

New species of Lepidoptera for mainland Portugal (Insecta: Lepidoptera)

J. Nunes, C. Silva & E. Jesus

Abstract

Six new species are added to the Lepidoptera fauna of mainland Portugal, resulting from the authors' fieldwork in 2019 and 2020: namely *Coleophora anitella* Baldizzone, 1985, *Aplota palpellus* (Haworth, 1828), *Anacampsis obscurella* (Denis & Schiffermüller, 1775), *Apomyelois bistriatella* (Hulst, 1887), *Eublemma amoena* (Hübner, 1803) and *Xestia sexstrigata* (Haworth, 1809).

KEY WORDS: Insecta, Lepidoptera, distribution, Portugal.

Novas espécies de Lepidoptera para Portugal continental (Insecta: Lepidoptera)

Resumo

Seis novas espécies são adicionadas à fauna de Lepidoptera de Portugal continental, como resultado do trabalho de campo desenvolvido pelos autores em 2019 e 2020: nomeadamente *Coleophora anitella* Baldizzone, 1985, *Aplota palpellus* (Haworth, 1828), *Anacampsis obscurella* (Denis & Schiffermüller, 1775), *Apomyelois bistriatella* (Hulst, 1887), *Eublemma amoena* (Hübner, 1803) e *Xestia sexstrigata* (Haworth, 1809).

PALAVRAS CHAVE: Insecta, Lepidoptera, distribuição, Portugal.

Nuevas especies de Lepidoptera para Portugal continental (Insecta: Lepidoptera)

Resumen

Se añaden seis nuevas especies a la fauna de Lepidoptera de Portugal continental, como resultado del trabajo de campo desarrollado por los autores en 2019 y 2020: a saber *Coleophora anitella* Baldizzone, 1985, *Aplota palpellus* (Haworth, 1828), *Anacampsis obscurella* (Denis & Schiffermüller, 1775), *Apomyelois bistriatella* (Hulst, 1887), *Eublemma amoena* (Hübner, 1803) y *Xestia sexstrigata* (Haworth, 1809).

PALABRAS CLAVE: Insecta, Lepidoptera, distribución, Portugal.

Introduction

This paper is the first of a possible series in which the authors summarise their recent records of new species to mainland Portugal, complementing the annual series “New and interesting Portuguese Lepidoptera records”, developed by Martin Corley *et al.* (CORLEY *et al.*, 2016, 2018a, 2018b, 2019, 2020) and the Portuguese checklist (CORLEY, 2015).

Six species of six families are added to the Portuguese Lepidoptera fauna. All six are already known from Spain. The records obtained are the result of some of the authors' fieldwork in 2019 and 2020.

Material and Methods

Most of the species were recorded at light traps. The data for each record, including the precise locality, date and altitude are given for each species entry. Unless otherwise stated, records were made by the three authors. Voucher specimens of the Microlepidoptera species have been retained in the collection of Martin Corley.

The larval stages were found by direct searches on respective hostplants and, after collection, larvae were reared on the plants on which they were found. Hostplants were identified by comparison with available illustrations from portal Flora-On, while all Lepidoptera species were identified by comparison with available illustrations or, if necessary, by dissection of genitalia. The identifications by the last method are stated.

The order and nomenclature of Lepidoptera families follows CORLEY (2015). The nomenclature of vascular plant and mosses follows the EURO+MED PLANTBASE and HILL *et al.* (2006), respectively. Bibliographic data about distribution and hostplants are also added to each species entry.

New Portuguese records

COLEOPHORIDAE

Coleophora anitella Baldizzone, 1985

Trás-os-Montes: Celas, Vinhais, 41°43'49.5" N 6°56'04.7" W, 08-V-2020, in coll. Corley (Fig. 1). Altitude: 703 m. One adult attracted to a light trap. Identification confirmed by dissection (Corley gen. prep. 5979 ♂). Present in Spain, southern France and Italy (BALDIZZONE, 2019). Hostplant unknown.

OECOPHORIDAE

Aplota palpellus (Haworth, 1828)

Minho: Cabana Maior, Arcos de Valdevez, 41°54'17.7" N 8°18'47.4" W, 18-VII-2020, in coll. Corley (Fig. 2). Altitude: 775 m. One adult (♀) attracted to a light trap. Present from Iberian Peninsula to Poland, including Italy, Britain and Scandinavian countries, and absent from southeastern Europe (DE JONG *et al.*, 2014). Feed on mosses such as *Hypnum cupressiforme* Hedw., *Homalothecium sericeum* (Hedw.) Schimp. and *Orthotrichum* sp. on trunks, rocks or walls (LANGMAID *et al.*, 2018; STERLING *et al.*, 2012).

GELECHIIDAE

Anacampsis obscurella (Denis & Schiffermüller, 1775)

Trás-os-Montes: Caçarelhos, Vimioso, 41°33'03.5" N 6°27'22.9" W, 10-V-2020, leg. J. Nunes in coll. Corley (Fig. 3). Altitude: 745 m. Two larvae on *Prunus spinosa* L. leaves. Identification confirmed by dissection of one of the reared adults (Corley gen. prep. 5998 ♂). Present from Iberian Peninsula to Russia, but absent from British Isles, Mediterranean islands and Scandinavian countries (DE JONG *et al.*, 2014). Already recorded feeding on *Prunus* sp. (ROBINSON *et al.*, 2010).

PYRALIDAE

Apomyelois bistriatella (Hulst, 1887)

Minho: Fradelos, Vila Nova de Famalicão, 41°21'25.7" N 8°36'23.5" W, 16-VII-2020, leg. J. Nunes in coll. Corley (Fig. 4). Altitude: 32 m. Two adults attracted to a light trap. Identification confirmed by dissection of one specimen (Corley gen. prep. 5997 ♂). Present in North America, Russia and Europe but absent from most of the Mediterranean countries (DE JONG *et al.*, 2014);

ORTIZ *et al.*, 2016). Recently recorded in Spain in Aragon and Basque Country from a collection revision (ORTIZ *et al.*, 2016). Feeds on the fungus *Daldinia* sp. (ROBINSON *et al.*, 2010; STERLING *et al.*, 2012).

Note: Species recorded by the first author while carrying out an inventory and monitoring programme of nocturnal Lepidoptera in the Local Protected Landscape - Pateiras do Ave.

EREBIDAE

Eublemma amoena (Hübner, 1803)

Trás-os-Montes: Almendra, Vila Nova de Foz Côa, 40°58'41.5" N 7°03'15.2" W, 10-V-2019 (Fig. 5). Altitude: 498 m. Adult resting under leaf of *Onopordum acanthium* L. during the day. Present from Iberian Peninsula to Russia but absent from northern Europe (DE JONG *et al.*, 2014). *Onopordum acanthium* L. is a known hostplant of this species.

Note: As mentioned in CORLEY (2015) (rejected species: 2177A), this species has two old records for Portugal in Vizela and Mindelo, both in Douro Litoral province. As no specimens could be found, the species was not included in the Portuguese checklist.

NOCTUIDAE

Xestia sexstrigata (Haworth, 1809)

Trás-os-Montes: Guadramil, Bragança, 41°55'13.2" N 6°34'27.2" W, 17-VIII-2019 (Fig. 6). Altitude: 714 m. Four adults attracted to a light trap. Present from Iberian Peninsula to Russia and to the north reaching southern areas of the Scandinavian countries; absent from southeastern Europe (DE JONG *et al.*, 2014; RÁKOSY & RÁKOSY, 2020). In ROBINSON *et al.* (2010) and RÁKOSY & RÁKOSY (2020) this species is recorded as polyphagous, feeding on low growing herbs and grasses.

Note: As mentioned in CORLEY (2015) (rejected species: 2566A), this species has two old records for Portugal. One from Gaia, in Douro Litoral province, and another from Pinhão, in Trás-os-Montes province. As two specimens found were *Xestia xanthographa* (Denis & Schiffermüller, 1775), the species was not included in the Portuguese checklist.

Acknowledgements

We are most grateful to Martin Corley for the identification confirmations by dissection and for all the knowledge shared.

BIBLIOGRAPHY

- BALDIZZONE, G., 2019.– Description of *Coleophora oreiosella* Baldizzone, sp. n. and new records on the distribution of some European Coleophoridae (Lepidoptera: Coleophoridae).– *SHILAP Revista de lepidopterología*, **47**(186): 269-277.
- CORLEY, M. F. V., 2015.– *Lepidoptera of Continental Portugal. A fully revised list*: 288 pp. Martin Corley, Faringdon.
- CORLEY, M. F. V., FERREIRA, S., GRUNDY, D., NUNES, J., PIRES, P. & ROSETE, J., 2018b.– New and interesting Portuguese Lepidoptera records from 2017 (Insecta: Lepidoptera).– *SHILAP Revista de lepidopterología*, **46**(184): 551-576.
- CORLEY, M. F. V., NUNES, J., ROSETE, J. & FERREIRA, S., 2019.– New and interesting Portuguese Lepidoptera records from 2018 (Insecta: Lepidoptera).– *SHILAP Revista de lepidopterología*, **47**(188): 611-630.
- CORLEY, M. F. V., NUNES, J., ROSETE, J., TERRY, R. & FERREIRA, S., 2020. New and interesting Portuguese Lepidoptera records from 2019 (Insecta: Lepidoptera).– *SHILAP Revista de lepidopterología*, **48**(192): 609-641.
- CORLEY, M. F. V., ROSETE, J., GONÇALVES, A. R., MATA, V., NUNES, J. & PIRES, P., 2018a.– New and

- interesting Portuguese Lepidoptera records from 2016 (Insecta: Lepidoptera).– *SHILAP Revista de lepidopterología*, **46**(181): 33-56.
- CORLEY, M. F. V., ROSETE, J., GONÇALVES, A. R., NUNES, J., PIRES, P. & MARABUTO, E., 2016.– New and interesting Portuguese Lepidoptera records from 2015 (Insecta: Lepidoptera).– *SHILAP Revista de lepidopterología*, **44**(176): 615-643.
- DE JONG, Y., VERBEEK, M., MICHELSEN, V., BJØRN, P., LOS, W., STEEMAN, F., BAILLY, N., BASIRE, C., CHYLARECKI, P., STLOUKAL, E., HAGEDORN, G., WETZEL, F., GLÖCKLER, F., KROUPA, A., KORB, G., HOFFMANN, A., HÄUSER C., KOHLBECKER, A., MÜLLER, A., GÜNTSCH, A., STOEV, P., PENEV, L., 2014.– *Fauna Europaea - all European animal species on the web. Biodiversity Data Journal 2: e4034*. Available from <https://fauna-eu.org/> (accessed 27th December 2020).
- EURO+MED, 2006.– *Euro+Med PlantBase - the information resource for Euro-Mediterranean plant diversity*. Available from <http://www2.bgbm.org/EuroPlusMed/> (accessed 27th December 2020).
- FLORA-ON.– *Flora de Portugal Interactiva, 2014. Sociedade Portuguesa de Botânica*. Available from <http://www.flora-on.pt/> (accessed 27th December 2020).
- HILL, M. O., BELL, N., BRUGGEMAN-NANNENGA, M. A., BRUGUÉS, M., CANO, M. J., ENROTH, J., FLATBERG, K. I., FRAHM, J.-P., GALLEGO, M. T., GARILLETI, R., GUERRA, J., HEDENÄS, L., HOLYOAK, D. T., HYVÖNEN, J., IGNATOV, M. S., LARA, F., MAZIMPAKA, V., MUÑOZ, J. & SÖDERSTRÖM, L., 2006.– An annotated checklist of the mosses of Europe and Macaronesia.– *Journal of Bryology*, **28**: 198-267.
- LANGMAID, J. R., PALMER, S. M. & YOUNG, M. R., 2018.– *A Field Guide to the Smaller Moths of Great Britain and Ireland*: 389 pp. BENHS, Berkshire.
- ORTIZ, J. G., ULLASTRE, J. Y. & VILÀ, R. M., 2016.– *Apomyelois bistriatella* (Hulst, 1887), un nuevo pirálido para la fauna de la Península Ibérica (Lepidoptera: Pyralidae, Phycitinae).– *Arquivos Entomológicos*, **15**: 107-113.
- RÁKOSY, L. & RÁKOSY, D., 2020.– *Xestia sexstrigata* (Haworth, 1809) (Lepidoptera, Noctuidae) a new species expanding into Romania.– *Entomologica romanica*, **24**: 37-40.
- ROBINSON, G. S., ACKERY, P. R., KITCHING, I. J., BECCALONI, G. W. & HERNÁNDEZ, L. M., 2010.– *HOSTS - A Database of the World's Lepidopteran Hostplants*. Natural History Museum, London. Available from <http://www.nhm.ac.uk/hosts/> (accessed 27th December 2020).
- STERLING, P., PARSONS, M. & LEWINGTON, R., 2012.– *Field Guide to the Micro moths of Great Britain and Ireland*: 416 pp. British Wildlife Publishing, Gillingham.

*J. N.

Rua Padre Miguel Paupério do Vale, 401
PT-4440-687 Valongo
PORTUGAL / PORTUGAL
E-mail: joaomiguelfn@sapo.pt
<https://orcid.org/0000-0002-9146-6089>

C. S.

Rua da Bajouca, 1125
PT-4475-114 Maia
PORTUGAL / PORTUGAL
E-mail: carlosmmdsilva@gmail.com
<https://orcid.org/0000-0001-6584-3701>

E. J.

Rua Bouça do Barreto, 38
PT-4480-076 Árvore
PORTUGAL / PORTUGAL
E-mail: edvems58@gmail.com
<https://orcid.org/0000-0001-5454-2305>

*Autor para la correspondencia / *Corresponding author*

(Recibido para publicación / *Received for publication* 15-I-2021)

(Revisado y aceptado / *Revised and accepted* 2-II-2021)

(Publicado / *Published* 30-IX-2021)

