

Caloptilia hauderi, a new species for the Belgian fauna (Lepidoptera: Gracillariidae)

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Samenvatting. *Caloptilia hauderi*, een nieuwe soort voor de Belgische fauna (Lepidoptera: Gracillariidae)

Op 09 juli 2004 werd een exemplaar van *Caloptilia hauderi* (Rebel, 1906) aangetroffen te Viersel (provincie Antwerpen). Het gaat om de eerste waarneming van deze soort in België. De verspreiding en de biologie van deze soort worden kort besproken.

Résumé. *Caloptilia hauderi*, une espèce nouvelle pour la faune belge (Lepidoptera: Gracillariidae)

Le 09 juillet 2004, un exemplaire de *Caloptilia hauderi* (Rebel, 1906) fut trouvé à Viersel (province d'Anvers). Il s'agit de la première observation de cette espèce en Belgique. Des informations sur la répartition et la biologie de l'espèce sont données.

Key words: *Caloptilia hauderi* – faunistics – Belgium – first record.

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Fig. 1: *Caloptilia hauderi* (Rebel, 1906), Belgium, Province of Antwerp, Viersel, Nature Reserve "Kleine Netevallei", 09.VII.2004, leg. M. Jacobs (Photo: M. Jacobs).

On 09 July 2004, an unknown *Caloptilia* was caught on a 125 Watt mercury vapour lamp in the nature reserve "Kleine Netevallei" at Viersel (Belgium, Province of Antwerp), leg. M. Jacobs. The specimen was photographed and released again the next day. Later on it was identified from the pictures by the third author as *Caloptilia hauderi* (Rebel, 1906) (Kimber 1999–2005). This identification was confirmed by Chris Steeman and the first two authors. This is the first record of this species in Belgium. The imago is rather easily distinguished from its congeners by an almost rectangular yellowish blotch on the forewing costa which contrasts well with the dark-brown ground colour. In fresh specimens the ground colour shows a purplish tinge. Sometimes, there are some small additional yellowish markings on the forewing. The femur and tibia of all legs are of the same chestnut dark-brown colour as the forewing ground

colour, while the tarsomeres are whitish yellow, resembling the colour of the rectangular blotch.

Biology

The egg is laid on the underside of a leaf of *Acer campestre* L. (Chrétien 1908: 246, Fletcher 1940: 9). The young larva feeds at first in a long and rather broad epidermal gallery on the underside of the leaf. During the tissue-feeding phase all the parenchyma within the blotch-mine is eaten except the veins. The later instar caterpillar lives outside the mine and constructs three successive cones by rolling down part of a lobe of a leaf. The cone is sometimes closed with another lobe. These cones can be found in May and June, mainly rather high in the tree, usually between 2–4 m. For pupation, the larva constructs a whitish green cocoon on the underside of a leaf during June (Emmet *et al.* 1985: 273).

The moths fly from early July till the beginning of September and then they hibernate in sheltered places. The species is probably univoltine but has perhaps two generations yearly in the south of France (Chrétien 1908: 246). *C. hauderi* prefers trees that grow inside woods, not those growing at their margins or in hedge-rows. Near to the finding place there is a large *Acer campestre* hedge, the only stand of these trees in the far surroundings. It would be interesting to search for the mines in the future.

Distribution

The species was described from Austria, Kirschdorf (Rebel 1906: 9) and became known from only very few countries: Austria, Czech Republic, France, Hungary, Italy, Romania, Switzerland, and United Kingdom (Buszko 2004). In all these countries, *C. hauderi* is very local and almost never found in high numbers, e.g. in the United Kingdom, the species is only recorded from the Isle of Wight and from some localities in the south of Southampton (Ford 1933: 230).

References

- Buszko, J., 2004. Fauna Europaea: Gracillariidae. In: Karsholt, O. & van Nieukerken, E. J. (eds.), Fauna Europaea: Lepidoptera, Moths. — Fauna Europaea version 1.1, <http://www.faunaeur.org>.
- Chrétien, P., 1908. Microlépidoptères nouveaux pour la faune française. — *Naturaliste* (Sér. 2) **22**(520): 245–246.
- Emmet, A. M., 1984. A name change in the genus *Calybites* Hübner (Lep.: Gracillariidae). — *Entomologist's Record and Journal of Variation* **95**(5–6): 97.
- Emmet, A. M., Wilkinson, I. A. & Wilson, M. R. 1985. Gracillariidae. In: Heath, J. & Emmet, A. M. (eds.): *The Moths and Butterflies of Great Britain and Ireland, Volume 2 Cossidae–Helioidinidae*. — Harley Books, Great Horkeley, 460 pp., 14 plates (12 in colour). Chapter pagination: 244–363, pls. 10–13.
- Fletcher, T. B., 1940. Collecting notes. *Caloptilia pyrenaella*, Chretien 1908. — *Entomologist's Record and Journal of Variation* **52**: 8–9.
- Ford, T. B. 1933. *Gracilaria pyrenaella*, Chrét., an addition to the British list. — *Entomologist* **66**: 230.
- Kimber, I., 1999–2005. *UK Moths*. — <http://www.ukmoths.force9.co.uk/>
- Rebel, H. 1906. Beschreibung eines neuen Kleinschmetterlings. — *Verhandlungen des zoologisch-botanischen Vereins in Wien* **56**: 9–11.