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***Gelechia rhombelliformis* and *Homoeosoma sinuella*, two new species for the Belgian fauna (Lepidoptera: Gelechiidae, Pyralidae)**

Willy De Prins & Chris Steeman

Samenvatting. *Gelechia rhombelliformis* en *Homoeosoma sinuella*, twee nieuwe soorten voor de Belgische fauna (Lepidoptera: Gelechiidae, Pyralidae)

Het eerste Belgische exemplaar van *Gelechia rhombelliformis* Staudinger, 1871 werd waargenomen in het Stamprooiersbroek te Kinrooi (België, Limburg) op 18 augustus 2005. *Homoeosoma sinuella* (Fabricius, 1794) werd voor het eerst in België gezien op 17 juni 2005 te Koksijde (West-Vlaanderen). Van beide soorten worden de verspreiding in Europa en de biologie kort besproken.

Résumé. *Gelechia rhombelliformis* et *Homoeosoma sinuella*, deux espèces nouvelles pour la faune belge (Lepidoptera: Gelechiidae, Pyralidae)

Le premier exemplaire de *Gelechia rhombelliformis* Staudinger, 1871 fut observé dans la réserve Stamprooiersbroek à Kinrooi (Belgique, Limbourg) le 18 août 2005. *Homoeosoma sinuella* (Fabricius, 1794) fut observé pour la première fois en Belgique le 17 juin 2005 à Koksijde (Flandre occidentale). La répartition en Europe et la biologie des deux espèces sont discutées brièvement.

Key words: *Gelechia rhombelliformis* – *Homoeosoma sinuella* – Belgium – faunistics – first record.

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Gelechia rhombelliformis

On 18 August 2005, the first Belgian specimen of *Gelechia rhombelliformis* Staudinger, 1871 was observed in the nature reserve "Stamprooiersbroek" at Kinrooi (Province of Limburg) by M. Jacobs & C. Steeman. Single specimens were seen at the same locality on 31 August and 08 September. The species was also recorded from Kontich (Province of Antwerpen) on 20 August 2005, leg. G. Sallaets.

The forewing of *G. rhombelliformis* is greyish, mottled with light and dark scales, and has a blackish spot at 4/5 on the costa, after which an indistinct lighter subapical fascia occurs. There are some small blackish spots in the central wing area of which two are more conspicuous (fig. 1). *G. rhombella* ([Denis & Schiffermüller], 1775), which has also 2 conspicuous blackish spots in the same area of the forewings, has a very distinct blackish streak along the costa near the base. This streak is lacking in *G. rhombelliformis*. This species can furthermore be recognised from its congeners by the black apical area of the forewings and by the brush of black scales on the second segment of the labial palp.

G. rhombelliformis occurs from West Europe, through European Russia, to Central Asia (Huemer & Karsholt 1999: 119). It has not been recorded from the United Kingdom, France and from the Mediterranean region. Karsholt (2005) lists the following European countries: Austria, Belarus, Czech Republic, Denmark, Hungary, Lithuania, the Netherlands, Poland, Romania, Russia, Slovakia, and Ukraine.

The first Dutch specimen was observed in 1970 in nature park Leudal (Province of Limburg) (van der Wolf 1984: 54). Since then, the species has been recorded from about 5 other localities, all situated in the southern half of the country (Kuchlein 1993: 273).

In Germany, *G. rhombelliformis* is recorded from Bayern, Brandenburg, Sachsen, Sachsen-Anhalt and there is pre-1980 record from Thüringen (Gaedike & Heinicke 1999: 79).

The caterpillar of *G. rhombelliformis* feeds on the leaves of *Populus* spp., especially *P. nigra*, *P. pyramidalis* and *P. balsamifera* (Piskunov 1981: 669, Huemer & Karsholt 1999: 119), pupation under the bark. The adults fly from June till mid September, but most specimens have been observed in August. They come to light.

G. rhombelliformis prefers forest steppes and steppes (Piskunov 1981: 669), deciduous forests, riverine forests and coastal areas (Huemer & Karsholt 1999: 119). It occurs locally and not common in West Europe, but more common in Central Europe (Elsner *et al.* 1999: 36).

Homoeosoma sinuella

A single specimen of *Homoeosoma sinuella* (Fabricius, 1794) was observed at Koksijde (Province of West-Vlaanderen) on 17 June 2005 by the second author (fig. 2). This is the first documented record of this species for the Belgian fauna. It had been mentioned in Roesler (1973: 521) from the Benelux countries and in De Prins (1983: 24) from Belgium, both without any further details or mentioning of localities. Therefore, the species was deleted from the Belgian list in De Prins (1998: 120), as no specimens were found in the collections studied.

The forewing of *H. sinuella* is yellowish ochreous, a little darker along the costa, with two irregular brownish transverse bands at the centre and at 3/4 of the wing. These bands are often interrupted. Also the marginal area is often darker brown than the ground colour.



Figs. 1–2.– *Gelechia rhombelliformis* Staudinger, 1871, Belgium, Limburg, Kinrooi, 18.VIII.2005, leg. M. Jacobs & C. Steeman; figs. 3–4.– *Homoeosoma sinuella* (Fabricius, 1794), Belgium, West-Vlaanderen, Koksijde, 17.VI.2005, leg. C. Steeman.

H. sinuella occurs in Central and South Europe, becoming more common towards the south (Hannemann 1964: 228). In the northern areas, it is rather rare. In Greece, Italy and Spain, it can be locally very common (first author pers. obs.). Nuss *et al.* (2005) mention the following countries: Albania, Austria, Bosnia & Herzegovina, Bulgaria, Corsica, Crete, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Great Britain, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, the Netherlands, Poland, Portugal, Romania, Russia, Sardinia, Serbia & Montenegro, Slovakia, Spain, Sweden, and Switzerland.

In the Netherlands, *H. sinuella* occurs mainly in the dune area where it is known from about 10 localities (Kuchlein 1993: 296). In Germany the species is recorded from Bayern, Hessen, Rheinland-Pfalz, Saarland and a pre-1980 record from Baden-Württemberg (Gaedike & Heinicke 1999: 117). In the UK, it is locally common in England from Norfolk southwards, and in south Wales (Goater 1986: 128).

The caterpillar of *H. sinuella* lives in the rootstock of *Plantago lanceolata* and other *Plantago* species (Hannemann 1964: 228), causing the central leaves to droop in the autumn and the growth of the plant is stunted in spring (Goater 1986: 128). The record of *Chenopodium* sp. (Slamka 1997: 11) needs confirmation. After hibernation, the caterpillar pupates in the larval habitation. The moths fly from June till August. They are active at dusk and come to light.

The species prefers dry, light soils with sparse vegetation, cliffs and grassy banks by the sea, waste ground, railway banks, dunes, and chalk downs (Goater 1986: 128).

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