Aristotelia subdecurtella, a species new to Belgium (Lepidoptera: Gelechiidae)

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Samenvatting. *Aristotelia subdecurtella*, een nieuwe soort voor de Belgische fauna (Lepidoptera: Gelechidiae)

Verscheidene exemplaren van *Aristotelia subdecurtella* (Stainton, 1858), echte pistoolmot, werden waargenomen in het natuurgebied "Kleine Netevallei" (Viersel, prov. Antwerpen) in de periode 2003–2010, leg. M. Jacobs. Dit zijn de eerste bekende Belgische exemplaren van deze soort. De verspreiding in Europa, de habitat en de biologie worden kort besproken. De verschillen met de gelijkende soorten worden opgesomd.

Résumé. *Aristotelia subdecurtella*, une espèce nouvelle pour la faune belge (Lepidoptera: Gelechidiae)

Plusieurs exemplaires de *Aristotelia subdecurtella* (Stainton, 1858) furent observés dans la réserve "Kleine Netevallei" (Viersel, prov. d'Anvers) dans la période 2003–2010, leg. M. Jacobs. Il s'agit des premiers exemplaires de cette espèce en Belgique. La distribution en Europe, le biotope et la biologie sont brièvement discutés. Les différences entre les espèces avoisinantes sont indiquées.

Key words: *Aristotelia subdecurtella* – Gelechiidae – Belgium – Faunistics – First record.

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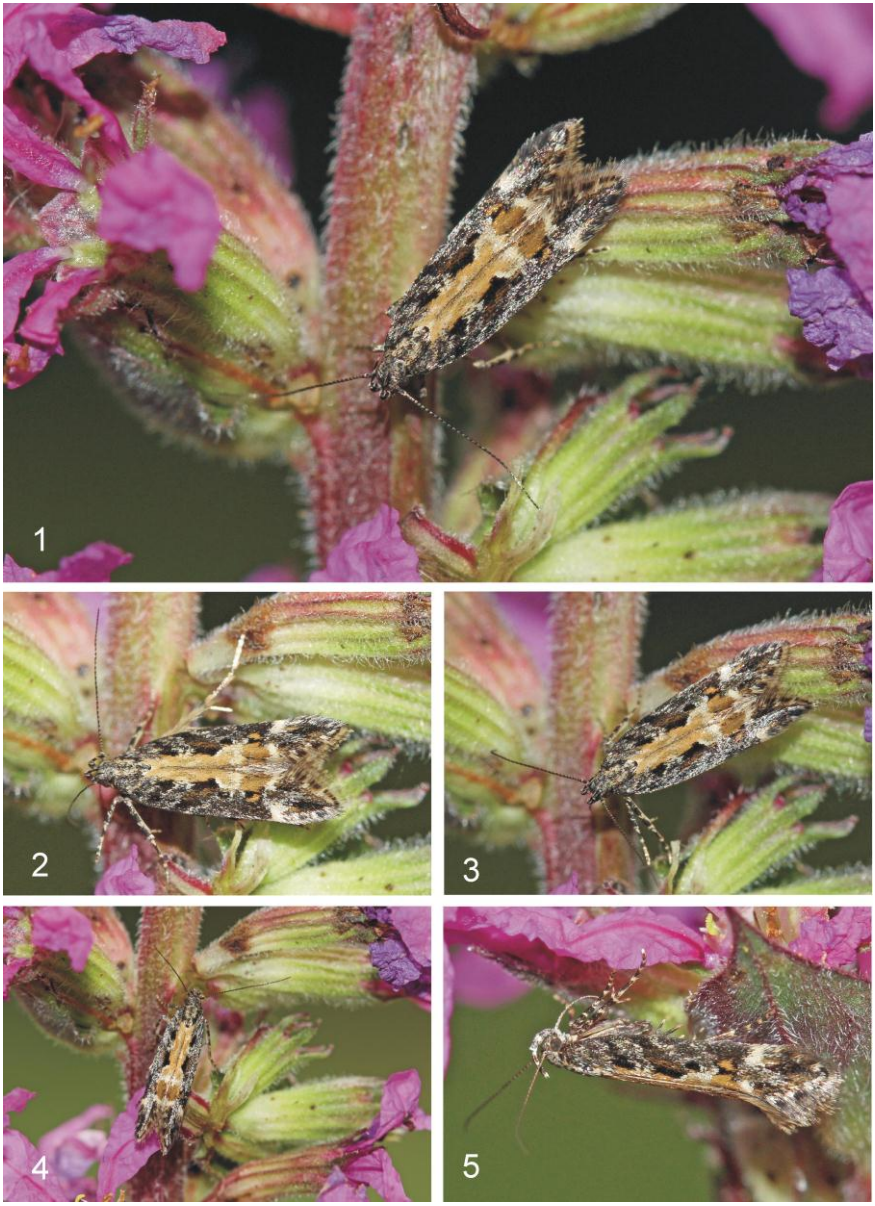
Several specimens of *Aristotelia subdecurtella* (Stainton, 1858) were caught on light in the nature reserve "Kleine Netevallei" at Viersel (Belgium, Province of Antwerpen) between 2003 and 2010 with the first specimen observed on 06 August 2003, leg. M. Jacobs (Figs 1–5). Until 2010 the identification was always postponed, but confirmed by examination of the genitalia (Figs. 5–6).

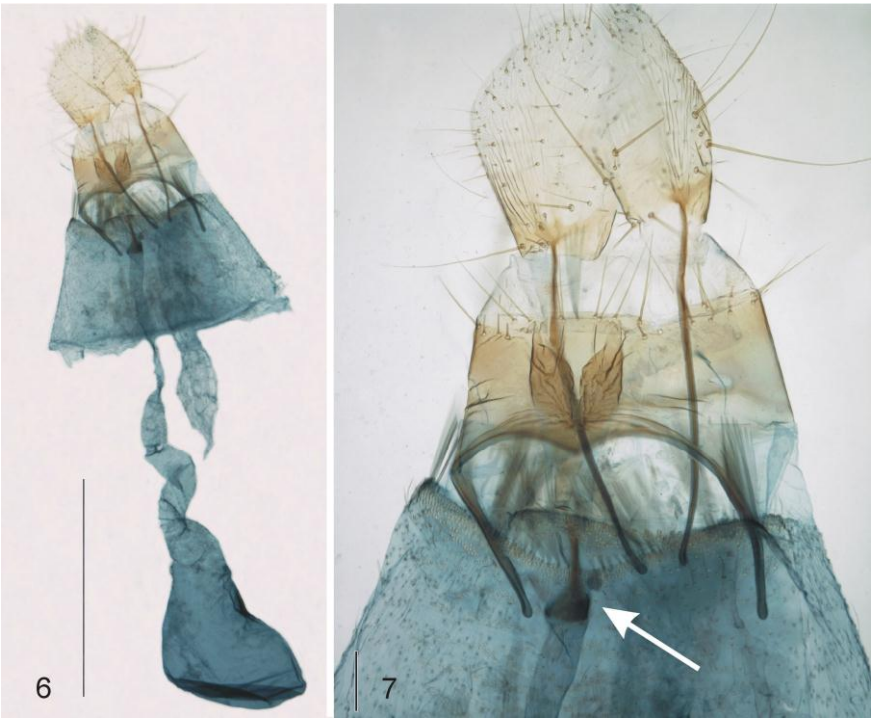
The species was described from two specimens, taken by Mr. Bond in June 1858 in the Cambridgeshire Fens, England, as *Gelechia subdecurtella* (Stainton 1859: 152), but already soon afterwards it became very rare because of the draining of the fens. In the Norfolk part of these fens, it was last observed in 1874 and it is considered extinct now (Parsons [1996], Wheeler 2010).

Aristotelia subdecurtella has the same size (wingspan 12–16 mm) as *Aristotelia decurtella* (Hübner, 1813) and it has more or less the same pattern on the forewings, though the ground colour is somewhat lighter.

The other *Aristotelia* species on the Belgian list are: *Aristotelia decurtella* (Hübner, 1813), *Aristotelia ericinella* (Zeller, 1839), and *Aristotelia brizella* (Treitschke, 1833). The last one can immediately be recognized by the much brighter ochreous ground colour of the forewing; the transverse bands are only indicated at the costa and the forewing has two black dots, one at ½ the other at ¾. This species was first mentioned from Belgium by Janmoulle (1955: 54).



Figs. 1–5. *Aristotelia subdecurtella* (Stainton, 1858) on its larval hostplant *Lythrum salicaria*, Belgium, Prov. of Antwerpen, Viersel, Kleine Netevallei, 13 July 2010, leg. and photo M. Jacobs.



Figs. 6–7. *Aristotelia subdecurtella* (Stainton, 1858) female genitalia; **6**.– general view, scale bar 2 mm; **7**.– detail showing the main diagnostic character with all other *Aristotelia* species, a spine at the beginning of the ductus bursae (white arrow), scale bar 0.2 mm (preparation and photo Jurate De Prins).

It was not rare at Moresnet (Province of Liège) on 27 August 1955, when many specimens were observed between *Armeria* sp., the larval hostplant, on "terrain calaminaire". They were hard to follow and capture because of their inconspicuous coloration and their behaviour of making jumps of 20 cm far, but very close to the ground level and in between the vegetation. As far as is known, this is the only record of *A. brizella* in Belgium.

A. decurtella was first mentioned from Belgium by De Crombrugghe (1908: 11) from Rochefort (Province of Namur). Like the previous species, no other records of this species are known from the Belgian fauna. The larval hostplants are *Rosa pimpinellifolia*, *Sanguisorba officinalis* (Rosaceae), and *Eryngium campestre* (Apiaceae) (Elsner *et al*. 1999: 22).

A. ericinella was first mentioned from Belgium by De Fré (1858: 137) from the Campine [Kempen] and near Brussels, where the adults flew on heathland in warm, sunny weather during June and July. The caterpillar feeds on *Calluna*

vulgaris, *Erica herbacea* (Ericaceae), and *Epetrum nigrum* (Empetraceae) (Elsner *et al*. 1999: 22). This is the most common *Aristotelia* species in Belgium. It is present in almost all heathlands and can be sometimes quite common, especially in the provinces of Antwerpen and Limburg.

Distribution

In Europe *A. subdecurtella* occurs in following countries: Albania, Austria, Bulgaria, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy (incl. Sicily), Latvia, Lithuania, Netherlands, Poland, Portugal, Romania, Russia, Slovakia, Sweden, Ukraine, and United Kingdom (Karsholt 2010).

A. subdecurtella was recorded for the first time in the Netherlands in 1985 from two localities: Veenendaal (Utrecht) and Groesbeek (Gelderland) (Kuchlein 1993: 271). A third locality, Weerribben (Overijssel) was added in 1999 (Huisman *et al*. 2001: 181).

The species is mentioned from two old records (period 1900–1980) in Germany: Baden-Baden en Sachsen (Gaedike & Heinicke 1999: 76). In France, the species is "peu observé" in the departments of Cher, Indre, Landes and Var (Lhomme 1946–1963: 554).

Habitat

A. subdecurtella occurs in fens moors, river valleys, and wet shady places. It is restricted to habitats where its main larval foodplant, *Lythrum salicaria*, grows. The nature reserve "Kleine Netevallei" is situated along the river Kleine Nete and two streams (Kleine beek and Molenbeek) are traversing the reserve. The habitat consists mainly of wet grasslands, wetlands, and reedbeds that are periodically flooded (mostly in winter period).

Biology

The main larval hostplant is *Lythrum salicaria* (Lythraceae) (Stainton 1862: 130). The larva lives preferably in terminal shoots spun together. They can be found in May–June. The adults have been observed from June till August (Elsner *et al*. 1999: 22, Bland *et al*. 2002: 100). It has also been found on *Stachys palustris* (Lamiaceae) and *Veronica anagallis-aquatica* (Lhomme 1946–1963: 554, Elsner *et al*. 1999: 22).

Although the larval foodplant is rather common in most of the adjacent countries, the moth seems to occur very locally and in small numbers. In the Kleine Netevallei, adults have been observed on 06 August 2003, 15 June 2004, 12 July 2005, 20 June 2006, 17 June 2009, 02 July 2009, and 13 July 2010.

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