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Four weevil species new to the fauna of Hungary from motorway rest areas  
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**Abstract** – Four weevil species new to the Hungarian fauna were found in the framework of a countrywide survey of arthropods inhabiting highway rest areas: *Otiorhynchus (Melasemnus) smreczynskii* Cmolluch, 1968, *Coniatus (Bagoides) splendidulus* (Fabricius, 1781), *Polydrusus (Scythodrusus) inustus* Germar, 1824 and *Trichosirocalus spurnyi* (Schultze, 1901). With 4 figures.

**Key words** – Road ecology, *Otiorhynchus smreczynskii*, *Coniatus splendidulus*, *Polydrusus inustus*, *Trichosirocalus spurnyi*

## INTRODUCTION

Motorway rest areas and motorway margins have a characteristic species assemblage of arthropods (KNAPP *et al.* 2013). Despite easy accessibility for sampling, obvious specificity of environmental conditions, and high exposure to introduction of alien species, the fauna of these habitats is only poorly investigated worldwide. However, KOZÁR *et al.* (2013) revealed an extremely high diversity of scale insects in motorway margins, reporting the occurrence of more than 50% of the species of Hungarian scale insect fauna. Faunistic survey of motorway habitats can also be important for the early detection of new invasive species. The spotted wing drosophila, *Drosophila suzukii* (Matsumura, 1931), a dangerous invasive pest of fruits, has been, for instance, recently found for the first time in Hungary in a motorway rest area (KISS *et al.* 2013).

\* The paper is dedicated to Dr László Móczár, doyen of the Hungarian hymenopterists, celebrating his 100th birthday.

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The superfamily of weevils (Curculionoidea) is a highly diverse group of phytophagous beetles containing more than 1200 species known to occur in Hungary (PODLUSSÁNY 2009). The four weevil species new to the Hungarian fauna presented here were caught in the framework of a countrywide survey of motorway rest areas carried out in 2011 and 2012. Two of them were also collected in other parts of Hungary, and their data are included.

*Abbreviations of specimen depositories* – CVS = private collection of Valentin Szénási, Isaszeg, Hungary; HNHM = Hungarian Natural History Museum, Budapest.

#### MATERIAL AND METHODS

Four different collecting methods were used to collect adult weevils in Hungarian highway rest areas: pitfall traps (with ethylene glycol), vacuum sucking devices (D-vac), beating branches, and sweep-netting. Samplings were carried out three times a year in different seasons (spring, summer, and autumn).

#### RESULTS

*Otiorhynchus (Melasemnus) smreczynskii* Cmolluch, 1968  
(Fig. 1)

*Material examined* – **Fejér county:** Velence, highway rest area (N 47°14'34", E 18°37'60"), collected by pitfall trap, 16.VII.2012, leg. Kiss B. (2 females, HNHM); Velence pihenőhely (N 47°14'34", E 18°37'60"), collected by pitfall trap, 16.VII.2012, leg. F. Kádár (1 female, HNHM); Velence, highway rest area (N 47°14'34", E 18°37'60"), collected by pitfall trap, 8.X.2012, leg. F. Kádár (2 females, HNHM). **Pest county:** Pilisborosjenő, Köves-bérc, singled from beneath stones 20.I.2014, 18.V.2014, leg. P. Nemes & T. Németh (1 specimen, CVS, 1 specimen, HNHM). **Somogy county:** Balatonszemes, Vadvirág campsite, beaten from shrub, at night, 21.VI.2013, leg. V. Szénási (1 specimen, CVS).

*Remarks* – According to LÖBL & SMETANA (2012) the species is present in most part of Eastern Europe, in Switzerland, in the Baltic countries and Sweden, as well as in Western Siberia. Lilac (*Syringa vulgaris*) is considered as one of the most frequent host plants of the species (BALALAIKINS & BUKEJS 2011), which is also supported by our results because the pitfall traps in Velence highway rest area were installed near lilac bushes.

*Coniatus (Bagoides) splendidulus* (Fabricius, 1781)  
(Fig. 2)

*Material examined* – **Csongrád county:** Rösztke, border station (N 46°10'50", E 19°59'05"), collected by beating branches of *Tamarix* sp., 18.IX.2012, leg. É. Szita (1 female, HNHM); Rösztke, border station (N 46°10'50", E 19°59'05"), collected by beating branches of *Tamarix* sp., 15.V.2012, leg. É. Szita (1 male, HNHM). **Fejér county:** Óbarok, highway rest area (N 47°30'14", E 18°32'59"), collected by beating branches of *Tamarix* sp., 8.VIII.2012, leg. É. Szita (1 female, HNHM).

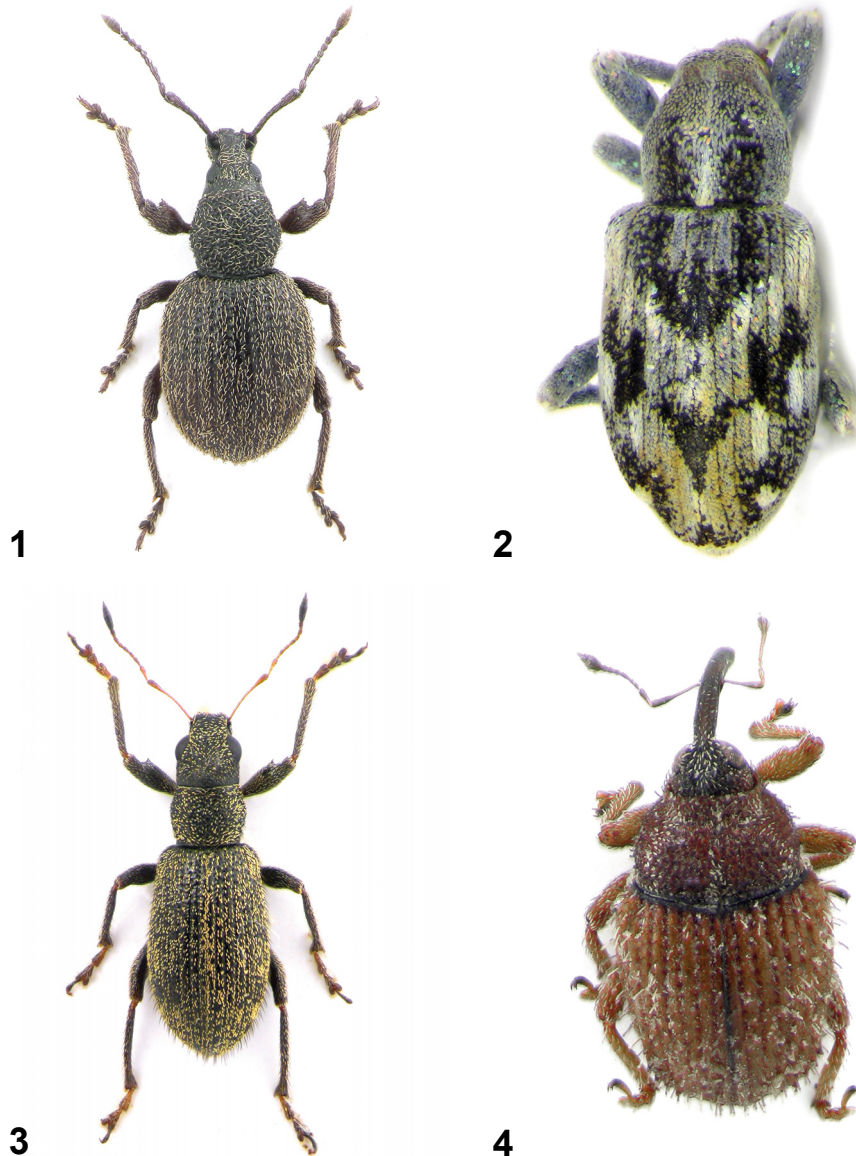
*Remarks* – According to LÖBL & SMETANA (2012) the species is present in Bulgaria, Greece, Georgia, Romania, Ukraina and the Southern European part of Russia as well as in some countries of the Middle East. In Central Europe, ENDRÓDI (1963) mentioned the species also from Croatia. *C. splendidulus*, the "Splendid Tamarisk Weevil" has also been recently found in North America (ECKBERG & FORSTER 2011, BRIGHT *et al.* 2013), where tamarisk plants are considered as dangerous alien invaders. The complete *Coniatus* genus is known to be strictly associated with the genus *Tamarix*.

*Polydrusus inustus* Germar, 1824  
(Fig. 3)

*Material examined* – **Fejér county:** Velence, highway rest area (N 47°14'34", E 18°37'60"), collected by sweep-netting, 14.V.2012, leg. B. Kiss (1 female, HNHM). **Pest county:** Cegléd, side of main road 4, swept from slightly degraded meadow, beneath sycamore maple, 5.V.2014, 23.V.2014, leg. V. Szénási (5 specimens, CVS, 8 specimens, HNHM). **Szabolcs-Szatmár-Bereg county:** Nyíregyháza, highway rest area (N 47°53'13", E 21°44'50"), collected by beating branches of *Rosa canina* L., 17.V.2011. leg. É. Szita (8 females, HNHM); Nyíregyháza, highway rest area (N 47°53'14", E 21°44'47"), collected by beating branches of *Potentilla fruticosa* L., 17.V.2011. leg. É. Szita (1, female, HNHM); Nyíregyháza, highway rest area (N 47°53'13", E 21°44'51"), collected by sweep netting, 19.V.2012, leg. B. Kiss (2 females, HNHM).

*Remarks* – According to LÖBL & SMETANA (2012) the species is present in France, Switzerland, Azerbaijan, Armenia, Bulgaria, Russia, France, Georgia, Poland, Switzerland, Turkey, Ukraine, Kyrgystan, Kazakhstan and Uzbekistan. Attila Podlussány found the species also in Dobrudzha, Romania in 2013 and 2014 (unpublished data). The lack of males fits to previous observations that populations of *P. inustus* consist of parthenogenetic females over most of the distribution range, bisexual populations were known so far only from Georgia and Turkey (KOROTYAEV

1996, cited in KAJTOCH *et al.* 2009). Our records are also in accordance with the statements of KAJTOCH *et al.* (2009), in that these weevils live mostly on Rosaceae in xerothermic habitats but sometimes are also found in dry wastelands.



**Figs 1–4.** 1 = *Otiorhynchus (Melasemmus) smreczynskii* Cmollich, 1968, 2 = *Coniatus (Bagoides) splendidulus* (Fabricius, 1781), 3 = *Polydrusus inustus* Germar, 1824, 4 = *Trichosirocalus spurnyi* (Schultze, 1901). Not to scale

*Trichosirocalus spurnyi* (Schultze, 1901)  
(Fig. 4)

*Material examined* – **Zala county**: Letenye, border station (N 46°25'10", E 16°42'28"), collected by D-vac device, 14.V.2012, leg. B. Kiss (4 males, 1 female, HNHM); Sormás, highway rest area (N 46°28'41", E 16°55'03"), collected by D-vac device, 14.V.2012, leg. B. Kiss (1 male, HNHM).

*Remarks* – According to LÖBL & SMETANA (2012) the species is present in Austria, Czech Republic, Germany, France, Italy, Moldova, the Netherlands, Poland, Romania, Ukraina, and also in Hungary. However, previous records from Hungary are highly doubtful. ENDRŐDI (1968) listed the species under the name of *Ceutorrhychidius hassicus* Schulze in the Hungarian fauna, but that was made on the basis of old specimens, with locality labelling "Hungaria". As the borders of Hungary have considerably changed after World War I (1918), the geographical origin of these specimens is doubtful. In his Hungarian checklist PODLUSSÁNY (1996) listed the species as expected to occur in Hungary. Main host plants are *Achillea millefolium* L., *Plantago lanceolata* L. and *Plantago major* L.

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