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BOOK REVIEW

DENNIS R.L.H. 2020: BUTTERFLY BIOLOGY SYSTEMS. CONNECTIONS AND INTERACTIONS IN LIFE HISTORY AND BEHAVIOUR. CAB International, Wallingford, 504 pp. ISBN 9781789243574. Price GBP 150.00, EUR 180.00, USD 210.00.

Roger L. H. Dennis is a well-known author of several excellent books on butterfly ecology. For this reason, I was very excited to see that he had published another book and immediately requested a copy to review.

The book consists of four sections, each with 7–10 chapters, almost all of which include numerous subchapters. The first section, "Language and concepts of systems theory", is the most technical part, applicable to all organisms, not just butterflies. It explains the rationale of the book, the meaning of "biology systems" and why it is important to understand the factors, limits and links between the components. The second section, "Perspective on butterfly biology", deals with a very wide spectrum of butterfly taxonomy, history and ecology. The author shows that proper understanding of the term "habitat" is very important as our view is not the same as that of the butterflies. Another problem is that many phenomena observed today originated deep in the past under different conditions, with different predators etc. Thus, it may be inappropriate to try to explain such phenomena solely on the basis of currently existing factors. The third part, "Butterfly life history…" deals with factors affecting life, development and survival of butterfly life stages, not only caterpillars, but also eggs and chrysalids. The fourth part, "Butterfly behaviour – interactive adjustments…" takes on a similar task, but in what affects mature butterflies. All parts are summed in short but essential Epilogues, which not only show what is known, but also what is unknown and where to target further studies; I especially like the expression that "for every complex problem there is an answer that is clear, simple and wrong". In addition, this book is richly illustrated by a huge number of pictures and diagrams.

As the chapters and subchapters are very short, usually only few pages long, I expected an easy and fast read of the whole book. However, I could not have been more wrong! Every paragraph in the book is a thorough review of a particular problem, the diagrams look like butterfly biology transformed into cybernetics with all its algorithms. Thus, it took me approximately four months to read this book. I had to take many breaks to think about each of the phenomena, trying to understand each of the inputs, outputs and limitations of knowledge.

For sure, the book is a must for anybody who wants to study butterfly (and not only) biology and ecology seriously. I believe that it also represents a source of inspiration for people studying different organisms.

However, I think that not only researchers, but also journal editors and especially authorities providing research financing should read this book. Reading between lines the author regards it as very important to repeat studies, but with a larger number of different species, sometimes to reanalyse old data using modern methods and not to reinvent the same thing again and again. This contrasts with modern trends in which only short term studies are usually supported, only papers with positive findings and with "breaking news" are published and many results are overemphasized and/or neglect the fact that the results are trivial as they were reported some time ago.

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