in particular to Volker Brachat (Geretsried) and Heinrich Meybohm (Großhansdorf) for the generous gift of Staphylinidae collected by them and by Jochen Martens during their field trips to Georgia. Alexey Solodovnikov (Copenhagen) assisted in the identification of a locality in Abkhazia. Benedikt Feldmann (Münster) and Michael Schülke proof-read and reviewed the manuscript.


References


