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BOOK REVIEW

HOLLAND J.M. (ed.): THE AGROECOLOGY OF CARABID BEETLES. Intercept, PO Box 716, Andover, Hampshire SP10 1YG, UK, 2002, xiv+356 pp. ISBN 1-898298-76-9, price GBP 67.

Not many insect taxa are so beloved by entomologists as ground beetles (Carabidae). Although not particularly harmful, enormously rich in species or very abundant they attract the attention of professional and amateur entomologists because of their beauty, overt mode of life and the ease with which they can be collected. The carabids thus are the subject of a lot of ecological studies, several tens of which are published annually in "impact-factor" journals and many others elsewhere. Large parts of these papers deal with carabids on agriculture land. Although the "carabid" literature has been summarised many times in the past, this flood of information needs to be reviewed at intervals.

This book "Agroecology of Carabid Beetles" summarizes the enormous recent literature on field carabids. Eleven chapters, written by 17 specialists from 6 countries, indicate the research done since 1977, when the famous "Carabid Beetles in their Environments" by H.U. Thiele was published.

The first two chapters are introductory. First chapter (by J.M. Holland) provides a general review of factors determining composition and abundance of field carabid communities. Chapter 2 (M.L.Luff) discusses factors that determine composition of carabid communities. The next five chapters concern trophic relationships. Chapter 3 (S. Toft, T. Bilde) reviews the knowledge on carabid diet. Chapter 4 (J. Ingerson-Mahar) is on the relationship between morphology and food specialization. Chapter 5 (W.O.C.Symondson) is an overview of techniques available for determining carabid diets in the field. Chapter 6 (K.D. Sunderland) is an exhaustive review of the impact of carabid predation on invertebrate pests. Chapter 7 (J. Tooley and G.E.Brust) summarizes the knowledge on carabid seed predation, an often overlooked topic. The final group of chapters is on the environmental factors determining carabid abundance. Chapter 8 (T. Hance) reviews the impact of agriculture practices on carabid communities, which is illustrated in chapter 9 (J.M. Holland, G.F. Frampton, P.J. van den Brink) by examples of integrated farming system projects. The effect of surrounding non-crop habitats on carabid communities is reviewed in chapter 10 (J.C. Lee, D.A. Landis). The last chapter 11 (C.F.G. Thomas, J.M. Holland, N.J. Brown) is on the methods and results of studies on the spatial distribution of species populations in fields.

The book is more than a review of published results. Each chapter provides original syntheses and introduces ideas that might stimulate new research. Where little information on carabid species is available the authors generalize results gained from other taxa and draw analogies for carabids. Each chapter is followed by an extensive reference list, which is of course far from complete.

This book is recommended to anyone interested in carabidology or agroecology. For students it is a source of information on current research and areas in need of research. Some authors even suggest questions that should be addressed in the future. That is, contrary to expectation much remains to be done on this long and intensively studied group of insects. Teachers could read this book with profit since it contains useful examples for lectures in community ecology or applied entomology. Spending GBP 67 is by no means a poor investment.

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