

First record of *Deraeocoris flavilinea* in Hungary (Heteroptera, Miridae: Deraeocorinae)*

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Abstract – *Deraeocoris flavilinea* (A. Costa, 1862) is recorded for the first time in Hungary. All individuals were collected from the canopies of *Acer pseudoplatanus*, *A. platanoides* and *A. campestre*. With 2 figures.

Key words – Heteroptera, Miridae, *Deraeocoris flavilinea*, new record, faunistics

INTRODUCTION

Deraeocoris flavilinea (A. Costa, 1862) was described from Sicily. For a long time it was thought to be an endemic species (RABITSCH 2008), however, one century later, in 1961 *D. flavilinea* was collected in Corsica and from the 1980s it was recorded from several countries in Europe such as Germany, the United Kingdom, the Netherlands, Denmark, Luxemburg, Belgium etc. (Fig. 1) (CHÉROT 1998, GÖLLNER-SCHIEDING 2001, MILLER 2001, GÜNTHER 2002, GILLERFORS & COULIANOS 2005, KMENT *et al.* 2005, GOGALA 2006, RABITSCH 2008, REICHLING & GEREND 1994, SCHEMBRI 1993, DUSANKA *et al.* 2011, NIKOLAY *et al.* 2013). Its range is expanding eastwards; the current easternmost record of distribution is from Bulgaria (SIMONOV *et al.* 2013). A photograph taken in North Poland by G. GIERLASINSKI on 13 July 2013 (see <http://www.entomologiitaliani.net/public/forum/phpBB3/viewtopic.php?f=95&t=48803>, accessed 6 December 2014) proves that *D. flavilinea* has also invaded Poland.

Deraeocoris flavilinea has one generation per year and overwinters in egg stage (TRIGRIANNI 1973, WACHMANN *et al.* 2004, DUSANKA *et al.* 2011). Most of the

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individuals were collected from the canopies of trees, mainly from *Acer*, but also from *Tilia*, *Fraxinus*, *Corylus*, *Crataegus* and *Malus* (WACHMANN *et al.* 2004, KONDOROSY *et al.* 2010). As other *Deraeocoris* species (DUSANKA *et al.* 2011, WACHMANN *et al.* 2004), *D. flavilinea* is zoophytophagous, generally feeding on aphids, but according to some reports it preys on eggs of true bugs, larvae of whiteflies and jumping plant lice too (SIMONOV *et al.* 2013, TRIGRIANNI 1973). In Hungary 11 species of *Deraeocoris* Kirschbaum, 1856 are known to occur so far (KONDOROSY 1999).

DERAEOCORIS FLAVILINEA IN HUNGARY

The true bug communities in the canopies of three *Acer* species (*A. campestre*, *A. platanoides* and *A. pseudoplatanus*) were surveyed in different locations in Budapest, Hungary: Alkotás street (N 47° 29' 22.9" E 19° 01' 30.9"), the Botanical Garden of Corvinus University (CUB Arboretum, N 47° 28' 49.4" E 19° 02' 16.1"), Elek street (47° 28' 49.7"N 19° 01' 54.9"E), and Gellért Hill (N 47° 29' 07.9" E 19° 02' 50.6"). Regular samples were taken with a beating tray in 2014, and heteropterans were identified using keys by WAGNER & WEBER (1964).

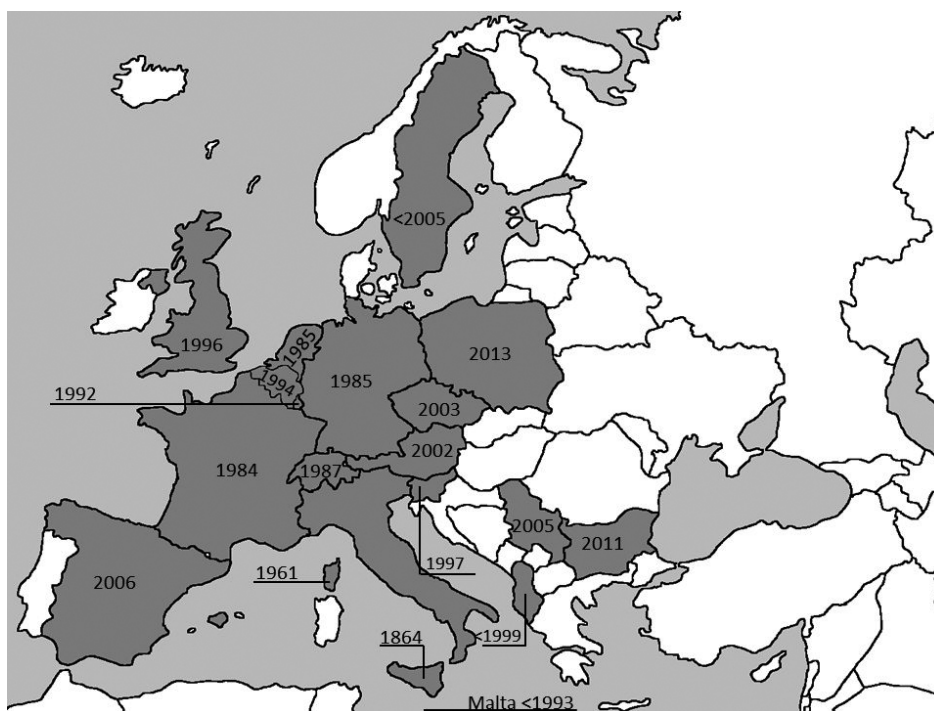


Fig. 1. Spread of *Deraeocoris flavilinea* (A. Costa, 1862) in Europe from 1861 to 2013 (source: http://www.youreuropemap.com/blank_europe_map.gif)

Among the collected 2624 heteropterans, 60 specimens were identified as *D. flavilinea* (Fig. 2). These are the first records of the species in Hungary. Most of the specimens were collected from *A. pseudoplatanus* (44 specimens), followed by *A. campestre* (8 specimens) and *A. platanoides* (8 specimens), where they mainly preyed on maple aphids, *Periphyllus* spp.

The activity peak of *D. flavilinea* was experienced in June, and the sex ratio was female biased (38 ♀♀ vs. 22 ♂♂). Other *Deraeocoris* species in the same samples were *Deraeocoris lutescens* Schilling, 1837 (298 ♀♀, 159 ♂♂) and *Deraeocoris ruber* Linnaeus, 1758 (1 ♀).

Collected individuals are deposited in the Hungarian Natural History Museum and in the insect collection of the Department of Entomology, Corvinus University of Budapest.

Material examined (only adults) – *Acer pseudoplatanus*: Alkotás str., 18.V.2014, 2 ♂♂, 1.VI.2014, 1 ♀, 16.VI.2014, 1 ♀; CUB Arboretum, 1.VI.2014, 5 ♀♀, 29.VI.2014, 1 ♀; Gellért Hill, 1.VI.2014, 13 ♂♂, 15 ♀♀, 16.VI.2014, 4 ♂♂, 2 ♀♀. *Acer campestre*: Elek str., 18.V.2014, 1 ♂, 1.VI.2014, 1 ♀, 16.VI.2014, 1 ♀, 29.VI.2014, 1 ♀; Alkotás str., 18.V.2014, 1 ♀, 16.VI.2014, 1 ♀, 29.VI.2014, 1 ♀; Gellért Hill, 1.VI.2014, 1 ♀. *Acer platanoides*: Alkotás str., 18.V.2014, 2 ♂♂, 2 ♀♀, 1.VI.2014, 2 ♂♂, 16.VI.2014, 2 ♀♀. The collector was Dávid Korányi.



Fig. 2. *Deraeocoris flavilinea* (A. Costa, 1862), male (left) and female (right) (photo Á. Varga)

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