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## FAUNISTIC RECORDS FROM THE CZECH REPUBLIC – 291

### Heteroptera: Oxycarenidae

***Oxycarenus lavaterae*** (Fabricius, 1787). **Bohemia centr.**, Praha-Spořilov (5952), 50°02′50″ N, 14°28′44″ E, Severovýchodní street between Roztylské náměstí square and Severní street, and the neighbouring Trnavská a Púchovská streets (ca. 15 trees), Severní street (ca. 2 trees), Na Chodovci street at the junction with Hrusická street (4 trees), and Hlavní street behind the crossroads with Choratická street (3 trees), 16.xii.2009, thousands of specimens aggregated on bark of *Tilia cordata* and *T. tomentosa*, P. Drbal, J. Fischer and J. Kindl observ., J. Kindl leg., P. Kment det. (5 ♂♂ 5 ♀♀ in coll. National Museum, Praha & 1 ♂ 1 ♀ in coll. Moravian Museum, Brno); Praha-Spořilov (5952), Severovýchodní and Trnavská streets, 19.i.2010, thousands of spec. on bark of *Tilia* sp., P. Kment lgt. et det. (2 ♂♂ 7 ♀♀ in coll. National Museum, Praha); the same locality, 14.iv.2010, several thousands of living adults on seven lime trees, P. Kment, D. B. Říhová, J. Hadrava, M. Semerák & V. Šulc observ. (3 ♀♀ in coll. National Museum, Praha). **Bohemia mer.**, České Budějovice, Jiráskovo nábřeží embankment (7052, from 48°58′41.078″ N and 14°28′1.889″ E to 48°58′53.977″ N and 14°27′50.09″ E), on *Tilia cordata* (35 trees) in a 400 m stretch from Dlouhý most bridge downstream on the Vltava river, 31.i.2010, several specimens to several thousands of specimens per tree, M. Dvořák observ. et det.; the same locality, 5.ii.2010, hundreds of specimens on one *Tilia cordata* (all living), M. Dvořák lgt., P. Kment det. (6 ♂♂ 4 ♀♀ in coll. National Museum, Praha & 1 ♂ 1 ♀ in coll. Moravian Museum, Brno); the same locality, 12.iv.2010, about 70 % of the specimens survived the winter, M. Dvořák observ. **Moravia centr.**, Olomouc-centre (6469b), Envelopa, 49°35′24″ N, 17°15′49″ E, on young *Tilia* sp. along a road, 19.xi.2009, dozens of spec., O. Machač observ. et det.; the same locality, 25.xi.2009, several aggregations (largest consisting of several thousand of spec.), M. Krist observ. et det. (4 ♂♂ 4 ♀♀ 2 larvae in coll. Vlastivědné muzeum, Olomouc). Přerov-centre (6570b), 49°27′12″ N, 17°26′43″ E, x.2008, dozens to several hundreds of spec., M. Fiala observ. et det. Přerov (6570b), Ulice 9. května street, 49°26′29″ N, 17°27′26″ E, 210 m a.s. l., xii.2009, hundreds of spec. on *Tilia* sp., M. Fiala observ. et det. Zlín (6772c), Třída Tomáše Bati street, 7.v.2010, hundreds of specimens on trunks of *Tilia* sp., E. Ezer observ. et det.

*Oxycarenus lavaterae* (Fabricius, 1787) is a member of the family Oxycarenidae (formerly part of Lygaeidae *sensu lato*). This bug has a peculiar life cycle, being trophically bound to plants of the family Malvaceae *s. l.* (including Tiliaceae; cf. Bayer et al. 1999). In the Western Mediterranean it develops on various Malvaceae *s. str.*, moving to the trunks of various trees to overwinter, while in Italy, central Europe, and the Balkan Peninsula this species occurs on lime trees (*Tilia cordata*, *T. americana*, *T. euchlora*, but avoiding *T. platyphyllos*) on which it breeds as well as hibernates. The above-mentioned occurrence on *Tilia tomentosa* is the first known record from this plant (J. Fischer, pers. comm.). *Oxycarenus lavaterae* is remarkable for its gregarious way of life, which is especially apparent during hibernation, when hundreds to many thousands of specimens aggregate on the trunks of trees, often in cities and villages. Large numbers of specimens sometimes enter human dwellings and cause nuisance to people

or harm to cultivated plants (peaches, vines, ornamental Malvaceae). For more details about the life cycle see the reviews by Péricart (1999), Kment et al. (2006) and Rabitsch (2008).

Until the 1980s, *Oxycarenus lavaterae* was only known to occur in the Western Mediterranean – Morocco, Algeria, Tunisia, Canary Islands, Portugal, Spain (incl. Balearic Islands), southern France (incl. Corsica), Italy (incl. Sicily, Sardinia and some small islands) and Malta. It reached central Europe in the southernmost Swiss canton Ticino and eastwards it entered Slovenia (Nova Gorica) and the Dalmatian coast of Croatia (e.g., Péricart 1999, 2001; Kment et al. 2006). The distributional records of *O. lavaterae* from tropical Africa and the Arabian Peninsula repeated in the literature (e.g., Péricart 1999, 2001) are probably based on misidentifications of similar species (cf. Kment et al. 2006). In the 1980s, *O. lavaterae* started to spread east and north. It was recorded from Montenegro (first 1985) (Velimirović et al. 1992), Hungary (1994) (Kondorosy 1995, Bürgés 1997), Slovakia (1995) (Bianchi & Stehlík 1999), Serbia (1996) (Protić & Stojanović 2001), Bulgaria (1998, environs of Sofia) (Kalushkov 2000), environs of Paris in northern France (1999) (Reynaud 2000, Denosmaison 2001), Austria (2001) (Rabitsch & Adlbauer 2001), northern Switzerland (2002) (Wermelinger et al. 2005), southern Germany (2004, Baden-Württemberg) (Billen 2004), Czech Republic (2004, southern Moravia) (Kment et al. 2006, Kment 2006), and Romania (2008, Banat) (Kment 2009). It was also recently recorded from Madeira (Matocq & Ribes 2004). Accidental introduction of colonies of *O. lavaterae* on lime saplings from Italy was documented in northern Germany (Deckert 2004) and the Netherlands (Aukema & Hermes 2009). Rabitsch (2008) even mentioned an indoor record from Finland (in 2003), but establishment of the species so far north seems improbable. We confirm here a successful overwintering of the species in the conditions of central and southern Bohemia, despite temperatures dropping below –20°C several times during the winter. A new alien species for the fauna of Bohemia, and the first record from central Moravia.

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