

About the Series

This series bears the title 'Reproductive Biology and Phylogeny' followed by the name of the taxonomic group which is the subject of the volume. B. G. M. Jamieson is the founding series editor and each publication has one or more invited volume editors (if not the series editor) and a large number of authors of international repute. The series gives a unique coverage of reproductive biology. The level of the taxonomic group which is the subject of each volume varies according, largely, to the amount of information available, the advice of proposed volume editors, and the interest expressed by the zoological community in the proposed work. Phylogeny and classification is covered as a necessary framework for an understanding of reproductive biology. Evidence for relationships from molecular studies is an important aspect of the phylogenetic section.

About the Volume

There are almost ten thousand known species of birds of which more than half are songbirds. They are an ideal subject of study as they are one of the few groups of animals for which almost the total number of species is estimated to be known, they have been comprehensively catalogued and illustrated and are readily identified in the field. Besides these practical qualifications for study and the biological questions that they pose, they have endeared themselves to humanity not least for their beauty and their song. This volume, in two parts, attempts to document most of the important aspects of the reproductive biology of birds and places them in a setting of phylogenetic relationships. Aspects of reproduction that comprise this, the second part of volume 6, are sexual selection and structural and ultraviolet signaling; melanins and carotenoids as feather colorants and signals; sexual selection and auditory signaling; odors and chemical signaling; sexual dimorphism; sexual selection, signal selection and the handicap principle; courtship and mating; sexual conflict and its implications for fitness; intra- and extra-pair paternity; parental care (including cooperative breeding); brood parasitism in birds; reproduction in relation to conservation and commercial exploitation; embryogenesis and development; molecular genetics of avian sex determination and gonadal development. Many new illustrations are provided throughout the volume.

About the Series and Volume Editor

Dr. Barrie Jamieson is Emeritus Professor of Zoology in the School of Integrative Biology, University of Queensland. He holds a Ph.D. from the University of Bristol, England, a D.Sc. from the University of Queensland, and is a former Visiting Fellow of, and member of the Association of Corpus Christi College, Cambridge. In 1990 he was awarded the Clarke Medal for Research in Natural Sciences, early recipient of which were Thomas Henry Huxley and Richard Owen. His chief field of research is spermatozoal ultrastructure and its relevance to phylogeny but he is also an authority on taxonomy of earthworms and has published on bioluminescence, trematode taxonomy and life cycles, and DNA-based phylogenetics. He has published nearly 200 scientific papers and is the author, coauthor or editor of fourteen books.

