

FIRST RECORD OF *CORTODERA FLAVIMANA* (WALTL, 1838) (COLEOPTERA: CERAMBYCIDAE) IN CROATIA

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Cortodera flavimana is a Pontic species which occurs from Austria and Hungary, through Serbia and south-eastern Europe and Turkey. It was not previously known from Croatia. Two specimens were found, one in Cerna (E Croatia, in 2008) and one in Okuje (NW Croatia, in 2013), raising the number of known *Cortodera* species in Croatia to five; the other being *C. humeralis*, *C. femorata*, *C. holosericea* and *C. villosa*. These records represent an expansion of the species' known range and indicate the possibility of new records, at least in Croatia, and the need for further research into longhorn beetles in the country.

Key words: longhorn beetles, Cerna, Okuje

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Cortodera flavimana je pontijska vrsta, rasprostranjena od Austrije i Mađarske preko Srbije i jugoistočne Europe do Turske. Do sada nije bila zabilježena za Hrvatsku. Pronađena su dva primjerka, jedan kod Cerne (istočna Hrvatska, 2008. godine) i jedna kod Okuja (sjeverozapadna Hrvatska, 2013. godine), čime je broj poznatih vrsta roda *Cortodera* iz Hrvatske porastao na pet; ostale četiri su *C. humeralis*, *C. femorata*, *C. holosericea* i *C. villosa*. Ovi nalazi predstavljaju proširenje poznatog areala te vrste, ukazuju na mogućnost novih nalaza u budućnosti, barem iz Hrvatske, i ukazuju na potrebu daljnjeg istraživanja faune strizibuba Hrvatske.

Ključne riječi: strizibube, cvilidrete, Cerna, Okuje

INTRODUCTION

Longhorn beetles (Cerambycidae), with many large and/or conspicuous species, have always captivated the interest of entomologists. In recent years, there have been many advances regarding the knowledge of European longhorns: many faunistic papers covering specific regions were published, along with a plethora of new information about the biology, larval development and host plant preferences (BENSE, 1995; SAMA, 2002). Because of this they are regarded as the beginner group for both new amateur and professional coleopterists (BENSE, 1995). The larvae of many species develop in wood, with some being pests, attracting the attention of forestry workers. The larvae of others, especially in southern Europe, develop in herbaceous plants (BENSE, 1995). Adults of some species do not feed at all. Those that do eat either leaves and twigs, or the pollen and nectar of flowers (BENSE, 1995). The research, although sporadic, into Croatian Cerambycid fauna dates back to the first half of the 20th century (DEPOLI, 1942; MÜLLER, 1905,

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1906a, 1906b, 1906c). Most papers focused on the Mediterranean part of the country, a trend which has continued to this day (DEMELT & SCHURMAN, 1964, 1966, 1973; KOREN, 2010; KOREN *et al.*, 2010; KOREN & PEROVIĆ, 2010; MIKŠIĆ, 1951; NOVAK, 1952, 1964, 1970). The first comprehensive review of the Croatian Cerambycidae, as a part of the Yugoslavian cerambycid fauna, was given by MIKŠIĆ (1963), followed by MIKŠIĆ & GEORGIJEVIĆ (1971; 1973; 1985). According to them, there are at least 225 longhorn beetle species in Croatia. In the last decade, several new species were recorded for the first time for Croatia: *Agapanthia viti* Rapuzzi et Sama, 2012 (KOVÁCS *et al.*, 2012), *Stenurella sennii* Sama, 2002 (RAPUZZI *et al.*, 2011), *Leiopus linnei* Wallin, Nylander et Kvamme, 2009 (WALLIN *et al.* 2009), *Callidiellum rufipenne* (Motschulsky, 1862) (ŁOS & PLEWA, 2011) and *Anoplophora chinensis* (Forster, 1771) (VUKADIN, 2011; VUKADIN & HRAŠOVEC, 2008, 2012), the latter two being classified as alien pests.

Longhorn beetles of the genus of *Cortodera* Mulsant, 1863 are small beetles, ranging from seven to 14 mm in length. Adults can be found from late April to July on flowers of various plants, e.g. *Crataegus*, *Fraxinus*, *Plantago*, *Ranunculus*, *Paeonia*, *Chrysanthemum* (ILIĆ & ČURČIĆ, 2013; MIKŠIĆ & GEORGIJEVIĆ, 1971). At present, there are 14 species in Europe (DE JONG *et al.*, 2014). Of those, three are most certainly present in Croatia: *C. humeralis* (Schaller, 1783), *C. femorata* (Fabricius, 1787), *C. holosericea* (Fabricius, 1801), while the occurrence of *C. villosa* Heyden, 1876 is listed as doubtful (MIKŠIĆ, 1963; MIKŠIĆ & GEORGIJEVIĆ, 1971). A Pontic species, *C. flavimana* (Waltl, 1838), is also known from the region. In Europe, it occurs in Austria, Hungary, Serbia, Macedonia, Greece, Romania, Bulgaria, and Turkey (ADLBAUER, 2001; ILIĆ & ČURČIĆ, 2013; ÖZDIKMEN, 2003; VUKAJLOVIĆ & ŽIVANOVIĆ, 2015). Here we present the first findings of this species in Croatia.

MATERIAL AND METHODS

The longhorn beetles were collected by hand during visits to Cerna (SW of Vinkovci, Vukovar-Srijem County, 27. 4. 2008.; N: 45°11'22", E: 18°41'15") and Okuje (S of Zagreb,



Fig. 1. Distribution of *Cortodera flavimana* in Europe (grey). ? – doubtful presence; ● – new records.

Zagreb County, 22. 5. 2013.; N: 45°40'20", E: 16°3'52") and placed in the private collections of the authors. They were identified using BENSE (1995). Photos of the specimens were sent to P. Rapuzzi, who confirmed the identification.

RESULTS AND DISCUSSION

In total, two individuals of *C. flavimana* were collected, one per locality (Figures 1 and 2). *C. flavimana* can be easily distinguished from *C. humeralis* and *C. femorata* by the distinctly expanded last segment of the maxillary palp, while the dense semi-recumbent light yellow or golden pubescence on its head and pronotum distinguish it from *C. villosa* and *C. holosericea* (BENSE, 1995). Both individuals are from the continental part of Croatia, with the Cerna locality being only approximately 55 km from the closest finding of this species in Serbia. Both were found on a mosaic of wet grasslands with bushes and deciduous forest. Since those habitat combinations occur in other parts of north-western and eastern Croatia, especially between the new findings and the rest of the distribution range, and between the new records themselves, additional records from Croatia are to

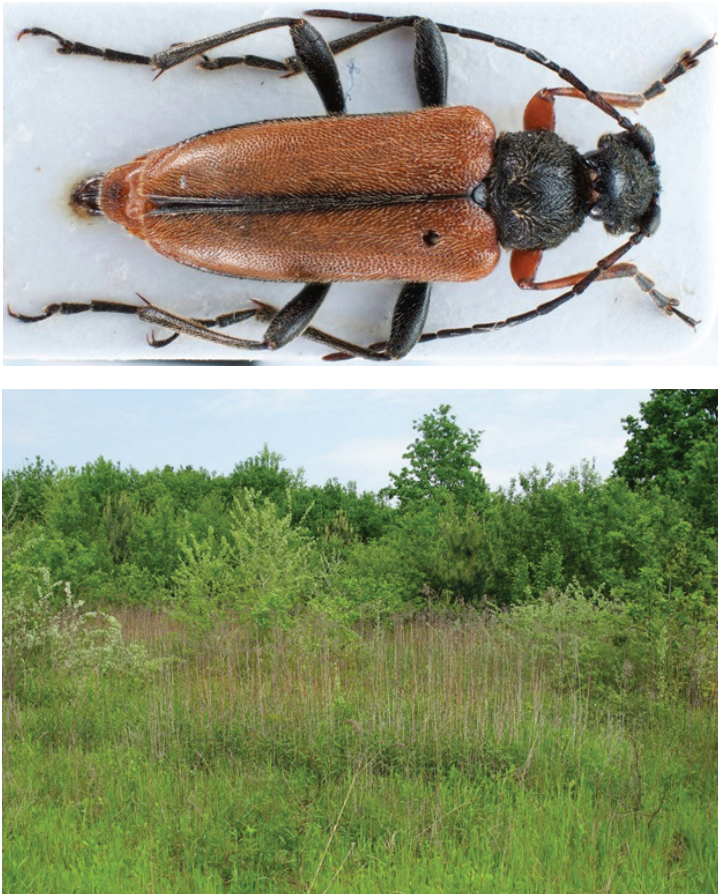


Fig. 2. Top: *Cortodera flavimana* from Okuje, south of Zagreb (Photo: Zoran Mandić). Bottom: habitat at Okuje, where the beetle was found.

be expected. The species still has not been found in Slovenia, which is somewhat surprising, since it is present in all the neighbouring countries except Italy, and the cerambycid fauna of the country is well known (BRELIH *et al.*, 2006).

CONCLUSIONS

Despite the numerous papers that have been published, we cannot really say that the Croatian longhorn beetle fauna is well-known. The many taxonomic changes, descriptions of new species in the Balkans (SAMA, 2002) and the new species recorded for the country have rendered the work of MIKŠIĆ & GEORGIJEVIĆ (1971; 1973; 1985) fairly outdated. And since many longhorn beetle species are of economic importance and/or are threatened because of habitat loss/mismanagement, an updated review is needed (NETO & ALEXANDER, 2010), not just a review of the species list, but of the legislature concerning their protection. For instance, Croatia has only two „strictly protected“ longhorn beetle species – *Cerambyx cerdo* Linnaeus, 1758 and *Rosalia alpina* (Linnaeus, 1758), while *Morimus funereus* Mulsant, 1862 is „protected“ (ANONYMOUS, 2009; 2013). To compare, Serbia, whose cerambycid fauna is the best known in the western Balkans, has seven „strictly protected“ and 31 „protected“ species, *C. flavimana* being among them (ANONYMOUS, 2010). Future work should be focused on surveying the areas that have little or no or very old records, with the aim of producing a checklist and assessing the species for the Red Book of Croatian longhorn beetles.

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SAŽETAK

**Prvi nalaz vrste *Cortodera flavimana* (Waltl, 1838)
(Coleoptera: Cerambycidae) za Hrvatsku**

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Strizibube su uvijek plijenile pažnju i stručnjaka i amatera zbog svoje veličine i/ili primjetnosti. U zadnjih nekoliko desetljeća naše znanje o toj porodici uvelike je poraslo: utvrđena je distribucija mnogih vrsta, a objavljeno je i mnoštvo radova o njihovoj biologiji, razvoju ličinki i biljkama hraniteljicama (BENSE, 1995; SAMA, 2002). Također, mnoge vrste su od ekonomske važnosti i radi toga pobuđuju dodatno zanimanje stručnjaka i javnosti. Istraživanja ove porodice u Hrvatskoj, doduše sporadična, datiraju još s početka 20. stoljeća, no uglavnom su usmjerena na mediteranski dio države (DEPOLI, 1942; MÜLLER, 1905, 1906a, 1906b, 1906c; DEMELT & SCHURMAN, 1964, 1966, 1973; KOREN, 2010; KOREN *et al.*, 2010; KOREN & PEROVIĆ, 2010; MIKŠIĆ, 1951). Prvi konkretni pregled hrvatske faune, u sklopu Jugoslavije, je dan od strane MIKŠIĆA (1963) te MIKŠIĆA I GEORGIJEVIĆA (1971; 1973; 1985). Oni navode barem 225 vrsta za Hrvatsku, među njima četiri pripadnika roda *Cortodera* Mulsant, 1863. Pontijska vrsta *Cortodera humeralis* (Waltl, 1838) prisutna je i u jugoistočnoj Europi, a nađena je i u Austriji (ADLBAUER, 2001). U Sloveniji nije zabilježena (BRELIH i sur., 2010). Prilikom posjeta Cerni 2008. i Okuju 2013. godine (kontinentalna Hrvatska) sakupljen je po jedan primjerak. Time je ta vrsta prvi put zabilježena za Hrvatsku i predstavlja proširenje njenog poznatog područja rasprostranjenosti u Europi. Očekuju se novi nalazi s područja Hrvatske, barem u kontinentalnom dijelu. Potrebno je nastaviti s istraživanjima strizibuba u Hrvatskoj, s ciljem izrade novog popisa vrsta, te procijeniti njihovu ugroženost po IUCN kriterijima, radi izrade crvene knjige.