

## Examination of the Scythrididae in the Bruand d'Uzelle collection: faunistic and taxonomic implications for the genus *Scythris* (Lepidoptera, Scythrididae)

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**Abstract.** A review was made of the Scythrididae in the Bruand collection. This led to certain faunistic and taxonomic changes for Bruand's taxa. *Scythris subcinctella* (Bruand, 1851), **stat. rev., valid spec.**, has priority over *Scythris crassiuscula* (Herrich-Schäffer, 1855). Several synonymies are established: *Scythris curtulella* (Bruand, 1851), **nomen dubium**, is possibly conspecific with *Scythris limbella* (Fabricius, 1775); *Scythris crassiuscula* (Herrich-Schäffer, 1855), **syn. nov.** (= *Scythris subcinctella* (Bruand, 1851)); *Scythris subaureicinctella* (Bruand, 1856), **syn. nov., emendation** (= *Scythris subcinctella* (Bruand, 1851)); *Scythris cinefactella* (Bruand, 1851) is a **nomen nudum** (= *Scythris tributella* (Zeller, 1847), not *Scythris laminella* (D. & S., 1775) as considered by earlier authors); *Scythris jurassiella* (Bruand, 1858) is a **nomen nudum** (= *Scythris bornicensis* Jäckh, 1977). *Scythris apicalis* (Zeller, 1847) is deleted from the French checklist. Other species from the Doubs (France) are either confirmed or refuted. The year of publication of most of the taxa described by Bruand is 1851 and not 1847 as stated in the literature.

**Résumé.** Les Scythrididae de la collection Bruand sont examinés. Les identifications sont revues, entraînant certaines modifications faunistiques et taxonomiques pour les taxons décrits par Bruand. *Scythris subcinctella* (Bruand, 1851), **stat. rev., valid. spec.**, a priorité sur *Scythris crassiuscula* (Herrich-Schäffer, 1855). Plusieurs synonymies sont établies: *Scythris curtulella* (Bruand, 1851) **nomen dubium**, est probablement conspécifique avec *Scythris limbella* (Fabricius, 1775); *Scythris crassiuscula* (Herrich-Schäffer, 1855), **syn. nov.** (= *Scythris subcinctella* (Bruand, 1851)); *Scythris subaureicinctella* (Bruand, 1856), **syn. nov., emendation** (= *Scythris subcinctella* (Bruand, 1851)); *Scythris cinefactella* (Bruand, 1851) est un **nomen nudum** (= *Scythris tributella* (Zeller, 1847), non *Scythris laminella* (D. & S., 1775) comme considéré par les anciens auteurs); *Scythris jurassiella* (Bruand, 1858) est un **nomen nudum** (= *Scythris bornicensis* Jäckh, 1977). *Scythris apicalis* (Zeller, 1847) est à supprimer de la faune de France. D'autres espèces sont confirmées ou réfutées, provenant du Doubs (France). L'année de publication de la plupart des taxons décrits par Bruand est 1851 et non 1847 comme mentionné dans la littérature.

## Introduction

Among the best known works undertaken by Charles Théophile Bruand d'Uzelle (1808–1861) are those concerning the Geometridae, Coleophoridae (Bruand 1859; Baldizzone 1991) and in particular Psychidae (Bruand 1853). However, other families merit our attention, such as Scythrididae,

because of Bruand's description of new taxa belonging to that family (Bruand 1851, 1858) the status of which is uncertain (Bengtsson 1997: 177, 179; Passerin d'Entreves and Roggero 2007). Bruand's life and entomological works are the subject of two biographical publications, one by Pierre Millière (1861) and the other by Alphonse Delacroix (1862).

Bruand's collection was donated in 1849 or 1850 to the Museum of the Citadel of Besançon (Doubs, France) (Millière 1861: 653). Its condition having somewhat deteriorated, it was transferred to modern collection boxes during the second part of the 20<sup>th</sup> century, perhaps by the intervention of Pierre Réal, a French lepidopterist (Audibert 2012; Delmas 2015). Some of the specimens are in bad condition (missing abdomens, mould) or they have disappeared completely with just the label remaining.

Between 1844 and 1851, Bruand published his "Systematic and synonymic catalogue of the Lepidoptera of the département of the Doubs" ("Catalogue systématique et synonymique des Lépidoptères du département du Doubs") (Bruand 1845–1851). He dealt with the Scythrididae in 1851, placing them in the genus *Butalis* Treitschke, 1833 (= *Scythris* Hübner, 1835), pages 41 & 42 corresponding to species numbers 1323–1329. Two other species of *Scythris* were included in the genus *Roeslerstamnia* (Bruand 1851: 43) with numbers 1347 & 1348, and one species in the genus *Oecophora* (Bruand 1851: 45), numbered 1362. Two species were included in the supplement to his catalogue in the articles entitled "Bulletin entomologique" (Bruand 1856: 129, 130) under numbers 1362 and 1364. In total, seventeen species are listed by Bruand for the département of the Doubs.

In his classification of the Tineidae (Bruand 1858), Bruand divided the genus *Butalis* into three groups: species with broad bodies and short proboscis; those with the male body less broad and flattened, the head looser against the prothorax; and those with a longer proboscis. In this article he revisited the list of known species of *Scythris* for Europe, mentioning the species known for the Doubs.

The date of publication of his catalogue was the subject of a study by Pierre Viette (1977). Viette gave 1851 as the date of publication of the part dedicated to the Scythrididae (part 6 after Viette), based upon receipt of the "Mémoires de la Société d'Émulation du Doubs" at the office of the French entomological society in Paris, thanks to dates handwritten in the journals.

## Material and methods

In the course of a trip to Besançon, the museum curator Pascal Leblanc allowed me to examine the collection with the help of Daisy Steck. The specimens were photographed, identified by examination of the genitalia (mounted in Euparal) when this was possible (abdomen present) and the whole of the annotations made on the labels photographed and recorded.

The examination of the collection enabled the clarification of certain identifications made by Bruand and the establishment of the status of the four taxa of the Scythrididae described by him: *Butalis curtulella* Bruand, 1851, *Butalis subcinctella* Bruand, 1851, *Oecophora cinefactella* Bruand, 1851, and *Butalis grandipennis* var. *jurassiella* Bruand, 1858.

All of the French localities (Besançon, Morteau, Maison Rouge (commune of Les Bréseux), Jougne, and Mont d'Or (commune of Jougne)) are in the département of the Doubs (France).

Abbreviations: LT – lectotype; MNHN – Museum National d'Histoire Naturelle (Paris, France); TL – Type locality.

## Systematic list of the Scythrididae in the Bruand collection

For each species, the name employed by Bruand (1849, 1858) is given. Then comes the information taken from the literature, including the original description, followed by records from the collection and the current nomenclature. Finally, there are comments on the taxonomy (possible synonyms) and the faunistics. The information in square brackets concerns external information, notably related to the handwritten labels.

### *Scythris obscurella* (Scopoli, 1763)

There are two specimens that appear to represent *S. obscurella* (Scopoli):

#### 1. Bruand's identification in his collection. *Butalis esperella* Hübner, 1799.

**Details given in catalogue.** “1323. Esperella H.[übner], Tr.[eitschke] sup.[plément], D.[uponchel] cat.[ologue] +. Juillet. De Morteau au Saut-du-Doubs. Haute-Montagne” [1323. Esperella H.[übner], Tr.[eitschke] sup.[plement], D.[uponchel] cat.[logue] +. July. From Morteau at Saut-du-Doubs. High altitude] (Bruand 1851: 41).

**Material examined.** “But.[alis] esperella. B.[ruand] Cat.[logue] du D.[oubs] [n°] 1323. Coll.[ection] Bruand. Doubs Hte [Haute]-Montagne”. One specimen in box no. 55.

#### Current combination. *Scythris obscurella* (Scopoli, 1763) (Zeller 1855: 173).

**Remarks.** Identification was confirmed by examination of the genitalia (preparation no. 6012, 1 male). This species is known from mountainous areas in France (Jura, Pyrénées, Massif central, Alps), also recorded for the Doubs by Réal and Robert (1980a,b; Delmas 2015).

#### 2. Bruand's identification in his collection. *Butalis apiciella* (Zeller, 1847) [*sic*].

**Details given in catalogue:** “1326. Apiciella, Z.[eller] Juin. Morteau [Doubs]. Haute Altitude” (Bruand 1851: 42) [1326. Apiciella, Z.[eller] June. Morteau [Doubs]. High Altitude].

**Material examined.** “But.[alis] apiciella Z.[eller] Juin Led. [Lederer?] d'un brun plus mat que seliniella / Bruand hte [Haute] montagne” [But.[alis] apiciella Z.[eller] June Led. [Lederer?] more matt brown than for seliniella / Bruand High Altitude]. One specimen in box no. 55.

**Remarks.** The examination of the genitalia of this specimen revealed that it is in fact *S. obscurella* (Schläger, 1847) (genitalia no. 6009, 1 male), not *S. apicalis* (Zeller, 1847) (*apiciella* as was written by Bruand) (Bengtsson 1997).

Lhomme (1935–1946: 788) listed this species as only being found in France in the Doubs, based upon this record (no. 3400). *S. apicalis* Z. 1847. [France: signalé seulement du Doubs (Bruand). VI. Chenille inconnue no. 3400. *S. apicalis* Z. 1847. In France only known from the Doubs (Bruand). VI. Larva unknown]. *S. apicalis* (Zeller, 1847) is now removed from the French checklist because there has been no other observation subsequent to this mention by Bruand and its known distribution (Armenia, Lebanon, Turkey, Iran, Greece, Romania) suggests it is absent from France (Bengtsson 1997; Passerin d'Entrèves and Roggero 2007). In addition, a search in the MNHN collection in Paris revealed no example of *S. apicalis* coming from France. On the other hand, *Scythris obscurella* is common in the Jura massif (Delmas 2015).

***Scythris bornicensis* Jäckh, 1977**

*Scythris jurassiella* (Bruand, 1858) stat. rev., **nomen nudum**

*Butalis grandipennis* var. *jurassiella* Bruand, 1858, Classification des Tineites et examen des caractères et de leur importance relative d'après la méthode naturelle. *Annales de la Société entomologique de France*, (3), 6, 1858: 644.

**Bruand's identification in his collection.** *Butalis grandipennis* var. *jurassiella* Bruand, 1858.

**Original description.** In 1851, Bruand cited the taxon *grandipennella* [sic] (= *grandipennis* (Haworth, 1828) in his catalogue under the number “1324. Grandipennella, Haw.[orth], Gué.[née] Juin. Prise à Morteau et aussi à Maison-rouge (1<sup>ère</sup> et 3<sup>e</sup> zone)” 1324. Grandipennella, Haw.[orth], Gué.[née] June. Taken at Morteau and also at Maison-rouge (1<sup>st</sup> & 3<sup>rd</sup> zone)] (Bruand 1851: 41).

In his revision of the Tineidae (Bruand 1858: 644), Bruand made a subsequent mention of the taxon *jurassiella* as a variety of *grandipennella* [sic] [= *grandipennis*]: “var. *Minor?* *jurassiella* Brd. *in museo* (des hautes montagnes du Doubs). No description or figure accompanies this citation.

**Material examined.** Box no. 55 of the collection contains a specimen corresponding to this taxon, pinned under the specimen is “But.[alis] *grandipennella*, var. Gué [Guénée] V<sup>r</sup>. [variété] *jurassiella*, Brd [Bruand]. Bruand. Doubs, h<sup>e</sup> montagne. Cat. Du D., 1324 suivant” with another label above the specimen “644 [?] M-R [Maison-Rouge] Juin xx” (Fig. 1a, b). There is also another specimen, labelled as follows: “B.[utalis] *grandipennella* Anglet.[erre]”.

**Type.** Lectotype female [here designated], TL: France, Doubs, village of Les Bréseux, locality Maison-Rouge. No date. Altitude: 787 m. Kept in the Museum of Citadel of Besançon (Doubs, France).

Description of habitus: one female specimen; wingspan 15 mm; forewings and hindwings with a clear chocolate brown ground colour, bronzy. Uniform brown-bronzy, long cilia of both wings the same chocolate colour as the wing. No patterns on wings. Abdomen and head brown, bronzy. Habitus similar to a lot of others species of *Scythris*. Male unknown (see Fig. 1a, b).

Female genitalia (preparation no. 6014) (Fig. 1c). Sterigma bell-shaped with an anterior margin incised. Examination of the genitalia of this specimen shows that it is similar to *Scythris bornicensis* Jäckh, 1977 (Bengtsson 1997: fig. 384). It is not a variety of *S. grandipennis*. This taxon is not valid because there is no original description or figure made by Bruand. Therefore the status of this name is proposed to be a *nomen nudum* that is conspecific with *Scythris bornicensis* Jäckh, 1977.

**Remarks.** Since the citation in 1858 this name has not been mentioned in any catalogue (Lhomme 1935–1946; Leraut 1997; Bengtsson 1997; Passerin d'Entrèves and Roggero 2007) as being a *nomen nudum*.

*S. bornicensis* Jäckh, 1977 has been recorded in the département of Cantal (Tourlán 1986) in France. *S. bornicensis* belongs to the *grandipennis* group and is rarely observed in France (Cantal, Doubs). Known, in addition, from Germany, Switzerland and Spain (Bengtsson 1997). The citation of *S. grandipennis* in the Doubs by Bruand is, therefore, an error, as stated by Lhomme (1935–1946: 787). In contrast, *S. grandipennis* is known from the Jura, a neighbouring département to the Doubs, and from Great Britain (Bengtsson 1997).



**Figure 1.** Holotype of *Scythris jurassiella* (Bruand, 1858), female. **a** – habitus, wingspan 15 mm; **b** – original labels; **c** – genitalia, detail of sterigma.

In 1997, Leraut cited the name “*grandipennella* Bruand, 1859” as a synonym of *grandipennis* (Haworth, 1828) (Leraut 1997: 115). The use of this name is probably a mistake. Bruand (1858: 644) used the name “*Grandipennella (pennis)*, Haw. Vood., Gué (in litteris), [...]”; no description or figure follows this citation and no publication of Bruand in 1859 concerning this taxon has been found. Therefore *grandipennella* is considered an incorrect spelling of *grandipennis*.

#### *Scythris fallacella* (Schläger, 1847)

**Bruand's identification in his collection.** *Butalis fallacella* Zeller [sic].

**Details given in catalogue.** “1325. Fallacella, Z.[eller] \*1 Juin. Jougne. Haute montagne” [1325. Fallacella, Z.[eller] \*1 June. Jougne. High altitude] (Bruand 1851: 42).

A note at the bottom of the page “\*1” corresponds to the following comment: “*Fallacella* Z. est très voisine de *Seliniella*; un peu plus petite, et plus claire. Ne serait-ce pas une simple variété de cette dernière?” [*Fallacella* Z. is very close to *Seliniella*; a little smaller and paler. Is this not simply a form of the previous species?].

**Material examined.** “But.[alis] fallacella Z.[eller] Cat.[alogue] Lep.[idoptères] Doubs [n° 1325] Bruand hte [haute] montagne”. One specimen in box no. 55.

**Current combination:** *Scythris fallacella* (Schläger, 1847). It is Schläger who described *fallacella* and not Zeller as written on the label.

**Remarks.** Examination of the genitalia for this specimen shows that it is certainly this taxon (preparation genitalia no. 6008, 1 male). The species is relatively common in French mountainous areas including the Doubs (Delmas 2015). Bruand's data is referenced in Lhomme (1935–1946: 787).

### *Scythris curtulella* (Bruand, 1851), *nomen dubium*, stat. rev.

*Butalis curtulella* Bruand, 1851. — Catalogue systématique et synonymique des Lépidoptères du département du Doubs. *Mémoires de la Société d'Émulation du Doubs*, (1), 3 – {3} (5–6), 1851: 42.  
? = *Scythris limbella* (Fabricius, 1775)

**Bruand's identification in his collection.** *Butalis curtulella* Bruand, 1851.

**Details given in catalogue.** “1327. Curtulella, Bruand \* 2 Juin Jougne. Haute montagne” [1327. Curtulella, Bruand \* 2 June Jougne. High altitude] (Bruand 1851: 42).

**Original description.** A note at the bottom of the page “\* 2” gives the following comment: “Cette espèce ressemble pour la couleur à *Seliniella*; elle a le corps aussi robuste, mais beaucoup plus court, et les ailes une fois moins longues” [This species is similar in colour to *Seliniella*; it has a more robust body, but it is much shorter, as are the wings] (Bruand 1851: 42).

**Material examined.** There is a single specimen in the collection corresponding to this description, in box no. 55, but in bad condition with the abdomen missing. It is accompanied by a label above the specimen: “But. [Butalis] curtulella Brd [Bruand] Cat.[alogue] of the D.[oubs] [n°] 1327 Bruand Jougne” (Fig. 2a, b).

### **Current combination.** *Scythris curtulella* (Bruand, 1851).

**Taxonomic notes.** The date the species was described is 1851 and not 1847 as given by Bengtsson (1997: 177) and by Passerin d'Entrèves and Roggero (2007: 19) in accordance with the details given by Viette (1977).

Bengtsson (1997) classified this species as a *nomen dubium* due to the inability to find relevant material. He noted, in addition, that this taxon could correspond to many species.

Without the abdomen, a definitive identification is uncertain. Nevertheless, the markings on the forewing strongly resemble those of *S. limbella*. The brief description by Bruand makes reference to *seliniella*, but this taxon, absent from the collection, is without ornamentation (Bengtsson 1997), in contrast to *curtulella*, which has a pattern on the forewing.

**Type.** Lectotype [here designated here], TL: France, Doubs, Jougne. Kept in Museum of the Citadel, Besançon, France.

Description of habitus (Fig. 2a,b) can be made as follows, with reservations considering the condition of the specimen: one example of unknown sex; wingspan 14 mm; forewing with a clear golden brown ground colour, cream subapical streak in the form of Z and the appearance of cream marking in the middle of the wing. Brown ground colour more strongly evident in the region of the subapical streak. Hindwings a uniform brown, cilia of both wings the same colour as the wing.



**Figure 2.** Holotype of *Scythris curtulella* (Bruand, 1851). **a** – wingspan 14 mm; **b** – original labels.

Head and abdomen missing. Left hindwing missing. A small pinhole in the left forewing. These different morphological features could permit us to propose a synonymy with *S. limbella* (Fabricius, 1775) but because of the deteriorated state of the specimen, this is uncertain, in particular as there are indications that the forewings may have been glued to the specimen. Therefore *S. curtulella* is left as a *nomen dubium*.

***Scythris subcinctella* (Bruand, 1851), Stat. rev., valid species.**

*Butalis subcinctella* (Bruand, 1851). — Catalogue systématique et synonymique des Lépidoptères du département du Doubs. *Mémoires de la Société d'Émulation du Doubs*, (1), 3–{3} (5–6), 1851: 42.

*Scythris crassiuscula* (Herrich-Schäffer, 1855), **syn. nov.**

*Scythris subaureicinctella* (Bruand, 1856), **syn. nov., emendation**

**Bruand's identification in his collection.** *Butalis subcinctella* Bruand, 1851.

**Details given in catalogue.** “1328. *Butalis subcinctella*, Bruand \* 3 An. praeced femin? June Morteau. Haute montagne” (Bruand 1851: 42).

**Original description.** “\*3” corresponds to the following comment in the note at the foot of the page: “Semblable par la taille à *curtulella*, mais l’abdomen porte en dessous un demi-anneau d’un jaune d’or. L’exemplaire unique que j’ai pris à Morteau est une femelle. Serait-ce celle de *curtulella*? [Similar to *curtulella* in size, but the abdomen is marked underneath with a golden semi-circle. The sole example that I took at Morteau is a female. Is this that of *curtulella*?].



**Figure 3.** Holotype of *Scythris subcinctella* (Bruand, 1851), male. **a** – habitus, wingspan 9.5 mm; **b** – original label; **c** – genitalia.

**Material examined.** “But.[alis] subcinctella Brd [Bruand] - laminella – fusco-cuprea Haw.[orth] /Cat[analogue] du Doubs [n°] 1328 indiqué Jougne, Engl.[eterre?]” [But.[alis] subcinctella Brd [Bruand] - laminella – fusco-cuprea Haw.[orth] /Cat[analogue] of the Doubs [n°] 1328 labelled Jougne, Engl.[land?]], with a label pinned below the specimen “281”[?]. Box no. 55, a single specimen. See Fig. 3a, b.

**Taxonomic notes.** The description was made in 1851 and not 1847 as stated by Bengtsson (1997: 179) based on details given by Viette (1977).

Bruand listed Morteau in his catalogue, but only “Jougne” and “Angleterre” (England) are mentioned on the label. He further stated that the specimen is a female, but it is in fact a male. The type bears many patches of mould on the wings and abdomen, making it impossible to discern the golden semi-circle mentioned by Bruand. The fore- and hindwings are a uniform dark brown without any markings, as with most *Scythris* species. The remark in his catalogue “An. Praeced. Femin.” refers to the hypothesis that *subcinctella* is the female of *curtulella*. The examination of both specimens show clearly that they represent two different species.

Bengtsson (1997: 179) and Passerin d'Entrèves and Roggero (2007: 40) considered this taxon a *nomen dubium* due to the inability to find relevant material.

**Type.** Lectotype [here designated], 1 male. TL: France, Doubs, Jougne. Kept in Museum of Citadel of Besançon (Doubs, France). No date. See Fig. 3a, b.

Description of habitus: wingspan 9.5 mm. Small species. Fore- and hindwings uniform dark chocolate brown, without markings. Abdomen and head dark cholate.

Male genitalia (Fig. 3c). Preparation genitalia no. 6010. Uncus bilobed, sclerotized. Gnathos sclerotized with a terminal angle. Sternum 8 with deep incursion. Similar to *Scythris crassiuscula* (Herrich-Schäffer, 1855) (Bengtsson 1997: 246, fig. 157).

In 1858, Bruand again used the name *subcinctella* and elaborated at the foot of the page (p. 645) “En 1856, j'ai désigné cette espèce sous le nom plus caractéristique de *subaureicinctella*” [In 1856, I gave this species the more appropriate name *subaureicinctella*]”. This proposal of an emendation of name adds to the confusion, the more so because no trace of a publication in 1856 with this emendation of the name has been found.

In conclusion, this taxon described by Bruand in 1851 has priority over *crassiuscula* Herrich-Schäffer in 1855.

### *Scythris laminella* (Denis & Schiffermüller, 1775)

*Lita aereella* Duponchel, 1842, syn. nov.

**Bruand's identification in his collection.** *Butalis (Lita) aereella* (Duponchel, 1842)

**Details given in catalogue.** “1329. *Butalis aereella*, D. (*Lita*) Juin-Juillet. Morteau. Haute montagne [“1329. *Butalis aereella*, D. (*Lita*) June-July. Morteau. High altitude] (Bruand 1851: 42).

**Material examined.** Box no. 55 of the collection contains a single matching specimen, together with a label above it: “But. aereella D.[uponchel] Déterminé par lui [Duponchel] gravatella Zeller suivant Led.[erer] Bruand hte [Haute] montagne ”[But. aereella D.[uponchel] Identified by him [Duponchel] gravatella Zeller after Led.[erer] Bruand hte [Haute] montagne] and with a label below the specimen 17.X Morteau”. See Fig. 4a, b.

**Taxonomic notes.** The status of *Lita aereella* Duponchel, 1842 has been the subject of a number of articles (Duponchel 1842, 1844; Herrich-Schäffer 1855; Joannis 1915). Currently it is thought to be a synonym of *S. tributella* (Zeller, 1847), but with some reservations because of the absence of types for *aereella* (Bengtsson 1977).

Bengtsson (1977) summarised the history of this taxon. Duponchel (1842: 475–476, pl. 86, fig. 11) described the species, without giving a locality, under the name of *Lita aereella*. In 1844, Duponchel placed it in synonymy with *Oecophora parvella*, this time giving Germany as the type locality. Herrich-Schäffer validated the name *parvella* 1855. In addition, *O. parvella* H.-S., 1855 is considered to be a junior synonym of *S. terrenella* (Zeller, 1847), itself a junior synonym of *S. tributella* (Zeller, 1847) (Passerin d'Entrèves 1980).

The note on the label for *aereella* in the Bruand collection “identified by him” indicates that Duponchel had identified the specimen that Bruand possessed. There is no type specimen in the Duponchel collection in the MNHN in Paris. Examination of the genitalia indicates that it is *Scythris laminella* (Denis & Schiffermüller, 1775) (genitalia no. 6011, 1 male, Fig. 4c, d).



**Figure 4.** *Scythris laminella* (D. & S., 1775) (identified by Bruand as *Butalis (Lita) aereella* (Duponchel, 1842)), male. **a** – habitus, wingspan 12 mm; **b** – original label; **c** – genitalia, sternum 8; **d** – genitalia.

### *Scythris tributella* (Zeller, 1847)

*Scythris cinefactella* (Bruand, 1851), stat. rev., *nomen nudum*.

*Scythris laminella* (D. & S., 1775) partim, s. authors

*Oecophora cinefactella* Bruand, 1851. — Catalogue systématique et synonymique des Lépidoptères du département du Doubs. *Mémoires de la Société d'Émulation du Doubs*, (1), 3 – {3} (5–6), 1851: 43.

**Bruand's identification in his collection.** *Butalis cinefactella* Bruand, 1851.

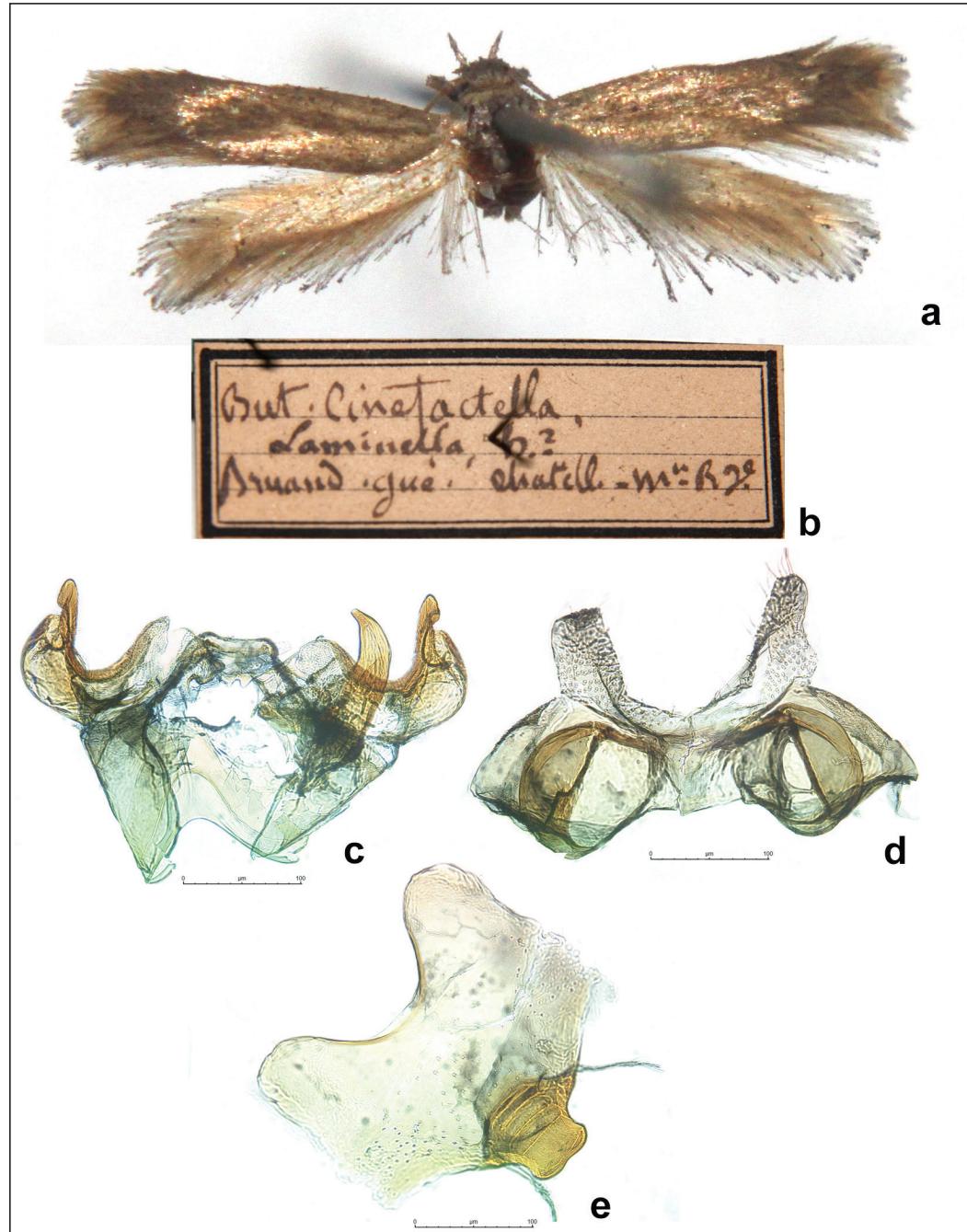
**Details given in catalogue.** This taxon was mentioned by Bruand for the first time in 1851 (p. 43) in the genus *Oecophora* under number 1362. Cinefactella, Gué.[née] Juin. Montagne. [1362. Cinefactella, Gué.[née] June. Mountains.]. No description or complementary information accompanies this name.

In 1858 (p. 646) he mentions this taxon in the genus *Butalis* as “cinefactella, Gué. [Guénée (sic): Guenée] (in litteris), Laminella, H.?”.

**Original description.** none.

**Material examined.** In the box no. 55 of the collection there are two corresponding specimens with a label above them reading: “But. cinefactella. Laminella, B<sup>r</sup> [?, Bruand]. Bruand. Gué. [Guénée (sic): Guenée] Chatill. [on-sur-Lison] M<sup>n</sup> Rge [Maison rouge]”. See Fig. 5a, b.

**Taxonomic notes.** *S. cinefactella* was placed in synonymy with *S. laminella* (Denis & Schiffermüller, 1775) by Leraut (1997: 115), probably by taking into account a statement of synonymy by



**Figure 5.** Holotype of *Butalis cinefactella* (Bruand, 1851), male. **a** – habitus, wingspan 12 mm; **b** – original label; **c** – genitalia, valvae, phallus, tegument, and gnathos; **d** – genitalia, tergum 8; **e** – genitalia, sternum 8.

Bruand himself in 1858 with *S. laminella* (Bruand 1858: 646). However, the specimen referred to is *S. tributella* (genitalia no. 6005, 1 male). Since this citation is dated to 1851, the taxon was not mentioned by Lhomme (1935), by Bengtsson (1997) or by Passerin d'Entrèves and Roggero (2007).

**Type.** Lectotype male [designated here], TL: France, Doubs, Chatillon-sur-Lison. Deposited in Museum of Citadel of Besançon (Fig. 5a, b).

Description of habitus: very small species, wingspan 12 mm; fore- and hindwing chocolate brown without markings, wings slightly shiny at the base, head and abdomen black, hindwings lighter than forewings. The description of the imago is consistent with that for *tributella*.

Genitalia (preparation genitalia no. 6005, Fig. 5c, d, e) male. The description is strictly similar to *tributella*: “Valvae resembling a bird-head; phallus short, tapered. Tergum 8 trapezoid, with anterior margin incurved, posterior strongly sclerotized. Sternum 8 bell-shaped” as written by Bengtsson (1997: 114).

### *Scythris picaepennis* (Haworth, 1828)

**Bruand's identification in his collection.** *Butalis fuscocuprella* Haworth, 1828 [sic].

**Details given in catalogue.** None.

**Material examined.** In box no. 55, a label (pinned above the specimen) mentions the species “B.[utalis] fuscocuprella Haw.[orth] subauricinctella Brd [Bruand] subcinctella Cat.[atalogue] du D.[oubs] [n°] 1328 Angl.[eterre]. ”[B.[utalis] fuscocuprella Haw.[orth] subauricinctella Brd [Bruand] subcinctella Cat.[atalogue] du D.[oubs] [n°] 1328 Eng[land]]. Another label pinned under the specimen reads “282” [?] (Fig. 6a, b).

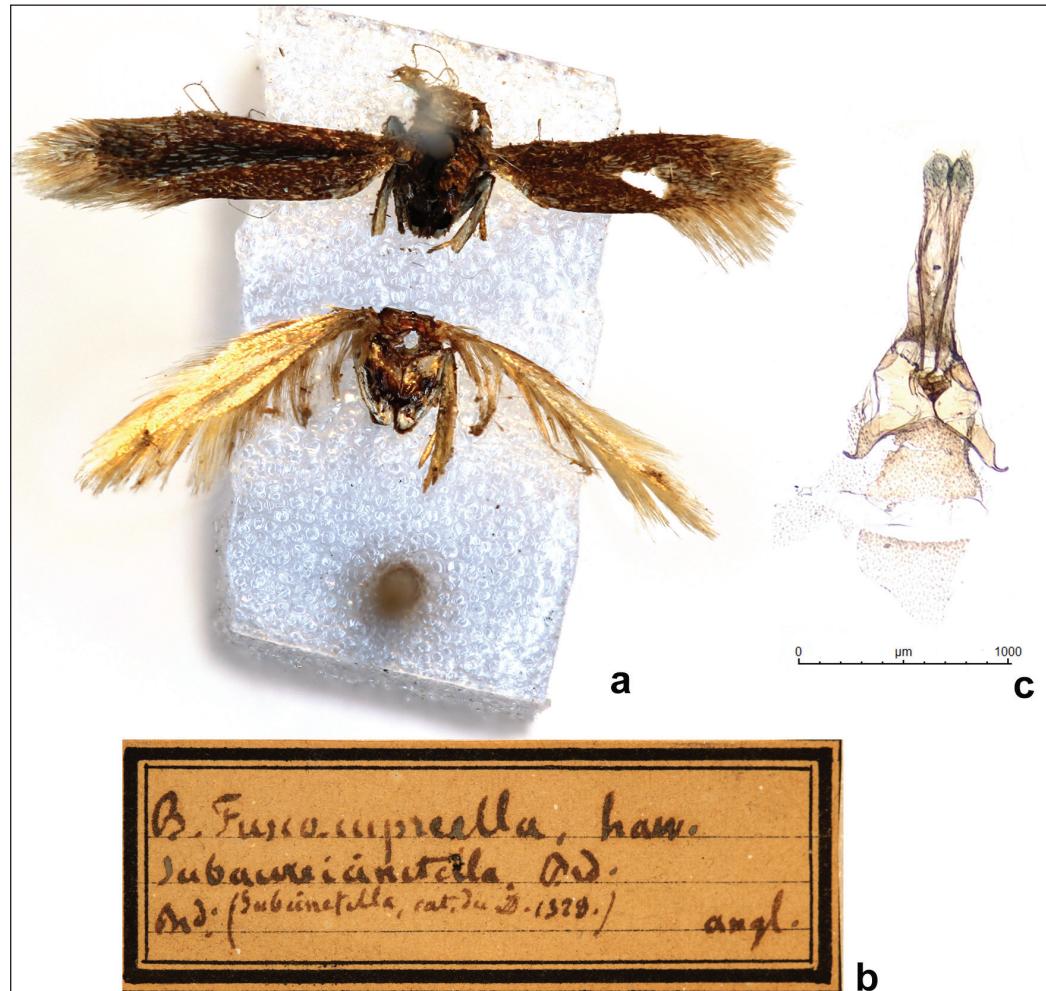
**Taxonomic notes.** The taxon *fuscocuprella* Haw. [sic], the correct spelling of which is *fuscocuprea* Haworth, 1828, was placed in synonymy with *Monochroa tenebrella* (Hübner, 1817) (Gelechiidae) by Bradley (1966). However, examination of the relevant specimen shows that it is *Scythris picaepennis* (Haworth, 1828) (preparation genitalia no. 6007, 1 female, Fig. 6c). The species is known from Great Britain (Bengtsson 1997). The specimen must have been sent by Edward Doubleday (1881–1849), an English lepidopterist with whom Bruand corresponded regularly. That three names are mentioned on the label is probably an error by Bruand, who deals separately on the one hand in his monograph of the Tineidae with *fuscocuprella* Haw. [sic], and on the other hand with *subcinctella* Bruand and *subaureicinctella* Bruand (see the remarks to *S. subcinctella*).

### *Scythris seliniella* (Zeller, 1839)

**Bruand's identification in his collection.** *Butalis seliniella* Zeller, 1839.

**Details given in catalogue.** “1324 bis. But.[alis] seliniella Z.[eller], D.[uponchel], sup. Juin Haute montagne; abondante à Jougne, flanc méridional du Mont d'Or” [1324 ditto. But.[alis] seliniella Z.[eller], D.[uponchel], sup. June Mountains; at Jougne abundant, southern face of Mont d'Or] (Bruand 1856: 130).

**Material examined.** There is a corresponding specimen in box no. 55 of the collection, in a bad state, the abdomen missing, accompanied by a label above the specimen which reads “But.[utalis] seliniella Z.[eller] D.[uponchel] Sup.[plément] Cat.[atalogue] du D.[oubs] [n°] 1324 bis Bruand. hte [Haute] montagne Jougne”



**Figure 6.** *Scythris picaepennis* (Haworth, 1828) (identified by Bruand as *Batalis fuscocuprella* Haworth, 1828), female. **a** – habitus, wingspan 11 mm; **b** – original label; **c** – genitalia.

[But.[utalis] seliniella Z.[eller] D.[uponchel] Sup.[plement] Cat.[atalogue] of the D.[oubs] [n°] 1324 ditto Bruand. hte [Haute] montagne Jougne].

**Current combination:** *Scythris seliniella* (Zeller, 1839).

**Remarks.** It is impossible to identify this specimen without the abdomen.

### *Scythris punctivitella* (O. G. Costa, 1836)

**Bruand's identification in his collection.** *Batalis knochella* Fabricius, 1794.

**Details given in catalogue.** The species is mentioned in the revision of the Tineidae of the Doubs (Bruand 1858: 645) with no further comments.

**Material examined.** In box no. 55 of the collection there is a corresponding specimen, with a label above it which reads “But.[alis] knochella F. not knochiella, h. [Herrich-Schäffer] Soc. Linn. Mann Spalato [Split, Croatia]” and with another label pinned under the specimen “381” [?].

**Current combination:** *Scythris knochella* (Fabricius, 1794).

**Remarks.** Instead of *S. knochella* as so far considered, the specimen is in fact *Scythris punctitivella* (O. G. Costa, 1836) (preparation genitalia no. 6013, 1 male). The species is known from Croatia (Bengtsson 1997). This specimen was probably sent to Bruand by Josef Johann Mann, a famous lepidopterist.

### *Scythris gravatella* (Zeller, 1847)

**Bruand's identification in his collection.** *Butalis vagabundella* Zeller [sic] and *Butalis gravatella* Zeller, 1847.

**Details given in catalogue.** The taxa *vagabundella* and *gravatella* are mentioned in the revision of the Tineidae (Bruand 1858: 646) with no place of origin given.

**Material examined.** In box no. 57 of the collection there is a corresponding specimen, without abdomen, accompanied by a label above the specimen which reads “B.[utalis] anae vagabundella Z.[eller], Bruand, Alpes” and another, without abdomen, with the label “B. anae gravatella Z.[eller] Bruand Jougne”.

**Current combination:** *Scythris gravatella* (Zeller, 1847). *S. vagabundella* H.-S., 1855, is a synonym of *S. gravatella* (Zeller, 1847) (Bengtsson 1997: 134). The name of the author of *vagabundella* is Herrich-Schäffer and not Zeller.

**Remarks.** It is curious that, without explanation, the word *anae* appears before the name of the species. The locality “Alps” and the impossibility of verification (specimen without abdomen) makes this record of little use. The species is more commonly known from southern Europe. *S. gravatella* is known from the Mediterranean region and from Charente-Maritime (Courtois 1995; Delmas 2015) but there are no records from the Jura.

### *Scythris noricella* Zeller, 1843

**Bruand's identification in his collection.** *Butalis noricella* F.-R. [sic].

**Details given in catalogue.** The species is mentioned in the revision of the Tineidae without giving any distribution information (Bruand 1858: 646).

**Material examined.** There is one specimen without abdomen in box no. 56 of the collection, the label as follows: “But.[alis] noricella F.[ischer von] R.[öslerstamm] Autriche”.

**Current combination:** *Scythris noricella* Zeller, 1843. The author is Zeller, not Fischer von Röslerstamm as noted by Bruand.

**Remarks.** Known from Austria (Bengtsson 1997) and from France (Leraut 1980: 116; Delmas 2015) in the Alps. The validity of the identification cannot be established because of the missing abdomen.

### *Scythris limbella* (Fabricius, 1775)

#### **Bruand's identification in his collection.** *Butalis chenopodiella* Hübner, 1813

**Details given in catalogue.** “1348. Chenopodiella, H.[übner], F.-R. [Fischer von Röslerstamm], Z.[eller], D.[uponchel] Cat.[atalogue] Juin. Besançon et au-dessous. Côtes boisées” [1348. Cheno-podiella, H.[übner], F.-R. [Fischer von Röslerstamm], Z.[eller], D.[uponchel] Cat.[atalogue] June. Besançon and below. Wooded hillsides] (Bruand 1851: 43).

**Material examined.** Three specimens are in box no. 58 of the collection under the name “*Butalis chenopodiella* H.[übner] *Tristella* D.[uponchel] not H.[übner] *Bes.* [Besançon]”. The first is labelled “357”, the second “granges pré Julien” [barns Pré Julien], which poses a problem in identifying the location, and the last is without a label.

**Current combination:** *Scythris limbella* (Fabricius, 1775) (Bengtsson 1997).

**Remarks.** Examination of the genitalia of the third specimen (1 female, preparation genitalia no. 6015) confirms this identification. The species is mentioned in the Catalogue of the Lepidoptera of the Doubs (1849: 43) in the genus *Roeslerstammia* and appears again in his revision of the Tineidae (1858: 646) with a reference to the Doubs “Cat. du D.” under the genus *Butalis*. The record for the Doubs is mentioned in Lhomme (1935–1946: 802).

### *Scythris scopolella* (Linnaeus, 1767)

#### **Bruand's identification in his collection.** *Butalis scopolella* Linnaeus, 1767.

**Details given in catalogue.** “1347. Scopolella, H.[übner] [fig.] 246, Z.[eller]<sup>2</sup> Juin Côtes rocailleuses et boisées. Besançon et au-dessous” [1347. *Scopolella*, H.[übner] [fig.] 246, Z.[eller]<sup>2</sup> June Rocky and wooded hillsides. Besançon and below]. The note related to asterisk <sup>2</sup> reads “Le nom des *scopolella* doit être maintenu, car la *scopolella*, H. 145, n'est autre que la *quadrella*, F.” [The name *scopolella* must be retained, because the *scopolella*, H. 145, is none other than *quadrella*, F.].

**Material examined.** Three specimens are in the collection box no. 54 with the note “Besançon” and conform to the taxon indicated by Bruand.

**Current combination:** *Scythris scopolella* (Linnaeus, 1767).

**Remarks.** The species is mentioned in the Catalogue of the Lepidoptera of the Doubs (1851: 43) under the genus *Roeslerstammia*. Then it is also listed in his revision of the Tineidae (1858: 646) with a record for the Doubs “Cat. du D.” in the genus *Butalis*. A common species, if not very common, in France.

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## References

- Audibert C (2012) Notice bio-bibliographique de Pierre Réal (1922–2009). *Bulletin mensuel de la Société Linnéenne de Lyon* 81(7–8): 133–158.
- Baldizzone G (1991) Contribution à la connaissance des Coleophoridae. LX. Les taxa décrits par Bruand d'Uzelle (Lép., Coleophoridae). *Entomologica gallica* 2(2): 95–100.
- Bengtsson BA (1997) Scythrididae. In: Huemer P, Karsholt O, Lyneborg L (Eds) *Microlepidoptera of Europe*. Volume 2, Apollo Books, Stenstrup, 1–301.
- Bradley JD (1966) Type Specimens of Microlepidoptera in the University Museum, Oxford, described by Haworth. *Entomologist's Gazette* 17(3): 129–140.
- Bruand d'Uzelle ChTh (1845–1851) Catalogue systématique et synonymique des Lépidoptères du département du Doubs. Mémoires de la Société d'Émulation du Doubs, (1), 2–{1} (1–2), 1845: [21]–111; (1), 2–{2} (3–4), 1846: [63]–96, 1 tabl. dépliant; (1), 2–{3} (5–6), 1847: 97–124; (1), 3–{1} (1–2), 1849: 97–108; (1), 3–{2} (3–4), 1851: 75–102; (1), 3–{3} (5–6), 1851: 27–58.
- Bruand d'Uzelle ChTh (1853) Essai monographique sur la tribu des Psychides. Mémoires de la Société libre d'Émulation du Doubs, (2), 3[1852]: 17–127.
- Bruand d'Uzelle ChTh (1854–1858) Bulletin entomologique. Mémoires de la Société libre d'Émulation du Doubs, (2), 6: 97–98; (2), 7, 1855: 167–168; (2), 8, 1856: 129–131; (3), 2, 1857: 440–441; (3), 3, 1858: 620–622.
- Bruand d'Uzelle ChTh (1857–1858) Classification des Tineites et examen des caractères et de leur importance relative d'après la méthode naturelle. *Annales de la Société entomologique de France*, (3), 5, 1857: 807–826; (3), 6, 1858: 601–702.
- Bruand d'Uzelle ChTh (1859) Essai monographique sur le genre Coleophora. *Annales de la Société entomologique de France*, (3), 7: 375–414.
- Courtois JM (1995) Deuxième contribution à la connaissance des Scythrididae de France. *Scythris gravatella Zeller, 1847, espèce authentiquement française (Lepidoptera Scythrididae)*. *Alexanor*, 18 (8), 1994: 483–484.
- Delacroix A (1862) Notice sur Théophile Bruand. Mémoires de la Société d'Émulation du Doubs, (3), 7: 469–476.
- Delmas S (2015) Les Scythrididae des collections Pierre Réal et François Moullignier du Musée des Confluences de Lyon (Lepidoptera, Scythrididae). *Bulletin mensuel de la Société Linnéenne de Lyon* 84(5–6): 149–160.
- Duponchel PAJ (1842–1844) Nocturnes. Supplément aux tomes quatrième et suivants. In: Godart J-B, Duponchel PAJ (Eds) *Histoire naturelle des Lépidoptères ou Papillons de France* (Supplément 4). Méquignon-Marvis, Librairie-éditeur, Paris, 1–556.
- Leraut PJA (1997) Liste systématique et synonymique des Lépidoptères de France, Belgique et Corse (deuxième édition). *Alexanor* 20(Suppl.): 1–526.
- Lhomme L (1935–1946) Microlépidoptères. In: Lhomme L (Ed.) *Catalogue des Lépidoptères de France et de Belgique* (2). Le Carriol, par Douelle (Lot), 1–488.
- Millière P (1861) Notice nécrologique de Ch.-Th. Bruand d'Uzelle. *Annales de la Société entomologique de France*, (4), 1: 651–656.
- Passerin d'Entrèves P (1980) Revisione degli Scitrididi (Lepidoptera, Scythrididae) paleartici. V. – I tipi di Scythris del Naturhistorisches Museum di Vienna. *Bollettino del Museo di Zoologia dell'Università di Torino* 5: 41–60.

- Passerin d'Entrèves P, Roggero A (2007) Scythrididae. In: Heppner JB (Ed.) Lepidopterorum catalogus (new series). Association for Tropical Lepidoptera (Gainesville, Florida, USA), Scientific Publishers, Gainesville Fascicle 44: 1–85.
- Réal P, Robert JC (1980a) La faune des Lépidoptères d'une corniche de la Moyenne-Loue (Doubs); ses éléments écologiques remarquables. Mémoires du Comité de Liaison pour les Recherches Écofaunistiques dans le Jura (CLERJ) 2: 1–100.
- Réal P, Robert JC (1980b) La faune des Lépidoptères du Moyen-Drûgeon (Bonnevaux et environs, Doubs); ses éléments écologiques remarquables. Mémoires du Comité de Liaison pour les Recherches Écofaunistiques dans le Jura (CLERJ) 3: 1–100.
- Tourlan D (1986) *Scythris bornicensis* Jäckh dans le Cantal (Lepidoptera Scythrididae). Alexanor 14(5): 231–232.
- Viette P (1977) Le catalogue des Lépidoptères du Doubs de Théophile Bruand. Bulletin mensuel de la Société Linnéenne de Lyon 46(8): 283–288.