

## A revised check list of the Nepticulidae occurring in the Netherlands (Lepidoptera)

by

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**ABSTRACT.** — A revised check list of Dutch Nepticulidae is provided, together with some nomenclatorial and systematic notes.

### INTRODUCTION

To the leafmining family Nepticulidae belong the smallest of Lepidoptera, some only having a wingspan of 3 mm. Because they are so small, study is difficult and they have largely been neglected. The Dutch fauna is no exception. Snellen (1882) mentioned 43 species, from which only 38 can now be accepted as Dutch species.

Until 1943 no more than three species were added to our fauna, but between 1943 and 1951 there was a revival of interest in this family particularly by C. Doets and L. Vári, who between them found 20 new species for the Netherlands. Lempke (1976), who cited 72 Dutch species, based his list on the old records and identifications in the Dutch collections. He had already pointed out that more detailed examination of collections could bring about a considerable change in the check list. Through our intensive field work and studies of collections we have already been able to add eleven species to our fauna (Van Nieukerken, 1982). As also some important nomenclatorial changes have to be made and a number of species has to be removed from the Dutch list, I have decided to publish a revised check list. To date, we recognize 78 Dutch species, but this number can still increase, as some additional species could be expected to occur here. Some of these are *Ectoedemia agrimoniae* (Frey), *E. quinquella* (Bedell), *E. heringi* (Toll), *Etainia sphendammii* (Hering), *Fedalmia headleyella* (Stainton) and *Johanssonia acetosae* (Stainton), which therefore deserve special attention.

Recently some authors proposed to bring together all genera, except *Stigmella* Schrank, into one genus: *Trifurcula* Zeller. Although this action might have practical advantages, there is no systematic argument (i.e. synapomorphic characters) which supports this view. However, a cladistic analysis of the nepticulid genera is currently being undertaken by us. The classification following is largely the same as that used by Borkowski (1975) and Emmet (1976).

### A REVISED CHECK LIST OF THE NEPTICULIDAE IN THE NETHERLANDS <sup>1)</sup>

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| <i>Etainia</i> Beirne, 1945 <sup>2)</sup><br>syn. <i>Obrussa</i> Braun, 1915, nec Saalmüller, 1891<br><i>E. decentella</i> (Herrich-Schäffer, 1855)<br>comb. nov.<br><i>E. sericopeza</i> (Zeller, 1839)<br><br><i>Bohemannia</i> Stainton, 1859<br><i>B. quadrinaculella</i> (Boheman, 1851)<br><i>B. pulverosella</i> (Stainton, 1849) <sup>3)</sup><br><br><i>Ectoedemia</i> Busck, 1907<br>"E." <i>bradfordi</i> Emmet, 1974 <sup>4)</sup><br><i>E. atrifrontella</i> (Stainton, 1851) | <i>E. longicaudella</i> Klimesch, 1953 <sup>4)</sup><br><i>E. argyropeza</i> (Zeller, 1839)<br><i>E. uirbidella</i> (Zeller, 1848)<br><i>E. hannoverella</i> (Glitz, 1872) <sup>4)</sup><br><i>E. intimella</i> (Zeller, 1848) <sup>3)</sup><br><i>E. subbinaculella</i> (Haworth, 1828)<br><i>E. albifasciella</i> (Heinemann, 1871)<br><i>E. arcuatella</i> (Herrich-Schäffer, 1855) <sup>4)</sup><br><i>E. rubivora</i> (Wocke, 1860)<br><i>E. angulifasciella</i> (Stainton, 1849)<br><i>E. atricollis</i> (Stainton, 1857)<br><i>E. spinosella</i> (De Joannis, 1908) <sup>4)</sup><br><i>E. argentipedella</i> (Zeller, 1839)<br><i>E. mediofasciella</i> (Haworth, 1828) <sup>4)</sup> |
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- Fomoria* Beirne, 1945  
*F. weaveri* (Stainton, 1855)  
*F. septembrella* (Stainton, 1849)
- Trifurcula* Zeller, 1848  
 syn. *Levarchama* Beirne, 1945  
*T. imundella* (Zeller, 1839)  
*T. cryptella* (Stainton, 1856)<sup>4)</sup>
- Stigmella* Schrank, 1802  
 syn. *Nepticula* Von Heyden, 1843 (<sup>5)</sup>)  
*S. aurella* (Fabricius, 1775)<sup>6)</sup>  
 = *gei* (Wocke, 1871)  
 = *nitens* (Fologne, 1862)  
*S. splendidissima* (Herrich-Schäffer, 1855)  
 = *fragariella* (Heyden, 1862)  
*S. aeneofasciella* (Herrich-Schäffer, 1855)<sup>4)</sup>  
*S. ulmariae* (Wocke, 1879)  
*S. poterii* (Stainton, 1857)<sup>24)</sup>  
*S. comari* (Wocke, 1862)<sup>7)</sup>  
 = *ocultella* (Heinemann, 1871)  
*S. plagiolella* (Stainton, 1854)  
*S. sorbi* (Stainton, 1861)<sup>8)</sup>  
*S. marginicolella* (Stainton, 1853)  
*S. continuella* (Stainton, 1856)  
 = *aceris* sensu Snellen, 1882  
*S. myrtillella* (Stainton, 1857)  
*S. salicis* (Stainton, 1854)  
*S. obliquella* (Heinemann, 1862)  
 = *vimineticola* auct.<sup>1)</sup>  
*S. zelleriella* (Snellen, 1874)<sup>9)</sup>  
*S. trimaculella* (Haworth, 1828)  
*S. assimilella* (Zeller, 1848)  
*S. titiella* (Stainton, 1854)  
*S. floslucella* (Haworth, 1828)  
*S. carpinella* (Heinemann, 1862)
- S. perpygmaeella* (Doubleday, 1859)  
 = *pygmaeella* (Haworth, 1828)  
*S. pomella* (Vaughan, 1858)  
*S. ulmivora* (Fologne, 1860)  
*S. viscerella* (Stainton, 1853)  
*S. hemargyrella* (Kollar, 1832)  
*S. svenssoni* (Johansson, 1971)<sup>4)</sup>  
*S. basigutella* (Heinemann, 1862)  
*S. atricapitella* (Haworth, 1828)  
*S. ruficapitella* (Haworth, 1828)  
*S. sanietella* (Zeller, 1839)<sup>10)</sup>  
*S. roborella* (Johansson, 1971)  
*S. tiliae* (Frey, 1856)  
*S. freyella* (Heyden, 1858)  
*S. anomalella* (Goeze, 1783)  
*S. centifoliella* (Zeller, 1848)  
*S. spinosissimae* (Waters, 1828)<sup>11)</sup>  
*S. malella* (Stainton, 1854)  
*S. cathartice* (Stainton, 1853)  
*S. hybnerella* (Hübner, [1810-1813])  
*S. regiella* (Herrich-Schäffer, 1855)<sup>1)</sup>  
*S. crataegella* Klimesch, 1936<sup>4)</sup>  
*S. oxyacanthella* (Stainton, 1854)  
 = *aeneella* auct.<sup>1)</sup>  
*S. pyri* (Glitz, 1865)  
*S. minusculella* (Herrich-Schäffer, 1855)  
*S. nylandriella* (Tengström, 1848)  
 = *aucupariae* (Frey, 1857)<sup>12)</sup>  
*S. prunetorum* (Stainton, 1855)  
*S. betulicola* (Stainton, 1856)  
*S. distinguenda* sensu Klimesch, 1948  
 nec Heinemann<sup>13)</sup>  
*S. luteella* (Stainton, 1857)  
*S. glutinosae* (Stainton, 1858)  
*S. alnetella* (Stainton, 1856)  
*S. microtheriella* (Stainton, 1854)  
*S. lapponica* (Wocke, 1862)  
*S. confusella* (Wood, 1894)

## NOTES

<sup>1)</sup> The following four species which appear in Lempke (1976) are removed from the Dutch list as the existing records resulted from misidentifications:

*Stigmella vimineticola* (Frey) prior to 1943 (Hering, 1943) was confused with *S. obliquella*.

*S. lonicerarum* (Frey). There is a mixture of mainly oak feeding *Stigmella*-species under this name in the Dutch collections.

*S. aceris* (Frey). The only Dutch specimens are the four which were identified earlier as *S. speciosa* (Van Nieuwerkerken, 1982).

*S. aeneella* (Heinemann), was mainly confused with *S. pomella* and *S. oxyacanthella*, but also other species were misplaced under *aeneella*. Johansson (pers. comm.) found that the types belong to some other well known species. A lectotype will be selected in a forthcoming paper.

- 2) See Wilkinson & Scobie (1978).
- 3) Species treated by Van Nieuwerkerken (1982).
- 4) Species recorded by Van Nieuwerkerken (1982) for the first time.
- 5) See Wilkinson (1978).
- 6) Following Borkowski (1975) and Klimesch (1981), the forms on *Agrimonia*, *Fragaria* and *Geum* are treated here as synonyms of *S. aurella* and *S. splendidissima*. Georgina Bryan is currently researching the host races in this group.
- 7) *S. comari* could be a synonym of *S. poterii*; more research is needed.
- 8) Occurrence has to be confirmed; only known from empty mines.
- 9) This species is the subject of a separate paper, now in preparation.
- 10) *S. samiatella* was accidentally omitted by Lempke (1976).
- 11) The identity of the Dutch material is uncertain.
- 12) See Borkowski (1975) for this synonymy.
- 13) Although the type of *S. distinguenda* (Heinemann) belongs to another species in this group, and must therefore by synonymised, the species which was usually known under this name is a separate species and occurs in the Netherlands. It will receive a new name and type designation in a forthcoming publication.

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