

# reviews

## Landscape legacy for Ireland

R. Common

*The Irish Landscape.* By F. Mitchell. Pp.240+32 plates. (Collins: London, 1976.) £5.50.

As an environmental scientist, and as a countryman at heart, Professor Mitchell is concerned in this book with the interactions of natural phenomena and the relationships between man and environment that are now reflected in the Irish landscape.

The author first provides an outline of the geological evolution of Ireland, emphasising the broad relationships between rock type, rock structure and denudation process in the disposition of the major relief features. Professor Mitchell embellishes his narrative, from the outset, with comments that are definitive or with opinions that are open ended. He uses the map appropriately, to show space relationships, and the diagram effectively, to indicate the time sequences of formative events.

Explanatory descriptions of selected features that are associated with near-glacial and glacial conditions introduce the next chapter, which is concerned with palaeogeographical conditions in the Quaternary era. The author provides an interpretation which enlightens rather than confuses, and resists the temptation to depart from valuable generalisation for the complexities of local detail. His subsequent treatment of the development of Irish soils, plant covers and animal populations as climatic conditions, land and sea distributions changed in post-glacial time is equally thoughtful and disciplined.

Chapter 4 deals with the first farmers and their growing influence on the physical environment over a timespan of almost 4,000 yr. The findings of the archaeologist and the palaeobotanist provide the basis for the author's suggested sequence of landscape changes. Amendments, no doubt, will follow as more evidence becomes available, but these should not diminish the importance of this particular contribution or the diligent research work of fellow scholars.

In dealing with the landscape from early mediaeval times to 1900 the author reinterprets historical events in terms of human activities on the land. The human errors and pressures which encouraged environmental deteriora-

tion in this period seem to have influenced his thoughts on present conditions. Chapter 6, in fact, begins with a review of significant features in the contemporary scene and then considers the options for change which can enrich or degrade them. Understandably, therefore, the final chapter develops this important theme of a landscape legacy which future generations of Irish people will inherit.

This well illustrated book is written with a direct style, a clarity of thought

and a turn of phrase which make for pleasurable reading. It will appeal to those with general interests in Natural History besides satisfying those with particular interests in Ireland. In academic terms it claims a significant place beside the writings of R. L. Praeger, J. K. Charlesworth and E. E. Evans. □

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## Pheromone communication

*Animal Communications by Pheromones.* By H. H. Shorey. Pp viii+167. (Academic: New York and London, 1976.) \$16.50; £10.05.

PEROMONES are chemicals produced by an individual which elicit specific behavioural or developmental reactions when perceived by other individuals of the same species. The presence of pheromones has been deduced in most animals, from Protozoa to primates, and in some groups, such as the insects and mammals, many pheromones have been identified chemically, and the synthetic compounds shown to have the same effects as the natural substances.

A comprehensive survey of the functions of pheromones requires a formidable knowledge of the morphology, physiology, behaviour, and even ecology, of members of almost every animal phylum. The author of *Animal Communication by Pheromones* points out that no single-authored monograph on pheromones has hitherto been published, and that his book is an attempt to review, digest and present in a cohesive manner pheromone communication within the entire animal kingdom. Unfortunately, the book falls far short of these objectives.

Only brief mention is made of 'primer' pheromones, a surprising omission, since the ways in which these substances induce developmental changes in the recipients can usefully be compared in animals as diverse as the insects and the mammals, and discussion of those pheromones which

induce both behavioural and developmental changes must necessarily also be limited. The arrangement of chapters dealing with particular 'classes' of pheromones—recognition, aggregation, dispersion, and so on, inevitably leads to repetition. The author's style is turgid and often leads to confusion. For example, what is one to make of: "Colonization begins with the alightment on a suitable host tree of an initially invading beetle, which may be a male or female (*but not both*), depending on the species" (p56) (*my italics*).

Many of the line drawings are unnecessary, and most of the plates are too dark and without contrast. Figure 14 (courtesy of N. W. Nowell) has a hopelessly inadequate legend, and must be meaningless to all but Dr Nowell, even with reference to the text. And why did the publishers decide to begin each chapter on an odd-numbered page? This may be useful in multi-authored compendia, where each contributor is normally given a number of reprints, but in the present volume it results in some chapters ending with up to one and three quarters blank pages. Since £10.05 buys only 121 numbered text pages, these blank spaces are expensive. The book contains an extensive bibliography of 726 titles, together with taxonomic and subject indexes. It cannot be recommended.

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