

First reports of some leafhoppers (Auchenorrhyncha: Cicadellidae) from the Czech Republic and notes from Slovakia

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LAUTERER P. 2000: First reports of some leafhoppers (Auchenorrhyncha: Cicadellidae) from the Czech Republic and notes from Slovakia. *Acta Musei Moraviae, Scientiae biologicae* (Brno) **85**: 327–332. – *Arboridia loginovae* (EMELJANOV, 1964), *Zygina griseombra* REMANE, 1994, *Zygina schneideri* (GÜNTHART, 1974), first findings in the Czech Republic; *Macropsis megerlei* (FIEBER, 1868) and *Mocydiopsis intermedia* REMANE, 1961, first findings in Moravia; *Mocydiopsis longicauda* REMANE, 1961, first published localities in Moravia.

Key words: Faunology, Auchenorrhyncha, Cicadellidae, Moravia, Slovakia

Introduction

Since the publication of the checklist of leafhopper species by DLABOLA (1977), several additional species have been found in the territory of the Czech Republic and particularly in Moravia. Of these, the occurrence of five species is reported here for the first time, and knowledge of the sixth one is enhanced by presenting more precise data on distribution. In most cases, the data are the results of recent investigations in protected areas. A detailed elaboration of earlier extensive collections will follow; in the case of *Macropsis megerlei*, all available material, including collections in Slovakian localities, has been evaluated. With the exception of the collections made by I. Malenovský and deposited in his collection, all other material is deposited in the collections of the Moravian Museum, Brno. All determinations are my own. Unless otherwise stated, the findings are mine. All localities are denoted by codes for the Central European faunal grid mapping system.

Results

Macropsis megerlei (FIEBER, 1868)

Moravia occ., Českomoravská vrchovina Highlands: Čtyři Dvory (part of Prosetín u Bystřice nad Pernštejnem) (6464), silt on meadow after storm, 550 m, 1♂, 24.viii.1974; Mohelno (6863), serpentine steppe (W part) and forest surroundings, *Rosa rubiginosa*, 325 m, 1♂, 1♀, 1 specimen of 5th instar larva, 10.vii.1997. Moravia centr., Boskovická brázda Basin: Malhostovice, State Nature Reserve Malhostovická pecka (6664–6665), steppe on limestone, S and E slopes, *Rosa canina*, 320–350 m, 2♂, 3♀, 12.viii.1997, V. Kubáň leg.; Bobravská pahorkatina Hills: Brno, State Nature Reserve Kamenný vrch (6865), xerothermophilic meadow with *Rosa rubiginosa* and *R. canina*, 340–370 m, 1♂, 30.vi.1997; Moravian Karst: Brno-Hády (6766), SSE slopes, 290–380 m, 1♀, 1.ix.1994, P. Herzan leg.; ibid., plateau, 400–430 m, 1♀, 15.viii.1994, P. Herzan leg.; ibid., plateau, on *Rosa pimpinellifolia*, *R. rubiginosa* and *R. canina*, 6♂, 3♀, 2 specimens of 3rd and 4th instar larvae, 9.vii.1997. Moravia mer., State Nature Park Podyjí: Havraníky, Pustý vrch Hill (7162), 250–260 m, 1♀,

23.vii.1969; *ibid.*, elev. point 308 m, 1♀, 24.viii.1976; Podmolí, top of Šobes vineyard (7161), S slopes, *Rosa canina*, 320 m, 4♂, 4♀, 12.vii.1997; Pavlovské vrchy Hills: Sedlec, Kamenný vrch Hill (7266), 200–256 m, 1♂, 25.vii.1968.

Slovakia centr.: Strážovské vrchy Hills: Oslany, towards Velké Krštenany, Velký vrch Hill (7376), 200–300 m, 2♀, 10.vii.1977; Štiavnické vrchy Hills: Krškany, Horšovské údolie Valley (7778), 170–200 m, 1♀, 11.vii.1977. Slovakia mer., Burda: Kamenica nad Hronom (8178), 200 m, 1♀, 1.vii.1953, M. Kocourek leg.; Slovenský kras Hills: Plešivec (7488), S slopes of Plešivecká planina Hills, 200–500 m, 1♀, 9.vii.1979; Turňa nad Bodvou (7391), castle surroundings, S slopes on limestone rocky steppe, 200–350 m, 1♂, 7.vii.1976.

A new species to the territory of Moravia, it is widely distributed in the W and M part of the Palaearctic. It is known from Norway, The Netherlands, France, Germany (both former parts), Poland, Bohemia, Slovakia, Austria, Hungary, Italy, Rumania, former Yugoslavia, Bulgaria, Greece and further from Algeria, Tunisia, Anatolia, Georgia, Kazakhstan and Western Siberia. DLABOLA (1954) reports it from two localities in Bohemia but both of them are difficult to interpret. The name of the village of Stará Huž applies to four different places in Bohemia. Most probably, it pertains to a locality near Dobříš (Hřebený Hills, 6251), since the other three localities of the same name are merely parts of larger villages. The Vůznice locality is apparently only a local denomination, as it is not included in the list of villages in Bohemia. As to Slovakia, DLABOLA (1954) reports the occurrence of *M. megerlei* in Nitra (7674–7774) and Chĺaba (8178–8179). The species is rather rare and infrequently found, chiefly because it develops on heavily thorned rose bushes from which it is difficult to collect by sweep-netting. WAGNER (1964) reports *Rosa pimpinellifolia*, OSSIANNILSSON (1981) wild roses as the host plants. In this country the species has occurred mainly on *Rosa rubiginosa*, as pointed out to me by H. Nickel (personal communication); in many cases but less numerously also on *R. canina* and *R. pimpinellifolia*. The species occurs mainly in xerothermic habitats and only occasionally in mesophilic ones in highlands.

***Arboridia loginovae* (EMEL'YANOV, 1964)**

Moravia occ., Českomoravská vrchovina Highlands, foothills: Tišnov, Květnice Mt. (6664), Protected Nature Reserve, SE slopes, limestone steppe, probably on *Rosa* spp., 340–380 m, 2♂, 1♀, 17.ix.1997. Moravia centr., Moravian Karst: Brno-Líšeň, Stránská skála Hill (6866), SE slopes, limestone steppe, *Rosa rubiginosa*, 290 m, 1♂, 10.ix.1999.

A new species to the territory of the Czech Republic and, at the same time, Central Europe as well. Known previously from the Altai Mts. (Irkutsk Region) and Kazakhstan (Quaraghandy region, Semipalatinsk Region) (EMEL'YANOV 1964, DWORAKOWSKA 1970). *A. loginovae* is unusually similar to *A. simillima* (WAGNER, 1939). It differs in the situation of the basal penial appendix which, in *A. loginovae*, is somewhat nearer to the main sclerotized penial stalk and somewhat longer than in *A. simillima*, but the differences are very slight. There are more unequivocal differences in the shape of the apical parts of the styli: in *A. loginovae* the outer subapical excision is deeper and the widening of the penial stalk before the apical third part is more pronounced than in *A. simillima*. These differences become particularly clear in comparison of specimens of

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both species. *A. loginovae* occurs on steppe vegetation. DWORAKOWSKA (1970) reports a number of plant species considered to be hosts, but the small number of findings to date does not permit closer determination. Apparently, *A. simillima* is monophagous on *Rosa pimpinellifolia*, a plant species that does not occur within a compass of at least 10 km from my locality of *A. loginovae*. Instead, there were numerous other *Rosa* spp., especially *R. canina*, and they may possibly have been the host plants.

Zygina griseombra REMANE, 1994

Moravia occ., Českomoravská vrchovina Highlands: Hodonín, part Beranka (6464), forest edges and boundaries with *Carpinus betulus*, 540–550 m, many ♂♂ and ♀♀, 12.viii.1971; *ibid.*, 2♂, 1♀, 18.viii.1996; foothills: Tišnov, Květnice Hill (6664), E slopes, forest edges and forest road edges in Querceto-Carpinetum with *Pinus nigra*, on *Carpinus betulus* only, 350–380 m, 3♂, 2♀, 17.ix.1997; *ibid.*, steppe on SE slopes, 350 m, 1♂ 17.ix.1997. Moravia centr., Moravian Karst: Brno, Hády Hill (6766), *Carpinus betulus* on forest edge, 430 m, 2♂, 2♀, 17.x.1995. Moravia centr., Praebohemicum: Babice nad Svitavou, towards Bílovce nad Svitavou, Svitava River valley (6766), *Carpinus betulus* on forest edge, 240 m, 2♂, 5♀, 2.x.1999. Brno - Útěchov, valley towards Bílovce nad Svitavou (6765), *Carpinus betulus* wood, 350–400 m, 8♂, 14♀, 16.viii.1998. NáměšŤ nad Oslavou, Oslava River valley, part "U Vlasáka" (6863), *Carpinus betulus*, 350 m, 1♂, 1♀, 26.ix.1998. Kralice nad Oslavou, towards Sudkov, Chvojnice River valley (6863), *Acer campestre*, 360 m, 1♀, 25.ix.1999. Brno - Kohoutovice, towards Jundrov, part "Hobrtanky" (6865), forest edge with *Quercus* spp. and *Carpinus betulus*, 350–400 m, 3♂, 3♀, 3.x.1999.

New species to the territory of the Czech Republic. REMANE (1994) reports its distribution in central, southern and western Germany, as well as a single locality (1♀) in Normandy, France, and a single locality in Italy (Gargano Peninsula, province of Puglio). NICKEL (1994 and further communications) reports further localities in northern and eastern Germany, always on *Carpinus*, which is apparently the only host plant, also according to REMANE (1994). I can confirm his conclusions in that I have collected, from hornbeam trees, both fully sclerotized and still teneral specimens after the last moult. Adults probably hibernate on conifers; in Hodonín several specimens were found on Norway spruce. The species is conspicuous and readily distinguished from the remaining species of this very difficult genus. It occurs very rarely and mostly in small numbers, its distribution is insular and the leafhoppers are far from being found in all habitats in which their host plants grow.

Zygina schneideri (GÜNTART, 1974)

Moravia centr., Bobravská pahorkatina Downs: Brno, Kamenný vrch Hill, (6865), State Nature Reserve, xerothermophilic meadow on granodiorite, 340–370 m, 4♂, 1♀, 29.ix.1979.

A new species to the territory of the Czech Republic. Although NAST (1987) included Czechoslovakia in his synopsis of European localities of the species, I know no concrete data from the Czech Republic or from Slovakia. It is probable that NAST (1987) erroneously mistook GÜNTART's (1974) statement that a part of the type series collected in Switzerland was deposited in Prague in the collection of Dr. J. Dlabola, and thought that *Z. schneideri* also occurred in this country. The species has been described from

Switzerland and is known to occur in the southern parts of Norway and Sweden, in Great Britain, France, both former parts of Germany, Poland, Austria, Italy, the former Yugoslavia, Bulgaria and Ukraine (NAST 1987, OSSIANILSSON 1981, NICKEL 1994). It lives on a wide range of members of the family Rosaceae, primarily on woody species. It has been reared on *Malus*, *Sorbus* and *Prunus*, collected from *Pyrus* spp., plum trees, *Rosa rugosa* and cultivated *Fragaria* and *Potentilla* but also on *Ulmus* spp. In the wild it is most frequently found on *Prunus spinosa* and, in towns, on decorative rosaceous bushes (REMANE & FRÖHLICH 1994). Like other species of the genus, *Z. schneideri* hibernates on conifers. The species is difficult to separate from some other representatives of the genus, especially from *Z. rhamnicola*, and thus its distribution is very poorly known. Only perfectly coloured and sclerotised specimens can be distinguished, as the characteristic wing pattern and the black coloration of male hind tarsi, as well as the dimensions of the sound apodemes in the abdomen, develop gradually over rather a long period of time.

***Mocydiopsis intermedia* REMANE, 1961**

Moravia centr., Boskovická brázda Basin: Malhostovice, State Nature Reserve Malhostovická pecka Hill (6664–6665), steppe on limestone, steep N slopes with dominant *Sesleria calcaria*, 320–350 m, 1♂, 27.ix.1997, together with numerous *M. longicauda* Remane. Moravia mer., Pavlovské vrchy Hills: Pavlov, Děvín Hill (7165), ENE slopes on limestone, near top, 500–530 m, 3♂, 1♀, 8.iii.1997. Dr. H. Nickel kindly told me that he had also collected an unspecified number of specimens of this species at Mikulov, Svatá hora Hill (7165), WNW slopes, limestone steppe with dominant *Sesleria*, 290–330 m, 16.viii.1995.

A new species to the territory of Moravia. The species has been described from both former parts of Germany (REMANE 1961). In his checklist, DLABOLA (1977) included it as occurring in Bohemia, noting that concrete localities would be published later. In his subsequent studies, however, the author concentrated almost exclusively on more important problems of leafhopper taxonomy and has not yet published the faunological data for this species. Further, NAST (1987) reports the distribution of the species in Hungary as well, and REMANE & FRÖHLICH (1994) also mention France and the Austrian Niederösterreich and Burgenland, as well as a number of additional findings in Germany. REMANE (1961) states that, like *M. longicauda*, the species inhabits dry grasslands rich in forbs, growing on limestone slopes, but is more rare and less frequently found than *M. longicauda*. Later, REMANE & FRÖHLICH (1994) report *Brachypodium pinnatum* as the probable host plant and state that the occurrence of the species is concentrated on warm slopes on basic substrates (limestone and basalts), grown with shrubs that provide shade. Since then, in my findings, as well as in the collection of H. Nickel mentioned above, the species mostly occurred on slopes facing the north, north-west and north-east and grown over predominantly with *Sesleria calcaria*. This grass is most probably the major host plant of both these species and of *M. longicauda*, a species showing very similar bionomics and taxonomically closely related to *M. intermedia*. In central Europe, the following leafhopper species are wholly or partly tied to *Sesleria* spp.: *Chlorionidea flava*, *Delphacinus mesomelas*, *Zyginidia alpicola* and *Z. mocsaryi*. As in the remaining representatives of the genus, adults hibernate, surviving until May (REMANE & FRÖHLICH 1994).

***Mocydiopsis longicauda* REMANE, 1961**

Moravia centr., Boskovická brázda Basin: Malhostovice, State Nature Reserve Malhostovická pecka Hill (6664–6665), steppe on limestone, 320–350 m, S slopes with dominant *Festuca valesiaca*: 1♂, 1♀, 12.viii.1997, V. Kubáň leg.; ibid., 2♂, 1♀, 4.ix.1997, I. Malenovský leg.; ibid. but E slopes with dominant *Calamagrostis* and frequent *Sesleria*, 16♂, 19♀, 24.viii.1997; ibid., 11♂, 8♀, 4.ix.1997, I. Malenovský leg.; ibid., 10♂, 30♀, 27.ix.1997; ibid. but steep N slopes with dominant *Sesleria calcaria*, 16♂, 15♀, 24.viii.1997; ibid., 10♂, 6♀, 4.ix.1997, I. Malenovský leg.; ibid., 7♂, 11♀, 27.ix.1997. Moravia mer., Pavlovské vrchy Hills: Pavlov, Děvín Hill (7165), E–NE slopes near top, 500–530 m, 10♀, 8.iii.1997.

The above are the first concretely specified localities for this species in Moravia. The species has been described from both former parts of Germany, Bohemia and Austria. In his checklist, DLABOLA (1977) included the species as occurring in Moravia and Slovakia, with a note that detailed localities would be specified later but, being occupied by taxonomical work, he failed to do publish them. NAST (1987) also summarised data from Poland, Ukraine, the former Yugoslavia and Greece. REMANE & FRÖHLICH (1994) quote data from D'Urso and Guglielmino in Italy and Sicily, and they specify the western limit of the range of this species on the eastern Rhine up to Altmühl and the Danube, and they report the occurrence of *M. longicauda* in southern Switzerland (Tessin). The species is fairly abundant in suitable xerothermic habitats in steep limestone and basalt slopes, particularly if north-facing; but the suitable habitats are infrequent. Such habitats are dominated by *Sesleria calcaria* or related species of that genus and, as mentioned under *M. intermedia*, it is highly probable that those grasses are their main host plants.

Souhrn

V práci jsou publikovány první zmínky o výskytu tří druhů kříšů v České republice, dvou druhů na Moravě a u jednoho je povšechný údaj o výskytu na Moravě doložen uvedením konkrétních lokalit. *Macropsis megerlei* (FIEBER, 1868), nový pro Moravu, je uveden z řady lokalit a specifikovány jsou i údaje z Čech a ze Slovenska. *Arboridia loginovae* (EMELJANOV, 1964) je nový pro Evropu a jsou diskutovány jeho odlišné znaky od středoevropského *A. simillima* (WAGNER, 1939). Druhy *Zygina griseombra* REMANE, 1994 a *Z. schneideri* (GÜNTART, 1974) jsou nové pro Českou republiku a pro prvního byl habr potvrzen jako hostitelská rostlina. *Mocydiopsis intermedia* REMANE, 1961 dosud nebyl publikován z Moravy a od příbuzného druhu *M. longicauda* REMANE, 1961 jsou z této země zde publikovány konkrétní lokality, hostitelskou rostlinou obou těchto druhů je pravděpodobně *Sesleria calcaria*.

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