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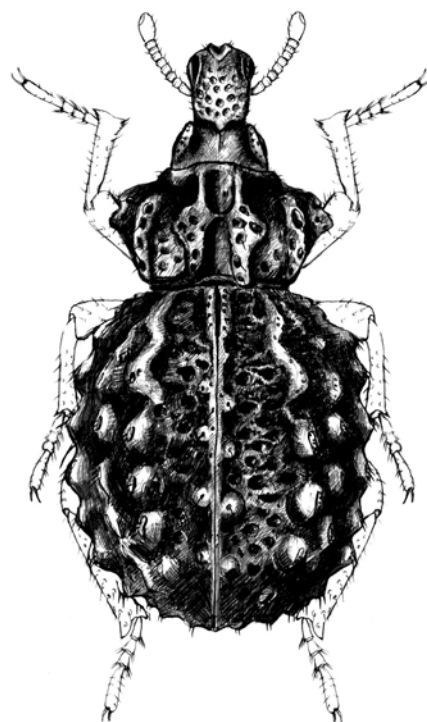


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CAUCASIAN ENTOMOLOGICAL BULLETIN

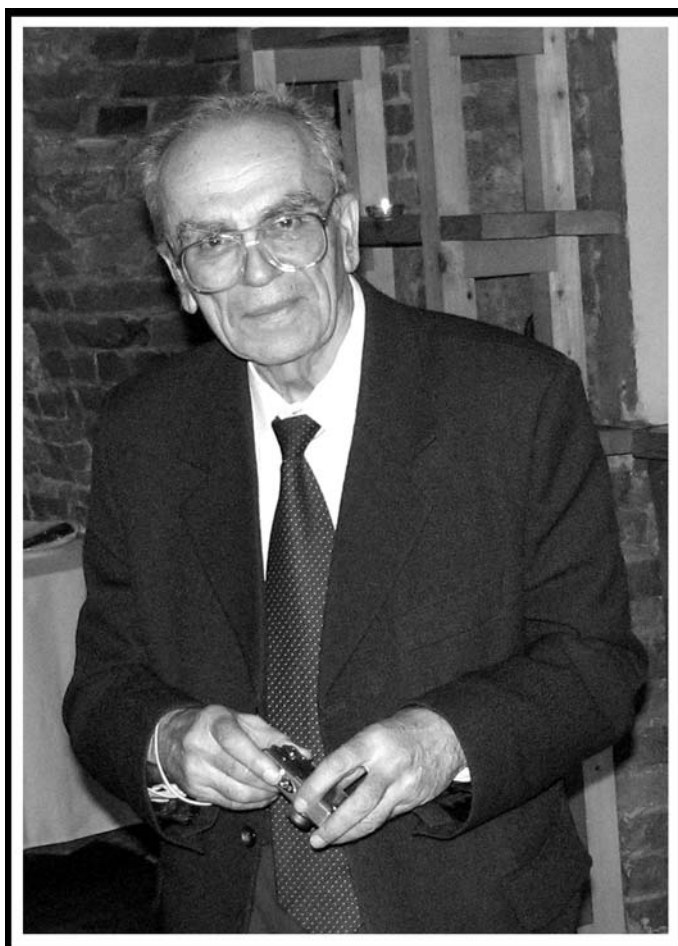
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(1934–2012)**

Contribution to the knowledge of buprestid beetles (Coleoptera: Buprestidae) from Israel with description of a new species of *Acmaeodera* Eschscholtz, 1829

К изучению жуков-златок (Coleoptera: Buprestidae) Израиля с описанием нового вида *Acmaeodera* Eschscholtz, 1829

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Key words: Coleoptera, Buprestidae, *Acmaeodera* (*Lisposcelis*) *zaitzevi*, new species, collecting data, new records, Israel.

Ключевые слова: Coleoptera, Buprestidae, *Acmaeodera* (*Lisposcelis*) *zaitzevi*, новый вид, коллекторские данные, новые местонахождения, Израиль.

Abstract. Collecting data for 44 species of buprestid beetles from Israel are presented. *Acmaeodera* (*Lisposcelis*) *zaitzevi* sp. n. – the first West-Palaearctic species of the subgenus *Lisposcelis* Volkovitsh, 1979 is described, illustrated and compared with related species. *Acmaeodera* (*Acmaeodera*) *damasensis* Pic, 1936 and *Sphenoptera* (*Hoplistura*) *alcides* Reitter, 1900 are first recorded from Israel; male genitalia of little known species *Xantheremia* (*Xantheremia*) *freidbergi* Volkovitsh, 2004 are studied and illustrated for the first time.

Резюме. Приведены коллекторские данные о 44 видах златок Израиля. Представлены описание, иллюстрации и диагноз *Acmaeodera* (*Lisposcelis*) *zaitzevi* sp. n. – первого представителя подрода *Lisposcelis* Volkovitsh, 1979 в Западной Палеарктике. *Acmaeodera* (*Acmaeodera*) *damasensis* Pic, 1936 и *Sphenoptera* (*Hoplistura*) *alcides* Reitter, 1900 впервые указаны для Израиля; впервые изучено и проиллюстрировано строение гениталий самца малоизвестного вида *Xantheremia* (*Xantheremia*) *freidbergi* Volkovitsh, 2004.

Introduction

Despite the fact that the fauna of buprestid beetles of Israel was intensively studied in recent years [Niehuis, 1996; Chikatunov et al., 1999; Chikatunov, 2000; Halperin, Argaman, 2000; Volkovitsh et al., 2000; Finkel et al., 2002; Volkovitsh, 2004], there have been still found new species for science and for Israel [Niehuis, 2001, 2003, 2005, 2009; Volkovitsh, 2004]. A number of species listed for Israel in the recent catalogues [Kubáň et al., 2006; Volkovitsh, 2006; Bellamy, 2008]. This work is based upon a material collected mainly by Drs. Manfred and Oliver Niehuis in Israel in May and June 2012 (Table 1) and a few specimens from the other collectors. The synonymy and taxonomic positions of species in systematic part follow Kubáň et al. [2006]; only recent publications are included in the species list.

The following codens of institutional and private collections are used throughout the text: GMCC –

G. Magnani collection, Cesena, Italy; MNCA – M. Niehuis collection, Albersweiler, Germany; NMPC – National Museum, Prague, Czech Republic; TAU – Tel-Aviv University, Tel-Aviv, Israel; ZIN – Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia.

Label data in the type material section are given verbatim; separate labels are divided by double slash (/), lines of every label divided by a single slash (/); the form of the text: p – printed, h – handwritten, p + h – combined.

Acmaeodera (*Acmaeodera*) *damasensis* Pic, 1936

Material. [Southern Negev] Elifaz, 6.09.2003, E. Topel, V. Chikatunov [leg.] (2 specimens; TAU, ZIN).

Note. Indication on the presence of this species in Israel [Volkovitsh, 2006] was based on the mentioned specimens and here can be considered as the first record for Israel.

Acmaeodera (*Acmaeodera*) *flavolineata flavolineata* Laporte et Gory, 1835

Niehuis, 1996: 133, 140; Chikatunov et al., 1999: 58; Chikatunov, 2000: 51; Halperin, Argaman, 2000: 104; Volkovitsh et al., 2000: 128, 133; Finkel et al., 2002: 109; Volkovitsh, 2004: 115.

Material. Har Hermon: Loc. 8, Mt. Hermon, 3 km NW Majdal Shams, 29–30.05.2012, M. & O. Niehuis leg., 2 specimens; Upper Galilee: Loc. 11, Mt. Meron, 4 km SEE Sasa, 31.05.2012, M. & O. Niehuis leg., 2 specimens.

Acmaeodera (*Acmaeotethya*) *bernardi* Descarpentries, 1953

Halperin, Argaman, 2000: 103; Volkovitsh, 2004: 116.

Material. Southern Negev: Loc. 17, 7 km SSW Yotvata, 6.06.2012, M. & O. Niehuis leg.; reared from Acacia wood, 27.06–9.09.2012, 10 specimens.

Acmaeodera (*Acmaeotethya*) *crinita abigail* Obenberger, 1946

Niehuis, 1996: 133, 139; Chikatunov et al., 1999: 58;

Table 1. Collection sites visited by M. and O. Niehuis in 2012.

Таблица 1. Места сборов М. и О. Нигуис в 2012 году.

Locality №№	Geographical region	Collecting locality	Geographical coordinates		Altitude (m)	Date(s)
			N	E		
1.	Judean Desert	Nahal Perat	31°50'38"	035°24'49"	-70	24.05
2.	Dead Sea Area	Nahal Ze`elim	31°21'08"	035°21'18"	-260	25.05
3.	Northern Negev	1.5 km SE Kemehin	30°53'88"	034°26'26"	230	26.05
4.	Central Negev	Sede Boqer	30°52'2"	034°47'79"	470	27.05
5.	Northern Negev	9 km ESE Yeroham	30°57'9"	035°0'42"	330	27.05
6.	Lower Galilee	E Dabburiya, Har Tabor	32°41'53"	035°22'8"	300–350	28.05
7.	Har Hermon	Mt. Hermon, 2 km NW Majdal Shams	33°17'61"	035°45'61"	1420	29.05
8.	Har Hermon	Mt. Hermon 3 km NW Majdal Shams	33°17'68"	035°45'65"	145	29–30.05
9.	Golan Heights	1.5 km WSW Yonatan	32°56'06"	035°46'95"	510	29.05
10.	Golan Heights	Panyas	33°14'63"	035°41'80"	380	30.05
11.	Upper Galilee	Mt. Meron 4 km SEE Sasa	32°59'35"	035°24'52"	1100	31.05
12.	Central Coastal Plain	0.5 km SE HaBikkurim (Qesarya)	32°30.19.78'	034°54.39.93'	15	1–2.06
13.	Southern Coastal Plain	0.5 km SW Nizzan Bet (dunes near Ashqelon)	31°34'8"	034°37'11"	43	2.06
14.	Southern Coastal Plain	0.8 km W Re'im	31°23'10"	034°27'0"	37	2–4.06
15.	Northern Negev	Revivim	31°02'47"	034°42'46"	280	3.06
16.	Southern Negev	Ne`ot Semadar	30°02'69"	035°01'00"	400	5, 7.06
17.	Southern Negev	7 km SSW Yotvata	29°50'24"	035°01'49"	70	6.06
18.	Northern Negev	1 km NW Shivta	30°53'24"	034°37'52"	300	7.06

Chikatunov, 2000: 51; Halperin, Argaman, 2000: 103 (as *crinita*); Volkovitsh et al., 2000: 128, 133; Finkel et al., 2002: 108; Volkovitsh, 2004: 116.

Material. Har Hermon: Loc. 8, Mt. Hermon, 3 km NW Majdal Shams, 29–30.05.2012, M. & O. Niehuis leg., 7 specimens.

Acmaeodera (Lisposcelis) zaitzevi sp. n.
(Color plate 2: fig. 1–8)

Material. Holotype (fig. 1), ♀ (TAU): Israel [Dead Sea Area] Wadi Ze'elim 25.5.12 / 31°21'08"N, 035°21'18"E / 260 m, leg. M. & O. Niehuis (p). Paratype (fig. 4), ♀ (strongly deformed) (GMCC): Israel, Dead Sea Area / (En Gedi), En Boqueq / G. Magnani leg., 5.v.96 (p + h) // Ex larva *Acacia / tortilis* / sf. 26.v.96 (p + h, blue).

Description. Total length 5.2–5.3 mm, width 1.5–1.6 mm (holotype 5.3 mm and 1.6 mm correspondingly). Body (fig. 1–4) small, slightly elongate, 3.31–3.47 times as long as pronotum at base, weakly convex, dorsal curvature poorly marked; black with feeble bronze or coal sheen, antennae and legs yellowish-brown; elytra yellowish-brown with brown humeral swellings and suture, elytral markings formed by darker and lighter areas or elytra unicolorous; body covered with short, recumbent and semi-erect, white and yellowish setae.

Head (fig. 5, 7) broad, flattened, vertex slightly convex when seen from above; frons convex, without medial line or depression, feebly flattened at the middle; with nearly straight, markedly diverging sides. Vertex 1.88–2 times as wide as transverse diameter of eye and 1.14–1.19 times as wide as frons above antennal sockets. Clypeus rather narrow, with broad, deep, slightly angular medial emargination anteriorly. Frons with reticulate sculpture of small, round, umbilicate punctures with inconspicuous granules and relatively large eccentric micropunctures; intervals about half the diameter of puncture, smooth; covered with short, recumbent white setae. Antennal segments in female expanded from antennomere 4, relatively long, 1.71–1.81 times as long as vertical diameter of eye; antennomeres 2–4 yellowish, scape and distal antennomeres brown; antennomere 2 oval, swollen; antennomere 3 elongate, slender, slightly expanded toward apex; antennomere

4 triangular, slightly wider than long; distal antennomeres 5–10 nearly trapezoid, transverse, about 1.5 times as wide as long; antennomere 11 round, nearly as wide as long.

Pronotum (fig. 7) black, regularly convex, distinctly transverse, 1.39–1.43 times as wide at base as long, widest just anteriorly of mid-length; sides stronger arcuate at anterior and posterior thirds, weakly arcuate at the middle, pronotum looks quadrangular. Anterior margin feebly bisinuate, slightly angularly produced at centre, basal margin straight. Lateral carina fine, entire, reaching anterior corners, nearly straight. Pronotal surface regularly convex, without medial depression or line; latero-basal fossae poorly marked, inconspicuous. Pronotal surface with uniform pseudoalveolate sculpture of large, deep simple punctures, not forming concentric rugosities toward disc. Pronotum covered with uniform, short, recumbent, white setae. Anterior prosternal margin weakly emarginated, bordered with poorly marked groove; prosternum convex, covered with punctate sculpture of small, deep punctures. Pronotal hypomera, meso- and metaventrites with the same sculpture.

Elytra (fig. 1, 2, 4) moderately elongate, 2.4–2.44 times as long as wide at base, slightly convex; sides weakly expanded at humeri, subparallel toward posterior 1/3, then arcuately converging to narrowly rounded apices. Subhumeral excision rather deep, distinct; epipleural serrations poorly marked, smoothed, inconspicuous. Strial punctures small, superficial, round or oval, separate; discal striae visible up to base. Intervals wide, flat, subequal, except for wider 9th interval, at disc 3–5 times as wide as diameter of strial punctures. Intervals with rather large, confused multiseriata punctures which slightly smaller than strial punctures. Elytra yellowish-brown with brown humeral swellings and suture; in holotype (fig. 1) elytral markings formed by darker and lighter areas; in paratype (fig. 4) elytra unicolorous; covered with very short (as long as half of interval width), semi-erect, white and yellowish setae.

Legs (fig. 1–7) yellowish-brown; metacoxal plates with posterior margin slightly emarginated, without lateral tooth. Protibiae distinctly expanded toward apices, bearing 8–9 big,

curved, strongly sclerotised, nearly black teeth along external margin (fig. 6) (diagnostic character of subgenus *Lisposcelis*); meso- and metatibiae slender, only slightly expanded toward apices, without external teeth; metatibiae bearing comb of rather long yellowish setae externally. Tarsi long, meso- and metatarsi nearly as long as tibiae; tarsomere 1 longer than tarsomeres 2–4 which are subequal; tarsomere 5 slender, slightly expanded toward apex; tarsal pads poorly developed on tarsomeres 1–3, each larger toward distal end. Tarsal claws (female) with internal tooth at mid-length.

Abdomen (fig. 3) blackish-bronze; covered with uniform punctate sculpture of big, simple punctures, which are denser on sides and sparser on disc, and recumbent, rather long white setae. Anal ventrite in female yellowish and regularly rounded apically, with slightly emarginated sides, bordered with wide shallow groove.

Male unknown.

Female. Ovipositor (fig. 8) of typical tubular type, long, approximately 3 times as long as expanded apical part, with deeply emarginated apex.

Diagnosis. *Acmaeodera zaitzevi* sp. n. is the first West-Palaeartic species of the subgenus *Lisposcelis* Volkovitsh, 1979, hitherto known only from its type species *A. (L.) jakobsoni* Obenberger, 1928 (= *eberti* Cobos, 1966) from the West Himalaya and Nepal [Volkovitsh, 1979, 2006]. The new species differs from *A. jakobsoni* in the first place by the nearly unicolorous elytra, similar to the species of *Xantheremia* Volkovitsh, 1979, and fewer teeth on the protibiae (in *A. jakobsoni* about 15 teeth). Among West-Palaeartic species *A. zaitzevi* sp. n. comes close to *A. (Acmaeotethya) batelkai* Volkovitsh, 2011 from the United Arab Emirates (Bílý et al., 2011: 180, fig. 9) which may be transferred to subgenus *Lisposcelis* but this requires more study. *A. batelkai* differs from the new species by well marked elytral markings and only a few trapezoid obtuse teeth on external margin of protibiae (Bílý et al., 2011, fig. 41).

Host plant. The paratype of *Acmaeodera zaitzevi* sp. n. was reared by G. Magnani from *Acacia tortilis* Hayne (Fabales, Fabaceae).

Distribution. Israel: Dead Sea Area.

Etymology. The species name is dedicated to late Prof. V.F. Zaitzev, an outstanding person and the scientist who was a friend and mentor to the senior author for nearly 40 years, and in memory of the two joint collection trips to Israel in 1994 and 1996.

Xantheremia (Xantheremia) freidbergi Volkovitsh, 2004
(Color plate 2: fig. 9–14)

Chikatunov, 2000: 52 (author Volkovitsh, 1998, erratum); Volkovitsh, 2004: 119.

Material. Northern Negev: Loc. 5, 9 km ESE of Yeroḥam, 27.05.2012, leg. M. & O. Niehuis, 1♂.

Note. *Xantheremia freidbergi* hitherto is known only from the female holotype (TAU). M. and O. Niehuis have collected one male of this species. The structure of male genitalia of *X. freidbergi* (fig. 13, 14) markedly differs from that of closely related and very similar species *X. jelineki* Bílý, 1983 from Iran (fig. 15, 16).

Xantheremia (Xantheremia) philistina (Marseul, 1865)

Niehuis, 1996: 134, 141; Chikatunov, 2000: 52; Halperin,

Argaman, 2000: 104; Volkovitsh, 2004: 119.

Material. Dead Sea Area: Loc. 2, Naḥal Ze'elim, 25.05.2012, M. & O. Niehuis leg., 10 specimens; Southern Negev: Loc. 16, Ne'ot Semadar, 5, 7.06.2012, M. & O. Niehuis leg., 3 specimens.

Xantheremia (Xantheremia) pantherina (Bílý, 1979)

Chikatunov, 2000: 52; Volkovitsh, 2004: 119.

Material. Southern Negev: Loc. 17, 7 km SSW Yotvata, 6.06.2012, M. & O. Niehuis leg.; reared from *Acacia* wood, 17.08–9.09.2012, 2 specimens.

Acmaeoderella (Acmaeoderella) elbursi (Obenberger, 1924)

Chikatunov et al., 1999: 62; Chikatunov, 2000: 52; Halperin, Argaman, 2000: 104; Volkovitsh et al., 2000: 128, 134; Finkel et al., 2002: 114; Volkovitsh, 2004: 125.

Material. Lower Galilee: Loc. 6, E Dabburiya, Har Tabor, 28.05.2012, M. & O. Niehuis leg., 3 specimens; Central Coastal Plain: Loc. 12, 0.5 km SE HaBikkurim (Qesarya), 1–2.06.2012, M. & O. Niehuis leg., 4 specimens; Southern Coastal Plain: Loc. 13, 0.5 km SW Nizzan Bet (dunes near Ashqelon), 2.06.2012, M. & O. Niehuis leg., 1 specimen; Loc. 14, 0.8 km W Re'im, 2, 4.06.2012, M. & O. Niehuis leg., 1 specimen.

Acmaeoderella (Liogastrina) chrysanthemii (Chevrolat, 1854)

Niehuis, 1996: 134, 141; Chikatunov et al., 1999: 61; Chikatunov, 2000: 51; Halperin, Argaman, 2000: 104; Volkovitsh et al., 2000: 128, 133; Finkel et al., 2002: 112; Volkovitsh, 2004: 122.

Material. Central Coastal Plain: Loc. 12, 0.5 km SE HaBikkurim (Qesarya), 1–2.06.2012, M. & O. Niehuis leg., 7 specimens.

Acmaeoderella (Liogastrina) elegans miribella (Obenberger, 1946)

Chikatunov et al., 1999: 63; Chikatunov, 2000: 52; Halperin, Argaman, 2000: 104; Volkovitsh et al., 2000: 128, 133; Volkovitsh, 2004: 122.

Material. Dead Sea Area: Loc. 2, Naḥal Ze'elim, 25.05.2012, M. & O. Niehuis leg., 1 specimen; Central Coastal Plain: Loc. 12, 0.5 km SE HaBikkurim (Qesarya), 1–2.06.2012, M. & O. Niehuis leg., 3 specimens; Southern Coastal Plain: Loc. 14, 0.8 km W Re'im, 2, 4.06.2012, M. & O. Niehuis leg., 1 specimen.

Acmaeoderella (Omphalothorax) adspersula adspersula (Illiger, 1803)

Niehuis, 1996: 134, 141; Chikatunov, 2000: 51; Halperin, Argaman, 2000: 104; Finkel et al., 2002: 111; Volkovitsh, 2004: 123.

Material. Central Coastal Plain: Loc. 12, 0.5 km SE HaBikkurim (Qesarya), 1–2.06.2012, M. & O. Niehuis leg., 1 specimen.

Acmaeoderella (Omphalothorax) despecta (Baudi di Selve, 1870)

Niehuis, 1996: 134, 141; Chikatunov et al., 1999: 62; Chikatunov, 2000: 52; Halperin, Argaman, 2000: 104; Volkovitsh et al., 2000: 128, 134; Finkel et al., 2002: 113; Volkovitsh, 2004: 124.

Material. Lower Galilee: Loc. 6, E Dabburiya, Har Tabor, 28.05.2012, M. & O. Niehuis leg., 2 specimens; Central Coastal Plain: Loc. 12, 0.5 km SE HaBikkurim (Qesarya), 1–2.06.2012, M. & O. Niehuis leg., 31 specimens.

Acmaeoderella (Euacmaeoderella) gibbulosa (Ménétriés, 1832)

Niehuis, 1996: 134, 141; Chikatunov et al., 1999: 63; Chikatunov, 2000:

52; Halperin, Argaman, 2000: 104; Volkovitsh et al., 2000: 128, 134; Finkel et al., 2002: 114; Volkovitsh, 2004: 126.

Material. Central Coastal Plain: Loc. 12, 0.5 km SE HaBikkurim (Qesarya), 1–2.06.2012, M. & O. Niehuis leg., 3 specimens.

Acmaeoderella (Euacmaeoderella) villosula (Steven, 1830)

Niehuis, 1996: 134, 142; Chikatunov et al., 1999: 64; Chikatunov, 2000: 51 (as *boryi* Brullé, 1832), 52; Halperin, Argaman, 2000: 104; Volkovitsh et al., 2000: 128, 134; Finkel et al., 2002: 112 (as *boryi*); Volkovitsh, 2004: 127.

Material. Lower Galilee: Loc. 6, E Dabburiya, Har Tabor, 28.05.2012, M. & O. Niehuis leg., 4 specimens; Central Coastal Plain: Loc. 12, 0.5 km SE HaBikkurim (Qesarya), 1–2.06.2012, M. & O. Niehuis leg., 5 specimens.

Acmaeoderella (Euacmaeoderella) judeorum (Obenberger, 1914)

Niehuis, 1996: 134, 141; Chikatunov, 2000: 52; Halperin, Argaman, 2000: 104; Volkovitsh, 2004: 127.

Material. Har Hermon: Loc. 8, Mt. Hermon, 3 km NW Majdal Shams, 29–30.05.2012, M. & O. Niehuis leg., 1 specimen.

Acmaeoderella (Euacmaeoderella) lanuginosa lanuginosa (Gyllenhal, 1817)

Niehuis, 1996: 134, 142; Chikatunov, 2000: 52; Halperin, Argaman, 2000: 104; Volkovitsh, 2004: 126.

Material. Lower Galilee: Loc. 6, E Dabburiya, Har Tabor, 28.05.2012, M. & O. Niehuis leg., 4 specimens; Golan Heights: Loc. 9, 1.5 km WSW Yonatan, 29.05.2012, M. & O. Niehuis leg., 4 specimens; Central Coastal Plain: Loc. 12, 0.5 km SE HaBikkurim (Qesarya), 1–2.06.2012, M. & O. Niehuis leg., 2 specimens.

Acmaeoderella (Euacmaeoderella) nivifera cheopis (Obenberger, 1934)

Chikatunov, 2000: 52; Halperin, Argaman, 2000: 104; Volkovitsh, 2004: 128.

Material. Central Coastal Plain: Loc. 12, 0.5 km SE HaBikkurim (Qesarya), 1–2.06.2012, M. & O. Niehuis leg., 1 specimen.

Acmaeoderella (Euacmaeoderella) squamosa (Théry, 1912)

Niehuis, 1996: 134, 142; Chikatunov, 2000: 52; Halperin, Argaman, 2000: 104; Volkovitsh, 2004: 127.

Material. Northern Negev: Loc. 3, 1.5 km SE Kemehin, 26.05.2012, M. & O. Niehuis leg., 1 specimen.

Steraspis squamosa (Klug, 1829)

Niehuis, 1996: 134, 142; Chikatunov, 2000: 53; Halperin, Argaman, 2000: 105; Volkovitsh, 2004: 128.

Material. Southern Negev: Loc. 16, Ne'ot Semadar, 5, 7.06.2012, M. & O. Niehuis leg., 6 specimens.

Sphenoptera (Sphenoptera) schimmeli Niehuis, 2005

Niehuis, 2005: 143.

Material. Southern Negev: Loc. 15, Revivim, 3.06.2012, M. & O. Niehuis leg., 1 specimen.

Sphenoptera (Deudora) signata Jakovlev, 1887

Chikatunov, 2000: 54 (as *jureceki* Obenberger, 1925); Halperin, Argaman, 2000: 105 (as *addenda* Jakovlev, 1900).

Material. Har Hermon: Loc. 8, Mt. Hermon, 3 km NW Majdal Shams, 29–30.05.2012, M. & O. Niehuis leg., 2 specimens.

Sphenoptera (Deudora) smyrneensis Gory, 1841

Chikatunov, 2000: 53 (as *anxia* Jakovlev, 1900; *captivosa* [sic!] Jakovlev, 1901; *congrua* Jakovlev, 1900); Halperin, Argaman, 2000: 106; Volkovitsh, 2004: 131 (as *anxia*).

Material. Har Hermon: Loc. 8, Mt. Hermon, 3 km NW Majdal Shams, 29–30.05.2012, M. & O. Niehuis leg., 3 specimens.

Sphenoptera (Deudora) sculpticollis Heyden, 1886

Niehuis, 1996: 135, 143; Chikatunov, 2000: 53 (as *akbesiana* Obenberger, 1920), 54; Halperin, Argaman, 2000: 106; Finkel et al., 2002: 117.

Material. Har Hermon: Loc. 8, Mt. Hermon, 3 km NW Majdal Shams, 29–30.05.2012, M. & O. Niehuis leg., 1 specimen.

Sphenoptera (Hoplistura) alcides Reitter, 1900

Material. Northern Negev: Loc. 18, 1 km NW Shivta, 7.06.2012, M. & O. Niehuis leg., 4 specimens.

Note. This species has been known only from Tunisia [Kubáň et al., 2006]. New record for Israel.

Sphenoptera (Chrysoblemma) parumpunctata parumpunctata (Klug, 1829)

Niehuis, 1996: 135 (s.g. *Chilostetha*), 143; Chikatunov, 2000: 54 (as *houskai* Obenberger, 1946; *parumpunctata*); Halperin, Argaman, 2000: 106; Volkovitsh, 2004: 132.

Material. Northern Negev: Loc. 18, 1 km NW Shivta, 7.06.2012, M. & O. Niehuis leg., 3 specimens.

Anthaxia (Haplanthaxia) abdita Bílý, 1982

Niehuis, 1996: 135, 144; Chikatunov, 2000: 54; Halperin, Argaman, 2000: 106; Volkovitsh, 2004: 136.

Material. Southern Negev: Loc. 17, 7 km SSW Yotvata, 6.06.2012, M. & O. Niehuis leg., 1 specimen.

Anthaxia (Haplanthaxia) angustipennis (Klug, 1829)

Niehuis, 1996: 135, 144; Chikatunov, 2000: 53 (as *Sphenoptera*), 55; Halperin, Argaman, 2000: 106.

Material. Central Negev: Loc. 4, Sede Boqer, 27.05.2012, M. & O. Niehuis leg., 6 specimens; Southern Negev: Loc. 17, 7 km SSW Yotvata, 6.06.2012, M. & O. Niehuis leg., 1 specimen.

Anthaxia (Haplanthaxia) cichorii (Olivier, 1790)

Niehuis, 1996: 135, 144; Chikatunov et al., 1999: 66; Chikatunov, 2000: 55; Halperin, Argaman, 2000: 107; Volkovitsh et al., 2000: 128, 134; Finkel et al., 2002: 119; Volkovitsh, 2004: 136.

Material. Lower Galilee: Loc. 6, E Dabburiya, Har Tabor, 28.05.2012, M. & O. Niehuis leg., 1 specimen; Golan Heights: Loc. 9, 1.5 km WSW Yonatan, 29.05.2012, M. & O. Niehuis leg., 1 specimen; Central Coastal Plain: Loc. 12, 0.5 km SE HaBikkurim (Qesarya), 1–2.06.2012, M. & O. Niehuis leg., 8 specimens.

Anthaxia (Haplanthaxia) congregata (Klug, 1829)

Halperin, Argaman, 2000: 107.

Material. Southern Negev: Loc. 17, 7 km SSW Yotvata, 6.06.2012, M. & O. Niehuis leg.; reared from Acacia wood, 30.06.2012, 2 specimens.

Anthaxia (Haplanthaxia) israelita Abeille de Perrin, 1882

Niehuis, 1996: 135 (s.g. *Anthaxia*), 144; Chikatunov, 2000: 55; Halperin, Argaman, 2000: 107; Finkel et al., 2002: 121; Volkovitsh, 2004: 141 (s.g. *Anthaxia*).

Material. Southern Coastal Plain: Loc. 14, 0.8 km W Re'im, 2, 4.06.2012, M. & O. Niehuis leg., 1 specimen.

Anthaxia (Haplanthaxia) kneuckeri kneuckeri
Obenberger, 1920

Niehuis, 1996: 135, 144; Chikatunov, 2000: 55; Halperin, Argaman, 2000: 107; Volkovitsh, 2004: 135.

Material. Southern Negev: Loc. 17, 7 km SSW Yotvata, 6.06.2012, M. & O. Niehuis leg., 1 specimen; same label, reared from Acacia wood, 27.06–26.08.2012, 9 specimens.

Anthaxia (Haplanthaxia) marginifera metallescens Bílý,
1999

Chikatunov, 2000: 55 (as *metallica* Bílý, 1977); Halperin, Argaman, 2000: 107 (as *marginifera metallica* Bílý, 1979); Volkovitsh, 2004: 135.

Material. Southern Negev: Loc. 17, 7 km SSW Yotvata, 6.06.2012, M. & O. Niehuis leg.; reared from Acacia wood, 27.06–15.09.2012, 15 specimens.

Anthaxia (Haplanthaxia) houskai Obenberger, 1946

Chikatunov, 2000: 55; Halperin, Argaman, 2000: 107; Finkel et al., 2002: 120; Volkovitsh, 2004: 136.

Material. Lower Galilee: Loc. 6, E Dabburiya, Har Tabor, 28.05.2012, M. & O. Niehuis leg., 1 specimen; Upper Galilee: Loc. 11, Mt. Meron, 4 km SEE Sasa, 31.05.2012, M. & O. Niehuis leg., 1 specimen; Central Coastal Plain: Loc. 12, 0.5 km SE HaBikkurim (Qesarya), 1–2.06.2012, M. & O. Niehuis leg., 9 specimens.

Anthaxia (Haplanthaxia) astoreth Obenberger, 1934

Niehuis, 1996: 135, 148 (as *olympica* Kiesenwetter, 1881); Chikatunov et al., 1999: 69 (as *olympica*); Chikatunov, 2000: 55 (as *olympica astoreth*); Halperin, Argaman, 2000: 107 (as *olympica astoreth*); Volkovitsh, 2004: 141 (s.g. *Anthaxia*; as *olympica astoreth*).

Material. Har Hermon: Loc. 8, Mt. Hermon, 3 km NW Majdal Shams, 29–30.05.2012, M. & O. Niehuis leg., 1 specimen.

Anthaxia (Haplanthaxia) praeclara praeclara
Mannerheim, 1837

Niehuis, 1996: 135 (s.g. *Anthaxia*), 148; Chikatunov, 2000: 55; Halperin, Argaman, 2000: 107; Volkovitsh, 2004: 141 (s.g. *Anthaxia*).

Material. Lower Galilee: Loc. 6, E Dabburiya, Har Tabor, 28.05.2012, M. & O. Niehuis leg., 3 specimens; Central Coastal Plain: Loc. 12, 0.5 km SE HaBikkurim (Qesarya), 1–2.06.2012, M. & O. Niehuis leg., 7 specimens.

Anthaxia (Cratomerus) diadema diadema Fischer von
Waldheim, 1824

Niehuis, 1996: 135, 144; Chikatunov et al., 1999: 67; Chikatunov, 2000: 55; Halperin, Argaman, 2000: 107; Volkovitsh et al., 2000: 128, 134; Finkel et al., 2002: 119; Volkovitsh, 2004: 134.

Material. Lower Galilee: Loc. 6, E Dabburiya, Har Tabor, 28.05.2012, M. & O. Niehuis leg., 2 specimens; Central Coastal Plain: Loc. 12, 0.5 km SE HaBikkurim (Qesarya), 1–2.06.2012, M. & O. Niehuis leg., 13 specimens; Southern Coastal Plain: Loc. 13, 0.5 km SW Nizzan Bet (dunes near Ashqelon), 2.06.2012, M. & O. Niehuis leg., 1 specimen.

Anthaxia (Cratomerus) sponsa Kiesenwetter, 1857

Niehuis, 1996: 135, 148; Chikatunov et al., 1999: 70; Chikatunov, 2000: 55; Halperin, Argaman, 2000: 107; Volkovitsh et al., 2000: 128, 134; Finkel et al., 2002: 124; Volkovitsh, 2004: 133.

Material. Lower Galilee: Loc. 6, E Dabburiya, Har Tabor, 28.05.2012, M. & O. Niehuis leg., 1 specimen; Har Hermon: Loc. 8, Mt. Hermon, 3 km NW Majdal Shams, 29–30.05.2012, M. & O. Niehuis leg., 1 specimen; Golan Heights: Loc. 10, Panyas, 30.05.2012, M. & O. Niehuis leg., 1 specimen; Upper Galilee: Loc. 11, Mt. Meron, 4 km SEE Sasa, 31.05.2012, M. & O. Niehuis leg., 8 specimens.

Anthaxia (Anthaxia) bicolor bicolor Faldermann, 1835

Niehuis, 1996: 135, 144; Chikatunov et al., 1999: 65; Chikatunov, 2000: 55; Halperin, Argaman, 2000: 106; Volkovitsh et al., 2000: 128, 135; Volkovitsh, 2004: 140.

Material. Central Coastal Plain: Loc. 12, 0.5 km SE HaBikkurim (Qesarya), 1–2.06.2012, M. & O. Niehuis leg., 1 specimen.

Anthaxia (Anthaxia) muliebris Obenberger, 1918

Chikatunov et al., 1999: 68; Chikatunov, 2000: 55; Halperin, Argaman, 2000: 107; Volkovitsh et al., 2000: 128, 135; Finkel et al., 2002: 122; Volkovitsh, 2004: 140.

Material. Har Hermon: Loc. 7, Mt. Hermon, 2 km NW Majdal Shams, 29.05.2012, M. & O. Niehuis leg., 1 specimen.

Chalcogenia halperini Volkovitsh et Bílý, 1997

Chikatunov, 2000: 54; Halperin, Argaman, 2000: 108; Volkovitsh, 2004: 133.

Material. Southern Negev: Loc. 17, 7 km SSW Yotvata, 6.06.2012, M. & O. Niehuis leg.; reared from Acacia wood, 21.08–9.09.2012, 3 specimens.

Meliboeus (Meliboeoides) parvulus parvulus (Küster, 1852)

Niehuis, 1996: 136, 148 (as *violaceus* Kiesenwetter, 1857); Chikatunov et al., 1999: 78 (as *violaceus*); Chikatunov, 2000: 56 (as *amethystinus* Olivier, 1790; *violaceus*); Halperin, Argaman, 2000: 109 (as *violaceus*); Volkovitsh et al., 2000: 128, 135 (as *violaceus*); Finkel et al., 2002: 126 (as *violaceus*); Volkovitsh, 2004: 143 (as *violaceus*).

Material. Har Hermon: Loc. 8, Mt. Hermon, 3 km NW Majdal Shams, 29–30.05.2012, M. & O. Niehuis leg., 12 specimens.

Meliboeus (Meliboeus) sp. near guyoti Obenberger, 1920

Niehuis, 1996: 136, 148 (s.g. *Melixes*; as *guyoti* Obenberger, 1920); Chikatunov, 2000: 56 (as *guyoti*); Halperin, Argaman, 2000: 109 (as *guyoti*); Volkovitsh, 2004: 143 (s.g. *Melixes*; as *guyoti*).

Material. Southern Coastal Plain: Loc. 13, 0.5 km SW Nizzan Bet (dunes near Ashqelon), 2.06.2012, M. & O. Niehuis leg., 16 specimens.

Note. The taxonomic status of this species is not quite clear. The comparison of specimens collected by M. Volkovitsh in 1994 [Volkovitsh, 2004] and by M. and O. Niehuis in 2012 with the image of holotype (female) of *M. guyoti* Obenberger (NMPC) revealed marked differences. Also synonymy of *M. guyoti* with *M. impressithorax* Pic, 1924 [Kubáň et al., 2006] is questionable.

Meliboeus (Meliboeus) heydeni Abeille de Perrin, 1897

Chikatunov et al., 1999: 77; Chikatunov, 2000: 56; Halperin, Argaman, 2000: 109; Volkovitsh et al., 2000: 128, 135; Finkel et al., 2002: 126; Volkovitsh, 2004: 142 (s.g. *Melixes*).

Material. Judean Desert: Loc. 1, Nahal Perat, 24.05.2012, M. & O. Niehuis leg., 5 specimens.

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References

- Bellamy C.L. 2008. A World Catalogue and Bibliography of the Jewel Beetles (Coleoptera: Buprestoidea), Volume 1: Introduction; Fossil Taxa; Schizopodidae; Buprestidae: Julodinae – Chrysochroinae; Poecilonotini. Sofia–Moscow: Pensoft Publishers: 625 p.
- Bílý S., Kubáň V., Volkovitsh M.G., Kalashian M.Yu. 2011. Order Coleoptera, Family Buprestidae // Arthropod fauna of the UAE. 4: 168–223.
- Chikatanov V. 2000. Catalogue of the beetles (Coleoptera) of Israel and adjacent areas. National Collection of Insects, Department of Zoology, The George S. Wise Faculty of Life Sciences, Tel-Aviv University: 129 p.
- Chikatanov V., Pavlíček T., Nevo E. 1999. Coleoptera of “Evolution Canyon”, Lower Nahal Oren, Mount Carmel, Israel. I. Families: Buprestidae, Carabidae, Cerambycidae, Glaphyridae, Hybosoridae, Hydrophilidae, Lucanidae, Scarabaeidae, Tenebrionidae, and Trogidae. Institute of Evolution, University of Haifa. Sofia–Moscow: Pensoft Publishers: 174 p.
- Finkel M., Chikatanov V., Nevo E. 2002. Coleoptera of “Evolution Canyon” II: Lower Nahal Keziv, western Upper Galilee, Israel. University of Haifa. Sofia–Moscow: Pensoft Publishers: 270 p.
- Halperin J., Argaman Q. 2000. Annotated list of Buprestidae (Coleoptera) and their host plants of Israel // Zoology in the Middle East (Heidelberg). 20: 99–116.
- Kubáň V., Bílý S., Jendek E., Kalashian M.Yu., Volkovitsh M.G. 2006. Superfamily Buprestoidea, Family Buprestidae. P. 40–60 [New Acts], 325–421 [Catalogue], 457–670 [References] // Catalogue of Palearctic Coleoptera (Löbl I., Smetana A. eds.). Vol. 3. Scarabaeoidea – Scirtoidea – Dascilloidea – Buprestoidea – Byrroidea. Stenstrup: Apollo Books, 690 p.
- Niehuis M. 1996. Prachtkäferfunde aus Israel mit Beschreibung von *Anthaxia martinhauseri* n. sp. (Coleoptera: Buprestidae) // Mitteilungen des Internationalen Entomologischen Vereins. 21(3/4): 131–151.
- Niehuis M. 2001. Vier neue Prachtkäferarten des Genus *Sphenoptera* aus Nordafrika und dem Nahen Osten mit einem Bestimmungsschlüssel für kleine „chilostethoide“ Arten (Coleoptera: Buprestidae) // Mitteilungen des Internationalen Entomologischen Vereins (Frankfurt a. M.). 26(3/4): 123–145.
- Niehuis M. 2003. Ein neuer Prachtkäfer *Sphenoptera brechteli* n. sp. – des Subgenus *Hoplistura* Jak., 1889, aus Israel (Coleoptera: Buprestidae) // Mitteilungen des Internationalen Entomologischen Vereins (Frankfurt a. M.). 28(1/2): 25–31.
- Niehuis M. 2005. *Sphenoptera (Deudora) schimmeli* n. sp. – ein neuer Prachtkäfer aus der Türkei und aus Israel (Coleoptera: Buprestidae) // Mitteilungen des Internationalen Entomologischen Vereins (Frankfurt a. M.). 30(3/4): 133–152.
- Niehuis M. 2009. *Sphenoptera (Chrysoblemma) aradica* n. sp. ein neuer Prachtkäfer aus Israel (Coleoptera: Buprestidae) // Mitteilungen des Internationalen Entomologischen Vereins (Frankfurt a. M.). 34(3/4): 125–132.
- Volkovitsh M.G. 1979. Review of the Palearctic groups of Jewel Beetles of the tribe *Acmaeoderini* (Coleoptera, Buprestidae) // Entomologicheskoe Obozrenie. 58(2): 333–354 (in Russian).
- Volkovitsh M.G. 2004. New records of Buprestidae (Coleoptera) from Israel with description of a new species // Israel Journal of Entomology. 34: 109–152.
- Volkovitsh M.G. 2006. Buprestidae: Polycestinae. P. 56–58. [New Acts + Buprestinae, part.], 330–342 // Catalogue of Palearctic Coleoptera (Löbl I., Smetana A. eds.). Vol. 3. Scarabaeoidea – Scirtoidea – Dascilloidea – Buprestoidea – Byrroidea. Stenstrup: Apollo Books. 690 p.
- Volkovitsh M.G., Pavlíček P., Chikatanov V., Nevo E. 2000. Species diversity and microsite divergence of insects at “Evolution Canyon”, Lower Nahal Oren, Mt. Carmel, Israel (Coleoptera: Buprestidae) // Zoology in the Middle East (Heidelberg). 20: 125–136.



Fig. 1–16. *Acmaeodera (Lisposcelis) zaitzevi* sp. n. and *Xantheremia (Xantheremia)* spp.
 1–8 – *Acmaeodera (Lisposcelis) zaitzevi* sp. n.: 1–3, 5–8 – holotype (TAU), female (body length 5.3 mm); 4 – paratype (GMCC), female (body length 5.2 mm); 9–14 – *Xantheremia (Xantheremia) freidbergi* Volk. (ZIN), male (body length 6.4 mm); 15, 16 – *Xantheremia (Xantheremia) jelineki* Bílý (ZIN), male (body length 6 mm). 1, 4, 9 – dorsal view; 2, 10 – lateral view; 3, 11 – ventral view; 5 – head (frontal view); 6 – protibia and protarsus (right); 7 – pronotum (dorsal view); 8 – ovipositor; 12 – antenna (left); 13, 15 – tegmen; 14, 16 – penis.

Fig. 1–16. *Acmaeodera (Lisposcelis) zaitzevi* sp. n. и *Xantheremia (Xantheremia)* spp.
 1–8 – *Acmaeodera (Lisposcelis) zaitzevi* sp. n.: 1–3, 5–8 – голотип (TAU), самка (длина тела 5.3 мм); 4 – паратип (GMCC), самка (длина тела 5.2 мм); 9–14 – *Xantheremia (Xantheremia) freidbergi* Volk. (ZIN), самец (длина тела 6.4 мм); 15, 16 – *Xantheremia (Xantheremia) jelineki* Bílý (ZIN), самец (длина тела 6 мм). 1, 4, 9 – вид сверху; 2, 10 – вид сбоку; 3, 11 – вид снизу; 5 – голова (вид спереди); 6 – передние голень и лапка (правая); 7 – переднеспинка (вид сверху); 8 – яйцеклад; 12 – антенна (левая); 13, 15 – термен; 14, 16 – пенис.