

PREFACE

The cuckoe is a idle and lazy birde, never buildinge herselfe a nest,
but layinge her eggs in the nests of other birdes as in wood-pigeons,
hedge-sparrowes, wagtayles or such other like.

E. Topsell, *The Fowles of Heaven, or History of Birds*
(translation of Harrison & Hoeniger, 1972).

I must confess at the outset that my decision to write this book, rather than being the direct result of sudden inspiration, came about via a brainstorming session. Specifically, Charles Brown, Josef Kren, and I were sitting around a table at the University of Nebraska's Cedar Point Biological Station in western Nebraska one long summer evening in 1993, and the subject of desirable but not yet available ornithological books came up. After discussing several areas of current interest to ornithologists, the idea of a book dealing with avian brood parasitism rose to the top of potentially valuable subjects. No world-comprehensive English-language book exists on brood parasitism, and comprehensive foreign-language books on the subject are outdated or inaccessible (Makatsch, 1955; Mal'chevsky, 1987), despite the fact that the evolutionary, ecological, and behavioral questions posed by obligate brood parasites are among the most intriguing contemporary ornithological topics. Soon thereafter I decided to consider writing such a book, and began seriously gathering references and reviewing the large and greatly scattered world literature on the subject.

Originally I had planned to restrict my coverage to the sufficiently daunting task of reviewing the nearly one hundred species of obligate interspecific avian brood parasites in the world. However, it soon became evident that I would also have to consider some parallel intraspecific brood parasites, which exhibit such behaviors as nest-sharing and facultative conspecific brood parasitism, at least in terms of their possible relevance to the evolutionary history of obligatory brood parasitism. Such hypothetical and other peripheral topics of brood parasitism are dealt with in Chapter 1. I have tried to cover the other major evolutionary and comparative aspects of brood parasitism in Chapters 2–5. The second and major part of the book is devoted to 94 individual species accounts that include all of the world's known obligatory avian brood parasites as well as some others that, because of their close relationships to known parasites, are almost certain to fall into that category once their breeding biologies have been better studied. In all these accounts, emphasis is placed on field and in-hand species identification and on those aspects of breeding biology that are related specifically to brood parasitism, rather than on summarizing their overall ecologies and entire life histories, which would obviously be impossible in a single-volume work.

The terminology associated with discussions of brood parasitism and related aspects of social parasitism is still somewhat unsettled and, indeed, rather unsatisfactory. Even the term "brood parasitism" is somewhat inaccurate, since in many host species the "brood" in a parasitized nest consists of only the parasite chick, at least after it has eliminated the host's own eggs or chicks. "Egg parasitism" seems slightly better semantically, but this term has had little use except in reference to intraspecific egg dumping. "Prehatching brood amalgamation" is much too cumbersome to be useful, and better fits the phenomenon of intraspecific egg dumping than that of surreptitious introduction of alien eggs into a host species' nest. "Clutch parasitism" probably offers the fewest semantic difficulties in describing the phenomenon, but to my knowledge it has never been used by ornithologists. I leave it to other writers to suggest better solutions to this semantic problem, although I have devised a few new terms (e.g., host-tolerant vs. host-intolerant species) that seemed to be useful descriptors. For such reasons, and to make the text more accessible to nonornithologists, I have included a fairly extended glossary, which defines technical terms that appear in the text, especially those that relate specifically to social parasitism or are more generally relevant to behavior, genetics, and ecology.

The taxonomic sequence in the species accounts, and my choices of appropriate nomenclature for species and higher-level taxonomic groups, are based on the world checklist of Sibley and Monroe (1990). The listed subspecies are those that appear to be the most widely accepted, judging from recent technical literature. In each species account, all such geographic races are initially listed in logical geographic order, but subsequent listings of multiple subspecies (as, for example, under their measurements and masses) are alphabetic. I have also provided an appendix consisting of an alphabetic list of the English vernacular and corresponding Latin names of the approximately 1000 avian species (other than the individually described brood parasites) that are mentioned in the text. With a few minor exceptions, these vernacular names are also those recommended by Sibley and Monroe.

As usual in any world survey of bird groups, one is faced with an overwhelming amount of information on a few well-studied species (such as the common cuckoo and brown-headed cowbird), but relatively little reliable information on the majority of other parasitic species. For example, Wyllie (1981) listed nearly 200 citations relevant to the common cuckoo, and

nearly 1000 citations concerning the five parasitic cowbirds were collectively provided by Friedmann (1963), Friedmann et al. (1977), and Friedmann and Kiff (1985). In other multispecies monographic treatments, Friedman (1960) listed nearly 500 citations on the African parasitic finches, and more than 200 on the honeyguides (1955).

Yet, for most brood parasites, the literature is surprisingly sparse, and often much of it is unreliable. In part this is because brood parasites are generally harder to study than any other categories of birds; they have survived and successfully adapted largely as a result of their deceptive behavior, elusiveness, and apparent cunning. It should thus not be surprising that almost as many false beliefs about them exist as factual knowledge. As a result, discerning truth from mythology and folklore, from contrived misinformation, and from honest but erroneous conclusions was a major problem in assembling materials for this book.

In spite of such problems, few groups of birds provide such intellectual appeal or provide so many opportunities to learn evolutionary lessons. It is easy to become emotional and judgmental when discussing social parasites; like other parasites they are best regarded simply as organisms that have managed to survive and thrive by exploiting the readily available energies provided by others. Many humans regularly use the same survival strategy without having universal condemnation heaped upon them—capitalists and welfare recipients provide obvious examples of opposite extremes of our own social spectrum that exhibit widely differing but nevertheless acceptable and individually adaptive behaviors.

Great advances have been made in the theoretical basis of exploitative social interactions such as social parasitism, and many well-documented field studies of this phenomenon in birds have been performed. Indeed, so many studies are being published on topics related to avian brood parasitism that some of the information in this book will likely become dated soon after publication. With the advent of modern biochemical analysis techniques, it is possible to identify eggs of unknown brood parasites, not only as to their species, but also at a level that permits identification of eggs laid by individual females. Thereby we may begin to verify previously speculative parasite:host combinations, get a grasp of the existence and significance of host-specific female "gentes," obtain better measurements of female egg-laying ranges during the breeding season, and help determine annual female egg production. Yet, part of the appeal of the avian brood parasites is that even such well-studied species as the brown-headed cowbird still offer fertile areas for behavioral and ecologic study using innovative field studies or sophisticated laboratory techniques. Additionally, the majority of the parasitic species lack simple field observations that would help fill in some of the all-too-frequent "no information" statements that are abundantly sprinkled through the species accounts of this book. For example, host species for less than half of the world's honeyguides have so far been documented, and the same is true of the bronze cuckoos. Almost nothing is known of the biologies of the hawk cuckoos, the several genera and species of endemic New Guinea cuckoos, or the New World pheasant cuckoos. Furthermore, we have almost no information on the actual costs (in terms of their reduced productivity) of brood parasitism for most host species, as well as the nature and effectiveness of their possible antiparasitism defense systems.

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P.A.J.