

## Six new species of the buprestid tribe Acmaeoderini (Coleoptera: Buprestidae: Polycestinae) from Southwest Asia

## Шесть новых видов златок трибы Acmaeoderini (Coleoptera: Buprestidae: Polycestinae) из Юго-Западной Азии

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**Key words:** Coleoptera, Buprestidae, Polycestinae, Acmaeoderini, *Acmaeodera*, *Acmaeoderella*, new species, Southwest Asia.

**Ключевые слова:** Coleoptera, Buprestidae, Polycestinae, Acmaeoderini, *Acmaeodera*, *Acmaeoderella*, новые виды, Юго-Западная Азия.

**Abstract.** Six new species of the buprestid beetles of the tribe Acmaeoderini from Southwest Asia: *Acmaeodera* (*Acmaeotethya*) *quadristriata* sp. n. (Pakistan), *A. (A.) rotundicollis* sp. n. (Iran), *A. (A.) prepsli* sp. n. (Iran), *Acmaeoderella* (? s. str.) *lopatini* sp. n. (Iran), *A. (Omphalothorax) domenicoi* sp. n. (Iran), and *A. (O.) prosopiphaga* sp. n. (India, Pakistan and Iran) are described, illustrated and compared with closely related species.

**Резюме.** Представлены иллюстрированные описания и диагнозы 6 новых видов златок трибы Acmaeoderini из Юго-Западной Азии: *Acmaeodera* (*Acmaeotethya*) *quadristriata* sp. n. (Пакистан), *A. (A.) rotundicollis* sp. n. (Иран), *A. (A.) prepsli* sp. n. (Иран), *Acmaeoderella* (? s. str.) *lopatini* sp. n. (Иран), *A. (Omphalothorax) domenicoi* sp. n. (Иран) и *A. (O.) prosopiphaga* sp. n. (Индия, Пакистан и Иран).

### Introduction

Since the publication of the catalogue of Palaearctic Polycestinae [Volkovitsh, 2006a] a number of new species of Acmaeoderini from different regions of the Palaearctic have been described [Volkovitsh, 2006b, 2011, 2012; Volkovitsh in Bílý et al., 2011; Volkovitsh, Niehuis, 2012; Krajcik, 2012]; some of the species described after publication of Palaearctic catalogue were included in the world catalogue of the buprestid-beetles [Bellamy, 2008]. In this paper, six new acmaeoderine species from the genera *Acmaeodera* Eschscholtz, 1829 and *Acmaeoderella* Cobos, 1955 are described from Iran, Pakistan and India based upon the material collected mainly by Italian, Czech, German, and Russian entomologists in last decades of the XX century and in the beginning of the XXI century.

The following acronyms for institutional and private collections are used in the text:

DGCC – D. Gianasso collection, Castelnovo Don Bosco, Italy;

EJCB – E. Jendek collection, Bratislava, Slovak Republic (presently in Ottawa, Canada);

GNCW – G. Novak collection, Wien, Austria;

HMCM – H. Mühle collection, München, Germany;  
MKCY – M. Kalashian collection, Yerevan, Armenia;  
MNCA – M. Niehuis collection, Albersweiler, Germany;

NMPC – National Museum, Prague, Czech Republic;  
PKCP – P. Kabátek collection, Prague, Czech Republic;

SPCV – S. Prepsl collection, Vyškov, Czech Republic;  
VKCB – V. Kubáň collection, Brno, Czech Republic;  
ZIN – Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia.

Label data in the type material section are given verbatim with author's comments in square brackets ([]); text from the separate labels is divided by double slash (/); the form of the text: p = printed, h = handwritten, p + h = combined.

Images were taken using a Leica MZ-9.5 stereomicroscope with mounted Leica DFC-290 camera. Genitalia images were taken using a Bresser-Biolux light microscope with integrated imaging system.

This paper is dedicated to the blessed memory of Prof. I.K. Lopatin, a wonderful man and scientist who was my friend and colleague for 40 years.

### *Acmaeodera* (*Acmaeotethya*) *quadristriata* sp. n.

(Color plate 6–8: fig. 1–3, 14, 32, 33)

**Material.** Holotype, ♂ (ZIN), "North Pakistan, Beshram, [Khyber Pakhtunkhwa, Besham-Qila, 50 km NEE of Mingora; ~34°9' N, 72°8' E], 15–16.6.1991, S. Prepsl leg." (p). Paratypes: 6♂, 3♀, 61 specimens (sex unknown), same location, 15–16.06.1991, S. Prepsl leg. (p) (SPCV, ZIN, MNCA, EJCB, NMPC, MKCY, GNCW, VKCB); 21 specimens (sex unknown), same location, 20.05.1993 (SPCV, VKCB).

**Description.** Body (fig. 1–3) of medium size, elongate, 3.51 (3.29–3.72) times as long as pronotum at base, convex, with weak dorsal curvature; blackish-bronze, occasionally black with steel sheen; pronotal sides with broad marginal stripe; elytra with yellow and brown longitudinal stripes; body dorsally covered with short, recumbent and semi-erect, white setae, occasionally mixed with yellowish and brownish setae, ventrally with longer semi-erect white setae. Length 7 (5.9–8.3) mm, width at pronotal base 2 (1.6–2.5) mm (n = 20).

Head (fig. 14) broad, slightly convex when seen from above; vertex with thin medial carina; frons moderately convex,

frequently with shallow medial depression and weakly curved, markedly diverging sides. Vertex 1.88 (1.81–2) times as wide as transverse diameter of eye and 1.19 (1.13–1.28) times as wide as frons above antennal sockets. Clypeus rather narrow, with broad, deep, arcuate emargination anteriorly. Frons with ocellate sculpture, laterally changing to reticulate sculpture of regular, small, round umbilicate punctures with distinct central granules and eccentric micropunctures; intervals about 1/2–1 diameter of punctures, smooth; head covered with short, semi-erect white setae. Antennae brownish, moderately long, poorly dimorphic; antennal segments expanded from antennomere 5 in both sexes; in male 1.62 (1.46–1.79), in female 1.48 (1.39–1.62) times as long as vertical diameter of eye; antennomere 2 oval, swollen; antennomere 3 conical, expanded toward apex, slightly longer than wide; antennomere 4 triangular, nearly as long as wide, slightly narrower than 5; distal antennomeres 5–10 trapezoid, barely wider than long; antennomere 11 irregularly rhomboid, slightly longer than wide; antennae of female similar but distal antennomeres less expanded.

Pronotum (fig. 1–3) regularly convex, weakly transverse, 1.37 (1.29–1.46) times as wide at base as long, widest at mid-length, just behind mid-length or at posterior third; sides nearly regularly arcuate or from widest point longer converging toward anterior corners than toward base. Anterior margin angularly projecting, slightly bisinuate, basal margin straight. Lateral carina fine, complete. Dorsal surface occasionally with fine medial depression; prescutellar fossa poorly marked, triangular, lateral fossae well marked. Pronotal sides with wide, complete, yellow marginal stripe, covered with punctate or pseudoalveolate sculpture, changing toward disc to reticulate sculpture of round umbilicate punctures with inconspicuous inner structure and forming very fine concentric rugosities; disc with punctate or pseudoalveolate sculpture of large, deep, simple punctures. Pronotal sides with short, recumbent, white setae; disc with recumbent and semi-erect white mixed with brownish setae. Anterior prosternal margin nearly straight, bordered with poorly marked groove; prosternum weakly convex, covered with ocellate sculpture of small deep punctures; meso-, metaventrals and metacoxal plates with similar sculpture. Pronotal hypomeron bearing ocellate sculpture of large, superficial, umbilicate punctures.

Elytra (fig. 1–3) strongly elongate, 2.74 (2.57–3) times as long as wide at base, narrow, slightly convex; sides weakly expanded at humeri, feebly arcuately diverging toward posterior third, then arcuately converging to narrowly rounded apices. Subhumeral excision shallow but distinct; epipleural serrations poorly marked at posterior fourth, apical denticles saw-like. Strial punctures big, deep, round or oval depending on light or dark background, separate; striae visible up to base. Intervals alternatively expanded, particularly on light background where they more convex; narrow intervals narrower or equal to striae, expanded intervals 1.5–3 times as wide as striae; 9<sup>th</sup> interval markedly elevated, not serrated; intervals with rather large, confused multiseriate micropunctures; background smoothed on disc and transversely rugulose laterally; covered with short (as long as width of narrowest intervals), semi-erect, confused multiseriate, white, yellowish and brownish setae. Elytra with variable yellow and brown longitudinal stripes of *Acmaeodera (Palaeothya) quadrifaria* Baudi, 1870 type (fig. 1, 2).

Legs: femora blackish-bronze, tibiae and tarsi brown or yellowish-brown; metacoxal plates narrow, with posterior margin nearly straight or slightly emarginate, without lateral tooth. Tibiae slender, metatibiae bearing comb of yellowish or brownish setae externally. Tarsomeres subequal, short; tarsomere 5 slender; tarsal pads well developed on tarsomeres 1–4, each larger toward distal end. Tarsal claws long, curved, with small tooth at apical third (male) or mid-length (female).

Abdomen blackish-bronze, covered with uniform punctate sculpture of dense, simple punctures and semi-erect white setae.

Anal ventrite of male relatively long, triangular, narrowly rounded, bordered with indistinct groove and slightly turned-up apically, that of female longer and obliquely depressed laterally.

Male. Aedeagus as in fig. 32, 33. Parameres arcuately converging from about mid-length toward apices. Penis fusiform; lamina relatively short, narrow, rod-shaped, located at the mid-length; medial sclerotization poorly marked; terminal apophyses poorly differentiated.

Female. Ovipositor of tubular type, long, approximately 3.3 times as long as its expanded apical part, with emarginate apex.

**Differential diagnosis.** *Acmaeodera quadristriata* sp. n. belongs to the *A. (Acmaeothya) cisti* Wollaston, 1862 species-group [Volkovitsh, 1979] differing from all other species of this group by elytral markings of *A. quadrifaria* type, marginal stripe of pronotum wide, strial punctures on the elytra large, and intervals alternatively expanded. Based on above mentioned characters new species looks similar to *A. gracilis* (Wiedemann, 1821) from South Africa belonging to Afrotropical *A. signata* Laporte et Gory, 1835 species-group [Volkovitsh, 1979] but *A. quadristriata* sp. n. differs by coarser sculpture of head and pronotum and predominantly lighter elytra.

**Etymology.** The species name refers to the peculiar elytral markings of the new species.

**Host plant** (adult). According to personal communication of S. Prepsl the beetles have been collected on the blossoms of *Nerium oleander* L. (Apocynaceae) on the bank of Indus River; there were also *Acacia* sp. trees which could be a host plant of this species.

**Distribution.** Pakistan (Khyber Pakhtunkhwa Province).

*Acmaeodera (Acmaeothya) rotundicollis* sp. n.  
(Color plate 6–8: fig. 4, 5, 15, 20, 24, 34, 35, 43)

*Acmaeodera (Acmaeothya)* sp. near *truquii* Ab.: Bílý, 1983: 43.

**Material.** Holotype, ♀ (ZIN): "Iran, Fars prov., 30 km SSE Shiraz (29°20' N 52°38' E) Fakh Abad, 13–16.v.2001, S. Prepsl leg." (p). Paratypes: 3♂, 2♀, 48 specimens (sex unknown), same locality, 13–16.05.2001, 2–3.05.2004, 14–15.05.2006, S. Prepsl leg. (p) (SPCV, ZIN, VKCB); 1♀, "S Iran [Fars], Komehr, 2000 m, 17.6.1973" (p) // "Loc. no. 246, Exp. Nat. Mus. Praha" (p) // "♀" (p) // "*Acmaeodera (Acmaeothya) ?sp.n., gr. truquii*, Volkovitsh det. 12. [1]979" (h + p) (NMPC); 2♂, "Iran (Fars), 40 km NO Fasa, Mian Jangal, 29.10' N, 53.23' E, 1750 m, 2-5-09, leg. D. Gianasso" (h) // "Ex larva: *Astragalus* sp., 23-6-2010" (h) (DGCC, ZIN); 14♂, 7♀, 2 specimens (sex unknown), "S Iran, Fars, 56 km N di Darab, 15-4-2007, leg. D. Gianasso" (h) // "Ex larva: *Astragalus* sp., 17, 19, 24, 27, 30-4-2007; 1, 11, 16-5-2007" (h) [2 specimens with additional label: // "adults in cellata"] (DGCC, ZIN); 2 specimens (sex unknown), "Iran SW, Fars prov., Marv Dasht (35 km NWW), Sa'adatabad, 7–12.v.2006, S. Prepsl leg." (p) (SPCV); 1 specimen (sex unknown), "Iran/Fars, 35 km NE Shiraz, 1700 m, e.l. *Astragalus*, 2.4.2011, leg. H. Mühle" (p) (HMCM); 2 specimens (sex unknown), "Iran/Fars, 3 km S of Konar Takhteh, 600 m, e.l. *Astragalus*, 4.2011, leg. H. Mühle" (p) (HMCM); 4♂, 2♀, "S Iran, Hormozgan, 10 km SE di Sa'adatabad, 19-4-2006, 16-4-2007, 830 m, leg. D. Gianasso" (h) // "Ex larva: *Astragalus* sp., 1, 4-6-2007; 4, 10-6-2009" (h) (DGCC, ZIN); 8♂, 9♀, "S Iran, Hormozgan, dint. Qotbabad, 27.57' N, 55.56' E, 19-4-2006, 830 m, leg. D. Gianasso" (h) // "Ex larva: *Astragalus* sp., 28-5-2008, 8, 11-6-2008, 5-6-2009, 29-5, 6-6-2010" (h) (DGCC, ZIN); 1 specimen (sex unknown), "S Iran, prov. Hormozgan, 4 km NEE Hósangön [N Bandar-e Abbäs], 30.iv.2002, lgt. P. Kabatek" (p) (PKCP); 18 specimens (sex unknown), "Iran S., Kerman prov., Deh-Bakri (BAM), 7–12.v.2004, S. Prepsl leg." (p) (SPCV); 1♂, "Iran, 35 km E Lordegan (Buyer Ahmad-o-Kuhgiluyeh), env. Chenar Mahmodi, 31.22'15.6" N, 51.08'13.9" E [according to coordinates this location is in Chahar Mahal-e Bakhtiari], 2005 m, 4-5-5-09, D. Gianasso leg." (p) // "Ex larva: *Astragalus* sp., 5-2009" (p) (DGCC); 1♂, "NW Ázarbáýgan-e Garbi, 10 km S Höy, 8.vi.1999, lgt. E. & P. Hajdaj (p)" // "Collectio Vit Kubán" (p) // "*Acmaeodera (Acmaeothya) cum ?? coluber* Ab., Vit Kubán det. ix.1999" (h + p) (VKCB).



Fig. 1–13. *Acmaeodera* and *Acmaeoderella* spp. n., habitus (1, 2, 4, 6, 8, 10, 12 – dorsal view; 3, 5, 7, 9, 11, 13 – lateral view).

1–3 – *Acmaeodera* (*Acmaeotethya*) *quadristriata* sp. n.: 1 – paratype, male (ZIN) (body length 6.1 mm); 2, 3 – paratype, female (ZIN) (body length 6.4 mm); 4, 5 – *A. (A.) rotundicollis* sp. n., paratype, female (Iran: Fars, Fakh Abad; ZIN) (body length 6 mm); 6, 7 – *A. (A.) prepsli* sp. n., paratype, female (Iran: Kerman, Deh Bakri; ZIN) (body length 8 mm); 8, 9 – *Acmaeoderella* (? s. str.) *lopatini* sp. n., holotype, female (ZIN) (body length 4.9 mm); 10, 11 – *A. (Omphalothorax) prosopiphaga* sp. n., paratype, male (Pakistan: Baluchistan, Bela; ZIN) (body length 6.3 mm); 12, 13 – *A. (O.) domenicoi* sp. n., holotype, male (DGCC) (body length 4.6 mm).

Рис. 1–13. *Acmaeodera* и *Acmaeoderella* spp. n., габитус (1, 2, 4, 6, 8, 10, 12 – вид сверху; 3, 5, 7, 9, 11, 13 – вид сбоку).

1–3 – *Acmaeodera* (*Acmaeotethya*) *quadristriata* sp. n.: 1 – паратип, самец (ЗИН) (длина тела 6.1 мм); 2, 3 – паратип, самка (ЗИН) (длина тела 6.4 мм); 4, 5 – *A. (A.) rotundicollis* sp. n., паратип, самка (Иран: Фарс, Fakh Abad; ZIN) (длина тела 6 мм); 6, 7 – *A. (A.) prepsli* sp. n., паратип, самка (Иран: Керман, Deh Bakri; ZIN) (длина тела 8 мм); 8, 9 – *Acmaeoderella* (? s. str.) *lopatini* sp. n., голотип, самка (ЗИН) (длина тела 4.9 мм); 10, 11 – *A. (Omphalothorax) prosopiphaga* sp. n., паратип, самец (Пакистан: Белуджистан, Bela; ZIN) (длина тела 6.3 мм); 12, 13 – *A. (O.) domenicoi* sp. n., голотип, самец (DGCC) (длина тела 4.6 мм).

**Note.** There are 2 specimens in J. Obenberger's collection (NMPC) under the name *A. rotundicollis* (nomen nudum): 1♀, "Iran: Kerman" (h) // "Typus" (p, red) // "A. rotundicollis m., Type, Det. Dr. Obenberger" (h + p) // "Popsat!" (p, pink) // "Holotypus Acmaeodera (Acmaeotethya) rotundicollis Obenb. in litt. = ?coluber Ab." (h (Volkovitsh), red); 1♀, "Baluchistan" (h) // "Sarbaz" (h) // "Typus" (p, red) // "A. rotundicollis v. designatula m., Type, Det. Dr. Obenberger" (h + p) // "Popsat!" (p, pink) // "Holotypus Acmaeodera (Acmaeotethya) rotundicollis v. designatula Obenb. in litt. = ?coluber Ab." (h (Volkovitsh), red). Originally the first specimen was intended to be designated as a holotype of *A. rotundicollis* sp. n. and I put the paratype labels with this name on the numerous specimens indicated above and deposited in a number of museum and private collections. But Obenberger's specimens slightly differ from other examined specimens in larger size, more expanded pronotum, elytral markings, and distinct elytral serration. For this reason I decided not to include them in the type series though I retain the name assigned by J. Obenberger. The taxonomic identity of these specimens remains unclear.

**Description.** Body (fig. 4, 5) relatively small, weakly elongate, wide, 3.37 (3.18–3.67) times as long as pronotum at base, slightly convex, with weak dorsal curvature; blackish-bronze with cooper sheen; elytra blackish-brown with feeble cooper sheen; elytral markings rather variable, consisting of three broken, transverse, occasionally merging longitudinally, yellowish-brown fasciae not reaching suture, and isolated small maculae; body dorsally covered with short, recumbent and semi-erect, white, yellowish and brownish setae, ventrally with longer recumbent white setae. Length 6.2 (5–7.6) mm, width at pronotal base 1.8 (1.5–2.2) mm (n = 18).

Head (fig. 15, 20) broad, flattened, slightly depressed medially when seen from above; vertex with thin, short medial carina; frons weakly convex, occasionally with shallow medial fossa and markedly curved, slightly diverging sides. Vertex 1.86 (1.67–1.95) times as wide as transverse diameter of eye and 1.12 (1.06–1.18) times as wide as frons above antennal sockets. Clypeus relatively broad, with deep, arcuate emargination anteriorly. Frons with reticulate sculpture, at upper part changing to ocellate sculpture of rather large, round, superficial umbilicate punctures with distinct semilunar granules and eccentric micropunctures; intervals about 1/2–1 diameter of punctures; head covered with short, recumbent and semi-erect, white mixed with brownish setae. Antennae long, dimorphic; antennal segments expanded from antennomere 4 in both sexes; in male 1.91 (1.73–2.07), in female 1.71 (1.5–1.92) times as long as vertical diameter of eye; antennomere 2 oval, slightly swollen; antennomere 3 elongate, occasionally expanded toward apex; antennomere 4 triangular, nearly as long as wide, slightly narrower than 5; distal antennomeres 5–10 trapezoid, slightly longer than wide; antennomere 11 irregularly oval, markedly longer than wide; antennae of female similar but distal antennomeres less expanded, weakly transverse.

Pronotum (fig. 4, 5, 20, 24) regularly convex, weakly transverse, 1.34 (1.24–1.45) times as wide at base as long, widest at mid-length, just behind mid-length or, rarely, at posterior third; sides nearly regularly arcuate or from widest point longer converging toward anterior angles than toward base. Anterior margin slightly angularly or arcuately projecting, feebly bisinuate; basal margin straight. Lateral carina fine, complete, reaching anterior angles. Pronotal surface without medial depression or line; prescutellar fossa inconspicuous, lateral fossae well marked, surrounded by shallow depressions. Pronotal sides without markings; covered with reticulate sculpture of round umbilicate punctures, merging toward disc in concentric rows but forming no distinct rugosities; disc with punctate sculpture of large, deep,

simple punctures, intervals subequal to diameter of punctures. Entire pronotum covered with short, recumbent, white setae occasionally mixed with yellowish or brown setae. Anterior prosternal margin nearly straight; prosternum weakly convex, covered with reticulate sculpture of small, deep, partly obliterated punctures; meso-, metaventrites and metacoxal plates with similar sculpture. Pronotal hypomeron bearing ocellate sculpture of larger, superficial, umbilicate punctures with inconspicuous granules.

Elytra (fig. 4, 5) weakly elongate, 2.52 (2.44–2.65) times as long as wide at base, relatively wide, slightly convex; sides weakly expanded at humeri, subparallel or slightly diverging toward posterior third, then shortly, arcuately converging to regularly rounded apices. Subhumeral excision shallow, but distinct; epipleural serrations nearly missing, barely visible at very apices. Strial punctures small, superficial, round or elongate, separate at anterior half of elytral length, merging and impressed at posterior half; discal striae barely visible at basal third being confused with coarse interval punctures. Intervals flat, wide, slightly convex at posterior half of elytra, 2–5 times as wide as striae; 9<sup>th</sup> interval poorly elevated, not serrated; intervals with rather large, confused, multiseriate punctures, slightly smaller than strial punctures; covered with short (as long as half of interval width), semi-erect, multiseriate white setae mixed with yellowish and brownish setae. Elytral markings of the strongly modified *Acmaeodera* (*Acmaeotethya*) *degener* (Scopoli, 1763) type, rather variable, consisting of three broken, transverse, not reaching suture, occasionally merging longitudinally, yellowish-brown fasciae and isolated small maculae.

Legs (fig. 4, 20) blackish-bronze, metacoxal plates narrow, with posterior margin slightly emarginate. Tibiae slender, barely expanded toward apices; metatibiae bearing comb of brownish setae externally. Tarsomeres subequal, short; tarsomere 5 slender, barely expanded apically; tarsal pads poorly developed on tarsomere 1, each larger toward distal end. Tarsal claws long, curved, with small tooth at apical third in male or at about mid-length in female.

Abdomen blackish-bronze, occasionally with cooper sheen; covered with punctate sculpture of very dense, simple punctures, sparser and smaller on disc, and semi-erect white mixed with brownish setae. Anal ventrite of male short, poorly transversely depressed, with regularly rounded apex and weakly turned-up margins; anal ventrite of female longer, with narrowly rounded apex.

Male. Aedeagus as in fig. 34, 35. Parameres slightly expanded at anterior third. Penis nearly parallel-sided; lamina relatively short, narrow, rod-shaped, located at the mid-length; medial sclerotization well marked; terminal apophyses poorly differentiated.

Female. Ovipositor (fig. 43) of tubular type, long, approximately 3.5 times as long as its expanded apical part, with emarginate apex.

**Differential diagnosis.** *Acmaeodera rotundicollis* sp. n. belongs to the *A. (Acmaeotethya) cisti* Wollaston, 1862 species-group [Volkovitsh, 1979]. In the shape and exclusively recumbent setation of pronotum it comes close to *A. truquii* Abeille de Perrin, 1891 (Eastern Mediterranean), *A. hoerlandti* Bílý, 1983 (Iran), and *A. vanharteni* Volkovitsh, 2011 (UAE, Oman). The new species differs from all mentioned species by relatively short and wide body, vestigial elytral serration, and aedeagus structure. Additionally it differs from the most similar *A. vanharteni* in the lack of pronotal maculae at latero-basal angles (though frequently absent in *A. vanharteni* as well), regularly rounded elytral apices, striae consisting of small punctures and poorly visible in basal third, and rather large, multiseriate interval punctures (in *A. vanharteni* basal corners of pronotum frequently maculate, elytral apices narrowly rounded, striae consisting of large punctures well visible up to elytral base, intervals narrow and bearing very small, mainly uniseriate

punctures). From *A. hoberlandti* it differs by transverse elytral markings, lack of pronotal maculae, and particularly by uniformly punctate pronotal sculpture without distinct lateral rugosities (in *A. hoberlandti* elytral markings mainly longitudinal, latero-basal pronotal angles usually maculate, and pronotum laterally with well defined concentric rugosities and obliterated umbilicate punctures between them). The new species differs from *A. truquii* by much larger body size, transverse elytral markings, regularly rounded elytral apices, striae consisting of small punctures and poorly visible at basal third, rather large multiseriata interval punctures, and particularly by the aedeagus structure (in *A. truquii* elytral markings mainly longitudinal, elytral apices narrowly rounded, striae consisting of large punctures, well visible up to base of elytra, intervals narrow, with very small, mainly uniseriate punctures).

**Etymology.** The species name refers to the shape of the pronotum of the new species.

**Host plant.** *Astragalus* sp. (Fabaceae). According to S. Prepsl (personal communication) the beetles have been also collected mainly on the blossoms of *Astragalus* sp.

**Distribution.** Iran (Chaharmahal and Bakhtiari, Fars, Hormozgan, Kerman, ? Sistan and Baluchestan, West Azerbaijan).

*Acmaeodera (Acmaeotethya) prepsli* sp. n.  
(Color plate 6–8: fig. 6, 7, 16, 21, 25, 36, 37)

**Material.** Holotype, ♂ (ZIN): "Iran S., Kerman prov., Deh-Bakri (BAM), 23.v.2006, S. Prepsl leg." (p). Paratypes: 1♂, 3 specimens (sex unknown), same locality (SPCV, ZIN); 1♀, 2 specimens (sex unknown), same locality, 7–12.05.2004 (SPCV, ZIN); 3♂, 1♀, "Iran-Kerman prov., Kuh-e Gebal Barez, Deh-Bakri, 2500–2700 m, 5.6.2005, V. Major leg." (p) (VKCB, ZIN); 1♂, 1♀, "S Iran, Fars, Dast-e Arzan, 29.38 N, 51.54 E, 2040 m, 25-4-2007, leg. D. Gianasso" (p) // "Paratype *Acmaeodera (Acmaeotethya) degeneroides* sp.n. [nomen nudum], Volkovitch det." (p + h) (DGCC).

**Description.** Body (fig. 6, 7) of medium size, strongly elongate, 3.77 (3.65–3.8) times as long as pronotum at base, slightly convex, without dorsal curvature; blackish-bronze with cooper or violet sheen; elytra dark brown with very feeble bronze or cooper sheen, elytral markings irregular, asymmetrical, consisting of longitudinal and oblique yellowish stripes and small isolated or confluent maculae; body dorsally covered with long, erect, dark brown setae occasionally mixed with yellowish or white setae, ventrally with semi-erect white setae. Length 7.9 (7–9.1) mm, width at pronotal base 2.1 (1.9–2.4) mm (n = 9).

Head (fig. 16, 21) moderately broad, slightly convex or flattened when seen from above; vertex without medial carina or line, frons slightly convex, flattened in the middle but without distinct medial depression, with weakly curved, slightly diverging sides. Vertex 1.68 (1.44–1.87) times as wide as transverse diameter of eye and 1.08 (1.03–1.13) times as wide as frons above antennal sockets. Clypeus rather narrow, with broad, deep, arcuate emargination anteriorly. Frons with ocellate sculpture, occasionally changing to reticulate sculpture toward sides, clypeus and vertex, formed by regular, small, round, umbilicate punctures with inconspicuous central granules and eccentric micropunctures; intervals about 1/2–1 diameter of punctures, smooth; head covered with long, erect, dark brown setae. Antennae moderately long, poorly dimorphic; antennal segments expanded from antennomere 4 or 5 in both sexes; in male 1.69 (1.57–1.82; n = 6), in female 1.53 (1.51–1.54; n = 3) times as long as vertical diameter of eye; antennomere 2 shortly oval, swollen; antennomere 3 slender, slightly expanded toward apex; antennomere 4 strongly expanded apically, triangular, usually markedly narrower but occasionally nearly equal to 5; antennomere 5 triangular, nearly as wide as

long; distal antennomeres 6–10 trapezoid, slightly wider than long; antennomere 11 irregularly rhomboid, longer than wide; antennae of female similar but distal antennomeres less expanded.

Pronotum (fig. 21, 25) flattened, weakly depressed medially, weakly transverse, 1.37 (1.33–1.41) times as wide at base as long, widest at posterior third; sides shortly, linearly diverging from base toward widest point, further longer, nearly rectilinearly converging toward anterior quarter, then shortly, arcuately converging toward anterior angles. Anterior margin barely angularly projecting, slightly bisinuate, bordered with poorly marked depression; basal margin straight. Lateral carina fine, complete, reaching anterior angles. Dorsal surface flattened, with well marked shallow medial depression at anterior half of pronotum; prescutellar fossa well defined, shallow, frequently elongate; lateral fossae well marked, deep, surrounded with depressions; basal margin between lateral and prescutellar fossae slightly elevated. Pronotal sides without maculae, covered with alveolate sculpture consisting of superficial umbilicate punctures with indistinct inner structures; toward disc changing to reticulate-rugose sculpture formed by concentric rugosities with obliterated umbilicate punctures and setiferous micropunctures between rugosities; disc with punctate sculpture of dense simple or asperate punctures. Entire pronotum bearing uniform, rather long, erect, dark brown setae occasionally mixed with yellowish or white setae laterally. Anterior prosternal margin slightly arcuately emarginate, nearly straight, bordered with groove; prosternum weakly convex, covered with ocellate sculpture of small, deep umbilicate punctures; meso-, metaventrites and metacoxal plates with similar sculpture. Pronotal hypomeron bearing ocellate sculpture of large, round, superficial umbilicate punctures with scabrous bottom.

Elytra (fig. 6, 7) strongly elongate, 2.82 (2.73–2.95) times as long as wide at base, rather narrow, slightly convex; sides weakly expanded at humeri, subparallel or slightly arcuately diverging toward posterior third, then smoothly arcuately converging to narrowly rounded apices. Subhumeral excision arcuate, shallow but distinct; epipleural serrations poorly marked at posterior fourth, apical denticles saw-like. Strial punctures at anterior half of elytral length small, elongate, merging on dark background, these on light background larger, round and separate, visible up to base; at posterior half strial punctures merging. Intervals subequal, flat, wide, 2.5–4 times as wide as striae; 9<sup>th</sup> interval weakly elevated, not serrated; intervals with very fine, inconspicuous, mainly uniseriate punctures on slightly rugulose background; covered with rather long (as long as width of widest intervals), erect, confused uniseriate, dark brown setae, occasionally mixed with yellowish setae. Elytral markings of the modified *Acmaeodera (Acmaeotethya) degener* (Scopoli, 1763) type but maculae merging longitudinally and forming curved stripes on intervals 3–5 and 10, particularly at anterior half of elytra, rather variable, asymmetrical.

Legs (fig. 6) blackish-brown with bronze sheen or brown; metacoxal plates narrowing laterally with posterior margin straight. Tibiae slender, pro- and mesotibiae slightly expanded toward apices; metatibiae expanded toward proximal third further subparallel, bearing comb of long brown setae externally. Tarsomeres subequal, short; tarsomere 5 slender; tarsal pads well developed on tarsomeres 1–4, each larger toward distal end. Tarsal claws long, curved, with small tooth at apical third in both sexes.

Abdomen blackish-bronze with metallic sheen; laterally covered with ocellate sculpture of dense, horseshoe-shaped, superficial umbilicate punctures changing to sparse simple punctate sculpture toward disc; surface with rather short, sparse, semi-erect white and yellowish setae. Anal ventrite relatively long, triangular, narrowly rounded and bordered with fine groove apically in both sexes.

Male. Aedeagus as in fig. 36, 37. Penis strongly elongate, lamina long, rod-shaped, medial sclerotization narrow, well marked, terminal apophyses well differentiated.

Female. Ovipositor of typical tubular type, long.

**Differential diagnosis.** *Acmaeodera prepsli* sp. n. belongs to the *A. (Acmaeotethya) degener* (Scopoli, 1763)

species-group [Volkovitsh, 1979], in particular to the subgroup characterized by uniform erect pronotal setation (*A. degener*, *A. crinita* Spinola, 1838, *A. maroccana* Obenberger, 1916, and *A. quadrifasciata* (Rossi, 1790)) being most similar to *A. degener*. The new species differs from the latter by lighter coloration and longitudinal elytral markings (in *A. degener* body black without metallic sheen, elytral markings symmetrical, consist of small maculae occasionally transversely expanded or partly merged), finer sculpture of the head and pronotum, less transverse pronotum of different shape and with different sculpture (in *A. degener* pronotal sides arcuately converging from widest point toward anterior angles; disc without medial depression, covered with very dense punctures). *A. prepsli* sp. n. differs from the unicolorous *A. crinita* and *A. maroccana* in the presence of elytral markings, and from *A. quadrifasciata* in the longitudinal elytral markings and much shorter setae (elytra of *A. quadrifasciata* bearing transverse fasciae or unicolorous, elytral setae twice as long as interval width).

**Etymology.** This species is named after Stanislav Prepsl (Vyškov, Czech Republic), one of the collectors of this and other species described in this paper.

**Host plant.** Unknown. According to S. Prepsl (personal communication) the beetles have been collected on the yellow flowers in *Pistacia* and *Amygdalus* bush.

**Distribution.** Iran (Fars, Kerman).

*Acmaeoderella* (? s. str.) *lopatini* sp. n.  
(Color plate 6–8: fig. 8, 9, 19, 23, 28, 42)

**Material.** Holotype, ♀ (ZIN): "10 [km] S Khash, Iran [Sistan and Baluchestan], 17.4.[19]71, R.N." (h; on the back side of the card with glued specimen).

**Description.** Body (fig. 8, 9) small, relatively short, wide, 3.27 times as long as pronotum at base, convex, with moderately defined dorsal curvature; black without metallic sheen; elytra yellowish-brown with brown, nearly regular and symmetrical markings consisting of wide transverse basal fascia and longitudinal sutural stripe abruptly expanding at apical third being divided by yellowish 3<sup>rd</sup> interval on each elytron; body covered with widely oval scales forming regular uniseriate rows on elytra dorsally and nearly concealing background ventrally. Length 4.9 mm, width at pronotal base 1.5 mm.

Head (fig. 19, 23) relatively narrow, slightly depressed medially when seen from above; vertex and frons flattened, without medial carina, depression or line, frons with nearly straight, strongly diverging sides. Vertex 1.61 times as wide as transverse diameter of eye and 1.32 times as wide as frons above antennal sockets. Clypeus narrow, with anterior margin arcuately emarginate. Frons covered with regular ocellate sculpture of rather large, round, superficial umbilicate punctures with poorly defined, flat central granules and barely visible micropunctures; intervals equal to 1/2 diameter of punctures; covered with wide, oval, white scales concealing background at lower part, sparser at upper part and vertex. Antennae (fig. 28) rather short, in female 1.48 times as long as vertical diameter of eye, antennal segments expanded from antennomere 5; antennomere 2 oval, swollen; antennomere 3 elongate, poorly expanded toward apex; antennomere 4 as long as 3, expanded toward apex but markedly narrower than 5; antennomeres 5–10 triangular, nearly as wide as long; antennomere 11 elongate, irregularly oval.

Pronotum (fig. 19, 23) transverse, 1.63 times as wide at base as long, widest just posterior to mid-length; sides regularly arcuate. Anterior margin slightly angularly projecting forward, basal

margin barely emarginate, nearly straight; lateral carina missing. Pronotum regularly convex with poorly defined medial depression; prescutellar fossa missing, lateral fossae well marked, deep, slightly extended longitudinally, surrounded with depressions. Pronotal sides and base covered with alveolate sculpture of superficial umbilicate punctures with inconspicuous granules and central micropunctures; anterior portion of disc with reticulate sculpture. Sides covered with large, oval, white scales concealing background; disc with sparser and narrower white scales. Anterior prosternal margin arcuately emarginate, not bordered; prosternum weakly convex, covered with alveolate sculpture of small, deep umbilicate punctures with well defined granules; meso- and metaventrals with similar sculpture. Pronotal hypomeron bears reticulate sculpture of large, superficial umbilicate punctures.

Elytra (fig. 8, 9) relatively short, wide, 2.35 times as long as wide at base, convex; sides weakly expanded at humeri, just behind humeral swellings slightly diverging toward posterior third, then evenly, arcuately converging toward nearly regularly rounded apices. Subhumeral excision rather deep, arcuate; epipleural serration inconspicuous, formed by fine saw-like denticles. Strial punctures large, round, deep, slightly impressed along entire elytral length, separate. Intervals slightly convex, narrow, subequal, on disc 1.5–2 times as wide as striae depending on background coloration; 9<sup>th</sup> interval markedly elevated at posterior third, not serrate; intervals bearing fine, inconspicuous punctures on slightly scabrose background. Elytra yellowish-brown with blackish-brown, nearly regular and symmetrical markings consisting of wide transverse basal fascia and longitudinal sutural stripe abruptly expanding at apical half being divided by yellowish 3<sup>rd</sup> interval on each elytron; covered with large, oval white scales, denser on sides and forming regular, mainly uniseriate rows dorsally.

Legs (fig. 8, 23) brown; metacoxal plates subparallel with straight posterior margin. Tibiae slender, not expanded toward apices; metatibiae with poorly visible comb of white setae externally. Tarsomeres subequal, short; tarsomere 5 slender, barely expanded toward apex; tarsal pads poorly developed on tarsomere 1, each larger toward distal end. Tarsal claws of female thin, curved, with small rectangular tooth at basal third.

Abdomen black with bronze and steel sheen; ventrite 1 bearing very coarse alveolate sculpture; ventrite 2 with short transverse depressions laterobasally; sides of ventrites 3–5 with ocellate sculpture changing to sparser asperate sculpture toward disc; ventral surface covered with large, oval, white scales nearly concealing background; ventrites without small depressions, patches of denser punctures or modified scales medially. Anal ventrite of female short, triangular, narrowly rounded apically, slightly transversely depressed.

Male. Unknown.

Female. Ovipositor (fig. 42) of modified tubular type, very short, nearly uritiform, with widely separated styli.

**Differential diagnosis.** The subgeneric position of the new species is rather unclear. Based on the head and pronotal sculpture as well as on the ovipositor type, *Acmaeoderella lopatini* sp. n. belongs to the nominotypical subgenus *Acmaeoderella* (s. str.) though it lacks one of the most important diagnostic characters of this subgenus, the presence of small depressions, patches of denser punctures or modified scales in the middle of female abdominal ventrites [see Volkovitsh, 1989; fig. 44–47, 52–54]. It differs from all known species of this subgenus by shortened and wide body, the pattern of elytral markings, alveolate sculpture of the abdominal ventrite 1, and very short ovipositor. From the species of the closely related subgenus *Liogastris* Volkovitsh, 1979, lacking the abdominal depressions or patches in females and having styli widely separated, *A. lopatini* sp. n. differs by body sculpture and distributional pattern (all species of *Liogastris* are distributed in the Mediterranean and adjacent regions) although the belonging of *A. lopatini* sp. n. to this subgenus

can not be completely ruled out. Additional material, particularly the males is needed to solve this problem.

**Etymology.** The species name is dedicated to the late Prof. I.K. Lopatin.

**Host plant.** Unknown.

**Distribution.** Iran (Sistan and Baluchestan).

**Note.** I failed to find the collector's name and origin of the single specimen of this species which has been kept among indeterminate material for many years.

*Acmaeoderella (Omphalothorax) domenicoi* sp. n.

(Color plate 6–8: fig. 12, 13, 17, 26, 31, 38, 39)

**Material.** Holotype, ♂ (DGCC): "SE Iran, Hormozgan, Minab, 20-4-2006, leg. D. Gianasso" (p) // "Ex larva: Acacia sp., 23-7-2006" (p + h).

**Description.** Body (fig. 12, 13) small, moderately elongate, 3.54 times as long as pronotum at base, subcylindrical, without dorsal curvature; blackish-bronze with copper or steel sheen; unicolorous; head, pronotal sides, legs and ventral surface covered with regular, widely oval, white and brownish scales entirely concealing background, sparser on pronotal disc, and forming longitudinal uni- or multiseriate rows on elytra. Length 4.6 mm, width at pronotal base 1.3 mm.

Head (fig. 17) broad, flattened when seen from above; covered with wide, oval, white, on vertex brownish scales concealing background; vertex and frons flattened, without medial carina, depression or line, frons with nearly straight, strongly diverging sides. Vertex 1.78 times as wide as transverse diameter of eye and 1.28 times as wide as frons above antennal sockets. Clypeus very narrow, with anterior margin shallowly emarginate. Frons covered with ocellate sculpture of small, round, superficial umbilicate punctures with well marked central granules and inconspicuous micropunctures, denser at sides; intervals equal to 1/2 diameter of punctures. Antennae very short, in male 1.16 times as long as vertical diameter of eye, antennal segments expanded from antennomere 5; antennomere 2 barrel-like; antennomere 3 subconical, slightly expanded toward apex; antennomere 4 as long as 3, strongly expanded toward apex but markedly narrower than 5; antennomere 5 transversely triangular, nearly twice as wide as long; antennomeres 6–10 transversely trapezoid, twice as wide as long; antennomere 11 irregularly rhomboid, transverse.

Pronotum (fig. 12, 17, 26) elongate, 1.04 times as wide at base as long, widest at anterior fourth; sides slightly diverging toward widest point, further arcuately converging anteriorly. Anterior margin widely arcuately projecting forward, basal margin feebly emarginate, bearing two sharp lateral keels opposite 3<sup>rd</sup> interval and humeral swellings of elytra, each highest opposite 4<sup>th</sup> interval, distance between inner ends of keels nearly equal to their length. Lateral carina inconspicuous. Pronotum with shallow, wide medial depression at anterior half, basal fossae inconspicuous; anterior margin slightly depressed medially in frontal view (fig. 17), not swollen; in lateral view dorsal surface nearly straight. Pronotum covered with uniform, coarse alveolate sculpture of large, deep polygonal alveolae with inconspicuous inner structures; sides covered with large, oval, overlapping, white scales with distinct costae, entirely concealing background; disc with shorter and sparser oval or nearly round white and brownish scales directed radially. Thorax ventrally entirely covered with overlapping oval scales; anterior prosternal margin widely emarginate, bordered with thin groove.

Elytra (fig. 12, 13) moderately elongate, 2.48 times as long as wide at base, strongly convex; sides subparallel toward posterior fourth, further shortly converging to narrowly rounded apices. Subhumeral excision, arcuate; epipleural serration inconspicuous, formed by very small denticles at posterior fourth concealed by scales. Strial punctures large, elongate, deep, impressed along entire elytral length, separate, nearly missing at anterior third against

coarse background. Intervals flat, narrow, on disc 1.5–3 times as wide as striae; 9<sup>th</sup> interval markedly elevated at posterior third, not serrated; intervals covered with coarse rugose-punctate sculpture. Elytra brownish-bronze, nearly unicolorous, with barely visible lighter areas on 5<sup>th</sup> interval behind humeral swellings and along lateral margin. Elytra covered with oval white mixed with brownish scales, concealing sides and forming longitudinal uni- or multiseriate rows.

Legs (fig. 12, 31) blackish-bronze; metacoxal plates subparallel with slightly emarginate posterior margin; completely covered with dense oval scales. Tibiae slender, slightly expanded toward apices; protibia with one shortened and one very long, curved spurs (fig. 31), meso- and metatibia with single long, curved spur; metatibia with poorly marked comb of yellowish setae externally. Tarsi as long as tibiae, slender, tarsomere 1 longer than tarsomeres 2 and 3 together; tarsal pads poorly developed on tarsomeres 1–3. Tarsal claws of male long, curved, with rectangular tooth at apical 1/3.

Abdomen blackish-bronze, covered with reticulate sculpture of umbilicate punctures with flat bottom on sides, changing to ocellate sculpture on disc; ventral surface entirely concealed by overlapping oval scales. Anal ventrite of male short, widely arcuate, obtuse apically, slightly depressed along lateral margin.

Male. Aedeagus as in fig. 38, 39. Lamina of penis thin, short; terminal apophyses long.

Female. Unknown.

**Differential diagnosis.** *Acmaeoderella domenicoi* sp. n. belongs to the *A. (Omphalothorax) adpersula* (Illiger, 1803) species-group [Volkovitsh, 1979] differing from all other *Omphalothorax* species by single, long meso- and metatibial spurs, and aedeagus structure. Habitually (unicolorous body, short antennae, strongly diverging sides of the frons, and very large and dense scales) the new species resembles *A. marcaisi* (Descarpentries et Mateu, 1967) from North Africa, Israel and Yemen [Volkovitsh, 2006a] which belongs to the *A. (O.) despecta* (Baudi, 1870) species-group, but differs from this species by 9<sup>th</sup> interval of elytra weakly elevated and not serrated, and basal pronotal keels well marked and highest opposite 4<sup>th</sup> interval (in *A. marcaisi* 9<sup>th</sup> interval of elytra strongly elevated and serrated, basal pronotal keels poorly marked and highest opposite humeral swellings). *A. domenicoi* sp. n. comes closest to and is partly sympatric with *A. argentea* Volkovitsh, 2011 from Southern Iran and UAE [Bílý et al., 2011: plates 14, 15, 28, 29] but differs from this species by unicolorous elytra, short antennae, more strongly diverging sides of the frons, nearly straight in lateral view pronotal contour, more strongly elevated lateral keels of pronotum with maximal height opposite 4<sup>th</sup> interval of elytra, distance between keels subequal to their length, and tarsi as long as tibiae (in *A. argentea* elytra with yellow longitudinal markings; antennae in male 2.15, in female 1.64 times as long as height of eye, expanded from antennomere 4 in both sexes; vertex 1.18 times as wide as frons above antennal sockets; pronotal surface in lateral view depressed anterior and posterior to mid-length, slightly elevated medially; lateral keels of pronotum poorly elevated with maximal height opposite intervals 5–6 of elytra, distance between keels nearly equal to their double length; apical serration of elytra distinct; tibiae with two apical spurs, distinctly longer than tarsi). From other members of the *A. adpersula* species-group occurring in Iran (*A. adpersula* (Illiger, 1803), *A. arabica* Cobos, 1963, *A. densisquamis* (Abeille de Perrin, 1904), *A. longissima* (Abeille de Perrin, 1904), *A. nannorrhopsicola* Volkovitsh

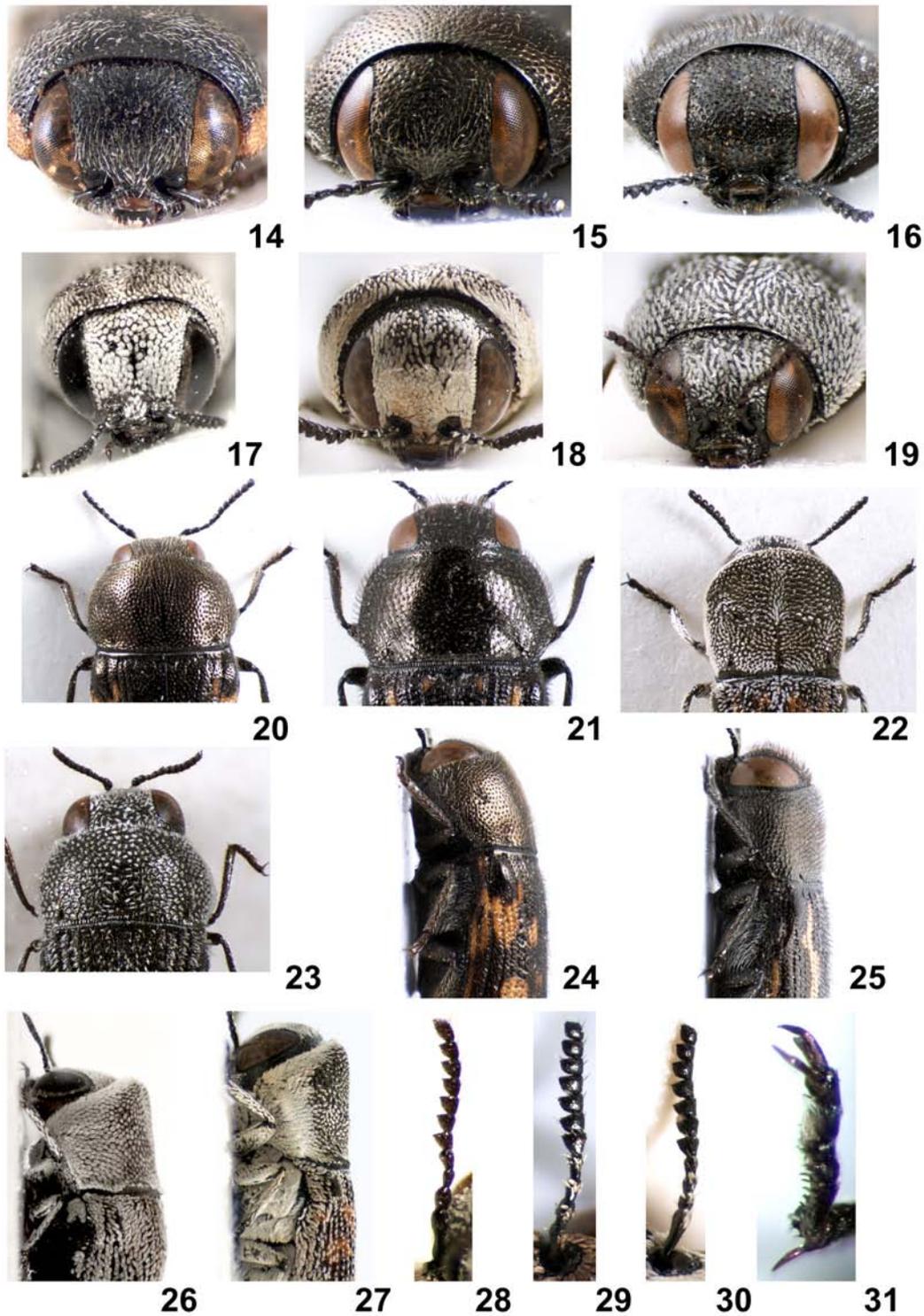


Fig. 14–31. *Acmaeodera* and *Acmaeoderella* spp. n., morphological details.

14 – *Acmaeodera* (*Acmaeotethya*) *quadristriata* sp. n.: paratype, female (ZIN); 15, 20, 24 – *A. (A.) rotundicollis* sp. n., paratype, female (Iran: Fars, Fakh Abad; ZIN); 16, 21, 25 – *A. (A.) prepsli* sp. n., paratype, female (Iran: Kerman, Deh Bakri; ZIN); 19, 23, 28 – *Acmaeoderella* (? s. str.) *lopatini* sp. n., holotype, female (ZIN); 17, 26, 31 – *A. (Omphalothorax) domenicoi* sp. n., holotype, male (DGCC); 18, 22, 27, 29, 30 – *A. (O.) prosopiphaga* sp. n., paratype, male (Pakistan: Baluchistan, Bela; ZIN). 14–19 – head, frontal view; 20–23 – head, pronotum and elytral base, dorsal view; 24–27 – head, pronotum and anterior part of elytron, lateral view; 28–30 – antennae: 28, 30 – female, 29 – male; 31 – proleg: tibial spur and tarsus. Not in scale.

Рис. 14–31. *Acmaeodera* и *Acmaeoderella* spp. n., детали строения.

14 – *Acmaeodera* (*Acmaeotethya*) *quadristriata* sp. n.: паратип, самка (ZIN); 15, 20, 24 – *A. (A.) rotundicollis* sp. n., паратип, самка (Иран: Фарс, Fakh Abad; ZIN); 16, 21, 25 – *A. (A.) prepsli* sp. n., паратип, самка (Иран: Керман, Deh Bakri; ZIN); 19, 23, 28 – *Acmaeoderella* (? s. str.) *lopatini* sp. n., голотип, самка (ZIN); 17, 26, 31 – *A. (Omphalothorax) domenicoi* sp. n., голотип, самец (DGCC); 18, 22, 27, 29, 30 – *A. (O.) prosopiphaga* sp. n., паратип, самец (Пакистан: Белуджистан, Bela; ZIN). 14–19 – голова, вид спереди; 20–23 – голова, переднеспинка и основание надкрылий, вид сверху; 24–27 – голова, переднеспинка и передняя часть надкрылья, вид сбоку; 28–30 – антенны: 28, 30 – самка, 29 – самец; 31 – передняя нога: шпора на вершине голени и лапка. Без масштаба.

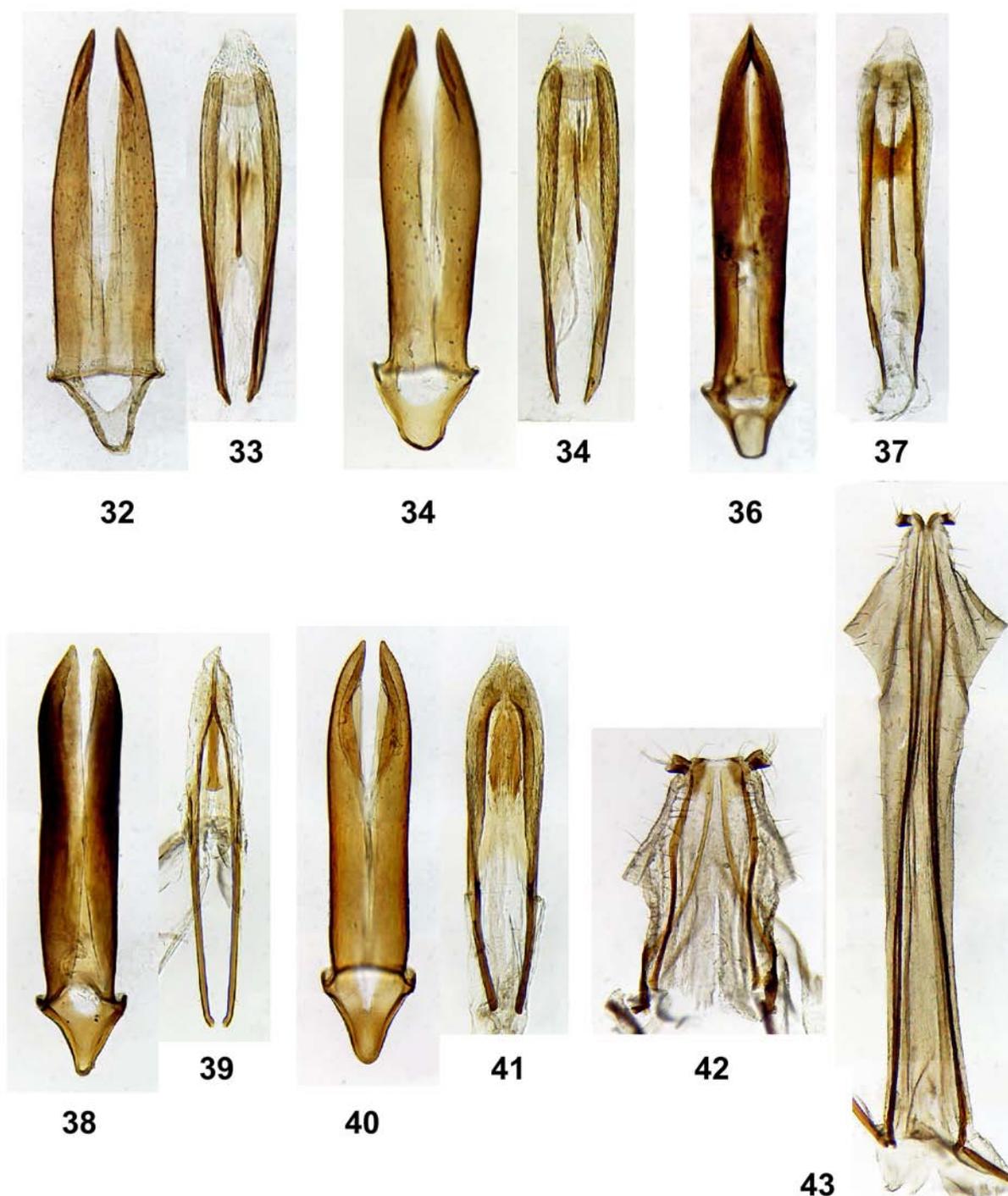


Fig. 32–43. *Acmaeodera* and *Acmaeoderella* spp. n., male and female genitalia.

32, 33 – *Acmaeodera* (*Acmaeotethya*) *quadristriata* sp. n.: paratype, microslide no. 1485 ♂; 34, 35, 43 – *A. (A.) rotundicollis* sp. n., paratypes: 34, 35 – microslide no. 1875 ♂, 43 – microslide no. 1887 ♀; 36, 37 – *A. (A.) prepsli* sp. n., paratype, microslide no. 1886 ♂; 38, 39 – *Acmaeoderella* (*Omphalothorax*) *domenicoi* sp. n., holotype; 40, 41 – *A. (O.) prosopiphaga* sp. n., paratype, microslide no. 1888 ♂; 42 – *Acmaeoderella* (? s. str.) *lopatini* sp. n., holotype, microslide no. 1890 ♀. 32, 34, 36, 38, 40 – tegmen; 33, 35, 37, 39, 41 – penis; 42, 43 – ovipositor. Not in scale.

Рис. 32–43. *Acmaeodera* и *Acmaeoderella* spp. n., гениталии самца и самки.

32, 33 – *Acmaeodera* (*Acmaeotethya*) *quadristriata* sp. n.: паратип, микропрепарат № 1485 ♂; 34, 35, 43 – *A. (A.) rotundicollis* sp. n., паратипы: 34, 35 – микропрепарат № 1875 ♂, 43 – микропрепарат № 1887 ♀; 36, 37 – *A. (A.) prepsli* sp. n., паратип, микропрепарат № 1886 ♂; 38, 39 – *Acmaeoderella* (*Omphalothorax*) *domenicoi* sp. n., голотип; 40, 41 – *A. (O.) prosopiphaga* sp. n., паратип, микропрепарат № 1888 ♂; 42 – *Acmaeoderella* (? s. str.) *lopatini* sp. n., голотип, микропрепарат № 1890 ♀. 32, 34, 36, 38, 40 – тегмен; 33, 35, 37, 39, 41 – пенис; 42, 43 – яйцеклад. Без масштаба.

et Bílý, 1979, *A. prosopiphaga* sp. n.) *A. domenicoi* sp. n. differs by the small size, very short antennae, unicolorous elytra, and modified tibial spurs.

**Etymology.** This species is named in honor of Domenico Gianasso (Castelnuovo Don Bosco, Italy), the superb collector of this and many other interesting species of buprestids.

**Host plant.** *Acacia* sp. (Fabaceae).

**Distribution.** Iran (Hormozgan).

*Acmaeoderella (Omphalothorax) prosopiphaga* sp. n.  
(Color plate 6–8: fig. 10, 11, 18, 22, 27, 29, 30, 40, 41)

*A. (Omphalothorax) adspersula arabica*: Bílý, 1983: 51 (not Cobos, 1963; misidentification, part.).

**Material.** Holotype, ♀ (NMPC): “SO Iran, [Sistan and Baluchestan] Iranshahr, Sarbaz, 10.8.1975, Adeli leg.” (h) // “reared from *Prosopis spicigera*” (h) // “*Acmaeoderella adspersula arabica* Cobos, ?var., Wolkovitsh det., 1976” (h + p) // “*Acmaeoderella densisquamis arabica* Cobos, Sv. Bílý det. 1984” (h + p). Paratypes: 1♂, “S Iran, [Hormozgan] Bilai, 23–24.5.1973” (p) // “Loc. No. 209, Exp. Nat. Mus. Praha” (p) // “*Acmaeoderella adspersula arabica* Cobos, det. Sv. Bílý” (h + p) (ZIN); 3♀, same geographic labels but without determination label (NMPC); 1♀, “Iran-S, Hormozgan prov., Minab (40 km N), Faryab, 21.v.2006, S. Prepsl leg.” (p) (SPCV); 1♂, 2♀, 4 specimens (sex unknown) “Pakistan-Baluchistan, Bela, 3–4.5.1993, S. Prepsl leg.” (p) (SPCV, ZIN); 2♀, “Pakistan S, Balochistan, Awaran (distr. Khuzdar), 4.–7.4.1993, lgt. S. Becvar” (p, h) (VKCB, ZIN); 2♀, “India, Rajasthan, Jodhpur, Kompantzev A.V. [leg.], iii.1990 larv.” [p + h] // “из [from (Russian)] *Prosopis cineraria*” (h) (ZIN, NMPC); 1♀, 2 damaged specimens, “India, Rajasthan, Jodhpur, reared no. 40(1), Kompantzev lgt., 03.12.1989” [p + h] // “из [from (Russian)] *Prosopis cineraria*” (h) (ZIN).

**Description.** Body (fig. 10, 11) of medium size, strongly elongate, 3.78 (3.61–3.95) times as long as pronotum at base, subcylindrical, with poorly defined dorsal curvature; blackish-bronze, occasionally with copper or steel sheen, elytra blackish-brown or brown with feeble violet sheen; elytral markings variable, irregular, asymmetrical, consisting of transverse yellowish-brown to orange fasciae and isolated or confluent maculae; head, pronotal sides, legs and ventral surface covered with oval, overlapping, white scales entirely concealing background, sparser on pronotal disc, and forming longitudinal marginal and sutural stripes on elytra. Length 7.2 (6.3–8.3) mm, width at pronotal base 1.9 (1.6–2.3) mm (n = 9).

Head (fig. 18, 22) broad, convex, regularly arcuate when seen from above; vertex convex, without carina, occasionally with fine medial line; frons convex, without medial depression or line, with nearly straight, slightly to markedly diverging sides. Vertex 2.19 (2.1–2.35) times as wide as transverse diameter of eye and 1.18 (1.09–1.27) times as wide as frons above antennal sockets. Clypeus narrow, with anterior margin shallowly emarginate. Frons covered with regular ocellate sculpture, occasionally changing to reticulate sculpture on sides; consisting of small, round, deep umbilicate punctures with poorly defined central granules and micropunctures; intervals equal to 1/2–1 diameter of punctures; covered with elongate, oval, white scales concealing background at lower part of frons and vertex. Antennae (fig. 29, 30) relatively short, poorly dimorphic, in male 1.57 (n = 2), in female 1.46 (1.31–1.51; n = 7) times as long as vertical diameter of eye, antennal segments expanded from antennomere 5 in both sexes; in male antennomere 2 shortly oval, swollen; antennomeres 3 and 4 subequal, slightly expanded toward apices; antennomere 5 triangular, nearly as wide as long; antennomeres 6–10 transversely trapezoid, distinctly wider than long; antennomere 11 rhomboid, transverse; antennae of female similar but distal antennomeres less transverse.

Pronotum (fig. 22, 27) markedly elongate, 0.97 (0.95–1) times as wide at base as long, widest at anterior 1/4–1/5, occasionally at anterior 1/3; sides arcuately diverging toward widest point, then abruptly converging anteriorly. Anterior margin widely

arcuately projecting forward, basal margin feebly emarginate bearing two sharp lateral keels, each highest opposite 5<sup>th</sup> interval of elytra, distance between inner ends of keels twice longer their length. Lateral carina inconspicuous. Pronotum with shallow medial groove, prescutellar fossa barely visible, lateral fossae well marked, deep, longitudinally extended; anterior margin shallowly depressed in frontal view (fig. 18), slightly swollen; in lateral view dorsal surface nearly straight, feebly depressed behind mid-length (fig. 27); this depression limited anteriorly by elevated oblique rugosities (fig. 22). Pronotal sides covered with reticulate sculpture of very dense, small umbilicate punctures, toward disc changing to coarse alveolate sculpture consisting of deep, polygonal alveolae; at anterior portion of disc alveolae transversely or obliquely drawn, their walls merging to form oblique rugosities. Sides covered with large, oval, overlapping, white scales entirely concealing background; disc with much shorter and sparser scales. Thorax ventrally entirely covered with oval overlapping scales; anterior prosternal margin widely emarginate; prosternum convex, covered with very dense small umbilicate punctures; meso-, metaventrals and metacoxal plates with similar sculpture; hypomeron bearing reticulate sculpture similar to that on pronotal sides.

Elytra (fig. 10, 11) elongate, 2.67 (2.55–2.79) times as long as wide at base, subcylindrical; sides subparallel or feebly diverging toward posterior third, then arcuately converging to narrowly rounded apices. Subhumeral excision deep, arcuate; epipleural serration formed by rather large, sharp, saw-like denticles at posterior fourth. Strial punctures very large, elongate, deep, separate along entire elytral length. Intervals flat, narrow, on disc narrower than or equal to width of striae, occasionally 1.5 times as wide as striae; 9<sup>th</sup> interval elevated at posterior third, not serrated; intervals bearing relatively large, superficial, confused punctures on finely shagreened and transversely rugulose background. Elytra blackish-brown or brown with feeble violet sheen; elytral markings of the *Acmaeoderella (Omphalothorax) adspersula* (Illiger, 1803) type, variable, irregular, asymmetrical, consisting of transverse yellowish-brown to orange fasciae and isolated or confluent maculae; covered with large, oval white scales forming marginal and sutural stripes, remaining surface with confused uni- and multiserial scales.

Legs (fig. 10, 11, 22) blackish-bronze; metacoxal plates subparallel with straight or slightly emarginate posterior margin; covered with dense oval scales. Tibiae slender, slightly expanded toward apices, each with paired spurs, metatibia with poorly marked comb of yellowish setae externally. Tarsi nearly as long as tibiae, slender, tarsomeres subequal; tarsal pads poorly developed on tarsomeres 1–3. Tarsal claws long, curved, with sharp tooth at apical third in both sexes.

Abdomen blackish-bronze, occasionally with steel sheen, covered with punctate sculpture of very dense, small umbilicate punctures, intervals less than diameter of punctures, discal punctures smaller; ventral surface entirely concealed by overlapping oval white scales. Anal ventrite of male short, regularly rounded apically, slightly transversely depressed; in female longer with narrowly rounded apex.

Male. Aedeagus as in fig. 40, 41. Lamina of penis wide, short; terminal apophyses rather short.

Female. Ovipositor of tubular type, very long, approximately 5 times as long as its expanded apical part, with angularly emarginate apex.

**Differential diagnosis.** *Acmaeoderella prosopiphaga* sp. n. belongs to the *A. (Omphalothorax) adspersula* (Illiger, 1803) species-group [Volkovitsh, 1979]. The new species differs from other Iranian members of this group by the relatively short antennae, the shape and sculpture of pronotum bearing oblique rugosities, elytral scales forming wide stripes along lateral margins and suture, and aedeagus structure. Additionally it differs from *A. adspersula* by the much longer pronotum with sides diverging anteriorly; from

*A. densisquamis* (Abeille de Perrin, 1904) and *A. argentea* Volkovitsh, 2011, by the transverse elytral markings (in both species elytral markings longitudinal); from *A. arabica* Cobos, 1963, by the arcuately projecting anterior margin of the pronotum (in *A. arabica* it is angularly projecting); from *A. longissima* (Abeille de Perrin, 1904), by the regularly arcuate vertex without medial carina; from *A. nannorrhopsicola* Volkovitsh et Bílý, 1979, by the dark antennae and legs and different coloration; and from *A. domenicoi* **sp. n.**, by the larger size, longer antennae, presence of elytral markings, and normal tibial spurs.

**Etymology.** The species name “prosopiphaga” is combined from the host plant genus name *Prosopis* L. and the Greek noun “phagos” (eater) to stress the larval host plant association of the new species.

**Host plant.** *Prosopis cineraria* (L.) Druce (= *P. spicigera* L.) (Fabaceae). According to S. Prepsl (personal communication) the beetles have been collected in savannah on the yellow blossoms of *Acacia* sp. (probably, *Prosopis* – MGJ).

**Distribution.** Iran (Hormozgan, Sistan and Baluchestan), Pakistan (Balochistan), India (Rajasthan).

**Note.** Bílý [1983] under the name *A. (Omphalothorax) adpersula arabica* confused two different species: 4 specimens from Bilai are designated here as paratypes of *A. prosopiphaga* **sp. n.**, and 1 specimen from Hadjiabad was designated as paratype of *A. argentea* Volkovitsh, 2011 [Bílý et al., 2011].

## Acknowledgements

I would like to thank Dr. S. Bílý (Prague, Czech Republic), D. Gianasso (Castelnuovo Don Bosco, Italy), P. Kabátek (Praha, Czech Republic), V. Kubáň (NMPC), H. Mühle (München, Germany), and S. Prepsl (Vyškov, Czech Republic) for the loan of the valuable material used in this paper, and Dr. B.A. Korotyaev (ZIN) for the critical review

of the manuscript. The study was partly supported by the Grant no. 13-04-01002-a from the Russian Foundation for Basic Research.

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