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THE MOTHS OF NORTH AMERICA INCLUDING GREENLAND. FASCICLE 15.5 PYRALOIDEA, PYRALIDAE (PART), PHYCITINAE (PART) by H. H. Neunzig, 2003. (ed. R. W. Hodges) Softcover, ISBN: 0933003110. Publisher: Wedge Entomological Research. Distributed in the USA by Entomological Reprint Specialists, Los Angeles CA. Softcover, price: $115.00 plus $4.00 shipping/handling [USA, Canada, Mexico], $5.00 shipping/handling [elsewhere].

Representing the fourth fascicle on the North American Phycitinae, this book deals with a larger assemblage of genera and species than the preceeding three. Neunzig states, as in previous fascicles, that there is still insufficient phylogenetic evidence to confirm natural groupings of genera within the subfamily and expressed the opinion that, based on our knowledge of the subfamily, it is premature to attempt a tribal classification. The genera dealt with in all the fascicles are grouped for ease of identification and defers from a phylogentic arrangement. Though Neunzig's work is restricted to covering the fauna of North America, including Greenland, it of course greatly exceeds the number of taxa dealt with in this region by Henrich (1956.U.S.N.M. Bull. 207), who in addition dealt with South and Central America. The updated works of Neunzig now naturally supplant Heinrich's pioneering volume, though the basic classification has not altered.

The research involved in this fascicle included exhaustive tracking of type material to ensure accuracy of identifications, plus examination of much additional material from collections all over the U.S.A. and Canada. This helped to ensure adequate material for study and importantly, allowed for coverage and understanding of geographical variation. Forty-seven genera are treated, covering 218 species, which include several new generic taxa and numbers of new specific taxa. In addition, many new combinations are established. The work is divided into major groups of genera, with each group preceeded by general descriptive notes, plus detailed keys to the identification of genera. Each genus is adequately described and notes on larvae and pupae are included when they are known. Keys are provided for species within each genus. For every species a brief discussion along with descriptive remarks are accompanied by the species original combination and reference, location and depository of type material, information on larval food plants, geographic distribution of known material and most importantly, text figures of male and female genitalia, plus colour photographs of the adult moth. Special attention is given to the prolific and important genus *Dioryctria*, the species of which are all associated with conifers. Table 1 lists the species, their known range of larval host plants and their distribution. This is an equally important and prolific genus through most of the Palaearctic and Asia.

A detailed bibliography is provided, also a checklist of the species covered, a general index, plus a very essential index to plants and fungus names mentioned in the text. Of special importance, excellent high powered monochrome photographs arranged as a group of plates are provided showing male antennae structures, essential in aiding the recognition of Phycitinae and possibly serving as an aid in formulating a methodology in their classification.

Apart from the high quality of the adult photographs, commendably, effort was made to use specimens in good condition and properly set, an aspect all too often sadly neglected in publications today, especially on Phycitinae. Commendable also is the high standard of the line drawings for genitalia, wing venations, antennae and larval instars, an aspect in scientific entomological literature which all too often can be shabbily treated, as can be seen from many works of Phycitinae over the years.

With the clear amount of effort put into the production of this fascicle, it is difficult to see why the color plates are somewhat marred by the fact that species of *Dioryctria*, which form the largest genus, are not kept together on plates 6 and 7, without a few trailing off to plate 8 and a few incorporated on plate 3; this same problem occurs for the genus *Sciota*. For comparison purposes it would have been more useful if species of a given genus were grouped consecutively.

MICHAEL SHAFFER, *Department of Entomology, The Natural History Museum, Cromwell Road, London SW7 5BD, UK*