

sentation. The reasonably priced work should be on the shelf of any lepidopterist with an interest in montane and arctic Satyriinae.

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THE MOTHS AND BUTTERFLIES OF GREAT BRITAIN AND IRELAND, vol. 4, edited by A. M. Emmet and J. R. Langmaid. 2002. Published by Harley Books, Martins, Great Horkesley, Colchester, Essex CO6 4AH, England. Part 1 [Oecophoridae, Ethmiidae, Autostichidae, Blastobasidae, Batrachedridae, Agonoxenidae, Momphidae, Cosmopterigidae, Scythrididae]: 326 pp., 95 text figures, 146 maps, 13 color plates; Part 2 [Gelechiidae]: 277 pages, 63 text figures, 161 maps, 6 color plates. Hardback, 26.2 × 20.8 cm, ISBN 0 946589 63 1 [set], ISBN 0 946589 66 6 [part 1], ISBN 0 946589 67 4 [part 2]. Price £80.00 [pounds sterling] per part, \$150.00 jacketed set excluding postage, available from publisher.

This two-part volume is beautifully produced: the typography is clear; the line drawings of genitalia, heads, venation, and larval activity are extremely well done and accurate; and the color plates are outstanding. Second, it represents a clear, concise guide to the gelechioid fauna [exclusive of Coleophorinae and Elachistinae treated in volume 3] of Great Britain and Ireland. This work is not, and does not pretend to be, revisionary. Nomenclature closely follows the most recent comprehensive list of taxa presented by John Bradley (*Log book of British Lepidoptera*, 2000). Thirteen authors contributed the nine families (147 species) in part 1, 10 to the Gelechiidae (160 species) in part 2.

In my early years as a budding systematist the only line drawings of microlepidopteran genital characters were in *The genitalia of the tineid families of the Lepidoptera of the British Islands* by Pierce and Metcalf (1935). They were relatively crude and did not well illustrate many important features; however, they formed the basis of my knowledge of the western European gelechioid fauna for many years. With the publication of volume 4 of *The Moths and Butterflies of Great Britain and Ireland* this body of information has been advanced significantly.

Family-group treatments comprise a statement on geographic distribution, classification, morphologic characters of adults and immatures, larval hosts and habits, pupation sites, phenology, adult habits, a checklist, identification key to genera, illustrations of male

and female genitalia, and references. Particularly useful is the illustrated key to the genera of Gelechiidae based on male genital characters. All genera and species are characterized following the pattern for family-groups but with the addition of the synonymy and literature citation for each name, illustration of venation for each genus, lateral views of selected heads, a distribution map for each species, larval hosts and habits, and adult habits and summary of geographic distribution. The historical record of each species provides insights to faunal changes. Specific variation is noted, and contrasts with similar species are clear. Much valuable information, which should prove useful for other temperate taxa, is contained for each taxon.

The quantity of life history information is impressive. Beyond the relatively standard discussion of larval appearance and host plants are treatments of larval, pupal, and adult behavior; habitats where adults may be found; diel activity of adults; and history of occurrence. The latter reveals interesting and useful information such as: 1) species known only from Great Britain and collected once, *Euclementia woodiella* (Curtis); 2) species collected once in Great Britain but naturally occurring elsewhere, *Epicallima formosella* ([Denis & Schiffermüller]); 3) species known from a single locality and regularly collected (*Monochroa niphognatha* (Gozmány), *Metznaria littorella* (Douglas)); 4) species very infrequently collected (*Dichomeris ustalella* (F.) collected in 1861, 1987, and 1999); 5) species with general occurrence (*Agonopterix nervosa* (Haworth) and *Endrosis sarcitrella* (L.)); and 6) introductions (*Scythris inspersella* (Hübner)). Because collection data have been, and continue to be, collected and databased, and detailed knowledge of larval hosts has accumulated, it is possible that realistic statements about abundance and distribution of gelechioid species can be made for the region and remedies proposed for maintenance of restricted populations.

An anomalous feature of the entire series is a set of essays/discussions on topics related to Lepidoptera. In volume 4(1) (pp. 11–41, col. pl. A–F, fig. 1–6, tab. 1–3) J. Rydell and M. R. Young have an excellent review “The Ecology and evolution of Lepidopteran defences against bats,” which deserves more broad readership than is likely when the title appears solely in the table of contents.

This volume sets a very high standard for comparable works on the fauna of individual countries. I congratulate all involved in the text, illustration, and production for an excellent product.

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