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GELECHIIDAE I (GELECHIINAE: TELEIODINI, GELECHIINI), by P. Huemer and O. Karsholt. 1999. In P. Huemer, O. Karsholt, and L. Lyneborg (eds.): *Microlepidoptera of Europe 3*: 1–356. Available from Apollo Books, Kirkeby Sand 19, DK-5771, Stenstrup, Denmark. ISBN 87-88757-25-0. 500 Danish Kroner, excluding postage.

Hurrah! For the first time, a significant segment of the European gelechiid fauna is presented in a comprehensive manner that permits workers to see genital and abdominal characters as well as good colored photographs of imagines. Lack of this kind of treatment has seriously hampered study of the group because knowledge of the genera ultimately is based on correct identification of each type species. Many of them have remained in question because the type specimens had/have not been examined and the species name correlated with a morphologic entity. Thanks to the long-term program to locate and study the type material of each gelechiid described for the Palearctic Region of Klaus Sattler (The Natural History Museum, London), followed by Linda Pitkin (The Natural History Museum, London), and concluded by the authors, the user can feel relatively confident that each species is correctly associated with a name. Sixteen new specific synonymies are recognized, and one genus and one species are resurrected from synonymy in this work.

This volume is the first of four that will treat the European Gelechiidae. The tribes Teleiodini and Gelechiini of the subfamily Gelechiinae have 18 genera and 60 species and nine genera and 91 species respectively. Eight genera of teleiodines (*Recurvaria*, *Coleotechnites*, *Exoteleia*, *Evippe*, *Pseudotelphusa*, *Teleiopsis*, and *Xenolechia*) are shared with North America. However, *Recurvaria* is introduced into North America, and *Coleotechnites* is introduced into Europe. *Lita cistiflora* Constant is treated as questionably belonging to *Telphusa* (a North American genus); however, it is not congeneric with *Telphusa longifasciella* (Clemens), the type species. Likely, a new generic name will have to be proposed for it. Seven genera of Gelechiini (*Gelechia*, *Mirificarma*, *Chionodes*, *Aroga*, *Filatima*, *Prolita*, and *Athrips*) are shared, but *Mirificarma* and *Athrips* are represented by introduced species in North America. That the European fauna is relatively well known is evidenced by the fact that the 10 new species (6.6% of the fauna) all occur in the

circum-Mediterranean area. In contrast for North America 94 species of teleiodines (of an estimated 200) and 352 species of gelechiines (of an estimated 500) are present. The estimated undescribed species for North America is 61% of the fauna. The latter percentage would be higher if the 115 species of *Chionodes* described in 1999 were not included with the described taxa.

Following the introduction, which includes definition of higher taxa, illustration of pertinent character systems, key to subfamilies of Gelechiidae, key to genera of Teleiodini and Gelechiini (based on genital characters), and check-list, is the systematic treatment. Full synonymies for all taxa, a diagnosis, description of male and female genitalia, geographic distribution (summary for described taxa, full data for newly described species), biology (recorded hosts and general phenology), and remarks (indication of inaccuracies in the literature to permit association with the current concept of the name) provide the textual substance of the volume. In addition, the male and female genitalia and adult of each species are illustrated by very good photographs. Adults are represented by one to four photographs of each species on 14 colored plates. As an aside, photographs of genitalia and adults are identified by the number assigned to the species name in the check-list and text.

Identification of the species and genera is a major achievement and will provide the basis for all future study by European workers. For workers elsewhere this work will permit recognition of introductions and provide clarification of generic and specific concepts, visual documentation of highly important character systems, and good access to the extended literature.

One puzzling error is the duplication of the eighth abdominal segment to represent *Schistophila laurocristella* Chrétien (text figure 22) [likely] and *Teleiodes huemeri* Nel (text figure 25) [unlikely].

The only suggestion I have for the future parts is to develop identification keys for the species of each genus. I do not know what the editorial policy is on this point, but I feel it makes authors define how they recognize the species.

Again, congratulations on a fine and much needed work.

RONALD W. HODGES, *Collaborator, Systematic Entomology Laboratory, Plant Sciences Institute, Agricultural Research Service, U.S. Department of Agriculture, Eugene, Oregon 97405, USA.*