

PHYLLONORYCTER ROBINIELLA (CLEMENS, 1859) (LEPIDOPTERA: GRACILLARIIDAE) – A NEW SPECIES FOR THE LITHUANIAN FAUNA

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Introduction

The genus *Phyllonorycter* Hübner, 1822 (= *Lithocolletis* Hübner [1825]) has a world wide distribution, but it is mainly found in the temperate zone of the northern hemisphere (Pottinger & LeRoux, 1971). Approximately 250 species of this genus are described from Europe and North America (Kuznetzov, 1981; Davis, 1983; De Prins & De Prins, 2005). 51 species are known in Lithuania (Noreika, 1998; Ivinskis, 2004). It is expected that more species will be found in Lithuania.

Phyllonorycter robiniella (Clemens, 1859) was not recorded from Lithuania before. It is the only species that is found on the leaves of *Robinia pseudoacacia* in Lithuania. The origin of this moth is in the North of America (Clemens, 1859). It was found in western Europe in 1983 (Switzerland) (Whitebread, 1990), and began spreading to the East. Lithuania is the most eastern known locality of *Ph. robiniella* in Europe.

Material and Methods

The mines were collected by the author of this report on leaves of *Robinia pseudoacacia* L. in the south-western part of the Vingis Park (Vilnius city) on the 14th of October, 2007. The habitat can be described as anthropogenic pine wood (250–300 years old). There are some planted *Picea abies*, *Betula verrucosa*, and *Populus canadensis* trees (35–40 years old). There are also scattered *Tilia cordata*, *Acer platanoides*, *Acer negundo* trees, and six *Robinia pseudoacacia* trees (approximately 20 years old) with some sprouts that are 3–7 years old. The mines were collected on the sprouts. 380 leaves with mines were collected. Imagos were reared under laboratory conditions in Petri dishes. The material is preserved in the collection of the Vilnius Pedagogical University.

Results

A new Gracillariidae (Lepidoptera) species was recorded for the Lithuanian fauna:

Phyllonorycter robiniella (Clemens, 1859) (Fig. 1)

Material examined: Vingis Park, Vilnius city (54°40'30,8"N, 25°14'19,2"E), mines 14 10 2007, ex. pupa 30 ♂, 39 ♀, 15–24 10 2007.

It was noticed that 80% of the mines were already empty, 18% contained pupae and 2% had larvae inside. Usually mines had a white cocoon with a pupa, but there were

three mines with two cocoons and alive pupae. Dead or parasitized pupae were not found. Roughly 2/3 of leaves of each bush were with mines. Each composite leaf had up to eight mines (mainly 1–2), and each smaller leaf contained one, rarely two mines. The mines could cover half of the small leaf (up to the central nerve). They were swollen and having one or two crinkles, white in colour and are better visible from the underside of a leaf, while they are light greenish from the upperside (Fig. 2).

In Northern America, the moth larvae feed on the leaves of *Robinia pseudoacacia* L. (Clemens, 1859), *R. viscosa* Vent., *R. hispida* L., and *R. neomexicana* Gray (Chambers, 1878; Forbes, 1923; Needham *et al.*, 1928). In Europe, the larvae of *Ph. robiniella* were found only on leaves of *Robinia pseudoacacia* (Deschka, 1995).

Distribution of the moth: Austria, Belgium, Canada, Croatia, the Czech Republic, France, Germany, Hungary, Italy, the Netherlands, Poland, Slovakia, Spain, Switzerland, Ukraine and the USA (De Prins & De Prins, 2005).

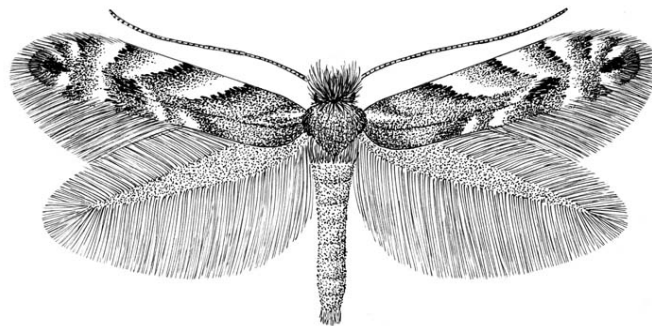


Figure 1. Imago of *Phyllonorycter robiniella* (Clemens, 1859).

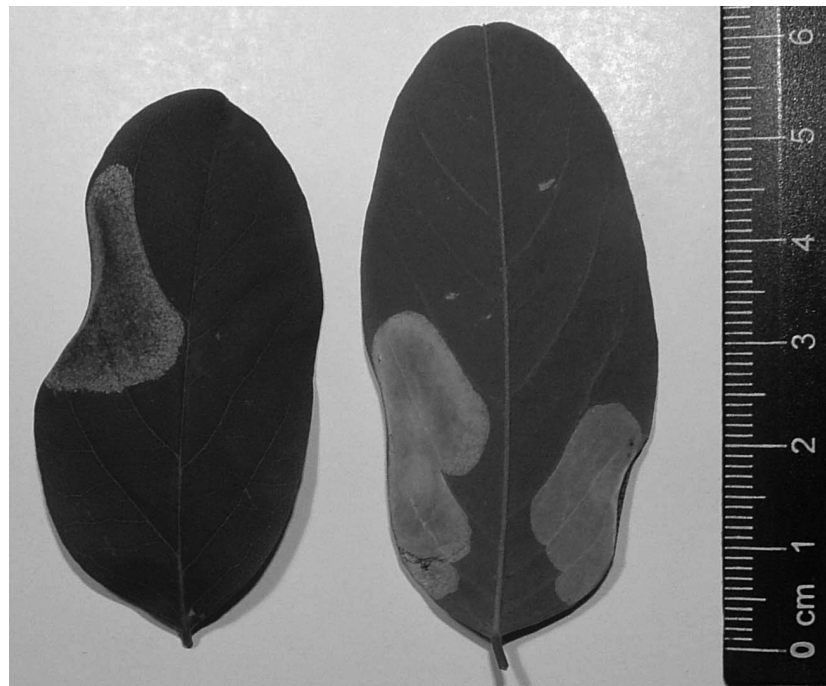


Figure 2. Mines of *Phyllonorycter robiniella* on leaves of *Robinia pseudoacacia* L.

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***Phyllonorycter robiniella* (Clemens, 1859) (Lepidoptera: Gracillariidae)– nauja Lietuvos faunos rūšis**

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Santrauka

2007 metų spalio 14 d. pietvakarinėje Vingio parko dalyje (Vilniaus miestas) ant baltažiedės robinijos (*Robinia pseudoacacia* L.) lapų buvo aptiktos naujos Lietuvos faunos keršujų kandelių (Lepidoptera, Gracillariidae) rūšies *Phyllonorycter robiniella* (Clemens, 1859) minos. Ši rūšis kilusi iš Šiaurės Amerikos, 1983 metais pirmą kartą aptikta Vakarų Europoje (Šveicarijoje), šiuo metu sparčiai plintanti į rytus. Pateikiami duomenys apie radimo datą, vietą, minavimo pobūdį, surinktų minų bei išaugintų suaugusių individų skaičių.

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