

Book Reviews

ZOOLOGY

Grouse and Quails of North America

By Paul A. Johnsgard. 1973. University of Nebraska Press, Lincoln, Nebraska. 553 pp., 140 plates. \$25.

This is a handsome and scholarly monograph in which the author presents detailed and interesting accounts of the biology and behavior of the nine species of grouse and the 14 quails that occur in North America from the Arctic to Guatemala. He also includes the introduced Gray and Chukar Partridges because of their interesting comparisons with native species. Johnsgard modestly states in his preface that very little in this book represents new and original information, and that nearly all the findings are those of others. Nevertheless, the assemblage and evaluation of the enormous body of literature (34 pages of source material are listed) is a great undertaking. Johnsgard is in a good position to evaluate the literature at his disposal, having "observed in life all of the nine species of grouse, both of the introduced partridges, and all but two of the fourteen species of quails."

The book is organized into two parts: Comparative Biology, and Accounts of Individual Species. There are also keys to identification, name derivations, source list, and an index to the occurrence of both vernacular and scientific names of species mentioned in the text. In the introduction he presents a framework for his discussion of the zoogeographical relationships and the evolutionary radiation of grouse and quails. He lists fossil grouse and quails of this continent and speculates that since Oligocene and Miocene forms share a number of common characteristics, both groups may have been derived from cracid-like ancestors during mid-Tertiary times. Johnsgard regards North America as the evolutionary center of the grouse since it has more total genera and more endemic genera than does Eurasia. He regards *Centrocercus* (Sage Grouse) and *Tympanuchus* (Prairie Chicken) to be the most highly specialized of the extant genera and presumes that both of them evolved independently from forest-dwelling forms as arid habitats expanded during the late Tertiary times. He regards *Dendragapus* (Blue Grouse) and *Lagopus* (Ptarmigan) to be nearest the ancestral types in general morphology, with the tundra-dwelling adaptations of *Lagopus* representing a more recent development than the forest-habitat and adaptations of

Dendragapus. Regarding the quails, he considers that since Central and South America exhibit the largest number of endemic quail species, the New World quails originated in Middle America and the primitive, tree-dwelling *Dendrortyx* (Tree Quail), which exhibits a large number of generalized traits, is nearest the hypothesized ancestral quail type.

The section on physical characteristics is both interesting and useful to both the scientifically oriented, and the hunting fraternity. He includes the adult weights of males and females of all the grouse and quails as well as egg characteristics and incubation periods. Within the first section Johnsgard continuously focuses attention on the living bird in its natural environment and the adaptive value of specific characteristics. Although grouse and quails present specific and frustrating problems when reared in captivity, this book contains an eight-page section on their aviculture and propagation. A quick perusal of the section on hunting, recreation, and conservation attests to the great importance of grouse and quails as game birds. During the open season in 1970, the estimated annual kill in United States and Canada totalled 49 380 000 grouse and quail with the Ruffed Grouse and Bobwhite being the favorites. Non-hunters will probably recoil in horror at such statistics, but Johnsgard points out that regulated hunting has a scant impact on these species, which have a relatively high reproductive rate, and emphasizes that under most circumstances hunting cannot measurably alter the mortality rate of the species. The real threat to their survival is loss of habitat through depredation by man's activity. This threat, along with the insidious environmental pollutants, is the true specter which overshadows all of nature.

In Part II, Accounts of Individual Species, many readers are to have their first detailed look at species which may not have previously attracted them because they believed them drab and uninteresting. All aspects of the life histories are included; the elaborate courtship displays and the unusual and colorful display structures are pictured in most species' accounts.

This book is profusely illustrated both in color, and in black and white. Often there is a series of photographs showing different attitudes of the

species depicted. This is not entirely successful in all cases since there is, unfortunately, a strong similarity between several pictures in some series. Nevertheless, the effect is pleasing and they do show in good detail some of the beautiful courtship postures which only the most fortunate can see in the wild. Most of the color plates are excellent photographs, but the works of four artists are included. Plates by C. G. Prichard have special value since they feature downy young, which are seldom illustrated. Dexter Landau and John O'Neill, as well as Prichard, all beautifully reproduce the mottled, cryptic patterns of the plumages. The reproduction of the superb plate

of the hybrid between Scaled and Gambel's Quail by Louis Agassiz Fuertes is poor in comparison with its original at the Cornell Laboratory of Ornithology.

All in all, *Grouse and Quails of North America* is a comprehensive scholarly monograph that should be attractive to professional biologists, bird watchers, and hunters.

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Mind in the Waters. A book to celebrate the consciousness of whales and dolphins

Assembled by Joan McIntyre. 1974. McClelland and Stewart, Toronto. 240 pp. (including 16 pp. colored photographs). \$14.95.

This is a successful book, as a collection of poems, essays, articles, illustrations and like material celebrating the consciousness of cetaceans. Any book that helps to increase more widely the appreciation of whales as the interesting and complex animals they are in the wild is to be commended. The illustrations are an important part of the book's message. A nice feature is the portfolio of color photographs showing Right whales apparently off Patagonia, feeding humpback whales, and a jumping striped dolphin. Interesting too, but of relatively poor quality in reproduction, are a number of black-and-white photographs from the technical literature. It is surprising, in an undertaking of this magnitude, that more original material was not included—it certainly exists.

The layout and design are slightly confusing, perhaps purposefully so, with constant intercalation of philosophy with fact. Perhaps this is meant to open the reader's mind.

The book is at its best when presenting original findings. The mutual aid in False Killer Whales and Common Dolphins is good original information and is gripping, unlike Spong's derivative information and speculations.

In a field such as whale conservation, emotion-laden, it is important to get the facts correct. This is a major attempt to synthesize and make simple a tremendous body of information and thought. Taxonomists will quibble about the species recognized in the descriptions of species. The essay on the evolution of cetacean intelligence by Bunnell does not quite get all the facts

straight about the evolution of cetaceans, and never really gets around to the question of the definition of intelligence or whether and how cetaceans are intelligent. The two companion articles, however, by Jacobs and by Morgane on the brain's input and behavior, and the anatomical basis of intelligence, are both readable and up to professional standards. Warshall gives an account of the biological characteristics of cetaceans that is marred by minor and some major errors. More than one illustration is misidentified as to species or anatomical exactitude. The strange ventral color pattern of the orca is illustrated—the underside shown is actually that of a pilot whale. The porpoise melon is represented more clearly than it perhaps exists in the porpoise. Strange whale, too, the blue whale which "survived, as far as we know, by digesting her own blubber."

After arousing the reader's interest, few references are given to additional information. The chapter on Greek dolphin mythology by Doria is an exception. Morgane's article cites the literature, but the list is not appended—too dry, I suppose. A bibliography or reading list would have been a useful addition to the book. Identification of sources and credits for illustrations are not consistent, when given.

One quibble I have is that much cetological scuttlebutt has found its way into this book. Whether it is justifiable, I find character assassination of deceased cetologists distasteful, as in the poem "To the Apologist, Defender, and Stooze of the Whaling Industry: EJS," presumably the late Professor E. J. Slijper. And quotes meant to be insulting such as that attributed to Ray Gambell should at least spell his name correctly.



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