

The Moths of Constância (Ribatejo, Portugal) - a brief sampling (Insecta: Lepidoptera)

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Abstract

As a result of field work carried out by the first two authors in the area of Constância, Ribatejo, Portugal, in 2018, 89 species of Lepidoptera are added to the fauna of that province. This extends the known distribution of several species in the Portuguese mainland.

KEY WORDS: Insecta, Lepidoptera, Constância, Portugal.

Borboletas noturnas de Constância (Ribatejo, Portugal) - uma breve amostragem (Insecta: Lepidoptera)

Resumo

Como resultado do trabalho de campo desenvolvido pelos dois primeiros autores na área de Constância, Ribatejo, Portugal, no ano de 2018, são adicionadas 89 espécies de Lepidoptera à fauna daquela província. Amplia-se assim a distribuição geográfica de várias espécies no território continental português.

PALAVRAS CHAVE: Insecta, Lepidoptera, Constância, Portugal.

Mariposas nocturnas de Constância (Ribatejo, Portugal) - una breve lista (Insecta: Lepidoptera)

Resumen

Como resultado del trabajo de campo desarrollado por los dos primeros autores en el área de Constância, Ribatejo, Portugal, en 2018, se añaden 89 especies de Lepidoptera a la fauna de aquella provincia. Por lo tanto se extiende la distribución geográfica de las distintas especies en Portugal continental.

PALABRAS CLAVE: Insecta, Lepidoptera, Constância, Portugal.

Introduction

Compared to other areas of the Portuguese mainland, the Lepidoptera fauna of the province of Ribatejo remains particularly poorly known. There are a number of contributions, mostly associated with small numbers of records including PIMENTEL (1882), CRUZ & GONÇALVES (1955, 1961), CARVALHO & SOUSA (1983), CARVALHO *et al.* (1985), NIEUKERKEN *et al.* (2004), LAŠTŮVKA & LAŠTŮVKA (2008, 2011) and CORLEY *et al.* (2006, 2009, 2011, 2012a, 2012b, 2013, 2014, 2015, 2018a). In addition to these fragmentary contributions CRUZ (1967) was the only publication exclusively dedicated to Ribatejo, focussing on macrolepidoptera from the Abrantes area, particularly on the south bank of the Tagus River.

This article confirms the continued presence of species already recorded from the region and adds other species not previously detected, in particular with regard to microlepidoptera. The records obtained are the result of a brief monitoring over five months during 2018, mainly in the area of Constância, district of Santarém, carried out by two of the authors (JR and AL). For professional reasons both were relocated to that area in September 2017, which together with a shared interest in Portuguese biodiversity, led to the field work on which this paper is based.

Study area

The following sites were visited and information on habitat type is given:

SITE 1

Constância, urban perimeter. The town of Constância is part of the district of Santarém and is located in the confluence zone of the rivers Zêzere and Tagus. The riverside zone adjacent to the north bank of the Tagus River was monitored. The margin is typically riparian, with the presence of *Salix sp.*, *Populus sp.*, *Alnus glutinosa* (L.) Gaertn., *Fraxinus angustifolia* Vahl and *Tamarix africana* Poir.

SITE 2

Alto de Santa Bárbara, near the Living Science Centre - Astronomy Park, Constância. Partly burned zone in 2015, it is practically regenerated. *Quercus suber* L. forest is lined with abundant *Arbutus unedo* L. that gives way to open, dry areas, populated by *Cistus sp.* and *Lavandula stoechas* subsp. *luisieri* (Rozeira) Rozeira.

SITE 3

Montalvo, Constância. Abandoned olive groves, interspersed with pastures and small clumps of sclerophyllous vegetation, where *Quercus rotundifolia* Lam. and *Quercus suber* L. nuclei stand out. Small temporary ponds with abundant *Juncus sp.* occasionally occur.

SITE 4

Ribeira da Foz, Carregueira, Chamusca. A valley with well preserved riparian gallery, embedded within a vast monoculture of *Eucalyptus*. One of the biodiversity stations (EBIO) is installed there, under the tutelage of TAGIS (Centre for the Conservation of Portuguese Butterflies). In addition to typical species such as *Salix sp.*, *Alnus glutinosa* (L.) Gaertn. and *Frangula alnus* Mill., there is a strong presence of *Celtis australis* L., a rare species as far south as the Tagus River.

SITE 5

Santa Margarida da Coutada, Açude, Constância. Permanent artificial pond, used for sport fishing. The limited vegetation of the margins has some *Juncus sp.* and clumps of *Salix sp.*, *Populus sp.* The periphery of the area is dominated by xerophilous shrubs punctuated by small nuclei of *Quercus suber* L.

SITE 6

Matrena Paper Factory, Asseiceira, Tomar. Partially burned in 2017, this zone shows some signs of regeneration, in particular in the area downstream from the abandoned factory unit installed there. It is a recovering riparian forest that borders the river Nabão, a tributary of the river Zêzere. Along the shale slopes are small groups of *Salix sp.*, *Alnus glutinosa* (L.) Gaertn., and *Fraxinus angustifolia* Vahl., also some other less common and certainly introduced deciduous trees such as *Platanus hispanica* Münchh.

Material and Methods

No technical capture devices were used in addition to the common entomological nets. Among the collected specimens, the majority of them resulted from opportunistic catches at points of public illumination, arranged along the riverside area of Constância. The remaining part resulted from brief diurnal forays in areas adjacent to this locality.

The sample obtained is retained in the collection of the first author. However, a few records are based only on photographic evidence.

The order and nomenclature of families and species has been revised in accordance with the new Portuguese list (CORLEY, 2015). The nomenclature of plant names follows the EURO+MED PLANT-BASE where possible.

Results

Based on the most recent publications (CORLEY, 2015; CORLEY *et al.*, 2015, 2018a), only 337 species are recorded in Ribatejo. This brief survey raises this number to 426 with the addition of 89 new species for this province. Of this total, 9 species are macroheterocera and 80 are microlepidoptera. Of particular interest are, the records of *Clepsis peritana* (Clemens, 1860), *Nyctegretis ruminella* (La Harpe, 1860) and *Euchromius anapiellus* (Zeller, 1847) so far given only for the Algarve region (CORLEY *et al.*, 2000, 2012b, 2018b). Equally interesting are the records of *Reisserita flavofimbriella* (Chrétien, 1925) which had been nearly restricted to the north-east of the country together with a single record from Douro Litoral (CORLEY *et al.*, 2007, 2018a) and *Agnoea filiella* (Staudinger, 1859), whose only known record was, until now, from Serra da Arrábida, Estremadura (CORLEY *et al.*, 2006). These records considerably expand the distribution zone of the species and, in the case of *Clepsis peritana* (Clemens, 1860), which is an adventive species, confirms its expansion as well as its resident status.

Abbreviations and symbols

AL: André Lameirinhas
 JR: Jorge Rosete
 MC: Martin Corley
 conf.: confirmed by
 det.: determined by
 + New for Ribatejo

List of families and species

OPOSTEGIDAE

Pseudopostega chalcopsepla (Walsingham, 1908)

Constância, urban perimeter, 05-VI-2018, JR and AL, det. MC.

TISCHERIIDAE

+ *Coptotriche marginea* (Haworth, 1828)

Montalvo, Constância, 19-IV-2018, JR and AL.

PSYCHIDAE

+ *Eumasia parietariella* (Heydenreich, 1851)

Ribeira da Foz, Carregueira, Chamusca, 06-VI-2018, JR and AL.

TINEIDAE

Infurcitinea atrifasciella (Staudinger, 1871)

Montalvo, Constância, 12-VI-2018, JR and AL, det. MC.

+ *Reisserita flavofimbriella* (Chrétien, 1925)

Constância, urban perimeter, 04-VII-2018 (Fig. 1), JR and AL, det. MC. Previously known from several localities in Trás-os-Montes (CORLEY *et al.*, 2007) and Valongo, Douro Litoral (CORLEY *et al.*, 2018a).

+ *Tinea murariella* Staudinger, 1859

Alto de Santa Bárbara, Living Science Centre, Constância, 21-V-2018, JR and AL, det. MC.

+ *Monopis crocicapitella* (Clemens, 1859)

Constância, urban perimeter, 17-V-2018, 13-VI-2018, 14-VI-2018, JR and AL, conf. MC.

+ *Monopis nigricantella* (Millière, 1872)

Constância, urban perimeter, 18-VI-2018, 04-VII-2018, JR and AL, det. MC.

GRACILLARIIDAE

+ *Phyllonorycter salictella* (Zeller, 1846)

Santa Margarida da Coutada, Agude, Constância, 18-VI-2018, JR and AL, det. MC.

PLUTELLIDAE

Plutella xylostella (Linnaeus, 1758)

Montalvo, Constância, 24-IV-2018, JR and AL, det. MC.

GLYPHIPTERIGIDAE

+ *Acrolepiopsis vesperella* (Zeller, 1850)

Constância, urban perimeter, 30-V-2018, 18-VI-2018, JR and AL.

AUTOSTICHIDAE

+ *Apatema mediopallidum* Walsingham, 1900

Constância, urban perimeter, 11-VI-2018, JR and AL.

+ *Symmoca signatella* Herrich-Schäffer, 1854

Constância, urban perimeter, 11-VII-2018, JR and AL.

+ *Symmoca revoluta* Gozmány, 1985

Constância, urban perimeter, 14-VI-2018, JR and AL, det. MC.

+ *Dysspastus fallax* (Gozmány, 1961)

Constância, urban perimeter, 17-V-2018, 30-V-2018, JR and AL, det. MC.

LECITHOCERIDAE

+ *Eurodachtha siculella* (Wocke, 1889)

Constância, urban perimeter, 18-IV-2018, JR and AL, conf. MC.

OECOPHORIDAE

- + *Batia lunaris* (Haworth, 1828)
Constância, urban perimeter, 11-VI-2018, JR and AL.
- + *Esperia sulphurella* (Fabricius, 1775)
Montalvo, Constância, 19-IV-2018, JR and AL.
- + *Alabonia herculeella* Walsingham, 1903
Ribeira da Foz, Carregueira, Chamusca, 06-VI-2018, JR and AL.
- + *Pleurota gallicella* Huemer & Luquet, 1995
Alto de Santa Bárbara, Living Science Centre, Constância, 21-V-2018; Ribeira da Foz, Carregueira, Chamusca, 22-V-2018, 06-VI-2018, 14-VI-2018, JR and AL.
- + *Pleurota honorella* (Hübner, [1813])
Montalvo, Constância, 12-VI-2018, 04-VII-2018; Ribeira da Foz, Carregueira, Chamusca, 14-VI-2018, JR and AL, det. MC.
- + *Pleurota planella* (Staudinger, 1859)
Constância, urban perimeter, 12-VI-2018, JR and AL.

DEPRESSARIIDAE

- + *Agonopterix scopariella* (Heinemann, 1870)
Alto de Santa Bárbara, Living Science Centre, Constância, 21-V-2018, JR and AL, det. MC.
- Agonopterix yeatiana* (Fabricius, 1781)
Constância, urban perimeter, 17-VII-2018, JR and AL, det. MC.
- + *Agonopterix subpropinquella* (Stainton, 1849)
Constância, urban perimeter, 18-VI-2018, JR and AL, det. MC.
- Ethmia bipunctella* (Fabricius, 1775)
Constância, urban perimeter, 28-VI-2018, JR and AL.
- + *Odites kollarella* (Costa, 1832)
Constância, urban perimeter, 28-VI-2018, JR and AL.

COSMOPTERIGIDAE

- + *Cosmopterix pulchrimella* Chambers, 1875
Constância, urban perimeter, 18-VII-2018, JR and AL, det. MC.
- Pyroderces argyrogrammos* (Zeller, 1847)
Montalvo, Constância, 24-IV-2018, AL, conf. MC from photo.

GELECHIIDAE

- Aproaerema anthyllidella* (Hübner, [1813])
Constância, urban perimeter, 19-VI-2018, 18-VII-2018, JR and AL, conf. MC.

- Helcystogramma triannulella* (Herrich-Schäffer, 1854)
Constância, urban perimeter, 18-VI-2018, 18-VII-2018, JR and AL, det. MC.
- + *Platyedra subcinerea* (Haworth, 1828)
Constância, urban perimeter, 17-V-2018, JR and AL.
- + *Bryotropha figulella* (Staudinger, 1859)
Montalvo, Constância, 15-V-2018, JR and AL, det. MC.
- + *Bryotropha pallorella* Amsel, 1952
Montalvo, Constância, 24-IV-2018, JR and AL, det. MC.
- + *Isophrictis lineatellus* (Zeller, 1850)
Ribeira da foz Carregueira, Chamusca, 22-V-2018, JR and AL.
- + *Eulamprotes helotella* (Staudinger, 1859)
Montalvo, Constância, 15-V-2018; Alto de Santa Bárbara, Living Science Centre, Constância, 21-V-2018; Constância, urban perimeter, 29-V-2018, JR and AL, det. MC.
- Mirificarma eburnella* ([Denis & Schiffermüller], 1775)
Montalvo, Constância, 15-V-2018, JR and AL.

ELACHISTIDAE

- + *Elachista nuraghella* Amsel, 1951
Montalvo, Constância, 19-IV-2018, 14-V-2018, 15-V-2018, JR and AL, conf. MC.
- + *Elachista gormella* Nielsen & Traugott-Olsen, 1987
Montalvo, Constância, 24-IV-2018, JR and AL, det. MC.

COLEOPHORIDAE

- + *Coleophora alcyonipennella* (Kollar, 1832)
Constância, urban perimeter, 18-VI-2018, JR and AL, det. MC.
- + *Coleophora perplexella* Toll, 1960
Montalvo, Constância, 18-IV-2018, JR and AL, det. MC.
- + *Coleophora pulchripennella* Baldizzone, 2011
Montalvo, Constância, 24-IV-2018, JR and AL, det. MC.

SCYTHRIDIDAE

- + *Scythris scipionella* (Staudinger, 1859)
Ribeira da Foz, Carregueira, Chamusca, 22-V-2018, JR and AL, det. MC.
- + *Scythris scopolella* (Linnaeus, 1767)
Montalvo, Constância, 12-VI-2018; Constância, urban perimeter, 13-VI-2018, 14-VI-2018, 18-VI-2018; Santa Margarida da Coutada, Açude, Constância, 18-VI-2018, JR and AL, det. MC.
- + *Enolmis acanthella* (Godart, 1824)
Constância, urban perimeter, 17-V-2018, JR and AL.

BLASTOBASIDAE

+ *Tecmerium anthophaga* (Staudinger, 1870)

Alto de Santa Bárbara, Living Science Centre, Constância, 18-VII-2018, JR and AL, conf. MC.

LYPUSIDAE

+ *Agnoea filiella* (Staudinger, 1859)

Ribeira da Foz, Carregueira, Chamusca, 06-VI-2018 (Fig. 2), JR and AL, det. MC. Second record. Previously known from Serra da Arrábida, Estremadura (CORLEY *et al.*, 2006).

ALUCITIDAE

+ *Alucita hexadactyla* Linnaeus, 1758

Constância, urban perimeter, 18-VI-2018, 28-VI-2018, JR and AL.

PTEROPHORIDAE

Agdistis heydeni (Zeller, 1852)

Constância, urban perimeter, 14-VI-2018, 19-VI-2018, 04-VII-2018, JR and AL, det. MC.

+ *Amblyptilia acanthadactyla* (Hübner, [1813])

Ribeira da Foz, Carregueira, Chamusca, 06-VI-2018; Santa Margarida da Coutada, Açude, Constância, 18-VI-2018, JR and AL.

+ *Crombrugghia laetus* (Zeller, 1847)

Santa Margarida da Coutada, Açude, Constância, 18-VI-2018, JR and AL.

+ *Merrifieldia malacodactylus* (Zeller, 1847)

Montalvo, Constância, 15-V-2018, AL, det. MC.

+ *Puerphorus olbiadactylus* (Millière, 1859)

Constância, urban perimeter, 11-VI-2018, JR and AL, det. MC.

+ *Emmelina monodactyla* (Linnaeus, 1758)

Constância, urban perimeter, 11-VI-2018, 13-VI-2018, 04-VII-2018, JR and AL.

EPERMENIIDAE

+ *Ochromolopis staintonellus* (Millière, 1869)

Constância, urban perimeter, 11-VI-2018, JR and AL.

CHOREUTIDAE

+ *Choreutis nemorana* (Hübner, [1799])

Constância, urban perimeter, 28-VI-2018, JR and AL.

TORTRICIDAE

+ *Cacoecimorpha pronubana* (Hübner, [1799])

Santa Margarida da Coutada, Açude, Constância, 18-VI-2018, JR and AL.

- + *Clepsis unicolorana* (Duponchel, 1835)
Matrena Paper Factory, Asseiceira, Tomar, 25-IV-2018, JR and AL, det. MC.
- + *Clepsis razowskii* Gastón, Vives & Revilla, 2017
Montalvo, Constância, 19-IV-2018, JR and AL, det. MC.
- + *Clepsis siciliana* (Ragonot, 1894)
Constância, urban perimeter, 18-VII-2018, JR and AL, det. MC.
- + *Clepsis peritana* (Clemens, 1860)
Constância, urban perimeter, 17-V-2018, 29-V-2018 (Fig. 3), 11-VII-2019, JR and AL, conf. MC.
Previously known from two localities in Algarve (CORLEY *et al.*, 2018b).
- + *Cnephasia stephensiana* (Doubleday, 1849)
Constância, urban perimeter, 11-VI-2018, Montalvo, Constância, 12-VI-2018, JR and AL, det. MC.
- + *Cnephasia conspersana* Douglas, 1846
Santa Margarida da Coutada, Açude, Constância, 18-VI-2018, JR and AL, det. MC.
- + *Tortrix viridana* Linnaeus, 1758
Constância, urban perimeter, 18-VI-2018, JR and AL.
- Acleris hastiana* (Linnaeus, 1758)
Constância, urban perimeter, 29-V-2018, JR and AL, conf. MC.
- Phalonidia contractana* (Zeller, 1847)
Constância, urban perimeter, 05-VI-2018, JR and AL.
- Lobesia botrana* ([Denis & Schiffermüller], 1775)
Constância, urban perimeter, 19-VI-2018, JR and AL.
- + *Bactra lancealana* (Hübner, [1799])
Constância, urban perimeter, 11-VII-2019, JR and AL, det. MC.
- + *Crociosema plebejana* (Zeller, 1847)
Constância, urban perimeter, 17-V-2018, 29-V-2018, 19-VI-2018, 04-VII-2018, JR and AL.
- + *Pelochrista mollitana* (Zeller, 1847)
Constância, urban perimeter, 29-V-2018, 13-VI-2018, 19-VI-2018, JR and AL, det. MC.
- Gypsonoma aceriana* (Duponchel, 1843)
Santa Margarida da Coutada, Açude, Constância, 18-VI-2018, JR and AL, det. MC.
- + *Dichrorampha letarfensis* Gibeaux, 1983
Matrena Paper Factory, Asseiceira, Tomar, 25-IV-2018, JR and AL, det. MC.
- + *Cydia ulicetana* (Haworth, 1811)
Montalvo, Constância, 15-IV-2018, AL, conf. MC from photo.
- + *Cydia pomonella* (Linnaeus, 1758)

Constância, urban perimeter, 05-VI-2018, JR and AL.

- + *Grapholita gemmiferana* (Treitschke, 1835)
Montalvo, Constância, 24-IV-2018, JR and AL, conf. MC.
- + *Grapholita lunulana* ([Denis & Schiffermüller], 1775)
Matrena Paper Factory, Asseiceira, Tomar, 25-IV-2018, JR and AL.

BRACHODIDAE

- Brachodes gaditana* (Rambur, 1866)
Alto de Santa Bárbara, Living Science Centre, Constância, 18-VII-2018, JR and AL.

SESIIDAE

- + *Pyropteron meriaeformis* (Boisduval, 1840)
Montalvo, Constância, 03-VII-2018, JR and AL, det. MC.

PYRALIDAE

- Lamoria anella* ([Denis & Schiffermüller], 1775)
Constância, urban perimeter, 05-VI-2018, JR and AL.
- + *Aglossa pinguinalis* (Linnaeus, 1758)
Constância, urban perimeter, 11-VI-2018, JR and AL.
- + *Aglossa brabantii* (Ragonot, 1884)
Constância, urban perimeter, 18-VII-2018, JR and AL.
- + *Synaphe punctalis* (Fabricius, 1775)
Constância, urban perimeter, 11-VII-2018, JR and AL.
- + *Ematheudes punctella* (Treitschke, 1833)
Constância, urban perimeter, 05-VI-2018, JR and AL.
- + *Pempelia genistella* (Duponchel, 1836)
Ribeira da Foz, Carregueira, Chamusca, 14-VI-2018, JR and AL.
- + *Pempeliella ardosielli* (Ragonot, 1887)
Montalvo, Constância, 24-IV-2018, JR and AL, det. MC.
- + *Metallostichodes nigrocyanella* (Constant, 1865)
Constância, urban perimeter, 11-VI-2018; 14-VI-2018; 19-VI-2018, JR and AL.
- + *Euzophera pinguis* (Haworth, 1811)
Constância, urban perimeter, 28-VI-2018, JR and AL, conf. MC.
- + *Nyctegretis ruminella* La Harpe, 1860
Constância, urban perimeter, 29-V-2018, 11-VI-2018 (Fig. 4), JR and AL, conf. MC. Second locality. Previously known from Mexilhoeira Grande, Algarve (CORLEY *et al.*, 2012b).

- + *Homoeosoma sinuella* (Fabricius, 1794)
Ribeira da Foz, Carregueira, Chamusca, 14-VI-2018, JR and AL.
- + *Ephestia elutella* (Hübner, 1796)
Constância, urban perimeter, 11-VI-2018, 19-VI-2018, 03-VII-2018, JR and AL, det. MC.
- Ephestia woodiella* Richards & Thomson, 1932
Constância, urban perimeter, 12-VI-2018, JR and AL, conf. MC.

CRAMBIDAE

- + *Ecpyrrhorrhoe rubiginalis* (Hübner, 1796)
Ribeira da Foz, Carregueira, Chamusca, 06-VI-2018, JR and AL.
- + *Mecyna auralis* (Peyerimhoff, 1872)
Constância, urban perimeter, 04-VII-2018, JR and AL, conf. MC.
- + *Diasemiopsis ramburialis* (Duponchel, 1834)
Constância, urban perimeter, 03-VII-2018, JR and AL.
- + *Antigastra catalaunalis* (Duponchel, 1833)
Constância, urban perimeter, 03-VII-2018, JR and AL.
- + *Euchromius anapiellus* (Zeller, 1847)
Constância, urban perimeter, 18-VI-2018, JR and AL, conf. MC. Second record. Previously known from Mexilhoeira Grande, Algarve (Corley *et al.*, 2000).
- + *Chrysocrambus dentuellus* (Pierce & Metcalfe, 1938)
Montalvo, Constância, 12-VI-2018, AL, conf. MC from photo.
- Pediasia ribbeellus* (Caradja, 1910)
Constância, urban perimeter, 30-V-2018, JR and AL, conf. MC.

LASIOCAMPIDAE

- Psilogaster loti* (Ochsenheimer, 1810)
Ribeira da Foz, Carregueira, Chamusca, 22-V-2018, AL, larvae on *Cistus ladanifer* L., conf. MC from photo.
- Phyllodesma kermesifolia* (Lajonquière, 1960)
Constância, urban perimeter, 18-VI-2018, JR and AL.

GEOMETRIDAE

- + *Idaea ochrata* (Scopoli, 1763)
Ribeira da Foz, Carregueira, Chamusca, 14-VI-2018, JR and AL.
- Idaea circuitaria expositoi* Hausmann, 1994
Montalvo, Constância, 12-VI-2018, JR and AL.
- Idaea calunetaria* (Staudinger, 1859)
Montalvo, Constância, 15-V-2018, JR and AL.

+ *Idaea lutulentaria* (Staudinger, 1892)

Constância, urban perimeter, 19-VI-2018; 03-VII-2018; Montalvo, Constância, 12-VI-2018, JR and AL.

Idaea longaria (Herrich-Schäffer, 1852)

Alto de Santa Bárbara, Living Science Centre - Astronomy Park, Constância, 21-V-2018, JR and AL.

+ *Idaea dimidiata* (Hufnagel, 1767)

Constância, urban perimeter, 18-VI-2018, JR and AL.

Idaea subsericeata (Haworth, 1809)

Constância, urban perimeter, 03-VII-2018, JR and AL, conf. MC.

+ *Idaea cervantaria* (Millière, 1869)

Constância, urban perimeter, 23-V-2018, JR.

+ *Idaea exilaria* (Guenée, 1858)

Constância, urban perimeter, 18-VI-2018; 19-VI-2018; 28-VI-2018, JR and AL.

Rhodostrophia calabra (Petagna, 1786)

Ribeira da Foz, Carregueira, Chamusca, 22-V-2018, JR and AL.

Cyclophora pupillaria (Hübner, [1799])

Constância, urban perimeter, 13-IV-2018, AL, conf. MC from photo.

Rhodometra sacraria (Linnaeus, 1767)

Montalvo, Constância, 15-V-2018, AL, conf. MC from photo.

Lythria sanguinaria (Duponchel, 1842)

Montalvo, Constância, 15-V-2018, JR and AL.

Orthonama obstipata (Fabricius, 1794)

Constância, urban perimeter, 03-VII-2018, JR and AL.

Costaconvexa polygrammata (Borkhausen, 1794)

Montalvo, Constância, 11-VII-2018, JR and AL.

+ *Macaria artesiaria* ([Denis & Schiffermüller], 1775)

Constância, urban perimeter, 11-VI-2018; 13-VI-2018; 14-VI-2018; 19-VI-2018, JR and AL.

Ennomos fuscantaria (Haworth, 1809)

Constância, urban perimeter, 29-V-2018, JR and AL.

Aspitates ochrearia (Rossi, 1794)

Montalvo, Constância, 24-IV-2018, AL, conf. MC from photo.

EUTELIIDAE

+ *Eutelia adalatrix* (Hübner, [1813])

Constância, urban perimeter, 07-VI-2018, JR and AL.

EREBIDAE

Hypena obsitalis (Hübner, [1813])
Constância, urban perimeter, 03-VII-2018, JR and AL.

Eilema caniola (Hübner, [1808])
Constância, urban perimeter, 30-V-2018, JR and AL.

Catocala nymphagoga (Esper, 1787)
Constância, urban perimeter, 03-VII-2018, AL.

Clytie illunaris (Hübner, [1813])
Constância, urban perimeter, 12-VI-2018, JR and AL.

NOCTUIDAE

Ctenoplusia accentifera (Lefèbvre, 1827)
Constância, urban perimeter, 03-VII-2018, JR and AL.

+ *Ctenoplusia limbirena* (Guenée, 1852)
Constância, urban perimeter, 28-VI-2018, JR and AL.

Autographa gamma (Linnaeus, 1758)
Ribeira da Foz, Carregueira, Chamusca, 14-VI-2018, AL, conf. MC from photo.

+ *Acontia lucida* (Hufnagel, 1766)
Constância, urban perimeter, 17-VII-2018, JR and AL.

Tyta luctuosa ([Denis & Schiffermüller], 1775)
Montalvo, Constância, 03-VII-2018, AL, conf. MC from photo.

Craniophora pontica navasi Boursin, 1935
Constância, urban perimeter, 17-V-2018; 04-VII-2018, JR and AL.

Synthymia fixa (Fabricius, 1787)
Constância, urban perimeter, 07-V-2018, AL, conf. MC from photo.

Helicoverpa armigera (Hübner, [1808])
Constância, urban perimeter, 28-VI-2018, AL, conf. MC from photo.

Hecatera dysodea ([Denis & Schiffermüller], 1775)
Constância, urban perimeter, 17-VII-2018, JR and AL.

Hadena confusa (Hufnagel, 1766)
Montalvo, Constância, 13-V-2018, AL.

Mythimna vitellina (Hübner, [1808])
Constância, urban perimeter, 07-V-2018, AL, conf. MC from photo.

Mythimna sicula (Treitschke, 1835)
Constância, urban perimeter, 17-V-2018, JR and AL.

Agrotis segetum ([Denis & Schiffermüller], 1775)
Constância, urban perimeter, 28-VI-2018, JR and AL.

Agrotis puta (Hübner, [1803])
Constância, urban perimeter, 27-II-2018, JR.

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