

# Book Reviews

**Conservation and Evolution**, by O.H. Frankel and M.E. Soulé. Cambridge University Press, 1981. Hardback £25. Paperback £7.95.

For the first time a book has been written which successfully combines genetic principles with nature conservation and attempts to predict long-term genetic and evolutionary problems. Frankel and Soulé start from the view that it is better for an organism to continue to exist than to become extinct. Conservation concerns itself more with extinction than survival, yet evolution balances extinction with a continuing process of survival adaptation and speciation. They identify the central issue as the growing threat to evolutionary processes by the increasing rate of extinction. To illustrate this central theme (Chapter 1) the authors concentrate on the threat to rare species whose effective population sizes are small; 'the genetics of nature conservation is the genetics of scarcity'.

In the next three chapters they review the factors contributing to extinction, population genetics (e.g. inbreeding depression and its effects) and evolutionary genetics. They then deal with the man-contrived remedies – nature reserves, captive propagation and genetic management, and botanical gardens. Chapter 8 details the genetic diversity of cultivated plants and the following chapter reviews methods used in the conservation of plants which may have potential uses. The final chapter considers the conservation of livestock genetic resources.

This brave treatise is long overdue, clearly expounding the theory and the practice of sound conservation, using science and common-sense in a fraught area. They quote the kind of bad news that *Oryx* purveys as evidence for the absolute necessity of careful and continuous scientific management; they contend (for instance) that the issue of reserve design is overemphasized and myopic, and that the pivotal problem for the future is maintenance. It is also full of lessons, such as the 'whooping cough gene' sorghum used for medicinal purposes on the Sudan/Ethiopian border but which possesses the useful trait of a 20–30 per cent increase in yield over existing strains.

This book should be obligatory reading for all personnel in national and international conservation organizations and agencies. It should be part of the training course for all national planners. A unique publication.

IAN SWINGLAND

**Mammal Watching**, by Michael Clark. Severn House, £7.95.

**RSPCA Book of British Mammals**, edited by C.L. Boyle. Collins, £8.95.

Most British mammals are small, nocturnal or both. Finding and observing mammals isn't easy; mammal watching is for those who have grown out of bird watching and want a *real* challenge! Michael Clark's book is a counterpart to the many guides on how and where to watch birds. He describes each of the groups of British mammals with helpful suggestions on how to find and study them. As a source of sound information and good ideas the book is all the more useful in being based on extensive personal experience. The section (19pp) on bats and their study is especially valuable and contains much first hand information. There are also general chapters on equipment (including night viewers) and the use of hides. The half page résumé of 'mammals and the law' ends with the hope that the Wildlife and Countryside Bill before Parliament at the time of going to press becomes Law soon. Now that it has, certain aspects of studying