Cuckoos, Cowbirds and Other Cheats

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Source: The Condor, 104(2) : 466-467

Published By: American Ornithological Society

URL: https://doi.org/10.1650/0010-5422(2002)104[0466:BR]2.0.CO;2

Cuckoos, Cowbirds and Other Cheats.—Nicholas B. Davies. 2000. T & AD Poyser Ltd, London. ix + 310 pp., 8 color-plates; numerous figures and tables. ISBN 0-85661-135-5. $29.95 (cloth).

If you, your graduate students, or advanced undergraduates are interested in learning about brood parasitic birds, there are at least three methods to achieve this goal. First, you could pick up a recent issue of just about any journal of behavioral ecology or ornithology, and you would be bound to find one or more articles on parasitic cuckoos, cowbirds, finches, honeyguides, ducks, or their hosts. Alternatively, you could query a reference database and seek out the 500+ titles that would result from a search on key words such as ''brood parasite'' and ''aves.'' Beware: this number might climb into the thousands unless you limit your search to the past ten years or so! Finally, you could pick up a book on brood parasitic birds (e.g., Friedmann 1929 [a classic], Johnsgard 1997, Ortega 1998, Rothstein and Robinson 1998, Morrison et al. 1999, Smith et al. 2000) and begin there.

This last option is not as simple as it seems because the past few years have witnessed an explosion of such volumes. Nonetheless, a winning bet can be placed by choosing N. B. Davies' recent book, *Cuckoos, Cowbirds and Other Cheats.* Davies is one of the most prominent, prolific, and popular authorities on the parasitic European (Common) Cuckoo (*Cuculus canoris*). He has also been closely associated, both as an advisor and a colleague, with many other key researchers studying the African and Asian cuckoos, and North and South American cowbirds. In addition, his interests include the synthesis of the theoretical and empirical issues that make brood parasitism exciting to (co-)evolutionary biologists. As in several of his prior review articles, Davies goes beyond avian species in his current book to include comparative analyses with other vertebrate and invertebrate brood parasites. These credentials pave the way for a personal, detailed, and yet universally relevant style and content that are essential to a successful book on avian brood parasitism for ornithologists and nonornithologists alike.

The text is structured around both taxa and topics. Separate chapters examine the extent of knowledge about the natural history, behavioral development, and coevolutionary selection pressures operating on the few well-studied and the many less-studied avian brood parasites, including Australasian bronze-cuckoos, African *Vidua* finches, American *Molothrus* cowbirds, and the European Cuckoo. The thread connecting these taxon-specific chapters is the combination of critical surveys of observational studies examining the parasite-specific adaptations of each species and their hosts and reports of experimental manipulations to establish causation. With this experimentally driven perspective, Davies' text provides an especially valuable tool for beginning graduate students, a chief strength of which is the number of detailed descriptions of experiments, research methods, and equipment.

This experimental focus on selected taxa does not mean that the parasitic habits and other aspects of the natural histories of honeyguides, South-American cuckoos, or the Black-headed Duck (*Heteronetta atricapilla*) are omitted. On the contrary, future experiments with little-known species can be efficiently designed based on the information and framework presented in chapters that otherwise focus on the general themes of alternative strategies of parasitic mimicry, begging, and social development.

Additional chapters deal with intraspecific brood parasitism, obligate parasitism in nonavian taxa, and possible patterns and scenarios for the evolution of social parasitism in birds. These topics are now standard in books on interspecific parasitism (e.g., Rothstein and Robinson 1998), and are important because the mechanistic and evolutionary connections between these different tactics and strategies remain to be studied rigorously. Finally, the appendix includes a list of all known parasitic avian species, with additional information on geographic distributions and primary hosts. The main text is accompanied by several black-and-white illustrations of brood-parasitic species, their hosts, and, most importantly, their behavioral interactions. These include depictions of parasites in action, such as a male Great Spotted Cuckoo (*Clamator glandarius*) distracting host Magpies (*Pica pica*) while his mate lays her egg, and a hatchling European Cuckoo ejecting a Reed Warbler (*Acrocephalus scirpaceus*) egg. The color plates are less inclusive, but those that illustrate host mimicry (or the lack thereof) by cuckoos, cowbirds, and indigobirds are most valuable.

Although Davies' work is a valuable source of information, the way in which the references are organized is perhaps the only unfortunate aspect of the book, especially for the reader unfamiliar with which researchers are associated with which set of parasitic species and studies. Consider this: while reading a section of the book on cuckoo host-races (gentes), you encounter a statement referring to a study on the inheritance of egg coloration in nonparasitic birds. The primary source of this information is coded by the number 17. To locate the article, you must first determine that you are in the middle of Chapter 3, and look up source number 17 in ''Notes on Chapter 3,'' found toward the end of the book, where you will find that it refers to Collias (1993). You must now seek the full

citation information for this paper in a separate ''References'' section. Future editions of this book will benefit from simplifying this process, and should keep the original, American spelling for non-British article and journal titles.

As inviting as the title's alliteration may be for the nonbiologist, Davies' book works best for an audience that is well versed in both evolutionary and behavioral theory and the development of animal cognition. These multiple layers of analyses are revisited for each species and topic throughout the entire volume, and, where clear-cut data are lacking, the author readily proposes alternative interpretations and feasible experiments to discriminate between possibilities. A characteristic example of this attention to detail can be found in the discussion of the apparent mimicry of host nestlings' begging calls by the Long-tailed Koel (*Eudynamys taitensis*) and the Shining Bronze-Cuckoo (*Chrysococcyx lucidus*) in New Zealand, two species that eject host eggs and nestmates shortly after hatching. As Davies puts it (p. 80): ''[These parasitic nestlings] do not have the opportunity to copy the host chick calls, so the cuckoo calls must either be programmed entirely genetically, or develop through the cuckoo trying out a range of calls at first, and then homing in on the ones which are most effective in stimulating host care, namely those like the host young.'' This leads to an important experiment that still awaits carrying out!

Cuckoos, Cowbirds, and Other Cheats is a carefully written, resourceful, timely, and up-to-date guide to the harsh realities, exciting discoveries, and still-mysterious worlds of avian brood parasitism. This volume belongs on the bookshelf of every college, university, research institute, and home where animal behavior and evolutionary ecology are studied and taught. I thank B. Kus for comments and NSF for support.—MARK E. HAUBER, Department of Neurobiology and Behavior, Cornell University, Ithaca, NY 14853, e-mail: meh20@cornell.edu

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