

**AN OVERVIEW ON THE W-PALAEARCTIC SUBGENUS  
*PHYTOECIA (HELLADIA)* FAIRMAIRE, 1864 WITH A  
 NEW SUBSPECIES *PHYTOECIA (HELLADIA)*  
*HUMERALIS CANERI* SSP. N. FROM TURKEY  
 (COLEOPTERA: CERAMBYCIDAE: LAMIINAE)**

**Hüseyin Özdikmen\* and Semra Turgut\***

\* Gazi Üniversitesi, Fen-Edebiyat Fakültesi, Biyoloji Bölümü, 06500 Ankara / Türkiye. E-mails: ozdikmen@gazi.edu.tr and semraturgut@gmail.com

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**ABSTRACT:** All taxa of the subgenus *Helladia* Fairmaire, 1864 in Turkey and the world fauna are evaluated and summarized. A new subspecies, *Phytoecia (Helladia) humeralis caneri* ssp. n. is described from Turkey. *Musaria testaceovittata* Pic, 1934 is regarded as a subspecies of *Phytoecia (Helladia) armeniaca* Frivaldsky, 1878 as the form *Phytoecia (Helladia) armeniaca testaceovittata* (Pic, 1934) stat. n.. Also, *Phytoecia (Helladia) natali* Lobanov, 1994 is accepted as a synonym of *Musaria testaceovittata* Pic, 1934 and placed in the other names of *Phytoecia (Helladia) armeniaca* Frivaldsky, 1878 as syn. n.. Besides, *Phytoecia insignata* Chevrolat, 1854 is ranked as a subspecies of *Phytoecia (Helladia) humeralis* (Waltl, 1838) as the form *Phytoecia (Helladia) humeralis insignata* Chevrolat, 1854 stat. n.. Some new faunistical data are also given for Turkey in the text. Short descriptions and a short identification key are also given for Turkish species in the text.

**KEY WORDS:** *Helladia*, *Phytoecia*, Saperdini, Lamiinae, Cerambycidae, Coleoptera.

The main aim of this work is to clarify current status of the subgenus *Phytoecia (Helladia)* Fairmaire, 1864 in Turkey and the world fauna.

**Subfamily LAMIINAE Latreille, 1825**

**Tribe SAPERDINI Mulsant, 1839**

- = *Phytoeciaires* Mulsant, 1839
- = *Saperdina* Thomson, 1859
- = *Saperditae* Thomson, 1860
- = *Saperdites* Fairmaire, 1864
- = *Phytoecites* Fairmaire, 1864
- = *Obereini* Thomson, 1864
- = *Obereitae* Thomson, 1864
- = *Phytoeciini* Pascoe, 1864
- = *Saperdides* Lacordaire, 1872
- = *Glénéides* Lacordaire, 1872
- = *Gleneini* Lacordaire, 1872
- = *Obereini* Sama, 2008

**Type genus:** *Saperda* Fabricius, 1775

Vitali (2010) stated that “Saperdini, Phytoecini, Obereini and Gleneini are characterised by mutual characters that do not allow considering them as separated tribes. Breuning’s systematics, the only world-wide revision, is adopted here“. We agree with Vitali’s approach now. In fact that Ohbayashi & Niisato

(2007) accepted Saperdini = Gleneini = Phytoeciini. We agree with these approaches and prefer now to return to Breuning's position.

### Genus **PHYTOECIA** Dejean, 1835

- = *Cardoria* Mulsant, 1863
- = *Opsilia* Mulsant, 1863
- = *Pilemia* Fairmaire, 1864
- = *Helladia* Fairmaire, 1864
- = *Musaria* Thomson, 1864
- = *Blepisanis* Pascoe, 1866
- = *Hoplotoma* Perez, 1874
- = *Semiangusta* Pic, 1892
- = *Pygoptosia* Reitter, 1895
- = *Pseudomusaria* Pic, 1900
- = *Fulgophytoecia* Pic, 1900
- = *Neomusaria* Plavilstshikov, 1928
- = *Cinctophytoecia* Breuning, 1947
- = *Pseudoblepisanis* Breuning, 1950
- = *Mimocoptosia* Breuning & Villiers, 1972

**Type species:** *Saperda cylindrica* Fabricius, 1775 = *Cerambyx cylindricus* Linnaeus, 1758

Now, we think that the presence of mixed characters in the whole genus does not allow us to consider the subgenera as valid genera as stated by some authors. Therefore, Breuning's (1951) systematics is adopted here chiefly.

In this case, the genus includes at least 15 subgenera as *Blepisanis* Pascoe, 1866; *Cardoria* Mulsant, 1863; *Cinctophytoecia* Breuning, 1947; *Fulgophytoecia* Pic, 1900; *Helladia* Fairmaire, 1864; *Mimocoptosia* Breuning & Villiers, 1972; *Musaria* Thomson, 1864; *Neomusaria* Plavilstshikov, 1928; *Opsilia* Mulsant, 1863; *Phytoecia* Dejean, 1835; *Pilemia* Fairmaire, 1864; *Pseudoblepisanis* Breuning, 1950; *Pseudomusaria* Pic, 1900; *Pygoptosia* Reitter, 1895 and *Semiangusta* Pic, 1892.

### Subgenus **HELLADIA** Fairmaire, 1864

Fairm. Gen. Col. d'Eur. IV, 1864, p. 176, 201. — Ganglb. Best.-Tab. VIII, 1884, p. 122 (556), nota 1. — Pic, Bull. Soc. Ent. France 1900, p. 139. — Pic, Longic. IV, 2, 1903, p. 11–17 (Synopsis). — Aurivillius, Col. Cat., pars 73, 1921, p. 550. — Breuning, Ent. Arb. Mus. G. Frey, 2(1), 1951, p. 50. — Breuning, Cat. Lam. Monde, 9, 1966, p. 744. — Sama, Biocosm. Més., 11(2), 1994, p. 31. — Özdikmen, Mun. Ent. Zool., 2(2), 2007, p. 331.

**Type species:** *Saperda flavescens* Brullé, 1832

This subgenus was described by Fairmaire (1864) with the type species *H. flavescens* (Brullé, 1832) as a genus. The original description of Fairmaire (1864) as follows:

*Corps oblong, déprimé en dessus, très-pubescent. Tête un peu plus étroite que le prothorax, médiocrement convexe, finement carénée entre les yeux. Yeux presque complètement divisés par l'échancrure. Labre tronqué, replié à l'extrémité. Mâchoires des Phytoecia. Palpes maxillaires à dernier article presque deux fois aussi long que le 5<sup>e</sup>. Menton court, fortement arrondi sur les côtés. Languette ovoïde, largement sinuée en avant, à peine rétrécie à la base, bordée de longues soies au bord antérieur, semi-membraneuse. Palpes labiaux allongés, à dernier article fusiforme, atténué, pas plus long que le 2<sup>e</sup> (Pl. 54, fig. 255 bis, *H. orbicollis*). Antennes à peine plus courtes que le corps, cylindriques, assez épaisses, légèrement comprimées vers l'extrémité, les 3<sup>e</sup> et 4<sup>e</sup> articles un peu atténués à la base, 1<sup>er</sup> article épais, rétréci vers la base, plus court que le 3<sup>e</sup>.*

*Prothorax transversal, fortement arrondi sur les côtés. Ecusson en carré fortement arrondi. Elytres un tiers plus larges à la base que le prothorax, à épaules fortement marquées, se rétrécissant de là jusqu'à l'extrémité, qui est obliquement tronquée, planes sur la partie dorsale, perpendiculaires sur les côtés. Prosternum très-étroit, mais séparant les hanches antérieures. Mésosternum assez large, parallèle, tronqué. Pattes de grandeur et de grosseur médiocre; tarsi non comprimés; crochets à lobe interne large, très-court. — Grèce.*

*Ce genre ne renferme que deux ou trois espèces propres à la Grèce et à l'Asie-Mineure, et qui diffèrent beaucoup du g. Mallosia, où on en a placé une.*

Ganglbauer (1884) accepted it as a subgenus of *Phytoecia* Dejean, 1835 and mentioned four species in the part of “Europäische Arten” as *Phytoecia flavescens* Brullé, 1832, *Phytoecia humeralis* (Waltl, 1838), *Phytoecia millefolii* (Adams, 1817), *Phytoecia praetextata* (Steven, 1817); five species in the part of “Caucasisch-persische Arten” as *Phytoecia armeniaca* Frivaldsky, 1878, *Phytoecia diademata* (Faldermann, 1837), *Phytoecia fatima* Ganglbauer, 1884, *Phytoecia plasoni* Ganglbauer, 1884, *Phytoecia pretiosa* (Faldermann, 1837); and three species in the part of “Kleinasiatich-syrische Arten” as *Phytoecia ferrugata* Ganglbauer, 1884, *Phytoecia pontica* Ganglbauer, 1884, *Phytoecia scapulata* Mulsant, 1851 [= *Phytoecia humeralis* (Waltl, 1838)].

Pic (1900a,b and 1903), Aurivillius (1921), Breuning (1951 and 1966) also accepted it as a subgenus of *Phytoecia* Dejean, 1835. Then some authors (e.g., Sama, 1994; Özdikmen, 2007) used it as a separate genus.

Aurivillius (1921) stated seventeen species in the subgenus *Phytoecia* (*Helladia*) as *Phytoecia* (*Helladia*) *adelpha* Ganglbauer, 1886; *Phytoecia* (*Helladia*) *armeniaca* Frivaldsky, 1878; *Phytoecia* (*Helladia*) *diademata* Faldermann, 1837; *Phytoecia* (*Helladia*) *dilatocollis* Pic, 1900 [now *Phytoecia* (*Helladia*) *ferrugata dilatocollis* Pic, 1900]; *Phytoecia* (*Helladia*) *edessensis* Reitter, 1898 [= *Phytoecia* (*Helladia*) *adelpha* Ganglbauer, 1886]; *Phytoecia* (*Helladia*) *fatima* Ganglbauer, 1884; *Phytoecia* (*Helladia*) *ferrugata* Ganglbauer, 1884; *Phytoecia* (*Helladia*) *flavescens* (Brullé, 1832); *Phytoecia* (*Helladia*) *humeralis* (Waltl, 1838); *Phytoecia* (*Helladia*) *infernalis* Pic, 1904 [= *Thyestilla gebleri* (Faldermann, 1835)]; *Phytoecia* (*Helladia*) *millefolii* (Adams, 1817); *Phytoecia* (*Helladia*) *plasoni* Ganglbauer, 1884; *Phytoecia* (*Helladia*) *praetextata* (Steven, 1817); *Phytoecia* (*Helladia*) *pretiosa* Faldermann, 1837; *Phytoecia scapularis* Chevrolat, 1882 [= *Phytoecia humeralis* (Waltl, 1838)]; *Phytoecia scapulata* Mulsant, 1851 [= *Phytoecia humeralis* (Waltl, 1838)]; *Phytoecia* (*Helladia*) *schmiedeknechti* Pic, 1899 [= *Phytoecia* (*Helladia*) *orbicollis* Reiche et Saulcy, 1858]. So the real number of mentioned species in Aurivillius (1921) is twelve.

Breuning (1951) placed eleven species and Breuning (1966) also placed twelve species (plus *Phytoecia iranica* Villiers, 1960) under the subgenus as *Phytoecia* (*Helladia*) *armeniaca* Frivaldsky, 1878; *Phytoecia* (*Helladia*) *diademata* Faldermann, 1837; *Phytoecia* (*Helladia*) *ferrugata* Ganglbauer, 1884; *Phytoecia* (*Helladia*) *flavescens* (Brullé, 1832); *Phytoecia* (*Helladia*) *humeralis* (Waltl, 1838); *Phytoecia* (*Helladia*) *millefolii* (Adams, 1817); *Phytoecia* (*Helladia*) *orbicollis* Reiche et Saulcy, 1858; *Phytoecia* (*Helladia*) *plasoni* Ganglbauer, 1884; *Phytoecia* (*Helladia*) *pontica* Ganglbauer, 1884; *Phytoecia* (*Helladia*) *praetextata* (Steven, 1817) and *Phytoecia* (*Helladia*) *pretiosa* Faldermann, 1837.

Then some new species was added by some authors as *Phytoecia* (*Helladia*) *paulusi* Holzschuh, 1971; *Phytoecia* (*Helladia*) *alziari* (Sama, 1992); *Phytoecia*

(*Helladia imperialis* (Sama & Rejzek, 2001) and *Phytoecia (Helladia) demelti* (Sama, 2003).

Besides, *Phytoecia circumdata* was described by Kraatz (1882) from Samarkand (Kazakhstan). Ganglbauer (1884) gave it in the part of Turkestanische Arten as *Phytoecia circumdata* Kraatz, 1882. Pic (1903) described a subgenus of *Phytoecia* for this species as *Phytoecia (Fulgophytoecia)*. Aurivillius (1921) placed it under the subgenus *Phytoecia (Fulgophytoecia)* Pic, 1903. Winkler (1924-1932) regarded the subgenus *Phytoecia (Fulgophytoecia)* Pic, 1903 as a synonym of *Phytoecia (Helladia)* Fairmaire, 1864 and placed the species *Phytoecia circumdata* Kraatz, 1882 under the subgenus *Phytoecia (Helladia)* Fairmaire, 1864. However, Breuning (1951) gave it in the nominotypical subgenus *Phytoecia* (s.str.). Breuning (1966) placed it under the subgenus *Phytoecia (Blepisanis)* Pascoe, 1866. Then some authors regarded it as a member of the subgenus *Phytoecia (Helladia)* Fairmaire, 1864. Finally Danilevsky (2010) placed it in the subgenus *Phytoecia (Fulgophytoecia)* Pic, 1903 again. Now we agree with the approach of Danilevsky (2010). So we regarded the species *Phytoecia circumdata* Kraatz, 1882 as a member of the subgenus *Phytoecia (Fulgophytoecia)* Pic, 1903, not *Phytoecia (Helladia)* Fairmaire, 1864.

The original description of Kraatz (1882) ex Ganglbauer, 1884 for *Phytoecia circumdata* Kraatz, 1882 as follows:

*Schwarz, ziemlich glänzend, die Flügeldecken gelb, mit gemeinschaftlicher, weder die Basis noch die Spitze berührender schwarzer Makel. Der Kopf verhältnissmässig klein, fein, massig dicht punktirt, abstehend behaart. Halsschild fast doppelt so lang als breit, mit erhabener, glatter Mittellinie, jederseits in der Mitte undeutlich erhaben, dicht und deutlich punktirt. Flügeldecken ohne Rippen, ziemlich glänzend, vorne stark, nach hinten allmählig schwächer, ziemlich dicht punktirt, abstehend schwarz behaart. Unterseite bis auf die Mittelbrust beinahe glatt, greis pubescent. Long. 10 mm. — Samarkand (ex Kraatz).*

Therefore, the W-Palaearctic subgenus *Phytoecia (Helladia)* Fairmaire, 1864 includes seventeen species in the world fauna as *Phytoecia (Helladia) adelpha* Ganglbauer, 1886; *Phytoecia (Helladia) alziari* (Sama, 1992); *Phytoecia (Helladia) armeniaca* Frivaldsky, 1878; *Phytoecia (Helladia) demelti* (Sama, 2003); *Phytoecia (Helladia) diademata* Faldermann, 1837; *Phytoecia (Helladia) fatima* Ganglbauer, 1884; *Phytoecia (Helladia) ferrugata* Ganglbauer, 1884; *Phytoecia (Helladia) flavescens* (Brullé, 1832); *Phytoecia (Helladia) humeralis* (Waltl, 1838); *Phytoecia (Helladia) imperialis* (Sama & Rejzek, 2001); *Phytoecia (Helladia) millefolii* (Adams, 1817); *Phytoecia (Helladia) orbicollis* Reiche et Sauley, 1858; *Phytoecia (Helladia) paulusi* Holzschuh, 1971; *Phytoecia (Helladia) plasoni* Ganglbauer, 1884; *Phytoecia (Helladia) pontica* Ganglbauer, 1884; *Phytoecia (Helladia) praetextata* (Steven, 1817) and *Phytoecia (Helladia) pretiosa* Faldermann, 1837. Moreover seven species have the subspecies as *Phytoecia (Helladia) armeniaca* Frivaldsky, 1878 [*Phytoecia (Helladia) armeniaca armeniaca* Frivaldsky, 1878 and *Phytoecia (Helladia) armeniaca testaceovittata* (Pic, 1934) stat. n.], *Phytoecia (Helladia) ferrugata* Ganglbauer, 1884 [*Phytoecia (Helladia) ferrugata ferrugata* Ganglbauer, 1884 and *Phytoecia (Helladia) ferrugata dilaticollis* Pic, 1900], *Phytoecia (Helladia) humeralis* (Waltl, 1838) [*Phytoecia (Helladia) humeralis humeralis* (Waltl, 1838), *Phytoecia (Helladia) humeralis insignata* Chevrolat, 1854 stat. n. and *Phytoecia (Helladia) humeralis caneri* ssp. n.], *Phytoecia (Helladia) imperialis* (Sama & Rejzek, 2001) [*Phytoecia (Helladia) imperialis imperialis* (Sama & Rejzek, 2001)

and *Phytoecia (Helladia) imperialis dorud* (Sama et al., 2007)], *Phytoecia (Helladia) paulusi* Holzschuh, 1971 [*Phytoecia (Helladia) paulusi paulusi* Holzschuh, 1971 and *Phytoecia (Helladia) paulusi bludanica* (Sama, 2000)], *Phytoecia (Helladia) praetextata* (Steven, 1817) [*Phytoecia (Helladia) praetextata praetextata* (Steven, 1817) and *Phytoecia (Helladia) praetextata nigricollis* Pic, 1891] and *Phytoecia (Helladia) pretiosa* Faldermann, 1837 [*Phytoecia (Helladia) pretiosa pretiosa* Faldermann, 1837 and *Phytoecia (Helladia) pretiosa nigroapicalis* Breuning, 1944].

The subgenus is distributed from Europe (Balkans) to European Russia and Turkmenia [**Europe** (Bulgaria, Romania, Macedonia, Greece (Rhodos Is., Crete), Ukraine, Crimea, European Russia), **Turkmenia**, **Caucasus** (Georgia, Armenia, Azerbaijan), Transcaucasia, **Turkey**, Cyprus, **Middle East** (Syria, Iran, Iraq, Palestina, Lebanon, Jordan, Israel)]. So, the subgenus has W-Palaearctic chorotype.

In Europe, this subgenus includes five species as *Phytoecia (Helladia) alziari* (Sama, 1992); *Phytoecia (Helladia) flavescens* (Brullé, 1832); *Phytoecia (Helladia) humeralis* (Waltl, 1838); *Phytoecia (Helladia) millefolii* (Adams, 1817) and *Phytoecia (Helladia) praetextata* (Steven, 1817).

In the Middle East, it includes ten species as *Phytoecia (Helladia) adelpha* Ganglbauer, 1886; *Phytoecia (Helladia) alziari* (Sama, 1992); *Phytoecia (Helladia) armeniaca* Frivaldsky, 1878; *Phytoecia (Helladia) ferrugata* Ganglbauer, 1884; *Phytoecia (Helladia) humeralis* (Waltl, 1838); *Phytoecia (Helladia) orbicollis* Reiche et Sauley, 1858; *Phytoecia (Helladia) paulusi* Holzschuh, 1971; *Phytoecia (Helladia) pontica* Ganglbauer, 1884; *Phytoecia (Helladia) praetextata* (Steven, 1817) and *Phytoecia (Helladia) pretiosa* Faldermann, 1837.

In Caucasus, it includes nine species as *Phytoecia (Helladia) adelpha* Ganglbauer, 1886; *Phytoecia (Helladia) armeniaca* Frivaldsky, 1878; *Phytoecia (Helladia) diademata* Faldermann, 1837; *Phytoecia (Helladia) fatima* Ganglbauer, 1884; *Phytoecia (Helladia) humeralis* (Waltl, 1838); *Phytoecia (Helladia) millefolii* (Adams, 1817); *Phytoecia (Helladia) plasoni* Ganglbauer, 1884; *Phytoecia (Helladia) praetextata* (Steven, 1817) and *Phytoecia (Helladia) pretiosa* Faldermann, 1837. *Phytoecia (Helladia) adelpha* Ganglbauer, 1886 was never mentioned by Danilevsky & Miroshnikov (1985).

In Iran, it includes eight species as *Phytoecia (Helladia) armeniaca* Frivaldsky, 1878; *Phytoecia (Helladia) diademata* Faldermann, 1837; *Phytoecia (Helladia) fatima* Ganglbauer, 1884; *Phytoecia (Helladia) humeralis* (Waltl, 1838); *Phytoecia (Helladia) imperialis* (Sama & Rejzek, 2001); *Phytoecia (Helladia) millefolii* (Adams, 1817); *Phytoecia (Helladia) plasoni* Ganglbauer, 1884 and *Phytoecia (Helladia) pretiosa* Faldermann, 1837.

Also, it is represented only by *Phytoecia (Helladia) plasoni* Ganglbauer, 1884 for Turkmenia.

The subgenus has been represented by thirteen species in Turkey as *Phytoecia (Helladia) adelpha* Ganglbauer, 1886; *Phytoecia (Helladia) alziari* (Sama, 1992); *Phytoecia (Helladia) armeniaca* Frivaldsky, 1878; *Phytoecia (Helladia) demelti* (Sama, 2003); *Phytoecia (Helladia) diademata* Faldermann, 1837; *Phytoecia (Helladia) fatima* Ganglbauer, 1884; *Phytoecia (Helladia) ferrugata* Ganglbauer, 1884; *Phytoecia (Helladia) humeralis* (Waltl, 1838); *Phytoecia (Helladia) millefolii* (Adams, 1817); *Phytoecia (Helladia) plasoni* Ganglbauer, 1884; *Phytoecia (Helladia) pontica* Ganglbauer, 1884; *Phytoecia (Helladia) praetextata* (Steven, 1817) and *Phytoecia (Helladia) pretiosa* Faldermann, 1837. In addition to this, some Turkish species are represented by subspecies as

*Phytoecia (Helladia) armeniaca armeniaca* Frivaldsky, 1878; *Phytoecia (Helladia) ferrugata dilaticollis* Pic, 1900; *Phytoecia (Helladia) humeralis humeralis* (Waltl, 1838), *Phytoecia (Helladia) humeralis caneri* **ssp. n.**; *Phytoecia (Helladia) praetextata praetextata* (Steven, 1817); *Phytoecia (Helladia) praetextata nigricollis* Pic, 1891 and *Phytoecia (Helladia) pretiosa pretiosa* Faldermann, 1837. So the Turkish *Phytoecia (Helladia)* Fairmaire, 1864 comprises of fifteen taxa (thirteen species + two subspecies).

### Zoogeographical Analysis

The world fauna of *Phytoecia (Helladia)* consist of seventeen species. Six species, namely 35 % of the species have SW-Asiatic chorotype as *Phytoecia (Helladia) adelpha* Ganglbauer, 1886; *Phytoecia (Helladia) armeniaca* Frivaldsky, 1878; *Phytoecia (Helladia) diademata* Faldermann, 1837; *Phytoecia (Helladia) fatima* Ganglbauer, 1884; *Phytoecia (Helladia) plasoni* Ganglbauer, 1884 and *Phytoecia (Helladia) pretiosa* Faldermann, 1837. Six species, namely 35 % of the species have E-Mediterranean or SW-Asiatic chorotype as *Phytoecia (Helladia) alziari* (Sama, 1992); *Phytoecia (Helladia) ferrugata* Ganglbauer, 1884; *Phytoecia (Helladia) humeralis* (Waltl, 1838); *Phytoecia (Helladia) orbicollis* Reiche et Saulcy, 1858; *Phytoecia (Helladia) paulusi* Holzschuh, 1971 and *Phytoecia (Helladia) pontica* Ganglbauer, 1884. Thus, it can be stated that 70 % of the species related to the SW-Asiatic chorotype. Two species, namely 12 % of the species has Turano-Mediterranean (Turano-Balkan) chorotype as *Phytoecia (Helladia) millefolii* (Adams, 1817) and *Phytoecia (Helladia) praetextata* (Steven, 1817). Each of the remaining species has a different chorotype. One species is endemic to Turkey, namely 6 % of the species has Anatolian chorotype as *Phytoecia (Helladia) demelti* (Sama, 2003). One species is endemic to Balkans, namely 6 % of the species has Balkanian chorotype as *Phytoecia (Helladia) flavescens* (Brullé, 1832). And one species is endemic to Iran, namely 6 % of the species has Iranian as *Phytoecia (Helladia) imperialis* (Sama & Rejzek, 2001) (Fig. 1).

The present zoogeographical characterization is based on the chorotype classification of Anatolian fauna, recently proposed by Taglianti et al. (1999). As far as possible as one chorotype description can be determined for each taxon in the text.

The all known taxa of *Phytoecia (Helladia)* Fairmaire, 1864 in the world fauna are presented in the following text:

#### ***Phytoecia (Helladia) adelpha* Ganglbauer, 1886**

**Orig. comb.:** *Phytoecia (Helladia) adelpha* Ganglbauer, 1886

**Type loc.:** Syria.

**Other names:** *Phytoecia edessensis* Reitter, 1898; *Phytoecia edessensis* var. *scapipicta* Reitter, 1898; *Phytoecia edessensis* var. *urfanensis* Reitter, 1898; *Phytoecia (Helladia) damascena* Pic, 1899; *Phytoecia adelpha* ab. *chtaurensis* Heyrovsky, 1937; *Phytoecia adelpha* ab. *spaceki* Heyrovsky, 1937; *Phytoecia adelpha* ab. *strandii* Heyrovsky, 1937; *Phytoecia (Helladia) orbicollis* m. *adanensis* Breuning, 1947; *Phytoecia orbicollis* m. *nigrofemorata* Breuning, 1947; *Phytoecia (Helladia) orbicollis* m. *atrofemorata* Breuning, 1951 (replacement name for *Phytoecia orbicollis* m. *nigrofemorata* Breuning, 1947); *Phytoecia (Helladia) orbicollis* m. *maraschensis* Breuning, 1951; *Phytoecia (Helladia) orbicollis cyprica* Breuning, 1968.

*Phytoecia edessensis* var. *scapipicta* Reitter, 1898 was firstly given by Pic (1900) as a variety of this species into the form *Phytoecia adelpha* v. *scapipicta* Reitter, 1898. Therefore, Aurivillius (1921) mentioned it as an aberration of *Phytoecia adelpha*. However, Breuning (1951) placed it as a morpha with m. *adelpha*, m. *edessensis*, m. *urfanensis* etc. under the species *Phytoecia (Helladia) orbicollis* Reiche et Saulcy, 1858. Besides, *Phytoecia (Helladia) orbicollis cyprica* Breuning, 1968 was stated by Sama & Rejzek (2001) as a form or a simple synonym of *Phytoecia adelpha*.

Danilevsky (2010) stated that “according to Danilevsky and Kadlec (1990) 3 ex. of *Ph. (Helladia) orbicollis* were collected near Biurakan. S. Kadlec accepted (2002) the opinion of G. Sama and P. Rapuzzi (2000: 20) that *Helladia orbicollis* is endemic of Liban. From Turkey to Armenian Republic it is replaced by *Helladia adelpha* (Gangl.). According to Rejzek, Sama and Alziar (2001: 279), it is a subspecies *H. orbicollis adelpha* (Ganglb., 1885), but according to Sama and Rejzek (2001: 242) it is a separate species *Helladia adelpha* (Ganglb., 1884)”. However, Sama & Rapuzzi (2000) gave the specific epithet as *Helladia orbicollis* (Pic, 1899) wrongly. The author of this species is Reiche & Saulcy, 1858. Pic is the author of *Phytoecia (Helladia) schmiedeknechti* that Beitmeri (Lebanon) is the type locality. They also mentioned the species is endemic to Lebanon with question mark. *Phytoecia orbicollis* was described by Reiche & Saulcy (1858) from Nablus (=Naplouse) in Palestina. So the species can not be endemic to Lebanon. Nevertheless, *Phytoecia orbicollis* Reiche & Saulcy, 1858 should be distributed only in Palestina and Lebanon. From Syria and Turkey to Armenia, it is replaced by *Phytoecia (Helladia) adelpha* Ganglbauer, 1886. Therefore, all the infrasubspecific taxa given under the species *Phytoecia (Helladia) orbicollis* by Breuning (1951 and 1966) should be forms of *Phytoecia (Helladia) adelpha* Ganglbauer, 1886. So, all old records from Turkey of *P. orbicollis* belong to *P. adelpha*.

Ganglbauer stated that the species is very close to *Phytoecia ferrugata*. Original description of Ganglbauer (1886) as follows:

*Nigra, prothorace macula media rufa, angulo elytrorum epipleurali, pedibus anticis, femorum basi tarsisque exceptis, et abdominis apice flavis; fronte, vittis duabus verticis, vitta media prothoracis scutelloque albido-, lateribus prothoracis flavescenti-tomentosis. Prothorace longitudine duplo latiore, lateribus valde rotundato-dilatato; elytris pube tenui grisea dense vestitis. Long. 10.5-11 mm. Syria.*

The type locality of this species was mentioned by Rejzek et al. (2001) as Syrien, Akbes (= SE Turkey). It probably is distributed only in eastern half of Anatolia for Turkey.

**Material examined:** Osmaniye prov.: Hasanbeyli, N 37°07' E 36°32', 711 m, 21.04.2007, 2 specimens; Hatay prov.: Akbez, N 36°51' E 36°32' 514 m, 31.03.2007, 1 specimen, 464 m, 22.04.2007, 1 specimen.

**Records in Turkey:** Hatay prov.: Akbez, İçel prov. (Pic, 1900a); Hatay prov.: Akbez as *Phytoecia edessensis* Reitter, 1898 (Aurivillius, 1921); Anatolia as *Phytoecia (Helladia) adelpha* (Winkler, 1924-1932); Turkey (Breuning, 1951 and 1966); Mardin prov.: Sultan (Fuchs et Breuning, 1971 ex Holzschuh, 1980); Gaziantep prov. as *P. orbicollis* Reiche et Saulcy, 1858 (Demelt, 1963 ex Öymen, 1987); Adana prov.: Misis and Feke as *P. orbicollis* Reiche et Saulcy, 1858

(Adlbauer, 1992); Turkey (Lodos, 1998); İçel prov.: Gülek and Namrunkale (Çamliyayla, Sebil village) (Rejzek et al., 2001).

**Distribution:** Syria, Turkey, Armenia.

**Chorotype:** SW-Asiatic.

### ***Phytoecia (Helladia) alziari* (Sama, 1992)**

**Orig. comb.:** *Helladia millefolii alziari* Sama, 1992

**Type loc.:** Cyprus.

**Other names:** Absent.

This species was described by Sama (1992) from Cyprus and S Turkey as a subspecies of *Phytoecia (Helladia) millefolii* (Adams, 1817). Sama (2003) ranked it as a separate species. So, some old Turkish records of *Phytoecia (Helladia) millefolii* (Adams, 1817) should be belonging to it. These are: Hatay record of Fuchs et Breuning (1971) and Öymen (1987), Osmaniye record of Adlbauer (1988) and Kahramanmaraş records of Özdikmen & Okutaner (2006).

This species probably is distributed only in C and SE parts of S Turkey.

**Material examined:** Osmaniye prov.: Bahçe, Kızlaç village, Aslanlı, N 37 10 E 36 38, 768 m, 21.04.2007, 2 specimens; Hatay prov.: Harbiye, N 36 07 E 36 08, 273 m, 30.03.2007, 2 specimens; Harbiye-Yayladağı road, N 36 07 E 36 08, 275 m, 30.03.2007, 1 specimen; Akbez, N 36 50 E 36 32, 464 m, 22.04.2007, 1 specimen.

**Records in Turkey:** Hatay prov.: Arsuz (Fuchs et Breuning, 1971); Hatay prov.: İskenderun – Demelt, 1963 (Ex. Öymen, 1987); Osmaniye prov.: Nurdağı pass (Adlbauer, 1988); South-East Anatolia as *H. millefolii alziari* (Sama & Rapuzzi, 2000); South-eastern Mediterranean Region as *H. millefolii alziari* (Tozlu et al., 2003); Kahramanmaraş prov.: Nurhak (Alçiçek village) / Ekinözü (Aşağıörten / 1<sup>th</sup> Source env.) / Göksun (Mehmetbey / Kireçköy / Göksun-Çardak yolu) / Pazarcık (Aksu bridge / Kocalar village) / Çağlayancerit / Andırın-Çokak road (Özdikmen & Okutaner, 2006).

**Distribution:** Crete, Turkey, Cyprus, Syria, Lebanon, Jordan, Israel.

**Chorotype:** E-Mediterranean or SW-Asiatic.

### ***Phytoecia (Helladia) armeniaca* Frivaldsky, 1878**

**Orig. comb.:** *Phytoecia armeniaca* Frivaldsky, 1878

**Type loc.:** Diyarbakır prov. (SE Turkey).

**Other names:** *Phytoecia iranica* Villiers, 1960; *Phytoecia (Helladia) natali* Lobanov, 1994 **syn. n.**; *Phytoecia (Helladia) armeniaca holzschuhi* Özdikmen, 2008 (unavailable name).

**Ssp.:**

*Phytoecia (Helladia) armeniaca armeniaca* Frivaldsky, 1878

*Phytoecia (Helladia) armeniaca testaceovittata* (Pic, 1934) **stat. n.**

We think that the species has two subspecies as the nominotypical subspecies and *Phytoecia (Helladia) armeniaca testaceovittata* (Pic, 1934) **stat. n.** The later was



described by Pic (1934) from Transcaucasia (“ins Kojun, lac Urmia”) in the original combination *Musaria testaceovittata* Pic, 1934. Breuning (1951) gave it as a species incertae sedis after the subgenus *Pseudoblepisanis* Breuning, 1950 at the end of his work with the species *luteovittigera* Pic, 1906. Breuning (1966) placed these species under the subgenus *Pseudoblepisanis* Breuning, 1950. In 1960, Villiers described the species *Helladia iranica* from Iran (Kurdistan). Breuning (1966) also gave it as a separate species. Danilevsky (2010) stated that he examined both of their type specimens and so he decided *Helladia iranica* Villiers, 1960 is a synonym of *Phytoecia (Helladia) testaceovittata* (Pic, 1934). Danilevsky regarded *Phytoecia (Helladia) testaceovittata* (Pic, 1934) and *Phytoecia (Helladia) armeniaca* Frivaldsky, 1878 as separate species. Moreover, he placed *Phytoecia (Helladia) natali* Lobanov, 1994 that described from Azerbaijan (W of Kilyazi) as a subspecies of *Phytoecia (Helladia) testaceovittata* (Pic, 1934). Danilevsky (2010) gave the photos of type specimens of *Musaria testaceovittata* Pic, 1934; *Helladia iranica* Villiers, 1960 and *P. (H.) natali* Lobanov, 1994 in “Gallery” in [www.cerambycidae.net](http://www.cerambycidae.net). According to the photos of Danilevsky (2010) and our specimens, it is clear that these taxa should be belonging to one species, *Phytoecia (Helladia) armeniaca* Frivaldsky, 1878. Thus, *Musaria testaceovittata* Pic, 1934 should be an eastern subspecies of *Phytoecia (Helladia) armeniaca* Frivaldsky, 1878 in the combination *Phytoecia (Helladia) armeniaca testaceovittata* (Pic, 1934) stat. n.. This subspecies is distributed only in S Caucasus (Azerbaijan) and Iran (Iranian Azerbaijan, Kurdistan, Tabriz, Hamadan). *Helladia iranica* Villiers, 1960 and *Phytoecia (Helladia) natali* Lobanov, 1994 are synonyms of *Phytoecia (Helladia) armeniaca testaceovittata* (Pic, 1934).

The original description of Frivaldsky (1878) ex Ganglbauer (1884) as follows:

*Nigra, brevis, latiuscula, dense cinereo pubescens; pronoto rufo, magrine antico anguste, postico late nigro-cinctis, punctis quatuor transverse positis lineaque ante scutellum elevata nigris, nitidis; elytris flavidorufis, nigro-holosericeo maculatis et punctatis; tibiis rufis apice nigris. Long. 11 mm. — Diarbekir, Elisabeththal (ex Friv.).*

This species is distributed mostly in eastern half of Anatolia for Turkey. It is represented only by the nominotypical subspecies in Turkey. It was recently reported by Sama et al. (2010) as the first record to Israel.

**Material examined:** Konya: Derebucak, N 36 22 E 31 29, 1221 m, 16.05.2007, 3 specimens, 1217 m, 20.05.2008, 3 specimens.

**Records in Turkey:** Type loc.: Turkey: Diyarbakır prov. (Frivaldszky, 1878 ex Ganglbauer, 1884); Malatya prov. (Heyden, 1888); Antalya prov.: Toros Mts., Niğde prov.: Çamardı, Konya prov. (Bodemeyer, 1900); Anatolia: Diyarbakır prov. (Winkler, 1924-1932; Breuning, 1951 and 1966; Rejzek et al., 2001; Sama et al., 2010); Niğde prov.: Çiftehane (Demelt, 1967; Adlbauer, 1988); Erzurum prov. and near (Özbek, 1978); Turkey (Danilevsky & Miroshnikov, 1985; Lodos, 1998); Adiyaman prov.: Nemrut Mt. (Rejzek & Hoskovec, 1999); Erzurum prov., Kars prov. (Tozlu et al., 2003); Muş prov.: Buğlan pass (Rejzek et al., 2003); Kahramanmaraş prov.: Ekinözü (Özdikmen & Okutaner, 2005); Bitlis prov. (Hoskovec & Rejzek, 2010).

**Distribution:** Transcaucasia, Turkey, Iran, Syria, Israel.

**Chorotype:** SW-Asiatic.

***Phytoecia (Helladia) demelti* (Sama, 2003) stat. n.**

**Orig. comb.:** *Helladia demelti* Sama, 2003

**Type loc.:** Turkey.

**Other names:** *Phytoecia (Helladia) millefolii* m. *obscuripennis* Demelt, 1963.

This species was described by Sama (2003) from Turkey (İçel prov.: Silifke). It was named by Sama (2003) as *Helladia demelti*. He stated that the name *Phytoecia (Helladia) millefolii* m. *obscuripennis* Demelt, 1963 is not available according to ICZN as an infrasubspecific (not subspecific) name after 1960. It is close to the species, *P. millefolii* and *P. alziari*. It can be easily distinguished from them by dark bronze coloration with green or reddish lustre.

This species is endemic to central parts of S Turkey.

**Records in Turkey:** İçel prov.: Silifke, Kahramanmaraş prov., Hatay prov.: Akbez (in Turkey, not Syria) (Demelt, 1963b; Sama, 2003).

**Distribution:** Turkey.

**Chorotype:** Anatolian.

***Phytoecia (Helladia) diademata* Faldermann, 1837**

**Orig. comb.:** *Phytoecia diademata* Faldermann, 1837

**Type loc.:** Transcaucasia.

**Other names:** Absent.

The original description of Faldermann (1837) ex Sama (1994) as follows:

*Brevis, parallela, atra, sub-glabra; capite, thorace pedibusque luteis, nigro maculatis; antennis bi-coloribus; elytris testaceis, disco obsolete bicarinatis, apice late nigris. Longit. 4 lin. Antennae corporis dimidio paullo longiores, lineares, crassiusculuae, nigrae, latere interiori testaceae; articulo basali luteo, superne vitta angusta nigra notato. Thorax brevissimus... nitidus, plaga dorsali manga quadrata nigra lucida antice profunde divisa decoratus; elytra... estacea, apice late nigra... segmento anali toto luteo. Pedes mediocres, lutei, nitidi, parce pilosi; femoribus quatuor posterioribus ad apicem nigris; femorum basi, tibiis posticis apice tarsisque nonnihil infuscatis.*

According to Ganglbauer (1884), "Long. 10-11 mm. — Caucasus, Elisabeththal".

This species is distributed only in E Anatolia for Turkey.

**Records in Turkey:** Turkey (Danilevsky & Miroshnikov, 1985; Lodos, 1998); Hakkari prov. (Sama, 1994; Hoskovec & Rejzek, 2010); Muş prov.: Buğlan pass (Rejzek et al., 2003).

**Distribution:** Transcaucasia, Georgia (Elisabeththal), Armenia (Erivan), Iran, Turkey.

**Chorotype:** SW-Asiatic.

***Phytoecia (Helladia) fatima* Ganglbauer, 1884**

**Orig. comb.:** *Phytoecia fatima* Ganglbauer, 1884

**Type loc.:** Iran.

**Other names:** Absent.

This species was originally described by Ganglbauer (1884) as a separate species. Then Pic (1903: p. 61), Aurivillius (1921: p. 552) and Winkler (1924-1932: p. 1222) gave it as a species. Later Breuning (1951) placed it as a morpha under the species *Phytoecia (Helladia) pretiosa* and the same position of the taxon was remained by Breuning (1966). In recent times, the authors gave it as a subspecies of *Phytoecia (Helladia) pretiosa* (e.g., Sama, 1994; Rejzek et al., 2003). However, *Phytoecia fatima* Ganglbauer, 1884, *Phytoecia* (s.str.) *nigroapicalis* Breuning, 1944 of which type locality is Baghdad (Iraq) and *Helladia pretiosa ninives* Sama, 1994 of which type locality is Mossul (Iraq) were synonymized with *Phytoecia (Helladia) pretiosa* Faldermann, 1837 by Sama et al. (2007). Danilevsky (2010) stated that “as far as the type locality of *Ph. pretiosa* as “Transcaucasia” (Sama et al., 2007) is accepted, the new synonyms are totally out of the reality. In Transcaucasia both species *Ph. (Helladia) pretiosa* and *Ph. (Helladia) fatima* differs not only by color, but also by the presence of numerous erected setae near scutellum in *Ph. pretiosa*, by totally different character of thoracic and elytral punctuation and many other characters. The areas of both taxa in Transcaucasia are rather distant and both are very common inside known localities. Both taxa are rather constant in all characters without any intermediate forms. So, until new investigations it is possible to accept now only one pair of synonyms: *Phytoecia (H.) nigroapicalis* Breuning, 1944 = *H. pretiosa ninives* Sama, 1994. *Ph. pretiosa ninives* Sama, 1994 was described from Irak (Mossul)”. Now we agree with the approach of Danilevsky (2010).

Ganglbauer (1884) separated this species from *Phytoecia (Helladia) pretiosa* Faldermann, 1837 on the base of the coloration of elytra and legs. The original description of Ganglbauer (1884) as follows:

“Der vorigen mir unbekanntes Art, wie es scheint, sehr nahestehend, von ihr aber durch die Färbung der Flügeldecken und Beine verschieden. Schwarz, eine grosse querovale Makel auf der Scheibe des Halsschildes gelbroth, die Flügeldecken mit Ausnahme der Mitte des Basalrandes und des letzten Viertels, die Apicalhälfte der Vorderschenkel und die Vorderschienen röthlichgelb. Kopf vorne und an den Seiten dicht goldgelb tomentirt, auf dem Scheitel mit zwei ebenso tomentirten Längsbinden überdies abstehend behaart. Halsschild an der Basis etwa eineinhalbmal so breit als lang, an den Seiten stark gerundet, vor der Mitte querwulstig erhoben, an den Seiten mit runden, ziemlich dicht gedrängten, auf der grossen rothen Medianmakel mit weitläufig stehenden Punkten. Flügeldecken gegen die Basis ziemlich dicht, nach hinten feiner und weitläufiger punktirt, äusserst fein und nur auf der schwarzen Spitze erkennbar anliegend grau behaart und überdies mit kurzen, niederliegenden schwarzen Härchen besetzt. Unterseite schwarz, mit äusserst feiner und dünner, weisslichgrauer anliegender Behaarung und langabstehenden weisslichen Härchen, die Hinterecken der Abdominalsegmente dicht grau-gelb tomentirt. Long. 11 mm. — Persien”.

This species probably is distributed only in eastern half of Anatolia (especially SE Anatolia) for Turkey. SE Anatolian records of Sama et al. (2007) very likely belong to this species.

**Records in Turkey:** Mardin prov.: Hop pass, Batman prov.: Gercüş (Rejzek et al., 2003); Siirt prov. (Özdikmen et al., 2005); Mardin prov., Siirt prov., Şanlıurfa prov. as *Helladia pretiosa* (Sama et al., 2007).

**Distribution:** Caucasus (Armenia, Azerbaijan), Iran, Turkey.

**Chorotype:** SW-Asiatic.

***Phytoecia (Helladia) ferrugata* Ganglbauer, 1884**

**Orig. comb.:** *Phytoecia ferrugata* Ganglbauer, 1884

**Type loc.:** Syria (Chaifa).

**Other names:** *Phytoecia (Helladia) ferrugata* ab. *houskai* Heyrovsky, 1948.

**Ssp.:**

*Phytoecia (Helladia) ferrugata ferrugata* Ganglbauer, 1884

*Phytoecia (Helladia) ferrugata dilaticollis* Pic, 1900

This species has two subspecies as the nominotypical subspecies and *Phytoecia (Helladia) ferrugata dilaticollis* Pic, 1900 of which original combination is *Phytoecia (Helladia) dilaticollis* Pic, 1900. The later was originally described by Pic (1900b) as a species from Asia Minor. He separated it from *P. adelpha*. Then, Pic (1903: p. 15), Aurivillius (1921: p. 552) and Winkler (1924-1932: p. 1222) gave it as a separate species. Later, Breuning (1951: p. 55) placed it as a morpha under the species *Phytoecia (Helladia) ferrugata*. Finally, Breuning (1966) stated that this taxon is a subspecies of *Phytoecia (Helladia) ferrugata*.

The original description of *P. ferrugata* of Ganglbauer (1884) as follows:

*Schwarz, die Apicalhälfte der Vorderschenkel und die Vorderschienen, beim cf auch das letzte Abdominalsegment röthlichgelb, die Spitze der Mittelschenkel und die Wurzel der Mittelschienen röthlich durchschimmernd. Die Stime, zwei Längsbinden auf dem Scheitel, eine Mittelbinde und die Seiten des Halsschildes, das Schildchen, die Aussenecke der Flügeldecken und die Seiten der Brust und des Abdomens dicht rostroth tomentirt. Das rostrothe Toment des Abdomens bildet an den Seiten der Segmente dreieckige Makeln. Flügeldecken durch sehr feine anliegende Behaarung grauschwarz, dicht punktiert. Halsschild beim cf an der Basis doppelt so breit als lang, an den Seiten sehr stark gerundet erweitert, auf der Scheibe glänzend, mit einzelnen erhabenen, schwarze abstehende Haare tragenden Körnchen. Halsschild des ♀ weniger breit, an den Seiten etwas weniger gerundet erweitert, auf der Scheibe glanzlos, dicht punktiert. Long. 11-12 mm. — Syrien (Chaifa).*

The original description of *Phytoecia (Helladia) dilaticollis* of Pic (1900b) as follows:

*Niger, robustus, postice attenuatus; thorace macula media rufo-testacea; angulo elytrorum epipleurali, abdomine, antennis pedibusque pro parte testaceis; thorace latiore, lateribus valde rotundato dilatato et dense luteo-fulvescente tomentoso; scutello luteo-tomentoso; elytris pube tenui cinerea dense vestitis. L. 13 mm. Asia minor (coll. Pic).*

This species probably is distributed only in central parts of S Anatolia for Turkey (probably in Amanos Mts.). It probably is represented only by the subspecies *Phytoecia (Helladia) ferrugata dilaticollis* Pic, 1900 in Turkey.

**Records in Turkey:** Anatolia as the type locality of *Phytoecia (Helladia) dilaticollis* (Pic, 1900b); Hatay prov.: İskenderun (Sama & Rejzek, 2001).

**Distribution:** Syria, Turkey, Israel, Palestina, Lebanon, Jordan.

**Chorotype:** E-Mediterranean or SW-Asiatic.

***Phytoecia (Helladia) flavescens* (Brullé, 1832)****Orig. comb.:** *Saperda flavescens* Brullé, 1832**Type loc.:** Morea (Greece).**Other names:** *Phytoecia fumigata* Küster, 1848.

This species was described by Brullé (1832) from Morea. In 1848, Küster described a new species of *Phytoecia* as *P. fumigata*. Ganglbauer (1884) gave it as a synonym of *P. flavescens*.

The description of *P. flavescens* of Mulsant (1863) as follows:

*Antennes revêtues d'un duvet cendré blanchâtre. Tête noire. Paré sur le vertex de deux bandes, et couvert en devant d'un duvet flavescent légèrement verdâtre. Prothorax un peu dilaté ou subarrondi vers le milieu de ses côtés; noir, paré d'une bande médiane de duvet blanchâtre, et de chaque côté d'une bande roussâtre. Ecusson pubescent, blanchâtre. Elytres revêtues d'un duvet flavescent verdâtre; tronquées en angle rentrant à l'extrémité; planiuscules; assez finement ponctuées; chargées chacune de deux ou trois faibles nervures longitudinales; à rebord sutural postérieurement saillant. Dessous du corps et pieds revêtus d'un duvet flavescent verdâtre. — Patrie: la Morée.*

Also, the description of *P. flavescens* of Ganglbauer (1884) as follows:

*Halsschild an den Seiten stark gerundet erweitert, beim ♂ vor der Mitte am breitesten, auf der Scheibe glänzend, fein und weitläufig gekörnt, beim ♀ in der Mitte am breitesten, glanzlos, dicht gedrängt punktiert. Schwarz, die Stirne, zwei Längsbinden auf dem Scheitel, eine Mittelbinde und zwei Seitenbinden auf dem Halsschild und das Schildchen dicht gelblichweiss oder graugelblich tomentiert. Flügeldecken und Unterseite mit feinerem, gelblichgrauem Toment bekleidet; Flügeldecken bei beiden Geschlechtern, besonders aber beim ♀ ziemlich dicht gedrängt punktiert. Long. 11.5-15 mm. Syn. Ph. orbicollis Reiche, fumigata Küst. — Griechenland.*

This species is endemic to Balkans. It does not occur in Turkey.

**Distribution:** Greece, Macedonia.**Chorotype:** Balkanian.***Phytoecia (Helladia) humeralis* (Waltl, 1838)****Orig. comb.:** *Saperda humeralis* Waltl, 1838**Type loc.:** Turkey.

**Other names:** *Phytoecia scapulata* Mulsant, 1851; *Phytoecia scapularis* Chevrolat, 1882; *Phytoecia frontalis* Chevrolat, 1882; *Helladia scapulata* var. *mersinensis* Pic, 1900; *Phytoecia (Helladia) humeralis* var. *bethaniensis* Pic, 1900; *Phytoecia humeralis* ab. *bytinskii* Heyrovsky, 1948; *Phytoecia (Helladia) humeralis* m. *flavoreducta* Breuning, 1951.

**Ssp.:***Phytoecia (Helladia) humeralis humeralis* (Waltl, 1838)*Phytoecia (Helladia) humeralis insignata* Chevrolat, 1854 **stat. n.***Phytoecia (Helladia) humeralis caneri* **ssp. n.**

Until now, it has been known that the species regarded as without subspecies. Our work seems that it includes at least three subspecies in the world fauna as the nominotypical subspecies that occurs in Turkey and Iran, *Phytoecia (Helladia)*

*humeralis insignata* Chevrolat, 1854 that occurs in S Syria, Lebanon, Jordan, Israel. The new subspecies *Phytoecia (Helladia) humeralis caneri* **ssp. n.** is distributed only in S Turkey (especially in Amanos Mts. and its North parts).

*Phytoecia insignata* was originally described by Chevrolat (1854) from Israel (Saida = Sidon). He separated it from *P. humeralis* and *P. scapulata* and stated this species approaches enough the *P. humeralis* and *P. scapulata*, but it is much smaller. Breuning (1951 and 1966) gave it as a morpha of *P. (H.) humeralis*. In recent times, it regarded as a separate species in such the original description by the authors (e.g., Sama & Rapuzzi, 2000; Rejzek et al., 2001; Sama et al., 2010). According to Sama et al. (2007), all specimens of *H. humeralis* from Iran differ from typical form and probably constitute a distinct taxon that distinguishable by some characters given in their work. They also mentioned that Iranian population resembles *H. insignata*. So according to our approach, probably this Iranian population should be represented another subspecies of *P. (H.) humeralis*.

The original description of Chevrolat (1854) for *Phytoecia insignata* as follows:

*Punctato, plumbeo-grisea. Capite rotundato magno, pube albida vestito, in vertice nigro-nitido, sal crebre punctato, pilis nigris hirsuto, supra oculos albido-supercilio; thorace rotundato, nigro, nitido, cum macula orbiculatim signato rubra; scutello albo; elytris planis, versus apicem paululum attenuatis, subtruncatis, indumento griseo tectis, minute punctatis, in humero rubidis; femoribus anticis apice, tibiisque rufis. Long. 7 mill. — Saida (Israel)*

Consequently, we regarded that *P. insignata* should be a subspecies of *P. (H.) humeralis*.

Sama et al. (2010) gave *Phytoecia (Helladia) humeralis* var. *bethaniensis* Pic, 1900 as a synonym of *Phytoecia (Helladia) insignata*. The original description of *Phytoecia (Helladia) humeralis* var. *bethaniensis* Pic (1900b) as follows:

*Niger, subelongatus, pedibus anticis pro parte flavis; elytris pube tenui grisescente vestitis; pygidio nigro. L. 8-9 mm. -Palästina: Bethania.*

This species is distributed rather widely in Anatolia for Turkey. It is represented by the nominotypical subspecies and *Phytoecia (Helladia) humeralis caneri* **ssp. n.** in Turkey.

**Material examined:** Antalya prov.: Akseki-Manavgat road, Gündoğmuş return 5<sup>th</sup> km, N 36 46 E 31 45, 396 m, 15.05.2007, 1 specimen; Akseki, Güzelsu village N 36 53 E 31 50, 1154 m, 09.06.2008, 1 specimen; Akseki, Mahmutlu village env., N 36 55 E 31 47, 1054 m, 19.05.2008, 1 specimen; Hatay prov.: Kırıkhan–Belen road, Kıcı, N 36 28 E 36 16, 481 m, 31.03.2007, 8 specimens; Hassa–Kırıkhan road, 10 km to Kırıkhan, N 36 33 E 36 23, 135 m, 31.03.2007, 6 specimens; Serinyol, N 36 21 E 36 13, 115 m, 30.03.2007, 1 specimen; Alahan castle, N 36 19 E 36 11, 147 m, 30.03.2007, 3 specimens; Akbez, N 36 50 E 36 32, 464 m, 22.04.2007, 7 specimens; Gaziantep prov.: Fevzipaşa–Islahiye road, N 37 05 E 36 38, 542 m, 31.03.2007, 6 specimens.

**Records in Turkey:** Konya prov.: Meram (Bodemeyer, 1900); Turkey (Aurivillius, 1921; Winkler, 1924-1932; Breuning, 1951 and 1966; Danilevsky & Miroshnikov, 1985; Lodos, 1998; Sama & Rapuzzi, 2000); İzmir prov.: Bornova / Efes (Demelt & Alkan, 1962); Amasya prov., Edirne prov. (Breuning et Villiers, 1967); Hakkari prov.: Yüksekova, Hatay prov.: Yenışehir / Antakya (Reyhanlı)

(Fuchs et Breuning, 1971); İzmir prov.: Bornova, Eskişehir prov. (Gül-Zümreoğlu, 1972); Eskişehir prov., İcel prov.: Anamur (Ex. Gül-Zümreoğlu, 1975); Ankara prov.: near Eymir lake, Isparta prov.: Kovada, İzmir prov.: Bornova (Doğanlar village) / Tire / Gümüşsu / Kuşadası / Menemen (Aliağa) / Torbalı (Pamukyazı) / Selçuk (Efes), Denizli prov.: Central / Buldan / Sarayköy, Manisa prov.: Salihli (Gökköy), Aydın prov.: Nazilli (Gül-Zümreoğlu, 1975); Konya prov.: Beyşehir, Adana prov.: Misis, Hatay prov.: Topboğazi, Osmaniye prov.: Fevzipaşa, Burdur prov.: Bucak, İcel prov.: Silifke (Mut) (Adlbauer, 1988); Adıyaman prov.: Karadut village env. (Rejzek & Hoskovec, 1999); Antalya prov.: Gündoğmuş / Perge env., İcel prov.: Namrunkale (Çamlıyayla, Sebil village) (Rejzek et al., 2001); Manisa prov.: Muradiye (Tezcan & Rejzek, 2002); Adana prov.: Central, Diyarbakır prov.: Silvan (Tozlu et al., 2003); Şanlıurfa prov.: Halfeti, Gaziantep prov., Mardin prov.: Hop pass (Rejzek et al., 2003); Uşak prov.: Ulubey (Ovacık village, Gökgöz hill) (Özdikmen & Hasbenli, 2004); Hatay prov.: İskenderun (Topboğazi), İzmir prov.: Kuşadası / Bornova (Doğanlar) / Central / Torbalı, Manisa prov.: Salihli (Özdikmen et al., 2005); Niğde prov.: Çamardı (Dikilitaş), Kahramanmaraş prov.: Çakalçullu road (Özdikmen & Demirel, 2005); Ankara prov.: Şereflikoçhisar, Aksaray prov.: exit of Ankara (Ekcek stream), Niğde prov.: between Araplı-Höyük (Özdikmen, 2006); Konya prov.: Beyşehir (Özdikmen, 2007).

**Distribution:** Greece (Rhodos Is.), Turkey, Syria, Palestina, Israel, Lebanon, Jordan, Caucasus (Azerbaijan), Iran.

**Chorotype:** SW-Asiatic or E-Mediterranean.

***Phytoecia (Helladia) humeralis caneri* ssp. n.**

**Material examined:** Osmaniye prov.: Yaylalık-Türkoğlu road, N 36 17 E 36 37, 701 m, 18.05.2006, 1 specimen; Zorkun road, Çiftmazı, N 37 01 E 36 17, 223 m, 20.05.2006, 1 specimen; Entry of Yarpuz, N 37 03 E 36 25, 930 m, 18.05.2006, 5 specimens; Hasanbeyli, N 37 07 E 36 32, 711 m, 21.04.2007, 3 specimens; Toprakkale, N 37 03 E 36 08, 107 m, 23.04.2007, 3 specimens; Bahçe, Kızlaç village, Aslanlı, N 37 10 E 36 38, 768 m, 21.04.2007, 1 specimen; Hatay prov.: Kırıkhan-Belen road, Kıcı, N 36 28 E 36 16, 481 m, 31.03.2007, 8 specimens; Hassa-Kırıkhan road, 10 km to Kırıkhan, N 36 33 E 36 23, 31.03.2007, 5 specimens; Hassa-Kırıkhan road 20<sup>th</sup> km, N 36 35 E 36 24, 145 m, 31.03.2007, 1 specimen; Serinyol, N 36 21 E 36 13, 115 m, 30.03.2007, 2 specimens; Alahan castle, N 36 19 E 36 11, 147 m, 30.03.2007, 7 specimens; Akbez, N 36 50 E 36 32, 464 m, 22.04.2007, 9 specimens; Akbez, Gülpınarı plateau, N 36 51 E 36 30, 617 m, 19.05.2006, 1 specimen; Samandağı, Hüseyinli village, N 36 09 E 36 04, 149 m, 20.04.2007, 1 specimen; Samandağı, Üzengili village, N 36 09 E 36 04, 141 m, 20.04.2007, 1 specimen; Gaziantep prov.: Fevzipaşa-İslahiye road, N 37 05 E 36 38, 542 m, 31.03.2007, 26 specimens.

**Differential diagnosis:** Mainly, the new subspecies *Phytoecia (Helladia) humeralis caneri* is a color form of *Phytoecia (Helladia) humeralis*. It is close to the nominotypical subspecies by reddish-yellow pubescence and to the subspecies *Phytoecia (Helladia) humeralis insignata* Chevrolat, 1854 by coloration of the legs.

The new subspecies, *Phytoecia (Helladia) humeralis caneri* can be easily distinguished from *Phytoecia (Helladia) humeralis humeralis* (Waltl, 1838), which is widely distributed in SW-Asiatic area by following characters: Middle

and hind tibiae are reddish entirely (Fig. 2B). Sometimes, middle and hind femora in the exception of their black colored inner parts are reddish. The apexes of middle femora are also reddish.

Also the new subspecies, *Phytoecia (Helladia) humeralis caneri* can be easily distinguished from *Phytoecia (Helladia) humeralis insignata* Chevrolat, 1854, which is distributed in S Syria, Israel, Lebanon and Jordan by following characters: Head, pronotum and scutellum have reddish-yellow pubescence like nominotypical subspecies (Fig. ). In ssp. *insignata*, they have white pubescence.

The new subspecies probably distributes only in Central parts of Southern Anatolian region [Hatay to Adiyaman provinces (especially in Amanos Mountains and its northern parts)] of Turkey. The hybridization areas of the new subspecies observed as Gaziantep and Hatay provinces. According to present materials, 5 different localities which are in S, SE and E of Amanos Mountains are determined for the hybridization areas of the new subspecies as Hatay prov.: Kırkhan-Belen road, Kıcı, N 36 28 E 36 16; Serinyol, N 36 21 E 36 13; Alahan castle, N 36 19 E 36 11; Akbez, N 36 50 E 36 32 and Gaziantep prov.: Fevzipaşa-İslahiye road, N 37 05 E 36 38. All specimens from Osmaniye province belong to the new subspecies only.

It is clear that the picture of *H. humeralis* from Adiyaman prov. (Turkey) given by Hoskovec & Rejzek (2010) and the Adiyaman record of Rejzek & Hoskovec (1999) should be belong to the new subspecies, *Phytoecia (Helladia) humeralis caneri*. Kahramanmaraş records of Özdikmen & Okutaner (2006) belong to the new subspecies. Besides, status of the old Turkish records of *Phytoecia (Helladia) humeralis* from near Amanos Mountains need to be clarified. So now, according to the present data, *Phytoecia (Helladia) humeralis caneri* ssp. n. is distributed in Hatay, Osmaniye, W Gaziantep, Kahramanmaraş and Adiyaman provinces as its distribution area.

On the other side, some color forms of *Phytoecia (Helladia) humeralis* have been described by different authors (Mulsant, Pic, Heyrovsky and Breuning). Two of them, *Helladia scapulata* var. *mersinensis* Pic, 1900 and *Phytoecia (Helladia) humeralis* m. *flavoreducta* Breuning, 1951, were described from Anatolia. However, the closest forms to coloration of the new subspecies among them are *Phytoecia scapulata* Mulsant, 1851 that described from Syria and *Helladia scapulata* var. *mersinensis* Pic, 1900. *Phytoecia humeralis* ab. *bytinskii* Heyrovsky, 1948 that described from Israel (Jerusalem) and *Phytoecia (Helladia) humeralis* m. *flavoreducta* Breuning, 1951 are less resemble to the new subspecies.

According to Pic (1900a), Mulsant stated that first 2 (print error, should be 4) segments of antennae black and middle femora dark or almost dark, etc. as the distinguishing characters in the description of *P. scapulata* from Syria. Pic (1900a) mentioned that "I captured a variety of this species with the 4 (print error, should be 2) hind legs more or less clear and first segment of antennae testaceous in Mersin (=İçel) and Karaman provinces (long. 9-10 mm.); I shall indicate it under the name of var. *mersinensis* var. nov.. This variety corresponds almost in var. *scapipicta* Reitt. of *adelpha* Ganglb."



The description of *P. scapulata* of Ganglbauer (1884) as follows:

*Der Ph. humeralis* Waltl. ebenfalls sehr nahe stehend, aber die Stirne, die zwei Längsbänder auf dem Scheitel, das Schildchen und überdies noch die vier ersten Fühlerglieder lebhaft roth tomentirt, die grosse rothe Medianmakel auf dem Halsschild vorne winkelig erweitert, an den Beinen auch die Spitze der Mittelschenkel und die Mittelschienen mit Ausnahme ihrer Kante und Spitze röthlichgelb. Long. 9-11 mm. — Syrien.

Finally, the new subspecies clearly differs from other described infrasubspecific taxa of *Phytoecia* (*Helladia*) *humeralis*.

Variations: The new subspecies is characterized by reddish middle and hind femora and tibiae chiefly. Middle and hind femora has usually reddish area in all examined specimens. At least middle femora has always reddish area in all specimens. The reddish area of middle tibiae and hind femora and tibiae variable. The variation observed from the most parts reddish of middle and hind legs to hind legs black completely.

Etymology: The new name “*caneri*” is dedicated to Caner Gören (Turkey) who collected some specimens of the new subspecies.

#### A short key for related taxa on the base of Breuning (1951)

1. Pygidium black.....2  
- Pygidium red.....4
2. The subhumeral spot is very large. It stretches over the disc of the elytron and exceeds behind the basal one third of elytra.....  
.....***Phytoecia humeralis* ab. *bytinskii* Heyrovsky, 1948**  
- The subhumeral spot is smaller. It barely reach the disc of elytra.....3
3. The design of head, pronotum and scutellum white.....  
.....***Phytoecia* (*Helladia*) *humeralis insignata* Chevrolat, 1854**  
- The design of head, pronotum and scutellum yellow or ocraceous-red.....  
.....***Phytoecia frontalis* Chevrolat, 1882**
4. First four antennal segments black.....5  
- First four antennal segments red.....7
5. Middle and hind tibiae always black.....6  
- Middle and hind tibiae usually at least partly red.....  
.....***Phytoecia* (*Helladia*) *humeralis caneri* ssp. n.**
6. Frons and vertex with clear drawings.....  
.....***Phytoecia* (*Helladia*) *humeralis humeralis* (Waltl, 1838)**  
- Frons and vertex without clear drawings.....  
.....***Phytoecia* (*Helladia*) *humeralis* m. *flavoreducta* Breuning, 1951**
7. Hind tibiae black.....***Phytoecia scapulata* Mulsant, 1851**  
- Hind tibiae red.....***Helladia scapulata* var. *mersinensis* Pic, 1900**

***Phytoecia (Helladia) imperialis* (Sama & Rejzek, 2001)**

**Orig. comb.:** *Helladia imperialis* Sama & Rejzek, 2001

**Type loc.:** Azarbaygan-e-Garbi (Iran).

**Other names:** Absent.

**Ssp.**

*Phytoecia (Helladia) imperialis imperialis* (Sama & Rejzek, 2001)

*Phytoecia (Helladia) imperialis dorud* (Sama et al., 2007)

This species was originally separated by Sama & Rejzek (2001) from *P. (H.) ferrugata* and *P. (H.) adelpha*. It has two subspecies as the nominotypical subspecies and *Phytoecia (Helladia) imperialis dorud* (Sama et al., 2007). The later was described by Sama et al. (2007) from Lorestan (Iran).

This species is endemic to Iran. It does not occur in Turkey.

**Distribution:** Iran.

**Chorotype:** Iranian.

***Phytoecia (Helladia) millefolii* (Adams, 1817)**

**Orig. comb.:** *Saperda millefolii* Adams, 1817

**Type loc.:** Russia (Georgievsk = Stavropol).

**Other names:** *Saperda azurea* Steven, 1817; *Phytoecia excelsa* Stierlin, 1876.

The original description of Adams (1817) as follows:

*Cyanea, femoribus tibisque rubris, antennis nigris. - Georgievsk.*

This species is distributed rather widely in Anatolia for Turkey.

**Material examined:** Antalya prov.: Gündoğmuş-Akseki road, N 36 47 E 31 45, 410 m, 22.04.2008, 1 specimen.

**Records in Turkey:** Turkey (Aurivillius, 1921; Winkler, 1924-1932; Breuning, 1951; Danilevsky & Miroshnikov, 1985; Lodos, 1998); Kocaeli prov., Yalova prov. (Gfeller, 1972); Adiyaman prov.: plateaus under the peak region of Nemrut Mountain (Rejzek & Hoskovec, 1999); Erzurum prov.: Körsu 27 km N Hınıs, İstanbul prov.: Kumburgaz (Rejzek et al., 2001); Erzurum prov.: İlica (Atlıkonak), Kars prov.: Sarıkamış (Karakurt, Şeytangeçmez) (Tozlu et al., 2003); Konya prov.: Sultanhanı (Özdikmen, 2006); Kastamonu prov.: Ilgaz-Tosya road (Özdikmen, 2007).

**Distribution:** Europe (Bulgaria, Crimea, European Russia), Caucasus, Transcaucasia, Turkey, Iran.

**Chorotype:** Turano-Mediterranean (Turano-Balkan).

***Phytoecia (Helladia) orbicollis* Reiche et Saulcy, 1858**

**Orig. comb.:** *Phytoecia orbicollis* Reiche et Saulcy, 1858

**Type loc.:** Naplouse (Nablus, Palestina).

**Other names:** *Phytoecia (Helladia) schmiedeknehti* Pic, 1899.

The original description of Reiche et Saulcy (1858) as follows:

*Long. 10 mill. {4 1/2 lin.}, lat. 3 1/4 mill. (1 1/2 lin.). Linearis, picea, pilis fuscis parce hirta, Phyt. scutellata Fabricius vicina. Caput latum subrolundum, tomento griseo luteo dense vestitum, spatio longitudinale inter oculos subnudo; oculis mediocribus; antennis corpore brevioribus. Thorax transversus, subglobosus, medio capite paulò latior, latitudine tertia parte brevior, a latere valde rotundatus, subaeneus, punctatus, utrinque dense griseo-luteo tomentosus, medio tomenti pallidiori linea longitudinali ornatus. Scutellum semi circulare, transversum, tomento albido-luteo dense vestitum. Elytra basi thoracis medio vix latiora, indè usque ad apicem attenuata, thorace plus triplo longiora, subseriatim sat crebre punctata, tomento brevissimo dense vestita. Subtus dense griseo tomentosa. – Naplouse.*

This species does not occur in Turkey (see *P. adelpha* for remarks). The old Turkish records belong to *P. adelpha*. Sama et al. (2010) stated that “*although described from Nablus (= Shekhem), this species, currently only known from northern and central Lebanon, southern Syria and Jordan, has never been recorded again from Israel or Palestine. We therefore think it does not live in Israel*”.

**Distribution:** Palestina, Syria, Lebanon, Jordan.

**Chorotype:** E-Mediterranean or SW-Asiatic.

### ***Phytoecia (Helladia) paulusi* Holzschuh, 1971**

**Orig. comb.:** *Phytoecia paulusi* Holzschuh, 1971

**Type loc.:** Libanongebirge, Mdeirej bei Sofar.

**Other names:** Absent.

**Ssp.:**

*Phytoecia (Helladia) paulusi paulusi* Holzschuh, 1971

*Phytoecia (Helladia) paulusi bludanica* (Sama, 2000)

This species has two subspecies as the nominotypical subspecies occurs only in Lebanon and *P. (Helladia) paulusi bludanica* occurs only in Syria. The later was described by Sama (2000) from Syria (Bludan) into the original combination *Helladia paulusi bludanica*.

This species does not occur in Turkey.

**Distribution:** Syria, Lebanon.

**Chorotype:** E-Mediterranean or SW-Asiatic.

### ***Phytoecia (Helladia) plasoni* Ganglbauer, 1884**

**Orig. comb.:** *Phytoecia plasoni* Ganglbauer, 1884

**Type loc.:** Iran.

**Other names:** *Phytoecia (Helladia) plasoni m. invitticollis* Breuning, 1951.

The original description of Ganglbauer (1884) as follows:

*Schwarz, die Fühler, die Apicalhälfte der Vorderschenkel, die Vorderschienen und die Wurzel der Mittelschienen bräunlichroth oder gelblichroth. Der Kopf, der Halsschild, das Schildchen und die Aussenecke der Flügeldecken sehr dicht bräunlichroth oder feurigroth sammtig tomentirt. Halsschild kurz, an der Basis doppelt so breit als lang, an den Seiten stark gerundet erweitert, auf der Scheibe vor der Mitte jederseits der Mittellinie mit einem Querhöcker, hinter*

dem Vorderrande ringsum gleichmassig tief eingeschnürt. Ist das sammtartige Toment abgerieben, so erscheint der Kopf schwarz, der Halsschild bis auf den Vorder- und Hinterrand gelbroth. Flügeldecken bis auf die Aussenecke dünn schwarz tomentirt, an den Seiten vor der Mitte, sowie der Kopf und Halsschild und die Unterseite mit abstehenden schwarzen Härchen besetzt. Unterseite mit Ausnahme der Seiten des Halsschildes, der Spitze der Vorderschenkel, der Vorderschienen und der Wurzel der Mittelschienen schwarz, nur sehr dünn anliegend schwarz behaart. Mit der griechischen *Ph. Flavescens* Brüll, und der syrischen *Ph. ferrugata* m. zunächst verwandt. Long. 15 bis 17 mm. — Persien.

This species probably is distributed only in E Anatolia for Turkey. *Phytoecia* (*Helladia*) *plasoni* m. *invitticollis* was described by Breuning (1951) from Turkmenia.

**Records in Turkey:** Turkey (Danilevsky & Miroshnikov, 1985); Muş prov.: Buğlan pass (Rejzek et al., 2001; Rejzek et al. (2003).

**Distribution:** Turkmenia, Caucasus (Armenia), Turkey, Iran.

**Chorotype:** SW-Asiatic.

### ***Phytoecia* (*Helladia*) *pontica* Ganglbauer, 1884**

**Orig. comb.:** *Phytoecia pontica* Ganglbauer, 1884

**Type loc.:** Pontus (N Turkey).

**Other names:** *Phytoecia* (*Helladia*) *pontica* m. *discomaculata* Breuning, 1947.

The original description of Ganglbauer (1884) as follows:

Mit *Ph. humeralis* äusserst nahe verwandt, aber die Hinterecken der vier ersten Abdominalsegmente und die Seiten des letzten, sowie die Spitze der Episternen der Hinterbrust dicht graugelb tomentirt, der Halsschild mit querovaler, viel grösserer rother Makel auf der Scheibe, die Flügeldecken mit grösserer, am Seitenrande nach hinten erweiterter Humeralmakel. Im Uebrigen von *humeralis* nur durch etwas dichtere Granulirung der Halsschildseiten verschieden. Long. 11.5-13.5 mm. — Pontus, Caucasus.

This species probably is distributed in Central parts of Anatolia from north to south for Turkey. Breuning (1951) and Danilevsky & Miroshnikov (1985) never mentioned it for Caucasus.

**Records in Turkey:** Anatolia as *Heladia humeralis* a. *pontica* (Winkler, 1924-1932); Kastamonu prov. (Breuning, 1951); Turkey (Breuning, 1951 and 1966; Lodos, 1998; Sama et al., 2010).

**Distribution:** Turkey, Syria, Jordan, Israel.

**Chorotype:** E-Mediterranean or SW-Asiatic.

### ***Phytoecia* (*Helladia*) *praetextata* (Steven, 1817)**

**Orig. comb.:** *Saperda praetextata* Steven, 1817

**Type loc.:** Pontus (N Turkey).

**Other names:** *Phytoecia* (*Helladia*) *praetextata* var. *implagiata* Reitter, 1898

**Ssp.:**

*Phytoecia* (*Helladia*) *praetextata praetextata* (Steven, 1817)

*Phytoecia (Helladia) praetextata nigricollis* Pic, 1891

This species has two subspecies as the nominotypical subspecies and *Phytoecia (Helladia) praetextata nigricollis* Pic, 1891 occurs only in S Turkey (probably only in Amanos Mts.). The later was described by Pic (1891) from Hatay Prov. (Akbez) in the original combination *Phytoecia praetextata* var. *nigricollis* Pic, 1891. It easily distinguishes from the nominative subspecies by entirely black pronotum.

The description of Ganglbauer (1884) as follows:

*Schwarz, die Flügeldecken gelbroth mit einer gemeinschaftlichen, breiten, vor der Spitze abgekürzten schwarzen Nahtbinde und mit je zwei runden schwarzen Makeln, von denen sich die eine auf der Schulter, die andere hinter derselben näher dem Seitenrande befindet. Halsschild mit einer grossen, über die Scheibe ausgedehnten, vorne jederseits erweiterten gelbrothen Makel und zwei schwarzen glänzenden Punkten in der Mitte derselben, auf der Scheibe bei beiden Geschlechtern seicht und sehr weitläufig punktirt, an den Seiten beim ♂ sehr fein gekörnt, beim ♀ ziemlich weitläufig punktirt. Kopf, Halsschild und Unterseite mit längeren abstehenden Haaren. Flügeldecken ziemlich tief punktirt. Long. 7-9 mm. — Krim.*

This species is distributed rather widely in Anatolia for Turkey. It is represented by both subspecies in Turkey.

**Records in Turkey:** Turkey: Hatay prov.: Akbez as the type loc. of *H. praetextata nigricollis* Pic, 1891; Hatay prov.: Akbez as *Phytoecia (Helladia) praetextata* var. *nigricollis* (Aurivillius, 1921); Cilicia: Adana prov. (Breuning, 1951 and 1966); Turkey (Danilevsky & Miroshnikov, 1985; Lodos, 1998); İçel prov. as *H. praetextata nigricollis* – Demelt, 1963 (Ex. Öymen, 1987); İçel prov.: Tarsus (Çamliyayla) (Adlbauer, 1988); İçel prov.: Namrunkale (Çamliyayla, Sebil village) as *H. praetextata nigricollis* (Rejzek et al., 2001); Bayburt prov.: Maden, Erzurum prov.: Karagöbek Mts. / Palandöken / Aşkale (Bozburun) / Kop Mt. / Ilıca (Rizelikent) / Narman (Kireçli pass) / Oltu (Sütkans) / Pasinler / Çalıyazı / Uzundere (Gölbasi) (Tozlu et al., 2003); Gümüşhane prov.: Kelkit (Günyurdu village), Sivas prov.: İmranlı (Kasaplı village) (Özdikmen & Hasbenli, 2004); Ankara prov.: Kızılcahamam (Soğuksu National Park) (Özdikmen & Demir, 2006; Özdikmen, 2006); Düzce prov.: Akçaören village, Yığılca, Zonguldak prov.: Devrek-Ereğli road, Kastamonu prov.: Şenpazar-Azdavay road (Özdikmen, 2007).

**Distribution:** Europe (Bulgaria, Romania, Ukraine, Crimea), Caucasus, Transcaucasia, Turkey, Syria.

**Chorotype:** Turano-Mediterranean (Turano-Balkan).

*Phytoecia (Helladia) pretiosa* Faldermann, 1837

**Orig. comb.:** *Phytoecia pretiosa* Faldermann, 1837

**Type loc.:** Transcaucasia.

**Other names:** *Phytoecia (Helladia) pretiosa* m. *nigroconjuncta* Breuning, 1947; *Phytoecia (Helladia) pretiosa* m. *basiimmaculata* Breuning, 1947; *Phytoecia (Helladia) pretiosa* m. *nigrobasireducta* Breuning, 1958; *Helladia pretiosa nivives* Sama, 1994.

**Ssp.:**

*Phytoecia (Helladia) pretiosa pretiosa* Faldermann, 1837

*Phytoecia (Helladia) pretiosa nigroapicalis* Breuning, 1944

We think that this species has two subspecies as the nominotypical subspecies and *Phytoecia (Helladia) pretiosa nigroapicalis* Breuning, 1944 occurs only in Iraq. The later was described by Breuning (1944) from Baghdad (Iraq) in the original combination *Phytoecia (Phytoecia) nigroapicalis* Breuning, 1944. According to Sama et al. (2007), *Phytoecia fatima* Ganglbauer, 1884 of which type locality is Iran, *Phytoecia (Phytoecia) nigroapicalis* Breuning, 1944 and *Helladia pretiosa ninives* Sama, 1994 of which type locality is Mosul (Iraq) are synonyms of *Phytoecia (Helladia) pretiosa* Faldermann, 1837. Now we agree with the approach of Danilevsky (2010) (see *P. fatima* for remarks). Therefore, we regarded as *Helladia pretiosa ninives* Sama, 1994 is a synonym of *Phytoecia (Helladia) pretiosa nigroapicalis* Breuning, 1944.

The original description of Faldermann (1837) ex Ganglbauer (1884) as follows:

*Brevis, parallela, nigra, subglabra; fronte dense flavo-lanuginosa; vertice bivittato; thorace macula magna dorsali rufa; elytris testaceis, macula triangolari basali apiceque nigris. Pedibus nigris, tibiis anticis mediisque ad "apicevi nec non femorum quatuor anticorum apicibus rufo-testaceis. Long. 5 ¼ lin. — Transcaucasien (ex Falderm.).*

This species is distributed only in E Anatolia for Turkey. It is represented only by the nominotypical subspecies in Turkey.

**Records in Turkey:** Turkey: Anatolia: Erzurum prov. (Breuning, 1951; Sama, 1994); Turkey (Breuning, 1966; Danilevsky & Miroshnikov, 1985; Lodos, 1998).

**Distribution:** Caucasus, Transcaucasia, Turkey, Syria, Iran, Iraq.

**Chorotype:** SW-Asiatic.

#### **A short identification key for Turkish *Phytoecia (Helladia)* taxa on the base of Breuning (1951)**

- |   |   |
|---|---|
| 1 Elytra unicolor.....  | 2   |
| 1" Elytra not unicolor.....   | 7   |
| 2 Elytra metallic.....  | 3   |
| 2" Elytra not metallic.....   | 5   |
| 3 Antennae completely dark colored (at least first segment completely).....               | ..... <i>millefolii</i> Adams, 1817           |
| 3" Antennae partly red.....   | 4   |
| dark bronze coloration with green or reddish lustre                                       |   |
| 4 Upper surface of the body with dark bronze coloration with green or reddish lustre..... | ..... <i>demelti</i> Sama, 2003               |
| 4" Upper surface of the body with dark metallic blue coloration.....                      | ..... <i>alziari</i> Sama, 1992               |
| 5 Middle and hind femora at least partly red.....   | ..... <i>ferrugata dilaticollis</i> Pic, 1900 |
| 5" Middle and hind femora black.....  | 6   |
| 6 Pronotum with a larger reddish spot enlarged to anterior and posterior edges.....       | ..... <i>plasoni</i> Ganglbauer, 1884         |

- 6"** Pronotum with much smaller median reddish spot.....**adelpha Ganglbauer, 1886**  
.....
- 7** Elytral coloration reddish in major part ..... **8**  
**7"** Elytral coloration black in major part ..... **13**
- 8** Apical one third of elytra black..... **9**  
**8"** Apical one third of elytra different colored..... **11**
- 9** Head red..... **diademata Falderman, 1837**  
**9"** Head black..... **10**
- 10** Elytra with a large postscutellar triangular black spot together in the suture.....  
..... **pretiosa pretiosa Falderman, 1837**  
**10"** Elytra without such spot, each elytron with basal black spot.....  
..... **fatima Ganglbauer, 1884**
- 11** Elytra with small numerous black spots in disc.....  
..... **armeniaca armeniaca Frivaldsky, 1878**  
**11"** Elytra without such spots..... **12**
- 12** Pronotum partly red..... **praetextata praetextata Steven, 1817**  
**12"** Pronotum entirely black..... **praetextata nigricollis Pic, 1891**
- 13** Head without reddish-yellow pubescence..... **pontica Ganglbauer, 1884**  
**13"** Head with reddish-yellow pubescence ..... **14**
- 14** Middle and hind tibiae always black..... **humeralis humeralis Walzl, 1838**  
**14"** Middle and hind tibiae usually at least partly red.....  
..... **humeralis caneri ssp. n.**

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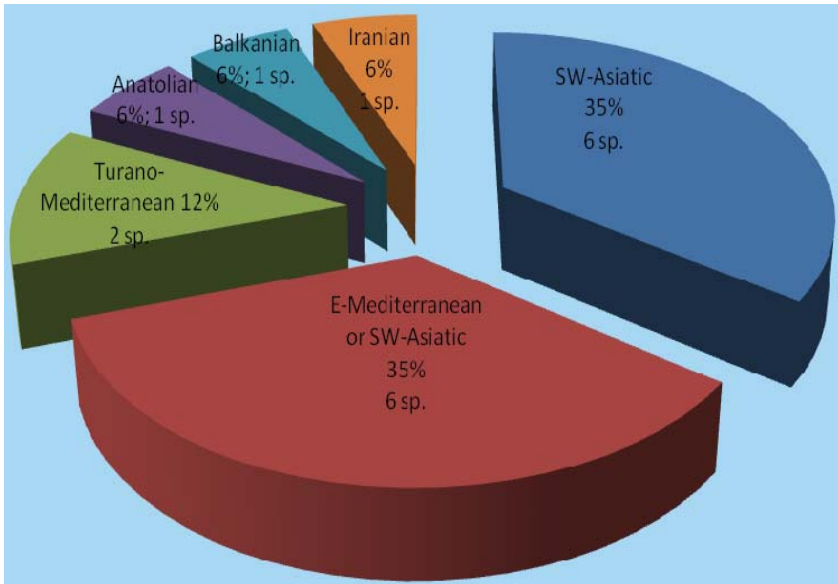


Figure 1. Zoogeographical composition of the subgenus *Phytoecia* (*Helladia*) Fairmaire, 1864.

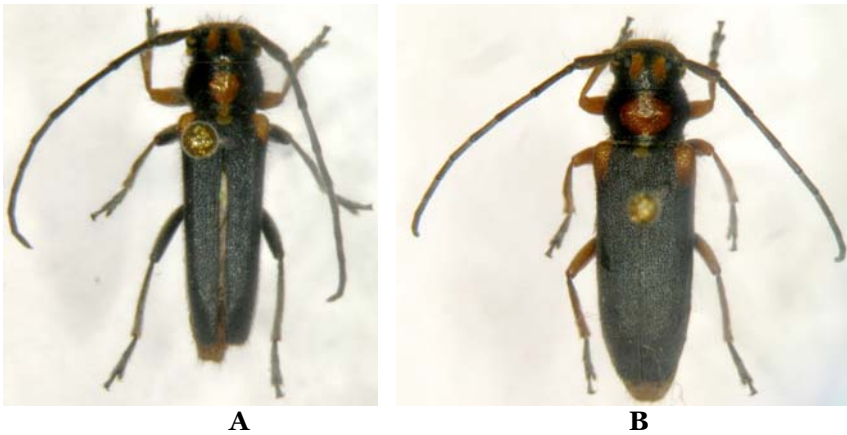


Figure 2. A. Habitus of *Phytoecia* (*Helladia*) *humeralis humeralis* (Waltl, 1838), B. Habitus of *Phytoecia* (*Helladia*) *humeralis caneri* ssp. n..