HOST PLANTS OF SEVERAL HERB-FEEDING *CERAMBYCIDAE* MAINLY FROM EAST MEDITERRANEAN REGION (*COLEOPTERA : CERAMBYCIDAE*)

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Abstract
Host plants of several *Cerambycidae* developing in herbaceous plants and occurring mainly in the East Mediterranean region are discussed.

Keywords
Coleoptera, *Cerambycidae*, bionomics, host plants, East Mediterranean region.

Résumé. Sur les plantes hôtes de quelques Cerambycides phytophages surtout de la région méditerranéenne orientale (*Coleoptera : Cerambycidae*).
Les auteurs traitent des plantes-hôtes de nombreux Cérambycides de développant dans des plantes herbacées et vivant essentiellement en Méditerranée orientale.

Mots-clés
Coleoptera, *Cerambycidae*, biologie, plantes-hôtes, Méditerranée orientale.

Introduction

Longhorn beetles (*Cerambycidae*) are phytophagous insects whose larvae usually develop in living or dead woody plants (xylophagous species), but some develop in living tissues of herbaceous plants (herb feeders). The herb feeders show varying host specificity (from monophagous to broadly polyphagous), but our knowledge of their host plants is frequently incomplete.

The information concerning host plants of *Cerambycidae* is spread throughout a great number of literature sources. It would be impossible to give each literary source mentioning host plants of a particular species. Therefore,

review articles and books summarising the data are cited here. In the case of species occurring in Europe (excluding the European part of the former Soviet Union and the European part of Turkey) BENSE (1995) provides such a review. The author summarised the biology of each species from the available literature into a concise form.

Although the work by DANILEVSKY and MIROSHNIKOV (1985) only covers the region of the Caucasus mountains it also deals with many species which occur in the Mediterranean region. In this book, where known, the authors give an outline concerning the biology of each particular species. In the case of several species, however, the authors do not mention the biology at all. We therefore assume that at the time of the book's release there was no reliable data available.

Only two papers specialising in host plants of *Cerambycidae* and dealing more or less with the study area are known to us : ADELI (1972) dealing mainly with xylophagous and some herb-feeding species occurring in Iran and HALPERIN and HOLZSCHUH (1993) dealing primarily with xylophagous species of Israel.

Material and Methods

Adult beetles were collected individually (not by sweeping) on herbaceous plants. These plants were then photographed and samples collected together with the beetles. The locality description applies both to the plant and the beetles collected on it. All individuals mentioned in this work were collected on the plants mentioned at the front of each record. This method of identifying a host plant is certainly less reliable than rearing adults from larvae found in the plant tissues and therefore needs further confirmation.

Only a limited number of records in this work apply to beetles reared from larvae found in roots or stalks of herbaceous plants.

If not stated otherwise all plants dealt with here were determined by G. Alziar, sometimes using samples of the plants lacking some of the most important determination characteristics or even photographs only ; all the beetles were determined by G. Sama and M. Rejzek. The herbaria, pictures of plants, and the beetles are deposited in the collections of G. Sama and M. Rejzek.

All local names in this work are spelled according to ANONYMOUS (1990a) in the case of Turkey, ANONYMOUS (1990b) in the case of Lebanon, ANONYMOUS (1993/94) in the case of Iran, ANONYMOUS (1997a) in the case of Syria, and ANONYMOUS (1997b) in the case of Jordan.

Several photographs of host plants dealt with here will also appear on the Internet : http://www.uochb.cas.cz/~natur/cerambyx/index.htm.

Abbreviations

(CPS) = from collection and card-index of Peter Schurmann (in coll. Sama)
(GS) = leg. and/or collection Gianfranco Sama or after a plant name = det. Gianfranco Sama
(MR) = leg. Martin Rejzek or after a plant name = det. Martin Rejzek

Results

CORTODERA CIRSII Holzschuh, 1975

Cortodera cirsii Holzschuh, 1975, Zeits. Arbeitsg. Österr. Ent., (1974) 26(2-4): 82. Type loc.: Turkey, Nurdağı Geçidi.

Cirsium sp. (***Asteraceae***) – SE. Turkey : Adana, Hasanbeyli env., Nurdağı Geçidi (1150 m), 29.V.-1.VI.1995, 12 adults (MR).

CORTODERA COLCHICA Reitter, 1890

Cortodera colchica Reitter, 1890, Wien. Entomol. Zeit., 9: 246. Type loc.: Kaukasus, Araxestal.

DANILEVSKY and MIROSHNIKOV (1985) do not give any details regarding the biology of this species.

Centaurea triumfetti All. (***Asteraceae***) – SE. Turkey : Nemrut Dağı mts., Karadut env. (2150 m), 2/3.VI.1995, 36 adults sitting in the flowers of the host (MR).

CORTODERA SYRIACA Pic, 1901

Cortodera syriaca Pic, 1901, L'Échange, 17(204): 90. Type loc.: Syrie.

Gundelia tournefortii L. (***Asteraceae***) (Fig. 1) – E. Turkey : Muş, Buğlan Geçidi (1600 m), 21/23.VI.1998 (GS) ; Kahraman Maraş, Göksun env., 25.V.1986 (GS) ; Göksun, Torbuzek (1700 m), 30.V.1997 (GS).

This species appears to be monophagous on *Gundelia tournefortii* (Fig. 1) and the beetles are abundant on their host in many areas of SE. Turkey.

PURPURICENUS WACHANRUI Levrat, 1858

Purpuricenus wachanrui Levrat 1858, Ann. Soc. Linn. Lyon, 2(5): 261. Type loc.: Turquie.

According to ADELI (1972) the larvae of this species were found in wood of **Quercus** and fruit trees. DANILEVSKY and MIROSHNIKOV (1985) do not give any information regarding the biology of this species and moreover the species is not included in the key to the larvae of **Purpuricenus** *spp.* However, in table 1 on page 36 they mention ***Quercus*** (*Fagaceae*) and fruit trees as host plants, although with question marks.

Verbascum sp. (***Scrophulariaceae***) (MR) – SE. Turkey : Adıyaman, Nemrut Dağı mts., Karadut env., 4/8.VI.1995, 67 adults (MR) ; idem, 2 adults (M. Johanides leg.).

The larva of **P. wachanrui** is still unknown and moreover, to our knowledge until now the species has never been reared from any tree nor shrub species. The adult beetles are always collected on flowers of a ***Verbascum*** *sp.* and some flowering thistle species, frequently in areas with no trees. Therefore, unlike the majority of **Purpuricenus** *spp.*, **P. wachanrui** seems to develop in herbaceous plants.
However, it is still possible that this species develops in an unknown tree or shrub and the adults are only attracted to the flowering herbaceous plants as in the case of **P. budensis** (Götz, 1783) for example. Further data would be desirable to confirm this.
For an unknown reason the adults frequently tend to concentrate on just a few plants and completely ignore the rest. Such a mass concentration was observed several times in Nemrut Dağı mountains (SE. Turkey) always in late afternoon.

AGAPANTHIA COERULEIPENNIS Frivaldszky, 1878

Agapanthia coeruleipennis Frivaldszky, 1878, Term. Füzet., 2: 9. Type loc.: Asia Minor.

Gundelia tournefortii L. (***Asteraceae***) (Fig. 1) – E. Turkey : Muş, Buğlan Geçidi (1600 m), 21/23.VI.1998 (GS) ; Kahraman Maraş, Göksun env. (1300 m), 25.V.1986, many adults on leaves (GS) ; Göksun, Torbuzek (1700 m), 30.V.1997, *larvae*, *pupae* and immature adults in pupal cells, in dry stems on the ground (GS) ; Adıyaman, Nemrut Dağı (1800 m), 14.V.1997, larvae in pupal cells (GS) ; S. Turkey : Arslanköy (1800 m), 27/28.V.1995, many adults (MR).

This nice **Agapanthia** is apparently monophagous on ***Gundelia tournefortii*** (Fig. 1). Adults can be observed on the leaves of the host plant, nearly everywhere in S. and SE. Turkey. The species is frequently accompanied by **Cortodera syriaca** Pic, 1901.

AGAPANTHIA FRIVALDSZKYI Ganglbauer, 1884

Agapanthia frivaldszkyi Ganglbauer, 1884, Best. Tab., 8: 112. Type loc.: Asia Minor.

According to BENSE (1995) the development is unknown.

Serratula sp. (***Asteraceae***) - E. Turkey : Buğlan Geçidi (1640 m) 40 km NW. Muş, 38.56N 41.09E, 22/23.VI.1999, 30 adults (MR).

AGAPANTHIA LAIS Reiche & Saulcy, 1858

Agapanthia lais Reiche & Saulcy, 1858, Ann. Soc. Ent. France, 6: 21. Type loc.: Peloponèse.
Agapanthia osmanlis: BYTINSKI – SALZ (1956).

According to BENSE (1995) the development of this species is unknown.

Onopordum macrocephalum Eig (***Asteraceae***) - W. Syria : Krak des Chevaliers W. Homs, 25.V.1998, 3 adults (MR).

AGAPANTHIA OSMANLIS Reiche & Saulcy, 1858

Agapanthia osmanlis Reiche & Saulcy, 1858, Ann. Soc. Ent. France 6(3): 19. Type loc.: Constantinople.

DANILEVSKY and MIROSHNIKOV (1985) do not mention any host plant of this species. According to BENSE (1995) the development is unknown.

Cephalaria sp. (***Dipsacaceae***) – NE. Turkey : Gümüşhane, pass S. Kelkit (2000 m), 12.VI.1998 (GS) ; Kars, 14 km SE. Sarıkamıs (2200 m), 7/8.VI.1998, many adults (GS) ; Gemecik W. Refahiye, 2.VI.1998, 10 adults (MR) ; Erzurum, N. İspir, (1800 m), 11.VI.1998, many adults (GS).
Dipsacus fullonum L. (= *D. sylvester* Hudson) (***Dipsacaceae***) (det. E. Hoyos) - E. Bulgaria : Ropotamo river valley, 25.VI.1995, many adults (MR).

Serratula cf. **radiata** (Waldst. et Kit.) M.B. (*Asteraceae*) – E. Turkey : Sarıkamıs 80 km NE. Horasan, 40.18N 42.29E, 25.VI.1999, many adults (MR).

Unfortunately, there is a great deal of confusion within the group of blue **Agapanthia** species. The type locality of **A. lais** given in the original description ("Peloponèse" = S. Greece) is very likely to be a mistake ; the origin of the type material is more likely to be the Near East (maybe the former "Palestina" or "Syria") where this species is rather common. On the other hand, **A. osmanlis**, which is distributed from the Balkan Peninsula (Beograd env., Bulgaria, Romania), over the whole Pontic range to the Caucasus, probably doesn't occur in the Near East. Although BYTINSKI - SALZ (1956) recorded **A. osmanlis** from the Near East, in our opinion this record was based on an inaccurate determination of **A. lais** (GS, *in litteris*).

AGAPANTHIA PUSTULIFERA **Pic, 1905**

Agapanthia pustulifera Pic, 1905, Mat. Long., 5(2): 12. Type loc.: Jerusalem.

Centaurea sp. (*Asteraceae*) – SW. Syria : Şalkhad SE. As Suwaydā, 19.V.1998, 10 adults (MR).

This species is rather common and widely distributed from S. Syria to Jordan and Israel. In our opinion the majority of records of **A. asphodeli** (Latreille, 1804), **A. dahli** (Richter, 1821), **A. lateralis** Ganglbauer, 1884, and **A. muellneri** Reitter, 1898 from this area (cf. BYTINSKI - SALZ, 1956) will in fact belong to **A. pustulifera** (GS, *in litteris*).

AGAPANTHIA WALTERI **Reitter, 1898**

Agapanthia walteri Reitter, 1898, Wien. Ent. Zeit., 17: 132. Type loc.: Turkey, Erzurum, Mardin.

DANILEVSKY and MIROSHNIKOV (1985) give **Carduus** (*Asteraceae*), **Heracleum** (*Apiaceae*), and "others" as the host plants.

Cirsium sp. (*Asteraceae*) - E. Turkey : Söylemez 50 km SE. Erzurum, 39.45N 41.49E, 24.VI.1999, 6 adults (MR, P. Kabátek, M. Johanides and E. Hajdaj leg.).

Fig. 2 : **Ferula hermonis** Boiss. (*Apiaceae*) : host plant of **Semnosia (Eumallosia) imperatrix** (Abeille, 1885) and **Phytoecia kabateki** Sama, 1997

Fig. 1 : **Gundelia tournefortii** L. (*Asteraceae*) : host plant of **Cortodera syriaca** Pic, 1901, **Agapanthia coeruleipennis** Frivaldszky, 1878, and **Helladia plasoni** (Ganglbauer, 1883)

THEOPHILEA CYLINDRICOLLIS Pic, 1897

Theophilea cylindricollis Pic, 1897, Echange, 11: 39. Type loc.: Turquie or., Bitlis.

According to DANILEVSKY and MIROSHNIKOV (1985) the species develops in stalks of **Elytrigia repens** (***Poaceae***).

Secale cf. **cereale** L. (***Poaceae***) – W. Turkey : İzmir, Bozdağ (1100 m), 20.VI.1997 (GS).

Previously this species was only recorded from the Caucasus (PIC, 1897 ; DANILEVSKY & MIROSHNIKOV, 1985 ; ADLBAUER, 1992) and E. Turkey (Bitlis, Bingöl, Kars).

OBEREA RESSLI Demelt, 1963

Oberea ressli Demelt, 1963, Entomol. Bl., 59(3): 132. Type loc.: W. Turkey, Kızılcahamam.

According to DEMELT (1963) the beetle was collected: "in Anzahl auf einer **Lithospermum** Art". However, this record was most certainly based on an inaccurate determination of the plant (P. Schurmann, *in litteris*).

Vincetoxicum hirundinaria Medicus (= *officinale* Pobed.), (***Asclepiadaceae***) (GS) ; the plant was determined by dr. Leute, Landes Museum, Klagenfurt (P.Schurmann *in litteris*) – Turkey : Ankara, Kızılcahamam, VI.1964 and VI.1973 (CPS) ; 13.VI.1983, many adults on leaves and some pupae in pupal cells (GS).

OXYLIA ARGENTATA (Ménétries, 1838)

Saperda argentata Ménétries, 1832, Cat. rais.: 227. Type loc.: Transcaucasia, Zouvant.

DANILEVSKY and MIROSHNIKOV (1985) give **Echium** (***Boraginaceae***) as the host plant.

Anchusa italica Retz. (***Boraginaceae***) - NW. Syria : Şlinfah E. Latakia (1500 m), 26/29.V.1998, 2 adults (MR).
Echium italicum L. (***Boraginaceae***) (GS) - Turkey : Antalya, İrmasan Geçidi (1300 m), 23.V.1997 (GS).

PTEROMALLOSIA ALBOLINEATA (Hampe, 1852)

Phytoecia albolineata Hampe, 1852, Wagner's Reise Persien: 314. Type loc.: Persien.

According to DANILEVSKY and MIROSHNIKOV (1985) the species develops in **Echinops scovitzii** (***Asteraceae***).

Subfam. ***Cynareae*** (***Asteraceae***) - SE. Turkey : Adıyaman, Nemrut Dağı mts., Karadut env., 3/10.VI.1996, 36 adults (M. Hoskovec leg.) ; E. Turkey : Söylemez 50 km SE. Erzurum, 39.45N 41.49E, 24.VI.1999, 2 adults (MR).
Echinops sp. (***Asteraceae***) - E. Turkey : Buğlan Geçidi (1640 m) 40 km NW. Muş, 38.56N 41.09E, 22/23.VI.1999, 2 adults (MR).

SEMNOSIA (EUMALLOSIA) HERMINAE (Reitter, 1890)

Mallosia herminae Reitter, 1890, Wien. ent. Zeit., 9: 241. Type loc.: Araxestal.

According to ADELI (1972) larvae of this species are found in the wood of **Quercus persica**. DANILEVSKY and MIROSHNIKOV (1985) give **Ferula** (***Apiaceae***) as the host plant.

Prangos sp. (***Apiaceae***) – E. Turkey : Van, Kuskun Kiran Geçidi (2200 m), 4/6.VI.1998 (GS).

SEMNOSIA (EUMALLOSIA) IMPERATRIX (Abeille, 1885)

Mallosia imperatrix Abeille, 1885, Ann. Soc. Ent. France, 6 (Bull.): CCL. Type loc.: Syria, Blūdān (Antilibanon).

Ferula hermonis Boiss. (***Apiaceae***) (Fig. 2) - SW. Syria : Blūdān NW. Damascus, 21/22.V.1998, 6 adults (MR) ; idem, 5.VI.1997 (M. Formánek leg.) ; idem, 28/31.V.2000, many adults (GS).

SEMNOSIA (*s.str.*) INTERRUPTA (Pic, 1905)

Mallosia scovitzi var. *interrupta* Pic, 1905, Mat. Long., 5(2): 28. Type loc.: Turquie, Van.

For **Mallosia** (**Semnosia**) **scovitzi** (Falderman 1837) DANILEVSKY and MIROSHNIKOV (1985) give **Prangos** (***Apiaceae***) as the host plant.

Prangos sp. (***Apiaceae***) – E. Turkey : Van, Kuskun Kiran Geçidi (2200 m), 4/6.VI.1998 (GS).

COPTOSIA BITHYNENSIS (Ganglbauer, 1884)

Phytoecia bithynensis Ganglbauer, 1884, Best.Tab., 8: 573 (139). Type loc.: Kleinasien, Brussa.

DANILEVSKY and MIROSHNIKOV (1985) do not give any host plant of this species.

Anchusa cf. **italica** Retz. (***Boraginaceae***) - E. Turkey : Elāzığ env., Gözeli, 1.VI.1994, many adults (MR).
Cynoglossum cf. **foliosum** (Paine) Greuter et Burdet (***Boraginaceae***) - SE. Turkey : Adıyaman, Nemrut Dağı mts., Karadut env. (lower than 1000 m), 4/8.VI.1995, 4 adults (MR).
Anchusa sp. (***Boraginaceae***) - SE. Turkey : Adıyaman, Nemrut Dağı mts., Karadut env., 2/14.VI.1996, about 30 adults (M. Hoskovec leg.).

Like most of the other **Coptosia** *spp.*, this species spends the major part of the day time hiding in the complex leaf system close to the lower section of the main stalk or even sitting on the ground in the vicinity of the *Boraginaceae* plants. Copulation also takes place here. The adults climb to the upper parts of the host only occasionally. This happens always at certain times in the morning and then later in the afternoon. At these times the beetles are very active and frequently fly.

COPTOSIA COMPACTA (Ménétries, 1832) *s.l.*

Phytoecia compacta Ménétries, 1832, Cat. rais.: 288. Type loc.: Baku.

According to ADELI (1972) **Coptosia compacta** should be a pest of **Populus euphratica**. DANILEVSKY and MIROSHNIKOV (1985) give **Ferula** (***Apiaceae***) as the host plant.

Solenanthus stamineus (Desf.) Wettst. (***Boraginaceae***) (Fig. 3) - E. Turkey : Sarıkamıs, 80 km NE. Horasan, 40.18N 42.29E, 25.VI.1999, 4 adults (MR) ; Tatvan env., Bitlis, 14.VI.1997, many adults (MR) ; SE. Turkey : Adıyaman, Nemrut Dağı mts., Karadut env., 3/10.VI.1995, about 50 adults (MR) ; Adıyaman, Nemrut Dağı mts., Karadut env., 3/10.VI.1996, 55 adults (M. Hoskovec leg.).

The Caucasian populations of **Coptosia compacta** develop in ***Ferula*** whereas the populations occurring in E. Turkey (Nemrut Dağı, Bitlis, Sarıkamıs) were recorded exclusively from ***Solenanthus stamineus*** (Fig. 3) and never from ***Ferula***. Moreover, the Turkish specimens are of a generally bigger body size than the ones from the Caucasus region and therefore it is likely that two distinct subspecies are dealt with.

Similarly to other **Coptosia** *spp.*, this species spends most of the day time hiding in the complex leaf system of the hosts. Moreover, the adults have frequently been collected in little hollows dug by the beetles in the ground in the vicinity of the stalks. To our knowledge this unique behaviour has never been observed before. Only very rarely have the adults been observed climbing up the plants.

COPTOSIA GANGLBAUERI Pic, 1936

Coptosia ganglbaueri Pic, 1936, Echange, 51(463): 3 (hors texte). Type loc.: Jerusalem.

Echium glomeratum Poiret (***Boraginaceae***) – SW. Syria : Tyke 15 km from Blūdān, 5.VI.1997 (M. Formánek leg.) ; W. Syria : Krak des Chevaliers W. Homs, 25.V.1998, 5 adults (MR).
Anchusa strigosa Labill. (***Boraginaceae***) – SW. Syria : Burqush W. Damascus, 24.V.1998, 1 adult (MR).
Anchusa cf. **barrelieri** (All.) Vitman (***Boraginaceae***) – SW. Syria : Blūdān NW. Damascus, 21/22.V.1998, 10 adults (MR) ; idem, Burqush W. Damascus, 24.V.1998, 17 adults (MR).
Anchusa sp. (***Boraginaceae***) – SW. Syria : Blūdān NW. Damascus, 5.VI.1997 (M. Formánek leg.).

The behaviour of this species is analogous to **Coptosia bithynensis**.

COPTOSIA SCHUBERTI Fuchs, 1965

Coptosia schuberti Fuchs, 1965, Ent. Blatt., 61: 110. Type loc.: Turquie, Namrun.

Anchusa barrelieri (All.) Vitman (***Boraginaceae***) – S. Turkey : Antalya, 5 km N. Yarpuz (1500 m), 20.V.1997 (GS).
Anchusa sp. (***Boraginaceae***) – S. Turkey : Namrunkale, Çamlıyayla, Sebil vill., 24/26.V.1995, many adults (MR).

The behaviour of this species is analogous to **Coptosia bithynensis**.

PILEMIA ANNULATA (Hampe, 1862)
Phytoecia annulata Hampe, 1862, Wagner's Reise Persien, 2: 315. Type loc.: Persien.

DANILEVSKY and MIROSHNIKOV (1985) mention family ***Boraginaceae*** as probable host plants of this species.

Nonea sp. (***Boraginaceae***) - E. Turkey : Sarıkamıs 80 km NE. Horasan, 40.18N 42.29E, 25.VI.1999, 6 adults (MR).
Nonea stenosolen Boiss. & Bal. (***Boraginaceae***) (Fig. 4) – NE. Turkey : Kurbağalıbeli Geçidi (1800 m) N. Zara, 3.VI.1998, 11 adults (MR).

The adult beetles were observed sitting on the ground hiding under the leaves of the relatively little ***Nonea*** plants.

PILEMIA GRISEOMACULATA Pic, 1891 (det. S. Kadlec, 1999)
Pilemia tigrina v. *griseomaculata* Pic, 1891, Echange, 7(82): 102. Type loc.: Syrie.

Anchusa cf. **barrelieri** (All.) Vitman (***Boraginaceae***) - SW. Syria : Blūdān NW. Damascus, 21/22.V.1998, 13 adults (MR).

The adults spend most of the day time hiding in the complex leaf system close to the ground or even sitting on the ground in the vicinity of the stalk. The adults mimic old dry leaves of the *Boraginaceae* plants and therefore are very difficult to see there. At certain times of the day (in the morning and then in the late afternoon) the adults climb up the plant and occasionally fly.

PILEMIA HIRSUTULA (Frölich, 1793)
Saperda hirsutula Frölich, 1793, Nat. F., 27: 141. Type loc.: Austria.

DANILEVSKY and MIROSHNIKOV (1985) mention **Phlomis** and **Stachys** (***Lamiaceae***) as the host plants. According to BENSE (1995) the species develops in herbaceous plants (primarily in **Phlomis tuberosa**, probably also in **Ballota nigra**, **Marrubium** *"candidissimum"*, and **Marrubium vulgare**). In Central Europe the development occurs primarily in **Stachys recta**

Fig. 3 : **Solenanthus stamineus** (Desf.) Wettst. (***Boraginaceae***) : host plant of **Coptosia compacta** (Ménétries, 1832) s.l.

Fig. 4 : **Nonea stenosolen** Boiss. & Bal. (***Boraginaceae***) : host plant of **Pilemia annulata** (Hampe, 1862)

(*Lamiaceae*), (MR, unpublished results). In Israel the species develops in **Eremostachys laciniata** (Y. Dorchin and E. Orbach, in litteris).

Salvia cf. **hypoleuca** Benth. (*Lamiaceae*) - N. Iran : prov. Mazandarān, 70 km SW. Čalūs (pass - 2870 m), 36.09N 51.17E, 18.VI.1999, 4 adults (MR).
Lamiaceae gen. sp. - N. Iran : E. Āzarbāygan-e, Kalisbar env. (1600-1700 m), 26.V.1999 (Saltini leg.).
Stachys pinetorum Boiss. et Bal. (*Lamiaceae*) - NW. Syria : Şlinfah E. Latakia (1500 m), 26/29.V.1998, 12 adults (MR).
Phlomis longifolia Boiss. et Blanche (*Lamiaceae*) - NW. Syria : Şlinfah E. Latakia (1500 m), 26/29.V.1998, 1 adult (MR).
Phlomis tuberosa L. (*Lamiaceae*) – E. Turkey : Hakkâri, 10.VI.1997 (M. Formánek leg.).

PILEMIA MACULIFERA (Holzschuh, 1984)
Phytoecia (Pilemia) maculifera Holzschuh, 1984, Kol. Rund., 57: 169. Type loc.: Anatolien, Kilik. Taurus, vill. Mersin, Namrun.

Boraginaceae – S. Turkey : Pozantı env., Arslanköy (1650-1800 m), 27/28.V.1995, 20 adults (MR).

All adults were observed in late afternoon sitting high up in the host plants and frequently even in the flowers of the host.

PILEMIA SERRIVENTRIS (Holzschuh, 1984)
Phytoecia serriventris Holzschuh, 1984, Kol. Rund., 57: 169. Type loc.: Bulgaria, Charmanli.

According to BENSE (1995) the development is unknown.

Cynoglossum officinale L. (*Boraginaceae*) - S. Bulgaria : Harmanli-Ljubimec, V.1998 (M. Formánek leg.).

PYGOPTOSIA EUGENIAE (Ganglbauer, 1884)
Phytoecia eugeniae Ganglbauer, 1884, Best.Tab., 8: 568. Type loc.: Persien.

Centaurea behen L. (*Asteraceae*) (Fig. 5) - W. Iran : prov. Lorestān, Dorūd 52 km SE. Borūğerd, 33.25N 49.06E (1740 m), 11.VI.1999, 40 adults (MR).

This rather striking species has been observed sitting on large leaves of the host in late afternoon. The beetles quickly flew away when disturbed. Attempts to find the beetles on the ground in the vicinity of the plant stalks outside of their active time failed.

PYGOPTOSIA SPECIOSA (Frivaldszky, 1884)
Phytoecia speciosa Frivaldszky, 1884, Term. Füzet., 8: 5. Type loc.: Kurdistan, Diyarbakır.

Serratula cerinthifolia (Sm.) Boiss. (*Asteraceae*) (Fig. 6) – SE. Turkey : Adıyaman, Nemrut Dağı mts., Karadut env. (lower than 1000 m), 4/8.VI.1995, 31 adults (MR) ; NW. Syria : Şlinfah E. Latakia (1500 m), 26/29.V.1998, 5 adults (M. Johanides leg.).
Serratula cf. **kurdica** (*Asteraceae*) – SE. Turkey : Adıyaman, Nemrut Dağı mts., Karadut env. (1400 –1800 m), 2/3.VI.1995, 10 adults (MR).

The behaviour of this species is analogous to **Pygoptosia eugeniae**.

CARDORIA SCUTELLATA (Fabricius, 1792)
Saperda scutellata Fabricius, 1792, Ent. Syst., 1(2): 317. Type loc.: Germania.

DANILEVSKY and MIROSHNIKOV (1985) do not mention any host plant for this species. In 1989 KOVACS published a paper dealing with the biology of this species giving **Falcaria vulgaris** Bernh. (*Apiaceae*) as the host plant. The larvae of this species were also later collected and described (P. Švácha, in litteris). According to BENSE (1995) the development is unknown and adults are found in arid areas on grass, on **Adonis vernalis**, and on **Reseda**.

Falcaria vulgaris Bernh. (*Apiaceae*) – Slovak Republic : Štúrovo, Hegyfarok, 1.V.1995, 8 adults (MR).

The adults can be found sitting on the ground in the vicinity of the host. During their active period the males fly occasionally, while the females can only be seen walking on the ground. The adult beetles mimic the colour of the ground very effectively.

HELLADIA ARMENIACA (Frivaldszky, 1878)
Phytoecia armeniaca Frivaldszky, 1878, Term. Füzet., 2: 10. Type loc.: Armenia, Diyarbakır.

DANILEVSKY and MIROSHNIKOV (1985) do not mention any host plant of this species.

Scorzonera subintegra (Boiss.) Thiébaut (*Asteraceae*) – M. Hermon (1300 m), 11/18.V.1996, many adults (GS).

A significant number of specimens collected on ***Scorzonera subintegra*** indicates that the plant might be its host in the above mentioned locality. However, in E. Turkey the beetle was frequently associated with different plant species.

HELLADIA FERRUGATA (Ganglbauer, 1884)
Phytoecia ferrugata Ganglbauer, 1884, Best.Tab., 8: 574 (140). Type loc.: Syrien, Chaifa.

In Israel Y. Dorchin and E. Orbach (in litteris) recorded this species from **Centaurea procurrens** Sieber ex Spreng (*Asteraceae*).

Centaurea sp. (*Asteraceae*) – SW. Syria : Şalkhad SE. As Suwaydā, 19.V.1998, 3 adults (MR).

HELLADIA FLAVESCENS (Brullé, 1832)
Saperda flavescens Brullé, 1832, Exp. Morée, ins. 262, tav. 43, fig. 5. Type loc.: Morea.

According to BENSE (1995) the species probably develops in thistles.

Onopordon illyricum L. (*Asteraceae*) (GS) - Greece : Larissa, between Trikala and Larissa, 4.VI.1976, many specimens on stems of living plants, sometimes together with **Agapanthia cynarae** (Germar, 1817) (GS).

HELLADIA ORBICOLLIS (Reiche & Saulcy, 1858)
Phytoecia orbicollis Reiche & Saulcy, 1858, Ann. Soc. Ent. France 6(3): 15. Type loc.: Palestine, Nablus (environ de Naplouse).

Centaurea cf. **hyalolepis** Boiss. (*Asteraceae*) (GS) - Lebanon : Aakkar, Qoubaïăt, Qatlabé, *ex larva*, adults in pupal cells from VIII. (GS).

Although the type locality of **Helladia orbicollis** is Palestina, the species has not been collected in either Palestina nor Israel again.

HELLADIA ORBICOLLIS (Reiche & Saulcy, 1858) *ssp.* ADELPHA (Ganglbauer, 1885)
Phytoecia (Helladia) adelpha Ganglbauer, 1885, Verh. Zool. Bot. Ges. Wien, 35: 522. Type loc.: Syrien, Akbes (= SE. Turkey).

Notobasis syriaca (L.) Cass. (*Asteraceae*) (GS) – S. Turkey : Icel, Gülek (1000 m), 5.VI.1981 (GS).
Centaurea sp. (*Asteraceae*) – S. Turkey : Namrunkale, Çamlıyayla, Sebil vill., 24/26.V.1995, 6 adults (MR).

HELLADIA HUMERALIS (Waltl, 1838)
Saperda humeralis Waltl, 1838, Isis, 31: 471. Type loc.: Turcia.

DANILEVSKY and MIROSHNIKOV (1985) do not mention any host plant for this species.

Notobasis syriaca (L.) Cass. (*Asteraceae*) (GS) – S. Turkey : Antalya, Gündoğmuş, VII.1997, *ex larva*, adults hatched in X. (GS).
Cirsium sp. (*Asteraceae*) - Turkey : Antalya, Perge env., *ex larva*, 7.VII.1993 (GS).
Centaurea sp. (*Asteraceae*) – S. Turkey : Namrunkale, Çamlıyayla, Sebil vill., 24/26.V.1995, many adults (MR).

HELLADIA INSIGNATA (Chevrolat, 1854)
Phytoecia insignata Chevrolat, 1854, Rev. Mag. Zool., 7-8: 22, tav. 7, fig. 6. Type loc.: Saida.

Silybum marianum (L.) Gaertn (*Asteraceae*) - N. Jordan : Irbid, Kufr Yuba, 17.V.1999, *ex larva*, adults in pupal cells in X.-XI. (GS).
Centaurea hyalolepis (*Asteraceae*) - N. Jordan : Ajlun, Dayr Abu Said, 19.V.1999, *ex larva*, adults in pupal cells in X.-XI. (GS).

HELLADIA PAULUSI (Holzschuh, 1971)

Phytoecia paulusi Holzschuh, 1971, Mitt. Forstl. Bundes-Versuchsanstalt, 94: 67. Type loc.: Liban, Libanongebirge, Mdeirej bei Sofar.

Cirsium cf. **lappaceum** M. B. (***Asteraceae***) – SW. Syria : Blūdān NW. Damascus, 5.VI.1997 (M. Formánek leg.) ; idem, 21/22.V.1998, 24 adults (MR) ; idem, 28/31.V.2000, many adults (GS).

Helladia paulusi spends most of the day time hidden in the ***Cirsium*** plants. When searching the plants the adults can be found there even under bad weather conditions. Only occasionally and just for a certain time period the beetles climb up the leaves and fly.

HELLADIA PONTICA (Ganglbauer, 1884)

Phytoecia pontica Ganglbauer, 1884, Best.Tab., 8: 574 (140). Type loc.: Pontus, Caucasus.

Onopordum macrocephalum Eig (***Asteraceae***) - N. Jordan : Ajlun (castle), 21.V.1999, *ex larva*, adults in pupal cell in X.-XI. (GS).

HELLADIA PLASONI (Ganglbauer, 1884)

Phytoecia plasoni Ganglbauer, 1884, Best.Tab., 8: 570 (136). Type loc.: Persien.

DANILEVSKY and MIROSHNIKOV (1985) do not mention any host plant of this species.

Gundelia tournefortii L. (***Asteraceae***) (Fig. 1) – E. Turkey : Muş, Buğlan Geçidi (1400 m), 2.VI.1998, 4 specimens (GS).

Males and females of this highly interesting species have been observed sitting on big leaves of the host during the warmest hours of the day. The beetles very quickly flew away when disturbed. Attempts to find the beetles on the ground in the vicinity of the plant stalks outside of their active time failed.

Fig. 6 : **Serratula cerinthifolia** (Sm.) Boiss. (***Asteraceae***) : host plant of **Pygoptosia speciosa** (Frivaldszky, 1884)

Fig. 5 : **Centaurea behen** L. (***Asteraceae***) : host plant of **Pygoptosia eugeniae** (Ganglbauer, 1883)

HELLADIA MILLEFOLII (Adams, 1817)
Saperda millefolii Adams, 1817, Mem. Soc. Nat. Moscou, 5: 317. Type loc.: Georgiewsk.

DANILEVSKY and MIROSHNIKOV (1985) do not mention any host plant. Analogously BENSE (1995) states the development as unknown.

Asteraceae - E. Turkey : Körsu 27 km N. Hınıs (2150 m), 39.31N 41.42E, 24.VI.1999, 2 adults (MR).
Inula sp. (***Asteraceae***) (GS) - NW. Turkey : Istanbul, Kunburgaz, 24.V.1981, 9 adults (GS).

HELLADIA MILLEFOLII (Adams, 1817) ssp. ALZIARI Sama, 1992
Helladia millefolii ssp. *alziari* Sama, 1992, Lambillionea, 92: 306. Type loc.: Cyprus, Paphos : Argaka.

Dittrichia viscosa (L.) Aiton (***Asteraceae***) (GS) - Cyprus : several localities - Paphos, Argaka, Pyrga, III.1986 (CPS) ; 10.IV.1992 many adults also in pupal cells (GS) ; Israel : several localities, adults fly from early II. to V. (GS, E. Orbach, and Y. Dorchin leg.).

This subspecies is usually of rather large body size and is distributed in the whole of the SE. Mediterranean region. Its development occurs in ***Dittrichia viscosa***, a rather big plant. The smaller nominate form, **Helladia millefolii millefolii**, occurring around the Black Sea from Bulgaria to the Caucasus, develops on smaller species of ***Inula***, genus related to ***Dittrichia***.

HELLADIA PRAETEXTATA (Steven, 1817)
Saperda praetextata Steven, 1817, Syn. Ins., 1-3, app. 184. Type loc.: in Tauriae graminosis in valle Sudak.

DANILEVSKY and MIROSHNIKOV (1985) do not mention any host plant of this species. According to BENSE (1995) the development is unknown.

Lapsana communis L. (***Asteraceae***) (Fig. 7) – NW. Syria : Şlinfah E. Latakia (1500 m), 26/29.V.1998, 1 adult (MR).

HELLADIA PRAETEXTATA (Steven, 1817) *ssp.* NIGRICOLLIS (Pic, 1891)
Phytoecia praetextata v. nigricollis Pic, 1891, Echange, 7(82): 102. Type loc.: Akbes.

Lapsana communis L. (***Asteraceae***) (Fig. 7) – S. Turkey : Namrunkale, Çamlıyayla, Sebil vill., 24/26.V.1995, 11 adults (MR).

MUSARIA ARGUS (Frölich, 1793)
Saperda argus Frölich, 1793, Naturf., 27: 155. Type loc.: Austria.

According to BENSE (1995) the development occurs in herbaceous plants (**Seseli varium**, **Seseli annuum**, and **Seseli tommasini**). KOVACS and HEGYESSY (1995) mention **Seseli annuum** and **Seseli varium** as the hosts (Hungary). P. Švácha (*in litteris*) gives **Seseli devenyense** as host plant (Slovak Republic).

Seseli tommasinii Rchb. (***Apiaceae***) (GS) - Croatia : Istria, Plomin, many adults (CPS).

MUSARIA RUBROPUNCTATA (Goeze, 1777)
Leptura rubropunctata Goeze, 1777, Ent. Beitr., 1: 507. Type loc.: France.

In Italy (Piemonte, Val di Susa, Borgone, Oulx, Salbertrand) the species develops in **Trinia glauca** (STURANI, 1981). According to BENSE (1995) the development occurs in herbaceous plants (probably exclusively in **Trinia glauca**).

Trinia glauca (L.) Dumort. (***Apiaceae***) – NE. France : Colmar, Bollenberg, 8.V.1997, 3 adults (MR) ; Borgone, Val di Susa, XII.76 ; V.79 (R. Mourglia leg.) (GS).

MUSARIA CEPHALOTES (Küster, 1846)
Phytoecia cephalotes Küster, 1846, Käf. Eur., 7: 61. Type loc.: Greece, Nauplia.

The development occurs in **Trinia dalechampii** (BASSETTI and GUDENZI, 1986).

Trinia dalechampii (Ten.) Janchen (*Apiaceae*) – Italy : Umbria, M. Cucco (1500 m), *ex larva* (GS) ; Marche, M. Nerone (800-1200 m), *ex larva* (GS).

MUSARIA ASTARTE (Ganglbauer, 1885)
Phytoecia astarte Ganglbauer, 1885, Verh. Zool. Bot. Ges. Wien, 35: 523. Type loc.: Asia Minor.

DANILEVSKY and MIROSHNIKOV (1985) do not mention any host plant.

Cirsium sp. (*Asteraceae*) – SE. Turkey : Adana, Nurdağı Geçidi (1300 m), 10.VI.1983 (GS) ; idem, (1150 m), 29.V.-1.VI.1995, many adults (MR).

MUSARIA ASTARTE (Ganglbauer, 1885) *ssp.* LEDERI (Pic, 1899)
Phytoecia (Musaria) astarte v. *lederi* Pic, 1899, Bull. Soc. ent. Fr.: 391. Type loc.: Caucase, vallée de l'Arax (Leder).

Subfam. **Cynareae** (*Asteraceae*) - SE. Turkey : Adıyaman, Nemrut Dağı mts., Karadut env., 2/3.VI.1995, 12 adults (MR).

MUSARIA ASTARTE (Ganglbauer, 1885) *ssp.* PERRINI (Pic 1891)
Phytoecia (sg. Musaria) perrini Pic, 1892, L'Échange, 8(88): 44. Type loc.: Liban.

Cirsium cf. **lappaceum** M. B. (*Asteraceae*) – SW. Syria : Blūdān NW. Damascus, 5.VI.1997 (M. Formánek leg.) ; idem, 21/22.V.1998, 58 adults (MR).

MUSARIA BOEBERI (Ganglbauer, 1884)
Phytoecia boeberi Ganglbauer, 1884, Best.Tab., 8: 125 (559). Type loc.: Türkei, Caucasus.

DANILEVSKY and MIROSHNIKOV (1985) do not mention any host plant.

Chaerophyllum aureum L. (*Apiaceae*) - NE. Turkey : Trabzon, 20 km S. Maçka (Sumelas), (1780 m), 40.40N 39.41E, 28.VI.1999, 4 adults (P. Kabátek leg.).

Fig. 7 : **Lapsana communis** L. (*Asteraceae*) : host plant of **Helladia praetextata** (Steven, 1817) and **Helladia praetextata** (Steven, 1817) ssp. **nigricollis** Pic, 1891

MUSARIA PUNCTICOLLIS (Faldermann, 1837)
Saperda puncticollis Faldermann, 1837, Fauna Transc., 2: 291. Type loc.: Transcaucasia.

According to ADELI (1972) the larvae of **Musaria puncticollis** *ssp.* **persica** Ganglbauer, 1884 were found in dying branches of **Quercus**. DANILEVSKY and MIROSHNIKOV (1985) mention **Eryngium** (*Apiaceae*) as host plant of this species.

Eryngium sp. (*Apiaceae*) (GS) – E. Turkey : Van, Kuskun Kiran gec. (2200 m), 4/6.VI.1998 (GS) ; Tatvan env., 13.VI.1997, many adults (MR).

This very striking species is more frequently observed in flight or walking on the ground rather than sitting on the host.

MUSARIA WACHANRUI (Mulsant, 1851)
Phytoecia wachanrui Mulsant, 1851, Mem. Acad. Sci. Lyon, 1: 127. Type loc.: Turquie.

Eryngium sp. (*Apiaceae*) (GS) - Israel : several localities, adults on the host plants from late IV. to V. (GS).

The behaviour of this species is similar to **Musaria puncticollis**.

MUSARIA TIRELLII (Luigioni, 1913)
Phytoecia tirellii Luigioni, 1913, Boll. Soc. Ent. Ital., 44: 168. Type loc.: Italia, Filettino.

The development occurs in **Crepis lacera** (BASSETTI and GUDENZI, 1986).

Crepis lacera (Ten.) (*Asteraceae*) – Italy : Umbria, M. Cucco (1500 m), *ex larva* (GS) ; idem, Marche, M. Nerone (800-1200 m), *ex larva* (GS).

NEOMUSARIA BALCANICA (Frivaldszky, 1835)
Saperda balcanica Frivaldszky, 1835, Mag. Tud. Tars. Evkön., 2: 268, tav. 6, fig. 12. Type loc.: Bulgaria, Slivno.

According to BENSE (1995) the development probably occurs in **Salvia**.
Salvia sclarea L. (*Lamiaceae*) – NE. Turkey : 20 km N. Pülümür, 39.35N 39.55E, 7.VI.1999, 20 adults (MR).

Neomusaria balcanica exhibits a very typical behaviour. The adult beetles use those living leaves of ***Salvia spp.*** which touch the ground as shelter. Only occasionally and just for a short time period they leave the shelter and fly.

NEOMUSARIA MERKLI (Ganglbauer, 1884)
Phytoecia merkli Ganglbauer, 1884, Best.Tab., 8: 560 (126). Type loc.: Turquie.

Salvia spp. (*Lamiaceae*) – Turkey : found in several localities on different species of **Salvia** (GS, CPS).
Salvia cf. **tomentosa** Miller (*Lamiaceae*) - S. Turkey : Çiftehan E. Ereğli, Alihoca, 22.VI.1997, 8 adults (MR).
Lamiaceae gen. sp. - SE. Turkey : Adana, Hasanbeyli env., Nurdağı Geçidi (1150 m), 29.V.-1.VI.1995, many adults (MR).
Salvia sp. (*Lamiaceae*) - SE. Turkey : Adıyaman, Nemrut Dağı mts., Karadut env. (1800 m), 2/3.VI.1995, 12 adults (MR).
Salvia sclarea L. (*Lamiaceae*) – SE. Turkey : Erdemli, 25.VI.1997 (M. Formánek leg.).

NEOMUSARIA SUVOROWI (Pic, 1906)
Phytoecia suvorowi Pic, 1905, Mat. Long., 5, 2: 38. Type loc.: Caucase.

DANILEVSKY and MIROSHNIKOV (1985) do not give any information regarding the biology.

Salvia sp. (*Lamiaceae*) – E. Turkey : 10 km SE. from Tatvan, 13.VI.1997, 5 adults (MR) ; Buğlan Geçidi (1640 m) 40 km NW. Muş, 38.56N 41.09E, 22/23.VI.1999, 4 adults (MR) ; Bitlis env., Mutki vill. 5 km NW, VI.1997, 19 adults (MR).

Behaviour similar to **Neomusaria balcanica**.

NEOMUSARIA WALTLI **Sama, 1991**

Neomusaria waltli Sama, 1991, Boll. Soc. ent. ital., 123(2): 127.
= *Saperda modesta* Waltl, Isis, 1838, 6: 471 (nec Fabricius, 1781). Lectotypus female: Beyrout (Liban).

Salvia spp. (***Lamiaceae***) (GS) – Israel : Carmel Ridge, Daliyat el Karmil, 31.III.1993 (GS).
Salvia sp. (***Lamiaceae***) – S. Turkey : Pozantı env., Arslanköy (1800 m), 27/28.V.1995, 14 adults (MR).

Behaviour similar to **Neomusaria balcanica**.

OPSILIA COERULESCENS **(Scopoli, 1763)**

Leptura coerulescens Scopoli, 1763, Ent. Carn., 49: 160. Type loc.: Carniola.

DANILEVSKY and MIROSHNIKOV (1985) mention plants of the families ***Boraginaceae*** (**Lithospermum**, **Echium**, **Anchusa**, **Lycopsis**, **Lappula**, **Cynoglossum**) and ***Lamiaceae*** as hosts. According to BENSE (1995) the development occurs in herbaceous plants (***Boraginaceae*** such as **Echium**, **Cerinthe**, **Cynoglossum**, **Anchusa**, **Symphytum**, **Lithospermum**, **Lappula**, and **Lycopsis**).

Cynoglossum creticum Miller (***Boraginaceae***) - Lebanon : Choûf, Jabal el Barouk : pass W. Kefraia (1700 m), 7.VI.1999, *ex larva* (GS).
Cynoglossum sp. (***Boraginaceae***) – S. Turkey : Pozantı env., Arslanköy (1800 m), 27/28.V.1995, 1 adult (MR).

PHYTOECIA (*s.l.*) BEHEN **Sama & Rejzek, 1999**

Phytoecia (s.l.) behen Sama & Rejzek, 1999, Ent. Zeits., 109(8): 330. Type loc.: NE. Turkey, Gemecik W. Refahiye.

Centaurea urvillei DC. (***Asteraceae***) (Fig. 8) - NE. Turkey : Gemecik W. Refahiye, 2.VI.1998, 14 adults (MR).

In SAMA and REJZEK (1999) the host plant of **Phytoecia behen** was determined as a ***Centaurea species*** belonging probably to the group ***behen***. Here the determination is made more accurate - ***Centaurea urvillei*** DC. (*Asteraceae*) (Fig. 8). The behaviour of this species has been described in SAMA and REJZEK (1999).

Fig. 8 : **Centaurea urvillei** DC. (***Asteraceae***) : host plant of **Phytoecia** (s.l.) **behen** Sama & Rejzek, 1999

PHYTOECIA GENICULATA Mulsant, 1863

Phytoecia geniculata Mulsant, 1863, Long. France, 2: 420. Type loc.: Grèce, Constantinople.

According to BENSE (1995) the development is unknown.

Cirsium sp. (***Asteraceae***) – Turkey : Antalya, Perge env., 7.VII.1993, *ex larva* (GS) ; Israel : Jordan Valley, Mehola, 8.V.1995, *ex larva* (GS).
Notobasis syriaca (L.) Cass. (***Asteraceae***) - N. Jordan : Ajlun, Dayr Abu Said, 21.V.1999 and Ajlun (castle), 21.V.1999, *ex larva* (GS).
Silybum marianum (L.) Gaertn (***Asteraceae***) - N. Jordan : Ajlun, Dayr Abu Said, 21.V.1999, *ex larva* (GS) ; Irbid, Kufr Yuba, 17.V.1999, *ex larva* (GS).

PHYTOECIA MALACHITICA Lucas, 1849

Phytoecia malachitica Lucas, 1849, Expl. Alg. Col., 2: 509. Type loc.: Algérie, env. d'Arzew (Oran).

This interesting and rare species was first reported from **Cynoglossum cheirifolium** by PEYERIMHOFF (1911), and from **Anchusa** sp., and **Cerinthe gymnandra** by VILLIERS (1946). DUFFY (1957) and VIVES (1984) give ***Boraginaceae*** such as **Cerinthe, Cynoglossum, Anchusa**, and **Echium** as the host plants. According to SAMA (1988) the larval biology is unknown, it probably occurs in herbaceous plants of the family ***Boraginaceae***.

Cerinthe major L. (***Boraginaceae***) - Morocco : Azemmour (Casablanca), 4.IV.1989, many larvae found in stalks of living plants, adults in pupal cells from VIII. (GS) ; Algeria : Djurdjura (1700 m), V.1988, adults by sweeping (GS) ; Tunisia : Jendouba, IV.1990, two adults on the host plant (GS).

In North Africa ***Cerinthe major*** is the preferred host plant.

PHYTOECIA ALGERICA Desbrochers, 1870

Phytoecia algerica Desbrochers, 1870, Pet. Nouv. ent., 1(7): 125. Type loc.: Algérie, Bône.

Artemisia sp. (***Asteraceae***) – Algeria : Tizi Ouzou, Ft. d'Akfadou (1000-1400 m), 8.VI.1980, about 100 specimens on leaves (GS) ; idem, 15.IV.1988, 2 larvae and 1 pupa in the roots (GS).

PHYTOECIA PUSTULATA (Schrank, 1776)

Cerambyx pustulatus Schrank, 1776, Beitr. Naturg., 66. Type loc.: Austria.

DANILEVSKY and MIROSHNIKOV (1985) mention **Anthemis, Achillea, Tanacetum, Artemisia**, and "others" as host plants of this species. According to BENSE (1995) the development occurs in herbaceous plants (especially in **Achillea**, also in **Chrysanthemum, Pyrethrum**, and **Tanacetum**).

Artemisia sp. (***Asteraceae***) - Iran : Silan, along the road Astara-Ardabil (1000 m), 25.V.1999 (L. Saltini leg.) (GS).

PHYTOECIA KABATEKI Sama, 1997

Phytoecia kabateki Sama, 1997, Bioc. Mes., 13(4): 104. Type loc.: Syrie, Blūdān.

Ferula hermonis Boiss. (***Apiaceae***) (Fig. 2) – SW. Syria : Blūdān NW. Damascus, 5.VI.1997 (M. Formánek leg.) ; idem, 21/22.V.1998, 58 adults (MR) ; idem, 28/31.V.2000, 9 adults (GS).

This species was regularly observed hiding in special pockets formed by the leaf base of the host. The beetles were observed sitting on the leaves of the host only during their active time.

PHYTOECIA RUFIPES (Olivier, 1795) *ssp.* LATIOR Pic, 1895

Phytoecia rufipes v. latior Pic, 1895, Echange, 11(126): 66. Type loc.: Akbes.

In the case of of the nominate **Phytoecia rufipes** (Olivier, 1795) DANILEVSKY and MIROSHNIKOV (1985) mention **Foeniculum** (***Apiaceae***) as "one of the possible host plants". According to BENSE (1995) the development of the nominate **Phytoecia rufipes** (Olivier, 1795) occurs in herbaceous plants (**Foeniculum vulgare**, probably also in **Ferula galbanifera** and other ***Umbelliferae*** (means ***Apiaceae***, note by the authors)). **Foeniculum vulgare** is the preferred host of **Phytoecia rufipes** (Olivier, 1795) in Crete, Sicily, Spain, Portugal, etc. (CPS, GS).

Coriandrum cf. **sativum** L. (***Apiaceae***) - NW. Syria : Şlinfah E. Latakia (1500 m), 26/29.V.1998, 16 adults (MR).

BLEPISANIS MELANOCEPHALA (Fabricius, 1787)
Saperda melanocephala Fabricius, 1787, Mant. Ins., 1: 148. Type loc.: Tunisia, Bizerta.

Development according to SAMA (1988) is unknown. DUFFY (1957) reported it from **Carduus**.

Lavandula multifida L. (***Lamiaceae***) – Morocco : Haut Atlas, Tizi n'Test (2000 m), 15.VI.1986 and 22.VI.1991, several adults on stalks ; at the same time several larvae were found in the stalks (GS).

BLEPISANIS VITTIPENNIS (Reiche, 1877)
Phytoecia vittipennis Reiche, 1877, Bull. Soc. ent. Fr., 5(7): 146. Type loc.: Bulgaria in montibus Balkan dictis.

Achillea sp. (***Asteraceae***) - SE. Turkey : Adana, Hasanbeyli env., Nurdağı Geçidi (1150 m), 29.V.-1.VI.1995, 2 adults (MR) ; Lebanon : Zgharta, Horsh Ehden Natural Reserve (1300-1500 m) (GS); idem, Choûf, Jabal el Barouk : pass W. Kefraïa (1700 m), 4.VI.1997 (GS).

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