

Giorgio Baldizzone, Hugo van der Wolf & Jean-François Landry 2006. Coleophoridae, Coleophorinae (Lepidoptera). – In: B. Landry (ed.), World Catalogue of Insects 8. – Apollo Books, Stenstrup. 215 pp. – Hardcover (ISBN 87-88757-76-5). DKK 360.00 (excluding postage). (In English)

The taxon Coleophorinae is known to most European lepidopterists as Coleophoridae (Vives 1988; Karsholt & Razowski 1996). The moths have narrow forewings with a conspicuous, pointed apex and a characteristic resting position with the antennae held straight forward. The larvae initially feed internally on leaves, flowers, or seeds of their host plants. Later on they feed externally and usually construct a protective case. For this reason, the group is often known as case-bearers, a term which is also in use for Psychidae. Coleophorinae are present on all continents, but the majority are found in temperate areas of the Northern Hemisphere. There are numerous coleophorine species and the descriptions of new species still continues. All but 16 coleophorine species are treated in the genus *Coleophora* Hübner, 1822. Within this genus, species have been treated in artificial groups within a numerical system introduced by Toll (1953), which makes the subfamily difficult to handle even for specialists of Microlepidoptera. First attempts for a more rigorous system of species groups are probably those by J.-F. Landry & B. Wright (1993) and Emmet et al. (1996). A cladistic study by Bucheli et al. (2002) investigated the architectural and ecological characters of the larval cases and supported for the first time some monophyletic groups within *Coleophora* according to their case architecture, which correlates with the exploitation of certain plant tissues (seeds versus leaves) and growth forms (herbaceous versus woody) rather than preference for certain plant taxa. However, most Coleophorinae species are still placed in an artificial system and much revisionary work remains necessary to overcome the present situation. A useful prerequisite for such a work would be an easy-to-use catalogue of all available names of the Coleophorinae. The last available catalogue for these insects was published by Vives (1988) and included 1009 species in 14 genera. Since that time, the number of described species increased by 25% to 1343 species in 5 genera (the reduction in the number of genera is due to the exclusion of tropical taxa from the subfamily). Therefore, the publication of a new world catalogue of Coleophorinae by G. Baldizzone, H. van der Wolf and J.-F. Landry was well justified. The introduction of this book provides a brief review of the history of the family–group classification, until Lauri Kaila's cladistic analysis of the Gelechioidea in 2004, and of the systematic treatment of the genus *Coleophora*, which has 105 synonyms. The catalogue gives full synonymy of the family-, genus-, and species-group names and provides full bibliography of original descriptions and type designations. For each species the distribution is indicated with the relevant zoogeographical region and each country of occurrence is listed. An appendix includes unavailable names, incorrect spellings, and taxa excluded from the Coleophorinae. The reference section lists about 1500 citations. The book is well completed with an index to all genus- and species-group names. The catalogue includes a number of nomenclatural changes: three type species fixations, seven new synonyms of family-group names, four new synonyms of genus-group names, eight new synonyms of species-group names, eight new generic combinations, as well as the protection of two more recent names against nomina oblita. With all this information, the world catalogue of Coleophorinae is a comprehensive, easy-to-use guide to coleophorine names and bibliography. However, with

regard to completeness, its standard is behind that of other volumes of the “World catalogue of insects” series, such as the volume on Gracillariidae by W. & J. De Prins (2005). In summary, Baldizzone and co-authors do not give the references for the synonymisation of names and generic transfers nor for the distribution of the species. Furthermore, they do not give the known host plants of the species because of much “errors and unverified” data in the literature. Even though this might be true, the aim of a catalogue is to be a guide to published information and the lack of this information will certainly not contribute to verify or correct already published host-plant records. In reading the new catalogue itself we found eight missing names (1 missing valid species), five misspellings, and one wrong authorship:

missing taxa

- Coleophora tiliella* Schrank, 1801: 107, a junior subjective synonym of *C. bernoulliella* (Goeze, 1783) (see Patzak 1974a; Leraut 1997).
- Coleophora herniariae* Baldizzone, 2001a: 132, 133 (Distribution. Palearctic: Turkey).
- Coleophora praeposita* Toll, 1952b: 43, pl. 4 fig. 35, a junior subjective synonym of *C. involucrella* Chrétien, 1905 by Baldizzone (1981c: 71).
- Ornix argyropennella* Treitschke, 1835: 221, a junior subjective synonym of *C. laricella* (Hübner, 1817) by Baldizzone (1991a: 160), who also designated the lectotype of *O. argyropennella*.
- Coleophora annulipes* Herrich-Schäffer, 1855b: 230, a junior subjective synonym of *C. lithargyrinella* Zeller, 1849 (see Vives 1988).
- Coleophora frischella aurata* Toll, 1960a: 249. Vives (1988: 122) treated *aurata* as a subspecies of *C. trifolii* (Curtis, 1832).
- Coleophora nivifera* Meyrick, 1930b: 625, a junior subjective synonym of *C. versurella* Zeller, 1849: 352 by Baldizzone, 1989e: 207.
- Coleophora amarantivora* Oku, 1965: 122, a junior subjective synonym of *C. atlanticella* Rebel, 1896 by Baldizzone, 1982a: 384.

misspellings (corrections are indicated in red)

- Phalaena* Linnaeus, 1758 (not ‘Phalena’) can be found on pages 25, 34, 73, and 105.
- Coleophora asiaeaminoris* Toll, 1952 (not ‘asiaeminoris’). The continuation of the original description on page 27 is not mentioned in the catalogue.
- Coleophora schaeuffeleella* Toll, 1959 (not ‘schauffeleella’).
- Coleophora zofodella* Baldizzone, 2001 (not ‘zophodella’).
- Coleophora frankii* Schmid, 1886 (not Schmidt)

wrong authorship

- Coleophora adjectella* Herrich-Schäffer, 1861: 142. “*Coleophora adjectella* Schmid” is an *litteris* name, made nomenclaturally available by Herrich-Schäffer (1861). The authorship “E. M. Hering, 1937” as given by Baldizzone et al. (2006) is invalid.

Despite the above criticisms, we want to add that this catalogue shows an improvement in some details, such as spellings of author names and localities, over the Tortricidae or Pterophoridae volumes of the World Catalogue of Insects. We highly recommend this world catalogue to anybody interested in Coleophorinae. There is no comparable comprehensive source available on these fascinating moths and we are convinced that it will be of great help to study the Coleophorinae in greater detail, e.g. their phylogeny, evolution, and ecology.

- References mentioned in this book review generally refer to those given in the catalogue by Baldizzone et al. (2006). The references given in full detail below are not listed in the catalogue, with the exception of Herrich-Schäffer (1860–1861), for which the dates of publication have been given unprecisely - the hard-to-obtain original was verified by Andreas Segerer (Munich).
- Bucheli, S. R., J.-F. Landry & J. W. Wenzel 2002. Cladistic analysis of larval case architecture and implications of host-plant associations for North American *Coleophora* (Lepidoptera, Coleophoridae). – *Cladistics* **18**: 71–93.
- Emmet, A. M., J. R. Langmaid, K. P. Bland, M. F. V. Corley & J. Razowski 1996. Coleophoridae. pp. 126–338, pls. 1–8, 12–15. – *In*: A. M. Emmet (ed.), *The moths and butterflies of Great Britain and Ireland*, vol. 3. – Harley Books, Colchester.
- De Prins, W. & J. De Prins 2005. Gracillariidae. 502 pp. – *In*: B. Landry (ed.), *World catalogue of insects* **8**. – Apollo Books, Stenstrup.
- Herrich-Schäffer, G. A. W. (1860–1861): Revision der europäischen Schmetterlingsfauna. – *Correspondenzblatt für Sammler von Insekten, insbesondere von Schmetterlingen*. 1860: 25-28, 52-54, 59-61, 67-69, 76-79, 85-87; *ibidem* 1861: 100-103, 106-107, 119, 133-135, 142-144, 158-160, 163-168, 173-174.
- Schrank, F. von P. 1801: *Fauna Boica. Durchgedachte Geschichte der in Baiern einheimischen und zahmen Thiere*. 2. Band, 1. Abteilung. – Johann Wilhelm Krüll, Ingolstadt. 274 [recte: 374] pp.

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