

Entomofauna

ZEITSCHRIFT FÜR ENTOMOLOGIE

Band 2, Heft 21 ISSN 0250-4413 Linz, 1. September 1981

Ergebnisse des 2. Innsbrucker Lepidopterologengesprächs vom 4./5. Oktober 1980 zum Thema "Die purpuralis-Gruppe des Genus *Zygaena* Fabricius, 1775 (Subgenus *Mesembrynus* Hübner, [1819]) IV. (Lepidoptera, Zygaenidae)

The identity of the nominal taxon *Sphinx minos* [Denis & Schiffermüller], 1775

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Abstract

Schiffermüller's original pencil sketches and water-colour paintings of lepidopterous larvae are preserved in the British Museum (Natural History) and include a pencil drawing and colour painting of the larva of the nominal taxon *Sphinx minos* [DENIS & SCHIFFER-MÜLLER], 1775. From these illustrations the identity of *Sphinx minos* has been established and it is without doubt conspecific with the species which has been known under the names *Zygaena pimpinellae* GUHN, [1931], *Zygaena sareptensis* REBEL, 1901, and *Zygaena diaphana* STAUDINGER, 1887.

Zusammenfassung

Die Originale der Stiftzeichnungen und Aquarelle von Schiffermüller befinden sich im British Museum (Nat.Hist.) in London. Unter diesen befindet sich eine Zeichnung und ein Aquarell der Raupe des nominellen Taxon *Sphinx minos* [DENIS & SCHIFFERMÜLLER], 1775. Es geht aus diesen Illustrationen einwandfrei hervor, daß *Sphinx minos* mit den Taxa *Zygaena pimpinellae* GUHN, [1931], *Zygaena sareptensis* REBEL, 1901, und *Zygaena diaphana* STAUDINGER, 1887, konspezifisch ist und daher als prioritätsberechtigter anzusehen ist.

The Schiffermüller collection of Lepidoptera, which contained the type-material of the species described by Denis & Schiffermüller (1775), was destroyed by fire in 1848 (Horn & Kalle, 1936:243). Consequently there has been much speculation on the identity of many of the taxa described by them, including *Sphinx minos* [DENIS & SCHIFFERMÜLLER], 1775:45. Recent authors have based their interpretations on the opinions of such early authors as Fuessly, Schrank, Ochsenheimer and, much later, Wernburg. The opinions of these early authors have been discussed by Dujardin (1953) and, in detail, by Bernardi & Viette (1960). Suffice it to say that Dujardin (1953:246) applied the name *minos* to the species *Sphinx scabiosae* SCHEVEN, 1777, sensu auctorum (= *Zygaena osterodensis* REISS, 1921), while Bernardi & Viette (1960:245) referred to the illustration of the larva of *minos* reproduced by Hübner (1790:20, pl. 1(3), fig. O), and considered that it represented a species in the *Zygaena purpuralis* (PONTOPPIDAN) complex. Reiss & Tremewan (1967:50) placed *minos* as a subspecies of *purpuralis*.

In the Entomology Library of the British Museum (Natural History), London, there are Schiffermüller's original plates of water-colour paintings depicting lepidopterous larvae; these formed part of the Baron von Rosen collection and were purchased by the museum in 1949. Schiffermüller's paintings

were to have been used to illustrate a systematic work by him on the *Lepidoptera* of the Vienna district but this was never published. In addition there are plates consisting of pencil sketches of larvae accompanied by field notes, names of the host plants and often specific identifications by S c h i f f e r m ü l l e r; these formed a basis for the colour plates which subsequently were made available to H ü b n e r when he was preparing his *Geschichte europäischer Schmetterlinge* (1786-90). A detailed account of these original illustrations by S c h i f f e r m ü l l e r is given by H i g - g i n s (1959).

The zygaenid larvae are illustrated on plates 18 and 19. Figure D on plate 19 (see Fig. 1) depicts the dorso-lateral view of a pale grey or whitish grey larva which has a subdorsal row of small black spots, one spot per segment. Adjacent to this figure is a pencilled annotation "*Minos* 105.a" in what appears to be H ü b n e r's handwriting. A pencil sketch (Fig.2) of this larva is on plate T which is dated 1770; this figure is accompanied by pencilled field notes and the name "*Sph. minos*" in S c h i f f e r m ü l l e r's handwriting. The word "*Minos*" has been added subsequently in ink in a contemporary handwriting which, although similar, is not necessarily that of S c h i f f e r m ü l l e r. Although S c h i f f e r m ü l l e r's original determination in pencil is partially obliterated by the name in ink it is nevertheless decipherable. This larva was subsequently described and illustrated in colour by H ü b n e r (1790:20, pl. 1(3), fig. 0) under the name *minos*, with reference to the work of D e n i s & S c h i f f e r m ü l l e r (1775). There is little doubt that S c h i f f e r m ü l l e r's figure illustrates the larva of the species which has been known under the names *pimpinellae* GUHN, *sareptensis* REBEL and *diaphana* STAUDINGER. The synonymy at the species level can be expressed as follows.

Zygaena minos ([DENIS & SCHIFFERMÜLLER], 1775)

Sphinx minos [DENIS & SCHIFFERMÜLLER], 1775:45.

Zygaena pilosellae ESPER var. *diaphana* STAUDINGER, 1887:
31.

Zygaena pilosellae ESPER var. *sareptensis* KRULIKOWSKY, 1897:1. [Unavailable name].

Zygaena purpuralis BRÜNNICH var. *sareptensis* REBEL, 1901: 380.

Zygaena purpuralis BRÜNNICH forma *pimpinellae* GUHN, [1931]:89.

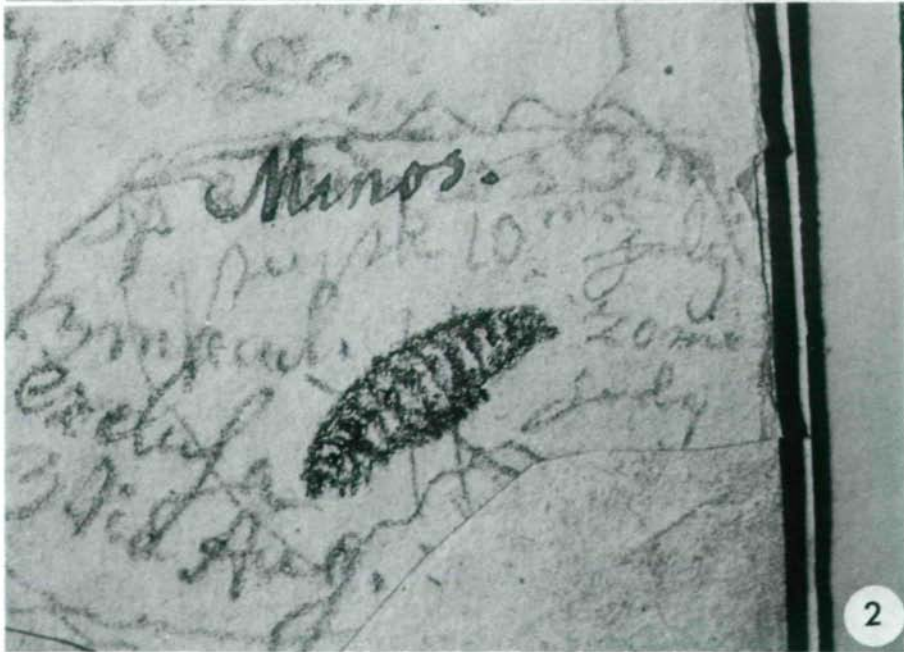
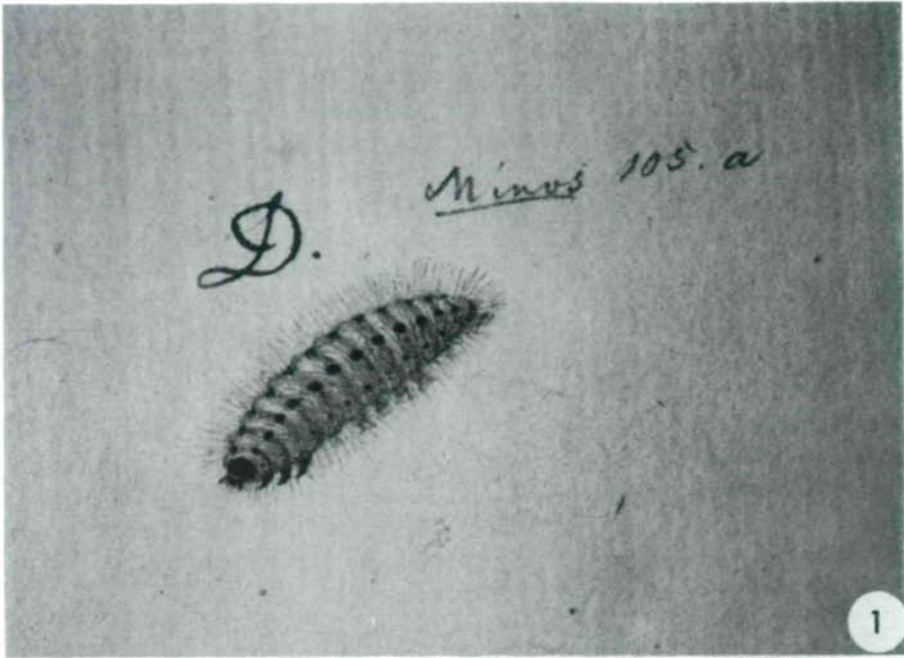
Zygaena pimpinellae GUHN subsp. *vindobonensis* REISS, 1940:12, pl. 2, figs c2, c3.

The nominal taxa *diaphana* STAUDINGER, 1887, *sareptensis* REBEL, 1901, and *pimpinellae* GUHN, 1931, are here recognized as subspecies of *minos*, while *vindobonensis* REISS, 1940, (type-locality "Wiener-Neustadt") is a junior subjective synonym (syn.n.) of the nominate subspecies *minos minos* ([DENIS & SCHIFFERMÜLLER], 1775) (type-locality "Wienergegend").

The name *sareptensis* KRULIKOWSKY, 1897, is unavailable as it was doubtfully associated with the description of the taxon. After giving a full description Krulikowsky stated "Ob diese Form v. *sareptensis* der Lepidopteren-Liste Staudinger's ist, weiss ich nicht". From this statement it is apparent that Krulikowsky obtained the name *sareptensis* (as a nomen nudum) from one of the Staudinger price lists; it was first made available four years later by Rebel (1901:380).

Figs 1, 2. Larva of *Sphinx minos* [DENIS & SCHIFFERMÜLLER], 1775.

1 original water-colour painting by Schiffermüller;
2 original pencil drawing and field notes by Schiffermüller.



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Zeitschrift/Journal: [Entomofauna](#)

Jahr/Year: 1981

Band/Volume: [0002](#)

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Artikel/Article: [Ergebnisse des 2.Innsbrucker Lepidopterologengespräches vom 4./5.Oktober 1980 zum Thema "Die purpuralis-Gruppe des Genus Zygaena FABRICIUS, 1775 \(Subgenus Mesembrynus HÜBNER, \[1819\]\) IV. \(Lepidoptera, Zygaenidae\). The identity of the nominal taxon Sphinx minos \[DENIS & SCHIFFERMÜLLER\], 1775. 239-244](#)