

Batia hilszczanskii spec. nov. from Cyprus

(Lepidoptera, Oecophoridae)

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Tokár, Z. & Jaworski, T. 2015. *Batia hilszczanskii* spec. nov. from Cyprus (Lepidoptera, Oecophoridae). Spixiana 38(1): 71–76.

A new species of Oecophoridae, *Batia hilszczanskii*, was reared from larvae feeding in branches of the golden oak (*Quercus alnifolia*) obtained in Cyprus. It differs from other species in the *Batia* genus by the forewing markings and structures of the male and female genitalia. Photographs of the adults and the type locality as well as figures of the genitalia of both sexes of the species are provided.

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Introduction

Batia is a genus in the Oecophoridae with seven species known in the European (Lvovsky 2011), North American (Lee & Brown 2009), African (De Prins & De Prins 2013), and western Asian (e.g. Koçak & Kemal 2009) faunas. Six species have been described from Europe: *B. lambdella* (Donovan, 1793), *B. lunaris* (Haworth, 1828), *B. inexpectella* Jäckh, 1972, *B. internella* Jäckh, 1972, *B. lutosella* Jäckh, 1972, and *B. samosella* Sutter, 2003. *B. internella* was introduced from Europe to western North America in the first half of the 20th century (Powell 1964, Powell & Opler 2009). It is also widespread in North Africa and the Middle East, as is *B. lambdella*. One species, *B. decurrens* (Meyrick, 1918), was described from South Africa.

European species in the genus *Batia* are well known. In 1972 Jäckh reviewed the genus by adding three new species to the two taxa already known. In 2003 Sutter added to them the most recently discovered species. All these species were included in the monograph on central European Oecophoridae (Tokár et al. 2005). It is worth mentioning the following works dealing with *Batia* species: Jäckh (1942), Lvovsky (1981), Lempke (1988), Harper

(1990), Hannemann (1997), Lvovsky (1994), and Harper et al. (2002).

Batia species are distributed throughout the western Palaearctic except the northern parts. The greatest diversity of species is in the Mediterranean area, mainly in the eastern parts. *B. inexpectella* is known from southern France and Italy, *B. lutosella* was described from the Greek Peloponnese and *B. samosella* is widespread on the Greek mainland as well as on islands in the Aegean Sea.

During an expedition to Cyprus, Jacek Hilszczański, from the Forest Research Institute in Sękocin Stary (Poland), obtained larvae of an unknown oecophorid species feeding in branches of the golden oak *Quercus alnifolia* Poeh. We received from him several specimens that emerged in his laboratory and based on this material we were able to identify a new *Batia* species from this part of the eastern Mediterranean.

Abbreviations

| | |
|------|--|
| Gp | Genitalia preparation |
| ISEZ | Institute of Systematics and Evolution of Animals, Polish Academy of Science, Cracow, Poland |
| ZT | Zdenko Tokár, Šal'a, Slovakia |



Figs 1-2. *Batia hilszczanskii* spec. nov. 1. Male, wingspan 9 mm. 2. Female, wingspan 11 mm.

Taxonomic part

Batia hilszczanskii spec. nov.

Material. Holotype ♂, “Cyprus, Stavros tis Psokas, 34°59'55" N, 32°37'42" E, ex.l. 20.9.2013, larva 2.5.2013 on *Quercus alnifolia* Poech, leg. J. Hilszczański”, slide T. Jaworski, coll. ISEZ.

Paratypes: 5♂, same data as holotype, all leg. J. Hilszczański, Gp ZT ♂ 12056, 12062, 12079, coll. ZT & T. Jaworski; 1♀, same data as holotype, Gp ZT ♀ 12083, leg. J. Hilszczański, coll. ZT.

Description

Male (Figs 1, 3). Wingspan 9–10 mm. Head: frons and vertex dark brown, lateral margins above the eyes and the collar white. Antenna $\frac{2}{3}$ length of the forewing, long dark brown ringed white, with short, fine cilia. Labial palpus (Fig. 3) slightly curved, first segment brown to dark brown mottled with white scales on the upper side, second segment predominantly white and third segment dark brown. Thorax dark brown with white lateral margins, tegulae ochreous-yellow. Forewing ochreous-yellow tinged orange with dark brown markings. Costal suffusion up to $\frac{3}{4}$ length of the forewing, wide, broadening me-

dially, edged white. Dorsal oblique triangular streak with broad base and separate narrow upper process, both edged white. Dark brown marking along termen extends to apex and apical cilia. Remainder of cilia ochreous-yellow tinged orange, darker basally. Hindwing and cilia grey-brown.

Female (Fig. 2). Differs from male by the following characters: greater wingspan, 11 mm. Antenna filiform. Labial palpus more curved upwards. In forewing dorsal oblique triangular streak with upper process broader. Apical cilia of prevailing of ground colour. Hindwing a little paler.

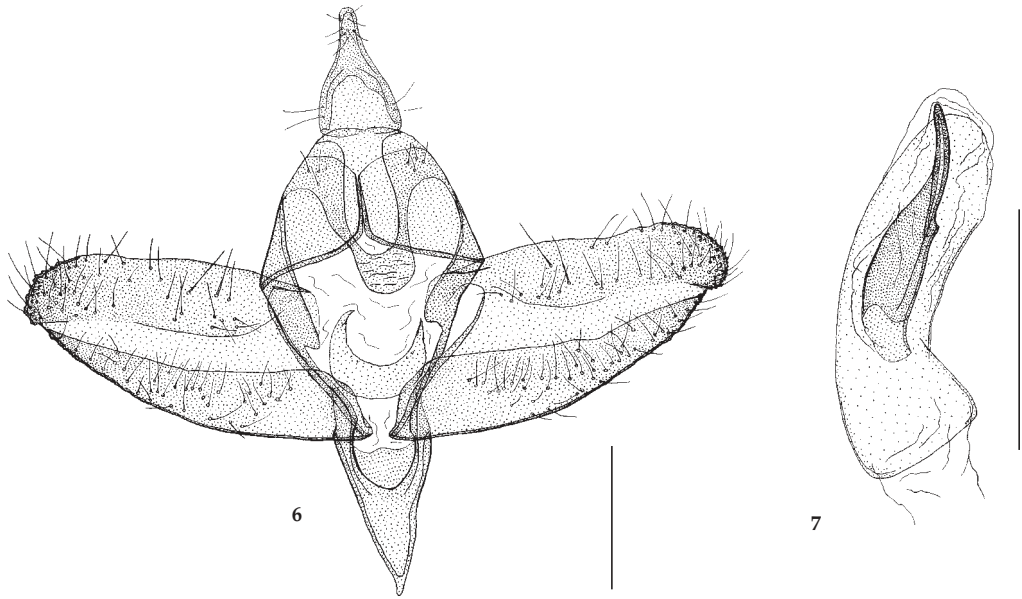
Genitalia ♂ (Figs 6-7). Uncus tapered with a rounded tip. Gnathos rounded and slightly wrinkled. Sacculus with apical pointed process not reaching



Fig. 3. *Batia hilszczanskii* spec. nov., male labial palpus; scale=0.2 mm.



Figs 4-5. Pafos forest – vicinities of the place where larvae of *Batia hilszczanskii* were obtained.



Figs 6-7. *Batia hilszczanskii* spec. nov., male genitalia. 6. Gp ZT 12079. 7. Ditto, aedeagus; scales=0.25 mm.

fold of valva. Saccus conical, approximately one and half times longer than broad. Aedeagus with one large funnel shaped cornutus slightly bent and tapering in the upper third.

Genitalia ♀ (Fig. 8). Posterior border of eight sternite convex, densely covered with short spines. Antrum bowl-shaped. Ductus bursae relatively short, heavily and densely sclerotized in the lower half by longitudinal thin plates with the presence of tiny spines. Bursa copulatrix with signum, a small asymmetric plate with several thickenings or small thorns, two of them distinctly larger than the others.

Diagnosis. External features suggest close relationship of *Batia hilszczanskii* to other *Batia* species (mainly to *B. lunaris*) but it differs from them in the forewing pattern as follows:

- conspicuous wide dark brown costal suffusion broadening medially, while in other species this suffusion is narrower, does not broaden medially and/or paler.
- shape of dorsal oblique triangular streak with separate upper process, while such lambda marks in five similar species (*B. lambdella*, *B. internella*, *B. lunaris*, *B. inexpectella*, and *B. samosella*) are continuous, more slender, and tapered.

The male genitalia of *B. hilszczanskii* are similar to those of four *Batia* species (*B. lambdella*, *B. internella*, *B. lunaris*, and *B. lutosella*) but differ from them as follows:

- pointed end of sacculus process is not bent upwards towards valva, while that of those four species is bent and more or less reaching fold of valva.
- saccus is shorter and wider (length to width ratio is about 1.5) than in all other *Batia* species (ratio 2 or more).

The female genitalia of *B. hilszczanskii* differ from those of all other *Batia* species by the conspicuous sclerotized lower half of ductus bursae.

Bionomy. Larvae of the new species were collected in dead branches of *Quercus alnifolia* Poech in early May. Adults emerged in the second half of September. The larvae feed under the bark, possibly on fungi or decaying wood (no personal observations). The branches were also inhabited by larvae of saproxylic beetles from the families Cerambycidae and Buprestidae.

Distribution. So far known only from the type locality in western Cyprus, not far from the Forest station of Stavros tis Psokas (800 m a.s.l.).

Habitat (Figs 4-5). The locality is situated in the Pafos forest, with pines (*Pinus brutia* Tenore) and endemic golden oak (*Quercus alnifolia*). The golden oak (the National Tree of Cyprus) is an evergreen small tree or tall shrub up to 10 m tall. The undersides of the leaves are covered with a thick gold pubescence. It is found on igneous, rocky, steep

mountain-side slopes at an altitude of 400 m up to 1800 m. It flowers from April to May and its fruits ripen from November to December. In Cyprus it is found only on the igneous rocks of the Troodos Mountains and is locally very common (Ministry of Agriculture 2007).

Etymology. The species is named after Jacek Hilszczański, Professor of the Forest Research Institute in Sękocin Stary (Poland) who collected the larvae in Cyprus.

Acknowledgements

Our thanks are due to Jacek Hilszczański (Sękocin Stary, Poland) for providing specimens and permission to publish his discovery, and to Alexandr Lvovsky (Zoological Institute of the Russian Academy of Sciences, St Petersburg) for his view on the new species. We are also grateful to František Slamka (Bratislava, Slovakia) for taking the photographs of the moth and Robert Heckford (Plympton, UK) for checking and correcting the English of the manuscript.

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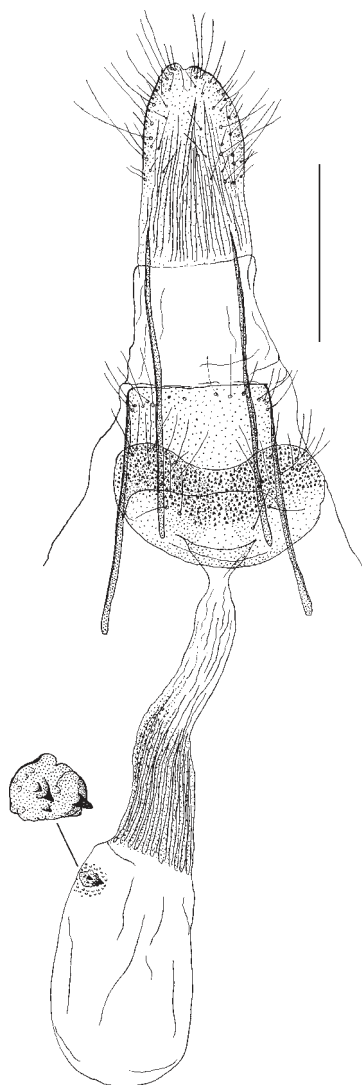


Fig. 8. *Batia hilszczański* spec. nov., female genitalia, Gp ZT 12083; scale=0.5 mm.

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