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## Redescription of *Eidophasia syenitella* (Herrich-Schäffer, [1854]) (Lepidoptera, Plutellidae)

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The Holarctic genus *Eidophasia* Stephens, 1842 belongs to Plutellidae (Kyrki 1984, 1990; Dugdale et al. 1999). The genus currently includes 12 species (Sohn & Baraniak in press) which are heterogeneous in morphologies. In fact, there have been no convincing synapomorphies proposed for *Eidophasia*. *Eidophasia syenitella* (Herrich-Schäffer, [1854]) is one of the European congeners. Herrich-Schäffer (1853–1855) associated *E. syenitella* with *E. messingiella* (Fisher von Röslerstamm, 1840), based two superficial similarities, i.e. a slim body and the presence of scale tuft on the 2<sup>nd</sup> segment of the labial palpus. Friese (1966) synonymized *E. concinnella* Christoph, 1888 and *E. zukowskyi* Amsel, 1939 under *E. syenitella*. After examining various local populations of *E. syenitella* from Europe, we found Friese's synonymy unwarranted. *Eidophasia syenitella* has been characterized with only its external appearance. There is yet no description of the genitalia available for the species. This gives a challenge in evaluating the taxonomic status of *E. syenitella* and its two putative synonyms. This issue needs further attention and will be scrutinized in separate papers. Little is known about the biology of *E. syenitella*. The known larval host records suggest that this species is exclusively associated with a genus of Brassicaceae, *Arabis* or rockcress. The aim of this paper is to re-describe the species with the genitalia of both sexes for the first time.

### Material and methods

Research specimens were obtained from the following institutions.

DEI	Deutsches Entomological Institut, Müncheberg, Germany
ZISP	Zoological Institute, Academy of Sciences, St. Petersburg, Russia
ZMC	Zoologisk Museum, Copenhagen, Denmark
ZSM	Zoologische Staatssammlung, München, Germany

The terminology for genitalia used in this paper is taken from Klots (1970) and Razowski (2008). The host plant names follow the Plant List (<http://www.theplantlist.org/>).

### Taxonomic account

#### *Eidophasia syenitella* Herrich-Schäffer, [1854] (Figs. 1–15)

*Eudophasia* [sic] *syenitella* Herrich-Schäffer, [1854]: 84, fig. 343.

**Diagnosis.** This species is similar to another European congener, *Eidophasia hufnageli* (Zeller), but differs from the latter in having the dorsal bar not merged to the postmedian line on the forewing. The genital features further support their distinctiveness as summarized in Table 1.

**Redescription.** Head—Vertex dark grey, sparsely intermixed with white scales. Labial palpus with 2<sup>nd</sup> segment longer than 1<sup>st</sup>; outer surface of 1<sup>st</sup> and 2<sup>nd</sup> segments dark grey, with a small proportion of white and grey scales; inner surfaces of 1<sup>st</sup> and 2<sup>nd</sup> segments white and grey, except for terminal part of middle segment dark grey; tuft on 2<sup>nd</sup> segment