

NESTLING KENTUCKY WARBLERS AND COWBIRD ATTACKED BY BROWN-HEADED COWBIRD

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Abstract.—An adult female Brown-headed Cowbird (*Molothrus ater*) was flushed from a Kentucky Warbler (*Oporornis formosus*) nest. The four warbler and one cowbird nestlings were apparently being attacked. This is at least the fifth report of nestling predation by Brown-headed Cowbird.

NIDO DE *OPORORNIS FORMOSUS* CON PICHONES ATACADO POR INDIVIDUO DE *MOLOTHRUS ATER*

Sinopsis.—Una hembra del tordo *Molothrus ater* fue espantada de un nido de *Oporornis formosus* con cuatro pichones de ésta y uno de tordo. Los pichones en el nido aparentemente fueron atacados. Este es al menos el quinto registro de depredación de pichones por parte de tordos adultos.

On 5 Jun. 1988 at about 1700 h, a female Brown-headed Cowbird (*Molothrus ater*) was flushed about 30 cm from a ground nest of a Kentucky Warbler (*Oporornis formosus*). In the few seconds before flushing the cowbird, the sounds of one or more nestling passerines either in distress or soliciting food from a parent were heard from the same location. The site was in Patuxent River State Park, Howard County, Maryland, about 9 km east of Damascus at an elevation of approximately 120 m along Cabin Branch, a tributary to the Patuxent River. The forest at this site is dominated by maples (*Acer*), oaks (*Quercus*), and hickories (*Carya*) with the ground cover in the immediate vicinity of the nest dominated by Mayapple (*Podophyllum peltatum*).

The nest had contained four nestling warblers and one nestling cowbird. The warblers appeared to be about 2–3-d old with natal down and darkening remigial tracts and eyes. The cowbird nestling was considerably larger and appeared to be slightly older, as indicated by its wing remiges pins well developed and the eyes just starting to open. The female cowbird remained perched some 10–15 m away for 4–5 min after being flushed.

When the nest was discovered, one nestling warbler was approximately 5 cm outside the nest on the side from which the cowbird was flushed. This nestling had four small superficial lacerations to its dorsal surface, the largest being about 3 mm. The three remaining warbler nestlings were in disarray within the cup of the nest. The bottom-most of the three was upside down and bleeding profusely with nearly all of the flesh of the right secondary tract missing and a large wound into the body cavity on the right side immediately posterior to the wing. Consequently, this nestling died within minutes. A third warbler nestling had one small (2 mm) superficial laceration on its back. The fourth nestling warbler had no visible wounds. The cowbird nestling showed some pink, watery exudate

from the nostrils; it was in a normal resting position in the nest with its feet firmly grasping the bottom lining and its chin resting against the uppermost edge of the cup. The dead warbler and cowbird nestlings were removed; the other three warbler nestlings were returned to the nest.

The adult female warbler returned to the nest site with food about 5–6 min after the nest was discovered. Due to dense ground cover, the parent's actions at the nest could not be observed. The female warbler did not reappear after several min at the nest and was presumed to be brooding when I departed the site. No further observation was possible for the next two weeks.

Although the actual attack or any events leading to it were not observed, circumstantial evidence (e.g., nestling vocalizations at the moment of flushing the cowbird, uncoagulated and bleeding wounds on the nestlings, no other animals visible) probably indicates that the adult female cowbird was attacking all the nestlings. From the injury to the cowbird nestling, it would also seem that the adult cowbird had attacked the nestling cowbird.

The only other reports of a cowbird attacking or depredating nestling passerines of which I am aware are three summarized by Scott et al. (1992) and a fourth reported by Scott and McKinney (1994). The observation reported herein is apparently the fifth published case of a host's nestlings being attacked and the first of an attack upon a nestling cowbird.

P. Arcese et al. (in press) indicate nest predation, including nestlings, by cowbirds may be of significant occurrence in order to stimulate re-nesting by a passerine host when a nest is found too late to allow for parasitism. Removal of young passerines from the nest by female cowbirds could be one factor producing within-nest mortality of nestlings, as opposed to total loss of nestlings (Ricklefs 1969). Nestling predation by cowbirds is not a routine event, given the many observers and photographers watching nests of suitable hosts within the range of the Brown-headed Cowbird. A final note on this observation should be made that the cowbird laying the egg in this nest may not at that time have removed any host eggs, as 4 would be a normal clutch for Kentucky Warblers (pers. obs.), although 5 is also common (Bent 1953:506). As indicated by Scott and McKinney (1994), observers need to examine more closely the immediate vicinity of depredated nestlings if cowbirds are present and potential hosts of the passerine in question.

ACKNOWLEDGMENTS

Comments by Stephen I. Rothstein and Peter Arcese on this subject and earlier drafts are appreciated. The reviews and comments by Bonnie R. McKinney and Spencer G. Sealy are also acknowledged. James Tate, Jr. reviewed and encouraged the publication of this note.

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Received 10 Jul. 1995; accepted 19 Sep. 1995.