The fruit beauty moth, *Lycia pomonaria* (*Hübner, 1790*) (Lepidoptera: Geometridae) a new member of the moth fauna of Croatia

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During the survey of moth fauna of the forest Ţutica, near Zagreb, a single specimen of *Lycia pomonaria* was recorded. This species is usually active late at night, rarely visits the light traps, and has a low dispersal ability due to the wingless females. It had never reported for Croatia, and this record represents the first reported occurrence in the country.

![Figure 1. The locality of finding of *Lycia pomonaria* in Croatia (red circle).](image)

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The genus *Lycia* Hübner, 1825 is represented by eight species in Europe (Fauna Europea, 2016). Members of this genus are larger, hairy geometrid moths, at first glance more similar to Noctuidae than Geometridae. Most of the species, with the exception of the widely distributed *Lycia hirtaria* (Clerck, 1759) are usually local and encountered in small numbers as they are late night flyers. Except *L. hirtaria* in all other species the female is wingless, limiting the distribution potential of each species. Two species have been recorded in Croatia till now, *L. hirtaria* occurring in all of Croatia, and the more local, *Lycia graecarius* (Staudinger, 1861) inhabiting dry grasslands in the Mediterranean part of the country, especially the coastline and the Adriatic islands (e.g. Abafy-Aigner 1910; Hafner 1994). In the middle of March 2016, a third species, *Lycia pomonaria* (Hübner, 1790), has been recorded for the first time in Croatia.

During the field trip to the forest Ţutica (N: 45°39'13.9", E: 16°25'42.6"), on 18.3.2016, a single male of *L. pomonaria* was attracted to the light trap around 19:30 (Fig. 1). The specimen was collected and stored in the author’s private collection in Zagreb.

The study site, Ţutica forest, is located near Ivanić Grad, within the Zagreb County. It is a lowland flooded forest. The tree layer is dominated by the English oak (*Quercus robur*), ash (*Fraxinus angustifolia*), elm (*Ulmus laevis*), white alder (*Populus alba*) and alder (*Populus nigra*). The shrub layer is abundant at the forest edge, and the edges of paths, and is formed by large broom (*Genista elata*), hawthorn (*Crataegus oxyacantha*), blackthorn (*Prunus spinosa*), wild pear (*Pyrus pyraster*) and other species. In respect to the moth fauna, this forest is completely unsurveyed, and no published data exists.

![Male specimen of *Lycia pomonaria* from Ţutica forest, Croatia.](image)

*Figure 2. Male specimen of *Lycia pomonaria* from Ţutica forest, Croatia.*

*Lycia pomonaria* is a Eurosiberian species, occurring in the central and northern part of Europe, northern Kazakhstan, southern Siberia and the Far East (Macek et al. 2012). It inhabits plains and hills, being rare in higher mountains. It usually flies in the damp oak-hornbeam woodland (Leraut 2009). Adults are active between February and May in a single generation (Leraut 2009). The wingspan is 30-35 mm in males, while the females are wingless. The larvae mainly feed on the genus *Betula*, but can also feed on other deciduous trees.
The early flight period of this species, along with the limited dispersal capability, may be the reason why it is considered to be local and rare, and has thus remained undiscovered in Croatia until now, like also in Bosnia and Herzegovina. In the last few decades the knowledge about the butterfly fauna of Croatia has been greatly increased, and this resulted in the creation of the Red Book of Butterflies of Croatia (Šašić et al. 2015). However, trends in moth surveys are still not sufficiently positive, the surveys being scarce in general. Only several smaller regions were surveyed in recent times, and this includes Krk Island (Habeler 2008), central Istria (Koren & Ladavac 2013), the Motovun forest in Istria (Koren et al. 2015) and Nature Park Kopački Rit (Vignjević et al. 2010). In the last decade, only a single geometrid species was recorded as a new species for Croatia (Koren 2012), while many unpublished records exist, usually in the private collections and/or museums. With the publication of such data the knowledge on the moth fauna of Croatia is slowly increasing.

References


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