

The status of *Tephritis fenestrata* Zetterstedt, 1847 (Insecta, Diptera, Tephritidae)

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The holotype male of *Tephritis fenestrata* Zetterstedt, 1847, deposited in the Zoological Museum, University of Copenhagen, was studied. Its synonymy with *Camiglossa punctella* (Fallén, 1814) was established through the examination of the terminalia.

Keywords: Diptera, Tephritidae, *Tephritis fenestrata* Zetterstedt, taxonomy

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INTRODUCTION

Students in the 19th and first half of the 20th century did not usually study types of already described species when preparing their own monographs and revisions. As a consequence, the “identity” of these older species, as presented in new studies, was often based on descriptions only, which were quite often short and incomplete. In cases of deficient description the names were sometimes perpetuated in the literature unchanged, with or without comment. This is the case with *Tephritis fenestrata* Zetterstedt, 1847. The description of this Tephritidae from Denmark is quite confusing (see below), making it impossible to recognize without having seen the type. Consequently, Loew (1862, 1869), in his monographs of the European Tephritidae, did not mention this species at all, while Schiner (1862–64) simply listed the species without additional comment. Hendel (1927, p. 166), in his monograph of the palaeartic Tephritidae, simply repeated the original description, and transferred the species (apparently without examination of the type) to *Oxya* Robineau-Desvoidy, 1830, but he did not include it in the key, nor did he comment on it. Because of its unknown status, the species was not included by me (Merz 1994) when dealing with all the North and Central European Tephritidae. Similarly, the name *Oxya*

fenestrata (Zetterstedt, 1847) was uncritically included in the catalogues produced by Foote (1984) and Norrbom et al. (1999).

While preparing the Checklist of the Tephritids of Denmark (Merz et al. 2001), I received from the Zoological Museum, University of Copenhagen a large series of tephritids. To my surprise, among them I found a specimen which is believed to be the holotype of *T. fenestrata*. In order to clarify its status, I provide the following comments.

RESULTS

Zetterstedt (1847: 2242) provides the following diagnosis: “44. *T. fenestrata*: cinerea, subimmaculata; capite pedibusque rufo-flavis, femoribus ultra medium nigricantibus; ore non porrecto; alis saturate fusco-reticulatis, basi subimmaculatis, apice late nigricantibus impunctatis ♂ (Long. 1 lin.). Stæger in litt. 5 Aug. 1843. Hab. in Dania rarissime, D. Stæger, qui specimen unicum pro descriptione mihi benevole communicavit...”. The following 21 lines give a more detailed description, in particular of the wing pattern, but without adding substantial information. They are not repeated here.

Type material

According to his description, Zetterstedt had only a single male available for study which he had received from the Danish entomologist R. S. Stæger. Diagnosis and description fit the present specimen perfectly, a male from the Stæger collection. In particular his description of the wing is very accurate (see below, Fig. 1). Therefore I consider the specimen to be the holotype of *Tephritis fenestrata* Zetterstedt, 1847.

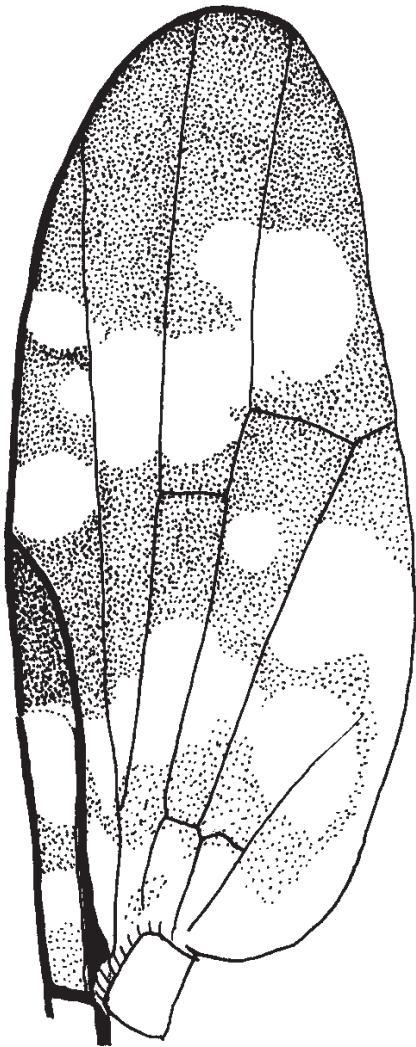


Fig. 1. Dorsal side of right wing of holotype of *Tephritis fenestrata* Zetterstedt, 1847.

Holotype ♂

“♂ Vedbos Stæger” [handwritten, white label], “Coll. Stæger” [printed, yellow label], “fenestrata Zett.” [handwritten, white label], “ZOOLOG. MUS. KØBENHAVN”, “Holotypus ♂ *Tephritis fenestrata* Zetterstedt, 1847 desig. B. Merz 2002” [handwritten, red label], “*Campiglossa punctella* (Fallén) ♂, det. B. Merz 2002”. An additional handwritten label accompanying the specimen reads: “Hos Hendel er kun opgivet Lok “Dänemark” saa maaske et det en Zett. Type 22”. The holotype is deposited in the Zoological Museum, University of Copenhagen.

Condition of the holotype

The holotype is in poor condition. It is pinned directly on a slightly bent pin (size 000), with the head of the pin missing and the tip slightly broken. The specimen is mostly covered with mould. The right fore leg is missing. The wings are slightly folded along the longitudinal axis and are bent over the abdomen. Most setae are not visible. The abdomen was detached from the rest of the body and is stored in a glass vial in glycerol.

Description

Head mostly black, but occiput dark grey; thorax and abdomen ash-grey, covered by white, lanceolate setulae; tip of scutellum apparently yellowish; tergites 3–4 each with a pair of dark brown, indistinct, square spots; legs yellow, but all femora black except for apical fifth; right wing as in Fig. 1, left wing with 3 large hyaline spots in cell r_1 , otherwise very similar; wing length 2.37 mm. Only the following setae visible: probably white posterior notopleural seta (mostly covered by mould), one white anepisternal seta, one black katepisternal seta. Glans with a strongly sclerotized base and an almost straight apical tube.

DISCUSSION

The external characters and those of the genitalia allow me to synonymize this species with *Campiglossa punctella* (Fallén, 1814). The lectotype of the latter (designated by Persson 1958, p. 116; deposited in the Swedish Museum of Natural

History, Stockholm) was studied by me. The wing pattern of this species is very variable. Two forms are illustrated by Merz (1994, fig. 48c & d). The present holotype has an even less reticulate pattern (Fig. 1), but similar specimens have been studied from various localities in Switzerland, Germany, and Norway. Aberrant wing patterns may occur in other species of the genus, for instance in *Campiglossa loewiana* (Hendel, 1927), where two extreme forms were illustrated by Merz (1994, fig. 48e & f). The male terminalia of the holotype of *T. fenestrata*, however, are identical with those of the lectotype of *Tephritis punctella* Fallén (see Merz 1994, fig. 16f).

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