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Contribution to the Lepidoptera fauna of the Madeira Islands Part 4. Blastobasidae

With 104 figures

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Summary

A review of the family Blastobasidae in the Madeira Islands is given. Eleven new species: *Blastobasis basii* **sp. n.**, *B. laurisilvae* **sp. n.**, *B. luteella* **sp. n.**, *B. rebeli* **sp. n.**, *B. serradaguae* **sp. n.**, *B. splendens* **sp. n.**, *B. subdivisus* **sp. n.**, *B. virgatella* **sp. n.**, *B. walsinghami* **sp. n.**, *B. wollastoni* **sp. n.**, *B. wolffi* **sp. n.** are described, and six new synonyms: *Blastobasis sarcophaga* Meyrick, 1902 - **syn. n.** to *B. marmorosella* (Wollaston, 1858), *B. xanthographella* Rebel, 1940, *B. lignea* var. *melanella* Mansbridge & Wright 1939 and *B. lignea* var. *pallidella* Mansbridge & Wright 1939 - **synn. n.** to *B. adustella* Walsingham, 1894, **stat. n.** from aberration of *B. lignea* Walsingham, 1894; *Blastobasis lignea* Walsingham, 1894 and *B. flavescentella* Rebel, 1940 - **synn. n.** to *B. vittata* (Wollaston, 1858), **comb. n.** from *Laverna* Curtis are established. The status of *Blastobasis decolorella* (Wollaston, 1858), *B. lacticolella* Rebel, 1940 and *B. marmorosella* (Wollaston, 1858) is revised based on the study of type material. All species and their genitalia are figured, and information on bionomy is presented. 22 of the 26 species dealt with are considered endemic to Madeira.

Zusammenfassung

Es wird eine Übersicht über die Familie Blastobasidae von Madeira gegeben. Elf neue Arten: *Blastobasis basii* sp. n., *B. laurisilvae* sp. n., *B. luteella* sp. n., *B. rebeli* sp. n., *B. serradaguae* sp. n., *B. splendens* sp. n., *B. subdivisus* sp. n., *B. virgatella* sp. n., *B. walsinghami* sp. n., *B. wollastoni* sp. n., *B. wolffi* sp. n. werden beschrieben, sechs neue Synonyme: *Blastobasis sarcophaga* Meyrick, 1902 - syn. n. von *B. marmorosella* (Wollaston, 1858), *B. xanthographella* Rebel, 1940, *B. lignea* var. *melanella* Mansbridge & Wright 1939 und *B. lignea* var. *pallidella* Mansbridge & Wright 1939 - synn. n. von *B. adustella* Walsingham, 1894, stat. n. der Abberation von *B. lignea* Walsingham, 1894; *Blastobasis lignea* Walsingham, 1894 und *B. flavescentella* Rebel, 1940 - synn. n. von *B. vittata* (Wollaston, 1858), comb. n. von *Laverna* Curtis werden festgestellt. Der Status von *Blastobasis decolorella* (Wollaston, 1858), *B. lacticolella* Rebel, 1940 und *B. marmorosella* (Wollaston, 1858) wurde auf der Grundlage der Untersuchung des Typusmaterials revidiert. Alle Arten und ihre Genitalien werden abgebildet, Informationen zur Bionomie werden vorgelegt. 22 der 26 Arten werden als endemisch für Madeira angesehen.

Keywords

Madeira; Microlepidoptera; Blastobasidae, Endemism

One of the most characteristic traits of insular faunas is a proliferation of closely related species. On different islands and archipelagos the representatives of different genera and families exhibit such a radiation. Among the gelechioid moths the following striking examples can be mentioned: 315 species of the cosmopterigid genus *Hyposmocoma* Butler in Hawaii (Walsingham, 1907; Zimmerman, 1978), 75 species of the cosmopterigid genus *Asymphorodes* Meyrick on the Marquesas (Clarke, 1986), 11 species of the autostichid genus *Galagete* Landry on the Galapagos Islands (Landry, 2002), etc.

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The present paper shows another example: 26 species of Blastobasidae, which constitute about 8% of the about 320 species of Lepidoptera found in Madeira and comparable with the total number of blastobasid species (29) known from the whole continental part of the Palaearctic.

The first species of Blastobasidae in Madeira were collected by T. V. WOLLASTON in 1855 and later described by WOLLASTON (1858) himself and by H. T. STAINTON (1859). These species were not recognized as blastobasids and put in the genera *Gelechia, Oecophora, Coleophora, Laverna,* and *Asychna*. A great contribution to the Madeiran fauna of Blastobasidae was made by WALSINGHAM (1894, 1910); he was the first who attributed the species described by WOLLASTON and STAINTON to this family, and he also described several new species. Following WALSINGHAM, H. REBEL (1940a, b, c) was the author of the second (and the last) revision of the fauna of blastobasid moths in Madeira. Only very few additional faunistic data and new discoveries of Madeiran species in Europe and Northern Africa have been published since (BEIRNE, 1941; AMSEL, 1952; BRADLEY, 1953, 1958; GARDNER & CLASSEY, 1960; MICHAELIS, 1969; PASSOS DE CARVALHO, 1995; SVENSSON, 1997; DICKSON, 2002).

At least some of the Madeiran species of Blastobasidae are very variable externally, and this was a reason why rather numerous mistakes occurred in the literature. This is connected partly with too brief original descriptions by WOLLASTON, partly with heterogeneity of the type series, and partly with the fact that nearly all species were described without study of their genital characters. As a result, the present conceptions of some species appeared to be wrong; for example, all records of Madeiran species introduced to Europe and Australia were based on misidentifications. Such a situation led us to the necessity of a complete taxonomic revision of the Madeiran Blastobasidae including, (1) the re-investigation with genitalia dissections of the types of all species-group taxa, (2) the designation of lectotypes for all species of which the original descriptions were based on more than one specimen, in order to fix the unique bearer of the specific name (ICZN, 1999: Art. 74) and to avoid further misunderstandings.

Abbreviations

ANIC:	Australian National Insect Collection, CSIRO, Canberra, Australia
AREN:	coll. E. ARENBERGER, Wien, Austria
BMNH:	The Natural History Museum, London, U.K.
COX	coll. A. COX, Mook, The Netherlands
ICLAM:	Insect Collection Laboratório Agrícola da Madeira, Camacha, Madeira
MEY:	coll. M. MEYER, Perl-Kesselingen, Germany
MMF:	Museu Municipal do Funchal, Madeira
MNHN:	Musee National d'Histoire Naturelle, Paris, France
MRSN:	Museo Regionale di Scienze Naturali, Torino, Italy
WOLS:	coll. J. Wolschrijn, Twello, The Netherlands
NHMW:	Naturhistorisches Museum, Wien, Austria
NHRS:	Naturhistoriska Riksmuseet, Stockholm, Sweden
LSNK:	Staatliches Museum fur Naturkunde, Karlsruhe, Germany
SIP:	coll. L. SIPPOLA, Pirkkala, Finland
ZFMK:	Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn, Germany
ZIAN:	Zoological Institute Academy of Sciences, St. Petersburg, Russia
ZMUC:	Zoological Museum, University of Copenhagen, Denmark
ZMUH:	Zoological Museum, University of Helsinki, Finland
ZSM:	Zoologisches Staatssammlung, München, Germany

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The present article is based on the material collected by V. T. Wollaston in 1855 (BMNH), O. Lundblad in 1935 (NHRS), R. W. J. Uffen in 1964 (BMNH), R. Pinker in 1969 (LSNK, ZMUC), N. L. Wolff in 1970-1977 (ZMUC), J. Karvonen in 1971 (ZMUH), W. Dierl in 1974 (ZSM), E. Traugott-Olsen in 1974 (ZMUC), O. Karsholt in 1979, 1993-1997 and 2001 (ZMUC, ZIAN), J. Passos de Carvalho in 1980-1982 (BMNH, ZMUC), D. Stüning in 1982 (ZFMK), M. Hellers in 1989 and M. Meyer in 1991 (MEY), G. Bassi in 1993 (MRSN), H. Hendriksen, D. Nilsson and B. Skule in 1993 and 1997 (ZMUC), G. Martin in 1998 (BMNH), L. Sippola in 1995, 1997, 1999 and 2002 (SIP) and some others. The type specimens of the Madeiran Blastobasidae are kept in the collections of BMNH, MNHN, NHMW, and LSNK; those of the newly described species - mostly in ZMUC and ZIAN.

General description of the family Blastobasidae

This not very large family of gelechioid moths has a world-wide distribution. Most of the species are known from tropical or subtropical regions, and only a few are represented in the temperate zone of the Old World. They may be distinguished from other narrow-winged Gelechioidea by the venation, the presence of a pterostigma in the forewing, the structure of the antennal base in the male, and the subradial retinaculum in the female. There is a broad consensus that the blastobasids form a monophyletic group, but Hodges (1999) argued that it should be treated as a subfamily of the Coleophoridae. Here we follow the more widely accepted opinion giving the Blastobasidae the status of a separate family (Walsingham, 1894, 1908b; Rebel, 1940a; Sinev, 1986, etc.). It includes 20 genera and approximately 270 described species worldwide (Hodges, 1999; Sinev, 2004a), and many more species await description. During recent years numerous synonyms were established (23 generic and 85 species names), but the family has not been recently revised. Only the eastern Palaearctic representatives have been partly revised by Sinev (1986), the Nearctic taxa have been listed by Adamski & Hodges (1996), the Neotropic taxa by Becker (1984), and the European taxa by Sinev (2004b). Furthermore, Clarke (1963) figured the adults and genitalia of many taxa described by E. Meyrick. Most species of this family are extremely similar superficially, and a safe determination is often possible only using the genitalia characters.

The adults are small (wingspan 8-20, rarely up to 40 mm), usually rather puny greyish moths with narrow wings and long fringes. The head is smoothly scaled, without ocelli and chaetosemata. The antennae are shorter than the forewing, and the scape is sometimes dilated and carries a pecten of scales which partly covers the eye. In males the flagellum is often notched near the base or densely ciliate throughout its length. The labial palpi are recurved, segment 2 sometimes with frontal tuft of scales; the apical segment is thin and pointed in females, whereas in males it is often thick and blunt.

The forewing is lanceolate with a more or less dense pterostigma between costal margin and R1; Sc merges into costal margin before midpoint; R2 is unusual in arising very close to the upper angle of the discal cell; CuA1 and CuA2 run from the lower end of discal cell almost at right angles. Its pattern consists of blackish or brownish transverse or chevron markings on the paler grey or ochreous grey background. The hindwing is also lanceolate or narrow lanceolate with three-bristled frenulum in female; M3 and CuA1 stalked or, more usually, completely fused.

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The abdominal tergites have transverse rows of modified lanceolate scales at posterior margins.

In the male genitalia, uncus small and digitate; gnathos band-shaped and well sclerotized with more or less pronounced posteromedial projection; tegumen with large anteromedial notch and long anterolateral processes; vinculum very narrow ribbon-like; valva distinctly divided into digitate floppy dorsal part (cucullus) and more wide and well sclerotized, apically hooked ventral part (sacculus), usually with more or less pronounced pillow on the inner surface near the base; aedeagus membranous, with narrow and heavily sclerotized longitudinal rim; apical part of aedeagus fused with tubular anellus which bears groups of microspines and sometimes rather sclerotized processes. In the female genitalia, ovipositor long or very long, with posterior apophyses sometimes of the same length as the whole abdomen; ostium membranous, hardly visible; ductus bursae long, more or less spirally coiled, bearing dense microspines inside the anterior half; ductus seminalis merged to ductus bursae very close to the ostium; corpus bursae egg-shaped, densely granulated with microlenses; signum always singular, represented by a sclerotized hook with more or less triangular base, rarely absent.

The larvae usually feed on different kinds of decaying plant and sometimes animal material, in flower or seed heads, on live and stored fruits, and only exceptionally on green plant tissues. They can also be found as scavengers in the nests of other insects or spiders, or as predators in the colonies of scale insects.

Checklist of Madeiran Blastobasidae*

Blastobasis ZELLER, 1855

Epistetus WALSINGHAM, 1894

desertarum (WOLLASTON, 1858)

maderensis (STAINTON, 1859)

desertarum var. *radiata* WALSINGHAM, 1894

miguelensis (REBEL, 1940)

bassii **sp. n.**

lavernella WALSINGHAM, 1894

decolorella (WOLLASTON, 1858), **sp. rev.**

luteella **sp. n.**

lacticolella REBEL, 1940, **sp. rev.**

vittata (WOLLASTON, 1858), **comb. n.**

lignea WALSINGHAM, 1894, **syn. n.**

flavescentella REBEL, 1940, **syn. n.**

maroccanella AMSEL, 1952

acuta BRADLEY, 1958

walsinghami **sp. n.**

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wolffi **sp. n.**
ochreopalpella (WOLLASTON, 1858)
marmorosella (WOLLASTON, 1858), **sp. rev.**
fuscomaculella (RAGONOT, 1879)
seeboldiella (KREITHNER, 1881)
sarcophaga MEYRICK, 1902, **syn. n.**
virgatella **sp. n.**
adustella WALSINGHAM, 1894, **stat. n.**
lignea var. *melanella* MANSBRIDGE & WRIGHT 1939, **syn. n.**
lignea var. *pallidella* MANSBRIDGE & WRIGHT 1939, **syn. n.**
xanthographella REBEL, 1940, **syn. n.**
laurisilvae **sp. n.**
salebrosella REBEL, 1940
splendens **sp. n.**
rebeli **sp. n.**
nigromaculata (WOLLASTON, 1858)
wollastoni **sp. n.**
serradaguae **sp. n.**
spectabilella REBEL, 1940
divisus (WALSINGHAM, 1894)
subdivisus **sp. n.**
pica (WALSINGHAM, 1894)
insularis (WOLLASTON, 1858)

* Beside of the species dealt with below, PASSOS DE CARVALHO (1995: 577) recorded Blastobasis phycidella (ZELLER, 1839) from Madeira without exact data and locality. We consider the record of this South European species in Madeira as a case of misidentification.

Systematic part

Genus *Blastobasis* ZELLER

Blastobasis ZELLER, 1855, Linn. Ent. 10: 171.
Type-species *Oecophora phycidella* ZELLER, 1839, by subsequent designation by WALSINGHAM, 1897.
Epistetus WALSINGHAM, 1894, Trans. ent. Soc. Lond. 1894: 552.
Type-species *Epistetus divisus* WALSINGHAM, 1894, by original designation.
Prosthesis WALSINGHAM, 1908, Trans. zool. Soc. Lond. 1907: 953.
Type-species *Prosthesis exclusa* WALSINGHAM, 1908, by original designation.

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Blastobasis desertarum (WOLLASTON, 1858)

Coleophora desertarum WOLLASTON, 1858: 122.
Coleophora desertorum, misspelling: WALKER, 1864: 879.
Pterolonche? maderensis STAINTON, 1859: 213; WALKER, 1864: 666; WALSINGHAM, 1894: 549 (as syn. of *desertarum*).
Blastobasis desertarum: WALSINGHAM, 1894: 549; REBEL, 1901: 163; 1917: 12; 1940a: 13 (key), 17, pl. 3, fig. 27; 1940b: 8; BRADLEY, 1958: 194; GARDNER & CLASSEY, 1960: 203; PASSOS DE CARVALHO, 1992: 266; 1995: 564, 577; VIEIRA, 1997: 15.
Blastobasis desertarum var. *radiata* WALSINGHAM, 1894: 549.
Blastobasis radiata, bona species: REBEL, 1940a: 13 (key), 18; 1940b: 7.
Coleophora miguelensis REBEL, 1940c: 42-43; BALDIZZONE, 1986: 138 (as syn. of *desertarum*).

Adult (figs 1-3). Wingspan 8-18 mm. Head cream mottled with fuscous. Scape of antenna cream mottled with brownish; flagellum light brownish, indistinctly lighter ringed, with deep basal notch in male. Labial palpi cream, mottled with brownish; segment 2 anteriorily widened by scale brush; segment 3 short. Thorax and tegulae of same colour as forewing. Forewing elongate with pointed apex, cream mottled with greyish, brownish and black, especially along dorsum, costa and in apical area; small black dots in dorsal part at 2/5 and 3/5; two such dots, sometimes confluent, in middle of wing at 4/5; fringes greyish. Hindwing lanceolate, apically pointed, light grey with light grey fringes.

Variation. A variable species, both in size and colour. Forewing colour varies from nearly white to dark grey, in some specimens mottled with ochreous grey. Some specimens are nearly without black scales, but more often these form small dots or patches. A characteristic form (f. *radiata*) has forewings with contrasting, dark grey-brown longitudinal lines.

Similar species. The elongate, apically pointed, light coloured wings are characteristic for this species. The shape of the labial palpi is also a useful character when separating *desertarum* from its congeners in Madeira.

Male genitalia (fig. 55): Uncus gradually narrowing to apex. Gnathos with well developed shortly bifurcate median protrusion. Basal pillow of valva covered with microtrichiae; its ventral margin uniformly convex, with row of very short setae. Aedeagus rather narrow, with conic apex.

Female genitalia (fig. 79): Apophyses posteriores four times as long as apophyses anteriores. Sternite VIII with more or less distinct linear median sclerotization. Posterior margin of sternite VII straight. Intersegmental membrane with a clearly visible large field of microtrichiae at each side of ostium. Ductus bursae very long and twisted, with indistinctly spined part before corpus bursae. Corpus bursae rather small and oval; signum absent.

Material examined:

♂, Lectotype of Coleophora desertarum WOLL., designated here: 'Lectotype'; 'Type'; 'Madeira VI.1855, WOLLASTON, B.M. 1858-21'; 'XXXVII'; '*Coleophora desertarum*, WLSTN. Ann. Mag. NH. (3. s.) I. 122 (1858) N[orthern]. Dezerta VI.1855 / Type XXXVII'; 'B.M. Genitalia slide ♂ No. 16629'; 'Lectotypus ♂ *Blastobasis desertarum* (WOLLASTON, 1858), design. KARSHOLT et SINEV' (BMNH). Paralectotypes (2 ♂♂) are in the same collection.

♀, Lectotype of *Pterolonche? maderensis* STT., designated here: 'Lectotype'; 'Type'; 'Madeira 1858, WOLLASTON, B.M. 1858-21'; 'XXXIII'; '*Pterolonche(?) maderensis*, STN.

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Ann. Mag. NH. (3. s.) III. 213. no. 21 (1859), P[or]to Santo, N[orthern]. Dezerta / Type XXXIII'; 'Lectotypus ♀ *Blastobasis maderensis* (Stainton, 1859), design. Karsholt et Sinev' (BMNH). Paralectotypes (1 ♂ and 6 ♀♀) are in the same collection.

♂, Holotype of *Blastobasis maderensis* var. *radiata* Wlsm.: 'Type'; 'Funchal, Madeira, Wollaston, B[erhune]-Baker Coll. 13710'; 'Walsingham Collection 1910-427'; '*Blastobasis maderensis*, Stn. + *radiata*, Wlsm. Tr. Ent. Soc. Lond. 1894. 550 / Type ♂ descr.'; 'B.M. Genitalia slide ♂ No. 16628'; 'Holotypus ♂ *Blastobasis radiata* Walsingham, 1894' (BMNH).

♂, Holotype of *Coleophora miguelensis* Rbl.: '2936'; 'Azor:, S.Miguel, Ponta Delgada, 19.VII Storå'; '*Coleophora miguelensis* Rbl. Type'; 'Mus. Zool. H:fors Spec. typ. No. 7263 *Coleophora miguelensis* Rbl.'; 'genit. slide no. 2'; 'jun. syn. of *Blastobasis lignea* Wals., det. J.D. Bradley, 1983'; 'Holotypus ♂ *Coleophora miguelensis* Rebel, 1940' (MZHF).

Other material: Madeira:

2 ♂♂ (paralectotypes of *desertarum*), without exact locality, [1855], leg. Wollaston (BMNH);
1 ♂, 6 ♀♀ (paralectotypes of *maderensis*), without exact locality, [1855], leg. Wollaston (BMNH);
4 ♂♂, 1 ♀, Assomada, 15.VI.1969, leg. Pinker (LSNK);
11 ♂♂, 5 ♀♀, Somada, [1969], leg. Pinker (LSNK);
1 ♂, 1 ♀, Camacha, [1969], leg. Pinker (LSNK);
3 ♂♂, 1 ♀, Santo da Serra, [1969], leg. Pinker (LSNK);
1 ♀, Serra de Água, [1969], leg. Pinker (LSNK);
3 ♂♂, 2 ♀♀, Funchal, [1969], leg. Pinker (LSNK);
1 ♂, 1 ♀, Funchal Lido, 20-25.I.1970, leg. N. L. Wolff, genit. slide ♀ 3848 Wolff (ZMUC);
1 ♂, 2 ♀♀, Funchal Lido, at light, 20-31.V.1970, leg. N. L. Wolff, genit. slides ♂ 3829, ♀ 3846, and ♀ 3847 Wolff (ZMUC);
1 ♂, 1 ♀, Funchal, 21.XII.1971, leg. Karvonen (ZMUH);
4 ♂♂, 3 ♀♀, Funchal Lido, at light, 20-30.IV.1972, leg. N. L. Wolff, genit. slides ♂ 3874 and ♀ 4197 Wolff (ZMUC);
1 ♂, 6 ♀♀, Funchal Lido, ult.nov. 1972, leg. Lundqvist & Wolff (ZMUC);
1 ♂, Paul da Serra, 8.IX.1973, leg. N. L. Wolff, genit. slide ♂ 4207 Wolff (ZMUC);
2 ♀♀, Serra de Água, 660 m, 7.IX.1973, leg. Lomholdt & Wolff (ZMUC);
3 ♂♂, 9 ♀♀, Funchal Lido, 4-17.IX.1973, leg. N. L. Wolff, genit. slide ♂ 4208 Wolff (ZMUC);
2 ♂♂, 2 ♀♀, Funchal Lido, 17-22.IV.1974, leg. N. L. Wolff (ZMUC);
2 ♂♂, 6 ♀♀, Funchal Lido, 13-26.VIII.1974, leg. N. L. Wolff (ZMUC);
4 ♀♀, Funchal Lido, 14-25.VIII.1974, leg. E. Traugott-Olsen (ZMUC);
1 ♀, Machico, 12.IX.1974, leg. W. Dierl (ZSM);
1 ♀, Fajã do Nogueira, 1000 m, 23.VIII.1974, leg. E. Traugott-Olsen (ZMUC);
8 ♂♂, 3 ♀♀, Pousada dos Vinhaticos, Serra d'Água, 600 m, 15-16.VIII.1974, leg. N. L. Wolff (ZMUC);
5 ♂♂, 7 ♀♀, Pousada dos Vinhaticos, Serra d'Água, 600 m, 15-19.VIII.1974, leg. E. Traugott-Olsen (ZMUC);

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10 ♂♂, 1 ♀, Pousada dos Vinhaticos, Serra d'Água, 660 m, 31.VIII.1975, leg. N. L. WOLFF (ZMUC);
1 ♀, Pousada dos Vinhaticos, Serra d'Água, 650 m, 15-16.VI.1976, leg. N. L. WOLFF (ZMUC);
1 ♀, Funchal Lido, 11.VI.1976, leg. N. L. WOLFF (ZMUC);
4 ♂♂, 2 ♀♀, Fajã do Nogueira, 600 m, 14-15.IX.1977, leg. LOMHOLDT & WOLFF (ZMUC);
2 ♂♂, 2 ♀♀, Caniço, 12-18.IX.1977, leg. LOMHOLDT & WOLFF (ZMUC);
1 ♂, Ponta de São Lourenço, 100 m, 15.IX.1977, leg. LOMHOLDT & WOLFF (ZMUC);
3 ♂♂, Ponta de São Lourenço, 100 m, bred 10.X.1977, ex Polygonum maritimum, exp. Bot. Mus. Copenhagen (ZMUC);
3 ♀♀, [without exact locality], 13-19.XI.1977, leg. H. K. JENSEN (ZMUC);
2 ♂♂, Caniçal, 200 m, 19.II.1979, leg. O. KARSHOLT (ZMUC);
1 ♂, 2 ♀♀, Natur bei Machico, 18.IV.-2.V.1982, leg. D. STÜNING (ZFMK);
3 ♀♀, Serra da Picolade, Ponta de São Lourenço, 80 m, L.F., 4.VII.1991, leg. M. MEYER (MEY);
10 ♂♂, 2 ♀♀, Encumeada, 1000 m, 16-18.VI.1993, leg. O. KARSHOLT (ZMUC, ZIAN);
1 ♂, Faial, sea lev., 21.VI.1993, leg. O. KARSHOLT (ZMUC);
1 ♂, Achadas da Cruz, 725 m, 8.VII.1993, leg. O. KARSHOLT (ZMUC);
2 ♀♀, Machico, sea lev., 27.VI.1993, leg. O. KARSHOLT (ZMUC);
2 ♂♂, 1 ♀, above Madalena do Mar, 780 m, 29.VI.1993, leg. O. KARSHOLT (ZMUC);
1 ♂, Paul da Serra, 1550 m, 14.VI.1993, leg. O. KARSHOLT (ZMUC);
6 ♂♂, 4 ♀♀, Paul da Serra, 1350 m, 6.VII.1993, leg. O. KARSHOLT (ZMUC, ZIAN);
3 ♂♂, 1 ♀, below Pico Arieiro, 1600 m, 15.VI.1993, leg. O. KARSHOLT (ZMUC);
15 ♂♂, 10 ♀♀, Ponta do Sol, sea lev., 12-17.VI.1993, leg. O. KARSHOLT (ZMUC, ZIAN);
2 ♂♂, 3 ♀♀, Ponta do Sol, sea lev., 29.VI.-2.VII.1993, leg. O. KARSHOLT (ZMUC);
14 ♂♂, 35 ♀♀, Ponta de São Lourenço, sea lev., 21-24.VI.1993, leg. O. KARSHOLT (ZMUC, ZIAN);
1 ♂, 3 ♀♀, Porto Moniz, sea lev., 5-7.VII.1993, leg. O. KARSHOLT (ZMUC);
3 ♂♂, São Vicente, sea lev., 16.VI.1993, leg. O. KARSHOLT (ZMUC);
3 ♂♂, Serra de Água, 600-640 m, 11-16.VI.1993, leg. O. KARSHOLT (ZMUC);
12 ♂♂, 48 ♀♀, str. Paul da Serra - Canhas, 750 m, at light, 1.X.1993, leg. G. BASSI (MRSN);
3 ♂♂, 15 ♀♀, dint. Poiso, 1200 m, at light, 2.X.1993, leg. G. BASSI (MRSN);
2 ♀♀, Cabo Girão, 580 m, at light, 6.X.1993, leg. G. BASSI (MRSN);
2 ♂♂, 4 ♀♀, Ponta de São Lourenço, sea lev., 3-5.X.1994, leg. O. KARSHOLT (ZMUC);
1 ♂, 1 ♀, Ponta do Sol, sea lev., 16.X.1994, leg. O. KARSHOLT (ZMUC);
1 ♂, 2 ♀♀, Ponta de São Lourenço, sea lev., 28.X.1994, leg. O. KARSHOLT (ZMUC);
3 ♂♂, 4 ♀♀, Porto Moniz, sea lev., 11-14.X.1994, leg. O. KARSHOLT (ZMUC);
1 ♀, Ribeira Brava, sea lev., 18.X.1994, leg. O. KARSHOLT (ZMUC);
1 ♂, Funchal, 20-31.III.1995, leg. L. SIPPOLA (SIP);
2 ♂♂, Funchal Lido, 50 m, 9-14.IX.1997, leg. O. KARSHOLT (ZMUC);
7 ♂♂, 3 ♀♀, Funchal, 27.III.-4.IV.1997, leg. L. SIPPOLA (SIP);

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1 ♀, Paul da Serra, 1400 m, 13.IX.1997, leg. O. Karsholt (ZMUC);
2 ♀♀, Ponta de São Lourenço, 50 m, 17.IX.1997, leg. O. Karsholt (ZMUC);
1 ♂, Curral das Freiras, 850 m, 21.IX.1997, leg. O. Karsholt (ZMUC);
16 ♂♂, 9 ♀♀, 1 km E Prainha, 23.X.1997, leg. Hendriksen (ZMUC);
1 ♂♂, Eira do Serrado, 13 km NW Funchal, 1100 m, 22-25.X.1997, leg. D. Nilsson (ZMUC);
1 ♀, Ponta de São Lourenço, 14.X.1997, leg. B. Skule (ZMUC);
2 ♂♂, 4 ♀♀, Casa do Barreiro, Parque Ecologico do Funchal, 970 m, 21-26.VII.1998, leg. Martin (BMNH);
3 ♀♀, Funchal, Jardim Botânico, 27-29.VII.1998, leg. Martin (BMNH);
1 ♂, Pena, near Funchal (ZMUC);
2 ♂♂, 1 ♀, Funchal, 13.III.1999, leg. H. Hendriksen (ZMUC);
3 ♂♂, Funchal, 25.III.-4.IV.1999, leg. L. Sippola (SIP);
1 ♀, Arco da Calheta, la. 24.I.2001, *Dianthus caryophyllus*, leg. A. Aguiar (ICLAM);
Porto Santo:
7 ♂♂, 17 ♀♀, 23-24.X.1994, leg. O. Karsholt (ZMUC, ZIAN);
3 ♂♂, 3 ♀♀, 12-15.IV.1996, leg. O. Karsholt (ZMUC);
Deserta Grande:
1 ♂, 200-300 m, 21.X.1994, leg. O. Karsholt (ZMUC);
Azores:
2 ♀♀, Graciosa: Pico des Tercas, 25.VIII.1982, leg. Passos de Carvalho (ZMUC);
1 ♀, Graciosa: Lagoa, 24.VIII.1982, leg. Passos de Carvalho (ZMUC);
1 ♀, Pico: Cabeco do Monte, 6.VII.1981, leg. Passos de Carvalho (ZMUC).
Distribution: Madeira, Porto Santo, Deserta Grande; Azores (Passos de Carvalho, 1992; Vieira, 1997).

Bionomy: Three specimens were bred from *Polygonum maritimum* L. (Polygonaceae) and one from *Dianthus caryophyllus* L. (Caryophyllaceae). Adults have been collected from January to December, mainly at sea level and at altitudes up to 800 m; only single specimens can be found up to 1600 m in the mountains.

Remarks: The lectotype of *Coleophora desertarum*, the lectotype of *Pterolonche? maderensis*, the lectotype of *Blastobasis desertarum* var. *radiata*, as well as the holotype of *Coleophora miguelensis* (all studied) undoubtedly belong to the same very variable species.

Blastobasis bassii sp. n.

Material examined: 64 males, 81 females.

Holotype, ♂: '**Madeira**, 850 m, Curral das Freiras, 21.IX.1997 O. Karsholt'; 'Holotypus ♂ *Blastobasis bassii* Karsholt et Sinev ' (ZMUC).

Paratypes: **Madeira**:

1 ♂, without exact locality, [1855], leg. Wollaston (BMNH);
1 ♀, Funchal, 29-31.VIII.1964, leg. Uffen (BMNH);
3 ♂♂, Ribeira das Cales, 1100 m, 29.VIII.1964, leg. Uffen (BMNH);
1 ♂, Ribeira do Alecrim, SW Paul da Serra, 1370 m, 25.VIII.1964, leg. Uffen, genit. slide ♂ BM 10575 (BMNH);

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2 ♂♂, 1 ♀, Camacha, [1969], leg. PINKER (ZMUC);
1 ♂, 5 ♀♀, Serra d'Água, 660 m, 7.IX.1973, leg. LOMHOLDT & WOLFF, genit. slides ♀ 4198, ♂ 4202, ♀ 4210, ♀ 4211, and ♀ 4212 WOLFF (ZMUC);
1 ♂, Funchal-Lido, 20.VIII.1974, leg. E. TRAUGOTT-OLSEN (ZMUC);
3 ♀♀, Pousada dos Vinhaticos, Serra d'Água, 600 m, 15-19.VIII.1974, leg. E. TRAUGOTT-OLSEN (ZMUC);
1 ♂, 1 km NE Pico Alto, 1100 m, 17.VIII.1974, leg. E. TRAUGOTT-OLSEN (ZMUC);
1 ♂, 4 ♀♀, Fajã da Nogueira, 1000 m, 23-24.VIII.1974, leg. E. TRAUGOTT-OLSEN (ZMUC);
1 ♂, 2 ♀♀, Pico Ruivo, 1800 m, 29.VIII.1975, leg. N. L. WOLFF, genit. slide ♀ 0227/ SINEV (ZMUC);
1 ♂, Caniçal, 3.IX.1980, leg. PASSOS DE CARVALHO & LUIS DE CAMOES (ZMUC);
2 ♂♂, 2 ♀♀, Natur bei Machico, 18.IV.-2.V.1982, leg. D. STÜNING (ZFMK);
2 ♂♂, Machico, 20-25.v.1989, leg. A. COX (COX, WOLS);
1 ♂, 1 ♀, Santa Madalena, SW Porto Moniz, 600 m, 9.VII.1991, leg. M. MEYER (MEY);
1 ♂, Serra d'Água, 640 m, 11.VI.1993, leg. O. KARSHOLT (ZMUC);
2 ♀♀, Encumeada, 1000 m, 16-17.VI.1993, leg. O. KARSHOLT (ZMUC);
2 ♂♂, 2 ♀♀, Fonte de Bispo, 1050 m, 7.VII.1993, leg. O. KARSHOLT, genit. slide ♂ 0226/SINEV (ZMUC);
2 ♀♀, str. Porto Moniz - Paul da Serra, 600 m, lux, 6.X.1993, leg. G. BASSI (MRSN);
14 ♂♂, 10 ♀♀, dint. Serra de Água, 600 m, lux, 9.X.1993, leg. G. BASSI (MRSN);
25 ♂♂, 35 ♀♀, Curral das Freiras, 850 m, 20-21.IX.1997, leg. O. KARSHOLT (ZMUC, ZIAN);
1 ♂, Eira do Serrado, 1450 m, 15.X.1997, leg. B. SKULE (ZMUC);
Porto Santo:
5 ♂♂, 10 ♀♀, 14-15.IV.1996, leg. O. KARSHOLT (ZMUC, ZIAN).

Adult (figs 4-5). Wingspan 12-15 mm. Head brownish mottled with light brown and blackish. Scape of antenna yellow mottled with brown; flagellum dark brown, with deep basal notch in male. Labial palpi slender, light yellowish mottled with blackish brown; segment 3 short. Thorax and tegulae as forewing; face lighter. Forewing elongate, apically rather pointed, brownish mottled with light brown and blackish; a longitudinal, sinuate light yellowish streak from base along costa and then through middle of wing to 4/5, partly edged with blackish; tornal and subapical spots blackish; two black dots at end of the sinuate streak; fringes grey, lighter towards tornus. Hindwing rather lanceolate, apically pointed; fringes grey with yellow base.

Variation. In some specimens the sinuate yellowish streak is whitish, and it can be reduced to an oblique light spot in the middle of the wing (such specimens often have additional black dots in the forewings); rarely the sinuate yellowish streak is absent.

Similar species. The longitudinal, sinuate light streak is unique among Madeiran Blastobasidae. Specimens of *bassii* where this streak is reduced or absent may easily be confused with specimens of *adustella* which is normally larger and with more light scales at dorsum, *vittata* which has broader wings (segment 3 of labial palpi is also longer in these two than in *bassii*), or with *maroccanella* which is normally smaller and darker. In cases of doubt genitalia should be examined.

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Male genitalia (fig. 56): Uncus gradually narrowing to apex. Gnathos with well developed not bifurcate median protrusion. Basal pillow of valva covered with microtrichiae; its ventral margin angularly convex in middle, with short setae. Aedeagus rather narrow, with more or less cylindric apex.

Female genitalia (fig. 80): Apophyses posteriores four times as long as apophyses anteriores. Sternite VIII with more or less distinct linear median sclerotization. Posterior margin of sternite VII straight. Intersegmental membrane with a scarcely visible small field of microtrichiae at each side of ostium. Ductus bursae much shorter than in *B. desertarum*, with distinctly spined part before corpus bursae. Corpus bursae medium-sized and rounded; signum absent.

Distribution: Madeira, Porto Santo (endemic).

Bionomy: Early stages unknown. The flight period extends from April to October. The moths can be found mainly at altitudes over 600 m, with maximum of specimens collected between 800 and 1000 m.

Etymology: The new species is named in honour to Dr. GRAZIANO BASSI, who collected a considerable part of the type series.

Blastobasis lavernella WALSINGHAM, 1894

Blastobasis lavernella WALSINGHAM, 1894: 547; REBEL, 1901: 163; 1910: 331, footnote (as cavernella), 355, pl. 12, fig. 2; 1917: 12; 1940a: 13 (key), 15; 1940b: 7; 1940c: 56; BRADLEY, 1958: 194; GARDNER & CLASSEY, 1960: 203; KLIMESCH, 1986: 321; PASSOS DE CARVALHO, 1995: 563, 577.

Adult (figs 6-7). Wingspan 11-17 mm. Head and scape of antenna yellowish mottled with ochreous; flagellum dark brown, with deep basal notch in male. Labial palpi slender, yellowish mottled with ochreous. Thorax and tegulae as forewing. Forewing relatively slender, yellowish mottled with orange and with dark brown markings: a thin, interrupted streak from base of dorsum to costa at 1/3 and one from dorsum at 1/3 to costa at 3/5; a dark brown streak from tornus pointing towards dark brown spot at costa at 2/3 but interrupted before that; an angulated dark brown subapical line; termen with dark brown spots; fringes yellowish grey beyond dark brown fringe line. Hindwing rather slender, light grey with yellowish grey fringes.

Variation. Specimens from Porto Santo are smaller (wingspan 10-15 mm) and have the yellowish thorax, tegulae and forewings mottled with dark brown instead of orange, making such specimens look darker.

Similar species. The only other Madeiran *Blastobasis* with yellowish forewings with orange scales, *decolorella* is larger, has broader wings and only one (but more prominent) oblique fascia in the forewing.

Male genitalia (fig. 57): Uncus gradually narrowing to apex. Gnathos with well developed not bifurcate median protrusion. Basal pillow of valva covered with microtrichiae; its ventral margin more or less uniformly convex, with short row of small setae. Aedeagus slightly narrowing to blunt cylindric apex.

Female genitalia (fig. 81): Apophyses posteriores three times as long as apophyses anteriores. Sternite VIII without median sclerotization. Posterior margin of sternite VII concave. Intersegmental membrane with a weakly developed field of microtrichiae at each side of

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ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae large and oval; signum hook-shaped with widely triangular base.

Material examined:

♂ (without abdomen), Lectotype of *Blastobasis lavernella* WLSM., designated here: 'Lectotype'; 'Type'; 'Madeira, B[ETHUNE]-BAKER Coll. 13660'; 'WALSINGHAM Collection, 1910-427'; '*Blastobasis lavernella*, WLSM. Tr. Ent. Soc. Lond. 1894. 547 / Type ♂ descr.'; 'Lectotypus ♂ *Blastobasis lavernella* WALSINGHAM, 1894, design. KARSHOLT et SINEV' (BMNH). Paralectotypes (2 ♂♂) are in the same collection.

Other material: Madeira:

2 ♂♂ (paralectotypes), without exact locality, [1855], leg. WOLLASTON, genit. slide ♂ BM 1660 (BMNH);
1 ♂, Funchal, 1-8.V., leg. (ZMUH);
1 ♀, Assomada, 15.VI.1969, leg. PINKER (LSNK);
1 ♂, Somada, [1969], leg. PINKER (LSNK);
1 ♀, Santo da Serra, [1969], leg. PINKER (LSNK);
1 ♂, 1 ♀, Funchal-Lido, at light, 20-25.I.1970, leg. N. L. WOLFF, genit. slide ♀ 3857 WOLFF (ZMUC);
3 ♂♂, 3 ♀♀, Funchal-Lido, at light, 20-31.V.1970, leg. N. L. WOLFF, genit. slide ♂ 3831 WOLFF (ZMUC);
1 ♂, Funchal-Lido, at light, 20-30.IV.1972, leg. N. L. WOLFF (ZMUC);
5 ♂♂, 1 ♀, Funchal-Lido, ult.nov.1972, leg. LUNDQVIST & WOLFF, genit. slide ♂ 0225/ SINEV (ZMUC);
3 ♂, 4 ♀, Funchal-Lido, 4-17.IX.1973, leg. N. L. WOLFF (ZMUC, ZIAN);
1 ♀, Funchal-Lido, 17-22.IV.1974, leg. N. L. WOLFF (ZMUC);
1 ♂, Funchal-Lido, 18-22.VIII.1974, leg. N. L. WOLFF (ZMUC);
4 ♂♂, 2 ♀♀, Funchal-Lido, 21-26.VIII.1974, leg. E. TRAUGOTT-OLSEN (ZMUC);
1 ♀, Fajã da Nogueira, 1000 m, 24.VIII.1974, leg. E. TRAUGOTT-OLSEN (ZMUC);
1 ♀, Funchal-Lido, 21.VIII.1975, leg. N. L. WOLFF (ZMUC);
1 ♂, Santa Cruz, 25 m, 24.II.1979, leg. O. KARSHOLT (ZMUC);
1 ♂, 1 ♀, Natur bei Machico, 23.IV.-2.V.1982, leg. D. STÜNING (ZFMK);
2 ♂♂, 2 ♀♀, Ponta do Sol, sea lev., 12-17.VI.1993, leg. O. KARSHOLT (ZMUC, ZIAN);
1 ♂, Serra d'Água, 580 m, 2.VII.1993, leg. O. KARSHOLT (ZMUC);
1 ♂, Porto Moniz, sea lev., 7.VII.1993, leg. O. KARSHOLT (ZMUC);
1 ♀, Ribeira da Janela, 1300 m, 14.IX.1994, leg. O. KARSHOLT (ZMUC);
1 ♂, Porto Moniz, sea lev., 9.X.1994, leg. O. KARSHOLT (ZMUC);
1 ♂, 2 ♀♀, Ponta do Sol, sea lev., 16.X.1994, leg. O. KARSHOLT (ZMUC);
1 ♀, Funchal, 27.III.-4.IV.1997, leg. L. SIPPOLA (SIP);
1 ♂, Funchal-Lido, 50 m, 19.IX.1997, leg. O. KARSHOLT (ZMUC);
2 ♂♂, Funchal, 21-22.X.1997, leg. HENDRIKSEN (ZMUC);
3 ♂♂, 1 ♀, Funchal, 50 m, 20-26.X.1997, leg. D. NILSSON (ZMUC);
1 ♂, Funchal, 50 m, 20-22.XI.2001, leg. O. KARSHOLT (ZMUC);
1 ♂, São Viciente, sea lev., 24.XI.2001, leg. O. KARSHOLT (ZMUC);

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Porto Santo:
1 ♂, 7 ♀♀, 23-24.X.1994, leg. O. KARSHOLT (ZMUC, ZIAN);
6 ♂♂, 3 ♀♀, 12-14.IV.1996, leg. O. KARSHOLT (ZMUC, ZIAN).
Distribution: Madeira, Porto Santo (probably endemic). The single record from the Canary Is. (REBEL, 1910) is doubted by KLIMESCH (1986) and should be verified.

Bionomy: Early stages unknown. Moths have been found in all months except December, but most specimens have been collected in April - May and August - September (probably in two generations). The moths are abundant in the coastal zone, and very few specimens were found higher in the mountains up to 1300 m.

Blastobasis decolorella (WOLLASTON, 1858), sp. rev.

Laverna? decolorella WOLLASTON, 1858: 122; WALKER, 1864: 885.
Blastobasis decolorella: WALSINGHAM, 1894: 548; REBEL & ROGENHOFER, 1894: 92; REBEL, 1917: 12; 1940a: 13 (key), 15, pl. 3, fig. 26; 1940b: 7; BRADLEY, 1958: 194; GARDNER & CLASSEY, 1960: 203; PASSOS DE CARVALHO, 1995: 564, 577.

Adult (figs 8-9). Wingspan 13-22 mm. Head yellowish; scape of antenna of same colour as palpi; flagellum brownish, with deep basal notch in male. Labial palpi rather slender, yellowish mottled with ochreous. Thorax and tegulae as forewing. Forewing rather broad, rounded at apex, yellowish overlaid with orange; an oblique dark brown fascia from dorsum at 1/3 to costa at 3/5; another such fascia from tornus to shortly before costa at 3/5; an indistinct angulated dark brown subapical fascia; fringes grey beyond blackish grey fringe line. Hindwing rather broad, rounded at apex, grey with yellowish grey fringes.

Variation. In some specimens the forewings are more or less without orange scales, having indistinct ochreous markings.

Similar species. *B. decolorella* is normally recognized by its ochreous-orange forewings with a prominent oblique transverse fascia. Light specimens without orange in the forewings can be confused with *luteella* (q.v.) and *lacticolella* which lack the oblique transverse fascia in the forewing. *B. lavernella* q.v.

Male genitalia (fig. 58): Uncus gradually narrowing to apex. Gnathos with weakly developed and very shortly bifurcate median protrusion. Basal pillow of valva covered with microtrichiae; its ventral margin more or less uniformly convex, with short row of setae. Aedeagus rather massive, with well sclerotized widened and flattened apex bearing peculiar lateral teeth.

Female genitalia (fig. 82): Apophyses posteriores more than three times as long as apophyses anteriores. Sternite VIII without median sclerotization. Posterior margin of sternite VII slightly concave. Intersegmental membrane with a well developed field of microtrichiae at each side of ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae large and oval; signum hook-shaped with very widely triangular base.

Material examined:

♂ (abdomen missing), Lectotype of *Laverna? decolorella* WOLL., designated here: 'Lectotype'; 'Type'; '8'; 'Madeira [Madeira proper]: 1858 WOLLASTON, B.M. 1858-21'; 'XXXV'; '*Laverna(?) decolorella*, WLSTN. Ann. Mus. NH (3 s.). I. 122 (1858) Madeira /

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Type XXXV'; 'Lectotypus ♂ *Laverna? decolorella* WOLLASTON, 1858, design. KARSHOLT et SINEV' (BMNH). Paralectotype (♀) is in the same collection.

Other material: Madeira:

1 ♀ (paralectotype), without exact locality, [1858], leg. WOLLASTON (BMNH);
2 ♂♂, Santo da Serra, 13.VII. and 25.VIII.1935, leg. LINACK (LSNK);
1 ♂, 1 ♀, Santo da Serra, [1969], leg. PINKER (LSNK);
1 ♂, Funchal, [1969], leg. PINKER, genit. slide 4194 WOLFF (LSNK);
3 ♂♂, 3 ♀♀, Assomada, 15.VI.1969, leg. PINKER (LSNK);
2 ♂♂, Funchal-Lido, at light, 20-31.V.1970, leg. N. L. WOLFF, genit. slides ♂ 3820, ♂ 3825 WOLFF (ZMUC);
4 ♂♂, 1 ♀, Funchal-Lido, at light, 20-30.IV.1972, leg. N. L. WOLFF, genit. slide ♂ 0224/SINEV (ZMUC);
2 ♂♂, 1 ♀, Funchal-Lido, ult. nov. 1972, leg. LUNDQVIST & WOLFF (ZMUC);
2 ♂♂, 1 ♀, Funchal-Lido, 4-17.IX.1973, leg. N. L. WOLFF (ZMUC);
1 ♂, 1 ♀, Funchal-Lido, 17-22.IV.1974, leg. N. L. WOLFF (ZMUC);
2 ♂♂, 5 ♀♀, Funchal-Lido, 13-18.VIII.1974, leg. E. TRAUGOTT-OLSEN, genit. slide ♀ 0223/SINEV (ZMUC);
1 ♂, 3 ♀♀, Funchal-Lido, 18-26.VIII.1974, leg. N. L. WOLFF (ZMUC);
2 ♂, 1 ♀, Fajã da Nogueira, 1000 m, 23-24.VIII.1974, leg. E. TRAUGOTT-OLSEN (ZMUC);
1 ♂, Pousada dos Vinhaticos, Serra d'Água, 660 m, 31.VIII.1975, leg. N. L. WOLFF (ZMUC);
2 ♂♂, Pousada dos Vinhaticos, Serra d'Água, 650 m, 15-16.VI.1976, leg. N. L. WOLFF (ZMUC);
3 ♂♂, 1 ♀, Queimadas, 900 m, 9.V.1977, leg. N. L. WOLFF (ZMUC);
1 ♂, Caniço, ca.100 m, 18.II.1979, leg. O. KARSHOLT (ZMUC);
1 ♂, Poiso, 1400 m, 13.V.1989, leg. M. HELLERS (MEY);
1 ♂, 1 ♀, Fajã da Nogueira, 700 m, at light, 5.VII.1991, leg. M. MEYER (MEY);
2 ♀♀, Chão da Ribeira, 430 m, 14.VII.1991, leg. M. MEYER (MEY);
3 ♀♀, Santa Madalena, SW Porto do Moniz, 600 m, 9.VII.1991, leg. M. MEYER (MEY);
2 ♂♂, 3 ♀♀, Encumeada, 1000 m, 16-18.VI.1993, leg. O. KARSHOLT (ZMUC, ZIAN);
1 ♂, Seixal, 100 m, 1.VII.1993, leg. O. KARSHOLT (ZMUC);
1 ♂, Ponta do Sol, sea lev., 2.VII.1993, leg. O. KARSHOLT (ZMUC);
1 ♂, 2 ♀♀, Serra d'Água, 600-640 m, 11-16.VI.1993, leg. O. KARSHOLT (ZMUC, ZIAN);
8 ♂♂, 3 ♀♀, Serra d'Água, 580 m, 1-2.VII.1993, leg. O. KARSHOLT (ZMUC, ZIAN);
1 ♂, 1 ♀, dint. Serra de Água, 600 m, at light, 9.X.1993, leg. G. BASSI (MRSN);
1 ♀, Str. Paul da Serra - Canhas, 750 m, at light, 1.X.1993, leg. G. BASSI (MRSN);
1 ♀, Achadas da Cruz, 700 m, 10.X.1994, leg. O. KARSHOLT, genit. slide ♀ 0222/SINEV (ZMUC);
2 ♂♂, Ribeira da Janela, 600 m, 20-21.IV.1996, leg. O. KARSHOLT (ZMUC);
1 ♀, Santana, 530 m, 17-20.IV.1996, leg. O. KARSHOLT (ZMUC);
1 ♂, Funchal, San Antonio, la. 26.IX.1996, *Vitis* sp., leg. A. AGUIAR (ICLAM);

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1 ♀, Funchal-Lido, 50 m, 18.IX.1997, leg. O. Karsholt (ZMUC);
3 ♂♂, 4 ♀♀, Funchal, Jardim Botânico, 27-29.VII.1998, leg. Martin (BMNH);
1 ♂, 8 ♀♀, Casa do Barreiro, Parque Ecologico do Funchal, 970 m, 20-26.VII.1998, leg. Martin (BMNH);
1 ♀, Fajã da Nogueira, 650 m, 13.X.1997, leg. B. Skule (ZMUC);
2 ♀♀, Funchal, 50 m, 20-26.X.1997, leg. D. Nilsson (ZMUC);
1 ♀, Eira do Serrado, 1100 m, 22-25.X.1997, leg. D. Nilsson (ZMUC);
1 ♂, Forneira, Jardim da Serra, 16.IV.1998, leg. A. Aguiar (ICLAM).
1 ♀, Camacha, 20-26.XI.2001, 600 m, leg. O. Karsholt (ZMUC);
2 ♀♀, Funchal, 50 m, 30.XI.-1.XII.2001, leg. O. Karsholt (ZMUC).

Distribution: Madeira (endemic).

Bionomy: One specimen was bred from a larva feeding on grapes (*Vitis* sp.). The flight period is from the middle of February to early December. The species can be found up to 1000 m in the mountains, but most collection sites and specimens are from the coastal zone between 0 and 200 m.

Remarks: The lectotype of this species (studied) is not conspecific with *B. decolorella* sensu auctt. (Ford, 1949, 1958; Wakely, 1954, 1958; Jacobs, 1974; Jacobs et al., 1978; Emmet, 1979, 1991; Alford, 1980, 1987; Flegg, 1981, 1982; Carter, 1984; Easterbrook, 1985; Agassiz et al., 1995; Svensson, 1997; Langmaid & Young, 1999; Knill-Jones, 2000; Dickson, 2002, etc.). The misidentification is probably a result of incorrect re-description of this species made by Walsingham (1894) basing on the heterogeneous series of specimens and not only the syntypes. All specimens of '*decolorella*' from the British Isles and the continental part of Europe which were re-determined using the genitalia appeared to belong to *B. lacticolella* Rebel (see below). The true *B. decolorella* is known from Madeira only.

Blastobasis luteella sp. n.

Material examined: 67 males, 36 females.

Holotype, ♂: '**Madeira**, Funchal Lido, 20-30.IV.1972 Hg-lys., N.L. Wolff', 'Holotypus ♂ *Blastobasis luteella* Karsholt et Sinev' (ZMUC).

Paratypes: **Madeira**:

3 ♀♀, Funchal, [1855], leg. Wollaston, genit slide ♀ BM 1657 (BMNH);
1 ♀, S[ão].Antonio da Serra [=Santo da Serra], [1855], leg. Wollaston (BMNH);
1 ♂, 2 ♀♀, Funchal, 7-22.XII.1957, leg. Classey & Gardner, genit. slide ♂ BM 4937 (BMNH);
1 ♂, 1 ♀, Assomada, 15.VI.1969, leg. Pinker (LSNK);
1 ♂, [without locality], 21.IV-5.V.1970, genit. slide ♂ 3721 Wolff (ZMUC);
3 ♂♂, Funchal-Lido, at light, 20-31.V.1970, leg. N. L. Wolff (ZMUC);
3 ♂♂, Funchal-Lido, ult.nov.1972, leg. N. L. Wolff (ZMUC);
6 ♂♂, Funchal-Lido, 4-14.IX.1973, leg. N. L. Wolff (ZMUC);
1 ♂, 1 ♀, Funchal-Lido, 20.VIII.1974, leg. E. Traugott-Olsen, genit. slide ♀ 0218/ Sinev (ZMUC);
1 ♂, Machico, VIII.1974, leg. W. Dierl (ZSM);

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1 ♂, 2 ♀♀, Machico, 9-12.IX.1974, W. Dierl (ZSM);
1 ♂, Pousada [dos Vinhaticos], Serra d'Água, 660 m, 31.VIII.1975, leg. N. L. Wolff (ZMUC);
1 ♀, Fajã da Nogueira, 600 m, 27.VIII.1975, leg. N. L. Wolff (ZMUC);
1 ♂, Fajã da Nogueira, 600 m, 9-10.VI.1976, leg. N. L. Wolff (ZMUC);
1 ♂, Funchal, 2-5.V.1977, leg. N. L. Wolff, genit. slide ♂ 0217/Sinev (ZMUC);
1 ♂, Serra d'Água, 650 m, 5.V.1977, leg. N. L. Wolff (ZMUC);
3 ♂♂, 2 ♀♀, Fajã da Nogueira, 14-15.IX.1977, leg. Lomholdt & Wolff (ZMUC, ZIAN);
4 ♂♂, 6 ♀♀, Caniçal, 25 m, larvae 19.II.1979 on *Carpobrotus edule*, leg. O. Karsholt (ZMUC, ZIAN);
1 ♀, Caniçal, 3.IX.1980, leg. Passos de Carvalho & Luis de Camoes (ZMUC);
1 ♂, Serra da Picolade, Ponto do São Lourenço, 80 m, at light, 4.VII.1991, leg. M. Meyer (Mey);
1 ♀, Fajã da Nogueira, 700 m, at light, 5.VII.1991, leg. M. Meyer (Mey);
1 ♂, Fontinhas, N Quinta Grande, 850 m, at light, 6.VII.1991, leg. M. Meyer (Mey);
1 ♂, Chão da Ribeira, 430 m, 14.VII.1991, leg. M. Meyer (Mey);
1 ♀, Funchal, Calçada do Pico, la. 25.III.1992, *Pelargonium ?zonale*, leg. A. Aguiar (ICLAM);
1 ♀, Funchal, Calçada do Pico, la. 16.VII.1992, *Dianthus caryophyllus*, leg. A. Aguiar (ICLAM);
1 ♂, 2 ♀♀, Encumeada, 1000 m, 13-18.VI.1993, leg. O. Karsholt (ZMUC, ZIAN);
1 ♂, Ribeiro Frio, 950 m, 15.VI.1993, leg. O. Karsholt (ZMUC);
1 ♂, 1 ♀, São Vicente, sea lev., 16.VI.1993, leg. O. Karsholt (ZMUC);
1 ♂, Serra d'Água, 600 m, 16.VI.1993, leg. O. Karsholt (ZMUC);
4 ♂♂, 1 ♀, Ponta do São Lourenço, sea lev., 21-23.VI.1993, leg. O. Karsholt (ZMUC, ZIAN);
2 ♂♂, 1 ♀, Machico, sea lev., 27.VI.1993, leg. O. Karsholt (ZMUC);
1 ♂, Porto Moniz, sea lev., 5.VII.1993, leg. O. Karsholt (ZMUC);
1 ♂, 1 ♀, Achadas da Cruz, 725 m, 8.VII.1993, leg. O. Karsholt (ZMUC, ZIAN);
1 ♂, Cabo Girão, 580 m, at light, 6.X.1993, leg. G. Bassi (MRSN);
1 ♂, 1 ♀, dint. Serra de Água, 600 m, at light, 9.X.1993, leg. G. Bassi (MRSN);
1 ♀, Ponta do São Lourenço, sea lev., 4.X.1994, leg. O. Karsholt (ZMUC);
1 ♀, Funchal, Travessa Cruz de Carvalho, la. 29.V1995, *Pelargonium ?zonale*, leg. A. Aguiar (ICLAM);
1 ♂, 5 km E São Vicente, 10 m, 19.IV.1996, leg. O. Karsholt (ZMUC);
1 ♀, Porto Moniz, sea lev., 19-22.IV.1996, leg. O. Karsholt (ZMUC);
1 ♂, Funchal, 27.III.-4.IV.1997, leg. L. Sippola (SIP);
1 ♀, Encumeada, 900 m, 13.IX.1997, leg. O. Karsholt (ZMUC);
1 ♂, 1 ♀, Funchal-Lido, 50 m, 14-18.IX.1997, leg. O. Karsholt (ZMUC);
1 ♂, Ponta do São Lourenço, 50 m, 17.IX.1997, leg. O. Karsholt (ZMUC);
1 ♂, Fajã da Nogueira, 600 m, 18.IX.1997, leg. O. Karsholt (ZMUC);
5 ♂♂, Funchal, 21-24.X.1997, leg. Hendriksen (ZMUC);
1 ♀, Funchal, Jardim Botânico, 27.VII.1998, leg. Martin (BMNH);
2 ♂♂, Ponta de São Lourenço, 14.X.1997, leg. B. Skule (ZMUC);
1 ♂, Funchal, 50 m, 20-26.X.1997, leg. D. Nilsson (ZMUC);

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1 ♂, Pico, Santana, 398 m, 12.V.1998, leg. J. Jesus (ICLAM);
1 ♂, Santana, Barreiro, la. 18.VI.1998, *Dianthus caryophyllus*, leg. A. Aguiar (ICLAM);
1 ♀, Funchal, 25.III.-4.IV.1999, leg. L. Sippola (SIP);
1 ♂, 2 ♀♀, Arco da Calheta, la. 24.I.2001, *Dianthus caryophyllus*, leg. A. Aguiar (ICLAM);
1 ♂, Funchal, 29.III.2002, leg. L. Sippola (SIP);
Porto Santo:
1 ♂, 2 ♀♀, 23-24.X.1994, leg. O. Karsholt, genit. slides ♂ 0219/Sinev, ♀ 0220/ Sinev (ZMUC);
3 ♂♂, 13-16.IV.1996, leg. O. Karsholt, genit. slide ♂ 0221/Sinev (ZMUC, ZIAN);
Azores:
1 ♂, São Miguel: Furnas, 11.V.-3.VI.1969, leg. Pinker (LSNK).

Adult (figs 10-12). Wingspan 13-22 mm. Head cream with light ochreous crown. Scape of antenna light ochreous; flagellum brown, with deep basal notch in male. Segment 2 of labial palpi anteriorily widened by scale brush, cream on inner and upper surface, ochreous on lower and outer surface. Thorax and tegulae as forewing. Forewing rather broad, light ochreous mottled with dark ochreous; an indistinct outwards directed brown fascia from dorsum at 1/3 not reaching costa and a similar, angulated subapical fascia; between these two fasciae three indistinct ochreous spots, two of which are placed anteriorily to the third and often confluent; a thin white streak along costa from 1/5 to 3/5; fringes light ochreous, becoming yellowish towards tornus, without fringe line. Hindwing rather broad, apically rounded, light grey with light yellowish grey fringes.

Variation. The colour of the forewing varies, even in a series of specimens bred from the same spot, from light yellowish to ochreous, the transverse bands in the forewings being most distinct in the ochreous specimens.

Similar species. The thin white streak along costa from 1/5 to 3/5 is characteristic for this species. *B. decolorella* (q.v.), *B. lacticolella* (q.v.).

Male genitalia (fig. 59): Uncus gradually narrowing to apex. Gnathos with well developed wide and shortly bifurcate median protrusion. Basal pillow of valva covered with microtrichiae; its ventral margin more or less uniformly convex, with row of strong setae. Aedeagus slightly narrowing to distinctly sclerotized blunt apex with a peculiar ventral hook.

Female genitalia (fig. 83): Apophyses posteriores three times as long as apophyses anteriores. Sternite VIII without median sclerotization. Posterior margin of sternite VII slightly concave. Intersegmental membrane with a well developed field of microtrichiae at each side of ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae very large and oval; signum hook-shaped with more or less equilateral triangular base.

Distribution: Madeira, Porto Santo (probably endemic). A single specimen from Azores is very probably mislabelled (Aguiar & Karsholt, in press).

Bionomy: A series of moths has been bred from larvae collected in February on dead leaves of *Carpobrotus edulis* (L.) N.E. (Aizoaceae). Single specimens were also bred from *Pelargonium ?zonale* (L.) L'Hér. (Geraniaceae) and *Dianthus caryophyllus* L.

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(Caryophyllaceae). The moths have been collected from March to December at a altitudes from sea level up to 1000 m, but most commonly at low altitudes.

Etymology: The name of the new species is derived from Latin: *luteus* = yellow, and emphasizes the peculiar coloration of this moth.

Blastobasis lacticolella REBEL, 1940

Blastobasis lacticolella REBEL, 1940a: 13 (key), 14; 1940b: 7; PASSOS DE CARVALHO, 1995: 577.

Blastobasis decolorella auct. (not WOLLASTON, 1858: 122): FORD, 1949: 113; 1958: 11; BRADLEY, 1958: 194; WAKELY, 1958: 164, 219; BRADLEY et al., 1972: 24; CHIPPERFIELD, 1978: 19; JACOBS et al., 1978: 27; EMMET, 1979: 133; ALFORD, 1980: 145; FLEGG, 1981: 98; 1982: 102; CARTER, 1984: 109; EASTERBROOK, 1985: 167; ALFORD, 1987: 140; EMMET, 1991: 134; O'KEEFFE, 1991: 282; ZHANG, 1994: 103; AGASSIZ et al., 1995: 215; PASSOS DE CARVALHO, 1995: 564, 577; SVENSSON, 1997: 37, figs 44-45; LANGMAID & YOUNG, 1999: 113; KNILL-JONES, 2000: 74; DICKSON, 2002: 202, pl. 6, figs 1-3.

Adult (figs 13-15). Wingspan 15-23 mm. Head cream yellowish. Scape of antenna light yellowish; flagellum dark brown, with deep basal notch in male. Segment 2 of labial palpi anteriorily widened by scale brush, cream, on lower and outer surface mottled with blackish brown; segment 3 yellowish cream. Thorax and tegulae cream yellowish. Forewing rather broad, pale yellowish mottled with ochreous brown and fuscous; a blackish brown patch at dorsum at 2/5; dark brown subapical and tornal spots sometimes connected by indistinct angulated fascia; black dots in middle of wing at 2/5, 3/5 and two, often confluent, dots at 4/5; termen with blackish brown dots; fringes light grey with dark grey fringe line. Hindwing rather broad, apically rounded, grey with grey, yellow-based fringes.

Variation. A rather variable species. The forewings may be more or less overlaid with ochreous brown or fuscous, blurring the dark patches. Some specimens have a light yellowish angulated fascia at 1/3 in the forewing.

Similar species. The pale yellowish forewings with a blackish brown patch at dorsum at 2/5 is characteristic for *lacticolella*. It lacks the white streak along costa found in *luteella*. *B. decolorella* q.v.

Male genitalia (fig. 60): Uncus gradually narrowing to apex. Gnathos with well developed wide and indistinctly bifurcate median protrusion. Basal pillow of valva covered with microtrichiae; its ventral margin strongly convex, with row of strong setae. Aedeagus slightly narrowing in middle, with rather wide blunt apex.

Female genitalia (fig. 84): Apophyses posteriores three times as long as apophyses anteriores. Sternite VIII without median sclerotization. Posterior margin of sternite VII nearly straight. Intersegmental membrane with a more or less well developed field of microtrichiae at each side of ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae large and oval; signum hook-shaped with widely triangular base.

Material examined:

Neotype, ♂: '**Madeira**, 600 m, Ribeira da Janela, 20-21.IV.1996 O. KARSHOLT'; 'Neotype ♂ *Blastobasis lacticolella* REBEL, 1940, design. KARSHOLT et SINEV' (ZMUC). [Holotype (♀) of *Blastobasis lacticolella* RBL. (Caramujo, 1250 m, 6.-14.VIII.1935 LUNDBLAD leg.) is lost.]

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Other material: Madeira:

2 ♂♂, 3 ♀♀, Funchal, [1855], leg. Wollaston (BMNH);
1 ♂, 2 ♀♀, S.Antonio da Serra [=Santo da Serra], [1855], leg. Wollaston (BMNH);
3 ♂♂, 1 ♀, (without exact locality), V.1886, leg. Leech, genit. slide ♂ BM 1658 (BMNH);
2 ♂♂, Funchal, [1969], leg. Pinker, genit. slides ♂ 4149, ♂ 4189 Wolff (LSNK);
3 ♂♂, Queimadas, 5 km SW Santana, 900 m, 14-15.VI.1976, leg. N. L. Wolff ZMUC);
1 ♀, Queimadas, 5 km SW Santana, 2.VI.1980, leg. Passos de Carvalho & A. Contente (ZMUC);
1 ♂, Natur bei Machico, 23-28.IV.1982, leg. D. Stüning (ZFMK);
3 ♂♂, Poiso, 1400 m, 13.V.1989, M. Hellers (Mey);
1 ♂, 3 ♀♀, Ribeiro Frio, 900 m, at light, 3.VII.1991, leg. M. Meyer (Mey);
1 ♀, Fontinhas, N Quinta Grande, 850 m, at light, 6.VII.1991, leg. M. Meyer (Mey);
3 ♀♀, Lamaceiros, N Encumeada, 900 m, at light, 11.VII.1991, leg. M. Meyer (Mey);
2 ♂♂, Lapa do Galho, NW Serra de Água, 1000 m, at light, 13.VII.1991, leg. M. Meyer (Mey);
1 ♂, Chão da Ribeira, 430 m, 14.VII.1991, leg. M. Meyer (Mey);
2 ♂♂, 3 ♂♂, Encumeada, 1000 m, 13-18.VI.1993, leg. O. Karsholt (ZMUC, ZIAN);
2 ♀♀, Rabaçal, 1050 m, 14.VI.1993, leg. O. Karsholt (ZMUC);
1 ♂, Ribeiro Frio, 950 m, 15.VI.1993, leg. O. Karsholt (ZMUC);
1 ♂, 1 ♀, Paul da Serra, 1500 m, 16.VI.1993, leg. O. Karsholt (ZMUC);
1 ♀, Queimadas, 5 km SW Santana, 950 m, 19.VI.1993, leg. O. Karsholt (ZMUC);
2 ♂♂, 2 ♀♀, Fajã da Nogueira, 500-700 m, 20.VI.1993, leg. O. Karsholt (ZMUC, ZIAN);
1 ♂, Achada do Teixeira, 1300 m, 22.VI.1993, leg. O. Karsholt (ZMUC);
1 ♂, 1 ♀, Serra d'Água, 580 m, 1-2.VII.1993, leg. O. Karsholt (ZMUC);
1 ♂, 2 ♀♀, Encumeada, 1000 m, 3.VII.1993, leg. O. Karsholt, genit. slides ♀ 0229/ Sinev, ♀ 0230/Sinev (ZMUC, ZIAN);
1 ♂, 1 ♀, below Pico Arieiro, 1600 m, 9.VII.1993, leg. O. Karsholt (ZMUC);
1 ♂, Fajã da Nogueira, 630 m, 7.X.1993, leg. G. Bassi, genit. slide ♂ 0231/Sinev (MRSN);
1 ♂, Fajã da Nogueira, 600-1000 m, 17.IV.1996, leg. O. Karsholt (ZMUC);
1 ♂, Achadas da Cruz, 700 m, 19.IV.1996, leg. O. Karsholt (ZMUC);
4 ♂♂, 4 ♀♀, Ribeira da Janela, 600 m, 20-21.IV 1996, leg. O. Karsholt (ZMUC, ZIAN);
1 ♂, Levada Encumeada to Folhadal, 1000 m, 16.V.1997, *Euphorbia mellifera*, leg. A. Aguiar & J. Jesus (ICLAM);
1 ♂, 3 ♀♀, Casa do Barreiro, Parque Ecologico do Funchal, 970 m, 22.VII.-1.VIII.1998, leg. Martin (BMNH);
1 ♀, Funchal, 25.III.-4.IV.1999, leg. L. Sippola (SIP);

England:

1 ♂, London, Herne Hill, 11.VI.1946, leg. Wakely (BMNH);
1 ♀, ditto, 8.X.1946, leg. Wakely (BMNH);

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1 ♂, ditto, 4.VI.1948, leg. WAKELY (LSNK);
2 ♂♂, ditto, 15.X.1952, leg. FORD (LSNK);
1 ♀, Kent, Folkstone, 6.VI.1971, leg. BRADFORD (ZMUC);
1 ♂, 2 ♀♀, Essex, Rainham, 10.VII.1978, leg. G. S. ROBINSON (ZMUC);
1 ♂, Sussex, Brigton, 15.VII.1988, leg. O. KARSHOLT (ZMUC).

Distribution: Madeira (originally endemic); introduced and established in the British Isles, now widespread in southern England and recorded from Scotland and Sweden.

Bionomy: One specimen was bred from *Euphorbia mellifera*. The flight period extends from the end of March to the beginning of October. The adults have been found from sea level to the high mountains, but mostly at elevations between 800 and 1000 m.

In Britain, the larvae have been found on unrelated pabula, e.g. moss; the dried skin of apples; dead insects; the seed-pods of wild lupin, and on tansy; spongy oak-galls; rose-hips and hawthorn berries; seedheads of hogweed; etc. (CHIPPERFIELD, 1978; O'KEEFFE, 1991; DICKSON, 2002). Potentially serious pest of apple, feeding on fruits, both on the tree and in store, and eating irregular patches in the skin, usually where two fruits touch, or boring deeper holes around the stalk (ALFORD, 1980; JACOBS, 1974; JACOBS et al., 1978; CARTER, 1984; SINEV, 1994).

Remarks: The species was known from a single specimen (holotype), and this specimen is lost; in the collection NHMW only a label on the pin without moth still exists. The misidentification of this species took place during 20th century, and both Madeiran and continental (British and Swedish) specimens were wrongly attributed to *B. decolorella* (see above). This misidentification is probably a result of a mistake by WALSINGHAM (1894) who mentioned "more reddish-ochreous" coloration (the character of true *decolorella*) of the WOLLASTON types on the drawings made by WESTWOOD, but redescribed *B. decolorella* based on the heterogeneous series of specimens including "more prevalent whitish-ochreous or whitish-fawn colour form with brownish and umber spots and scales" (the character of *lacticolella*). We believe it necessary to make a neotype designation in order to define the nominal taxon objectively (ICZN, 1999: Art. 75). A combination of wingspan (18 mm), creamy white colour of the head, thorax and forewings, and characteristic dark spot at the middle of the forewing dorsum, which was mentioned in the original description of REBEL, makes this choice unmistakable.

Blastobasis vittata (WOLLASTON, 1858), comb. n.

Laverna vittata WOLLASTON, 1858: 122; WALKER, 1864: 885; WALSINGHAM, 1894: 554.
Blastobasis lignea WALSINGHAM, 1894: 550; REBEL, 1901: 164; JOURDAN, 1935: 141; REBEL, 1940a: 13 (key), 15, pl. 3, fig. 25; 1940b: 8; 1940c: 40, 56; RUNGS, 1947: 230; BRADLEY, 1958: 194; GARDNER & CLASSEY, 1960: 204; RUNGS, 1979: 67; PASSOS DE CARVALHO, 1982: 176; 1995: 564, 576; VIEIRA, 1997: 15. Syn.n.
Mompha vittata: REBEL, 1917: 12; PASSOS DE CARVALHO, 1995: 578.
Blastobasis flavescentella REBEL, 1940a: 13 (key), 16, pl. 3, fig. 30; 1940b: 8. Syn.n.

Adult (figs 16-21). Wingspan 10-18 mm. Head and scape of antenna brownish; flagellum dark brown, with deep basal notch in male. Labial palpi slender, light grey brown mottled with blackish; segment 3 shorter than half the length of segment 2. Thorax and tegulae of same colour as forewing. Forewing rather elongate with pointed apex, brownish mottled

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with greyish or black; a more or less indistinct angulated blackish fascia at 1/3 (broadest at dorsum), edged with light grey at inner margin; a black dot in middle of wing; black subapical and tornal spots often confluent; black spots along termen; fringes greyish. Hindwing rather elongate with pointed apex, greyish. Tip of abdomen in female yellowish.

Variation. A very variable species with females being most contrastingly marked. Some specimens are more or less uniformly brownish, greyish or blackish coloured (forma *lignea*), whereas others have distinct markings, fasciae and spots in the forewings. One rare form has a blackish longitudinal streak from base to apex on light background in the forewing (*vittata*); another has basal part of forewing black on grey background, resembling somewhat *B. velutina* WALSINGHAM from the Canary Islands.

Similar species. Due to its strong variation *vittata* may be confused with several Madeiran *Blastobasis* species: *B. maroccanella*, *B. bassii*, *B. adustella*, *B. ochreopalpella*, *B. walsinghami*, *B. wolffi*.

Male genitalia (fig. 61): Uncus narrow, finger-shaped. Gnathos with well developed, indistinctly bifurcated median protrusion. Basal pillow of valva covered with microtrichiae; both its dorsal and ventral margins with numerous setae (about 12 setae in two irregular rows at dorsal margin). Aedeagus curved, slightly narrowing caudally; its apex distinctly sclerotized, with short and curved appendage.

Female genitalia (fig. 85): Apophyses posteriores three and a half times as long as apophyses anteriores. Sternite VIII without median sclerotization. Posterior margin of sternite VII slightly concave, with lateral groups of thecae for enlarged scales. Intersegmental membrane with a very well developed field of microtrichiae at each side of ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae medium-sized, oval; signum hook-shaped with more or less equilateral triangular base.

Material examined:

♀, Lectotype of *Laverna vittata* WOLL., designated here: 'Lectotype'; 'Type'; '9'; 'XXXVI'; '[Madeira proper], Brit. Mus. 1858-21'; '*Laverna vittata*, WLSTN. Ann. Mag. NH (3. s.) I. 122 (1858), Madeira / Type XXXVI HD'; 'Lectotypus ♀ *Laverna vittata* WOLLASTON, 1858, design. KARSHOLT et SINEV' (BMNH).

♂ (without abdomen), Lectotype of *Blastobasis lignea* WLSM., designated here: 'Lectotype'; 'Type'; 'Madeira, WOLLASTON, B[ETHUNE]-BAKER Coll. 13681'; 'WALSINGHAM Collection 1910-427'; '*Blastobasis* (B) *lignea*, WLSM. Tr. Ent. Soc. Lond. 1894. 550-1 / Type ♂ descr.'; 'Lectotypus ♂ *Blastobasis lignea* WALSINGHAM, 1894, design. KARSHOLT et SINEV' (BMNH). Paralectotypes (2 ♂♂, 10 ♀♀) are in the same collection; one of them (♀ without abdomen) belongs to *B. ochreopalpella* (WOLL.).

♂, Lectotype of *Blastobasis flavescentella* RBL., designated here: 'Madeira, 1080 m, Rabaçal, 17.VII.-1.VIII.1935 O. LUNDBLAD'; '321/73'; '*Blastobasis flavescentella* RBL. Type'; 'Riksmuseum Stockholm'; '♂ Genit. 4148 NIELS L. WOLFF'; 'Lectotypus ♂ *Blastobasis flavescentella* REBEL, 1940, design. KARSHOLT et SINEV' (NHRS). Paralectotypes (2 ♂♂, 3 ♀♀) are in the same collection; 2 ♀♀ are conspecific with the lectotype, whereas 2 ♂♂ and 1 ♀ belong to *Blastobasis ochreopalpella* (WOLL.).

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Other material: Madeira:

2 ♂♂, 9 ♀♀ (paralectotypes of *lignea*), without exact locality, [1855], leg. WOLLASTON (BMNH);
2 ♀♀ (paralectotypes of *flavescentella*), Rabaçal, 1080 m, 17.VII.-1.VIII.1935, leg. O. LUNDBLAD, genit. slide 4028 WOLFF (NHRS);
1 ♂, Rabaçal, 1080 m, 17.VII.-1.VIII.1935, leg. O. LUNDBLAD, genit. slide ♂ 4030 WOLFF (NHRS);
1 ♀, Caramujo, 6-14.VIII.1935, leg. O. LUNDBLAD (NHRS);
4 ♂♂, 6 ♀♀, Pico Ruivo, 1767 m, 3.IX.1964, leg. UFFEN, genit. slide BM 10574 (BMNH);
1 ♂, Assomada, 15.VI.1969, leg. PINKER (LSNK);
1 ♂, Somada (=Assomada?), [1969], leg. PINKER, genit. slide ♂ 4150 WOLFF (LSNK);
1 ♂, Camacha, [1969], leg. PINKER, genit. slide ♂ 4195 WOLFF (LSNK);
6 ♂♂, Santo da Serra, [1969], leg. PINKER (LSNK);
1 ♂, Ribeiro Frio, 17.VI.1972, leg. ENGHOFF, genit. slide ♂ 3877 WOLFF (ZMUC);
1 ♂, 1 ♀, Pousada dos Vinhaticos, Serra d'Água, 600 m, 15-16.VIII.1974, leg. N. L. WOLFF (ZMUC);
1 ♂, 2 ♀♀, Pousada dos Vinhaticos, Serra d'Água, 600 m, 15-19.VIII.1974, leg. E. TRAUGOTT-OLSEN (ZMUC);
2 ♀♀, 1 km NE Pico Alto, 1100 m, 17.VIII.1974, leg. E. TRAUGOTT-OLSEN (ZMUC);
1 ♂, 2 ♀♀, Fajã da Nogueira, 1000 m, 23-24.VIII.1974, leg. E. TRAUGOTT-OLSEN, genit. slide ♂ 0254/SINEV (ZMUC);
1 ♂, Fajã da Nogueira, 600 m, 28.VIII.1975, leg. N. L. WOLFF (ZMUC);
2 ♀♀, Pico Ruivo, 1800 m, 29.VIII.1975, leg. N. L. WOLFF (ZMUC);
1 ♀, Pousada dos Vinhaticos, Serra d'Água, 660 m, 31.VIII.1975, leg. N. L. WOLFF (ZMUC);
8 ♂♂, 3 ♀♀, Pousada dos Vinhaticos, Serra d'Água, 650 m, 8-16.VI.1976, leg. N. L. WOLFF, genit. slides ♂ 0247/SINEV, ♀ 0248/SINEV, and ♂ 0249/SINEV (ZMUC);
1 ♂, Queimadas (5 km SW Santana), 900 m, 9.V.1977, leg. N. L. WOLFF, genit. slide ♂ 0258/SINEV (ZMUC);
3 ♂♂, 1 ♀, Fajã da Nogueira, 600 m, 14-15.IX.1977, leg. LOMHOLDT & WOLFF (ZMUC);
1 ♂, 3 ♀♀, Ribeiro Frio, 900 m, at light, 3.VII.1991, leg. M. MEYER (MEY);
1 ♂, Fajã da Nogueira, 700 m, at light, 5.VII.1991, leg. M. MEYER (MEY);
1 ♀, Pico das Pedras, Redondo, S Santana, at light, 8.VII.1991, leg. M. MEYER (MEY);
4 ♂♂, 1 ♀, Lamaceiros, N Encumeada, 900 m, at light, 11.VII.1991, leg. M. MEYER (MEY);
3 ♂♂, 1 ♀, Serra d'Água, 640 m, 11.VI.1993, leg. O. KARSHOLT, genit. slide ♀ 0250/SINEV (ZMUC, ZIAN);
20 ♂♂, 19 ♀♀, Encumeada, 1000 m, 13-18.VI.1993, leg. O. KARSHOLT, genit. slides ♀ 0255/SINEV, ♂ 0260/SINEV, ♂ 0261/SINEV, ♀ 0262/SINEV, ♂ 0263/SINEV, ♀ 0264/SINEV, and ♀ 0299/SINEV (ZMUC, ZIAN);
11 ♂♂, 6 ♀♀, Rabaçal, 1050 m, 14.VI.1993, leg. O. KARSHOLT, genit. slides ♂ 0265/SINEV, ♂ 0266/SINEV, ♀ 0267/SINEV, ♂ 0268/SINEV, and ♂ 0408/SINEV (ZMUC, ZIAN);
2 ♂♂, Queimadas (5 km SW Santana), 950 m, 19.VI.1993, leg. O. KARSHOLT (ZMUC, ZIAN);

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5 ♂♂, Achada do Teixeira, 1300 m, 22.VI.1993, leg. O. Karsholt, genit. slides ♂ 0269/Sinev, ♂ 0270/Sinev (ZMUC, ZIAN);
2 ♂♂, 1 ♀, above Madalena do Mar, 780 m, 29.VI.1993, leg. O. Karsholt, genit. slide ♀ 0276/Sinev (ZMUC);
3 ♂♂, 2 ♀♀, Fonte de Bispo, 1050-1150 m, 6-7.VII.1993, leg. O. Karsholt, genit. slides ♂ 0407/Sinev, ♀ 0259/Sinev (ZMUC, ZIAN);
2 ♂♂, Serra d'Água, 580 m, 1.VII.1993, leg. O. Karsholt, genit. slide ♂ 0251/Sinev (ZMUC);
1 ♂, 1 ♀, above Prazeres, 7.VII.1993, leg. O. Karsholt (ZMUC);
1 ♀, str. Paul da Serra - Canhas, at light, 1.X.1993, leg. G. Bassi (MRSN);
5 ♂♂, 7 ♀♀, dint. Poiso, 1200 m, at light, 2.X.1993, leg. G. Bassi, genit. slide ♂ 0256/ Sinev (MRSN);
2 ♂♂, 3 ♀♀, dint. Encumeada, 900 m, at light, 3.X.1993, leg. G. Bassi (MRSN);
1 ♂, Cabo Girão, 580 m, at light, 6.X.1993, leg. G. Bassi (MRSN);
2 ♂♂, str. Porto Moniz - Paul da Serra, 600 m, at light, 6.X.1993, leg. G. Bassi (MRSN);
20 ♂♂, 18 ♀♀, dint. Serra de Água, 600 m, at light, 9.X.1993, leg. G. Bassi, genit. slides ♂ 0252/Sinev, ♀ 0253/Sinev (MRSN);
1 ♂, 1 ♀, Santana, 500 m, 8.X.1994, leg. O. Karsholt, genit. slides ♂ 0271/Sinev, ♀ 0272/Sinev (ZMUC);
1 ♂, Achadas da Cruz, 700 m, 10.X.1994, leg. O. Karsholt, genit. slide ♂ 0273/Sinev (ZMUC);
4 ♀♀, Ribeira da Janela, 600-1300 m, 14.X.1994, leg. O. Karsholt, genit. slide ♀ 0257/Sinev (ZMUC, ZIAN);
1 ♂, 1 ♀, Ponta de São Lourenço, sea lev., 28.X.1994, leg. O. Karsholt, genit. slides ♂ 0274/Sinev, ♀ 0275/Sinev (ZMUC);
1 ♀, Porto Moniz, sea lev., 19-22.VI.1996, leg. O. Karsholt (ZMUC);
1 ♂, Ribeira da Janela, 600 m, 20-21.IV.1996, leg. O. Karsholt (ZMUC);
1 ♂, 1 ♀, below Pico Arieiro, 1600 m, 10-11.IX.1997, leg. O. Karsholt (ZMUC);
1 ♂, Encumeada, 1000 m, 16.IX.1997, leg. O. Karsholt (ZMUC);
2 ♀♀, Eira do Serrado, 1100 m, 22-25.X.1997, leg. D. Nilsson (ZMUC);
5 ♂♂, 4 ♀♀, Casa do Barreiro, Parque Ecologico do Funchal, 970 m, 20-26.VII.1998, leg. Martin (BMNH);
1 ♂, Parque Ecologico do Funchal, 1300 m, 21.VII.1998, leg. Martin (BMNH);
1 ♀, Funchal, 25.III.-4.IV.1999, leg. L. Sippola (SIP);
1 ♂, 2 ♀♀, Camacha, 600 m, 20-29.XI.2001, leg. O. Karsholt (ZMUC);
1 ♀, São Viciente, sea lev., 24.XI.2001, leg. O. Karsholt (ZMUC);
1 ♂, 1 ♀, Curral das Frias, 850 m, 28.XI.2001, leg. O. Karsholt (ZMUC).

Distribution: Madeira (probably endemic). The records of *B. lignea* from the Azores (Passos de Carvalho, 1992; Vieira, 1997) and from Morocco (Jourdan, 1935; Rungs, 1949, 1979) should be verified. They very probably correspond to a chromatic aberration of *B. maroccanella*.

Bionomy: Early stages unknown. The moths have been found from late March to late November, probably in two generations. The species prefers altitudes between 600 and 1200 m, occasionally up to 1800 m, and only very few specimens were collected at the sea level.

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Remarks: *Laverna vittata* WOLLASTON was described from an unspecied number of specimens. Only one is left (designated therefore as lectotype), and it is in poor condition, consisting of head (without palpi), thorax and forewings. But the pattern of the fore wings is very characteristic; such kind of pattern (dark longitudinal line from the base to the apex) is known from a few specimens of *B. vittata* and of *B. wolffi* **sp. n.** only. The long series of specimens collected in Encumeada and Rabaçal shows a clear row of intermediate forms between this very rare variety and much more abundant ('typical') form of the same species described by WALSINGHAM as *B. lignea*.

The synonymy of *B. flavescentella* REBEL with *B. lignea* WALSINGHAM was first published by BRADLEY (1958).

Blastobasis maroccanella AMSEL, 1952

Blastobasis maroccanella AMSEL, 1952: 70, fig. 8; RUNGS, 1979: 68; RIEDL, 1996: 96.
Blastobasis acuta BRADLEY, 1958: 194, figs 1, 2; GARDNER & CLASSEY, 1960: 204; PASSOS DE CARVALHO, 1982: 176; 1995: 565, 577; PASSOS DE CARVALHO & CORLEY, 1995: 200; VIVES MORENO, 1996: 283; VIEIRA, 1997: 15.

Adult (figs 22-24). Wingspan 10-17 mm. Head and scape of antenna loamy-brown; flagellum dark brown, with deep basal notch in male. Labial palpi slender, blackish mottled with light grey; segment 3 about half the length of segment 2. Thorax and tegulae of same colour as forewing. Forewing elongate with pointed apex, loamy-brown mottled with greyish or black, darkest at base, along costa and in apical part; a more or less indistinct angulated blackish fascia at 1/3, edged with light grey at inner margin; indistinct black dots in middle of wing and along termen; fringes grey brown. Hindwing elongate with pointed apex, greyish. Tip of abdomen in female yellowish.

Variation. A variable species. Most males are more or less uniformly loamy-brown mottled with black, with few or no markings, and they can be nearly blackish-brown. Many females have more or less distinct markings, often on greyish background.

Similar species. Very similar to some (especially dark) forms of *vittata*, but this is often recognized by its (on average) larger size, slightly broader forewings and by having segment 3 of labial palpi longer than half of segment 2. In cases of doubt genitalia should be examined.

Male genitalia (fig. 62): Uncus very narrow, finger-shaped, slightly widened to apex. Gnathos with very well developed median protrusion having a peculiar widened and flattened apex. Basal pillow of valva rather narrow, covered with microtrichiae; both its dorsal and ventral margins with numerous setae (about 12 setae in two irregular rows at dorsal margin). Aedeagus curved, slightly narrowing caudally; its apex distinctly sclerotized, with peculiar long and narrow, ventrally bent appendage.

Female genitalia (fig. 86): Apophyses posteriores more than three times as long as apophyses anteriores. Sternite VIII without median sclerotization. Posterior margin of sternite VII slightly concave, with lateral groups of thecae for enlarged scales. Intersegmental membrane with a very well developed and convex field of microtrichiae at each side of ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae medium-sized, oval; signum hook-shaped with narrowly triangular base.

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Material examined:

♂, Lectotype of *Blastobasis maroccanella* Ams., designated here: 'Typus ♂ leg. H. Amsel/ *Blastobasis maroccanella*'; 'Type'; 'Maroc, Meknes, ex l. 16.V.[19]51, 3376'; 'Pisum sativum'; 'det. H.G. Amsel, *Blastobasis maroccanella* Ams.'; '*Blastobasis maroccanella* Amsel, Bull. Soc. Sc. nat. Maroc, 31, 1951, p. 70'; 'Lectotypus ♂ *Blastobasis maroccanella* Amsel, 1952, design. Sinev' (MNHN). Paralectotypes (3 ♂, 4 ♀♀) are in the same collection and collection of LSNK.

♂, Holotype of *Blastobasis acuta* Bradley: 'Type'; 'Madeira, Funchal, 7-22.XII.1957, E.W. Classey & A.E. Gardner. B.M. 1957-750'; 'B.M. Genitalia slide ♂ No. 4943'; '*Blastobasis* acuta **sp. n.**, det. J.D. Bradley, 1958'; 'Holotypus ♂ *Blastobasis acuta* Bradley, 1958' (BMNH). Paratypes (4 ♂♂ and 3 ♀♀) are in the same collection.

Other material: Madeira:

1 ♀, without exact locality, [1855], leg. Wollaston (BMNH);
2 ♀♀, Funchal, 1-8.V., leg. Storå (ZMUH);
3 ♀♀ (paratypes of *B. acuta*), S. Roque, 7.IV.1953, 14.IV.1953, 15.IV.1953 (labeled 1948, 2020 and 2029 respectively), leg. A. Figueiro (MMF);
6 ♂♂, 2 ♀♀, Funchal, [1969], leg. Pinker, genit. slides 4190 and 4192 Wolff (LSNK);
9 ♂♂, 4 ♀♀, Assomada, 15.VI.1969, leg. Pinker (LSNK);
11 ♂♂, 9 ♀♀, Somada, [1969], leg. Pinker, genit. slides 4191 and 4196 Wolff (LSNK);
1 ♂, Camacha, [1969], leg. Pinker (LSNK);
1 ♀, Santo da Serra, [1969], leg. Pinker, genit. slide ♀ 4193 Wolff (LSNK);
2 ♂♂, Serra d'Água, [1969], leg. Pinker (LSNK);
2 ♀♀, Funchal-Lido, 20-25.I.1970, leg. N. L. Wolff, genit. slide ♀ 3853 Wolff (ZMUC);
6 ♂♂, 2 ♀♀, Funchal-Lido, at light, 20-31.V.1970, leg. N. L. Wolff, genit. slides ♂ 3774, ♂ 3775, ♂ 3849, ♂ 3851, and ♀ 3852 Wolff (ZMUC);
3 ♂♂, 1 ♀, Funchal-Lido, at light, 20-30.IV.1972, leg. N. L. Wolff, genit. slide ♀ 0285/Sinev (ZMUC);
1 ♀, Funchal, 13.VI.1972, leg. Enghoff (ZMUC);
10 ♂♂, 11 ♀♀, Funchal-Lido, ult.nov.1972, leg. Lundqvist & Wolff, genit. slides ♀ 0233/Sinev, ♂ 0284/Sinev (ZMUC, ZIAN);
1 ♂, Serra d'Água, 600 m (Station Salazar), 6-7.IX.1973, leg. Lomholdt & Wolff, genit. slide ♂ 4204 Wolff (ZMUC);
2 ♀♀, Serra d'Água, 660 m, 7.IX.1973, leg. Lomholdt & Wolff, genit. slide ♀ 0239/ Sinev;
4 ♂♂, 2 ♀♀, Funchal-Lido, 4-17.IX.1973, leg. N. L. Wolff, genital. slides ♂ 4205 and ♂ 4206 Wolff (ZMUC);
5 ♂♂, 2 ♀♀, Funchal-Lido, 17-22.IV.1974, leg. N. L. Wolff (ZMUC, ZIAN);
8 ♂♂, 13 ♂♂, Funchal-Lido, 13-25.VIII.1974, leg. E. Traugott-Olsen (ZMUC, ZIAN);
2 ♂♂, Funchal-Lido, 18-26.VIII.1974, leg. N. L. Wolff (ZMUC);
2 ♂♂, 3 ♀♀, Pousada dos Vinhaticos, Serra d'Água, 600 m, 15-19.VIII.1974, leg. E. Traugott-Olsen, genit. slides ♂ 0236/Sinev, ♀ 0237/Sinev, and ♀ 0246/Sinev (ZMUC);

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3 ♂♂, Pousada dos Vinhaticos, Serra d'Água, 600 m, 15-16.VIII.1974, leg. N. L. WOLFF (ZMUC);
1 ♀, 3 km W of Poiso, 1500 m, 17.VIII.1974, leg. E. TRAUGOTT-OLSEN, genit. slide ♂ 0244/SINEV (ZMUC);
1 ♂, 1 ♀, Machico, 12.IX.1974, leg. W. DIERL (ZSM);
1 ♂, Pico Ruivo, 1800 m, 29.VIII.1975, leg. N. L. WOLFF, genit. slide ♂ 0242/SINEV (ZMUC);
3 ♂♂, 1 ♀, Pousada dos Vinhaticos, Serra d'Água, 660 m, 31.VIII.1975, leg. N. L. WOLFF, genit. slide ♂ 0241/SINEV (ZMUC);
1 ♀, Funchal-Lido, 6-9.VI.1976, leg. N. L. WOLFF (ZMUC);
1 ♂, Pousada dos Vinhaticos, Serra d'Água, 650 m, 8.VI.1976, leg. N. L. WOLFF, genit. slide ♂ 0238/SINEV (ZMUC);
1 ♀, Serra d'Água, 650 m, 5.V.1977, leg. N. L. WOLFF (ZMUC);
2 ♂♂, Caniço, 12-18.IX.1977, leg. LOMHOLDT & WOLFF (ZMUC);
1 ♂, Fajã da Nogueira, 600 m, 14-15.IX.1977, leg. LOMHOLDT & WOLFF, genit. slide ♂ 0245/SINEV (ZMUC);
1 ♂, (without exact locality), 13-19.XI.1977, leg. H. K. J. (ZMUC);
1 ♂, 2 ♀♀, Funchal, 50 m, 20-21.II.1979, leg. O. KARSHOLT (ZMUC);
1 ♂, Queimadas, 1.V.1980, leg. MONIZ SERRANO (ZMUC);
1 ♂, Canhas, 8.IX.1980, leg. PASSOS DE CARVALHO & LUIS DE CAMOES (ZMUC);
1 ♂, Caniçal, 23.IX.1981, leg. PASSOS DE CARVALHO (ZMUC);
2 ♂♂, 2 ♀♀, Natur bei Machico, 18-28.IV.1982, leg. D. STÜNING (ZFMK);
1 ♂, 3 ♀♀, Fontinhas, N Quinta Grande, 850 m, at light, 6.VII.1991, leg. M. MEYER (MEY);
1 ♂, 1 ♀, Serra d'Água, 640 m, 11.VI.1993, leg. O. KARSHOLT (ZMUC);
1 ♂, São Vicente, sea lev., 12.VI.1993, leg. O. KARSHOLT (ZMUC);
3 ♂♂, 3 ♀♀, Ponta do Sol, sea lev., 12-17.VI.1993, leg. O. KARSHOLT (ZMUC, ZIAN);
1 ♂, 7 ♀♀, Faial, sea lev., 21.VI.1993, leg. O. KARSHOLT (ZMUC, ZIAN);
1 ♀, Ponta de São Lourenço, sea lev., 23.VI.1993, leg. O. KARSHOLT (ZMUC);
1 ♂, 2 ♀♀, Machico, sea lev., 27.VI.1993, leg. O. KARSHOLT, genit. slide ♀ 0234/SINEV (ZMUC);
2 ♀♀, Ponta do Sol, sea lev., 29.VI.-2.VII.1993, leg. O. KARSHOLT (ZMUC);
3 ♂♂, 1 ♀, Seixal, 100 m, 1.VII.1993, leg. O. KARSHOLT (ZMUC, ZIAN);
1 ♂, Serra d'Água, 580 m, 1.VII.1993, leg. O. KARSHOLT (ZMUC);
3 ♂♂, 4 ♀♀, Porto Moniz, sea lev., 4-5.VII.1993, leg. O. KARSHOLT (ZMUC);
1 ♂, below Pico Arierio, 1600 m, 9.VII.1993, leg. O. KARSHOLT (ZMUC);
1 ♂, Ponta de São Lourenço, sea lev., 10.VII.1993, leg. O. KARSHOLT (ZMUC);
1 ♀, Funchal, 30.IX.1993, leg. G. BASSI (MRSN);
1 ♂, 4 ♀♀, Paul da Serra, 1350 m, 1.X.1993, leg. G. BASSI (MRSN);
1 ♂, 5 ♀♀, str. Paul da Serra - Canhas, 750 m, at light, 1.X.1993, leg. G. BASSI (MRSN);
25 ♂♂, 19 ♀♀, dint. Serra de Água, 600 m, at light, 9.X.1993, leg. G. BASSI (MRSN);
2 ♂♂, 1 ♀, Santana, 500 m, 6-8.X.1994, leg. O. KARSHOLT, genit. slide ♂ 0235/SINEV (ZMUC);

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1 ♂, Fajã da Nogueira, 600-1000 m, 8.X.1994, leg. O. Karsholt, genit. slide ♂ 0243/ Sinev (ZMUC);
1 ♀, São Vicente, sea lev., 9.X.1994, leg. O. Karsholt (ZMUC);
5 ♂♂, 8 ♀♀, Porto Moniz, sea lev., 9-13.X.1994, leg. O. Karsholt (ZMUC, ZIAN);
1 ♀, Ponta do Sol, sea lev., 16.X.1994, leg. O. Karsholt (ZMUC);
1 ♀, Machico, 25.X.1994, leg. O. Karsholt (ZMUC);
2 ♂♂, Ponta de São Lourenço, sea lev., 28.X.1994, leg. O. Karsholt (ZMUC);
1 ♂, 1 ♀, Porto Moniz, sea lev., 19-22.IV.1996, leg. O. Karsholt (ZMUC);
1 ♀, Ribeira da Janela, 600 m, 20-21.IV.1996, leg. O. Karsholt, genit. slide ♀ 0286/ Sinev (ZMUC);
1 ♀, Santana, 530 m, 17-20.IV.1996, leg. O. Karsholt (ZMUC);
4 ♂♂, Funchal, 27.III.-3.IV.1997, leg. L. Sippola (SIP);
2 ♂♂, 1 ♀, Funchal-Lido, 50 m, 9-20.IX.1997, leg. O. Karsholt (ZMUC);
3 ♂♂, 2 ♀♀, Curral das Freiras, 850 m, 20-21.IX.1997, leg. O. Karsholt (ZMUC);
1 ♀, Eira do Serrado, 1450 m, 15.X.1997, leg. B. Skule (ZMUC);
4 ♀♀, Casa do Barreiro, Parque Ecologico do Funchal, 970 m, 22-27.VII.1998, leg. Martin (BMNH);
2 ♂♂, 7 ♀♀, Funchal, Jardim Botânico, 27-29.VII.1998, leg. Martin (BMNH);
3 ♂♂, 1 ♀, Funchal, 25.III.-4.IV.1999, leg. L. Sippola (SIP);
3 ♂♂, Curral das Frias, 850 m, 28.XI.2001, leg. O. Karsholt (ZMUC).

Porto Santo:
2 ♂♂, 3 ♀♀, 23-24.X.1994, leg. O. Karsholt (ZMUC);
13 ♂♂, 21 ♀♀, 12-14.IV.1996, leg. O. Karsholt, genit. slide ♀ 0401/Sinev (ZMUC, ZIAN).

Azores:
3 ♂♂, 5 ♀♀, St.Miguel: Furnas, 11.V.-3.VI.1969, leg. Pinker (LSNK);
1 ♂, Terceira, 26.X.1978, leg. Passos de Carvalho (ZMUC);

Portugal:
4 ♀♀, Algarve: Praia da Rocha, 4-9.X.1996, leg. Hendriksen (ZMUC);

Spain:
1 ♂, Andalusia: Marbella, El Mirador, 10.X.1979, leg. E. Traugott-Olsen, genit. slide ♂ 5886 TR.-O. (ZMUC);
2 ♂♂, same locality, 11-26.III.1980, leg. E. Traugott-Olsen, genit. slide ♂ 5885 TR.-O. (ZMUC);
2 ♂♂, same locality, 19.VI.1985, leg. E. Traugott-Olsen, genit. slide ♂ 5883 TR.-O. (ZMUC);
1 ♀, same locality, 29.III.1987, leg. E. Traugott-Olsen (ZMUC);
2 ♂♂, same locality, 19.VII.1991, leg. E. Traugott-Olsen (ZMUC);
1 ♂, Marbella, Urb. Higueral, 100 m, 26.XI.1984, leg. E. Traugott-Olsen (ZMUC);
1 ♂, Marbella - Casa y Campo, ca.100 m, 20.VI.1985, leg. E. Traugott-Olsen (ZMUC);
4 ♂♂, same locality, 14-20.VII.1992, leg. E. Traugott-Olsen (ZMUC);
3 ♀♀, Malaga: Urb. Guadalmina, 15-19.VI.1980, leg. E. Traugott-Olsen, genit. slide ♀ 5881 and ♀ 5882 TR.-O. (ZMUC);
1 ♂, Malaga: Rio Verde, 15.V.1980, leg. E. Traugott-Olsen (ZMUC);

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1 ♀, Camino d. Rhonde, Urb. Madronal, 500 m, 24.VIII.1985, leg. E. TRAUGOTT-OLSEN (ZMUC);
1 ♂, same locality, 25.IX.1988, leg. E. TRAUGOTT-OLSEN (ZMUC);
5 ♂♂, San Pedro de Alcantara, Linda Vista Playa, 10 m, 8.IV.1991, leg. E. TRAUGOTT-OLSEN (ZMUC).

Distribution: Madeira, Porto Santo; Azores (PASSOS DE CARVALHO, 1982, 1992; VIEIRA, 1997), Morocco (AMSEL, 1952; RUNGS, 1979), Portugal (PASSOS DE CARVALHO & CORLEY, 1995), Spain (VIVES MORENO, 1996). The species is widely distributed in lowlands throughout Macaronesia and Western Mediterranean.

Bionomy: The type series of *B. maroccanella* was bred from larvae fed on a bunch of grapes (*Vitis vinifera*), in pods of *Pisum sativum* and in decaying wood of *Prunus persica*, *Populus hickeliana* and *Olea europaea* (AMSEL, 1952). The moths may be found during the whole year mainly at sea level and in the lower montane zone, but occasionally have been collected up to 1800 m (Pico Ruivo).

Remarks: The lectotype of *B. maroccanella* and the holotype of *B. acuta* (both studied) are of the same sex and undoubtedly belong to the same species. The two species were first synonymized by SINEV (in RIEDL, 1996: 309).

Blastobasis walsinghami sp. n.

Material examined: 4 males, 3 females.

Holotype, ♂: '**Madeira**, 1000 m, Encumeada, 16.VI.1993 O. KARSHOLT'; 'Genit. slide ♂ 0290/SINEV, Euparal, X.1998'; 'Holotypus ♂ *Blastobasis walsinghami* KARSHOLT et SINEV' (ZMUC).

Paratypes: **Madeira**:

1 ♀, Pico Ruivo, 1800 m, 29.VIII.1975, leg. N. L. WOLFF, genit. slide ♀ 0411/SINEV (ZMUC);
1 ♀, Funchal-Lido, 11.VI.1976, leg. N. L. WOLFF, genit. slide ♂ 0291/SINEV (ZMUC);
1 ♂, 1 ♀, Pousada dos Vinhaticos, Serra d'Água, 650 m, 8. and 16.VI.1976, leg. N. L. WOLFF (ZMUC, ZIAN);
2 ♂♂, Encumeada, 1000 m, 16.VI.1993, leg. O. KARSHOLT (ZMUC, ZIAN).

Adult (fig. 25). Wingspan 16-20 mm. Head dark brownish. Scape of antenna light brownish mottled with black; flagellum blackish, indistinctly lighter ringed, with deep basal notch in male. Labial palpi slender; segment 3 longer than half of segment 2; whitish mottled with blackish. Thorax and tegulae as forewing with proximal part black. Forewing rather slender with pointed apex, loamy brown mottled with blackish; an indistinct, angulated black fascia at 2/5; a black dot in middle of wing at 3/5; two black dots between indistinct black subapical and tornal spots; termen with black dots; fringes dark grey. Hindwing rather lanceolate with pointed apex, dark grey with grey fringes. Tip of abdomen in female yellowish.

Variation. The few specimens examined show slight variation in the distinctness of the black markings in the forewings. One specimen has yellowish (instead of whitish) labial palpi.

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Similar species. The species is similar to *B. maroccanella*, which is nearly always distinctly smaller. *B. ochreopalpella* has the head yellowish, segment 2 of labial palpi widened by a scale brush, and segment 3 of labial palpi about half as long as segment 2. *B. wolffi*, q.v.

Male genitalia (fig. 63): Uncus narrow, finger-shaped, slightly widened before apex. Gnathos with very well developed, wide and distinctly bifurcate median protrusion. Basal pillow of valva rather narrow, covered with microtrichiae; both its dorsal and ventral margins with rows of setae (about 20 setae in three irregular rows at dorsal margin). Aedeagus curved, slightly narrowing caudally; its apex distinctly sclerotized, without caudal appendage.

Female genitalia (fig. 87): Apophyses posteriores three times as long as apophyses anteriores. Sternite VIII without median sclerotization. Posterior margin of sternite VII slightly concave, with lateral groups of thecae for enlarged scales. Intersegmental membrane with a very well developed convex field of microtrichiae at each side of ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae medium-sized, oval; signum hook-shaped with more or less equilateral triangular base.

Distribution: Madeira (endemic).

Bionomy: Early stages unknown. Most specimens were collected in the middle of June. The species has been found mainly between 600 and 1000 m, but single specimens also known from sea level (Funchal-Lido) and the highest mountains (Pico Ruivo, 1800 m).

Etymology: The new species is named in honour of Lord Walsingham (Thomas de Grey), the author of the first revision of Madeiran Blastobasidae.

Blastobasis wolffi sp. n.

Material examined: 3 males, 1 female.

Holotype, ♂: '**Madeira**, 900 m, Fajã da Nogueira, 18.IX.1997 O. Karsholt'; 'Genit. slide ♂ 0418/Sinev, Euparal, X.1998'; 'Holotypus ♂ *Blastobasis wolffi* Karsholt et Sinev (ZMUC).

Paratypes: **Madeira**:

1 ♀, Santana, 530 m, 17-20.IV.1996, leg. O. Karsholt (ZMUC);
1 ♂, Ribeira da Janela, 600 m, 20-21.IV.1996, leg. O. Karsholt, genit. slide ♂ 0410/ Sinev (ZMUC);
1 ♂, Fajã da Nogueira, 900 m, 18.IX.1997, leg. O. Karsholt, genit. slide ♂ 0417/ Sinev (ZIAN).

Adult (figs 26-27). Wingspan 17-24 mm. Head and scape of antenna light brown; flagellum dark brown, with deep basal notch in male. Labial palpi slender, light brown mottled with blackish; segment 3 shorter than half the length of segment 2. Thorax and tegulae of same colour as forewing. Forewing rather elongate with pointed apex, light brownish mottled with dark brown and black; a more or less indistinct angulated blackish brown fascia at 1/3 (broadest at dorsum), edged with light at inner margin; a black dot in middle of wing; blackish brown subapical and tornal spots often confluent; black spots along termen; fringes greyish. Hindwing rather elongate with pointed apex, greyish.

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Variation. The few specimens examined show some variation, with females being most contrastingly marked. Specimens may be more or less uniformly light brownish, whereas others are more distinctly marked, with fasciae and spots in the forewings. Black spots along termen only found in the holotype. One specimen has a slender, blackish longitudinal streak from base to apex.

Similar species. *B. wolffi* resembles several Madeiran *Blastobasis* species like *B. vittata*, *B. walsinghami*, *B. ochreopalpella*, but is larger and most specimens of these have darker head and labial palpi.

Male genitalia (fig. 64): Uncus narrow, finger-shaped. Gnathos with well developed, slightly bifurcated median protrusion. Basal pillow of valva covered with microtrichiae; both its dorsal and ventral margins with numerous setae (about 18 setae in three irregular rows at dorsal margin). Aedeagus curved, slightly narrowing caudally; its apex distinctly sclerotized, with peculiar rather wide and ventrally bent appendage.

Female genitalia (fig. 88): Apophyses posteriores more than three times as long as apophyses anteriores. Sternite VIII without median sclerotization. Posterior margin of sternite VII slightly concave, with lateral groups of thecae for enlarged scales. Intersegmental membrane with a hardly visible field of microtrichiae at each side of ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae medium-sized, oval; signum hook-shaped with widely triangular base.

Distribution: Madeira (endemic).

Bionomy: Early stages unknown. The moths have been collected in April and September - October (probably in two generations) at altitudes between 530 and 900 m.

Etymology: The new species is named in honour of NIELS L. WOLFF, one of the most successful collectors of the Madeiran Blastobasidae. WOLFF, who visited Madeira 12 times (KARSHOLT, 2000), planned a revision of the Blastobasidae of Madeira, but his material was too limited. Before his death in 1978 he asked OLE KARSHOLT to continue this work.

Blastobasis ochreopalpella (WOLLASTON, 1858)

Oecophora ochreopalpella WOLLASTON, 1858: 121.
Oecophora ochropalpella, misspelling: WALKER, 1864: 1029.
Blastobasis ochreopalpella: WALSINGHAM, 1894: 551; REBEL, 1901: 164; 1917: 12; 1940a: 14 (key); 1940b: 8; PASSOS DE CARVALHO, 1995: 577.
Blastobasis flavescentella: REBEL, 1940a: 16 (part).

Adult (figs 28-29). Wingspan 14-19 mm. Head yellow; scape of antenna yellowish mottled with dark brown; flagellum dark brown, indistinctly lighter ringed, with deep basal notch in male. Segment 2 of labial palpi widened by scale brush, yellowish mottled with dark brown at outer and lower surface; segment 3 about half as long as segment 2, yellow mottled with dark brown. Thorax and tegulae as forewing. Forewing relatively slender with pointed apex, brownish mottled with yellowish and blackish; black dots in middle of wing at 2/5 and 3/5 and one such between them, but more costal; two distinct black spots between indistinct subapical and tornal spots; termen with black dots; fringes greyish. Hindwing rather slender with somewhat rounded apex, grey with yellowish grey fringes.

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Variation. The ground colour of the forewings varies from yellowish brown to blackish brown.

Similar species. The species is characterized by its yellow head and labial palpi and uniformly coloured wings with small black dots which do not form markings. Most specimens of *B. maroccanella* are smaller and have more slender and darker labial palpi. *B. vittata* has more distinct markings of the forewings and labial palpi with segment 3 shorter than half the length of segment 2. *B. walsinghami*, *B. wolffi*, q.v.

Male genitalia (fig. 65): Uncus narrow, finger-shaped, slightly widened at apex. Gnathos with well developed, but rather narrow and indistinctly bifurcate median protrusion. Basal pillow of valva covered with microtrichiae; its ventral margin with numerous setae. Aedeagus curved, slightly narrowing to blunt apex.

Female genitalia (fig. 90): Apophyses posteriores more than three times as long as apophyses anteriores. Sternite VIII without median sclerotization. Posterior margin of sternite VII concave, with lateral groups of thecae for enlarged scales. Intersegmental membrane with a very well developed field of microtrichiae at each side of ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae large and oval; signum hook-shaped with more or less equilateral triangular base.

Material examined:

♂, Lectotype of *Oecophora ochreopalpella* Woll., designated here: 'Lectotype'; 'Type'; 'Madeira [Madeira proper], Wollaston, B.M. 1858-21'; 'XXXII'; '*Oecophora ochreopalpella*, Wlstn. Ann. Mag. N.H. (3. s.) I. 121 (1858) Madeira, P[or]to Santo IV. V, N[orthern] Dezerta / Type XXXII'; 'B.M. Genitalia slide ♂ No. 4950'; 'Lectotypus ♂ *Oecophora ochreopalpella* Wollaston, 1858, design. Karsholt et Sinev' (BMNH).

Other material: Madeira:

1 ♀ (paralectotype of *lignea*), without exact locality, [1855], leg. Wollaston (BMNH);
2 ♂♂, 1 ♀ (paralectotypes of *Blastobasis flavescentella* Rbl.), Rabaçal, 1080 m, 17.VII.-4.VIII.1935, leg. O. Lundblad, genit. slides ♂ 4147 Wolff, ♂ B.M. 2683, and ♀ B.M. 2682 (NHRS);
1 ♂, Pousada dos Vinhaticos, Serra d'Água, 600 m, 23.VIII.1974, leg. N. L. Wolff (ZMUC);
1 ♂, Fajã da Nogueira, 1000 m, 24.VIII.1974, leg. E. Traugott-Olsen (ZMUC);
1 ♂, Pousada dos Vinhaticos, Serra d'Água, 660 m, 31.VIII.1975, leg. N. L. Wolff (ZMUC);
1 ♂, Fajã da Nogueira, 500-700 m, 20.VI.1993, leg. O. Karsholt (ZMUC);
1 ♂, Encumeada: 1000 m, 3.VII.1993, leg. O. Karsholt (ZMUC);
3 ♂♂, 1 ♀, Achadas da Cruz, 725 m, 8.VII.1993, leg. O. Karsholt (ZMUC, ZIAN);
1 ♂, 1 ♀, dint. Encumeada, at light, 3.X.1993, leg. G. Bassi, genit. slide ♂ 0412/Sinev (MRSN);
1 ♂, 3 ♀♀, Fajã da Nogueira, 630 m, at light, 7.X.1993, leg. G. Bassi (MRSN);
1 ♂, 1 ♀, Fajã da Nogueira, 600-1000 m, 8.X.1994, leg. O. Karsholt, genit. slide ♂ 0413/Sinev (ZMUC);
1 ♂, Ribeira da Janela, 600 m, 20-21.IV.1996, leg. O. Karsholt (ZMUC).
2 ♂♂, 2 ♀♀, Encumeada, 900 m, 13-14.IX.1997, leg. O. Karsholt, genit. slides ♂ 0415/Sinev, ♀ 0416/Sinev (ZMUC, ZIAN);

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1 ♀, Chão da Ribeira, 500 m, 14.IX.1997, leg. O. KARSHOLT, genit. slide ♀ 0414/SINEV (ZMUC);
1 ♀, Fajã da Nogueira, 650 m, 13.X.1997, leg. B. SKULE (ZMUC);
1 ♀, Casa do Barreiro, Parque Ecologico do Funchal, 970 m, 21.VII.1998, leg. MARTIN (BMNH).

Distribution: Madeira (endemic).

Bionomy: Early stages unknown. The moths have been collected in April and from June to October at altitudes between 500 and 1080 m.

Remarks: According to the original description, "inhabits Madeira proper" (WOLLASTON, 1858: 121), the mention of Porto Santo and Northern Dezerta on the label under the lectotype must be a mistake. This specimen was probably mislabelled with *B. marmorosella* WOLLASTON, the species described on the same page (see the fifth label on the lectotype of that species). REBEL (1940a) never saw the type material of *ochreopalpella* and did not describe the differences between this species and his newly described *flavescentella* (= *vittata*). The type series of the latter consists of both *vittata* and *ochreopalpella* specimens.

Blastobasis marmorosella (WOLLASTON, 1858), sp. rev.

Oecophora marmorosella WOLLASTON, 1858: 121; WALKER, 1864: 1028.
Oecophora fuscomaculella RAGONOT, 1879: 141; REBEL, 1892: 276 (as syn. of *marmorosella*); 1917: 12.
Oecophora seeboldiella KREITHNER, 1881: 20; SEEBOLD, 1899: 317, pl. 1, fig. 15; REBEL, 1892: 276 (as syn. of *marmorosella*).
Blastobasis marmorosella: REBEL, 1892: 276, pl. 17, fig. 6; REBEL & ROGENHOFER, 1894: 18, 90; REBEL, 1896: 90; 1898: 130; 1901: 164; 1917: 12; 1940a: 14 (key); 1940b: 8; PASSOS DE CARVALHO, 1995: 577.
Blastobasis fuscomaculella: WALSINGHAM, 1894: 549; REBEL, 1901: 163; 1906: 44; WALSINGHAM, 1908a: 952; CHRETIEN, 1908: 362; REBEL, 1910: 355; SPULER, 1910: 350; CARADJA, 1920: 122; NORDMAN & REBEL, 1935: 17; REBEL, 1940a: 14 (key); ZERKOWITZ, 1946: 132; AGENJO, 1966: [17]; LERAUT, 1980: 350; GOMEZ BUSTILLO, 1983: 103; KLIMESCH, 1986: 322, figs 11, 12; VIVES MORENO, 1992: 108; PASSOS DE CARVALHO, 1995: 565, 577.
Blastobasis sarcophaga MEYRICK, 1902: 169; COMMON, 1970: 822. Syn.n.
Blastobasis lignea auctt. (not WALSINGHAM, 1894: 550): COMMON, 1990: 251; EDWARDS, 1996: 100.

Adult (figs 30-31). Wingspan 16-23 mm. Head and scape of antenna light brown mottled with dark brown; flagellum dark brown, indistinctly lighter ringed, with deep basal notch in male. Labial palpi long and slender; segment 2 yellowish mottled with brown; segment 3 as long as segment 2, brown mottled with blackish. Thorax and tegulae dark grey brown. Forewing relatively broad with somewhat pointed apex, light brown mottled with dark brown and fuscous, base and basal part of dorsum blackish brown; a blackish patch at dorsum at 1/3, continuing as a fascia to costa; a blackish spot between this and base and one such spot between the blackish fascia and a double black spot at 4/5; indistinct black spots along termen from subapical to tornal spots; fringes light brownish grey. Hindwing rather broad, apically somewhat rounded, grey with light brown-grey fringes.

Variation. Some specimens have the forewings more or less overlaid with black. One blackish specimen has a row of light spots along termen from subapical to tornal spot. Also variation in the width of both pairs of wings occurs, which was probably a main reason for the former confusion about the identity of *marmorosella* and *fuscomaculella* (see below).

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Similar species. The species can be separated from other Madeiran blastobasids by its long and slender labial palpi, its rather large size and its brownish forewings. It is superficially similar to *Hofmannophila pseudospretella* (Stainton) (Oecophoridae), which has shorter and broader wings, and antenna without notch in the male. *B. virgatella* q.v.

Male genitalia (fig. 66): Uncus widely finger-shaped. Gnathos with rather well developed, not bifurcate median protrusion. Basal pillow of valva covered with microtrichiae; its ventral margin with microspines and few setae. Aedeagus weakly curved, slightly narrowing to the well sclerotized apex.

Female genitalia (fig. 92): Apophyses posteriores three and a half times as long as apophyses anteriores. Sternite VIII with weakly developed linear median sclerotization. Posterior margin of sternite VII concave, with lateral groups of thecae for enlarged scales. Intersegmental membrane with a very well developed concave field of microtrichiae at each side of ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae large and oval; signum hook-shaped with very widely triangular base.

Material examined:

♀ (without abdomen), Lectotype of *Oecophora marmorosella* Woll., designated here: 'Lectotype'; 'Type'; 'Madeira [Madeira proper, Porto Santo, Northern Dezerta], Wollaston, 1858-21'; '*Oecophora marmorosella*, Wlstn. Ann. Mag. NH (3. s.) I. 121. (1858) / Type XXXI'; 'Lectotypus ♀ *Oecophora marmorosella* Wollaston, 1858, design. Karsholt et Sinev' (BMNH). Paralectotypes (1 ♂, 8 ♀♀) are in the same collection.

♀ (abdomen missing), Lectotype of *Oecophora fuscomaculella* Rag., designated here: 'Coimbre'; '552'; '177'; 'Type'; 'Oliv. 11'; '*fuscomaculella* Rag. Type'; '514/WLSM. 1894'; '*Blastobasis fuscomaculella* Rag. /Named by Wlsm.'; 'Lectotypus ♀ *Blastobasis fuscomaculella* Ragonot, 1892, design. Sinev' (MNHN).

♀, Lectotype of *Oecophora seeboldiella* Kreith., designated here: 'Bilbao.'; 'Hispan[ia] Seebold'; '*Seeboldiella* Kreithn.'; '*Blastobasis fuscomacul[ella]*'; 'Lectotypus ♀ *Blastobasis seeboldiella* Kreithner, 1881, design. Sinev' (MNHN).

Other material: Madeira:

1 ♂, 8 ♀♀ (paralectotypes of *marmorosella*), without exact locality, [1855], leg. Wollaston (BMNH);
1 ♂, Caes Do Pico, 21.V.1904, leg. Eaton (BMNH);
1 ex., Horta Payal, 27.V.1904, leg. Eaton (BMNH);
1 ex., Rabaçal, 7.VI.1904, leg. Eaton (BMNH);
Porto Santo:
1 ♀, 24.X.1994, leg. O. Karsholt (ZMUC);
Canary Islands:
1 ♀, Tenerife, 14.IV.1898, leg. E. Hinz (NHMW);
1 ♀, Gran Canaria, Tafira, 9.II.1903, leg. P. Lesne (MNHN);
1 ♂, Gran Canaria, Tafira, fin.III.1903, leg. P. Lesne (MNHN);
1 ♂, Gran Canaria, Tafira, leg. R. Storå (LSNK);
Portugal:
1 ♀, Setubal, IV (MNHN);

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France:
1 ♀, Cannes, Alp[es]. Marit[imes]., coll. RAGONOT (MNHN);
Australia:
1 ♀, New South Wales, Malus Bay, 8 mls. S. Bateman´s Bay, 2.III.1951, leg. I. F. B. COMMON (ANIC);
1 ♂, New South Wales, Cronulia, 28.II.1952, leg. I. F. B. COMMON (ANIC).

Distribution: Madeira, Porto Santo, Northern Dezerta (WOLLASTON, 1858); Spain (RAGONOT, 1879; KREITHNER, 1881), Portugal (CARADJA, 1920; ZERKOWITZ, 1946), France (LERAUT, 1980). The species has apparently been introduced to Australia and was described there as *Blastobasis sarcophaga* MEYRICK, 1902 or erroneously mentioned as *B. lignea* (COMMON, 1990; EDWARDS, 1996), probably due to the wrong synonymization by KLOET & HINCKS (1945: 130).

Bionomy: Early stages unknown. According to the note of WOLLASTON (1858: 121), the type series was mainly collected during April and May in Porto Santo. The single recently collected specimen was taken in October in the same locality. The species is evidently associated with the lowlands.

Remarks: The lectotype of *Oecophora marmorosella* and the lectotype of *Oecophora fuscomaculella* (both studied) undoubtedly belong to the same species. These names were first synonymized by REBEL (1892), but after WALSINGHAM (1894) *B. fuscomaculella* was treated as bona species. The reason why WALSINGHAM rejected this synonymization was the slight discrepancy in the hind wing venation in the specimens from Madeira and from Spain (M2 and M3+CuA1 arising from a point or shortly stalked), but such differences are not uncommon between specimens of various size and sex.

Blastobasis virgatella sp. n.

Material examined: 2 females.

Holotype, ♀: '**Madeira**, 500 m, Chau da Ribeira, 14.IX.1997 O. KARSHOLT'; 'Zool. Museum DK Copenhagen'; 'Genit. slide ♀ 0289/SINEV, Euparal, X.1998'; 'Holotypus ♀ *Blastobasis virgatella* KARSHOLT et SINEV' (ZMUC).

Paratype: 1 ♀ (abdomen missing), [Madeira] WOLLASTON, B[ETHUNE]-BAKER Coll. 13700 (BMNH).

Adult (fig. 32). Wingspan 19-22 mm. Head light grey brown. Scape of antenna cream mottled with grey brown; flagellum dark brown. Labial palpi long and slender; segment 2 widened by scale brush, cream mottled with dark brown at outer and lower surface; segment 3 almost as long as segment 2, cream mottled with dark brown. Tegulae light grey brown; thorax grey brown with black scales at anterior and posterior margin. Forewing rather slender with pointed apex, whitish mottled with brownish and black; a black streak (becoming wider anteriorly) from base to 1/3; an oblique black fascia from 1/3 at costa to 1/2 at dorsum; a black spot in middle of wing at 2/3; an interrupted, angulated black fascia from subapical to tornal spots, and another such fascia from subapical spot through apical area; termen with black dots; fringes greyish. Hindwing rather broad with rounded apex, light grey with yellowish grey fringes.

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Variation. The paratype is somewhat more brownish than the holotype, but this may be because it is old.

Similar species. *B. virgatella* is characterized by its rather large size, the long labial palpi and the whitish brown forewings with distinct dark markings. *B. marmorosella* has broader, dark brownish forewings.

Male genitalia: Hitherto unknown.

Female genitalia (fig. 91): Apophyses posteriores three and a half times as long as apophyses anteriores. Sternite VIII without median sclerotization. Posterior margin of sternite VII straight. Intersegmental membrane without visible fields of microtrichiae at sides of ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae large and rounded; signum hook-shaped with small oval base.

Distribution: Madeira (endemic).

Bionomy: Early stages unknown. The holotype was collected at 500 m in the middle of September in the north-western part of Madeira.

Etymology: The name of the new species is derived from Latin: *virgatus* = motley, or variegated.

Blastobasis adustella Walsingham, 1894, stat. nov.

Blastobasis lignea var. *adustella* Walsingham, 1894: 551; Rebel, 1917: 12.

Blastobasis lignea auct. (not Walsingham, 1894: 550): Mansbridge, 1922: 145; Poulton, 1928: 155; Pierce & Metcalfe, 1935: 28; Mansbridge & Wright 1939: 29; Beirne, 1941: 107; Kloet & Hincks, 1945: 130; Ford, 1949: 113; Bradley, 1953: 138; Wakely, 1954: 108; Bradley, 1958: 194, fig. 3; Allen, 1965: 69; Bradley & Pelham-Clinton, 1967: 130; Michaelis, 1969: 4; Bradley et al., 1972: 24; Emmet, 1979: 133; Emmet, 1991: 134; Zhang, 1994: 103; Emmet & Langmaid, 1997: 155; Langmaid & Young, 1999: 113; Tremewan, 2001: 262; Dickson, 2002: 202, pl. 5, figs 25-26.

Blastobasis lignea var. *melanella* Mansbridge & Wright 1939: 29. Syn. n.

Blastobasis lignea var. *pallidella* Mansbridge & Wright 1939: 29. Syn. n.

Blastobasis xanthographella Rebel, 1940a: 14 (key), 19, pl. 3, fig. 29; 1940b: 8; Passos de Carvalho, 1992: 267; 1995: 565, 577; Vieira, 1997: 15. Syn. n.

Adult (figs 33-34). Wingspan 13-19 mm. Head yellowish mottled with greyish and blackish brown. Scape of antenna blackish brown and yellowish; flagellum blackish, indistinctly lighter ringed, with deep basal notch in male. Labial palpi slender, segment 2 blackish with light yellow ring at apex; segment 3 blackish mottled with yellowish, one and a half times the length of segment 2. Thorax and tegulae yellowish mottled with greyish and blackish brown. Forewing relatively slender with pointed apex, light yellowish, mottled with brownish and blackish; an angulated fascia from dorsum at 1/3 not always reaching costa, edged with yellowish at inner margin; a black dot in centre of wing; two, often confluent, spots between black subapical and tornal spots; termen with black dots; fringes grey. Hindwing rather elongate with more or less rounded apex, light grey with yellowish grey fringes.

Variation. The forewings can be more or less overlaid with brownish or blackish, and in such dark specimens the markings become indistinct (these dark scales easily become lost). In some specimens only parts of the wing (e.g. costa and apical area) are overlaid with dark scales whereas base and dorsum are yellowish. Rarely the forewings are yellowish with scattered blackish brown markings.

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Similar species. Being very similar to some forms of *vittata*, *adustella* can be recognized by its (on average) larger size, by having segment 3 of the labial palpi one and a half times the length of segment 2, and by having yellowish and blackish brown colours in the forewings.

Male genitalia (fig. 70): Uncus narrow, finger-shaped, widened before apex. Gnathos with well developed, narrow and distinctly bifurcate median protrusion. Basal pillow of valva covered with microtrichiae; its ventral margin with microspines and numerous setae. Aedeagus strongly curved, slightly narrowing caudally; its apex more or less cylindric, with a peculiar caudal notch.

Female genitalia (fig. 89): Apophyses posteriores three times as long as apophyses anteriores. Sternite VIII without median sclerotization. Posterior margin of sternite VII slightly concave. Intersegmental membrane with a very well developed convex field of microtrichiae at each sides of ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae large and oval; signum hook-shaped with more or less equilateral triangular base.

Material examined:

♀, Holotype of *Blastobasis lignea* var. *adustella* WLSM.: 'Type'; 'Madeira, WOLLASTON, B[ETHUNE]-BAKER Coll. 13697'; 'WALSINGHAM Collection 1910-427'; 'B.M. Genitalia slide ♀ No. 4961'; '*Blastodasis* (B) *lignea* WLSM. + *adustella*, WLSM., Tr. Ent. Soc. Lond. 1894. 551 / Type ♀ descr.'; 'Holotype ♀ *Blastobasis adustella* WALSINGHAM, 1894' (BMNH).

♂, Lectotype of *Blastobasis xanthographella* RBL., designated here: 'Madeira, 1080 m, Rabaçal, 17.VII.-4.VIII.1935 O. LUNDBLAD'; '*Blastobasis xanthographella* RBL. ♂ Type'; 'coll. Mus. Wien'; '♂ Genit. 4239 NIELS L. WOLFF'; 'MUS. VIND. 12.235 ♂'; 'Lectotypus ♂ *Blastobasis xanthographella* REBEL, 1940, design. KARSHOLT et SINEV' (NHMW). Paralectotype (♀) is in the collection of NHRS.

Other material: Madeira:

1 ♀ (paralectotype of *xanthographella*), Rabaçal, 1080 m, 17.VII.-4.VIII.1935, leg. O. LUNDBLAD, genit. slide ♀ 4025 WOLFF (NHRS);
1 ♀, Rabaçal, 1080 m, 17.VII.-4.VIII.1935, leg. O. LUNDBLAD, genit. slide ♀ 4029 WOLFF (NHRS);
1 ♀, Assomada, 15.VI.1969, leg. PINKER (LSNK);
1 ♀, Funchal-Lido, at light, 20-31.V.1970, leg. N. L. WOLFF, genit. slide ♀ 3850 WOLFF (ZMUC);
2 ♂♂, Serra d'Água, 660 m, 7.IX.1973, leg. LOMHOLDT & WOLFF, genit. slides ♂ 4199 and ♂ 4203 WOLFF (ZMUC);
1 ♂, 1 km NE Pico Alto, 1100 m, 17.VIII.1974, leg. E. TRAUGOTT-OLSEN, genit. slide ♂ 0280/SINEV (ZMUC);
2 ♂♂, 2 ♀♀, Pousada dos Vinhaticos, Serra d'Água, 600 m, 15-16.VIII.1974, leg. N. L. WOLFF (ZMUC);
1 ♀, Pousada dos Vinhaticos, Serra d'Água, 660 m, 31.VIII.1975, leg. N. L. WOLFF (ZMUC);
1 ♂, Ribeira das Cales, 1000 m, 28.VIII.1975, leg. N. L. WOLFF, genit. slide ♂ 0281/ SINEV (ZMUC);
4 ♂♂, 4 ♀♀, Pico Ruivo, 1800 m, 29.VIII.1975, leg. N. L. WOLFF, genit. slide ♂ 0282/

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Sinev (ZMUC, ZIAN);
2 ♂♂, Fajã da Nogueira, 1000 m, 24.VIII.1975, leg. N. L. Wolff, genit. slide ♂ 0297/ Sinev (ZMUC, ZIAN);
2 ♀♀, Fajã da Nogueira, 600 m, 28.VIII.1975, leg. N. L. Wolff, genit slide ♀ 0298/ Sinev (ZMUC);
1 ♀, Encumeada, 1000 m, 18.VI.1993, leg. O. Karsholt (ZMUC);
1 ♀, str. Paul da Serra - Canhas, 750 m, at light, 1.X.1993, leg. G. Bassi (MRSN);
7 ♂♂, 19 ♀♀, dint. Poiso, 1200 m, at light, 2.X.1993, leg. G. Bassi (MRSN);
1 ♀, str. Porto Moniz - Paul da Serra, 800 m, at light, 6.X.1993, leg. G. Bassi (MRSN);
1 ♀, Eira do Serrado, 6.X.1993, leg. G. Bassi (MRSM);
4 ♀♀, Fajã da Nogueira, 600-1000 m, 8.X.1994, leg. O. Karsholt, genit. slide ♀ 0283/Sinev (ZMUC, ZIAN);
3 ♀♀, below Pico Arieiro, 1600 m, 10-11.IX.1997, leg. O. Karsholt (ZMUC, ZIAN);
1 ♀, Encumeada, 900 m, 13.IX.1997, leg. O. Karsholt (ZMUC);
2 ♀♀, Casa do Barreiro, Parque Ecologico do Funchal, 970 m, 20-26.VII.1998, leg. Martin (BMNH);

England:
1 ♂, 1 ♀, Lancashire, Grange, 5.VIII.1922, leg. Mansbridge (LSNK);
4 ♂♂, 2 ♀♀, HertFordshire, Rothamsted, 14.VII.-17.VIII.1973, Rothamsted Exp. Sta. (ZMUC);

Scotland:
6 ♂♂, 8 ♀♀, Forfar, Dundee, 3.VII.-1.VIII.1973, Rothamsted Exp. Sta. (ZMUC).

Distribution: Madeira (originally endemic). The species was imported to England (Lancashire) and Ireland at the beginning of 20th century (Mansbridge, 1922; Poulton, 1928) and then spread progressively, reaching Wales in the 1960s and Scotland in the 1970s. Its range now extends nearly throughout the British Isles (Dickson, 2002). The record from the Azores (Passos de Carvalho, 1992, as *xanthographella*) should be verified.

Bionomy: Early stages in Madeira unknown. The flight period extends from May to October with a peak in August. The moths can be found mainly in the highlands over 600 m and up to 1800 m in the central part of the island, with maximum of specimens collected between 600 and 1400 m. In the British Isles, the larvae feed on diverse vegetable matter and have been found under seed-containing bird droppings on grand fir, in midge-galls on great sallow, on juniper and in spongy oak-galls, etc. (Dickson, 2002). Mansbridge & Wright (1939) found larvae on fresh leaves of yew (*Taxus baccata* L). Some of their pupae hibernated twice.

Remarks: The holotype of *Blastobasis lignea* var. *adustella* and the lectotype of *B. xanthographella* (both studied) undoubtedly belong to the same species, and this species corresponds to *B. lignea* sensu auctt. (Mansbridge, 1922; Bradley, 1953; Jacobs, 1974; Easterbrook, 1985; etc.). All specimens of '*lignea*' from the British Isles which were determined using the genitalia appeared to belong to *adustella*. *Blastobasis lignea* var. *melanella* and *Blastobasis lignea* var. *pallidella* were described from material bred from eggs. There are syntypes in the BMNH (Bankes collection) labelled: "Arnside * ab ovo W. Mansbr. II.1934". The true *B. lignea* is known from Madeira only.

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Blastobasis laurisilvae **sp. n.**

Material examined: 6 males, 4 females.

Holotype, ♂: '**Madeira**, 1300 m, Ribeira da Janela, 14.X.1994 O. KARSHOLT'; 'Genit. slide ♂ 0287/SINEV, Euparal, X.1998'; 'Holotypus ♂ *Blastobasis laurisilvae* KARSHOLT et SINEV' (ZMUC).

Paratypes: **Madeira**:

1 ♂, Queimadas, 2.VI.1980, leg. PASSOS DE CARVALHO (BMNH);
1 ♂, Santa, 14.IX.1980, leg. PASSOS DE CARVALHO (ZMUC).
1 ♀, Ribeira da Janela, 1300 m, 14.X.1994, leg. O. KARSHOLT, genit. slide ♀ 0288/ SINEV (ZMUC);
2 ♂♂, 1 ♀, Ribeira da Janela, 600 m, 14.X.1994, leg. O. KARSHOLT (ZMUC, ZIAN);
2 ♀♀, Achadas da Cruz, 700 m, 11.X.1994, leg. O. KARSHOLT (ZMUC, ZIAN);
1 ♂, Encumeada, 900 m, 13.IX.1997, leg. O. KARSHOLT (ZMUC);

Adult (fig. 35). Wingspan 24-28 mm. Head light grey brown. Scape of antenna grey brown; flagellum brownish, with deep basal notch in male. Labial palpi relatively slender, pale brownish; segment 2 anteriorily somewhat widened by scale brush; segment 3 short. Thorax as forewing; tegulae prominent, light brown at base and tip, blackish in middle. Forewing broad, rounded at apex, light brown mottled with warm brown (especially along dorsum) and blackish brown (especially along costa); some veins with black scales; black dots at 2/5, 3/5 and two, often confluent at 4/5; termen with elongate black dots, greyish brown with indistinct darker fringe line. Hindwing broad, apically rounded, grey; fringes grey with dark grey fringe line.

Variation. Some specimens have the forewings more uniformly covered with brownish. In such specimens there is also more blackish suffusion.

Similar species. The species differs from other Madeiran Blastobasidae by its large size and its broad, apically rounded wings.

Male genitalia (fig. 71): Uncus gradually narrowing to apex. Gnathos with well developed and distinctly bifurcate median protrusion. Basal pillow of valva covered with microtrichiae; its ventral margin uniformly convex, with numerous microspines and strong setae. Juxta well developed as a separate sclerite between valvae bases below aedeagus. Aedeagus slightly curved, narrowing to distinctly bifurcate apex.

Female genitalia (fig. 97): Apophyses posteriores three times as long as apophyses anteriores. Sternite VIII with narrowly triangular median sclerotization. Posterior margin of sternite VII concave. Intersegmental membrane with a rather weakly developed field of microtrichiae at each side of ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae small and oval; signum hook-shaped with more or less equilateral triangular base.

Distribution: Madeira (endemic).

Bionomy: Early stages unknown. The adults have been collected in early April and in September - October in the primary laurisilva forests at altitudes between 600 and 1300 m.

Etymology: The new species is named after its habitat, the primary laurisilva forests.

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Blastobasis salebrosella Rebel, 1940

Blastobasis salebrosella Rebel, 1940a: 14 (key), 20-21, pl. 3, fig. 24; 1940b: 8; Passos de Carvalho, 1992: 267; 1995: 564, 577; Vieira, 1997: 15.

Adult (figs 36-37). Wingspan 9-12 mm. Head and scape of antenna blackish brown; flagellum blackish, indistinctly lighter ringed, with moderate basal notch in male. Labial palpi short and slender, blackish brown; segment 2 whitish at apex. Thorax and tegulae blackish brown. Forewing relatively short and broad with rounded apex; basal 3/5 blackish (in middle with two tufts of raised scales), outwards edged with a thin white fascia; apical 2/5 of wing light brown with two tufts of raised scales and divided by two irregular blackish fascia; termen with black dots; fringes blackish. Hindwing relatively slender with pointed apex, black with blackish fringes.

Variation. Some specimens have a light brown patch between base and basal pair of tufts of raised scales in the forewing.

Similar species. This new species is characterized by its small size and black and light brown forewings with tufts of raised scales. *B. divisus* and *subdivisus* are larger and have no tufts of raised scales. *B. splendens* has white markings in the forewings.

Male genitalia (fig. 67): Uncus shortly finger-shaped. Gnathos approximated to uncus, with well developed and indistinctly bifurcate median protrusion. Basal pillow of valva covered with microtrichiae; its ventral margin strongly convex, with numerous strong setae. Aedeagus rather massive, slightly narrowing to more or less cylindric and distinctly bifurcate apex.

Female genitalia (fig. 94): Apophyses posteriores three and a half times as long as apophyses anteriores. Sternite VIII without median sclerotization. Posterior margin of sternite VII weakly concave. Intersegmental membrane with a very well developed convex field of microtrichiae at each side of ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae very large and oval; signum hook-shaped with widely triangular base.

Material examined:

♂ (without right wings), Lectotype of *Blastobasis salebrosella* Rbl., designated here: 'Madeira, 1080 m, Rabaçal, 17.VII.-4.VIII.1935 O. Lundblad'; ' ♂ Genit. 4024 NIELS L. Wolff'; 'specimen glued'; '*Blastobasis salebrosella* Rbl., Type ♂'; '248/73'; '42/58'; 'Riksmuseum Stockholm'; 'Lectotypus ♂ *Blastobasis salebrosella* Rebel, 1940, design. Karsholt et Sinev' (NHRS). Paralectotype (♀) is in the collection of NHMW.

Other material: Madeira:

3 ♂♂, 1 ♀, without exact locality, [1855], leg. Wollaston (BMNH);
1 ♀ (paralectotype), Rabaçal, 1080 m, 17.VII.-4.VIII.1935, leg. O. Lundblad (NHMW);
2 ♀♀, Funchal-Lido, 20.VIII.1974, leg. E. Traugott-Olsen (ZMUC);
1 ♂, 1 ♀, Fajã da Nogueira, 1000 m, 23.VIII.1974, leg. E. Traugott-Olsen, genit. slide ♂ 0405/Sinev (ZMUC);
1 ♂, Serra d'Água, 580 m, 1.VII.1993, leg. O. Karsholt (ZMUC);
4 ♀♀, 28 ex., Fajã da Nogueira, 600-700 m, 31.VIII.-11.IX.1994, leg. M. & E. Arenberger, genit. slide ♀ 0404/Sinev (AREN, ZMUC);

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1 ♀, Achadas da Cruz, 700 m, 10.X.1994, leg. O. KARSHOLT (ZMUC);
1 ♂, 5 ♀♀, Encumeada, 900 m, 13-15.IX.1997, leg. O. KARSHOLT (ZMUC, ZIAN);
1 ♂, Casa do Barreiro, Parque Ecologico do Funchal, 970 m, 24-26.VII.1998, leg. MARTIN (BMNH);
1 ♂, S. Martinho, Nagoné, Edificio Stadium, 28.V.2000, leg. A. AGUIAR (ICLAM);
1 ♂, 1 ♀, Fajã da Nogueira (Montado do Sabugal), 700-800 m, 20.VII.2000, leg. A. AGUIAR & J. JESUS (ICLAM).

Distribution: Madeira (probably endemic). The records from the Azores (PASSOS DE CARVALHO, 1992; VIEIRA, 1997) should be verified.

Bionomy: Early stages unknown. The moths have been collected in late May and from early July to October at altitudes mainly between 600 and 1000 m.

Blastobasis splendens sp. n.

Material examined: 1 female.

Holotype, ♀: '**Madeira**, 1000 m, Encumeada, 3.VII.1993 O. KARSHOLT'; 'Genit. slide ♀ 0403/SINEV, Euparal, X.1998'; 'Holotypus ♀ *Blastobasis splendens* KARSHOLT et SINEV' (ZMUC).

Adult (fig. 38). Wingspan 13 mm. Head metallic black. Scape of antenna blackish; flagellum black. Labial palpi short and thin, black. Thorax and tegulae metallic black. Forewing rather short and broad with moderately pointed apex, shining metallic black; near base of dorsum a broad yellowish white fascia nearly reaching costa, outwards edged by a prominent tuft of raised, black scales; a slender white fascia in middle of wing; a straight subapical fascia of raised black scales; termen with white scales from tornus nearly to white subapical spot; fringes black. Hindwing rather broad, apically pointed, black with black fringes.

Variation. Only the holotype was examined.

Similar species. The only species of *Blastobasis* in Madeira having metallic black forewings with white markings and prominent tufts of raised black scales. *B. salebrosella* q.v.

Male genitalia: Hitherto unknown.

Female genitalia (fig. 95): Apophyses posteriores more than three times as long as apophyses anteriores. Sternite VIII without median sclerotization. Posterior margin of sternite VII weakly concave. Intersegmental membrane with a very well developed field of microtrichiae at each side of ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae very large and oval; signum hook-shaped with more or less oval base.

Distribution: Madeira (endemic).

Bionomy: Early stages unknown. The single known specimen was collected at 1000 m at the beginning of July.

Etymology: The name of the new species is derived from Latin: *splendidus* = brilliant, and emphasizes the unusually bright appearance of this moth.

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***Blastobasis rebeli* sp. n.**

Material examined: 7 males, 8 females.

Holotype, ♂: '**Madeira**, Caniço, 12-18.IX.1977 Lomholdt & Wolff'; 'Genit. slide ♂ 0294/ Sinev, Euparal, X.1998'; 'Holotypus ♂ *Blastobasis rebeli* Karsholt et Sinev' (ZMUC).

Paratypes: **Madeira**:

2 ♂♂, 2 ♀♀, Pico Ruivo, 1800 m, 29.VIII.1975, leg. N. L. Wolff, genit. slides ♂ 0292/Sinev, ♀ 0293/Sinev (ZMUC, ZIAN);
2 ♂♂, Queimadas, 10.IX.1980 and 28.VIII.1982, leg. Passos de Carvalho (ZMUC).
1 ♂, 1 ♀, NW Serra de Água, Lapa do Galho, 1000 m, at light, 13.VII.1991, leg. M. Meyer (Mey);
4 ♀♀, below Pico Arieiro, 1600 m, 10-11.IX.1997, leg. O. Karsholt (ZMUC, ZIAN);
England:
1 ♂, The Moors NR, Bishop's Waltham, vc11, SU5517, S.Hants, 17.VII.1998, leg. Dickson, genit. slide ♂ 4935 Karsholt (Coll. Dickson).

Adult (fig. 39). Wingspan 10-13 mm. Head and scape of antenna light grey mottled with blackish; flagellum with moderate basal notch in male. Labial palpi slender, cream, mottled with blackish, especially at outer and lower surface of segment 2. Thorax and tegulae as forewing. Forewing relatively elongate, light grey mottled with dark grey and blackish, especially at base and along costa and dorsum; a somewhat oblique black fascia at about 1/3 (broadest at dorsum), indwards edged with light grey; subapical fascia black; termen with black dots; fringes grey with indistinct darker grey fringe line. Hindwing relatively slender, apically pointed, grey with grey fringes.

Variation. The short type series shows only minor variation.

Similar species. The species is separated from the only other light grey *Blastobasis*, *serradaguae*, as the latter has tufts of raised, black scales in the forewings. It somewhat resembles light grey forms of the European *B. phycidella* Zell., but differs in the genitalia.

Male genitalia (fig. 68): Uncus shortly finger-shaped. Gnathos with well developed and weakly bifurcate median protrusion. Basal pillow of valva covered with microtrichiae; its ventral margin uniformly convex, with numerous setae; dorsal margin with few strong setae distally. Aedeagus slightly narrowing to shortly conic apex with two peculiar lateral microspines.

Female genitalia (fig. 96): Apophyses posteriores three times as long as apophyses anteriores. Sternite VIII slightly widened, without median sclerotization. Posterior margin of sternite VII weakly concave. Intersegmental membrane with a well developed field of microtrichiae at each side of ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae large and oval; signum hook-shaped with widely triangular base.

Distribution: Madeira (originally endemic). *B. rebeli* was very recently imported to England and collected there in 1998 and repeatedly in 2001 (Dickson, 2002, as *Blastobasis* sp.).

Bionomy: Early stages unknown. The moths have been collected from mid-July to mid-September. The holotype was found near the coast, the paratypes in the highlands between 1000 and 1800 m.

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Etymology: The new species is named in honour of Prof. HANS REBEL, who made an invaluable contribution to the knowledge of the Madeiran fauna of Blastobasidae (REBEL, 1940a).

Blastobasis nigromaculata (WOLLASTON, 1858)

Gelechia nigromaculata WOLLASTON, 1858: 121; WALKER, 1864: 627.
Blastobasis nigromaculata: WALSINGHAM, 1894: 552; REBEL, 1901: 164; 1917: 12; 1940a: 13 (key); 1940b: 7; PASSOS DE CARVALHO, 1995: 564.

Adult (figs 40-42). Wingspan 10-19 mm. Head white; lower part of face darker. Scape of antenna white; flagellum dark brown, with deep basal notch in male. Labial palpi rather slender; segment 2 whitish on inner and upper surface, blackish brown on outer and lower surface; segment 3 whitish. Thorax and tegulae whitish. Forewing short and relatively broad with rounded apex, white, somewhat mottled with yellow; black spots on costa at base and at 2/5, and at dorsum at 2/5, extending to middle of wing; a black dot in centre of wing; black subapical spot prominent; tornal spot weaker; between them two black dots; termen with black dots; fringes light grey. Hindwing rather broad with more or less rounded apex, grey with grey fringes.

Variation. Some specimens have many yellow scales in the forewing, and in such specimens the black spots are edged with yellow. There is considerable variation in size, and also the width of the hindwing is somewhat variable. Specimens from Porto Santo are smaller, have more slender, pointed wings, and thorax and the forewings more or less mottled with greyish and blackish.

Similar species. The relatively short and broad wings and the white colour of the forewings with few black markings and the relatively dark hindwings separate *nigromaculata* from other Madeiran Blastobasidae. *B. wollastoni* q.v., *B. pica* q.v.

Male genitalia (fig. 74): Uncus gradually narrowing to apex. Gnathos with well developed shortly bifurcate median protrusion. Basal pillow of valva covered with microtrichiae; its ventral margin more or less uniformly convex, with numerous setae. Aedeagus massive, strongly curved, with two very peculiar large and well sclerotized horn-like processes.

Female genitalia (fig. 100): Apophyses posteriores four times as long as apophyses anteriores. Sternite VIII without median sclerotization. Posterior margin of sternite VII nearly straight. Intersegmental membrane with a rather well developed field of microtrichiae at each side of ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae large and oval; signum hook-shaped with rounded base.

Material examined:

♀, Lectotype of *Gelechia nigromaculata* WOLL., designated here: 'Lectotype'; 'Type'; 'Madeira, WOLLASTON 1858-21'; 'XXVII'; 'Gelechia nigromaculata, WLSTN. Ann. Mag. N.H. (3. s.) I. 121. (1858) Madeira [Feijaa d'Ovelha] VII, S[outhern] Dezerta VI / Type XXVII'; 'Lectotypus ♀ *Gelechia nigromaculata* WOLLASTON, 1858, design. KARSHOLT et SINEV' (BMNH). Paralectotypes (2 ♀♀) are in the same collection.

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Other material: Madeira:

2 ♀♀ (paralectotypes), without exact locality, [1855], leg. Wollaston (BMNH);
3 ♂♂, Assomada, 15.VI.1969, leg. Pinker (LSNK);
1 ♂, 1 ♀, Somada, [1969], leg. Pinker (LSNK);
1 ♀, Funchal, [1969], leg. Pinker (LSNK);
13 ♂♂, 3 ♀♀, Santo da Serra, [1969], leg. Pinker (LSNK);
3 ♂♂, Funchal-Lido, at light, 20-31.V.1970, leg. N. L. Wolff, genit. slides ♂ 3828 and ♂ 3830 Wolff (ZMUC);
1 ♂, 1 ♀, Funchal-Lido, at light, 20-30.IV.1972, leg. N. L. Wolff (ZMUC);
2 ♂♂, Serra d'Água, 660 m, 7.IX.1973, leg. Lomholdt & Wolff (ZMUC);
3 ♂♂, Funchal-Lido, 4-14.IX.1973, leg. N. L. Wolff (ZMUC);
4 ♂♂, Funchal-Lido, 17-22.IV.1974, leg. N. L. Wolff (ZMUC);
1 ♂, 2 ♀♀, Funchal-Lido, 13-26.VIII.1974, leg. N. L. Wolff (ZMUC, ZIAP);
6 ♂♂, Funchal-Lido, 14-25.VIII.1974, leg. E. Traugott-Olsen (ZMUC);
1 ♂, Machico, 12.IX.1974, leg. W. Dierl (ZSM);
4 ♂♂, Pousada dos Vinhaticos, Serra d'Água, 600 m, 15-23.VIII.1974, leg. N. L. Wolff (ZMUC);
2 ♀♀, Pousada dos Vinhaticos, Serra d'Água, 660 m, 31.VIII.1975, leg. N. L. Wolff (ZMUC);
1 ♂, Caniço, 12-18.IX.1977, leg. Lomholdt & Wolff (ZMUC);
2 ♂♂, 1 ♀, Machico, 20-25.v.1989, leg. A. Cox (COX, WOLS);
1 ♀, Natur bei Machico, 18-23.IV.1982, leg. D. Stüning (ZFMK);
1 ♂, Chão da Ribeira, 430 m, 14.VI.1991, leg. Meyer (Mey);
1 ♂, Fajã de Nogueira, 700 m, at light, 5.VII.1991, leg. M. Meyer (Mey);
1 ♂, São Vicente, sea lev., 12.VI.1993, leg. O. Karsholt (ZMUC);
2 ♂♂, Faial, sea lev., 21.VI.1993, leg. O. Karsholt (ZMUC);
1 ♀, Seixal, 100 m, 1.VII.1993, leg. O. Karsholt (ZIAN);
2 ♂♂, Serra d'Água, 580 m, 1-2.VII.1993, leg. O. Karsholt (ZMUC, ZIAN);
1 ♂, Achadas da Cruz, 725 m, 8.VII.1993, leg. O. Karsholt (ZMUC);
1 ♂, Fajã de Nogueira, 630 m, at light, 7.X.1993, leg. Bassi (MRSN);
5 ♂♂, 1 ♀, Ponta do Sol, sea lev., 17.VI.1993, leg. O. Karsholt, genit. slide ♀ 0400/ Sinev (ZMUC, ZIAN);
1 ♀, Fajã de Nogueira, 600-1000 m, 8.X.1994, leg. O. Karsholt (ZMUC);
2 ♂♂, Porto Moniz, sea lev., 19-22.IV.1996, leg. O. Karsholt (ZMUC);
1 ♂, Funchal-Lido, 50 m, 9.IX.1997, leg. O. Karsholt (ZMUC);
1 ♂, Encumeada, 900 m, 13.IX.1997, leg. O. Karsholt (ZMUC);
1 ♂, Eira do Serrado, 1450 m, 15.x.1997, leg. B. Skule (ZMUC);
1 ♂, Funchal, 3.IV.2002, leg. L. Sippola (SIP);

Porto Santo:

1 ♀, 24.X.1994, leg. O. Karsholt (ZMUC);
5 ♂♂, 7 ♀♀, 12-14.IV.1996, leg. O. Karsholt (ZMUC, ZIAN).

Distribution: Madeira, Porto Santo, Desertas islands (endemic).

Bionomy: Early stages unknown. The moths have been collected in April to beginning of July and in August to October (probably in two generations) at sea level and in the lower montane zone up to 900 m.

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Blastobasis wollastoni **sp. n.**

Material examined: 3 males, 7 females.

Holotype, ♂: '**Madeira**, 600-1000 m, Fajã da Nogueira, 8.X.1994 O. KARSHOLT'; 'Genit. slide ♂ 0295/SINEV, Euparal, X.1998'; 'Holotypus ♂ *Blastobasis wollastoni* KARSHOLT et SINEV' (ZMUC).

Paratypes: **Madeira**:

1 ♀, Fajã da Nogueira, 1000 m, 23.VIII.1974, leg. E. TRAUGOTT-OLSEN (ZMUC);
1 ♀, Fajã da Nogueira, 600 m, 14-15.IX.1977, leg. LOMHOLDT & WOLFF (ZMUC);
1 ♂, 1 ♀, Fajã da Nogueira, 600-700 m, 31.VIII.-6.IX.1994, leg. M. & E. ARENBERGER (ZMUC, ZIAN);
2 ♀♀, Fajã da Nogueira, 18.IX.1997, leg. O. KARSHOLT, genit. slide ♀ 0296/SINEV (ZMUC, ZIAN);
1 ♂, 2 ♀♀, Casa do Barreiro, Parque Ecologico do Funchal, 970 m, 21-26.VII.1998, leg. MARTIN (BMNH).

Adult (fig. 43). Wingspan 8-10 mm. Head and scape of antenna whitish; flagellum light brownish, indistinctly darker ringed, with deep basal notch in male. Labial palpi slender, cream mottled with dark brown. Thorax and tegulae whitish. Forewing slender with somewhat pointed apex, slightly mottled with yellowish and brownish; a black spot on costa at base; an angulated brownish fascia at 2/3; subapical and tornal spots blackish brown with black spot in between; termen with black dots; fringes whitish grey. Hindwing slender with rather pointed apex, light grey with whitish grey fringes.

Variation. The few specimens examined show only slight variation. One specimen has labial palpi light brown with apex of segment 2 cream.

Similar species. The new species looks like small *B. nigromaculata*, but has narrower wings with less distinct markings and paler hindwings. *B. desertarum* is generally larger and has longer, more slender wings and labial palpi with segment 2 anteriorily widened by scale brush and segment 3 short.

Male genitalia (fig. 72): Uncus gradually narrowing to apex. Gnathos with rather weakly developed and indistinctly bifurcate median protrusion. Basal pillow of valva covered with microtrichiae; its ventral margin strongly convex, with numerous microspines and few setae; dorsal margin with few setae only distally. Aedeagus rather narrow, with conic and shortly bifurcate apex.

Female genitalia (fig. 101): Apophyses posteriores three and a half times as long as apophyses anteriores. Sternite VIII with indistinct linear median sclerotization. Posterior margin of sternite VII straight. Intersegmental membrane with a weakly developed field of microtrichiae at each side of ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae rather small, oval; signum hook-shaped with more or less oval base.

Distribution: Madeira (endemic).

Bionomy: Early stages unknown. The moths have been collected from the end of July to the beginning of October at altitudes between 600-1000 m.

Etymology: The new species is named in honour to T. VERNON WOLLASTON, the first investigator of the Madeiran Blastobasidae.

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Blastobasis serradaguae **sp. n.**

Material examined: 10 males, 17 females.

Holotype, ♂: '**Madeira**, 600 m, Serra d'Água, Pousada dos Vinhaticos, 23.VIII.1974 Niels L. Wolff leg.'; 'Holotypus ♂ *Blastobasis serradaguae* Karsholt et Sinev' (ZMUC).

Paratypes: **Madeira**:

1 ♀, Serra d'Água, 660 m, 7.IX.1973, leg. Lomholdt & Wolff, genit. slide ♀ 4209 Wolff (ZMUC);
1 ♂, 2 ♀♀, Serra d'Água, Pousada dos Vinhaticos, 600 m, 15.VIII.1974, leg. E. Traugott-Olsen (ZMUC, ZIAN);
1 ♂, 4 ♀♀, Serra d'Água, Pousada dos Vinhaticos, 600 m, 15-23.VIII.1974, leg. N. L. Wolff, genit. slide ♀ 0279/Sinev (ZMUC, ZIAN);
1 ♀, Fajã da Nogueira, 1000 m, 20.VIII.1974, leg. E. Traugott-Olsen (ZMUC);
1 ♂, 2 ♀♀, Serra d'Água, Pousada dos Vinhaticos, 660 m, 31.VIII.1975, leg. N. L. Wolff (ZMUC);
2 ♂♂, Pico Ruivo, 1800 m, 29.VIII.1975, leg. N. L. Wolff (ZMUC, ZIAN);
2 ♂♂, Curral de Freiras, 11.VI.1980, leg. Passos de Carvalho & A. Contente (ZMUC);
1 ♂, 1 ♀, Fajã da Nogueira, 5.VI.1980, leg. Passos de Carvalho (BMNH, ZMUC);
1 ♀, Fajã da Nogueira, 2.IX.1980, leg. Umbelina (ZMUC);
1 ♀, 4 km NW Machico, 400 m, at light, 20.V.1989, leg. M. Hellers (Mey);
2 ♀♀, Fajã da Nogueira, 700 m, at light, 5.VII.1991, leg. M. Meyer (Mey);
1 ♀, Santa Madalena, SW Porto do Moniz, 600 m, 9.VII.1991, leg. M. Meyer (Mey);
1 ♂, Serra d'Água, 580 m, 1.VII.1993, leg. O. Karsholt (ZIAN);
1 ♀, Achadas da Cruz, 725 m, 8.VII.1993, leg. O. Karsholt (ZMUC);
2 ♂♂, Serra d'Água, 580 m, 27.VIII.1994, leg. M. & E. Arenberger (AREN);
2 ♀♀, Fajã da Nogueira, 600-700 m, 31.VIII.1994, leg. M. & E. Arenberger (AREN).

Adult (figs 44-45). Wingspan 15-17 mm. Head and scape of antenna cream mottled with grey; flagellum blackish brown, pectinated with rather long ciliae instead of basal notch in male, simple in female. Segment 2 of labial palpi anteriorily widened by scale brush, blackish brown mottled with cream; segment 3 rather short. Thorax and tegulae as forewing. Forewing relatively broad with somewhat rounded apex, light grey mottled with brownish and blackish; a broad black band (broadest at dorsum) at 1/3, in middle of outer margin edged by black raised scales; a spot of such scales at 3/5 near dorsum, and another, vertical streak between black subapical and tornal spots; an indistinct angulated subapical fascia; termen with blackish spots; fringes grey beyond indistinct fringe line. Hindwing relatively broad, slightly rounded at apex, grey with grey fringes.

Variation. The forewing colour varies from light grey to greyish brown. Some specimens have basal part of the forewings light grey and distal part greyish brown.

Similar species. The only Madeiran *Blastobasis* having grey forewings with tufts of raised scales and the largest species with such tufts. *B. rebeli* q.v.

Male genitalia (fig. 73): Uncus widely finger-shaped. Gnathos with more or less well developed and shortly bifurcate median protrusion. Valva with sacculus much shorter than cucul-

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lus. Basal pillow of valva covered with microtrichiae; its ventral margin uniformly convex, with numerous microspines and a row of setae. Aedeagus slightly narrowing to cylindric apex.

Female genitalia (fig. 98): Apophyses posteriores three times as long as apophyses anteriores. Sternite VIII with linear median sclerotization. Posterior margin of sternite VII straight. Intersegmental membrane with a well developed field of microtrichiae at each side of ostium. Ductus bursae long, with densely spined and slightly twisted part before corpus bursae. Corpus bursae large and oval; signum hook-shaped with widely triangular base.

Distribution: Madeira (endemic).

Bionomy: Early stages unknown. The moths have been collected in May - beginning of July and in mid-August - September (probably in two generations) at altitudes between 400 m and 1000 m, with two specimens found at 1800 m.

Etymology: The new species is named after the type locality, Serra d'Água, one of the most important localities for endemic Lepidoptera in Madeira.

Blastobasis spectabilella REBEL, 1940

Blastobasis spectabilella REBEL, 1940a: 13 (key), 18, pl. 3, fig. 28; 1940b: 8; PASSOS DE CARVALHO, 1995: 577.

Adult (figs 46-47). Wingspan 23-24 mm. Head yellowish. Scape of antenna yellow; flagellum brownish, indistinctly lighter ringed, pectinated with long ciliae instead of basal notch in male, simple in female. Labial palpi long and slender; segment 2 slightly widened by scale brush; segment 3 almost as long as segment 2; light yellowish mottled with dark brown especially in segment 3. Thorax and tegulae yellowish. Forewing rather broad with rounded apex, light yellowish somewhat mottled with brownish and black; a black spot on costa at base and one at 2/5; a large subtriangular patch along basal half of dorsum; anterior part of costa and apical part of wing yellowish grey with some veins black; subapical and tornal spots indistinct; fringes light yellow-grey. Hindwing broad with rounded apex, grey with grey fringes.

Variation. The female differs from the male holotype in having more contrastingly coloured forewings, with larger and more distinct black spots along costa and dorsum.

Similar species. *B. spectabilella* is characterized by its large size, its broad wings with rounded apex and its light yellowish forewings with a large dark patch at basal part of dorsum in female. Large specimens of *B. lacticolella* may resemble *spectabilella*, but the former has more slender wings, dark spots in middle and apical part of the forewings and lighter hindwings.

Male genitalia (fig. 69): Uncus rather long finger-shaped. Gnathos with weakly developed and indistinctly bifurcate median protrusion. Basal pillow of valva covered with microtrichiae; its ventral margin more or less uniformly convex, with numerous microspines and short setae. Aedeagus slightly narrowing to apex.

Female genitalia (fig. 93): Apophyses posteriores four times as long as apophyses anteriores. Sternite VIII with linear median sclerotization. Posterior margin of sternite VII slightly concave, with lateral groups of thecae for enlarged scales. Intersegmental membrane with very indistinct small field of microtrichiae at each side of ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae large and oval; signum hook-shaped with triangular base.

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Material examined:

♂, Holotype of *Blastobasis spectabilella* Rbl.: 'I. de Madere, Env. Funchal, Reg. littorale'; '*Blastobasis spectabilella* Rbl., Type ♂'; 'genitalia ♂ P. Viette prep. no. 5701'; 'Type de Rebel 1939'; 'Museum Paris, Coll. D. Lucas 1952'; 'Holotype ♂ *Blastobasis spectabilella* Rebel, 1940' (MNHN).

Other material: Madeira:

1 ♀, Chão da Ribeira, 430 m, 14.VII.1991, leg. M. Meyer, genit. slide ♀ 0409/Sinev (ZMUC).

Distribution: Madeira (endemic).

Bionomy: Early stages unknown. The holotype was collected in the coastal area, and the second known specimen - in the lower montane zone in the middle of July.

Remarks: It remains somewhat doubtful, but most probable that the female is conspecific with the holotype male.

Blastobasis divisus (Walsingham, 1894)

Epistetus divisus Walsingham, 1894: 552-553; Rebel, 1901: 164; 1917: 12; 1940a: 21, pl. 3, fig. 23; 1940b: 8.
Blastobasis divisus: Walsingham & Durrant, 1909: 47; Passos de Carvalho, 1995: 565, 577.

Adult (figs 48-50). Wingspan 13-19 mm. Head blackish brown; face lighter. Scape of antenna dark brownish, edged with whitish; flagellum black, indistinctly lighter ringed, long ciliated and with a vestigial basal notch in male, simple in female. Labial palpi relatively short and slender, blackish brown mottled with light brown. Thorax and tegulae blackish brown. Forewing relatively broad with somewhat rounded apex; basal half black with patch of light brown and whitish scales near base; in middle of wing a thin, irregular whitish band; apical half of forewing light brownish mottled with black; a black spot in middle of wing at 3/4 connected with tornal spot; an indistinct, angulated black fascia from subapical to tornal spot; termen with light and black dots; fringes blackish. Hindwing rather broad with rounded apex, black with black fringes.

Variation. Males are generally darker than females. In some specimens the forewings are overlaid with black, leaving only a small whitish spot at base, the whitish fascia in middle of the wings and white dots around termen. In such specimens the labial palpi are entirely black.

Similar species. Males of *B. divisus* can be separated from similar looking species by the long ciliae of the antennae. *B. subdivisus* q.v., *B. salebrosella* q.v.

Male genitalia (fig. 75): Uncus rather broad, gradually narrowing to apex. Gnathos with well developed, apically narrow and distinctly bifurcate median protrusion. Basal pillow of valva elongate, covered with microtrichiae; its ventral margin uniformly convex, with numerous microspines and few setae. Aedeagus slightly narrowing caudally; its apex long, with rather numerous microspines.

Female genitalia (fig. 102): Apophyses posteriores three and a half times as long as apophyses anteriores. Sternite VIII without median sclerotization. Posterior margin of sternite VII concave. Intersegmental membrane with a very indistinct small field of mi-

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crotrichiae at each side of ostium. Ductus bursae long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae rather small, oval; signum hook-shaped with oval base.

Material examined:

♂, Lectotype of *Epistetus divisus* WLSM., designated here: 'Lectotype'; 'Madeira, WOLLASTON, B[ETHUNE]-BAKER Coll. 13720'; 'WALSINGHAM Collection 1910-427'; '*Epistetus divisus*, WLSM. Tr. Ent. Soc. Lond. 1894. 552-3 / Type ♂ descr.'; 'B.M. Genitalia slide 23.874 ♂'; 'Lectotypus ♂ *Epistetus divisus* WALSINGHAM, 1894, design. KARSHOLT et SINEV' (BMNH). Paralectotypes (3 ♀♀ without abdomens) are in the same collection; one of them belongs to *Blastobasis subdivisus* **sp. n.**

Other material: Madeira:

2 ♀♀ (paralectotypes), without exact locality, [1855], leg. WOLLASTON (BMNH);
2 ♀♀, Serra de Água, [1969], leg. PINKER (LSNK);
1 ♀, Fajã da Nogueira, 1000 m, 23.VIII.1974, leg. E. TRAUGOTT-OLSEN (ZMUC);
1 ♀, Pico Ruivo, 1800 m, 29.VIII.1975, leg. N. L. WOLFF (ZMUC);
1 ♂, 1 ♀, Pousada dos Vinhaticos, Serra d'Água, 660 m, 31.VIII.1975, leg. N. L. WOLFF (ZMUC);
2 ♂♂, 1 ♀, Queimadas, 900 m, 14-15.VI.1976, leg. N. L. WOLFF, genit. slide ♂ 4363 WOLFF (ZMUC);
1 ♀, Fajã da Nogueira, 600 m, 14-15.IX.1977, LOMHOLDT & WOLFF (ZMUC);
1 ♂, Queimadas, 1.V.1980, leg. MONIZ SERRANO (ZMUC);
2 ♀♀, Poiso, 1400 m, 13.V.1989, leg. M. HELLERS (MEY);
1 ♀, Ribeiro Frio, 900 m, at light, 3.VII.1991, leg. M. MEYER (MEY);
1 ♀, Pico Alto, Terreiro da Luta, 950 m, 4.VII.1991, leg. M. MEYER (MEY);
1 ♀, Fajã da Nogueira, 700 m, at light, 5.VII.1991, leg. M. MEYER (MEY);
1 ♀, Lamaceiros, N Encumeada, 900 m, at light, 11.VII.1991, leg. M. MEYER (MEY);
2 ♀♀, Lapa do Galho, NW Serra de Água, 1000 m, at light, 13.VII.1991, leg. M. MEYER (MEY);
1 ♂, Chão da Ribeira, 430 m, 14.VII.1991, leg. M. MEYER (MEY);
1 ♀, Ribeiro Frio, 950 m, 15.VI.1993, leg. O. KARSHOLT (ZMUC);
2 ♂♂, 6 ♀♀, Encumeada, 1000 m, 13-17.VI.1993, leg. O. KARSHOLT (ZMUC, ZIAN);
1 ♂, 3 ♀♀, Encumeada, 3.VII.1993, leg. O. KARSHOLT (ZMUC, ZIAN);
1 ♀, Achadas da Cruz, 725 m, 8.VII.1993, leg. O. KARSHOLT (ZMUC);
1 ♀, Fajã da Nogueira, 500-700 m, 20.VI.1993, leg. O. KARSHOLT (ZMUC);
1 ♀, str. Paul da Serra - Canhas, 750 m, at light, 1.X.1993, leg. G. BASSI (MRSN);
1 ♀, dint. Poiso, 1200 m, at light, 2.X.1993, leg. G. BASSI (MRSN);
2 ♀♀, str. Porto Moniz - Paul da Serra, 800 m, at light, 6.X.1993, leg. G. BASSI (MRSN);
8 ex., Fajã da Nogueira, 600-700 m, 31.VIII.-6.IX.1994, leg. M. & E. ARENBERGER (AREN);
1 ♂, Achadas da Cruz, 700 m, 10.X.1994, leg. O. KARSHOLT, genit. slide ♂ 0277/SINEV (ZMUC);
1 ♀, Ribeira da Janela, 1300 m, 14.X.1994, leg. O. KARSHOLT (ZMUC);

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1 ♀, Ribeira da Janela, 600 m, 20-21.IV.1996, leg. O. Karsholt (ZMUC);
1 ♀, Santana, 530 m, 17-20.IV.1996, leg. O. Karsholt (ZMUC);
3 ♀♀, Encumeada, 900-1000 m, 13-15.IX.1997, leg. O. Karsholt (ZMUC);
1 ♀, below Pico Arieiro, 1600 m, 10-11.IX.1997, leg. O. Karsholt (ZMUC);
3 ♂♂, 9 ♀♀, Casa do Barreiro, Parque Ecologico do Funchal, 970 m, 21-26.VII.1998, leg. Martin (BMNH);
1 ♂, Seixal, 450 m, 28.VII.1998, leg. Martin (BMNH).

Distribution: Madeira (endemic).

Bionomy: Early stages unknown. The flight period extends from the end of April to the middle of October. All specimens have been collected at altitudes over 450 m, mainly between 800 and 1000 m.

Remarks: The type species of *Epistetus* Walsingham, 1894, which was first synonymized with *Blastobasis* Zeller, 1855 by Walsingham & Durrant (1909).

Blastobasis subdivisus sp. n.

Material examined: 4 males, 6 females.

Holotype, ♂: '**Madeira**, Funchal-Lido, 20-31.V.1970 Hg-lys., N.L. Wolff'; '♂ Genit. 3855 Niels L. Wolff'; 'Holotypus ♂ *Blastobasis subdivisus* Karsholt et Sinev' (ZMUC).

Paratypes: **Madeira**:

1 ♀ (paralectotype of *Epistetus divisus* Wlsm.), without exact locality, [1855], leg. Wollaston (BMNH);
1 ♀, Funchal, 14-16.VI.1962, leg. Classey, genit. slide ♀ BM 8627 (BMNH);
1 ♀, Funchal, 19-24.VI.1962, leg. Classey (BMNH);
1 ♂, 2 ♀♀, Funchal-Lido, at light, 20-31.V.1970, leg. N. L. Wolff, genit. slide ♀ 3856 Wolff (ZMUC, ZIAN);
1 ♂, Funchal, 8.VII.1973, leg. Svendsen (ZMUC);
1 ♂, Funchal-Lido, 13-14.VIII.1974, leg. N. L. Wolff (ZMUC);
Porto Santo:
1 ♀ [determined by J.D. Bradley as *Blastobasis divisus* Wlsm.], VI.1962, leg. Classey (BMNH).

Adult (fig. 51). Wingspan 12-17 mm. Head brown with lighter face. Scape of antenna light brownish; flagellum dark brown, indistinctly lighter ringed, ciliated and with a vestigial basal notch in male, simple in female. Labial palpi relatively long and slender, light grey mottled with blackish; apex of segment 2 light. Thorax and tegulae blackish brown anteriorly, greyish posteriorly. Forewing relatively broad with somewhat pointed apex; basal half black with large light brownish grey patch; in middle of wing a thin white fascia; apical half of forewing light greyish brown mottled with black; a black spot in middle of wing at 3/4 sometimes connected with black tornal spot; an indistinct, angulated black fascia from subapical to tornal spot; termen with light and black dots; fringes greyish. Hindwing rather broad with somewhat rounded apex, black or blackish with dark grey fringes.

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Variation. The few specimens examined are rather uniform.

Similar species. The new species is similar to *B. divisus*, but has longer labial palpi and flagellum of male antenna pectinated with short ciliae. Moreover it has apical half of the forewings generally lighter compared with *divisus*.

Male genitalia (fig. 76): Uncus shortly finger-shaped, weakly widened before apex. Gnathos with well developed, apically wide and not so distinctly bifurcate median protrusion. Basal pillow of valva rounded, covered with microtrichiae; its ventral margin uniformly convex, with numerous microspines and a row of setae. Aedeagus slightly narrowing caudally; its apex slightly shorter than in *B. divisus*, with not so numerous microspines.

Female genitalia (fig. 103): Apophyses posteriores three and a half time as long as apophyses anteriores. Sternite VIII with distinct band-shaped median sclerotization. Posterior margin of sternite VII weakly concave. Intersegmental membrane without visible field of microtrichiae at each side of ostium. Ductus bursae rather long, with densely spined and spirally twisted part before corpus bursae. Corpus bursae small and oval; signum hook-shaped with oval base.

Distribution: Madeira, Porto Santo (endemic).

Bionomy: Early stages unknown. The flight period extends from mid May to mid August (probably in two generations). The species is only found at lowland localities near the coast, whereas *divisus* occur inforest localities in the highlands.

Etymology: The name of the new species emphasizes the similarity with *B. divisus* (WLSM.).

Blastobasis pica (WALSINGHAM, 1894)

Epistetus? pica WALSINGHAM, 1894: 553; REBEL, 1901: 164; 1917: 12.
Blastobasis pica: WALSINGHAM & DURRANT, 1909: 47; REBEL, 1940b: 8; PASSOS DE CARVALHO, 1995: 565, 577.

Adult (figs 52-53). Wingspan 12-17 mm. Head cream mottled with yellow. Scape of antenna cream; flagellum black, indistinctly pale ringed, long ciliated and without basal notch in male, simple in female. Labial palpi rather long and slender; segment 2 blackish with yellow apex; segment 3 yellow. Thorax and tegulae cream mottled with yellow; central part of thorax black. Forewing relatively broad, white with slight yellowish suffusion and black markings as follows: at base of costa and along dorsum, a transverse fascia at 1/3 (broadest at dorsum), a patch at costa at 3/5, which is confluent with tornal spot, a small spot at 2/3, an angulated subapical line and around termen; fringes black. Hindwing rather broad, apically rounded, black with greyish black fringes.

Variation. The extent of black in the forewings is variable. Rarely most of the forewings (and thorax and tegulae as well) is black, leaving only a few small yellowish white spots.

Similar species. The species differs from other Madeiran *Blastobasis* with white ground colour (*nigromaculella, wollastoni*) in that the black markings dominate over the white areas in the forewings. Moreover males of the two last mentioned species have antennae with basal notch.

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Male genitalia (fig. 77): Uncus rather wide at base, gradually narrowing to apex. Gnathos with weakly developed and not bifurcate median protrusion. Basal pillow of valva covered with microtrichiae; its ventral margin uniformly convex, with numerous microspines and a row of setae. Aedeagus narrow, with conical apex.

Female genitalia (fig. 104): Apophyses posteriores three and a half time as long as apophyses anteriores. Sternite VIII with rather distinct triangular median sclerotization. Posterior margin of sternite VII concave. Intersegmental membrane with a more or less well developed field of microtrichiae at each each side of ostium. Ductus bursae rather short, with densely spined and only curved part before corpus bursae. Corpus bursae small and oval; signum hook-shaped with oval base.

Material examined:

♀, Lectotype of *Epistetus? pica* Wlsm., designated here: 'Lectotype'; 'Type'; 'Madeira, Wollaston, B[ethune]-Baker Coll. 13725'; 'Walsingham Collection 1910-427'; '*Epistetus? pica*, Wlsm. Tr. Ent. Soc. Lond. 1894. 553. / Type ♀ descr.'; 'Lectotypus ♀ *Epistetus? pica* Walsingham, 1894, design. Karsholt et Sinev' (BMNH). Paralectotype (1 ♀ without abdomen) is in the same collection.

Other material: Madeira:

1 ♀ (paralectotype), without exact locality, [1855], leg. Wollaston (BMNH);
1 ♀, Bica da Cana, 10.VIII.1966, leg. Classey, genit. slide ♀ BM 16607 (BMNH);
2 ♂♂, Pousada dos Vinhaticos, Serra d'Água, 600 m, 15.VIII.1974, leg. E. Traugott-Olsen (ZMUC);
1 ♀, Fajã da Nogueira, 600 m, 24.VIII.1974, leg. E. Traugott-Olsen (ZMUC);
1 ♂, Queimadas, 2.VI.1980, leg. Passos de Carvalho (BMNH);
5 ♂♂, 4 ♀♀, Encumeada, 1000 m, 13.VI.1993, leg. O. Karsholt, genit. slide ♀ 0278/ Sinev (ZMUC, ZIAN);
1 ♀, Serra d'Água, 580 m, 1.VII.1993, leg. O. Karsholt (ZMUC);
2 ♂♂, Encumeada, 1000 m, 3.VII.1993, leg. O. Karsholt (ZMUC);
1 ♂, Fonte de Bispo, 1050 m, 7.VII.1993, leg. O. Karsholt (ZMUC);
1 ♂, below Pico Arieiro, 1600 m, 10-11.IX.1997, leg. O. Karsholt (ZMUC).

Distribution: Madeira (endemic).

Bionomy: Early stages unknown. The moths have been collected between early June and September at altitudes between 580 and 1600 m, mostly over 800 m.

Blastobasis insularis (Wollaston, 1858)

Asychna insularis Wollaston, 1858: 123; Rebel, 1917: 12.
Schreckensteinia insularis: Rebel, 1940a: 22-23, pl. 3, fig. 31.
Blastobasis insularis: Rebel, 1940b: 8; Passos de Carvalho, 1995: 577.

Adult (fig. 54). Wingspan 10-13 mm. Head lead-coloured, face yellow. Scape of antenna yellowish; flagellum blackish, rather long ciliated and with a vestigial basal notch in male, simple in female. Labial palpi long and slender, segment 2 yellow; segment 3 lead-coloured. Thorax and tegulae lead-coloured. Forewing elongate with pointed apex, lead-coloured with orange markings as follows: a medial streak from base to before middle; two

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short and two longer horizontal streaks in distal part; a spot before apex and an indistinct terminal line; fringes blackish grey. Hindwing elongate, apically pointed, blackish grey with dark grey fringes.

Variation. The orange markings in the forewing are somewhat variable.

Similar species. The only species of *Blastobasis* in Madeira with lead-coloured forewings with orange markings.

Male genitalia (fig. 78): Uncus finger-shaped. Gnathos with developed but very indistinctly bifurcate median protrusion. Basal pillow of valva covered with microtrichiae; its ventral margin strongly convex, with numerous microspines and several setae. Aedeagus rather massive, slightly curved and narrowed in middle; its apex rather wide, with shallow caudal notch.

Female genitalia (fig. 99): Apophyses posteriores three times as long as apophyses anteriores. Sternite VIII with indistinct linear median sclerotization. Posterior margin of sternite VII weakly concave. Intersegmental membrane without visible fields of microtrichiae at sides of ostium. Ductus bursae long, with densely spined and slightly twisted part before corpus bursae. Corpus bursae medium-sized and oval; signum hook-shaped with more or less oval base.

Material examined:

♂, Lectotype of *Asychna insularis* WOLL., designated here: 'Lectotype'; 'Madeira [St. Cruz, S.Antonio da Serra], VI.1855, WOLLASTON 1858-21'; '*Asychna insularis*, WLSTN. Ann. Mag. NH (3. s.) I. 123, Madeira VI.1855 / Type XLII'; 'B.M. ♂ Genitalia slide No. 6143'; 'Lectotypus ♂ *Asychna insularis* WOLLASTON, 1858, design. KARSHOLT et SINEV' (BMNH). Described from an unspecified number of specimens ("I observed it abundantly"), but only one specimen has been found in the collection of BMNH.

Other material: Madeira:

1 ♂, Rabaçal, 1080 m, 17.VII.-4.VIII.1935, leg. LUNDBLAD, genit. slide ♂ 4146 WOLFF (NHRS);
1 ♀, Serra de Água, [1969], leg. PINKER (LSNK).
1 ♀, Encumeada, 29.V.1980, leg. PASSOS DE CARVALHO (BMNH);
1 ♂, Queimadas, 2.VI.1980, leg. PASSOS DE CARVALHO (BMNH);
2 ♀♀, Ribeira Frio, 900 m, at light, 3.VII.1991, leg. M. MEYER (MEY);
3 ♂♂, 7 ♀♀, Encumeada, 1000 m, 13-18.VI.1993, leg. O. KARSHOLT (ZMUC, ZIAN);
1 ♂, 1 ♀, Fajã da Nogueira, 500-700 m, 20.VI.1993, leg. O. KARSHOLT (ZMUC);
1 ♂, 1 ♀, Ponta do Sol, sea lev., 17.VI.1993, leg. O. KARSHOLT (ZMUC);
2 ♂♂, Ponta do Sol, sea lev., 29.VI.1993, leg. O. KARSHOLT, genit. slide ♂ 0232/SINEV (ZMUC, ZIAN);
1 ♀, Fajã da Nogueira, 700-800 m, 14.VII.1998, leg. A. AGUIAR (ICLAM);
Canary Islands:
2 ♂♂, Gomera, El Cedro, 1000 m, 24.VII.1984, leg. OLSEN, SKULE & STADEL (ZMUC);
1 ♂, Tenerife, leg. E. ARENBERGER (AREN) [photo examined].

Distribution: Madeira; Canary Is.

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Bionomy: Early stages unknown. The flight period extends from the end of May to the middle of August. Occurring "amongst damp fern and herbage in the moist sylvan districts of intermediate and lofty elevations" (WOLLASTON, 1858), mostly between 700 and 1000 m, but is occasionally found at sea level.

Remarks: The only montane species which is known outside Madeira in natural environments.

Discussion

The Blastobasidae occurring in Madeira appeared to be relatively uniform according to the general morphology and genitalia characters, and we refer all species to the genus *Blastobasis* ZELLER. However, because this genus is largely unrevised, it is unclear if the Madeiran representatives form a monophyletic entity, resulting from a single colonization, or they are the result of successive invasions. It is also premature to guess on the origin of the ancestor(s) of the Blastobasidae of Madeira. The Madeiran Lepidoptera fauna is related to that of south-western Europe, with some elements from North Africa, a few from America, and a number of taxa in common with the Canary Islands (O. KARSHOLT, unpubl.). The blastobasid fauna of Madeira is unique in having the highest number of species known from any restricted area of the world, and being more diverse in wing-pattern than anywhere else. The phenomenon of insular isolation is shown not only in the increase in number of species, but also in the increase in range of intraspecific variability. All over the world the blastobasids are very uniformly coloured with greyish and ochreous-brown shaded moths, while in Madeira some of them have exceptionally bright coloration of yellow and reddish shades, tufts of raised scales and even metallic scales. Sometimes the Madeiran species are more distinguishable by general appearence than by genitalia; in other parts of the World the situation is quite opposite.

Blastobasidae are also well represented in the other Macaronesian islands. From the Canary Islands KLIMESCH (1986) reported 8 species, and from the Azores 6 species were listed by VIEIRA (1997). However, these numbers are uncertain because the blastobasid faunas of these archipelagos are still unrevised, but also because mislabelling of specimens from the different Macaronesian islands often occurred (KARSHOLT, 2000). The Canary Islands share 2 species with Madeira, viz. - *B. marmorosella*, a widespread species, which is probably easily introduced by man, and *B. insularis*, a true endemic confined to original forest habitats (laurisilva) of Madeira and La Gomera. A record of a third Madeiran species (*B. lavernella*) from the Canary Islands needs confirmation. Also the Azores share 2 species with Madeira, viz. *B. maroccanella*, a widespread species in dry lowland of the western Mediterranean, and *B. desertarum*. The latter is known only from Madeira and the Azores, and is one of only two representatives among Lepidoptera of a rare type of endemic confined to these two archipelagos (O. KARSHOLT, unpublished). Three further species of Madeiran blastobasids which have been reported from the Azores (*B. vittata*, *B. adustella* and *B. salebrosella*) (VIEIRA, 1997) are probably based on misidentifications, and a fourth species (*B. luteella*) is likely to have been mislabelled.

Among the 26 species of Blastobasidae found in the Madeira Islands, 15 species have not been reported from outside this archipelago. Records of 4 further species from outside Madeira could not be confirmed, and we consider them as endemic too. Three species

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have been introduced from Madeira to Europe (*B. lacticolella*, *B. adustella* and *B. rebeli*), but should be considered originally endemic to Madeira. Besides these 22 species, which are endemic to Madeira, two species listed above (*B. insularis* and *B. desertarum*) are Macaronesian endemics. So only 2 species (*B. maroccanella* and *B. marmorosella*) out of 26 have a wider distribution and may not be originally endemic to Madeira. All 26 species have been found in the main island of Madeira. Eight species have been recorded from Porto Santo and only 2 or 3 species from the Dezertas Islands. No blastobasids have been found in the Salveges Islands.

We consider the blastobasid fauna of Madeira to be fairly well known. However, the fact that 3 out of 26 species are known from only one or two specimens indicate that additional, yet undiscovered species may occur in the Madeiran Islands. It is moreover possible that detailed studies of certain taxa like, e.g., *vittata* may prove them to be a complex of closely related species. The early stages of the Madeiran Blastobasidae are very poorly known, and information on their biology is scanty. The larvae feed on both dead and living plant material. Adults are nocturnal and are attracted to light. When disturbed during the day most specimens drop to the ground without flying.

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References

ADAMSKI, D. & HODGES, R. W. 1996: An annotated list of North American Blastobasinae (Lepidoptera: Gelechioidea: Coleophoridae). - Proc. entomol. Soc. Wash. **98**: 708-740.

AGASSIZ, D. J. L.; HECKFORD, R. J. & LANGMAID, J. R. 1995: Microlepidoptera review of 1993. - Entomologist's Rec. J. Var. **107** (9-10): 207-220.

AGENJO, R. 1966: Catalogo ordenador de los Lepidópteros de España. - Graellsia **22** (non-paginated).

AGUIAR, A. M. FRANQUINHO & KARSHOLT, O. in press: Systematic catalogue of the entomofauna from the Madeira Archipelago and Selvages Islands. 1. Lepidoptera. - Bolm Mus. munic. Funchal, Suppl.

ALFORD, D. V. 1980: *Blastobasis decolorella* (WOLLASTON) (Lepidoptera: Blastobasidae), a potentially serious apple pest. - Plant Pathol. **29**: 145-146.

ALFORD, D. V. 1984: A colour atlas of fruit pests. - 320 pp. London.

ALFORD, D. V. 1987: Farbatlas der Obstschädlinge. - 320 pp. Stuttgart.

ALLEN, A. A. 1965: A comparison of the conifer-feeding Lepidoptera of two suburban localities. - Entomologist's Rec. J. Var. 77 (3): 68-70.

DOI: 10.21248/contrib.entomol.54.2.387-463

Amsel, H. G. 1952: Neue maroccanische Kleinschmetterlinge. - Bull. Soc. Sci. nat. Maroc. **31** (1951): 65-74.

Baldizzone, G. 1986: Nuove sinonimie nel genere "Coleophora" Hubner (V). Contribuzioni alla conoscenza dei "Coleophoridae". XLIV (Lepidoptera). - Riv. Piem. St. nat. 7: 133-144.

Becker, V. O. 1984: Blastobasidae. pp. 41-42, 59. - In: Heppner, J. B. (ed.): Atlas of Neotropical Lepidoptera. Vol. 2. Checklist: Part I. Micropterigoidea - Immoidea. - xxvii + 112 pp. The Hague, Boston & Lancaster.

Beirne, B. P. 1939: *Blastobasis lignea* Walk. in Ireland. - Entomologist, London 72: 23.

Beirne, B. P. 1941: A list of the Microlepidoptera of Ireland. - Proc. R. Irish Acad. (Sect. B) 47: 53-147.

Bradley, J. D. 1953: Microlepidoptera collected in the Burren, Co. Clarke, Ireland, in 1952, including a plume moth new to the British list. - Entomologist's Gaz. 4: 135-140.

Bradley, J. D. 1958: Pyrales and Microlepidoptera collected by Mr. E. W. Classey in Madeira, 1957. - Entomologist, London **91** (1144): 192-197.

Bradley, J. D. 1972: Microlepidoptera. - In: Kloet G. S. & Hincks, W. D. (eds): A check list of British insects. Edn 2. - vii + 153 pp. London.

Bradley, J. D. & Pelham-Clinton, E. C. 1967: The Lepidoptera of the Burren, Co. Clare, W. Ireland. - Entomologist's Gaz. **18**: 115-153.

Caradja, A. 1920: Beitrag zur Kenntnis der geographischen Verbreitung der Mikrolepidopteren des palaearktischen Faunengebietes nebst Beschreibung neuer Formen. III. Teil. - Dt. ent. Z. Iris **34**: 75-179.

Carter, D. J. 1984: Pest Lepidoptera of Europe, with special reference to the British Isles. - 431 pp. Dordrecht.

Chipperfield, H. E. 1978: *Blastobasis decolorella* Wollaston (Lep., Blastobasidae). - Entomologist's Rec. J. Var. **90**: 19.

Chrétien, P. 1908: Faune entomologique des Iles Canaries (sejour de M. P. Lesne dans la Grande Canarie 1902-1903). Microlépidoptères. - Bull. Mus. natn. Hist. nat., Paris 1908: 358-364.

Clarke, J. F. G. 1963: Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick. Vol. 4. - 521 pp. London.

Clarke, J. F. G. 1986: Pyralidae and Microlepidoptera of the Marquesas Archipelago. - Smithson. Contr. Zool. **416**: 1-485.

Common, I. F. B. 1970: Lepidoptera (moths and butterflies). pp. 765-866, pls 7-8. - In: Mackerras, I. M. (ed.): The insects of Australia. - xiv + 1029 pp. Carlton.

Common, I. F. B. 1990: Moths of Australia. - vi+535 pp. Leiden, New York, København & Köln.

Dickson, R. J. 2002: Blastobasidae. Pp. 196-203. - In: Emmet, A. M. & Langmaid, J. R. (eds): The moths and butterflies of Great Britain and Ireland. Vol. 4 (1). - 326 pp. Colchester.

Easterbrook, M. A. 1985: The biology of *Blastobasis decolorella* (Wollaston) (Lepidoptera: Blastobasidae), a potentially serious pest of apple. - Entomologist's Gaz. **36**: 167-172.

Edwards, E. D. 1996: Blastobasidae. p. 100. - In: Nielsen, E. S.; Edwards, E. D. & Rangsi, T. V. (eds). Checklist of the Lepidoptera of Australia. - xiv + 529 pp. Canberra.

Emmet, A. M. 1979 (ed.): A field guide to the smaller British Lepidoptera. - 271 pp. London.

Emmet, A. M. 1991: Life history and habits of the British Lepidoptera. pp. 61-303. - In: Emmet, A. M. & Heath, J. (eds): The moths and butterflies of Great Britain and Ireland. Vol. 7 (2). - 400 pp. Colchester.

Emmet, A. M. & Langmaid, J. R. 1997: Microlepidoptera in Ireland, September, 1997. - Entomologist's Gaz. **48** (3): 147-155.

Flegg, J. J. M. 1981: *Blastobasis decolorella*: life-history and chemical control. - Rep. E. Mailing Res. Stn. 1980: 98-99.

Flegg, J. J. M. 1982: *Blastobasis decolorella*: life-history and chemical control. - Rep. E. Mailing Res. Stn. 1981: 102.

Ford, L. T. 1949: A guide to the smaller British Lepidoptera. - 230 pp. London.

Ford, L. T. 1958: Supplement to a guide to the smaller British Lepidoptera. - 15 pp. London.

Gardner A. E. & Classey, E. W. 1960: Report on the insects collected by the E. W. Classey and A. E. Gardner expedition to Madeira in December 1957. - Proc. S. Lond. ent. nat. Hist. Soc. 1959: 184-206.

Gomez Bustillo, M. R. 1983: Revision de los Stathmopodidae (Mey., 1913) y Blastobasidae (Mey., 1894) de la Peninsula Iberica (Lep., Gelechioidea). - Revta lepid. **11** (2): 101-105.

Hodges, R. W. 1999: The Gelechioidea. pp. 131-158. - In: Kristensen, N. P. (ed.): Lepidoptera, Moths and Butterflies 1: Evolution, Systematics, and Biogeography. - Handb. Zool. 4 (35): i-x, 1-491. Berlin & New York.

DOI: 10.21248/contrib.entomol.54.2.387-463

ICZN 1999: International Code of Zoological Nomenclature. 4th ed. - xxix+306 pp. London.

JACOBS, S. N. A. 1974: *Blastobasis decolorella* WOLLASTON (Lep.: Blastobasidae) attacking stored apples. - Entomologist's Rec. J. Var. 86: 27.

JACOBS, S. N. A.; WAKELY, S.; FORD, L. T.; BROWN, C. S. & HEATH, J. 1978: Illustrated papers on British Microlepidoptera. - Trans. S. Lond. ent. nat. Hist. Soc. 1978: 1-170, 12 pls.

JOURDAN, M. L. 1935: Observations sur les Microlépidoptères du Maroc. - Bull. Soc. Sci. nat. Maroc. **15**: 136-147.

KARSHOLT, O. 2000: Contributions to the Lepidoptera fauna of the Madeiran Islands. 1. Introduction. - Beitr. Ent. **50**: 397-405.

KLIMESCH, J. 1986: Beitraege zur Kenntnis der Microlepidopteren-Fauna des Kanarischen Archipels. 8. Beitrag: Blastobasidae, Scythrididae. - Vieraea 16: 321-340.

KLOET, G. S. & HINCKS, W. D. 1945. A check-list of British insects. - 483 pp. London.

KNILL-JONES, S. A. 2000: New vice-county records of Lepidoptera for the Isle of Wight during 1999. - Entomologist's Rec. J. Var. **112** (2): 74.

KREITHNER, E. 1881. [Einen neuen Kleinschmetterling, *Oecophora seeboldiella* m.]. - Verh. zool.-bot. Ges. Wien **31** (1): 20-21.

LANDRY, B. 2002: *Galagete*, a new genus of Autostichidae representing the first case of an extensive radiation of endemic Lepidoptera in the Galápagos Islands. - Revue suisse Zool. **109** (4): 813-868.

LANGMAID, J. R. & YOUNG, M. R. 1999: Microlepidoptera review of 1997. - Entomologist's Rec. J. Var. **111** (3): 105-119.

LERAUT, P. 1980: Liste systématique et synonymique des Lépidoptères de France, Corse et Belgique. - 334 pp. Paris.

MANSBRIDGE, W. 1922: *Blastobasis lignea* WLSM. (Lep.): a species new to Britain. - Entomologist, London **55** (710): 145-147.

MANSBRIDGE, W. & WRIGHT, A. E. 1939: The life history of *Blastobasis lignea* WALS. - Entomologist, London 72: 27-30.

MEYRICK, E. 1902: Descriptions of new species of Lepidoptera (Oecophoridae). - Trans. Roy. Soc. S. Austral. **26**: 133-174.

MICHAELIS, H. N. 1969: Microlepidoptera found near the estuary of the River Conway, North Wales, 1964/68. - Entomologist's Rec. J. Var. **81**: 1-6.

NORDMAN, A. F. & REBEL, H. 1935: Verzeichnis der von RICHARD FREY und auf den Kanarischen Inseln gesammelten Lepidopteren. - Commentat. biol. 6 (4): 1-20.

O'KEEFFE, D. 1991: A note on the life history of *Blastobasis decolorella* (WOLL.). - Entomologist's Rec. J. Var. **103**: 282.

PASSOS DE CARVALHO, J. 1982: Acerca da inventariacão dos Lepidopteros dos Açores. - Bolm Soc. port. Ent. 7 (supl. A): 169-198.

PASSOS DE CARVALHO, J. 1992: Notas sombre os Microlepidopteros dos Açores. - Bolm Soc. port. Ent. 1 (supl. 3): 262-270.

PASSOS DE CARVALHO, J. 1995. Microlepidoptera of the Madeira and Selvagem Archipelagos (Insecta, Lepidoptera). - Bolm Mus. munic. Funchal Supl. 4: 559-588.

PASSOS DE CARVALHO, J. & CORLEY M. F. V. 1995: Additions to the Lepidoptera of Algarve, Portugal (Insecta: Lepidoptera). - Shilap Revta. lepid. **23**: 191-230.

PIERCE, F. N. & METCALFE, J. W. 1935: The genitalia of the tineid families of the Lepidoptera of the British Islands. - xxii + 116 pp., 68 pls. Oundle.

POULTON, E. B. 1928: The Madeiran moth *Blastobasis lignea* WLSM. (Tineina), taken in N.E. Ireland in 1902. - Proc. ent. Soc. Lond. **3**: 32-33.

RAGONOT, E. 1879: [Description de trios nouvelles espèces de Microlépidoptères de la famille Tinéites.] - Bull. Soc. ent. Fr. 1879: cxl-cxlii.

REBEL, H. 1892: Beitrag zur Microlepidopterenfauna des canarischen Archipels. - Annln naturh. Mus. Wien 7: 241-279, pl. XVII.

REBEL, H. 1896: Dritter Beitrag zur Lepidopterenfauna der Canaren. - Annln naturh. Mus. Wien **11**: 102-148, pl. III.

REBEL, H. 1898: Vierter Beitrag zur Lepidopterenfauna der Canaren. - Annln naturh. Mus. Wien **13**: 361-381.

REBEL, H. 1901: Famil. Pyralidae - Micropterygidae. pp. 1-265. - In: STAUDINGER, O. & REBEL, H. 1901: Catalog der Lepidopteren des palaearctischen Faunengebietes. 2. Theil. - 368 pp. Berlin.

REBEL, H. 1906: Fünfter Beitrag zur Lepidopterenfauna der Canaren. - Annln naturh, Mus. Wien **21**: 22-44.

DOI: 10.21248/contrib.entomol.54.2.387-463

Rebel, H. 1910: Sechster Beitrag zur Lepidopterenfauna der Kanaren. - Annln naturh. Mus. Wien 24: 327-374, pl. XII.

Rebel, H. 1917: Siebenter Beitrag zur Lepidopterenfauna der Kanaren. - Annln naturh. Mus. Wien **31**: 1-62.

Rebel, H. 1940a: Die Arthropodenfauna von Madeira nach den Ergebnissen der Reise von Prof. Dr. O. Lundblad Juli-August 1935. XXI. Lepidoptera: Microlepidoptera. - Ark. Zool. **32A** (2): 1-26, tab. 1-3.

Rebel, H. 1940b: Die Arthropodenfauna von Madeira nach den Ergebnissen der Reise von Prof. Dr. O. Lundblad Juli-August 1935. XXIII. Übersicht der Lepidopterenfauna Madeiras. - Ark. Zool. **32A** (5): 1-13.

Rebel, H. 1940c: Die Lepidopterenfauna des Azorischen Archipels. Mit 1. Anhang: Eine Lepidopteren-Ausbeute von Madeira. - Commentat. biol. **8** (1): 1-59, pls I-II.

Rebel, H. & Rogenhofer, A. 1894: Zur Lepidopterenfauna der Canaren. - Annln naturh. Mus. Wien **9**: 1-96, pl. I.

Riedl, T. 1996: Blastobasidae. pp. 96, 309. - In: Razowski, J. & Karsholt, O. (eds): The Lepidoptera of Europe. - 380 pp. Stenstrup.

Rungs, Ch. E. E. 1946: Notes de lépidoptérologie marocaine (XIII). Nouvelles additions a la faune des Lépidoptères du Maroc. - Bull. Soc. Sci. nat. Maroc. **24** (1944): 111-122.

Rungs, Ch. E. E. 1979: Catalogue raisonné des Lépidoptères du Maroc 1. - Trav. Inst. Sci. (Ser. Zool.) **39**: 1-244.

Seebold, T. 1899: Beiträge zur Kenntnis der Microlepidopterenfauna Spaniens und Portugals. - Dt. ent. Z. Iris **11**: 291-322.

Sinev, S. Yu. 1986: A review of blastobasid-moths (Lepidoptera, Blastobasidae) in the fauna of the USSR. - Proc. Zool. Inst., Leningrad **145**: 53-71.

Sinev, S. Yu. 1994: Fam. Blastobasidae. p. 290. - In: Kuznetzov, V. I. (ed.): Insects and mites - pests of agricultural plants 3 (Lepidoptera, pt. 1). - 315 pp. St. Petersburg.

Sinev, S. Yu. 2004a: World catalogue of blastobasid moths (Lepidoptera, Blastobasidae). - Proc. Zool. Inst., Leningrad **303**: in press.

Sinev, S. Yu. 2004b: Blastobasidae. - In: Karsholt, O. & Nieukerken, E. J. van (eds): Lepidoptera (moths). - Fauna Europaea (www.faunaeur.org/) (visited 5.XI.2004).

Spuler, A. 1910: Die Schmetterlinge Europas **2**. - 523 pp. Stuttgart.

Stainton, H. T. 1859: Notes on Lepidoptera collected in Madeira by T. V. Wollaston, Esq.; with descriptions of some new species. - Ann. Mag. nat. Hist. (3) **3**: 211-214.

Svensson, I. 1997: Anmärkningsvärda fynd av småfjärilar (Microlepidoptera) i Sverige 1996. - Ent. Tidskr. **118** (1): 29-41.

Tremewan, W. G. 2001: Interesting Microlepidoptera in West Cornwall (V. C. I). - Entomologist's Gaz. **52**: 262.

Vieira, V. 1997: Lepidoptera of the Azores Islands. - Bolm Mus. munic. Funchal **49** (273): 5-76.

Vives Moreno, A. 1992: Cátalogo sistemático y sinonimico de los lepidópteros de la Peninsula Ibérico y Baleares (Insecta: Lepidoptera). - 378 pp. Madrid.

Vives Moreno, A. 1996: Segunda addenda et corrigenda al "Catálogo sistemático y sinonimico de los lepidópteros de la Peninsula Ibérico y Baleares (Insecta: Lepidoptera) (Segunda Parte)." - Shilap Revta lepid. **24** (95): 275-315.

Wakely, S. 1954: The occurence of *Blastobasis decolorella* Wollaston in S. E. Kent. - Entomologist's Rec. J. Var. **66** (2): 38-39.

Wakely, S. 1958: Notes on the Tineina. - Entomologist's Rec. J. Var. **70**: 163-164; 219-220.

Walker, F. 1864: List of the specimens of lepidopterous insects in the collection of the British Museum. - Pt. 29: pp. 562-835; pt. 30: pp. 836-1096. London.

Walsingham (De Grey, Th.) 1894: Catalogue of the Pterophoridae, Tortricidae, and Tineidae of the Madeira Islands, with notes and descriptions of new species. - Trans. ent. Soc. Lond. 1894: 535-555.

Walsingham (De Grey, Th.) 1897: Revision of the West-Indian Micro-Lepidoptera with description of new species. - Proc. zool. Soc. Lond. 1897: 54-183.

Walsingham (De Grey, Th.) 1907: Microlepidoptera. pp. 469-759. pls. x-xxv. - In: Fauna Hawaiiensis. Vol. **1** (5). - 759 pp. Cambridge.

Walsingham (De Grey, Th.) 1908a: Microlepidoptera of Teneriffe. - Proc. zool. Soc. Lond. 1907: 911-1034.

Walsingham (De Grey, Th.) 1908b: Descriptions of new North American Tineid moths, with a generic table of the family Blastobasidae. - Proc. U. S. nat. Mus. **33** (1567): 197-228.

Walsingham (De Grey, Th.) 1910: Microlepidoptera of Gran Canaria. - Entomologist's mon. Mag. **46**: 259.

DOI: 10.21248/contrib.entomol.54.2.387-463

WALSINGHAM (DE GREY, TH.) & DURRANT, J. H. 1909: Revision of the nomenclature of Microlepidoptera. - Entomologist's mon. Mag. **45**: 46-52.

WOLLASTON, V. T. 1858: Brief diagnostic characters of undescribed Madeiran Insects. - Ann. Mag. nat. Hist. (3) **1**: 113-125.

ZELLER, P. C. 1855: Die Arten der Gattung *Butalis*. - Linnaea ent. **10**: 196-269.

ZERKOWITZ, A. 1946: The Lepidoptera of Portugal. -J. New York ent. Soc. **54**: 51-87, 115-165, 211-261.

ZHANG, B.-C. 1999: Index of economically important Lepidoptera. - v+599 pp. Wallingford.

ZIMMERMAN, E. C. 1978: Gelechioidea. pp. 883-1903. - In: Insects of Hawaii. Vol. **9**. Microlepidoptera. pt. 2. - xxiv + 1903 pp. Honolulu.

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Figs 1-3: *Blastobasis desertarum* (WOLLASTON). **1** - ♀, Porto Santo (12 mm), **2** - ♀, Serra d'Agua (13 mm), **3** - ♀, Funchal Lido (14 mm).
Figs 4-5: *Blastobasis bassii* sp. n. **4** - Holotype, ♂, Curral das Frias (14 mm), **5** - ♀, Porto Santo (16 mm).
Figs 6-7: *Blastobasis lavernella* WALSINGHAM. **6** - ♂, Funchal Lido (16 mm), **7** - ♀, Porto Santo (12 mm).
Figs 8-9: *Blastobasis decolorella* (WOLLASTON). **8** - ♂, Queimadas (23 mm), **9** - ♀, Funchal Lido (17 mm).
Figs 10-12: *Blastobasis luteella* sp. n. **10** - Holotype, ♂, Funchal Lido (21 mm), **11** - ♂, Fajã da Nogueira (18 mm), **12** - ♂, Caniçal (16 mm).
Figs 13-15: *Blastobasis lacticolella* REBEL. **13** - Neotype, ♂, Ribeira da Jeanela (20 mm), **14** - ♀, Achadas da Cruz (22 mm), **15** - ♂, Ribeira da Jeanela (21 mm).
Figs 16-21: *Blastobasis vittata* (WOLLASTON). **16** - ♂, Serra d'Agua (13 mm), **17** - ♀, Fonte de Bispo (15 mm), **18** - ♀, Encumeada (14 mm), **19** - ♀, Encumeada (14 mm), 20 - Holotype of *B. vittata,* **21** - ♂, Paralectotype of *B. flavescentella* (REBEL), Rabaçal (15 mm).
Figs 22-24: *Blastobasis maroccanella* AMSEL. **22** - ♀, Funchal Lido (14 mm), **23** - ♀, Serra d'Agua (13 mm), **24** - ♀, Porto Santo (13 mm).
Fig. 25: *Blastobasis walsinghami* sp. n. Holotype, ♂, Encumeada (19 mm).
Figs 26-27: *Blastobasis wolffi* sp. n. **26** - ♂, Fajã da Nogueira (21 mm), **27** - ♂, Ribeira da Jeanela (18 mm).
Figs 28-29: *Blastobasis ochreopalpella* (WOLLASTON). **28** - ♂, Fajã da Nogueira (17 mm), **29** - ♂, Achadas da Cruz (17 mm).
Figs 30-31: *Blastobasis marmorosella* (WOLLASTON). **30** - ♀, Porto Santo (16 mm), **31** - ♂, Caes do Pico (21 mm).
Fig. 32: *Blastobasis virgatella* sp. n. Holotype, ♀, Chau da Ribeira (19 mm).
Figs 33-34: *Blastobasis adustella* WALSINGHAM. **33** - ♀, Fajã da Nogueira (19 mm), **34** - ♀, Pico Ruivo (15 mm).
Fig. 35: *Blastobasis laurisilvae* sp. n. ♂, Encumeada (32 mm).
Figs 36-37: *Blastobasis salebrosella* REBEL. **36** - ♀, Funchal Lido (12 mm), **37** - ♀, Fajã da Nogueira (12 mm).
Fig. 38: *Blastobasis splendens* sp. n. Holotype, ♀, Encumeada (13 mm).
Fig. 39: *Blastobasis rebeli* sp. n. ♀, below Pico Areio (13 mm).
Figs 40-42: *Blastobasis nigromaculata* (WOLLASTON). **40** - ♂, Funchal Lido (17 mm), **41** - ♂, Serra d'Agua 10 mm), **42** - ♂, Porto Santo (12 mm).
Fig. 43: *Blastobasis wollastoni* sp. n. ♀, Fajã da Nogueira (9 mm).
Figs 44-45: *Blastobasis serradaguae* sp. n. **44** - ♂, Serra d'Agua (16 mm), **45** - ♀, Fajã da Nogueira (16 mm).
Figs 46-47: *Blastobasis spectabilella* REBEL. **46** - Holotype, ♂, Funchal (22 mm), **47** - ♀, Cháo da Ribeira (23 mm).
Figs 48-50: *Blastobasis divisus* (WALSINGHAM). **48** - ♂, Encumeada (14 mm), **49** - ♀, Ribeira da Jeanela (19 mm), **50** - ♀, Serra d'Agua (17 mm).
Fig. 51: *Blastobasis subdivisus* sp. n. ♀, Funchal Lido (15 mm).
Figs 52-53: *Blastobasis pica* (WALSINGHAM). **52** - ♂, Encumeada (14 mm), **53** - ♀, Serra d'Agua (15 mm).
Fig. 54: *Blastobasis insularis* (WOLLASTON). ♀, Encumeada (11 mm).

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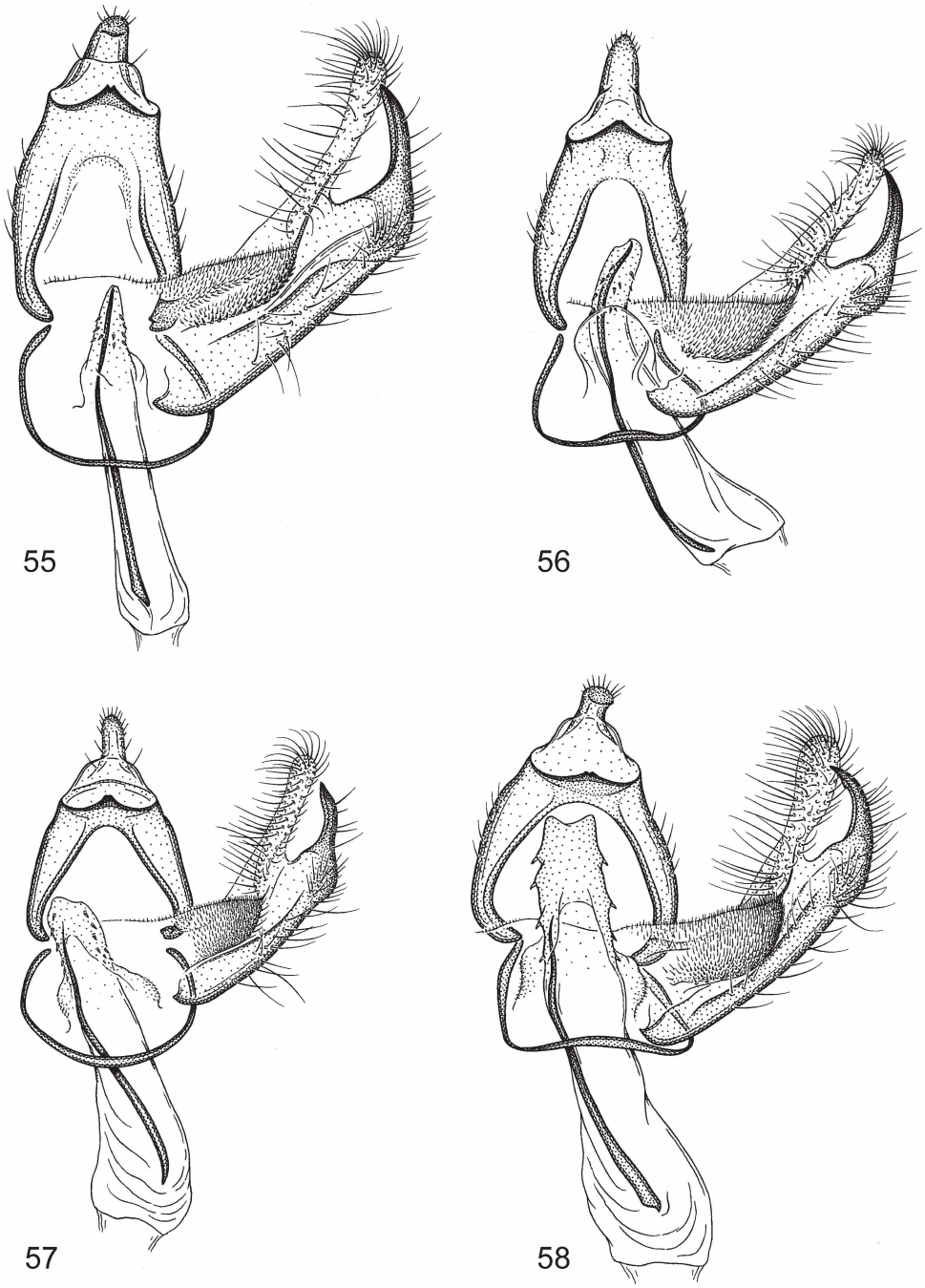

Figs 55-56: Male genitalia. 55 - *Blastobasis desertarum* (Wollaston); 56 - *B. bassii* sp. n.
Figs 57-58: Male genitalia. 57 - *Blastobasis lavernella* Walsingham; 58 - *B. decolorella* (Wollaston).

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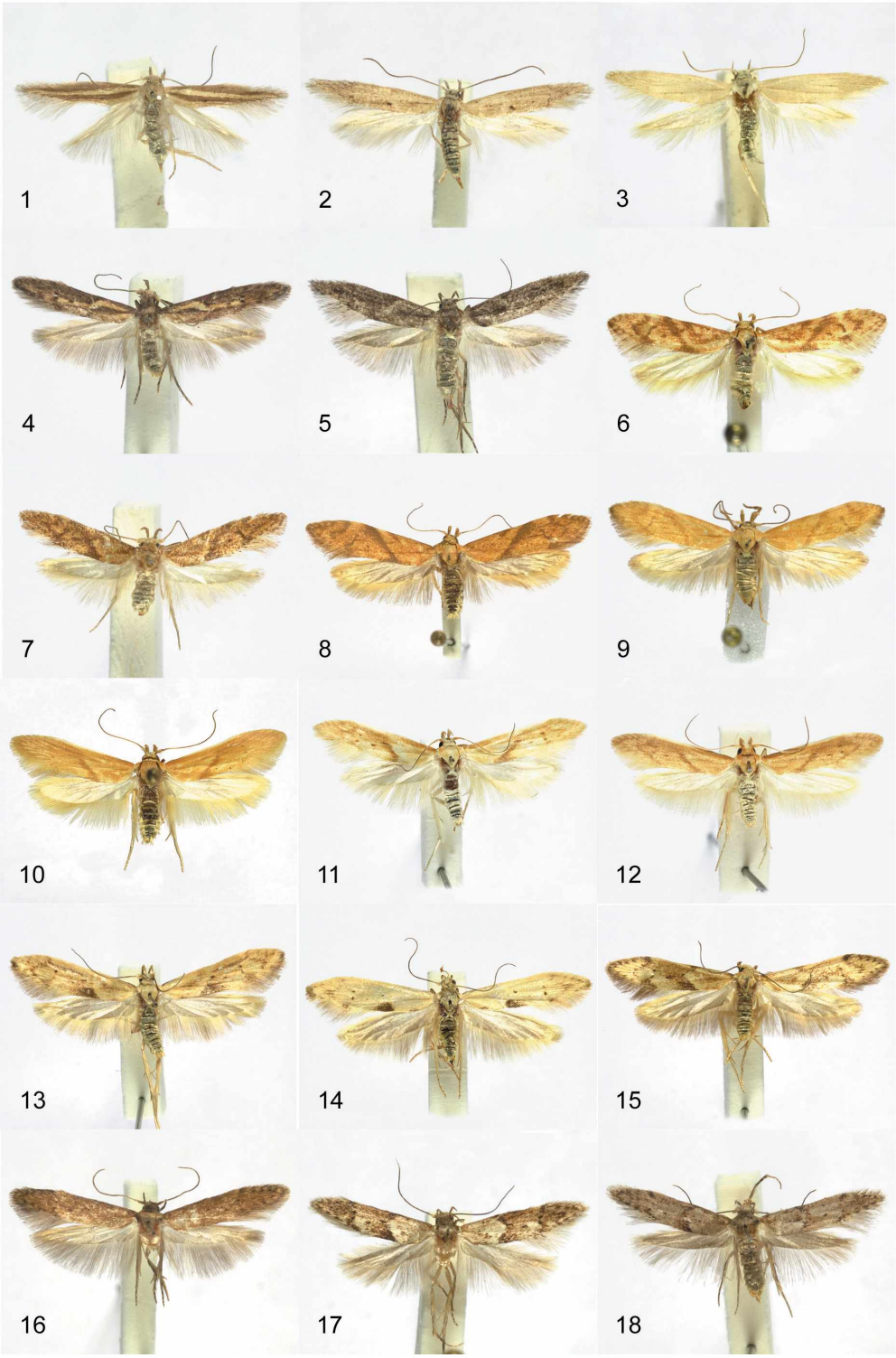

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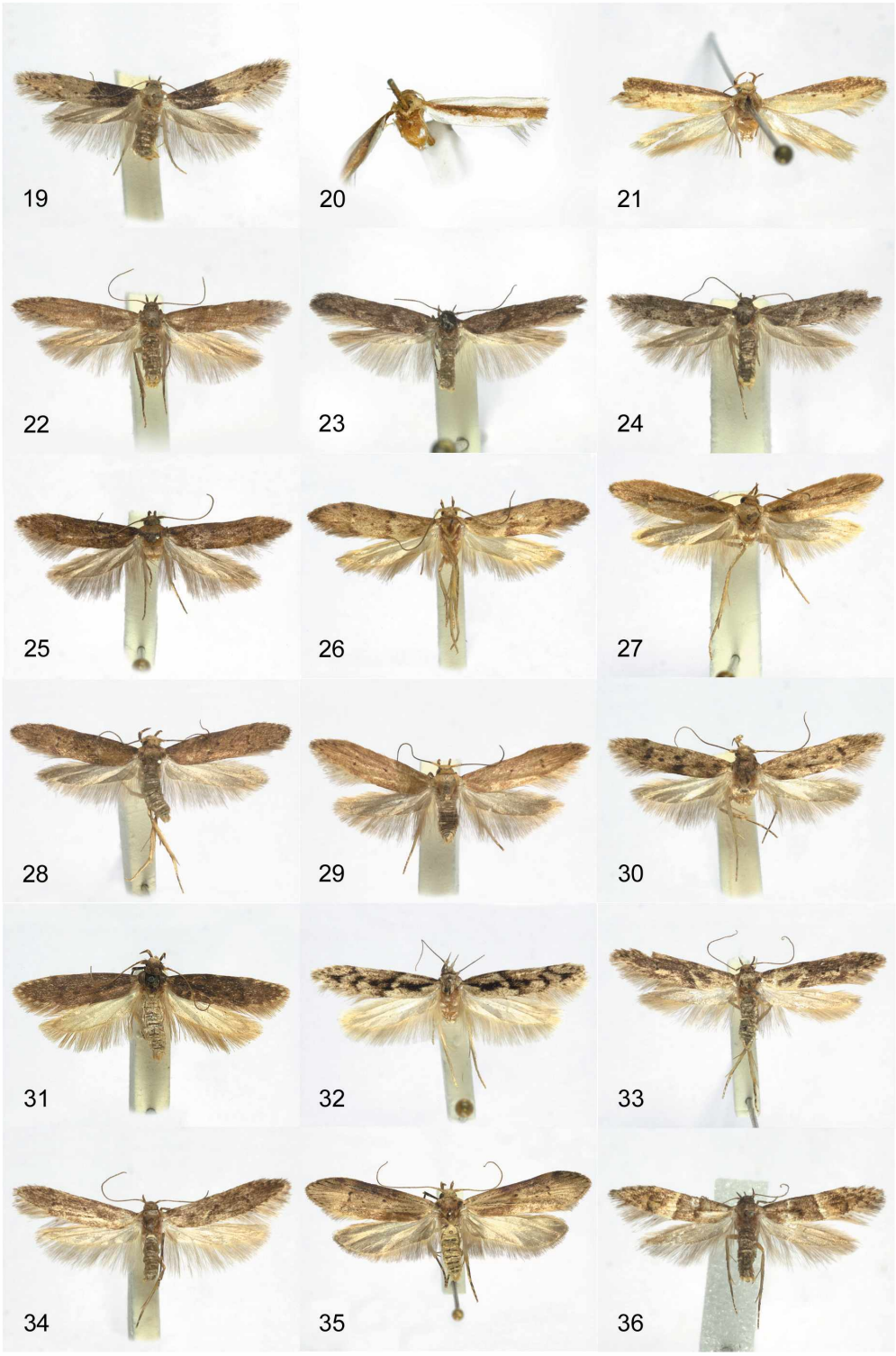

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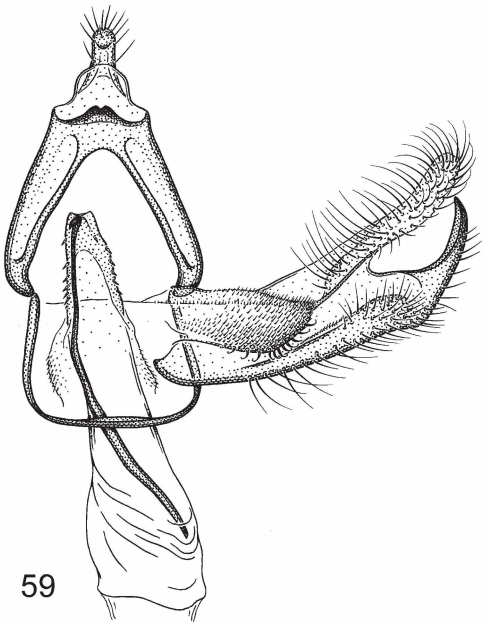

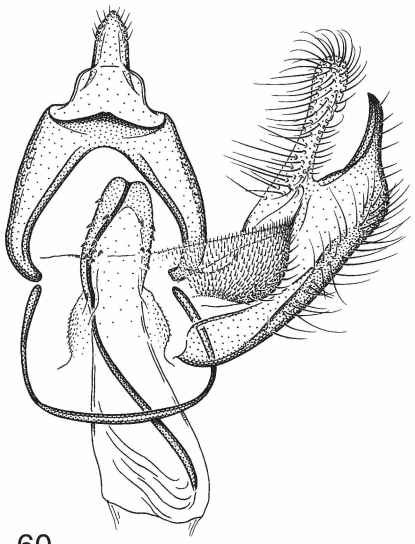

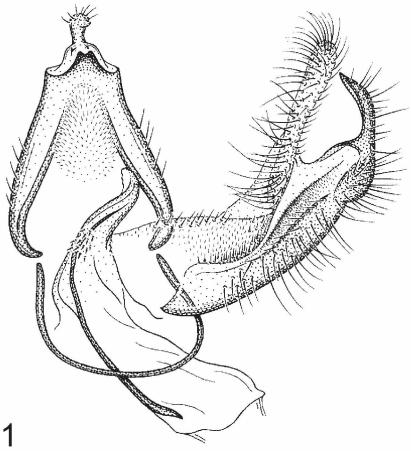

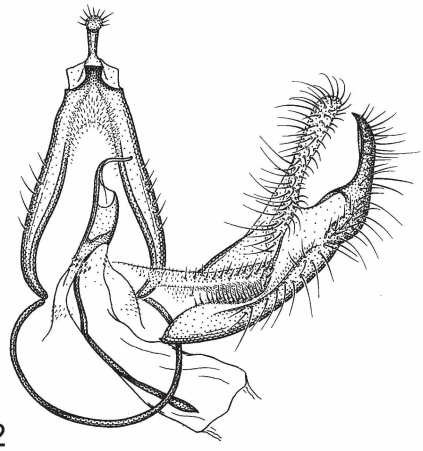

Figs 59-60: Male genitalia. **59** - *Blastobasis luteella* sp. n.; **60** - *B. lacticolella* REBEL.
Figs 61-62: Male genitalia. **61** - *Blastobasis vittata* (WOLLASTON); **62** - *B. maroccanella* AMSEL.

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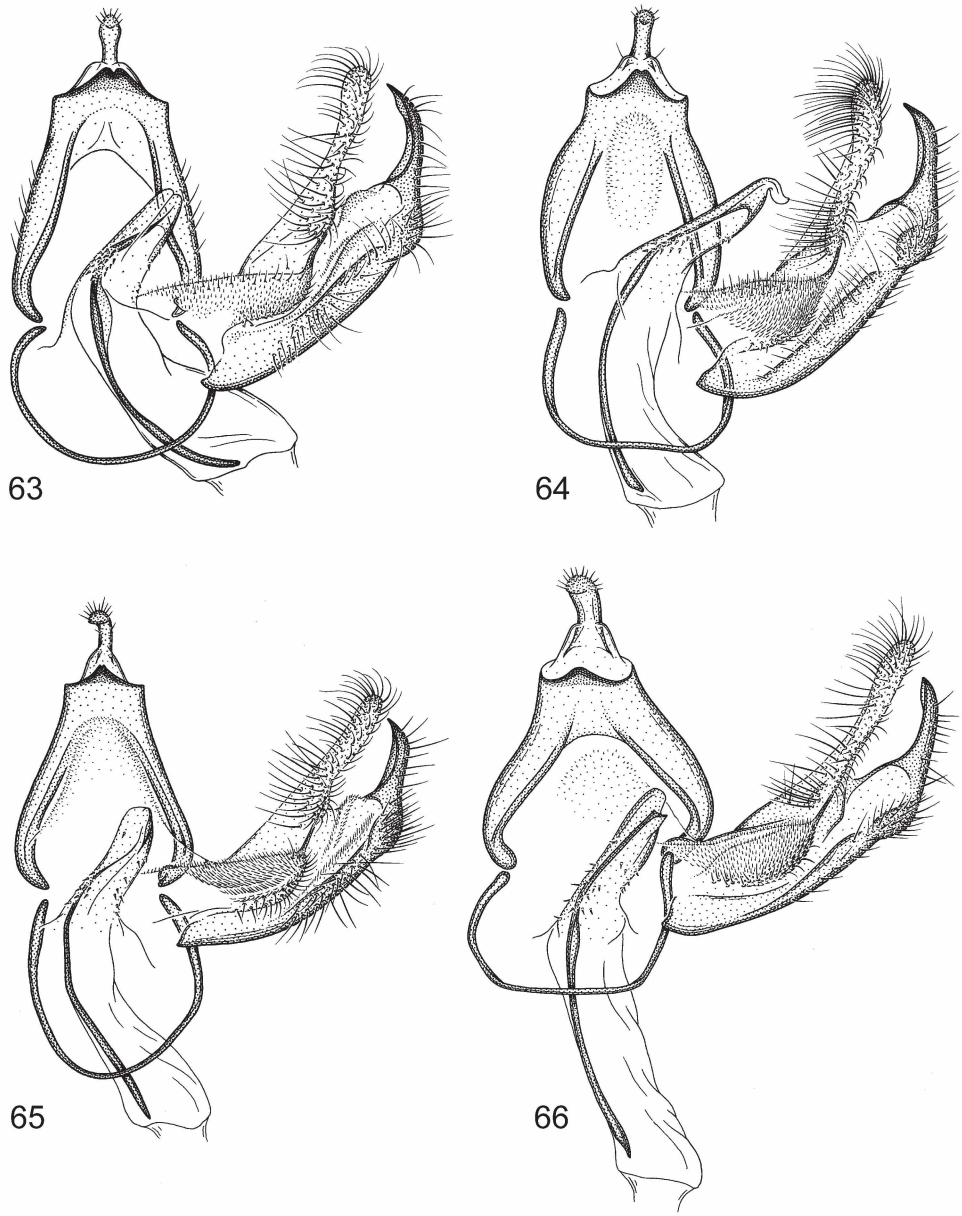

Figs 63-64: Male genitalia. **63** - *Blastobasis walsinghami* sp. n.; **64** - *B. wolffi* sp. n.
Figs 65-66: Male genitalia. **65** - *Blastobasis ochreopalpella* (Wollaston); **66** - *B. marmorosella* (Wollaston).

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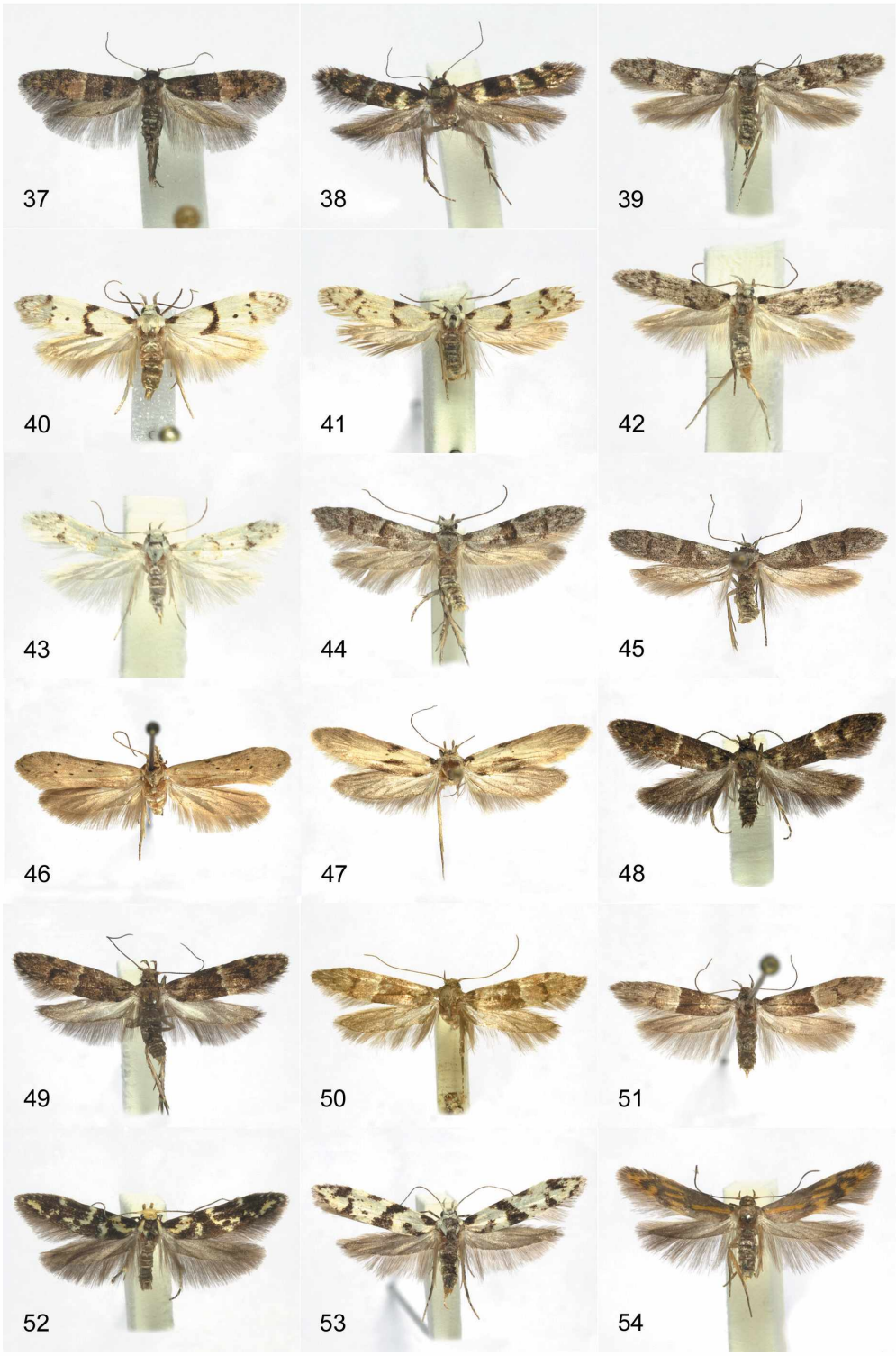

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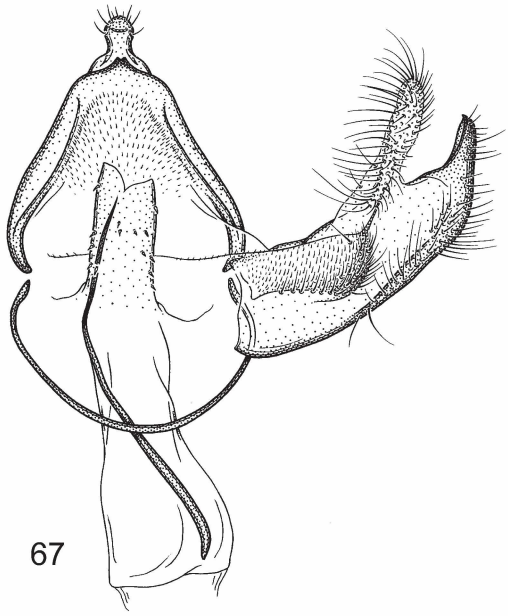

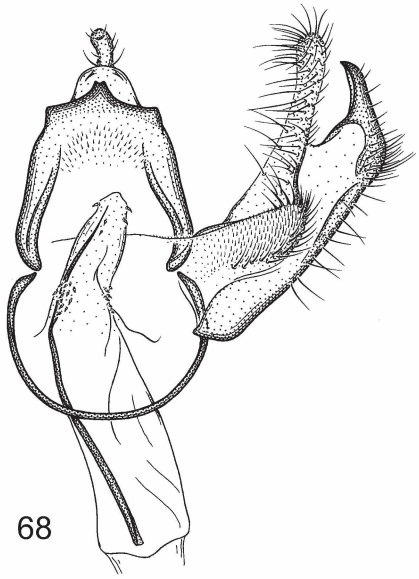

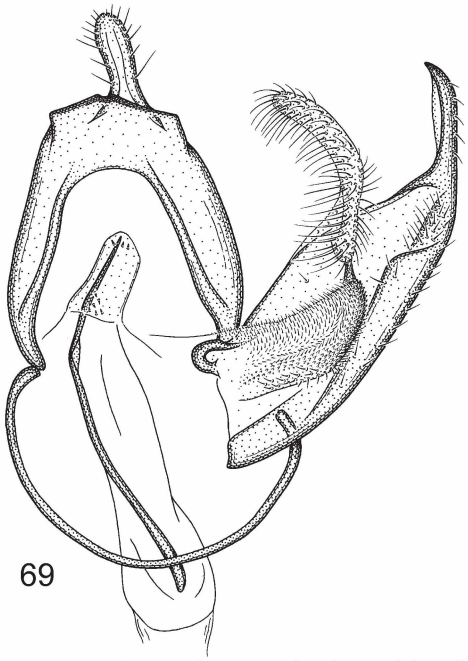

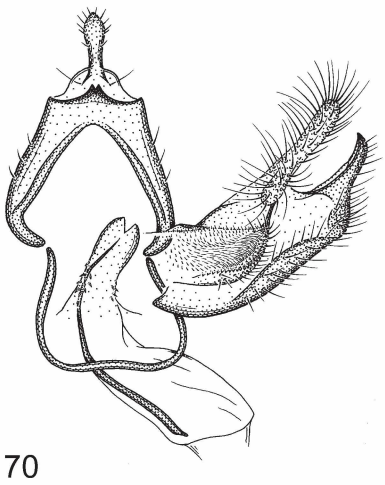

Figs 67-68: Male genitalia. **67** - *Blastobasis salebrosella* Rebel; **68** - *B. rebeli* sp. n
Figs 69-70: Male genitalia. **69** - *Blastobasis spectabilella* Rebel; **70** - *B. adustella* Walsingham.

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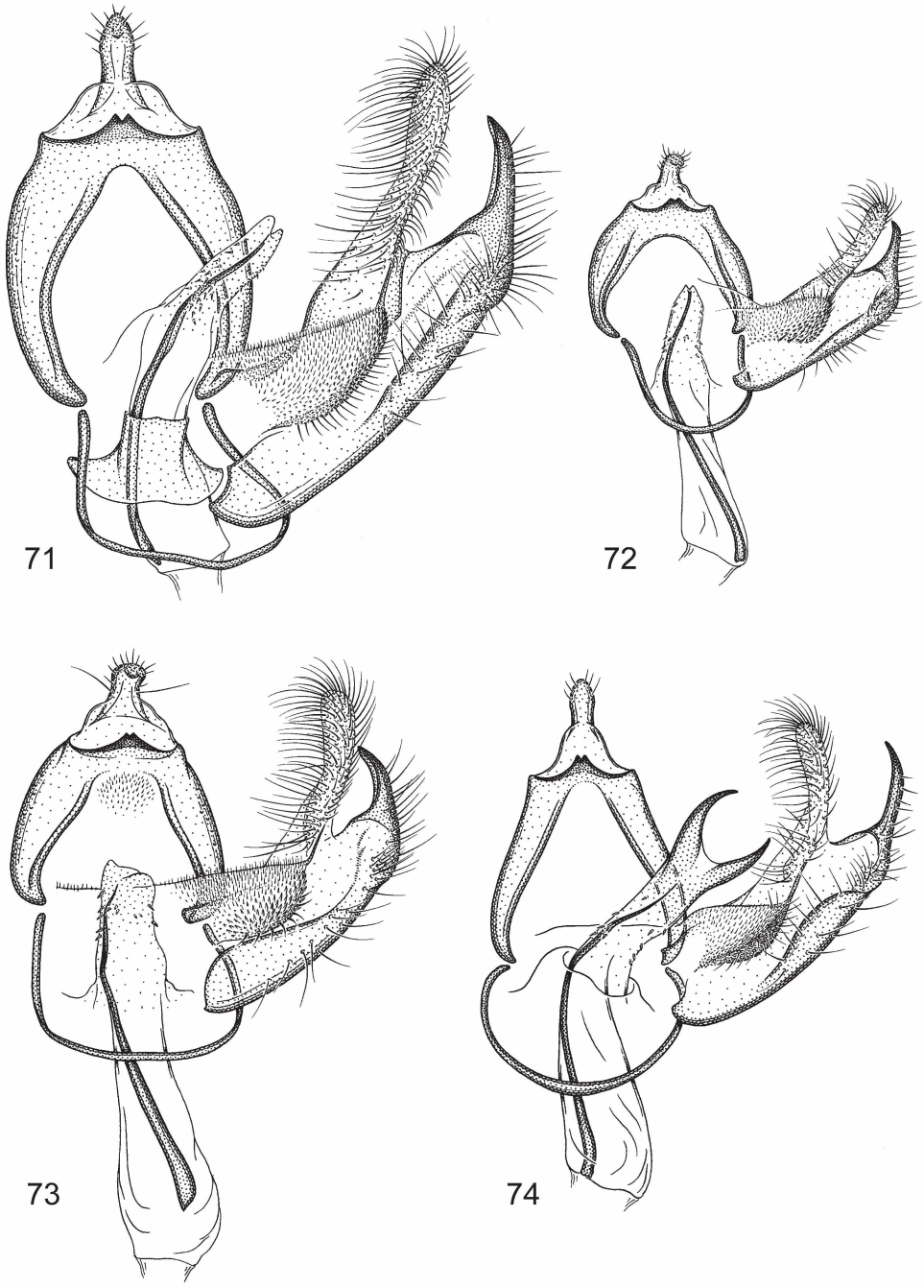

Figs 71-72: Male genitalia. 71 - *Blastobasis laurisilvae* sp. n.; 72 - *B. wollastoni* sp. n.
Figs 73-74: Male genitalia. 73 - *Blastobasis serradaguae* sp. n.; 74 - *B. nigromaculata* (WOLLASTON).

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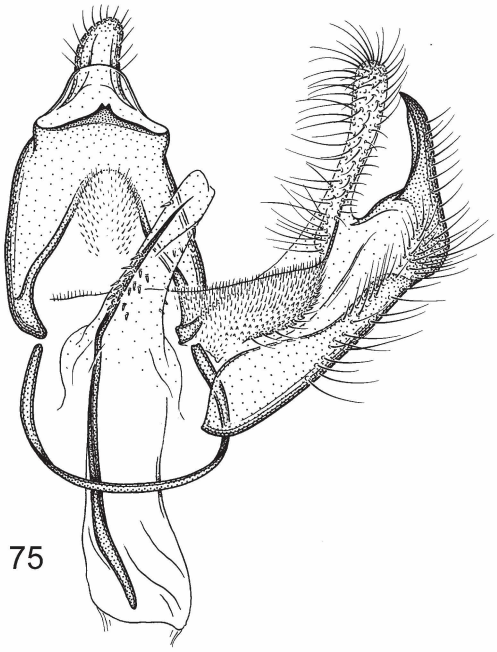

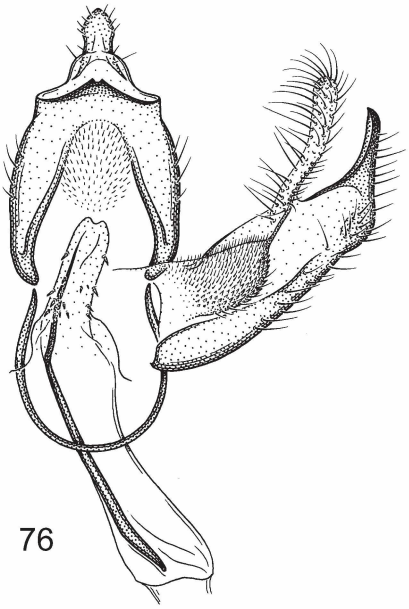

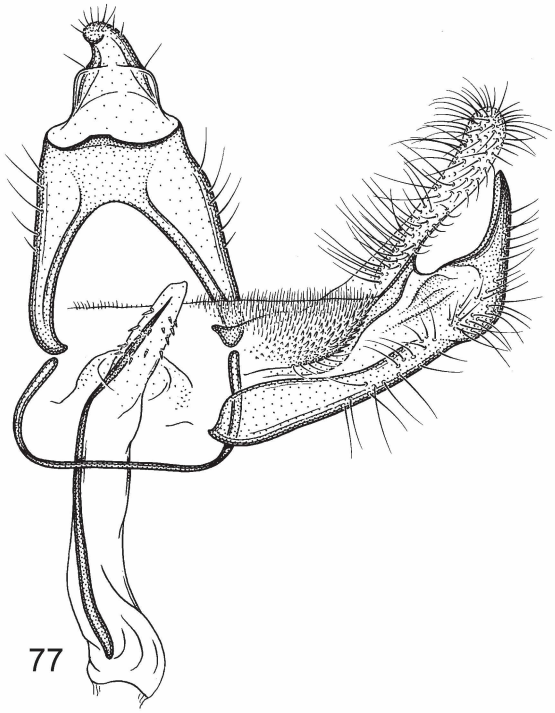

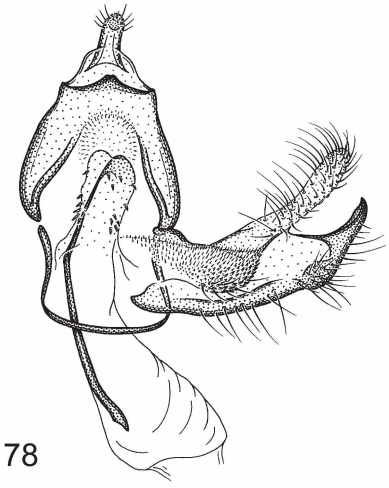

Figs 75-76: Male genitalia. 75 - *Blastobasis divisus* (Walsingham); 76 - *B. subdivisus* sp. n.
Figs 77-78: Male genitalia. 77 - *Blastobasis pica* (Walsingham); 78 - *B. insularis* (Wollaston).

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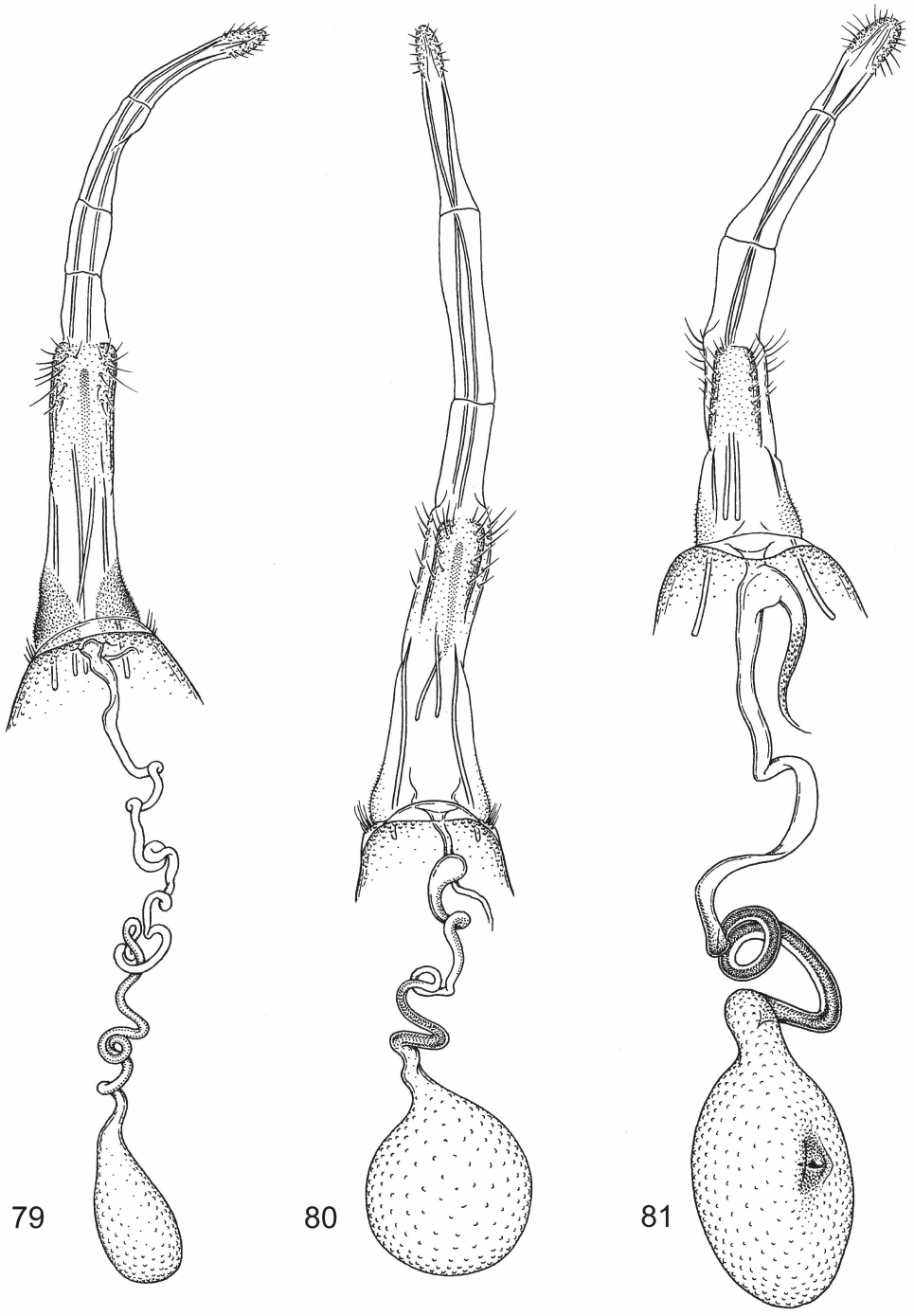

Figs 79-81: Female genitalia. **79** - *Blastobasis desertarum* (WOLLASTON); **80** - *B. bassii* sp. n.; **81** - *B. lavernella* WALSINGHAM.

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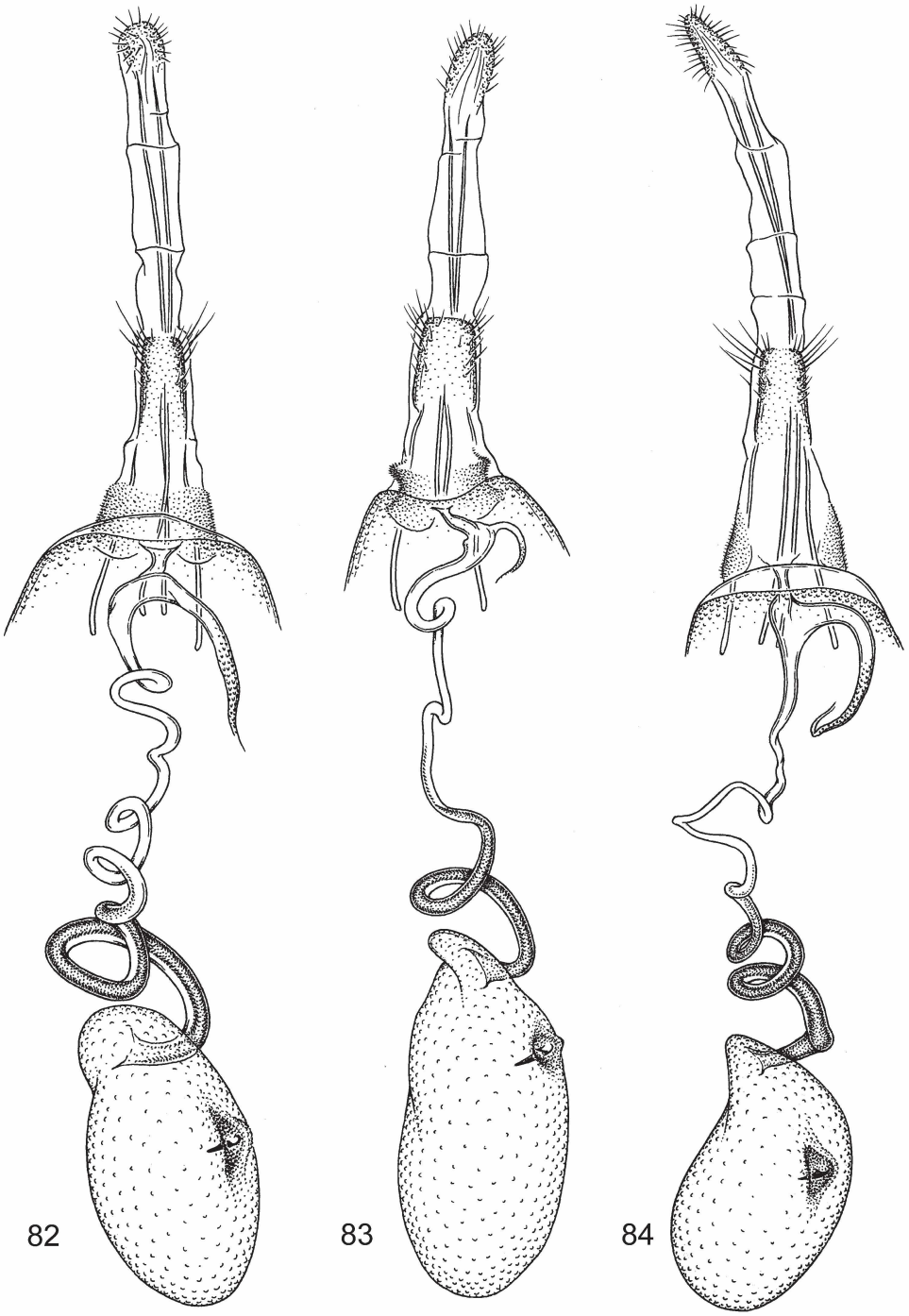

Figs 82-84: Female genitalia. **82** - *Blastobasis decolorella* (WOLLASTON); **83** - *B. luteella* sp. n.; **84** - *B. lacticolella* REBEL.

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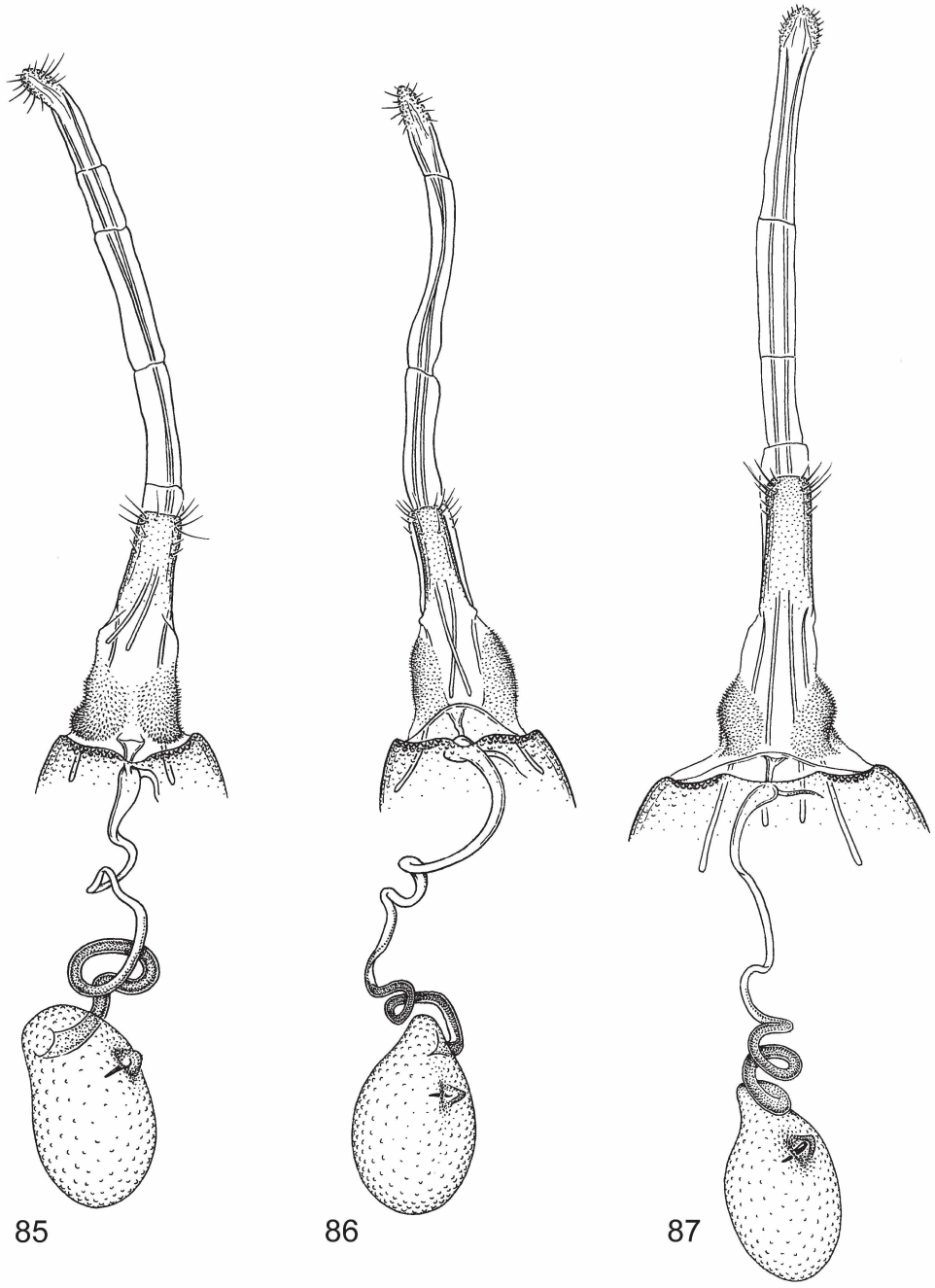

Figs 85-87: Female genitalia. **85** - *Blastobasis vittata* (WOLLASTON); **86** - *B. maroccanella* AMSEL; **87** - *B. walsinghami* sp. n.

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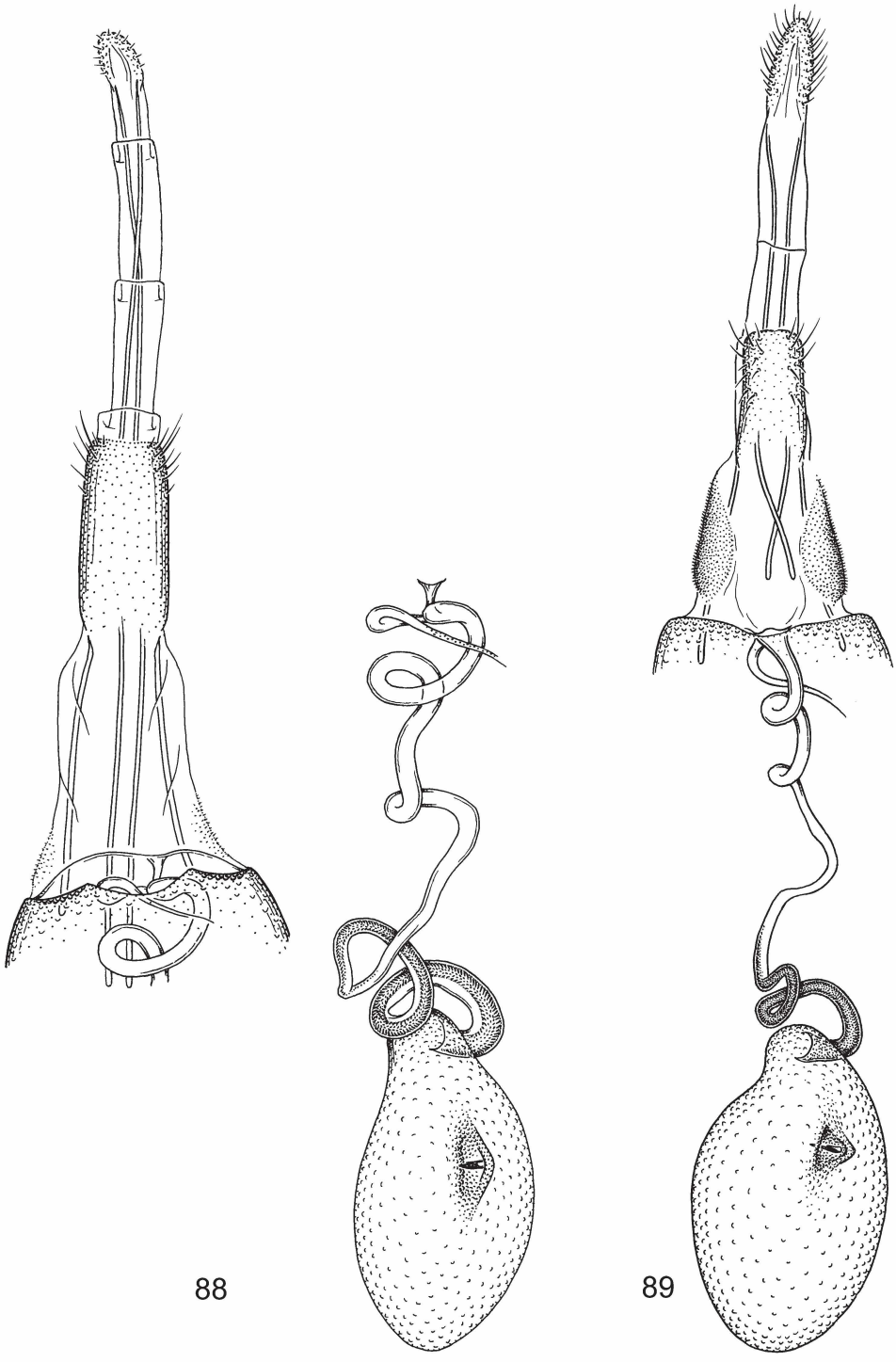

Figs 88-89: Female genitalia. **88** - *Blastobasis wolffi* sp. n.; **89** - *B. adustella* Walsingham.

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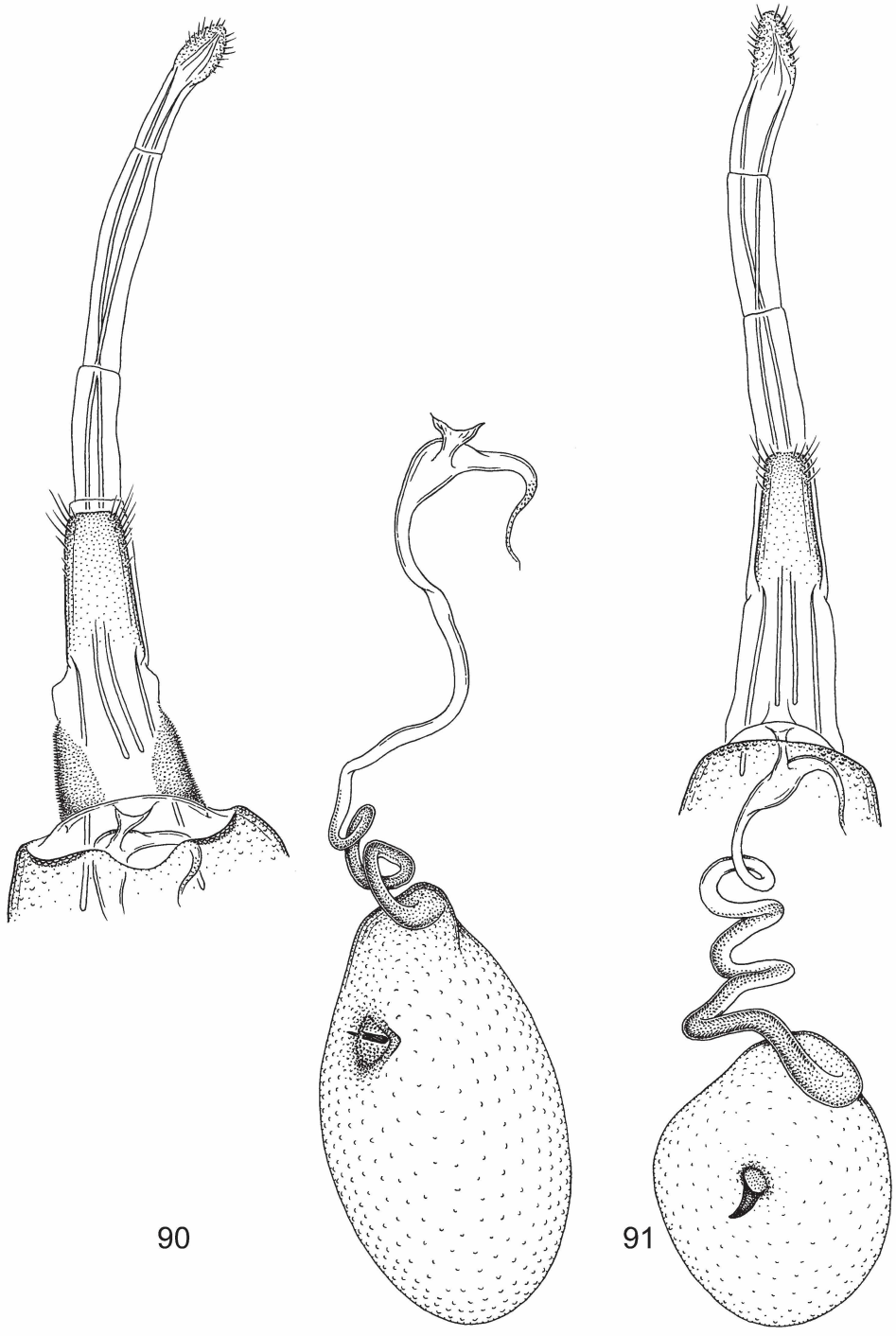

Figs 90-91: Female genitalia. **90** - *Blastobasis ochreopalpella* (WOLLASTON); **91** - *B. virgatella* sp. n.

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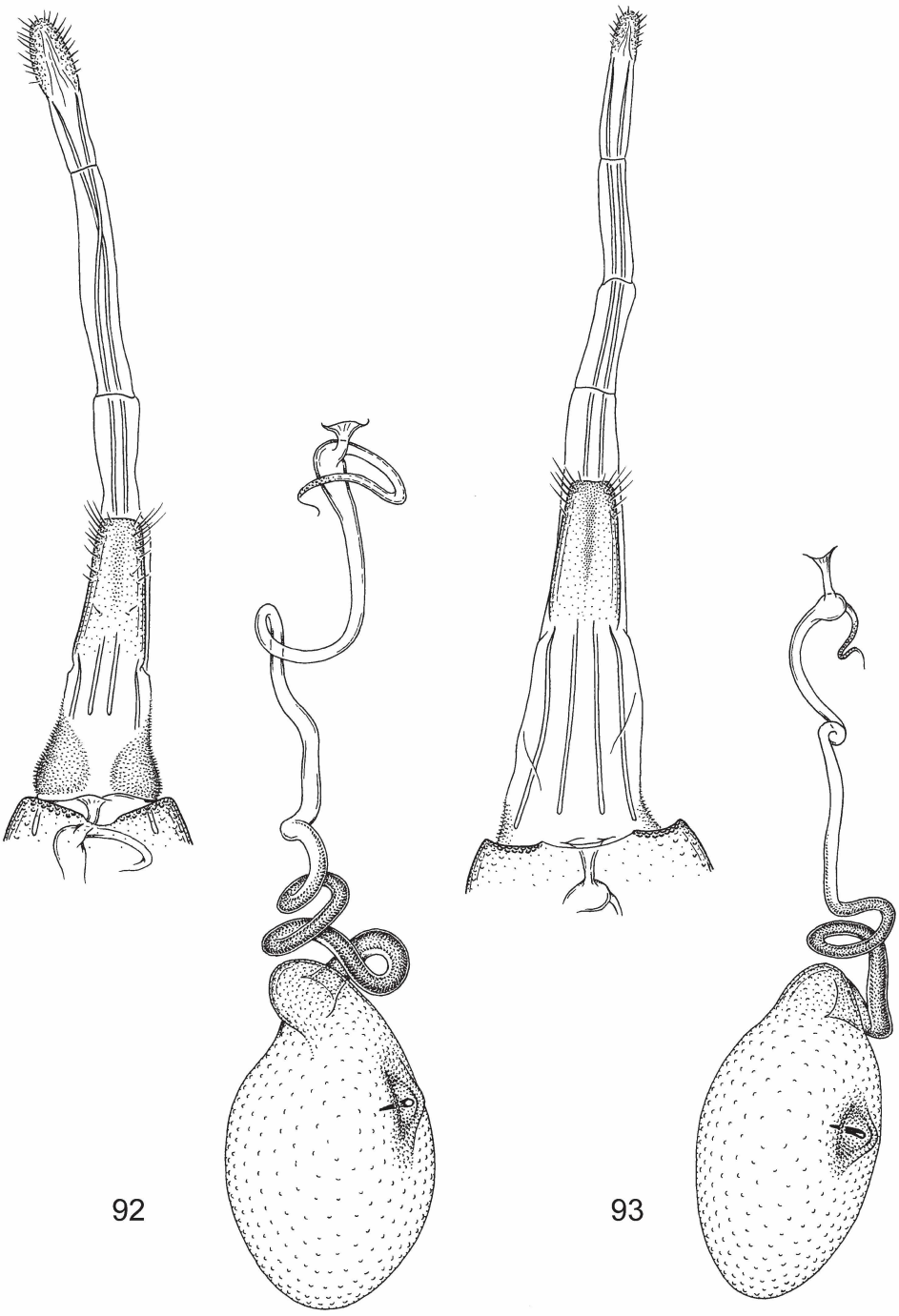

Figs 92-93: Female genitalia. **92** - *Blastobasis marmorosella* (Wollaston); **93** - *B. spectabilella* Rebel.

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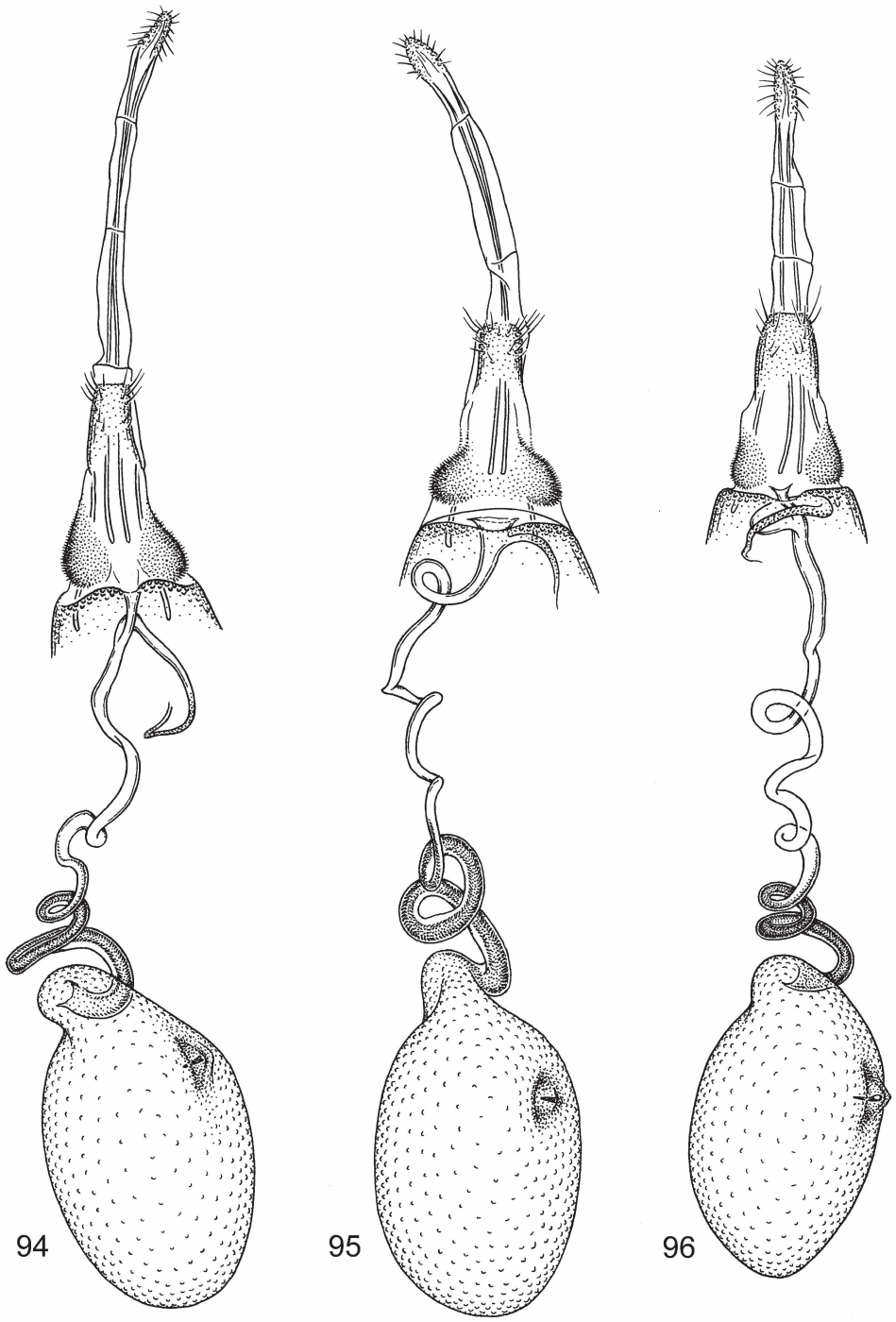

Figs 94-96: Female genitalia. **94** - *Blastobasis salebrosella* REBEL; **95** - *B. splendens* sp. n.; **96** - *B. rebeli* sp. n.

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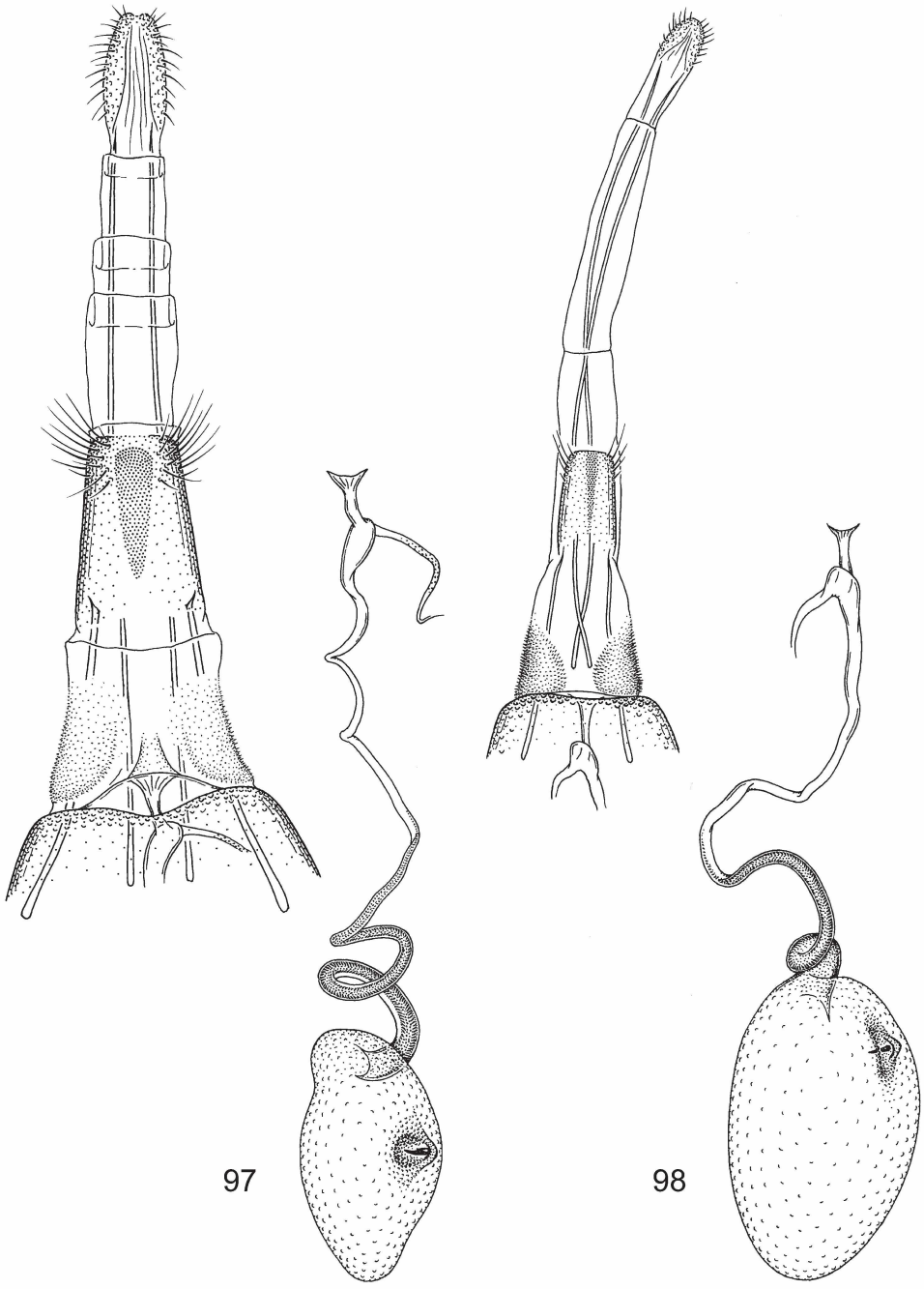

Figs 97-98: Female genitalia. **97** - *Blastobasis laurisilvae* sp. n.; **98** - *B. serradaguae* sp. n.

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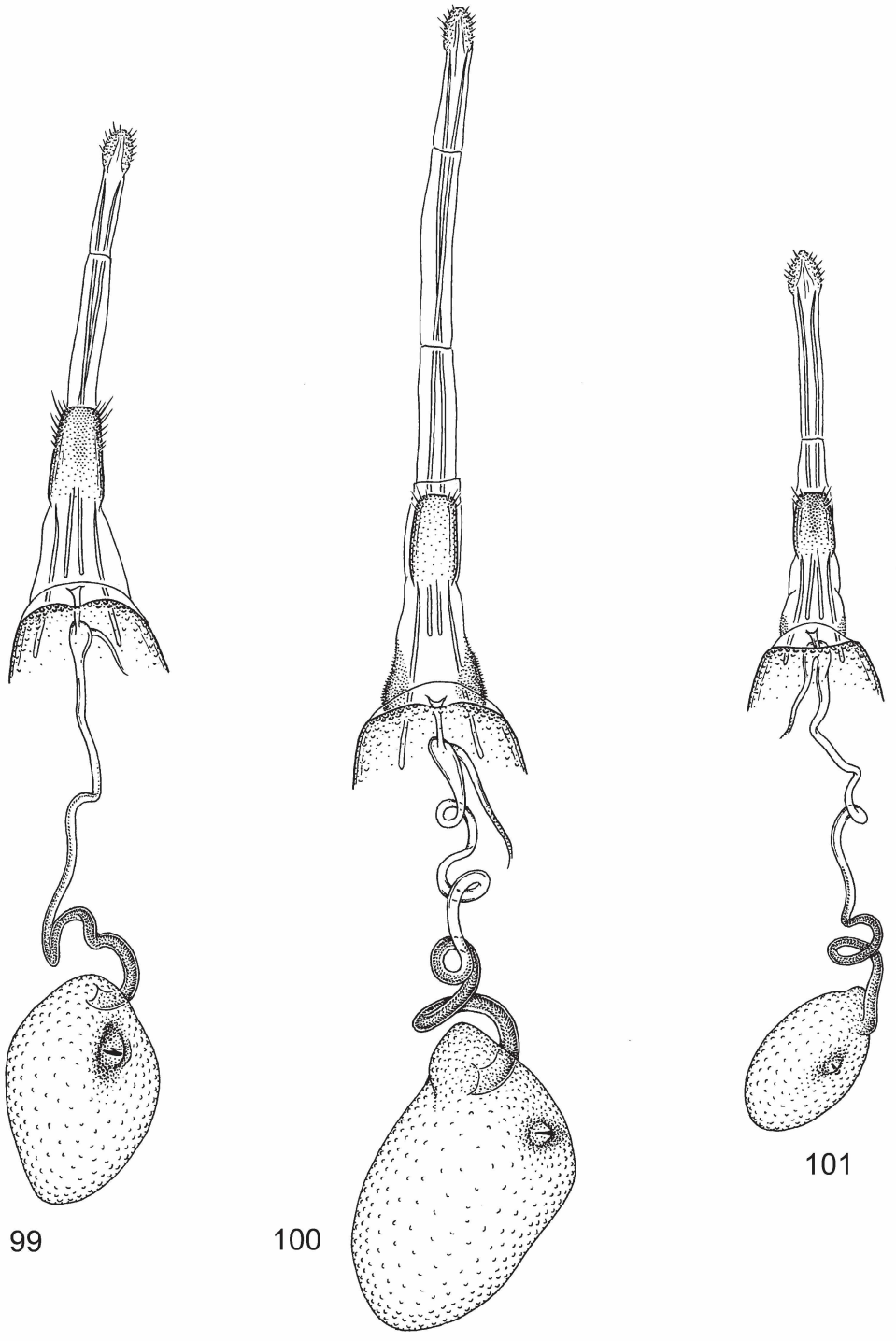

Figs 99-101: Female genitalia. **99** - *Blastobasis insularis* (WOLLASTON); **100** - *B. nigromaculata* (WOLLASTON); **101** - *B. wollastoni* sp. n.

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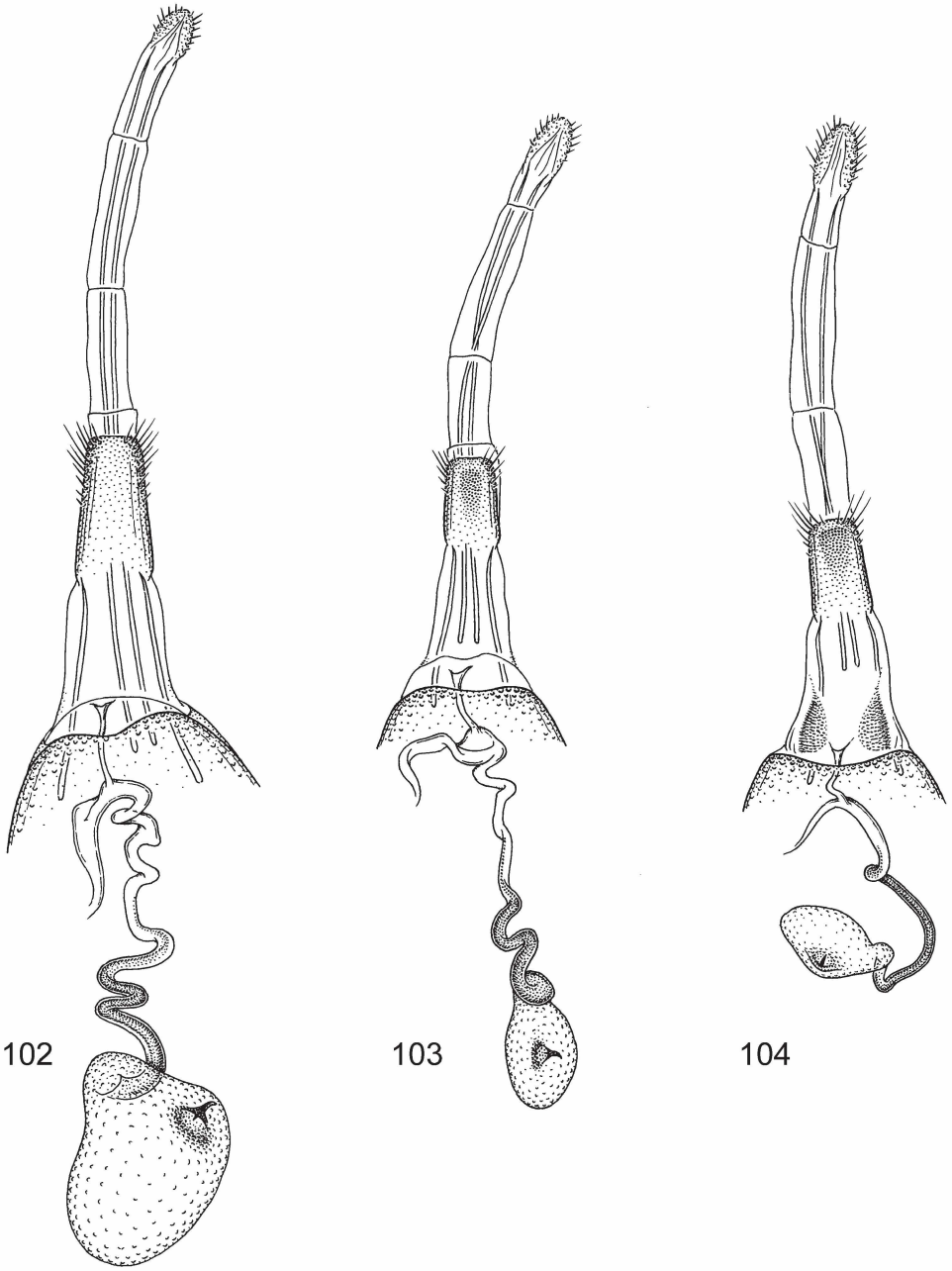

Figs 102-104: Female genitalia. **102** - *Blastobasis divisus* (Walsingham); **103** - *B. subdivisus* sp. n.; **104** - *B. pica* (Walsingham).

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