

**HOST RELATIONS
OF THE PARASITIC
COWBIRDS**

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Host Relations of the Parasitic Cowbirds by Herbert Friedmann

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HERBERT FRIEDMANN

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OF THE PARASITIC
COWBIRDS**

MUSEUM OF NATURAL HISTORY

Host Relations
of the
Parasitic Cowbirds

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FRANK A. TAYLOR,
Director, United States National Museum.

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Preface

COWBIRDS are an ideal group in which to study the biology of brood parasitism; within the six included species there are displayed all stages of the development of this mode of reproduction ranging from that of the non-parasitic bay-wing through those of the completely parasitic screaming, shiny, brown-headed, bronzed, and giant cowbirds.

The present report deals only with their host relationships, as this is the aspect of their biology in which our knowledge has shown the greatest increase since my initial over-all discussion was published in 1929.

It is assumed that the majority of users of this monograph will be interested chiefly in the common North American species, the brown-headed cowbird, *Molothrus ater*; accordingly, the more detailed discussion of this bird is presented first, constituting the major part of the report. This is followed by a shorter but similar treatment of the other North American species, the bronzed cowbird, *Tangarius aeneus*; then by a discussion of the two South American parasitic species, the shiny cowbird, *M. bonariensis*, and the screaming cowbird, *M. rufo-axillaris*; and finally by a discussion of the giant cowbird, *Psomocolax oryzivorus*, of Central and South America. The phylogenetic sequence is thus ignored for the interest and convenience of the reader. For a description of the phylogenetic relations of the included species, the reader is referred to pages 343-346 of my 1929 book. I know of no recent information that would cause me to suggest any alteration in the picture presented there, except that which is given in the present discussion of *Psomocolax* (see pp. 216-222).

For the two North American species I here submit complete annotated catalogs of their hosts, in answer to many requests that have come to me over the years from students and investigators of various ones of the included host birds. In the case of the South American shiny cowbird and the Central American giant cowbird, the unfortunate general lack of interest in birds in these areas has made it unnecessary to produce a similar new host catalog at this time, although our knowledge of the victims of both species has increased as greatly as that of their North American counterparts. Accordingly, I have included a complete tabular outline of the known victims of each of the races of the parasites, but I have written accounts only of newly added hosts and of those others of which our estimates as cowbird victims have been altered by recent information. Since there has

been little change in our knowledge of the screaming cowbird, only a short summary is given for this species.

Inasmuch as the completeness of our knowledge varies with the different species of cowbirds, the detailed discussion of such biological matters as host selection, the relative frequency with which different species of these hosts are utilized, the success rate with which these birds serve as fosterers, and the various reactions they give to the parasite and to the incidence of parasitism are all given in the account of each species of cowbird. As might be expected from the interest discussed above, the data are incomparably more extensive, and thus more amenable to analysis and interpretation, for the North American brown-headed cowbird than for any of the others. Because of this, the chief biological discussion and synthesis are given under that species, even though parts of the thoughts and conclusions are applicable to the others as well.

The present study of the host-parasite relations of the cowbirds has been a long time in progress. Not only has a great mass of data been accumulating slowly over several decades, but newer insights and better methods of evaluating and interpreting the facts have been brought to bear as the material permitted. Much of the present data is due in large measure to the kind cooperation of many observers, collectors, and custodians of collections, all of whom have generously sent me numerous interesting records that otherwise would not have been available.

As previously mentioned, my first discussion of the subject appeared in 1929, and short supplements, chiefly of new host species, have been issued at intervals between 1931 and 1949. Since acknowledgments were made in each publication to the individuals who contributed information, it is unnecessary to repeat them in the present work. However, those contributors subsequent to my 1949 paper are given here in alphabetical order. While it is true that many deserve a greater measure of thanks, all sent me what they could, and it is better to express my gratitude impartially.

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