

**HOST PLANTS OF LONGHORN BEETLES (*COLEOPTERA* :  
*CERAMBYCIDAE*) FROM THE BALKAN PENINSULA, ASIA MINOR  
AND IRAN (PART II)**

by Martin REJZEK °, Gianfranco SAMA °°, Gabriel ALZIAR°°°  
and Jiří SÁDLO°°°°

° School of Chemical Sciences and Pharmacy, University of East Anglia,  
Norwich NR4 7TJ, UK ; e-mail : [m.rejzek@uea.ac.uk](mailto:m.rejzek@uea.ac.uk).

°° Via Raffaello, 84, I-47 023 Cesena, Italy ; e-mail :  
[g.sama@cesena.nettuno.it](mailto:g.sama@cesena.nettuno.it).

°°° Jardin Botanique de la Ville de Nice, 78 Corniche Fleurie, F-06200 Nice,  
France ; e-mail : [gabriel.alziar@ville-nice.fr](mailto:gabriel.alziar@ville-nice.fr).

°°°° Institute of Botany, Academy of Sciences of the Czech Republic, CZ-252  
43 Průhonice, Czech Republic ; e-mail : [saadlo@volny.cz](mailto:saadlo@volny.cz).

**Abstract**

Host plants of several *Cerambycidae* species occurring in Greece, Turkey, Syria, and Iran are discussed.

**Keywords**

*Coleoptera*, *Cerambycidae*, host plants, Greece, Turkey, Syria, Iran.

**Resume**

Les plantes-hôtes de nombreuses espèces de *Cerambycidae* de Grèce, Turquie, Syrie et Iran sont discutées dans cet article.

**Mots-cles**

*Coleoptera*, *Cerambycidae*, plantes-hôtes, Grèce, Turquie, Syrie, Iran.

**Introduction**

Longhorn beetles (*Cerambycidae*) are phytophagous insects whose larvae usually develop in living or dead woody plants (xylophagous species) or in living tissues of herbaceous plants (herb feeders). Both the xylophagous species and 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 concisely the biology of each species from the available literature. The work by DANILEVSKY and MIROSHNIKOV (1985) covers the region of the Caucasus mountains. In this book, the authors give an outline of the biology of each particular species where known. The biology of several species is not, however, mentioned. It is assumed that at the time of the book's release there was no reliable data available. Several papers specialising in host plants of *Cerambycidae* and dealing more or less with the study area are known to us : BODENHEIMER (1930) dealing with host plants of several xylophagous insect pests occurring in the former Palestine, BYTINSKI-SALZ (1956) dealing with *Cerambycidae* of Israel and giving host plants of several mainly xylophagous species, ADELI (1972) dealing mainly with xylophagous and some herb-feeding species occurring in Iran, HALPERIN and HOLZSCHUH (1993) listing 56 tree and shrub species, 8 herbs and one vegetable and dealing with Israeli *Cerambycidae* species associated with these plants, and REJZEK et al. (2001) dealing with host plants of several herb-feeding *Cerambycidae* mainly from the east Mediterranean region.

#### Material and Methods

The beetles and their host plants were recorded between 1993 and 2001 by the first two authors in localities situated in Greece, Turkey, Syria, and Iran. The adult beetles were captured individually on plants. 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 beginning 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 combination of these two approaches can ensure the complete relevance of the information on the ditrophic insect – host plant relationship. A limited number of records in this work apply to beetles reared from larvae found in roots or stalks of herbaceous plants or tissues of woody ones.

Along with the beetles, their host plants were collected and documented by herbarium specimens and also mainly by photographs. All photographs in this paper were taken by M. Rejzek. Samples of the herbaceous plants were usually collected in early spring when the adult beetles occur. However, the vegetation period of the plants in question was usually just starting. For this reason the majority of the herbarium specimens were incomplete (missing flower, fruits, seeds and other important features only

appearing later in the vegetation period). Consequently, the determination of the herbaceous plants was frequently only possible to the genera or a species group. In the case of the problematic plants other samples were collected later in the season to secure appropriate determination material. Using this method some of our previous determination published in REJZEK et al. (2001) was made more complete or was corrected.

If not stated otherwise the insects were determined by G. Sama and M. Rejzek and plants by G. Alziar and J. Sádlo. The herbarium, photographs of plants, and the beetles are deposited in the collections of G. Sama and M. Rejzek.

All plants were determined using DAVIS (1965-1988) (Turkey), MOUTERDE (1966-1983) (Syria), ZOHARY (1966-1986) (Syria), RECHINGER (1963-1997) (Iran), and TACHTADJIAN (1954-1995) (Turkey and Iran). With the exception of *Anchusa italica* Retz. (treated as *Anchusa azurea* Miller in DAVIS 1965-1988) the plant names were adopted from DAVIS (1965-1988) if mentioned in this work. 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 : *Cerambycidae* of the West Palaearctic Region (<http://www.uochb.cas.cz/~natur/cerambyx/index.htm>).

#### Abbreviations

(MR) = leg. Martin Rejzek or after a plant name = det. Martin Rejzek  
(JS) = det. Jiří Sádlo  
(GA) = det. Gabriel Alziar

#### Results

##### *Dissopachys pulvinata* Reitter, 1886

*Dissopachys pulvinata* Reitter, 1886, Deut. ent. Zeit., 30: 68. Type loc.: Turcmenien.

*Prunus* sp. (*Rosaceae*) (MR, 2001) – NE. Iran : prov. Golestan, Golestan forest 50 km NE. Mfnudašt, 700 m, 20.VI.2000, 4 adults and 3 larvae (adults hatched next year) were collected in dying or recently dead trunks of the host (MR) ; N. Iran : prov. Mazandarān, Čaltis, 3634N 5122E, 250-400 m, 21.-23.VI.2000, 13 adults were collected on trunks of the host in the late afternoon (MR).

We were not able to find any information in the literature regarding the biology of this very rare species and for this reason we thought it worth describing our recent observations. **Dissopachys pulvinata** is undoubtedly associated with a **Prunus** species. Typically, the host was recorded along brooks in deep valleys situated in the northern region of Elborz Mts. facing the Caspian Sea. The larvae develop in dying or recently dead trunks and larger diameter branches. Larvae of varying instars were collected together with adults and for this reason we believe that the development lasts at least 2 years. The adults of **Dissopachys pulvinata** regularly appeared in the late afternoon and could be observed whilst sitting on the lower parts of the trunks. Consequently, it is possible to conclude that the species is crepuscular.

**Trichoferus lunatus (Szallies, 1994)**

*Hesperophanes lunatus* Szallies, 1994, Entom. Zeit., 104(13): 261. Type loc.: SÖ Türkei, Mardin, Hop Gecidi.

**Quercus brantii** Lindley (*Fagaceae*) (MR, 2001) – SE. Turkey : Haberli (1020 m) 33 km SE. Midyat, 3717N 4135E, 17. and 19.V.2001, many larvae from living terminal twigs, adults hatched in VI. (MR).

**Trichoferus lunatus** has only recently been described according to a single specimen attracted to light (SZALLIES, 1994) and it is no surprise that there was no information regarding the biology of this highly interesting species. To our best knowledge the species has not been collected again since its description in 1994. The life history of **Trichoferus lunatus** resembles **Ropalopus varini** (Bedel, 1870) [= **Ropalopus spinicornis** (Abeille de Perrin, 1869)] to some extent (VLASÁK and REJZEK, 1998). In 2001 larvae of this species were collected in thin terminal twigs of living **Quercus brantii**. The females of **Trichoferus lunatus** oviposit into living terminal twigs. The young instar larvae girdle the twigs (severing the xylem) to interrupt the flow of water and solutes to the terminal leaves. This results in the slow death of the part of the twig distal to this girdle. The larvae continue mining in the dying part of the twig sometimes completely utilising it and leaving only the bark and a small part of the grain. Pupation occurs in the part distal to the girdle. The development lasts 1 year.

**Brachyta balcanica (Hampe, 1870)**

*Pachyta balcanica* Hampe, 1870, Berl. ent. Zeits., 14: 336. Type loc.: Balkan.

BENSE (1995) gives **Paeonia** as a possible host plant.

**Paeonia mascula** (L.) Miller ssp. **mascula** (*Paeoniaceae*) (JS, 2001) - Europ. Turkey : Poyralı 7 km E. Pınarhisar, 4138N 2736E, 5.V.2001, 8 adults (MR).

**Neoplocaederus scapularis (Fischer von Waldheim, 1821)**

*Cerambyx scapularis* Fischer v. Waldheim, 1821, Lettre à Pander: 15. Type loc.: Siberia.

**Ferula foetida** (Bunge) Regel (*Apiaceae*) (JS, 2001) (Figure 1) - W. Iran : prov. Lorestān, Dorūd 52 km SE. Bortūgerd, 3325N 4906E (1740 m), 13.VI.2000, 11 adults (MR).

**Asias chodjajii Holzschuh, 1974**

*Asias chodjajii* Holzschuh, 1974, Zeitschrift Arbeitsg. Österr. Ent., 25 (1973): 94. Type loc.: Iran - Elburz, 60 km östl. Minu-Dasht, Golestan Forest.

HOLZSCHUH (1974) collected larvae of this species in its host plant but did not give any information regarding its identity.

**Ephedra cf. intermedia** Schrenk & C. A. Mey (vel **pachyclada** Boiss. vel **procera** Fisch & Mey) (*Ephedraceae*) (JS, 2001 and GA, 2002) (Figure 2) – NE. Iran : prov. Khorāsān, Golestan forest 60 km NE. Mīntādašt, 3719N 5601E (980 m), 19.VI.2000, 24 adults and 1 larva (MR).

**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. REJZEK et al. (2001) gave **Verbascum** sp. (*Scrophulariaceae*) as a possible host plant.

Cf. *Cirsium* vel *Echinops* (*Asteraceae*) (JS, 2001) or *Cynareae* (= *Carduae*) (*Asteraceae*) (GA, 2002) - W. Iran : prov. Lorestān 40 km S. Alīgūdarz, 3308N 4928E (2440m), 12.VI.2000, 2 adults, P. Kabátek leg.

Although it is still only speculation, in contrast to its congeners, this species seems to be associated with herbaceous plants of the families *Scrophulariaceae* and *Asteraceae*. Such association can only be confirmed by finding larvae of this beetle.

**Plagionotus bobelayei (Brullé, 1832)**

*Clytus bobelayei* Brullé, 1832, Exp. Morée, Ins.: 253, Tav. 43, fig. 12. Type loc.: Morée.

= *Callidium speciosum* Adams, 1817 (nec Schneider, 1787).

According to DANILEVSKY and MIROSHNIKOV (1985) the species probably develops in *Malvaceae* (*Malva* and *Alcea*). According to BENSE (1995) the development is unknown, larvae probably feed in the roots of marsh mallow (*Althaea*, *Malvaceae*).

*Althaea officinalis* L. (*Malvaceae*) (JS, 2001) - N. Greece : Lithoro, VI.1993, many adults (MR).

*Alcea* cf. *sycophylla* Iljin & Nikitin (*Malvaceae*) (GA, 2002) - NE. Iran : prov. Khorāsān, Golestan forest 55 km NE. Mīnūdašt, 3720N 5600E (840 m), 17.VI.2000, 10 adults (MR).

*Plagionotus bobelayei* thus seems to be oligophagous on various *Malvaceae*.

**Dorcadion (Pedestredorcadion) brunneicolle Kraatz, 1873**

*Dorcadion brunneicolle* Kraatz, 1873, in: Küster, Käf. Eur., 29: 37. Type loc.: Persien.

*Iris songarica* Schvenk (*Iridaceae*) (JS, 2002) (Figure 3) - S. Iran : prov. Fārs, 155 km NE. Šīrāz, 20.IV.2002, 1 dead male (MR) ; pass 140 km NE. Šīrāz, 20.-21.IV.2002, many adults (MR).

All adults of *Dorcadion brunneicolle* were collected in tussocks of *Iris songarica*. A female was observed preparing an opening for oviposition by gnawing an aperture into the lower part of a living stalk. Later an egg was

collected. There is another *Dorcadion* sp. known (Švácha, personal commun. 2002) to be associated with an *Iris* sp.: *Dorcadion (Dzhungarodorcadion) mystacinum* Ballion, 1878, a species occurring in South Kazakhstan and in Kyrgyzia.

**Idactus iranicus Breuning, 1975**

*Idactus iranicus* Breuning, 1975, Entom. Basil., 1: 348. Type loc.: Iran, Abad Geno, 40 km N Bandar Abbas.

*Euphorbia larica* Boiss. (*Euphorbiaceae*) (JS, 2002) (Figure 5) - S. Iran : prov. Hormozgān, 12 km SW Fāryāb [NE. Bandar-e Abbās] 27.-28.IV.2002, 8 adults and a larva in a dead stalk (MR) ; Genū 30 km N. Bandar-e Abbās, 29.IV.2002, 1 adult (MR).

**Niphona grisea Breuning, 1938**

*Niphona grisea* Breuning, 1938, Festschr. E. Strand, 4 241. Type locality: Maskat, Arabia.

*Calotropis procera* (Ait.) Ait.f. (*Asclepiadaceae*) (JS, 2002) (Figure 6) - S. Iran : prov. Hormozgān, Genū 30 km N. Bandar-e Abbās, 23.IV.2002, 12 adults (MR).

**Agapanthia angelicae Reitter, 1898**

*Agapanthia angelicae*, 1898, Wien. Ent. Zeit., 17: 131. Type loc.: Transkaspien, Askhabad.

Cf. *Ferula hermonis* Boiss. (*Apiaceae*) (GA, 2000) - N. Iran : prov. Mazandarān 80 km SW. Čaltūs, 3609N 5117E (2870 m), 18.VI.1999, 3 adults (MR).

Cf. *Ferula hermonis* Boiss. (*Apiaceae*) (GA, 2000) - N. Iran : prov. Mazandarān 80 km SW. Čaltūs, 3609N 5117E (2870 m), 25/26.VI.2000, 10 adults (MR).

**Agapanthia fallax Holzschuh, 1974**

*Agapanthia fallax* Holzschuh, 1974, Zeitschrift Arbeitsg. Österr. Ent., 25 (1973): 95. Type loc.: Anatolien, Prov. Mus, Buglan gecidi.

HOLZSCHUH (1974) collected adults of this species on its host plant but did not give any information regarding its identity.

*Scorzonera* sp., sect. *Nervosae* Lipsch, cf. *Scorzonera latifolia* (Fisch. et Mey.) DC (*Asteraceae*) (JS, 2001) (Figure 7) - E. Turkey : Buglan Geçidi NW. Muş, 3856N 4108E, 21.-24.V.2001, 80 adults and attacked stalks observed (MR).

**Agapanthia frivaldszkyi Ganglbauer, 1884**

*Agapanthia frivaldszkyi* Ganglbauer, 1884, Verh. zool.-bot. Ges., 33 (1883): 112. Type loc.: Asia Minor.

According to BENSE (1995) the development is unknown. According to REJZEK et al. (2001) the species develops in *Serratula* sp. (*Asteraceae*). However, the determination of the host plant was not correct. Here, we wish to change it to *Cephalaria speciosa* Boiss. et Kotschy in Boiss. (*Dipsacaceae*).

*Cephalaria speciosa* Boiss. et Kotschy in Boiss. (*Dipsacaceae*) (JS, 2001) (Figure 8) - E. Turkey : Buglan Geçidi (1640 m) 40 km NW. Muş, 3856N 4109E, 22/23.VI.1999, 30 adults (MR).

*Cephalaria microcephala* Boiss. (*Dipsacaceae*) (JS, 2001) – NW. Iran : prov. Āzarbāyġān-e Garbī, Serou NW. Orūmiye, 3739N 4445E (1800 m), 9.VI.1999, 5 adults ; idem, 9/10.VI.2000, 3 adults (MR).

*Agapanthia frivaldszkyi* is thus very likely oligophagous on *Dipsacaceae*.

**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. KOVACS (1998) mentioned *Dipsacus laciniatus* (*Dipsacaceae*). REJZEK et al. (2001) gave *Cephalaria* and *Dipsacus fullonum* L. (*Dipsacaceae*). Moreover, they mentioned *Serratula* cf. *radiata* (Waldst. et Kit.) M.B. (*Asteraceae*) which, however, was based on incorrect determination of the plant. Here, we wish to change it to *Cephalaria cf. procera* (*Dipsacaceae*).

*Cephalaria cf. procera* (*Dipsacaceae*) (JS, 2001) (Figure 9) – E. Turkey : Sankamis 80 km NE. Horasan, 4018N 4229E, 25.VI.1999, many adults (MR).

*Cephalaria cf. procera* (*Dipsacaceae*) (JS, 2001) – NE. Turkey : Gemecik W. Refahiye, 2.VI.1998, 10 adults (MR).

*Agapanthia osmanlis* is clearly oligophagous on *Dipsacaceae*.

**Agapanthia persica Semenov, 1893**

*Agapanthia persica* Semenov, 1893, Hor. Soc. Ent. Ross., 27: 505. Type loc.: Persia borealis.

*Conium maculatum* L. (*Apiaceae*) (JS, 2001 and GA, 2002) – NE. Iran : prov. Khorāsān, Golestan forest 55 km NE. Mīnūdašt, 3720N 5600E (840 m), 17.VI.2000, 5 adults (MR).

**Agapanthia pustulifera Pic, 1905**

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

HALPERIN and HOLZSCHUH (1993) quoted *Asphodelus* spp., *Carduus* spp., *Carthamus* spp. and *Eremostachys laciniata* as the hosts of this species. REJZEK et al. (2001) gave *Centaurea* sp. (*Asteraceae*). Here, we wish to specify the same plant in more detail : *Centaurea (Calcitrapa) iberica* Trev. ex Sprengl. (*Asteraceae*).

*Centaurea (Calcitrapa) iberica* Trev. ex Sprengl. (*Asteraceae*) (JS, 2001 and GA, 2002) (Figure 10) – SW. Syria : Şalkhad SE. As Suwaydā, 19.V.1998, 10 adults (MR).

**Agapanthia simplicicornis Reitter, 1898**

*Agapanthia simplicicornis* Reitter, 1898, Wien. Ent. Zeit., 17: 133. Type loc.: Klein Asien, Mardin.

*Paeonia mascula* (L.) Miller ssp. *arietina* (Anders) Cullen et Heywood (= *P. wittmanniana* Hartw. ex Lindl. var. *wittmanniana* sensu Rechinger) (*Paeoniaceae*) (JS, 2001 and GA, 2002) (Figure 11) - E. Turkey : Buglan Geçidi NW. Muş, 3856N 4108E, 21.-24.V.2001, 5 adults on the plant (MR)

and 2 larvae and 1 pupa were found in dead stalks of the plant, later 1 male and 1 female hatched (leg. Stanislav Kadlec).

An association of an *Agapanthia* species with *Paeonia* is quite unique and as far as we know has never been reported before.

**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. REJZEK et al. (2001) quoted *Cirsium* sp. (*Asteraceae*) as a host.

*Onopordon carduchorum* Bormm. et Beauverd (*Asteraceae*) (JS, 2001 and GA, 2002) - SE. Turkey : Alannyurt E. Gercüş, 3735N 4139E, 18.V.2001, 4 adults (leg. Martin Johanides).

**Semnosia (s.str.) herminae (Reitter, 1890)**

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

DANILEVSKY and MIROSHNIKOV (1985) give *Ferula* (*Apiaceae*) as the host plant.

*Apiaceae*, genus et species indet. (GA, 2000) – NW. Iran : prov. Āzarbāyġān–e Garbī, Serou NW. Orūmye, 3739N 4445E (1800 m), 9/10.VI.2000, 15 adults (MR).

**Semnosia (s.str.) jakovlevi (Semenov, 1895)**

*Phytoecia (Mallosia) jakovlevi* Semenov, 1895, Hor. Soc. Ent. Ross., 29: 204. Type loc.: N. Iran, ad pedem montis Demawend.

Cf. *Ferula hermonis* Boiss. (*Apiaceae*) (GA, 2000) – N. Iran : prov. Mazandarān 80 km SW. Čalūs, 3609N 5117E (2870 m), 25/26.VI.2000, 8 adults (leg. M. Johanides and MR).

**Semnosia (s.str.) mirabilis (Faldermann, 1837)**

*Saperda mirabilis* Faldermann, 1837, Fauna Transc., 2: 283. Type loc.: Transcaucasia.

According to ADELI (1972) larvae of this species are in wood of *Quercus persica* (*Quercus persica* Jaub. et Spach = *Q. brantii* Lindley, note by authors).

Cf. *Ferula hermonis* Boiss. (*Apiaceae*) (GA, 2000) – N. Iran : prov. Mazandarān 80 km SW. Čalūs, 3609N 5117E (2870 m), 18.VI.1999, 1 adult landed on this plant (MR).

*Apiaceae*, genus et species indet. (GA, 2000) – NW. Iran : prov. Āzarbāyġān–e Garbī, Serou NW. Orūmye, 3739N 4445E (1800 m), 9/10.VI.2000, 9 adults (MR).

**Coptosia bithynensis (Ganglbauer, 1884)**

*Phytoecia bithynensis* Ganglbauer, 1884, Verh. zool.-bot. Ges., 33 (1883): 573. Type loc.: Kleinasien, Brussa.

DANILEVSKY and MIROSHNIKOV (1985) do not give any host plant of this species. REJZEK et al. (2001) gave several *Boraginaceae* plants : *Anchusa* cf. *italica* Retz., *Cynoglossum* cf. *foliosum* (Paine) Greuter et Burdet, and another *Anchusa* sp. as hosts of this beetle.

*Anchusa italica* Retz. (*Boraginaceae*) (JS, 2001) or *Anchusa* (*Boraginaceae*) (GA, 2002) – E. Turkey : 20 km NW. Tatvan, 3833N 4205E, 20.V.2001, many adults (MR).

*Rindera lanata* (Lam.) Bunge (*Boraginaceae*) (JS, 2001) (Figure 4) - E. Turkey : Buglan Geçidi NW. Muş, 3856N 4108E, 21.-24.V.2001, 2 adults (MR).

*Coptosia bithynensis* is clearly oligophagous on *Boraginaceae*.

**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. REJZEK et al. (2001) gave *Solenanthus stamineus* (Desf.) Wettst. (*Boraginaceae*) as the host of this species in Turkey.

*Anchusa italica* Retz. (*Boraginaceae*) (JS, 2001) or *Anchusa* (*Boraginaceae*) (GA, 2002) - E. Turkey : 20 km NW. Tatvan, 3833N 4205E, 20.V.2001, 2 adults (MR).

*Rindera lanata* (Lam.) Bunge (*Boraginaceae*) (JS, 2001 and GA, 2002) (Figure 4) - E. Turkey : Buglan Geçidi NW. Muş, 3856N 4108E, 21.-24.V.2001, 3 adults (MR).

In the light of the new data it seems likely that *Coptosia compacta* is oligophagous on *Boraginaceae* with, however, a strong preference for *Solenanthus stamineus*. The record published by DANILEVSKY and MIROSHNIKOV (1985) (*Ferula*, *Apiaceae*) should in our opinion be revised.

#### *Coptosia sancta* (Reiche, 1877)

*Phytoecia sancta* Reiche, 1877, Bull. Soc. Ent. France, 136. Type loc.: Nazareth in Palaestina.

*Anchusa italica* Retz. (*Boraginaceae*) (GA, 2002) - NW. Syria : Şlınfah E. Latakia (1500 m), 26/29.V.1998, 7 adults (MR).

#### *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. HALPERIN and HOLZSCHUH (1993) quoted *Phlomis* spp. and *Salvia dominica* as the hosts of this species. 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 Israel the species develops in *Eremostachys laciniata* (Y. Dorchin and E. Orbach, in litteris). REJZEK et al. (2001) quoted several *Lamiaceae* plants : *Salvia* cf. *hypoleuca* Benth., *Lamiaceae* gen. sp., *Stachys pinetorum* Boiss. et Bal., *Stachys recta* L., *Phlomis longifolia* Boiss. et Blanche, and *Phlomis tuberosa* L.

Cf. *Scutellaria* sp. (*Lamiaceae*) (JS, 2001) or *Scutellaria* gr. *altissima* (*Lamiaceae*) (GA, 2002) - E. Turkey : Buglan Geçidi NW. Muş, 3856N 4108E, 21.-24.V.2001, many adults (MR).

The species is obviously oligophagous on various *Lamiaceae*.

#### *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. REJZEK et al. (2001) gave *Scorzonera subintegra* (Boiss.) Thiébaud (*Asteraceae*) as a possible host.

*Malabaila lasiocarpa* Boiss. (*Apiaceae*) (JS, 2001) - E. Turkey : Buglan Geçidi NW. Muş, 3856N 4108E, 21.-24.V.2001, 1 adult was found in the vicinity of the stalk base of this plant.

In our opinion the preferred host plant of *Helladia armeniaca* still seems to remain an enigma (at least in Turkey). The beetle is usually very rare and most adults are captured on the wing. Although, in 2001 our group managed to find about 25 adults we are still not sure about the host. However, there are quite strong indications that the above mentioned *Apiaceae* plant might serve as a host at least in eastern Anatolia.

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

*Saperda diademata* Faldermann, 1837, Fauna Transc., 2: 297. Type loc.: Transcaucasia.

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

*Malabaila lasiocarpa* Boiss. (*Apiaceae*) (JS, 2001) - E. Turkey : Buglan Geçidi NW. Muş, 3856N 4108E, 21.-24.V.2001, 1 adult (leg. Petr Kabátek).

**Helladia ferrugata (Ganglbauer, 1884)**

*Phytoecia ferrugata* Ganglbauer, 1884, Verh. zool.-bot. Ges., 33 (1883): 574. Type loc.: Syrien, Chaifa.

In Israel Y. Dorchin and E. Orbach (*in litteris*) recorded this species from *Centaurea procurrens* Sieber ex Sprengl. (*Asteraceae*). REJZEK et al. (2001) gave *Centaurea* sp. (*Asteraceae*) as a host. Here, we wish to specify the same plant in more detail : *Centaurea (Calcitrapa) iberica* Trev. ex Sprengl. (*Asteraceae*).

*Centaurea (Calcitrapa) iberica* Trev. ex Sprengl. (*Asteraceae*) (JS, 2001) (Figure 10) – SW. Syria : Şalkhad SE. As Suwaydā, 19.V.1998, 3 adults (MR).

The species is very likely oligophagous on various *Asteraceae*.

**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. REJZEK et al. (2001) gave several *Asteraceae* plants : *Notobasis syriaca* (L.) Cass., *Cirsium* sp., and *Centaurea* sp. as hosts.

*Centaurea (Calcitrapa) hyalolepis* Boiss. (*Asteraceae*) (JS, 2001) - SE. Turkey : Halfeti (Euphrates river) NE. Gaziantep, 15.V.2001, many adults (MR).

*Centaurea (Calcitrapa) iberica* Trev. ex Sprengl. (*Asteraceae*) (JS, 2001 and GA, 2002) (Figure 10) - SE. Turkey, Hop Geçidi (Çınaralti vill.) 15 km NE. Mardin, 3723N 4051E, 16.V.2001, 3 adults (MR).

The species is obviously oligophagous on various *Asteraceae*.

**Helladia imperialis Sama et Rejzek, 2001**

*Helladia imperialis* Sama et Rejzek, 2001, Bocosme Mésogéen, Nice, 17(3): 239. Type loc.: NW Iran, Azarbaygan-e-Garbi, village Serou 50 km NW Orumiye, 37°39'N 44°45'E.

SAMA and REJZEK (2001) quoted *Centaurea imperialis* Hausskn. ex Bornm. (*Asteraceae*) as host plant of this species.

*Centaurea (Cynaroides) cynarocephala* Wagenitz (*Asteraceae*) (JS, 2001 and GA, 2002) - SE. Turkey : Alannyurt E. Gercüş, 3735N 4139E, 18.V.2001, 4 adults (MR).

*Centaurea (Calcitrapa) iberica* Trev. ex Sprengl. (*Asteraceae*) (JS, 2001 and GA, 2002) (Figure 10) - SE. Turkey, Hop Geçidi (Çınaralti vill.) 15 km NE. Mardin, 3723N 4051E, 16.V.2001, 20 adults (MR).

The species is obviously oligophagous on *Asteraceae*.

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

*Saperda millefolii* Steven, 1817, Mem. Soc. Nat. Moscow, 5: 317. Type loc.: Georgiewsk.

DANILEVSKY and MIROSHNIKOV (1985) do not mention any host plant. Analogously BENSE (1995) states the development as unknown. SIMANDL (2000) mentioned *Pulicaria dysenterica* (*Asteraceae*). REJZEK et al. (2001) quoted *Inula* sp. (*Asteraceae*) as the host.

*Tanacetum cilicium* (Boiss.) Grierson (*Asteraceae*) (JS, 2001) - E. Turkey : Buglan Geçidi NW. Muş, 3856N 4108E, 21.-24.V.2001, 30 adults (MR).

**Helladia plasoni (Ganglbauer, 1884)**

*Phytoecia plasoni* Ganglbauer, 1884, Verh. zool.-bot. Ges., 33 (1883): 570. Type loc.: Persien.

DANILEVSKY and MIROSHNIKOV (1985) do not mention any host plant of this species. REJZEK et al. (2001) mentioned *Gundelia tournefortii* L. (*Asteraceae*) as a possible host of this species. However, in the light of our new results, the last record does not seem very likely any more.

*Centaurea (Phaeopappus)*, cf. *Centaurea spectabilis* (Fisch et Mey) Schultz. Bip. vel *Centaurea aucheri* (DC) Wagenitz. (*Asteraceae*) (JS, 2001) or *Centaurea (Phaeopappus) spectabilis* (Fisch. et C. A. Mey.) Schultz-Bip (*Asteraceae*) (GA, 2002) (Figure 12) - E. Turkey : Buglan Geçidi NW. Muş, 3856N 4108E, 21.-24.V.2001, 30 adults landing on the host or sitting in the vicinity of the plant stalks (MR) and confirmed by 4 other entomologists.



**Helladia praetextata 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. REJZEK et al. (2001) quoted *Lapsana communis* L. (*Asteraceae*) as the host.

Probably *Asteraceae* (GA, 2002) - E. Turkey : Buglan Geçidi NW. Muş, 3856N 4108E, 21.-24.V.2001, 3 adults (MR).

**Helladia pretiosa (Faldermann, 1837) ssp. fatima (Ganglbauer, 1884)**

*Phytoecia fatima* Ganglbauer, 1884, Verh. zool.-bot. Ges., 33 (1883): 570. Type loc.: Persien.

According to DANILEVSKY and MIROSHNIKOV (1985) adults of this species can be found on various *Asteraceae*.

*Serratula oligocephala* DC. (*Asteraceae*) (JS, 2001 and GA, 2002) (Figure 13) - SE. Turkey : Hop Geçidi (Çınaraltı vill.) 15 km NE. Mardin, 3723N 4051E, 16.V.2001, 3 adults (MR).

*Onopordon carduchorum* Bornm. et Beauverd (*Asteraceae*) (JS, 2001 and GA, 2002) - SE. Turkey : Alannyurt E. Gercüş, 3735N 4139E, 18.V.2001, 5 adults (MR).

**Musaria anatolica Fuchs et Breuning, 1971**

*Phytoecia anatolica* Fuchs & Breuning, 1971, Ann. Nat. Hist. Mus. Wien, 75: 438. Type loc.: Misis östl. von Adana.

*Pimpinella anthriscoides* Boiss. var. *anthriscoides* (*Apiaceae*) (JS, 2001) (Figure 14) - E. Turkey : Buglan Geçidi NW. Muş, 3856N 4108E, 21.-24.V.2001, many adults (MR).

**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 the host plant of this species. REJZEK et al. (2001) gave *Eryngium* sp. (*Apiaceae*). Here, we wish to specify the same plant in more detail : *Eryngium billardieri* F. Delaroché (*Apiaceae*).

*Eryngium billardieri* F. Delaroché (*Apiaceae*) (JS, 2001 and GA, 2002) - E. Turkey : Van, Kuskun Kiran gec. (2200 m), 4/6.VI.1998 (GS) ; Tatvan env., 13.VI.1997, many adults (MR).

A strong association of this insect species with *Eryngium* is apparent. The species may even be monophagous but further data will be needed to confirm this.

**Neomusaria salvicola (Holzschuh, 1989)**

*Phytoecia (Neomusaria) salvicola* Holzschuh, 1989, Koleopterologische Rundschau, 59: 176. Type loc.: Anatolien, Elazığ, Harput.

HOLZSCHUH (1989) collected adults of this species on *Salvia candidissima* Vahl.

*Salvia* sp., cf. aff. *S. multicaulis* Vahl. (*Lamiaceae*) (JS, 2001) or *Salvia* (*Lamiaceae*) (GA, 2002) - E. Turkey, Harput NE. Elazığ, 3841N 3914E, 25.V.2001, 24 adults (MR).

**Phytoecia achilleae achilleae Holzschuh, 1971**

*Phytoecia achilleae* Holzschuh, 1971, Mitt. der Forst. Bundes-Versuchsanst., Wien, 94: 68. Type loc.: Anatolien, Amanusgebirge, Prov. Adana, Nurdağı geçidi.

HOLZSCHUH (1971) collected adults of this species on *Achillea*.

*Achillea* (*Asteraceae*) (GA, 2002) - E. Turkey : Buglan Geçidi NW. Muş, 3856N 4108E, 21.-24.V.2001, 18 adults (MR).

**Phytoecia katarinae Holzschuh, 1974**

*Phytoecia katarinae* Holzschuh, 1974, Zeitschrift Arbeitsg. Österr. Ent., 25(3/4): 99. Type loc.: Anatolien, Prov. Mus, Buglan gecidi.

Cf. *Scutellaria* sp. (*Lamiaceae*) (JS, 2001) or *Scutellaria* gr. *altissima* (*Lamiaceae*) (GA, 2002) (Figure 15) - E. Turkey : Buglan Geçidi NW. Muş, 3856N 4108E, 21.-24.V.2001, 20 adults (MR).

**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 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). REJZEK et al. (2001) gave *Coriandrum* cf. *sativum* L. (*Apiaceae*) but the record was based on an incorrect determination of the plant. Here, we wish to change it to *Cnidium orientale* Boiss. (*Apiaceae*).

*Cnidium orientale* Boiss. (*Apiaceae*) (JS, 2001 and GA, 2002) - NW. Syria : Şlınfah E. Latakia (1500 m), 26/29.V.1998, 16 adults (MR).

The species is very likely oligophagous on various *Apiaceae*.

**Pygoptosia speciosa (Frivaldszky, 1884)**

*Phytoecia speciosa* Frivaldszky, 1884, Term. Füzet., 8: 5. Type loc.: Kurdistan, Diyarbakır.

REJZEK et al. (2001) gave two *Asteraceae* plants : *Serratula cerinthifolia* (Sm.) Boiss. and *Serratula* cf. *kurdica* (*Asteraceae*). Here, we wish to specify the latter plant in more detail : *Serratula oligocephala* DC. (*Asteraceae*).

*Serratula oligocephala* DC. (*Asteraceae*) (JS, 2001) (Figure 13) – SE. Turkey : Adiyaman, Nemrut Dağı mts., Karadut env. (1400–1800 m), 2/3.VI.1995, 10 adults (MR).

*Serratula oligocephala* DC. (*Asteraceae*) (JS, 2001 and GA, 2002) (Figure 13) - SE. Turkey, Hop Geçidi (Çinaralti vill.) 15 km NE. Mardin, 3723N 4051E, 16.V.2001, 3 adults (MR).

**Blepisanis vittipennis (Reiche, 1877)**

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

DANILEVSKY and MIROSHNIKOV (1985) do not give any host plant. REJZEK et al. (2001) gave *Achillea* sp. (*Asteraceae*) as the host plant. The presented record, *Achillea biebersteinii* Afan. (*Asteraceae*), is a result of a more precise determination of the same plant.

*Achillea biebersteinii* Afan. (*Asteraceae*) (JS, 2001 and GA, 2002) - SE. Turkey : Adana, Hasanbeyli env., Nurdağı Geçidi (1150 m), 29.V.-I.VI.1995, 2 adults (MR).

**Acknowledgement**

We wish to thank Stanislav Kadlec, Petr Kabátek, and Martin Johanides for their contribution, Milan Marek for determination of several *Apiaceae* plants and Rebecca Rejzek for correcting the language of our manuscript. The project was in part financed by Academy of Sciences of the Czech Republic, grant no. AVOZ6005908.

**Literature**

ADELI, E., 1972 - Beitrag zur Kenntnis der im Forst schädlichen Insekten des Iran – *Z. ang. Ent.*, 70: 8-14.

ANONYMOUS - *Jordan, Syria & Lebanon* - Lonely Planet travel atlas, Lonely Planet & Steinghart Katzir Publishers, Hawthorn, Australia.

ANONYMOUS, 1990a – *Turkey* - RV Reise- und Verkehrsverlag GmbH, Berlin, Gütersloh, München, Stuttgart. Druck und Verarbeitung : Goldak, Berlin.

ANONYMOUS, 1990b – *Lebanon* - Bartolomew World Travel Map, Edinburgh.

ANONYMOUS, 1993/94 – *Iran* - RV Reise- und Verkehrsverlag GmbH, Berlin, Gütersloh, München, Potsdam/Werder, Stuttgart.

ANONYMOUS, 1997 – *Syria* - Kartographische Anstalt Freytag & Berndt U. Artaria, 1071 Wien.

BENSE, U., 1995 – *Longhorn Beetles, Illustrated Key to the Cerambycidae and Vesperidae of Europe* - Margraf Verlag, 512 p.

BODENHEIMER, F. S., 1930 – *Die Schädlingsfauna Palästinas* - P. Parey, Berlin.

BYTINSKI-SALZ, H., 1956 - The Cerambycidae of Israel - *Bull. Res. Council. Isr., Sect. B Zool.*, 5: 207-226.

DANILEVSKY, M. L., & MIROSHNIKOV, A. I., 1985 - *Cerambycidae of Caucasus. An identification key* - Krasnodar Station of Forest Protection, 428 p.

DAVIS, P. H., 1965-1988 - *Flora of Turkey and East Aegean Islands* – University press, Edinburgh, 8850 p.

HALPERIN, J., & HOLZSCHUH, C., 1993 - Host plants of Israeli Cerambycidae (Coleoptera) with new records – *Phytoparasitica*, 21(1): 23-37.

HOLZSCHUH, C., 1971 - Zwei neue *Phytoecia*-Arten (Col. Cerambycidae) aus Anatolien und dem Libanon - *Mitteilungen der Forstlichen Bundes-Versuchsanstalt Wien*, 94: 67-69.

HOLZSCHUH, C., 1974 (1973) - Neue Bockkäfer aus Pakistan, Iran, Anatolien und Mazedonien (Coleoptera: Cerambycidae) - *Zeitschrift der Arbeitsgemeinschaft Österr. Entomologen*, 25(3/4): 81-100.

HOLZSCHUH, C., 1989 - Beschreibung neuer Bockkäfer aus Europa und Asien (Cerambycidae, Col.) - *Koleopterologische Rundschau*, 59: 153-183.

KOVACS, T., 1998 (1997) - Food-plants and locality data of Hungarian longhorn beetles 2. (Coleoptera : Cerambycidae). [Magyarországi cincerek tapnovény- es lelöhelyadatai 2. (Coleoptera : Cerambycidae)] – *Fol. Hist. Nat. Mus. Matr.*, 22: 247-255.

MOUTERDE, P., 1966-1983 - *Nouvelle Flora du Liban et de la Syrie* - Dar el-Machreq Ed., Beyrouth, 4800 p.

RECHINGER, K. H., 1963-1997 – *Flora Iranica* – Graz, Akademischer Druck- und Verlagsanstalt, 22000 p.

REJZEK, M., SAMA, G., & ALZIAR, G., 2001 (2000) - Host Plants of Several Herb-feeding Cerambycidae Mainly from East Mediterranean Region (Coleoptera : Cerambycidae) – *Biocosme Méditerranéenne*, 17(4): 263-294.

SIMANDL, J., 2000 - The first known host plant for *Phytoecia millefolii* (Coleoptera : Cerambycidae) from Bulgaria - *Klapalekiana*, 36: 145-146.

SAMA G., & REJZEK M., 2001 (2000) - *Helladia imperialis*, espèce nouvelle de l'Iran (Coleoptera : Cerambycidae : Phytoeciini). [*Helladia imperialis* n.sp. from Iran (Coleoptera : Cerambycidae : Phytoeciini)] - *Biocosme Méditerranéenne*, 17(3): 239-246.

SZALLIES, A., (1994) - Drei neue Coleopteren-Arten aus der Türkei (Coleoptera : Prostomidae, Cerambycidae) - *Entomologische Zeitschrift*, 104: 259-263.

TACHTADJAN, A. L., 1954-1995 - *Flora Armenii* – Jerevan, 6000 p.

VLASÁK, J., & REJZEK, M., 1998 - Biology of *Ropalopus spinicornis* (Abeille de Perrin, 1869). (Coleoptera, Cerambycidae) - *Mitt. internat. entomol. Ver.*, 23(1/2), 53-61.

ZOHARY, M., 1966-1986 - *Flora Palaestina* – Israel Academy of Sciences and Humanities, Jerusalem, 4980 p.



Figure 1 : *Ferula foetida* (Bunge) Regel (*Apiaceae*) : host plant of *Neoplocaederus scapularis* (Fischer von Waldheim, 1821).



Figure 2 : *Ephedra* cf. *intermedia* Schrenk & C. A. Mey (vel *pachyclada* Boiss. vel *procera* Fisch & Mey) (*Ephedraceae*) : host plant of *Asias chodjajii* Holzschuh, 1974.



Figure 3 : *Iris songarica* Schvenk (*Iridaceae*) : host plant of *Dorcadion brunneicolle* Kraatz, 1873.



Figure 4 : *Rindera lanata* (Lam.) Bunge (*Borraginaceae*) : host plant of *Coptosia bithynensis* (Ganglbauer, 1884) and *Coptosia compacta* (Ménétries, 1832) s.l.



Figure 5 : *Euphorbia larica* Boiss. (*Euphorbiaceae*) : host plant of *Idactus iranicus* Breuning, 1975.



Figure 7 : *Scorzonera* sp., sect. *Nervosae* Lipsch, cf. *Scorzonera latifolia* (Fisch. et Mey.) DC (*Asteraceae*) : host plant of *Agapanthia fallax* Holzschuh, 1974.



Figure 6 : *Calotropis procera* (Ait.) Ait.f. (*Asclepiadaceae*) : host plant of *Niphona grisea* Breuning, 1938.



Figure 8 : *Cephalaria speciosa* Boiss. et Kotschy in Boiss. (*Dipsacaceae*) : host plant of *Agapanthia frivaldszkyi* Ganglbauer, 1884.



Figure 9 : *Cephalaria* cf. *procera* (*Dipsacaceae*) : host plant of *Agapanthia osmanlis* Reiche & Saulcy, 1858.



Figure 10 : *Centaurea* (*Calcitrapa*) *iberica* Trev. ex Sprengl. (*Asteraceae*) : host plant of *Agapanthia pustulifera* Pic, 1905, *Helladia ferrugata* (Ganglbauer, 1884), *Helladia humeralis* (Waltl, 1838), and *Helladia imperialis* Sama et Rejzek, 2001.



Figure 11 : *Paeonia masculita* (L.) Miller ssp. *arietina* (Anders) Cullen et Heywood (= *P. wittmanniana* Hartw. ex Lindl. var. *wittmanniana* sensu Rechner) (*Paeoniaceae*) : host plant of *Agapanthia simplicicornis* Reitter, 1898.



Figure 12 : *Centaurea* (*Phaeopappus*), cf. *Centaurea spectabilis* (Fisch et Mey) Schultz. Bip. vel *Centaurea aucheri* (DC) Wagenitz. (*Asteraceae*) or *Centaurea* (*Phaeopappus*) *spectabilis* (Fisch. et C. A. Mey.) Schultz-Bip (*Asteraceae*) : host plant of *Helladia plasoni* (Ganglbauer, 1884).



Figure 13 : *Serratula oligocephala* DC. (*Asteraceae*) : host plant of *Helladia pretiosa* (Faldermann, 1837) *ssp. fatima* (Ganglbauer, 1884) and *Pygoptosia speciosa* (Fridvaldszky, 1884).



Figure 15 : Cf. *Scutellaria* sp. (*Lamiaceae*) or *Scutellaria* gr. *altissima* (*Lamiaceae*) : host plant of *Phytoecia katarinae* Holzschuh, 1974



Figure 14 : *Pimpinella anthriscoides* Boiss. var. *anthriscoides* (*Apiaceae*) : host plant of *Musaria anatolica* Fuchs et Breuning, 1971