Book reviews

Edited by P. DANN

Conservation of Tropical Forest Birds, edited by A.W. Diamond and T.E. Lovejoy, 1985. Cambridge: International Council for Bird Preservation. Pp 318, many tables, maps and figures. 138 x 216 mm. £18.50.

The book consists of Workshop Proceedings (52 pages) and Symposium papers (256 pages in three Parts; Global Perspectives, the Neotropics and the Paleotropics) presented at the XVIII World Conference of the International Council for Bird Preservation (ICBP) in August 1982. The Symposium was convened by Tony Diamond and had three objectives defined by ICBP: to enhance scientific knowledge of tropical forest birds for improved management of tropical forests, to identify those forest areas where bird species are most at risk of extinction, and to promote conservation of suitable forest areas for the future survival of those species. The urgency of the need to identify areas of importance for the conservation of tropical forest birds is emphasised by Christoph Imboden, Director of ICBP, who points out in the Foreword that almost 100 million acres of rainforest has been destroyed in the short time since the Symposium. Tony Diamond recognises the enormity of the task of species conservation when he estimates that about 30% of the world's avifauna (1300 spp. in Neotropical Region, 400 in Afrotropical and 900 in Oriental) depends on tropical forests. After examining the concept of 'refugium' and critically reviewing the Norman Myers report (US Academy) and FAO forestry report, he recommends participation in IUCN/WWF Tropical Forests Programme to identify critical areas for conservation. While protection of Pleistocene refugia may save a large proportion of tropical forest species, not all endemic species are confined to such areas. Tom Lovejoy warns that 'there would seem to be no substitute for distribution maps of tropical forest birds of individual species to ensure that all species are covered by conservation plans'.

Allen Keast's introductory conspectus focuses on high species diversity of birds in lowland rainforests, associated with coevolution and co-adaptation between birds and plants, and discusses seasonality in plant growth, flowering and fruiting in response to rainfall patterns having profound influences on these plant-bird associations. Gary Stiles takes up the pollination and seed-dispersal roles of birds in Costa Rican rainforests.

In regional treatments, not only biological but political, social, economic and educational problems are also addressed as threats to the forest avifauna of the Third World. Such threats cannot be mitigated without the strong support of local people and governments. For the island of New Guinea, Bruce Beehler proposes a system of bird of paradise reserves in undisturbed forest, which would protect breeding habitat for all forty species of indigenous birds of paradise and 21 of 24 other forest species that are considered to be vulnerable.

Many contributions contain useful systematic lists of forest birds in tropical regions, including south-east Brazil (450 spp. including 110 endemics), Costa Rica (578 spp. including 68 endemics), southern Mexico and northern Central America (328 spp.), southern Senegal (283 spp.) and western Malesia (Borneo, Malay Peninsula, Sumatra, Java and Bali, separately) for lowland forests (294 spp.), montane forests (157 spp.), mangroves (35 spp.) and migrants (60 spp.) containing 164 Sunda Subregion endemics. Madagascar and some important Neotropical areas are not included, and inaccurate information is contained in a two-page workshop paper on Australian tropical forests communicated by a non-participant. However, much important information has been assembled in this compact volume, which provides a global appeal and a wealth of valuable lessons.

Jiro Kikkawa

Records of the Australian Museum Vol. 37, Nos. 3 & 4, 1985. Papers on *Atrichornis* and *Menura* Sydney: Australian Museum. 143 Pp, 210 x 283 mm, 1 col and 19 b/w plates, 10 b/w photographs and 49 figures. Subscription for three Records (one year) \$75.

Taxonomy is a subject that I normally eschew, skipping through the summary and discussion and absorbing little. Needing to know more about the systematics of the Menuridae, I approached this monograph of the Menuridae and Atrichornithidae with little enthusiasm, only to become deeply interested.

Mary Heimerdinger Clench and Graeme T. Smith introduced the monograph with remarks on plumage and systematic position in a paper entitled *Morphology of the Noisy Scrub-bird*, Atrichornis clamosus ... 111-114. After initial discussions at the IOC in Canberra in 1974, followed by extensive negotiations to gain the necessary permits, one specimen of the Noisy Scrub-bird found its way to the USA in 1977 to become the subject of a predetermined course of study.

The specimen was so precious and movement between continents easier for a live human than a dead avian specimen, that M.L. Morlion travelled from Belgium to the USA. She began the study and her results are described in *Pterylosis of the wing and tail in the Noisy Scrub-bird... and Superb Lyrebird...* 143-156. Mary Heimerdinger Clench followed Morlion with the use of the specimen and presents her results in *Body pterylosis of* Atrichornis, Menura, *the 'corvid assemblage' and other possibly related passerines...* 115-142.

R.J. Raikow was next with Systematic and functional aspects of the locomotor system of the Scrub-birds ... and Lyrebirds ... 211-228. Parts of the body were then dissected and sent to R.L. Zusi Muscles of the neck, trunk and tail in the Noisy-Scrub-bird ... and Superb Lyrebird ... 229-242; to Walter J. Bock The skeletomuscular system of the feeding apparatus of the Noisy Scrub-bird ... to P.L. Ames for examination of the syrinx and to A.J. Feduccia for examination of the stapes.

Replicas of parts of the skeleton were made and at the end of 1978 the specimen, relatively intact on one side and partly disarticulated on the other, was returned to Australia. It is now lodged at the Western Australian Museum.

In Australia, P.V. Rich, A.R. McEvey and R.F. Baird examined bones to produce their paper *Osteological comparison of the Scrubbirds*... and Lyrebirds... 65-191. G.T. Smith, already involved in the study of *A. clamosus*, described *Natal downs and plumage* changes in the Noisy Scrub-bird ... 157-164. In the final paper Morphology of the Noisy Scrub-bird ...: systematic relationships and summary 243-254, WJ. Bock and M.H. Clench summarised the monograph and associated studies and made an historical survey of the taxonomic relationships of Atrichornis and Menura, concluding that they are each other's closest relatives and form a monophyletic group of unknown affinities within the Oscines.

The monograph provides an object lesson in international cooperation between ornithologists. An amazing amount of systematic information was deduced from this single specimen of a species on the endangered list. The exercise may well serve as a role model for future investigations.

P. N. Reilly

The Atlas of Wintering Birds in Britain and Ireland, by Peter Lack, 1986. T. Calton and A.D. Poyser. Pp 447, black and white drawings and maps, $205 \times 265 \text{ mm}$. £19.00.

This book is the complement of the Atlas of Breeding Birds of Britain and Ireland (Breeding Atlas), innovative in the way it has assessed abundance as well as distribution and elegant in its appearance as a companion volume to the earlier work. The fieldwork on which the Winter Atlas is based was organised by the British Trust for Ornithology and the Irish Wildbird Conservancy, developed by an Atlas Working Group and co-ordinated by Peter Lack. The book presents a brief account of the history of the project, a discussion of the methods, the main maps and accounts for 200 species and some supplementary material on rarities. A particularly interesting chapter in the Introduction discusses distribution and weather, stressing the need for the effects of the climate of each year to be assessed separately.

The main species accounts have been prepared by specialists whose knowledge enables them to comment critically on the data that the project collected. Some interesting conclusions emerge about the role of Britain and Ireland as wintering grounds for migrants, emphasising both long-lasting features and short-term climatic effects. For example, the fieldwork showed that British and Irish coasts harbour 3,500 to 4,500 Great Northern Divers, three to four times as many as are thought to come from Iceland, the accepted source of British wintering birds. Are the extra birds trans-Atlantic migrants? Other interesting species are those (five passerines) in which the males and females separate, the females moving farther south than the males. Do similar segregated partial migrations occur in Australian species?

Generally, the presentation is excellent but it is frustrating that nowhere in the book could I find a map showing the origin point for the numbering system used on the grid. The Introduction tells me that the presentation resembles that of the Breeding Atlas, using two letters and two numbers to define each grid co-ordinate. The absence of a map showing the layout of the grid system prevents the reader, without access to the Breeding Atlas (p. 26) and Winter Atlas Instructions or British Ordinance Survey maps, from determining the locations of uncommon species given on pages 425-427. To the uninitiated it would also be helpful if the Introduction discussed the way in which British and Irish grids are offset against each other. Each main species map of winter distribution gives the equivalent map from the Breeding Atlas (if the species breeds in Britain). The scale of these inset maps of breeding distribution is so small that their value is sometimes questionable, especially for rare species, e.g. Ruff, Avocet and Scaup. The British coast is so indented that the dots - which are

the same colour as the outline — get lost in its bays and headlands. The problem could be solved if publication techniques made it easy to show enlarged portions of the map for some species with localised distribution, instead of presenting each map on the same scale; cost often inhibits this approach.

The Atlas of Wintering Birds in Britain and Ireland is a useful report of a fine piece of work, worthy of the dedication of purpose shown by the observers, the organisers and the author. It has shown that co-operative work can generate useful data on the abundance of wild birds and has much to contribute to the planning of similar projects in Australia.

S.J.J.F. Davies

Save the Birds, edited by A.W. Diamond, 1987. Pro Natur/ICBP Cambridge University Press, England. Pp 384, many colour plates, colour drawings, 60 maps and diagrams. 287 x 225 mm. \$39.95.

This is a quite outstanding book and a welcome addition to the literature on threatened birds and their habitats. It combines the photography and illustrations of a coffee-table style book with an informative and well researched text. It is a beautiful book but it pulls no punches, its message is quite clear, the loss of bird species is just one symptom of an ailing planet.

Most books I have seen on threatened wildlife and conservation are extremely disappointing, poor illustrative material and text is all too common in this genre. It is doubly difficult to find a single book which is authoritative and detailed, as well as being a pleasure to read and look at. I am pleased to say that this book is a notable exception. The text was reviewed and verified during production by a panel of leading ornithologists and conservationists and therefore should be authoritative.

After two general chapters on birds and environmental issues. the book presents a series of chapters on the world's great ecosystems, including man-made ecosystems such as towns and cities, and agricultural land. In each of these chapters a general introduction is given to the ecosystem and its inhabitants, as well as current threats to the biological integrity of the ecosystem. Avian conservation problems are presented with selected examples of rare and threatened species from that ecosystem. A wide variety of species and problems are considered and there is a reasonable coverage of Australian species. The book shows clearly the current problems in avian and general conservation. Of particular concern for ornithologists are oceanic islands and tropical forests which are home to most of the world's 'red-listed' birds. Habitat destruction, hunting and competition are shown as the most important threats to birds around the world. The last three chapters deal with the general causes of decline and current threats to birds, the birds of Great Britain and the International Council for Bird Preservation. By taking this approach the book covers both the general aspects of conservation, as well as giving more detailed examples with reference to individual species or groups of species.

Perhaps the only serious flaw in the book is the lack of a bibliography or reference list, as it would be useful to follow up on some examples or to check sources. Despite this deficiency the book is highly recommended as a good overview of avian conservation and for its excellent illustrations.

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Ray Nias