

Faunistic records of *Agonopterix* and *Depressaria* from continental Spain, and updated checklist (Lepidoptera: Depressariidae)

P. Buchner & J. Šumpich

Abstract

The paper summarizes the faunistic data of *Agonopterix* Hübner, [1825] and *Depressaria* Haworth, 1811 species from Spain partly based on our own research and partly on collection vouchers obtained from colleagues. In total, four species are new for the Iberian Peninsula, namely *A. flurii* Sonderegger, 2013, *A. hippomarathri* (Nickerl, 1864) *Depressaria floridella* Mann, 1864 and *Depressaria pseudobadiella* Nel, 2011, and one more for the Spanish fauna: *Depressaria cinderella* Corley, 2002 The photographs of adults of these taxa and their genitalia are presented. Beside them, the records of *A. carduncelli* Corley, 2017, *A. kuznetzovi* Lvovsky, 1983, and *A. selini* (Heinemann, 1870) are reported from Spain only for the second time. The following taxa are removed from the Spanish fauna: *Depressaria cervicella* Herrich-Schäffer, 1854, *Depressaria pimpinellae* Zeller, 1839 and *Depressaria tenebricosa* Zeller, 1854. An updated checklist of *Agonopterix* and *Depressaria* from the Spanish mainland is given.

KEY WORDS: Lepidoptera, Depressariidae, *Agonopterix*, *Depressaria*, new records, Iberian Peninsula, Spain.

Registros faunísticos de *Agonopterix* y *Depressaria* de España continental y una lista actualizada (Lepidoptera: Depressariidae)

Resumen

El artículo agrupa los datos faunísticos de las especies de *Agonopterix* Hübner, [1825] y *Depressaria* Haworth, 1811 de España, basados en parte en investigación original, así como en especímenes de colección obtenidos de colegas. En total, cinco especies son nuevas para la fauna española y la Península Ibérica, a saber, *A. flurii* Sonderegger, 2013, *A. hippomarathri* (Nickerl, 1864), *Depressaria cinderella* Corley, 2002, *Depressaria floridella* Mann, 1864 y *Depressaria pseudobadiella* Nel, 2011. Se presentan fotografías de los adultos de estos taxa y de su genitalia. Así mismo, *A. carduncelli* Corley, 2017, *A. kuznetzovi* Lvovsky, 1983 y *A. selini* (Heinemann, 1870) son registrados en España por segunda vez. Los siguientes taxa se descartan de la fauna española: *Depressaria cervicella* Herrich-Schäffer, 1854, *Depressaria pimpinellae* Zeller, 1839 y *Depressaria tenebricosa* Zeller, 1854. Se proporciona una lista actualizada de los *Agonopterix* y *Depressaria* de España peninsular.

PALABRAS CLAVE: Lepidoptera, Depressariidae, *Agonopterix*, *Depressaria*, nuevos registros, Península Ibérica, España.

Introduction

The genera *Agonopterix* Hübner, [1825] and *Depressaria* Haworth, 1811 comprise some conspicuous species which are clearly distinguishable but identification of many species remains difficult. In recent years the revision of some groups has lead to the description of new species, but in some groups revision is ongoing. The present paper is a continuation of work of the first author on one of the next volumes of Microlepidoptera of Europe, and summarizes the faunistic data from the Spanish mainland.

Material and methods

The trips were organized between the years 2003 and 2010. The material was collected at light, mainly at fluorescent tubes 8 W. Many records are obtained from museum and private collections, see the list of collections. The localities cited in the text are alphabetically listed in the following table. Other mentioned material originated from various private or museum collections.

Determination is based generally on genitalia preparation, and in some cases it had been confirmed by barcode. All mentioned sequences are accessible via the public dataset DS-DEEUR345 (for access, enter public data portal http://www.boldsystems.org/index.php/Public_BINSearch?searchtype=records and search for DS-DEEUR345).

Table 1.– B Alphabetical list of localities.

Locality	Spanish Region	Provinces and details of localities
Aguarón	Aragón	Zaragoza, vicinity of Aguarón
Albarracín	Aragón	Teruel, Sierra de Albarracín, vicinity of Albarracín city, 1100 m
Aldeaquemada	Andalucía	Jaén, vicinity of Aldeaquemada
Algodonales	Andalucía	Cádiz, vicinity of Algodonales
Aliaga	Aragón	Teruel, Sierra de San Just, vicinity of Aliagna
Alto del Calar del Gallinero	Andalucía	Almería, Sierra de los Filabres, Alto del Calar del Gallinero, 2000 m
Barjalí	Andalucía	Almería, Sierra de Gádor, vicinity of Barjalí
Boniches	Castilla-La Mancha	Cuenca, vicinity of Boniches
Borreda	Cataluña	Barcelona, vicinity of Borreda
Buenasbodas	Castilla-La Mancha	Toledo, vicinity of Buenasbodas
Bujaroloz	Aragón	Zaragoza, vicinity of Bujaroloz
Calar Alto	Andalucía	Almería, Sierra de los Filabres, Calar Alto, near Calar Alto Observatory, 2100 m
Candasnos	Aragón	Huesca, vicinity of Candasnos
Castejón de Monegros	Aragón	Zaragoza, Los Monegros, vicinity of Castejón de Monegros village, 570 m
Colativi	Andalucía	Almería, Sierra de Alhamilla, road from Turrillas to Colativi Hill, 1000 m
Colmenar de Oreja	Madrid	Madrid, Colmenar de Oreja, Valle de San Juan, 600 m
Cotiella	Aragón	Huesca, Aragonese Pyreneés, Cotiella, Refugio del Ibon de Plan
Diezma	Andalucía	Granada, vicinity of Diezma
Finestrat	Valencia	Alicante, Sierra de Orqueta, vicinity of Finestrat city
Jimera de Líbar	Andalucía	Málaga, vicinity of Jimera de Líbar
Jubrique	Andalucía	Málaga, vicinity of Jubrique
La Mancha	Castilla-La Mancha	Cuenca
La Sagra	Andalucía	Granada, vicinity of La Sagra
Las Hondanadas	Castilla-La Mancha	Cuenca, Sierra del Escornadero, Las Hondanadas, 1200 m
Lisara	Aragón	Huesca, Central Pyreneés, Bisaurin, vicinity of Lisara, Refugio Llano Lizara
Llaberia	Cataluña	Tarragona, Llaberia near Reus
Mediana	Aragón	Zaragoza, vicinity of Mediana village, 500 m
Monda	Andalucía	Málaga, vicinity of Monda
Monegrillo	Aragón	Zaragoza, Los Monegros, vicinity of Monegrillo village, 560 m
Montalbán	Aragón	Teruel, vicinity of Montalbán
Monteagudo de las Salinas	Castilla-La Mancha	Cuenca, Monteagudo de las Salinas, 1030 m
Moscardón	Aragón	Teruel, vicinity of Moscardón

Níjar	Andalucía	Almería, Sierra de Alhamilla, vicinity of Níjar, 560 m
Otívar	Andalucía	Granada, vicinity of Otívar
Páramo del Sil	Castilla y León	León, vicinity of Páramo del Sil
Pozondón	Aragón	Teruel, vicinity of Pozondón
Río de Baza	Andalucía	Granada, vicinity of Baza, Río Baza near Salazar village, 810 m
Riópar	Castilla-La Mancha	Albacete, vicinity of Riópar
Robledo del Mazo	Castilla-La Mancha	Toledo, vicinity of Robledo del Mazo
San Juan	Extremadura	Cáceres, vicinity of San Juan
Santa María de Oló	Cataluña	Barcelona, Santa María de Oló
Santa Pola	Valencia	Alicante, Santa Pola, 1 km South of Balsares, 50 m
Senés	Andalucía	Almería, Sierra de los Filabres, road Purchena-Senés, 1600 m
Sierra de Javalambre	Aragón	Teruel, Sierra de Javalambre, surroundings of Javalambre Ski station - Lapiaz, 1800-2000 m
Tabernas	Andalucía	Almería, vicinity of Tabernas, Rambla de Tabernas, 400 m
Torres de Albarracín	Aragón	Teruel, Sierra de Albarracín, Torres de Albarracín, 1100 m
Turrillas	Andalucía	Almería, Sierra de Alhamilla, vicinity of Turrillas, 1000 m
Ubegun	País Vasco	Guipúzcoa, vicinity of Ubegun
Valdovécar	Aragón	Teruel, Sierra de Albarracín, vicinity of Albarracín city, 1100 m
Vivel del Río Martín	Aragón	Teruel, vicinity of Vivel del Río Martín

Abbreviations used

DEEUR	“Depressariinae of Europe”, prefix for a photo or genitalia slide made by P. Buchner
gen. prep.	genitalia preparation
MAYR	research collection of Toni Mayr, Feldkirch, Austria
NHMUK	The Natural History Museum, London, United Kingdom
NHMW	Naturhistorisches Museum Wien, Wien, Austria
NMPC	National Museum, Prague, Czech Republic
SCHMITZ	research collection of Willibald Schmitz, Bergisch Gladbach, Germany
SKYVA	research collection of Jan Skyva, Prague, Czech Republic
SRNKA	research collection of L'ubomír Srnka, Lehota pod Vtáčnikom, Slovakia
VIEHMANN	research collection of Joachim Viehmann, Bergisch Gladbach, Germany
ZMUC	Zoological Museum, University of Copenhagen, Denmark

Agonopterix carduncelli Corley, 2017 (figs 1-2)

ALMERÍA, Níjar, 13-14-VI-2007, 1 ♂, J. Šumpich leg., gen. prep. DEEUR 6142 P. Buchner (NMPC).

Remark: Recently described species from Portugal, Spain, Greece and Morocco (BUCHNER *et al.*, 2017). The larva feeds in the tips of shoots of *Carthamus caeruleus* (L.) C. The first record outside of the type series.

Agonopterix cnicella (Treitschke, 1832)

ALBACETE, Riópar, 27-28-VI-2001, 1 ♂, Z. Laštůvka leg. (NMPC); ALICANTE, Finestrat, 28-IX-2005, 2 ♂♂, J. Šumpich leg. (NMPC); ALMERÍA, Calar Alto, 11-VII-2004, 1 ♂, J. Procházka (SKYVA); BARCELONA, Santa María de Oló, 25-VI-2008, 1 ♂, Z. Laštůvka leg. (NMPC); GRANADA, Diezma, 17-VI-2007, 1 ♂, A. & Z. Laštůvka leg. (NMPC); HUESCA, Lisara, 9-VII-2012, 1 ♂, M. Dvořák leg. (NMPC); MADRID, Colmenar de Oreja, 12-13-X-2009, 1 ♂, J. Šumpich leg. (NMPC); TERUEL, Albarracín, 23-24-IX-2005, 4 ♂♂, J. Šumpich leg. (NMPC), 13-14-VII-2012, 1 ♂, M. Dvořák leg. (NMPC); ZARAGOZA, Monegrillo, 21-IX-2005, 1 ♂, J. Šumpich leg. (NMPC).

Agonopterix curvipunctosa (Haworth, 1811)

CUENCA, Monteagudo de las Salinas, 29-IV-2003, 1 ♀, 30-IV-1-V-2003, 1 ♂, J. Šumpich leg., gen. prep. DEEUR 6140 P. Buchner, Barcode TLMF Lep 23267 (NMPC).

Agonopterix flurii Sonderegger, 2013 (figs 3-4)

CUENCA, La Mancha, 17-V-2012, 1 ♂, T. Mayr leg., gen. prep. DEEUR 6799 P. Buchner, Barcode TLMF Lep 26330 (MAYR); TERUEL, Moscardón, 14-IX-2007, 1 ♂, J. Viehmann leg., gen. prep. DEEUR 1930 P. Buchner (SCHMITZ).

Remark: *A. flurii* was described from Valais in Switzerland (SONDEREGGER, 2013). It has since been recorded also from France (RYMARCZYK *et al.*, 2013), Turkey (BUCHNER, 2017), and Crimea (SAVCHUK & KAJGORODOVA, 2017). The larva feeds on *Centaurea scabiosa*. **New species for Iberian Peninsula and Spain.**

Agonopterix ciliella (Stainton, 1849)

GUIPÚZCOA, Ubegun, 15-VIII-1998, 1 ♂, J. Šumpich leg., gen. prep. J. Šumpich 18279 (NMPC).

Agonopterix hippomarathri (Nickerl, 1864) (figs 5-6)

CUENCA, Monteagudo de las Salinas, IX-2008, 1 ♂, L. Srnka leg., gen. prep. DEEUR 2179 P. Buchner, Barcode TLMF Lep 17679 (SRNKA); TERUEL, Albarracín, 7-VIII-2010, 1 ♂, J. Šumpich leg., gen. prep. J. Šumpich 18218 (NMPC).

Remark: It is widely distributed mainly in central Europe, recorded also in France, Greece, Sardinia, Corsica and Ukraine (LVOVSKY, 2013). Larva develops on *Seseli* sp., predominantly on *S. hippomarathrum* Jacq. **New species for Iberian Peninsula and Spain.**

Agonopterix kaekeritziana (Linnaeus, 1767)

GRANADA, Diezma, 17-VI-2007, 1 ♂, A. & Z. Laštůvka leg. (NMPC).

Agonopterix kuznetzovi Lvovsky, 1983 (figs 7-8)

ALMERÍA, Barjalí, 29-VII-2005, 1 ♂, V. Červenka leg., gen. prep. DEEUR 6215 P. Buchner, Barcode TLMF Lep 23314 (SKYVA).

Remark: *A. kuznetzovi* was described from Orenburg Region in Russia and one paratype originated also from Central Asia (?Kyzil-Asker') (LVOVSKY, 1983). In Great Britain it was known already before 1983 but only after its description the occurrence in this country was published (LANGMAID & PELHAM-CLINTON, 1984). In Great Britain it is very local and overlooked for a long time (EMMET & LANGMAID, 2002). Just recently it was found in Turkey (BUCHNER, 2017a), and in Spain (VIVES MORENO & GASTÓN, 2017). This Spanish record originates from Álava province in the Basque country (VIVES MORENO & GASTÓN, 2017). Our record was taken at the opposite side of Spain, in Andalucía, and it seems the species is generally distributed in Spain but also only overlooked. Larva feeds on *Serratula tinctoria* L. New province record, and the second from Iberian Peninsula.

Agonopterix liturosa (Haworth, 1811)

TERUEL, Vivel del Río Martín, 2-VII-2003, 1 ♂, Z. Laštůvka leg. (NMPC).

Agonopterix nervosa (Haworth, 1811)

ALMERÍA, Calar Alto, 27-VII-2005, 1 ♂, V. Červenka leg., gen. prep. DEEUR 6357 P. Buchner (SKYVA); MÁLAGA, Jubrique, 16-VI-2008, 1 ♀, Z. Laštůvka leg. (NMPC); TERUEL, Vivel del Río Martín, 24-VI-2001, 1 ♂, Z. Laštůvka leg. (NMPC).

Agonopterix rotundella (Douglas, 1846)

CUENCA, Monteagudo de las Salinas, 29-IV-2003 J. Šumpich leg., Barcode TLMF Lep 23269,

(NMPC); GRANADA, Diezma, 17-VI-2007, A. & Z. Laštůvka leg., Barcode TLMF Lep 23329) (NMPC); MÁLAGA, Monda, 26-VI-2004, Z. Laštůvka leg., Barcode TLMF Lep 23325 (NMPC).

Agonopterix nodiflorella (Millière, 1866)

ALMERÍA, Alto del Calar del Gallinero, 1-2-VIII-2010, 1 ♂, J. Šumpich leg. (NMPC); Colativi, 15-19.6.2007, 1 ♀, J. Šumpich leg. (NMPC); HUESCA, Cotiella, 9-VII-2013, 1 ♀, M. Dvořák leg. (NMPC); MÁLAGA, Jimera de Líbar, 23-VI-2005, 1 ♂, Z. Laštůvka leg. (NMPC); Monda, 16-VI-2010, 1 ♂, A. & Z. Laštůvka leg. (NMPC).

Agonopterix pallorella (Zeller, 1839)

CUENCA, Monteagudo de las Salinas, 25-IV-2005, 2 ♂♂, M. Dvořák leg., gen. prep. DEEUR 6145 P. Buchner (NMPC), 29-IV-2003, 1 ♀, J. Šumpich leg. (NMPC); TERUEL, Albarracín, 23-24-IX-2005, 1 ♂, J. Šumpich leg. (NMPC), 7-VIII-2010, 1 ♂, J. Šumpich leg. (NMPC); ZARAGOZA, Castejón de Monegros, 26-27-IV-2003, 1 ♀, J. Šumpich leg. (NMPC).

Agonopterix purpurea (Haworth, 1811)

CÁDIZ, Algodonales, 22-VI-2011, 1 ♂, A. & Z. Laštůvka leg. (NMPC); CUENCA, Monteagudo de las Salinas, 6-V-2008, 1 ♀, J. Šumpich leg. (NMPC).

Agonopterix rutana (Fabricius, 1794)

ALICANTE, Santa Pola, 27-IV-2008, 1 ♂, J. Šumpich leg. (NMPC); ALMERÍA, Senés, 16-VI-2007, 3 ♂♂, J. Šumpich leg. (NMPC); CUENCA, Las Hondanadas, 7-V-2008, 1 ♂, J. Šumpich leg. (NMPC); Montalbán, 15-VI-2003, 1 ♂, Z. Laštůvka leg. (NMPC); HUESCA, Candanos, 10-VI-2011, 1 ♂, A. & Z. Laštůvka leg. (NMPC); TERUEL, Albarracín, 3-V-2003, 1 ♂, J. Šumpich leg. (NMPC), 13-VII-2012, 1 ♂, M. Dvořák leg. (NMPC); ZARAGOZA, Aguarón, 27-VI-2008, 1 ♂, A. & Z. Laštůvka leg. (NMPC).

Agonopterix scopariella (Heinemann, 1870)

ALBACETE, Riópar, 27-28-VI-2001, 1 ♂, Z. Laštůvka leg. (NMPC); ALICANTE, San Juan, 21-VI-2003, 2 ♂♂, 1 ♀, Z. Laštůvka leg. (NMPC); BARCELONA, Borreda, 28-VI-2016, 1 ♂, A. & Z. Laštůvka leg. (NMPC); CUENCA, Monteagudo de las Salinas, 6-V-2008, 1 ♀, J. Šumpich leg. (NMPC); HUESCA, Candanos, 10-VI-2013, 1 ♀, A. & Z. Laštůvka leg. (NMPC); TERUEL, Albarracín, 7-VIII-2010, 1 ♀, J. Šumpich leg. (NMPC), 13-VII-2012, 1 ♂, 1 ♀, M. Dvořák leg. (NMPC); Vivel del Río Martín, 24-VI-2001, 1 ♂, Z. Laštůvka leg. (NMPC).

Agonopterix selini (Heinemann, 1870)

TERUEL, Sierra de Javalambre, 26-VII-2010, 1 ♂, M. Dvořák leg. (NMPC), 5-VIII-2010, 1 ♂, J. Šumpich leg., Barcode TLMF Lep 19169 (NMPC).

Remark: Verified records originate from central Europe (Austria, Czech Republic, Germany, Slovakia, Slovenia), Balkans, Finland, France, Italy, and Turkey (BUCHNER, 2017b). Only one record from Spain was available so far from Huesca (MURRIA-BELTRÁN *et al.*, 2004). We add additional records from Aragon, identification of one specimen is also confirmed by genetic data. The second records from the Iberian Peninsula.

Agonopterix subpropinquella (Stainton, 1849)

ALICANTE: Santa Pola, 27-IV-2008, 2 ♂♂, J. Šumpich leg. (NMPC); ALMERÍA, Níjar, 9-V-2005, 1 ♂, M. Dvořák leg. (NMPC).

Agonopterix umbellana (Fabricius, 1794)

TERUEL: Albarracín, 28-VII-2010, 1 ♀, J. Šumpich leg. (NMPC); Barjalí, 29-VII-2005, 1 ♂, V. Červenka leg. (SKYVA).

Depressaria absynthiella Herrich-Schäffer, 1865

ALMERÍA, Alto del Calar del Gallinero, 17-18-VI-2007, 3 ♂♂, J. Šumpich leg. (NMPC); HUESCA, Candanos, 13-VI-2011, 1 ♂, A. & Z. Laštůvka leg. (NMPC); TERUEL, Sierra de Javalambre, 5-6-VIII-2010, 2 ♂♂, J. Šumpich leg. (NMPC); Vivel del Río Martín, 24-VI-2001, 1 ♂, 1 ♀, Z. Laštůvka leg. (NMPC).

Remark: In Spain probably widely distributed species, mainly in mountain areas. Apparently it was overlooked in the past because the occurrence was published only recently from Lérida in Cataluña (DANTART *et al.*, 2010). The first records from Aragón and Andalucía.

Depressaria adustatella Turati, 1927

ALMERÍA, Calar Alto, 11-VII-2007, 1 ♂, J. Procházka leg. (SKYVA); MADRID, Colmenar de Oreja, 12-13-X-2009, 3 ♂♂, 5 ♀♀, J. Šumpich leg. (NMPC); ZARAGOZA, Castejón de Monegros, 23-V-1996, 1 ♂, J. Šumpich leg. (NMPC).

Depressaria albipunctella (Denis & Schiffermüller, 1775)

GRANADA, La Sagra, 21-VI-2009, 1 ♀, A. & Z. Laštůvka leg. (NMPC); HUESCA, Candanos, 13-VI-2011, 1 ♂, A. & Z. Laštůvka leg. (NMPC); TERUEL, Torres de Albarracín, 4-V-2003, 1 ♂, J. Šumpich leg. (NMPC); TOLEDO, Robledo del Mazo, 19-VI-2002, 1 ♀, Z. Laštůvka leg. (NMPC).

Depressaria badiella (Hübner, 1796) (only females mentioned) (figs 12-13)

TERUEL: Albarracín, 23-24-IX-2005, 2 ♀♀, J. Šumpich leg. (NMPC); Pozondón, 18-X-2016, 1 ♀, J. Viehmann leg., gen. prep. DEEUR 6110 P. Buchner (SCHMITZ); TOLEDO, Buenasbodas, 16-VI-2004, 1 ♀, Z. Laštůvka leg., gen. prep. J. Šumpich 18277 (NMPC); ZARAGOZA, Mediana, 8-X-2008, 1 ♀, J. Procházka leg., gen. prep. J. Šumpich 18276 (SKYVA).

Depressaria pseudobadiella Nel, 2011 (only females or barcoded specimens mentioned) (figs 9-11)

HUESCA, Candanos, 30-V-2015, 1 ♂, J. Viehmann leg., Barcode TLMF Lep 19151 (SCHMITZ); TERUEL, Valdovécar, 3-X-2015, 1 ♀, J. Viehmann leg., gen. prep. DEEUR 4853 P. Buchner, Barcode TLMF Lep 23217 (SCHMITZ); ZARAGOZA, Bujaroloz, 19-X-2015, 1 ♂, J. Viehmann leg., Barcode TLMF Lep 23228 (SCHMITZ).

Remark: Recently described species from France (NEL, 2011). It is easily separable from *Depressaria badiella* (Hübner, 1796) based on female genitalia but inseparable based on male genitalia or external features. DNA-barcode seems to be helpful to separate these two taxa: sequencing of 15 specimens of *D. badiella* and 11 of *D. pseudobadiella* during preparatory work for “Microlepidoptera of Europe: Depressariinae” show these two taxa in clearly separated clusters, with 3 subclusters in each taxon. However, further research is necessary to be sure if barcode brings certain identification. **New species for Spain.**

Depressaria cinderella Corley, 2002 (figs 14-17)

JAÉN, Aldeaquemada, 20-VI-2013, 2 ♂♂, A. & Z. Laštůvka leg., gen. prep. J. Šumpich 18223 (NMPC); TOLEDO, Robledo del Mazo, 19-VI-2002, 1 ♂, Z. Laštůvka leg., gen. prep. J. Šumpich 18225 (NMPC).

Remark: Described from Portuguese material (CORLEY, 2002). In 2017 its occurrence was published also from Spain (Lendoño Goikoa in the País Vasco) (VIVES MORENO & GASTÓN, 2017) but this specimen belongs in fact to *Depressaria incognitella* Hannemann, 1990. With regard to this fact we bring the first records from Spain here. The larva feeds on *Conopodium*. **New species for Spain.**

Depressaria daucella (Denis & Schiffermüller, 1775)

ALICANTE: San Juan, 21-VI-2003, 1 ♂, Z. Laštůvka leg. (NMPC).

Depressaria discipunctella Herrich-Schäffer, 1854

ALMERÍA, Alto del Calar del Gallinero, 17-18-VI-2007, 2 ♂♂, J. Šumpich leg. (NMPC); GRANADA, Otívar, 14-VI-2004, 1 ♀, Z. Laštůvka leg., gen. prep. J. Šumpich 18278 (NMPC).

Remark: Before the description of *Depressaria junnilaineni* Buchner, 2017, it was not distinguished from *D. discipunctella* (BUCHNER, 2017c). Therefore older records of *D. discipunctella* are worth a critical check.

Depressaria junnilaineni Buchner, 2017

ALMERÍA: Níjar, 13-14-VI-2007, 1 ♂, M. Dvořák leg., gen. prep. J. Šumpich 18291 (NMPC).

Remark: The first record outside of the type series.

Depressaria douglasella Stainton, 1849

ALBACETE, Riópar, 27-28-VI-2001, 1 ♀, Z. Laštůvka leg., gen. prep. J. Šumpich 18289 (NMPC); ALMERÍA, Turrillas, 18-VI-2010, 1 ♀, A. & Z. Laštůvka leg., gen. prep. J. Šumpich 18290 (NMPC); Tabernas, 18-19-X-2009, 2 ♂♂, 1 ♀, J. Šumpich leg. (NMPC); BARCELONA, Santa María de Oló, 25-VI-2008, 1 ♀, Z. Laštůvka leg., gen. prep. J. Šumpich 18288 (NMPC); GRANADA: Río de Baza, 16-17-X-2009, 4 ♂♂, 1 ♀, J. Šumpich leg. (NMPC); TERUEL: Albarracín, 23-24-IX-2005, 4 ♀♀, J. Šumpich leg. (NMPC); ZARAGOZA, Castejón de Monegros, 20-IX-2005, 1 ♂, 1 ♀, J. Šumpich leg. (NMPC); Monegrillo, 21-IX-2005, 2 ♀♀, J. Šumpich leg. (NMPC).

Depressaria eryngiella Millière, 1881

ALMERÍA, Alto del Calar del Gallinero, 18-VI-2007, 1 ♂, J. Šumpich leg., gen. prep. DEEUR 6360 P. Buchner (NMPC); Níjar, 13-14-VI-2007, 1 ♀, J. Šumpich leg., gen. prep. J. Šumpich 18292 (NMPC); TERUEL, Aliaga, 27-V-2003, 1 ♀, J. Procházka leg., gen. prep. DEEUR 6216 P. Buchner (SKYVA).

Depressaria floridella Mann, 1864 (figs 18-19)

TERUEL: Albarracín, 26-VI-2001, Z. Laštůvka leg., gen. prep. J. Šumpich 18219 (NMPC); Moscardón, 26-VI-2016, 1 ♂, J. Viehmann leg., gen. prep. DEEUR 4782 P. Buchner (SCHMITZ); Albarracín, 25-VI-2016, 1 ♂, J. Viehmann leg., gen. prep. DEEUR 4791 P. Buchner (SCHMITZ); Valdovécar, 4-VIII-2007, 1 ♂, P. Skule and P. Skou leg., gen. prep. DEEUR 5383 P. Buchner (ZMUC).

Remark: The species was described from Turkey, and later it was found in Greece (HANNEMANN, 1988; LVOVSKY, 2013). Based on study of the type material deposited in NHMW material from the Czech Republic was correctly identified also (ŠUMPICH *et al.*, 2013). Later very old Bohemian material *D. floridella* from the second half of the 19th century was found in the Nickerl collection (NMPC), confirming that the species has been overlooked to date. Similarly, the first Slovakian record from 1976 was published only recently (PASTORALIS *et al.*, 2017). At present, its occurrence is known also from France (LIŠKA, 2015) and in preparing “Microlepidoptera of Europe: Depressariinae“, specimens from Austria, Switzerland, Italy, Bulgaria, Ukraine, Azerbaijan, Russia and Georgia have been found. The bionomy was not hitherto described in detail but the larva develops on *Seseli sp.* (Apiaceae), e.g. *Seseli arenarium* (A. Lvovsky, pers. comm.). **New species for Iberian Peninsula and Spain.**

Depressaria olerella Zeller, 1854

TERUEL, Sierra de Javalambre, 6-VIII-2010, 1 ♂, M. Dvořák leg. (NMPC).

Remark: Widely distributed in central, northern and eastern Europe, very rare in western Europe. This species was first reported from Spain in Gerona in 2013 (DANTART & JUBANY, 2013). We add the first record from Aragon.

Depressaria peniculatella Turati, 1922

ALMERÍA: Tabernas, 18-19-X-2009, 1 ♂, 3 ♀♀, J. Šumpich leg. (NMPC); MADRID, Colmenar de Oreja, 12-13-X-2009, 1 ♂, M. Dvořák leg. (NMPC); ZARAGOZA, Castejón de Monegros, 22-IX-2009, 2 ♂♂, J. Šumpich leg. (NMPC).

Depressaria incognitella Hannemann, 1990

HUESCA, Lisara, 9-VII-2012, 1 ♂, 1 ♀, M. Dvořák leg., gen. prep. J. Šumpich 18224 (NMPC); TERUEL, Sierra de Javalambre, 15-VII-2012, 1 ♀, M. Dvořák leg. (NMPC).

Depressaria veneficella Zeller, 1847

TERUEL: Valdovecar, 4-VII-2004, 1 ♀, J. Procházka leg. (SKYVA); CUENCA: Monteagudo de las Salinas, 29-IV-2003, 1 ♀, J. Šumpich leg., gen. prep. J. Šumpich 18275 (NMPC).

Unconfirmed occurrence of *Agonopterix* Hübner, 1825 and *Depressaria* Haworth, 1811 in Spain

Some *Agonopterix* and *Depressaria* species which have been listed for the Spanish fauna do not have any reliable recent records. Here we discuss only taxa for which the occurrence in Spain can be assessed against the background of knowledge obtained from the study of these genera in the whole of Europe. Therefore further modification of the presented checklist may be needed in the future.

Depressaria cervicella Herrich-Schäffer, 1854 was first included in the catalogue of Spanish moths by Agenjo (1966), and later this information was taken up by other authors, see also the comment of REQUENA & DE-GREGORIO (2015). In the past some entomologists incorporated *Depressaria pyreneella* Šumpich, 2013 into series of *D. cervicella* (e.g. in NHMW by H. Zerny), and it is possible that today's situation was created by such confusion (H. Zerny collected in Spain, and also was in contact with many colleagues at that time). At present we are inclined to think the occurrence of *D. cervicella* in the Iberian Peninsula is not reliable confirmed, and we are removing it from the Spanish checklist.

Depressaria genistella Walsingham, 1903 was removed from the list of Spanish fauna already by REQUENA & DE-GREGORIO (2015).

Depressaria pimpinellae Zeller, 1839. Recently revised taxon within whole Europe. Spanish records belong to the newly described *Depressaria villosae* Corley & Buchner, 2018.

Depressaria tenebricosa Zeller, 1854 is distributed in south-eastern Europe. All published records require revision (REQUENA & DE-GREGORIO, 2015). They most probably belong to *D. adustatella* which is widely distributed in the whole territory of Spain.

Update checklist of *Agonopterix* Hübner, 1825 and *Depressaria* Haworth, 1811

The presented list is based on the checklist of VIVES MORENO (2014). References are given only to species recorded after the publishing of the mentioned catalogue. The presented list is only provisional because some species groups require taxonomic revision, see also previous chapter.

Agonopterix ocellana (Fabricius, 1775)

Agonopterix lituosa (Haworth, 1811)

Agonopterix purpurea (Haworth, 1811)

Agonopterix rutana (Fabricius, 1794)

Agonopterix scopariella (Heinemann, 1870)

Agonopterix atomella (Denis & Schiffermüller, 1775)

Agonopterix carduella (Hübner, 1817)

Agonopterix kuznetzovi Lvovsky, 1983

VIVES MORENO & GASTÓN (2017)

Agonopterix laterella (Denis & Schiffermüller, 1775)

Agonopterix flurii Sonderegger, 2013

this paper

Agonopterix subpropinquella (Stainton, 1849)

Agonopterix propinquella (Treitschke, 1835)

Agonopterix arenella (Denis & Schiffermüller, 1775)

Agonopterix perstrigella (Chrétien, 1925)

Agonopterix heracliana (Linnaeus, 1758)

Agonopterix ciliella (Stainton, 1849)

- Agonopterix vendettella* (Chrétien, 1908)
Agonopterix chironiella (Constant, 1893)
Agonopterix thapsiella (Zeller, 1847)
Agonopterix fruticosella (Walsingham, 1903)
Agonopterix adspersella (Kollar, 1832)
Agonopterix curvipunctosa (Haworth, 1811)
Agonopterix capreoella (Zeller, 1839)
Agonopterix rotundella (Douglas, 1846)
Agonopterix nodiflorella (Millière, 1866)
Agonopterix assimilella (Treitschke, 1832)
Agonopterix carduncelli Corley, 2017 BUCHNER *et al.* (2017)
Agonopterix nanatella (Stainton, 1849)
Agonopterix squamosa (Mann, 1864)
Agonopterix straminella (Staudinger, 1859)
Agonopterix aspersella (Constant, 1888)
Agonopterix kaekeritziana (Linnaeus, 1767)
Agonopterix pallorella (Zeller, 1839)
Agonopterix umbellana (Fabricius, 1794)
Agonopterix nervosa (Haworth, 1811)
Agonopterix alstromeriana (Clerck, 1759)
Agonopterix astrantiae (Heinemann, 1870) VIVES MORENO & GASTÓN (2017)
Agonopterix cnicella (Treitschke, 1832)
Agonopterix senecionis (Nickerl, 1864)
Agonopterix yeatiana (Fabricius, 1781)
Agonopterix hippomarathri (Nickerl, 1864) this paper
Agonopterix selini (Heinemann, 1870)
Agonopterix oinochroa (Turati, 1879)
Agonopterix cachrithis (Staudinger, 1859)
Agonopterix ferulae (Zeller, 1847) VIVES MORENO & GASTÓN (2017)
Depressaria radiella (Goeze, 1783)
Depressaria villosae Corley & Buchner, 2018 CORLEY & BUCHNER (2018)
Depressaria libanotidella Schläger, 1849
Depressaria badiella (Hübner, 1796)
Depressaria pseudobadiella Nel, 2011 this paper
Depressaria corticinella Zeller, 1854
Depressaria sarahae Gastón & Vives, 2017 GASTÓN & VIVES MORENO (2017)
Depressaria daucella (Denis & Schiffermüller, 1775)
Depressaria ultimella Stainton, 1849
Depressaria halophilella Chrétien, 1908 VIVES MORENO & GASTÓN (2017)
Depressaria velox Staudinger, 1859
Depressaria pyreneella Šumpich, 2013
Depressaria pulcherrimella Stainton, 1849
Depressaria cinderella Corley, 2002 this paper
Depressaria sordidatella Tengström, 1848
Depressaria floridella Mann, 1864 this paper
Depressaria douglasella Stainton, 1849
Depressaria beckmanni Heinemann, 1870
Depressaria krasnowodskella Hannemann, 1953
Depressaria albipunctella (Denis & Schiffermüller, 1775)
Depressaria olerella Zeller, 1854
Depressaria incognitella Hannemann, 1990

- Depressaria hofmanni* Stainton, 1861
Depressaria ululana Rössler, 1866
Depressaria adustatella Turati, 1927
Depressaria chaerophylli Zeller, 1839
Depressaria absynthiella Herrich-Schäffer, 1865
Depressaria marcella Rebel, 1901
Depressaria depressana (Fabricius, 1775)
Depressaria veneficella Zeller, 1847
Depressaria junnilaineni Buchner, 2017 BUCHNER (2017)
Depressaria discipunctella Herrich-Schäffer, 1854
Depressaria albarracinella Corley, 2017 BUCHNER *et al.* (2017)
Depressaria eryngiella Millière, 1881
Depressaria hirtipalpis Zeller, 1854
Depressaria erinaceella Staudinger, 1870
Depressaria peniculatella Turati, 1922

Acknowledgements

The authors would like to thank Toni Mayr (Austria), Willibald Schmitz (Germany), Jan Skyva (Czech Republic), Lubomír Srnka (Slovakia), and Joachim Viehmann (Germany) for the opportunity to study their material. The second author thanks to Dr. Antonio Vives (Spain) for support in obtaining collecting permits for Spain for the Scientific Project of SHILAP, and also to Dr. Zdeněk Laštůvka and Jan Liška (both Czech Republic) for donation of their material to National Museum of Prague. We are also indebted to Dr. Alexander Lvovsky (Russia) for helpful information and comments and Martin Corley (Great Britain) for linguistic corrections. This work was financially supported by Ministry of Culture of the Czech Republic (DKRVO 2018/13, National Museum, 00023272) (J. Šumpich).

BIBLIOGRAPHY

- BUCHNER, P., 2017a.– Faunistic records of Depressariidae (Lepidoptera, Gelechioidea) from Turkey—a result of studies for “Microlepidoptera of Europe: Depressariinae”.— *Cesa News*, **134**: 1-34.
 BUCHNER, P., 2017b.– Redescription of *Agonopterix selini* (Heinemann, 1870) with description of *Agonopterix lessini* sp. n. and *Agonopterix paraselini* sp. n. (Lepidoptera, Gelechioidea).— *Gortania*, **38**: 71-101.
 BUCHNER, P., 2017c.– *Depressaria junnilaineni*, a new species from the *veneficella* species-group (Depressariinae, Lepidoptera) from the West Palaearctic, with additional information on the rare species *D. pentheri* and *D. erzurumella*.— *Centre for Entomological Studies, Miscellaneous Papers*, **166**: 1-19.
 BUCHNER, P., CORLEY, M. & JUNNILAINEN, J., 2017.– Three new species and one new subspecies of Depressariinae (Lepidoptera) from Europe.— *ZooKeys*, **684**: 119-154.
 CORLEY, M. F. V., 2002.– Two new species of Depressariidae (Lepidoptera) from Portugal.— *Nota lepidopterologica*, **24**(4): 25-33.
 CORLEY, M. & BUCHNER, P., 2018.– *Depressaria villosae* sp. nov., a new species from Portugal, Spain and Greece (Depressariidae).— *The Entomologist's Record and Journal of Variation*, **130**: 105-111.
 DANTART, J., CERVELLÓ, A., JUBANY, J., MARTÍ, J., XAUS, A., VALLHONRAT, F. & OLIVELLA, E., 2010.– Els lepidòpters de les Planes de Son i la Mata de València.— *In Els sistemes naturals de les Planes de Son i la Mata de València* (J. Germain ed.).— *Treballs de la Institució Catalana d'Història Natural*, **16**: 531-608.
 DANTART, J. & JUBANY, J., 2010.– Resultats de les quartes Nits de les Papallones (Catalan Moth Nights): 11-15 d'octubre de 2007.— *Butlletí de la Societat Catalana de Lepidopterologia*, **101**: 19-38.
 EMMET, A. M. & LANGMAID, J. R., 2002.– Oecophoridae-Scythrididae (excluding Gelechiidae).— *The Moths and Butterflies of Great Britain and Ireland*, **4**(1): 326 pp. Harley Books, Essex.
 GASTÓN, J. & VIVES MORENO, A., 2017.– Descripción de una especie nueva del género *Depressaria* Haworth, 1811 (Lepidoptera: Depressariidae).— *Archivos Entomológicos*, **17**: 351-354
 HANNEMANN, H. J., 1988.– Studien an Depressarien (Lep. Oecophoridae).— *Deutsche Entomologische Zeitschrift (N. F.)*, **35**(1-3): 193-197.

- LANGMAID, J. R. & PELHAM-CLINTON, E. C., 1984.– *Agonopterix kuznetzovi* Lvovsky (Lepidoptera: Oecophoridae), a species new to the British Isles.– *Entomologist's Gazette*, **35**: 67-72.
- LIŠKA, J., 2015.– Význačné druhy hmyzu ěeského krasu: motýl plochuška *Depressaria floridella* Mann, 1864 (Lepidoptera: Elachistidae) [Significant insect species of the Bohemian Karst: depressariid moth *Depressaria floridella* Mann, 1864 (Lepidoptera: Elachistidae)].– *Fragmenta Ioannea Collecta*, **21**: 27-32.
- LVOVSKY, A. L., 1983.– Novyi vid moli iz roda *Agonopterix* Hbn. (Lepidoptera, Oecophoridae) [A new species of the broad-winged moth from the genus *Agonopterix* Hbn. (Lepidoptera, Oecophoridae)].– *Entomologicheskoe Obozrenie*, **62**(3): 594-595.
- LVOVSKY, A., 2013.– Fauna Europaea: Oecophoridae, Depressariinae.– In O. KARSHOLT & E. J. van NIEUKERKEN (eds). *Fauna Europaea: Lepidoptera, Moths. Fauna Europaea*. Version 2017.06. Available from <https://fauna-eu.org/> (accessed 30 January 2018).
- NEL, J., 2011.– *Depressaria pseudobadiella* n. sp. décrite du sud de la France (Lep. Depressariidae).– *Oreina*, **16**: 4-5.
- PASTORÁLIS, G., LIŠKA, J., ELSNER, G., ŠUMPICH, J., RICHTER, I., TOKÁR, Z., ENDEL, B. & SKYVA, J., 2017.– Jedenást' druhov motýl'ov (Lepidoptera) nových pre faunu Slovenska (Eleven Lepidoptera species new to the fauna of Slovakia).– *Folia Faunistica Slovaca*, **22**: 19-29.
- REQUENA, E. & PÉREZ DE-GREGORIO, J. J., 2014.– Contribució al coneixement del gènere *Depressaria* Haworth, 1812, a Catalunya i Espanya (Lepidoptera: Depressariidae).– *Bulltí de la Societat Catalana de Lepidopterologia*, **105**: 13-30.
- RYMARCZYK, F., DUTHEIL, M. & NEL, J., 2013.– *Agonopterix feruliphila* (Millière, 1866), stat. rest., *Agonopterix silerella* (Stainton, 1865) en France et description de deux nouvelles espèces, *Agonopterix orophilella* sp. nov. et *A. centaureivora* sp. nov. 2e contribution à la connaissance des Depressariinae de France (Lep. Elachistidae Depressariinae).– *Oreina*, **21**: 13-24.
- SAVCHUK, V. V. & KAJGORODOVA, N. S., 2017.– New data on fauna and biology of Lepidoptera of Crimea.– *Caucasian Entomological Bulletin*, **13**: 111-124 (in Ukrainian, English abstract).
- SONDEREGGER, P., 2013.– *Agonopterix flurii* sp. nov. aus dem Wallis, Schweiz (Lepidoptera, Depressariidae).– *Contributions to Natural History*, **21**: 1-14.
- ŠUMPICH, J., 2013.– *Depressaria pyrenaella* sp. n., a confused species from south-western Europe (Lep.: Depressariidae).– *The Entomologist's Record and Journal of Variation*, **125**: 114-118.
- ŠUMPICH, J., ŽEMLIČKA, M. & DVOŘÁK, I., 2013.– Příspěvek k fauně motýlů Lepidoptera severních Čech-I [On the lepidopteran fauna (Lepidoptera) of northern Bohemia-I].– *Šborník Severočeského Muzea, Přírodní Vědy (Liberec)* **31**: 67-168.
- VIVES MORENO, A., 2014.– *Catálogo sistemático y sinónimo de los Lepidoptera de la Península Ibérica, de Ceuta, de Melilla y de las islas Azores, Baleares, Canarias, Madeira y Salvajes (Insecta: Lepidoptera)*: 1184 pp. Suplemento a SHILAP Revista de lepidopterología. Improitalia, Madrid.
- VIVES MORENO, A. & GASTÓN, J., 2017.– Contribución al conocimiento de los Microlepidoptera de España, con la descripción de una especie nueva (Insecta: Lepidoptera).– *SHILAP Revista de lepidopterología*, **45**(178): 317-342.
- YLLA, J. & MACIÀ, R., 2008.– Contribució al coneixement de la distribució de les famílies Oecophoridae Bruand, [1851], i Depressariidae Meyrick, 1883, a Catalunya (Lepidoptera).– *Bulltí de la Societat Catalana de Lepidopterologia*, **99**: 5-15, 2 pls.

P. B.
Scheibenstraße 335
A- 2625 Schwarzau am Steinfeld
AUSTRIA / AUSTRIA
E-mail: buchner.324@tele2.at
<https://orcid.org/0000-0002-8406-9800>

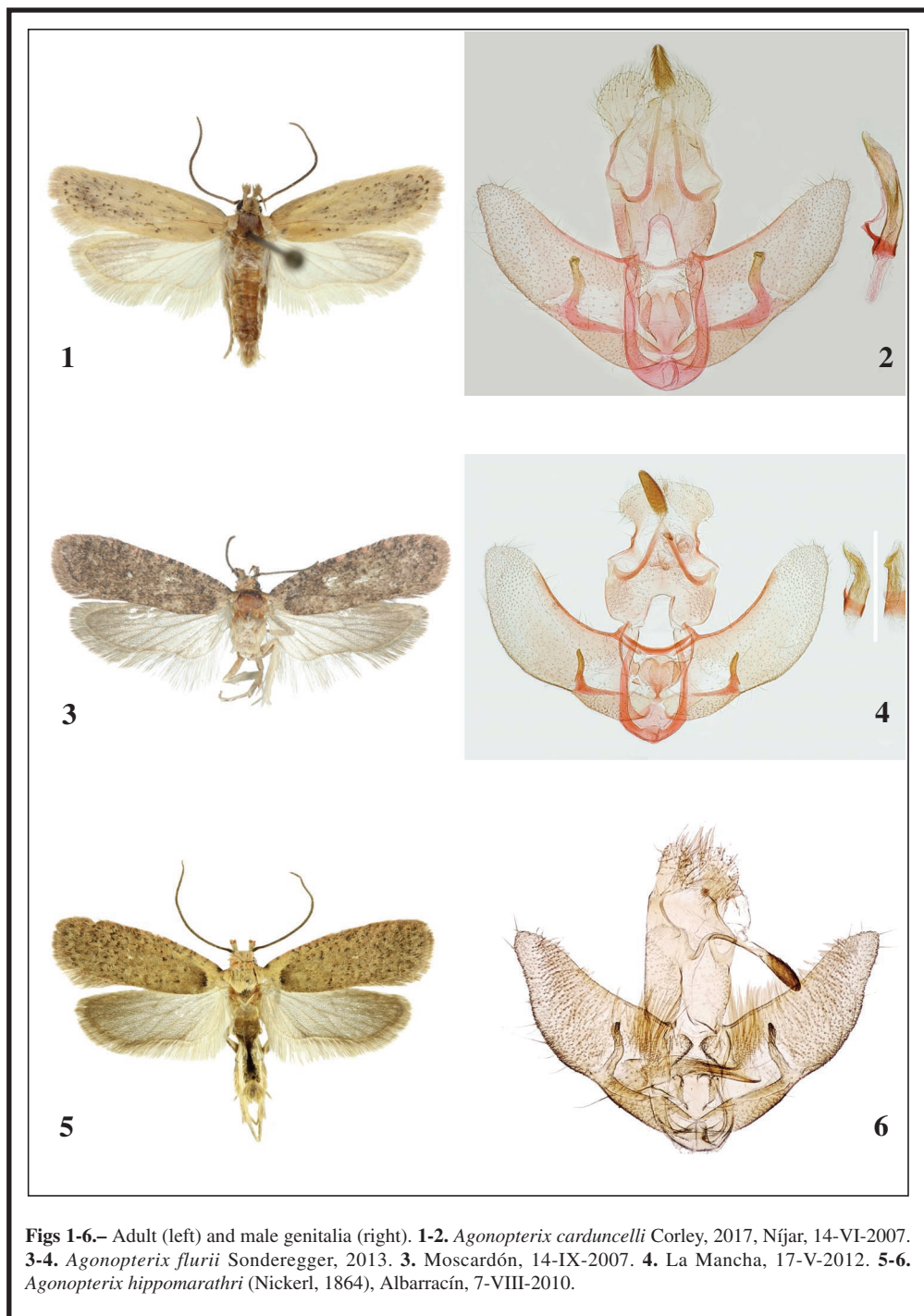
*J. Š.
National Museum
Department of Entomology
Cirkusová 1740
CZ-193 00 Praha 9 - Horní Poèernice
REPÚBLICA CHECA / CZECH REPUBLIC
E-mail: jansumpich@seznam.cz
<https://orcid.org/0000-0002-0262-2941>

*Autor para la correspondencia / *Corresponding author*

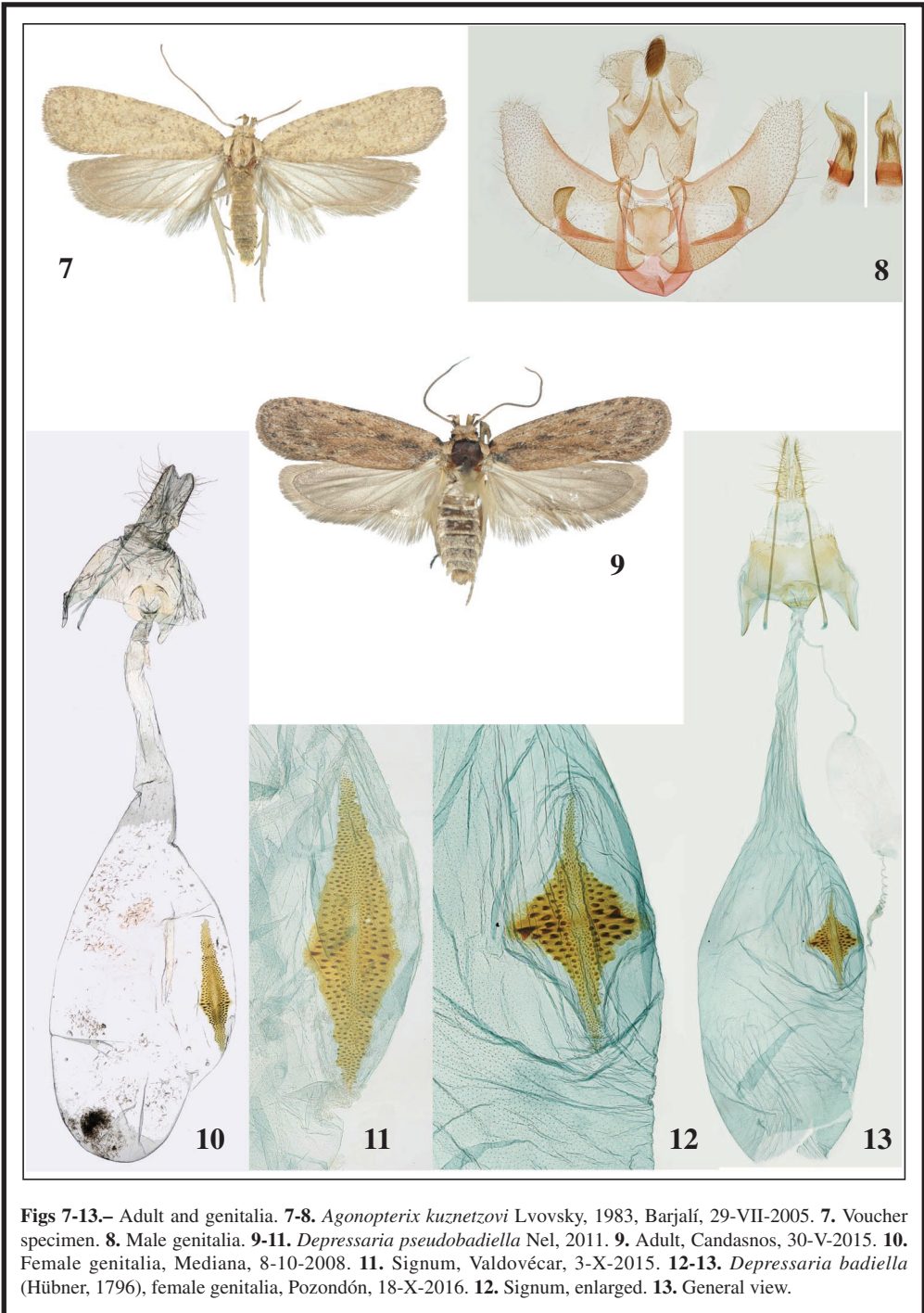
(Recibido para publicación / *Received for publication* 4-VI-2018)

(Revisado y aceptado / *Revised and accepted* 10-VII-2018)

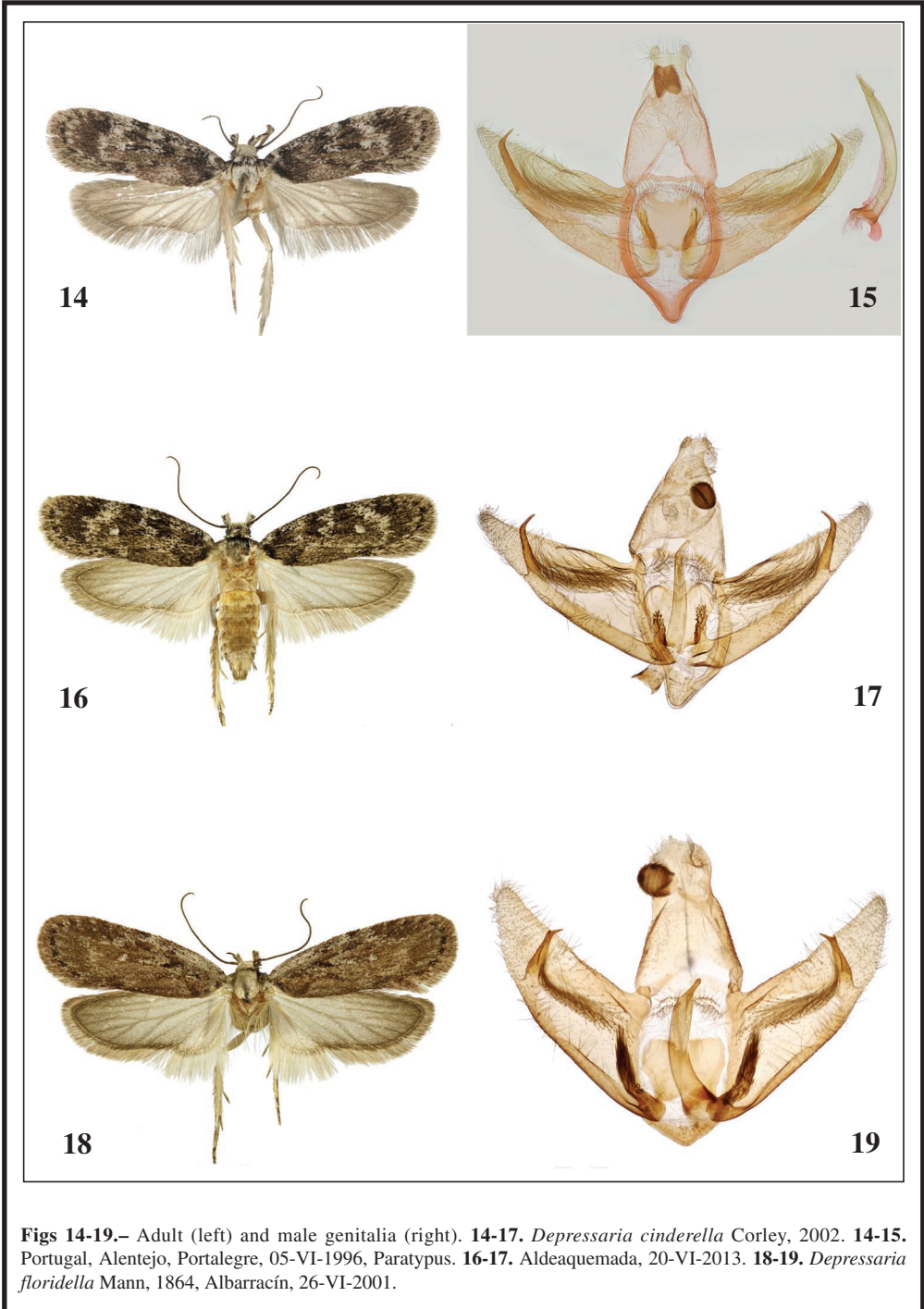
(Publicado / *Published* 30-XII-2018)



Figs 1-6.— Adult (left) and male genitalia (right). **1-2.** *Agonopterix carduncelli* Corley, 2017, Níjar, 14-VI-2007. **3-4.** *Agonopterix flurii* Sonderegger, 2013. **3.** Moscardón, 14-IX-2007. **4.** La Mancha, 17-V-2012. **5-6.** *Agonopterix hippomarathri* (Nickerl, 1864), Albarracín, 7-VIII-2010.



Figs 7-13.— Adult and genitalia. **7-8.** *Agonopterox kuznetzovi* Lvovsky, 1983, Barjalí, 29-VII-2005. **7.** Voucher specimen. **8.** Male genitalia. **9-11.** *Depressaria pseudobadiella* Nel, 2011. **9.** Adult, Candanos, 30-V-2015. **10.** Female genitalia, Mediana, 8-10-2008. **11.** Signum, Valdovécar, 3-X-2015. **12-13.** *Depressaria badiella* (Hübner, 1796), female genitalia, Pozondón, 18-X-2016. **12.** Signum, enlarged. **13.** General view.



Figs 14-19.— Adult (left) and male genitalia (right). **14-17.** *Depressaria cinderella* Corley, 2002. **14-15.** Portugal, Alentejo, Portalegre, 05-VI-1996, Paratypus. **16-17.** Aldeaquemada, 20-VI-2013. **18-19.** *Depressaria floridella* Mann, 1864, Albarracín, 26-VI-2001.