


## On the date of original description and the type locality of *Zygaena ampellophaga* (Lepidoptera: Zygaenidae: Procridinae)

## О дате первоначального описания и типовой местности *Zygaena ampellophaga* (Lepidoptera: Zygaenidae: Procridinae)

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**Abstract.** There is a confusion about the date of the description and the type locality of the vine-feeding Zygaenidae species that is known as *Theresimima ampellophaga*. The correct date and type locality based on the original description are provided and discussed.

**Резюме.** Существует путаница в приведении даты описания и типовой местности питающегося виноградом вида Zygaenidae, известного как *Theresimima ampellophaga*. На основании первоначального описания приводятся и обсуждаются правильные дата и типовое местонахождение вида.

**Key words:** date of original description, type locality, Zygaenidae, *Theresimima ampellophaga*

**Ключевые слова:** дата первоначального описания, типовое местонахождение, Zygaenidae, *Theresimima ampellophaga*

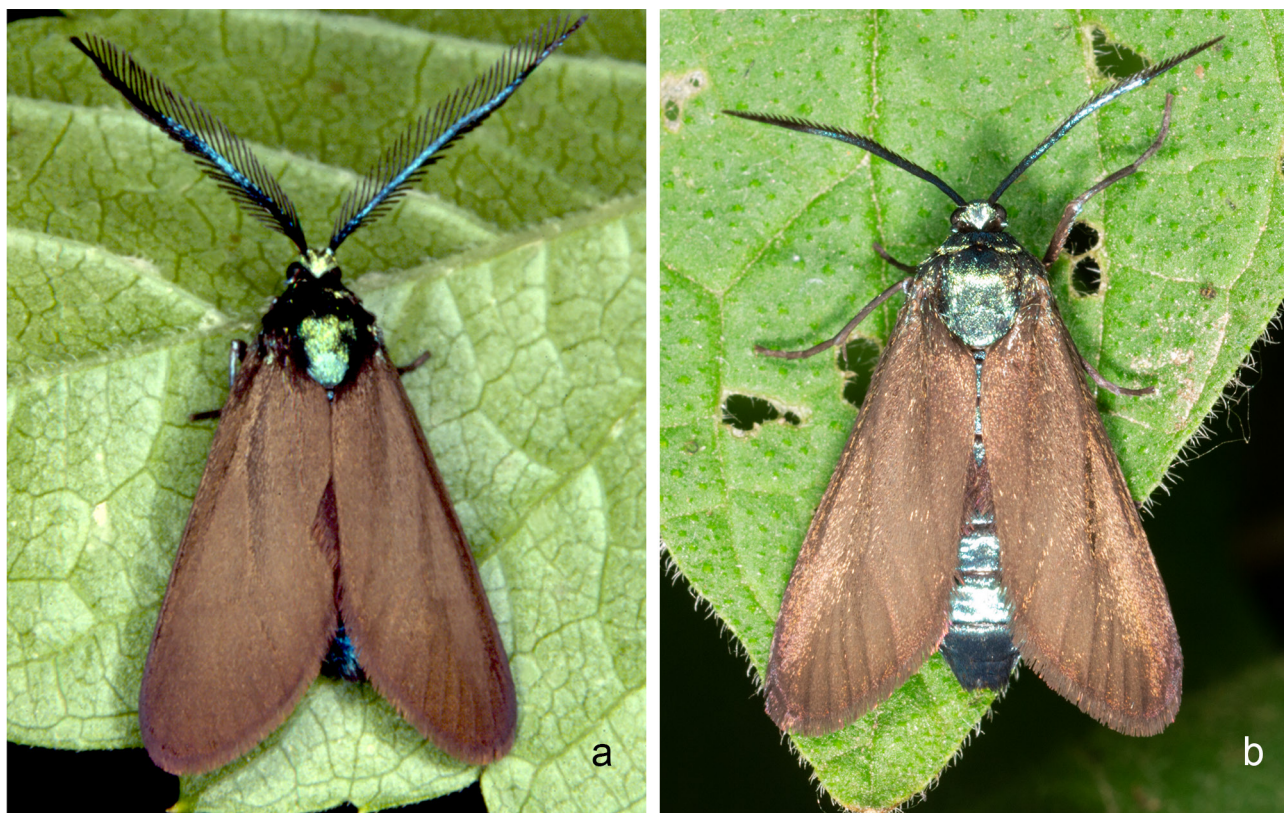
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### Introduction

There is a confusion about the first description of the vine-feeding Procridinae (Zygaenidae) species that is now known as *Theresimima ampellophaga* (Fig. 1). The first person who described the morphology of the early stages and imago of this species as well as its bionomics was P.S. Pallas (1801: 428–429). He studied it in the Crimea (including Sudak) during his trip to the southern provinces of the Russian Empire in 1793–1794.

Pallas gave the Latin definition “*aeneo-fusca*”, which does not refer to the name of the insect under study but only to the colour shade of its wings: “...welche dem Weibchen des *Sphinx* [sic] *Statices* an Gestalt völlig, und fast an Grösse gleicht, aber schwärzlich, mit einem matten Schimmer (*aeneo-fusca*) ist” (op. cit.: 429).

The next article describing this species was published by G. Bayle-Barelle in *Giornale della Società d’incoraggiamento delle scienze e delle arti stabilita* in Milano, in No 2 on page 2



**Fig. 1.** *Theresimima ampellophaga* (Bayle-Barelle, 1809). **a**, male from Crimea, Miskhor, reared from ovo, 1998, K.A. Efetov leg. (photo by K.A. Efetov); **b**, female from Crimea, Alushta, Luchistoe (44°43'31.44"N, 034°25'31.62"E, 358 m a.s.l.), reared from larva, 23.V.2022, O.G. Gorbunov leg. (photo by O.G. Gorbunov).

(Bayle-Barelle, 1809a). It is likely that only a few copies of this journal are preserved. It has not been possible within the last 50 years for one of co-authors (G.M. Tarmann) to find a library that stores an exemplar of this volume of the journal. Perhaps, when it was distributed for the first time, Bayle-Barelle found that he had to publish a reprint because later he published the description again in a book (Bayle-Barelle, 1809b) and used the original drawings (Fig. 2). This book is preserved in several libraries and it is also available on the Internet ([www.biodiversitylibrary.org/bibliography/47653](http://www.biodiversitylibrary.org/bibliography/47653)). (See below for the dates of these two publications).

However, there is another confusion, as Tremewan (1973: 142) recorded 1808 as a year of the publication of the original description of *Zygaena ampellophaga* in *A catalogue of the genus-names of the Zygaenidae (Lepidoptera)*. Fletcher & Nye (1982: 161) also repeated year 1808 and treated this species in the text on the genus *Theresimima* as “Type-species: *Zygaena ampellophaga*

Bayle-Barelle, 1808, *G. Soc. d’Incoraggiamento Sci. Milano* 2: 2, by monotypy (of *Theresia* Spuler, 1906). [Yugoslavia]: Dalmatia” and “*Z. ampellophaga* was again proposed as new by Bayle-Barelle, 1809, *Saggio intorno agli Insetti nocivi*: 40, pl. 1, fig. 2”.

Fletcher & Nye (1982) mention “Dalmatia” as the type-locality although in Bayle-Barelle (1809a, 1809b) it is clearly written that the specimens were taken in the Piedmontese Apennines at a locality that is situated “...in Piemonte sui colli che costeggiano la strada Romera da Broni a Casteggio...” (Bayle-Barelle, 1809a: 5), a place within the Italian province of Pavia. It cannot be excluded that Fletcher and Nye did not see the first original description because they could not find it in the library of the Natural History Museum in London. This journal was not found when G.M. Tarmann together with the late W.G. Tremewan checked the literature in London; only the book of 1809 (Bayle-Barelle, 1809b) could be found.

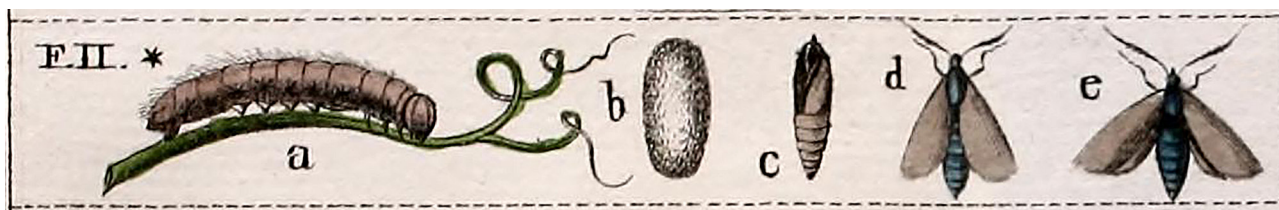


Fig. 2. Illustrations of *Zygaena ampellophaga* in the original description by Bayle-Barelle (1809b).

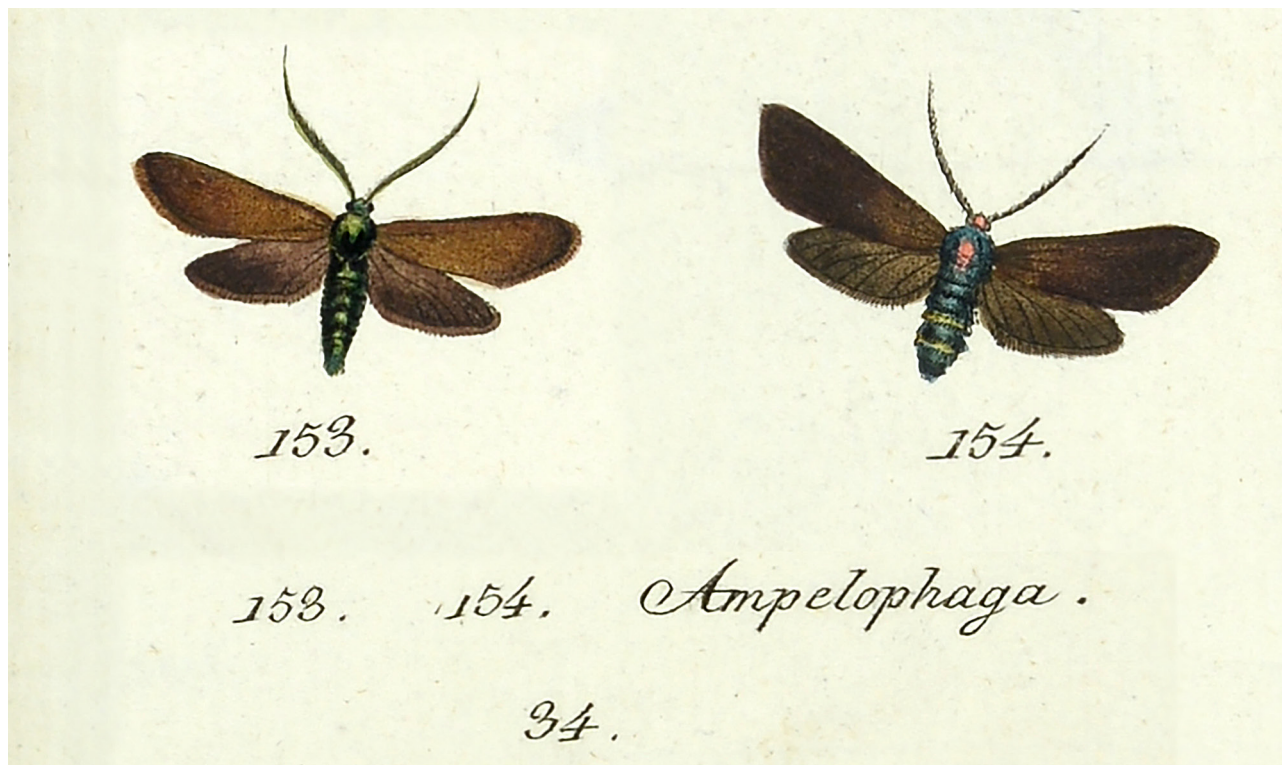


Fig. 3. Illustrations of *Sphinx ampellophaga* [sic] (1822) in the publication of Hübner (1818–1822).

Consequently, 1808 has been mentioned as the date of description of *Theresimima ampellophaga* in many publications (e.g. Efetov, 2001, 2004, 2005; Efetov & Tarmann, 1995, 1999, 2012; Subchev et al., 2010; Efetov et al., 2014, 2018; Can Cengiz et al., 2018; Tarmann et al., 2019; Vrenozzi et al., 2019; Efetov & Kucherenko, 2020, 2021; Nahirnić-Beshkova et al., 2021).

## Results

O.G. Gorbunov found on the Internet ([www.google.ru/books/edition/\\_/PC1ZAAAACAA-J?hl=ru&gbpv=0](http://www.google.ru/books/edition/_/PC1ZAAAACAA-J?hl=ru&gbpv=0)) a scan of the first original description of *Zygaena ampellophaga* deposited in the Austrian National Library in Wien [“Archiv des k. k. militär-geograf. Institutes. (Bibliothek)”<sup>1</sup>]

<sup>1</sup> Regarding the “Archiv des k. u. k. militärisch-geographischen Institutes (Bibliothek)”, this institution was the successor institution of a similar one that had already been founded by Napoleon’s administration in Milano in 1800. It was created to collect all available maps of the region. Its name was “Corpo degl’Ingegneri Geografi”. In 1814, the Austrian Emperor Franz I agreed to the continuation of this institute under Austrian rulership. The whole institute with the library became Austrian property including this rare journal. Obviously, the art and nature literature of the first institute remained in the later only militarily targeted institute in Austrian times and the library was later transferred to Vienna when Lombardia became Italian. Today this institute has a successor institution with the name “Bundesamt für Eich- und Vermessungswesen”, which is the most important Austrian map-producing institution. All issues that are not geographical or military were obviously transferred to the National Library and kept separately as we can see from the labels on the journal. Fortunately, this material was digitised and so we have now the solution for the date of the first publication of *Theresimima ampellophaga*.

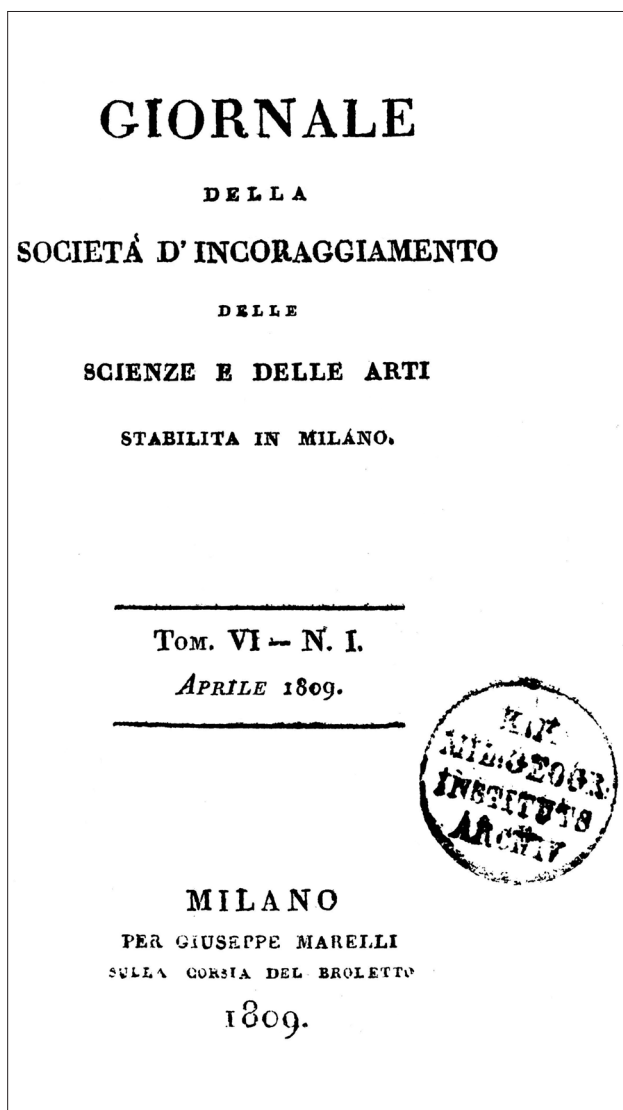


Fig. 4. A cover of the journal with the original description (Bayle-Barelle, 1809a) of *Zygaena ampellophaga* Bayle-Barelle, 1809.

(Figs 4–6). From the title page of *Giornale della Società d'incoraggiamento delle scienze e delle arti stabilita in Milano* (Fig. 4) it is clear that it was published in April 1809 (Bayle-Barelle, 1809a) but not in 1808. There is a small note in the lower part of this page (not enumerated): “Tom. VI – N. I. Aprile 1809”.

The Italian text (in “Tom. VI – N. I. ... Indice ...”, at the bottom of the first enumerated page) says:

“AVVISO.

Dell’Opera del sig. Prof. Bayle-Barelle (inserita ripartitamente nei Tom. 5, 6 e 7 di questo giornale) intitolata -- *Saggio intorno agli Insetti nocivi*

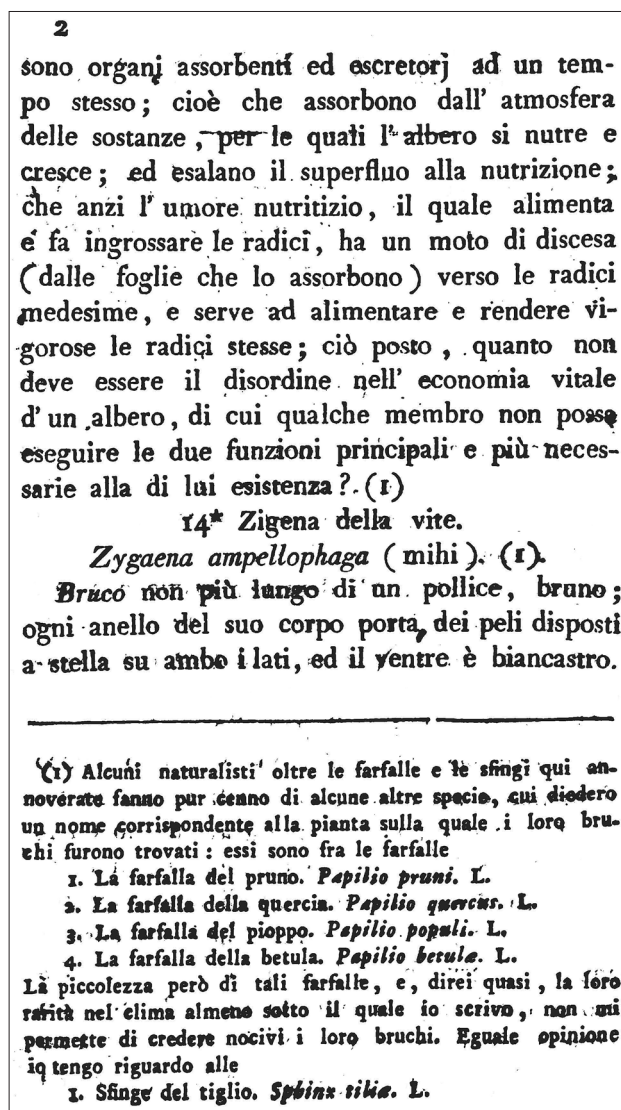


Fig. 5. The first page of the original description (Bayle-Barelle, 1809a) of *Zygaena ampellophaga* Bayle-Barelle, 1809.

*ai vegetabili economici, agli animali utili all’ Agricoltura, ed ai Prodotti dell’Economia Rurale* -- 8. pag. 180 con due tav. in rame colorite e natural, ci sono tirate alcune copie a parte e si trovano vendibili nel locale della Società in Milano (Contrada e Casa Clerici) al prezzo di lir. 3 di Milano ossia Ital. lir. 2 c. 30.”

The translation of this text into English is as follows:

ANNOUNCEMENT

The work of (Mr) Prof. Bayle-Barelle [published in volumes (“Tom”) V, VI and VII of this journal] with the title -- *Saggio intorno agli Insetti nocivi ai*

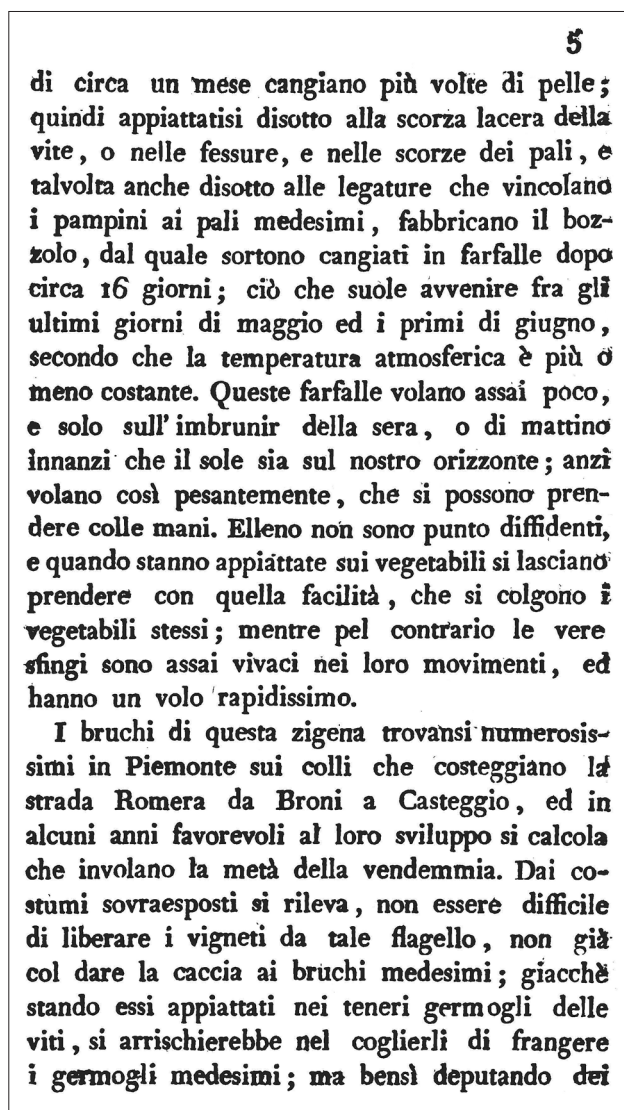


Fig. 6. A page of the original description (Bayle-Barelle, 1809a) with the type locality of *Zygaena ampellophaga* Bayle-Barelle, 1809.

*vegetabili economici, agli animali utili all' Agricoltura, ed ai Prodotti dell'Economia Rurale* -- 8. page 180 with two tables in copper print with natural colours, of which some enumerated [extra] prints were produced, can be bought at the locality where the Society is based (road and building [with the name] Clerici) for the price of 3 Milanese Lire which is 2 Italian Lire and 30 Centesimi.

Since only the year of publication (MDCCCIX) is indicated on the title page of this separate edition (Bayle-Barelle, 1809b), according to Article 21.3.2 of the Code (ICZN, 1999), the date of its publication should be 31 December 1809.

Both plates were published in a journal version (Bayle-Barelle, 1809a) as well as in a separate edition (Bayle-Barelle, 1809b). The journal version of this work was published in the form of five parts in three volumes. For the first time, both plates were published in the first part of the work in "Tom V, N. III" of March 1809. Unfortunately, the legends for these plates were not published either in a journal version or in a separate edition.

Jacob Hübner (1818–1822: Taf. 34, Fig. 153, 154) figured in colour a male and a female of Zygaenidae and attached the name "*Ampellophaga*" [sic] to these figures (Fig. 3). No text or locality was attached to the images. According to the pictures, it is the same species that had been described by Bayle-Barelle in 1809 as *Zygaena ampellophaga*. The date of publication of plate 34 from the second phalanx ("2. Horde") of Hübner is taken either from Sherborn & Prout (1912) or from Heppner (1982). Since the plate was published by Hübner later (in 1822) than Bayle-Barelle (1809a), *Sphinx ampellophaga* Hübner, 1822 is an incorrect subsequent spelling of *Zygaena ampellophaga* Bayle-Barelle, 1809, and it is an unavailable name. However, it should be noted that this spelling was the most common in use until 1995, when "*ampellophaga*" was pointed out to be a misspelling (Efetov & Tarmann, 1995).

## Order Lepidoptera

### Family Zygaenidae

#### Subfamily Procridinae

#### Tribe Procridini

#### Genus *Theresimima* Strand, 1917

*Theresimima* Strand, 1917: 137 ["...*Theresimima* m."].

New replacement name for *Theresia* Spuler, 1906.

*Theresia* Spuler, 1906: 165 ["Gattung *Theresia* Spul."]. Type species: *Zygaena ampellophaga* Bayle-Barelle, 1809, by monotypy. A junior homonym of *Theresia* Robineau-Desvoidy, 1830 (Insecta: Diptera).

#### *Theresimima ampellophaga* (Bayle-Barelle, 1809)

*Zygaena ampellophaga* Bayle-Barelle, 1809a: 2, figs. ["*Zygaena ampellophaga* (mihi)."]. Type locality:

“...in Piemonte... la strada Romera de Broni a Casteggio...” [Italy: Lombardy, Province of Pavia, hills between Broni and Casteggio]. Type material: not mentioned and not selected.<sup>2</sup>

*Zygaena ampellophaga*: Bayle-Barelle, 1809b: 40, tav. I, fig. IIa–e [“*Zygaena ampellophaga* (mihi).”].  
*Sphinx vitis* Freyer, 1829: 69, Taf. LXVIII, Fig. 3 (“*Sp. [hinx] Vitis*”). Type locality: not given. Type material: not traced. A junior primary homonym of *Sphinx vitis* Linnaeus, 1758: 491 (Lepidoptera: Sphingidae).

Moreover, there is also plenty of confusion about the type locality (see above), based on a comment by Treitschke (1834) who mentioned that this species was first found by E.F. Germar during his trip to Dalmatia. However, in his work about that journey Germar (1817) does not mention a word about that species. Reading Treitschke’s comment in detail we can see that he wrote on page 101: “Der Schmetterling wurde, so viel mir bekannt, von Herrn Professor Germar auf seiner Reise nach Dalmatien zuerst entdeckt und benannt, von Hr. Bayle-Barelle beschrieben, und von D. Passerini nach den ersten Ständen aufgefunden und abgebildet, so, dass die Benennung Aller [sic], *Ampelophaga* [sic], und nicht die spätere, von Bonelli: – *Vitis*, – zu gelten hat”. From this sentence we see that Treitschke only “thought to remember” that Germar had taken this species in Dalmatia and this was an error, as is explained correctly in a footnote by Issekutz (1957: 35). However, several entomologists have fallen into the same trap believing that Germar had first found this species in Dalmatia and that this must be the type locality. They obviously did not clearly understand Treitschke’s German words: “so viel mir bekannt”, meaning that he only thought he remembered and obviously, Treitschke was wrong.

## Conclusion

Summarising all this information we can make the following conclusion. *Theresimima ampellophaga* was described as *Zygaena ampellophaga* by Bayle-Barelle in 1809. The type locality is Italy: Piemonte, Appennino Ligure, Province of Pavia, between Broni and Casteggio.

<sup>2</sup> The identity of *Zygaena ampellophaga* Bayle-Barelle, 1809 is not in doubt and therefore under article 75.2 of the Code (ICZN, 1999) it does not need a neotype designation.

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