

## The identity of *Pammene engadinensis* Müller-Rutz, 1920 (Tortricidae: Olethreutinae, Grapholitini)

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**Abstract.** Based on a genital dissection of the male holotype, the name *Pammene engadinensis* Müller-Rutz, 1920 was found to be a synonym of *Pammene agnotana* Rebel, 1914. This species is new to the fauna of Switzerland.

**Zusammenfassung.** Die Genitaluntersuchung des männlichen Holotypus zeigt, dass der Name *Pammene engadinensis* Müller-Rutz, 1920 ein Synonym von *Pammene agnotana* Rebel, 1914 ist. Diese Art ist neu für die Fauna der Schweiz.

### Introduction

In 1918 Thomann captured a single male Tortricidae specimen at Scuol (formerly called Schuls) in the lower Engadine Valley, Grisons, Switzerland, which he could not identify (Thomann 1956). The well-known microlepidopterist Müller-Rutz, to whom Thomann sent this specimen, judged it to be a new species and described it as *Pamene* [sic] *engadinensis* (Müller-Rutz 1920). No more specimens seem to have been found in the following years, and *engadinensis* remained a somewhat obscure taxon (Karsholt & Razowski 1996).

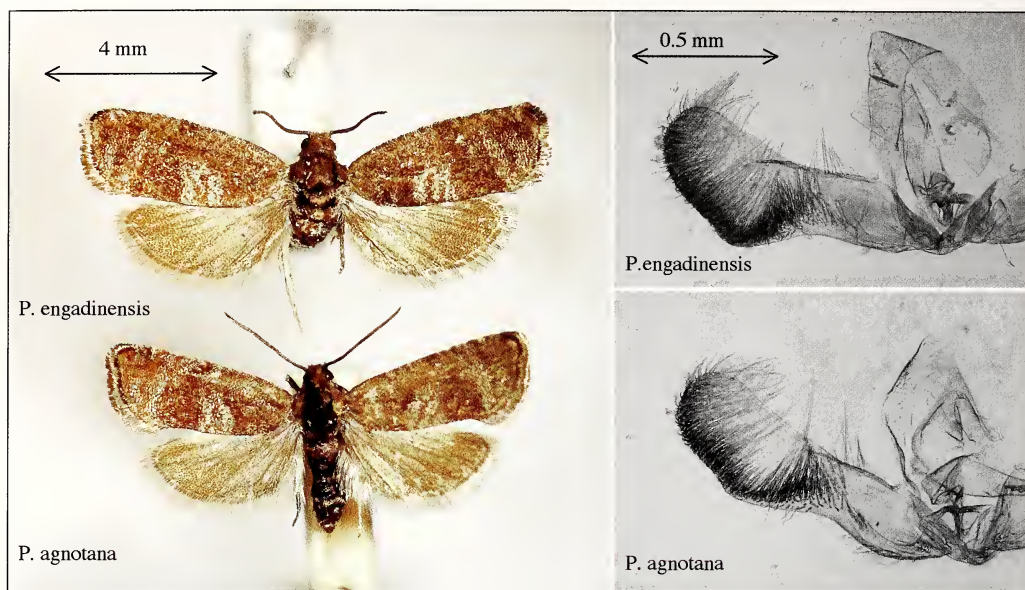
Danilevsky & Kuznetzov (1968) tried to obtain more information about the holotype, which they expected to be preserved in the Müller-Rutz collection at the Naturhistorisches Museum Basel. Their search was unsuccessful. Thus, based on the original description only, which was accompanied by a lithographed plate, they supposed *engadinensis* to be identical with *Pammene obscurana* (Stephens, 1834). This assumption was repeated by subsequent authors (e.g. Razowski 2003).

### Material

In the Thomann collection, now housed at the Bündner Naturmuseum at Chur, Switzerland, a single male specimen was detected. Its label, written by Thomann, reads: ‘engadinensis | Schuls | 19.V.18 Th.’. As the original description mentions 19.V.18 as the date of capture of the specimen described, and since Thomann collected only one specimen, there is no doubt that the male in the Thomann collection is in fact the holotype.

### Results

A genital dissection demonstrated that the shape of the valva does not match well the *obscurana* drawing published by Danilevsky & Kuznetzov (1968), even less the male *obscurana* holotype genital apparatus as published by Chambon (1999). Surprisingly,



**Fig 1.** Phenotypes and male genital characteristics. *Pammene engadinensis* Müller-Rutz, syn. n.: holotype, CH-Schuls, Grisons, 19.5.1918, Thomann leg.; *Pammene agnotana* Rebel: A-Ampass, Tyrol, 26.4.1971, leg. Burmann.

however, comparison with the shape of the valva of *Pammene agnotana* Rebel, 1914 as published by Danilevsky & Kuznetsov (1968), Razowski (2003) and especially Bradley, Tremewan & Smith (1979) revealed beyond reasonable doubt that the holotype of *Pammene engadinensis* is in fact a specimen of *Pammene agnotana* Rebel, under which *Pammene engadinensis* is hereby synonymized: *Pammene engadinensis* Müller-Rutz, 1920, **syn. n.**

The genital preparation is embedded in a water-soluble medium and attached to the pin carrying the specimen. It is deposited in the Thomann collection at the Bündner Naturmuseum Chur, Switzerland.

## Discussion

The identification of the *engadinensis* holotype as *P. agnotana* is further supported by its wingspan, which is 11 mm and thus lies well within the range for *agnotana* of 10.5–12 mm (Rebel, 1914) and 10–11 mm (Bradley, Tremewan & Smith 1979), while *obscurana* is larger: 12–14 mm (Bradley, Tremewan & Smith 1979), and 10–15 (average: 13) mm (Razowski 2003).

In addition, as already observed by Danilevsky & Kuznetsov (1968), the original description of *engadinensis* does not mention the black patch of elongate scales in the basal region of hindwing upperside which is present in *obscurana*, but indeed absent both in *engadinensis* and *agnotana*!

Dr P. Huemer, Tiroler Landesmuseum Ferdinandeum, Innsbruck, Austria, kindly allowed me to dissect a male specimen of *P. agnotana* from the Burmann collection

(Teriol. sept. Ampass, 26.4.71, leg. Burmann). The phenotype of this specimen as well as the genital apparatus match the *engadinensis* characteristics (Fig. 1).

As a side-issue it should be pointed out that the male genital drawing of *P. obscurana* published in Danilevsky & Kuznetsov (1968) and copied by Razowski (2003) markedly differs from the respective drawings both in Chambon (1999) and in Bradley, Tremewan & Smith (1979). Either Danilevsky & Kuznetsov's sketch represents a variant valva form or a different species altogether.

*Pammene agnotana* Rebel is new to the fauna of Switzerland. According to Karsholt & Razowski (1996) the species occurs in northern and eastern Europe but is absent from Italy and France. The population in the lower Engadin valley originates doubtlessly from postglacial immigration from the East along the well-known route through the Inn valley.

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