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Lepidoptera

Systematic catalogue of the entomofauna of the Madeira Archipelago and Selvagens Islands 1

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Published in:
Museu Municipal do Funchal. Boletim

Publication date:
2009

Document version
Publisher's PDF, also known as Version of record

Citation for published version (APA):
Aguiar, A. M. F., & Karsholt, O. (2009). Lepidoptera: Systematic catalogue of the entomofauna of the Madeira Archipelago and Selvagens Islands 1. *Museu Municipal do Funchal. Boletim*, *Supl. 9 (2006)*, 5-140.

Download date: 17. Nov. 2026

SYSTEMATIC CATALOGUE OF THE ENTOMOFAUNA OF THE MADEIRA ARCHIPELAGO AND SELVAGENS ISLANDS

LEPIDOPTERA

Vol. I

By A. M. FRANQUINHO AGUIAR [1] & OLE KARSHOLT [2]

With 4 figures

ABSTRACT. Being the first of a series dealing with the entomofauna of the Madeira and Selvagens Islands, this catalogue is a list of all Lepidoptera recorded from this region of Macaronesia, with references to the relevant literature. The checklist includes 37 families, 211 genera and 331 species. 31 species are recorded from Madeira for the first time, and exact data and locality are given for these in the notes. 32 species, which had previously been recorded from Madeira, are removed from the list of Lepidoptera found in the Madeira Islands being misidentifications, doubtful and unconfirmed records, undetermined species requiring further study and accidentally introduced species which have not established themselves in Madeira. No genus of Lepidoptera is endemic to Madeira, but 81 species are endemic to the Madeira Archipelago, and a further 36 species are considered Macaronesian endemics. One species occurs as two distinct subspecies on Madeira Island and Deserta Grande, respectively. We also comment on taxonomic and nomenclatorial problems in a number of species and provide information on host plants in Madeira and other biological details. Index to Latin names of Lepidoptera and host plants are given. The reference list includes 431 references for Madeiran Lepidoptera. The following nomenclatorial changes are proposed: *Clepsis retiferana* (Stainton, 1859) is removed from synonymy with *C. subcostana* (Stainton, 1859) (**sp. rev.**), *Cyclophora maderensis* ssp. *lundbladi* (Bryk, 1940) is a synonym of *C. maderensis* ssp. *maderensis* (Bethune-Baker, 1891) (**n. syn**). *Agrotis selvagensis* Pinker & Bacallado, 1978 is a synonym of *A. lanzarotensis* Rebel, 1894 (**n. syn**) and *Agrotis trux* spp. *maderensis* Pinker, 1971 is a synonym of *A. trux* ssp. *trux* (Hübner, 1824) (**n. syn.**).

RESUMO. Este catálogo é o primeiro de uma série que terá como tema a entomofauna do arquipélago da Madeira e das Ilhas Selvagens. Consiste numa listagem da totalidade das espécies da ordem Lepidoptera citadas para esta região da Macaronésia, suportada por toda a bibliografia relevante. A lista inclui 37 familias, 211 géneros e 331 espécies. 31 espécies são citadas pela primeira vez para a Madeira com dados completos das colheitas. Outras 32 espécies préviamente citadas para a Madeira, são removidas da lista por se considerar serem identificações incorrectas, citações duvidosas e não confirmadas, espécies não identificadas requerendo estudos adicionais e espécies introduzidas acidentalmente, mas que não se tornaram residentes. Apesar de não haver nehum género endémico de Lepidoptera, 81 espécies são endémicas para o arquipélago e outras 36 são consideradas endemismos Macaronésicos. Uma única espécie está representada por duas subespécies

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distintas, que se podem encontrar respectivamente na Ilha da Madeira e na Ilha Deserta Grande. Para um determinado número de espécies são feitos comentários acerca de problemas de nomenclatura e taxonomia, sendo ainda providenciada informação acerca de plantas hospedeiras e outros aspectos biológicos inseridos na região em estudo. São fornecidos índices para os nomes latinos dos Lepidoptera e plantas hospedeiras. A lista bibliográfica inclui 431 referências de trabalhos sobre Lepidoptera da Madeira e Selvagens. As seguintes alterações nomenclatoriais são propostas: *Clepsis retiferana* (Stainton, 1859) é removida da sinonímia com *C. subcostana* (Stainton, 1859) (**sp. rev.**), *Cyclophora maderensis* ssp. *lundbladi* (Bryk, 1940) é um sinónimo de *C. maderensis* ssp. *maderensis* (Bethune-Baker, 1891) (**n. syn**). *Agrotis selvagensis* Pinker & Bacallado, 1978 é um sinónimo de *A. lanzarotensis* Rebel, 1894 (**n. syn**) e *Agrotis trux* spp. *maderensis* Pinker, 1971 é um sinónimo de *A. trux* ssp. *trux* (Hübner, 1824) (**n. syn.**).

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From the Editor

Over the last 50 years, the *Boletim do Museu Municipal do Funchal* has dedicated a generous amount of pages to inventories of fauna and flora of the Macaronesian region in general and the archipelago of Madeira in particular. This comes direct in line with one of the *Boletim*'s major editorial guide-lines, which is to publish Natural History monographic papers, check-lists and descriptions of new species in order to contribute to the spreading of the knowledge on the biodiversity of Macaronesia and its surrounding sea.

Pursuing this objective, it was decided to initiate the publication of series of systematic catalogues of the entomofauna of the archipelago of Madeira and Selvagens Islands, the first of which is dedicated to the Lepidoptera. Others, dealing with different insect orders will follow over the next years.

Putting together these catalogues requires not only expertise, but also time and persistence, and when dealing with insects, even from a small and geographically limited area, this may turn into a gigantic task. Fortunately the profound knowledge and dedication of the authors in charge guarantee the success of such an initiative.

We are sure that the effort put in these publications is worthwhile. In the end, our knowledge on the biodiversity will be richer and we hope that these catalogues will stimulate further research, as they for sure will constitute a solid reference.

Manuel José Biscoito

INTRODUCTION

This catalogue consists of four main parts. Chapter 1 is a checklist of all the 331 species presently known from the Madeira Archipelago (as shown in Fig. 1, is composed of Madeira, Porto Santo, Desertas, and the Selvagens Islands, which are also under Portuguese sovereignty).

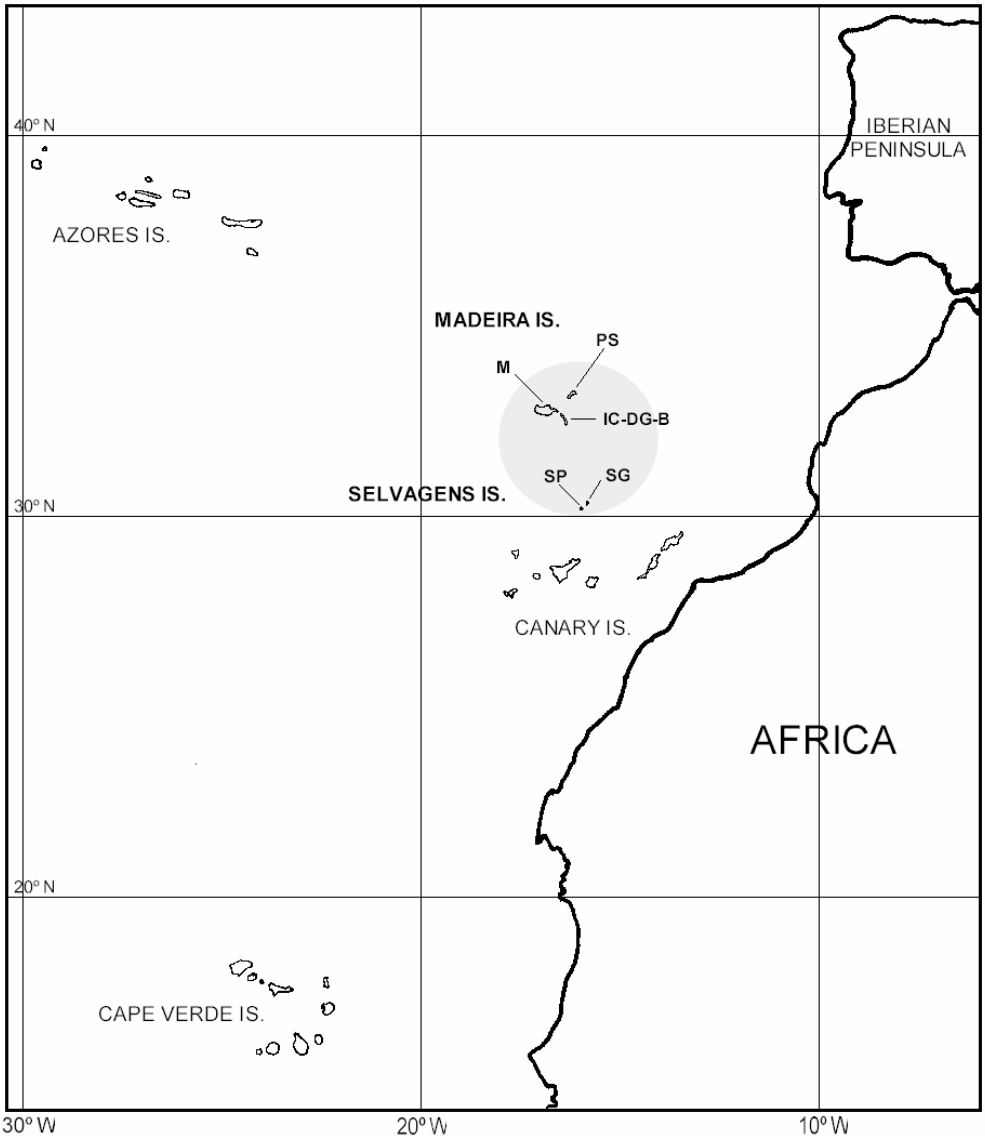
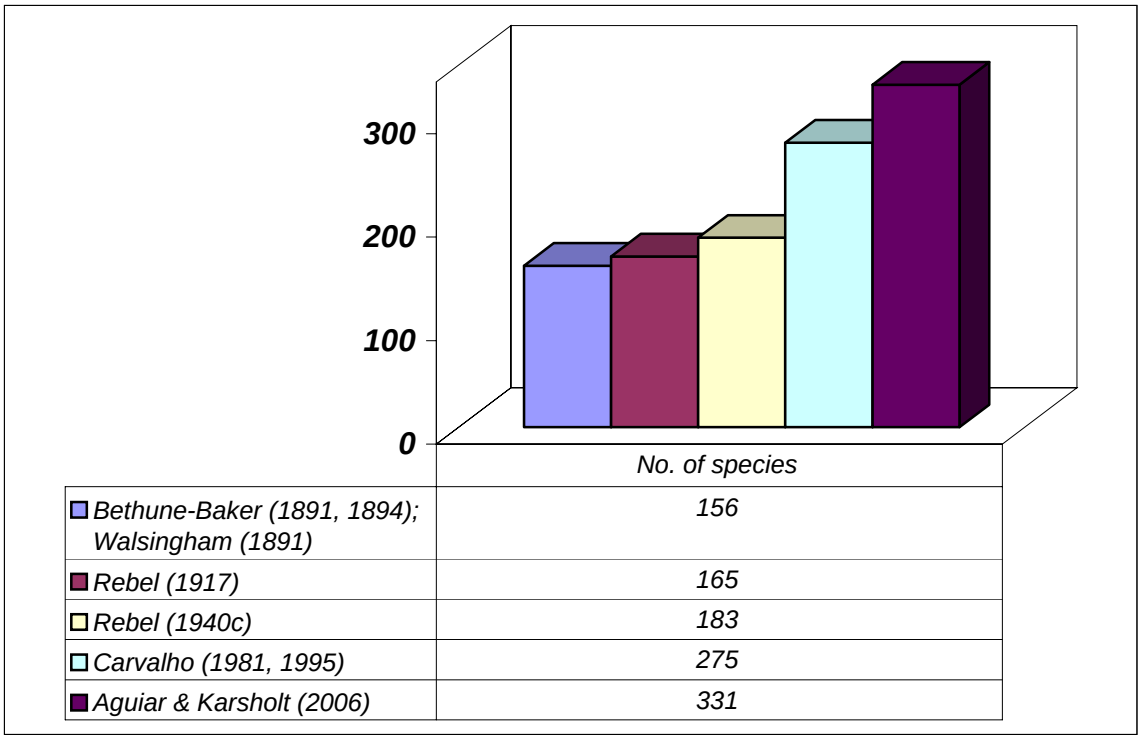


Fig. 1 – Map of Macaronesia showing inside the shaded circle the islands under study. Madeira Islands: M – Madeira, PS – Porto Santo, IC – Ilhéu Chão, DG – Deserta Grande, B – Bugio. Selvagens Islands: SG – Selvagem Grande, SP – Selvagem Pequena.

In chapter 2 we list references to the publications where the occurrence of each species on these islands has been cited. In this part we also give additional information, when appropriate, about the content of these publications. In a number of cases taxonomy and nomenclature of included species are discussed. Moreover we give information on their biology, especially the host plants of the larvae, if they are known from Madeira. A number of species, which were recorded from Madeira

in the literature, have turned out to be misidentifications, or they are based on unconfirmed or mislabelled material. Such records are discussed in chapter 3. In chapter 4 we give the bibliographical references to 431 publications dealing with Lepidoptera from Madeira.

The Lepidoptera fauna of the Madeira Islands is relatively poor in species. This is undoubtedly due to their isolated position and small size. In spite of this they have been the subjects of regular studies by lepidopterists during the last 150 years. Two earlier lists of all Madeiran Lepidoptera have been published (REBEL, 1917 & 1940C). In addition the publications of BETHUNE-BAKER (1891, 1894) and WALSINGHAM (1894A), and the more recent ones by CARVALHO (1981, 1983 & 1995) list all species of Lepidoptera from Madeira known to them. From these publications it is possible to obtain a picture of the development of the study of the fauna of the Madeiran Islands (Fig. 2).



	No. of species
Bethune-Baker (1891, 1894); Walsingham (1891)	156
Rebel (1917)	165
Rebel (1940c)	183
Carvalho (1981, 1995)	275
Aguiar & Karsholt (2006)	331

Fig. 2 - The number of Lepidoptera species recorded from the Madeira and Selvagens Islands by BETHUNE-BAKER (1891,1894) + WALSINGHAM (1894), REBEL (1917), REBEL (1940c), CARVALHO (1981, 1983 & 1995) and AGUIAR & KARSHOLT (present study). The figures are not corrected for synonyms and misidentifications.

In these figures we have not corrected for misidentifications and synonyms. In the present work we list, apart from of the confirmed species, 32 species that we exclude from our list (see under material, methods and terminology).

The number of Lepidoptera found in Madeira has been steadily increasing, and we expect that it will continue to grow in the future. New species for the fauna of Madeira are expected as a result of: 1) introductions of species which are able to establish themselves in Madeira, 2) migrants from the continent, 3) overlooked, endemic species, 4) already collected, but still unidentified or unnamed species.

The history of lepidopterology in Madeira has recently been depicted by KARSHOLT (2000). Around 1850 T. V. Wollaston collected Lepidoptera in all the major islands (except the Selvagens Is.). It is interesting that most of the species found in the 19th century still occur in the Madeira Islands. Nearly all the 303 species mentioned below as kept in the ZMUC have been collected since 1970, and even though the remarkable Madeiran Large White (*Pieris brassicae* spp. *wollastoni* Butler) has become extinct since that date, only the following 11 species have not been recorded in Madeira during the past 35 years: *Ceratobia oxymora* (Meyrick), *Monopis barbarosi* (Koçak), *Ephysteris brachyptera* Karsholt & Sattler, *Cochylimorpha decolorella* (Zeller), *Carposina anopta* Diakonoff, *Ematheudes punctella* (Treitschke), *Scoparia coecimaculalis* (Warren), *Evergestis isatidalis* (Duponchel), *Eupithecia massiliata* Dardoin & Millière, *Cryphia simonyi* (Rogenhofer) and *Xylena exsoleta* (Linnaeus), and eight of these were only found during the 1960´s. However, extinction has undoubtedly taken place in the Madeiran Lepidoptera fauna (in all islands), and most likely a number of species had already become extinct 100 years ago or more, due to burning of forest, grazing by domestic animals and farming. The destruction of biotopes is still the only serious threat to the Lepidoptera fauna of Madeira.

The literature about Lepidoptera from Madeira is rather uneven within the different families. There is, for example, only one publication referring to the nepticulid *Stigmella aurella* (Fabricius) even though the mines of this species are common in leaves of *Rubus* spp. The most cited species is *Hipparchia maderensis* (Bethune-Baker) with more than 90 references. However, many references to Lepidoptera from Madeira do not include original observations and are merely reiterations copied from publications of other authors and included in checklists, catalogues and taxonomic monographs. We found 29 references to the occurrence in Madeira of *Vanessa virginiensis* (Drury), but all are based on the single, probably erroneous, record by GODMAN (1870).

MATERIALS, METHODS AND TERMINOLOGY

We have compiled this catalogue on critical principles. It is based on our research in the field and laboratory, and we have tried to confirm information from literature when it was not in accordance with our personal observations. We have verified the identifications of Madeiran specimens of 319 out of the 331 species listed by us as occurring in Madeira. This was possible because of the rich collection of Lepidoptera from Madeira kept in the Zoological Museum of Copenhagen, which includes 303 species of Lepidoptera from these islands. 12 additional species are present in the collection of A. Aguiar, MMF or ICLAM, and 8 further specimens were examined in other collections. The 7 species of which we have not seen specimens from Madeira Islands are: *Agdistis bifurcatus* (Agenjo), *Agdistis salsolae* (Walsingham), *Achroia grisella* (Fabricius), *Chlorissa faustinata* (Millière), *Eupithecia massiliata* Dardoin & Millière, *Cryphia simonyi* (Rogenhofer) and *Xylena exsoleta* (Linnaeus).

Many literature records of Lepidoptera from Madeira are based on misidentifications. In order to stabilise taxonomy and nomenclature a large number of species occurring in Madeira have been compared with type material, most of which is kept in The Natural History Museum in London and in the Naturhistorisches Museum in Vienna.

As mentioned above, this catalogue consists of four main chapters. In the catalogue part (chapter 1) the systematics and nomenclature follow that of the European checklist (KARSHOLT & RAZOWSKI, 1996). Synonyms are indicated below the species name in a smaller font. Only synonyms, which

were referred to in works dealing with the Madeiran fauna, are considered. Misidentifications occurring in literature on Madeiran Lepidoptera are listed as synonyms, but followed by "auct." instead of author and year of description. Generic synonyms / misidentifications are not listed as these are normally found in the cited literature, but subgenera are used in genera where these are listed in KARSHOLT & RAZOWSKI (1996). Names of infrasubspecific taxa are listed in the notes, but only if they are described on material from Madeira. The number of species for each family is given in square brackets after the family name. In the first column, each confirmed species is numbered consecutively from the beginning to the end of the checklist. In the single case (*Caryocolum marmoreum*) where two subspecies of the same species are found in the Madeira Islands they are referred to as "a" and "b" after the number. All other species, which have been recorded from Madeira, but for various reasons (see below) are not considered as belonging to the fauna of Madeira s. l., are marked with letters between brackets, beginning with letter (a) through to (af). The distribution of each species within Macaronesia is indicated in the third column under the following terminology: M – Madeira proper, PS – Porto Santo, DG – Deserta Grande, B – Bugio, IC – Ilhéu Chão, SG – Selvagem Grande, SP – Selvagem Pequena, A – Azores, C – Canary Islands and CV – Cape Verde Islands. The number of species found in the different islands and archipelagos is shown in Fig. 3. Data on the occurrence of the species in the other Macaronesian archipelagos are mainly taken from Karsholt & Vieira (2005) for the Azores, Báez (2001) for the Canary Islands and Harten (1993) for the Cape Verde Islands.

Those species which are Madeiran endemics, are marked with the symbol "✠" and those existing in more than one Macaronesian archipelago and considered Macaronesian endemics, are marked with the symbol "★". The world distribution of more widely distributed species is not considered. The proportion between endemic and widespread species is shown in Fig. 4.

In Chapter 2 – Notes (I) confirmed species – each of the numbered species in the checklist has an entry with the same number, giving the bibliographical references where that species is cited as having been observed or collected in Madeira. Host plant records and other biological data refer only to observations made in Madeira and are mainly a result of fieldwork carried out by the authors.

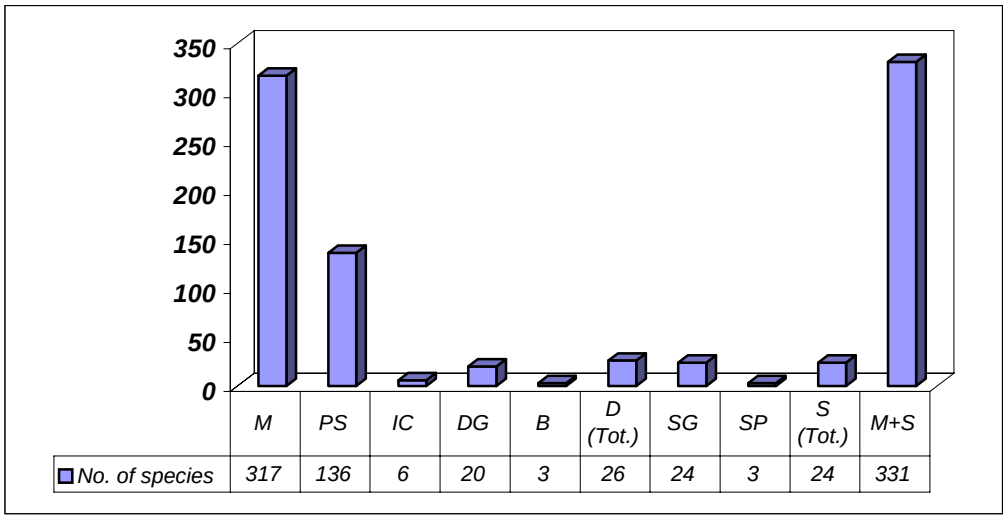


Fig. 3 - The number of Lepidoptera species recorded from the islands of the Madeira Archipelago and Selvagens Islands. M – Madeira proper, PS – Porto Santo, IC – Ilhéu Chão, DG – Deserta Grande, B – Bugio, D – Deserta Islands (total), SG – Selvagem Grande, SP – Selvagem Pequena, S – Selvagem Islands (total), M+S – Madeira Archipelago and Selvagens Islands (total).

Migrating Lepidoptera, which have been carried on the wind to Madeira, are included in the list of "confirmed species" even though they have not been able to establish populations on the islands. New records are indicated in these notes, with the name of the island in question printed in bold and for these, locality and data on the specimens collected is presented and the depositories indicated.

Chapter 3 – Notes (II) follows the same pattern, but for species which are **not** included in the list of confirmed species. Accidentally introduced species, which have not established themselves in Madeira, are listed in this chapter.

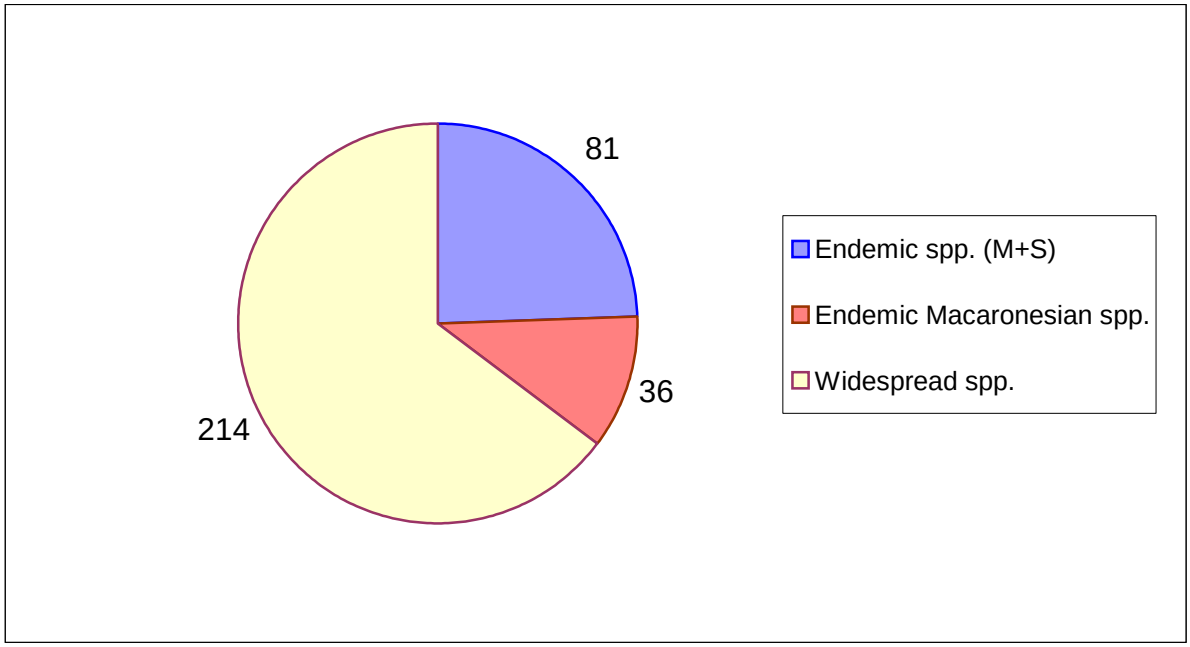


Fig. 4 - The proportions of endemic and widely distributed species of Lepidoptera recorded from the islands of the Madeira Archipelago and the Selvagens islands.

In the reference list we have tried to list all publications dealing especially with Lepidoptera from Madeira. We moreover list publications dealing with Lepidoptera from other areas, with other aspects of lepidopterology, and even publications dealing with other subjects, but which give information on one or more species of Lepidoptera from Madeira. The literature on Lepidoptera is immense, and the list of references of these categories is probably incomplete. For larger publications (more than 10 pages) which are not especially dealing with Lepidoptera of Madeira we give [in square brackets] the page number(s) where we have found information about Madeiran Lepidoptera. References to SEITZ: *Die Gross-Schmetterlinge der Erde* are only given to the German edition. Years of publication and page numbers differ in English or French translations. Likewise we only refer to a few of the many editions in different languages of HIGGINS & RILEY´s: *A Field Guide to the Butterflies of Britain and Europe*. The reference list includes some references that we were unable to check ourselves. These are marked with an asterisk (*).

The reference list is limited to printed publications and does not include references to publications and other links on the Internet. A search on "Lepidoptera + Madeira" in Google (9.v.2006) gave 39.600 links, and even though many of these are dublicates or fall outside of the present study the Internet includes a lot of information also in relation to the Lepidoptera of Madeira.

However, one Internet publication needs to be mentioned here, viz. *Fauna Europaea* (FaEu) (www.faunaeur.org) which gives an updated list of Lepidoptera of the Madeira and Selvagens Islands, including several of the new records and changes published in the present paper. The second author took part in the preparation of the Lepidoptera part of FaEu as a co-ordinator. At that time (2004) it was expected that FaEu and this catalogue would be published almost simultaneously, and it was decided to include information from the latter into to FaEu – with reference to the catalogue. So even though FaEu was published first details and discussions of nomenclatorical and faunistical changes should be found in this catalogue.

The final part of the catalogue includes a host plant index and an index of Lepidoptera taxa. The nomenclature of plants is according to J. R. Press & M. J. Short (eds.), 1994: Flora of Madeira. xvii + 574 pp. London.

Abbreviations of museums, institutions and private collections.

AFA	Collection of António M. Franquinho Aguiar, Funchal, Madeira.
BMNH	The Natural History Museum, London, U.K.
DNI	Collection of Danny Nilsson, Viemose, Denmark.
ICLAM	Insect Collection Laboratório Agrícola da Madeira.
ISI	Collection of Isamberto Silva, Funchal, Madeira.
LSI	Collection of Leo Sippola, Pirkkala, Finland.
MEY	Collection of Marc Meyer, Perl-Kesselingen, Germany.
MMF(HN)	Museu Municipal do Funchal (História Natural), Madeira.
NHMW	Naturhistorisches Museum, Vienna, Austria.
NHRM	Naturhistoriska Riksmuseet, Stockholm.
SMNK	Staatliches Museum für Naturkunde, Karlsruhe, Germany.
ZMUC	Zoological Museum, University of Copenhagen, Denmark.
ZMUH	Zoological Museum, University of Helsinki, Finland.
ZSM	Zoologische Staatssammlung, Munich, Germany.

ACKNOWLEDGEMENTS

We are deeply indebted to Eng. José Passos de Carvalho (recently deceased) for his enthusiasm in supporting our work, sharing with us his deep knowledge of the Lepidoptera of the Madeira archipelago, and making his private collection available for us to study. His very important study (CARVALHO, 1981, 1983, 1991, 1995) was the last update on the whole Lepidoptera fauna of Madeira since the extensive listings of Rebel in the first half of the last century. We are also very grateful to Dr. Manuel Biscoito, Director of the Museu Municipal do Funchal and Editor of this publication for his support and suggestions and for allowing extensive use of the museum's library for almost a decade. We are moreover indebted to the late Dr. Niels L. Wolff of the ZMUC, who devoted the last part of his life to the study of the Lepidoptera fauna of Madeira. His critical methods in dealing with taxonomic and faunistic problems were an important inspiration for us.

We are also sincerely grateful to the following persons for giving us access to material under their care, for providing us with all kind of information, and for making available publications otherwise difficult to access: Dr. Andreas Segerer and Dr. Axel Hausmann (ZSM-GERMANY), Dr. Andrew Wakeham-Dawson (Lewes-UK), Dr. António Domingos Abreu and the late Dr. Günther E. Maul (MMF(HN)-Madeira-PORTUGAL) Mr. Bert Gustavsson and Dr. Thomas Pape (NHRM-SWEDEN), Dr. Clair Brunton (University of Cambridge-UK), Mr. Danny Nilsson (Viemose-DENMARK), the late Dr. Denis Owen (Oxford Brookes University-UK), Dr. Erik J. van Nieukerken (National Museum of Natural History-THE NEDERLANDS), Mr. Fernández Vidal (La Coruña-SPAIN), Dr. Gaden Robinson, Mr. Geoff Martin, Dr. Ian Kitching, Mr. Kevin Tuck, Dr. Klaus Sattler, Mr. Martin Honey, Mr. Michael Shaffer and Mrs. Vicki Veness (BMNH-UK), Dr. George Markin (USDA Forest Service-USA), Mr. Gerfried Deschka (Steyr-AUSTRIA), Dr. Gloria Ortega, Museo de Ciencias Naturales, Santa Cruz de Tenerife-SPAIN), Dr. Günther Ebert (SMNK-Germany), Mr. Hans Henderickx (Mol-BELGIUM), Mr. Isamberto Silva (Funchal, Madeira-PORTUGAL), Mr. Jaakko Kullberg and Dr. Lauri Kaila (ZMUH-FINLAND), Dr. Joaquin Baixeras (Universitat de Valencia-SPAIN), the late Dr. John Bradley (Chard-UK), Mr. Leo Sippola (Pirkkala-FINLAND), Dr. L. M. Cook (University of Manchester-UK), Mr. Lutz Behne and Dr. Reinhard Gaedike (Deutsches Entomologisches Institut, Eberswalde-GERMANY), Dr. Marcos Báez (Universidad de La Laguna, Tenerife-SPAIN), Dr. Marc Meyer (Musée national d'histoire naturelle-LUXEMBOURG), Dr. Martin Lödl (NHMW-AUSTRIA), Dr. Maria Romstöck (Bayreuth-GERMANY), Dr. Martin Jones (Manchester Polytechnic-UK), Dr. Matthias Nuss (Museum für Naturkunde, Dresden-GERMANY), Mr. Michael Fibiger (Sorø-DANMARK), Mr. Rudy Leestmans (Beersel-BELGIUM), Dr. Sergej Yu. Sinev (Zoological Institute, St. Petersburg-RUSSIA), Dr. Sören Nylin (University of Stockholm-SWEDEN), Dr. Tony Pittaway (Wallingford-UK), Dr. Trond Andersen (Zoological Museum, Bergen-NORWAY), Dr. Vladimir Mironov (Zoological Institute, St Petersburg-RUSSIA), Dr. Virgílio Vieira (Universidade dos Açores-PORTUGAL), Dr. Tomas Yélamos (Barcelona-SPAIN), Mr. Willy De Prins (Antwerpen-BELGIUM), Mr. D. Hall (Staffordshire-UK).

We are indebted to Mr. Martin Corley (Faringdon-UK) for the linguistic correction of the manuscript.

Ole Karsholt´s work on the Lepidoptera of Madeira project was supported by the Zoological Museum of Copenhagen, and he is grateful to Prof. Niels Peder Kristensen for numerous stimulating and fruitful discussions. Both his field work in Madeira and visits to European museums were financed by a grant from the Carlsberg Foundation (Denmark).

No.	Checklist		Distribution in Macaronesia	
NEPTICULOIDEA: Nepticulidae [4 species]				
	Stigmella Schrank, 1802			
1	*atricapitella* (Haworth, 1828)	[New record]	M	
2	*aurella* (Fabricius, 1775)		M – A C	
3	*centifoliella* (Zeller, 1848)	[New record]	M – C	
	Trifurcula Zeller, 1848			
	(***Levarchama*** Beirne, 1945)			
4	*ridiculosa* (Walsingham, 1908)	[New record]	M PS – C	★
TINEOIDEA: Tineidae [21 species]				
	Meesiinae			
	Tenaga Clemens, 1862			
	Lichenovora Petersen, 1957			
5	*nigripunctella* (Haworth, 1828)		M PS – A C	
	Stenoptinea Dietz, 1905			
6	*cyaneimarmorella* (Millière, 1854)		M	
	Tineinae			
	Ceratobia Zagulajev, 1974			
7	*oxymora* (Meyrick, 1919)		M	
	Trichophaga Ragonot, 1894			
8	*bipartitella* (Ragonot, 1892)		M PS SG – A C	
9	*robinsoni* Gaedike & Karsholt, 2001		M PS SG – C	
	abruptella Wollaston, 1858, nec Thunberg, 1794			
10	*tapetzella* (Linnaeus, 1758)		M PS – A C	
	Phereoeca Hinton & Bradley, 1956			
11	*allutella* (Rebel, 1892)		M PS – C	
	Praeacedes Amsel, 1954			
12	*atomosella* (Walker, 1863)		M PS – A C	
	thecophora (Walsingham, 1908)			
	Tineola Herrich-Schäffer, 1853			
13	*bisselliella* (Hummel, 1823)		M – C	
	Tinea Linnaeus, 1758			
14	*dubiella* Stainton, 1859		M B – C	
	turicensis Müller-Rutz, 1920			
	pellionella auct.			
15	*murariella* Staudinger, 1859		M PS DG – A C	
	bipunctella Ragonot, 1874			
16	*trinotella* Thunberg, 1794		M – C	
	Niditinea G. Petersen, 1957			
17	*fuscella* (Linnaeus, 1758)		M PS – A C	
	spretella (Denis & Schiffermüller, 1775)			

	fuscipunctella (Haworth, 1828)		
	Monopis Hübner, 1825		
18	*crocicapitella* (Clemens, 1859)	M PS – A C	
19	*henderickxi* Gaedike & Karsholt, 2001	M	✠
20	*barbarosi* (Koçak, 1981) *irrorella* Wollaston, 1858, nec Hübner, 1796	M	✠
21	*nigricantella* (Millière, 1872) *laevigella* auct.	M PS – C	
(a)	*obviella* (Denis & Schiffermüller, 1775) *imella* (Hübner, 1813)	C	
	Hieroxestinae		
	Opogona Zeller, 1853		
22	*omoscopa* (Meyrick, 1893) *praematura* (Meyrick, 1909)	M PS – A C	
23	*sacchari* (Bojer, 1856) *subcervinella* (Walker, 1863)	M PS – A C CV	
	Oinophila Stephens, 1848		
24	*v-flava* (Haworth, 1828)	M PS – A C	
	Teichobiinae		
	Psychoides Bruand, 1853		
25	*filicivora* (Meyrick, 1937) *verhuella* auct.	M	
TINEOIDEA : Psychidae [2 species]			
	Psychinae / Psychini		
	Luffia Tutt, 1899		
26	*lapidella* (Goeze, 1783)	M PS – A	
	Oiketicinae / Apteronini		
	Apterona Millière, 1857		
27	*helicoidella* (Vallot, 1827)	PS	
GRACILLARIOIDEA: Gracillariidae [16 species]			
	Gracillariinae		
	Caloptilia Hübner, 1825		
28	*aurantiaca* (Wollaston, 1858)	M – C	★
29	*azaleella* (Brants, 1913) [New record]	M	
30	*coruscans* (Walsingham, 1907) [New record]	M	
31	*laurifoliae* (Hering, 1927) *laurifoliella* (Rebel, 1940)	M – C	★

	roscipennella auct.			
32	*schinella* (Walsingham, 1908)		M – A C	
33	*staintoni* (Wollaston, 1858)		M – C	★
	Dialectica Walsingham, 1897			
34	*hedemanni* (Rebel, 1896)		M – C	★
35	*scalariella* (Zeller, 1850)		M – C	
	Aspilapteryx Spuler, 1910			
(b)	*multipunctella* (Chrétien, 1916)		C	
	Lithocolletinae			
	Phyllonorycter Hübner, 1822			
36	*chiclanella* (Staudinger, 1859)		M	
	juncei Walsingham, 1908		C	★
37	ssp. *madeirae* Deschka, 1976		M	✠
38	*mespilella* (Hübner, 1805)	[New record]	M	
39	*messaniella* (Zeller, 1846)		M PS – A C	
40	*myricae* Deschka, 1976		M	✠
41	*platani* (Staudinger, 1870)		M – C	
	Phyllocnistinae			
	Phyllocnistis Zeller, 1848			
42	*canariensis* Hering, 1937		M – C	★
43	*citrella* Stainton, 1856		M PS – A C	
YPONOMEUTOIDEA : Yponomeutidae [5 species]				
	Yponomeutinae			
	Zelleria Stainton, 1849			
44	*oleastrella* (Millière, 1864)	[New record]	M PS – C	
45	*wolffi* Klimesch, 1983		M – C	★
	Parahyponomeuta Toll, 1941			
46	*bakeri* (Walsingham, 1894) **sp. rev.**		M	✠
	egregiella auct.			
	Praydinae			
	Prays Hübner, 1825			
47	*citri* (Millière, 1873)		M – A C CV	
48	*friesei* Klimesch, 1992	[New record]	M – C	★
	oleae auct.			
	Argyresthiinae			
	Argyresthia Hübner, 1825			
(c)	*minusculella* Rebel, 1940		A	★

YPONOMEUTOIDEA: Plutellidae [1 species]			
	Plutella Schrank, 1802		
49	*xylostella* (Linnaeus, 1758) *maculipennis* auct.	M PS DG – A C CV	
YPONOMEUTOIDEA: Acrolepiidae [3 species]			
	Acrolepiopsis Gaedike, 1970		
50	*infundibulosa* Gaedike & Karsholt, 2001	M	✠
51	*mauli* Gaedike & Karsholt, 2001	M	✠
52	*vespertella* (Zeller, 1850)	M – C	
YPONOMEUTOIDEA: Glyphipterigidae [2 species]			
	Glyphipteriginae ***Glyphipterix*** Hübner, 1825		
53	*diaphora* Walsingham, 1910	M – A	★
54	*pygmaeella* Rebel, 1896 [New record]	M – C	★
YPONOMEUTOIDEA: Bedelliidae [1 species]			
	Bedellia Stainton, 1849		
55	*somnulentella* (Zeller, 1847) *daphneella* auct.	M PS – A C CV	
YPONOMEUTOIDEA : Lyonetiidae [1 species]			
	Cemiostominae ***Leucoptera*** Hübner, 1825		
56	*malifoliella* (O. Costa, 1836) [New record]	M	
GELECHIOIDEA : Stenomatidae			
	Cerconota Meyrick, 1915		
(d)	*anonella* (Sepp, 1830)		
GELECHIOIDEA : Ethmiidae [1 species]			
	Ethmia Hübner, 1819		
57	*bipunctella* (Fabricius, 1775)	M PS – C	
GELECHIOIDEA: Depressariidae [4 species]			
	Exaeretia Stainton, 1849 (***Depressariodes*** Turati, 1924)		
58	*conciliatella* (Rebel, 1892)	M – C	
	Agonopterix Hübner, 1825		
59	*perezi* (Walsingham, 1908) *heracliana* auct.	M – C	★

	applana auct.			
60	*scopariella* (Heinemann, 1870)		M	
	Depressaria Haworth, 1811			
	(***Depressaria*** Haworth, 1811 s. str.)			
61	*ultimella* Stainton, 1849	[New record]	M	
	daucella auct.			
	rubricella auct.			
	apiella auct.			
	pastinacella auct.			
GELECHIOIDEA: Elachistidae [2 species]				
	Perittia Stainton, 1854			
62	*carlinella* Walsingham, 1908		M – C	★
	Elachista Treitschke, 1833			
	(***Elachista*** Treitschke, 1833 s. str.)			
63	*encumeadae* Kaila & Karsholt, 2002		M	✠
GELECHIOIDEA: Schistonoeidae [1 species]				
	Oecia Walsingham, 1897			
64	*oecophila* (Staudinger,1876)		M – C	
GELECHIOIDEA: Oecophoridae [4 species]				
	Oecophorinae / Oecophorini			
	Endrosis Hübner, 1825			
65	*sarcitrella* (Linnaeus, 1758)		M	
	lactella (Denis & Schiffermüller, 1775)			
	Hofmannophila Spuler, 1910			
66	*pseudospretella* (Stainton, 1849)		M PS	
	Esperia Hübner, 1825			
67	*sulphurella* (Fabricius, 1775)	[New record]	M	
	Stathmopodinae			
	Neomariania Mariani, 1943			
68	*rebeli* (Walsingham, 1894)		M – C	★
(e)	*scriptella* Rebel, 1940		A	
GELECHIOIDEA: Coleophoridae [4 species]				
	Coleophora Hübner, 1822			
69	*coracipenella* (Hübner, 1796)	[New record]	M	
70	*glaucicolella* Wood, 1892		M	
71	*orotavensis* Rebel, 1896	[New record]	PS – C	★
72	*versurella* Zeller, 1849		M – A C	

GELECHIOIDEA: Blastobasidae [26 species]			
	Blastobasis Zeller, 1855		
73	*adustella* Walsingham, 1894	M – A	✠
	lignea auct.		
	xanthographella Rebel, 1940		
74	*bassii* Karsholt & Sinev, 2004	M PS	✠
75	*decolorella* (Wollaston, 1858)	M PS	✠
76	*desertarum* (Wollaston, 1858)	M PS IC DG – A	★
	maderensis (Stainton, 1859)		
	radiata Walsingham, 1894		
	miguelensis (Rebel, 1940)		
77	*divisus* (Walsingham, 1894)	M	✠
78	*insularis* (Wollaston, 1858)	M – C	★
79	*lacticolella* Rebel, 1940	M	✠
	decolorella auct.		
80	*laurisilvae* Karsholt & Sinev, 2004	M	✠
81	*lavernella* Walsingham, 1894	M PS – C	✠
82	*luteella* Karsholt & Sinev, 2004	M PS – ?A	✠
83	*marmorosella* (Wollaston, 1858)	M PS IC – C	
	fuscomaculella (Ragonot, 1879)		
84	*maroccanella* Amsel, 1952	M PS – A	
	acuta Bradley, 1958		
85	*nigromaculata* (Wollaston, 1858)	M PS B	✠
86	*ochreopalpella* (Wollaston, 1858)	M	✠
(f)	*phycidella* (Zéller, 1839)		
87	*pica* (Walsingham, 1894)	M	✠
88	*rebeli* Karsholt & Sinev, 2004	M	✠
	wolffi auct.		
(g)	*rubiginosella* Rebel, 1896	C	★
89	*salebrosella* Rebel, 1940	M – ?A	✠
90	*serradaguae* Karsholt & Sinev, 2004	M	✠
91	*spectabilella* Rebel, 1940	M	✠
92	*splendens* Karsholt & Sinev, 2004	M	✠
93	*subdivisus* Karsholt & Sinev, 2004	M PS	✠
94	*virgatella* Karsholt & Sinev, 2004	M	✠
95	*vittata* (Wollaston, 1858)	M – ?A	✠
	lignea Walsingham, 1894		
	flavescentella Rebel, 1940		
96	*walsinghami* Karsholt & Sinev, 2004	M	✠
97	*wolffi* Karsholt & Sinev, 2004	M	✠
98	*wollastoni* Karsholt & Sinev, 2004	M	✠
GELECHIOIDEA: Autostichidae [1 species]			
	Symmocinae		

	Apatema Walsingham, 1900		
99	*fasciata* (Stainton, 1859)	M PS DG – C	★
(h)	*lucidum* Walsingham, 1908	C	
GELECHIOIDEA: Cosmopterigidae [4 species]			
	Chrysopeleiinae		
	Ascalenia Wocke, 1876		
100	*echidnias* (Meyrick, 1891)	M – C	
	Cosmopteriginae		
	Pyroderces Herrich-Schäffer, 1853		
101	*argyrogrammos* (Zeller, 1847)	M – A C	
	Cosmopterix Hübner, 1825		
102	*pulchrimella* Chambers, 1875	M – A C	
	pulcherrimella auct.		
	parietariae Hering, 1931		
103	*attenuatella* Walker, 1864	M PS – C	
GELECHIOIDEA: Gelechiidae [22 species]			
	Gelechiinae / Anomologini		
	Chrysoesthia Hübner, 1825		
104	*drurella* (Fabricius, 1775) [New record]	M PS – A	
	Ornativalva Gozmány, 1955		
105	*plutelliformis* (Staudinger, 1859)	M PS – C	
	Bryotropha Heinemann, 1870		
106	*domestica* (Haworth, 1828)	M – C	
107	*plebejella* (Zeller, 1847)	M – C	
	Gnorimoschemini		
	Scrobipalpa Janse, 1951		
	(***Euscrobipalpa*** Povolný, 1967)		
(i)	*bazae* Povolný, 1977	C	
108	*ocellatella* (Boyd, 1858)	M – C	
	submissella (Stainton, 1859)		
	portosanctana auct.		
109	*portosanctana* (Stainton, 1859)	M PS	
	gallincolella (Mann, 1872)		
110	*suaedicola* (Mabille, 1906)	M	
111	*vasconiella* (Rössler, 1877)	M PS	
	Ergasiola Povolný, 1967		
112	*ergasima* (Meyrick, 1916)	M PS DG – C	
	Phthorimaea Meyrick, 1902		
113	*operculella* (Zeller, 1873)	M – A C CV	

	Ephysteris Meyrick, 1908			
	(***Ephysteris*** Meyrick, 1908 s. str.)			
114	*promptella* (Staudinger, 1859)		M PS – C	
	(***Microcraspedus*** Janse, 1958)			
115	*brachyptera* Karsholt & Sattler, 1998		M	✠
	Hedma Dumont, 1932			
116	*microcasis* (Meyrick, 1929)		PS – C	
	Caryocolum Gregor & Povolný, 1954			
	marmoreum (Haworth, 1828)			
117a	ssp. *marmoreum* (Haworth, 1828)	[New record]	M – C	
117b	ssp. *pulchra* (Wollaston, 1858)		DG	✠
118	*sciurella* (Walsingham, 1908)		M – C	
	Anacampsini			
	Syncopacma Meyrick, 1925			
119	*polychromella* (Rebel, 1902)	[New record]	M – C	
	Aproaerema Durrant, 1897			
	anthyllidella (Hübner, 1813)			
120	ssp. *elachistella* (Stainton, 1859)		M PS IC – A C	★
	Iwaruna Gozmány, 1957			
(j)	*psoralella* (Millière, 1865)		C	
	Dichomeridinae			
	Dichomeris Hübner, 1818			
121	*acuminatus* (Staudinger, 1876)		M – C	
	Helcystogramma Zeller, 1877			
122	*convolvuli* (Walsingham, 1908)		M – C CV	
	Pexicopiinae			
	Platyedra Meyrick, 1895			
123	*subcinerea* (Haworth, 1828)		M PS – A C	
	Sitotroga Heinemann, 1870			
124	*cerealella* (Olivier, 1789)		M PS – A C	
	Thiotricha Meyrick, 1886			
125	*wollastoni* (Walsingham, 1894)		M	✠
SESIOIDEA: Sesiidae [1 species]				
	Sesiinae / Synanthedonini			
	Synanthedon Hübner, 1819			
126	*myopaeformis* (Borkhausen, 1789)	[New record]	M – C	
TORTRICOIDEA: Tortricidae [29 species]				
	Tortricinae / Cochylini			

	Cochylimorpha Razowski, 1959		
127	*decolorella* (Zeller, 1839)	PS – C	
	Aethes Bilberg, 1820		
128	*francillana* (Fabricius, 1794)	M PS – C	
	Tortricinae / Sparganothini		
	Platynota Clemens, 1860		
129	*rostrana* (Walker, 1863) [New record]	M	
	Tortricinae / Tortricini		
	Acleris Hübner, 1825		
130	*variegana* (Denis & Schiffermüller, 1775)	M – A	
	Tortricinae / Archipini		
	Pandemis Hübner, 1825		
(k)	*heparana* (Denis & Schiffermüller, 1775)	A	
	Cacoecimorpha Obratzov, 1954		
131	*pronubana* (Hübner, 1799)	M PS	
	Clepsis Guenée, 1845		
132	*retiferana* (Stainton, 1859) **sp. rev.**	M	✠
133	*staintoni* Obratzov, 1955 *reticulata* Stainton, 1859 *nec* Haworth, 1811	M	✠
134	*subcostana* (Stainton, 1859)	M	✠
135	*subjunctana* (Wollaston, 1858)	M	✠
136	*uncisecta* Razowski & Wolff, 2000	M	✠
	Olethreutinae / Bactrini		
	Bactra Stephens, 1834		
	(***Bactra*** Stephens, 1834 s. str.)		
137	*lancealana* (Hübner, 1799)	M PS – A	
	(***Chiloides*** Butler, 1881)		
138	*venosana* (Zeller, 1847)	M – A C	
	(***Nannobactra*** Diakonoff, 1956)		
139	*minima* Meyrick, 1909	M PS – C	
	Olethreutinae / Lobesiini		
	Lobesia Guenée, 1845		
	(***Lobesia*** Guenée, 1845 s. str.)		
140	*neptunia* (Walsingham, 1908) [New record]	PS – C	★
	Olethreutinae / Eucosmini		
	Thiodia Hübner, 1825		
141	*glandulosana* Walsingham, 1908 [New record]	M – C	★
	Spilonota Stephens, 1829		

142	*ocellana* (Denis & Schiffermüller, 1775)	M – C	
	Acroclita Lederer, 1859		
143	*anelpista* Diakonoff & Wolff, 1976	M	✠
144	*guanchana* Walsingham, 1908 [New record]	M PS – C	★
145	*subsequana* (Herrich-Schäffer, 1851) [New record]	M PS SG – C	
	Epinotia Hübner, 1825		
146	*thapsiana* (Zeller, 1847)	M PS – C	
(l)	*signatana* (Douglas, 1845)		
(m)	sp. near *tetraquetrana* (Haworth)		
	Crocidosema Zeller, 1847		
147	*plebejana* Zeller, 1847	M PS – A C	
	Eucosma Hübner, 1823		
148	*cana* (Haworth, 1811)	M PS	
	Gypsonoma Meyrick, 1895		
149	*minutana* (Hübner, 1799)	M	
	Clavigesta Obratzov, 1946		
150	*sylvestrana* (Curtis, 1850)	M – A	
	Rhyacionia Hübner, 1825		
151	*buoliana* (Denis & Schiffermüller, 1775)	M	
	Olethreutinae / Grapholitini		
	Cydia Hübner, 1825		
152	*archaeochrysa* Diakonoff, 1986	M	✠
153	*pomonella* (Linnaeus, 1758)	M – A C	
(n)	*succedana* (Denis & Schiffermüller, 1775)		
154	*splendana* (Hübner, 1799)	M – A	
(o)	*fagiglandana* (Zeller, 1841)		
(p)	*negatana* (Rebel, 1896)	C	
	Selania Stephens, 1834		
155	*leplastriana* (Curtis, 1831) *maderae* Wollaston, 1858	M PS SG – A C	
	CHOREUTOIDEA : Choreutidae [3 species]		
	Choreutinae		
	Anthophila Haworth, 1811		
156	*threnodes* (Walsingham, 1910) *fabriciana* auct. *oxyacanthella* auct.	M	✠
	Tebenna Billberg, 1820		
(q)	*bjerkandrella* (Thunberg, 1784)	CV (?)	
157	*micalis* (Mann, 1857) *bjerkandrella* auct.	M – A C	
	Choreutis Hübner, 1825		
158	*nemorana* (Hübner, 1799)	M – C	

EPERMENIOIDEA: Epermeniidae [1 species]				
	Epermenia Hübner, 1824			
	(***Calotripis*** Hübner, 1825)			
159	*aequidentella* (E. Hofmann, 1867)		M – A C	
	daucella (Peyerimhoff, 1870)			
PTEROPHOROIDEA: Pterophoridae [12 species]				
	Agdistinae			
	Agdistis Hübner, 1825			
160	*bifurcatus* Agenjo, 1952		SP SG – C CV	
161	*pseudocanariensis* Arenberger, 1973	[New record]	PS – C	
162	*salsolae* Walsingham, 1908		SG – C	★
163	*tamaricis* (Zeller, 1847)		M PS – C CV	
	Pterophorinae			
	Amblyptilia Hübner, 1825			
164	*acanthadactyla* (Hübner, 1813)		M PS – A C	
	Lantanophaga Zimmermann, 1958			
165	*pusillidactylus* (Walker, 1864)		M – A C	
	Stenoptilodes Zimmermann, 1958			
166	*taprobanes* (Felder & Rogenhofer, 1875)	[New record]	M – C	
	Stenoptilia Hübner, 1825			
167	*grisescens* Schawerda, 1933		M PS	
	bipunctidactyla auct.			
	pterodactyla auct.			
	Crombrugghia Tutt, 1907			
168	*laetus* (Zeller, 1847)	[New record]	M	
	Merrifieldia Tutt, 1905			
169	*bystropogonis* (Walsingham, 1908)		M – C	★
	Gypsochares Meyrick, 1890			
170	*nielswolffi* Gielis & Arenberger, 1992		M	✠
	Emmelina Tutt, 1905			
171	*monodactyla* (Linnaeus, 1758)		M – A C	
COPROMORPHOIDEA:Carposinidae [2 species]				
	Carposina Herrich-Schäffer, 1853			
172	*anopta* Diakonoff, 1988		M	✠
173	*atlanticella* Rebel, 1894		M	✠
PYRALOIDEA: Pyralidae [18 species]				
	Galleriinae/Galleriini			
	Achroia Hübner, 1819			

174	*grisella* (Fabricius, 1794)	M	
	Galleria Fabricius, 1798		
175	*mellonella* (Linnaeus, 1758)	M – A C	
	Pyralinae		
	Pyralis Linnaeus, 1758		
176	*farinalis* (Linnaeus, 1758)	M PS – A C	
	Aglossa Latreille, 1796		
177	*caprealis* (Hübner, 1809)	M – A C	
	Phycitinae/Cryptoblabini		
	Cryptoblabes Zeller, 1848		
178	*gnidiella* (Millière, 1867)	M PS – A C CV	
	Phycitinae/Phycitini		
	Pempeliella Caradja, 1916		
179	*lundbladi* (Rebel, 1940)	M PS DG	✠
	Neurotomia Chrétien, 1911		
180	*coenulentella* (Zeller, 1846)	M PS – C	
	Nephopterix Hübner, 1825		
181	*angustella* (Hübner, 1796)	M	
	Ancylosis Zeller, 1839		
	(***Heterographis*** Ragonot, 1885)		
182	*roscidella* (Eversmann, 1844)	M PS IC SG – C	
	cinerella (Stainton, 1859)		
183	*convexella* (Lederer, 1855)	M – C	
	(***Cabotia*** Ragonot, 1888)		
(r)	*oblitella* (Zeller, 1848)		
	Pararotruda Roesler, 1965		
184	*nesiotica* (Rebel, 1911)	M PS – C	
	Plodia Guenée, 1845		
185	*interpunctella* (Hübner, 1813)	M PS – A C	
	Ephestia Guenée, 1845		
	(***Anagasta*** Heinrich, 1956)		
186	*kuehniella* Zeller, 1879	M – A C	
	(***Ephestia*** Guenée, 1845 s. str.)		
187	*elutella* (Hübner, 1796)	M – A C	
	aquella auct.		
	Cadra Walker, 1864		
(s)	*calidella* (Guenée, 1845)	C	
188	*cautella* (Walker, 1863)	M PS – A C	
189	*figulilella* (Gregson, 1871)	M PS – C CV	
	Phycitinae/Anerastiini		
	Raphimetopus Hampson, 1918		
190	*ablutella* (Zeller, 1839)	M PS	

	Ematheudes Zeller, 1867		
191	*punctella* (Treitschke, 1833)	M	
PYRALOIDEA: Crambidae [33 species]			
	Scopariinae		
	Scoparia Haworth, 1811		
192	*coecimaculalis* Warren, 1905	M – A	
	Eudonia Bilberg, 1820		
193	*angustea* (Curtis, 1827)	M PS IC DG – C	
	acuminatella (Stainton, 1859)		
194	*decorella* (Stainton, 1859)	M – C	★
	maderensis (Rebel, 1940)		
(t)	*mercurella* (Linnaeus, 1758)		
	frequentella (Stainton, 1858)		
	concinnella (Curtis, 1850)		
195	*scoriella* (Wollaston, 1858)	M	✠
	wollastoni (Bethune-Baker, 1894)		
196	*shafferi* Nuss, Karsholt & Meyer, 1998	M	✠
197	*stenota* (Wollaston, 1858)	M	✠
	Heliothela Guenée, 1854		
(u)	*wulfeniana* (Scopoli, 1763)		
	Crambinae		
	Euchromius Guenée, 1845		
198	*ocellea* (Haworth, 1811)	M – A C	
199	*cambridgei* (Zeller, 1867) [New record]	M PS – C	
	Agriphila Hübner, 1825		
200	*atlanticus* (Wollaston, 1858)	M	✠
201	*trabeatellus* (Herrich-Shaffer, 1848)	M PS – C	
	Cybalomiinae		
	Trichophysetis Meyrick, 1884		
202	*whitei* Rebel, 1906	M – C	
	Odontiinae/Odontiini		
	Aporodes Guenée, 1854		
203	*floralis* (Hübner, 1809)	M PS – C	
	Cynaeda Hübner, 1825		
204	*dentalis* (Denis & Schiffermüller, 1775)	M – C CV	
	Evergestinae		
	Evergestis Hübner, 1825		
205	*isatidalis* (Duponchel, 1833)	PS – C	

	Glaphyriinae/Glaphyriini		
	Hellula Guenée, 1854		
206	*undalis* (Fabricius, 1781)	M PS – C CV	
	Pyraustinae/Pyraustini		
	Udea Guenée, 1845		
207	*atlanticum* (Bethune-Baker, 1894)	M	✠
208	*ferrugalis* (Hübner, 1796)	M PS – A C	
209	*maderensis* (Bethune-Baker, 1894)	M PS? SG?	✠
210	*numeralis* (Hübner, 1796)	M – C	
	Pyrausta Schrank, 1802 (s. str.)		
(v)	*aurata* (Scopoli, 1763)	C	
	(***Haematia*** Hübner, 1818)		
211	*sanguinalis* (Linnaeus, 1767)	M – C	
	Uresiphita Hübner, 1825		
212	*gilvata* (Fabricius, 1794)	M – C	
	meridionalis (Wocke, 1871)		
	limbalis auct.		
	polygonalis auct.		
	Pyraustinae/Spilomelini		
	Mecyna Doubleday, 1849		
213	*asinalis* (Hübner, 1819)	M PS – A C	
	Botyodes Guenée, 1854		
214	*diniasalis* (Walker, 1859)	M – C	
(w)	*trinalis* (Denis & Schiffermüller, 1775)		
	Diasemiopsis Munroe, 1957		
215	*ramburialis* (Duponchel, 1834)	M – A	
	Duponchelia Zeller, 1847		
216	*fovealis* Zeller, 1847	M PS – C CV	
	Spoladea Guenée, 1854		
217	*recurvalis* (Fabricius, 1775)	M PS – A C CV	
	Hodebertia Leraut, 2003		
218	*testalis* (Fabricius, 1794)	M – C	
	incoloralis (Guenée, 1854)		
	Palpita Hübner, 1808		
219	*vitrealis* (Rossi, 1794)	M PS SG – A C CV	
	unionalis (Hübner, 1796)		
	Diaphania Stephens, 1829		
220	*indica* (Saunders, 1851)	M – C CV	
	hyalinata auct.		
	Maruca Walker, 1859		
(x)	*vitrata* (Fabricius, 1787)	CV	
	testulalis (Geyer, 1832)		
	Antigastra Lederer, 1863		

221	*catalaunalis* (Duponchel, 1833)	M – C	
	Nomophila Hübner, 1825		
222	*noctuella* (Denis & Schiffermüller, 1775)	M PS DG SG – A C CV	
	Psara Snellen, 1875		
223	*bipunctalis* (Fabricius, 1794)	M – C	
	Herpetogramma Lederer, 1863		
224	*licarsisalis* (Walker, 1859)	M – A C	
	aegrotalis s suct.		
BOMBYCOIDEA: Sphingidae [6 species]			
	Sphinginae		
	Agrius Hübner, 1819		
225	*convolvuli* (Linnaeus, 1758)	M PS DG – A C CV	
	Acherontia Laspeyres, 1809		
226	*atropos* (Linnaeus, 1758)	M PS – A C CV	
	Macroglossinae		
	Macroglossum Scopoli, 1777		
227	*stellatarum* (Linnaeus, 1758)	M SG – A C	
	Hyles Hübner, 1819		
228	*tithymali* (Boisduval, 1834)	M PS DG – C	★
	gecki De Freina, 1991		
	euphorbiae auct.		
	mauretanica auct.		
229	*livornica* (Esper, 1779)	M PS SG – C CV	
	Hippotion Hübner, 1819		
230	*celerio* (Linnaeus, 1758)	M PS DG – A C CV	
PAPILIONOIDEA: Pieridae [5 species]			
	Pierinae / Pierini		
	Pieris Schrank, 1801		
	brassicae (Linnaeus, 1758)	A	
231	ssp. *wollastoni* Butler, 1886	M	✠
232	*rapae* (Linnaeus, 1758)	M PS DG – C	
	Coliadinae		
	Colias Fabricius, 1807		
233	*croceus* (Fourcroy, 1785)	M PS DG – A C	
	edusa (Fabricius, 1787), nec (Fabricius, 1776)		
(y)	*hyale* (Linnaeus, 1758)		
	Gonepteryx Leach, 1815		
234	*maderensis* Felder, 1862	M	✠

	cleopatra auct.		
	Catopsilia Hübner, 1819		
235	*florella* (Fabricius, 1775)	M – C CV	
PAPILIONOIDEA: Lycaenidae [3 species]			
	Lycaeninae/Lycaenini		
	Lycaena Fabricius, 1807		
	phlaeas (Linnaeus, 1761)		
236	ssp. *phlaeoides* (Staudinger, 1901)	M PS	✠
	Lycaeninae/Polyommatini		
	Lampides Hübner, 1819		
237	*boeticus* (Linnaeus, 1767)	M PS – A C CV	
	Cacyreus Butler, 1898		
(z)	*marshalli* Butler, 1898	M – C	
	Leptotes Scudder, 1876		
238	*pirithous* (Linnaeus, 1767)	M PS – C CV	
	Polyommatus Latreille, 1804		
	(***Polyommatus*** Latreille, 1804 s. str.)		
(aa)	*icarus* (Rottemburg, 1775)	C	
PAPILIONOIDEA: Nymphalidae [9 species]			
	Heliconiinae		
	Issoria Hübner, 1819		
	(***Issoria*** Hübner, 1819 s. str.)		
239	*lathonia* (Linnaeus, 1758)	M – C	
	Nymphalinae / Nymphalini		
	Vanessa Fabricius, 1807		
240	*atalanta* (Linnaeus, 1758)	M PS DG – A C	
241	*cardui* (Linnaeus, 1758)	M PS DG SP SG – A C CV	
(ab)	*virginiensis* (Drury, 1773)	A C	
242	*vulcania* Godart, 1819	M PS SG – C	★
	occidentalis Felder, 1862		
	indica auct.		
	Hypolimnas (Hübner, 1819)		
243	*misippus* (Linnaeus, 1764)	M IC – A C CV	
	Satyrinae / Elymniini		
	Pararge Hübner, 1819		
244	*aegeria* (Linnaeus, 1758)	M PS	
245	*xiphia* (Fabricius, 1775)	M	✠

	Satyrinae / Satyrini		
	Hipparchia Fabricius, 1807		
246	*maderensis* (Bethune-Baker, 1891)	M	✠
	aristaeus auct.		
(ac)	*statilinus* (Hufnagel, 1766)		
	Danainae		
	Danaus Kluk, 1780		
	(***Danaus*** Kluk, 1780 s. str.)		
247	*plexippus* (Linnaeus, 1758)	M PS – A C	
	(***Anosia*** Hübner, 1816)		
(ad)	*chrysippus* (Linnaeus, 1758)	C CV	
GEOMETROIDEA: Geometridae [20 species]			
	Ennominae		
	Menophra Moore,1887		
248	*maderae* (Bethune-Baker, 1891)	M	✠
	Ascotis Hübner, 1825		
	fortunata (Blachier, 1887)	A C	★
249	ssp. *wollastoni* Bethune-Baker, 1891	M PS	✠
	obscura Bethune-Baker, 1891		
	Episauris Rebel, 1898		
(ae)	*kiliani* Rebel, 1898	C	
	Geometrinae		
	Chlorissa Stephens, 1831		
250	*faustinata* (Millière, 1868)	M – C CV	
	Xenochlorodes Warren, 1897		
251	*magna* Wolff, 1977	M	✠
252	*nubigena* (Wollaston, 1858)	M PS	✠
	Sterrhinae		
	Cyclophora Hübner, 1822		
	(***Cyclophora*** Hübner, 1822 s.str.)		
253	*maderensis* (Bethune-Baker, 1891)	M – C	★
	wollastoni (Bethune-Baker, 1891)		
	lundbladi (Bryk, 1940), **n. syn.**		
	puppillaria (Hübner, 1799)	A	
254	ssp. *lilacinipes* (Schaus & Cockerell, 1923)	M	✠
	Scopula Schrank, 1802		
255	*irrorata* (Bethune-Baker, 1891)	M PS	✠
	Idaea Treitschke, 1825		
256	*atlantica* (Stainton, 1851)	M DG	✠
	illuminata (Prout, 1940)		
257	*maderae* (Bethune-Baker, 1891)	M	✠

	unostrigata (Bethune-Baker, 1891)			
	zargi (Bethune-Baker, 1891)			
	dimidiata auct.			
	Rhodometra Meyrick, 1892			
258	*sacraria* (Linnaeus, 1767)		M PS – A C	
	Larentiinae			
	Nycterosea Hulst, 1896			
259	*obstipata* (Fabricius, 1794)		M – A C CV	
	fluviata (Hübner, 1799)			
	Xanthorhoe Hübner, 1825			
260	*rupicola* (Wollaston, 1858)		M	✠
	insulariata (Wallengren, 1860)			
	conspectaria auct.			
	Disclisioprocta Wallengren, 1861			
(af)	*purpurariarum* (Rebel, 1917)			
	Costaconvexa Agenjo, 1949			
261	*centrostrigaria* (Wollaston, 1858)		M PS – A C	
	custodiata auct.			
	Herbulotina Pinker, 1971			
262	*maderae* Pinker, 1971		M	✠
	Eupithecia Curtis, 1825			
263	*massiliata* Dardoin & Millière, 1865		M	
	atlanticata Pinker, 1971			
264	*latipennata* Prout, 1914		M	✠
	latipennis Warren, 1905 nec Hulst, 1898			
265	*rosai* Pinker, 1962	[New record]	M – C	★
	Gymnoscelis Mabille, 1868			
266	*insulariata* (Stainton, 1859)		M PS DG – C	★
	bicoloria Bethune-Baker, 1891			
	obtusata (Rebel, 1940)			
	pumilata auct.			
267	*rufifasciata* (Haworth, 1809)		M PS – C	
	pumilata (Hübner, 1813)			
	lundbladi Prout, 1940			
NOCTUOIDEA: Noctuidae [62 species]				
	Bryophilinae			
	Cryphia Hübner, 1818			
	(***Bryopsis*** Boursin, 1969)			
268	*maderensis* (Bethune-Baker, 1891)		M PS DG B	✠
	simonyi auct.			
269	*simonyi* (Rogenhofer, 1889)		SG – C	★

	Strepsimaninae		
	Schrankia Hübner, 1825		
270	*costaestrigalis* (Stephens, 1834)	M – A C	
	Catocalinae		
	Ophiusa Ochsenheimer, 1816		
271	*tirhaca* (Cramer, 1773)	M – A C CV	
	Tathorhynchus Hampson, 1894		
272	*exsiccata* (Lederer, 1853)	M PS – A C	
	Autophila Hübner, 1823		
273	*dilucida* (Hübner, 1808)	PS	
	Calpinae		
	Scoliopteryx Germar, 1810		
274	*libatrix* (Linnaeus, 1758)	M	
	Hypeninae		
	Hypena Schrank, 1802		
275	*lividalis* (Hübner, 1796)	M – A C	
276	*obsitalis* (Hübner, 1813)	M PS – A C	
	Plusiinae		
	Autographa Hübner, 1821		
277	*gamma* (Linnaeus, 1758)	M SG – A C	
	Cornutiplusia Kostrowicki, 1961		
278	*circumflexa* (Linnaeus, 1767)	M PS – C CV	
	Thysanoplusia Ichinose, 1973		
279	*orichalcea* (Fabricius, 1775) *aurifera* (Hübner, 1813)	M PS – A C CV	
	Trichoplusia McDunnough, 1944		
280	*ni* (Hübner, 1803)	M PS SG – C CV	
	Ctenoplusia Dufay, 1970		
281	*limbirena* (Gueneé, 1852)	M PS – A C CV	
	Chrysodeixis Hübner, 1821		
282	*acuta* (Walker, 1858)	M – C CV	
283	*chalcites* (Esper, 1789)	M PS – A C CV	
	Acontiinae		
	Acontia Ochsenheimer, 1816		
284	*lucida* (Hufnagel, 1766)	M PS – C	
	Eustrotiinae		
	Eublemma Hübner, 1821		
285	*ostrina* (Hübner, 1808) *aestivalis* (Guenée, 1852)	M – A C	
286	*parva* (Hübner, 1808)	M DG – C	

	Cuculliinae		
	Cucullia Schrank, 1802		
287	*calendulae* Treitschke, 1835 *wredowi* Costa, 1835 *chamomillae* auct.	M PS – C	
	Condicinae		
	Condica Walker, 1856		
288	*capensis* (Walker, 1857) *conducta* (Walker, 1857)	M – C CV	
	Heliothinae		
	Heliothis Ochsenheimer, 1816		
289	*peltigera* (Denis & Schiffermuller, 1775)	M PS SG – C CV	
	Helicoverpa Hardwick, 1965		
290	*armigera* (Hübner, 1808)	M PS SG – A C CV	
	Hadeninae		
	Galgula Gueneé, 1852		
291	*partita* Gueneé, 1852 *ferruginea* (Walker, 1858)	M – A C	
	Caradrina Ochsenheimer, 1816 (***Paradrina*** Boursin, 1937)		
	clavipalpis (Scopoli, 1763)	C	
292	ssp. *pinkeri* Kobes, 1975 *quadripunctata* (Fabricius, 1775) *rebeli* auct.	M PS	✠
	Spodoptera Gueneé, 1852		
293	*cilium* (Gueneé, 1852)	M – C	
294	*exigua* (Hübner, 1808)	M PS SG – A C CV	
295	*littoralis* (Boisduval, 1833)	M PS – A C CV	
	Sesamia Gueneé, 1852		
296	*nonagrioides* (Lefèbvre, 1827)	M – A C CV	
	Euplexia Stephens, 1829		
297	*dubiosa* (Bethune-Baker, 1891)	M	✠
	Phlogophora Treitschke, 1825		
298	*meticulosa* (Linnaeus, 1758)	M – A C	
299	*wollastoni* (Bethune-Baker, 1891) *periculosa* auct.	M PS	✠
	Methorasa Moore, 1881		
300	*latreillei* (Duponchel, 1827)	M – C CV	
	Xylena Ochsenheimer, 1816		
301	*exsoleta* (Linnaeus, 1758)	M PS – C	
	Blepharita Hampson, 1907		

302	*inexspectata* Weidlich, 2001	M	✠
	Mniotype Franclemont, 1941		
303	*albostigmata* (Bethune-Baker, 1891)	M	✠
	atlanticum (Bethune-Baker, 1891)		
	Mesapamea Heinicke, 1959		
304	*maderensis* Pinker, 1971	M	✠
	secalis auct.		
	Luperina Boisduval, 1829		
305	*madeirae* Fibiger, 2005	M	✠
	Hadula Staudinger, 1889		
	(***Calocestra*** Beck, 1991)		
306	*trifolii* (Hufnagel, 1766)	PS – A C CV	
	Cardepia Hampson, 1905		
	deserticola (Hampson, 1905)		
307	ssp. *antinea* Rungs, 1972	SG – C	
	Hecatera Guenée, 1852		
308	*maderae* (Bethune-Baker, 1891)	M – C	★
	Hadena Schrank, 1802		
	(***Hadena*** Schrank, 1802 s. str.)		
309	*atlantica* (Hampson, 1905)	M PS	✠
	bicruris auct.		
310	*karsholti* Hacker, 1995	M	✠
	Leucania Ochsenheimer, 1816		
	(***Acantholeucania*** Rungs, 1953)		
311	*loreyi* (Duponchel, 1827)	M PS – A C	
	Mythimna Ochsenheimer, 1816		
	(***Mythimna*** Ochsenheimer, 1816 s. str.)		
312	*serradaguae* Wolff, 1977	M	✠
313	*vitellina* (Hübner, 1808)	M – C	
	(***Pseudaletia*** Franclemont, 1951)		
314	*unipuncta* (Haworth, 1809)	M PS – A C	
	extranea (Guenée, 1852)		
	Noctuinae		
	Ochropleura Hübner, 1821		
315	*leucogaster* (Freyer, 1831)	M	
	Noctua Linnaeus, 1758		
316	*pronuba* (Linnaeus, 1758)	M PS – A C	
317	*teixeirai* Pinker, 1971	M	✠
	Xestia Hübner, 1818		
	(***Megasema*** Hübner, 1821)		
318	*c-nigrum* (Linnaeus, 1758)	M – A	
	Peridroma Hübner, 1821		
319	*saucia* (Hübner, 1808)	M PS – A C CV	
	margaritosa (Haworth, 1809)		
	Euxoa Hübner, 1821		

320	*canariensis* Rebel, 1902		SG – C CV	
	Agrotis Ochsenheimer, 1816			
321	*atrux* (Pinker, 1971)		M PS	✠
322	*fortunata* Draudt, 1938	[New record]	M – C	★
323	*herzogi* Rebel, 1911	[New record]	M – C	
324	*ipsilon* (Hufnagel, 1766)		M PS – A C CV	
325	*lanzarotensis* Rebel, 1894		SG SP – C	★
	selvagensis Pinker & Bacallado, 1978, **n. syn.**			
326	*rutae* Rebel, 1939		M	✠
327	*segetum* (Denis & Schiffermuller, 1775)		M PS SG – A C CV	
328	*spinifera* (Hübner, 1808)		M PS – C CV	
329	*trux* (Hübner, 1824)		M PS – C CV	
	maderensis (Pinker, 1971), **n. syn**.			
NOCTUOIDEA: Nolidae [1 species]				
	Eariadinae			
	Earias Hübner, 1825			
330	*insulana* (Boisduval, 1833)	[New record]	M – C CV	
NOCTUOIDEA: Arctiidae [1 species]				
	Arctiinae			
	Utetheisa Hübner, 1819			
331	*pulchella* (Linnaeus, 1758)		M PS – A C CV	

NOTES (I) – Confirmed species.

1 *Stigmella atricapitella* (Haworth): New record for **Madeira**: Ribeiro Frio, 800 m, numerous larvae 10.vii.1993, *Quercus*, O. Karsholt leg. (MMF, ZMUC).
The host plant is *Quercus robur* (Fagaceae), which is planted in that area. The larva is a leaf miner on *Quercus* spp., and *atricapitella* has probably been introduced to Madeira with seedlings of that tree.

2 *Stigmella aurella* (Fabricius): HENDERICKX (1997).
The larva lives as a leaf miner on *Rubus ulmifolius* (Rosaceae), and other *Rubus* spp., but we also bred it out from mines found in the leaves of *Agrimonia eupatoria* (Rosaceae).

3 *Stigmella centifoliella* (Zeller): New record for **Madeira**: Curral das Freiras, 600 m, 1♀, 10.ix.1998, *Rosa mandonii*., J. Jesus (ICLAM no. 0535); same data, 1♀, 8.x.1998 (ICLAM no. 0573); same data 3♂, 2♀, 8.vi.1999 (AFA no. 676-677, ICLAM no. 0574, ZMUC); same data 2♂, 1♀, 8.vii.1999 (ICLAM no. 0572); same data, 1♀, 22.vii.1999 (ICLAM no. 0575); same data, 2♀, 7.ix.1998 (AFA no. 640); same data, 1♂,1♀, 22.vii.1999 (AFA no 678). A few empty mines and pupae were found on leaves of *Rosa* sp., between Santo da Serra and Camacha, 650 m, already on 20.ii.1979, O. Karsholt leg. (ZMUC).
The larva is a leaf miner on *Rosa* spp. It was probably introduced through importation of roses for gardens.

4 *Trifurcula ridiculosa* (Walsingham): This species was described from the Canaries and is a new record for **Madeira**: São Vicente, sea level, larvae and adults in numbers, 12. & 16.vi.1993, *Lotus pedunculatus*, O. Karsholt leg. (ZMUC); Ponta do Sol, sea level, several specimens 17. & 29.vi.1993, O. Karsholt leg. (ZMCU); Porto Moniz, sea level, 1♂, 1♀, 13.x.1994, O. Karsholt leg. (ZMUC); Curral das Freiras, 850 m, larvae and adults in numbers, 20.-21.ix.1997, O. Karsholt leg. ((ICLAM no. 0407, ZMCU); Queimadas, 880 m., 2♂, 4♀, *Lotus pedunculatus*, F. Aguiar leg. (AFA no. 583, ICLAM no. 0405); same data, 1♂ & 1♀. **Porto Santo**: 2♂, 2♀, 24.x.1994, O. Karsholt leg. (ZMUC); larvae and adults in numbers, 13.iv.1996, O. Karsholt leg. (ZMCU).
E. van Nieukerken has confirmed the identity of the Madeiran specimens.
The larva is a leaf miner on *Lotus pedunculatus* (Leguminosae).

5 *Tenaga nigripunctella* (Haworth): WALSINGHAM (1894A), WALSINGHAM (1884B), REBEL (1901), REBEL (1917), REBEL (1940C), REBEL (1940D), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998), GAEDIKE & KARSHOLT (2001).

6 *Stenoptinea cyaneimarmorella* (Millière): GAEDIKE & KARSHOLT (2001).
Curral das Freiras, 1♂, 1♀, by beating the foliage of *Castanea sativa* (Fagaceae), 630 m., J. Jesus leg. (AFA no. 741-1 & 741-2).

7 *Ceratobia oxymora* (Meyrick): GAEDIKE & KARSHOLT (2001).

8 *Trichophaga bipartitella* (Ragonot): WOLLASTON (1858), WALKER (1864), REBEL (1892), WALSINGHAM (1894A), REBEL (1894), REBEL (1896), WALSINGHAM & HAMPSON (1896), REBEL (1901), WALSINGHAM (1908), REBEL (1911), REBEL (1917), COCKERELL (1923A), NORDMAN & REBEL (1935), REBEL (1940V), REBEL (1940D), PETERSEN (1957), KLIMESCH (1980), ROBINSON (1988), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998), GAEDIKE & KARSHOLT (2001).
The records of *T. bipartitella* by PASSOS DE CARVALHO (1995: 560, 575 [part.]) and VIEIRA (1997: 8 [part.]; 1998: 102) are due to misidentificaton of *T. robinsoni*. However, we have also examined correctly identified material of *bipartitella*.

9 *Trichophaga robinsoni* Gaedicke & Karsholt: WOLLASTON (1858), WALKER (1864), WALSINGHAM (1894A), REBEL (1896), WALSINGHAM & HAMPSON (1896), REBEL (1901), WALSINGHAM (1908), REBEL (1911), REBEL (1917), COCKERELL (1923A), NORDMAN & REBEL (1935), REBEL (1940C), PETERSEN (1957), KLIMESCH (1980), ROBINSON (1988), GAEDIKE & KARSHOLT (2001).

10 *Trichophaga tapetzella* (Linnaeus): GAEDIKE & KARSHOLT (2001).
The records of *tapetzella* REBEL (1892: 268, 283) and REBEL & ROGENHOFER (1894: 17) are due to misidentificaton of *T. robinsoni*. However, we have also examined correctly identified material of *tapetzella*.

11 *Phereoeca allutella* (Rebel): WALSINGHAM (1894A), REBEL (1896), REBEL (1901), WALSINGHAM (1908), REBEL (1917), REBEL (1940C), PETERSEN (1957), KLIMESCH (1980), CLARKE (1986), CARVALHO (1995), BÁEZ (1998), GAEDIKE & KARSHOLT (2001).
The larva feeds from a characteristic flattened, broadly spindle-shaped case composed mainly of grit with fragments of detritus, probably eating chitin in the form of dry insect remains (GAEDIKE & KARSHOLT (2001).

12 *Praeacedes atomosella* (Walker): PETERSEN & GAEDIKE (1979), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998), GAEDIKE & KARSHOLT (2001).

13 *Tineola bisselliella* (Hummel): REBEL (1940C), WALSINGHAM (1894A), WALSINGHAM (1908), CARVALHO (1995), GAEDIKE & KARSHOLT (2001).

14 *Tinea dubiella* Stainton: STAINTON (1859), REBEL (1892), REBEL & ROGENHOFER (1894), WALSINGHAM (1894A), REBEL (1901), WALSINGHAM (1908), REBEL (1911), REBEL (1917), NORDMAN & REBEL (1935), REBEL (1940C), GUIMARÃES & BEIJA (1974), CARVALHO (1979), ROBINSON (1979), CARVALHO (1984), CARVALHO (1995) VIEIRA (1997), VIEIRA (1998), GAEDIKE & KARSHOLT (2001).

15 *Tinea murariella* Staudinger: REBEL (1940C), REBEL (1940D), ROBINSON (1979), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998), GAEDIKE & KARSHOLT (2001).

16 *Tinea trinotella* Thunberg: CARVALHO (1995), GAEDIKE & KARSHOLT (2001).

17 *Niditinea fuscella* (Linnaeus): WALSINGHAM (1908), REBEL (1911), COCKERELL (1923A), RILEY (1923), REBEL (1940C), REBEL (1940D), GUIMARÃES & BEIJA (1974), CARVALHO (1995) VIEIRA (1997), VIEIRA (1998), GAEDIKE & KARSHOLT (2001).

18 *Monopis crocicapitella* (Clemens): BRADLEY (1958), GARDNER & CLASSEY (1960), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998), GAEDIKE & KARSHOLT (2001).

19 *Monopis henderickxi* Gaedike & Karsholt: GAEDIKE & KARSHOLT (2001).
The larva lives in a more or less cylindrical case and seems to be lichenophagous GAEDIKE & KARSHOLT (2001: 177).

20 *Monopis barbarosi* (Koçak): WOLLASTON (1858), WALKER (1864), WALSINGHAM (1894A), REBEL (1901), REBEL (1917), REBEL (1940C), PETERSEN (1958), KOÇAK (1981), CARVALHO (1995), GAEDIKE & KARSHOLT (2001).

21 *Monopis nigricantella* (Millière): HANNEMANN (1977), PETERSEN & GAEDIKE (1979), CARVALHO (1995) VIEIRA (1997), VIEIRA (1998), GAEDIKE & KARSHOLT (2001).
CARVALHO (1995: 560) recorded *M. laevigella* (Denis & Schiffermüller, 1775) from João Frino and Curral das Freiras. However, these are probably misidentifications of *nigricantella* (see KARSHOLT & GAEDIKE, 2001).

22 *Opogona omoscopa* (Meyrick): COCKERELL (1923A), RILEY (1923), REBEL (1938), REBEL (1940C), REBEL (1940D), BRADLEY (1958), GARDNER & CLASSEY (1960), SOUSA (1991), CARVALHO (1995), BUHL ET AL. (1997), VIEIRA (1997), VIEIRA (1998), GAEDIKE & KARSHOLT (2001).

23 *Opogona sacchari* (Bojer): WALSINGHAM (1910), REBEL (1917), COCKERELL (1923A), RILEY (1923), REBEL (1940C), REBEL (1940D), BRADLEY (1958), GARDNER & CLASSEY (1960), VIEIRA (1965), CINTRA (1975), KLIMESCH (1980), PADRON & HERNANDEZ (1984), DAVIS & PENÃ (1990), FERGUSON ET AL. (1991), BAEZ (1993), CARVALHO (1995) VIEIRA (1997), VIEIRA (1998), GAEDIKE & KARSHOLT (2001).
For more synonyms see PADRON & HERNANDEZ (1984).
In Madeira *O. sacchari* is spread all over the banana plantations – mainly *Musa acuminata* (Musaceae). Other hosts include *Allium sativum* (Liliaceae), *Carica papaya* (Caricaceae), *Cypripedium* sp. (Orchidaceae), *Solanum tuberosum* (Solanaceae), *Strelitzia reginae* (Musaceae), and *Saccharum officinarum* (Gramineae).

24 *Oinophila v-flava* (Haworth): STAINTON (1859), WALSINGHAM (1894A), REBEL (1896), REBEL (1901), WALSINGHAM (1908), REBEL (1911), REBEL (1917), REBEL (1940C), REBEL (1940D), GUIMARÃES & BEIJA (1974), DAVIS (1978), KLIMESCH (1980), PELHAM-CLINTON (1985), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998), GAEDIKE & KARSHOLT (2001).

25 *Psychoides filicivora* (Meyrick): CARVALHO (1995), KARSHOLT & RAZOWSKI (1996), GAEDIKE & KARSHOLT (2001).

We found the larva on *Asplenium* (Aspeleniaceae), eating the sporangia on the lower front surface GAEDIKE & KARSHOLT (2001: 183)

26 *Luffia lapidella* (Goeze): HENDERICKX (1997).
In Madeira only the parthenogenetic form (f. *ferchautella* (Stephens, 1850)) of this species has been found. WEIDLICH (2001) collected a *Luffia* sp. in severall localities of Madeira, which is probably *L. lapidella*.

27 *Apterona helicoidella* (Vallot): HENDERICKX (1997).
HENDERICKX (*in litt.*) also found this species on Porto Santo at altitudes between 400 and 500 m. In Madeira only the parthenogenetic form (f. *helicoidella* (Vallot, 1827)) of this species has been found.

28 *Caloptilia aurantiaca* (Wollaston): WOLLASTON (1858), WALKER (1864), WALSINGHAM (1894A), REBEL (1901), STAUDINGER & REBEL (1901), REBEL (1911), MEYRICK (1912B), MEYRICK (1912C), REBEL (1917), HERING (1927), REBEL (1940C), HERING (1957), KLIMESCH (1978), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998).
The larva lives as young as a leafminer, later in a folded leaf on *Hypericum glandulosum* (Hypericaceae), and probably other *Hypericum* spp.

29 *Caloptilia azaleella* (Brants): New record for **Madeira**: Ribeirinha, Camacha, 670 m., 1♂, 2♀, 7.xii.1998, *Rhododendron* sp., J. Jesus leg., (ICLAM no. 0534); same data, 1♂, 1♀ (AFA no. 639), Monte, 500 m, l ex. 1.xii.2001, *Rhododendron* sp., O. Karsholt leg. (ZMUC).
The larva lives as young as a leafminer, later in a folded leaf on *Rhododendron* sp. (Ericaceae).

30 *Caloptilia coruscans* (Walsingham): New record for **Madeira**: Serra de Água, 600 m, several larvae 18.x.1994 and 12.x.1997, *Rhus coriaria* (Anacardiaceae), O. Karsholt leg. (ZMUC); Serra de Água, 523 m, 1♂, 2.vi.1998, *Rhus coriaria*, F. Aguiar (AFA no. 621).
The larva lives as young as a leafminer, later in a folded leaf on *Rhus coriaria* (Anacardiaceae). See note under *C. schinella* (Walsingham).

31 *Caloptilia laurifoliae* (Hering): WALSINGHAM (1894A), STAUDINGER & REBEL (1901), WALSINGHAM (1908), REBEL (1911), MEYRICK (1912B), REBEL (1917), REBEL (1940A), REBEL (1940C), KRAUSS (1964), MARKIN (1989), CARVALHO (1995).
The record from *Myrica faya* mentioned by KRAUSS (1964), probably refers to *Caloptilia schinella*.
The larva lives as young as a leafminer, later in a folded leaf on *Laurus novocanariensis* (Lauraceae) REBEL (1940A).

32 *Caloptilia schinella* (Walsingham): KRAUSS (1964), GARDNER ET AL. (1988), MARKIN (1989), MARKIN (1991), AGUIAR (1993), MARKIN (1993), LUTZOW-FELLING ET AL. (1995), MARKIN ET AL. (1995), SILVA & TAVARES (1995), MARKIN (2001).
Identified by KRAUSS (1964) as *Lithocolletis* sp. KLIMESCH (1979: 151) synonymized *schinella* with *C. coruscans* (see above). However, we consider the specimens bred from *Myrica faya* as distinct from those bred from *Rhus coriaria*, and refer the former to *schinella* in accordance

with KLIMESCH (1979) and the latter to *coruscans,* as *Rhus* is the host plant of the type series of that species.
The larva lives as young as a leafminer, later in a folded leaf on *Myrica faya* (Myricaceae), but in contrast to the situation in the Canaries it has not been found on *Schinus molle* (Anacardiaceae).

33 *Caloptilia staintoni* (Wollaston): WOLLASTON (1858), WALKER (1864), WALSINGHAM (1894A), REBEL (1901), STAUDINGER & REBEL (1901), WALSINGHAM (1908), REBEL (1911), MEYRICK (1912B), MEYRICK (1912C), REBEL (1917), HERING (1927), REBEL (1940A), REBEL (1940C), HERING (1957), KLIMESCH (1978), CARVALHO (1995), BÁEZ (1998).
The larva lives as young as a leafminer, later in a folded leaf on Lauraceae such as: *Persea americana, P. indica*, *Laurus novocanariensis* and *Appolonias barbujana*.

34 *Dialectica hedemanni* (Rebel): WALSINGHAM (1908), REBEL (1911), MEYRICK (1912B), MEYRICK (1912C), REBEL (1917), HERING (1927), REBEL (1940C), KLIMESCH (1978), CARVALHO (1995), BÁEZ (1998).
The larvae lives as a leaf miner on *Malva sylvestris, M. parviflora* and other Malvaceae.

35 *Dialectica scalariella* (Zeller): REBEL (1894), WALSINGHAM (1894A), REBEL (1901), STAUDINGER & REBEL (1901), WALSINGHAM (1908), REBEL (1911), MEYRICK (1912B), REBEL (1917), HERING (1927), REBEL (1940C), KLIMESCH (1978), CARVALHO (1995).
The larva lives as leaf miner on *Echium candicans, E. nervosum* and *E. plantagineum* (Boraginaceae).

36 *Phyllonorycter chiclanella* Staudinger: CARVALHO (1995).
CARVALHO (1995: 576) recorded this species from Madeira without exact date and locality. The record was based upon information received from J. Bradley, who probably received it from N. L. Wolff (see KARSHOLT, 2000: 401-402).
We know of only one specimen from Madeira: Serra de Água, Pousada dos Vinháticos, 600 m, 1♂, 15.-16.viii.1974, N. L. Wolff leg. (ZMUC).

37 *Phyllonorycter juncei* Deschka: DESCHKA (1976), KLIMESCH (1978), CARVALHO (1995).
In Madeira is represented by the endemic ssp. *madeirae* Deschka, 1976.
The larva lives as a leafminer on *Teline maderensis* and *Genista tenera* (Leguminosae).

38 *Phyllonorycter mespilella* (Hübner): New record for **Madeira**: Fajã da Nogueira, 630 m., 1♀, 14.vii.1993, *Pyrus communis*, F. Aguiar leg. (AFA no. 623); same locality, several larvae 8.x.1994, *Malus domestica* and *Pyrus communis*, O. Karsholt leg. (ZMUC); Santana, 550 m, several larvae 6.-7.x.1994, *Malus domestica,* O. Karsholt leg. (ZMUC); Pico, Santana, 398 m., 4♂, 1♀, 29.vi.1998, *Pyrus communis*, F. Aguiar leg. (AFA no. 614, ICLAM no. 0491); Curral das Freiras, 633 m., 2♂, 2.vii.1998, *Malus domestica*, F. Aguiar leg. (AFA no. 615, ICLAM no. 0492); Curral das Freiras, 633 m., 1♂, 1♀, 16.vii.1998, *Malus domestica,* F. Aguiar leg. (ICLAM no. 0493); Curral das Freiras, 633 m., 1♂, 1♀, 27.viii.1998, *Prunus cerasus,* F. Aguiar leg. (ICLAM no. 0499); Pico, Santana, 398 m., 2♂, 1♀, 3.ix.1998, *Cydonia oblonga*, F.

Aguiar leg. (ICLAM no. 0500, ZMUC); Curral das Freiras, 633 m., 1♂, 2♀, 10.ix.1998, *Prunus cerasus*, F. Aguiar leg., (AFA no. 622, ICLAM no. 0513.
G. Deschka confirmed the identity of the Madeiran specimens.
The larva is a leaf miner on the above-mentioned Rosaceae trees.

39 *Phyllonorycter messaniella* (Zeller): WALSINGHAM (1894A), WALSINGHAM (1908), REBEL (1917), HERING (1927), REBEL (1940C), REBEL (1940D), BRADLEY (1958), KLIMESCH (1978), GARDNER & CLASSEY (1960), GRAHAM (1983), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998).
The larva lives as leafminer on Fagaceae such as *Fagus sylvatica, Castanea sativa* and *Quercus* spp.

40 *Phyllonorycter myricae* Deschka: KRAUSS (1964), DESCHKA (1976), MARKIN (1989), MARKIN (1990), AGUIAR (1993), MARKIN (1993), CARVALHO (1995), MARKIN ET AL. (1995), VIEIRA (1997), MARKIN (2001).
Records from the Azores are based on misidentification of *Caloptilia aurantiaca* (VIEIRA, 1997: 12).
The larvae of this endemic species lives as a leaf miner on *Myrica faya* (Myricaceae).

41 *Phyllonorycter platani* (Staudinger): CARVALHO (1995).
CARVALHO (1995: 576) recorded this species from Madeira without exact date and locality. The record was based upon information received from J. Bradley, who probably received it from N. L. Wolff (see KARSHOLT, 2000: 401-402). In ZMUC is a series of moths found as adults or bred from pupae in leaves of *Platanus* in Funchal during 1973-1974 by N. L. Wolff, and a few specimens bred from *Platanus hispanica* in Monte and above São Viciente in 2001 (O. Karsholt leg.).
The larva lives as leaf miner on *Platanus* spp. (Platanaceae).

42 *Phyllocnistis canariensis* Hering: CARVALHO (1995).
This species has been misidentified as *P. saligna* (Zeller, 1839).
The larva lives as leaf miner on *Salix canariensis* (Salicaceae).

43 *Phyllocnistis citrella* Stainton: CARVALHO ET AL. (1996), CARVALHO & AGUIAR (1997), VIEIRA (1997), VIEIRA (1998).
This species is found in all the world's citrus production zones. It was recorded for the first time in Madeira from the city of Machico in April 1995 (C. Brazão leg.). Also recorded from **Porto Santo**, Farrobo, 85m, 1 ex. 9.viii.2000, *Citrus sinensis*, A. Fernandes leg. (ICLAM no. 0729).
The larva is a leaf miner on *Citrus* spp. (*aurantium, limon, medica, sinensis*) (Rutaceae).

44 *Zelleria oleastrella* (Millière): New record for **Madeira:** Serra de Água, Pousada, 660 m, 1♂, 31.viii.1975; N. L. Wolff leg. (ZMCU); Porto Santo, 1♂, 24.x.1994, 2♂, 2♀, 13.-14.iv.1996, O. Karsholt leg. (ZMUC).
Z. oleastrella is a Mediterranean pest of olives, *Olea europaea* (Oleaceae), but the biology has not yet been studied in Madeira.

45 *Zelleria wolffi* Klimesch: KLIMESCH (1983B), CARVALHO (1995), KLIMESCH (1995), BÁEZ (1998).
The larva feeds on the endemic *Maytenus umbellata* (Celastraceae).

46 *Parahyponomeuta bakeri* (Walsingham): WALSINGHAM (1894A), REBEL (1901), MEYRICK (1914A), REBEL (1917), REBEL (1940C), FRIESE (1960), GRAHAM (1984), CARVALHO (1995), GERSHENSON & ULENBERG (1998).
P. bakeri was erroneously considered as a synonym of the South European *P. egregiella* (Duponchel, 1839) by FRIESE (1960: 64) and GERSHENSON & ULENBERG (1998: 85).
The larva feeds on heathers, *Erica arborea* and *E. scoparia* (Ericaceae), protected inside a silk tunnel built between the small leaves.

47 *Prays citri* (Milliére): CARVALHO (1995), CARVALHO ET AL. (1996), CARVALHO & AGUIAR (1997), VIEIRA (1998).
This is a known pest of lemons – *Citrus limon*. The larva bores the fruits when it is still very young, aborting them. Also recorded on *Citrus sinensis* and *Casimiroa edulis* (Rutaceae).

48 *Prays friesei* Klimesch: New record for **Madeira**. This very variable species is found locally in laurisilva localities: Fajã da Nogueira, 600 m, 1♀, 20.x.1974, J. S. da Silva leg. (ZMUC); same locality, 1♀, 28.viii.1975, N. L. Wolff leg. (ZMUC); Encumeada, 1♂, 16.vi.1993, 1♀, 18.x.1994, several larvae and adults, 12.-16.ix.1997, *Picconia excelsa*, O. Karsholt leg. (ZMUC).
The larva feeds in fruits of *Picconia excelsa* (Oleaceae).
The record of *Prays oleae* (Bernard, 1788) from Madeira (without exact locality) by CARVALHO (1995: 576) probably refers to this species.

49 *Plutella xylostella* (Linnaeus): STAINTON (1859), WOLLASTON (1879), REBEL (1892), REBEL & ROGENHOFER (1894), WALSINGHAM (1894A), REBEL (1906), WALSINGHAM (1908), REBEL (1917), REBEL (1940C), REBEL (1940D), CARVALHO (1995), VIEIRA (1997).
P. xylostella is a common pest of crucifers in Madeira where it feeds mainly on the leaves of cultivated *Brassica oleracea* and *B. rapa* (Cruciferae).

50 *Acrolepiopsis infundibulosa* Gaedike & Karsholt: GAEDIKE & KARSHOLT (2001).

51 *Acrolepiopsis mauli* Gaedike & Karsholt: GAEDIKE & KARSHOLT (2001).

52 *Acrolepiopsis vespertella* (Zeller): GAEDIKE & KARSHOLT (2001).

53 *Glyphipterix diaphora* Walsingham: WALSINGHAM (1894A), WALSINGHAM (1910), MEYRICK (1913A), MEYRICK (1914B), REBEL (1917), REBEL (1940C), DIAKONOFF (1986A), CARVALHO (1995).

54 *Glyphipterix pygmaeella* Rebel: New record for **Madeira**. Encumeada, 1000 m, 10♂, 4♀, 13.vi.1993, O. Karsholt leg. (ZMUC); Rabaçal, 1050 m, 2♂, 14.vi.1993, O. Karsholt leg. (ZMUC).
The record of *G. fortunatella* Walsingham from Madeira (without data and locality) by CARVALHO (1995: 576) probably refers to this species.
Found locally in laurisilva localities.

55 *Bedellia somnulentella* (Zeller): STAINTON (1859), WALSINGHAM (1894A), REBEL (1896), STAUDINGER & REBEL (1901), WALSINGHAM (1907), WALSINGHAM (1908), WALSINGHAM (1910), REBEL (1911), REBEL (1917), HERING (1927), REBEL (1940C), KLIMESCH (1979), CARVALHO (1995), VIEIRA (1997).
WALSINGHAM (1894A: 538, 555) recorded *Phyllobrostis daphneella* Staudinger, 1859 from Madeira, based on one specimen collected by Wollaston, but later on (1908: 984) he corrected his identification: "examining again the fragment, …, I find it to be a remnant of *Bedellia somnulentella* …". The record of *daphneella* by HERING (1968: 188) without exact date or locality is probably based on that of Walsingham.
The larva ia a leaf miner on *Convolvulus althaeoides* and other Convolvulaceae. In Porto Santo larvae were found in great numbers in leaves of *Ipomoea* sp.

56 *Leucoptera malifoliella* (O. Costa): The pear leaf blister moth is a new record for **Madeira**: Curral das Freiras, 633 m, 1♂, 1♀, 18.vi.1998, *Malus domestica*, F. Aguiar leg. (ICLAM no. 0538); same data, 2♂, 4♀, 2.vii.1998, J. Jesus leg. (ICLAM no. 0539); 2♂, 4♀ (AFA no. 647); 4♂, 16.vii.1998, J. Jesus leg. (ICLAM no. 0540); 1♂ (AFA no. 648).
The larva is a leaf miner on *Malus domestica* (Rosaceae).

57 *Ethmia bipunctella* (Fabricius): CARVALHO (1995).
The larva feeds on several Boraginaceae including *Echium plantagineum* and the endemics *E. candicans* and *E. nervosum*.

58 *Exaeretia conciliatella* (Rebel): REBEL (1892), WALSINGHAM (1894A), REBEL (1901), WALSINGHAM (1908), REBEL (1911), REBEL (1917), MEYRICK (1922B), NORDMAN & REBEL (1935), GAEDE (1938-39), REBEL (1940A), REBEL (1940C), REBEL (1940D), KLIMESCH (1985), CARVALHO (1995), VIEIRA (1997).

59 *Agonopterix perezi* (Walsingham): WALSINGHAM (1894A), REBEL (1901), WALSINGHAM (1908), REBEL (1911), REBEL (1917), MEYRICK (1922B), COCKERELL (1923A), GAEDE (1938-39), REBEL (1940C), CARVALHO (1995) BÁEZ (1998).
Agonopterix heracliana (Linnaeus) was recorded from Madeira by WALSINGHAM (1894A), REBEL (1901), WALSINGHAM (1908), REBEL (1911), GAEDE (1938-39), REBEL (1940C) and CARVALHO (1995). These literature records are based on two specimens: one found by Wollaston and recorded as *Depressaria applana* (Fabricius) by WALSINGHAM (1894: 546). Later, when describing *A. perezi* WALSINGHAM (1908: 957-958) pointed out that Wollaston´s specimen of '*applana*' belongs to *perezi*. CARVALHO (1995: 563) recorded a second specimen of *heracliana* from Curral das Freiras, 11.vi.1980, but on the same page he also recorded a specimen of *perezi* from the same locality and date. We have not examined Carvalho´s

specimens, but these two species are very similar, and we find it likely that records of both belong to one species: *perezi*, and we therefore remove *heracliana* from the list of Madeiran Lepidoptera until its presence there is confirmed. This case is extraordinarily confusing because the name *heracliana* (Linnaeus, 1758) was used until about 1970 for a widespread species of *Depressaria* (see next note), but now it is considered the valid name of one of the most common species of European *Agonopterix* (KARSHOLT ET AL., 2006).
The larva of *perezi* feeds between spun leaves of the endemic *Oenanthe divaricata* (Umbeliferae).

60 *Agonopterix scopariella* (Heinemann): CARVALHO (1995).

61 *Depressaria ultimella* Stainton: new record for **Madeira**: Porto Moniz, 5♂, 1♀, 4.-7.vii.1993, 3♂, 2♀, 9.-13.x.1994, leg. O. Karsholt (ZMUC).
However, we believe that *ultimella* was already found in Madeira by Wollaston and recorded (as *Siganorosis heracliana* DeGeer) by WALSINGHAM (1894A: 546). Later WALSINGHAM (1908: 959-960) corrected his identification of the specimen to *D. apiella* (Hübner) (a junior synonym of *D. daucella* (Denis & Schiffermüller)). This was followed by REBEL (1917: 12; 1940c: 8). CARVALHO (1995: 577) listed *Depressaria rubricella* (Denis & Schiffermüller) (another synonym of *D. daucella*) from Madeira without exact date and locality, probably based on the records by Walsingham and Rebel. The records of *D. heracliana* by REBEL (1901: 173) and D. *pastinacella* (Duponchel) by ZHANG (1994: 178) most likely date back to Walsingham´s record of Wollaston´s specimen (see the note above for discussion of the synonymy of *heracliana*). *D. daucella* is related to and externally similar to *ultimella*, and since Walsingham changed his opinion about the single specimen it may not have been in perfect condition. We were unable to trace Wollaston´s specimen in the BMNH, but we find it likely that it belonged to *ultimella*. The record of *D. apiella* (Hübner) from Tenerife by WALSINGHAM (1908: 959) refers to another, probably undescribed, species (KLIMESCH, 1985: 135).

62 *Perittia carlinella* Walsingham: CARVALHO (1995), KAILA & KARSHOLT (2002).
CARVALHO (1995: 576) recorded this species from Madeira without exact date and locality. This record is discussed in detail by KAILA & KARSHOLT (2002).
In the Canary Islands the larva feeds on *Carlina salicifolia* (Compositae). As this plant is common on certain localities of Madeira, it is also probably the host plant of *P. carlinella* in this island.

63 *Elachista encumeadae* Kaila & Karsholt: KAILA & KARSHOLT (2002).
According to these authors the type locality for this species is *laurisilva* forest below the Encumeada pass. The larva is a leaf miner in the endemic *Festuca donax* (Gramineae), where it seems to have at least two generations per year.

64 *Oecia oecophila* (Staudinger): CARVALHO (1995).
CARVALHO (1995: 579) recorded this species from Madeira without exact date and locality. We have examined one male from Ponta do Sol, sea level, 2.vii.1993, O. Karsholt leg. (ZMUC).

65 *Endrosis sarcitrella* (Linnaeus): STAINTON (1859), WALSINGHAM (1894A), REBEL (1901), WALSINGHAM (1907), REBEL (1917), REBEL (1940C), GUIMARÃES & BEIJA (1974), CARVALHO (1995).

66 *Hofmannophila pseudospretella* (Stainton): WALSINGHAM (1894A), REBEL (1901), REBEL (1917), REBEL (1940C), CARVALHO (1995).

67 *Esperia sulphurella* (Fabricius): New record for **Madeira**: 1♂, Funchal, 20.-31.iii.1991, L. Sippola leg. (LSI).
The specimen may have been imported into Madeira with timber.

68 *Neomariania rebeli* (Walsingham): WALSINGHAM (1894A), REBEL (1901), REBEL (1917), KLIMESCH (1983), CARVALHO (1995), BÁEZ (1998), KOSTER & SINEV (2003).

69 *Coleophora coracipenella* (Hübner): New record for **Madeira**: 1♂, 1♀, Curral das Freiras, 600 m, 7.v.1998, F. Aguiar leg., (AFA no. 800); 2♀, Curral das Freiras, 600 m, 29.iv.1999, J. Jesus leg., (ICLAM no. 0731).
A recently introduced species, which was found as larva at Curral das Freiras mining apple leaves (*Malus domestica*) (Rosaceae).

70 *Coleophora glaucicolella* Wood: CARVALHO (1995).
The larva feeds on seeds of *Juncus effusus* (Juncaceae).

71 *Coleophora orotavensis* Rebel: Found new to Madeira at **Porto Santo**, 10♂, 4♀, 15.-16.iv.1996, O. Karsholt leg. (ZMUC).

72 *Coleophora versurella* Zeller: CARVALHO (1995), VIEIRA (1998).

73 *Blastobasis adustella* Walsingham: REBEL (1917), REBEL (1940A), REBEL (1940C), JACOBS (1948), HERING (1957), CARVALHO (1995), VIEIRA (1997), DICKSON (2002), KARSHOLT & SINEV (2004).
This species, which was originally endemic to Madeira, was accidentally introduced to the British Isles and Ireland and has become established there.
The early stages of this species in Madeira are unknown.

74 *Blastobasis bassii* Karsholt & Sinev: KARSHOLT & SINEV (2004).

75 *Blastobasis decolorella* (Wollaston): WOLLASTON (1858), WALKER (1864), WALSINGHAM (1894A), REBEL (1901), REBEL (1917), REBEL (1940A), REBEL (1940C) BRADLEY (1958), GARDNER & CLASSEY (1960), CARVALHO (1995), KARSHOLT & SINEV (2004).
One specimen was bred from larvae feeding on fruits of *Vitis* spp. (Vitaceae).

76 *Blastobasis desertarum* (Wollaston): WOLLASTON (1858), STAINTON (1859), WALKER (1864), WALSINGHAM (1894A), REBEL (1901), REBEL (1917), REBEL (1940A), REBEL (1940C),

BRADLEY (1958), GARDNER & CLASSEY (1960), KLIMESCH (1986), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998), KARSHOLT & SINEV (2004).
Moths have been bred from larvae found on *Polygonum maritimum* (Polygonaceae) and *Dianthus caryophyllus* (Caryophyllaceae).

77 *Blastobasis divisus* (Walsingham): WALSINGHAM (1894A), REBEL (1901), WALSINGHAM & DURRANT (1909), REBEL (1917), REBEL (1940A), REBEL (1940C), CARVALHO (1995), KARSHOLT & SINEV (2004).

78 *Blastobasis insularis* (Wollaston): WOLLASTON (1858), WALKER (1864), WALSINGHAM (1894A), REBEL (1917), REBEL (1940A), REBEL (1940C), CARVALHO (1995), KARSHOLT & SINEV (2004).

79 *Blastobasis lacticolella* Rebel: REBEL (1940A), REBEL (1940C), JACOBS (1948), BRADLEY (1958), ALFORD (1984), CARTER (1984), EASTERBROOK (1985), ZHANG (1994), CARVALHO (1995), SVENSSON (1997), DICKSON (2002), KARSHOLT & SINEV (2004).
This species, which was originally endemic to Madeira, was accidentally introduced to the British Isles and has become established there. It was also recorded from Sweden. All references dealing with the presence of *B. decolorella* in Britain instead refer to *B. lacticolella*.
One specimen was bred from a larva found feeding on young shoots of *Euphorbia mellifera* (Euphorbiaceae).

80 *Blastobasis laurisilvae* Karsholt & Sinev: KARSHOLT & SINEV (2004).

81 *Blastobasis lavernella* Walsingham: WALSINGHAM (1894A), REBEL (1901), REBEL (1911), REBEL (1917), REBEL (1940A), REBEL (1940C), REBEL (1940D), BRADLEY (1958), GARDNER & CLASSEY (1960), CARVALHO (1995), KARSHOLT & SINEV (2004).

82 *Blastobasis luteella* Karsholt & Sinev: KARSHOLT & SINEV (2004).
Larvae bore the stems of *Pelargonium* spp. (Geraniaceae), *Dianthus caryophyllus* (Caryophyllaceae) and dead leaves of *Carpobrotus edulis* (Aizoaceae).

83 *Blastobasis marmorosella* (Wollaston): WOLLASTON (1858), WALKER (1864), REBEL (1892), REBEL & ROGENHOFER (1894), REBEL (1901), STAUDINGER & REBEL (1901), WALSINGHAM (1908), REBEL (1917), NORDMAN & REBEL (1935), REBEL (1940C), KLIMESCH (1986), CARVALHO (1995), BÁEZ (1998), KARSHOLT & SINEV (2004).

84 *Blastobasis maroccanella* Amsel: BRADLEY (1958), GARDNER & CLASSEY (1960), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998), KARSHOLT & SINEV (2004).
According to KARSHOLT & SINEV (2004), this species is widely distributed in lowlands throughout Macaronesia and Western Mediterranean.

85 *Blastobasis nigromaculata* (Wollaston): WOLLASTON (1858), WALKER (1864B), WALSINGHAM (1894A), REBEL (1901), REBEL (1911), REBEL (1917), REBEL (1940C), CARVALHO (1995), KARSHOLT & SINEV (2004).

86 *Blastobasis ochreopalpella* (Wollaston): WOLLASTON (1858), WALKER (1864), WALSINGHAM (1894A), REBEL (1901), REBEL (1917), REBEL (1940C), CARVALHO (1995), KARSHOLT & SINEV (2004).

87 *Blastobasis pica* (Walsingham): WALSINGHAM (1894A), REBEL (1901), WALSINGHAM & DURRANT (1909), REBEL (1917), REBEL (1940C), CARVALHO (1995), KARSHOLT & SINEV (2004).

88 *Blastobasis rebeli* Karsholt & Sinev: KARSHOLT & SINEV (2004), DICKSON (2004).
This species, which was originally endemic to Madeira, was recently introduced to the British Isles and may have established there.

89 *Blastobasis salebrosella* Rebel: REBEL (1940A), REBEL (1940C), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998), KARSHOLT & SINEV (2004).

90 *Blastobasis serradaguae* Karsholt & Sinev: KARSHOLT & SINEV (2004).

91 *Blastobasis spectabilella* Rebel: REBEL (1940a), REBEL (1940c), CarvAlho (1995), KARSHOLT & SINEV (2004).

92 *Blastobasis splendens* Karsholt & Sinev: KARSHOLT & SINEV (2004).

93 *Blastobasis subdivisus* Karsholt & Sinev: KARSHOLT & SINEV (2004).

94 *Blastobasis virgatella* Karsholt & Sinev: KARSHOLT & SINEV (2004).

95 *Blastobasis vittata* (Wollaston): WOLLASTON (1858), WALKER (1864), WALSINGHAM (1894A), REBEL (1901), REBEL (1917), REBEL (1940A), REBEL (1940C), REBEL (1940D), BRADLEY (1958), GARDNER & CLASSEY (1960), GUIMARÃES & BEIJA (1974), CARVALHO (1984), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998), KARSHOLT & SINEV (2004).
According to KARSHOLT & SINEV (2004) the records of *B. lignea* from the Azores and Morocco are probably misidentifications of *B. maroccanella*.

96 *Blastobasis walsinghami* Karsholt & Sinev: KARSHOLT & SINEV (2004).

97 *Blastobasis wolffi* Karsholt & Sinev: KARSHOLT & SINEV (2004).

98 *Blastobasis wollastoni* Karsholt & Sinev: KARSHOLT & SINEV (2004).

99 *Apatema fasciata* (Stainton): STAINTON (1859), WALKER (1864B), WALSINGHAM (1894A), REBEL (1896), REBEL (1901), STAUDINGER & REBEL (1901), WALSINGHAM (1908), REBEL (1911), REBEL (1917), COCKERELL (1923A), RILEY (1923), NORDMAN & REBEL (1935), REBEL (1940A), REBEL (1940C), BRADLEY (1958), GARDNER & CLASSEY (1960), KLIMESCH (1985), CARVALHO (1995), VIEIRA (1998).

100 *Ascalenia echidnias* (Meyrick): CARVALHO (1995), KOSTER & SINEV (2003).

CARVALHO (1995: 578) recorded this species from Madeira without exact date and locality. The record was based upon information received from J. Bradley, who probably received it from N. L. Wolff (see KARSHOLT, 2000: 401-402). In ZMUC is a series of males and females collected at Ponta de São Lourenço, 100 m, 15.xi.1977, O. Lomholdt & N. L. Wolff leg. In spite of much search at the same spot during the 1990´s at the right time of year the species has not been found again. It is possible that the above mentioned specimens belonged to a temporary population, being the offspring of specimens blown over with strong winds from North Africa (see also CLASSEY, 1966).

101 *Pyroderces argyrogrammos* (Zeller): ROMSTÖCK & VÖLKL (1989), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998).
ROMSTÖCK & VÖLKL (1989) found the larva in flower heads of *Galactites tomentosa*. KRAUSS (1964) recorded another undetermined species of *Pyroderces* associated with *Myrica faya* (Myricaceae), but this latter record must be considered a misidentification, as *Pyroderces* spp. feed on Compositae.

102 *Cosmopterix pulchrimella* Chambers: WALSINGHAM (1894A), REBEL (1911), REBEL (1917), COCKERELL (1923A), REBEL (1940A), REBEL (1940C), SINEV (1988), CARVALHO (1995), SINEV (1997), VIEIRA (1997), VIEIRA (1998), KOSTER & SINEV (2003).
The larva feeds on *Parietaria judaica* (Urticaceae).

103 *Cosmopterix attenuatella* Walker: COCKERELL (1923A), REBEL (1938), REBEL (1940C), KLIMESCH (1983), CARVALHO (1995), SINEV (1997), KOSTER & SINEV (2003).

104 *Chrysoesthia drurella* (Fabricius): New record for **Madeira**: 1♀, São Roque, Funchal, 20.viii.1990, F. Aguiar leg., (ICAM no. 0732); 2♀, Ponta do Sol, 17.vi.1993, O. Karsholt leg. (ZMUC); 1♂, São Vicente, mining leaves of *Chenopodium murale*, 10.iv.1998, F. Aguiar leg., (AFA no. 801); **Porto Santo**, 1♂ 11.iii.1994, P. de Place Bjørn & J. Damgaard leg. (ZMUC).
The larva feeds on *Chenopodium murale* (Chenopodiaceae).

105 *Ornativalva plutelliformis* (Staudinger): SATTLER (1976), KLIMESCH (1984), CARVALHO (1995).
The larva feeds on *Tamarix gallica* (Tamaricaceae).

106 *Bryotropha domestica* (Haworth): WALSINGHAM (1894A), REBEL (1901), REBEL (1906), WALSINGHAM (1908), REBEL (1917), MEYRICK (1925), GAEDE (1937), REBEL (1940C), KLIMESCH (1984), CARVALHO (1995), KARSHOLT & RUTTEN (2005).

107 *Bryotropha plebejella* (Zeller): KARSHOLT & RUTTEN (2005).
B. plebejella was recorded from Madeira by KARSHOLT & RUTTEN (2005: 134) without exact date and locality. The record was based on the following material: below Pico do Arieiro, 6 ex 15.vi. & 9.vii.1993, Achada do Teixeira, 5 ex 22.vi.1993, O. Karsholt leg. (ZMUC).

108 *Scrobipalpa ocellatella* (Boyd): STAINTON (1859), WALKER (1864B), WALSINGHAM (1894A), REBEL (1901), REBEL (1917), MEYRICK (1925), GAEDE (1937), REBEL (1940C), POVOLNÝ (1966), KLIMESCH (1984), CARVALHO (1995).

109 *Scrobipalpa portosanctana* (Stainton): STAINTON (1859), WALKER (1864B), WALSINGHAM (1894A), REBEL (1901), REBEL (1917), COCKERELL (1923A), MEYRICK (1925), GAEDE (1937), REBEL (1940C), CARVALHO (1995).
The larva of *S. portosanctana* larvae feeds on *Lycium europaeum* (Solanaceae).

110 *Scrobipalpa suaedicola* (Mabille): New record for **Madeira**: Ilhéu do Agostinho ou da Cevada, several larvae, 14.vi.1992 on *Suaeda vera*, F. Aguiar leg. (AFA); Ponta de São Lourenço, 1 ex 24.vi.1993, O. Karsholt leg. (ZMUC).
The larva feeds on *Suaeda vera* (Chenopodiaceae).

111 *Scrobipalpa vasconiella* (Rössler): POVOLNÝ & LUQUET (1983), POVOLNÝ (1987), CARVALHO (1995).
These authors recorded *vasconiella* from Madeira without exact date and locality. Their records were probably based upon information received from J. Bradley, who received it from N. L. Wolff (see Karsholt, 2000: 401-402). In addition to a few specimens collected by Wolff on Madeira (Serra de Água and Terreiro da Luta) there is a specimen from **Porto Santo**: 1♀, 14.iv.1996, O. Karsholt leg. (ZMUC).

112 *Ergasiola ergasima* (Meyrick): CARVALHO (1995).
CARVALHO (1995: 578) recorded this species from Madeira without exact date and locality. The record was based upon information received from J. Bradley, who probably received it from N. L. Wolff (see KARSHOLT, 2000: 401-402). *E. ergasima* is widespread in Madeira at lower altitudes. Also present in **Deserta Grande**: 1♂, 1♀, Doca, at sea level, 31.vii.2000, F. Aguiar & J. Jesus leg., (AFA no. 751).
The larva has been found mining leaves *Lycopersicon esculentum* and also *Solanum linnaeanum* (Solanaceae) at Ponta de São Lourenço.

113 *Phthorimaea operculella* (Zeller): CARVALHO (1995), VIEIRA (1997), VIEIRA (1998).
P. operculella is a common pest of stored potatoes, *Solanum tuberosum* (Solanaceae) in Madeira.

114 *Ephysteris promptella* (Staudinger): KLIMESCH (1984), KARSHOLT & SATTLER (1998).

115 *Ephysteris brachyptera* Karsholt & Sattler: POVOLNÝ (1965), POVOLNÝ (1968), HACKMAN (1966), POWELL (1976), SATTLER (1988), SATTLER (1991), CARVALHO (1995), KARSHOLT & SATTLER (1998).

116 *Hedma microcasis* (Meyrick): KARSHOLT & SATTLER (1998).
The record of *Ephysteris subdiminutella* (Stainton, 1867) from Madeira by KARSHOLT & SATTLER (1998: 44) refers to this species. The specimens in question originate from Porto Santo, several specimens 23.-24.x.1994 & 13.-15.iv.1996, O. Karsholt leg. (ZMUC).

117 *Caryocolum marmoreum* (Haworth): WOLLASTON (1858), WALKER (1864), WALSINGHAM (1894A), REBEL (1901), REBEL (1917), COCKERELL (1923A), MEYRICK (1925), GAEDE (1937), REBEL (1940C), HUEMER (1988), CARVALHO (1995).
In the original description of *Gelechia pulchra* WOLLASTON (1858: 121) noted that it "is closely allied to *G. marmoreum*", and in his revision of the genus *Caryocolum* HUEMER (1988: 494) treated *pulchra* as a subspecies of *marmoreum*. Apart from the two type specimens only four additional specimens from 1962, also from Deserta Grande, are known (HUEMER, 1988: 495), and all references to *marmoreum* or *pulchra* in the literature refer to these specimens. However, the nominate subspecies (or at least a subspecies different from *pulchra*) also occurs in **Madeira**, at Porto Moniz, where specimens were bred from larvae found in April between spun shoots of *Silene uniflora* (Caryophyllaceae) or collected at light (O. Karsholt leg. (ZMUC)).
C. marmoreum is the only species of Lepidoptera represented by two subspecies in the Madeira Islands, and spp. *pulchra* is the only endemic taxon of Lepidoptera from the Desertas Islands.

118 *Caryocolum sciurella* (Walsingham): WALSINGHAM (1908), REBEL (1911), REBEL (1917), MEYRICK (1925), GAEDE (1937), REBEL (1940A), REBEL (1940C), KLIMESCH (1984), HUEMER (1988), CARVALHO (1995).

119 *Syncopacma polychromella* (Rebel): New record for **Madeira**: Ponta de São Lourenço, several specimens 4., 5. & 22.x.1994, O. Karsholt leg. (ZMUC). Also found at Pico Ruivo, 1 ex 1996 (H. Hendericks, in litt.).

120 *Aproaerema anthyllidella* (Hübner): STAINTON (1859), WALKER (1864), WALSINGHAM (1894A), REBEL (1901), WALSINGHAM (1908), REBEL (1911), REBEL (1917), MEYRICK (1925), GAEDE (1937), REBEL (1940C), KLIMESCH (1984), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998).
A. anthyllidella probably covers a species complex. Madeiran specimens have costal and tornal spots of the forewing yellowish and prominent (especially in females). The name *elachistella* (Stainton) is available for the Madeiran population, which is here, in accordance with KLIMESCH (1984: 160-161), given subspecific rank.
The larva feeds on *Bituminaria bituminosa* (Leguminosae).

121 *Dichomeris acuminatus* (Staudinger): CARVALHO (1995).

122 *Helcystogramma convolvuli* (Walsingham): New record for **Madeira**. Its presence in Madeira has been known at least since 1952 (R. Vieira, pers. comm.).
The larva feeds on the leaves of *Ipomoea batatas* (Convolvulaceae). *H. convolvuli* is found in localities at low altitude.

123 *Platyedra subcinerea* (Haworth): CARVALHO (1995), VIEIRA (1997), VIEIRA (1998).

124 *Sitotroga cerealella* (Olivier): WALSINGHAM (1894A), WALSINGHAM (1908), REBEL (1911), REBEL (1917), SIMMONS & ELLINGTON (1932), REBEL (1940C), REBEL (1940D), CARVALHO

(1963), GUIMARÃES & BEIJA (1974), CARVALHO (1984), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998).

125 *Thiotricha wollastoni* (Walsingham): WALSINGHAM (1894A), REBEL (1901), REBEL (1917), MEYRICK (1925), GAEDE (1937), REBEL (1940C), CARVALHO (1995).
The larva of this Madeiran endemic feeds from a portable case on the surface of *Rubus* spp. (Rosaceae) leaves.

126 *Synanthedon myopaeformis* (Borkhausen): New record for **Madeira**: 1♀, Curral das Freiras, 600 m, 17.xii.1998, F. Aguiar leg., (AFA no. 802).
This is the first record of a sesiid from Madeira. Larvae were found heavily infesting the trunks of several apple trees (*Malus domestica*) in an abandoned grove at Curral das Freiras. Despite this, only one specimen was successfully bred in the laboratory.

127 *Cochylimorpha decolorella* (Zeller): CARVALHO (1995).
C. decolorella was recorded from Madeira by CARVALHO (1995: 579). The record is probably based on a specimen in the BMNH. It is labeled: "Madeira, Porto Santo, 1963, R. Uffeln". We know of no other material from Madeira.

128 *Aethes francillana* (Fabricius): CARVALHO (1995).
The larva feeds in Madeira between flowers of *Crithmum maritimum* (Umbeliferae) and pupates in the stem.

129 *Platynota rostrana* (Walker): New record for **Madeira**. 1♂, Camacha, Ribeirinha, 670 m, 11.vi.1996, F. Aguiar leg. (AFA no. 772G), det. K. Tuck.
P. rostrana is an American species, which has only once been found in Madeira. It is unknown if the species has established itself in Madeira.

130 *Acleris variegana* (Denis & Schiffermüller): RAZOWSKI (1965), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998).
The larva feeds on *Rubus ulmifolius* and *Pyrus communis* (Rosaceae).

131 *Cacoecimorpha pronubana* (Hübner): CARVALHO (1995), CARVALHO ET AL. (1996), CARVALHO & AGUIAR (1997).
C. pronubana is a polyphagous species which feeds on several *Citrus* spp. (*sinensis*, *limon*), (Rutaceae) and also on *Bituminaria bituminosa* and *Cytisus scoparius* (Leguminosae), *Malus domestica* (Rosaceae), *Solanum nigrum* (Solanaceae) and *Senna didymobotrya* (Caesalpinaceae).

132 *Clepsis retiferana* (Stainton): STAINTON (1859), REBEL (1901), MEYRICK (1912A), MEYRICK (1913C), REBEL (1917), OBRATZOV (1955), KRAUSS (1964), RAZOWSKI (1979), RAZOWSKI (2000).
C. retiferana was considered a synonym of *C. subcostana* (Stainton, 1859) by RAZOWSKI, (1979: 135). In our opinion these two taxa represent distinct species.

KRAUSS (1964) found larvae feeding on several laurisilva plants: *Clethra arborea* (Clethraceae), *Myrica faya* (Myricaceae), *Picconia excelsa* (Oleaceae) and *Vaccinium padifolium* (Ericaceae).

133 *Clepsis staintoni* Obratzov: STAINTON (1859), WALKER (1863), WALSINGHAM (1894A), REBEL (1901), KENNEL (1910-1921), MEYRICK (1912A), MEYRICK (1913C), REBEL (1917), REBEL (1940A), REBEL (1940C), OBRATZOV (1955), RAZOWSKI (1979), CARVALHO (1995), RAZOWSKI (2000).
We have found the larva of *C. staintoni* on *Ilex perado* (Aquifoliaceae), *Myrica faya* (Myricaceae) and *Vaccinium padifolium* (Ericaceae).

134 *Clepsis subcostana* (Stainton): STAINTON (1859), WALKER (1863), REBEL & ROGENHOFER (1894), WALSINGHAM (1894A), REBEL (1901), KENNEL (1910-1921), REBEL (1911), MEYRICK (1912A), MEYRICK (1913C), REBEL (1917), REBEL (1940A), REBEL (1940C), OBRATZOV (1955), KRAUSS (1964), RAZOWSKI (1979), CARVALHO (1995), RAZOWSKI (2000).

135 *Clepsis subjunctana* (Wollaston): WOLLASTON (1858), STAINTON (1859), WALKER (1864), WALSINGHAM (1894A), REBEL (1901), KENNEL (1910-1921), MEYRICK (1912A), MEYRICK (1913C), REBEL (1917), REBEL (1940C), OBRATZOV (1955), RAZOWSKI (1979), CARVALHO (1995), RAZOWSKI (2000).

136 *Clepsis uncisecta* Razowski & Wolff: AGUIAR (1993), MARKIN (1993), MARKIN ET AL. (1995), RAZOWSKI (2000).
In the description of *Clepsis uncisecta*, the year of publishing for volume 81 of "Redia" is given as 1998, however, on the final page of the volume it is stated to have been printed in January 2000.
The larvae of this species feed on the leaves of *Erica scoparia* (Ericaceae), *Myrica faya* (Myricaceae), *Ocotea foetens* (Lauraceae) and *Picconia excelsa* (Oleaceae).

137 *Bactra lancealana* (Hübner): WALSINGHAM (1894A), WALSINGHAM (1908), REBEL (1911), REBEL (1917), REBEL (1940C), REBEL (1940D), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998).

138 *Bactra venosana* (Zeller): REBEL (1940C), REBEL (1940D), BRADLEY (1958), GARDNER & CLASSEY (1960), KLIMESCH (1987), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998).

139 *Bactra minima* Meyrick: CARVALHO (1995).

140 *Lobesia neptunia* (Walsingham): Found new to Madeira at **Porto Santo**, north coast, 17 ex 15.-16.iv.1996, leg. O. Karsholt (ZMUC).

141 *Thiodia glandulosana* Walsingham: This is a new record for **Madeira**: 1♂, Chão da Ribeira, 550 m, 18.vii.1996, F. Aguiar leg. (ICLAM no. 0685G); Chão da Ribeira, 500 m, 12 ex 14.ix.1997, O. Karsholt leg. (ZMUC); 1♂, Chão da Ribeira, 550 m, 7.vii.1998, F. Aguiar leg. (AFA no. 759); 2♂, 1♀, Jardim da Serra, Boca da Corrida, 1000 m, 16.vii.1998, *Rhamnus*

glandulosa F. Aguiar leg. (AFA no. 758, ICLAM no. 0686); 1♀, Chão da Ribeira, 550 m, 28.vi.2000, F. Aguiar leg. (AFA no. 760).
The larva feeds between spun leaves of *Rhamnus glandulosa* (Rhamnaceae).

142 *Spilonota ocellana* (Denis & Schiffermüller): BRADLEY ET AL. (1979), CARVALHO (1995).
BRADLEY ET AL. (1979: 197) and CARVALHO (1995: 569) recorded this species from Madeira without exact date and locality. In the ZMUC there are 11 specimens from Fajã da Nogueira, Funchal and Serra de Água.

143 *Acroclita anelpista* Diakonoff & Wolff: DIAKONOFF & WOLFF (1976), CARVALHO (1995).

144 *Acroclita guanchana* Walsingham: New to the fauna of **Madeira** from Encumeada, 1000m, larvae 22.ii.1979, *Hypericum* sp., O. Karsholt leg. (ZMUC). **Porto Santo**: 1♂, 18.ix.1980, J. P. Carvalho leg. (BMNH).
The larva feeds between spun leaves of *Hypericum* sp. (Hypericaceae).

145 *Acroclita subsequana* (Herrich-Schäffer): *A. subsequana* has not been mentioned before in the literature of Madeiran Lepidoptera. It is, however, a common insect along the coasts of Madeira and Porto Santo, and it has also been found at Selvagem Grande, but it was in former time confused with other species (see note on *Epinotia signatana* under "References & Notes II"). The larva feeds on *Euphorbia* spp. (Euphorbiaceae). Specimens of *subsequana* from the Madeira Islands are, like those from Canary Islands, very variable in size and colour (see also KLIMESCH (1987: 204)).

146 *Epinotia thapsiana* (Zeller): CARVALHO (1995).

147 *Crocidosema plebejana* Zeller: WALSINGHAM (1894A), WALSINGHAM (1907), WALSINGHAM (1908), REBEL (1911), REBEL (1917), REBEL (1940C), REBEL (1940D), BRADLEY (1958), GARDNER & CLASSEY (1960), CLARKE (1971), KLIMESCH (1987), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998), VIEIRA (1999).

148 *Eucosma cana* (Haworth): WALSINGHAM (1894A), REBEL (1901), KENNEL (1910-1921), REBEL (1917), REBEL (1940C), REBEL (1940D), ROMSTÖCK & VÖLKL (1989), CARVALHO (1995).
ROMSTÖCK & VÖLKL (1989) found the larva of *E. cana* feeding in flower heads of *Galactites tomentosa* (Compositae).

149 *Gypsonoma minutana* (Hübner): CARVALHO (1995).

150 *Clavigesta sylvestrana* (Curtis): BRADLEY ET AL. (1979), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998).

151 *Rhyacionia buoliana* (Denis & Schiffermüller): BAETA NEVES (1955), BRADLEY ET AL. (1979), CARVALHO (1995).
R. buoliana is a well-known pest of *Pinus* spp. (Pinaceae), and like its host it was originally introduced to the fauna of Madeira.

152 *Cydia archaeochrysa* Diakonoff: DIAKONOFF (1986B).
The larva of *C. archaeochrysa* feeds in the buds of *Teline maderensis* (Leguminosae). One specimen bred from larva found at Encumeada, 15.x.1997, leg. O. Karsholt (ZMUC).

153 *Cydia pomonella* (Linnaeus): REBEL (1940C), NATIVIDADE (1947), CABINTERNATIONAL (1995), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998), FARIA (2003).
C. pomonella is a well known pest of *Malus domestica* (Rosaceae) in Madeira Island.

154 *Cydia splendana* (Hübner): WALSINGHAM (1894A), REBEL (1901), KENNEL (1910-1921), REBEL (1917), REBEL (1940C), BRADLEY ET AL. (1979), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998), FARIA (2003).
For this species CARVALHO (1995: 569, 579) used the name *penkleriana* (Denis & Schiffermüller). However, the latter refers to a species of *Epinotia* Hübner (see note by Karsholt *in* KARSHOLT & RAZOWSKI (eds), 1996: 317).
C. splendana is a well known pest of chestnut, *Castanea sativa* (Fagaceae) in Madeira Island.

155 *Selania leplastriana* (Curtis): WOLLASTON (1858), WALKER (1864), REBEL (1894), REBEL & ROGENHOFER (1894), WALSINGHAM (1894A), REBEL (1896), WALSINGHAM (1903), WALSINGHAM (1908), KENNEL (1910-1921), REBEL (1911), REBEL (1917), COCKERELL (1923A), RILEY (1923), REBEL (1940C), REBEL (1940D), BRADLEY (1958), GARDNER & CLASSEY (1960), KLIMESCH (1987), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998), FARIA (2003).
We found larvae of *Selania leplastriana* feeding on *Brassica oleracea* (Cruciferae), the common cabbage.

156 *Anthophila threnodes* (Walsingham): STAINTON (1859), WALSINGHAM (1894A), STAUDINGER & REBEL (1901), WALSINGHAM (1908), WALSINGHAM (1910), REBEL (1911), MEYRICK (1913A), MEYRICK (1914B), REBEL (1917), REBEL (1940C), KLIMESCH (1983), DIAKONOFF (1986A), CARVALHO (1995).
A. threnodes was until recently known only from three specimens found in the 19th century (Aguiar & Karsholt, in prep.).

157 *Tebenna micalis* (Mann): REBEL (1892), WALSINGHAM (1894A), REBEL (1901), WALSINGHAM (1908), REBEL (1917), HERING (1927), REBEL (1940C), REBEL (1940D), KLIMESCH (1983), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998).
The larva feeds on Compositae such as *Arctium minus*, *Helichrysum foetidum* and *H. melaleucum*.

158 *Choreutis nemorana* (Hübner): WALSINGHAM (1894A), REBEL (1896), REBEL (1901), STAUDINGER & REBEL (1901), WALSINGHAM (1908), REBEL (1917), NORDMAN & REBEL (1935), REBEL (1940C), KLIMESCH (1983), DIAKONOFF (1986A), COUTIN (1991), CARVALHO (1995).
The larva feeds on the leaves of fig, *Ficus carica* (Caricaceae), but do not attack the fruit. High levels of infestation are frequent.

159 *Epermenia aequidentella* (E. Hofmann): WALSINGHAM (1894A), REBEL (1901), WALSINGHAM (1908), REBEL (1917), HERING (1927), REBEL (1940A), REBEL (1940C), KLIMESCH (1983), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998), GAEDIKE & KARSHOLT (2001).

160 *Agdistis bifurcatus* Agenjo: OROMI ET AL. (1976), CARVALHO (1995).
From larvae found on *Cistanche phelypaea* (Orobanchaceae) on the island of Pitão Grande (better known as Selvagem Pequena – Selvagens Archipelago). Marcos Báez bred out 6 specimens of an *Agdistis* species (OROMI ET AL., 1978: 181). The specimens, which belong to the Museo de Ciencias Naturales in Tenerife, were sent to a specialist in Central Europe for identification, but have not been returned (G. Ortega, in litt.). A search for them in the Klimesch collection, kept in the Zoologische Staatssammlungen in Münich, Germany was without succsess (A. Segerer, in litt.). No members of the genus *Agdistis* are known to feed on *Cistanche* (ARENBERGER, 1995), and the specimens from Pitão Grande may eventually prove to belong to one of the two *Agdistis* species already recorded from the Selvagens Archipelago, or to an additional species. However, this can only be verified by re-examination of the material, or from breeding specimens from newly collected larvae.

161 *Agdistis pseudocanariensis* Arenberger: New to Madeira: **Porto Santo**, 1 ex 23.x.1994, 16 es. 15.-16.iv.1996, leg. O. Karsholt (ZMUC).

162 *Agdistis salsolae* Walsingham: CARVALHO (1995).

163 *Agdistis tamaricis* (Zeller): ARENBERGER (1995), CARVALHO (1995).
We found larvae on *Tamarix gallica* (Tamaricaceae).

164 *Amblyptilia acanthadactyla* (Hübner): STAINTON (1859), WALSINGHAM (1894A), REBEL (1901), WALSINGHAM (1908), REBEL (1911), MEYRICK (1913B), REBEL (1917), NORDMAN & REBEL (1935), REBEL (1938), REBEL (1940A), REBEL (1940C), REBEL (1940D), SOUSA (1991), KLIMESCH (1993), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998).

165 *Lantanophaga pusillidactylus* (Walker): CARVALHO (1995), GIELIS (1996).
CARVALHO recorded this species from Madeira (1995: 580) without exact date and locality. The record was based upon information received from J. Bradley (London), who examined specimens collected by E. W. Classey (now in BMNH). In the ZMUC is a series of 11 specimens from Funchal, Lido, 1.-14.ix.1973, leg. O. Lomholdt, and 1 specimen from 13.vii.1973, leg. P. Svendsen. The record in GIELIS (1996: 45) is based on the latter material.

166 *Stenoptilodes taprobanes* (Felder & Rogenhofer): COCKERELL (1923A), REBEL (1938), REBEL (1940C), CARVALHO (1995).
COCKERELL (1923: 246) recorded *Platyptilia brevipennis* (Zeller, 1874) from "Funchal, Dec. 29". This American species is now placed in the genus *Stenoptilodes*. It is very similar to the Palaearctic *S. taprobanes* (Felder & Rogenhofer) and also to the preceding species *L. pusillidactylus* (Walker). We have not been able to trace Cockerell's specimen(s), on which later records of *brevipennis* from Madeira are based, and hence its identity can not be established, but it is likely that it belongs to *pusillidactylus*, which was later found in Funchal

(see note above). However, *taprobanes* also occurs in Madeira: **Porto Santo**, 2 ex. 24.x.1994, O. Karsholt leg. (ZMUC).

167 *Stenoptilia grisescens* Schawerda: STAINTON (1859), COCKERELL (1923A), REBEL (1938), REBEL (1940C), CARVALHO (1995), ARENBERGER (2005).

168 *Crombrugghia laetus* (Zeller): New to **Madeira:** N. of Cabo Girão, Quinta Grande, 700 m, 1 ex 7.vii.1991, leg. M. Meyer, det. C. Gielis (MEY). The record of an *Oxyptilus* sp. by WALSINGHAM (1894: 537-538) (repeated by REBEL, 1917: 11) probably refers to this species.

169 *Merrifieldia bystropogonis* (Walsingham): CARVALHO (1995).
CARVALHO recorded this species from Madeira (1995: 580) without exact date and locality. The record was based upon information received from J. Bradley (London) and probably referred to a specimen in the ZMUC, labelled Fajã da Nogueira, 600 m, 14.-15.ix.1977, leg. Lomholdt & Wolff.
We have recently bred this species from a larva eating the fresh leaves of *Bystropogon maderensis* (Lamiaceae).

170 *Gypsochares nielswolffi* Gielis & Arenberger: GIELIS & ARENBERGER (1992), ARENBERGER (1995), GIELIS (1996), ARENBERGER (2002).
ARENBERGER (1995, pl. 13, fig. 65) and GIELIS (1996, pl. 10, fig. 8) published colour figures of this rare, endemic species.

171 *Emmelina monodactyla* (Linnaeus): STAINTON (1859), REBEL (1892), REBEL & ROGENHOFER (1894), WALSINGHAM (1894A), REBEL (1901), WALSINGHAM (1908), REBEL (1917), NORDMAN & REBEL (1935), REBEL (1940A), REBEL (1940C), REBEL (1940D), BRADLEY (1958), GARDNER & CLASSEY (1960), KLIMESCH (1993), ARENBERGER (1995), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998).
The larva feeds on *Ipomoea batatas* (Convolvulaceae).

172 *Carposina anopta* Diakonoff: DIAKONOFF (1988), CARVALHO (1995).

173 *Carposina atlanticella* Rebel: REBEL (1894), WALSINGHAM (1894A), REBEL (1901), MEYRICK (1913A), REBEL (1917), MEYRICK (1922A), REBEL (1940C), KRAUSS (1964), GARDNER (1984), HODGES & GARDNER (1985), GARDNER ET AL. (1988), MARKIN (1991), AGUIAR (1993), CARVALHO (1995), LUTZOW ET AL. (1995), MARKIN ET AL. (1995).
It is most probably the same species found by KRAUSS (1964) at Ribeiro Frio and recorded as "*Carposina* sp. possibly *atlanticella* Rebel".
The larvae of this species are abundant in the fruits of *Myrica faya* (Myricaceae).

174 *Achroia grisella* (Fabricius): BETHUNE-BAKER (1894), REBEL (1917), REBEL (1940C), CARVALHO (1995), MEYER (1997).

175 *Galleria mellonella* (Linnaeus): BETHUNE-BAKER (1894), REBEL (1917), REBEL (1940C), REBEL (1940D), CARVALHO (1995), MEYER (1997), VIEIRA (1997), VIEIRA (1998).
Galleria mellonella is a common pest of beehives in Madeira.

176 *Pyralis farinalis* (Linnaeus): WALKER (1859), GODMAN (1870), WALKER (1875), BETHUNE-BAKER (1894), REBEL (1917), REBEL (1940C), REBEL (1940D), BRADLEY (1958), GARDNER & CLASSEY (1960), GUIMARÃES & BEIJA (1974), CARVALHO (1995), MEYER (1997), MEYER ET AL. (1997), VIEIRA (1997), VIEIRA (1998).

177 *Aglossa caprealis* (Hübner): BETHUNE-BAKER (1894), REBEL (1917), REBEL (1940A), REBEL (1940C), REBEL (1940D), CARVALHO (1995), MEYER (1997), VIEIRA (1997), VIEIRA (1998), ARENBERGER ET AL., (2001).

178 *Cryptoblabes gnidiella* (Millière): STAINTON (1859), BETHUNE-BAKER (1894), REBEL (1901), REBEL (1917), NORDMAN & REBEL (1935), REBEL (1940C), REBEL (1940D), VIEIRA (1951), ESTAÇÃO AGRÁRIA DA MADEIRA (1957), BRADLEY (1958), GARDNER & CLASSEY (1960), PEREIRA (1989), CARVALHO ET AL. (1996), CARVALHO (1995), CARVALHO & AGUIAR (1997), MEYER (1997), VIEIRA (1997), VIEIRA (1998).
C. gnidiella is a polyphagous species. In Madeira it attacks a great variety of fruits, including *Citrus medica*, *C. sinensis* (Rutaceae), *Prunus persica* (Rosaceae), *Psidium guajava* (Myrtaceae), *Vitis vinifera* (Vitaceae) and also on flower stems of *Strelitzia reginae* (Musaceae).

179 *Pempeliella lundbladi* (Rebel): REBEL (1940A), REBEL (1940C), ROESLER (1985), CARVALHO (1995), MEYER (1997).

Also in **Deserta Grande**: 1♂, 1♀, Doca, sea level, 21.vii.2000, F. Aguiar & J. Jesus leg., (AFA no. 750); 1♀, same data (ICLAM no. 0664).

180 *Neurotomia coenulentella* (Zeller): MEYER (1997).
N. coenulentella was recently recorded from Madeira by MEYER (1997: 46), based on two specimens from Ponta de São Lourenço. In ZMUC there is a long series from this locality dating back to 1977, and also specimens from **Porto Santo**.
In the first mentioned locality the larva have been found feeding in spun tubes on *Lotus glaucus* (Leguminosae).

181 *Nephopterix angustella* (Hübner): CARVALHO (1995), MEYER (1997).

182 *Ancylosis roscidella* (Eversmann): STAINTON (1859), BETHUNE-BAKER (1894), REBEL (1901), ROESLER (1973), CARVALHO (1995), MEYER (1997).

183 *Ancylosis convexella* (Lederer): MEYER (1997).

184 *Pararotruda nesiotica* (Rebel): BRADLEY (1958), GARDNER & CLASSEY (1960), ROESLER (1973), CARVALHO (1995), MEYER (1997), MEYER ET AL. (1997), VIEIRA (1997), BÁEZ (1998).
The larva feeds in flower heads of *Conyza canadensis* (Compositae).

185 *Plodia interpunctella* (Hübner): STAINTON (1859), BETHUNE-BAKER (1894), COCKERELL (1923A), REBEL (1917), REBEL (1940C), ROESLER (1973), GUIMARÃES & BEIJA (1974), CARVALHO (1984), CARVALHO (1995), MEYER (1997), VIEIRA (1997), VIEIRA (1998).
The larva has been recorded infesting stored pistachios (*Pistacia vera*) (Anacardiaceae).

186 *Ephestia kuehniella* Zeller: BETA NEVES (1954), GUIMARÃES & BEIJA (1974), CARVALHO (1984), CARVALHO (1995), MEYER (1997), MEYER ET AL. (1997), VIEIRA (1997), VIEIRA (1998).

187 *Ephestia elutella* (Hübner): STAINTON (1859), REBEL (1892), REBEL & ROGENHOFER (1894), REBEL (1901), REBEL (1917), REBEL (1940C), ROESLER (1973), GUIMARÃES & BEIJA (1974), CARVALHO (1984), CARVALHO (1995), MEYER (1997), MEYER ET AL. (1997), VIEIRA (1997), VIEIRA (1998).

188 *Cadra cautella* (Walker): ROESLER (1973), GUIMARÃES & BEIJA (1974), CARVALHO (1984), CARVALHO (1995), MEYER (1997), MEYER ET AL. (1997), VIEIRA (1997), VIEIRA (1998).

189 *Cadra figulilella* (Gregson): CARVALHO (1984), CARVALHO (1995), MEYER (1997).

190 *Raphimetopus ablutella* (Zeller): CARVALHO (1995), MEYER (1997).

191 *Ematheudes punctella* (Treitschke): CARVALHO (1995), MEYER (1997).
E. punctella is listed by CARVALHO (1995: 881) from Madeira without exact data and locality. The record is based upon information received from J. D. Bradley (U. K.). MEYER (1997: 48) recorded this species from Madeira on the basis of a specimen from Santo de Serra (Pinker leg. (ZMUC). As some of Pinker´s Microlepidoptera have turned out to be accidentally mislabelled, the presence of *punctella* in Madeira needs confirmation.

192 *Scoparia coecimaculalis* Warren: NUSS ET AL. (1997), NUSS (2005).
The occurence of *S. coecimaculalis* in Madeira is based on a single specimen from Serra de Água in ZMUC, and its presence in this island needs confirmation (compare NUSS ET AL., 1997: 523, 545).

193 *Eudonia angustea* (Curtis): STAINTON (1859), WALKER (1859), REBEL (1892), REBEL & ROGENHOFER (1894), REBEL (1901), REBEL (1917), COCKERELL (1929), KLIMA (1937A), REBEL (1938), REBEL (1940A), REBEL (1940C), REBEL (1940D), BRADLEY (1958), GARDNER & CLASSEY (1960), CARVALHO (1995), MEYER (1997), NUSS ET AL. (1997), VIEIRA (1997), VIEIRA (1998), NUSS (1999), NUSS (2005).

194 *Eudonia decorella* (Stainton): WALKER (1859), STAINTON (1859), BETHUNE-BAKER (1894), REBEL (1917), COCKERELL (1929), KLIMA (1937), REBEL (1940A), REBEL (1940C), REBEL (1940D), CARVALHO (1995), MEYER (1997), NUSS ET AL. (1998), VIEIRA (1997), VIEIRA (1998), NUSS (1999), NUSS (2005).

195 *Eudonia scoriella* (Wollaston): WOLLASTON (1858), STAINTON (1859), BETHUNE-BAKER (1894), REBEL (1901), WARREN (1905), REBEL (1917), COCKERELL (1929), KLIMA (1937A),

REBEL (1940A), REBEL (1940C), CARVALHO (1995), MEYER (1997), NUSS ET AL. (1997), VIEIRA (1997), VIEIRA (1998), NUSS (1999), NUSS (2005).

196 *Eudonia shafferi* Nuss, Karsholt & Meyer: NUSS ET AL. (1997), NUSS (2005).

197 *Eudonia stenota* (Wollaston): WOLLASTON (1858), REBEL (1892), BETHUNE-BAKER (1894), REBEL (1894), REBEL & ROGENHOFER (1894), REBEL (1896), REBEL (1901), REBEL (1911), REBEL (1917), COCKERELL (1929), KLIMA (1937A), REBEL (1940C), GARDNER & CLASSEY (1960), CARVALHO (1995), MEYER (1997), NUSS ET AL. (1997), VIEIRA (1997), VIEIRA (1998), NUSS (1999), NUSS (2005).

198 *Euchromius ocellea* (Haworth): BETHUNE-BAKER (1894), REBEL (1901), REBEL (1917), REBEL (1940C), BLESZYNSKI (1965), CARVALHO (1995), MEYER (1997), MEYER ET AL. (1997), VIEIRA (1997), VIEIRA (1998).

199 *Euchromius cambridgei* (Zeller): New record for Madeira: **Porto Santo**, numerous specimens 23.x.1994, 4 ex 13.-15.iv.1996, O. Karsholt leg. (ZMUC); **Madeira**, Ponta de São Lourenço, 2 ex 14.x.1997, B. Skule leg. ZMUC).

200 *Agriphila atlanticus* (Wollaston): WOLLASTON (1858), REBEL (1892), BETHUNE-BAKER (1894), REBEL & ROGENHOFER (1894), REBEL (1901), REBEL (1911), REBEL (1917), COCKERELL (1923A), REBEL (1940A), REBEL (1940C), CARVALHO (1995), MEYER (1997).

201 *Agriphila trabeatellus* (Herrich-Shaffer): BLESZYNSKI (1965), CARVALHO (1995), MEYER (1997).

202 *Trichophysetis whitei* Rebel: CARVALHO (1995), MEYER (1997).

203 *Aporodes floralis* (Hübner): CARVALHO (1995), MEYER (1997).

204 *Cynaeda dentalis* (Denis & Schiffermüller): MEYER (1997).

205 *Evergestis isatidalis* (Duponchel): CARVALHO (1995), MEYER (1997), GOATER (2005).
E. isatidalis (Duponchel) was listed from Madeira by the above mentioned authors without exact data or locality. The only Madeiran specimen traced by us is from **Porto Santo**, February 1963, R. Uffen leg. (BMNH).

206 *Hellula undalis* (Fabricius): WOLLASTON (1879), BETHUNE-BAKER (1894), REBEL & ROGENHOFER (1894), REBEL (1901), REBEL (1917), NORDMAN & REBEL (1935), REBEL (1940A), REBEL (1940C), CARVALHO (1995), MEYER (1997), VIEIRA (1997).

207 *Udea atlanticum* (Bethune-Baker): BETHUNE-BAKER (1894), REBEL (1901), REBEL (1917), REBEL (1940A), REBEL (1940C), CARVALHO (1995), MEYER (1997), MEYER ET AL. (1997).

208 *Udea ferrugalis* (Hübner): STAINTON (1859), WALKER (1859), WALKER (1875), WOLLASTON (1879), REBEL (1892), REBEL & ROGENHOFER (1894), REBEL (1917), NORDMAN & REBEL

(1935), REBEL (1940C), REBEL (1940D), BRADLEY (1958), GARDNER & CLASSEY (1960), CARVALHO (1995), MEYER (1997), VIEIRA (1997), VIEIRA (1998).
The larva feeds on Cucurbitaceae such as *Cucumis sativus* and *Cucurbita pepo*.

209 *Udea maderensis* (Bethune-Baker): BETHUNE-BAKER (1894), REBEL (1901), REBEL (1917), REBEL (1940A), REBEL (1940C), CARVALHO (1995), MEYER (1997), MEYER ET AL. (1997).
By mistake CARVALHO (1995) listed this species in both *Udea* and *Pyrausta.*
The larva feeds on *Bystropogon punctatus* (Lamiaceae), *Scrophularia racemosa* and *Digitalis purpurea* (Scrophulariaceae).

210 *Udea numeralis* (Hübner): BETHUNE-BAKER (1894), REBEL (1917), CARVALHO (1995), MEYER (1997), VIEIRA (1997).

211 *Pyrausta sanguinalis* (Linnaeus): WALKER (1859), BETHUNE-BAKER (1894), REBEL (1901), REBEL (1917), REBEL (1940A), REBEL (1940C), CARVALHO (1995), MEYER (1997).

212 *Uresiphita gilvata* (Fabricius): WALKER (1859), WOLLASTON (1879), BETHUNE-BAKER (1894), REBEL (1901), REBEL (1917), REBEL (1940A), REBEL (1940C), REBEL (1940D), MARTIN (1941), BRADLEY (1958), GARDNER & CLASSEY (1960), CARVALHO (1995), MEYER (1997).
The larva feeds on *Teline maderensis* (Leguminosae).

213 *Mecyna asinalis* (Hübner): BETHUNE-BAKER (1894), REBEL (1917), REBEL (1940A), REBEL (1940C), CARVALHO (1995), MEYER (1997), MEYER ET AL. (1997), VIEIRA (1997), VIEIRA (1998).

214 *Botyodes diniasalis* (Walker): CARVALHO (1995), MEYER (1997).
The larva lives between leaves of *Salix canariensis* and *Populus* sp. (Salicaceae).

215 *Diasemiopsis ramburialis* (Duponchel): BETHUNE-BAKER (1894), REBEL (1917), REBEL (1940C), REBEL (1940D), CARVALHO (1995), MEYER (1997), VIEIRA (1997), VIEIRA (1998).

216 *Duponchelia fovealis* Zeller: CARVALHO (1995), MEYER (1997).
A recently established species, first found at Funchal Lido in November 1972, N. L. Wolff leg. (ZMUC). Now common in cultivated areas at low altitudes.
We found larvae feeding on *Galium* sp. (Rubiaceae)

217 *Spoladea recurvalis* (Fabricius): CARVALHO (1995), MEYER ET AL. (1997), MEYER (1997), VIEIRA (1997), VIEIRA (1998), VIEIRA (1999).
S. recurvalis (Fabricius) is a recently established species. First found at Caniço in September 1977, N. L. Wolff & O. Lomholdt leg. (ZMUC). Now common in cultivated areas at low altitude.

218 *Hodebertia testalis* (Fabricius): BETHUNE-BAKER (1894), REBEL (1917), REBEL (1940C), CARVALHO (1995), MEYER (1997).
The larva seems to be polyphagous. We bred it from *Salix* sp. (Salicaceae) and *Euphorbia* sp. (Euphorbiaceae).

219 *Palpita vitrealis* (Rossi): REBEL (1892), BETHUNE-BAKER (1894), REBEL & ROGENHOFER (1894), REBEL (1901), REBEL (1917), NORDMAN & REBEL (1935), KLIMA (1939), REBEL (1940C), REBEL (1940D), GARDNER & CLASSEY (1960), WORMS (1964), CARVALHO (1995), MEYER (1997), VIEIRA (1997), VIEIRA (1998).
We found recently larvae of this species infesting the endemic wild olive tree, *Olea maderensis* (Oleaceae).

220 *Diaphania indica* (Saunders): CARVALHO (1995), MEYER (1997).
D. indica was – under the name of *Palpita hyalinata* (Linnaeus) – listed from Madeira by CARVALHO (1995: 581) and MEYER (1997: 51) without exact information. In ZMUC is a long series of *indica*, all from Funchal from the years 1970-1997 and 2001. *D. hyalinata* is a related, American species.

221 *Antigastra catalaunalis* (Duponchel): CARVALHO (1995), MEYER (1997).

222 *Nomophila noctuella* (Denis & Schiffermüller): BETHUNE-BAKER (1894), REBEL (1917), COCKERELL (1923A), REBEL (1940A), REBEL (1940C), REBEL (1940D), CARVALHO (1995), MEYER ET AL. (1997), MEYER (1997), VIEIRA (1997), VIEIRA (1998).
Also in **Deserta Grande**: 2♂, Doca, at sea level, 21.vii.2000, F. Aguiar & J. Jesus leg., (ICLAM no. 0662; AFA no. 748).

223 *Psara bipunctalis* (Fabricius): BRADLEY (1958), GARDNER & CLASSEY (1960), CARVALHO (1995), MEYER (1997).
The larva has been found feeding on *Achyranthes aspera* (Amaranthaceae) and *Parietaria judaica* (Urticaceae).

224 *Herpetogramma licarsisalis* (Walker): CARVALHO (1995), MEYER (1997), SAMMUT (2005).
H. licarsisalis – mistakenly identified as *H. aegrotalis* (Zeller, 1852), which is currently placed in the genus *Pleuroptya* Meyrick, 1890 – was listed from Madeira by CARVALHO (1995: 581) and MEYER (1997: 51).
Since September 1997 it has been detected in large numbers, attacking the lawn, *Poa* spp. (Gramineae) of many gardens in Funchal.

225 *Agrius convolvuli* (Linnaeus): BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), REBEL (1917), COCKERELL (1923B), NORDMAN & REBEL (1935), REBEL (1940B), REBEL (1940C), REBEL (1940D), MARTIN (1941), GARDNER & CLASSEY (1960), LEESTMANS (1975), CARVALHO (1981), CARVALHO (1983), MEYER & HELLERS (1990), VIEIRA (1997), VIEIRA (1998), VIEIRA (1999), SZIEMER (2000), WEIDLICH (2001).
Also found in **Deserta Grande**, 1 ex 23.ix.1993; 1 ex. 25.ix.1996, Isamberto Silva leg. (ISI).
The larva feeds on Convolvulaceae, mainly *Convolvulus and Ipomoea* spp. including *I. batatas* (the sweet potato), *I. acuminata* and *I. purpurea*. VIEIRA (1997) observed larvae feeding on *I. batatas* and *C. arvensis* in Porto Santo.

226 *Acherontia atropos* (Linnaeus): BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], REBEL (1917), REBEL (1940C), REBEL (1940D), GARDNER & CLASSEY (1960), LEESTMANS (1975), CARVALHO (1981), CARVALHO (1983), BÁEZ (1993), VIEIRA (1997), VIEIRA (1998), MARTIN ET AL. (2000), SZIEMER (2000), WEIDLICH (2001).
The larva feeds on *Solanaceae*, including *Datura mollis*, *Solanum tuberosum*, *Nicotiana glauca*. Eggs parasitised by *Trichogramma* spp. were recorded on *Solanum linnaeanum* and *S. melongena*.

227 *Macroglossum stellatarum* (Linnaeus): BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], REBEL (1917), COCKERELL (1923B), REBEL (1940B), REBEL (1940C), REBEL (1940D), GARDNER & CLASSEY (1960), LEESTMANS (1975), ROUGEOT & VIETTE (1980), CARVALHO (1981), FREINA & WITT (1987), MEYER & HELLERS (1990), VIEIRA (1997), VIEIRA (1998), MARTIN ET AL. (2000), SZIEMER (2000), ARECHAVALETA ET AL. (2001), WEIDLICH (2001).
The larva feeds on G*alium aparine* (Rubiaceae).

228 *Hyles tithymali* (Boisduval): BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), SOUTH (1894), STAUDINGER & REBEL (1901), KIRBY (1903), JORDAN (1911-12), REBEL (1917), REBEL (1940C), GARDNER & CLASSEY (1960), WORMS (1964), ROUGEOT & VIETTE (1978), ROUGEOT & VIETTE (1980), CARVALHO (1981), CARVALHO (1983), PITTAWAY (1983), FREINA & WITT (1987), MEERMAN (1988), HEYDEN (1989), BÁEZ (1993), MEERMAN (1993), DANNER ET AL. (1998), VIEIRA (1999) KITCHING & CADIOU (2000), SZIEMER (2000), WEIDLICH (2001), HUNDSDOERFER ET AL. (2005A, 2005B, 2005C).
DE FREINA (1991) described the Madeira Islands *H. tithymali* population as an endemic subspecies – ssp. *gecki*. DANNER ET AL. (1998: 255-258) consider spp. *gecki* as a distinct species. However, their arguments are disputed by KITCHING & CADIOU (2000: 117-118), and more recently by HUNDSDOERFER ET AL. (2005A, 2005B) who, based on DNA studies, consider that the Madeiran population is not genetically different from those of *H. tithymali* (s.str.) in the Canary Islands, which is also the opinion of the leading specialist, Ian Kitching of the BMNH (pers. comm.). Here we follow the latter authors and regard the Madeiran population as belonging to *H. tithymali* (s. str.).
Also found on **Deserta Grande**, 1 ex 15.vi.1995, I. Silva leg. (ISI).
The larva feeds on several Euphorbiaceae, including the endemic *Euphorbia piscatoria*. VIEIRA (1997) observed larvae feeding on *E. terracina* and *Mercurialis annua* in Porto Santo.

229 *Hyles livornica* (Esper): BETHUNE-BAKER (1891), SOUTH (1894), REBEL (1917), COCKERELL (1923B), NORDMAN & REBEL (1935), REBEL (1940C), GARDNER & CLASSEY (1960), LEESTMANS (1975), ROUGEOT & VIETTE (1978), ROUGEOT & VIETTE (1980), CARVALHO (1981), OROMÍ (1983), FREINA & WITT (1987), BÁEZ (1993), SZIEMER (2000), ARECHAVALETA ET AL. (2001).
H. livornica used to be listed as a subspecies of the American *H. lineata* (Fabricius), but it is now considered a distinct species (PITTAWAY, 1993: 154). Also found on **Deserta Grande**, 1 ex. 25.ix.1993; 1 ex. 24.viii.1996, I. Silva leg. (ISI).
In Madeira the larva has been found on leaves of *Vitis* spp. (Vitaceae).

230 *Hippotion celerio* (Linnaeus): WOLLASTON (1879), REBEL & ROGENHOFER (1894), LEESTMANS (1975), ROUGEOT & VIETTE (1978), ROUGEOT & VIETTE (1980), FREINA & WITT (1987), VIEIRA (1997), VIEIRA (1998), VIEIRA (1999), WEIDLICH (2001).
Also found on **Deserta Grande**, 1 ex. 25.ix.1993; 1 ex. 24.viii.1996, Isamberto Silva leg. (ISI).
The larva feeds on the leaves of *Vitis* spp. (Vitaceae).

231 *Pieris brassicae* (Linnaeus): FELDER (1862), BUTLER (1886), BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), SOUTH (1894), TUTT (1896), STAUDINGER & REBEL (1901), KIRBY (1903), RÖBER (1907), REBEL (1911), VERITY (1905-1911), REBEL (1917), COCKERELL (1923A), TALBOT (1932-35), REBEL (1940B), REBEL (1940C), REBEL (1940D), LEDERER (1941), MARTIN (1941), GARDNER & CLASSEY (1960), BERNARDI (1961), WORMS (1964), HIGGINS & RILEY (1970), MANLEY & ALCARD (1970), FONTENEAU (1971), HIGGINS & RILEY (1971), PINKER (1971), SCHMIDT-KOEHL (1971), KUDRNA (1973), HIGGINS (1975), LEESTMANS (1975), OEHMIG (1977), OEHMIG (1979), HIGGINS & RILEY (1980), HEATH (1981), SWASH & ASKEW (1982), GRAHAM (1983), HIGGINS & HARGREAVES (1983), LACE & JONES (1984), SILVA & MENESES (1984), GRAHAM (1986B), KUDRNA (1986), SOUSA (1986), JONES ET AL. (1987), KARSHOLT (1988), PEREIRA (1989), BALLETTO ET AL. (1990), GONÇALVES & NUNES (1990), SØRENSEN (1990), FERNÁNDEZ-RUBIO (1991), MEYER (1991A), TENNENT (1992), BÁEZ (1993), MEYER (1993), OWEN & SMITH (1993B), BALLETTO (1995), HESSELBARTH ET AL. (1995), MEYER (1995A), MEYER (1995B), MEYER (1996), TOLMAN & LEWINGTON (1997), WAKEHAM-DAWSON & WARREN (1998A), WAKEHAM-DAWSON & WARREN (1998B), SALMON & WAKEHAM-DAWSON (1999), SOUSA (1999), SWAAY & WARREN (1999), KARSHOLT (2000), WAKEHAM-DAWSON ET AL. (2000), SZIEMER (2000), WAKEHAM-DAWSON ET AL. (2001), WEIDLICH (2001), WAKEHAM-DAWSON ET AL. (2002A), GARDINER (2003), MEYER (2003), WAKEHAM-DAWSON ET AL. (2004), TENNENT (2005).
P. brassicae was represented in Madeira by the endemic subspecies *wollastoni* (Butler, 1886). Some years after the introduction in the mid-seventies of the congeneric *P. rapae*, *brassicae* ssp. w*ollastoni* disappeared, and unfortunately it has now probably become extinct. The last specimens known to us were collected on 7.v.1977 (3 males at Encumeada and Paul da Serra, N. L. Wolff leg. (ZMUC). GARDINER (2003A) offers as a possible explanation for the extinction of *P. b. wollastoni*, the introduction by *P. rapae* of a different strain of the granulosis virus disease of *Pieris* species against which *P. b. wollastoni* may have had no resistance, even if it were already harbouring its own local strain of the virus.
We collected larvae in the 1970es feeding on common cabbages, *Brassica oleracea* (Cruciferae) in the Funchal area.

232 *Pieris rapae* (Linnaeus): REBEL & ROGENHOFER (1894), REBEL (1917), LEDERER (1941), LEESTMANS (1975), WOLFF (1975), HIGGINS (1977), OEHMIG (1977), HIGGINS & RILEY (1980), QUARTAU (1981), SWASH & ASKEW (1982), CARVALHO (1983), HIGGINS & HARGREAVES (1983), LACE & JONES (1984), GRAHAM (1986B), OWEN ET AL. (1986), SOUSA (1986), JONES ET AL. (1987), KARSHOLT (1988), BALLETTO ET AL. (1990), MEYER & HELLERS (1990), SØRENSEN (1990), FERNÁNDEZ-RUBIO (1991), MEYER (1991A), GARCIA-BECERRA ET AL. (1992), JONES & LACE (1992), BÁEZ (1993), MEYER (1993), OWEN & SMITH (1993B), OWEN & SMITH (1994), BALLETTO (1995), TOLMAN & LEWINGTON (1997), BRUNTON & HURST (1998), WAKEHAM-DAWSON (1998), WAKEHAM-DAWSON & WARREN (1998A), WAKEHAM-DAWSON & WARREN (1998B), SALMON & WAKEHAM-DAWSON (1999), SOUSA (1999), SWAAY & WARREN (1999),

VIEIRA (1999), KARSHOLT (2000), ROINE (2000), SZIEMER (2000), WAKEHAM-DAWSON ET AL. (2000), WAKEHAM-DAWSON ET AL. (2001), WEIDLICH (2001), WAKEHAM-DAWSON ET AL. (2002B), WAKEHAM-DAWSON & AGUIAR (2003), GARDINER (2003A), WAKEHAM-DAWSON ET AL. (2004).
P. rapae is a recent introduction on the island (WOLFF, 1975) and has become one of the most abundant butterfly species.
The larva is a pest of *Brassica oleracea* (cabbages). According to WAKEHAM-DAWSON (1998) *P. rapae* oviposits on *Coronopus didymus* and probably feeds on this and other Cruciferae. SALMON & WAKEHAM-DAWSON (1999) observed a female of *rapae* ovipositing on *Tropaeolum majus* (Tropaeolaceae).

233 *Colias croceus* (Fourcroy): FELDER (1862), BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), SOUTH (1894), RÖBER (1907), VERITY (1905-1911), REBEL (1917), COCKERELL (1923B), TALBOT (1932-35), NORDMAN & REBEL (1935), REBEL (1940B), REBEL (1940C), MARTIN (1941), GARDNER & CLASSEY (1960), BERNARDI (1961), WORMS (1964), HIGGINS & RILEY (1970), MANLEY & ALCARD (1970), FONTENEAU (1971), HIGGINS & RILEY (1971), LEESTMANS (1975), OEHMIG (1977), OEHMIG (1977), HIGGINS & RILEY (1980), SWASH & ASKEW (1982), CARVALHO (1983), GRAHAM (1983), HIGGINS & RILEY (1983), LACE & JONES (1984), SILVA & MENEZES (1984), SOUSA (1986), JONES ET AL. (1987), GRAHAM (1988), KARSHOLT (1988), PEREIRA (1989), GONÇALVES & NUNES (1990), MEYER & HELLERS (1990), SØRENSEN (1990), FERNÁNDEZ-RUBIO (1991), GARCIA-BECERRA ET AL. (1992), JONES & LACE (1992), BÁEZ (1993), MEYER (1993), BALLETTO (1995), TOLMAN & LEWINGTON (1997), VIEIRA (1997), VIEIRA (1998), WAKEHAM-DAWSON (1998), WAKEHAM-DAWSON & WARREN (1998A), WAKEHAM-DAWSON & WARREN (1998B), SALMON & WAKEHAM-DAWSON (1999), SOUSA (1999), VIEIRA (1999), ROINE (2000), SZIEMER (2000), WAKEHAM-DAWSON ET AL. (2000), WAKEHAM-DAWSON ET AL. (2001), WEIDLICH (2001), WAKEHAM-DAWSON ET AL. (2002B), WAKEHAM-DAWSON & AGUIAR (2003), WAKEHAM-DAWSON ET AL. (2004), TENNENT (2005).
C. croceus is a very common species in Madeira. SALMON & WAKEHAM-DAWSON (1999) listed several infrasubspecific forms observed by them.
The larva feeds on several species of Leguminosae, including *Trifolium repens* and *Medicago* spp. A form in which the yellow on the upper side of the wings is replaced by white (f. *helice* (Hübner)) is rather frequently seen, mainly on Porto Santo.

234 *Gonepteryx maderensis* Felder: FELDER (1862), BETHUNE-BAKER (1891), REBEL (1894), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), RÖBER (1907), VERITY (1905-1911), REBEL (1911), REBEL (1917), COCKERELL (1923A), TALBOT (1932-35), REBEL (1940B), REBEL (1940C), VERITY (1947-1950), GARDNER & CLASSEY (1960), BERNARDI (1961), WORMS (1964), HIGGINS & RILEY (1970), MANLEY & ALCARD (1970), FONTENEAU (1971), HIGGINS & RILEY (1971), SCHMIDT-KOEHL (1971), HIGGINS (1975), KUDRNA (1975A), LEESTMANS (1975), OEHMIG (1977), OEHMIG (1977), HIGGINS & RILEY (1980), HEATH (1981), SWASH & ASKEW (1982), HIGGINS & HARGREAVES (1983), HIGGINS & RILEY (1983), LACE & JONES (1984), GRAHAM (1986), KUDRNA (1986), SOUSA (1986), JONES ET AL. (1987), KARSHOLT (1988), PEREIRA (1989), GONÇALVES & NUNES (1990), SØRENSEN (1990), FERNÁNDEZ-RUBIO (1991), JONES & LACE (1992), BÁEZ (1993), MEYER (1993), OWEN & SMITH (1993B), BALLETTO (1995), HESSELBARTH ET AL. (1995), MEYER (1995A), MEYER (1995B), BRUNTON ET AL. (1996), DENNIS (1997), TOLMAN & LEWINGTON (1997), BRUNTON & HURST

(1998), WAKEHAM-DAWSON (1998), WAKEHAM-DAWSON & WARREN (1998A), WAKEHAM-DAWSON & WARREN (1998B), SALMON & WAKEHAM-DAWSON (1999), SOUSA (1999), ROINE (2000), SZIEMER (2000), WAKEHAM-DAWSON ET AL. (2000), WAKEHAM-DAWSON ET AL. (2001), WEIDLICH (2001), WAKEHAM-DAWSON ET AL. (2002A), WAKEHAM-DAWSON ET AL. (2002B), WAKEHAM-DAWSON & AGUIAR (2003), MEYER (2003), WAKEHAM-DAWSON ET AL. (2004), TENNENT (2005).

The Madeiran Brimstone is a beautiful endemic species which, according to SALMON & WALKEHAM-DAWSON, (1999: 78): "… is probably widespread but not common in March to July in areas of Laurisilva between 400-1000 m".

Earlier regarded as subspecies of *G. cleopatra* (Linnaeus), but presently considered a good species based on UV-wing reflectiveness and genetic studies (BRUNTON ET AL., 1996; BRUNTON & HURST, 1998).

The larva feeds on the Madeiran buckthorn - *Rhamnus glandulosa* (Rhamnaceae).

235 *Catopsilia florella* (Fabricius): AGUIAR (2000), SZIEMER (2000), WAKEHAM-DAWSON ET AL. (2000), AGUIAR & WAKEHAM-DAWSON (2001), WAKEHAM-DAWSON ET AL. (2001), HALL & RUSSELL (2001), WAKEHAM-DAWSON ET AL. (2002B), WAKEHAM-DAWSON & AGUIAR (2003), WAKEHAM-DAWSON ET AL. (2004), TENNENT (2005).

C. florella was first recorded in the summer of 1999 (AGUIAR, 2000). During the following months, eggs, larvae and adults were easy to observe wherever its host plant, *Senna didymobotrya* (Caesalpinaceae) was present (AGUIAR & WAKEHAM-DAWSON, 2000). The following year, after an abnormally cold and rainy spring, its numbers decreased, placing doubts on its capacity to become a resident species.

236 *Lycaena phlaeas* (Linnaeus): FELDER (1862), BETHUNE-BAKER (1891), REBEL (1894), REBEL & ROGENHOFER (1894), SOUTH (1894), STAUDINGER & REBEL (1901), SEITZ (1908-1909), REBEL (1917), COCKERELL (1923A), FORD (1924), REBEL (1938), REBEL (1940B), REBEL (1940C), MARTIN (1941), GARDNER & CLASSEY (1960), BERNARDI (1961), WORMS (1964), MANLEY & ALCARD (1970), FONTENEAU (1971), HIGGINS & RILEY (1971), SCHMIDT-KOEHL (1971), HIGGINS (1975), LEESTMANS (1975), OEHMIG (1977), OEHMIG (1977), HIGGINS & RILEY (1980), SWASH & ASKEW (1982), HIGGINS & HARGREAVES (1983), HIGGINS & RILEY (1983), LACE & JONES (1984), KUDRNA (1986), SOUSA (1986), JONES ET AL. (1987), KARSHOLT (1988), MEYER & HELLERS (1990), FERNÁNDEZ-RUBIO (1991), GARCIA-BECERRA ET AL. (1992), TENNENT (1992), BÁEZ (1993), MEYER (1993), OWEN & SMITH (1993B), MEYER (1995A), MEYER (1995B), TOLMAN & LEWINGTON (1997), WAKEHAM-DAWSON (1998), WAKEHAM-DAWSON & WARREN (1998A), WAKEHAM-DAWSON & WARREN (1998B), SALMON & WAKEHAM-DAWSON (1999), SOUSA (1999), SZIEMER (2000), WAKEHAM-DAWSON ET AL. (2000), WAKEHAM-DAWSON ET AL. (2001), WEIDLICH (2001), WAKEHAM-DAWSON ET AL. (2002A) , WAKEHAM-DAWSON ET AL. (2002B), WAKEHAM-DAWSON & AGUIAR (2003), WAKEHAM-DAWSON ET AL. (2004), TENNENT (2005).

L. phlaeas is represented in Madeira by the endemic ssp. *phlaeoides* (Staudinger, 1901). This is smaller and darker than the nominal subspecies, but specimens with the characteristics of the latter can also be found in the islands. SALMON & WAKEHAM-DAWSON (1999) gave a list of infrasubspecific forms observed by them in Madeira.

WAKEHAM-DAWSON & AGUIAR (2003), detected for the first time *L. p. phlaeoides* laying eggs on *Rumex maderensis*, an endemic Polygonaceae, which is until now the only known host plant.

237 *Lampides boeticus* (Linnaeus): FELDER (1862), WOLLASTON (1879), BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), REBEL (1917), COCKERELL (1923A), REBEL (1940B), REBEL (1940C), REBEL (1940D), MARTIN (1941), PEREIRA (1947), GARDNER & CLASSEY (1960), BERNARDI (1961), WORMS (1964), MANLEY & ALCARD (1970), FONTENEAU (1971), HIGGINS & RILEY (1971), LEESTMANS (1975), OEHMIG (1977), OEHMIG (1977), SWASH & ASKEW (1982), CARVALHO (1983), GRAHAM (1983), HIGGINS & HARGREAVES (1983), LACE & JONES (1984), SILVA & MENESES (1984), SOUSA (1986), JONES ET AL. (1987), KARSHOLT (1988), BALLETTO ET AL. (1990), MEYER & HELLERS (1990), SØRENSEN (1990), FERNÁNDEZ-RUBIO (1991), GARCIA-BECERRA ET AL. (1992), JONES & LACE (1992), BÁEZ (1993), MEYER (1993), OWEN & SMITH (1993B), BALLETTO (1995), VIEIRA (1997), VIEIRA (1998), WAKEHAM-DAWSON (1998), WAKEHAM-DAWSON & WARREN (1998A), WAKEHAM-DAWSON & WARREN (1998B), SALMON & WAKEHAM-DAWSON (1999), SOUSA (1999), VIEIRA (1999), SZIEMER (2000), WAKEHAM-DAWSON ET AL. (2000), WAKEHAM-DAWSON ET AL. (2001), HALL & RUSSELL (2001), WEIDLICH (2001), WAKEHAM-DAWSON ET AL. (2002B), WAKEHAM-DAWSON & AGUIAR (2003), WAKEHAM-DAWSON ET AL. (2004), TENNENT (2005).
In Madeira the larva feeds on *Lupinus luteus* (Leguminosae) and, according to WAKEHAM-DAWSON (1998), also on *Cytisus scoparius* (Leguminosae). Recently females of this species were observed laying eggs on floral buds of *Sesbania punicea* (Leguminosae) and *Senna didymobotrya* (Caesalpinaceae). Moreover WAKEHAM-DAWSON ET AL. (2002B) observed a female *L. boeticus* laying eggs on a *Teline maderensis* (Leguminosae) bush, and WAKEHAM-DAWSON & AGUIAR (2003) observed also egg laying on *Lotus glaucus* (Leguminosae) in Porto Santo Island.

238 *Leptotes pirithous* (Linnaeus): HALL & RUSSELL (2001), AGUIAR ET AL. (2002), WAKEHAM-DAWSON ET AL. (2002B), WAKEHAM-DAWSON & AGUIAR (2003), WAKEHAM-DAWSON ET AL. (2004), TENNENT (2005).
This is the newest addition to the butterfly fauna of Madeira. It was probably introduced from the Canary Islands where it was detected for the first time in 1998.
HALL & RUSSELL (2001) observed females laying eggs on *Phaseolus* sp., *Teline maderensis* (Leguminosae) and *Plumbago capensis* (Plumbaginaceae).

239 *Issoria lathonia* (Linnaeus): BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], REBEL (1917), REBEL (1940B), REBEL (1940C), MARTIN (1941), GARDNER & CLASSEY (1960), MANLEY & ALCARD (1970), FONTENEAU (1971), HIGGINS & RILEY (1971), LEESTMANS (1975), OEHMIG (1977), OEHMIG (1977), SWASH & ASKEW (1982), LACE & JONES (1984), SOUSA (1986), JONES ET AL. (1987), KARSHOLT (1988), MEYER & HELLERS (1990), SHREEVE & SMITH (1990), FERNÁNDEZ-RUBIO (1991), BÁEZ (1993), MEYER (1993), OWEN & SMITH (1993B), BALLETTO (1995), TOLMAN & LEWINGTON (1997), WAKEHAM-DAWSON & WARREN (1998B), SALMON & WAKEHAM-DAWSON (1999), SOUSA (1999), ROINE (2000), SZIEMER (2000), WAKEHAM-DAWSON ET AL. (2001), WEIDLICH (2001), TENNENT (2005).

In a recent paper (TENNENT, 2005: 134-135) treat this species as "ancient record, requiring confirmation". It is unknown to us if *I. lathonia* breed in Madeira, but in some years it is not uncommon there.

240 *Vanessa atalanta* (Linnaeus): BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), REBEL (1917), REBEL (1940C), REBEL (1940D), MARTIN (1941), GARDNER & CLASSEY (1960), BERNARDI (1961), WORMS (1964), MANLEY & ALCARD (1970), FONTENEAU (1971), HIGGINS & RILEY (1971), SCHMIDT-KOEHL (1971), LEESTMANS (1975), OEHMIG (1977), SWASH & ASKEW (1982), HIGGINS & HARGREAVES (1983), LACE & JONES (1984), SILVA & MENESES (1984), JONES ET AL. (1987), KARSHOLT (1988), PEREIRA (1989), GONÇALVES & NUNES (1990), MEYER & HELLERS (1990), SØRENSEN (1990), FERNÁNDEZ-RUBIO (1991), BÁEZ (1993), MEYER (1993), OWEN & SMITH (1993B), BALLETTO (1995), VIEIRA (1997), VIEIRA (1998), WAKEHAM-DAWSON (1998), WAKEHAM-DAWSON & WARREN (1998A), WAKEHAM-DAWSON & WARREN (1998B), SALMON & WAKEHAM-DAWSON (1999), SOUSA (1999), SZIEMER (2000), WAKEHAM-DAWSON ET AL. (2000), WAKEHAM-DAWSON ET AL. (2001), WEIDLICH (2001), WAKEHAM-DAWSON ET AL. (2002B), WAKEHAM-DAWSON ET AL. (2004), TENNENT (2005).
The larva feeds on *Urtica membranacea* and *Parietaria judaica* (Urticaceae).

241 *Vanessa cardui* (Linnaeus): WOLLASTON (1879), BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], BARING & OGILVIE-GRANT (1895), GARRETA (1911), REBEL (1917), COCKERELL (1923A), COCKERELL (1923B), REBEL (1940B), REBEL (1940C), REBEL (1940D), MARTIN (1941), GARDNER & CLASSEY (1960), BERNARDI (1961), MANLEY & ALCARD (1970), FONTENEAU (1971), HIGGINS & RILEY (1971), LEESTMANS (1975), OROMÍ ET AL. (1976), OEHMIG (1977), OEHMIG (1977), PINKER & BACALLADO (1978), QUARTAU (1981), SWASH & ASKEW (1982), CARVALHO (1983), HIGGINS & HARGREAVES (1983), OROMÍ (1983), LACE & JONES (1984), SILVA & MENESES (1984), SOUSA (1986), JONES ET AL. (1987), OWEN (1987), KARSHOLT (1988), OWEN (1989), PEREIRA (1989), GONÇALVES & NUNES (1990), MEYER & HELLERS (1990), FERNÁNDEZ-RUBIO (1991), OWEN & WIEMERS (1992), BÁEZ (1993), MEYER (1993), OWEN & SMITH (1993B), BALLETTO (1995), TOLMAN & LEWINGTON (1997), VIEIRA (1997), VIEIRA (1998), WAKEHAM-DAWSON (1998), WAKEHAM-DAWSON & WARREN (1998B), SALMON & WAKEHAM-DAWSON (1999), SOUSA (1999), VIEIRA (1999), ROINE (2000), SZIEMER (2000), WAKEHAM-DAWSON ET AL. (2000), ARECHAVALETA ET AL. (2001), WAKEHAM-DAWSON ET AL. (2001), WEIDLICH (2001), WAKEHAM-DAWSON ET AL. (2002B), WAKEHAM-DAWSON ET AL. (2004), TENNENT (2005).
The larva feeds on *Arctium minus*, *Artemisia vulgaris*, *Cirsium vulgare*, *Cynara cardunculus ferocissima* and *Galactites tomentosa* [Compositae]; *Malva parviflora* and *M. sylvestris* [Malvaceae].

242 *Vanessa vulcania* Godart: FELDER (1862), BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), KIRBY (1903), SEITZ & STICHEL (1908), REBEL (1911), REBEL (1917), COCKERELL (1923A), NORDMAN & REBEL (1935), REBEL (1940B), REBEL (1940C), MARTIN (1941), GARDNER & CLASSEY (1960), BERNARDI (1961), WORMS (1964), KOSTROWICKI (1969), HIGGINS & RILEY (1970), MANLEY & ALCARD (1970), FIELD (1971), FONTENEAU (1971), HIGGINS & RILEY (1971), SCHMIDT-KOEHL (1971), HIGGINS

(1975), LEESTMANS (1975), OEHMIG (1977), LEESTMANS (1978), HIGGINS & RILEY (1980), HEATH (1981), REINHARDT & GERISCH (1982), SWASH & ASKEW (1982), CARVALHO (1983), GRAHAM (1983), HIGGINS & HARGREAVES (1983), HIGGINS & RILEY (1983), LACE & JONES (1984), SILVA & MENESES (1984), KUDRNA (1986), SOUSA (1986), JONES ET AL. (1987), KARSHOLT (1988), PEREIRA (1989), VIDAL (1989), BALLETTO ET AL. (1990), GONÇALVES & NUNES (1990), MEYER & HELLERS (1990), SØRENSEN (1990), FERNÁNDEZ-RUBIO (1991), D'ABRERA (1992), GARCIA-BECERRA ET AL. (1992), SHAPIRO (1992A), SHAPIRO (1992B), BÁEZ (1993), MEYER (1993), OWEN & SMITH (1993A), OWEN & SMITH (1993B), BALLETTO (1995), MEYER (1995A), MEYER (1995B), TOLMAN & LEWINGTON (1997), BÁEZ (1998), WAKEHAM-DAWSON & WARREN (1998A), WAKEHAM-DAWSON & WARREN (1998B), SALMON & WAKEHAM-DAWSON (1999), SOUSA (1999), VIEIRA (1999), SZIEMER (2000), WAKEHAM-DAWSON ET AL. (2000), WAKEHAM-DAWSON ET AL. (2001), WEIDLICH (2001), WAKEHAM-DAWSON ET AL. (2002A), WAKEHAM-DAWSON & AGUIAR (2003), WAKEHAM-DAWSON ET AL. (2004), TENNENT (2005).

This species is closely related to the oriental *V. indica* (Herbst, 1794) (SHAPIRO, 1992A, B), but based on morphological differences published by LEESTMANS (1978) it is here regarded as distinct from the latter. These two authors agree that the occurrence of this butterfly in Macaronesia is not, as sometimes postulated, a result of introduction by trade.

The larva feeds on *Urtica membranacea* and *U. morifolia* (Urticaceae). In the MMF is a specimen labeled: "14.3.85, **Selvagem Grande**, Near Cisterna Nova, M. Biscoito leg".

243 *Hypolimnas misippus* (Linnaeus): COCKERELL (1923A), REBEL (1938), REBEL (1940C), GARDNER & CLASSEY (1960), BERNARDI (1961), FONTENEAU (1971), HIGGINS & RILEY (1971), SCHMIDT-KOEHL (1971), LEESTMANS (1975), OEHMIG (1977), SWASH & ASKEW (1982), LACE & JONES (1984), SOUSA (1986), KARSHOLT (1988), FERNÁNDEZ-RUBIO (1991), TENNENT (1992), BÁEZ (1993), MEYER (1993), OWEN & SMITH (1993B), BALLETTO (1995), VIEIRA (1997), VIEIRA (1998), WAKEHAM-DAWSON & WARREN (1998B), SALMON & WAKEHAM-DAWSON (1999), SOUSA (1999), SZIEMER (2000), WAKEHAM-DAWSON ET AL. (2001), WEIDLICH (2001), TENNENT (2005).

There was at least one male specimen of this Afro-tropical migrant in the collection of the "Museu do Seminário" (Malcolm Burr, according to COCKERELL (1923: 244)). A photo of a drawer where this specimen was stored apeared in PEREIRA (1989: 450). There is another male in the collection of the MMF, labelled: Funchal, Quinta da Fé, 12.xi.1950. A further male was found recently in the private collection of Isamberto Silva in Funchal. It was collected in **Desertas Is**., Ilhéu Chão, 20.xi.1995, leg. I. Silva (ISI). Although the records extend over almost a century, only males seem to have been collected and this species never established on the Madeira Islands.

244 *Pararge aegeria* (Linnaeus): HIGGINS (1975), HIGGINS (1977), OEHMIG (1977), OEHMIG (1977), OEHMIG (1979), HIGGINS & RILEY (1980), OEHMIG (1982), SWASH & ASKEW (1982), HIGGINS & HARGREAVES (1983), OEHMIG (1983), LACE & JONES (1984), OWEN ET AL. (1986), SOUSA (1986), JONES ET AL. (1987), KARSHOLT (1988), BALLETTO ET AL. (1990), MEYER & HELLERS (1990), SØRENSEN (1990), FERNÁNDEZ-RUBIO (1991), JONES & LACE (1992), SHREEVE & SMITH (1992A), SHREEVE & SMITH (1992B), BÁEZ (1993), MEYER (1993), NYLIN ET AL. (1993), GOTTHARD ET AL. (1994), NYLIN ET AL. (1994), OWEN & SMITH (1993B), OWEN & SMITH (1994), BALLETTO (1995), FERNÁNDEZ-RUBIO & GARCIA-BARROS (1995), HESSELBARTH ET AL.

(1995), NYLIN ET AL. (1995), TOLMAN & LEWINGTON (1997), BRUNTON & HURST (1998), JONES ET AL. (1998), WAKEHAM-DAWSON (1998), WAKEHAM-DAWSON & WARREN (1998A), WAKEHAM-DAWSON & WARREN (1998B), BOZANO (1999), GOTTHARD ET AL. (1999), SALMON & WAKEHAM-DAWSON (1999), SOUSA (1999), VIEIRA (1999), GOTTHARD ET AL. (2000), KARSHOLT (2000), SZIEMER (2000), WAKEHAM-DAWSON ET AL. (2000), WAKEHAM-DAWSON ET AL. (2001), WEIDLICH (2001), WAKEHAM-DAWSON ET AL. (2002B), WINDIG & NYLIN (2002), WAKEHAM-DAWSON & AGUIAR (2003), GARDINER (2003A), WAKEHAM-DAWSON ET AL. (2004), TENNENT (2005).

P. aegeria was introduced in the mid-seventies (first specimen was probably collected at Monte, 4.xi.1975, H. J. Henriksen leg. (ZMUC). This species is today one of the more common butterflies in Madeira.

The larva feeds on several Gramineae, including *Brachypodium sylvaticum*.

245 *Pararge xiphia* (Fabricius): FABRICIUS (1775), HERRICH-SCHÄFFER (1843-1846), LANG (1884), BETHUNE-BAKER (1891), REBEL (1894), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), KIRBY (1903), SEITZ (1907-1908), REBEL (1911), REBEL (1917), COCKERELL (1923A), GAEDE (1931-1935), REBEL (1940C), REBEL (1940D), MARTIN (1941), VERITY (1953), GARDNER & CLASSEY (1960), BERNARDI (1961), WORMS (1964), ZIMSEN (1964), HIGGINS & RILEY (1970), MANLEY & ALCARD (1970), FONTENEAU (1971), HIGGINS & RILEY (1971), SCHMIDT-KOEHL (1971), HIGGINS (1975), LEESTMANS (1975), HIGGINS (1977), OEHMIG (1977), OEHMIG (1977), OEHMIG (1979), HIGGINS & RILEY (1980), SWASH & ASKEW (1982), GRAHAM (1983), HIGGINS & HARGREAVES (1983), HIGGINS & RILEY (1983), LACE & JONES (1984), OWEN ET AL. (1986), KUDRNA (1986), SOUSA (1986), JONES ET AL. (1987), GRAHAM (1988), KARSHOLT (1988), PEREIRA (1989), BALLETTO ET AL. (1990), D'ABRERA (1990), GONÇALVES & NUNES (1990), MEYER & HELLERS (1990), FERNÁNDEZ-RUBIO (1991), JONES & LACE (1992), SHREEVE & SMITH (1992A), SHREEVE & SMITH (1992B), BÁEZ (1993), MEYER (1993), NYLIN ET AL. (1993), GOTTHARD ET AL. (1994), OWEN & SMITH (1993B), OWEN & SMITH (1994), BALLETTO (1995), FERNÁNDEZ-RUBIO & GARCIA-BARROS (1995), MEYER (1995A), MEYER (1995B), NYLIN ET AL. (1995), DENNIS (1997), TOLMAN & LEWINGTON (1997), JONES ET AL. (1998), WAKEHAM-DAWSON (1998), WAKEHAM-DAWSON & WARREN (1998A), WAKEHAM-DAWSON & WARREN (1998B), BOZANO (1999), SALMON & WAKEHAM-DAWSON (1999), SOUSA (1999), VAN SWAAY & WARREN (1999), KARSHOLT (2000), ROINE (2000), SZIEMER (2000), WAKEHAM-DAWSON ET AL. (2000), WAKEHAM-DAWSON ET AL. (2001), WEIDLICH (2001), WAKEHAM-DAWSON ET AL. (2002A), WAKEHAM-DAWSON ET AL. (2002B), WAKEHAM-DAWSON & AGUIAR (2003), GARDINER (2003A), WAKEHAM-DAWSON ET AL. (2004), TENNENT (2005).

The larva of this lovely endemic species feeds on several Gramineae including *Agrostis gigantea*, *Brachypodium sylvaticum* and *Holcus lanatus* (OWEN ET AL., 1986). Recently we collected several larvae feeding on *Festuca donax,* an endemic Gramineae.

246 *Hipparchia maderensis* (Bethune-Baker): FELDER (1862), LANG (1884), BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], TUTT (1896), STAUDINGER & REBEL (1901), KIRBY (1903), SEITZ (1907-1908), REBEL (1917), COCKERELL (1923A), VERITY (1923-1924), GAEDE (1931-35), WALKER (1931), REBEL (1940C), MARTIN (1941), LATIN (1949), LESSE (1951), LESSE (1952), VERITY (1953), GARDNER & CLASSEY (1960), VARIN (1960), BERNARDI (1961), LEESTMANS (1968), KOSTROWICKI (1969), HIGGINS & RILEY (1970),

MANLEY & ALCARD (1970), FONTENEAU (1971), HIGGINS & RILEY (1971), SCHMIDT-KOEHL (1971), HIGGINS (1975), KUDRNA (1975B), LEESTMANS (1975), ZANGHERI (1975), KUDRNA (1977), OEHMIG (1977), OEHMIG (1977), AUSSEM (1980), HIGGINS & RILEY (1980), HEATH (1981), SWASH & ASKEW (1982), GRAHAM (1983), HIGGINS & HARGREAVES (1983), COUTSIS (1984), KUDRNA (1984), LACE & JONES (1984), KUDRNA (1986), SOUSA (1986), JONES ET AL. (1987), KARSHOLT (1988), PEREIRA (1989), TAYMANS (1989), VIDAL (1989), BALLETTO ET AL. (1990), GONÇALVES & NUNES (1990), SMITH & SHREEVE (1990), SØRENSEN (1990), FERNÁNDEZ-RUBIO (1991), D'ABRERA (1992), TENNENT (1992), BÁEZ (1993), MEYER (1993), SMITH & SHREEVE (1993), OWEN & SMITH (1993B), BALLETTO (1995), HESSELBARTH ET AL. (1995), MEYER (1995A), MEYER (1995B), DENNIS (1997), JUTZELER ET AL. (1997), OLIVIER & COUTSIS (1997), TOLMAN & LEWINGTON (1997), WAKEHAM-DAWSON & WARREN (1998A), WAKEHAM-DAWSON & WARREN (1998B), SALMON & WAKEHAM-DAWSON (1999), SOUSA (1999), VAN SWAAY & WARREN (1999), ROINE (2000), SZIEMER (2000), WAKEHAM-DAWSON ET AL. (2000), HALL & RUSSELL (2001), WAKEHAM-DAWSON ET AL. (2001), WEIDLICH (2001), WAKEHAM-DAWSON ET AL. (2002A), WAKEHAM-DAWSON ET AL. (2002B), WAKEHAM-DAWSON & AGUIAR (2003), MEYER (2003), RUSSELL ET AL. (2004), WAKEHAM-DAWSON ET AL. (2004), TENNENT (2005).

H. maderensis is another endemic satyrid characteristic of highland above 1000 metres. The larva feeds on *Agrostis castellana*, *Aira praecox*, *A. caryophyllea* and *Holcus* sp. (Gramineae). (SMITH & SHREEVE, 1993; OLIVIER & COUTSIS, 1997). RUSSELL ET AL. (2004), provide a very detailed description of the, until then undescribed pre-imaginal stages of *H. maderensis*.

247 *Danaus plexippus* (Linnaeus): REBEL (1938), REBEL (1940C), REBEL (1940D), GARDNER & CLASSEY (1960), BERNARDI (1961), MANLEY & ALCARD (1970), FONTENEAU (1971), OEHMIG (1977), SWASH & ASKEW (1982), HIGGINS & HARGREAVES (1983), LACE & JONES (1984), SOUSA (1986), JONES ET AL. (1987), KARSHOLT (1988), PEREIRA (1989), BALLETTO ET AL. (1990), SØRENSEN (1990), BALLETTO (1995), VIEIRA (1997), VIEIRA (1998), WAKEHAM-DAWSON & WARREN (1998A), WAKEHAM-DAWSON & WARREN (1998B), SALMON & WAKEHAM-DAWSON (1999), SOUSA (1999), VIEIRA (1999), SZIEMER (2000), WAKEHAM-DAWSON ET AL. (2000), HALL & RUSSELL (2001), NEVES ET AL. (2001), SHOWLER (2001), WAKEHAM-DAWSON ET AL. (2001), WEIDLICH (2001), WAKEHAM-DAWSON ET AL. (2002B), WAKEHAM-DAWSON & AGUIAR (2003), GARDINER (2003B), WAKEHAM-DAWSON ET AL. (2004), TENNENT (2005).

D. plexippus, originally a Nearctic migrant, is the biggest butterfly of the Madeiran fauna. It has been spotted periodically since 1889 and was seen for the first time in Porto Santo in 1955 (PEREIRA, 1989). It has been established in Madeira and Porto Santo since August 1980.

The larva feeds on milkweeds (Asclepiadaceae), especially *Asclepias curassavica* and *A. fruticosa*.

248 *Menophra maderae* (Bethune-Baker): BETHUNE-BAKER (1891), [SOUTH, 1894], STAUDINGER & REBEL (1901), KIRBY (1903), REBEL (1911), PROUT (1912-1915), REBEL (1917), WEHRLI (1939), WEHRLI (1939-1954), REBEL (1940C), MARTIN (1941), PINKER (1971), ZANGHERI (1975), CARVALHO (1981), MEYER & HELLERS (1990), MEYER (1995A), MEYER (1995B), PARSONS ET AL. (1999), MARTIN ET AL. (2000), WEIDLICH (2001).

M. maderae is a variable species. One of its forms was named *biotypica* (Wehrli, 1941).

249 *Ascotis fortunata* (Blachier): BETHUNE-BAKER (1891), [SOUTH, 1894], STAUDINGER & REBEL (1901), KIRBY (1903), WARREN (1905), REBEL (1906), REBEL (1911), REBEL (1917), WEHRLI (1939), WEHRLI (1939-1954), REBEL (1940D), MARTIN (1941), KRAUSS (1964), CARVALHO (1981), CARVALHO (1983), GARDNER ET AL. (1988), MARKIN (1988), MEYER & HELLERS (1990), AGUIAR (1993), MARKIN ET AL. (1995), MEYER (1995A), MEYER (1995B), CARVALHO ET AL. (1996), CARVALHO & AGUIAR (1997), BÁEZ (1998), PARSONS ET AL. (1999), MARTIN ET AL. (2000), WEIDLICH (2001).
A. fortunata is represented in Madeira by the endemic ssp. *wollastoni* (Bethune-Baker, 1891). This author also described a dark form *obscura*. *A. fortunata*, described from the Canary Islands, is a Macaronesian species with subspecies occurring in these two archipelagos and in the Azores as well.
It is a polyphagous species. The larva feeds on wild and cultivated plants including *Clethra arborea* (Clethraceae), *Cytisus scoparius* and *Teline maderensis* (Leguminosae), *Erica scoparia* (Ericaceae), *Myrica faya* (Myricaceae), *Citrus sinensis* (Rutaceae) and *Persea americana* (Lauraceae).

250 *Chlorissa faustinata* (Millière): WIEDLICH (2001).

251 *Xenochlorodes magna* Wolff: PINKER (1971), WOLFF (1977B), CARVALHO (1981), MEYER (1995A), MEYER (1995B), PARSONS ET AL. (1999), HAUSMANN (2001).

252 *Xenochlorodes nubigena* (Wollaston): WOLLASTON (1858), BETHUNE-BAKER (1891), SOUTH (1894), STAUDINGER & REBEL (1901), KIRBY (1903), WARREN (1905), REBEL (1906), PROUT (1912), PROUT (1913), PROUT (1912-1915), REBEL (1917), PROUT (1938), REBEL (1940C), REBEL (1940D), MARTIN (1941), HERBULOT (1968), PINKER (1971), WOLFF (1977), CARVALHO (1981), GRAHAM (1986A), GRAHAM (1988), MEYER & HELLERS (1990), MEYER (1995A), MEYER (1995B), PARSONS ET AL. (1999), MARTIN ET AL. (2000), HAUSMANN (2001), WEIDLICH (2001).
The larva of this small green geometrid moth feeds on *Erica arborea* (Ericaceae) and other heather species. It is very common where these plants grow.

253 *Cyclophora maderensis* (Bethune-Baker): BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), SOUTH (1894), STAUDINGER & REBEL (1901), KIRBY (1903), WARREN (1905), REBEL (1906), REBEL (1911), PROUT (1912-1915), REBEL (1917), COCKERELL (1923A), PROUT (1934), NORDMAN & REBEL (1935), BRYK (1940), PROUT (1940), REBEL (1940C), REBEL (1940D), MARTIN (1941), WORMS (1964), HERBULOT (1968), URBAHN (1970), CARVALHO (1981), MEYER & HELLERS (1990), MEYER (1991B), GARCIA-BECERRA ET AL. (1992), MEYER (1995A), MEYER (1995B), BÁEZ (1998), PARSONS ET AL. (1999), MARTIN ET AL. (2000), WEIDLICH (2001).
C. maderensis is a very variable species. The form *irrufata* (Warren, 1905) was described from Madeira. Based on six specimens labelled “Portugal, Collares, 3/7-[19]35, O. Lundblad” BRYK (1940: 30-31) described *Cosymbia maderensis* ssp. *lundbladi*, (together with the forms *prouti* and *badiaria*). Lundblad collected them on an expedition to the Iberian Peninsular and Madeira during summer 1935. Whereas Lundblad´s Macrolepidoptera from Spain and Portugal were studied by BRYK (1940) the Geometridae collected in Madeira were studied by PROUT (1940). Our study of the type specimens of *C. maderensis* ssp. *lundbladi*, which are kept in the NHRM,

show them to fall within the range of variation of the nominate subspecies of *C. maderensis* from Madeira. Bryk´s paper is the only reference to records of *maderensis* from outside the Macaronesian islands, and considering that Lundblad collected at least 91 specimens of *maderensis* in Madeira during the same trip, we believe that the specimens labelled as having been collected in Portugal have been accidentally mislabelled.
The larva feeds on *Erica arborea* (Ericaceae) and probably other plants. According to BETHUNE-BAKER (1891: 216) Wollaston found larvae on *Quercus* ('Hudson's Oak') (Fagaceae), and E. W. Classey found it on *Adiantum* sp. (Adiantaceae) (HERBULOT, 1968).

254 *Cyclophora puppillaria* (Hübner): REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), SCHAUS & COCKERELL (1923A), COCKERELL (1926), PROUT (1934-1939), PROUT (1940), HERBULOT (1968), PINKER (1971), CARVALHO (1981), MEYER (1995A), MEYER (1995B), PARSONS ET AL. (1999), MARTIN ET AL. (2000), WEIDLICH (2001).
According to PINKER (1971: 124-125) the Madeiran ssp. *lilacinipes* is extremely variable, but still recognisable by its "leuchtenden goldgelben Ton" (shining golden yellow tinge).
The larva feeds according to Pinker on *Myrtus communis*, (Myrtaceae), which he considered the natural host plant in Madeira, and on *Quercus* sp. (Fagaceae).

255 *Scopula irrorata* (Bethune-Baker): BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), KIRBY (1903), REBEL (1906), PROUT (1915), REBEL (1917), PROUT (1934), PROUT (1940), REBEL (1940C), REBEL (1940D), MARTIN (1941), GARDNER & CLASSEY (1960), WORMS (1964), HERBULOT (1968), PINKER (1971), CARVALHO (1981), CARVALHO (1983), MEYER & HELLERS (1990), MEYER (1995A), MEYER (1995B), PARSONS ET AL. (1999), MARTIN ET AL. (2000), WEIDLICH (2001).

256 *Idaea atlantica* (Stainton): STAINTON (1859), WALKER (1862), BETHUNE-BAKER (1891), SOUTH (1894), STAUDINGER & REBEL (1901), KIRBY (1903), PROUT (1912-1915), REBEL (1917), PROUT (1934), PROUT (1940), REBEL (1940C), MARTIN (1941), WORMS (1964), HERBULOT (1968), CARVALHO (1981), MEYER (1995A), MEYER (1995B), PARSONS ET AL. (1999), WEIDLICH (2001).
PARSONS ET AL. (1999: 496) gives 1939 as the year of description for *illuminata* (Prout). However, according to the back of the front page of volume 32A of *Arkiv för Zoologi* the first seven issues of that volume were published on 25th January 1940.

257 *Idaea maderae* (Bethune-Baker): BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), KIRBY (1903), WARREN (1905), REBEL (1906), PROUT (1912-1915), REBEL (1917), PROUT (1934), PROUT (1940), REBEL (1940C), MARTIN (1941), HERBULOT (1968), PINKER (1971), CARVALHO (1981), BÁEZ (1993), MEYER (1995A), MEYER (1995B), PARSONS ET AL. (1999), MARTIN ET AL. (2000), WEIDLICH (2001).

258 *Rhodometra sacraria* (Linnaeus): WOLLASTON (1879), BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), REBEL (1917), PROUT (1934), REBEL (1940C), CARVALHO (1981), CARVALHO (1983), MEYER & HELLERS (1990), SOUSA (1991), VIEIRA (1997), VIEIRA (1998), VIEIRA (1999), MARTIN ET AL. (2000), WEIDLICH (2001).

259 *Nycterosea obstipata* (Fabricius): BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), STAUDINGER & REBEL (1901), REBEL (1917), PROUT (1940), REBEL (1940C), REBEL (1940D), GARDNER & CLASSEY (1960), CARVALHO (1981), VIEIRA (1997), VIEIRA (1998), WEIDLICH (2001).

260 *Xanthorhoe rupicola* (Wollaston): WOLLASTON (1858), WALLENGREN (1860), WALKER (1862), BETHUNE-BAKER (1891), SOUTH (1894), STAUDINGER & REBEL (1901), WARREN (1905), PROUT (1912-15), REBEL (1917), PROUT (1940), REBEL (1940C), REBEL (1940D), MARTIN (1941), HERBULOT (1968), PINKER (1971), CARVALHO (1981), MEYER & HELLERS (1990), MEYER (1995A), MEYER (1995B), PARSONS ET AL. (1999), MARTIN ET AL. (2000), WEIDLICH (2001).
X. rupicola is a variable species. One of the forms was named *decorata* Pinker, 1971.

261 *Costaconvexa centrostrigaria* (Wollaston): WOLLASTON (1858), GODMAN (1870), BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), KIRBY (1903), REBEL (1911), PROUT (1912-1915), REBEL (1917), PROUT (1934-1939), PROUT (1940), REBEL (1940C), REBEL (1940D), MARTIN (1941), WORMS (1964), CARVALHO (1981), MEYER & HELLERS (1990), GARCIA-BECERRA (1992), MEYER (1995A), VIEIRA (1997), VIEIRA (1998), GOATER ET AL. (1999), PARSONS ET AL. (1999), VIEIRA (1999), MARTIN ET AL. (2000), WEIDLICH (2001).
The larva feeds on *Galium aparine* (Rubiaceae).

262 *Herbulotina maderae* Pinker: PINKER (1971), CARVALHO (1981), BÁEZ (1993), MEYER (1995A), MEYER (1995B), PARSONS ET AL. (1999), WEIDLICH (2001).
This genus and species were both described on page 110 in volume 54 of *Zeitschrift der Wiener Entomologischen Gesellschaft*. However, the year of their description was inconsistently given as 1969 and 1971, respectively by PARSONS ET AL. (1999). The former year is printed in the paper, but on a reprint sent by Rudolf Pinker to N. L. Wolff is written "udg. 30/6-71" (= published 30th June 1971). We accept this date as the date of publication of Pinker´s paper.

263 *Eupithecia massiliata* Dardoin & Millière: PINKER (1971), CARVALHO (1981), MOBERG (1983), MEYER & HELLERS (1990), BÁEZ (1993), MEYER (1995A), MEYER (1995B), PARSONS ET AL. (1999), WEIDLICH (2001), MIRONOV (2003).

264 *Eupithecia latipennata* Prout: STAUDINGER & REBEL (1901), WARREN (1905), PROUT (1912-1915), REBEL (1917), PROUT (1940), REBEL (1940C), GARDNER & CLASSEY (1960), PINKER (1971), CARVALHO (1981), MEYER & HELLERS (1990), MEYER (1995A), MEYER (1995B), PARSONS ET AL. (1999), MARTIN ET AL. (2000), WEIDLICH (2001).
The larva feeds on *Rumex* sp. (Polygonaceae) (PINKER, 1971).

265 *Eupithecia rosai* Pinker: New record for **Madeira**: Serra de Água, Pousada dos Vinháticos, 650 m, 1♀ 8.vi.1976, N. L. Wolff leg., genitalia slide OK 4049; Encumeada, 1000 m, 1♂,

18.vi.1993, O. Karsholt leg.; Achada do Teixeira, 2♂, 22.vi.1993, O. Karsholt leg. (all ZMUC). *E. rosai* is figured in colour by BÁEZ (1998: 30, 125).

266 *Gymnoscelis insulariata* (Stainton): STAINTON (1859), WALKER (1862), BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), REBEL (1911), STERTZ (1912), PROUT (1912-1915), REBEL (1917), MARTIN (1941), PROUT (1940), REBEL (1940C), REBEL (1940D), GARDNER & CLASSEY (1960), KRAUSS (1964), HERBULOT (1968), CARVALHO (1981), CARVALHO (1983), MARKIN (1989), MEYER & HELLERS (1990), MARKIN ET AL. (1995), MEYER (1995A), MEYER (1995B), BÁEZ (1998), PARSONS ET AL. (1999), VIEIRA (1999), MARTIN ET AL. (2000), WEIDLICH (2001), MIRONOV (2003), BACALLADO & MIRONOV (2004).
The type locality of the synonym *G. obtusata* Rebel, 1940 was erroneously given as "Azores: Funchal, Santo do Serra" by PARSONS ET AL. (1999: 417), but *G. insulariata* has not been recorded from the Azores.
WARREN (1905: 443) and REBEL (1917: 10) refer to the same specimen of *Chloroclystis* sp. collected in Rabaçal, where both *Gymnoscelis* species occur and give no additional information. Most likely it belonged to *insulariata*, as Prout did not include it in the type material of *lundbladi*.
The larva feeds on a great variety of hosts: *Ageratina adenophora* (Krauss, 1964), *Helichrysum* sp. (Herbulot, 1968) and *Arctium minus* (all Compositae), *Digitalis purpurea* (Scrophulariaceae) (Pinker, 1971) and *Dianthus caryophyllus* (Caryophyllaceae). Larvae were also observed feeding inside *Clethra arborea* (Clethraceae) flower ovariums.

267 *Gymnoscelis rufifasciata* (Haworth): PROUT (1940), GARDNER & CLASSEY (1960), WORMS (1964), HERBULOT (1968), PINKER (1971), CARVALHO (1981), CARVALHO (1983), MEYER & HELLERS (1990), MEYER (1991B), MEYER (1995A), MEYER (1995B), PARSONS ET AL. (1999), VIEIRA (1999), MARTIN ET AL. (2000), WEIDLICH (2001), BACALLADO & MIRONOV (2004).
This Palaearctic species is polyphagous. Larvae have been observed feeding in flowers of *Echium nervosum* (Boraginaceae), *Ageratina adenophora*, *Argyranthemum pinnatifidum*, *Galactites tomentosa* (Compositae) and *Oxalis pes-caprae* (Oxalidaceae).
The status of *G. lundbladi* as a synonym of *G. rufifasciata* follows Mironov (in litt.).

268 *Cryphia maderensis* (Bethune-Baker): BETHUNE-BAKER (1891), REBEL (1894), REBEL & ROGENHOFER (1894), [SOUTH, 1894], HAMPSON (1908), STAUDINGER & REBEL (1901), KIRBY (1903), WARREN (1909-1914), GARRETA (1911), REBEL (1917), COCKERELL (1923A), DRAUDT (1931-1938), REBEL (1940B), REBEL (1940C), BOURSIN (1957), GARDNER & CLASSEY (1960), CARVALHO (1981), BACALLADO & BARQUÍN (1983), CARVALHO (1983), POOLE (1989), MEYER (1995A), MEYER (1995B), HACKER & SCHMITZ (1996), MARTIN ET AL. (2000), WEIDLICH (2001).
C. maderensis is here listed as distinct from *simonyi* Rebel, following BOURSIN (1957) and FIBIGER (pers comm.).

269 *Cryphia simonyi* (Rogenhofer): JOANNIS (1911), REBEL (1911), BOURSIN (1957), OROMÍ (1983), HACKER & SCHMITZ (1996).

The presence of *C. simonyi* in the Selvagens Islands is based on the record by JOANNIS (1911: 396). We were unable to trace any material of this species from the Selvagens or Madeira Islands.

270 *Schrankia costaestrigalis* (Stephens): BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), KIRBY (1903), WARREN (1909-1914), REBEL (1917), REBEL (1940C), CARVALHO (1981), MEYER & HELLERS (1990), HACKER & SCHMITZ (1996), VIEIRA (1997), VIEIRA (1998), WEIDLICH (2001).

271 *Ophiusa tirhaca* (Cramer): WOLFF (1977), CARVALHO (1981), CARVALHO & AGUIAR (1991), HACKER & SCHMITZ (1996), WEIDLICH (2001).
O. tirhaca has been bred from larvae feeding on *Schinus molle* (Anacardiaceae), M. Jardim leg. (MMF) and from *Myrica faya* (Myricaceae), O. Karsholt leg. (ZMUC).

272 *Tathorynchus exsiccata* (Lederer): WOLFF (1977), CARVALHO (1981), HACKER & SCHMITZ (1996), VIEIRA (1997), VIEIRA (1998), WEIDLICH (2001).
Also in **Porto Santo**: 4 ex 12.-14.iv.1996, O. Karsholt leg. (ZMUC).

273 *Autophila dilucida* (Hübner): BETHUNE-BAKER (1891), [SOUTH, 1894], REBEL (1917), REBEL (1940C), CARVALHO (1981), HACKER & SCHMITZ (1996), FIEBIGER ET AL. (1999), WEIDLICH (2001).
A. dilucida was recorded from Madeira by BETHUNE-BAKER (1891), based on one specimen "in the National Collection (=BMNH), taken by Mr. Wollaston". Later references to the occurrence of *dilucida* in Madeira – apart from that of FIBIGER ET AL. (1999) – refers to this single specimen. According to M. HONEY (in litt.), who located Wollaston's specimen in the BMNH, it is actually labelled 'Porto Santo'. The record of *dilucida* from Madeira by FIBIGER ET AL. (1999) also refers to Porto Santo, based on a small series collected at Pico do Facho by O. Karsholt.

274 *Scoliopteryx libatrix* (Linnaeus): CARVALHO & AGUIAR (1991).
Adults are commonly found inside tunnels made for water channels (levadas), mainly near forest zones.

275 *Hypena lividalis* (Hübner): BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), WARREN (1909-1914), REBEL (1917), NORDMAN & REBEL (1935), REBEL (1940C), GARDNER & CLASSEY (1960), CARVALHO (1981), LÖDL (1995), HACKER & SCHMITZ (1996), VIEIRA (1997), VIEIRA (1998), MARTIN ET AL. (2000).
We bred one specimen from *Parietaria judaica* (Urticaceae).

276 *Hypena obsitalis* (Hübner): BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), WARREN (1909-1914), REBEL (1917), NORDMAN & REBEL (1935), REBEL (1940B), REBEL (1940C), REBEL (1940D), MARTIN (1941), GARDNER & CLASSEY (1960), WORMS (1964), CARVALHO (1981), MEYER & HELLERS (1990), LÖDL (1994), LÖDL (1995), HACKER & SCHMITZ (1996), VIEIRA (1997), VIEIRA (1998), WEIDLICH (2001).
Also in **Porto Santo**: 1 ex 12.iv.1996, O. Karsholt leg. (ZMUC).

The larva feeds on *Urtica membranacea* (Urticaceae).

277 *Autographa gamma* (Linnaeus): BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], BARING & OGILVIE-GRANT (1895), STAUDINGER & REBEL (1901), GARRETA (1911), HAMPSON (1913), REBEL (1917), COCKERELL (1923A), COCKERELL (1923B), REBEL (1940B), REBEL (1940C), REBEL (1940D), GARDNER & CLASSEY (1960), WORMS (1964), OROMÍ ET AL. (1976), PINKER & BACALLADO (1978), CARVALHO (1981), OROMÍ (1983), MEYER & HELLERS (1990), HACKER & SCHMITZ (1996), VIEIRA (1997), BÁEZ (1998), VIEIRA (1998), MARTIN ET AL. (2000), ARECHAVALETA ET AL. (2001), WEIDLICH (2001).
A. gamma is a polyphagous species. M. Baez collected it feeding on *Mesembryanthemum crystallinum* (Aizoaceae) during a scientific mission to the Selvagens Islands (PINKER & BACALLADO, 1978).

278 *Cornutiplusia circumflexa* (Linnaeus): BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), KIRBY (1903), HAMPSON (1913), REBEL (1917), REBEL (1940C), MARTIN (1941), GARDNER & CLASSEY (1960), WORMS (1964), CARVALHO (1981), CARVALHO (1983), MEYER & HELLERS (1990), HACKER & SCHMITZ (1996), MARTIN ET AL. (2000), WEIDLICH (2001).
Larvae of *C. circumflexa* were found in huge numbers on *Medicago* sp. (Leguminosae) in Porto Santo in April 1996, O. Karsholt leg.. Other hosts include *Brassica oleracea* (Cruciferae) and *Gypsophila paniculata* (Caryophyllaceae).

279 *Thysanoplusia orichalcea* (Fabricius): WOLLASTON (1879), BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), HAMPSON (1913), WARREN (1909-1914), REBEL (1917), COCKERELL (1923B), NORDMAN & REBEL (1935), REBEL (1940B), REBEL (1940C), REBEL (1940D), MARTIN (1941), GARDNER & CLASSEY (1960), WORMS (1964), CARVALHO (1981), CARVALHO (1983), FÉLIX (1996), HACKER & SCHMITZ (1996), VIEIRA (1997), BÁEZ (1998), VIEIRA (1998), VIEIRA (1999), MARTIN ET AL. (2000), WEIDLICH (2001).
The larva feeds on *Brassica oleracea* (Cruciferae).

280 *Trichoplusia ni* (Hübner): WOLFF (1977), CARVALHO (1981), OROMÍ (1983), VIDAL (1989), SOUSA (1991), HACKER & SCHMITZ (1996), VIEIRA (1997), BÁEZ (1998), WEIDLICH (2001).
Also in **Porto Santo**: 1 ex 12.iv.1996, O. Karsholt leg.(ZMUC).

281 *Ctenoplusia limbirena* (Guenée): GARDNER & CLASSEY (1960), WORMS (1964), WOLFF (1977), CARVALHO (1981), MEYER & HELLERS (1990), HACKER & SCHMITZ (1996), VIEIRA (1997), VIEIRA (1998), MARTIN ET AL. (2000), WEIDLICH (2001).
Also in **Porto Santo**: 1 ex 23.x.1994, O. Karsholt leg., (ZMUC).

282 *Chrysodeixis acuta* (Walker): CLASSEY (1966), WOLFF (1977), CARVALHO (1981), WEIDLICH (2001).
C. acuta was recorded from Madeira by CLASSEY (1966). According to M. HONEY (in litt.), who located Classey's specimens in the BMNH, they belong to *C. chalcites* (Esper). The record by WOLFF (1977A) only refers to Classey's publication. There is, however, at least one

correctly identified specimen of *acuta* from Madeira: Funchal, 50 m, 20.-26.x.1997, D. Nilsson leg. (DNI).

283 *Chrysodeixis chalcites* (Esper): WALKER (1857), BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), SOUTH (1894), STAUDINGER & REBEL (1901), HAMPSON (1913), REBEL (1917), REBEL (1940C), REBEL (1940D), MARTIN (1941), GARDNER & CLASSEY (1960), WORMS (1964), CARVALHO (1981), CARVALHO (1983), MEYER & HELLERS (1990), ACHTERBERG (1993), FÉLIX (1996), HACKER & SCHMITZ (1996), VIEIRA (1997), BÁEZ (1998), VIEIRA (1998), MARTIN ET AL. (2000), WEIDLICH (2001).
C. chalcites (Esper) is a polyphagous species and often a pest of agricultural crops such as *Cyphomandra betacea*, *Lycopersicon esculentum*, *Capsicum annuum* (Solanaceae), *Cucumis sativus*, (Cucurbitaceae) and *Phaseolus vulgaris* (Leguminosae), but also on wild plants including *Malva sylvestris* (Malvaceae), *Ipomoea acuminata* (Convolvulaceae) and *Pelargonium* sp. (Geraniaceae).

284 *Acontia lucida* (Hufnagel): BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), HAMPSON (1910B), WARREN (1909-1914), REBEL (1917), REBEL (1940C), CARVALHO (1981), CARVALHO (1983), HACKER & SCHMITZ (1996), VIEIRA (1999), WEIDLICH (2001).

285 *Eublemma ostrina* (Hübner): BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), HAMPSON (1910B), REBEL (1917), REBEL (1940C), REBEL (1940D), CARVALHO (1981), HACKER & SCHMITZ (1996), WEIDLICH (2001).

286 *Eublemma parva* (Hübner): WEIDLICH (2001).
Additional records for **Madeira**: Ponta de São Lourenço, 10 ex 24.vi.-10.vii.1993; Porto Moniz, 1 ex 12.x.1994, O. Karsholt leg. (ZMUC). Also in **Deserta Grande**: Doca, 1 ex 31.vii.2000, F. Aguiar & J. Jesus leg. (ICLAM).

287 *Cucullia calendulae* Treitschke: BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), HAMPSON (1906), WARREN (1909-1914), REBEL (1917), REBEL (1940C), CARVALHO (1981), CARVALHO (1983), HACKER & SCHMITZ (1996), WEIDLICH (2001).

288 *Condica capensis* (Walker): GARDNER & CLASSEY (1960), WOLFF 1977), CARVALHO (1981), BÁEZ (1993), HACKER & SCHMITZ (1996), BÁEZ (1998), WEIDLICH (2001).
The larva feeds on *Bidens pilosa* (Compositae).

289 *Heliothis peltigera* (Denis & Schiffermüller): BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), REBEL (1917), REBEL (1940C), CARVALHO (1981), CARVALHO (1983), OROMÍ (1983), HACKER & SCHMITZ (1996), WEIDLICH (2001).

290 *Helicoverpa armigera* (Hübner): BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), WARREN (1909-1914), REBEL (1917),

COCKERELL (1923A), NORDMAN & REBEL (1935), REBEL (1940C), REBEL (1940D), OROMÍ ET AL. (1976), PINKER & BACALLADO (1978), CARVALHO (1981), CARVALHO (1983), OROMÍ (1983), BÁEZ (1993), CABINTERNATIONAL (1993), FÉLIX (1996), HACKER & SCHMITZ (1996), VIEIRA (1997), VIEIRA (1998), WEIDLICH (2001).
H. armigera is a well known pest of tomato (*Lycopersicon esculentum*). In recent years it has been intercepted in Madeira infesting imported carnation flowers, *Dianthus caryophyllus* (Caryophyllaceae). It also feed on *Gerbera jamesonii* (Compositae) and *Malva parviflora* (Malvaceae).

291 *Galgula partita* Gueneé: BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), KIRBY (1903), HAMPSON (1909), WARREN (1909-1914), REBEL (1911), REBEL (1917), NORDMAN & REBEL (1935), REBEL (1940B), REBEL (1940C), REBEL (1940D), MARTIN (1941), CARVALHO (1981), FERGUSON ET AL. (1990), MEYER & HELLERS (1990), HACKER & SCHMITZ (1996), VIEIRA (1997), VIEIRA (1998), MARTIN ET AL. (2000), WEIDLICH (2001).
The larva feeds on *Oxalis latifolia* (Oxalidaceae).

292 *Caradrina clavipalpis* (Scopoli): BETHUNE-BAKER (1891), [SOUTH, 1894], STAUDINGER & REBEL (1901), HAMPSON (1909), WARREN (1909-1914), REBEL (1917), REBEL (1940B), REBEL (1940C), REBEL (1940D), MARTIN (1941), GARDNER & CLASSEY (1960), KOBES (1975), PINKER (1975), CARVALHO (1981), CARVALHO (1983), POOLE (1989), MEYER & HELLERS (1990), MEYER (1995A), MEYER (1995B), HACKER & SCHMITZ (1996), VIEIRA (1999), MARTIN ET AL. (2000), WEIDLICH (2001), HACKER (2004).
P. clavipalpis (Scopoli) is represented in Madeira and Porto Santo by ssp. *pinkeri* Kobes.

293 *Spodoptera cilium* (Gueneé): MARTIN ET AL. (2000).
S. cilium (Guenée) is a recently established species in Madeira. It was first found at Porto Moniz, 1 ex 11.x.1994, O. Karsholt leg. (ZMUC) and at Funchal, Lido, 20m, numerous specimens 9.-20.ix.1997, O. Karsholt leg. (ZMUC, AFA).

294 *Spodoptera exigua* (Hübner): BETHUNE-BAKER (1891), [SOUTH, 1894], STAUDINGER & REBEL (1901), HAMPSON (1909), WARREN (1909-1914), REBEL (1917), REBEL (1940C), REBEL (1940D), MARTIN (1941), VIEIRA (1951), CLASSEY (1966), BROWN & DEWHURST (1975), CARVALHO (1981), OROMÍ (1983), HACKER & SCHMITZ (1996), VIEIRA (1997), VIEIRA (1998), MARTIN ET AL. (2000), WEIDLICH (2001).
Also in **Porto Santo**: 1 ex 23.x.1994, O. Karsholt leg. (ZMUC).

295 *Spodoptera littoralis* (Boisduval): WALKER (1856), BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), HAMPSON (1909), WARREN (1909-1914), REBEL (1917), REBEL (1940C), REBEL (1940D), GARDNER & CLASSEY (1960), WORMS (1964), BROWN & DEWHURST (1975), WILTSHIRE (1977), CARVALHO (1981), CARVALHO (1983), FÉLIX (1996), HACKER & SCHMITZ (1996), VIEIRA (1997), VIEIRA (1998), VIEIRA (1999), WEIDLICH (2001).
S. littoralis is a polyphagous species whose larva feeds on many plants including vegetable crops like *Brassica oleracea*, (Cruciferae), *Phaseolus vulgaris* (Leguminosae), *Lycopersicon*

esculentum, *Capsicum annuum* (Solanaceae), *Cucumis sativus* (Cucurbitaceae), *Ipomoea batatas* (Convolvulaceae), *Vitis vinifera* (Vitaceae) and also wild plants such as *Bidens pilosa* (Compositae).

296 *Sesamia nonagrioides* (Lefèbvre): WOLLASTON (1858), BETHUNE-BAKER (1891), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), KIRBY (1903), HAMPSON (1910A), WARREN (1909-1914), REBEL (1917), REBEL (1940C), REBEL (1940D), MARTIN (1941), TAMS & BOWDEN (1953), VIEIRA (1953), GARDNER & CLASSEY (1960), WORMS (1964), WOLFF (1977), CARVALHO (1981), (SILVA & MENESES, 1984), POOLE (1989), HACKER & SCHMITZ (1996), VIEIRA (1997), VIEIRA (1998), WEIDLICH (2001).
Sesamia nonagrioides is a pest of Sugar Cane, *Saccharum officinarum* (Gramineae). It has been known on the island since the beginning of the sixteenth century (1502), when it was considered a very serious problem affecting that very important crop. Despite several official measures, it was only in the second half of the nineteenth century (1887) that the importance of this pest decreased mainly due to the introduction from Demerara of the Argentine Ant (*Linepithema humile*) (SILVA & MENESES, 1984: 151). Today the crop is no longer so important and the moth has become rare.

297 *Euplexia dubiosa* (Bethune-Baker): BETHUNE-BAKER (1891), [SOUTH, 1894], HAMPSON (1908), STAUDINGER & REBEL (1901), KIRBY (1903), WARREN (1909-1914), REBEL (1917), COCKERELL (1923A), REBEL (1940B), REBEL (1940C), GARDNER & CLASSEY (1960), PINKER (1971), CARVALHO (1981), POOLE (1989), MEYER & HELLERS (1990), CARVALHO & AGUIAR (1991), MEYER (1995A), MEYER (1995B), HACKER & SCHMITZ (1996), MARTIN ET AL. (2000), WEIDLICH (2001).
E. dubiosa (Bethune-Baker) is a variable species. The following forms have been described from Madeira: *unicolor* (Rebel, 1940) and *variegata* (Rebel, 1940).
According to PINKER (1971) the larva feeds on *Urtica* (Urticaceae). HACKER & SCHMITZ (1996) reported it to feed (in captivity) on *Rosa canina* (Rosaceae).

298 *Phlogophora meticulosa* (Linnaeus): WOLFF (1977), CARVALHO (1981), SOUSA (1991), HACKER & SCHMITZ (1996), VIEIRA (1997), VIEIRA (1998), WEIDLICH (2001).
As far as we are aware, only a single specimen has been found in Madeira: Funchal, Lido, ultimo xi.1972 (on the first floor of a hotel), J. Lundqvist & N. L. Wolff leg., (ZMUC).

299 *Phlogophora wollastoni* (Bethune-Baker): BETHUNE-BAKER (1891), [SOUTH, 1894], KIRBY (1903), HAMPSON (1908), STAUDINGER & REBEL (1901), REBEL (1911), WARREN (1909-1914), REBEL (1917), COCKERELL (1923A), REBEL (1940B), REBEL (1940C), PINKER (1971), CARVALHO (1981), CARVALHO (1983), POOLE (1989), MEYER & HELLERS (1990), CARVALHO & AGUIAR (1991), MEYER (1995A), MEYER (1995B), HACKER & SCHMITZ (1996), MARTIN ET AL. (2000), WEIDLICH (2001).
P. wollastoni is a variable species. The following forms have been described from Madeira: *derufata* (Warren, 1911), *distincta* (Rebel, 1940) and *violascens* (Rebel, 1940).

300 *Methorasa latreillei* (Duponchel): BETHUNE-BAKER (1891), [SOUTH, 1894], STAUDINGER & REBEL (1901), HAMPSON (1908), WARREN (1909-1914), REBEL (1917), COCKERELL (1923A),

REBEL (1940C), GARDNER & CLASSEY (1960), CARVALHO (1981), HACKER & SCHMITZ (1996), MARTIN ET AL. (2000), WEIDLICH (2001).
The larva feeds on several species of ferns including *Adiantum capillus-veneris* (Adiantaceae).

301 *Xylena exsoleta* (Linnaeus): COCKERELL (1923A), REBEL (1938), REBEL (1940C), CARVALHO (1981), HACKER & SCHMITZ (1996), WEIDLICH (2001).
There are only two records of this species. COCKERELL (1923A) collected it at Vila Baleira in Porto Santo, and REBEL (1938) wrote that in the Natural History Museum of Vienna are larvae in alcohol, labelled "Madeira 1861, Kundrat". We have examined no material of *exsoleta* from the Madeira Islands.

302 *Blepharita inexspectata* Weidlich: WEIDLICH (2001).
This endemic species was recently described from a single male attracted to artificial light. The hitherto unknown female, will be described by Fibiger & Karsholt (in prep.).

303 *Mniotype albostigmata* (Bethune-Baker): BETHUNE-BAKER (1891), [SOUTH, 1894], STAUDINGER & REBEL (1901), KIRBY (1903), HAMPSON (1906), REBEL (1906), WARREN (1909-1914), REBEL (1911), REBEL (1917), REBEL (1940B), REBEL (1940C), PINKER (1971), CARVALHO (1981), POOLE (1989), MEYER & HELLERS (1990), CARVALHO & AGUIAR (1991), MEYER (1995A), MEYER (1995B), HACKER & SCHMITZ (1996), MARTIN *ET AL.* (2000), WEIDLICH (2001).
M. albostigmata is a variable species. The following forms have been described from Madeira: *hemileuca* (Rebel, 1940) and *polychroma* (Rebel, 1940).
PINKER (1971) found a larva on broom, *Cytisus* sp. (Leguminosae).

304 *Mesapamea maderensis* Pinker: REBEL (1940B), REBEL (1940C), PINKER (1971), BACALLADO (1972), CARVALHO (1981), REZBANYAI-RESER (1985), POOLE (1989), BÁEZ (1993), MEYER (1995A), MEYER (1995B), HACKER & SCHMITZ (1996), MARTIN ET AL. (2000), WEIDLICH (2001), ZILLI ET AL. (2005).

305 *Luperina madeirae* Fibiger: ZILLI ET AL. (2005).
L. madeirae is endemic to Madeira and known only from the holotype (deposited in the ZMUC). It was captured in a light trap by O. Karsholt at Curral das Freiras in late September 1997.

306 *Hadula trifolii* (Hufnagel): CARVALHO (1983), ZHANG (1994), VIEIRA (1997), VIEIRA (1999).

307 *Cardepia deserticola* Hampson: CARVALHO (1981), OROMÍ (1983).
C. deserticola is represented in the Selvagens Is. by spp. *antinea* Rungs, 1972.

308 *Hecatera maderae* (Bethune-Baker): BETHUNE-BAKER (1891), [SOUTH, 1894], STAUDINGER & REBEL (1901), KIRBY (1903), HAMPSON (1905), WARREN (1909-1914), REBEL (1911), STERTZ (1912), REBEL (1917), REBEL (1940B), REBEL (1940C), PINKER (1971), CARVALHO (1981), POOLE (1989), MEYER (1995A), MEYER (1995B), HACKER & SCHMITZ (1996), BÁEZ (1998), WEIDLICH (2001).

309 *Hadena atlantica* (Hampson): STAUDINGER & REBEL (1901), HAMPSON (1905), REBEL (1917), REBEL (1940C), PINKER (1971), CARVALHO (1981), CARVALHO (1983), POOLE (1989), MEYER (1995A), MEYER (1995B), HACKER (1995), HACKER & SCHMITZ (1996), WEIDLICH (2001).

310 *Hadena karsholti* Hacker: HACKER (1995), HACKER & SCHMITZ (1996), WEIDLICH (2001).

311 *Leucania loreyi* (Duponchel): HAMPSON (1905), WARREN (1909-1914), NORDMAN & REBEL (1935), REBEL (1940B), REBEL (1940C), REBEL (1940D), GARDNER & CLASSEY (1960), WORMS (1964), WOLFF (1977), CARVALHO (1981), CARVALHO (1983), VIEIRA (1997), VIEIRA (1998), VIEIRA (1999) MARTIN ET AL. (2000), WEIDLICH (2001).
The larva has been collected on *Zea mays* (Gramineae).

312 *Mythimna serradaguae* Wolff: WOLFF (1977A), CARVALHO (1981), POOLE (1989), MEYER (1995A), MEYER (1995B), HACKER & SCHMITZ (1996), MARTIN ET AL. (2000), WEIDLICH (2001).

313 *Mythimna unipuncta* (Haworth): GODMAN (1870), WOLLASTON (1879), REBEL & ROGENHOFER (1894), [SOUTH, 1894], STAUDINGER & REBEL (1901), KIRBY (1903), HAMPSON (1905), WARREN (1909-1914), REBEL (1917), COCKERELL (1923A), COCKERELL (1923B), NORDMAN & REBEL (1935), REBEL (1940B), REBEL (1940C), REBEL (1940D), GARDNER & CLASSEY (1960), WORMS (1964), CARVALHO (1981), ANDERSEN & FJELDSÅ (1983), FERGUSON ET AL. (1990), MEYER & HELLERS (1990), VIEIRA (1997), VIEIRA (1998), VIEIRA (1999), MARTIN ET AL. (2000), VIEIRA (2000), OLIVEIRA ET AL. (2001), WEIDLICH (2001).

314 *Mythimna vitellina* (Hübner): WOLFF (1977), CARVALHO (1981), HACKER & SCHMITZ (1996), WEIDLICH (2001).
This species has, as far as we know, only been found in one specimen in Madeira: Serra de Água, Pousada dos Vinháticos, 600 m, 23.viii.1974, N. L. Wolff leg. (ZMUC).

315 *Ochropleura leucogaster* (Freyer): WOLFF (1977), CARVALHO (1981), MEYER & HELLERS (1990), HACKER & SCHMITZ (1996), MARTIN ET AL. (2000), WEIDLICH (2001).

316 *Noctua pronuba* (Linnaeus): REBEL & ROGENHOFER (1894), [SOUTH, 1894], BETHUNE-BAKER (1896), HAMPSON (1898-1913), STAUDINGER & REBEL (1901), REBEL (1917), REBEL (1940B), REBEL (1940C), REBEL (1940D), VIEIRA (1951), CARVALHO (1981), CARVALHO (1983), MEYER & HELLERS (1990), CARVALHO & AGUIAR (1991), HACKER & SCHMITZ (1996), VIEIRA (1997), VIEIRA (1998), MARTIN ET AL. (2000), WEIDLICH (2001).

317 *Noctua teixeirai* Pinker: PINKER (1971), WOLFF (1977), CARVALHO (1981), POOLE (1989), CARVALHO & AGUIAR (1991), BÁEZ (1993), MEYER (1995A), MEYER (1995B), HACKER & SCHMITZ (1996), MARTIN ET AL. (2000), WEIDLICH (2001).
PINKER (1971) also described the form *palllescens* of N. *teixeirai* .
Pinker reared this species from eggs, feeding the larvae on *Taraxacum* (Compositae).

318 *Xestia c-nigrum* (Linnaeus): WOLFF (1977), CARVALHO (1981), MEYER & HELLERS (1990), HACKER & SCHMITZ (1996), VIEIRA (1997), VIEIRA (1998), MARTIN ET AL. (2000), WEIDLICH (2001).

319 *Peridroma saucia* (Hübner): WALKER (1856), REBEL & ROGENHOFER (1894), [SOUTH, 1894], BETHUNE-BAKER (1896), HAMPSON (1898-1913), STAUDINGER & REBEL (1901), REBEL (1917), REBEL (1940B), REBEL (1940C), REBEL (1940D), MARTIN (1941), GARDNER & CLASSEY (1960), CARVALHO (1981), CARVALHO (1983), MEYER & HELLERS (1990), BÁEZ (1993), FÉLIX (1996), HACKER & SCHMITZ (1996), VIEIRA (1997), VIEIRA (1998), MARTIN ET AL. (2000), WEIDLICH (2001).
P. saucia is another polyphagous species that attacks both cultivated and wild plants including *Capsicum annuum* (Solanaceae), *Dianthus caryophyllus* (Caryophyllaceae), *Malus domestica* (Rosaceae), *Vitis vinifera*, (Vitaceae), etc.

320 *Euxoa canariensis* Rebel: CARVALHO (1981), OROMÍ (1983), ARECHAVALETA ET AL. (2001).

321 *Agrotis atrux* (Pinker): PINKER (1971), WOLFF (1977), CARVALHO (1981), CARVALHO (1983), POOLE (1989), MEYER (1995A), MEYER (1995B), HACKER & SCHMITZ (1996), MARTIN ET AL. (2000), WEIDLICH (2001).
This recently discovered species is rather common along the southern cost of Madeira and in Porto Santo. It is remarkable that no old specimens have turned up in museum collections.

322 *Agrotis fortunata* Draudt: New record for **Madeira:** Lombo da Boa Vista, Funchal, 175 m, 1♂, 1975, F. Aguiar leg. (AFA no. 567), det. Michael Fibiger, genitalia slide MF 2491.

323 *Agrotis herzogi* Rebel: New record for **Madeira:** Ribeirinha, Camacha, 670m, 1♂, 24.xi.1992, F. Aguiar leg. (AFA no. 538), det. Michael Fibiger, genitalia slide MF 2490.

324 *Agrotis ipsilon* (Hufnagel): GARDNER & CLASSEY (1960), WOLFF (1977), CARVALHO (1981), BÁEZ (1993), HACKER & SCHMITZ (1996), VIEIRA (1997), VIEIRA (1998), MARTIN ET AL. (2000), WEIDLICH (2001).
Also in **Porto Santo**, 1♂, 11.v.1977, N. L. Wolff leg. (ZMUC).

325 *Agrotis lanzarotensis* Rebel: OROMÍ ET AL. (1976), PINKER & BACALLADO (1978), CALLE (1982), CARVALHO (1981), OROMÍ (1983), HACKER & SCHMITZ (1996), ARECHAVALETA ET AL. (2001).
Specimens from the Selvagens Islands: Grande Pitão (Selvagem Pequena Islet), bred from larvae collected on *Chenopodium* and *Suaeda* spp. (Chenopodiaceae) by Marcos Baez during a Spanish scientific mission to the Selvagens Islands were described as *A. selvagensis* PINKER & BACALLADO, 1978. Unpublished studies by M. Fibiger (pers. comm.) have showed that *selvagensis* is a synonym of *lanzarotensis*. During a recent Spanish expedition (Macaronesia 2000 Project), M. Arechavaleta collected a larva between the roots of *Nicotiana glauca* – Solanaceae (Selvagem Grande Islet) and two additional larvae on sandy soil bellow bushes of *Suaeda vera* (Selvagem Pequena Islet).

326 *Agrotis rutae* Rebel: REBEL (1940B), REBEL (1940B), PINKER (1971), CARVALHO (1981), MEYER (1995A), MEYER (1995B), HACKER & SCHMITZ (1996), MARTIN ET AL. (2000), WEIDLICH (2001).

327 *Agrotis segetum* (Denis & Schiffermüller): REBEL & ROGENHOFER (1894), BETHUNE-BAKER (1896), HAMPSON (1903), WARREN (1905), REBEL (1917), REBEL (1940B), REBEL (1940C), REBEL (1940D), MARTIN (1941), GARDNER & CLASSEY (1960), VIEIRA (1951), CARVALHO (1981), CARVALHO (1983), OROMÍ (1983), MEYER & HELLERS (1990), HACKER & SCHMITZ (1996), VIEIRA (1997), VIEIRA (1998), MARTIN ET AL. (2000), WEIDLICH (2001).
This is another polyphagous species. In Madeira larvae are frequently found on potato tubers, *Solanum tuberosum* (Solanaceae). There are also records of larvae feeding on *Lactuca sativa* (Compositae) and nursery plants of *Picea* sp. (Pinaceae).

328 *Agrotis spinifera* (Hübner): [SOUTH, 1894], REBEL (1917), REBEL (1940C), CARVALHO (1981), CARVALHO (1983), HACKER & SCHMITZ (1996), WEIDLICH (2001).

329 *Agrotis trux* (Hübner): PINKER (1971), FIBIGER (1977), WOLFF (1977), CARVALHO (1981), CARVALHO (1983), POOLE (1989), MEYER (1995A), MEYER (1995B), HACKER & SCHMITZ (1996), MARTIN ET AL. (2000), WEIDLICH (2001).
The population represented in Madeira and Porto Santo Islands has been described as an endemic subspecies *maderensis* (Pinker, 1971). However, according to unpublished studies by M. Fibiger (pers. comm.) the Madeiran form of this variable species does not differ from the nominate subspecies.

330 *Earias insulana* (Boisduval): New record for **Madeira**: Funchal, 1♂, 20.-31.iii.1995, L. Sippola leg. (LSI).

331 *Utetheisa pulchella* (Linnaeus): BETHUNE-BAKER (1896), REBEL & ROGENHOFER (1894), [SOUTH, 1894], SEITZ (1910), REBEL (1917), COCKERELL (1923A), REBEL (1940C), GARDNER & CLASSEY (1960), CLASSEY (1966), LEESTMANS (1975), CARVALHO (1981), CARVALHO (1983), SOUSA (1991), VIEIRA (1997), VIEIRA (1998), WEIDLICH (2001).

NOTES (II) – Misidentifications, doubtful and unconfirmed records, undetermined species requiring further study and accidentally introduced species which have not established themselves in Madeira.

(a) *Monopis obviella* (Denis & Schiffermüller): CARVALHO (1995), VIEIRA (1998).
Records of this species – as *imella* (Hübner) – probably refer to *nigricantella* (Millière) GAEDIKE & KARSHOLT (2001: 176-177).

(b) *Aspilapteryx multipunctella* (Chrétien): CARVALHO (1995)
CARVALHO (1995: 576) recorded this species from Madeira without exact data and locality. The record is based upon information received from J. Bradley (see KARSHOLT, 2000: 401-402). We have seen no material of *A. multipunctella* from Madeira, and its presence there needs confirmation.

(c) *Argyresthia minusculella* Rebel: REBEL (1940c), CARVALHO (1995), VIEIRA (1997).
The description of *A. minusculella* was based on two specimens from the Azores Islands of Pico and Flores and one specimen from Funchal, respectively. The taxonomy of *minusculella* in relation to the other Azorean *Argyresthia* species, *atlanticella* (REBEL, 1940), has not been resolved. We have studied the type material kept in the ZMUH, but were unable to reach a final conclusion as to wether one or more species are involved. However, whereas *Argyresthia* specimens are found commonly in the Azores, the syntype of *minusculella* from Funchal is the only specimen of this genus from Madeira. It was collected on the same trip and by the same collector (R. Storå) as one of the syntypes of *minusculella* from the Azores (see REBEL, 1940c: 50), and it is quite possible that the 'Madeiran' syntype originated from the Azores. In the SMNK we saw material of *A. atlanticella*, labelled "Kanaren, St Miguél, v.69, Pinker". St. [recte San] Miguél is in the Azores, and no species of *Argyresthia* is found in the Canary Isles. We believe that the single Madeiran specimen of this genus has also been mislabelled.

(d) *Cerconota anonella* (Sepp): This species was bred from larvae found in Funchal, 20.v.1996 on *Annona muricata* (Annonaceae), imported from Venezuela, A. Aguiar leg. (AFA, ZMUC). We consider it as an accidentally imported species which does not belong to the fauna of Madeira.

(e) *Neomariania scriptella* Rebel: CARVALHO (1995), VIEIRA (1997), VIEIRA (1998).
CARVALHO (1995: 577) recorded this species was from Madeira without exact data and locality. It is an endemic species of the Azores, and records from Madeira are probably due to confusion with *Neomariania rebeli* (WALSINGHAM, 1894) (S. Sinev *in litt*).

(f) *Blastobasis phycidella* (Zeller): CARVALHO (1995)
CARVALHO (1995: 577) recorded this species from Madeira without exact data and locality. We consider the record of this South European species in Madeira as a case of misidentification.

(g) *Blastobasis rubiginosella* Rebel: CARVALHO (1995), VIEIRA (1997), VIEIRA (1998).
CARVALHO (1995: 577) recorded this species from Madeira, but without exact data and locality. It is an endemic species of the Canary Islands, which is widely mis-interpreted in the

literature (see *e. g*. VIEIRA, 1997: 15), and records from Madeira are probably due to misidentification.

(h) *Apatema lucidum* Walsingham: WALSINGHAM (1908), REBEL (1940A), REBEL (1940C), KLIMESCH (1985), CARVALHO (1995).
This species was recorded from Madeira by several authors. However, material examined by us proved to belong to *A. fasciata* (STAINTON, 1859).

(i) *Scrobipalpa bazae* Povolný: KLIMESCH (1984), CARVALHO (1995).
KLIMESCH (1984: 156) and CARVALHO (1995: 578) recorded *S. bazae* from Madeira without date and locality details. As Klimesch (loc. cit.) recorded *bazae* from several places, whence it is not known, some mistake has probably occurred. *S. bazae* is consequently removed from the list of Madeiran Lepidoptera until its occurrence there is confirmed.

(j) *Iwaruna psoralella* (Millière): STAINTON (1859), WALSINGHAM (1894A), WALSINGHAM (1908), REBEL (1911), REBEL (1917), GAEDE (1937), REBEL (1940C), KLIMESCH (1984), CARVALHO (1995).
Several authors recorded *I. psoralella* from Madeira. However, specimens examined by us belong to *A. anthyllidella* ssp. *elachistella*. According to LERAUT (1997: 125) *psoralella* is a synonym of *anthyllidella*.

(k) *Pandemis heparana* (Denis & Schiffermüller): CARVALHO (1995), VIEIRA (1997), VIEIRA (1998).
P. heparana was recorded from Madeira under the name of *P. pasquayana* (DENIS & SCHIFFERMÜLLER, 1775) by CARVALHO (1995: 579) without exact data and locality. VIEIRA (1997: 19; 1998: 103) later also referred to this record. We have seen no material of *heparana* from Madeira. Most probably the record was based upon misidentification of a *Clepsis* species.

(l) *Epinotia signatana* (Douglas): WALSINGHAM (1894A), KENNEL (1910-1921), CARVALHO (1995).
This species was recorded from Madeira by mistake by WALSINGHAM (1894: 537, 541), based on a specimen of *Crocidosema plebejana* Zeller (WALSINGHAM, 1908: 1002-1003). CARVALHO (1995: 568) recorded it again from Madeira, Porto Santo and Selvagem Grande. However, these specimens belong to *Acroclita subsequana* (Herrich-Schäffer).

(m) *Epinotia* sp. near *tetraquetrana* (Haworth): WALSINGHAM (1894A), WALSINGHAM (1910), REBEL (1917), REBEL (1940C).
WALSINGHAM (1894: 537, 541) listed an unidentified specimen of *Steganoptycha* Stephens (a synonym of *Epinotia* Hübner) from Madeira. Later on (1910: 257) he referred to it as "*Eucosma* sp. ? (near *tetraquetrana* Hw.)", and remarked that it was "in poor condition". We have not been able to find the specimen in question, which should be in the collection of the BMNH, but it is unlikely that it belongs to *E. tetraquetrana* (Haworth), as the host plants of that species, *Alnus* and *Betula* (Betulaceae) do not occur naturally in Madeira. (there is a recent plantation of *Betula celtiberica* in the Poiso region).

(n) *Cydia succedana* (Denis & Schiffermüller): BRADLEY ET AL. (1979), CARVALHO (1995).

C. succedana was recorded from three localities in Madeira by CARVALHO (1995: 569, 579). We have seen no correctly identified material of *succedana* from Madeira, and we consider it likely that the specimens in question belong to *C. archaeochrysa* Diakonoff.

(o) *Cydia fagiglandana* (Zeller): WALSINGHAM (1894A), REBEL (1917), REBEL (1940C), BRADLEY ET AL. (1979), CARVALHO (1995).
One specimen of *C. fagiglandana* was recorded from Madeira under the name of "*Carpocapsa grossana* Hw." by WALSINGHAM (1894: 537, 540). We have been able to locate the specimen in question in the collection of the BMNH. It belongs to the dark form of *C. splendana* (Hübner), which occurs in Madeira. CARVALHO (1995: 570) recorded *fagiglandana* from Madeira: Curral das Freiras, and *splendana* from the same locality and date. The rather variable C. *splendana* is common at Curral das Freiras, whereas the occurrence of *fagiglandana* in Madeira requires confirmation.

(p) *Cydia negatana* (Rebel): CARVALHO (1995).
C. negatana was recorded from Madeira by CARVALHO (1995: 579) without exact data and locality, probably based on information received from J. Bradley (see KARSHOLT, 2000: 401-402). This Canarian species is closely related to *C. archaeochrysa* Diakonoff (which was not described at the time Bradley wrote his list), and a misidentification with that species seems likely.

(q) *Tebenna bjerkandrella* (Thunberg): WALSINGHAM (1894A), REBEL (1896), WALSINGHAM (1908), REBEL (1911), DIAKONOFF (1986A), CARVALHO (1995), VIEIRA (1997), VIEIRA (1998).
T. bjerkandrella was recorded several times from Madeira, apparently due to confusion with *T. micalis* (Mann). All Madeiran specimens examined by us belong to the latter species, and the presence of *bjerkandrella* in Madeira needs confirmation. We suppose that records of *bjerkandrella* from other Macaronesian archipelagos also refer to *micalis.*

(r) *Ancylosis oblitella* (Zeller): STAINTON (1859), BETHUNE-BAKER (1894), REBEL (1917), REBEL (1940C), CARVALHO (1995), MEYER (1997).
A. oblitella is listed from Madeira in several publications, none of which are based on examination of actual specimens. According to the late N. L. Wolff (unpublished), literature records of *oblitella* from Madeira refer to *A. cinerella* (now *roscidella*) and *oblitella* should be deleted from the list of Lepidoptera found in Madeira.

(s) *Cadra calidella* (Guenée): CARVALHO (1984).
C. calidella (Guenée) was recorded from Madeira by LUNA de CARVALHO (1984: 310). We saw no material of *calidella* from Madeira , and even though the presence of this pest species is possible, we consider that the record is probably due to confusion with the similar *C. cautella* (Walker).

(t) *Eudonia mercurella* (Linnaeus): STAINTON (1859), BETHUNE-BAKER (1894).
STAINTON (1859: 210) recorded *E. frequentella* (Stainton) from "three specimens in bad preservation" of the form *concinnella* (Curtis) from Wollaston´s material. BETHUNE-BAKER (1894: 582) wrote that Wollaston´s specimens included "both typical specimens and Curtis´s variety". *E. frequentella* is now considered a synonym of *E. mercurella* (LINNAEUS, 1758).

NUSS *et al.* (1997: 545) were unable to locate any specimens of *mercurella* in the BMNH and concluded that this species "does not occur in the Macaronesian Region". Specimens of *Eudonia* in bad condition are difficult to identify, and we are uncertain about the true identity of the specimens of "*frequentella* var. *concinnella*" collected by Wollaston. However, it is possibly that they belonged to the variable *E. scoriella* (Wollaston).

(u) *Heliothela wulfeniana* (Scopoli): NUSS (1999).
H. wulfeniana was recently recorded from Madeira by NUSS (1999: 44). The record is based on three male specimens in the BMNH, labeled "Madeira, R. South Coll., BM 1935-90 (Male Pyralidae, Brit. Mus. Slide No. 20276), *H. atralis* Hb., det. Bleszynski". They are similar to a large rather unicolorous form *coerulealis* Caradja, 1917, described from Turkey. To our knowledge South did not collect in Madeira himself, and we did not come across other specimens / records of Lepidoptera from Madeira labelled as coming from South´s collection. Furthermore Martin Honey, Geoff Martin and Michael Shaffer of the BMNH (pers. comm. / in litt.) did not recollect having seen specimens of other Lepidoptera from Madeira from the South collection. Without further evidence we regard the three specimens mentioned above as mislabeled, and *wulfeniana* is here removed from the list of Madeiran Lepidoptera until its occurence there is confirmed.

(v) *Pyrausta aurata* (Scopoli): REBEL & ROGENHOFER (1894), REBEL (1917), NORDMAN & REBEL (1935), REBEL (1940C), CARVALHO (1995).
P. aurata was recorded from Madeira by REBEL (1884: 79), without exact data and locality, and without having examined the specimen in question. It was stated to belong to the southern form *meridionalis* Staudinger. The record has most probably been confused with *meridionalis* Wocke (in STAUDINGER & WOCKE, 1871), a form of *Uresiphita gilvata* (Fabricius), which is common in Madeira. MARTIN (1941: 9) recorded '*Mecyna meridionalis* Wck.' from Madeira with reference to Rebel (op cit.). It is, however, obvious that Martin deals with the *Uresiphita* and not with the *Pyrausta*. *P. aurata* is removed from the Madeiran list of Lepidoptera.

(w) *Mecyna trinalis* (Denis & Schiffermüller): CARVALHO (1995), MEYER (1997)
M. trinalis was recorded for Madeira by CARVALHO (1995) and MEYER (1997) but were probably misidentifications of *Botyodes diniasalis* (Walker).

(x) *Maruca vitrata* (Fabricius): REBEL (1917), CARVALHO (1995), MEYER (1997).
REBEL (1917: 11 (footnote)) mentions that *M. vitrata* (= *testulalis* (Geyer)) should have been found in Madeira according to Wallengren. No further information is available, and *vitrata* is removed from the list of Madeiran Lepidoptera until its occurrence there is confirmed.

(y) *Colias hyale* (Linnaeus): COCKERELL (1923A), SWASH & ASKEW (1982), LACE & JONES (1984), KARSHOLT (1988), OWEN *et al.* (1987), ZHANG (1994), SALMON & WAKEHAM-DAWSON (1999), WAKEHAM-DAWSON *et al.* (2001), WEIDLICH (2001).
C. hyale was recorded from Madeira by COCKERELL (1923: 244), based on a probably unlabelled specimen that once existed in the collection of the "Museu do Seminário" in Funchal. It is unlikely that the specimen, if correctly identified, was collected in Madeira. All subsequent records of *hyale* from Madeira are based on this record. See KARSHOLT (1988: 155) for further details.

(z) *Cacyreus marshalli* Butler: WAKEHAM-DAWSON & AGUIAR (2003), TENNENT (2005).
A single larva of this Lycaenid was found in Funchal on a potted *Pelargonium zonale* (Geraniaceae), which was bought from an importer in Santo da Serra. Until further specimens are collected on the island, we consider it as an accidentally imported species.

(aa) *Polyommatus icarus* (Rottemburg): HIGGINS & HARGREAVES (1983), WEIDLICH (2001).
The record of *P. icarus* from Madeira in the maps by HIGGINS & HARGREAVES in their 1983 guide "The Butterflies of Britain and Europe" is undoubtedly a mistake.

(ab) *Vanessa virginiensis* (Drury, 1773): GODMAN (1870), KIRBY (1903), REBEL (1911), REBEL (1917), REBEL (1940C), GARDNER & CLASSEY (1960), BERNARDI (1961), WORMS (1964), FIELD (1971), FONTENEAU (1971), LEESTMANS (1975), OEHMIG (1977), HIGGINS & RILEY (1980), HEATH (1981), OWEN ET AL. (1987), KARSHOLT (1988), FERNÁNDEZ-RUBIO (1991), MEYER (1991A), SHAPIRO (1992A), MEYER (1993), OWEN & SMITH (1993B), BALLETTO (1995), TOLMAN & LEWINGTON (1997), SALMON & WAKEHAM-DAWSON (1999), SOUSA (1999), ROINE (2000), WAKEHAM-DAWSON & WARREN (1998B), WAKEHAM-DAWSON ET AL. (2001), WEIDLICH (2001).
V. virginiensis was (under the name of *Vanessa hunteri*) briefly mentioned from Madeira by GODMAN (1870), but not from the Canary Islands where it occurs regularly, and apparently he mixed up the islands from where this species is recorded. All subsequent records of *virginiensis* from Madeira are based on Godman's "record". *V. virginiensis* is a migratory species which could well turn up in Madeira, but as long as no confirmed records from there exists it is omitted from the list of Madeiran Lepidoptera.

(ac) *Hipparchia statilinus* (Hufnagel): HIGGINS & RILEY (1980), SWASH & ASKEW (1982), HIGGINS & RILEY (1983), LACE & JONES (1984), GRAHAM (1986A), GRAHAM (1986B), JONES ET AL. (1987), KARSHOLT (1988), BÁEZ (1993), MEYER (1993), SALMON & WAKEHAM-DAWSON (1999), SZIEMER (2000), WAKEHAM-DAWSON ET AL. (2001), WEIDLICH (2001), WAKEHAM-DAWSON ET AL. (2004).
H. statilinus was recorded from Madeira on the basis of a specimen labelled Nogueira, Camara de Cargo, 1000 m, 23.viii.1974, E. Traugott-Olsen leg. (ZMUC) (HIGGINS & RILEY, 1983; KARSHOLT, 1988). Camara de Cargo is a reservatoir near the electricity power station at Faja da Nogueira, which is situated at about 625 metres altitude, not 1000 m. The specimen belongs to the form *allionia* (FABRICIUS, 1781) (L. G. Higgins det.). The late Ernst Traugott-Olsen subsequently informed O. Karsholt (pers. comm., 23.viii.1993) that he could not rule out the possibility that this record was due to an error, as he could not remember the capture, and the form *allionia* moreover occurs near his home in S. Spain. Hence he believed that the occurrence of *statilinus* should be confirmed by additional observations. Later GRAHAM (1986A, B) recorded seeing several specimens at Ribeira das Cales (1450 m), but he was probably seeing specimens of the Madeiran Grayling, *H. maderensis*. *H. statilinus* is removed from the list of Madeiran Lepidoptera until its occurrence there is confirmed.

(ad) *Danaus chrysippus* (Linnaeus): SCHMIDT-KOEHL (1971), MEYER (1993), SALMON & WAKEHAM-DAWSON (1999), SZIEMER (2000), WAKEHAM-DAWSON *et al*. (2001), WEIDLICH (2001).

According to MEYER (1993) there is a specimen deposited in the Museu Municipal do Funchal [MMF], without a locality label. The specimen in question is numbered 23907, and the reference to this number in the collection journal gives no further information. According to the late G. E. Maul of that museum (pers. comm.) the specimen is unlikely to be of Madeiran orign. *D. chrysippus* is removed from the list of Madeiran Lepidoptera until its occurrence there is confirmed.

(ae) *Episauris kiliani* Rebel: PROUT (1912-1915), REBEL (1917), PROUT (1940), REBEL (1940C), CARVALHO (1981), MEYER (1995B), VIEIRA (1997), VIEIRA (1998), WEIDLICH (2001).
E. kiliani Rebel was recorded from Madeira by PROUT (1912-15: 181; 1940: 2) based on a single specimen labelled "Las Mercedas, 17.iii.1902, A. E. Eaton" in the collection of BMNH. However, Las Mercedes is a well-known locality in Tenerife (and indeed the type locality for *kiliani*) and its inclusion in the list of Madeiran Lepidoptera is hence due to a mistake.

(af) *Disclisioprocta purpurariarum* (Rebel): REBEL (1917), PROUT (1934-1939), PROUT (1940), REBEL (1940C), CARVALHO (1981), MEYER (1995A), MEYER (1995B), PARSONS ET AL. (1999), WEIDLICH (2001).
D. purpurariarum was described from two specimens in the NHMV: one male labelled as having been collected in Madeira by the Novara Expedition in June 1857, and one female labelled "Sardinia, Dahl". In his discussion following the description Rebel argued that the "Sardinia" specimen was mislabelled and had been collected together with the male specimen from Madeira.
Apart from *purpurariarum* the genus *Disclisioprocta* Wallengren, 1861 contains only two, closely related species, viz. *natalata* Walker, 1862 from Africa and *stellata* (GUENÉE, 1858), occurring in the New World (PARSONS ET AL., 1999). The late N. L. Wolff compared type material of these three taxa, but was unable to decide whether they belong to one, two or three species (pers. comm. to O. Karsholt). *D. purpurariarum* resembles superficially the Madeiran endemic *Xanthorhoe rupicola* (Wollaston), but the latter has more unicolorous hindwing upperside.
Since no additional specimens of *purpurariarum* have turned up in Madeira we find it likely that the type specimen was either accidentally introduced to Madeira or, more likely in the light of the mislabelled specimen from Sardinia, that both specimens were mislabelled, having been collected by the Novara Expedition either in Africa or in America.

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