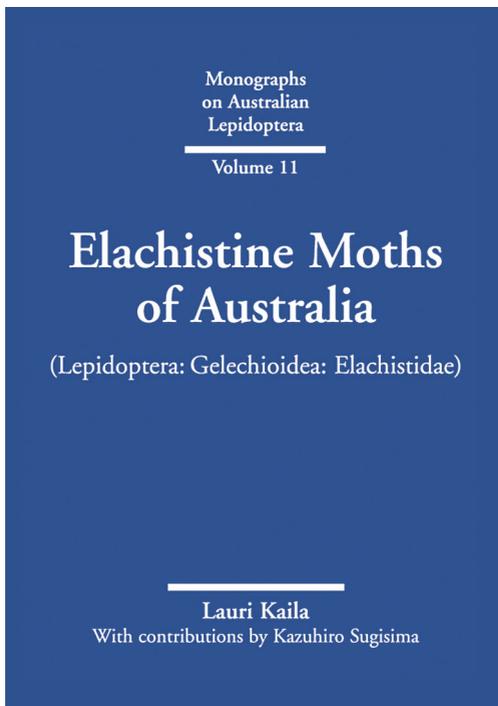


Book review

Lauri Kaila, 2011. **Elachistine Moths of Australia (Lepidoptera: Gelechioidea: Elachistidae)**. Monographs on Australian Lepidoptera Series 11. CSIRO Publishing; June 2011. Hardback, 456 pages, photographs, illustrations, 250 × 175 mm. ISBN 9780643103481. Price AU\$150.00. Also available as e-book.



Elachistine moths are minute moths of which the larvae are leafminers, predominantly so in grass-like monocots: Poaceae and Cyperaceae plus a few other families. Knowledge on leafmining moths globally is still poor apart from the traditionally well studied areas as Europe and North America, and the elachistines are no exception. This treatment in fact is the first complete coverage of a leafmining moth

family for Australia. As in all these groups, previously hardly any work was done, and it is no surprise then that of the 148 treated species, 128 are described as new. This was possible thanks both to extensive holdings of this family in the collections of ANIC in Canberra and the extensive fieldwork by the author, supplemented by Kazuhiro Sugisima, who is acknowledged for his work as co-author to the phylogeny chapters and some species descriptions.

The book is an example of a thorough, meticulously prepared taxonomic revision, an outstanding example of a kind, rarely seen these days of speedy publications in high impact factor journals. Yet, for the user, a book such as this is much more useful than a bunch of journal papers. The author is to be congratulated for taking the time to complete this task.

The book is lavishly illustrated, adult moths a bit smallish, but recognisable, many larvae, pupal exuviae, black and white photographs of genitalia of very high quality, also thanks to an excellent preparation technique. Finally several colour photographs of leafmines and habitats complete it. Keys are provided for males and females on the basis of genitalia.

For users outside Australia the chapter on phylogeny and generic classification is important, this builds upon earlier phylogenetic studies by Kaila, and affects classification in other continents as well. Important results are that now the genus *Urodeta* has finally found its place amongst the elachistines, after it had been travelling through various gelechioid families, and it is also enlarged with a number of African and Australian species, previously partly described in other genera. Further within the genus *Elachista* the subgenus *Atachia* is now recognised in addition to the few previously recognised subgenera. This subgenus forms an important part of the Australian fauna.

Many species could be reared and provide an interesting insight in the host plant relationships of Australian elachistines: a very high proportion of Cyperaceae feeders, plus some species on Juncaceae, Iridaceae and Commelinaceae, less well known host families, and of course grasses, Poaceae. It is therefore

a pity that no synthesis of these host relations is given in the book.

In conclusion, Lauri Kaila has written a remarkable book, warmly recommended for all lepidopterists working on the Australian fauna or globally on

leafmining moths, plus those that value a thorough taxonomic work such as this.

Erik van Nieukerken