

Preface to this 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 whereas groups such as annelids (Volume 4) require detailed microscopical work for identification. 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. Volume 6, in two parts, attempts to document most of the important aspects of the reproductive biology of birds and places them, in the first part particularly, in a setting of phylogenetic relationships. Aspects of reproduction that comprise this, the second part of volume 6, are sexual selection of ultraviolet and structural signals; 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 copulation; sexual conflict and its implications for fitness; intra- and extra-pair paternity; parental care (including cooperative breeding); brood parasitism; applications of reproductive biology to bird conservation and population management; embryogenesis and development; molecular genetics of avian sex determination and gonadal development. Many new illustrations are provided throughout the volume.

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