

## Book review

### THE BUTTERFLIES OF SULAWESI. ANNOTATED CHECKLIST FOR A CRITICAL ISLAND FAUNA

By R. I. Vane-Wright and R. de Jong

2003. Zoologische Verhandlungen No. 343. Nationaal Natuurhistorisch Museum, Leiden, The Netherlands. 267pp. Paperback, €42.05; ISBN 90-73239-87-7.

Butterflies are one of the best-documented groups of insects, a circumstance due in no small part to the attention paid to them by collectors and non-professional observers over the last 150 years and more. Tropical south-east Asia has long been a particularly fascinating region to lepidopterists and biogeographers alike, and is immensely complex. In particular, debates over the biotic transitions between the Oriental and Australian regions are reflected in designation of several purported boundaries (such as Wallace's line) between biotic regions in various places across the Indonesian archipelago. Interpreting such distributional patterns and affinities can come only from reliable documentation of taxa, in the form of authoritative inventory-based checklists; and indeed, the number of higher taxa of invertebrates for which such compilations can be regarded as even reasonably definitive is very limited. The present book is the first comprehensive listing of butterflies recorded from the large, faunistically complex central Indonesian island of Sulawesi, famous (under its earlier name of Celebes) as attracting the attention of Alfred Russell Wallace and being variously 'shuffled' to either side of Wallace's line, so that the fauna indeed has critical importance in appraising regional relationships and origins. This checklist is one of the outcomes from 'Project Wallace' (see Knight and Holloway 1990), but has involved the authors in much additional compilatory research over the ensuing decade or so, to constitute a tool of considerable interest and value to biogeographers.

The book falls naturally into two parts, likely to attract somewhat differing priority from different readers: (1) an introductory section includes a historical introduction to Sulawesi and to the diversity, biogeography and affinities of its butterflies, with appraisal of levels of endemism (including discussion of the intriguing parallelism known as the 'Celebes fore wing'); and (2) the checklist itself.

This book renders Sulawesi one of the most effectively documented areas in the region for butterflies and, indeed, comments on purported endemism and similar peculiarities necessitate caveats over the relatively poorer documentation of some neighbouring parts of Indonesia. Nevertheless, numbers of taxa have been increased somewhat over a previous synthesis (Vane-Wright (1991) drawing on a

preliminary version of this list). Species-level butterfly endemism in the 'Sulawesi region' is greater than 40% and includes two groups (Danaini, Papilionidae) recognised earlier as 'critical faunas' for conservation priority. In contrast, generic endemism is low, with only one endemic genus (*Lohora*, Satyrinae) undergoing significant radiation. The overall butterfly fauna is largely of Asian (Sundaland) origin.

The bulk of the book (pp. 31–238) comprises the systematic checklist, followed by references and an index to butterfly names. Perhaps surprisingly to many people, higher classification of butterflies remains somewhat uncertain (as discussed in the earlier section of the book) and the authors have adopted the widely accepted sequence of Hesperidae (87 species), Papilionidae (40), Pieridae (52), Lycaenidae (183), Riodinidae (4) and Nymphalidae (191) with subfamily and tribal divisions following published arrangements. For each taxon, information is given under the headings 'Range', 'Foodplants', 'Status' (conservation status or abundance, irregular entry) and 'Key works' (in which the most significant pertinent references are given). Subspecies are listed where necessary. The information given is necessarily brief but, whilst the whole compilation is an effort of considerable scholarship, for non-specialist users seeking to employ the information in wider studies, the list is frustrating for what it does *not* include. As a non-specialist, I found the following annoying because they necessitate me seeking further taxonomic literature (much of it elusive) to check basic facts: (1) omission of parentheses denoting change in genus attribution (a trend becoming popular, but formally in direct contravention of the 'code', Article 51.3 (ICZN 1999)) and (2) omission of original taxonomic combination, full literature reference and page number.

Inclusion of these details would increase the use of this list enormously, particularly to those users – the likely majority – who do not have easy access to major libraries paralleling those of the authors' home institutions. However, these points raise the issue of 'what is a checklist used for?' At its most basic level, a straightforward list of the most up-to-date names and generic placements of butterfly taxa recorded from Sulawesi, this compilation appears careful and comprehensive in enabling enumeration of all species and subspecies and in evaluating their distribution patterns. As a more extensive working tool, enabling non-specialists to check rapidly the taxonomic history of the individual taxa and so facilitating further literature entry (including synonyms), the presentation is clearly impoverished and the omissions noted above could be regarded as necessary basic information. However, this comment does not diminish the extensive scholarship already manifest in this work. The references given are extensive and include several 'in preparation' or 'submitted' papers. The text is clearly

produced. Colour plates, excellent in quality, depict some 215 individual mounted butterflies and selected habitats in Sulawesi. All-in-all, a very useful checklist, but one which with relatively little augmentation could have been rendered even more so.

### References

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Knight, W. J. and Holloway, J. D. (Eds) (1990). 'Insects and the Rain Forests of South East Asia (Wallacea).' (Royal Entomological Society of London: London, UK.)

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