

## CONTRIBUTION TO THE KNOWLEDGE OF THE FAUNA OF CYNIPID GALL WASPS ON THE TERRITORY OF BELGRADE (SERBIA)

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### Abstract

In studying the fauna of cynipid gall wasps of Belgrade and its environs during the period from 1997 to 2016, we recorded a total of 46 species from four tribes (Aylacini, Cynipini, Diastrophini and Diplolepidini) and 12 genera (*Andricus*, 27 species; *Diplolepis*, 5 species; *Cynips*, 3 species; *Neuroterus*, 3 species; *Diastrophus*, 2 species; *Aphelonyx*, 1 species; *Barbotinia*, 1 species; *Biorhiza*, 1 species; *Callirhytis*, 1 species; *Chilaspis*, 1 species; *Dryocosmus*, 1 species; and *Pseudoneuroterus*, 1 species). The following species are here recorded as new for the Serbian fauna of cynipid gall wasps: *Diastrophus mayri* Reinhard, 1876; *D. rubi* (Bouche, 1834); *Andricus aries* (Giraud, 1859); *A. conificus* (Hartig, 1834); *A. gallaeurnaeformis* (Boyer de Fonscolombe, 1832); *A. grossulariae* Giraud, 1859; *A. inflator* Hartig, 1840; *A. superfetationis* (Giraud, 1859); *Callirhytis glandium* (Giraud, 1859); and *Chilaspis nitida* (Giraud, 1859). For all the recorded species, we give the localities, dates and hosts on which they were found in Belgrade and its environs.

KEYWORDS: Serbia, gall wasps, Cynipidae, *Quercus*, *Rosa*, *Papaver*, *Potentilla*, *Rubus*

### Introduction

With about 1400 species, cynipid gall wasps are one of the largest family of gall-forming insects in the world. In Europe, North Africa and Asia Minor, they are present with about 120 species (Melika *et al.*, 2000; Csóka *et al.*, 2005), many of which have been recorded in Serbia (Langhoffer, 1915; Baudyš, 1928; Pal, 1983a, 1983b; Mihajlović & Marković, 2003; Glavendekić & Mihajlović, 2004; Marković & Stojanović, 2007, 2009; Drekić, 2006; Marković, 2014, 2015; Stojanović & Marković, 2016). However, it still cannot be said that they have been thoroughly investigated in Serbia, which is why they have been studied here fairly often over the

past 20 years (Marković, 2014, 2015; Stojanović & Marković, 2016). The species found in Belgrade and its environs during these investigations are given in the present paper.

## Materials and Methods

The fauna of cynipid gall wasps was investigated during the period from 1997 to 2016 at the following 24 localities in Belgrade and its environs (in most cases given in Serbian without translation to avoid confusion): Ada Ciganlija (44°47' N, 20°24'); arboretum of the Faculty of Forestry (44°46' N, 20°25' E); Banjička Šuma (44°45' N, 20°28' E); Banovo Brdo – park on Požeška street (44°46' N, 20°25' E); Banovo Brdo (44°46' N, 20°25' E); Čukarička Padina (44°46' N, 20°23' E); Clinical Hospital Center KBC “Bežanijska Kosa” (44°49' N, 20°22' E); Košutnjak (44°45' N, 20°26' E); Lipovička Šuma (44°38' N, 20°27' E); Miljackovačka Šuma (44°44' N, 20°27' E); Novo Bežanijsko Groblje (44°48' N, 20°21' E); Ostružnica (44°43' N, 20°19' E); Pionirski Park (44°48' N, 20°27' E); Sajmište (44°47' N, 20°25' E); Sports Center “11 April” (44°45' N, 20°25' E); Sremčica (44°40' N, 20°24' E); Studentski Grad (44°49' N, 20°23' E); Topčiderski Park (44°46' N, 20°26' E); Topčidersko Groblje (44°46' N, 20°26' E); Ušće (44°48' N, 20°26' E); Veliki Mokri Lug – Stepin Gaj (44°44' N, 20°31' E); Veliko Ratno Ostrvo (44°49' N, 20°25' E); Vinča (44°46' N, 20°36' E); and Železnik (44°43' N, 20°22' E). The galls of different species of cynipid gall wasps were collected at each of these localities. After being brought into the Laboratory of Entomology of Belgrade University's Faculty of Forestry, a smaller number of galls were herbarized, identified and deposited in the herbarium of zoocecidia located in the same institution. Another batch of galls was put in photoelectors to obtain imagoes of the cynipid gall wasps. During the period of imago flight, the photoelectors were inspected daily and the emerging imagoes were collected, killed with ether and mounted.

All the obtained imagoes of cynipid gall wasps are housed in the insect collection of the Department of Forest Protection.

The collected galls and obtained imagoes were identified by Č. Marković and A. Stojanović using the published works of Ionescu (1957), Eady & Quinlan (1963), Ambrus (1974), Zerova *et al.* (1988), Csóka (2005), Melika (2006a, 2006b), Ács *et al.* (2007) and Melika *et al.* (2010).

## Results and Discussion

In Serbia, oak woods are the commonest type of forests at elevations like that of Belgrade (132 m above sea level on average). Since most of the cynipid gall wasps are trophically linked with oaks (*Quercus* spp.), it is not surprising that these insects occur frequently on the territory of Belgrade, many of them being widely distributed there. Unfortunately, they were not faunistically studied much in Belgrade and its environs prior to the start of the present investigations. According to published data (Baudyš, 1928; Drekić, 2006), only four species of cynipid gall wasps had been recorded up to that time in Belgrade.

During investigating the fauna of cynipid gall wasps in Belgrade and its environs, we recorded a total of 46 species from four tribes (Aylacini, Cynipini, Diastrophini and Diplolepidini) and 12 genera (*Andricus*, 27 species; *Diplolepis*, 5 species; *Cynips*, 3 species; *Neuroterus*, 3 species; *Diastrophus*, 2 species; *Aphelonyx*, 1 species; *Barbotinia*, 1 species; *Biorhiza*, 1 species; *Callirhytis*, 1 species; *Chilaspis*, 1 species; *Dryocosmus*, 1 species; and *Pseudoneuroterus*, 1 species). The following 10 species are recorded here as new for the Serbian fauna of cynipid gall wasps: *Diastrophus mayri* Reinhard; *D. rubi* (Bouche);

*Andricus aries* (Giraud); *A. conificus* (Hartig); *A. gallaeurnaeformis* (Boyer de Fonscolombe); *A. grossulariae* Giraud; *A. inflator* Hartig; *A. superfetationis* (Giraud); *Callirhytis glandium* (Giraud); and *Chilaspis nitida*. In addition, the following species are recorded as new for the cynipid gall wasp fauna of Serbia outside of Vojvodina (the northern part of the country): *A. hungaricus* (Hartig); and *Diplolepis mayri* (Schlechtendal) (Langhoffer, 1915; Baudyš, 1928; Pal, 1983a, 1983b; Mihajlović & Marković, 2003; Glavendekić & Mihajlović, 2004; Marković & Stojanović, 2007, 2009; Drekić, 2006; Marković, 2014, 2015; Stojanović & Marković, 2016).

From the trophic point of view, we found the greatest number of cynipid gall wasps on *Quercus robur* L. (20 species); a somewhat smaller number on *Q. frainetto* Ten. (15 species) and *Q. virgiliana* (Ten.) Ten. (14 species); and the smallest number on *Q. cerris* L. (8 species), *Q. petraea* (Matt.) Liebl (6 species), *Rosa* spp. (5 species), *Papaver* sp. (1 species), *Potentilla argentea* L. (1 species) and *Rubus hirtus* Waldst. & Kit. (1 species). Viewed faunistically, it can be said that nearly all the species recorded on the territory of Belgrade could be expected, since they have been previously found in neighboring countries (Langhoffer, 1915; Ionescu, 1957; Melika *et al.*, 2000; Kwast, 2012). That many of them are new for the Serbian fauna of cynipid gall wasps can be attributed to the fact that these insects were very little studied in Serbia in the past.

If we compare the results of the present investigations and those of Langhoffer (1915), Baudyš (1928), Pal (1983a, 1983b), Mihajlović & Marković (2003), Glavendekić & Mihajlović (2004), Marković & Stojanović (2007, 2009), Drekić (2006), Marković (2014, 2015) and Stojanović & Marković (2016), we can easily see that the territory of Belgrade, with a total of 46 species found to date, is the region of Serbia with the most species of cynipid gall wasps.

The list that follows includes all species of cynipid gall wasps whose presence on the territory of Belgrade was confirmed in our investigations. The list gives the localities, dates and food plants on which individual species of these insects were recorded. For each species, the list also cites the generation (sexual, asexual) whose galls were found. The species names used in the list are matched to the names reported for species of cynipid gall wasps in the Melika papers (2006a, 2006b).

The list of recorded species of cynipid gall wasps

#### Tribe Aylacini

*Barbotinia oraniensis* (Barbotin, 1964)

Asexual generation gall in the fruit capsule: Bežanijska Kosa 04.06.2016 *Papaver* sp.

#### Tribe Cynipini

*Andricus amblycerus* (Giraud, 1859)

Asexual generation bud galls: Košutnjak 16.01.1999, 23.7.2007 *Quercus* sp., Lipovička Šuma 17.06.2011 *Q. frainetto*, Miljakovačka Šuma 21.07.2012 *Q. frainetto*.

*A. aries* (Giraud, 1859)

Asexual generation bud galls: arboretum of the Faculty of Forestry 09.04.2006 *Quercus* sp., Ušće 23.07.2012 *Q. robur*.

*A. caliciformis* (Giraud, 1859)

Asexual generation bud galls: Ada Ciganlija 29.04.2013 *Q. robur*, Košutnjak 03.05.2012 *Q. virgiliana*, 15.03.2007, 30.07.2007, 23.05.2008 *Quercus* sp., Miljakovačka Šuma 21.07.2012 *Q. frainetto*, Sajmište 27.07.2012 *Q. robur*, Studentski Grad 27.07.2012 *Q. robur*, Ušće 24.07.2012 *Q. robur*.

*A. callidoma* (Hartig, 1841)

Asexual generation bud galls: Ada Ciganlija 09.07.2011 *Q. robur*, Košutnjak 22.07.2007, 30.07.2007, 03.05.2012 *Q. virgiliana*.

*A. caputmedusae* (Hartig, 1843)

Asexual generation galls on the acorn: Košutnjak 29.10.2011 *Q. frainetto*, 29.08.2010. *Q. robur*, 02.09.1997, 19.10.1997, 11.08.2010, 04.09.2012 *Q. virgiliana*, 09.04.2006, 17.03.2007 *Quercus* sp., Lipovička šuma 17.06.2011 *Quercus* sp., Miljakovačka Šuma 21.07.2012 *Q. frainetto*, Topčiderski Park 26.08.2015 *Q. robur*.

*A. conificus* (Hartig, 1843)

Asexual generation bud galls: Košutnjak 03.09.2011 *Q. virgiliana*, Miljakovačka Šuma 03.03.2013 *Q. frainetto*, Ušće 18.06.2016 *Q. robur*.

*A. coriarius* (Hartig, 1843)

Asexual generation bud galls: Banjička Šuma 15.05.2007 *Quercus* sp., Košutnjak 29.10.2011 *Q. frainetto*, 03.09.2011 *Q. virgiliana*, 26.08.2007 *Quercus* sp., Veliki Mokri Lug, Stepin Gaj 20.08.2010 *Q. petraea*.

*A. coronatus* (Giraud, 1859)

Asexual generation bud galls: Košutnjak 11.08.2010 *Q. virgiliana*, Lipovička Šuma 26.10.1997 *Q. frainetto*.

*A. curator* Hartig, 1840

Sexual generation galls on leaves: Ada Ciganlija 20.04.2008, 01.05.2008 *Q. robur*, Ušće 23.07.2012 *Q. robur*, Veliki Mokri Lug, Stepin Gaj 20.08.2010 *Q. petraea*.

*A. cydoniae* Giraud, 1859

Sexual generation galls on tips of twigs: Košutnjak 10.01.2007. *Q. cerris* Miljakovačka Šuma 01.05.2008. *Q. cerris*.

*A. foecundatrix* (Hartig, 1840)

Sexual generation bud galls: Ada Ciganlija 25.07.1999, 05.07.2007, 14.08.2010., 11.09.2011, 26.10.2011 *Q. robur*, Banovo Brdo 14.04.2006 *Q. robur*, KBC "Bežanijska Kosa" 16.08.2015 *Q. robur*, Košutnjak 19.07.2007, 29.08.2010, 10.07.2011, 03.09.2011 *Q. robur*, Pionirski Park 26.07.2012 *Q. robur*, Studentski Grad 27.07.2012 *Q. robur*, Ušće 23.07.2012, 18.06.2016 *Q. robur*, Veliko Ratno Ostrvo 05.07.2016 *Q. robur*.

*A. galeatus* (Giraud, 1859)

Asexual generation bud galls: arboretum of the Faculty of Forestry 10.04.2006 *Quercus* sp., Košutnjak 29.10.2011 *Q. frainetto*, 09.05.2012, 21.07.2012 *Q. robur*, 29.10.2011 *Q. virgiliana*, 16.01.1999, 23.04.2006, 10.01.2007 *Quercus* sp., Miljakovačka Šuma 21.07.2012 *Q. frainetto*.

*A. gallaeurnaeformis* (Boyer de Fonscolombe, 1832)

Asexual generation galls on leaves: Košutnjak 11.10.2008, 11.08.2010 *Q. virgiliana*.

*A. grossulariae* Giraud, 1859

Sexual generation catkin galls: Košutnjak 19.04.2008, 21.04.2008, 30.04.2008 *Q. cerris*, Miljakovačka Šuma 01.05.2008 *Q. cerris*, Ušće 23.07.2012, 18.06.2016 *Q. cerris*, Cerak 23.04.2016 *Q. cerris* (Leg. J. Dobrosavljević).

Asexual generation bud galls: Bežanijska Kosa – Sports Center "11 April" 16.08.2015 *Q. robur*, Novo Bežanijsko Groblje 16.08.2015 *Q. robur*, Topčiderski Park 31.09.2015 *Q. robur*.

*A. hungaricus* (Hartig, 1843)

Asexual generation bud galls: Ada Ciganlija 03.09.2010, 26.10.2011 *Q. robur*, 05.02.2007 *Quercus* sp., Banjička Šuma 15.05.2007 *Quercus* sp., Košutnjak 09.04.2006, 26.08.2007, 11.07.2010, 29.08.2010, 03.09.2011 *Q. robur*, Sajmište 27.07.2012 *Q. robur*, Sports Center "11 April" 16.08.2015 *Q. robur*, Studentski Grad 27.07.2012 *Q. robur*, Topčidersko Groblje 09.02.1997 *Q. robur*.

*A. inflator* Hartig, 1840

Sexual generation galls on shoot tips: Ada Ciganlija 05.02.2007, 15.07.2011, 26.10.2011 *Q. robur*, Košutnjak 11.10.2008 *Q. virgiliana*, Ušće 24.07.2012 *Q. robur*.

*A. kollari* (Hartig, 1843)

Asexual generation bud galls: Ada Ciganlija 25.07.1999 *Q. robur*, arboretum of the Faculty of Forestry 09.04.2006 *Quercus* sp., Košutnjak 11.07.2010, 10.07.2011 *Q. robur*, Lipovička Šuma 17.04.2007 *Q. frainetto*, Studentski grad 27.07.2012 *Q. robur*, Topčidersko Groblje 09.02.1997 *Quercus* sp., Ušće 18.06.2016 *Q. robur*.

*A. lignicolus* (Hartig, 1840)

Asexual generation bud galls: arboretum of the Faculty of Forestry 26.03.2006, 09.04.2006 *Quercus* sp., Banjička Šuma 15.05.2007 *Q. robur*, Veliki Mokri Lug, Stepin Gaj 15.08.1999, 20.08.2010 *Q. petraea*.

*A. lucidus* (Hartig, 1843)

Sexual generation gall on the petiole of a catkin: Ušće 18.06.2016 *Q. cerris*.

Asexual generation bud galls: Ada Ciganlija 27.08.2007, 26.10.2011 *Q. robur*, Banovo Brdo 14.04.2006 *Quercus* sp., Košutnjak 29.10.2011 *Q. frainetto*, 11.07.2010, 11.08.2010, 10.07.2011 *Q. robur*, 18.09.2011, 29.10.2011 *Q. virgiliana*, 16.01.1999, 10.01.2007 *Quercus* sp., Miljakovačka Šuma 03.03.2013 *Q. frainetto*, 21.07.2012 *Q. petraea*, Studentski Grad 27.07.2012 *Q. robur*, Ušće 23.07.2012, 24.07.2012 *Q. robur*, Veliki Mokri Lug, Stepin Gaj 20.08.2010 *Q. petraea*.

*A. multiplicatus* Giraud, 1859

Sexual generation bud galls: Košutnjak 11.08.2010 *Q. cerris*, Ušće 08.06.2016 *Q. cerris*.

*A. quercuscalicis* (Burgsdorf, 1783)

Asexual generation galls on the acorn: Ada Ciganlija 27.08.2007, 11.09.2011 *Q. robur*, KBC "Bežanijska Kosa" 16.08.2015 *Q. robur*, Košutnjak 11.07.2010, 10.07.2011 *Q. robur*, Novo Bežanijsko Groblje 16.08.2015 *Q. robur*, Pionirski Park 21.07.2011, 26.07.2012 *Q. robur*, Sajmište 27.07.2012 *Q. robur*, Sports Center "11 April" 16.08.2015 *Q. robur*, Studentski Grad 27.07.2012 *Q. robur*, Topčiderski Park 04.09.2013, 26.08.2015 *Q. robur*, Ušće 23.07.2012, 18.06.2016 *Q. robur*, Veliko Ratno Ostrvo 05.07.2016 *Q. robur*.

*A. quercusradicis* (Fabricius, 1798)

Sexual generation root gall on young shoots: Lipovička Šuma 17.04.2007 *Q. frainetto*.

*A. quercustozae* (Bosc, 1792)

Asexual generation bud galls: Lipovička Šuma 26.10.1997 *Q. frainetto*.

*A. seckendorffi* (Wachtl, 1879)

Asexual generation galls on acorn cups: Košutnjak 31.05.2008, 01.07.2008, 12.08.2008, 12.10.2008 *Q. virgiliana*.

*A. solitarius* (Boyer de Fonscolombe, 1832)

Asexual generation bud gall: Košutnjak 12.06.2008 *Q. virgiliana*.

*A. superfetationis* (Giraud, 1859)

Asexual generation galls on acorn cups: Košutnjak 04.09.2012 *Q. robur*, Sajmište 27.07.2012 *Q. robur*, Sports Center "11 April" 16.08.2015 *Q. robur*, Ušće 23.07.2012, 24.07.2012, 30.07.2012 *Q. robur*.

*Aphelonyx cerricola* (Giraud, 1859)

Asexual generation bud galls: Košutnjak 09.04.2006, 11.07.2010 *Q. cerris*, Lipovička Šuma 17.06.2011, 08.07.2012 *Q. cerris*, Miljakovačka Šuma 01.05.2008 *Q. cerris*, Topčiderski Park 19.08.2010 *Q. cerris*.

*Biorhiza pallida* (Olivier, 1791)

Sexual generation galls at the end of shoots: Banovo Brdo 23.4.2006 *Quercus* sp., Košutnjak 11.08.2010 *Q. robur*, 23.04.2006, 12.04.2008 *Quercus* sp., Lipovička Šuma 17.06.2011 *Q. frainetto*., Sajmište 10.05.2012, 27.07.2012 *Q. robur*, Sports Center "11 April" 16.08.2015 *Q. robur*, Studentski Grad 27.07.2012 *Q. robur*, Ušće 10.05.2012 *Q. frainetto*, 23.07.2012, 18.06.2016. *Q. robur*.

*Callirhytis glandium* (Giraud, 1859)

Sexual generation galls within acorn: Topčidersko Groblje 30.09.2008 *Q. cerris*.

*Chilaspis nitida* (Giraud, 1859)

Sexual generation galls on catkin inflorescence: Košutnjak 19.04.2008 *Q. cerris*.

*Cynips longiventris* Hartig, 1840

Asexual generation galls on leaves: Ada Ciganlija 05.02.2007, 15.07.2011, 11.09.2011 *Q. robur*, Košutnjak 21.07.2012 *Q. robur*, Sports Center "11 April" 16.08.2015 *Q. robur*.

*C. quercus* (Fourcroy, 1785)

Asexual generation galls on leaves: Košutnjak 30.08.2014 *Q. virgiliana*, 31.05.2008 *Quercus* sp., Lipovička Šuma 17.06.2011 *Q. frainetto*.

*C. quercusfolii* Linnaeus, 1758

Asexual generation galls on leaves: Ada Ciganlija 05.02.2007, 26.08.2007, 14.08.2010, 11.09.2011 *Q. robur*, Košutnjak 17.03.2007, 29.08.2010, 10.07.2011 *Q. robur*, 30.07.2007, 26.08.2007 *Quercus* sp., KBC "Bežanijska Kosa" 16.08.2015 *Q. robur*, Topčiderski Park 04.09.2013, 31.08.2015 *Q. robur*, Ušće 23.07.2012, 24.07.2012, 18.06.2016 *Q. robur*.

*Dryocosmus cerriphilus* (Giraud, 1859)

Sexual generation galls on leaves: Lipovička Šuma 29.04.2011 *Q. cerris*, Miljakovačka Šuma 21.07.2012 *Q. cerris*.

Asexual generation galls on twigs: Košutnjak 26.06.2007 *Q. cerris*, Lipovička Šuma 17.06.2011 *Q. cerris*, Miljakovačka Šuma 21.07.2012 *Q. cerris*.

*Neuroterus anthracinus* (Curtis, 1838)

Asexual generation galls on leaves: Ada Ciganlija 05.02.2007, 28.08.2010 *Q. robur*, KBC "Bežanijska Kosa" 16.08.2015 *Q. robur*, Lipovička Šuma 17.06.2011 *Q. frainetto*, Novo Bežanijsko Groblje 16.08.2015 *Q. robur*, Stepin Gaj 20.08.2010 *Q. petraea*.

*N. numismalis* (Geoffroy in Fourcroy, 1785)

Sexual generation galls on leaves: Ada Ciganlija 05.02.2007, 09.07.2011, 15.07.2011, 16.07.2011, 18.07.2011, 11.09.2011 *Q. robur*, Banjička Šuma 15.05.2007 *Q. robur*, Banovo Brdo – park Požeška street 13.09.2011 *Q. robur*, Košutnjak 23.07.2010, 10.07.2011, 18.07.2011, 03.09.2011, 05.06.2012 *Q. robur*, Pionirski Park 21.07.2011 *Q. robur*, Sajmište 27.07.2012 *Q. robur*, Studentski Grad 27.07.2012 *Q. robur*, Ušće 23.07.2012, 18.06.2016 *Q. robur*.

*N. quercusbaccarum* (Linnaeus, 1758)

Sexual generation galls on catkins and leaves: Banovo Brdo – park Požeška street 22.04.2011 *Q. robur*, Košutnjak 21.07.2012 *Q. robur*, 04.09.2012 *Q. virgiliana*, Miljakovačka Šuma 21.07.2012, 28.04.2013 *Q. frainetto*, Sajmište 10.05.2012, 27.07.2012 *Q. robur*, Studentski Grad 27.07.2012 *Q. robur*, Ušće 10.05.2012 *Q. frainetto*, 23.07.2012 *Q. robur*.

Asexual generations galls on leaves: Ada Ciganlija 20.04.2008, 14.08.2010, 9.07.2011, 15.07.2011, 16.07.2011, 19.07.2011, 11.09.2011 *Q. robur*, Banjička Šuma 15.05.2007 *Q. robur*, Banovo Brdo – park Požeška street 14.04.2006, 23.04.2011, 13.09.2011 *Q. robur*, Košutnjak 19.07.2007, 23.07.2007, 23.07.2010, 10.07.2011, 18.07.2011, 03.09.2011, 09.05.2012 *Q. robur*, 11.08.2010, 03.09.2011 *Q. virgiliana*, 18.07.2011, 29.10.2011 *Q. frainetto*, 23.04.2006, 26.08.2007, 03.05.2012 *Quercus* sp., Lipovička Šuma 17.04.2007, 17.06.2011 *Q. frainetto*, Novo Bežanijsko Groblje 16.08.2015 *Q. robur*, Pionirski Park 21.07.2011 *Q. robur*, Sports Center "11 April" 16.08.2015 *Q. robur*, Topčiderski Park 19.08.2010 *Q. robur*, Ušće 24.07.2012 *Q. robur*, Veliki Mokri Lug, Stepin Gaj 20.08.2010 *Q. petraea*, Veliko Ratno Ostrvo 05.07.2016 *Q. robur*.

*Pseudoneuroterus macropterus* (Hartig, 1843)

Asexual generation galls on shoots: Ušće 23.07.2012 *Q. cerris*.

Tribe Diastrophini

*Diastrophus mayri* Reinhard, 1876

Sexual generation galls in stems: Veliki Mokri Lug, Stepin Gaj 26.03.2006, 17.06. 2000 *Potentilla argentea*.

*D. rubi* (Bouché, 1834)

Sexual generation gall on sprout: Lipovička Šuma 16.04.2016 *Rubus hirtus* (Leg. J. Dobrosavljević).

Tribe Diplolepidini

*Diplolepis eglanteriae* (Hartig, 1840)

Galls on leaves: arboretum of the Faculty of Forestry 25.08.2003 *Rosa* sp., Košutnjak 13.10.2008 *Rosa* sp., Veliki Mokri Lug, Stepin Gaj 28.07.2012 *Rosa* sp.

*D. mayri* (Schlechtendal, 1876)

Galls on twigs: Stepin Gaj 26.03.2006 *Rosa* sp.

*D. nervosa* (Curtis, 1838)

Galls on leaves: arboretum of the Faculty of Forestry 17.08.2003 *Rosa* sp., Košutnjak 18.09.2011 *Rosa* sp., Miljakovačka Šuma 21.07.2012 *Rosa* sp., Veliki Mokri Lug, Stepin Gaj 28.07.2012 *Rosa* sp., Vinča 24.06.2000 *Rosa* sp.

*D. rosae* (Linnaeus, 1758)

Galls on leaf buds and young shoots: Bežanijska Kosa 27.08.2016 *Rosa* sp., Čukarička Padina 28.03.2013 *Rosa* sp., Košutnjak 13.10.2008 *Rosa* sp., Lipovička šuma 29.03.2013 *Rosa* sp., Miljakovačka Šuma 21.07.2012 *Rosa* sp., Ostružnica 21.08.2016 *Rosa* sp., Sremčica 29.03.2013 *Rosa* sp., Veliki Mokri Lug, Stepin Gaj 26.03.2006, 28.07.2012 *Rosa* sp., Vinča 09.07.1997 *Rosa* sp., Železnik 28.03.2013 *Rosa* sp.

*D. spinosissimae* (Giraud, 1859)

Galls on leaves: Veliki Mokri Lug, Stepin Gaj 23.06.2007, 28.07.2012 *Rosa* sp.

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## ПРИЛОГ ПРОУЧАВАЊУ ФАУНЕ ГАЛИКОЛНИХ СУНИПИДАЕ (HYMENOPTERA, CYNIPIDAE) НА ПОДРУЧЈУ БЕОГРАДА (СРБИЈА)

ЧЕДОМИР МАРКОВИЋ И АЛЕКСАНДАР СТОЈАНОВИЋ

### Извод

Проучавањем фауне галиколних Сунипидае Београда и његове околине у периоду од 1997. до 2016. године констатовано је укупно 46 врста из 4 трибуса (*Aylacini*, *Cynipini*, *Diastrophini*, *Diplolepidini*) и 12 родова (*Andricus* 27 врста, *Diplolepis* 5, *Cynips* 3, *Neuroterus* 3, *Diastrophus* 2, *Aphelonyx* 1, *Barbotinia* 1, *Biorhiza* 1, *Callirhytis* 1, *Chilaspis* 1, *Dryocosmus* 1, *Pseudoneuroterus* 1). По први пут за фауну галиколних Сунипидае Србије пронађене су врсте *Diastrophus mayri* Reinhard, 1876, *D. rubi* (Bouché, 1834), *Andricus aries* (Giraud, 1859), *A. conificus* (Hartig, 1843), *A. gallaeurnaeiformis* (Boyer de Fonscolombe, 1832), *A. grossulariae* Giraud, 1859, *A. inflator* Hartig, 1840, *A. superfetationis* (Giraud, 1859), *Callirhytis glandium* (Giraud, 1859) и *Chilaspis nitida* (Giraud, 1859). За све констатоване врсте у раду су наведени локалитети, датуми и домаћини на којима су оне у Београду и његовој околини пронађене.

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