

## Additions to the Czech list of *Euura* Newman, 1837 (Hymenoptera, Tenthredinidae)

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BENEŠ K. 2014: Additions to the Czech list of *Euura* Newman, 1837 (Hymenoptera, Tenthredinidae). *Acta Musei Moraviae, Scientiae biologicae* (Brno) 99(1): 69–75. – Based on gall records, eight species of gall-making sawflies of the genus *Euura* Newman, 1837, are listed from the Czech Republic for the first time: *E. angusta* (Hartig, 1837), *E. auritae* Kopelke, 2000, *E. cinereae* Kopelke, 1996, *E. daphnoidica* Kopelke, 2001, *E. gemmacinereae* Kopelke, 2001, *E. hastatae* Malaise, 1921, *E. nigratarsis* Cameron, 1885, and *E. weiffenbachii* Ermolenko, 1988. A list of seventeen species known from the Czech Republic is also included.

**Keywords.** *Euura*, new records, host plants, galls, distribution

### Introduction

Czech species of the genus *Euura* Newman, 1837 are listed and eight species new for the country are recorded, based largely on investigation of the herbarium kept by the late Prof. Ing. Dr. Eduard Baudyš, now deposited in the Botanical Department of the Moravian Museum based at Budišov Castle at Třebíč. The cecidological material had previously been collected, identified and much of it published (BAUDYŠ 1915, 1916, 1926, 1939, 1953, 1954, 1961), but recently published taxonomic revisions of the genus by KOPELKE (1996, 1999, 2000, 2001, 2002, 2006) and LISTON *et al.* (2006) have rendered a new evaluation of these records necessary. In these papers the host plants of individual species are discussed, while more detailed distribution data may be found in TAEGER & BLANK (2011). BAUDYŠ (1915) and GREGOR & BAŤA (1942) recorded five species, BENEŠ (1989) seven, with *E. laeta* (Brischke, 1883) added by KOPELKE (2001) and *E. purpureae* Kopelke, 1996 by BENEŠ (2013), increasing the final total to nine species. However, recent taxonomic revisions of the genus, in which species formerly considered oligophagous proved to be strictly monophagous, backed by the results of oviposition experiments performed by KOPELKE (1996, 2001, 2002), indicated that a revision of Prof. Baudyš's herbarium should be undertaken. It added another eight species, so that 17 species of the genus are now known from the territory. One species, *E. lapponica* Kopelke, 1996 known from Poland (the Giant Mts, Wielki Staw) near to the border will surely be found in the stands of *Salix lapponum* on the opposite side of the border as well. The taxonomic status of *Euura* (*Gemmura*) cf. *mucronata* on *Salix purpurea* remains uncertain.

### Material and methods

The list of species is largely based on a revision of the galls in the herbarium kept by E. Baudyš (now deposited in the Moravian Museum, Botanical Department, Budišov).

The galls once deposited in his house in Brno were revised in October 1960 (unpublished) and have now been re-identified in the light of the modern taxonomy of the genus. The author's own data and published records are included to give an up-to-date list of Czech species. Nomenclature and data on general distribution follow TAEGER & BLANK (2011), while host plants are after KOPELKE (*l.c.*)

### Genus *Euura* Newman 1837

#### Subgenus *Euura* s. str.

##### *E. (E.) angusta* (Hartig, 1837)

**Published records.** BAUDYŠ (1915) (as *Cryptocampus ater* (Jurine, 1807)): Czech Republic, "Olšinka" at Jičín (50°26', 15° 21'), galls on *Salix viminalis*, E. Baudyš lgt. K. Beneš rev. and det.

**Distribution.** Central and northern Europe.

**Food plant.** *Salix viminalis*; slightly spindle-shaped stem gall on young twigs, often inconspicuous.

**Comments.** Data in GREGOR & BAŤA (1942) are based on misidentification. Data on *E. atra* by URBAN (1992) probably refer to this species. New species for the Czech Republic.

##### *E. (E.) auritae* Kopelke, 2000

**Published records.** BAUDYŠ (1915) (as *Cryptocampus ater*): Stěžírky at Hradec Králové (50°13',15°44'); Bohdankov (50°41',15°03'), viii.1913; all galls on *Salix aurita*; all E. Baudyš lgt. All K. Beneš rev. and det.

**Additional material examined.** Czech Republic: Hodkovice nad Mohelkou (50°40',15°08'); Doubrava at Hořice (50°22',15°40'); Bystřice pod Hostýnem (49°24',17°40'); Ostrava env. (49°49',18°16'); Moravská Třebová (49°45',16°40'). All from galls on *Salix aurita*; all E. Baudyš lgt, all K. Beneš rev. and det.

**Distribution.** Central and northern Europe.

**Food plant.** *Salix aurita*; spindle-shaped stem gall, often distinctly swollen.

**Comment.** KOPELKE (2002) demonstrated that this species is monophagous on *Salix cinerea*. New species for the Czech Republic.

##### *E. (E.) cinereae* Kopelke, 1996

**Published records.** BAUDYŠ (1915) (as *Cryptocampus medullarius* (Hartig, 1837)): Czech Republic: Dobrá Voda at Hartmanice (49°09',13°27'); stem galls on *Salix cinerea*, E. Baudyš lgt. K. Beneš rev. and det.

**Additional material examined.** Czech Republic: Dvůr Králové nad Labem (50°26',15°49'); Šumperk env. (49°58',16°58'); Hodkovice nad Mohelkou (50°40',15°08'); Voharka river, Petrašovice env. (50°40',15°03'); Rožnov at Jaroměř (50°20',15°52'), 2.xi.1945; all from galls on *Salix cinerea*; all E. Baudyš lgt. All K. Beneš rev. and det.

**Distribution.** Central and northern Europe. ZINOVJEV (2010) recorded it from northern America on introduced *Salix atrocinerea*.

**Food plant.** *Salix cinerea*; galls as in preceding species.

**Comment.** KOPELKE (2002) demonstrated that this species is monophagous on *Salix aurita*. New species for the Czech Republic.

***E. (E.) lapponica* Kopelke, 1996**

**Published records.** (BENEŠ 2013): Poland, Karkonosze, Velký rybník [Wielki Staw], viii.1932, lgt. E. Bayer; (coll. E. Baudyš).

**Distribution.** Northern Europe, Poland (Krkonoše; = the Giant Mts.).

**Food plant.** *Salix lapponum*; stem galls on young shoots, often distinctly spindle-shaped.

**Comment.** Not yet recorded from the Czech Republic but its occurrence in stands of *Salix lapponum* is highly probable.

***E. (E.) purpureae* Kopelke, 1996**

**Published records.** BENEŠ (2013): Czech Republic, Krkonoše NP, Špindlerův Mlýn altitude 700 m (50°44',15°36'), 25.vii.1919, galls on *Salix purpurea* x *silesiaca*, E. Baudyš lgt. K. Beneš rev. and det.

**Additional material examined.** Czech Republic: Beroun env. (49°58',14°05'); Hlučín env. (49°54',18°11'); Železnice (50°28',15°23'); Milotice nad Bečvou (49°32',17°50'); Petrašice at Hodkovice (50°40',15°03'); all from galls on *Salix purpurea*, all E. Baudyš lgt. Bohemia mer., Blatná (49°21',13°53'), vi.1959, galls on *Salix purpurea*, lgt. K. Beneš. All K. Beneš rev. and det.

**Distribution.** Central and southern Europe.

**Food plant.** *Salix purpurea*; slightly swollen, often inconspicuous spindle-shaped gall on young shoots, often two to three galls on one twig.

***E. (E.) subgemma* Liston, 2006**

(= *laeta* auct. partim)

**Published records.** BAUDYŠ (1916, 1926, 1939, 1954, 1961) (as *Cryptocampus laetus* Brischke, 1883); GREGOR & BAŤA (1942); KRÍSTEK (1972); PÁDR (1993); URBAN (1993) (all as *Euura laeta* (Brischke, 1883)).

**Additional material examined.** Czech Republic: Jičín (50°25',15°21'), 22.v.1915; Kelč (49°29',17°49'), 14.ix.1945; Veltěž (50°10',14°25'), 26.vi.1916; Zbraslav (49°59',14°23'), 2.ix.1913; all galls on *Salix viminalis*; all E. Baudyš lgt. All K. Beneš rev. and det.

**Distribution.** Central and eastern Europe.

**Food plant.** *Salix viminalis*; stem gall, distinct swelling below the bud; often a number of galls on one shoot.

**Comments.** KRÍSTEK (1972) summarized a considerable amount of known distribution data and, together with URBAN (1993), referred to *E. laeta* when describing the life-history of this important pest in osier plantations in Moravia.

***E. (E.) weiffenbachii* Ermolenko, 1988**

**Material examined.** Czech Republic: Kroměříž env., forest bog, (49°12',17°24'); Valachy, south of Pornice (49°49',17°54'), 9.v.1957; all galls on *Salix rosmarinifolia*; all Zavřel lgt., coll. E. Baudyš. All K. Beneš rev. and det.

**Distribution.** Central and eastern Europe.

**Food plants.** *Salix repens*, *Salix rosmarinifolia*; broadly spindle-shaped stem gall, often very conspicuous and making thin twigs bend. Weiffenbach (1992) described the gall and larva in detail.

**Comment.** New species for the Czech Republic.

**Subgenus *Gemmura* E. L. Smith, 1968**

***E. (G.) daphnoidica* Kopelke, 2001**

**Material examined.** Czech Republic: Rožnov pod Radhoštěm (49°27',18°03'); Ramzová in Jeseníky Mts. (50°12',17°04'); all from bud galls on *Salix daphnoides*; all E. Baudyš det. as *Cryptocampus saliceti* (Fallén, 1808). All K. Beneš rev. and det.

**Distribution.** Central Europe.

**Food plant.** *Salix daphnoides*; very slight swelling of catkin buds.

**Comment.** New species for the Czech Republic.

***E. (G.) gemmacinereae* Kopelke, 2001**

(= *mucronata* auct. partim)

**Published records.** BAUDYŠ (1915) (as *Cryptocampus saliceti*).

**Additional material examined.** Czech Republic: Dolní Zebín at Jičín (50°27', 15°22'); Dobrá Voda at Hartmannice (49°09',13°27'), v.1913; all galls on *Salix cinerea*. All K. Beneš rev. and det.

**Distribution.** Central and northern Europe.

**Food plant.** *Salix cinerea*; slight swelling of catkin buds, surface more firm.

**Comment.** New species for the Czech Republic.

***E. (G.) hastatae* Malaise, 1921**

**Material examined.** Czech Republic: Jeseníky Mts., Petrova skála (rock) (50°04',17°14'), galls on *Salix hastata*, E. Baudyš lgt. and det. (as *Cryptocampus saliceti*). K. Beneš rev. and det.

**Distribution.** Central and northern Europe, Alps.

**Food plant.** *Salix hastata*; catkin buds swollen and enlarged, distinctly firmer.

**Comment.** New species for the Czech Republic.

***E. (G.) laeta* (Brischke, 1883)**

(=*mucronata* auct. partim, = *viminalis* Kopelke, 2001)

**Material examined.** Czech Republic: Sedlec at Starý Plzeňec (49°42',13°20'), Nejedlý lgt., coll. E. Baudyš. K. Beneš rev. and det.

**Distribution.** Europe.

**Food plant.** *Salix viminalis*; distinctly enlarged catkin buds, mostly in apical part of twig; very common in basket-willow plantations.

**Comment.** Original description of *E. viminalis* based on specimens reared by Prof. J. Urban. Locus typicus: Moravia, Skalička at Hranice (49°31',17°48') (KOPELKE 2001). LISTON *et al.* (2006) demonstrated that a species known as *E. mucronata* to previous authors is identical with *E. laeta* and *E. viminalis*. Life history and distribution of this pest in basket-willow plantations (as *E. mucronata*) has been addressed in detail by KŘÍSTEK (1972) and URBAN (1993).

#### *E. (G.) lappo* Malaise, 1921

**Published records.** BENEŠ (1968, 2013): Czech Republic: Krkonoše Mts., galls on *Salix lapponum* var. *tomentosum*, E. Baudyš lgt.; Pančavská louka 1300 m (50°45',15°32'), 17.viii.1960, galls on *S. lapponum*, K. Beneš lgt. All K. Beneš rev. and det.

**Distribution:** Northern and central Europe.

**Food plant.** *Salix lapponum*; distinctly swollen catkin buds.

#### *E. (G.) cf. mucronata* auct.

**Published records.** BAUDYŠ (1915) (as *Cryptocampus saliceti*); KŘÍSTEK (1972) and URBAN (1993) (as *E. mucronata* (Hartig, 1837)).

**Additional material examined.** Czech Republic: Praha – Hostivař (50°00',14°00'), 28.iv.1913; Lipník – Týn (49°31',17°95'), galls on *Salix purpurea*, E. Baudyš lgt. All K. Beneš rev. and det.

**Distribution.** Central Europe.

**Food plant.** *Salix purpurea*; catkin buds firm, slightly swollen.

**Comment.** KOPELKE (2001) does not mention *Salix purpurea* as a food plant of any species of this group in his revision of the *mucronata*-group.

#### *E. (G.) nigratarsis* Cameron, 1885

(= *mucronata* auct. partim)

**Published records.** BAUDYŠ (1916) (as *Cryptocampus ater*): Czech Republic: Praha-Nebušice (50°07',14°19'), galls on *Salix caprea*, 2.v.1913, E. Baudyš lgt. K. Beneš rev. and det.

**Additional material examined.** Czech Republic: Hřebečnický (49°59',13°45'), viii.1959, K. Beneš lgt. and det.

**Distribution.** Central and northern Europe.

**Food plant.** *Salix caprea*; distinctly swollen and firmer catkin buds.

**Comments.** BAUDYŠ (1916) described it by bud acroecidium, which is typical of the subgenus *Gemmura*. *Salix caprea* is a food plant of *E. nigratarsis* only (KOPELKE 2001). New species for the Czech Republic.

**List of the species of *Euura* occurring in the Czech Republic and their food plants*****Euura (Euura) Newman, 1837***

<i>amerinae</i> (Linné, 1758)	<i>S. pentandra</i>
<i>angusta</i> (Hartig, 1837)	<i>S. viminalis</i>
<i>atra</i> (Jurine, 1807)	<i>S. fragilis.</i> , <i>S. alba</i> , <i>S. triandra</i>
<i>auritae</i> Kopelke, 2000	<i>S. aurita</i>
<i>cinereae</i> Kopelke, 1996	<i>S. cinerea</i>
<i>purpureae</i> Kopelke, 1996	<i>S. purpurea</i>
<i>subgemma</i> Liston, 2006	<i>S. viminalis</i>
<i>testaceipes</i> (Brischke, 1883)	<i>S. fragilis</i> , <i>S. alba</i>
<i>venusta</i> (Brischke, 1883)	<i>S. aurita</i> , <i>S. caprea</i> , <i>S. cinerea</i>
<i>weiffenbachii</i> Ermolenko, 1988	<i>S. repens</i> , <i>S. rosmarinnifolia</i>

***Euura (Gemmura) E. L. Smith, 1968***

<i>daphnoidica</i> Kopelke, 2001	<i>S. daphnoides</i>
<i>gemmacinereae</i> Kopelke, 2001	<i>S. cinerea</i>
<i>hastatae</i> Malaise, 1921	<i>S. hastata</i>
<i>laeta</i> (Brischke, 1883)	<i>S. viminalis</i>
<i>lappo</i> Malaise, 1921	<i>S. lapponum</i>
<i>mucronata</i> (Hartig, 1837)	<i>S. aurita</i>
<i>nigritarsis</i> (Cameron, 1885)	<i>S. caprea</i> , ? <i>S. silesiaca</i>

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