

REVIEWS

EDITED BY WALTER BOCK

The birds of paradise and bowerbirds.—William T. Cooper. 1979. (Text by J. M. Forshaw and W. T. Cooper.) Boston, David R. Godine. Folio, 304 pp., 61 plates, numerous maps and text figures. \$150.00.—No one knew more about the birds of paradise and bowerbirds in the wild than the late Tom Gilliard, whose "Birds of paradise and bowerbirds" (1969) is the authoritative work on these birds. Unfortunately, he was not able to persuade his publisher to include full-page colored illustrations of every species, an ambition achieved splendidly in the volume here reviewed. The plates were painted by Bill Cooper, and the authors "in presenting the plates in this book salute the memory of Tom Gilliard, a man whose fortitude and stamina in studying birds of paradise and bowerbirds in their natural habitat is legendary. He had an unbounded passion and enthusiasm for these birds . . .," as any one can confirm who knew Tom.

In a way, the authors consider their volume an illustrated supplement to Gilliard's volume, and some of the information in that volume is not repeated. Yet the descriptive accounts of each species, prepared by Forshaw, are ample, not only summarizing the literature, but quoting the personal observations made by Forshaw and Cooper on repeated visits to New Guinea or to the habitats of the Australian species. In variable species the characters and ranges of each subspecies are given. Throughout the volume the greatest amount of space is given to the description of the courtship displays, rightly considered the outstanding feature of birds of paradise and bowerbirds. Wherever they are known they are described in detail, but I was surprised that the display features of quite a few species are known either poorly or not at all. There is still a great deal to be done with New Guinea birds.

The plates painted by Cooper are very beautiful. Brush work and postures resemble the style of the great plate volumes of the 19th century, particularly those of Gould, no doubt a deliberate but quite successful adoption of this style. The reproduction is faultless. Cooper has seen many of the species in their native habitat and recorded the display and feeding postures of the birds in numerous field sketches (many included in this volume). This undoubtedly has helped him to find lifelike postures for his paintings. It also permitted him to choose appropriate plants for the backgrounds.

The taxonomic treatment is conservative and I recognize just about the same genera, species, and subspecies as Forshaw. It would have been helpful if allospecies had been designated in some way, for there are 13 among the 43 species of birds of paradise and they represent a very interesting evolutionary stage. Birds of paradise and bowerbirds are treated by Forshaw almost as if they were a single group. Admittedly they are probably related, but they also have a considerable number of peculiarities in anatomy (as shown by Bock) and in habits. It would have been better to have provided a separate introductory chapter for each of the two families.

There are a number of minor matters that deserve attention in a possible revised edition. The volume as a whole is remarkably free of misprints, but the name of one of the bowerbirds, *Amblyornis subalaris* (p. 239, etc.), is consistently misspelled. The Wandammen Mountains are restricted to the peninsula of the same name, not, as indicated on the map, extending to the adjacent mainland of New Guinea. Wing, culmen, and tarsus measurements are given, but no weights, an item of information of crucial importance in much ecological research. The intriguing fact that adult males have shorter wings and tails in the Regent Bowerbird than either females or immatures of either sex is not mentioned. Is there some connection with displays?

There is no bibliography, only a consecutively numbered, not alphabetized, listing of literature citations. As a result the essential books and monographs are buried in a mass of quite unimportant locality references. Indeed, a number of highly significant publications, like those of Stonor and Bock, are omitted altogether.

In the text the authors seem sometimes uncertain as to their audience. For instance, one may wonder about the inclusion of the large amount of highly technical text material, considering that this is primarily a coffee table book. More objectionable is the fact that detailed records of original field observations, particularly of displays, by Cooper are here published for the first time, in a volume surely unobtainable by most ornithologists.

Considering current prices for books, \$150 for a volume with 61 full folio-sized colored plates is not excessive. The book was first published in 1977 in Australia but there is apparently a sufficient demand to justify this new American edition. It will find many friends among lovers of luxury books.—ERNST MAYR.

Endangered birds: Management techniques for preserving threatened species.—S. A. Temple (Ed.). 1977. Madison, University of Wisconsin Press. xxiv + 466 pp. 31 black-and-white photographic plates, 47 tables, 17 figures, and 6 maps. \$9.50.—This volume contains the proceedings of a symposium held at the University of Wisconsin—Madison, during 17–20 August 1977. In the words of the book's editor, Stanley Temple, the symposium "offered a unique opportunity for leading scientists from around the world to meet and share their experiences with endangered birds." That this objective was achieved is indicated by a list of contributors standing as a "Who's Who" in endangered species research and management. This symposium was jointly sponsored by the International Council for Bird Preservation, World Wildlife Fund, National Audubon Society, New York Zoological Society, and U.S. Fish and Wildlife Service. Fifty-one papers by 53 contributors are listed under 10 topics: endangered bird problems and the concept of managing threatened species; increasing reproductive effort and success by reducing nest-site limitations; alleviating problems of competition, predation, parasitism, and disease; supplemental feeding and manipulation of feeding ecology; manipulating aspects of nesting biology; captive breeding of endangered birds; genetic aspects of managing dwindling populations; reintroducing endangered birds to the wild; integrated approaches to management of endangered birds; and summary. A 14-page index provides convenient reference to subjects in the text.

Most papers are clearly, concisely, and authoritatively written on species that by their rarity and, in many if not most instances, adaptability limitations pose challenges far beyond those encountered in the more "successful" taxa. The first half of the book is mainly concerned with management problems and solutions for species in the wild; the second deals with captive propagation and the restoration of wild populations from stock produced in confinement. The papers are accounts of management and research progress at the species and subspecies level, as opposed to biotic communities or ecosystem treatments. The imminence of a species' jeopardy appears to enhance the priority of management attention it is likely to receive. It follows, then, that much of the management effort will be directed at species well along the path toward extinction and, therefore, a disproportionate share of research or management resources is used to save them. Conversely, other species not yet in a "crisis" situation and that still could be saved by relatively little additional research or management attention may not receive adequate concern until they, too, become doubtful prospects for preservation. Dr. Temple acknowledges this paradox in the Preface, where he states "The manipulative management techniques are not, therefore, a final solution to conservation problems, but there is little doubt that they can save species from extinction."

The reader will be impressed with the innovative approaches, frustrations, and dedication reflected in these accounts, most of which represent years of painstaking and intense effort by investigators on a single species or subject of study. Examples are Cade, Fyfe, Helander, Temple, and Wilbur with raptors; Nichols, Snyder, and Wiley with *Amazona* parrots; Archibald, Drewien, Kepler, and Yamashina with cranes and ibis; and Flack, Kress, Merton, and Wingate with insular and oceanic species. Species treatments range from oilbirds to ospreys, black robins to bluebirds, condors to cranes, peregrines to puffins, and masked bobwhites to pearly-eyed thrashers.

This book deserves a place on the shelves of everyone interested in the plight of declining bird species. It is written in a thoroughly understandable style for both scientist and layman. It should provide a wealth of ideas for writers of articles for newspapers and natural history or sports magazines. The text appears to be free of any substantial errors. The placement of all photographic plates about midway through the text imposes some inconvenience, and a reference to the author and chapter is missing from the caption for Plate 20. However, the wealth of information packed between its attractively illustrated covers makes it a truly significant contribution to the rapidly growing literature on endangered bird research and management. It is a real bargain at \$9.50!—RAY C. ERICKSON.

The role of insectivorous birds in forest ecosystems.—Ed. by J. G. Dickson, R. N. Conner, R. R. Fleet, J. C. Kroll, and J. A. Jackson. 1979. New York, Academic Press. xiii + 381 pp. \$24.50.—This book only marginally addresses the topic suggested by the title. The general topic is really discussed only in the introductory and concluding chapters, and to a limited extent in the penultimate paper. The major focus of the book is on birds as predators on forest insects, but only a few of the papers directly detail the potential impact of the birds on the demography of the insects. These few papers cannot distinguish between birds as simply predators and as regulators of insect populations. The limited evidence is equivocal, but does not indicate much promise for managing bird populations as important controlling agents on populations of forest insects. These papers do point out that insectivorous birds can have substantial impact but cannot eliminate outbreaks of pest insects. No contributor really begins to examine the question of the evidence needed to test the idea that birds might function as regulators of

insect populations in forests. Some of the techniques, such as the manipulation of populations discussed by Dahlsten and Copper (Mountain Chickadees), could be useful in this regard. The lack of references to the controversy in the ecological literature about natural regulation of animal populations (or even the biological control literature) suggests that these topics have not been sufficiently addressed by scientists looking at ways of managing forest ecosystems.

The book does provide some interesting new data on differences in foraging activities of closely related (taxonomically or ecologically) species. As we have come to expect if we look closely enough, we can find differences that can be interpreted as fitting the general model of competitive exclusion. The differences can be in foraging position, either horizontal or vertical, and also time. Unfortunately, with bird populations it is difficult to make the next step of looking at how this pattern is influenced by and influences the distribution and abundance of the insect prey. It will require very detailed and arduous studies to translate the overt behavioral differences into data that can be used to really understand the role of these birds in the forests.

Several papers investigate either particular species or members of the insectivore guild in an effort to understand the factors that might be important in managing these populations. Again, however, these papers seem not to address the question posed by the title of the book, but start with the assumption that because the birds eat insects they must be important in the management of a forest ecosystem. Certainly we all agree that Pileated Woodpeckers, for example, should be maintained in a forest ecosystem, but these papers do not really convince anyone that it is necessary for the "health" of the ecosystem.

Two papers deal with census techniques and methods of handling the inherent variation in census data. I suspect that most readers will want to reverse the order and read the Folse paper on methods of handling variation after they have reviewed the Shields' contribution on the general methods of censusing and some of the basic assumptions and problems of accurate measures of populations. The Folse paper deals with an important topic, but probably has been too severely restricted in length for the general audience of this volume.

This book has a lot of basic information and will be especially useful to persons interested in descriptions of foraging behavior or the biology of particular species of birds. Some of the data are new and interesting. However, as a volume that sheds new light on the role of insectivorous birds in ecosystems it is disappointing. I suspect that the scientific community would have been served better by having some of these papers published in regular journals and the others perhaps published as technical reports available to persons interested in a specific topic. The high price of this volume and the lack of focus on the topic suggested by the title makes this a volume that ornithologists will want to borrow from a library, but not one they will want to purchase for their own reference collection.—LARRY L. WOLF.

ALSO RECEIVED

Birds of Pacific Rim National Park.—David F. Hatler, R. Wayne Campbell, and Adrian Dorst. 1978. Occasional Papers British Columbia Provincial Museum No. 20. British Columbia Provincial Museum, Victoria, British Columbia V8W 1X4 Canada. 194 pp., 31 figures, numerous sketches. \$3.00.—The Pacific Rim National Park occupies a narrow, 121-km long strip of exposed coastline on the western shore of Vancouver Island, British Columbia. This volume documents the occurrence of 247 bird species in the park. Following a graphical checklist that indicates the status and seasonal occurrence of each species, annotated species accounts provide information on distribution, breeding biology, ecology, and in some instances behavior, diet, relationships with other species, or other anecdotal information. The treatments in this section are largely qualitative, but provide an excellent background on the biology of the species occurring in the park. More quantitative detail is provided in another section documenting the results of transect surveys taken in 12 locations in the park during 1972–1973.—J. A. W.

A bibliography of British Columbia ornithology. Vol. 1.—R. Wayne Campbell, Harry R. Carter, Christopher D. Shepard, and Charles J. Guiguet. 1979. British Columbia Provincial Museum Heritage Record No. 7. British Columbia Provincial Museum, Victoria, British Columbia V8W 1X4 Canada. 185 pp. \$4.00.—This compendium lists some 2,100 references dealing with birds in British Columbia. Literature on history, biology, systematics, distribution, behavior, plumages, migration, reproduction, longevity, voice, and habitat is covered; papers simply presenting species lists or individual species records are not included. The references are drawn from 57 sources, most of which were surveyed through 1977. Separate sections cross-reference entries according to species, geographic area, and author.—J.A.W.