

Parasitoids reared from galls of *Andricus caliciformis*, *A. conglomeratus*, *A. coriarius*, *A. coronatus* and *A. lignicolus* in Hungary (Hymenoptera: Cynipidae)

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Abstract – Lists of parasitoids reared from *Andricus caliciformis* (GIRAUD, 1859) (8 species), *A. conglomeratus* (GIRAUD, 1859) (20), *A. coriarius* (HARTIG, 1843) (24), *A. coronatus* (GIRAUD, 1859) (11), and *A. lignicolus* (HARTIG, 1840) (25) are given. Lists presented here are the most complete records of the parasitoid assemblages of these cynipid species.

Key words – Hymenoptera, Cynipidae, *Andricus*, parasitoids, Hungary.

INTRODUCTION

Andricus caliciformis (GIRAUD, 1859), distributed in Central and South Europe, produces only asexual generation during its annual lifecycle which induces bud galls on *Quercus petraea*, *Q. pubescens*, *Q. robur*, *Q. hartwissiana*, *Q. farnetto*, *Q. pedunculiflora*, *Q. lusitanica* and *Q. petraea* ‘laciniata’ (AMBRUS 1974).

Andricus conglomeratus (GIRAUD, 1859), distributed in Central and East Europe, also recorded from Iran (CHODJAI 1980), produces only asexual generation during its annual lifecycle which induces bud galls, normally in groups, on shoots of *Quercus petraea*, *Q. pubescens*, *Q. robur*, *Q. farnetto*, *Q. dalechampii* and also on exotic *Q. petraea* var. *mespilifolia* (AMBRUS, 1974).

Andricus coriarius (HARTIG, 1843) is widespread throughout Europe to Asia Minor (Turkey), know to occur in Iran (CHODJAI 1980) and Transcaucasia (MAISURADZE 1962); produces only asexual generation during its annual lifecycle

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which induces bud galls on *Quercus petraea*, *Q. pubescens*, *Q. robur*, *Q. farnetto*; also on *Q. virgiliana* (IONESCU 1973); *Q. dalechampii* and *Q. hartwissiana* (VASSILEVA-SAMNALIEVA 1985); *Q. pyrenaica*, *Q. faginea*, *Q. canariensis*; also *Q. macranthera* and *Q. iberica* (MAISURADZE 1962); *Q. lusitanica* (DALLA TORRE & KIEFFER 1910).

Andricus coronatus (GIRAUD, 1859), distributed throughout Central Europe, Balkan Peninsula, Italy, produces only asexual generation during its annual life-cycle which induces bud galls on *Quercus petraea*, *Q. pubescens*, *Q. robur* and *Q. farnetto*. VASSILEVA-SAMNALIEVA (1985) recorded this species from *Q. cerris* but this record must be confirmed.

Andricus lignicolus (HARTIG, 1840), distributed throughout Europe and Asia Minor, produces two generations during its annual lifecycle. The asexual generation develops in summer-autumn in buds of *Quercus petraea*, *Q. pubescens*, *Q. robur*, *Q. cerris*, *Q. hartwissiana*, *Q. farnetto*, *Q. pyrenaica*, *Q. faginea*, *Q. canariensis* and *Q. fruticosa*. The sexual generation, described as *Andricus lignicolus* var. *vanheurni* by DOCTERS VAN LEEUWEN & DEKHUIJZEN-MAASLAND (1958), develops in spring in buds of *Quercus cerris* only. Later, PATRICIA WALKER (Imperial College at Silkwood Park, United Kingdom – pers. comm.) experimentally obtained the sexual generation of *A. lignicolus* on *Q. cerris* in Great Britain. The authors recorded the sexual generation of this cynipid species in Hungary as well. Today, *A. lignicolus* is widespread and often the most abundant cynipid species at locations where it is present.

Below we list the parasitoid species associated with the galls of the five above mentioned cynipid species complemented with the countries from where they were recorded, and the localities, if the records come from Hungary.

As for the records from Hungary, the total number of reared parasitoids is given, followed by the number of males and females in brackets; then followed with sex ratio (males: females). Literature data are also included. Host relationships found by the authors are abbreviated as (A).

Parasitoid complexes of the five studied *Andricus* species are summarized in the Table 1.

Table 1. Comparison of *Andricus caliciformis*, *A. conglomeratus*, *A. coriarius*, *A. coronatus* and *A. lignicolus* parasitoid complexes

Parasitoid species	<i>caliciformis</i>	<i>conglomeratus</i>	<i>coriarius</i>	<i>coronatus</i>	<i>lignicolus</i>
<i>Sycophila biguttata</i>	+	+	+	+	+
<i>S. flavicollis</i>		+	+		
<i>S. iracemae</i>			+		
<i>S. variegata</i>		+	+		+

Parasitoid species	<i>caliciformis</i>	<i>conglomeratus</i>	<i>coriarius</i>	<i>coronatus</i>	<i>lignicolus</i>
<i>Eurytoma brunniventris</i>	+	+	+	+	+
<i>E. pistacina</i>	+	+			
<i>Megastigmus dorsalis</i>	+	+	+	+	+
<i>M. stigmatizans</i>			+	+	
<i>Torymus affinis</i>		+			
<i>T. auratus</i>		+		+	+
<i>T. cyaneus</i>			+		
<i>Ormyrus nitidulus</i>	+	+	+	+	+
<i>O. pomaceus</i>	+	+	+	+	+
<i>Cyrtoptyx robustus</i>			+		
<i>Caenacis lauta</i>		+	+		+
<i>Cecidostiba fungosa</i>	+	+	+	+	+
<i>C. saportai</i>			+		
<i>C. semifascia</i>		+			+
<i>Hobbia stenonota</i>		+	+		
<i>Mesopolobus amaenus</i>			+		+
<i>M. dubius</i>					+
<i>M. fasciiventris</i>		+	+		+
<i>M. fuscipes</i>					+*
<i>M. sericeus</i>		+		+	+
<i>M. tibialis</i>					+**
<i>M. xanthocerus</i>					+*
<i>Eupelmus annulatus</i>	+	+	+	+	+
<i>E. rostratus</i>			+		+
<i>E. urozonus</i>		+	+		+
<i>E. vesicularis</i>		+	+		
<i>Aulogymnus arsames</i>		+			
<i>A. skianeuros</i>			+		+
<i>A. trilineatus</i>		+	+	+	+
<i>Aprostocetus aethiops</i>					+
<i>Pediobius lysis</i>			+		

* – reared from sexual galls only; ** – reared from both sexual and asexual galls

Key to countries: AT – Austria, BE – Belgium, BG – Bulgaria, ES – Spain, FR – France, GB – Great Britain, GE – Germany, HR – Croatia, HU – Hungary, IT – Italy, MD – Moldavia, RO – Romania, NL – The Netherlands, UA – Ukraine.

LISTS OF SPECIES

Andricus caliciformis (GIRAUD, 1859)

Eurytomidae

Sycophila biguttata (SWEDERUS, 1795) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. caliciformis*. RO (A).

Sycophila sp. – Nógrád county, Szentkút: 1(0+1).

Eurytoma brunniventris RATZEBURG, 1852 – Heves county, Felsőtárkány: 2(0+2); Nógrád county, Szentkút: 1(0+1). RO (ANDRIESCU 1974).

Eurytoma pistacina RONDANI, 1877 – Nógrád county, Szentkút: 1(0+1).

Torymidae

Megastigmus dorsalis (FABRICIUS, 1798) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. caliciformis*. RO (ANDRIESCU 1974).

Ormyridae

Ormyrus nitidulus (FABRICIUS, 1804) – Budapest: 2(0+2).

Ormyrus pomaceus (GEOFFROY in FOURCROY, 1785) (= *punctiger* WESTWOOD, 1882) – Heves county, Felsőtárkány: 1(0+1).

Pteromalidae

Cecidostiba fungosa (GEOFFROY in FOURCROY, 1785) – Győr-Moson-Sopron county, Sopron: 8(4+4).

Eupelmidae

Eupelmus annulatus NEES, 1834 – Heves county, Felsőtárkány: 11(6+5).

Andricus conglomeratus (GIRAUD, 1859)

Eurytomidae

Sycophila biguttata (SWEDERUS, 1795) – Heves county, Felsőtárkány: 2(0+2); Nógrád county, Szentkút: 1(0+1); Zala county, Pölöske: 2(0+2). RO (ANDRIESCU 1974).

Sycophila flavicollis (WALKER, 1834) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. conglomeratus*. RO (A).

Sycophila variegata (CURTIS, 1831) – Győr-Moson-Sopron county, Sopron, Károly-magaslat: 1(1+0). RO (ANDRIESCU 1974).

Eurytoma brunniventris RATZEBURG, 1852 – Borsod-Abaúj-Zemplén county, Bánhorváti: 3(3+0); Győr-Moson-Sopron county, Sopron: 1(0+1); Győr-Moson-Sopron county, Sopron, Károly-magaslat: 114(55+59); Győr-Moson-Sopron county, Sopron, Szárhalmi-erdő: 3(0+3); Heves county,

Felsőtárkány: 5(0+5); Heves county, Kál: 8(1+7); Heves county, Mátra Mts, Mátraháza: 5(0+5); Heves county, Noszvaj, Szőlőske: 2(1+1); Nógrád county, Szentkút: 19(1+18); Zala county, Pölöske: 7(2+5). Sex ratio 1:1.6. RO (A).

Eurytoma pistacina RONDANI, 1877 – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. conglomeratus*. HR (BOUČEK 1977), RO (ANDRIESCU 1974).

Torymidae

Megastigmus dorsalis (FABRICIUS, 1798) – Győr-Moson-Sopron county, Sopron, Károly-magaslat: 4(3+1); Pest county, Isaszeg: 3(1+2); Nógrád county, Szentkút: 7(3+4); Zala county, Pölöske: 1(0+1). Sex ratio 1:1. BG (ANDRIESCU 1974), RO (ANDRIESCU 1974), UA (A).

Torymus affinis (FONSCOLOMBE, 1832) – Győr-Moson-Sopron county, Sopron, Károly-magaslat: 5(1+4).

Torymus auratus (MÜLLER, 1764) (= *nitens* WALKER, 1833 = *nigricornis* BOHEMAN, 1834) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. conglomeratus*. RO (ANDRIESCU 1974), UA (A).

Torymus sp. – Győr-Moson-Sopron county, Sopron, Károly-magaslat: 1(1+0).

Ormyridae

Ormyrus nitidulus (FABRICIUS, 1804) – Győr-Moson-Sopron county, Sopron, Károly-magaslat: 12(0+12); Győr-Moson-Sopron county, Vitnyéd: 1(0+1); Heves county, Mátra Mts, Mátraháza: 3(1+2); Nógrád county, Szentkút: 3(1+2). RO (ANDRIESCU 1974), UA (A).

Ormyrus pomaceus (GEOFFROY in FOURCROY, 1785) (= *punctiger* WESTWOOD, 1882) – Budapest: 2(0+2); Győr-Moson-Sopron county, Sopron, Károly-magaslat: 1(0+1); Heves county, Noszvaj, Szőlőske: 1(0+1). MD (TALICKIJ & KUSLICKIJ 1990), RO (ANDRIESCU 1974).

Pteromalidae

Caenacis lauta (WALKER, 1835) – Győr-Moson-Sopron county, Sopron, Károly-magaslat: 22(10+12); Nógrád county, Szentkút: 1(0+1); Zala county, Pölöske: 1(0+1). RO (A).

Cecidostiba fungosa (GEOFFROY, 1785) – Győr-Moson-Sopron county, Sopron, Károly-magaslat: 6(0+6); Heves county, Felsőtárkány: 1(1+0). RO (A).

Cecidostiba semifascia (WALKER, 1835) – HU (A).

Hobbia stenonota (RATZEBURG, 1848) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. conglomeratus*. RO (ANDRIESCU 1974).

Mesopolobus fasciiventris WESTWOOD, 1833 – Győr-Moson-Sopron county, Sopron, Károly-magaslat: 3(1+2). RO (ANDRIESCU 1974).

Mesopolobus sericeus (FOERSTER, 1870) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. conglomeratus*. HR (A).

Eupelmidae

Eupelmus annulatus NEES, 1834 – Győr-Moson-Sopron county, Sopron, Károly-magaslat: 11(0+11). AT (RUSCHKA 1921), RO (ANDRIESCU 1974).

Eupelmus urozonus DALMAN, 1820 – Győr-Moson-Sopron county, Sopron: 1(0+1); Nógrád county, Szentkút: 2(1+2). AT (RUSCHKA 1921), RO (ANDRIESCU 1974).

Eupelmus vesicularis (RETZIUS, 1783) – Győr-Moson-Sopron county, Sopron, Károly-magaslat: 5(1+4). RO (A).

Eulophidae

Aulogymnus arsames (WALKER, 1838) – HU (A).

Aulogymnus trilineatus (MAYR, 1877) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. conglomeratus*. RO (A).

Andricus coriarius (HARTIG, 1843)

Eurytomidae

Sycophila biguttata (SWEDERUS, 1795) – Győr-Moson-Sopron county, Sopron: 6(0+6); Pest county, Gödöllő, Arborétum: 4(0+4). ES (NIEVES ALDREY 1983b, PUJADE-VILLAR 1994), RO (ANDRIESCU 1974).

Sycophila flavicollis (WALKER, 1834) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. coriarius*. ES (NIEVES ALDREY 1983b).

Sycophila iracemae NIEVES, 1983 – Unknown from the Hungarian fauna. ES (NIEVES ALDREY 1983b).

Sycophila variegata (CURTIS, 1831) – Komárom-Esztergom county, Esztergom: 1(1+0); Pest county, Gödöllő, Arborétum: 3(1+2). ES (NIEVES ALDREY 1983b).

Eurytoma brunniventris RATZEBURG, 1852 – Győr-Moson-Sopron county, Sopron: 1(0+1); Komárom-Esztergom county, Esztergom: 2(0+2); Nógrád county, Alsópetény: 1(0+1); Pest county, Gödöllő, Arborétum: 8(1+7). ES, RO (A).

Torymidae

Megastigmus dorsalis (FABRICIUS, 1798) – Győr-Moson-Sopron county, Sopron: 15(9+6); Pest county, Gödöllő, Arborétum: 5(2+3). ES (NIEVES ALDREY 1984a; PUJADE-VILLAR 1993), RO (A).

Megastigmus stigmatizans (FABRICIUS, 1798) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. coriarius*. ES (PUJADE-VILLAR 1993).

Torymus cyaneus WALKER, 1847 (= *lazulinus* FOERSTER, 1859) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. coriarius*. IT (FULMEK 1968; this record must be confirmed).

Ormyridae

Ormyrus nitidulus (FABRICIUS, 1804) – Győr-Moson-Sopron county, Sopron: 3(2+1); Komárom-Esztergom county, Esztergom: 8(4+4). ES (NIEVES ALDREY 1984b, PUJADE-VILLAR 1989b), IT (GRAHAM 1996), UA (A).

Ormyrus pomaceus (GEOFFROY in FOURCROY, 1785) (= *punctiger* WESTWOOD, 1882) – Budapest: 1(0+1). ES (NIEVES ALDREY 1984b, PUJADE-VILLAR 1989b).

Pteromalidae

Cyrtoptyx robustus (MASI, 1907) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. coriarius*. ES (NIEVES ALDREY 1982b), HR (BOUČEK 1977), IT (MASI 1907).

Caenacis lauta (WALKER, 1835) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. coriarius*. ES (NIEVES ALDREY 1982b).

Cecidostiba fungosa (GEOFFROY, 1785) – Győr-Moson-Sopron county, Sopron: 8(3+5); Pest county, Gödöllő, Arborétum: 10(4+6). ES (NIEVES ALDREY 1982b), HR (FAHRINGER 1921).

Cecidostiba saportai (GRAHAM, 1984) – Unknown from the Hungarian fauna. FR (GRAHAM 1984).

Hobbya stenonota (RATZEBURG, 1848) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. coriarius*. ES (NIEVES ALDREY 1982b).

Mesopolobus amaeus (WALKER, 1834) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. coriarius*. ES (NIEVES ALDREY 1982b).

Mesopolobus fasciventris WESTWOOD, 1833 – Pest county, Gödöllő, Arborétum: 1(1+0).

Eupelmidae

Eupelmus annulatus NEES, 1834 – HU (ERDŐS 1947), AT (RUSCHKA 1921), ES (NIEVES ALDREY 1982a, PUJADE-VILLAR 1989a), FR (A).

Eupelmus rostratus RUSCHKA, 1921 – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. coriarius*. AT (RUSCHKA 1921).

Eupelmus urozonus DALMAN, 1820 – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. coriarius*. AT (RUSCHKA 1921), ES (NIEVES ALDREY 1982a, PUJADE-VILLAR 1989a).

Eupelmus vesicularis (RETZIUS, 1783) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. coriarius*. ES (NIEVES ALDREY 1982a).

Eulophidae

Aulogymnus skianeuros (RATZEBURG, 1844) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. coriarius*. GE, IT (FULMEK 1968; this record must be confirmed).

Aulogymnus trilineatus (MAYR, 1877) – Budapest: 20(14+6); Győr-Moson-Sopron county, Sopron: 17(5+12). ES (NIEVES ALDREY 1983a, PUJADE-VILLAR 1991), HR (FAHRINGER 1921).

Pediobius lysis (WALKER, 1839) – FULMEK (1968) listed this species as a parasitoid in *A. coriarius* galls. In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. coriarius*.

Andricus coronatus (GIRAUD, 1859)

Eurytomidae

Sycophila biguttata (SWEDERUS, 1795) – Győr-Moson-Sopron county, Sopron: 4(0+4). HR (A), RO (ANDRIESCU 1974)

Eurytoma brunniventris RATZEBURG, 1852 – Győr-Moson-Sopron county, Sopron: 6(0+6); Komárom-Esztergom county, Szár, Szárliiget: 3(3+0); Veszprém county, Várpalota: 1(1+0).

Torymidae

Megastigmus dorsalis (FABRICIUS, 1798) – Győr-Moson-Sopron county, Sopron: 6(3+3). HR (A).

Megastigmus stigmatizans (FABRICIUS, 1798) – Győr-Moson-Sopron county, Sopron: 1(1+0).

Torymus auratus (MÜLLER, 1764) (= *nitens* (WALKER, 1833)) – Győr-Moson-Sopron county, Sopron: 4(0+4).

Ormyridae

Ormyrus nitidulus (FABRICIUS, 1804) – Győr-Moson-Sopron county, Sopron: 4(0+4); Nógrád county, Romhány: 1(0+1). RO (ANDRIESCU 1974).

Ormyrus pomaceus (GEOFFROY in FOURCROY, 1785) (= *punctiger* WESTWOOD, 1882) – Budapest: 1(0+1). HR (A), RO (ANDRIESCU 1974).

Pteromalidae

Cecidostiba fungosa (GEOFFROY, 1785) – Győr-Moson-Sopron county, Sopron, Szárhalmi-erdő: 2(1+1).

Mesopolobus sericeus (FOERSTER, 1870) – Győr-Moson-Sopron county, Sopron, Szárhalmi-erdő: 2(0+2). HR (A).

Eupelmidae

Eupelmus annulatus NEES, 1834 – Győr-Moson-Sopron county, Sopron: 1(0+1).

Eulophidae

Aulogymnus trilineatus (MAYR, 1877) – HU (A).

Andricus lignicolus (HARTIG, 1840), sexual generation

(= *Andricus lignicola* var. *vanheurni* DOCTERS VAN LEEUWEN & DEKHUIJZEN-MAASLAND, 1958)

Pteromalidae

Mesopolobus dubius (WALKER, 1834) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. lignicolus*. GB (A).

Mesopolobus fuscipes (WALKER, 1834) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. lignicolus*. GB (A).

Mesopolobus tibialis (WESTWOOD, 1833) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. lignicolus*. GB (A).

Mesopolobus xanthocerus (THOMSON, 1878) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. lignicolus*. GB (A).

Andricus lignicolus (HARTIG, 1840), asexual generation

Eurytomidae

Sycophila biguttata (SWEDERUS, 1795) – Pest county, Gödöllő, Arborétum: 1(1+0). BG (A), RO (ANDRIESCU 1974).

Sycophila variegata (CURTIS, 1831) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. lignicolus*. RO (ANDRIESCU 1974).

Eurytoma brunniventris RATZEBURG, 1852 – Békés county, Gyula, Dénes-major: 13(4+9); Győr-Moson-Sopron county, Sopron, Görbehalom: 7(5+2); Győr-Moson-Sopron county, Sopron, Camping: 2(0+2); Pest county, Gödöllő, Arborétum: 6(2+4). Sex ration 1:1.5. HU (GYÓRFI 1962). One of the most common parasitoids in the asexual galls of many cynipid species. BG, GB (A), NL (WIEBES-RIJKS 1978), RO (A).

Torymidae

Megastigmus dorsalis (FABRICIUS, 1798) – Békés county, Gyula: 1(1+0); Győr-Moson-Sopron county, Sopron, Görbehalom: 1(0+1), Pest county, Gödöllő, Arborétum: 12(4+8). Sex ratio 1:1.8. BG, FR (A), GB (ASKEW & NEILL 1993), NL (WIEBES-RIJKS 1978), RO, UA (A).

Torymus auratus (MÜLLER, 1764) – Pest county, Gödöllő, Arborétum: 2(1+1). BG, FR (A), GB (ASKEW & NEILL 1993), NL (WIEBES-RIJKS 1978), RO (ANDRIESCU 1974), UA (A).

Ormyridae

Ormyrus nitidulus (FABRICIUS, 1804) – Budapest: 2(0+2); Győr-Moson-Sopron county, Sopron: 1(0+1); Pest county, Gödöllő, Arborétum: 12(3+9). Sex ratio 1:4. RO (ANDRIESCU 1974).

Ormyrus pomaceus (GEOFFROY in FOURCROY, 1785) – Budapest: 2(1+1); Győr-Moson-Sopron county, Sopron: 1(0+1); Pest county, Gödöllő, Arborétum: 5(1+4). Sex ratio 1:2.3. GE (OTTEN 1940), RO (ANDRIESCU 1974), UA (A).

Pteromalidae

Caenacis lauta (WALKER, 1835) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. lignicolus*. HR (FAHRINGER 1921; BOUČEK 1977), RO (A).

Cecidostiba fungosa (GEOFFROY in FOURCROY, 1785) – Győr-Moson-Sopron county, Sopron, Görbehalm: 1(0+1), Nógrád county, Alsópetény: 1(0+1); Pest county, Gödöllő, Arborétum: 19(13+6). Sex ratio 1.6:1. RO (ANDRIESCU 1974).

Cecidostiba semifascia (WALKER, 1835) – Nógrád county, Alsópetény: 2(0+2).

Mesopolobus amoenus (WALKER, 1834) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. lignicolus*. FR (A), GB (ASKEW & NEILL 1993).

Mesopolobus fasciiventris WESTWOOD, 1833 – Pest county, Gödöllő, Arborétum: 3(1+2), UA (A).

Mesopolobus sericeus (FOERSTER, 1870) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. lignicolus*. BG (ANDRIESCU 1974), GB (ASKEW & NEILL 1993).

Mesopolobus tibialis (WESTWOOD, 1833) – Heves county, Mátra Mts, Mátraháza: 1(0+1).

Eupelmidae

Eupelmus annulatus NEES, 1834 – Győr-Moson-Sopron county, Sopron: 2(0+2); Pest county, Gödöllő, Arborétum: 5(1+4); Pest county, Isaszeg: 1(0+1). AT (RUSCHKA 1921), BG (A), HR (BOUČEK 1977), RO (ANDRIESCU 1974).

Eupelmus rostratus RUSCHKA, 1921 – Győr-Moson-Sopron county, Sopron: 1(0+1).

Eupelmus urozonus DALMAN, 1820 – Győr-Moson-Sopron county, Sopron: 4(0+4); Jász-Nagykun-Szolnok county, Mesterszállás: 1(0+1); Pest county, Gödöllő, Arborétum: 1(0+1). Only females were reared. GB (ASKEW & NEILL 1993), RO (A).

Eulophidae

Aulogymnus skianeuros (RATZEBURG, 1844) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. lignicolus*. AT (RUSCHKA & FULMEK 1915), BG (A).

Aulogymnus trilineatus (MAYR, 1877) – In Hungary this species is known to attack other cynipid galls, but was never reared from the galls of *A. lignicolus*. RO (A).

Aprostocetus aethiops (ZETTERSTEDT, 1838) – Vas county, Szőce: 3(2+1).

*

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The distribution of Hungarian molluscs

The catalogue of the Mollusca Collection of the Hungarian Natural History Museum

Z. Fehér and A. Gubányi

Authors aimed to continue the traditions of Hungarian faunal mapping set by Pintér and co-workers in 1979, and to create a computer programme and a database, that are able to collect and manage data both from the literature and collections and able to create distribution maps. Due to this "living" data system, where the integration of new data is permanently done and the errors are continuously corrected, the results are published in electronic format in English and Hungarian. The CD contains the catalogue in pdf format (the reader programme Adobe Acrobat Reader 4.0 also present). As the first step, this CD contains the checklist of the Hungarian molluscs and their distribution data based on the Mollusca Collection of the Hungarian Natural History Museum. Distribution of the 220 gastropod and 24 bivalve species in the collection are illustrated in 10×10 km UTM grid maps, and all of their sampling sites are listed by UTM grids.

The checklist follows the nomenclature of the CLECOM (Checklist of the European Continental Mollusca) project. With all those species that are known under a different synonym name in Hungary, or occur in Hungary but not mentioned in the CLECOM list, or are missing from the HNHM collection, or that are incorrectly indicated in Hungary, or their taxonomic position is judged by a competent Hungarian malacologist in another way than given in CLECOM, authors deal with in the Appendix. A glossary of the frequently used common names and geographical terms helps the use of the locality list. This issue will hopefully be followed by others containing literature data and data of other Hungarian mollusc collections, and the series will become a useful tool for malacologists dealing with zoogeography, ecology and nature conservation.

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