

NEW SYMMOCID SPECIES (LEPIDOPTERA)
AND THE DESCRIPTION
OF AN UNKNOWN ABDOMINAL ORGAN

By

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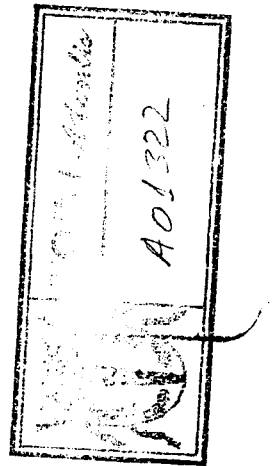
Description of *Orpecovalva mallorcae* sp. n. (Mallorca), *Amblyma klimeschi* sp. n. (Canary Isl.), *Symmoca sorrisa* sp. n. (Spain), all collected by Dr. J. KLIMESCH, and the description of a hitherto unknown abdominal organ in *Oecia oecophila* (STGR.) (Holepogonidae) and in *Oegoconia* STT. (Symmocidae).

In the course of his collecting activities in the Mediterranean Subregion and on the Canary Islands, Dr. J. KLIMESCH, Linz, renowned lepidopterist, succeeded to obtain representatives of three new Symmocid species. Beyond their value to science, especially valuable are Dr. KLIMESCH's painstaking and detailed observations concerning ecological, ethological, etc. phenomena — all too rarely noted by most modern naturalists (the fault probably ascribable to mass collecting methods and the general use of automated trap techniques). It is a privilege to insert these data in the descriptions, and by Dr. KLIMESCH's courtesy they are given here in full (in German). I am also indebted to Dr. KLIMESCH for the opportunity to study his material and for his permission to retain some paratype specimens. The holotypes and several paratypes are conserved in Dr. KLIMESCH's collection, Linz, (abbreviated KCL), some paratypes deposited in the Hungarian Natural History Museum, Budapest (abbreviated HNHM), and in the British Museum (Natural History), London (abbreviated BM).

Oecia oecophila (STAUDINGER, 1876)

When I last treated this interesting species [1], I attempted to gather all known data in literature and to evaluate them in the light of our (then scanty) knowledge. Since then, new facts have considerably helped to clear away some problems of morphological features, food substrates, and family assignment.

LE MARCHAND [3] described features (pecten, venation) contradictory to those I found in the exemplars I studied. When examining in Paris, in 1967, his series and that of Legrand, allegedly belonging to this species, the genital slides revealed that the specimens represent an Oecophorid taxon, and thus the confusion in this regard became eliminated.



The only known datum as to substrate goes back to MEYRICK [4]: "bred February from oranges." This observation was made in British Guiana (?); I have not examined these specimens, and it is again highly doubtful that they represent our species. Dr. KLIMESCH's observations are thus of especial importance. He captured a large series (2-3, June, 1974), in Rhodes, on human excrement — the first lepidopteron now known to breed in this substrate! His notes read as follows:

"Fundort: Felsiger Steinhang des Mount Smith (Akropolis) nahe der Stadt Rhodes, in nordwestlicher Exposition, ca 120-150 m über dem Meer gelegen, Schlupfwinkel zwischen Felsen und dem Mauerwerk einer Kapelle, beschattet von einem alten Feigenbaum. Dieser Platz wird regelmäßig von der einheimischen Bevölkerung als WC benutzt. Die Exkremente werden durch den fast ständig wehenden NW-Wind rasch ausgetrocknet.

Flug: abends gegen Sonnenuntergang bei windstillem Wetter und besonders unter schreckkalen Wetterbedingungen (südöstliche Luftströmung bei einer Luftfeuchtigkeit von 75-85%). Die ♀ fliegen lebhaft über dem steinbedeckten Boden, auf dem sich Exkremente befinden. Die seltenen ♂ sind fast stets am Boden zwischen den Exkrementen anzutreffen, wo sie nach Art von Tineiden meist unruhig umherlaufend beobachtet wurden".

The knowledge of the substrate and a re-assessment of the genitalie features suggest a renewed relegation of the genus. Until I placed it in the Symmoceridae [1], the genus was assigned to the Blastobasidae, Oecophoridae,

and the Gelechiidae. In view of the structure of the male genitalia and the coprophagous habit, the genus is clearly referable to the Holecopogonidae. However, the problem is still not satisfactorily settled: the female genitalia are not Holecopogonid in character!

The study of the genitalia, or rather that of the abdomen, showed the presence of another most interesting feature: a protrusible hairy appendage emerging from an invaginated fold between the first and second male abdominal sternites (Fig. 1: A). This organ is of unknown function (no histological examinations have been made, and in the slides it appears nearly completely transparent and in a weak, membranous state), but it probably plays some sexual (? receptive or attractant) role. Yet even more striking is its appearance in the family Holecopogonidae, because I have known for some time of the existence of a similar structure in the genus *Oegoconia* STR., in the family Symmoceridae, where it is, however, considerably longer, being in its completely protruded state about half as long as the entire abdomen (Figs. 1: B, 2: A, B). Also, in the latter family it is one of the best generic features distinguishing the *Oegoconia* species from those relegable to *Apatema* WILSCHM.: all *Oegoconia* species possess it, but none relegable to *Apatema*!

Dr. KLIMESCH also has a specimen of *Oecia oecophila* (STR.) collected in the Canary Islands, and it was on the basis of this exemplar that also a problem of synonymy could finally be solved. The specimen agrees in all details with the colored illustration and with the Holotype of *Apatema husadeli* 1910, [5] REBEL, hereby drawn in as a subjective junior synonym (*syn. n.*). REBEL's specimen was caught in a cave — a very un-Symmocerid habitat, but notoriously "rich" in excrements. The occasional cap-

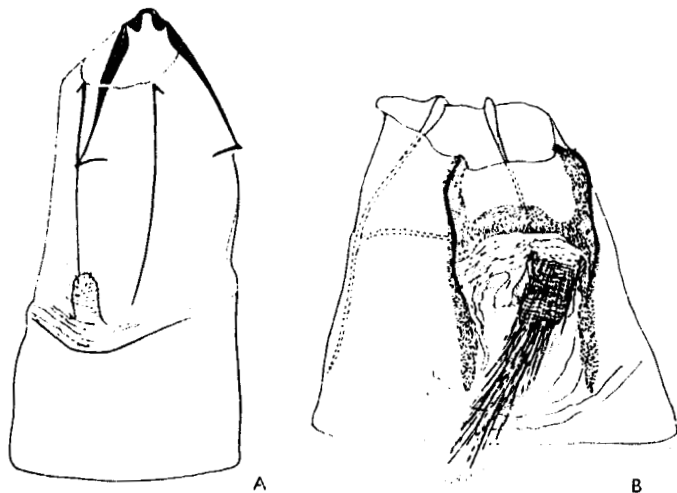


Fig. 1. A — First and second abdominal sternites of *Oecia oecophila* (STR.), "Rhodos 3. VI. 1974 J. KLIMESCH" (slide 1665); B — First abdominal sternite of *Oegoconia deauratella* HS., "Donelle (Lat) 28. VII. 32. coll. L. LUOMME" (slide 3672)

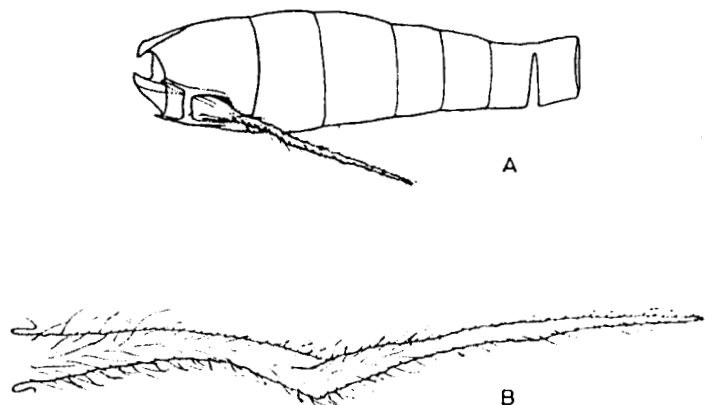


Fig. 2. A — Abdomen, latero-ventrally, of *Oegoconia quadripuncta* HAW., "Paris 11. B. 1907" (slide 3673); B — same; protruded abdominal organ enlarged (slide 3673)

tures of specimens at light, in rooms (Sicily), houses (Egypt), etc., are nowder von *Pinus halepensis* mit geringem Unterwuchs von *Cistus monspeliensis* explicable in view of the substrate occurring around human habitations und *Globularia alypum* im südwestlichen Teil der Insel bei Paguera, auf Dünen-

Orpecovalva mallorcae sp. n.

Alar expanse: ♂♂ 8–9 mm; ♀ 7 mm. Antennae dark grey, finely and densely ringed with dark fuscous; head light grey or hoary, labial palpi dark grey, third joint with a blackish median ring; thorax and tegulae light to medium grey; fore wing basically light grey, throughout irrorated with medium brown and some black scales; pattern very indistinct, consisting of two pairs of small spots formed by brown and black scales, at 1/3 and 2/3, both pairs situated slightly obliquely to dorsum, in many specimens hardly recognizable or even absent; cilia greyish white; hind wing medium grey, cilia light grey; ♀ with slightly wider and shorter wings, especially hind wing widened and shortened (a trend in many Symmocid species, to the very reduced wings in *Symmoca signella* HBN.), basic color lighter fawnish brown with light grey scales, pattern (black scales) almost nonexistent, cilia more whitish.

Male genitalia (Fig. 3): costal appendix comparatively short and wide, sacculus wide, relatively short, recurving onto valva at right angles and there sharply pointed, valval apex rather pointed, transtillar lobes long, slender; aedeagus thick, straight, with one row of spiniform cornuti.

Holotype male: "Mallorca, Paguera, 19–30. 4. 1970" 3 paratypes from 19–30, April, 1970, Paguera, Mallorca, and 21 paratypes from 2–14, May 1970, Paguera, Mallorca. 10 paratypes deposited in the KCL; 14 paratypes in the HHIM.

Concerning the habitat and ethological observations, Dr. KLIMESCH writes as follows:

"Fundorte: Paguera (Mallorca) und Cala Ratjada (NO-Mallorca). Wäl-

boden ca 100 m vom Meer entfernt und auf anstehendem Gestein bei ca 500 m Entfernung vom Meer in einer Höhe von ca 50 m über dem Meere. Bei Cala Ratjada im nordöstlichen Teil der Insel aufgelockerte Bestände von *Pinus halepensis* mit geringem Unterwuchs. Flug: in den Abendstunden um Sonnenuntergang, meist knapp über dem mit Nadelstreu bedeckten Boden bei einer Luftfeuchtigkeit von 60–75%."

According to the neuration, the new species can be assigned only to *Orpecovalva* GOZMANY, 1964, Symmocidae; the type-species, *Orpecovalva obliterata* (WALSINGHAM, 1905) (Algeria) differs by a very long and slender costal appendix reaching nearly to the apex of the valvae and the equally slender and finely curving sacculus. In *Orpecovalva acantha* (GOZMANY, 1963) comb. n. (Sardinia) the sacculus is nearly lamelliform wide, the cornuti different.

Ambloma klimeschi sp. n.

Alar expanse: 10–11 mm. Antennae dark fuscous brown; labial palpi light grey, second joint with a wide, incomplete dark fuscous ring, third joint with a narrower one; head, scapulae, thorax dark grey with some intermixed light greyish scales; fore wing medium fuscous to brownish, sparsely irrorated with whitish grey scales, pattern very indistinct, consisting of two dark fuscous obliquely transverse stripes (or rather very ill-defined two pairs of spots) at 1/3 and 2/3, hence overall coloration of wing rather restless and confused; cilia medium grey; hind wing and cilia medium grey.

Male genitalia (Fig. 4): As in the type-species, but dorsum of outer half of valva concave instead of convex, transtillar lobes slightly longer, aedeagus more curved.

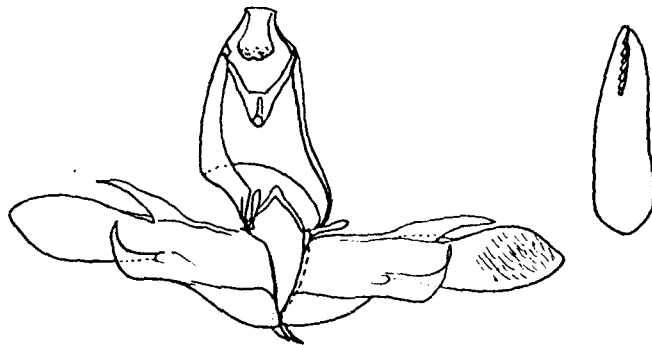


Fig. 3. Male genitalia, ventrally, aedeagus separated, of *Orpecovalva mallorcae* sp. n., "Mallorca Ins. Balear. Paguera, 10. V. 1970. J. KLIMESCH", paratype (slide 4354)

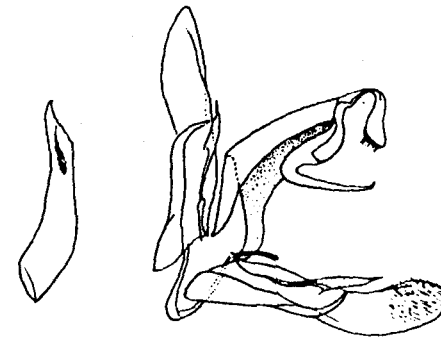


Fig. 4. Male genitalia, ventrally, aedeagus separated, of *Ambloma klimeschi* sp. n., "Ius Canar. La Gomera Valle Gr. Rey 10. IV. '71. KLIMESCH" paratype (slide 4374)

Holotype male: "Ins. Canar., La Gomera, La Calera, 15. 4. 1971"
4 paratypes from 5. 4. 1971, La Gomera, La Calera, 8 paratypes from 15;
4. 1971, same site, and 6 paratypes from 10. 4. 1971, La Gomera, Valle gr.
Rey; 10 paratypes deposited in the KCL; 8 paratypes in the IUNHM; 2 para-
types in the BM.

The new species is now the second known one relegable to WAL-
SINGHAM's highly interesting Symmocid genus occurring in the Canary Islands.
One of the generic characteristics is the rudimentary state of the female
wings and the reductions in the venation (among others, the coincident veins
 r_{4+5} of the fore and $rr + m_1$ (!) of the hind wings). The type-species *Amblo-
ma brachyptera* WALSINGHAM, 1908 [6], is smaller than the new species, its hind
wings also much narrower (two-thirds to nearly one-half); the difference in
the male genitalia are slight (the form of the sacculus).

Symmoca sorrisa sp. n.

Alar expanse: 13—16 mm. Externally nearly indistinguishable from
tofosella REBEL, 1893, but slightly more grey (less brownish grey), pattern
more extensive, heavier, especially on costa (the costal ones of the spots consti-
tuting the transverse stripes); *nigromaculella* RAGONOT, 1875, displays an even
finer pattern than *tofosella* REB.

Male genitalia (Fig. 5): resembling those of *sultan* GOZMÁNY,
1962, *petrogenes* WALSINGHAM, 1907, and *perobscurata* GOZMÁNY, 1957; how-

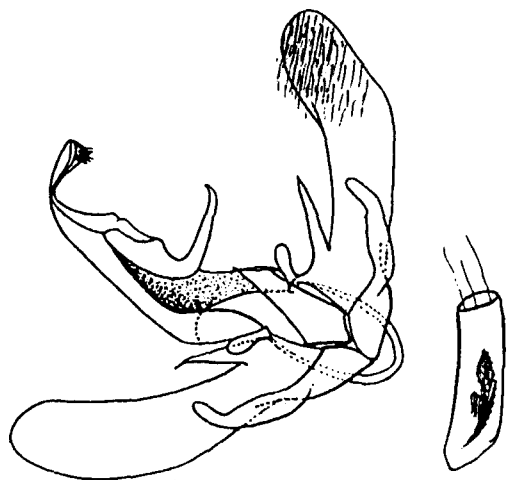


Fig. 5. Male genitalia, ventrally, aedeagus separated, of *Symmoca sorrisa* sp. n., "Hispania,
Sierra Nevada Carr Veleta 2000 m 7—10. 7. 1971 KLIMESCH", holotype (slide 4531)

ever, in this latter, the sacculus is very sharply angulated and long, in *petro-
genes* WLSGHM. the aedeagus only half as thick (very slender), in *sultan*
GOZM., the sacculus more pointed, the costal appendage only half as long.

Holotype male: "Hispania, Sierra Nevada Carr Veleta 2000 m 7—10.
7. 1971 KLIMESCH"; slide 4531, GOZMÁNY. Paratypes: 9 ♂♂ and 3 ♀♀, "Hispania
13. 7. 71 Sierra Nevada, Granada Veletastrasse, 2000 m leg. ARENBERGER",
slides 4730 (♂), 4731 (♀), GOZMÁNY. Holotype deposited in KCL, 9 paratypes
in Mr. ARENBERGER's Collection, Vienna, and 3 paratypes in the IUNHM.

The species to which the new one is compared above (genitalic charac-
terization) differ considerably externally: *sultan* is nearly white (chalky) grey
with some fine yellowish suffusion, *petrogenes* is light yellowish grey, while
perobscurata is quite dark grey with an almost indiscernible blotchy pattern.

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