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IDENTITY OF HITHERTO DOUBTFUL SPECIFIC NAMES IN EUROPEAN NEPTICULIDAE (LEPIDOPTERA)

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Nieukerken, E. J. van & R. Johansson: Identity of hitherto doubtful specific names in European Nepticulidae (Lepidoptera).

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The identity of hitherto doubtful specific names in Nepticulidae has been established on the basis of type material where possible, or after a critical reexamination of the original descriptions. In addition a few previously synonymized names have been reevaluated. The identity of 17 names could be firmly established: 15 are synonymized with senior, well known names, two are senior synonyms to previously used names: *Stigmella sakhalinella* Puplesis (= *S. discidia* Schoorl & Wilkinson **syn. nov.**) and *Trifurcula subnitidella* (Duponchel) **comb. nov.** (= *Trifurcula griseella* Wolff **syn. nov.**). Two names are tentatively synonymized. Three names are excluded from Nepticulidae: *Tinea commatella* Schrank, 1802 (probably a trichopteron), *Tinea minimella* Costa (preoccupied) and *Lyonetia concolorella* Tengström, 1848 (a junior synonym of *Bucculatrix cristatella* Zeller). Eighteen new synonymies are established and three lectotypes are designated. A systematic index comprising these and other recently published changes is presented in the same form as the checklist of western Palaearctic Nepticulidae.

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A stable and universal nomenclature of species names in Biology is a prerequisite for communication between biologists over the world. One of the tasks of taxonomists is to provide the correct names, both from a systematical and nomenclatural point of view, for all species they deal with.

We are of the opinion that a stable nomenclature can only be achieved, when all relevant nominal names in any taxonomic group are carefully considered and studied in order to establish firmly the identity of all names involved.

So called nomina dubia are a constant threat against stability, and their status should be solved where possible. There are two approaches to achieve this: the first is to study all names of especially the early authors as has been done for the Microlepidoptera described by Linnaeus and Clerck (Robinson & Nielsen, 1983) and Thunberg (Karsholt & Nielsen, 1986), the second is to trace all names which are used within a given taxonomic entity and study types and/or descriptions carefully. After a short period of dramatic changes in nomenclature, this will eventually lead to the so much needed stability. However, such studies should only be carried out by specialists in connection with taxonomic revisionary work. To trace old names just for the sake of nomenclature, without any contact with leading specialists will aggravate confusion instead of leading towards stability (see also Sattler & Tremewan, 1984).

So, when the first of us prepared his western Palaearctic check-list (Van Nieuwerkerken, 1986) he tried to trace all nominal names used within Nepticulidae, or applicable to Nepticulidae. Unfortunately the identity of 22 available names and 9 unavailable names could not be solved then, and several other names were listed tentatively as doubtful synonyms. When preparing a guide to northwestern European Nepticulidae it became obvious that the identity of several names ought to be fixed first in order to avoid future changing of names. We therefore tried to solve the identity of all hitherto doubtful available names of European species and some of the earlier proposed synonyms. The unavailable names were not considered, since they do not affect nomenclature. For several species we were able to trace type-material, for others a careful reexamination of the original description led to a reinterpretation. The proposed changes are presented here in a systematic index following the sequence and numbering of the check-list of western Palaearctic Nepticulidae (Van Nieuwerkerken, 1986), they are further discussed in an alphabetic catalogue of names treated.

The two names given to nepticulid species by Caradja were treated separately by Van Nieuwerkerken (1987a), they are merely listed here.

From the original list of 22 doubtful, available names in Van Nieuwerkerken (1986), the status of only two remains completely unsolved here: the North African *Nepticula arbatella* Chrétien, which had not been studied yet, and the fossil mine of *N. fossilis* Heyden. Finally a few corrections to the check-list are given.

Abbreviations of depositories:

BMNH – British Museum (Natural History), London, United Kingdom.

INER – Istituto nazionale di Entomologia, Roma, Italy.

MNHN – Muséum national d'Histoire naturelle, Paris, France.

ZIAS – Zoological Institute of the Academy of Sciences, Leningrad, USSR.

SYSTEMATIC INDEX

This list includes also the changes discussed by Van Nieuwerkerken (1987a; 1987b).

Genus *Stigmella* Schrank, 1802

13. *S. sakhalinella* Puplesis, 1984
discidia Schoorl & Wilkinson, 1986 **syn. nov.**
distinguenda auct.
18. *S. prunetorum* (Stainton, 1855)
ligustrella (Rössler, 1866) **syn. nov.**
19. *S. aceris* (Frey, 1857)
penicillata (Heinemann & Wocke, 1877) **syn. nov.**
20. *S. malella* (Stainton, 1854)
angustella (Heinemann & Wocke, 1877) **syn. nov.**
nigrobrunella (Groschke, 1939) **syn. nov.**
27. *S. anomalella* (Göze, 1783)
rubicurrens Walsingham, 1907 **syn. nov.**
rosarum (Sorhagen, 1922) **syn. nov.**
helbigi (Hartig, 1941)
51. *S. floslactella* (Haworth, 1828)
saxatilella (Grönlien, 1932) **syn. nov.**
53. *S. tityrella* (Stainton, 1854)
? castanella (Stainton, 1859) **syn. nov.**
60. *S. trimaculella* (Haworth, 1828)
gilvella (Rössler, 1866) **syn. nov.**
68. *S. splendidissimella* (Herrich-Schäffer, 1855)
[remove *saxatilella* from synonymy]
83. *S. hemargyrella* (Kollar, 1832)
fagella (Herrich-Schäffer, 1855) **syn. nov.**
fagi (Frey, 1856) **syn. nov.**
nobilella (Heinemann & Wocke, 1877) **syn. nov.**
85. *S. suberivora* (Stainton, 1869)
? aureocapitella (Millière, 1870) **syn. nov.**
95. *S. atricapitella* (Haworth, 1828)
discrepans (Sorhagen, 1922) **syn. nov.**

Genus *Trifurcula* Zeller, 1848

143. *T. immundella* (Zeller, 1839)¹
 [remove *squamatella* from synonymy]
 148. *T. squamatella* Stainton, 1849¹
maxima Klimesch, 1953
 149. *T. subnitidella* (Duponchel, [1843]) **comb. nov.**
griseella Wolff, 1957 **syn. nov.**

Genus *Ectoedemia* Busck, 1907

175. *E. viridissimella* (Caradja, 1920)²
nowakowskii (Toll, 1957)
 203. *E. rufifrontella* (Caradja, 1920)²
nigrosarsella (Klimesch, 1940)
 208. *E. subbimaculella* (Haworth, 1828)
bistrimaculella (Heyden, 1861) **syn. nov.**
 224. *E. occultella* (Linnaeus, 1767)
flexuosella (Fologne, 1861) **syn. nov.**

Names excluded from Nepticulidae:

- Lyonetia concolorella* Tengström, 1848 (a junior subjective synonym of *Bucculatrix cristatella* (Zeller, 1839))
Tinea commatella Schrank, 1802 (probably a trichopteron)
Tinea minimella O. G. Costa, 1836 (preoccupied)

Corrections to the checklist of western Palaearctic Nepticulidae:

4. read (Grönlien, 1928) in stead of (Grönlien, 1932)
 27. read (Weber, 1936) in stead of (Weber, 1937)
 54. move synonym *semipictella* to species 60. *S. trimaculella*
 84. read (Weber, 1936) in stead of (Weber, 1937)
 206. read (Weber, 1938) in stead of (Weber, 1937)
 218. read (Weber, 1936) in stead of (Weber, 1937)
 225. read (Weber, 1938) in stead of (Weber, 1937)

1. See Van Nieuwerkerken (1987b).

2. See Van Nieuwerkerken (1987a).

TREATMENT OF SPECIFIC NAMES

In the following, the specific names are arranged in alphabetical order, numbers refer to the systematic index.

***Nepticula angustella* Heinemann & Wocke**

Nepticula angustella Heinemann & Wocke, 1877: 756.

Stigmella angustella (Heinemann & Wocke); Hering, 1957: 453, 821.

Type-material: Syntypes, GERMANY: [Braunschweig-region], larvae on *Fragaria* or *Potentilla*? (Heinemann) (not found).

Identity: *Stigmella angustella* (Heinemann & Wocke), a junior subjective synonym (**syn. nov.**) of 20. *S. malella* (Stainton, 1854).

Remarks. — Van Nieuwerkerken (1986) listed *angustella* as a questionable synonym of *poterii* (Stainton, 1857), mainly based on the hostplant indication of the authors. However, the description does not match that species, with, amongst others, a white collar. We base the present identity on the placement in Heinemann's group X (species with cilia-line and a metallic postmedial fascia) and the description, despite a few contradicting statements. Wocke probably compiled the description from notes of Heinemann, who had died in 1871. Further it is a well known fact that Heinemann often mixed his breedings and probably reconstructed the hostplant afterwards, as also appears from the description of *angustella*: "Heinemann erzog ein Paar aus Raupen, von welchen er ungewiss war, ob sie an Erdbeeren oder *Tormentilla* gefunden." So there might have been also apple leaves in his breeding cage. No material of this species was found in the Heinemann or Wocke collections, in the latter a label only.

***Nepticula aureocapitella* Millière**

Nepticula aureocaputella Millière, 1870: 174 [printers-error].

Nepticula aureocapitella Millière, 1870: 216 [justified emendation].

Type-material: Syntypes, FRANCE: Alpes Maritimes, Cannes, v-vi, Millière (not found).

Identity: *Stigmella aureocapitella* (Millière), a questionable junior synonym (**syn. nov.**) of 85. *S. suberivora* (Stainton, 1869).

Remarks. — No type specimens have been found in the collection in Paris (G. Luquet, in litt.), but there is a series under *aureocapitella* present in the Ragonot collection, presumably from Constant. The series, which has been reared from *Quercus suber* and *Q. pubescens*, comprises *S. suberivora* (Stain-

ton, 1869), *S. eberhardi* (Johansson, 1971) and *S. roborella* (Johansson, 1971). The description can refer to any of these species, but also to a few other unicolorous *Stigmella* species. Apparently, *S. suberivora* is one of the commonest Nepticulidae in southern France, and therefore we tentatively synonymize *aureocapitella* with it, to avoid change of names.

Nepticula bistrimaculella Heyden

Nepticula bistrimaculella Heyden, 1861: 40; Van Nieuwerkerken, 1985: 82.

Stigmella bistrimaculella (Heyden); Hering, 1957: 181.

Type-material: Syntypes: GERMANY, Hofheim, Taunusgebirge, mines early x.1858 on *Betula*, em. v.1859, C. von Heyden (not found).

Identity: *Ectoedemia* (*Ectoedemia*) *bistrimaculella* (Heyden) **comb. nov.**, a junior subjective synonym (**syn. nov.**) of 208. *E. subbimaculella* (Haworth, 1828).

Remarks. — No type material is extant in the Heyden collection in Frankfurt am Main (Van Nieuwerkerken, 1985). The description is detailed, and must in our opinion been interpreted as *subbimaculella*, which here fed on *Betula* instead of the usual *Quercus*. Emmet (pers. comm.) found also *subbimaculella*-type mines on *Betula* in England. Such xenophagy has occasionally been noted in several other species.

Nepticula castanella Stainton

Nepticula castanella Stainton, 1859: 123.

Type-material: Syntypes: ENGLAND, amongst *Castanea*, Eddleston (not found).

Identity: *Stigmella castanella* (Stainton) **comb. nov.**, a questionable junior synonym (**syn. nov.**) of 53. *S. tityrella* (Stainton, 1854).

Remarks. — Type-material of *castanella* is probably non-existent, and Stainton's descriptions are very vague. The species has been taken amongst *Castanea*, but this is definitely not the hostplant, since in western Europe only unicolorous species of the *Stigmella rifucapitella* group have been found on *Castanea*. We tentatively assume that *castanella* is a synonym of *tityrella*.

Tinea commatella Schrank

Tinea commatella Schrank, 1802: 133-134.

Nepticula commatella (Schrank); Stainton, 1855: 264.

Type-material: Syntypes, GERMANY, WEST: Ingolstadt, vii, Schrank (depository unknown).

Identity: unknown, but here excluded from Nepticulidae.

Remarks. — Stainton (1855) suggested that *commatella* could be a senior synonym of *Ectoedemia subbimaculella* (Haworth). However, the description does not give any strong argument for such a synonymy, nor has Stainton added any evidence in favour of it. In fact it can be questioned if *commatella* really belongs to the Nepticulidae, or even Lepidoptera. We are of the opinion that it is not unlikely that this name represents a trichopteron. This possibility is further suggested by the following sentence in the original description: “der Leib dünn behaart”. We therefore exclude at present this name from the Nepticulidae.

Lyonetia concolorella Tengström

Lyonetia concolorella Tengström, 1848: 151.

Nepticula concolorella (Tengström); Heydenreich, 1851: 92.

Type-material: Syntypes, FINLAND: Helsinki (Helsingfors), vi, Nylander (Coll. Museum Helsinki?) [not examined].

Identity: *Bucculatrix concolorella* (Tengström), a junior subjective synonym of *Bucculatrix cristatella* Zeller, 1839.

Remarks. — This species was included in the list of nepticulid names of the check-list (Van Nieukerken, 1986) on the authority of Heydenreich (1851). However, it was overlooked that the species had been synonymized long ago with *B. cristatella* (e.g. Rebel, 1901: 220). Also the description better fits this species than a nepticulid, therefore the name is excluded from Nepticulidae.

Nepticula discrepans Sorhagen

Nepticula discrepans Sorhagen, 1922: 41, textfig.

Stigmella discrepans (Sorhagen); Hering, 1957: 870.

Type-material: Holotype mine, GERMANY, WEST: Hamburg, vii, *Quercus*, Sorhagen (probably destroyed).

Identity: *Stigmella discrepans* (Sorhagen), a junior subjective synonym (**syn. nov.**) of *S. atricapitella* (Haworth, 1828).

Remarks. — The mines of the species of the *Stigmella ruficapitella* group (cf Johansson, 1971) are generally very difficult to identify, although there are some constant differences, which make about 80% of the mines identifiable for collectors with experience. From the species occurring in northern Germany, the mines of *S. ruficapitella* (Haworth) and *S. samiatella* (Zeller) have a broad frass line, contrary to the mine figured by Sorhagen. Therefore *discrepans* is either *S. roborella* (Johansson) or *S. atricapitella* (Haworth). We think that the mine of *discrepans* is an example of the last species, since the mine of *roborella* is usually longer, less contorted and not often near the leaf margin. We have seen mines of *atricapitella*, very similar to that of *discrepans*.

Nepticula fagella Herrich-Schäffer

Nepticula fagella Herrich-Schäffer, 1855: 354.

Nepticula fagi Frey, 1856: 384 [an unjustified emendation].

Type-material: Syntypes *fagella*, [SWITZERLAND, Zürich], Frey (not found). Lectotype ♀ *fagi* (here selected), [SWITZERLAND, Zürich, vii, on *Fagus*, Frey]; Stainton Coll., Brit. Mus. 1893-134; 2; 2038; 35. *Fagella* Frey; Genitalia slide 24092 (BMNH) [examined].

Identity: *Stigmella fagella* (Herrich-Schäffer) **comb. nov.** and *S. fagi* (Frey) **comb. nov.**, junior subjective synonyms (**syn. nov.**) of 83. *S. hemargyrella* (Kollar, 1832).

Remarks. — Herrich-Schäffer (1855) apparently named this species on the authority of Frey, from whom he possibly received some specimens. Such specimens have not been found, either in Berlin or BMNH, where most of the Herrich-Schäffer types are currently housed. In BMNH there are however four specimens, which can be regarded as syntypes of *fagi* Frey, one received from Frey by Stainton, and three in the Frey collection. The last three clearly belong to *Stigmella carpinella* (Heinemann, 1862), but the specimen received by Stainton is a *S. hemargyrella* (Kollar). Despite Herrich-Schäffer's (1855) statement, the specimens have not been reared, but were collected at the edge of a wood, but Frey (1856) refers to specimens which have been reared from *Fagus* by Heyden. Apparently the descriptions contain conflicting statements, from which no clear choice can be made between the two species involved, therefore we consider it the best solution to select the single *hemargyrella* specimen as lectotype, in which case no change of names occurs, and the name still applies to a *Fagus* feeding insect. The inclusion of this specimen in the type series is based on numbered labels, cited above, which refer to notebooks from Stainton and his correspondence with Frey, now all in the library of the BMNH (Entomology). In a letter from Frey to Stainton (11.x.1855) the following statement is found concerning this specimen: "2. *Nept. Fagella* nova spec. mihi. Gefangen in Juli mehrmals an Buchen. Herr von Heyden behauptet es

aus Buchenminen erzogen zu haben. Daher gib ich ihm den Namen. Ist es eine der von Ihnen beschriebenen Arten und welche? Zürich". In fact it is even possible that Herrich-Schäffer has seen this specimen, since another specimen mentioned in the same letter, a *S. regiella* (Herrich-Schäffer), has been seen by Herrich-Schäffer, according to Frey in this letter (see also Schoorl et al., 1985). Since the intention of Herrich-Schäffer and Frey has been to describe the same species, possibly feeding on *Fagus*, we base the identity of *fagella* on the revised identity of *fagi* and hence synonymize both with *hemargyrella*.

***Nepticula flexuosella* Fologne**

Nepticula flexuosella Fologne, 1859: 140; 1860: pl. 2, fig. 5.

Type-material: (♀) Holotype, BELGIUM: Bois de la Cambre (Bruxelles S.), 15.v.1859, on trunk of *Fagus* (sur le tronc d'un Hêtre), Fologne (not found).

Identity: *Ectoedemia* (*Ectoedemia*) *flexuosella* (Fologne) **comb. nov.**, a junior subjective synonym (**syn. nov.**) of 224. *E. occultella* (Linnaeus, 1767).

Remarks. — From the description it seems that Fologne (1859) only had one specimen, which we could not trace amongst his collection in Brussels. The identity is based on the fairly detailed description, and the colour plate published in 1860, which both indicate that Fologne described the pale-headed female of *occultella*.

***Nepticula gilvella* Rössler**

Nepticula gilvella Rössler, 1866: 395; 1881: 338; Van Nieuwerkerken, 1985: 82.

Stigmella gilvella (Rössler); Hering, 1957: 870.

Type-material: Syntypes, GERMANY, WEST: Wiesbaden, Rössler (not found).

Identity: *Stigmella gilvella* (Rössler), a junior subjective synonym (**syn. nov.**) of 60. *S. trimaculella* (Haworth, 1828).

Remarks. — There is no type-material known of *gilvella* (Van Nieuwerkerken, 1985). The description of *gilvella*, which is relatively detailed, in our opinion refers to a male specimen of *S. trimaculella* with extremely large pale spots on the forewings. The most characteristic feature of male *trimaculella*, the completely ochreous yellow abdomen, thorax and legs, is described by Rössler as "Durchaus licht ockergelb an allen Körpertheilen, nur die Fühler braun." Rössler reared *gilvella* from a cage with caterpillars from several woody plants, which might have included *Populus*. This species was previously considered to live on *Quercus* for unknown reasons (Rebel, 1901; Hering, 1957).

Nepticula helbigi Hartig

Nepticula helbigi Hartig, 1941: 160, pl. 8.

Type-material: Holotype ♂, ITALY: Roma dint., Villa Lante, e.1. 27.i.1940, Rosa semperv. cult., Hartig (INER) [examined].

Identity: *Stigmella helbigi* (Hartig), a junior subjective synonym of 27. *S. anomalella* (Göze, 1783)

Remarks. — *N. helbigi* was previously listed as a questionable synonym of *anomalella* (Van Nieukerken, 1986). Study of the holotype confirmed this synonymy.

Nepticula ligustrella Rössler

Nepticula ligustrella Rössler, 1866: 395; 1881: 338.

Type-material: Syntypes, GERMANY, WEST: Wiesbaden, caught on *Ligustrum vulgare*, A. Rössler (not found).

Identity: *Stigmella ligustrella* (Rössler) **comb. nov.**, a junior subjective synonym (**syn. nov.**) of 18. *S. prunetorum* (Stainton, 1855).

Remarks. — No material of this species has been found in the Rössler collections in Wiesbaden or Strasbourg (Dr. M. Geisthardt, in litt.; Dr. J. Matter, in litt.). We base the identity of this species on the clear description, which can only refer to *S. prunetorum*, with which Rössler also compared this species. The adults have been found resting on leaves of *Ligustrum vulgare*, a fact to which no special attention should be paid. There are no Nepticulidae known feeding on *Ligustrum*.

Tinea minimella O. G. Costa

Tinea minimella O. G. Costa, 1836: 230, 312, pl. (Lep. Nott.) 4, figs. 5A, 5B (preoccupied).

Nepticula minimella (Costa); Stainton, 1869: 267.

Type-material: Syntypes, ITALY: region of Napoli, Camaldoli forest, vii, O. G. Costa (depository unknown).

Identity: unknown.

Remarks. — Stainton attributed this species provisionally to the Nepticulidae, although this is contradicted by Costa's statement that the frons is smooth. However, the unknown identity does not affect nomenclature, since it is a junior homonym of *Tinea minimella* [Denis & Schiffermüller], 1775 (cf Tremewan, 1977).

Nepticula nigrobrunella Groschke

Nepticula nigrobrunella Groschke, 1939: 716-717, fig. 4.

Stigmella nigrobrunella (Groschke); Hering, 1957: 837.

Type-material: Holotype, POLAND (formerly Germany); Duszniki-Zdrój (Bad Reinerz), Klodzko area (Grafschaft Glatz), larva 2.x.1937 on *Prunus cerasus*, em. 24.ii.1938, F. Groschke (not found).

Identity: *Stigmella nigrobrunella* (Groschke), a junior subjective synonym (**syn. nov.**) of 20. *S. malella* (Stainton, 1854).

Remarks. – It has been impossible to trace the holotype of *nigrobrunella* in Groschke's collection, in which the specimens only carry a label with a number (Van Nieuwerkerken, 1985: 39). From the species known to feed on *Prunus*, only *S. malella* agrees quite well with Groschke's description of adult and mine. Although *malella* usually feeds on *Malus*, it has been found occasionally on a number of *Prunus* species.

Nepticula nobilella Heinemann & Wocke

Nepticula nobilella Heinemann & Wocke, 1877: 755-756.

Type-material: Lectotype ♂ (here designated), AUSTRIA: Wien, 6 [= vi].[18]44, Hn [=Heinemann] (ZIAS) [examined].

Identity: *Stigmella nobilella* (Heinemann & Wocke) **comb. nov.**, a junior subjective synonym (**syn. nov.**) of 83. *S. hemargyrella* (Kollar, 1832).

Remarks. — The species was described from an unspecified number of specimens, therefore the single specimen present in the Wocke collection is selected lectotype, although there possibly never were more types involved.

Nepticula penicillata Heinemann & Wocke

Nepticula penicillata Heinemann & Wocke, 1877: 744.

Type-material: Holotype ♀, GERMANY, WEST: Vorsfelde, m.vii, Heinemann (not found).

Identity: *Stigmella penicillata* (Heinemann & Wocke) **comb. nov.**, a junior subjective synonym (**syn. nov.**) of 19. *S. aceris* (Frey, 1857).

Remarks. — We have not been able to locate the type either in the Wocke (where there is a label only) or the Heinemann collection, so base the identity entirely on the clear description. The combination of a black head, large white collar, silvery postmedial fascia and other details exclude all other possibilities. *S. crataegella* (Klimesch) is comparatively similar, but can impossibly be found in July in northern Germany, and does not completely match the description.

Nepticula rosarum Sorhagen

Nepticula rosarum Sorhagen, 1922: 30, pl. 1, fig. 4.

Stigmella rosarum (Sorhagen); Hering, 1957: 903.

Type-material: Syntype mines, GERMANY, WEST: Hamburg, Sorhagen (probably destroyed).

Identity: *Stigmella rosarum* (Sorhagen), a junior subjective synonym (**syn. nov.**) of *S. anomalella* (Göze, 1783).

Remarks. — In northern Germany only three nepticulids are known to feed on *Rosa*: *Ectoedemia angulifasciella* (Stainton), *Stigmella centifoliella* (Zeller) and *S. anomalella*. The figure of the mines of *rosarum* indicates that they can only belong to *anomalella*, which is the only species with gallery mines occasionally filled with frass.

Stigmella rubicurrens Walsingham

Stigmella rubicurrens Walsingham, 1907: 1009.

Type-material: Holotype ♂, TENERIFE, La Laguna, 26.iii.1904, Eaton, 14160, Walsingham collection 1910-427, Genitalia slide 24098 (BMNH) [examined].

Identity: *Stigmella rubicurrens* Walsingham, a junior subjective synonym (**syn. nov.**) of *S. anomalella* (Göze, 1783).

Remarks. — According to Walsingham (1907), Eaton reared this specimen from *Rubus*, on which hitherto *anomalella* has never been found. It is possible that Eaton mistook a *Rosa* species for *Rubus*, but it does not seem impossible that *anomalella* feeds occasionally on *Rubus*. Walsingham (1907) refers to a second specimen, which he thinks is *rubicurrens*, but excluded from the type-series. This specimen, however, is a different, unidentified species, belonging to the Trifurculini.

Stigmella sakhalinella Puplesis

Stigmella sakhalinella Puplesis, 1984a: 115; 1984b: 101. Holotype ♂, SOVIET UNION: vicinity of Yuzhno-Sakhalinsk, 5.vii.1983, Kozlov (ZIAS) [not examined].

[*Stigmella distinguenda* sensu Klimesch, 1948: 54. Misidentification.]

Stigmella discidia Schoorl & Wilkinson, 1986: 237. Holotype ♂, GREAT BRITAIN, coll. Wood, Genitalia slide 21645 (BMNH) [not examined] **syn. nov.**

Remarks. — *S. discidia* was described to name the species previously known as *S. distinguenda* auct., which was apparently without name, since *Nepticula distinguenda* Heinemann appeared to be a junior synonym of *Stigmella glu-*

tinosa (Stainton) (see Schoorl & Wilkinson, 1986). However, the earlier described eastern Palaearctic species *sakhalinella* appears to be conspecific with the European *discidia*, and hence should get priority. We base this synonymy on the description and genitalia figure, examination of a subsequent male from USSR: Primorye, received from Dr. Puplesis and the fact that the first of us collected mines on *Betula* species in northeastern China (Heilongjiang prov.), unseparable from European *discidia* mines. In fact the nepticulid fauna of *Betula* in the eastern Palaearctic is very similar to the European fauna, several European species have been found in northeastern China and Japan, and are probably distributed throughout Siberia with Birch.

Nepticula saxatilella Grönlien, 1932

Nepticula saxatilella Grönlien, 1932: 113.

Stigmella saxatilella (Grönlien); Hering, 1957: 909.

Type-material: Holotype, NORWAY: Brevik, vii. 1930, e.1. vii/viii.1930 (not found).

Identity: *Stigmella saxatilella* (Grönlien), a junior subjective synonym (**syn. nov.**) of 51. *S. floslactella* (Haworth, 1828).

Remarks. — *N. saxatilella* has been described on the basis of a single specimen reared by Grönlien, from — according to his description — a leaf of *Rubus saxatilis*. On the basis of this host and the description of the mine, *saxatilella* has always been regarded as a synonym of *Stigmella splendidissimella* (Herrich-Schäffer) (Hering, 1957; Klimesch, 1981; Van Nieukerken, 1986). However, when we read the description carefully, it appeared to be impossible to ascribe the description to *splendidissimella* or any other Rosaceae miner. Apparently the specimen described has not been reared from the leaf of *Rubus*, but more likely from debris or moss, brought in with the rearing material. In our opinion the description refers to a dwarf specimen of *S. floslactella*, a common bivoltine species in southern Norway. Unfortunately the holotype could not be traced in Grönlien's collection in Bergen (A. Løken, in litt.), where most specimens are poorly or not at all labelled.

Elachista subnitidella Duponchel

Elachista subnitidella Duponchel, [1843]: 326, pl. 77, fig. 8.

Nepticula subnitidella Zeller, 1848: 305-306.

Type-material: Lectotype ♂ (here designated), [AUSTRIA, Vienna region], Duponchel coll., Genitalia slide EvN 2522 (MNHN) [examined].

Identity: *Trifurcula subnitidella* (Duponchel) **comb. nov.**, a senior subjective synonym of 149. *T. griseella* Wolff, 1957 **syn. nov.**.

Remarks. — The single specimen in the Duponchel collection, labelled *subnitidella* Dup. is a well preserved specimen of the species hitherto known as *Trifurcula griseella* Wolff. Duponchel's description does not contradict this identity. It is not clear why Joannis (1915) wrote that "le type de Duponchel n'existe plus". Zeller described the same species some years later again as a new species, but he also referred to Duponchel's description. We therefore consider Zeller's name as a subsequent use and recombination of Duponchel's name. This is important, since Zeller's description definitely applies to a different species, most likely *Stigmella zangherii* (Klimesch, 1951) (see Johansson, 1971: 259). We must therefore treat Zeller's usage of *subnitidella* as a misidentification. Probably both Duponchel and Zeller received material (Duponchel via the insect dealer Pareyss) collected by Mann near Vienna and named by Fischer von Röslerstamm, a case similar to *Trifurcula pallidella* (Duponchel) (see Van Nieuwerkerken & Johansson, 1986).

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REFERENCES

- Costa, O. G., 1832-1836. Fauna del regno di Napoli, ossia enumerazione di tutti gli animali. Lepidotteri. Napoli.
- Duponchel, P. A. J., [1843]. Histoire naturelle des Lépidoptères ou papillons de France. Nocturnes, Suppl. 4: 9-554, pls. li-xc. Paris.
- Fologne, M., 1859. Supplément au catalogue des Lépidoptères de Belgique. — Anns. Soc. ent. Belge 3: 137-142; ibidem 4(1860): pl. 2.
- Frey, H., 1856. Die Tineen und Pterophoren der Schweiz: i-xii, 1-430. Zürich.
- Grönlien, N., 1932. Notes on Norwegian Nepticulidae. — Norsk ent. Tidskr. 3: 103-114.
- Groschke, F., 1939. Die Kleinschmetterlinge der Grafschaft Glatz. — Mitt. Münchn. ent. Ges. 29: 643-734.
- Hartig, F., 1941. Neue Microlepidopteren. — Mitt. Münchn. ent. Ges. 31: 154-163.
- Heinemann, H. von, 1871. Nachtrag zu den Bemerkungen über die Arten der Gattung Nepticula. — Berl. ent. Z. 15: 209-223.
- Heinemann, H. von & M. F. Wocke, 1877. Die Schmetterlinge Deutschlands und der Schweiz. II. Kleinschmetterlinge, 2. Die Motten und Federmotten. Heft 2: 389-825, 1-102, v-vi. Braunschweig.
- Hering, M. 1957. Bestimmungstabellen der Blattminen von Europa, 3 vols, 1185 pp, 725 figs. 's-Gravenhage.
- Herrich-Schäffer, G.A.W., 1853-1855. Systematische Bearbeitung der Schmetterlinge von Europa, 5, Die Schaben und Federmotten: 1-394, 124 + 7 + 1 pls. Regensburg.
- Heyden, C. von, 1861. Fragmente aus meinen entomologischen Tagebüchern. — Stett. ent. Ztg 22: 31-42.

- Heydenreich, 1851. *Lepidopterorum Europaeorum, catalogus methodicus*. Systematische Verzeichnis der Europaeischen Schmetterlinge, Dritte Ausgabe. Leipzig.
- Joannis, J. de, 1915. Étude synonymique des espèces de Microlépidoptères décrites comme nouvelles par Duponchel. — *Annls Soc. ent. Fr.* 84: 62-164.
- Johansson, R., 1971. Notes on the Nepticulidae (Lepidoptera). I. A. revision of the *Nepticula ruficapitella* group. — *Ent. scand.* 2: 241-262.
- Karsholt, O. & E. S. Nielsen, 1986. The Lepidoptera described by C. P. Thunberg. — *Ent. scand.* 16: 433-463.
- Klimesch, J., 1948. Zur Frage der verwantschaftliche Beziehungen einiger *Stigmella*-Arten auf Grund des Baues des männl. Kopulationsapparates. (Lep. Stigmellidae). — *Z. wien. ent. Ges.* 33: 49-82.
- Klimesch, J., 1981. Beiträge zur Kenntnis der Nepticulidae (Lep. Monotrysia) 1. Die Futterpflanzen der Nahrungsrassen der *Stigmella aurella* (F.) in Oberösterreich. 2. *Stigmella tormentillella* (H.S.) und verwandte Arten in den Ostalpen. — *Z. ArbGem. öst. Ent.* 32: 113-128.
- Millière, P., 1870. *Catalogue raisonnée des Lépidoptères du Département des Alpes-Maritimes*. — *Mem. Soc. Sci. nat. Cannes Grasse* 2: 89-219, 2 pls.
- Nieukerken, E. J. van, 1985. A taxonomic revision of the Western Palaearctic species of the subgenera *Zimmermannia* Hering and *Ectoedemia* Busck s. str. (Lepidoptera, Nepticulidae), with notes on their phylogeny. — *Tijdschr. Ent.* 128: 1-164.
- Nieukerken, E. J. van, 1986. A provisional phylogenetic check-list of the western palaearctic Nepticulidae, with data on hostplants (Lepidoptera). — *Ent. scand.* 17: 1-27.
- Nieukerken, E. J. van, 1987a. Identity of two Nepticulidae described by A. Caradja (Lepidoptera). — *Zool. Med., Leiden* 61: 141-145.
- Nieukerken, E. J. van, 1987b. Taxonomy and distribution of *Trifurcula squamatella* Stainton sp. rev., a senior synonym of *T. maxima* Klimesch (Lepidoptera, Nepticulidae). — *Entomologist's Gaz.*: in press.
- Nieukerken, E. J. van & R. Johansson, 1986 [1987]. *Trifurcula pallidella* (Duponchel) and *T. beirnei* Puplesis (Lepidoptera: Nepticulidae): nomenclature, taxonomy and distribution. — *Ent. scand.* 17: 271-278.
- Puplesis, R. K., 1984a. *Novye vidy molej-maljutok* (Lepidoptera, Nepticulidae) palearkticeskoj fauny. — *Ent. Obozr.* 63: 582-597.
- Puplesis, R. K. (as Puplyasis), 1984b. New species of (Lepidoptera) Nepticulidae. — *Ent. Rev., Wash.* 63: 96-111 (a translation into English of Puplesis, 1984a).
- Rebel, H. 1901. *Catalog der Lepidopteren des Palaearctischen faunengebietes*. II. Theil: Famil. Pyralidae – Micropterygidae, pp. 1-368. Berlin.
- Robinson, G. S. & E. S. Nielsen, 1983. The Microlepidoptera described by Linnaeus and Clerck. — *Syst. Ent.* 8: 191-242.
- Rössler, A., 1866. Verzeichniss der Schmetterlinge des Herzogthums Nassau. *Jb. nassau. Ver. Naturk.* 19 + 20: 99-442.
- Rössler, A. 1881. Die Schuppenflügler (Lepidopteren) des Kgl. Regierungsbezirk Wiesbaden und ihre Entwicklungsgeschichte. — *Jb. nassau. Ver. Naturk.* 33 + 34: 1-392.
- Sattler, K. & W. G. Tremewan, 1984. The Lepidoptera names of Denis & Schiffermüller — a case for stability. — *Nota lepid.* 7: 282-285.
- Schoorl, J. W., Nieukerken, E. J. van & C. Wilkinson, 1985. The *Stigmella oxyacanthella* species-group in Europe (Nepticulidae: Lepidoptera). — *Systematic Entomology*, 10: 65-103.
- Schoorl, J. W. & C. Wilkinson, 1986. The *Stigmella betulicola* species-group in Europe (Lepidoptera: Nepticulidae). — *J. nat. Hist.* 20: 225-244.
- Schrank, Franz von Paula, 1802. *Fauna Boica*, 2(2). Ingolstadt.
- Sorhagen, L., 1922. Beiträge zur Biologie Europäischer *Nepticula* Arten. — *Arch. Naturgesch.* 88A: 9-60, 4 pls.
- Stainton, H. T., 1855. *The natural History of Tineina*, 1: i-xiii, 1-338, pls i-vii + i. London.
- Stainton, H. T., 1859. A new *Nepticula*. — *Ent. Wkly Intell.* 5: 123.
- Stainton, H. T. (ed.), 1869. *The Tineina of Southern Europe*. London.

- Tengström, J. M. J., 1848. Bidrag till Finlands Fjäril-Fauna. — Notis. Sällsk. faun. Fl. fenn. Förh. 1: 69-164.
- Tremewan, W. G., 1977. The publications on Lepidoptera by O. G. and A. Costa and the nominal taxa described therein. — Bull. Br. Mus. Nat. Hist., Hist. Ser. 5: 211-232.
- Walsingham, T., 1907. Microlepidoptera of Tenerife. — Proc. zool. Soc. Lond. 1907: 911-1034, pls 51-53.
- Zeller, P. C., 1848. Die Gattungen der mit Augendeckeln versehen blattminirenden Schaben. — Linn. ent. 3: 248-344.