

THE FIRST RECORD OF THE BOX TREE MOTH, *CYDALIMA PERSPECTALIS* (WALKER, 1859) (LEPIDOPTERA, CRAMBIDAE) IN CROATIA

TONI KOREN & MITJA ČRNE

University of Primorska, Science and Research Centre, Institute for Biodiversity Studies, SI-6310 Izola, Giordana Bruna 6, Slovenia (E-mail: koren.toni1@gmail.com)

Biodiva – Conservation biologist society, Kettejeva 1, 6000 Koper, Slovenia

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During a light-trap moth survey on 21st June 2012 in the northern part of Istria, between the villages of Valica and Sveta Marija na Krasu, two individuals of the box tree moth, *Cydalima perspectalis*, were caught. This is the first Croatian record of this invasive species. Following the recent records from Slovenia and Hungary, this observation from Croatia indicates the spread of the species towards southern Europe.

Key words: box tree moth, invasive species, Istria, Croatia

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Tijekom istraživanja noćnih leptira svjetlosnim lovkama 21.06.2012. u sjevernom dijelu Istre, između sela Valica i Sveta Marija na Krasu, ulovljene su dvije jedinke šimširovog moljca, *Cydalima perspectalis*. To je prvi nalaz ove invazivne azijske vrste u Hrvatskoj. Nakon nedavnih nalaza iz Slovenije i Mađarske, nalaz iz Hrvatske ukazuje na širenje ove vrste prema južnoj Europi.

Ključne riječi: šimširov moljac, invazivna vrsta, Istra, Hrvatska

The box tree moth, *Cydalima perspectalis* (Walker, 1859), is a crambid moth native to eastern Asia (China, Korea, and Japan) (LERAUT, 2012). It was recorded for the first time in Europe in 2006, in Germany (KRÜGER, 2008). It was most probably introduced to Europe with containered *Buxus* seedlings (MALLY & NUSS, 2010). After that it spread quickly across large parts of Europe, including Austria and Lichtenstein (RODELAND, 2009), Switzerland (KÄPPEL, 2008), the Netherlands (MUUS *et al.*, 2009), France (FELDTRAUER *et al.*, 2009), Italy (EPPO, 2011), Britain (MITCHELL, 2009), Belgium (CASTEELS *et al.*, 2011), Hungary (SÁFIÁN & HORVÁTH, 2011) and Slovenia (SELJAK, 2012). It has also been recently reported from Turkey (HIZAL *et al.*, 2012). The caterpillars of *C. perspectalis* feed on leaves of *Buxus* spp. (*B. sempervirens*, *B. microphylla*, *B. sinica* and *B. colchica*), *Ilex purpurea* and *Euonymus japonicus* and are considered to be serious defoliators (KORYCINSKA & EYRE, 2009). Accordingly it may present a serious threat to historical gardens, in which *Buxus* spp. are commonly used as an important horticultural design plant (SELJAK, 2012). This species has up to three generations per year in Asia, as well as in Europe (KORYCINSKA & EYRE, 2009), and overwinters in the caterpillar stage (ZHOU *et al.*, 2005).



Fig. 1. First record of *Cydalima perspectalis* in Croatia (black triangle).

During moth light trapping on 21st July 2012, in the northern part of Croatian Istria, on Parenzana road, between the villages Sveta Marija na Krasu and Valica (Fig. 1), near the Slovenian-Croatian border (45.469450, 13.592667, UL93), two *C. perspectalis* specimens were collected (Fig. 2).



Fig. 2. First specimen of *Cydalima perspectalis* from Croatia.

The observed specimens stood out at once from the light trap catches, being unusually large compared with native pyralids. The first specimen was seen at 23h, two hours after the beginning of trapping. The light traps were put on a macadam path, surrounded with rocky walls and *Cornus mas*, *Quercus ilex*, *Prunus* spp., *Cotinus* sp. No box shrubs were found in the area. The natural distribution of *Buxus* spp. in Croatia is quite scattered, and the closest record lies near the Mirna river valley, some 30 kilometers to the south (NIKOLIĆ, 2012), so it is possible that the adults arrived from nearby cities or villages. This species was never before recorded in Croatia. The closest records originate from Slovenia (SELJAK, 2012) and Hungary (SÁFIÁN & HORVÁTH, 2011). It has to be expected in the near future at other localities in Croatia as well. The most probable locations would be villages and cities in Istria (e.g. Umag, Buje, Novigrad) in which *Buxus* spp. are commonly used as ornamental plants in gardens and parks. It seems that after spreading across Central Europe, this species is now spreading towards Southern Europe, where the milder climate may present more suitable conditions.

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SAŽETAK

Prvi nalaz šimširovog moljca, *Cydalima perspectalis* (Walker, 1859) (Lepidoptera, Crambidae) u Hrvatskoj

T. Koren & M. Črne

Šimširov moljac, *Cydalima perspectalis* (Walker, 1859) je istočnoazijska vrsta noćnog leptira koja spada u porodicu Pyralidae. Prvi je puta u Europi zabilježena u Njemačkoj 2006., odakle se počela intenzivno širiti po čitavoj srednjoj Europi. U susjednim državama Sloveniji i Mađarskoj zabilježena je tek 2011. godine. Prilikom lova na noćne leptire svjetlosnim zamkama na sjeveru Istre, između sela Valica i Sveta Marija na Krasu, 21.06.2012. ulovljena su dva primjerka ove vrste. Ovo je prvi nalaz ove invazivne vrste u Hrvatskoj, te pokazatelj da se vrsta i dalje širi prema jugu Europe. U bližoj budućnosti ova će vrsta zasigurno biti zabilježena i na drugim lokalitetima u Hrvatskoj.