

PREDATION BY GRAY CATBIRD ON BROWN THRASHER EGGS

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ABSTRACT—The gray catbird (*Dumetella carolinensis*) has been documented visiting and breaking the eggs of artificial nests, but the implications of such observations are unclear because there is little cost in depredated an undefended nest. During the summer of 2001 at Konza Prairie Biological Station, Kansas, we videotaped a gray catbird that broke and consumed at least 1 egg in a brown thrasher (*Toxostoma rufum*) nest. Our observation was consistent with egg predation because the catbird consumed the contents of the damaged egg after breaking it. The large difference in body mass suggests that a catbird (37 g) destroying eggs in a thrasher (69 g) nest might risk injury if caught in the act of predation and might explain why egg predation by catbirds has been poorly documented. Our observation indicated that the catbird should be considered as an egg predator of natural nests and that single-egg predation of songbird nests should not be attributed to egg removal by female brown-headed cowbirds (*Molothrus ater*) without additional evidence.

RESUMEN—El pájaro gato gris (*Dumetella carolinensis*) ha sido documentado visitando y rompiendo los huevos de nidos artificiales, pero las implicaciones de dichas observaciones no son claras porque hay poco costo por depredar un nido sin defensa. Durante el verano de 2001 en Konza Prairie Biological Station en Kansas, filmamos un pájaro gato gris que rompió y consumió por lo menos un huevo en un nido de un cuitlacoche café (*Toxostoma rufum*). Nuestra observación es consistente con la depredación de huevos porque el pájaro gato consumió el contenido del huevo dañado después de romperlo. La gran diferencia en la masa corporal sugiere que un pájaro gato (37 g) destruyendo los huevos de un nido de cuitlacoche café (69 g) puede correr el riesgo de ser lastimado si es descubierto en el acto de depredación y puede explicar porque la depredación de huevos por pájaros gato ha sido poco documentada. Nuestra observación indica que el pájaro gato debe ser considerado como depredador de huevos de nidos naturales y que la depredación de un solo huevo de pájaros cantores no se debe atribuir a la extracción hecha por una hembra tordo copete café (*Molothrus ater*) sin evidencia adicional.

Egg pecking has been documented in several avian families, yet seems to be most widespread among wrens (Troglodytidae; Picman and Picman, 1980; Quinn and Holroyd, 1989; Pribil and Picman, 1991) and mimic thrushes (Mimidae; Bowman and Carter, 1971; Wiley and Wiley, 1979; Sealy, 1994; Spooner et al., 1996). Within Mimidae, the gray catbird (*Dumetella carolinensis*) has been recorded visiting and pecking eggs in artificial nests (Belles-Isles and Picman, 1986; Spooner et al., 1996; Hauber, 1998; Zegers et al., 2000). The implications of these observations for natural nests are unknown, however, because artificial nests are undefended and there is little cost in depredated an unguarded nest.

Documentation of egg predation by catbirds at natural nests is limited, and it is unclear if the catbird should be considered an egg predator. Sealy (1994) reported 2 separate observations of egg predation by catbirds on eastern kingbird (*Tyrannus tyrannus*) eggs in Manitoba. Here, we describe egg predation by a catbird of a natural nest of a substantially larger bird, the brown thrasher (*Toxostoma rufum*).

During summer 2001, we studied nesting ecology of brown thrashers on Konza Prairie Biological Station in northeastern Kansas (39°05'N, 97°35'W). Brown thrashers are abundant at Konza Prairie and nest at high densities in shrub patches of rough-leaved dogwood (*Cornus drummondii*) and American plum (*Prun-*

nus americana) on sites that are burned every 3 to 5 years (Zimmerman, 1993; Cavitt and Haas, 2000). On 9 May 2001, we found a brown thrasher nest containing 5 eggs approximately 45 cm off the ground in a dense stand of American plum. At the time of discovery, an adult was close to the nest giving the distinctive 'tchuck' call that is commonly given around active nests (Cavitt and Haas, 2000). Within 20 min of discovery, a blind used to house videotaping equipment was erected approximately 1.5 m from the nest within the shrub patch.

On 10 May 2001, the nest was videotaped for 2 h starting at 0806 CDT. At 1006 CDT, the blind, tripod, and video camera were removed without direct examination of the nest or its contents. While reviewing the videotape of the brown thrasher nest, we found that at 0940 CDT an adult catbird (sex unknown) directly approached the nest in a furtive manner while flicking and spreading its tail in an exaggerated manner as it moved among shrubs near the nest. Once at the nest, the catbird peered into the nest and struck 1 or more eggs with 4 hard, directed blows. It then consumed the yolk of 1 damaged egg by sipping from the egg, raising its bill to a 45° angle, and swallowing, repeating this series 4 times in quick succession. The bird pecked at the egg again briefly before it left the nest. The catbird spent 50 s at the nest and left without removing eggs or eggshells. Two minutes later, the catbird returned to the nest, sat on the cup of the nest, probed the nest with its bill, and then made 2 hard, striking blows into the nest with its bill. It remained at the nest for 10 s, during which it did not sip yolk from the nest nor did it remove eggs or eggshells. Within 5 s of delivering blows to the egg(s), the catbird was chased off camera by a brown thrasher. The catbird escaped from the vicinity before the thrasher could contact it physically, and no thrasher approached the nest during the 27 min remaining in the videotaping session. (A video clip of the interaction can be viewed at <http://www.ksu.edu/bsanderc/movies/catbird.mpg>.)

On 11 May 2001 at 1237 CDT, 1 egg was missing and the adult brown thrasher was found incubating 4 eggs in the nest. The broken egg might have been removed by the catbird or by a thrasher as part of nest cleaning. On 18 May 2001 at 1050 CDT, the nest was

depredated; all eggs were missing and there was no sign of adults or young in area.

Our observation augments previous reports that catbirds will destroy eggs in artificial nests (Hauber, 1998; Zegers et al., 2000) and in natural nests of eastern kingbirds (Sealy, 1994). Two hypotheses proposed to explain heterospecific egg destruction behavior are resource competition and egg predation (Pribil and Picman, 1991; Spooner et al., 1996). Gray catbirds and brown thrashers use shrub patches for breeding and foraging on Konza Prairie and have similar timing of breeding (J. W. Rivers, pers. obser.; Zimmerman, 1993). However, we lack data on resource competition between gray catbirds and brown thrashers on Konza Prairie, and it is unknown if resource competition influenced the egg predation event we observed.

Our observation is consistent with egg predation and corroborates the conclusion of Spooner et al. (1994) that destruction of eggs by catbirds is for egg consumption. Sealy (1994) suggested that if egg destruction behavior had little cost, then predation might only be opportunistic. The large difference in body mass (Cimprich and Moore, 1995; Cavitt and Haas, 2000) suggests that a catbird (37 g) destroying eggs in a thrasher (69 g) nest might risk injury if caught in the act of predation. If depredation of heterospecific nests is a risky behavior, it might explain why the catbird acted furtively near the thrasher nest, and why egg predation by catbirds has been poorly documented.

Our observation indicated that the catbird should be considered an egg predator of natural nests. Moreover, single egg predation in shrub-nesting birds should not be attributed solely to egg removal by female brown-headed cowbirds (*Molothrus ater*). Future studies that videotape nests could provide better documentation of egg predation by catbirds and allow for determination of the costs and benefits of this behavior.

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ADDITIONAL RECORDS OF BIRDS FROM CUATRO CIÉNEGAS BASIN, NATURAL PROTECTED AREA, COAHUILA, MEXICO

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ABSTRACT—We recorded for the first time in Cuatro Ciénegas Basin, Coahuila, Mexico, 43 species, 33 of them represented by specimens and 10 only by visual observations. These records increase the species known for the basin by 38.4%. The fieldwork was conducted during 1996 and 1997. Two species are new records for the state of Coahuila: *Larus atricilla* and *Camptostoma imberbe*.

RESUMEN—Se registran por primera vez para el Valle de Cuatro Ciénegas, Coahuila, México, 43 especies, 33 de ellas representadas por ejemplares y 10 sólo son observaciones visuales. Con estos registros se eleva en un 38.4% las especies conocidas para el citado valle. El trabajo se efectuó entre 1996–1997. Dos especies son nuevos registros para el estado de Coahuila: *Larus atricilla* y *Camptostoma imberbe*.

Recently, Contreras-Balderas et al. (1997) described seasonal and ecological distributions of birds in Cuatro Ciénegas Basin, Coahuila, Mexico, in a paper that included a review of the ornithological literature and a report of 108 species that they collected or observed in the basin from April 1990 through March 1991. González-Rojas et al. (1999) reported 4 new visual records of birds from this basin: *Tachybaptus dominicus*, *Casmerodius albus*, *Co-*