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EURYTOMID WASPS (HYMENOPTERA, CHALCIDOIDEA, EURYTOMIDAE) NEW FOR ROMANIAN FAUNA (II)

BY

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KEY WORDS: *Eurytomidae* (*Hymenoptera*, *Chalcidoidea*), Romania, distribution, hosts.

We present ten eurytomid wasps (*Hymenoptera*, *Chalcidoidea*, *Eurytomidae*) new for Romanian fauna: *Bruchophagus parvulus* Zerova, *Eurytoma castorella* Erdös, *E. elymi* Zerova, *E. harmoliticola* Zerova, *E. onobrycola* Zerova, *Tetramesa brevicollis* (Walker), *T. brevicornis* (Walker), *T. cornuta* (Walker), *T. longula* (Dalman) and *T. maderae* (Walker). For *Bruchophagus parvulus* Romania is in this moment the western limit of distribution area. Eight species was obtained for the first time from hosts in Romania. *Tetramesa brevicollis* and *T. brevicornis* are for the first time mentioned in literature from stems of *Festuca valesiaca*.

Introduction

Previously to present note in Romania there were mentioned about 87 species belonging to *Eurytomide* family /3/. This number of species appears after we reconsidered the taxonomic status of all recorded species in Romania in the concordance with the last revisions published in this group. The euritomid fauna of Romania is relatively well-known if we compare it with the species number of this family known in adjacent countries of Romania: 116 species in Bulgaria (Stojanova 1997, 1999, 2000, 2001, 2002); 49 species in ex-Yugoslavia (Bouček 1977), 99 species in Hungary (Erdös 1960), 60 species in ex-Czechoslovakia (Kalina 1989), 20 species in Republic of Moldavia (Bouček 1965), 176 species in the European part of ex-URSS (Zerova 1978), 184 species in Ukraine (Zerova 1978).

Materials and methods

Two species (*Bruchophagus parvulus* and *Eurytoma onobrycola*) were obtained by sweeping. Eight species were obtained by rearing in laboratory conditions: *Eurytoma castorella* from galls of *Tetramesa brevicornis* in stems of *Festuca valesiaca*, *E. elymi* from galls of *T. brischkei* in stems of *Leymus sabulosus*, *E. harmoliticola* from galls of *T. dispar* in stems of *Stipa pulcherrima*, *Tetramesa brevicollis* from stems of *Festuca valesiaca*, *T. brevicornis* from stems of *F. valesiaca*, *T. cornuta* from stems of *Elymus hispidus*, *T. longula* from stems of *Dactylis glomerata*, *T. maderae* from stems of *Triticum aestivum*.

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Results and discussions

1). ***Bruchophagus parvulus*** Zerova, 1994

Material examined: 1♀ 18.08.2003 Piatra Craiului National Park, Braşov.

Biology: unknown /7/.

Geographical distribution: Palearctic (Israel) /7/.

This species is for the first time mentioned in Romania and this country is in this moment the western limit of its distribution area.

2). ***Eurytoma castorella*** Erdös, 1969

(*E. festucarum* Erdös)

Material examined: 1♀1♂ 08.2003, 3♀2♂ 26.02.2004, 3♀ 7.03.2004, 13♀ 12.03.2004 from galls of *Tetramesa brevicornis* (Walker) (*Eurytomidae*) in stems of *Festuca valesiaca* Schleicher (*Poaceae*) collected on 22.07.2003 at Botanical Garden, Iaşi.

Biology: this species was obtained from galls of *Tetramesa brevicornis* in stems of *Festuca* spp. and probably from *T. airae* (Schlechtendal) from stems of *Aira* spp. /7/.

Geographical distribution: Palearctic (Hungary, Ukraine) /7/.

This species is for the first time mentioned in Romania and is for the first time reared from galls of *Tetramesa brevicornis* in stems of *Festuca valesiaca* in this country.

3). ***Eurytoma elymi*** Zerova, 1978

Material examined: 1♀ 2003, 1♀ 26.03.2004 from stems of *Leymus sabulosus* (Bieb.) (*Poaceae*) Tzvelev, collected at Vadu, Constanța; 3♀ 8.03.2004, 1♀ 12.03.2004 from stems of *L. sabulosus*, collected on 1.10.2003 at Agigea, Constanța.

Biology: this species was obtained from galls of *Tetramesa brischkei* (Schlechtendal) from stems of *Leymus sabulosus* /7/.

Geographical distribution: Palearctic (southern part of Ukraine, Bulgaria) /4, 7/.

This species is for the first time mentioned in Romania and is for the first time reared from galls of *Tetramesa brischkei* in stems of *Leymus sabulosus* in this country.

4). ***Eurytoma harmoliticola*** Zerova, 1977

Material examined: 2 ♀ 08.2003 from galls of *Tetramesa dispar* Zerova (*Eurytomidae*) in stems of *Stipa pulcherrima* C. Koch (*Poaceae*) collected on 3.07.2003 at Valea lui David, Iaşi.

Biology: this species was obtained from galls of *Tetramesa dispar* in stems of *Stipa capillata* L. /7/.

Geographical distribution: Palearctic (southern part of Ukraine, south-eastern part of Kazakhstan, Bulgaria) /5, 7/.

This species is for the first time mentioned in Romania and is for the first time reared from galls of *Tetramesa dispar* in stems of *Stipa pulcherrima* in this country.

5). ***Eurytoma onobrycola*** Zerova, 1994

Material examined: 1♀ 9.08.2003 Probota, Iaşi.

Biology: the larvae are feeding in seeds of *Onobrychis transcaucasica* Grossh. (*Fabaceae*) /7/.

Geographical distribution: Palearctic (Dagestan) /7/.

This species is for the first time mentioned in Romania and this country is in this moment the western limit of its distribution area.

6). ***Tetramesa brevicollis*** (Walker, 1836)

(*Isosoma brevicolle* Walker; *I. hieronymi* Hedicke; *I. hieronymi* Schlechtendal; *Isthmosoma hieronymi* (Schlechtendal), *Harmolita hieronymi* (Schlechtendal))

Material examined: 1♀ 7.03.2004, 1♀ 20.03.2004 from stems of *Festuca valesiaca* Schleicher (*Poaceae*) collected on 22.07.2003 at Botanical Garden, Iaşi.

Biology: the larvae are feeding inside the stems of few species of *Festuca* (*F. rupicola*

Heuffel, *F. ovina* L, (*F. glauca*), *F. rubra* L., *F. duriuscula* L.), making roundly, large galls. Inside one gall there is one larva. One gall have 1,5-2 mm in diameter, being very visible. The galls were found in the wood sides and glades in the coniferous forests. The galls weren't found in the very damp and large places /6, 8/.

Geographical distribution: Palearctic (United Kingdom, Ireland, Germany, Bosnia Herzegovina, Cechia, Slovakia, Hungary, Bulgaria, European part of the ex-USSR, Kazakhstan) /2, 5, 6, 8/.

This species is for the first time mentioned in Romania and is for the first time mentioned in literature from stems of *Festuca valesiaca*.

7). ***Tetramesa brevicornis*** (Walker, 1832)

(*Harmolita ruschkai* (Hedicke); *Isosoma brevicorne* Walker; *I. clavicorne* Walker; *I. clavicornis* Walker; *I. depressum* Schlechtendal; *I. ruschkai* Hedicke; *I. tibiale* Walker; *I. tibialis* Walker)

Material examined: 1♀1♂ 12.03.2004 from stems of *Festuca valesiaca* Schleicher (*Poaceae*) collected on 22.07.2003 at Botanical Garden, Iaşi.

Biology: the larvae are feeding inside the stems of few species of *Festuca* (*F. rupicola* Heuffel (*F. sulcata*), *F. ovina* L, *F. rubra* L.) making galls with different shape and size that make a very visible deformation of the stem. Inside one gall there are many larval chambers. In one gall can be tenths of larvae, every one in his larval chamber. It's a common species found in the steppe regions and in the coniferous and medley forests, usually in sunny and large glades and wood sides /6, 8/. This species was also obtained from stems of *Festuca wagneri* (Degen, Thaisz & Flatt) Krajina /2/.

Geographical distribution: Palearctic (United Kingdom, Netherlands, Germany, Cechia, Slovakia, ex-Yugoslavia (Serbia), Hungary and central region of the European part of the ex-USSR) /2, 6, 8/.

This species is for the first time mentioned in Romania and is for the first time mentioned in literature from stems of *Festuca valesiaca*.

8). ***Tetramesa cornuta*** (Walker, 1832)

(*Harmolita agropyrophila* Phillips & Emery; *H. cornuta* (Walker); *Isosoma cornutum* Walker; *I. dissimile* Walker; *Tetramesa agropyrophilum* (Phillips & Emery)

Material examined: 1♂ 08.2003 from stems of *Elymus hispidus* (Opiz) Melderis (*Agropyron intermedium* (Host) Beauv.) (*Poaceae*) collected on 23.06.2002 at Botanical Garden, Iaşi.

Biology: the larvae are feeding solitary above the knots inside the stems of *Elymus repens* (L.) Gould and *E. hispidus* (Opiz) Melderis (*Agropyron intermedium* (Host) Beauv (var. *trichophorum* (Link) Halac.)). The galls are not visible outside the stems. It's a common species found in the steppe regions, wood sides and glades from various kind of forests /6, 8/.

Geographical distribution: Holarctic (North America (U.S.A.), United Kingdom, Sweden, Cechia, Slovakia, Hungary, European part of the ex-USSR (Moldova, Ukraine), Kazakhstan) /2, 6, 8/.

This species is for the first time mentioned in Romania and is for the first time reared from stems of *Elymus hispidus* in this country.

9). ***Tetramesa longula*** (Dalman, 1820)

(*Eurytoma longula* Dalman; *Harmolita dactylicola* Phillips & Emery; *Harmolita longula* (Dalman); *Isosoma longulum* (Dalman); *Tetramesa dactylicola* (Phillips & Emery)

Material examined: 3♀1♂ 08.2003 from stems of *Dactylis glomerata* L. (*Poaceae*) collected on 23.06.2002 at Botanical Garden, Iaşi.

Biology: the larvae are feeding solitary, without making a visible deformation of the stem, above the knots, inside the stems of *Dactylis glomerata*. It's a common species found in the places where *D. glomerata* is in great number. The Claridge's data (1961) that there are two generations of this species weren't confirmed by Zerova (1976) /6, 8/.

Geographical distribution: Holarctic (North America (U.S.A.), United Kingdom, Ireland, Germany, Sweden, central region of the European part of the ex-USSR, northern part of Caucasus) /2, 6, 8/.

This species is for the first time mentioned in Romania and is for the first time reared from stems of *Dactylis glomerata* in this country.

10). ***Tetramesa maderae*** (Walker, 1849)

(*Harmolita grandis minutum* (Howard); *H. grandis* (Riley); (*H. turkestanica* Gussakovskiy); *Isosoma apterum* Portschinsky; *I. grande minutum* Howard; *I. grandis* Riley; *I. grande* Riley; *I.* (*Philachyra*) *grande* Riley; *I. maderae* Walker; *I. tritici* Riley; *Philachyra ips* Walker; *Philachyra aptera* (Portschinsky); *Tetramesa aptera* (Portschinsky); *T. grande* (Riley); *Urios vestali* Girault)

Material examined: 1 ♀ spring of 2003 from stems of *Triticum aestivum* L. (*Poaceae*) collected on autumn 2002 from a wheat crop beside "Valea lui David" hayfields natural reserve, Iaşi.

Biology: this species is a pest of *Triticum* spp. Rimsky-Korsakov (1914) observed the biology of this species in the southern part of Ukraine. The first generation emerges in April and is apterous. The eggs are put in the very young wheat stems and the larva destroys the vegetative apex damaging the stem. This generation can be a serious pest. The pupa appears to the end of May and the winged adults of the second generation at the beginning of June. The summer generation females put the eggs in the stems above the knots where the larva will feed. The second generation larvae pupating in autumn and this is the over wintering stage. It was proved experimentally that there are two generations of this species by Wedster (1892) and confirmed by Rimsky-Korsakov (1914). In the present this species is seldom found but in the ninetieth century and at the beginning of the twenty century was recorded massive population explosions. The males are a rarity /6, 8/. The association of this species with the following plants: *Bromus ciliatus* L., *Elymus glaucus* Buckl. and *Hordeum vulgare* L. needs confirmation /2/.

Geographical distribution: Holarctic (North America (Canada, U.S.A., Mexico), United Kingdom, Madeira, Italy, Hungary, European part of the ex-USSR (Ukraine, Byelorussia), northern part of Caucasus, Kazakhstan, Uzbekistan, Tajikistan, Iran, Israel, Turkey /1, 2, 6, 8/.

This species is for the first time mentioned in Romania and is for the first time reared from stems of *Triticum aestivum* in this country.

Conclusions

Together with these ten species presented above the number of eurytomid wasps (*Hymenoptera, Chalcidoidea, Eurytomidae*) recorded in Romania reaches to ninety-seven.

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