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BOOK REVIEW

DEMPSTER J.P. & MCLEAN I.F.G.: INSECT POPULATIONS IN THEORY AND IN PRACTICE. 19TH SYMPOSIUM OF THE ROYAL ENTOMOLOGICAL SOCIETY. 10–11 September 1997 at the University of Newcastle. Kluwer Academic Publishers, Dordrecht, Boston, London, 1999, 506 pp. ISBN 0-412-83260-7. Price USD 216.00, GBP 136.00 (hardbound).

Books based on papers presented at symposia often present assemblages of papers of variable interest (depending on the symposium) which are, however, only loosely connected to each other. The volume under review is undoubtedly an exception. As made clear in the preface, the speakers were intentionally selected to fit in the framework of the prepared volume. All of the papers focus on the mechanisms governing insect population dynamics. The basic problems in insect population ecology are: What is the role of bottom-up and top-down processes in governing the extent of fluctuations in insect populations? How important are density dependent processes in insect population dynamics? As the answers to the above questions are still the subject of some controversy among entomologists, the authors were selected to represent opposing views. The editors noted that (as in many other cases in ecology), the controversy is (partially) a consequence of a terminological mess. Consequently, the book starts with definitions of the basic terms (like "ceiling", "density dependence", "equilibrium") to ensure that any differences are real and not the result of loose terminology. The authors were also selected to cover wide range of approaches, from theoreticians to "field" entomologists. The first part of the book is devoted mainly to theory (chapters authored by I. Hanski, M.P. Hassel, P.J. den Boer, J.P. Dempster, P. Rothery, H.C.J. Godfray & C.B. Müller, W.W. Murdoch et al., S.R. Leather & C.S. Awmack), the second to case studies (A.F.G. Dixon & P. Kindlmann, N.A. Straw, J.A. Thomas et al., E. van der Meiden et al., J. Roland, P.W. Price et al., I.F.G. McLean, T. Ohgushi, O.M. Fincke). However, the case studies are not ordinary research papers, but rather reviews, synthesising available data for taxonomically restricted groups (aphids, *Maculinea* butterflies), comparisons of studies of the same species at different localities, etc.

The resulting set of contributions is perfect thought-provoking reading, identifying where the subject stands today and what the controversies are. Clearly, the book is not suitable as a textbook for undergraduate courses, although some of the contributions can be used as a basis for particular lectures in undergraduate courses (e.g. that of Ilka Hanski provides a nice introduction to metapopulation theory). Instead, I would recommend the book not only for all the researchers in insect population ecology, but also as excellent reading for graduate seminars in (insect) population ecology, and as an excellent basis for discussion groups.

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