

# **New and interesting Portuguese Lepidoptera records from 2012 (Insecta: Lepidoptera)**

**M. F. V. Corley, T. Merckx, E. M. Marabuto, W. Arnscheid & E. Maravalhas**

## **Abstract**

26 species are added to the Portuguese Lepidoptera fauna and three species deleted, mainly as a result of fieldwork undertaken by the authors in 2012. In addition, second and third records for the country and new food-plant data for a number of species are included. A summary of papers mainly published in 2012 affecting the Portuguese fauna is included.

KEY WORDS: Insecta, Lepidoptera, distribution, Portugal.

## **Novos e interessantes registos portugueses de Lepidoptera de 2012 (Insecta: Lepidoptera)**

## **Resumo**

Como resultado do trabalho de campo desenvolvido pelos autores principalmente no ano de 2012, são adicionadas 26 espécies de Lepidoptera para a fauna de Portugal e três são retiradas da lista nacional. Adicionalmente, são apresentados segundos e terceiros registos de espécies previamente conhecidas além de novas plantas alimentícias para algumas outras espécies. Finalmente, é apresentado um sumário dos trabalhos relevantes para a fauna portuguesa publicados no ano de 2012.

PALAVRAS CHAVE: Insecta, Lepidoptera, distribuição geográfica, Portugal.

## **Nuevas e interesantes citas portuguesas de Lepidoptera del 2012 (Insecta: Lepidoptera)**

## **Resumen**

Con el trabajo de campo efectuado por los autores principalmente durante el año de 2012, se añaden 26 especies de Lepidoptera a la fauna de Portugal y se eliminan tres especies de la lista nacional. Adicionalmente se presentan segundos y terceros registros de especies ya conocidas del país y también nuevas plantas nutricias de algunas otras especies. Finalmente se presenta un resumen de los trabajos publicados en 2012 que son relevantes para la fauna portuguesa.

PALABRAS CLAVE: Insecta, Lepidoptera, distribución geográfica, Portugal.

## **Introduction**

This paper gives records of species of Lepidoptera added to the Portuguese fauna in 2012,

with additional data including second and third records of species and sometimes further records, either recent or older, where we consider that a species has been neglected, together with significant extensions of range within Portugal and new data on larval food-plants within the country. Also a few species are included for which the originally published records are erroneous or have not proved possible to confirm and we therefore provide a recent confirmed record.

It follows the format established in CORLEY *et al.* (2008). It is the seventh in the series of annual summaries of new knowledge of Portuguese Lepidoptera. Finally, papers and books published in 2012 that relate to the Portuguese Lepidoptera fauna are listed and briefly summarised.

26 species new for Portugal are listed below. Four of these species, marked (\*) have been previously listed for Portugal, but the records are erroneous or unsubstantiated. Three species are deleted from the Portuguese fauna.

With these changes including six further additions and four deletions in other literature, the total number of Lepidoptera species currently recognised from Portugal is 2583.

A paper on the Lepidoptera of Serra da Peneda was planned, so only species new to Portugal recorded by Thomas Merckx in that area in 2011 appeared in CORLEY *et al.* (2012b). We now consider such a paper unnecessary, so we have included numerous second and third records from this area from both 2011 and 2012 in the present paper. This has revealed a remarkable number of species for which there are a substantial number of records but only two or three have ever been published. The opportunity has been taken to give a better idea of the distribution of these species by including a selection of records.

The family Psychidae has been little studied in Portugal since Monteiro's work on the family, mainly in the 1950s. Some of the results from recent work by Wilfried Arnscheid are included here, including five species new for Portugal.

Examination of some older collections in the past year has produced some second and third records for the country, which are also included here.

## Material and Methods

Most species were captured at mercury vapour light over or beside a white sheet, apart from Thomas Merckx's records which were trapped in 'Heath' traps using 6 watt actinic lights. Where this was not the case, the means of capture is given. Specimens are retained in the collections of the original recorders, unless otherwise stated. A few older records of overlooked or previously unconfirmed species are also included.

The order and nomenclature of families and species follows KARSHOLT & RAZOWSKI (1996) with a number of modifications reflecting more recent works. Recently there have been major changes in the classification of Lepidoptera which have been adopted in Fauna Europaea (KARSHOLT & NIEUKERKEN, 2011). A completely revised list of Portuguese Lepidoptera is in preparation and this will follow the new classification, but at least for the present paper, the familiar order continues to be used. The nomenclature of plant names follows CASTROVIEJO (1986-2010) where possible and otherwise follows TUTIN *et al.* (1964-1980).

The entry for species new for Portugal concludes with a summary of the known European distribution, and available information on the larval food-plant, given in square brackets if the information comes from outside Portugal. Food-plants are not given for the highly polyphagous Psychidae.

## Localities with UTM squares and altitude: (District in brackets)

The map below shows the 10x10 km UTM grid squares from which records cited in this paper were made.

Abreiro station (Vila Flor)	PF4478	170 m
Adofreire, Castro Laboreiro (Melgaço)	NG7057	1080 m
Adsamo, Serra de Caramulo (Vouzela)	NF7403	800 m
Águas Santas (Caldas da Rainha)	MD8661	30 m
Albergaria, Serra da Estrela (Manteigas)	PE2165	1500 m
Alcaria Ruiva (Mértola)	PB0973	300 m
Aljezur, 3 km W of	NB1428	100 m
Almarjão (Silves)	NB4716	15 m
Ameijoeira, Castro Laboreiro (Melgaço)	NG6949	750 m
Amieiro, Tua valley (Alijó)	PF3471	150 m
Ansião, 2 km E. of	NE5019	250 m
Apeadeiro do Guadiana (Serpa)	PC1804	80 m
Apúlia (Esposende)	NF1992	10 m
Arnal, Serra do Alvão (Vila Real)	NF9976	920 m
Arzila (Coimbra)	NE3847	6 m
Assureira, Castro Laboreiro (Melgaço)	NG6950	780 m
Barragem da Serra Serrada, Serra de Montesinho (Bragança)	PG8348	1300 m
Barreiro, Castro Laboreiro (Melgaço)	NG6851	810 m
Beça, Esculca, Serra do Barroso (Boticas),	PG0815	790 m
Bertiandos, 1 km W. of, (Ponte de Lima)	NG2923	6 m
Boliqueime (Loulé)	NB7510	70 m
Brunheda (Carrazeda de Ansiães)	PF3776	160 m
Cabeças, Castro Laboreiro (Melgaço)	NG6951	850 m
Cabo de São Vicente (Vila do Bispo)	NA0198	75 m
Caldas de Manteigas (Manteigas)	PE2371	850 m
Cântaro Raso, road tunnel, Serra da Estrela (Manteigas)	PE1964	1710 m
Carrapateira (Vila do Bispo)	NB0806	25 m
Carrazedo, 2 km N. of (Bragança)	PG7528	750 m
Carvalho da Boalhosa, above Rio Trovela (Ponte de Lima)	NG4120	280 m
Casmilo, Serra de Janeanes (Condeixa-a-Nova)	NE4333	300 m
Castelo de Vide, 2 km S. E. of,	PD3568	570 m
Castelo do Rabaçal, Serra de Sicó (Penela)	NE4831	250 m
Castro Laboreiro (Melgaço)	NG6954	970 m
Ceira (Coimbra)	NE5247	100 m
Cimbres (Armamar)	PF0945	720 m
Colo de Pito (Castro Daire)	NF9335	880 m
Constantim (Miranda do Douro)	QG2613	850 m
Coriscadas, Castro Laboreiro (Melgaço)	NG6955	1100 m
Costa da Cabrita, Castro Laboreiro (Melgaço)	NG7055	1100 m
Cova da Lua (Bragança)	PG8039	790 m
Covão da Ametade, Serra da Estrela (Manteigas)	PE1965	1420 m
Covão da Ponte, Serra da Estrela (Manteigas)	PE2678	980 m
Covão do Boi, Serra da Estrela, (Manteigas)	PE1864	1850 m
Covões, Vale de Zêzere (Manteigas)	PE2268	1080 m
Cruzinha, Mexilhoeira Grande (Portimão)	NB3411	20 m
Ermelo, R. Olo N. E. of, (Mondim de Basto)	NF9280	300 m
Escusa (Marvão)	PD3762	550 m
Faia Brava reserve, Algodres (Vila Nova de Foz Côa)	PF6234	500 m
Falagueiras, Castro Laboreiro (Melgaço)	NG7056	1050 m
Figueira de Castelo Rodrigo	PF7129	640 m
Fóios, Malcata (Sabugal)	PE7760	900 m
Fonte de Benémola, Querença (Loulé)	NB8818	140 m

Fonte de Apra (Loulé)	NB9212	250 m
Formarigo, Castro Laboreiro (Melgaço)	NG7055	1100 m
Foros do Arrão (Ponte de Sôr)	ND6536	180 m
Freixiel (Vila Flor)	PF4876	400 m
Freixo de Numão (Vila Nova de Foz Côa)	PF4848	480 m
Fresulfe (Vinhais)	PG7140	650 m
Galegos (Marvão)	PD4461	470 m
Gerês (Terras de Bouro)	NG7020	440 m
Gondesende (Bragança)	PG7734	790 m
Gosende (Castro Daire)	NF9040	1000 m
Guincho (Cascais)	MC5887	10 m
Hortas de Baixo (Arronches)	PD5834	330 m
Laceiras, Castro Laboreiro (Melgaço)	NG6952	780 m
Lagoa da Nave (Loulé)	NB8520	250 m
Lama Grande, Serra de Montesinho (Bragança)	PG8346	1390 m
Lamas de Olo (Vila Real)	NF9980	980 m
Lamego	PF0050	550 m
Ludo (Faro)	NA9099	10 m
Malhada da Figueira, N. of Santa Rita (Tavira)	PB2619	125 m
Manteigas, 2 km E of,	PE2673	850 m
Manteigas, road to Pousada	PE2375	1300 m
Marinhas (Esposende)	NG1801	20 m
Mata do Buçaco (Mealhada)	NE5370	270 m
Mindelo (Vila do Conde)	NF2274	5 m
Minhota (Marvão)	PD3863	650 m
Mofreita, 2 km N. E. of, (Vinhais)	PG7444	1040 m
Moimenta (Vinhais)	PG6746	900 m
Montalegre	PG0031	950 m
Monte Barata (Castelo Branco)	PD4496	230 m
Montesinho, 2 km N. of village (Bragança)	PG8547	1220 m
Nave de Santo António, Serra da Estrela (Manteigas)	PE2063	1550 m
Olhão	PA0398	3 m
Outeiró (Trofa)	NF3870	90 m
Parâmio (Vinhais)	PG7740	860 m
Parque Biológico de Gaia (Vila Nova de Gaia)	NF3650	110 m
Penhas da Saúde (Covilhã)	PE2363	1450 m
Peso (Melgaço)	NG5861	70 m
Poço do Inferno, Serra da Estrela (Manteigas)	PE2570	1100 m
Podre, Castro Laboreiro (Melgaço)	NG6850	800 m
Ponte Nova, Assureira, Castro Laboreiro (Melgaço)	NG6950	750 m
Ponte do Rio Maceira, Serra do Gerês (Terras de Bouro)	NG7127	650 m
Portagem (Marvão)	PD3961	515 m
Portela, Castro Laboreiro (Melgaço)	NG7156	1140 m
Porto, Jardim Botânico	NF3056	70 m
Praia Verde (Castro Marim)	PB3415	5 m
Pulo do Lobo (Mértola)	PB2085	35 m
Quinta da Baleia, Travancinha (Seia)	NE9876	310 m
Ramisqueira, Castro Laboreiro (Melgaço)	NG6951	800 m
Regato da Videeira, Prada (Vinhais)	PG6736	930 m
Ribeira de Seda (Alter do Chão)	PD1147	160 m
Ribeiradio (Oliveira de Frades)	NF5808	340 m
Rio Rabaçal, 2 km W. of Rebordelo (Vinhais)	PG5124	360 m

Rodeiro, Castro Laboreiro (Melgaço)	NG7156	1070 m
Salema (Vila do Bispo)	NB1513	60 m
Santa Iria (Serpa)	PC2694	160 m
São Mamede, Serra de São Mamede (Portalegre)	PD4052	810 m
São Miguel, Serra de Monte Figo (Olhão)	PB0406	370 m
São Romão (São Brás de Alportel)	NB9412	200 m
Sapais de Castro Marim (Castro Marim)	PB3820	4 m
Segura (Idanha-a-Nova)	PE7209	167 m
Seixezelo (Vila Nova de Gaia)	NF3742	215 m
Serra da Adiça (Moura)	PC4808	330 m
Serra de Açor (Arganil)	NE95	1000 m
Serra da Malcata (Sabugal)	PE75	950 m
Serra do Larouco (Montalegre)	PG0636	1300 m
Setúbal	NC06	40 m
Singeverga (Santo Tirso)	NF5277	200 m
Sintra	MC6595	200 m
Sobral da Adiça (Moura)	PC5111	190 m
Travassos (Póvoa de Lanhoso)	NG6603	275 m
Travessa, Castro Laboreiro (Melgaço)	NG6955	1020 m
Trinta, by Rio Mondego, Serra da Estrela (Guarda)	PE3785	740 m
Tronco (Chaves)	PG4226	755 m
Vale da Fonte (Aljezur)	NB1017	25 m
Vale de Estacas (São Brás de Alportel)	NB9815	250 m
Vale de Rodão (Marvão)	PD3964	455 m
Valinhas, Monte Córdova (Santo Tirso)	NF4673	280 m
Verdemilho (Aveiro)	NE2996	10 m
Vila Nova de Milfontes (Odemira)	NB1975	30 m
Vilarinho (Bragança)	PG7940	780 m
Zambujeira do Mar (Odemira)	NB1953	45 m
Zimão, Serra do Alvão (Vila Pouca de Aguiar)	PF1289	710 m

### Recorders

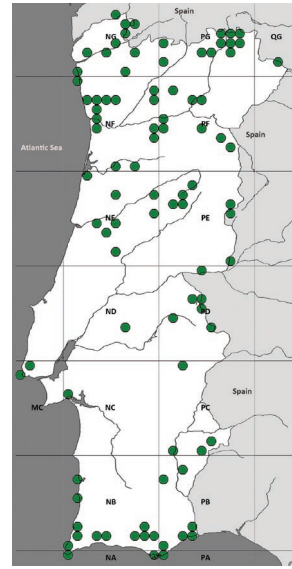
Jorge Mota Almeida	Eduardo Marabuto
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Paulo Lemos	Marco Vale
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### Abbreviations and symbols:

- coll. collection  
comm. communicated by  
conf. confirmed by  
det. determined by  
IICT Centro de Zoologia, Instituto de Investigação Científica e Tropical, Lisboa  
IZPC Natural History Museum of the Sciences Faculty of Porto  
ZMCP Museu de Zoologia, Coimbra  
\* New for Portugal  
(\* ) New for Portugal, but has previously been listed erroneously or questionably.

### Provinces:

- AAL Alto Alentejo  
ALG Algarve  
BA Beira Alta  
BAL Baixo Alentejo  
BB Beira Baixa  
BL Beira Litoral  
DL Douro Litoral  
E Estremadura  
M Minho  
TM Trás-os-Montes



### List of families and species

#### HEPIALIDAE

##### *Korscheltellus lupulina* (Linnaeus, 1758)

Second and subsequent Portuguese records. AAL: Escusa, 11-V-1999, Corley; DL: Singeverga, V-1949, Monteiro; TM: Lama Grande, 4-VI-2005, Corley; M: Barreiro, 26-V-2011, Merckx. Previously recorded from Gerês (CRUZ & WATTISON, 1929). The record from Sintra (MENDES, 1951) is a misidentification.

#### ADELIDAE

##### *Nematopogon schwarziellus* Zeller, 1839

Third Portuguese record. M: Costa da Cabrita, 18-VI-2012, Corley. Previously recorded from Douro Litoral and Trás-os-Montes (CORLEY *et al.*, 2006; CORLEY *et al.*, 2011).

#### TINEIDAE

##### *Cephimallota crassiflavella* Bruand, 1851

Second and subsequent records. AAL: Galegos, 3-VI-1996, Corley; BA: Covão da Ponte, 11-VII-2009, Corley and Pires; DL: Outeiró, 19-V-2006, Corley; TM: Freixo do Numão, 1-VI-2006, Corley; Moimenta, 2-VI-2006, Corley; M: Assureira, 27-VII-2011, Corley. Previously recorded from Algarve (CORLEY *et al.*, 2000).

##### *Niditinea striolella* (Matsumura, 1931)

Second Portuguese record. BL: Mata do Buçaco, 23-VI-2012, Corley and Moreira. Previously recorded from Beira Alta (GAEDIKE, 2010).

## PSYCHIDAE

\* *Pseudobankesia casaella* Hättenschwiler, 1994

BA: Manteigas, road to Pousada, larvae, V-2012, Arnscheid. Spain and France.

(\*) *Bankesia conspurcatella* (Zeller, 1950)

First and second confirmed Portuguese records. BL: Ceira, 17-II-2007, Pires, det. Arnscheid; DL: Parque Biológico de Gaia, III-2012, Grosso-Silva, det. Arnscheid. Previously recorded from Estremadura (as *B. ? staintoni* Walsingham) by MENDES (1910). The specimen has not been found, and its identity was questioned by Mendes himself, so the record has to be treated as unconfirmed.

\* *Placodoma calpella* Sobczyk, 2013

BB: Monte Barata, 13-VII-2007, Corley; Segura, 14-VII-2007, Corley, both det. Arnscheid. The species was recently described from Gibraltar.

*Luffia lapidella* (Goeze, 1753)

Fourth and fifth Portuguese records. AAL: Marvão, larva on lichens on rocks, 10-V-1999, Corley; BA: 2 km E of Manteigas, larvae, V-2010, Arnscheid. Previously recorded from Estremadura (MENDES, 1910), Douro Litoral (MONTEIRO, 1959a) and Algarve (MONTEIRO & CARVALHO, 1984).

*Psyche crassiorella* Bruand, 1851

Fourth and fifth Portuguese records. AAL: Hortas de Baixo, larval cases, 9-IX-1996, Corley; BA: 2 km E of Manteigas, larvae, V-2010, Arnscheid. Previously recorded from Douro Litoral (MONTEIRO, 1959a) and two localities in Algarve (MONTEIRO & CARVALHO, 1984).

\* *Pachythelia villosella* (Ochsenheimer, 1810)

BA: Cântaro Raso, 30-IV-2010, Arnscheid. Nearly all Europe except Ireland, Norway and some of the Mediterranean islands.

*Ptilocephala colossa* (A. Bang-Haas, 1907)

Third and fourth Portuguese records. TM: Arnal, larvae on *Erica arborea*, 4-IX-2002, Corley; BA: Manteigas, road to Pousada, larvae, 28-IV-2010, Arnscheid. Previously recorded from two localities in Trás-os-Montes (MONTEIRO, 1956).

*Ptilocephala matthesi* (Bourgogne, 1954)

Sixth Portuguese record. BA: Manteigas, road to Pousada, larvae, 28-IV-2010, Arnscheid. Previously recorded from Beira Litoral, Beira Baixa, Trás-os-Montes and Minho (BOURGOGNE, 1954).

\* *Apterona gracilis* (A. Speyer, 1886)

ALG: Aljezur, larva II-2009, Arnscheid. Spain.

## BUCCULATRICIDAE

*Bucculatrix cidarella* (Zeller, 1839)

Second Portuguese record. M: Bertandos, 26-VI-2012, Corley. Previously recorded from Beira Alta (CORLEY *et al.*, 2009).

## GRACILLARIIDAE

Delete *Caloptilia cuculipennella* (Hübner, 1796).

Recorded by CORLEY *et al.* (2007) from Trás-os-Montes, based on pupal exuviae, using the keys in PATOČKA & TURČÁNI (2005). However that work does not include *C. loriolella*, which has somewhat similar pupae. There is therefore no evidence to support the presence of *C. cuculipennella* in Portugal.

*Caloptilia loriolella* (Frey, 1881)

Second Portuguese record. M: Peso, larvae and pupae on *Fraxinus angustifolia*, 14-VI-2012, Corley. Previously recorded from Ribatejo (LAŠTŮVKA & LAŠTŮVKA, 2011).

*Calybites phasianipennella* (Hübner, 1813)

Fourth and subsequent Portuguese records. ALG: Almarjão, 16-VI-2009, Laštůvka and Laštůvka; BAL: Sobral da Adiça, 5-VI-2008, Corley, Marabuto and Rodrigues; AAL: Galegos, larva on *Persicaria hydropiper*, 21-X-1997, Corley; DL: Parque Biológico de Gaia, larval spinning on *Persicaria hydropiper*, 5-X-2008, Corley; TM: Brunheda, 21-VII-2006, Corley. Previously recorded from Beira Baixa (MENDES, 1905) and two localities in Beira Litoral (PIRES & CORLEY, 2007).

## YPONOMEUTIDAE

*Swammerdamia pyrella* (Villers, 1789)

Second to fourth Portuguese records. BL: Arzila, 13-V-2006, Corley and Pires; TM: Gondesende, 30-VII-2011, Corley; M: Podre, 26-VII-2011, Corley. Previously recorded from Beira Baixa (MENDES, 1904).

## DEPRESSARIIDAE

*Agonopterix nodiflorella* (Millière, 1866)

Third Portuguese record. ALG: Boliqeime, 31-III-2012, Dale. Previously recorded from two sites in Alto Alentejo (CORLEY *et al.*, 2006).

*Agonopterix subpropinquella* (Stainton, 1849)

TM: Cova da Lua, larvae on *Onopordum*, 26-VI-2012, Corley.

*Agonopterix alstromeriana* (Clerck, 1759)

Third Portuguese record. BAL: Apeadeiro do Guadiana, 12-III-2012, Marabuto. Previously recorded from Estremadura (MENDES, 1910) and Beira Alta (CORLEY *et al.*, 2012a).

*Agonopterix kaekeritziana* (Linnaeus, 1767)

Second Portuguese record. M: Costa da Cabrita, larvae on *Centaurea nigra*, 18-VI-2012, Corley. Previously recorded from Trás-os-Montes (CORLEY *et al.*, 2011).

*Agonopterix rutana* (Fabricius, 1794)

AAL: Escusa, larvae on *Ruta montana*, 11-IV-1998, Corley; TM: Vilarinho, larva on *Ruta montana*, 21-VI-2012, Corley.

## SCYTHRIDIDAE

\* *Scythris ridiculella* Caradja, 1920

TM: Gondesende, netted on *Lotus* in sunshine, 21-VI-2012, Corley. Spain, France, Italy, Croatia. [*Genista*, *Cytisus*, *Lotus*, *Helianthemum*].

\* *Scythris bornicensis* Jäckh, 1977

TM: Mofreita, on *Andryala* flowers, 22-VI-2012, Corley. Spain, France, Switzerland, Germany.  
Larva unknown.

#### OECOPHORIDAE

*Borkhausenia minutella* (Linnaeus, 1758)

Second Portuguese record. M: Podre, 26-VII-2011, Corley. Previously recorded from Trás-os-Montes (CORLEY *et al.*, 2007).

*Batia lambdella* (Donovan, 1793)

Third to sixth Portuguese records. BA: Covão de Ametade, 13-VIII-2001, van Nieuwerkerken; BL: Arzila, 24-IX-2004, Corley; TM: Freixo do Numão, 21-IX-2004, Corley; M: Podre, 26-VII-2011, Corley and Merckx. Previously recorded from Alto Alentejo (CORLEY *et al.*, 2006) and Beira Baixa (MARABUTO *et al.*, 2013).

*Oecophora bractella* (Linnaeus, 1758)

Second and third Portuguese records. TM: Moimenta, 2-VI-2005, Corley; M: Adofreire, 26-VII-2011, Corley and Merckx. Previously recorded from Gerês (CORLEY *et al.*, 2006).

#### COLEOPHORIDAE

*Coleophora albidella* (Denis & Schiffermüller, 1775)

Third Portuguese record. M: Bertiandos, 26-VI-2012, Corley. Previously recorded from Baixo Alentejo (CORLEY, 2004) and Beira Litoral (PIRES & CORLEY, 2007).

*Coleophora otidipennella* (Hübner, 1817)

Third Portuguese record. M: Costa da Cabrita, 18-VI-2012, Corley. Previously recorded from two localities in Trás-os-Montes (CORLEY *et al.*, 2008).

\* *Coleophora ciliataephaga* Glaser, 1978

ALG: Sapais de Castro Marim, larva on *Suaeda vera*, 12-III-2011, Corley, det. Baldizzone. South Spain, where larvae were found feeding on the introduced *Kochia ciliata* (GLASER, 1978).

#### PTEROLONCHIDAE

*Pterolonche dispersa* Staudinger, 1859

Third Portuguese record. TM: Beça, 31-VII-2012, Maravalhas, det. Corley. Previously recorded from Estremadura (MENDES, 1910) and Douro Litoral (MONTEIRO, 1964).

#### COSMOPTERYGIDAE

*Pyroderces caesaris* Gozmány, 1957

Second Portuguese record. BAL: Zambujeira do Mar, 18-VIII-2012, Pires, det. Corley. Previously recorded from Algarve (CORLEY *et al.*, 2009).

#### GELECHIIDAE

*Aristotelia ericinella* (Zeller, 1839)

TM: Gondesende, larva on *Erica arborea*, 21-VI-2012, Corley.

*Metzneria castiliella* (Möschler, 1866)

Extension of range. BAL: Apeadeiro do Guadiana, 12-III-2012, Marabuto. Previously known from eight sites in Algarve (STANTON, 1881; MONTEIRO & CARVALHO, 1984; CARVALHO & CORLEY, 1995).

*Monochroa lucidella* (Stephens, 1834)

Second Portuguese record. M: Bertandos, 26-VI-2012, Corley. Previously recorded from Algarve (CORLEY, 2005).

*Monochroa hornigi* (Staudinger, 1883)

Fifth Portuguese record. M: Bertandos, 26-VI-2012, Corley. Previously recorded from Trás-os-Montes and Baixo Alentejo (CORLEY *et al.*, 2007) and from two sites in Beira Baixa (MARABUTO *et al.*, 2013).

*Bryotropha figulella* (Staudinger, 1859)

Extension of range, DL: Mindelo, 24-VI-2012, Corley. Previously recorded from Beira Baixa (MENDES, 1905), Algarve (CARVALHO & CORLEY, 1995) and Baixo Alentejo (CORLEY, 2004). Essentially a coastal species, the Beira Baixa record is very doubtful.

*Recurvaria nanella* (Denis & Schiffermüller, 1775)

Extensions of range. M: Podre, 28-VII-2011, Corley; TM: Gondesende, 30-VII-2011, Corley. Previously recorded from several localities in Algarve (CARVALHO & CORLEY, 1995; CORLEY *et al.*, 2000).

*Psoricoptera gibbosella* (Zeller, 1839)

Second Portuguese record. M: Podre, 28-VII-2011, Corley. Previously recorded from Beira Baixa (MENDES, 1904).

*Mirificarma cytisella* (Treitschke, 1833)

Third and subsequent Portuguese records. TM: Ermelo, 4-IX-2001, Corley; Lama Grande, 4-VI-2005, Corley; Amieiro, 20-X-2010, Corley; M: Carvalhal da Boalhosa, 10-V-2007, Corley; Costa da Cabrita, 18-VI-2012, Corley. Previously recorded from two localities in Trás-os-Montes (AMSEL, 1959).

*Caryocolum alsinella* (Zeller, 1868)

Third and fourth Portuguese records. TM: Fresulfe, 24-IX-2005, Corley; M: Podre, 26-VII-2011, Corley. Previously recorded from two localities in Serra de Alvão (CORLEY *et al.*, 2006).

*Anacampsis populella* (Clerck, 1759)

Third and fourth Portuguese records. TM: Fresulfe, 23-IX-2005, Corley; M: Podre, 28-VII-2011, Corley. Previously recorded from Beira Alta (CORLEY, 2002) and Beira Litoral (PIRES & CORLEY, 2007).

*Dichomeris lamprostoma* (Zeller, 1847)

Extension of range. BAL: Apeadeiro do Guadiana, 7-X-2012, Marabuto. Previously only known from Algarve (MONTEIRO & CARVALHO, 1984; CORLEY *et al.*, 2000).

*Dichomeris alacella* (Zeller, 1839)

Extensions of range. AAL: Escusa, 31-VIII-2001, Corley; BA: Covão da Ponte, 11-VII-2008, Corley and Pires; TM: Freixiel, 20-V-2009, Corley; Montesinho, 9-VII-2009, Corley; M: Costa da

Cabrita, 28-VII-2011, Corley. Previously recorded from four localities in Algarve (MONTEIRO & CARVALHO, 1984; CORLEY *et al.*, 2000).

*Helcystogramma lutatella* (Herrich-Schäffer, 1854)

Third and subsequent records. AAL: São Mamede, 31-VIII-2001, Corley; BA: Caldas de Manteigas, 4-IX-2001, Corley; TM: Abreiro station, 7-VII-2009, Corley; Arnal, 2-IX-2002; Gondesende, 30-VII-2011, Corley; M: Podre, 26-VII-2011, Corley. Previously recorded from two localities in Algarve (CARVALHO & CORLEY, 1995; CORLEY *et al.*, 2000).

#### SESIIDAE

*Pyropteron affinis* (Staudinger, 1856)

Extensions of range. BA: Manteigas (Pousada), 18-VI-2006, Laštůvka and Laštůvka; ALG: Vale de Estacas, 28-VI-2012, Fonseca, det. Marabuto, conf. Z. Laštůvka. Previously recorded from Beira Baixa (MENDES, 1903), Douro Litoral, Trás-os-Montes and Minho (CRUZ & WATTISON, 1934).

#### COSSIDAE

*Stygia australis* Latreille, 1803

Third Portuguese record. BAL: Vila Nova de Milfontes, 21-VI-1983, Serrano, in coll. Carvalho. Previously recorded from two localities in Estremadura (GUERRA & MONTEIRO, 1978).

#### TORTRICIDAE

*Phtheochroa rugosana* (Hübner, 1799)

Third and subsequent Portuguese records. AAL: Escusa, 13-IV-1997, Corley; TM: Beça, VII-2005, Maravalhas; Gondesende, 18-VI-2010, Corley; M: Bertiandos, 26-VI-2012, Corley. Previously recorded from Beira Baixa (MENDES, 1913) and Beira Litoral (PIRES & CORLEY, 2007).

*Agapeta zoegana* (Linnaeus, 1767)

Second Portuguese record. M: Podre, 26-VII-2011, Corley. Previously recorded from Trás-os-Montes (CORLEY *et al.*, 2006).

*Aethes moribundana* (Staudinger, 1859)

Extension of range. BAL: Santa Iria, 10-III-2012, Marabuto; Serra da Adiça, 10-III-2012, Marabuto; Apeadeiro do Guadiana, 12-III-2012, Marabuto; Alcaria Ruiva, 13-III-2012, Marabuto. Previously recorded from Setúbal (VIEILLEDENT, 1905) and numerous sites in Algarve (RAGONOT, 1881; CARVALHO & CORLEY, 1995; CORLEY *et al.*, 2000).

*Acleris ferrugana* (Denis & Schiffermüller, 1775)

Third Portuguese record. DL: Seixezelo, 2-II-2012, Grosso-Silva, det. Corley. Previously recorded from Beira Baixa (MENDES, 1904) and Douro Litoral (MENDES, 1909).

*Acleris literana* (Linnaeus, 1758)

Second Portuguese record. BL: Ansião, 22-XII-2012, Rosete. Previously recorded from Minho (CORLEY *et al.*, 2012b).

*Cnephasia incertana* (Treitschke, 1835)

Following the description of *C. delnoyana* (GROENEN & SCHREURS, 2012) and its recognition as a Portuguese species (see below), the presence in Portugal of *C. incertana* and extent of its

distribution need to be confirmed. The following records definitely belong to *C. incertana*: TM: Moimenta, 2-VI-2005, Corley; Constantim, 23-V-2007, Corley; Carrazedo, 23-V-2009, Corley.

\* *Cnephasia delnoyana* Groenen & Schreurs, 2012

ALG: Fonte de Apra, 22-III-1989, Corley; Praia Verde, 20-IV-1993; Ludo, 6-V-1995; Cruzinha, 13-IV-2011, Auwermeulen, det. Corley; AAL: Escusa, 14-IV-1997, Corley. This species, described from Almeria, Spain, closely resembles *C. incertana*. The distributional limits of the two species in Portugal are not yet clear, but it appears that all Algarve records of *C. incertana* probably belong to *C. delnoyana*. A feature of this species that was not mentioned in the description is a pale area in the middle of the male hindwing that is not present in *C. incertana*. Larvae unknown.

*Cnephasia stephensiana* (Dounleday, 1849)

Additional food-plant data. M: Formarigo, 18-VI-2012, larvae on *Digitalis purpurea*, Corley; TM: Tronco, 20-VI-1962, larva on *Thapsia villosa*, 20-VI-2012, Corley.

*Paramesia alhamana* (A. Schmidt, 1933)

Third and subsequent Portuguese records. AAL: Minhota, 5-VI-1996, Corley; BA: Poço do Inferno, 23-VI-2010, Corley; TM: Amieiro, 19-V-2009, Corley; Rio Rabaçal, 22-VI-2012, Corley. Previously recorded from two localities in Algarve (CORLEY *et al.*, 2000; CORLEY, 2005).

*Argyrotaenia ljungiana* (Thunberg, 1797)

Second and third Portuguese records, DL: Parque Biológico de Gaia, 6-VIII-2011, Corley; M: Costa da Cabrita, 28-VII-2011, Corley. Previously recorded from Minho (CORLEY *et al.*, 2011).

*Celypha aurofasciana* (Haworth, 1811)

Fourth and fifth Portuguese localities. BL: Mata do Buçaco, 23-VI-2012, Corley and Moreira; M: Bertandos, 26-VI-2012, Corley. Previously recorded from Beira Litoral (PIRES & CORLEY, 2007) and Douro Litoral (CORLEY *et al.*, 2009).

*Epinotia ramella* (Linnaeus, 1758)

Second and subsequent records. TM: Arnal, 2-IX-2002, Corley; Lama Grande, 10-VII-2009, Corley; M: Albergaria, 16-IX-2003, Corley; Podre, 26-VII-2011, Corley. Previously recorded from Beira Alta (CORLEY, 2002).

*Eucosma urbana* (Kennel, 1901)

Third Portuguese locality. TM: Beça, 31-VII-2012, Maravalhas, det. Corley. Previously recorded from Beira Alta (CORLEY *et al.*, 2011) and Trás-os-Montes (CORLEY *et al.*, 2012b).

*Ancylis obtusana* (Haworth, 1811)

Second and third Portuguese records. BL: Quinta da Baleia, 28-V-2005, Pires; M: Rodeiro, 14-VI-2012, Corley. Previously recorded from Beira Litoral (PIRES & CORLEY, 2007).

*Rhyacionia pinicolana* (Doubleday, 1849)

Third and fourth Portuguese records. BA: Covão de Ametade, 5-VIII-2011, Corley; BL: Mata do Buçaco, 23-VI-2012, Corley and Moreira. Previously recorded from Beira Litoral (CORLEY *et al.*, 2007) and Beira Alta (CORLEY *et al.*, 2011).

*Strophedra nitidana* (Fabricius, 1794)

Second Portuguese locality. M: Bertandos, 26-VI-2012, Corley. Previously recorded from Douro Litoral (CORLEY *et al.*, 2009).

*Dichrorampha petiverella* (Linnaeus, 1758)

Second Portuguese record. M: Podre, 16-VI-2012, Corley. Previously recorded from Trás-os-Montes (CORLEY *et al.*, 2007).

EPERMENIIDAE

*Ochromolopis ictella* (Hübner, 1813)

Second Portuguese record. M: Ponte Nova, 16-VI-2011, Corley. Previously recorded from Trás-os-Montes (CORLEY *et al.*, 2012a).

CHOREUTIDAE

*Tebenna micalis* (Mann, 1857)

Additional food-plant data. TM: Cova da Lua, larvae on *Onopordum acanthium*, 21-VI-2012, Corley; Vilarinho, larvae on *Arctium minus*, 21-VI-2012, Corley; Regato da Vidoeira, larvae on *Dittrichia viscosa* and *Filago vulgaris*, 22-VI-2012, Corley.

EPERMENIIDAE

*Epermenia aequidentella* (E. Hofmann, 1867)

TM: Gondesende, larvae on *Seseli montanum* subsp. *peixoteanum*, 21-VI-2012, Corley.

PTEROPHORIDAE

*Agdistis satanas* Millière, 1875

Extension of range. TM: Beça, 31-VII-2012, Maravalhas. Previously recorded from Algarve (CORLEY *et al.*, 2000) and Baixo Alentejo (CORLEY, 2004).

*Oxyptilus pilosellae* (Zeller, 1841)

Second Portuguese locality. TM: Regato da Vidoeira, netted at sunset, 22-VI-2012, Corley. Previously recorded from nearby Gondesende (CORLEY *et al.*, 2011).

*Oxyptilus parvidactyla* (Haworth, 1811)

Second to fourth Portuguese records. TM: Gondesende, 5-VI-2005, Corley; Montesinho, netted at dusk, 22-V-2008, Corley; Lama Grande, 21-VI-2012, Corley. Previously recorded in the same area as the above records (CORLEY *et al.*, 2007).

*Gypsochares bigoti* Gibeaux & Nel, 1989

Third and fourth Portuguese localities. TM: Gondesende, 28-IX-2005, Corley; ALG: Boliqueime, 17-IV-2012, Dale. Previously recorded from two localities in Algarve (CORLEY *et al.*, 2000).

*Puerphorus olbiadactylus* (Millière, 1859)

Extension of range. BAL: Apeadeiro do Guadiana, 12-III-2012, Marabuto. Previously known from Algarve, Beira Baixa and Trás-os-Montes.

*Adaina microdactyla* (Hübner, 1813)

Third Portuguese record. M: Bertandos, 26-VI-2012, Corley. Previously recorded from Beira Baixa (MENDES, 1904) and from Setúbal (VIEILLEDENT, 1905). The Vieilledent record is unconfirmed and improbable as the foodplant is not present in the area.

PYRALIDAE

*Rhodophaea formosa* (Haworth, 1811)

Extensions of range. AAL: Castelo de Vide, larva on *Ulmus minor*, 21-X-1997, Corley; TM: Parâmio, 27-V-2005, Maravalhas. Previously recorded from Douro Litoral (MONTEIRO, 1962), Algarve (MONTEIRO & CARVALHO, 1984) and Beira Litoral (PIRES & CORLEY, 2007).

\* *Nephoterix angustella* (Hübner, 1796)

ALG: Boliqueime, 29-IX-2009, Dale. Middle latitudes of Europe, north to Ireland, England and Denmark, absent from Baltic States, parts of S.E. Europe and all Mediterranean islands. [Larva on fruits of *Euonymus*].

\* *Trachycera legatea* (Haworth, 1811) (Fig. 1)

ALG: Fonte de Benémola, 7-VIII-2012, Marabuto and Fonseca, det. Corley. Southern Europe north to Czech Republic. [*Rhamus*].

*Myelois fuscicostella* Mann, 1861

Second Portuguese record. BAL: Alcaria Ruiva, 13-III-2012, Marabuto. Previously recorded from Algarve (CARVALHO & CORLEY, 1995).

*Asartodes zapateri* (Ragonot, 1882)

Third Portuguese record. M: Laceiras, flying in meadow in sunshine, 16-VI-2012, Corley and Merckx. Previously recorded twice from Serra da Estrela (MENDES, 1913; CORLEY *et al.*, 2012a).

CRAMBIDAE

*Scoparia gallica* Peyerimhoff, 1873

Second to fourth Portuguese records. BA: Poço do Inferno, 21-V-2003, Corley and Pires; Covão do Boi, 24-VI-2010, Corley; M: Assureira, 27-V-2011, Corley. Previously recorded from Serra da Estrela (CORLEY *et al.*, 2003).

*Scoparia pyralella* (Denis & Schiffermüller, 1775)

Third Portuguese record. M: Costa da Cabrita, 18-VI-2012, Corley. Previously recorded from Trás-os-Montes (CORLEY *et al.*, 2007).

*Chilo phragmitella* (Hübner, 1805)

Extension of range. DL: Mindelo, 24-VI-2012, Corley. Previously recorded from Baixo Alentejo (CORLEY, 2004), Beira Litoral (PIRES & CORLEY, 2007) and Estremadura (CORLEY *et al.*, 2008).

Delete *Mesocrambus candiellus* (Herrich-Schäffer, 1848)

As a result of the discovery that *M. tamsi* occurs in Portugal (see below), the presence of *M. candiellus* in Portugal is doubtful.

\* *Mesocrambus tamsi* Bleszyński, 1960

BB: Segura, 14-VII-2007, Corley (as *M. candiellus* in MARABUTO *et al.*, 2013); ALG: Malhada da Figueira, 1-VIII-2011, Montegriffo, det. M. Wall. Sardinia, Canary Isles. [Larva unknown].

*Platytes cerussella* (Denis & Schiffermüller, 1775)

Second and a selection of subsequent records. AAL: Ribeira de Seda, 5-VI-2007, Marabuto; BA: Covão do Boi, 20-VII-2005, Corley and Pires; TM: Freixo de Numão, 1-VI-2005, Corley; Moimenta 2-

VI-2005, Corley; Rio Rabaçal, 22-VI-2012, Corley; M: Bertandos, 26-VI-2012, Corley. Previously recorded from Beira Baixa (MENDES, 1904).

*Parapoynx fluctuosalis* (Zeller, 1852)

Fifth Portuguese record. AAL: Foros do Arrão, VI-2005, Grácio. Previously recorded from Estremadura (VIEILLEDENT, 1905), two localities in Algarve (MONTEIRO & CARVALHO, 1984) and from Baixo Alentejo (CORLEY, 2004).

(\*) *Eurrhysis pollinalis* (Denis & Schiffermüller, 1775)

Although listed for Portugal by ZERKOWITZ (1946) and VIVES MORENO (1994) it was omitted by VIVES MORENO (1992) and KARSHOLT & RAZOWSKI (1996). CORLEY *et al.* (2009) concluded that all records refer to *E. gutturalis* (Herrich-Schäffer, 1848), but this is not the case. The earliest record of *pollinalis* is BB: Castelejo, C. Mendes (MENDES, 1904) and there are two unlabelled specimens in ZMCP, almost certainly collected by Mendes. Subsequent records: BA: Covões, 4-V-2011, Marabuto; Gosende, 7-VII-2011, Marabuto; Adamo, 7-VII-2011, Marabuto. Most of Europe, but absent from British Isles, much of Fennoscandia and from some Mediterranean islands. [*Cytisus*, *Genista*, *Ononis*].

*Eurrhysis gutturalis* (Herrich-Schäffer, 1848)

This species is often sympatric with *E. pollinalis*, but is more widely distributed in Portugal. As previously stated (CORLEY *et al.*, 2009), the record of *E. pollinalis* from TM: Lama Grande in MARABUTO & MARAVALHAS (2008) refers to this species but we add that *E. pollinalis* was also found at the same date and place.

\* *Pyrausta neglectalis* Caradja, 1916 (Fig. 2)

ALG: Lagoa da Nave 22-IV-1992, Corley, previously recorded as *P. castalis* Treitschke, 1829 in CORLEY *et al.* (2000). Subsequently CORLEY (2005) deleted *castalis* from the Portuguese list, but did not give an alternative name. Additional records from ALG: São Romão, 21-V-2001, Corley; São Miguel, 24-V-2001, 19-V-2002, 17-V-2003, Corley. Spain. Larva unknown. The species is illustrated in LERAUT (2012) as *Pyrausta rungsi* D. Lucas, 1942 and in SLAMKA (2013) as *neglectalis*. AGENJO (1976) placed *neglectalis* in synonymy with *P. virginalis* (Duponchel, 1831). Genitalia are very similar in this group which merits investigation using DNA studies. *P. virginalis* has not been recorded from Portugal.

*Anania hortulata* (Linnaeus, 1758)

Second Portuguese record. DL: Travassos, 8-VII-2007, Costa, *det.* Marabuto. Previously recorded from Trás-os-Montes (MONTEIRO, 1962).

*Anania fuscalis* (Denis & Schiffermüller, 1775)

Third Portuguese record. M: Podre, 14-VI-2012, Corley. Previously recorded from Trás-os-Montes (CORLEY *et al.*, 2006; CORLEY *et al.*, 2007).

*Diplopseustis perieresalis* (Walker, 1859)

Sixth Portuguese record. DL: Porto, Jardim Botânico, 7-XI-2012, Soares, *det.* Marabuto. Previously known from Algarve, Baixo Alentejo, Estremadura and Beira Alta (CORLEY *et al.*, 2008).

#### LASIOCAMPIDAE

*Eriogaster rimicola* (Denis & Schiffermüller, 1775) (Fig. 3)

Second and third Portuguese records. AAL: Vale de Rodão, larva on *Quercus pyrenaica*, 11-IV-1998, Corley; BL: Castelo do Rabaçal, 18-XI-2012, Marabuto, Corley and Pires. Previously recorded from another locality in Alto Alentejo in larval stage (CORLEY *et al.*, 2007).

DREPANIDAE

*Polyploca ridens* (Fabricius, 1787)

Second and third Portuguese records. TM: Carvalhelhos, 13-IV-1996, Maravalhas; M: Portela, 10-V-2012, Merckx. Previously recorded from Gerês (MONTEIRO, 1975).

*Falcaria lacertinaria* (Linnaeus, 1758)

Third to fifth Portuguese localities. M: Ponte Rio Maceira, 17-V-2009, Corley; Assureira, 4-VII-2011, Merckx; TM: Lamas de Olo, Serra do Alvão, 16-VIII-2012, Marabuto and Magalhães. Previously recorded from two localities in Trás-os-Montes (MONTEIRO & MARAVALHAS, 1987).

*Watsonalla binaria* (Hufnagel, 1767)

Second and third Portuguese records. M: Podre, 27-VII-2011, Corley and Merckx; TM: Gondesende, 30-VII-2011, Corley. Previously recorded from Trás-os-Montes (CORLEY *et al.*, 2011).

GEOMETRIDAE

*Epione repandaria* (Hufnagel, 1767)

Third to sixth Portuguese records. M: Marinhas, VIII-1962, Monteiro; Apúlia, IX-1975, Silva Cruz; TM: Fresulfe, 8-VII-2011, Marabuto; DL: Mindelo, 24-VI-2012, Corley. Previously recorded from two localities on the coast of Douro Litoral (CRUZ & WATTISON, 1935).

*Crocallis albarracina* Wehrli, 1940

Extensions of range. TM: Fresulfe, 23-IX-2005, Corley; M: Ladeiras, 18-VIII-2011, Merckx. Previously recorded from Alto Alentejo and Serra da Estrela (CORLEY *et al.*, 2007).

*Crocallis elinguarua* (Linnaeus, 1758)

The distribution of this species in Portugal remains unclear after the recognition of *C. albarracina* as a Portuguese species. It is known from Serra da Estrela (CORLEY *et al.*, 2011). Additional records: M: Rodeiro, 27-VII-2011, Merckx; Gerês, 19-VIII-1962, Monteiro; TM: Zimão, 2-IX-1981, Monteiro.

Delete *Afriberina terraria* (A. Bang-Haas, 1907)

ALG: Carrapateira, 18-IV-1993, Corley and other records from western Algarve (CARVALHO & CORLEY, 1995; CORLEY *et al.*, 2000) are misidentifications of *A. tenietaria*.

\* *Afriberina tenietaria* (Staudinger, 1900) (Fig. 4)

ALG: Carrapateira, 18-IV-1993, Corley; Salema, 3-X-1993, Corley; Vale da Fonte, 11-IV-1994; Cabo de São Vicente, 7-V-1995, Corley; Boliquiteime, 15-X-2010, Dale; Fonte de Benémola, 7-VIII-2012, Marabuto and Fonseca; BAL: Pulo do Lobo, 29-VIII-2007, Marabuto and Cortes. Spain, Sardinia. [*Juniperus*].

*Aethalura punctulata* (Denis & Schiffermüller, 1775)

Third Portuguese record. M: Ramisqueira, 30-V-2012, Merckx. Previously recorded from two sites in Trás-os-Montes, (CORLEY *et al.*, 2007; 2008).

*Charissa avilarius* (Reisser, 1936)

Third Portuguese locality. M: Ladeiras, 18-VIII-2011, Merckx. Previously recorded from Serra da Estrela (CORLEY, 2002) and Trás-os-Montes (CORLEY *et al.*, 2012b). The records from Minho and Trás-os-Montes are the first outside the Central Mountain system of Iberia.

*Aspitates gilvaria* (Denis & Schiffermüller, 1775)

Second to fourth Portuguese records. TM: Arnal, 2-IX-2002, Corley; Gondesende, 30-VII-2011, Corley; M: Falagueiras, 28-VII-2011, Merckx. Previously recorded from Trás-os-Montes (MONTEIRO, 1956).

*Perconia baeticaria* (Staudinger, 1871)

Third and fourth Portuguese localities. TM: Moimenta, 2-VI-2005, Corley; M: Podre, 26-V-2011, Merckx. Previously recorded from Trás-os-Montes (CRUZ & GONÇALVES, 1955) and Beira Alta (RAINERI, 1993).

*Cyclophora albipunctata* (Hufnagel, 1767)

Second Portuguese locality. M: Barreiro, 9-VII-2011, Merckx. Previously recorded from Gerês (CARVALHO, 1984).

*Idaea obsoletaria* (Rambur, 1833)

Third to fifth Portuguese records. TM: Beça, 18-VII-2004, Maravalhas; Brunheda, 21-VII-2006, Corley; M: Podre, 29-VII-2011, Corley and Merckx. Previously recorded from Beira Baixa (MENDES, 1903) and Algarve (CORLEY *et al.*, 2000).

*Idaea robiginata* (Staudinger, 1863)

Second to fifth Portuguese records. TM: Montalegre, 15-VIII-1958, Monteiro, in coll. Monteiro; DL: Singeverga, VII-1959, Monteiro, in coll. Monteiro; M: Formarigo, 18-VI-2012, Merckx; Ameijoeira, 24-VI-2012, Vale, det. Marabuto. Previously recorded from Minho (SOUSA, 1929).

*Idaea humiliata* (Hufnagel, 1767)

Second Portuguese locality. M: Falagueiras, 11-VII-2011, Merckx. Previously recorded from Trás-os-Montes (MARABUTO & MARAVALHAS, 2008).

*Catarhoe cuculata* (Hufnagel, 1763)

Second Portuguese record. M: Falagueiras, 1-VII-2011, Merckx. Previously recorded from Douro Litoral (CORLEY *et al.*, 2006).

\* *Entephria cyanata* (Hübner, 1809) (Fig. 5)

BA: Albergaria, 5-VIII-2011, Corley; M: Podre, 22-VIII-2011, Merckx, det. Hausmann. Confirmed by DNA barcoding. Mountains of Central Europe and southern France, northern Spain. [*Arabis*].

\* *Anticlea derivata* (Denis & Schiffermüller, 1775) (Fig. 6)

BAL: Apeadeiro do Guadiana, 12-III-2012, 14-III-2012, Marabuto and Cortes. Almost all Europe except far north and some Mediterranean islands. [*Rosa*].

*Eulithis pyraliata* (Denis & Schiffermüller, 1775)

Second and third Portuguese records. BA: Serra de Malcata, 13-VII-1983, Carvalho; TM: Lama Grande, 31-VII-2011, Corley. Previously recorded from Trás-os-Montes (CORLEY *et al.*, 2011).

*Dysstroma truncata* (Hufnagel, 1767)

Third and fourth Portuguese records. M: Ponte do Rio Maceira, 17-V-2009, Corley; Ladeiras, 22-V-2011, Merckx. Previously recorded from two localities in Minho (CORLEY *et al.*, 2007).

(\*) *Plemyria rubiginata* (Denis & Schiffermüller, 1775)

M: Bertandos, 26-VI-2012, Corley. Earlier recorded from Algarve (MONTEIRO, 1969), but the

single specimen was described as quite worn and has not been found in the Monteiro collection. The known distribution in Spain makes this record very doubtful. Northern and middle latitudes of Europe south to North Spain and Bosnia. [*Alnus, Prunus spinosa*].

\* *Electrophaes corylata* (Thunberg, 1792)

M: Laceiras, 13-VI-2011, 30-V-2012, Merckx. Northern and middle latitudes of Europe south to North Spain and Bulgaria. [Polyphagous on deciduous trees].

\* *Colostygia hilarata* (Pinker, 1953)

M: Coriscadas, 22-VII-2011, Merckx, det. Corley. This species was described as a subspecies of *C. olivata* (Denis & Schiffermüller, 1775) and was only recognised as distinct in HAUSMANN & VIIDALEPP (2012). Earlier Portuguese records of *C. olivata* need to be re-examined as they probably belong to this species. Spain. Larva unknown.

*Hydriomena impluviata* (Denis & Schiffermüller, 1775)

Third and subsequent records. BA: Trinta, 27-V-2004, Corley; TM: Fresulfe, 21-V-2009, Corley; M: Portela, 10-V-2012, Merckx. Previously recorded from Douro Litoral (CRUZ & GONÇALVES, 1974a) and Trás-os-Montes (CRUZ & GONÇALVES, 1974b).

\* *Euphyia unangulata* (Haworth, 1809)

M: Bertandos, 26-VI-2012, Corley. Northern and middle latitudes of Europe south to North Spain and Bulgaria. [*Stellaria*].

*Perizoma bifaciata* (Haworth, 1809)

Second Portuguese record. E: Sintra, VIII-1942, Carneiro Mendes, in IICT, as *Epirrhoe rivata* in MENDES (1951). Previously recorded from Setúbal (VIEILLEDENT, 1905).

(\*) *Eupithecia pyreneata* Mabilbe, 1871

M: Falagueiras, 30-V-2012, Merckx, det. Corley. Listed and mapped for Portugal by MIRONOV (2003), but no record traced. Specimen in IZPC from Lindoso, IV-1952 (not published by Silva Cruz), destroyed by insects. As there were no subsequent records at the time, it was considered doubtful by CORLEY (2008). Middle and southern latitudes of Europe, north to Latvia. Absent from Mediterranean islands. [Larva on seeds of several species of *Digitalis*].

*Eupithecia liguriata* Millière, 1884

Extensions of range. BL: Casmilo, 13-V-2006, Corley and Pires; TM: Rio Rabaçal, 22-VI-2012, Corley. Previously recorded from Beira Baixa (MENDES, 1903) and Algarve (MONTEIRO & CARVALHO, 1984; CARVALHO & CORLEY, 1995).

*Eupithecia extraversaria* Herrich-Schäffer, 1852

Second and third Portuguese records. TM: Parâmio, 3-VI-2005, Corley, Marabuto and Pires; M: Podre, 4-VII-2011, Merckx. Previously recorded from Alto Alentejo (MIRONOV, 2003).

*Trichopteryx carpinata* (Borkhausen, 1794)

Second Portuguese record. M: Adofreire, 12-V-2012, Merckx. Previously recorded from Trás-os-Montes (CORLEY *et al.*, 2006).

## NOTODONTIDAE

*Drymonia velitaris* (Hufnagel, 1766)

Third to fifth Portuguese records. BA: Ribeiradio, 21-VIII-2001, Marabuto; Poço do Inferno, 21-

V-2003, Corley and Pires; M: Laceiras, 24-V-2011, Merckx. Previously recorded from Gerês (MONTEIRO, 1962) and Douro Litoral (CRUZ, 1971).

## NOCTUIDAE

*Bryophila microglossa* (Rambur, 1848)

Second and third Portuguese records. ALG: Salema, 22-IX-2009, Skou, det. Skule; BAL: Serra da Adiça, 6-X-2012, Marabuto and Rodrigues. Previously recorded from Algarve (CORLEY *et al.*, 2009).

*Paracolax tristalis* (Fabricius, 1794)

Second and third Portuguese localities. TM: Gondesende, 8-VII-2009, Corley; M: Podre, 4-VII-2011, Merckx. Previously recorded from Gerês (CARVALHO, 1986).

*Zanclognatha lunalis* (Scopoli, 1763)

Second and third Portuguese localities. M: Podre, 29-VII-2011, Corley and Merckx; BL: Mata do Buçaco, 23-VI-2012, Corley and Moreira. Previously recorded from Gerês (MONTEIRO, 1959b).

*Zanclognatha tarsipennalis* (Treitschke, 1835)

Third and subsequent Portuguese records. DL: Parque Biológico de Gaia, 9-VI-2008, Corley; Valinhas, 6-X-2008, Corley; M: Ramisqueira, 8-VII-2011, Merckx; Bertandos, 7-VIII-2011, Corley. Previously recorded from Douro Litoral and Minho (CORLEY *et al.*, 2006).

*Grammodes stolidus* (Fabricius, 1775)

Second to fourth Portuguese localities. ALG: Olhão, 14-IV-1999, Cardoso; TM: Freixo de Numão, 22-IX-2005, Corley; BA: Faia Brava, 11-IX-2010, Marabuto and Romão. Previously recorded twice from around Setúbal (VIEILLEDENT, 1905).

*Chrysodeixis acuta* (Walker, 1858)

Second Portuguese record. M: Podre, 9-XI-2012, Marabuto, Corley and Merckx. Previously recorded from Ribatejo (CORLEY *et al.*, 2012b).

*Amphipyra tragopoginis* (Clerck, 1759)

Second and subsequent Portuguese records. AAL: Escusa, 29-IX-1999, Corley; BA: Poço do Inferno, 20-VII-2007, Marabuto; BL: Castelo do Rabaçal, 27-IX-2008, Corley and Pires; TM: Gondesende, 30-VII-2011, Corley; M: Portela, 7-IX-2012, Merckx. Previously recorded from Baixo Alentejo (CORLEY, 2004).

*Diloba caeruleocephala* (Linnaeus, 1758)

Second Portuguese record. BA: Figueira de Castelo Rodrigo, 30-IX-1980, Torres, in coll. Carvalho. Previously recorded from Trás-os-Montes (MONTEIRO & MARAVALHAS, 1987).

*Elaphria venustula* (Hübner, 1790)

Third and subsequent records. BL: Serra de Açor, 11-VII-1986, Rosário; TM: Ermelo, 4-IX-2002, Corley; M: Apúlia, 17-V-2006, Corley; Travessa, 3-VII-2012, Merckx. Previously recorded from Douro Litoral (CRUZ & GONÇALVES, 1961) and Beira Litoral (PIRES & CORLEY, 2007).

*Hoplodrina hesperica* Dufay & Boursin, 1960

Third and fourth Portuguese records. M: Laceiras, 8-VII-2011, Merckx; TM: Gondesende, 30-VII-2011. Previously recorded from Algarve (CORLEY *et al.*, 2000) and Beira Alta (MARABUTO *et al.*, 2004).

*Rusina ferruginea* (Esper, 1785)

Third to fifth Portuguese localities. BA: Penhas da Saúde, 22-VII-2004, Barbut; TM: Gondesende, 8-VII-2009, Corley; M: Castro Laboreiro, 7-VI-2011, Merckx. Previously recorded from Gerês (CRUZ & WATTISON, 1929) and Beira Litoral (PIRES & CORLEY, 2007).

*Ipimorpha retusa* (Linnaeus, 1761)

Third Portuguese record. M: Bertandos, 26-VI-2012, Corley. Previously recorded from Douro Litoral (CRUZ & GONÇALVES, 1955) and Trás-os-Montes (CORLEY *et al.*, 2008).

*Cosmia pyralina* (Denis & Schiffermüller, 1775)

Second Portuguese record. DL: Singeverga, 3-VII-1964, Monteiro, in coll. Carvalho. Previously recorded from nearby Vizela (CRUZ & WATTISON, 1931).

*Xanthia togata* (Esper, 1788)

Second to fourth Portuguese records. TM: Fresulfe, 28-IX-2005, Corley; M: Ameijoeira, 17-X-2011, Corley, Maravalhas and Merckx; Castro Laboreiro, 20-IX-2012, Merckx. Previously recorded from Gerês (CORLEY, 2008).

*Cirrhia icteritia* (Hufnagel, 1766)

Third and subsequent Portuguese records. AAL: Galegos, 19-X-1997, Corley; BB: Fóios, 12-IX-2010, Marabuto and Romão; BA: Trinta, 5-IX-2001, Corley; TM: Barragem da Serra Serrada, 9-IX-2002, Corley; Serra do Larouco, 23-IX-2003, Corley, Marabuto and Pires, 2003; M: Barreiro, 7-IX-2011, Merckx. Previously recorded from Gerês (CARVALHO, 1986) and Baixo Alentejo (CORLEY, 2004).

*Agrochola orejoni* Agenjo, 1951

Second Portuguese record. M: Podre, 12-X-2011, Corley and Merckx. Previously recorded from Trás-os-Montes (CORLEY *et al.*, 2011).

*Agrochola meridionalis* (Staudinger, 1871)

Third and subsequent Portuguese records. E: Setúbal, no date, Vieilledent, specimen in MNHN; AAL: Escusa, 20-X-1997, Corley; TM: Gondesende, 13-XI-2009, Corley and Maravalhas; Amieiro, 16-XI-2009, Corley; M: Ameijoeira, 13-X-2011, Corley, Maravalhas and Merckx. Previously recorded from Beira Baixa (MENDES, 1903) and Gerês (CARVALHO, 1986).

\* *Conistra intricata* (Boisduval, 1829)

BL: Ansião, 17-XI-2012, Rosete, conf. Corley. Spain, France, Switzerland, Italy and Sardinia. [Natural food-plants unknown, but probably polyphagous.].

*Conistra erythrocephala* (Denis & Schiffermüller, 1775)

Second Portuguese locality. M: Podre, 12-X-2011, Corley and Merckx. Previously recorded from Trás-os-Montes (CORLEY *et al.*, 2012a; 2012b).

*Episema glaucina* (Esper, 1789)

Second Portuguese locality. M: Castro Laboreiro, 20-IX-2012, Merckx. Previously recorded from several localities, but only the record from Trás-os-Montes is correctly determined (CORLEY *et al.*, 2012b).

*Antitype chi* (Linnaeus, 1758)

Extensions of range. TM: Beça, 20-IX-2003, Corley, Marabuto and Pires; M: Adofreire, 8-IX-

2022, Merckx. Previously recorded from Trás-os-Montes, Beira Alta and Beira Baixa (CRUZ & GONÇALVES, 1974a).

\* *Trigonophora crassicornis* (Oberthür, 1918)

M: Podre, 29-IX-2012, Merckx. Spain, France. [Polyphagous on herbaceous and shrubby plants].

*Trigonophora jodea* (Herrich-Schäffer, 1850)

Third and subsequent Portuguese records. BA: Poço do Inferno, 3-X-2008, Corley, Pires and Marabuto; TM: Barragem da Serra Serrada, 9-IX-2002, Corley; Serra do Larouco, 23-IX-2003, Corley, Pires and Marabuto; Amieiro, 20-X-2010, Corley; M: Adofreire, 12-X-2011, Merckx. Previously recorded from Beira Baixa (MENDES, 1903) and Douro Litoral (CRUZ & WATTISON, 1935).

*Apamea crenata* (Hufnagel, 1766)

Second Portuguese record. M: Podre, 17-VI-2012, Corley. Previously recorded from Trás-os-Montes (CORLEY *et al.*, 2011).

*Apamea remissa* (Hübner, 1809)

Second Portuguese locality. M: Falagueiras, 11-VI-2012, Merckx. Previously recorded from Trás-os-Montes (CORLEY *et al.*, 2011).

*Rhizedra lutosa* (Hübner, 1803)

Second Portuguese record. E: Águas Santas, 26-XI-2012, Lemos, det. Marabuto. Previously recorded from one locality in Algarve (CORLEY *et al.*, 2012b).

*Calamia tridens* (Hufnagel, 1766)

Extensions of range. TM: Arnal, 4-IX-2002, Corley; Serra do Larouco, 23-IX-2003, Corley, Marabuto and Pires; M: Castro Laboreiro, 21-VII-2011, Merckx. Previously recorded from three localities in Beira Baixa and Beira Alta (MENDES, 1912; CRUZ & GONÇALVES, 1935; CORLEY, 2002).

\* *Lacanobia blenna* (Hübner, 1824) (Fig. 7)

BL: Verdemilho, 18-VIII-2005, Marabuto and Pires, det. Corley. Atlantic coast of France, Mediterranean coast from north-east Spain to Greece and the Black Sea; Corsica, Sardinia, Sicily, Malta; recorded inland in Hungary. The present record is a considerable southward extension of range on the Atlantic coast of Europe. [*Salsola*, *Beta*, *Atriplex*].

*Lacanobia thalassina* (Hufnagel, 1766)

Second and third Portuguese records. M: Cabeças, 24-V-2011, Merckx; TM: Lama Grande, 21-VI-2012, Corley. Previously recorded from Gerês (CORLEY *et al.*, 2012a).

*Lacanobia contigua* (Denis & Schiffermüller, 1775)

Second Portuguese locality. M: Adofreire, 30-VI-2011, Merckx. Previously recorded from Gerês (CRUZ & WATTISON, 1935).

*Hadena filograna* (Esper, 1788)

Extension of range. M: Ramisqueira, 26-V-2011, Merckx. Previously recorded from three localities in Beira Alta and Trás-os-Montes (CORLEY *et al.*, 2011).

*Hadena silenides* (Staudinger, 1895)

Second Portuguese record. BAL: Serra da Adiça, 10-III-2012, Marabuto and Rodrigues. Previously recorded from another site in Baixo Alentejo (CORLEY *et al.*, 2009).

*Sideridis reticulata* (Goeze, 1781)

Third Portuguese locality. M: Rodeiro, 13-VI-2011, Merckx. Previously recorded from two localities in Trás-os-Montes (MONTEIRO, 1959b; MARABUTO & MARAVALHAS, 2008).

*Polia nebulosa* Hufnagel, 1766)

Second Portuguese locality. M: Adofreire, 30-VI-2011, Merckx. Previously recorded several times from Gerês (CORLEY *et al.*, 2012a).

*Mythimna conigera* (Denis & Schiffermüller, 1775)

Second Portuguese record. M: Portela, 29-VI-2011, Merckx. Previously recorded from Trás-os-Montes (CORLEY *et al.*, 2011).

*Mythimna impura* (Hübner, 1818)

Extension of range. M: Rodeiro, 13-VI-2011, Merckx. Previously recorded from Beira Alta and Trás-os-Montes (CORLEY *et al.*, 2012b).

*Leucania zaeae* (Duponchel, 1827)

Extension of range. BAL: Apeadeiro do Guadiana, 7-IX-2012, Marabuto. Previously recorded from Ribatejo (CRUZ & GONÇALVES, 1961) and Algarve (CARVALHO & CORLEY, 1995; CORLEY *et al.*, 2000).

*Orthosia miniosa* (Denis & Schiffermüller, 1775)

Second and third Portuguese localities. TM: Moimenta, larvae on *Quercus pyrenaica*, 2-VI-2005, Corley; M: Adofreire, 12-V-2012, Merckx. Previously recorded from Gerês (CARVALHO, 1986).

*Tholera decimalis* (Poda, 1761)

Third to sixth localities. BB: Fóios, 12-IX-2010, Marabuto and Romão; TM: Barragem da Serra Serrada, 9-IX-2002, Corley; Serra do Larouco, 23-IX-2003, Corley, Marabuto and Pires; M: Rodeiro, 10-IX-2011, Merckx. Previously recorded from Serra da Estrela (MENDES, 1903) and Sintra (MENDES, 1951). The record from Algarve (MONTEIRO & CARVALHO, 1984) is suspect.

*Diarsia guadarramensis* (Boursin, 1928)

Fifth and sixth Portuguese records. M: Castro Laboreiro, 21-VII-2011, Merckx; TM: Lamas de Olo, 16-VIII-2012, Marabuto and Magalhães. Previously recorded from Douro Litoral (CORLEY *et al.*, 2006), two localities in Beira Alta (CORLEY *et al.*, 2009) and Trás-os-Montes (CORLEY *et al.*, 2011).

*Diarsia brunnea* (Denis & Schiffermüller, 1775)

Second Portuguese locality. M: Ramisqueira, 6-VII-2011, Merckx. Previously recorded several times from Gerês (CRUZ & GONÇALVES, 1961; CARVALHO, 1986).

*Diarsia rubi* (Vieweg, 1790)

Second Portuguese record. M: Laceiras, 22-V-2011, Merckx. Previously recorded from Trás-os-Montes (CORLEY *et al.*, 2012a).

*Dichagyris nigrescens* (Höfner, 1888)

Second Portuguese record. BA: Lamego, VIII-1968, Monteiro, in coll. Carvalho. Previously recorded from Serra da Estrela (CORLEY *et al.*, 2008).

*Eugnorisma arenoflavida* (Schawerda, 1934)

Extensions of range. AAL: Galegos, 19-IX-1995, Corley; BA: Trinta, 5-IX-2001, Corley;

Cimbres, 22-VIII-1976, F. Carvalho; TM: Abreiro station, 11-IX-2006, Corley. Previously recorded from Trás-os-Montes (CRUZ & WATTISON, 1935) and two localities in Minho (CARVALHO, 1986).

*Xestia baja* (Denis & Schiffermüller, 1775)

Third and subsequent Portuguese localities. AAL: Portagem, 30-IX-1999, Corley; BA: Caldas de Manteigas, 9-IX-2001, Corley; TM: Beça, 23-IX-2003, Corley, Marabuto and Pires; Fresulfe, 24-IX-2005, Corley; M: Gerês, 16-IX-2003, Corley; Rodeiro, 24-VII-2011, Merckx. Previously recorded from Serra do Marão (CRUZ & GONÇALVES, 1961) and Beira Litoral (PIRES & CORLEY, 2007).

*Agrotis catalaunensis* (Millière, 1873)

Extension of range. BAL: Apeadeiro do Guadiana, 14-III-2012, Marabuto; E: Guincho, 20-X-2012, Marabuto and Merckx. All previous records are from near the coast and further south (CORLEY *et al.*, 2012a).

#### ARCTIIDAE

*Cybosia mesomella* (Linnaeus, 1758)

Second Portuguese record. M: Portela, 29-VI-2011, Merckx. Previously recorded from Trás-os-Montes (MONTEIRO, 1959b).

*Eilema lurideola* (Zincken, 1817)

Additional record. M: Rodeiro, 13-VI-2011, Merckx. CORLEY *et al.* (2011) showed a lack of confirmed records outside Trás-os-Montes.

\* *Watsonarctia casta* (Esper, 1785) (Fig. 8)

M: Portela, 16-VI-2012, Merckx and Corley; Adofreire, 18-VI-2012, Merckx. South and Central Europe, north to Germany and Poland. [Polyphagous on low plants].

*Hyphoraia dejeani* (Godart, 1822)

Third and subsequent Portuguese localities. BA: Nave de Santo António, 22-VI-2008, Almeida; Colo do Pito, 24-V-2009, Marabuto and Pires; TM: Parâmio, 3-VI-2005, Corley, Marabuto and Pires; Carrzedo, 23-V-2009, Corley, Marabuto and Pires; M: Laceiras, 22-V-2011, Merckx. Previously recorded from two localities in Trás-os-Montes (CRUZ & GONÇALVES, 1955; 1974b).

#### Recent Literature affecting the Portuguese Lepidoptera fauna list

ARNSCHIED (2012) describes *Brevantennia estrela* from Portugal.

BARTSCH (2012) rejects Iberian records of *Bembecia sirphiformis* (H. Lucas, 1849) but does not provide an answer to the identity of Portuguese material that has been referred to *sirphiformis*.

CORLEY *et al.* (2012a) add 28 species to the Portuguese fauna and delete four.

CORLEY *et al.* (2012b) add 47 species to the Portuguese fauna and delete four.

HAUSMANN & VIIDALEPP (2012) mention seven species as new for the Portuguese fauna, but without collection data. Data on four of these species (*Plemyria rubiginata*, *Electrophaes corylata*, *Anticlea derivata* and *Euphyia unangulata*) are given above in this paper. *Dysstroma citrata* was already listed in CORLEY *et al.* (2012b). The remaining two species will be published elsewhere.

LAŠTŮVKA & LAŠTŮVKA (2012) describe *Phyllonorycter floridae* from Portugal and add *P. purgantella* (Chrétien, 1910) at the same time as deleting *P. haasi* (Rebel, 1901) from the Portuguese list.

MORGUN & WIEMERS (2012) report an occurrence of the oriental *Papilio demodocus* subsp.

*malayanus* Wallace, 1865 in Algarve, a new record for Europe. The origin of this butterfly is unknown, but is likely to be a direct result of human activity, as the nearest population of the species, in Syria, belongs to a different subspecies.

REDONDO & GASTÓN (2012) demonstrate that the *Selidosema brunnearia* group consists of three species in the Iberian Peninsula, recognising *S. pyrenaearia* (Boisduval, 1840) as an overlooked, but clearly distinct species, which also includes *oliveirata* Mabille as a synonym. All Portuguese specimens examined belong to *pyrenaearia*, so *brunnearia* must be removed from the Portuguese list.

## Acknowledgements

We are most grateful to Dr. Axel Hausmann for the DNA barcoding of *Entephria* species, Dr. Giorgio Baldizzone, for the identification of *Coleophora ciliataephaga*, to Dr. Antonio Vives for valuable comments, and to all those who have contributed records.

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(Recibido para publicación / *Received for publication* 17-X-2013)  
(Revisado y aceptado / *Revised and accepted* 6-XI-2013)  
(Publicado / *Published* 30-XII-2013)



**Figures 1-8.**– 1. *Trachycera legatea* (Haworth, 1811), Fonte da Benémola. 2. *Pyrausta neglectalis* Caradja, 1916, São Miguel. 3. *Eriogaster rimicola* ([Denis & Schiffermüller], 1775), Castelo do Rabaçal. 4. *Afriberina tenietaria* (Staudinger, 1900), Fonte de Benémola. 5. *Entephria cyanata* (Hübner, 1809), Podre. 6. *Anticlea derivata* ([Denis & Schiffermüller], 1775), Apeadeiro do Guadiana. 7. *Lacanobia blenna* (Hübner, [1824]), Verdemilho. 8. *Watsonarctia casta* (Esper, 1785), Adofreire.