

***Oxycarenus lavaterae*, an expansive species new to Romania
(Hemiptera: Heteroptera: Oxycarenidae)**

PETR KMENT

Department of Entomology, National Museum, Kunratice 1, CZ-148 00 Praha 4, Czech Republic;
e-mail: sigara@post.cz

KMENT P. 2009: *Oxycarenus lavaterae*, an expansive species new to Romania (Hemiptera: Heteroptera: Oxycarenidae). *Acta Musei Moraviae, Scientiae biologicae* (Brno) **94:** 23–25. – *Oxycarenus lavaterae* (Fabricius, 1787) is recorded for the first time in the territory of Romania (Banat). This record confirms a further expansion of its range towards the north and east.

Keywords. Heteroptera, Oxycarenidae, *Oxycarenus lavaterae*, Romania, Bulgaria, range expansion

Introduction

Oxycarenus lavaterae (Fabricius, 1787) is a peculiar member of the family Oxycarenidae (formerly part of Lygaeidae *sensu lato*) with a remarkable life cycle. For recognition of this species see the key by Péricart (1999). The species is trophically bound to plants of the family Malvaceae. In the western Mediterranean it develops on a range of Malvaceae *sensu lato* (incl. former Malvaceae *sensu stricto*, Tiliaceae, Bombacaceae, and Sterculiaceae; cf. BAYER *et al.* 1999), moving to the stems of various trees to overwinter. However, 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. *Oxycarenus lavaterae* is remarkable for its gregarious way of life, which is especially apparent during the hibernation, when hundreds to many thousands of individuals aggregate on the stems of trees, often in cities and villages. They may sometimes enter human dwellings in great numbers, becoming a nuisance to people or harming cultivated plants (peaches, grapevines, ornamental Malvaceae). For more details of the life-cycle, see reviews by PÉRICART (1999), KMENT *et al.* (2006) and RABITSCH (2008).

***Oxycarenus lavaterae* (Fabricius, 1787)**

Material examined. SW Romania, Banat, Caraș-Severin District, environs of Sopotu Nou (N 44°48'37", E 21°51'15"), 21.–24.viii.2009, 1♂ 1♀, V. Psota lgt., P. Kment det. (coll. National Museum, Praha, Czech Republic).



Discussion

Until the 1980's, *Oxycarenus lavaterae* was known to occur only 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 of Ticino and in the east 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 1980's, *O. lavaterae* began to spread eastwards and northwards. 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), northern France (1999, environs of Paris) (DENOSMAISON 2001), Austria (2001) (RABITSCH & ADLBAUER 2001), northern Switzerland (2002) (WERMELINGER *et al.* 2005), southern Germany (2004, Baden-Württemberg) (BILLEN 2004) and Czech Republic (2004, southern Moravia) (KMENT *et al.* 2006). It was also newly found on Madeira in July 2001 (MATOCQ & RIBES 2004). RABITSCH (2008) mentioned an indoor record from Finland (in 2003) but establishment of the species so far north appears improbable. This also seems to be true for the documented accidental introduction of *O. lavaterae* with plants imported from Italy to a nursery near Berlin in April 2000 (DECKERT 2004). Currently the species extends as far east as eastern Slovakia (Streda nad Bodrogom – KMENT *et al.* 2003), south-western Romania (this paper) and eastern Bulgaria, where *O. lavaterae* reached the Black Sea coast (Varna, on *Tilia* sp. on Knyaz Boris Boulevard 1 and in front of the Archeological Museum, 11.vi.2009, J. Beránek observ.) (J. Beránek, pers. comm.). Taking the expansion potential of this species into account, its current occurrence in the Transcarpathian Ukraine and other parts of Balkan peninsula can be expected.

Acknowledgements

I am obliged to Václav Psota, Jan Bezděk (both Mendel University of Agriculture and Forestry, Brno) and Petr Baňař (Moravian Museum, Brno) for providing the material and Jakub Beránek (State Phytosanitary Service, Brno) for information about the occurrence of *Oxycarenus lavaterae* in Varna. This work was supported by Ministry of Culture grant (MK) 00002327201 to the National Museum, Prague.

Oxycarenus lavaterae new to Romania

References

- BAYER C., HOPPE J.R., KUBITZKI K., FAY M.F., DE BRUIJND A.Y., SAVOLAINEN V., MORTON C.M., KUBITZKI K., ALVERSON W.S. & CHASE M.W. 1999: Support for an expanded family concept of Malvaceae within a recircumscribe order Malvales: a combined analysis of plastid atpB and rbcL DNA sequences. *Botanical Journal of the Linnean Society* **129**: 267–303.
- BIANCHI Z. & STEHLÍK J. L. 1999: Oxycarenus lavaterae (Fabricius, 1787) in Slovakia (Heteroptera: Lygaeidae). *Acta Musei Moraviae, Scientiae Biologicae* **84**: 203–204.
- BILLEN W. 2004: Kurzbericht über das Auftreten einer neuen Wanze in Deutschland. *Nachrichtenblatt des Deutschen Pflanzenschutzdienstes* **56**: 309–310.
- BÜRGÉS G. 1997: Neue Pflanzenschutzprobleme der urbanisierten Gebiete in Ungarn. *Mededelingen Faculteit Landbouwkundige en Toegepaste Biologische Wetenschappen Universiteit Gent* **62(2a)**: 321–329.
- DECKERT J. 2004: Zum Vorkommen von Oxycareninae (Heteroptera, Lygaeidae) in Berlin und Brandenburg. *Insecta* (Berlin) **9**: 67–75.
- DENOSMAISON J. C. 2001: Heteropteres nouveaux pour la région parisienne. *Entomologiste (Paris)* **57**: 84.
- KALUSHKOV P. 2000: Observations on the biology of Oxycarenus lavaterae (Fabricius) (Heteroptera: Lygaeidae), a new Mediterranean species in the Bulgarian fauna. *Acta Zoologica Bulgarica* **52**: 13–15.
- KMENT P., BRYJA J., JINDRA Z., HRADIL K. & BAŇAŘ P. 2003: New and interesting records of true bugs (Heteroptera) from the Czech Republic and Slovakia II. *Klapalekiana* **39**: 257–306.
- KMENT P., VAHALA O. & HRADIL K. 2006: First records of Oxycarenus lavaterae (Fabricius, 1787) (Heteroptera: Oxycarenidae) from the Czech Republic with review of its distribution and biology. *Klapalekiana* **42**: 97–127.
- KONDOROSY E. 1995: Az *Oxycarenus lavaterae* bodobácsfaj (Heteroptera: Lygaeidae) hazai megjelenése. (*Oxycarenus lavaterae*, a new lygaeid species in the Hungarian bug fauna (Heteroptera: Lygaeidae)). *Folia Entomologica Hungarica* **56**: 237–238 (in Hungarian, English abstract).
- MATOCQ A. & RIBES J. 2004: Un nouveau Dicyphus de l'Île de Madère [Heteroptera, Miridae, Bryocorinae, Dicyphini]. *Revue Française d'Entomologie (Nouvelle Série)* **26**: 43–46.
- PÉRICART J. 1999: Faune de France et régions limitrophes. Vol. 84B. Hémiptères Lygaeidae Euro-Méditerranéens. Vol. 2. Fédération Française des Sociétés de Sciences Naturelles, Paris, iii + 453 pp + 9 pls.
- PÉRICART J. 2001: Family Lygaeidae Schilling, 1829 – Seed-bugs. Pp 35–220. In: AUKEEMA B. & RIEGER C. (eds.): *Catalogue of the Heteroptera of the Palaearctic Region*. Vol. 4. Pentatomomorpha I. The Netherlands Entomological Society, Amsterdam, xiv + 346 pp.
- PROTIĆ Lj. & STOJANović A. 2001: Oxycarenus lavaterae (Fabricius, 1787) (Heteroptera: Lygaeidae) još jedna nova vrsta u entomofauni Srbije. (*Oxycarenus lavaterae* (Fabricius) (Heteroptera: Lygaeidae) another new species in the entomofauna of Serbia). *Zashtita Prirode* (Beograd) **52**: 61–63 (in Serbian, English summary).
- RABITSCH W. 2008: Alien True Bugs of Europe (Insecta: Hemiptera: Heteroptera). *Zootaxa* **1827**: 1–44.
- RABITSCH W. & ADLBAUER K. 2001: Erstnachweis und bekannte Verbreitung von Oxycarenus lavaterae (Fabricius, 1787) in Österreich (Heteroptera: Lygaeidae). *Beiträge zur Entomfaunistik* **2**: 49–54.
- VELIMIROVIĆ V., ĐUROVIĆ Z. & RAJČEVIĆ M. 1992: Bug Oxycarenus lavaterae Fabricius (Lygaeidae, Heteroptera) new pest on lindens in southern part of Montenegro. *Zaštita Bilja* (Beograd) **43**: 69–72.
- WERMELINGER B., WYNIGER D. & FORSTER B. 2005: Massenaufreten und erster Nachweis von Oxycarenus lavaterae (F.) (Heteroptera, Lygaeidae) auf der Schweizer Alpennordseite. *Mitteilungen der Schweizerischen Entomologischen Gesellschaft* **78**: 311–316.