Linzer biol. Beitr.	42/2	1093-1104	19.12.2010
---------------------	------	-----------	------------

Two new species and additional records of Lomechusini from the Palaearctic region (Coleoptera: Staphylinidae: Aleocharinae)

V. Assing

A b s t r a c t : Two species of *Orphnebius* MOTSCHULSKY are described and illustrated, both from Yunnan, China: *Orphnebius alesi* nov.sp. and *O. draco* nov.sp. Additional records are reported for eleven species of the genera *Drusilla* LEACH, *Pella* STEPHENS, *Myrmoecia* MULSANT & REY, and *Amaurodera* FAUVEL, among them two new country records from Albania and Turkey. A key to the *Orphnebius* species of China is provided.

K e y w o r d s : Coleoptera, Staphylinidae, Aleocharinae, Lomechusini, *Orphnebius*, Palaearctic region, China, taxonomy, new species, new records, key to species.

1. Introduction

The tribe Lomechusini is represented in the Palaearctic region by 23 genera and approximately 260 species (ASSING 2009). Among the recently revised genera are *Amaurodera* FAUVEL 1905 (ASSING 2003, 2005a, 2006c, 2009), *Orphnebius* MOTSCHULSKY 1858 (ASSING 2006a-b, 2009), *Pella* STEPHENS 1835 (MARUYAMA 2006), and Western Palaearctic and Middle Asian *Drusilla* LEACH 1819 (ASSING 2005b-c, 2006d).

Since the latest contribution to the Palaearctic Lomechusini fauna (ASSING 2009), more material has become available, including two new species of *Orphnebius* from China, as well as additional records of eleven Lomechusini species, including two new country records.

2. Material and methods

The material referred to in this study is deposited in the following collections:

TAU.....National Museum of Natural History, Tel Aviv University (A. Freidberg, via B. Feldmann) cAss.....author's private collection

cFel private collection Benedikt Feldmann, Münster

cKle	private collection Andreas Kleeberg, Berlin
cMah	private collection Viggo Mahler, Horsens
cPüt	private collection Andreas Pütz, Eisenhüttenstadt
cSch	private collection Michael Schülke, Berlin
cSha	private collection Alexey Shavrin, Irkutsk
cSme	private collection Aleš Smetana, Ottawa
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 (without ante-clypeus) to neck, elytral length at the suture from the apex of the scutellum to the posterior elytral margin, and aedeagus length from the apex of the ventral process to the base of the capsule.

3. Species descriptions and additional records

Drusilla canaliculata (FABRICIUS 1787)

Material examined: Albania: 14 exs., Korçë, 19 km N Korçë, Pllaja e Pusit, 40°47'N, 20°49'E, 1040 m, partly flooded pasture, under stones, 24.V.2010, leg. Assing & Schülke (cAss, cSch). Greece: 1 ex., Lithochoro, Olympos, 2.IX.1986, leg. Feldmann (cFel). Russia: 1 ex., Altai, Barnaul town area, 83.8'N, 53.5°E, 12.VI.1992, leg. Jakowlew (cPüt); 8 exs., Krasnodarskiy Kray, Centralniy District, right side of Psakhe river, 18.-19.IX.2008, leg. Enustschenko (cSha, cAss). Turkey: K a r a b ü k : 1 ex., pass W Eskipazar, 40°58'N, 33°24'E, 1450 m, fir forest, litter sifted, 26.III.2010, leg. Assing (cAss). K a s t a m o n u : 1 ex., 40 km N Kastamonu, S Kayneak geçidi, 41°42'N, 33°41'E, 1250 m, calcareous slope, under stones, 10.IV.2009, leg. Assing (cAss): 24 exs., 40 km NW Kastamonu, NE Azdavay, W Yeşilpınar, 41°42'N, 33°28'E, 1090 m, calcareous flooded field, under stones, 22.III.2010, leg. Assing (cAss); 3 exs., 48 km SW Kastamonu, ca. 25 km S Araç, 41°08'N, 33°19'E, 1490 m, pasture near stream, under stones, 24.III.2010, leg. Assing (cAss); 6 exs., ca. 65 km W Kastamonu, 20 km W Eflani, 41°28'N, 33°13'E, 1090 m, calcareous arable land, under stones, 25.III.2010, leg. Assing (cAss). S i n o p : 2 exs., 15 km SW Sinop, S Kılıçlı, 41°57'02"N, 35°02'06"E, 80 m, grassy road margin, grass between shrubs, sifted, 3.IV.2009, leg. Assing & Wunderle (cAss, cWun); 1 ex., ca. 30 km SSE Ayancık, Çangal Dağı, 41°50'N, 34°42'E, 350 m, pasture, under stones, 4.IV.2009, leg. Assing (cAss). S i v a s : 1 ex., Sivas, Kurbağalı geçidi, 13 km S Şerefiye, N Zara, 1900 m, 29.VI.-1.VIII.1992, leg. Heinz (cSme).

Although a winged morph is unknown, *D. canaliculata* has a trans-Palaearctic distribution. According to SMETANA (2004), this species was previously unknown from Albania.

Drusilla memnonia (MÄRKEL 1845)

M a t e r i a l e x a m i n e d : <u>Italy</u>: 1 ex., Sicilia, Canale Inferno (Scillato), 16.III.2008, leg. Magrini (cAss).

The distribution of *D. memnonia* is confined to Sicily, Tunisia, and Algeria (ASSING 2006d).

Drusilla meridiana (FAUVEL 1900)

M a t e r i a l e x a m i n e d : <u>Greece</u>: l ex., Pelopónnisos, 22 km W Nemea, Psari, 11.IV.1993, leg. Jørum (cMah).

This species is endemic to the Pelopónnisos, southern Greece (ASSING 2005b).

Drusilla cernens ASSING 2005

M a t e r i a l e x a m i n e d : <u>Israel</u>: 2 exs., Majdal Shams, light trap [sic], 15.VII.2002, leg. Kravchenko & Chikatunov (TAU, cAss); 1 ex., Merom Golan, 12.VI.2000, leg. Chikotunov (TAU).

The distribution of *D. cernens* is confined to the Middle East, from central southern Anatolia to Israel (ASSING 2005b, 2009).

Drusilla denigrata ASSING 2005

M a t e r i a l e x a m i n e d : <u>Turkey</u>: 6 exs., Hatay, Kızıldağ, SE Arsuz, 36°21'N, 35°57'E, 445 m, 10.IV.2009, leg. Brachat & Meybohm (cAss); 1 ex., Hatay, Kızıldağ, E Madenli, 36°25'N, 36°06'E, 910 m, 10.IV.2009, leg. Brachat & Meybohm (cAss).

This species is known only from the Turkish province Hatay and from Syria (ASSING 2005b).

Pella humeralis (GRAVENHORST 1802)

M a t e r i a l e x a m i n e d : <u>Turkey</u>: B u r s a : 1 ex., Samanlı Dağları , 40°31'N, 29°50'E, 720 m, 19.IV.2010, leg. Brachat & Meybohm (cAss); 1 ex., Samanlı Dağları , 40°32'N, 29°52'E, 740 m, 20.IV.2010, leg. Brachat & Meybohm (cAss); 1 ex., Elmalı, 40°31'N, 29°54'E, 1000 m, 20.IV.2010, leg. Brachat & Meybohm (cAss). B o l u : 1 ex., 7 km S Bolu, 40°40'N, 31°38'E, 930 m, oak forest, sifted, 29.III.2010, leg. Assing (cAss); 1 ex., 7 km S Bolu, 40°40'N, 31°38'E, 950 m, oak & beech forest, leaf litter sifted, 31.III.2010, leg. Assing (cAss). Z o n g u l d a k : 4 exs., ca. 15 km W Devrek, 41°14'N, 31°52'E beech forest with rhododendron undergrowth, litter sifted, 26.III.2010, leg. Assing (cAss).

In Turkey, the distribution of *P. humeralis* is confined to the north (ASSING 2009).

Pella similis (MÄRKEL 1845)

M a t e r i a l e x a m i n e d : <u>Turkey</u>: A n k a r a : 1 ex., 58 km SE Bolu, ca. 20 km N Beypazari, 40°18'N, 31°59'E, 1540 m, pasture, grass & moss under small trees sifted, 28.III.2010, leg. Assing (cAss). K a s t a m o n u : 4 exs., 40 km NW Kastamonu, NE Azdavay, W Yeşilpınar, 41°42'N, 33°28'E, 1090 m, calcareous slope, under stone, 22.III.2010, leg. Assing & Wunderle (cAss, cWun); 1 ex., ca. 65 km W Kastamonu, 20 km W Eflani, 41°28'N, 33°13'E, 1090 m, calcareous arable land, under stones, 25.III.2010, leg. Assing (cAss).

In Turkey, *P. similis* was previously known from Kastamonu, Sinop, Karaman, and Kahramanmaraş provinces (ASSING 2009, in press).

Pella lugens (GRAVENHORST 1802)

M a t e r i a l e x a m i n e d : <u>Turkey</u>: B u r s a : 1 ex., Karaorman, 39°55'N, 28°28'E, 440 m, 15.IV.2010, leg. Brachat & Meybohm (cAss).

In Turkey, *P. lugens* was previously known only from Izmir and Sinop provinces (ASSING 2009).

Myrmoecia reitteri (EPPELSHEIM 1881)

M a t e r i a l e x a m i n e d : <u>Greece</u>: 1 ex., Preveza, Morfi [?], 25.IV.1999, leg. Poot (cAss). <u>Turkey</u>: 1 ex., Bursa, Karaorman, 39°54'N, 28°28'E, 550 m, 15.IV.2010, leg. Brachat & Meybohm (cAss).

This extremely rare species was previously known only from Bosnia-Herzovina and Greece (SMETANA 2004). The above specimen from Turkey represents a new country record.

Amaurodera bomfordi (EPPELSHEIM 1890)

M a t e r i a l e x a m i n e d : <u>Nepal</u>: 2 exs., northeastern Kathmandu valley, 6.V.1993, leg. Kleeberg (cKle, cAss).

Amaurodera bomfordi is the most widespread and common representative of the genus in the Himalayan region (ASSING 2003, 2005a, 2006c). For a distribution map see ASSING (2006c).

Amaurodera schuelkei Assing 2009

M a t e r i a l e x a m i n e d : <u>China</u>: 2 exs., Yunnan, Baoshan Pref., Gaoligong Shan, 65 km NNE Tengchong, 25°35'N, 98°40'E, 1750 m, secondary mixed forest, litter and moss sifted, 31.VIII.2009, leg. Schülke (cSch, cAss).

This recently described species was previously known only from the type locality approximately 25 km to the south of Tengchong (ASSING 2009).

Orphnebius alesi nov.sp. (Figs 1-8, 25)

T y p e m a t e r i a l : <u>Holotype ♂</u>: "China: N-Yunnan, Nujiang Lisu Aut. Pr., Gongshan Co., Gaoligong Shan, creek valley 17 km N Gongshan, 27°54.41'N, 98°39.55'E, 1525-1600 m, 20.VI.05, A. Smetana [C168] / Holotypus ♂ *Orphnebius alesi* sp. n. det. V. Assing 2009" (cAss).

D e s c r i p t i o n : Body length 4.3 mm. Habitus as in Fig. 1. Coloration: forebody blackish-brown; abdomen bright pale-reddish; legs reddish-brown; antennae with antennomeres I-V pale-reddish, VI-VIII gradually infuscate, and IX-XI dark-brown.

Head (Fig. 2) distinctly transverse, approximately 1.35 times as wide as long, posteriorly vertically sloping ventrad towards neck, but not angulate; eyes conspicuously large and bulging, occupying all of lateral portion of head and extending to posterior margin; posterior angles completely obsolete; neck approximately 0.25 times as wide as head; punctation extremely fine and sparse, fine punctures present only in lateral and posterior portion of dorsal surface; median dorsal area impunctate; microsculpture absent. Antenna weakly asymmetric; antennomeres IV approximately as long as wide, V weakly transverse; VI-X of increasing width and increasingly transverse; IX-X approximately twice as wide as long or nearly so; XI slighly longer than combined length of VIII-X (Fig. 3).

Pronotum (Fig. 2) rather strongly convex in cross-section, moderately transverse, 1.3 times as wide as long and 1.15 times as wide as head; posterior angles weakly marked; disc impunctate, punctation present only at margins; lateral margins with three long black setae on approximately 1/4 the length of pronotum, two of them in anterior half and one in posterior half.

Elytra posteriorly approximately 1.55 times as wide, and at suture approximately 0.85 times as long as pronotum, distinctly widened posteriad (Fig. 2); punctation very sparse

and fine; microsculpture absent; pubescence suberect, long, and whitish. Hind wings fully developed. Legs long and slender; metatarsomere I approximately as long as combined length of II-III.



Figs 1-8: *Orphnebius alesi* nov.sp. (holotype): (1) habitus; (2) forebody; (3) antenna; (4) abdomen; (5) male tergite VIII; (6) male sternite VIII; (7-8) median lobe of aedeagus in lateral and in ventral view. Scale bars: 1: 1.0 mm; 2-6: 0.5 mm; 7-8: 0.2 mm.

Abdomen (Fig. 4) wedge-shaped, widest at segment III, gradually and distinctly tapering posteriad; integument without microsculpture; paratergites of segments III-VI sharply edged and strongly elevated; tergites III-VI impunctate except for four setiferous punctures at posterior margins of tergites; tergite VII, except for portion near anterior and posterior margins, with oblong puncture-like sculpture, near posterior margin with few short setae; posterior margin of tergite VII with distinct palisade fringe; tergite VIII impunctate, except for two rows of submarginal and marginal punctures bearing black setae (Fig. 5).

 δ : sternite VIII as in Fig. 6; segments IX-X modified, with dense and long black pubescence; median lobe of aedeagus 0.62 mm long, with slender and apically acute ventral process (Figs 7-8); paramere with condylite apically tapering, not reaching apex of paramerite; paramerite apically narrow (Fig. 25).

Q: unknown.

E t y m o l o g y : This species is dedicated to Aleš Smetana in appreciation of his lifelong dedication to the taxonomy of Staphylinidae and also in gratitude for the generous gift of the holotype.

C o m p a r a t i v e n o t e s : Based on external features (chaetotaxy of pronotum, asymmetric antennae, morphology and chaetotaxy of abdomen, distinctly bicoloured body) and sexual characters (modifications of male segments IX-X, morphology of median lobe of aedeagus, shape of paramere), *O. alesi* undoubtedly belongs to the *O. hauseri* group. Seven species of this group were previously known from China (ASSING 2006a, 2006b, 2009). The new species is distinguished from all of them particularly by the distinctive shapes of the median lobe of the aedeagus and the paramere. The only Chinese representative of the *O. hauseri* group with similarly large eyes is *O. conicornis*, which is additionally separated from *O. alesi* by the much more transverse pronotum, the much more slender antennae with weakly transverse antennomeres VI-X, and the bicoloured elytra. For illustrations of the external and sexual characters of the previously known *Orphnebius* species from China see ASSING (2006a, 2006b, 2009).

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 type locality is situated in the Gaoligong Shan, northern Yunnan, China. The holotype was sifted from fallen leaves and other debris accumulated at the based of a vertical wall in a stream valley at an altitude of 1525-1600 m (SMETANA pers. comm.)

Orphnebius draco nov.sp. (Figs 9-24)

T y p e m a t e r i a l : <u>Holotype &</u>: "China: Yunnan, Baoshan Pref., Gaoligong Shan, 65 km NNE Tengchong, 1750 m, 25°35'20"N, 98°40'21"E, sec. mixed forest, overgrown stone debris, litter and moss sifted, 31.VIII.2009, leg. M. Schülke [CH09-10b] / Holotypus & *Orphnebius draco* sp.n. det. V. Assing 2010" (cAss). Paratypes: 1& [slightly teneral]: "China (Yunnan), Lincang Pref., Bangma Shan, 20 km NW Lincang, 2210 m, 23°58'25"N, 99°54'36"E (water reservoir, in/on loamy soil of bank) 9.IX.2009, D.W. Wrase [37]" (cSch); 1 ♀: "China (Yunnan), Baoshan Pref., Gaoligong Shan, 33 km SE Tengchong, 24°51'22"N, 98°45'36"E, 2100-2200 m (prim. decid. forest, pitfall trap), 31.V.-4.VI.2007, D.W. Wrase [14c]" (cSch).

D e s c r i p t i o n : Large species, body length 7.5-9.0 mm. Habitus highly distinctive (Fig. 9). Coloration: forebody black; abdomen blackish-brown, with the paratergites, the lateral processes of the sternites, and the apex reddish-brown; legs with the femora blackish and the tibiae and tarsi brown; antennae brown, with antennomere I more or less distinctly infuscate.



Figs 9-19: *Orphnebius draco* nov.sp. (9-15: holotype): (9) habitus; (10) head and pronotum; (11) antenna; (12) left elytron; (13) abdomen; (14) abdominal segments III-VI in lateral view; (15) abdominal segments VII-VIII; (16) male tergite VIII; (17) male sternite VIII; (18) male abdominal segments IX-X; (19) female tergite VIII. Scale bars: 9-15: 1.0 mm; 16-19: 0.5 mm.

Head (Fig. 10) distinctly transverse, approximately 1.3 times as wide as long, posteriorly vertically sloping ventrad towards neck, but not angulate (lateral view); behind eyes smoothly curved towards neck (dorsal view), posterior angles completely obsolete; neck

approximately 0.3 times as wide as head; punctation fine, absent in median dorsal portion and rather dense near dorsal margin of eyes; microsculpture in median dorsal portion almost obsolete, more distinct in lateral portion (near eyes); eyes large, strongly bulging, and of oblong ellipsoid shape, not situated laterally, but somewhat dorso-laterally. Antenna not distinctly asymmetric, very long (approximately 3 mm) and slender (Fig. 11).

Pronotum (Fig. 10) strongly convex in cross-section, of transversely quadrangular shape, approximately 1.2 times as wide as long and as wide as head; anterior and posterior angles rounded, but noticeable; on either side of middle with oblong impression, between these impressions and posterior margin with transverse impression; punctation of lateral portion very fine and moderately sparse, that of oblong impressions dense and coarser; pubescence short and depressed; laterally, anteriorly, and posteriorly distinctly margined and without long setae.

Elytra at posterior margin almost twice as wide, and at suture approximately 1.1 times as long as pronotum, distinctly widened posteriad (Fig. 9); suture gaping posteriorly; punctation moderately sparse and distinctly granulose; interstices with pronounced microre-ticulation (Fig. 12). Hind wings present. Legs conspicuously long and slender (Fig. 9); mesotiba weakly, metatibia more strongly curved; metatibia approximately 2 mm long.

Abdomen (Fig. 13) wedge-shaped, distinctly tapering posteriad (lateral sternal process not considered); all sternites postero-laterally with conspicuous processes, that of sternite IV and particularly that of sternite V enormous and of highly characteristic shape (Figs 13-14); tergites III-V impunctate, except for some barely noticeable minute setiferous punctures at the posterior margins; integument without microsculpture; posterior 3/5 of tergite VII and tergite VIII with coarse and dense non-setiferous punctures (Fig. 15); posterior margin of tergite VII with distinct palisade fringe; sternite VIII posteriorly in both sexes with pair of lateral processes and pronounced median process (Fig. 17).

 δ : posterior margin of tergite VIII convex and serrate (Fig. 16); segments IX-X weakly modified (Fig. 18); median lobe of aedeagus approximately 0.7 mm long, with almost straight ventral process (Figs 20-22); paramere as in Fig. 23.

 φ : posterior margin of tergite VIII similar to that of δ , but more coarsely serrate (Fig. 19); spermatheca shaped as in Fig. 24.

E t y m o l o g y : The specific epithet (Latin, noun in apposition: dragon) refers to the highly distinctive habitus, which somewhat resembles a Chinese dragon.

C o m p a r a t i v e n o t e s : *Orphnebius draco* is readily distinguished from all other congeners known from China by numerous external characters alone: the long and slender antennae; the unique morphology and chaetotaxy of the pronotum; the microsculpture and punctation of the elytra; the long and slender legs with curved mesoand metatibiae, the highly conspicuous postero-lateral processes of the abdominal sternites, and the long median process of sternite VIII. In addition, the species is characterized by the primary sexual characters. For illustrations of the external and sexual characters of the previously known *Orphnebius* species from China see ASSING (2006a, 2006b, 2009).

Five species of *Orphnebius* have been reported from Myanmar: *O. laevigatus* (KRAATZ 1859), *O. birmanus* CAMERON 1939, *O. luzonicus* BERNHAUER 1915, *O. rougemonti* PACE 1986, and *O. rufiventris* (EPPELSHEIM 1895). All of these species are of different coloration (at least the abdomen is reddish) and none of them has the conspicuous modifications of the abdominal sternites.



Figs 20-25: *Orphnebius draco* nov.sp. (20-24; 20: holotype) and *O. alesi* nov.sp. (holotype) (25): (20-21) median lobe of aedeagus in lateral view; (22) median lobe of aedeagus in ventral view; (23, 25) paramere; (24) spermatheca. Scale bars: 0.2 mm.

D is tr i b u t i o n a n d b i o n o m i c s : The species was found in three localities in western Yunnan, partly close to the border with Myanmar. The specimens were collected on the loamy shore of a reservoir (one specimen) and sifted from leaf litter and debris in forests (two specimens) at altitudes of 1750-2210 m. One of the paratypes is slightly teneral (collected in September).

Key to the Orphnebius species of China

References to illustrations published in previous papers are abbreviated as follows: A06a = ASSING (2006a); A06b = ASSING (2006b); A09 = ASSING (2009).

- 10. Antennae more slender and less strongly asymmetric (Fig. 3). Eyes larger (Fig. 2). *さ*: median lobe of aedeagus smaller, 0.62 mm long, with slender and apically acute ventral process (Figs 7-8); paramere with condylite apically tapering, not reaching apex of paramerite; paramerite apically narrow (Fig. 25). Yunnan......*O. alesi* ASSING

Acknowledgements

I am indebted to the colleagues listed in the material section for the loan of material under their care. In particular, I am grateful to Michael Schülke and Aleš Smetana for the generous gift of the holotypes of the two *Orphnebius* species described above. Benedikt Feldmann (Münster) proofread the manuscript.

Zusammenfassung

Zwei Arten der Gattung *Orphnebius* MOTSCHULSKY werden beschrieben, beide aus Yunnan, China: *Orphnebius alesi* nov.sp. und *O. draco* nov.sp. Weitere Nachweise von elf Arten der Gattungen *Drusilla* LEACH, *Pella* STEPHENS, *Myrmoecia* MULSANT & REY sowie *Amaurodera* FAUVEL werden gemeldet, darunter zwei Erstnachweise für Albanien und die Türkei. Für die *Orphnebius*-Arten Chinas wird eine Bestimmungstabelle erstellt.

References

- ASSING V. (2003): A review of the Himalayan species of *Amaurodera* (Coleoptera: Staphylinidae: Aleocharinae). Entomological Problems **33**: 5-20.
- ASSING V. (2005a): A review of the Himalayan species of *Amaurodera* (Coleoptera: Staphylinidae: Aleocharinae). II. New species and additional records. Stuttgarter Beiträge zur Naturkunde Serie A (Biologie), Nr. **680**: 1-12.
- ASSING V. (2005b): On the western Palaearctic species of *Drusilla* Leach, with special reference to the species of the eastern Mediterranean (Coleoptera: Staphylinidae, Aleocharinae). Koleopterologische Rundschau 75: 111-149.
- ASSING V. (2005c): A revision of the Middle Asian species of *Drusilla* LEACH (Insecta: Coleoptera: Staphylinidae: Aleocharinae). Entomologische Blätter **101**: 43-56.
- ASSING V. (2006a): A revision of the Palaearctic species of *Orphnebius* MOTSCHULSKY (Insecta: Coleoptera: Staphylinidae: Aleocharinae). Entomological Problems **36**: 1-26.
- ASSING V. (2006b): On the *Orphnebius* species of China (Insecta: Coleoptera: Staphylinidae: Aleocharinae). Entomological Problems **36**: 75-84.
- ASSING V. (2006c): A new species and new records of *Amaurodera* FAUVEL from Nepal (Coleoptera: Staphylinidae, Aleocharini). Beiträge zur Entomologie, Keltern **56**: 155-160.
- ASSING V. (2006d): On the Italian species of *Drusilla* LEACH, 1819, with a note on *D. taygetana* ASSING (Coleoptera: Staphylinidae, Aleocharinae). Beiträge zur Entomologie, Keltern **56**: 281-296.
- ASSING V. (2009): New species and additional records of Lomechusini from the Palaearctic region (Coleoptera: Staphylinidae: Aleocharinae). Stuttgarter Beiträge zur Naturkunde Serie A, Neue Serie 2: 201-226.
- ASSING V. (in press): On the Staphylinidae of Turkey. VII. Five new species and additional records (Coleoptera: Staphylinidae). Koleopterologische Rundschau **80** (2010).

- MARUYAMA M. (2006): Revision of the Palearctic species of the myrmecophilous genus *Pella* (Coleoptera, Staphylinidae, Aleocharinae). National Science Museum Monographs **32**: 1-207.
- SMETANA A. (2004): Staphylinidae, subfamily Aleocharinae, pp. 353-494. In: LÖBL I. &
 A. SMETANA (eds), Catalogue of Palaearctic Coleoptera. II. Hydrophiloidea Histeroidea
 Staphylinoidea. Stenstrup, Apollo Books: 942 pp.

Author's address:

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

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: Linzer biologische Beiträge

Jahr/Year: 2010

Band/Volume: 0042_2

Autor(en)/Author(s): Assing Volker

Artikel/Article: <u>Two new species and additional records of Lomechusini from the</u> <u>Palaearctic region (Coleoptera: Staphylinidae: Aleocharinae) 1093-1104</u>