

New or interesting Phytoeciini from the Middle East, especially from Iran (Coleoptera: Cerambycidae)

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Abstract. The authors give new information on several species of Phytoeciini: *Phytoecia mesopotamica* Breuning, 1948 is transferred to *Neomusaria* Pavlitschikov, 1928. The following new synonymies are proposed: *Helladria pretiosa* (Faldermann, 1837) = *H. fatima* (Ganglbauer, 1884) **syn. nov.** = *Phytoecia nigroapicalis* Breuning, 1944 **syn. nov.** = *H. pretiosa ninives* Sama, 1994 **syn. nov.**; *P. asiatica* Pic, 1908 (lectotype designated) = *P. achilleae* Holzschuh, 1971 **syn. nov.**. The following new taxa are described: *H. imperialis dorud* **subsp. nov.**, *P. centaureae* **sp. nov.**, *P. aenigmatica* **sp. nov.** and *Blepisaniis magnanii* **sp. nov.**. *Pygoptosia speciosa* (Frivaldszky, 1884), *Phytoecia croceipes* Reiche & Sauley, 1858 and *P. geniculata* Mulsant, 1862 are recorded for the first time from Iran. *Mimocoptosia iraniensis* (Breuning & Villiers, 1972) is a new species for the Turkish fauna. New records and new information on biology and host plant associations are given for *Pygoptosia eugeniae* (Ganglbauer, 1883), *M. iraniensis*, *H. humeralis* (Waltl, 1838), *H. millefolii* (Adams, 1817), *H. pretiosa*, *Phytoecia virgula* (Charpentier, 1825), *P. pubescens* Pic, 1895, *P. pustulata* (Schrank, 1776), *P. bangi* Pic, 1897 and *B. remaudierei* Villiers, 1967.

Taxonomy, new species, new subspecies, new combination, new synonymy, new records, Coleoptera, Cerambycidae, Phytoeciini, Blepisaniis, Helladria, Mimocoptosia, Phytoecia, Pygoptosia, Palaearctic region

Introduction

In recent years we had the opportunity to explore many interesting locations in Iran, mainly along the Caspian Sea and in the northern and central Zagros mountain range in provinces Azarbayjan-e-Garbi southwards to Fars. This paper is intended to give a report on our observations of several species belonging to the tribe Phytoeciini. Some insects mentioned in this paper were observed both in adult and in immature stages and their associations with specific host plants were established. Four taxa are described as new, and three species are reported for the first time for the Iranian fauna. In addition, G. Sama was able to study type specimens of many species belonging to the tribe Phytoeciini that are deposited in several European public collections. This allowed us to establish new synonymies and propose new combinations which are reported in the present work.

Material and methods

The following information is provided for each species: the references to the original description as well as the original citation of the type locality; the distribution range, followed by more detailed Iranian distribution; the main host plants and selected bionomical data. Information on distributional range and biology of each species has been derived from authors' archives and personal rearing experience.

The type specimens studied in this paper are preserved in the following public and private collections:

- GSCC coll. G. Sama, Cesena (Italy);
 HMMT Hayk Mirzayans Insect Museum, Tehran, Iran;
 MRCN coll. M. Rejzek, Norwich, United Kingdom;
 PRCC coll. P. Rapuzzi, Cialla di Prepotto, Italy;
 MHNG Muséum d'Histoire Naturelle, Genève, Switzerland;
 MNHN Muséum National d'Histoire naturelle, Paris France;
 NHMB Naturhistorisches Museum, Basel, Switzerland;
 SMNS Staatliches Museum für Naturkunde, Stuttgart, Germany.

Results

Pygoptosia speciosa (Frivaldszky, 1884)

Phytoecia speciosa Frivaldszky, 1884: 5.

Type locality: Eastern Turkey, Diyarbakır ("Diarbekir").

Specimens examined. IRAN: Azarbaygan-e-Garbi, Ghasemlo S of Orumiye, 1500 m, 27.v.2005, on flight (2 specimens, GSCC).

Biology and host plants. This species is ecologically associated with *Serratula* spp. (Rejzek et al., 2001, 2003a)

Distribution. Southeastern Turkey (type locality); Syria (Rejzek et al., 2003b); Iran (Azarbaygan-e-Garbi). A new record for the Iranian fauna.

Pygoptosia eugeniae (Ganglbauer, 1884)

Phytoecia eugeniae Ganglbauer, 1884: 568.

Type locality: Iran.

Conizonia (*Pygoptosia*) *eugeniae*: Pic, 1898: 58.

Conizonia eugeniae: Pic, 1905: 392.

Phytoecia (*Pygoptosia*) *eugeniae*: Breuning, 1951: 7, 46.

Pygoptosia eugeniae: Villiers, 1967a: 374.

Specimens examined. IRAN, Lorestan: 35-45 km SE Khorramabad, 13.-15.v.1976, C. Holzschuh & F. Ressl leg. (coll. P. Schurmann in GSCC); Dorud, 80 km E of Horramabad, 11.vi.1999 (MRCN); Dorud, 52 km SE of Borugerd, 1740 m, 13.vi.2000 (MRCN); Azarbaygan-e-Garbi: 4 km E of Libkin, 1700 m, 20.v.2001 and 19.-20.v.2002, J. Prochazka leg. (GSCC); Kordestan: 13 km S of Saqqez, 1400 m, 13.v.2002 (GSCC, PRCC); 12 km S of Saqqez, 1543 m, 26.v.2005 (GSCC).

Published records. "Tchahar-Dououl à Kirmanchah" (Pic, 1905); "entre la Kerkla et le Kebir Kouh, De Morgan" (Villiers, 1967a).

Biology and host plants. Most specimens were collected sitting under the basal leaves of *Centaurea behen* L. (Asteraceae) or flying around this plant, which, very likely, serves as the host plant (Rejzek et al., 2001).

Distribution. Endemic to Iran.

Mimocoptosia iraniensis (Breuning & Villiers, 1972)

(Figs 1-2)

Phytoecia (*Mimocoptosia*) *iranensis* Breuning & Villiers, 1972: 37.

Type locality: Iran (without exact data).

Mimocoptosia iraniensis: Villiers, 1979: 116.

S p e c i m e n s examined. SE TURKEY: Hakkari, C. Holzschuh leg. (GSCC); Tanin-Tanin gecidi, Heinz leg. (coll. GSCC). IRAN: Hamadan, 12 km N of Hazan, Mahnyan, 2100 m, 20.-21.vi.1977, C. Holzschuh leg. (GSCC); Azarbayan-e-Garbi, Ghasemlo S of Orumiyeh, 1500 m, 27.v.2005, sitting on Apiaceae (20 specimens, GSCC).

P u b l i s h e d r e c o r d s. Iran (Breuning & Villiers (1972), holotypus of *P. (M.) iraniensis*, female, Universitetes Zoologiska Museum, Helsinki); Iran, Esfahan, Daran, 2300 m, 39.vi.1977, Rapilly leg. (Villiers, 1979).

B i o l o g y a n d h o s t p l a n t s. All specimens examined were collected sitting on stems of a flowering Apiaceae not yet identified.

D i s t r i b u t i o n. Southeastern Turkey, Northwestern Iran. A new record for the Turkish fauna.

Neomusaria mesopotamica (Breuning, 1948) comb. nov.

(Fig. 3)

Phytoecia mesopotamica Breuning, 1948: 91.

T y p e l o c a l i t y: Northeastern Syria ("E de Ras-Elain, Mesopotamie").

T y p e s p e c i m e n s examined. **Holotype** (by monotypy) ♀ (NHMB); "Mesopotamia" [old label, white, handwritten by ?], "Phytoecia mesopotamica mihi Typ Breuning det.", "Holotype" [red, printed].

O t h e r s p e c i m e n s examined. IRAN: Kordestan, 5-20 km N of Kamyaran, 1700 m, 12.v.2002, G. Magnani, P. Rapuzzi & G. Sama leg., by sweeping of unidentified herbaceous plants (6 specimens, GSCC, PRCC).

O r i g i n a l d e s c r i p t i o n. "Comme *cylindrica* L. en diffère par les antennes un peu plus fines, les lobes inférieurs des yeux à peine plus longs que les joues, les élytres plus finement ponctuées, sans bourrelet longitudinal discal. Noir, avec dense pubescence ochracée-rougeâtre sur les parties suivantes: front, joues, pronotum, écusson, côtés du dessous et une large bande longitudinale située au milieu du vertex; pubescence des élytres et celle de la partie médiane du dessous moins dense jaune. Palpes jaune rougeâtre. Cuisses jaune rougeâtre, noirs à la base et à l'extremité. Tibias jaune rougeâtre, les intermédiaires et les postérieures étant rembrunis vers l'extremité. Tarses brun foncé. Antennes d'un rouge assez foncé, article 6 et les suivants revêtus d'une pubescence brun foncé. Longueur 8 mm. Largeur 2 mm. Type une E de Ras-Elain, Mesopotamie dans ma collection".

R e m a r k s. The holotype (NHMB) from "E de Ras-Elain, Mesopotamie" (currently in Northeastern Syria) is a female, 8 mm long, nearly complete (just a few tarsomeres missing), generally slightly worn, but easily recognizable and corresponding to the original description. Although described as *Phytoecia* Dejean, 1835 and further maintained in this genus in Breuning's revision of *Phytoeciini* (Breuning, 1951), *P. mesopotamica* clearly belongs to the genus *Neomusaria* Plavilstshikov, 1928.

The very small size of the specimen and the elytra densely clothed with golden-yellow pubescence make this species very distinctive.

D i s t r i b u t i o n. Northeastern Syria, Iran (Kordestan). A new record for the Iranian fauna.

Helladia humeralis (Waltl, 1838)

(Fig. 4)

Saperda humeralis Waltl, 1838: 471.

T y p e l o c a l i t y: Turkey.

S p e c i m e n s examined. IRAN: Lorestan, 5-15 km SW of Dorud, 1500 m, 9.-10.v.2002, by sweeping of Apiaceae (4 specimens, GSCC, PRCC); Kordestan, 13-30 km S of Saqqez, 1400 m, 13.v.2002, by sweeping of Apiaceae (6 specimens, GSCC, PRCC); Khuzestan, Choga Zanbil, 20.v.2005, G. Sama leg., reared ex larva from *Centaurea* sp., adults in pupal cell, 10.ix.2005 (5 specimens, GSCC).

R e m a r k s. Our observation confirms a single old record from Iran: "Chaldée persane: Suse et Louristan" (Pic, 1905). All specimens from Iran differ from the typical *Helladia humeralis* and probably constitute a distinct taxon, distinguishable for example by the small size, parallel body form and elytra sparsely clothed with greyish pubescence. Specimens of this population resemble *H. insignata* (Chevrolat, 1854) except for elytra with humeral red spots reaching the disc and, therefore, visible dorsally and abdomen with last sternites red.

D i s t r i b u t i o n. Turkey, Iran (Khuzestan, Kordestan, Lorestan).

Helladia imperialis dorud subsp. nov.

(Figs 5-6)

T y p e l o c a l i t y: Iran, Lorestan, 5-15 km southwestern of Dorud, 1500 m.

T y p e s p e c i m e n s. Holotype ♂ (GSCC): "Iran: Lorestan: 5/15 km SW Dorud, 1500 m, 9/10.V.2002, leg. G. Sama". Paratypes (10 ♂♂, 14 ♀♀): the same collecting data (GSCC, MRCN, PRCC).

D e s c r i p t i o n o f t h e h o l o t y p e. Length 13 mm. Head black, frons, cheeks and margin of upper eye lobes with dense ochraceous pubescence; pronotum black except a wide subtriangular red spot in the middle of the disc and three longitudinal bands of ochraceous pubescence; rather finely, densely punctate at sides, shining, nearly inpunctate on the disc. Elytra totally black except one small epipleural reddish spot, clothed with rather dense black pubescence and short erect hairs on the basal half. Scutellum rounded apically and clothed with orange recumbent pubescence. Ventral part of body similar to *Helladia i. imperialis* Sama & Rejzek, 2001. Front legs entirely red except the base of femora and tarsi, middle legs black except the apex of femora and the tibiae at their posterior side; hind legs completely black except the lower side of apical part of femora. Antennae black except the interior part of 1st, 3rd and 4th segments.

V a r i a b i l i t y. Body length varying from 8-13 mm. Sexual dimorphism like in *H. imperialis* s. str. Coloration rather uniform in the paratypes except one female which has pronotum nearly completely red and legs and antennae largely red.

B i o l o g y a n d h o s t p l a n t s. The new subspecies is associated with a different host plant: *H. i. imperialis* is associated with *Centaurea imperialis* Hausskn ex Bornm. (Asteraceae) (Sama & Rejzek, 2001); all specimens of *H. i. dorud* subsp. nov. were found on *Onopordon* sp. (Asteraceae).

E t y m o l o g y. The new subspecies is named after its type locality.

D i s t r i b u t i o n. Northwestern Iran (Lorestan).

D i f f e r e n t i a l d i a g n o s i s. *Helladia i. dorud* subsp. nov. differs from the nomi-notypical subspecies by head and pronotum with denser ochraceous pubescence and erect yellow hairs; elytra densely clothed with black pubescence (grey in *H. i. imperialis*) and with denser erect hairs at base; middle and hind legs and antennae largely black (largely red in *H. i. imperialis*).

Helladia millefolii (Adams, 1817)

Saperda millefolii Adams, 1817: 311.

T y p e l o c a l i t y: Southern Russia, Stavropol, Georgiyevsk.

S p e c i m e n s e x a m i n e d. IRAN: Azarbaygan-e-Garbi: Serou (54 km NW of Orumiye), 1800 m, 9.-10.vi.2000, S. Kadlec leg. (MRCN); 25 km NW of Orumiye pass, 1700 m, 7.v.2000, J. Rejsek leg. (SMNS); Kordestan: 1700 m, 15-20 km S of Kamyaran, 12.v.2002 (GSCC, PRCC); idem, 25.v.2005 (GSCC).

Published records. "Plateau persan occid. de Hamadan à Zendjan, leg. De Morgan" (Pic, 1905; Villiers, 1967a).

Distribution. Bulgaria, Northern Turkey, the Crimea, the Caucasus, Transcaucasia, Armenia, Iran (Azarbaygan-e-Garbi, Hamadan, Kordestan, Zanjan).

Helladia pretiosa (Faldermann, 1837)

(Fig. 7)

Saperda pretiosa Faldermann, 1837: 298.

Type locality: "Transcaucasia".

Phytoecia fatima Ganglbauer, 1884: 574; **syn. nov.**

Type locality: "Persien".

Helladia pretiosa: Pic, 1903: 16, 1905: 393.

Helladia fatima: Pic, 1903: 15.

Phytoecia fatima: Heyrovský, 1940: 848.

Phytoecia (Phytoecia) nigroapicalis Breuning, 1944: 16; **syn. nov.**

Type locality: Iraq, Baghdad.

Phytoecia pretiosa: Breuning, 1947: 61, Derwesh, 1965: 34.

Helladia pretiosa ninives Sama, 1994: 33; **syn. nov.**

Type locality: Iraq, Mosul.

Helladia pretiosa fatima: Rejzek et al., 2003a: 161.

Specimens examined. "Caucasus": GEORGIA: Borjomi (coll. Breuning in MHNG). AZERBAIJAN: Gängä ("Elisabethpol") (coll. Breuning in MHNG); Maraza, v.1987, M. Danilevsky leg. (GSCC, coll. P. Schurmann in GSCC); Talysh, Gasmalian, 18.v.1988, A. Lobanov leg. (GSCC, coll. P. Schurmann in GSCC); Talysh, Zuvand, 1600-1700 m, 22.-28.v.1999; 29.v.2000, V. Dolin leg. (GSCC); Talysh, Zuvand, Kelvaz env., 1700 m, 22.-28.v.1999; 20.v.2000, 17.-22.v.2001, V. Dolin & R. Andreeva leg. (GSCC); TURKEY: Erzurum, Erzurum (coll. Frey in NHMB); Mardin: Alannyurt E of Gercüş, 18.v.2001 (GSCC, MRCN); Çınaraltı vill., Hop Geçidi pass, 1115 m, towards Pinardere, 3.v.2000, M. Malmusi & L. Saltini leg. (GSCC), 15 km NE of Mardin, 16.v.2001 (MRCN); Siirt: Mesindagi Gecidi pass, 1620 m, 11.vi.1993, V. Biža & Z. Košťál leg. (GSCC); Baykan, 17.iv.2006, S. Ziani leg. (GSCC); Sanliurfa: Birecik, Halfeti, 3.v.1994, M. Janata leg. (GSCC). SYRIA: Aleppo (coll. Frey in NHMB); Al Hasakah, 7.-9.v.1995, P. Kabátek leg. (GSCC); Ras el Ain, 5.iv.1999, S. Ziani leg. (GSCC). IRAQ: Baghdad (MHNG, NHMB); Mosul (1 specimen, MHNG); Kurdistan, Rawanduz, 24.iv.1979, J. Macek leg. (coll. P. Schurmann in GSCC); Kurdistan, Penjwin, 1300 m, 11.v.1976, J. Macek leg. (coll. P. Schurmann in GSCC); Abu-Ghraib, iv.1974, Smetana leg. (PRCC). IRAN: Khuzestan: Shūsh ("Chaldee Persane: Suse") (coll. Pic in MNHN); Shūsh ("Susa") (SMNS); Choga Zanbil, ex larva from *Onopordon* sp. and *Centaurea* sp. (GSCC); Azarbaygan-e-Garbi; 4 km E of Libkin, 1700 m, 6.v.2002, J. Procházka leg. and 33 km W of Mahabad, 1700 m, 14.V.2002, J. Procházka leg. (GSCC, PRCC); 10 km N of Ahar, 1500 m, 26.v.1999, M. Malmusi & L. Saltini leg. (GSCC); Azarbaygan-e-Sarqi: Ardabil, 1.vi.2000, A. Monfort leg. (GSCC).

Published records. Iraq, Baghdad, Káhalová leg. (Heyrovský, 1940 as *P. fatima*); Iraq (Derwesh, 1965 as *P. pretiosa*); Azarbaygan-e-Sarqi: Tabriz (Breuning, 1947 as *P. pretiosa*).

Remarks. Faldermann (1837: 298, pl. 10, fig. 5), described *Saperda pretiosa* apparently according to a single specimen that had elytra with a circum-scutellar black spot and elytral apex of the same colour: "Elytra [...] testacea, apice late nigra, praeterea macula triangulari nigra magni basi contigua et medium dorsi attingente signata." Ganglbauer (1884) separated *Phytoecia fatima* from this species on the basis of elytra predominantly red (except for two small basal spots near the base of elytra and an apical band). Breuning (1944) described *P. nigroapicalis* from Baghdad (not compared to any species) with elytra without black basal spots. Breuning (1947) described *P. pretiosa* m. *basiimmaculata* from Tabriz which in fact shows the same elytral pattern as *P. nigroapicalis*. Breuning (1951) assigned *P. pretiosa* (with *P. fatima* as a "morpha") to *Helladia* Fairmaire, 1864 and *P. nigroapicalis* to *Phytoecia*. Sama (1994) described *Helladia pretiosa ninives* from northern Iraq, which in fact is the same taxon as *P. nigroapicalis*.

The original description of *P. nigroapicalis* only reported one specimen: “*Type une femelle de l'Irak: Bagdad, dans ma collection*”. However, Breuning, chiefly in his earlier descriptions, did not list all specimens he examined. In fact, many years later Breuning (1951) wrote: “*Décris par moi sur un individu de l'Irak: Bagdad. Un paratype idem*”. These specimens have been located at NHMB and studied by G. Sama: two males bearing a white label “*Bagdad Irak*” (handwritten by Breuning), the original determination labels of Breuning “*Phytoecia nigroapicalis mihi Typ det. Breuning*” and “*Phytoecia nigroapicalis mihi paratyp det. Breuning*”. A third specimen is deposited at MHNG and labelled: “*Mesopotamia Mosul coll. Hauser V.09.*” (Hauser's original label); “*Paratype*” (red, printed); “*Phytoecia nigroapicalis mihi*” (handwritten by Breuning). With certainty, the last specimen can not be regarded as part of the “*serie typica*”. Although described in *Phytoecia* s. str. and maintained in this subgenus in Breuning's revision (Breuning, 1951) of the genus *Phytoecia*, *P. nigroapicalis* belongs without doubt to the genus *Helladia* Fairmaire, 1864. On examination of the type specimens of *P. nigroapicalis* it became evident that *P. fatima* and *H. pretiosa ninives* are one and the same taxon.

In a recent trip to south-western Iran (Khuzestan, Choga Zanbil, 20.v.2005), G. Sama found several larvae of an unknown Phytoeciini feeding in living stalks and roots of *Onopordon* sp. and *Centaurea* sp. The following summer, 19 mature specimens (5 males and 14 females) of *H. pretiosa* were extracted from their pupal cells. All males, as well as 7 females, were found to be identical with *H. pretiosa* s. str.; four females with *H. fatima* (or *H. nigroapicalis*), the remaining females belonged to various transitional forms between these two taxa, including the “*morpha*” *nigroconjuncta* (basal and apical black stripes linked by a wide sutural band). This wide range of variability within a single population justifies the synonymies proposed above. It should be noted that the typical pattern of *H. pretiosa* (elytra with more or less extended black coloration) is more common in male specimens, while females often show the characteristics of “forms” with light elytral coloration.

Biology and host plants. *Helladia pretiosa* is ecologically associated with Asteraceae. Adults were collected on *Serratula oligocephala* DC. and *Onopordon carduchorum* Bornm. & Beauverd in Southeastern Turkey (Rejzek et al., 2003a). In Iran (W of Mahabad), several adults were observed on and under leaves of *Rhaponticum insigne* (Boiss.) Wagenitz (Asteraceae) (G. Alziar det.). As stated above, several adults were reared from larvae found in *Centaurea* sp. and *Onopordon* sp. This observation gives further evidence for the insect-plant association.

Distribution. Caucasus, Southeastern Turkey, Iraq, Northern Syria, Western Iran.

Phytoecia virgula (Charpentier, 1825)

Saperda virgula Charpentier, 1825: 225.

Type locality: Dalmatia.

Specimens examined. IRAN: Lorestan, 20-40 km S of Aligudarz, 2440 m, 12.vi.2000 (MRCN); Esfahan, Komitak, 30 km S of Daran, 14.vi.2000 (MRCN); Kordestan, 1700 m, 15-20 km S of Kamyaran, 12.v.2002 (GSCC, PRCC).

Published records. “Chaldée persane: Tidar” (Pic, 1905; Villiers, 1967a).

Distribution. Europe, Southern Urals, the Caucasus, Transcaucasia, Turkey, Kazakhstan, Central Asia, Middle East to Israel and Iran.

***Phytoecia centaureae* sp. nov.**

(Fig. 8)

Type locality: Iran, Kordestan, 13 km S of Saqqez, 1400 m.

Type specimens. Holotype ♂ (GSCC): "Iran: Kordestan; 13 km S of Saqqez, 1400 m, 13.V.2002, on *Centaurea behen*, leg. G. Sama". Paratypes, 10 ♂♂, 19 ♀♀ (GSCC, PRCC), the same locality but G. Sama and P. Rapuzzi leg.; 1 ♂ (GSCC): Lorestan, 5-15 km SW of Dorud, 1500 m, 9.-10.v.2002, G. Sama leg.; 2 ♂♂, 1 ♀ (GSCC, PRCC): Azarbaygan-e-Garbi; 13 km W of Mahabad, 1700 m, 14.v.2002, on *Prangos*, G. Sama and P. Rapuzzi leg.

Description of the holotype. Length 9.2 mm. Coloration similar to *Phytoecia virgula*, except integument shining black with slightly metallic blue lustre, nearly glabrous; both ventral and dorsal body parts without appressed pubescence. Head with long erect hairs on the frons; pronotum black except a round red spot on an elevation in the middle of the disc, with erect hairs chiefly at sides. Elytra coarsely and deeply punctate, apices obliquely truncate with distinct sutural angle. Coloration of legs and abdomen like in *P. virgula*.

Biology and host plants. *Phytoecia centaureae* sp. nov. is associated with a different host plant; *P. virgula* develops in a variety of plants (*Chrysanthemum*, *Artemisia*, *Daucus*, *Hieracium*, *Onopordon*, *Tanacetum*, *Inula*, *Anthemis* and others); all known specimens of *P. centaureae* sp. nov. were collected while sitting or mating on leaves of *Centaurea behen* Linnaeus (Asteraceae) or flying around this plant. The only specimen from west of Mahabad was found on *Prangos* sp., but in the vicinity of *Centaurea behen*. In Saqqez, we have also found several specimens of *Pygoptosia eugeniae* Ganglbauer, 1884, many paratypes of *Semiangusta rebecca* Sama & Rejzek, 2002 and the leaf beetle *Cassida transcaucasica* Borowiec & Świętojanska, 2001 (Chrysomelidae: Cassidini), all of them insect associated with *Centaurea behen*.

Etymology. The new species is named after its host plant.

Distribution. Northwestern Iran (Azarbaygan-e-Garbi, Kordestan, Lorestan).

Differential diagnosis. The new species is very similar to *P. virgula* which may be easily distinguished by the body entirely clothed with dense greyish pubescence.

***Phytoecia croceipes* Reiche & Saulcy, 1858**

(Fig. 9)

Phytoecia croceipes Reiche & Saulcy, 1858: 17 (replacement name for *P. punccticollis* Mulsant & Wachanru, 1852).

Phytoecia punccticollis Mulsant & Wachanru, 1852a: 15 (nec Faldermann, 1837). – Mulsant & Wachanru, 1852b: 175.

Type locality: Southern Turkey, Cilician Taurus mts ("Caramania").

Phytoecia macilenta Mulsant, 1863: 421 (replacement name for *P. punccticollis* Mulsant & Wachanru, 1852).

Phytoecia longicollis A. Costa, 1878: 27.

Type locality: Israel, Jerusalem ("Palestina: dint. Gerusalemme").

Specimens examined. SYRIA: Latakia, Djebel Ansariya; Qalat Salah Din; pass E-SE Jablah (all GSCC). IRAN: Lorestan, 5-15 km SW of Dorud, 1500 m, 9.-10.v.2002 (GSCC, PRCC); Kordestan, 15-20 km S of Kamyaran, 1700 m, 12.v.2002 (GSCC, PRCC).

Published records. Anatolia, Syria, Palestine, Transcaucasia, the Caucasus (Breuning, 1951); Cyprus (Breuning, 1951, Villiers, 1967a); Israel: Benjamina (Heyrovský, 1954), Nazareth, Qisón valley (Bytinski, 1956); Lebanon: Djezin (Heyrovský, 1937), Beyrouth (Pic, 1952); Iraq (Derwesh, 1965).

Remarks. The population from Iran differs from topotypical specimens by a much more distinct blue metallic integument.

Distribution. The Caucasus, Transcaucasia, Asian Turkey, Cyprus, Northwestern Syria, Israel, Lebanon, Iraq, Iran (Kordestan, Lorestan). A new record for Iran.

***Phytoecia pubescens* Pic, 1895**
 (Fig. 10)

Phytoecia manicata var. *pubescens* Pic, 1895: 64.

Type locality: Not stated, but probably "Syrie" (now southern Turkey).

Phytoecia pubescens: Pic, 1907: 18; Heyrovský, 1939: 49; Danilevsky, 1993: 49.

Phytoecia cylindrica: Breuning, 1951: 368; Villiers, 1967a: 376; Villiers, 1979: 116 (misidentification).

Specimens examined. Iran: Kordestan, 15-20 km S of Kamyaran, 12.v.2002 (GSCC, PRCC); Lorestan: 5-15 km SW of Dorud, 1500 m, 9.-10.v.2002, (1 specimen, GSCC, PRCC); Azna – Arak road, 33°41'N 49°23'E, 2083 m, 22.v.2005 (19 specimens, GSCC).

Published records. Iran (Breuning, 1951; Villiers, 1967a); Esfahan: Daran, 2300 m, 9.vi.1977, Rapilly leg. (Villiers, 1979); Kermanshah: Kermanshah (Danilevsky, 1993).

Distribution. Southeastern Europe (Balkans from Croatia to Greece (including Rhodos) and Bulgaria); Turkey, Near East (from Syria to Israel), the Caucasus, Transcaucasia (Breuning, 1951), Iran (Esfahan, Kermanshah, Kordestan, Lorestan).

***Phytoecia pustulata* (Schrank, 1776)**

Cerambyx pustulatus Schrank, 1776: 66.

Type locality: Austria.

Phytoecia murina Marseul, 1869: 384.

Type locality: Southern European Russia, Volgograd-Sarepta.

Phytoecia pustulata var. *adulta* Ganglbauer, 1884: 572.

Type locality: Northern Iran, Mazandaran, Gorgan ("Astrabad").

Phytoecia pustulata pulla Ganglbauer, 1886: 30.

Type locality: Uzbekistan, Toshkent.

Specimens examined. AZERBAIJAN: Talysh mts, 14-18 km by the road Lenkoran-Lerik, 30.iv-9.v.2001, T. Lakner leg. (GSCC); ARMENIA: Sevan lake, Mt. Artanish, 2250 m, 16.vi.2002, A. Carapezza leg. (GSCC); Sevan env., 2000 m, 12.vi.2002, A. Carapezza leg. (GSCC); TURKEY: NE Turkey: Kars, Sarikamis (GSCC, PRCC); SE Turkey: Nurdagi Gecidi pass; Çamlıayla; Adana (GSCC, PRCC); IRAN: "Persia, Aladag, Budschnurd, 1033 m, V.1902, coll. Hauser" (coll. P. Schurmann in GSCC); Mazandaran, Gorgan ["Astrabad"]; iv.1899, coll. Hauser (coll. P. Schurmann in GSCC); iv.-vi.1908, coll. Leonhard (coll. P. Schurmann in GSCC); Gilan, road between Astara and Ardabil, 700-1000 m, 25.v.1999, Malmusi leg. (GSCC); Kordestan: 15-20 km S of Kamyaran, 1700 m, 12.v.2002, by sweeping of *Achillea* sp. (GSCC, PRCC); 30 km S of Saqqez, 1400 m, 13.v.2002 (GSCC).

All these specimens show considerable geographical variations both regarding body size and coloration of antennae and legs, as well as the prothoracic red spot, which may be well developed, reduced or totally missing. Specimens from Central Asia often show a more dense elytral pubescence of grey colour, those from "Astrabad" usually have distinctly red antennae. Nevertheless, all the characters cited are subject to variation or integration; we therefore think that *P. murina*, *P. pulla*, *P. vexans*, often regarded as distinct subspecies, fall within the variability of *P. pustulata*.

Distribution. Europe, Turkey, the Caucasus, Transcaucasia, Kazakhstan, Western Siberia, Iran (Gilan, Kordestan, Mazandaran).

***Phytoecia asiatica* Pic, 1891**
 (Fig. 11)

Phytoecia asiatica Pic, 1891: 102. Lectotype ♂ (MNHN), here designated.

Type locality: Southern Turkey, Hatay ("Syrien: Akbes").

Phytoecia asiatica: Pic, 1908: 10; Aurivillius, 1923: 557; Winkler, 1929: 1224.

Phytoecia geniculata m. *asiatica*: Breuning, 1951: 378.

Phytoecia achilleae Holzschuh, 1971: 68; **syn. nov.**

Type locality: Southern Turkey, Amanus mts. Nurdagi Gecidi pass.

Type specimens examined. *Phytoecia asiatica*. Lectotype ♀ (coll. Pic in MNHN) here designated and labelled: "Syrie Akbes CD 1891" (printed, original label of C. Delagrange), "P. asiatica n. sp. type" (white, handwritten by Pic), "Type" (a round, pink label handwritten by Pic), "Coll. Delagrange [printed] Phytoecia asiatica n. sp. Pic" ([handwritten by Delagrange]), "Museum Paris Coll. M. Pic" (white, printed), "Phytoecia asiatica Pic, 1891 G. Sama des., 2003" (designated in order to preserve stability of nomenclature). *P. achilleae* 6 paratypes (GSCC and coll. C. Holzschuh, Villach, Austria): "SO Türkei, Amanusgebirge, Nurdagi Gec.".

Original description. *Phytoecia asiatica*: "Voisine de la *lineola* v. *pulla* Gggl., par l'aspect et surtout de la *nigricornis* par la coloration. Pattes grises moins l'extremité supérieure de tous les tibias et la deuxième moitié des quatre cuisses antérieures, rougeâtres. Dessous du corps pubescent de gris avec la poitrine très garnie de duvet blanc cendré épais. Tête et prothorax assez fortement et densément ponctués, ce dernier pas très long un peu atténue à la base et un peu dilaté et arrondi avant celle ci avec trois lignes de duvet presque effacées. Ecusson arrondi très garni de duvet blanc sale épais. Elytres à peine convexes à duvet gris vert, assez éparsement ponctués, à peine atténue et vaguement tronqués offrant une côte peu visible. Antennes pas très longues. Communiqué par M. Delagrange, Akbès. Long. 9 mil. La *P. asiatica* se distingue de la *P.v. pulla* Ggl. par le prothorax plus long, la forme plus parallèle des élytres; elle est revêtue en dessus d'un duvet gris-vert et non gris plus ou moins cendré ce qui la distingue très visiblement de la *nigricornis* F.".

Remarks. The lectotype of *P. asiatica* is a female, 9 mm long, rather well preserved and well recognizable (although 10 antennomeres of right antenna and the whole median left leg are missing).

Pic (1891) originally correctly compared this species to *P. pulla* Ganglbauer, 1886 (currently *P. pustulata* var. *pulla*) and to *P. nigricornis* (Fabricius, 1781). Later authors regarded this species as a distinct taxon (Pic, 1908; Aurivillius, 1923; Winkler, 1929). Breuning (1951) synonymised this species with *P. geniculata* Mulsant, 1862 but very likely without inspecting the type specimens. In fact, *P. asiatica* is quite different from *P. geniculata*. The characteristic shape of the 3rd antennal segment in females, distinctly swollen at apex, proves the affinity of this species with *P. pustulata*. On the other hand, the longitudinal stripes of grey pubescence on the disc of the pronotum, make this species similar to *P. nigricornis*. *Phytoecia asiatica* has recently been redescribed as *P. achilleae* and consequently this taxon must be regarded as a junior synonym.

Phytoecia geniculata Mulsant, 1862

Phytoecia geniculata Mulsant, 1862: 420.

Type locality: Turkey ("La Turquie").

Phytoecia fuscicornis Mulsant & Rey, 1863: 168 (nec Heyden, 1863).

Type locality: Greece and Turkey ("La Grèce, les environs de Constantinople").

Phytoecia orientalis Kraatz, 1870: 272 (replacement name for *fuscicornis* Mulsant & Rey, 1863).

Specimens examined. IRAQ: Kurdistan, Rawanduz, 24.iv.1979, J. Macek leg. (coll. P. Schurmann in GSCC). IRAN: Lorestan, 5-15 km SW of Dorud, 1500 m, 9.-10.v.2002, G. Sama leg. (GSCC); Kordestan, 13 km S of Saqqez, 1400 m, 13.v.2002, G. Sama leg. (GSCC).

Remarks. According to Breuning (1951), this species was first described by Mulsant & Rey (1863) under the name *Phytoecia fuscicornis*, on the basis of specimens originating

from Greece and Turkey ("Patrie: La Grèce, les environs de Constantinople") and belonging to the collections of Reiche and Pellet; the name was replaced by Mulsant himself with *P. geniculata* because of the homonymy with *P. fuscicornis* Heyden, 1863. In fact, Mulsant (1862: 420) described *P. geniculata* according to specimens from Turkey ("Patrie "La Turquie") from the coll. Perroud, without any reference to *P. fuscicornis*. Moreover, the description of *P. geniculata* Mulsant was published in 1862 and takes priority over *P. fuscicornis* Mulsant & Rey, published in Opuscule Entomologique, 1863 (see also Kraatz, 1870).

Distribution. Greece, Turkey, Cyprus, Syria, Lebanon, Israel, Palestine, Jordan (Sama et al., 2002), Northeastern Iraq and Northwestern Iran (Kordestan, Lorestan). New records for Iraq and Iran.

Phytoecia bangi Pic, 1897

(Fig. 12)

Phytoecia bangi Pic, 1897: 189.

Type locality: Southeastern Turkey, Mardin.

Phytoecia rufipesbangi: Breuning, 1951: 374.

Phytoecia bangi: Holzschuh, 1975: 103.

Specimens examined. IRAN: Khuzestan ("Chaldée") (coll. Breuning, MHNG), Gilan, 65 km NW of Ghazvin, 800 m, C. Holzschuh & F. Ressl leg., 11.v.1975 (GSCC); Kordestan: 13 km S of Saqqez, 1400 m, 13.-16.v.2002 (GSCC, PRCC); idem, 26.v.2005 (GSCC); all our specimens were collected by sweeping of unidentified Asteraceae.

Published records. Southeastern Turkey: Mersin, Kayseri, Akbes (Holzschuh, 1975); Iran: "Chaldée persane: entre Tchami-i-Caw et le Sein-Merreh" (Pic, 1905).

Remarks. *Phytoecia bangi* was described as a distinct species, later regarded as a subspecies of *P. rufipes* (Breuning, 1951) and more recently restored as a distinct species (Holzschuh, 1975). It is a relatively rare insect, known from southeastern Turkey and Iran.

Distribution. Southeastern Turkey (Hatay, Icel, Kayseri, Mardin), Iran (Gilan, Khuzestan, Kordestan).

Phytoecia aenigmatica sp. nov.

(Fig. 13)

Type locality: Northeastern Iran, Khorasan, 10 km northeastern of Nesapur, 36°14'N 58°58'E, 1548 m.

Type specimens. Holotype ♂ (GSCC): "NE Iran, prov. Khorasan, 10 km NE Nesapur, 36°14'N 58°58'E, 1548 m, 14.V.2003, M. Rejzek leg.". Paratypes (5 ♂♂, 1 ♀ GSCC, MRCN and coll. P. Kabátek, Prague, Czech Republic), the same data as holotype.

Description of the holotype. Length 11 mm. Form elongate, slender, integument black, head, pronotum and elytra densely clothed with conspicuous brown-yellow recumbent pubescence. Head, pronotum and basal third of elytra bear long erect hairs of slightly lighter colour. Head with finely faceted eyes, deeply emarginate, eye lobes 2.2x longer than genae; mandibles elongate, falciform, unicuspitate apically; palpi unequal, last segment of maxillary palpi shorter than the two preceding segments together, longer than the 3rd segment, about as long as the 2nd; 2nd segment of labial palpi very elongate, longer than the last segment; galea reduced, digitiform, ligula reduced, not emarginate, without lateral lobes; pubescence of the head rich and dense, the recumbent pubescence significantly reduced along the upper eye lobes, on the occiput and postgenae. Pronotum 1.2x broader

than long, nearly parallel sided, slightly narrowing towards the posterior edge; the disc densely and shallowly punctate (the space between punctures finely microsculptured), with a median longitudinal stripe of dense pubescence and two indistinct round calluses each side of the stripe. Scutellum densely covered with long recumbent pubescence. Elytra elongate, distinctly narrowing towards the apex, apices truncate, disc moderately convex on basal fourth, shallowly depressed along the suture, shortly before apex the suture evidently dehiscent; apart from the continuous recumbent pubescence, in basal fourth elytra covered with numerous long erect hairs becoming progressively shorter towards the middle, apical half of elytra with only short semi-recumbent hairs. Antennae slender, shorter than the body, only just reaching apical fourth of elytra; 1st segment gradually thickened towards apex, 3rd segment 1.20x longer than 1st, slightly (0.95x) shorter than 4th; 4th conspicuously (1.74x) longer than 5th., about twice (1.94x) longer than 6th and 7th; the remaining segments gradually shortening with the 11th segment being the shortest. Legs slender, front legs all orange except for a short ring on the base of femora, tarsi piceous black; middle and hind legs with femurs orange except for the base and the apex, tibiae and tarsi all black, tarsi evidently punctate, each puncture bearing a seta, 1st segment of hind tarsi about as long as the two following combined, 3rd segment elongate, longer than wide, slightly longer than 2nd, deeply bilobed; onychium as long as 2nd and 3rd segments united, each claw has a stout inner tooth extending from its base to slightly beyond half the length of the parent claw. Ventral side of the body black, covered with appressed pubescence and sparse long erect hairs; hind coxae with a distinct spine; the last segment of abdomen exceeds the elytral apex, three first sternites black, 4th black but orange at sides, the last one orange, except the apical margin; last sternite with a shallow semicircular impression before apex, hind margin lobed.

Female. As in male but body distinctly more robust, elytra nearly parallel sided only very slightly narrowing towards the apex, calluses located on the pronotal disc are slightly more distinct, 4th sternite of the abdomen is completely black without orange sides.

Differential diagnosis. *Phytoecia aenigmatica* cannot be confused with any described species of Phytoeciini. The following features make this taxon very distinctive: body densely covered with brown-yellow pubescence, thin antennae, with 1st segment gradually thickened towards apex, 3rd segment shorter than 4th, and 3rd segment of hind tarsi conspicuously longer than broad. Superficially, the species resembles *Neomusaria* Plavilstikhov, 1928 but, if examined more closely, it evidently belongs to *Phytoecia*. *Neomusaria* differs from *Phytoecia* in having two very distinct discal glabrous calluses on the pronotum, antennae conspicuously thick, with 1st segment almost cylindrical, not gradually thickened towards the apex, 3rd and 4th segments similar in length, 4th segment not more than 1.5 longer than 5th and 6th, legs with short tarsi, 3rd segment of hind tarsi not longer than wide and not longer than the preceding one; tarsal claws subdivided, with the inner tooth nearly as long as the parent claw.

Among *Phytoecia*, the new species may resemble, to some extent, some species of the group close to *P. icterica* (Schaller, 1783) or *P. geniculata*. The former, which has the same coloration of legs, differs from the new species by the body covered with grey pubescence, pronotum very densely and deeply punctate and with a longitudinal stripe of ochraceous pubescence along the middle, scutellum covered with pubescence of the same colour, elytra distinctly impressed along the suture, abdomen totally black, antennae longer than body in male, with 3rd segment distinctly longer than 4th, hind tarsi shorter, aedeagus with median lobe acuminate apically, lateral lobes elongate, apical sclerite of internal sac with a long flagellum. *P. geniculata*, which share the most characters with *P. icterica*, differs from the

new species by abdomen totally black, intermediate and hind femora completely black or nearly so and last segment of hind tarsi subquadrate.

E t y m o l o g y. The species name is derived from the greek and late latin word *aenigmatis*, meaning puzzling, referred to the systematic position of the species.

B i o l o g y and host plants. The type locality of *P. aenigmatica* sp. nov. is situated in the Kuh-e Binalud mts that are directly adjacent to the Kopet Dag mountain range. The region is very arid with little vegetation. *P. aenigmatica* sp. nov. was found in a mountain valley in relatively high altitude. The north facing slopes of this valley supported rich herbaceous vegetation. All known specimens of *P. aenigmatica* sp. nov. were collected on a *Ferula* sp. (Apiaceae) plant. The beetles were hiding in pockets formed by the leaves and the main plant stalk. It is likely that this plant serves as the species' host. All known species of the genus *Neomusaria* Plavilstikhov, 1928 are associated with plants of the family Lamiaceae and seem to be oligophagous on *Salvia* spp. (Rejzek et al. 2001 and 2003a,b). Although, superficially, *P. aenigmatica* sp. nov. may resemble species of the genus *Neomusaria*; its association with an Apiaceae plant further supports the fact that it belongs to a different genus.

D i s t r i b u t i o n. Northeastern Iran (Khorasan).

Blepisanis magnanii sp. nov.

(Fig. 14)

T y p e l o c a l i t y: Iran, Fars, Qaderabad northeastern of Shiraz, 2200 m.

T y p e s p e c i m e n. Holotype ♂ (GSCC): "Fars, Qaderabad NE of Shiraz, 2200 m, 11.V.2005, leg. G. Magnani."

D e s c r i p t i o n. Length 8.3 mm (from the frons to the elytral apices). Integument black; body form elongate and conspicuously tapering behind; head and pronotum piceous black, with sparser and finer punctuation, pronotum shining, with sparse white long hairs, condensed along the median line of the disc. Elytra reddish brown except the shoulders, a narrow stripe along the base, the epipleurae and the suture, punctuation similar to *Blepisanis vittipennis* (Reiche, 1877), ground pubescence grey, sparser and shorter, erect hairs only at base; each elytron with a distinct oblique sharp carina extended from the shoulder to the apical quarter; elytral apices attenuate and depressed. Ventral part of the body piceous black, pubescence only condensed on the metepimera; abdomen very sparsely clothed with greyish pubescence, sternites 1-4 piceous black, the first three sternites with white long erect hairs, last sternite reddish, totally exceeding the hind margin of elytra. Antennae black, about as long as the body; 1st segment with short erect hairs, segments 2-4 sparsely fringed beneath. Legs red except the base of hind femora, and the apex of the hind tibiae; tarsi black, tarsal claws subdivided. Male genitalia not examined.

E t y m o l o g y. We are glad to dedicate the new species to its discoverer, our friend G. Magnani (Cesena), specialist on Coleoptera Buprestidae.

D i f f e r e n t i a l d i a g n o s i s. According to the key provided by Breuning (1951), the new species would be determined as *B. vittipennis*, but, if compared to specimens of *B. vittipennis* from the Balkans and northern Turkey it may be easily distinguished through the characters listed above. By its coloration and the body form, the single known specimen is evidently more similar to the group of species close to *B. nivea* (Kraatz, 1882) from Central Asia. It differs from all these species by the whole body very sparsely pubescent, legs predominantly red and last sternite red.

D i s t r i b u t i o n. Iran (Fars).

Blepisani remaudierei Villiers, 1967

Blepisani remaudierei Villiers, 1967a: 341.

Type locality: Iran, Kerman, Deh Bakri, Djem-al-Barrez.

Type specimens (MNHN), not examined.

Specimens examined. IRAN: Zahedan, Nosratabad, 27.iv.1977, Radjabi leg. (HMMT); Fars, Safsahar (Dehbidi) N of Shiraz, 2252 m, 11.v.2005, ex pupa from dead stalks of probably *Gundelia tournefortii* L. (Asteraceae). Two specimens emerged from the larval substrate during the trip (between 15 to 25 May) and as a consequence they are very defective.

Remarks. *Blepisani remaudierei* is a very distinctive species characterised by very dense white-yellow pubescence covering head, pronotum, a large band along the suture of elytra and the whole ventral part of the body as well as the legs totally red and the antennae totally black. We tentatively refer our specimens to this species described by Villiers from Deh Bakri (south of Kerman). Our specimens, however, show certain characteristics different from the description. In our specimens the apex of elytra is nearly straight truncate, while Villiers wrote "apex brièvement semi-ovalaire"; moreover, elytra have a black spot on the humeri, which Villiers did not mention.

Distribution. Iran (Fars, Kerman, Zahedan).

Acknowledgements

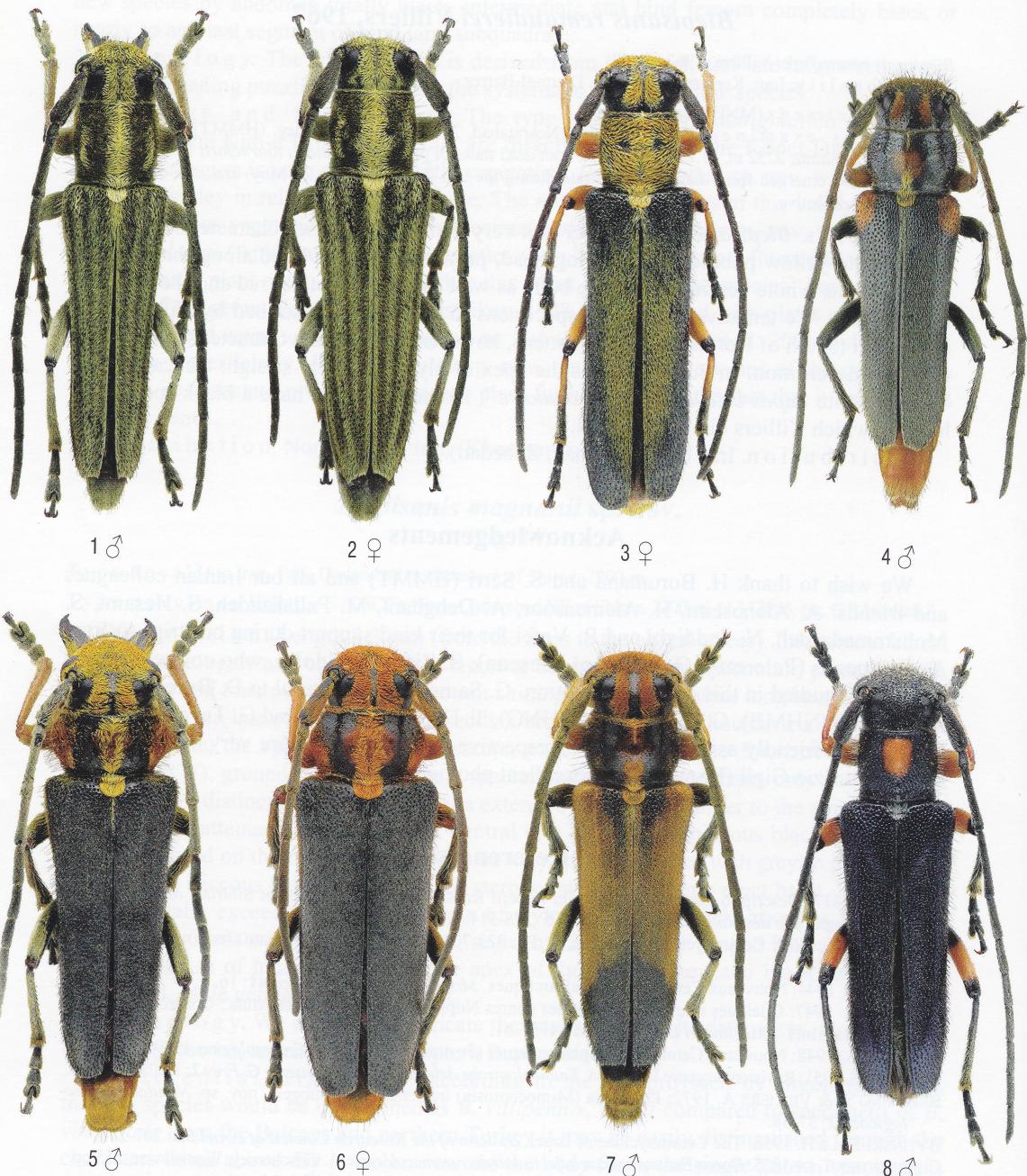
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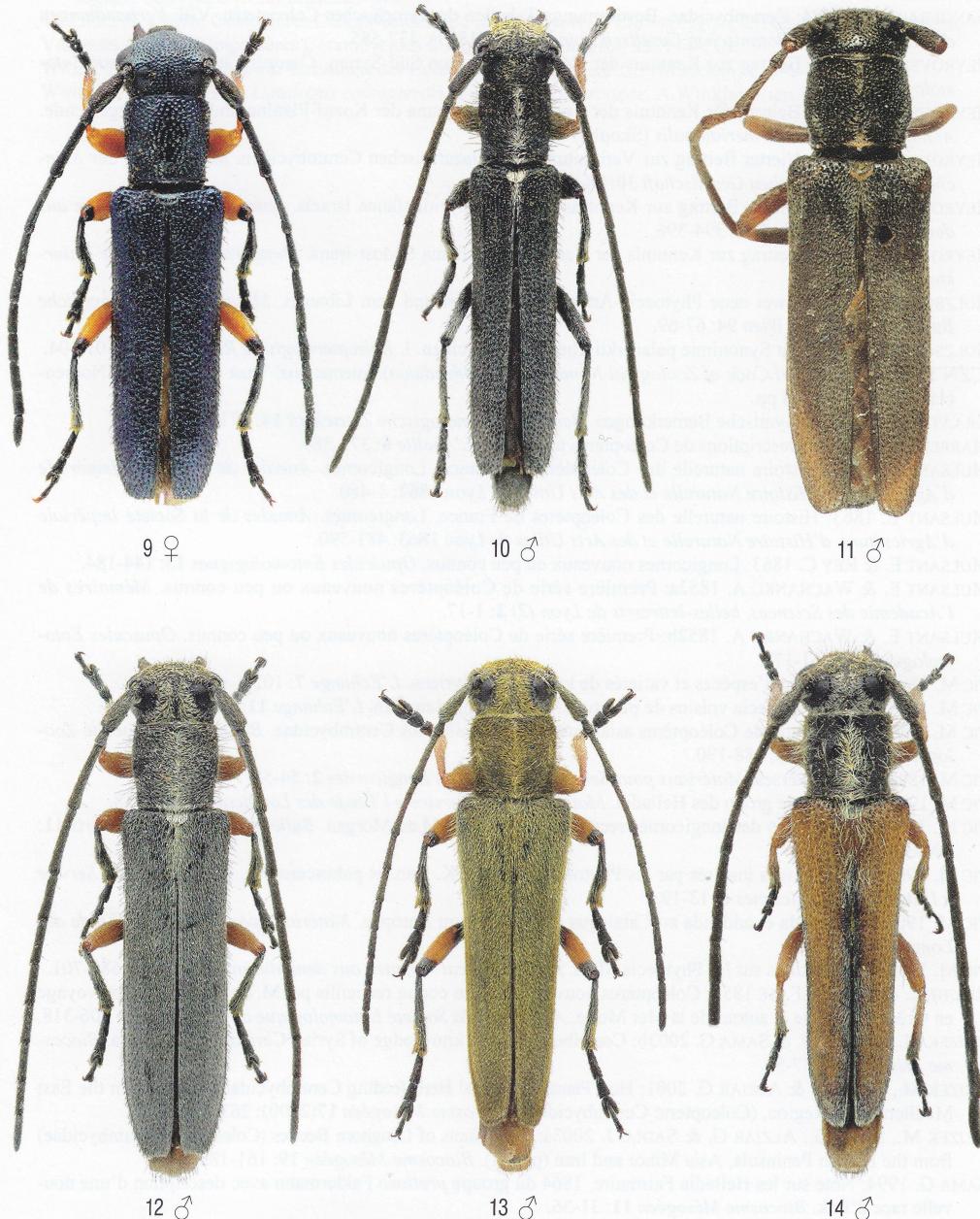
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Figs 1-8. 1-2: *Mimocoptosia iraniensis* (Breuning & Villiers), ♂♀, 12.0 mm, Iran, Azarbayan-e-Garbi, Ghasemlo S Orumiyeh; 3 – *Neomusaria mesopotamica* (Breuning), ♀, 8.0 mm, Iran, Kordestan, 5/20 km N Kamyaran; 4 – *Helladia humeralis* (Waltl), ♂, 9.0 mm, Iran, Khuzestan, Choga Zanbil; 5-6: *Helladia imperialis dorud* subsp. nov., ♂♀, 14.0 mm, 12.0 mm, Iran, Lorestan, 5/15 km SW Dorud; 7 – *Helladia pretiosa* (Faldermann), ♂, 11.0 mm, Khuzestan, Choga Zanbil; 8 – *Phytoecia centaureae* sp. nov., ♂, 9.2 mm, Iran, Kordestan, 13 km S of Saqqez.



Figs 9-14. 9 – *Phytoecia croceipes* Reiche & Saulcy, ♀, 6.0 mm, Iran, Kordestan, 15/20 km S Kamyaran; 10 – *P. pubescens* Pic, ♂, 8.0 mm, Iran, Kordestan, 15/20 km, S Kamyaran; 11 – *P. asiatica* Pic, lectotype, ♂, 9.0 mm; 12 – *P. bangi* Pic, ♂, 10.0 mm, Iran, Kordestan, 13 km S of Saqqez; 13 – *P. aerigomatica* sp. nov., holotype, 11.0 mm, ♂; 14 – *Blepisamis magnanii* sp. nov., holotype, ♂, 8.3 mm, Iran, Fars, Qaderabad NE of Shiraz.