

On the identity of *Scythris tributella* (Zeller, 1847) and raising *Scythris terrenella* (Zeller, 1847), sp. rev. from synonymy (Lepidoptera: Scythrididae)

Bengt Å. Bengtsson

Abstract

A review of the *Scythris tributella* (Zeller, 1847) complex is given. All synonyms are reconsidered by study of the genitalia of the types and relevant specimens. One of the synonyms, *S. terrenella* (Zeller, 1847), is restored to specific status and all of the other synonyms hitherto are shown not to be synonyms of *S. tributella*. *S. tributella* appears to have only been found on Sicily, whereas *S. terrenella* (Zeller, 1847) is distributed over Central and South Europe, and also in Libya.

Keywords: Lepidoptera, Scythrididae, *Scythris tributella*, *Scythris terrenella*, new status, new synonymies, Europe.

Sobre la identidad de *Scythris tributella* (Zeller, 1847) y sacando a *Scythris terrenella* (Zeller, 1847), sp. rev. de la sinonimia (Lepidoptera: Scythrididae)

Resumen

Se ofrece una revisión del complejo *Scythris tributella* (Zeller, 1847). Se reconsideran todas las sinonimias mediante el estudio de la genitalia de los tipos y especímenes relevantes. Una de las sinonimias, *S. terrenella* (Zeller, 1847), recupera su estatus específico y se demuestra que todas las demás sinonimias hasta ahora no son sinonimias de *S. tributella*. Parece que *S. tributella* sólo se ha encontrado en Sicilia, mientras que *S. terrenella* (Zeller, 1847) se distribuye por Europa central y meridional y también en Libia.

Palabras clave: Lepidoptera, Scythrididae, *Scythris tributella*, *Scythris terrenella*, nuevo estatus, nuevas sinonimias, Europa.

Introduction

According to my private database the worldwide family Scythrididae consists of 1123 described taxa, of which 925 are valid, and the rest are synonyms or have unavailable names. In Europe 201 species are recorded. Hundreds of undescribed species in Museums on all continents still await description. The genus *Scythris* is the most species-rich in the family (186 species in Europe). The remaining genera have only a few European species each: *Apostibes* Walsingham, 1907 (1 species), *Enolmis* Duponchel, 1846 (11), *Episcythris* Amsel, 1939 (1), *Eretmocera* Zeller, 1852 (1) and *Parascythris* Hannemann, 1960 (1). A large number of dark, unicoloured species are impossible to identify from their external appearance, and that is also true for the species dealt with in this paper.

In Bengtsson (1997) *Scythris tributella* (Zeller, 1847) was placed as the oldest valid name with 9

junior synonyms. Although *Lita aereella* Duponchel, 1842 was the oldest name listed, the circumstances why this name could not be used then were described in Bengtsson (op. cit.) in the following way:

“Duponchel (1842) based his *Lita aereella* on specimen(s) received under the name of *Oecophora parvella* Fischer von Röslerstamm from the insect dealer Parreyss [Ludwig Parreyss (1796-1879), living in Vienna]. Later he (1844) synonymized the two names. However, *parvella* was then a manuscript name which was first validated by Herrich-Schäffer (1855), and Joannis (1915) pointed out that *aereella* has priority over *parvella*. *Scythris parvella* (Herrich-Schäffer, 1855) is currently considered a junior synonym of *S. terrenella* (Zeller, 1847), and a logical consequence would be to use the oldest available name, *S. aereella* Duponchel, for this species. Duponchel gave no information about the origin of his material, but it is unlikely that it came from Regensburg. It is thus possible that *aereella* is a senior synonym of *terrenella*, but a nomenclatural consequence of this should not be taken before the type of *aereella* has been studied.”

Delmas (2016) has since examined the type of *Lita aereella* and found it conspecific with *Scythris laminella* ([Denis & Schiffermüller], 1775). Thus, the rest of the taxa synonymized with *S. tributella* need to be investigated to establish their status.

Material and methods

The late Eberhard Jäckh (1902-1993) was at the time the foremost specialist of the Scythrididae. After a couple of visits to his home he offered me a Xerox copy of all his files of photographs, showing every scythridid specimen he had examined and comprising almost 500 A4 pages. His collection of Lepidoptera, genitalia slides and files were deposited in the Smithsonian Institution in Washington D.C. (USA) just before his death.

The Natural History Museum in London (United Kingdom) has been visited several times, one of the aims being to check type material of taxa associated with *S. tributella*. Scythrididae material in several other European museums (Berlin, Vienna, Copenhagen, Helsinki, etc.) has been examined. Genitalia slides were photographed, and important specimens were generously allowed as loans by curators for examination by me at home. The dissected genitalia were photographed and kept in my personal files, which will be deposited in the Biological Museum, University of Lund (Sweden) in the future.

Abbreviations

BM	Slides in Natural History Museum, London, United Kingdom
BMNH	Natural History Museum, London, United Kingdom
Ha	Slides made by H.-J. Hannemann
Jä	Slides made by E. Jäckh
LNK	Landessammlungen für Naturkunde, Karlsruhe, Germany
MNHN	Muséum National d'Histoire Naturelle, Paris, France
NHMW	Naturhistorisches Museum, Vienna, Austria
Pa	Slides made by P. Passerin d'Entrèves
ZMB	Museum für Naturkunde, Humboldt Universität, Berlin, Germany

Systematic evaluation of taxa

Scythris tributella (Zeller, 1847)

Oecophora tributella Zeller, 1847. *Isis*, 1847, 833

The external appearance is similar to many other European Scythrididae species and is depicted in colour in Bengtsson (1996, pl. 9, figures 1-2). In the original description, *tributella* was compared with other similar Scythrididae with respect to size, appearance of labial palps, colour of abdomen, etc. Even

though Zeller was very skilful at distinguishing various taxa, he was not always aware of the difficulties in separating and identifying similar scythridid taxa. The examination of genitalia was not yet in practice, and therefore many synonyms were produced by many authors. Zeller described *terrenella* in the same paper immediately after *tributella*. He separated the two species by the colour of the forewing (“leicht durch die sehr helle, graugelbliche, etwas erzglänzende Grundfarbe zu erkennen.”) [easy to distinguish by the very pale, greyish-yellow colour and faint metallic lustre], cf. Bengtsson (1996).

The type series was collected by Zeller at Syracuse on Sicily on 4 May [1843]. The male and the female are in the Natural History Museum in London, and the genitalia of both specimens have been dissected. A lectotype has been selected with the label “Syracus, 4-V. P. C. Zeller”; Prep. BM 18696 (Figure 1). Jäckh regarded the specimen as the holotype, but it has been designated a lectotype by K. Sattler (Passerin d’Entrèves, 1980, p. 52) as there was also a female in the type series. The female labelled “Syracus, 4.V. P.C.Zeller”; Prep. BM 18695 (Figure 2) is hereby designated a paralectotype.

The male genitalia differ from the other taxa below by the shape of the eighth tergite that is broad and indented posteriorly, while it is convex at the tip in the taxa below. This had already been pointed out in Bengtsson (1997). The valva appears to be slightly shorter than in *S. terrenella*.

In the female the sterigma seems to be somewhat shorter longitudinally than in *S. terrenella*.

There exists more material from Sicily. Josef W. Klimesch (1902-1997) visited Sicily in 1952 and collected several specimens of *S. tributella*. Jäckh examined a specimen collected in “Sicilia, Mistretta, Mercuore, 700 m, 11-20-VI-1952” (prep. Jä 8609; in Vienna Museum) (Figure 3). Robert Lunak also collected in Sicily. A specimen, in the Kasy collection in Vienna, was dissected by Jäckh with the following data: “Sicilia, Mistretta, 1100 m, 13-IX-1938, Lunak”; Prep. Jä 8574 (Figure 4).

A female (Figure 5) labelled “Sicilia, Castelluccio, 500 m, 24-V-1979”, collected by Paolo Triberti, was dissected by Jäckh (prep. Jä 10226). The genitalia exhibit characters somewhere between *tributella* and *terrenella*. There are several male specimens from Sicily of both *tributella* and *terrenella* in various collections, which demonstrates a sympatric occurrence of the two species.

Distribution: Sicily.

Scythis terrenella (Zeller, 1847), **sp. rev.**

Oecophora terrenella Zeller, 1847, *Isis*, 834

The external appearance of *S. terrenella* and the synonymic taxa below, agrees fully with that of *tributella*. In his article on the Lepidoptera of Sicily, Zeller described this species immediately after *tributella*. Jäckh designated a specimen as the holotype, originating from “Italien, Rom, 28-VIII-1844, Zeller, coll. Wlsm BM”; Prep. BM 16969, and added “var. b. Z.[=Zeller], H.T.”. The specimen shows an extended and rounded tip of tergite 8 (Figure 6).

This specimen has been designated the lectotype of *Oecophora terrenella*, and was formally published by Passerin d’Entrèves (1980, p. 52). As far as I know the rest of the six syntypes have not yet been designated paralectotypes.

Distribution: Albania, Austria, Belgium, Bulgaria, Corsica, Croatia, Georgia, Germany, France, Greece, Hungary, Iran, Italy, Libya, Montenegro, Netherlands, North Macedonia, Portugal, Romania, Russia, Sardinia, Sicily, Slovakia, Spain, Switzerland, Turkey, Turkmenistan, [and former Yugoslavia].

Oecophora cinefactella Bruand, 1851, **nomen nudum**

Oecophora cinefactella Bruand, 1851. *Mém. Soc. Emul. Doubs*, (1) 3(5-6), 43

The species was mentioned by Bruand without a description. More information is given by Delmas (2016, p. 160) who found this taxon to be a junior synonym of *S. laminella* ([Denis & Schiffmüller], 1775).

Oecophora parvella Herrich-Schäffer, 1855, **syn. nov.**

Oecophora parvella Herrich-Schäffer, 1855, *Schmett. Eur.*, 5, 270, pl. 115, fig. 938

A specimen labelled “Typus” was examined by E. Jäckh (Figure 7). He dissected the specimen

(Prep. Jä 8853) and noted “ohne Fundzettel” [without label], which appears to be contradictory, as he presented labels with important information (Figure 7). Other specimens marked “Typus” were dissected by H.-J. Hannemann (Figures 8-9). The type specimens are in ZMB.

Oecophora denigratella Herrich-Schäffer, 1855, **syn. nov.**

Oecophora denigratella Herrich-Schäffer, 1855, *Schmett. Eur.*, 5, 271, pl. 115, fig. 936

In the Natural History Museum in London (Walsingham collection) a specimen considered to belong to this species has been dissected (Prep. BM 16972). Jäckh examined the genitalia, which are typical for *S. terrenella* with a protruding tip of tergite 8 (Figure 10). In his original description, Herrich-Schäffer recorded four males and one female (the last one as “*Gelechia*”) having been found by ?Friedrich Schläger (1810-1866) and mentioned some differences between *denigratella* and *parvella*:

“Von der ihr am nächsten stehenden *Parvella* durch geringere Grösse, viel lichtere, grünere Farbe der Vorderflügel und die meist deutlichen lichten Schuppen derselben unterschieden”.

[= Distinguished from the closely related *Parvella* by its smaller size, much lighter and greener colour of the forewings and the usually distinctly light scales]

In fact, *S. terrenella* sometimes has paler scales in the fold, especially in females. The type series was found at Regensburg in several places during May-August.

Butalis serella Constant, 1885

Butalis serella Constant, 1885, *Ann. Soc. ent. Fr.*, (6)5, 11, pl. 1, fig. 31

Constant collected 15 specimens of this species at light in August 1882 at Golfe Juan [about 6 km E of Cannes]. When he described *serella*, he compared it with *Butalis denigratella* H.-S. and two other species. The type series was probably dispersed to various museums, among them Muséum National d’Histoire Naturelle, Paris (France) and Naturhistorisches Museum Wien (Austria). In the last-mentioned museum a male specimen has been dissected by Jäckh (Prep. Jä 8220) (Figure 11) and exhibits typical traits for *S. terrenella*. The synonymy with *S. tributella* was established by Passerin d’Entrèves (1980, p. 52), in which paper he also published the designation of a lectotype.

Scythris karnyella Rebel, 1918

Scythris karnyella Rebel, 1918. *Zs. Österr. Ent.-Ver.*, 3, 87

On 15-IX-1917 a specimen of this species was collected by Heinrich Hugo Karny (1886-1939) at Bazar Shjak [?] in Albania. Hans Rebel (1861-1940) compared the specimen with *S. parvella* H.-S., “ist aber durch eine breite, ockergelbe Mittelängsbinde sehr ausgezeichnet.” [= but is readily distinguished by a wide, ochreous-yellow median streak]. Rebel named this species after the discoverer. A specimen with pale scales was thus observed, which sometimes can be seen in *terrenella*. The type specimen was examined by Jäckh (Prep. Jä 8228) and the genitalia (Figure 12) agree perfectly with those of *S. terrenella*. Passerin d’Entrèves (1980, p.52) published data on the holotype (spelled *karniella*).

Scythris monotinctella Turati, 1924, **syn. nov.**

Scythris monotinctella Turati, 1924. *Ann. Soc. Sci. Nat. Milano*, 63, 180, pl. 6, fig. 25

When visiting Benghazi in Libya, Giorgio Krüger (1871-1940) collected a specimen on 25 June 1922. In the short description by Emilio Turati (1858-1938) of *monotinctella*, he does not mention any other similar species that could help the reader about the external appearance. The species was dissected by Jäckh (Prep. Jä 7518) and he designated it as “Typus” (Figure 13). The type specimen, which should be assigned as the holotype, is in the Natural History Museum, London.

Scythris bulbosella Lhomme, 1949

Scythris bulbosella Lhomme, 1949. *Cat. Lepid. Fr. Belg.*, 2, 795

Passerin d’Entrèves examined Scythrididae material in the National History Museum in Paris, where type material described by various auctors are kept. A lectotype (male) in the Chrétien

collection of *S. bulbosella* was selected. The female genitalia were published by Passerin d'Entrèves (1976) (Figure 14) and judged by him to be a synonym of *S. serella* (= *S. terrenella*). Passerin d'Entrèves did not indicate which slide (Pa 395, 396 or 397) was the basis for his drawing in the paper but later he selected a male with slide "Prep. Genitale 348 ♂ Passerin d'E. 1975" (Passerin d'Entrèves, 1980, p. 52).

Scythis igaloensis Amsel, 1951

Scythis igaloensis Amsel, 1951. *Redia*, 36, 419

Two male specimens were found at Igalo, Montenegro on 15-IV-1938 by Hans Georg Amsel (1905-1999) and were published by him as a new species, *S. igaloensis*. The species was compared with *S. paullella* (sic!) (H.-S.) but differed in the colour of the forewing, greenish grey [in *paullella*] but fuscous in *terrenella*. The genitalia of one of the males, drawn by Amsel (1951), agree completely with those of *terrenella* (Figure 15). A lectotype was designated by Passerin d'Entrèves (1980, p. 52).

Result

According to the review of the above taxa, the following synonymies are proposed:

Scythis terrenella (Zeller, 1847)

Oecophora terrenella Zeller, 1847

Oecophora cinefactella Bruand, 1851

Oecophora parvella Herrich-Schäffer, 1855

Oecophora denigratella Herrich-Schäffer, 1855

Butalis serella Constant, 1885

Scythis karnyella Rebel, 1918

Scythis monotinctella Turati, 1924

Scythis bulbosella Lhomme, 1949

Scythis igaloensis Amsel, 1951

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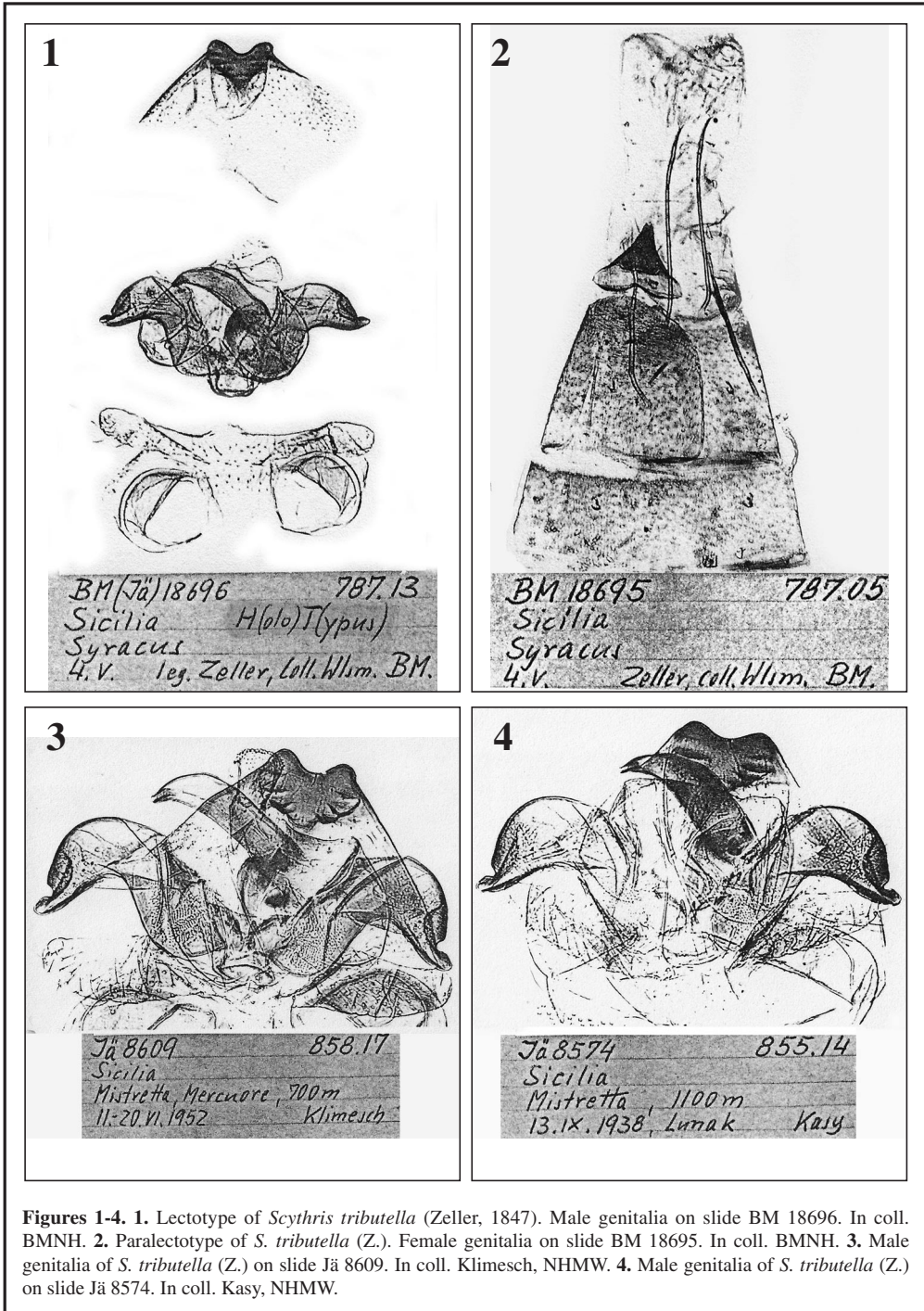
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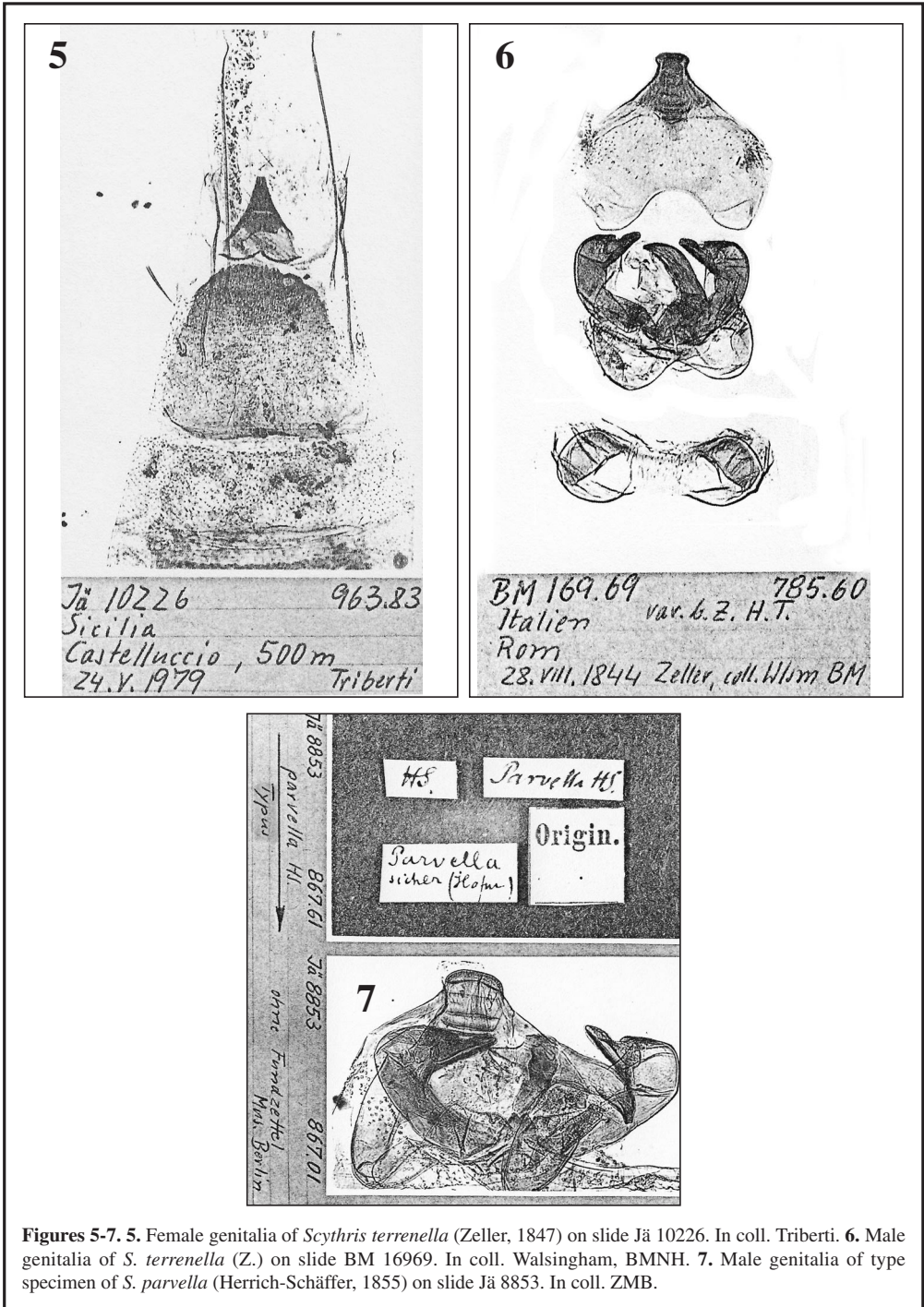
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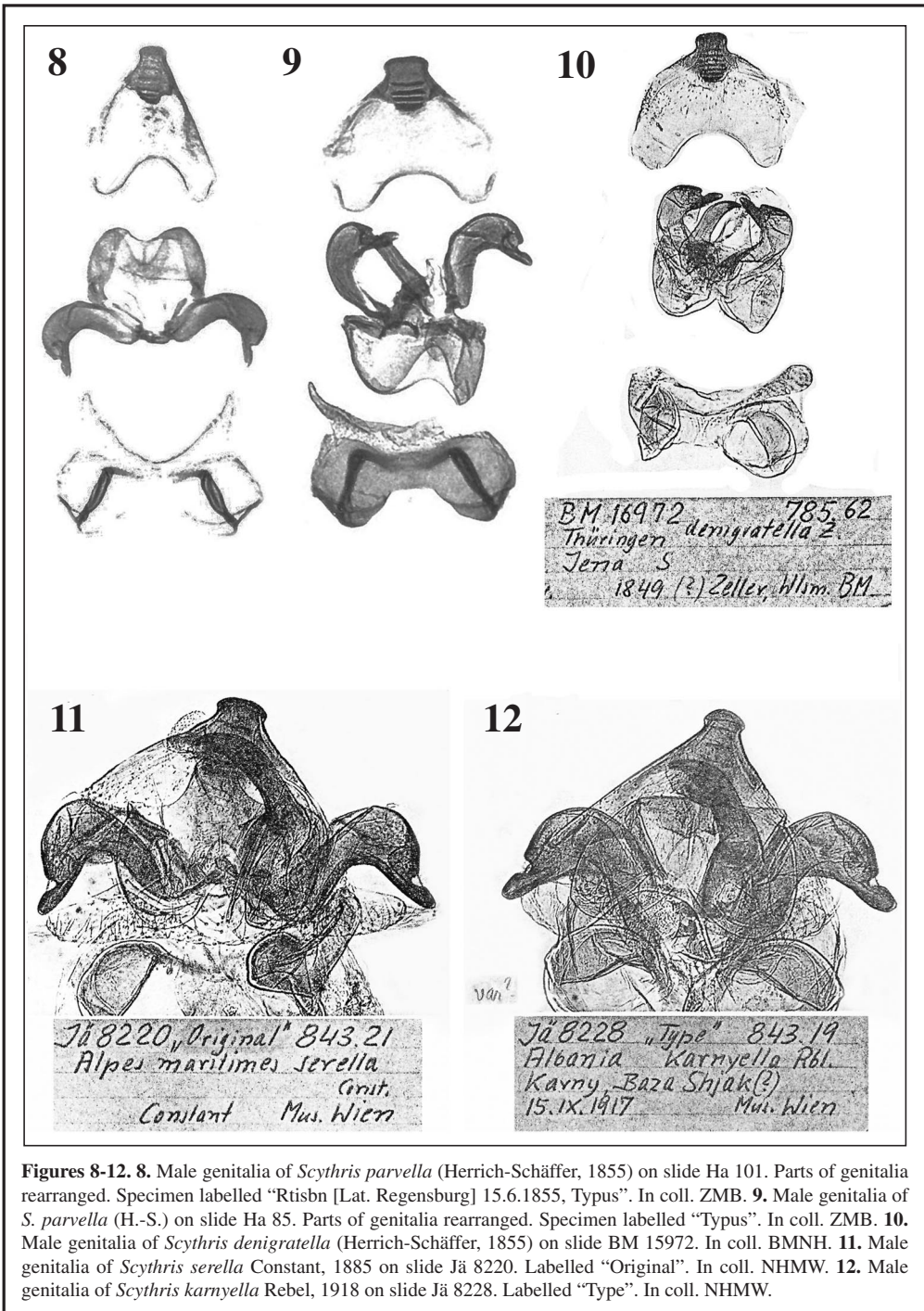
Bengt Å. Bengtsson
Lokogatan, 3
SE-38693 Färjestaden
SUECIA / SWEDEN
E-mail: bengt.a.bengtsson@gmail.com
<https://orcid.org/0009-0009-2289-3464>

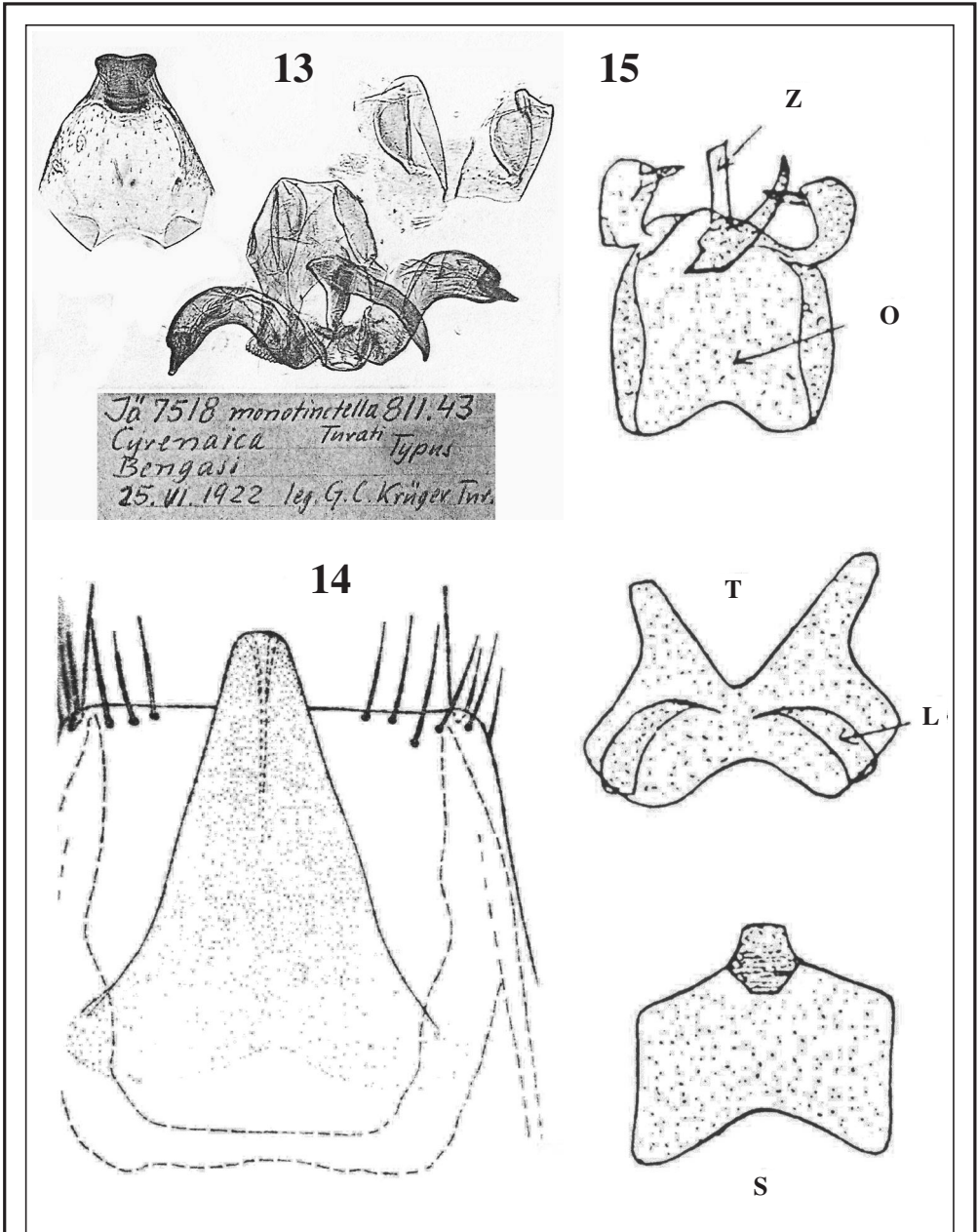
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Figures 5-7. 5. Female genitalia of *Scythris terrenella* (Zeller, 1847) on slide Jä 10226. In coll. Triberti. 6. Male genitalia of *S. terrenella* (Z.) on slide BM 16969. In coll. Walsingham, BMNH. 7. Male genitalia of type specimen of *S. pavella* (Herrich-Schäffer, 1855) on slide Jä 8853. In coll. ZMB.





Figures 13-15. 13. Male genitalia of *Scythris monotinctella* Turati, 1924 on slide Jä 7518. Labelled "Typus". In coll. Turati, BMNH. 14. Female genitalia of *Scythris bulbosella* Lhomme, 1949 on slide Pa 395, 396, or 397. Paralectotype in coll. MNHN. 15. Male genitalia of *Scythris igaloensis* Amsel, 1951 on slide GU 835-836 [Amsel]. In coll. LNK.