

FEATURE ARTICLES

EGG-LAYING BEHAVIOR IN SCREAMING COWBIRDS: WHY DOES A SPECIALIST BROOD PARASITE WASTE SO MANY EGGS?

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Abstract. Obligate brood parasites should synchronize parasitism with host laying to maximize egg hatchability and chick survival. While the generalist Shiny (*Molothrus bonariensis*), Brown-headed (*M. ater*), and Bronzed (*M. aeneus*) Cowbirds frequently synchronize parasitism with host laying, specialist Screaming Cowbirds (*M. rufoaxillaris*) very often fail to do so in nests of their main host, the Bay-winged Cowbird (*Agelaioides badius*). The poor synchronization of Screaming Cowbird parasitism may be the result of low availability of host nests at the time of laying, higher nest attentiveness by the host during laying, or unpredictable host laying behavior. We used a large set of observational data to test these hypotheses. The rate of Screaming Cowbird parasitism occurring during host prelaying was 31%, while during laying and incubation, it was 50% and 19%, respectively. Synchronization of parasitism was not associated with availability of host nests at laying or with changes in host nest attentiveness through the nesting cycle. The length of the prelaying period varied from one to 19 days and was not associated with latency of parasitism after nest completion. Nests with prelaying periods of 4–6 days received fewer eggs than nests with shorter or longer periods. Shiny Cowbirds also parasitized Bay-winged Cowbirds during prelaying more frequently (48%) than in other studied hosts (1%–8%). Our results indicate that Bay-winged Cowbird prelaying behavior precludes synchronization between parasitism and host laying and therefore may act as an antiparasitic defense, as it decreases the incidence of successful parasitism.

Key words: *Agelaioides badius*, *Bay-winged Cowbird*, *brood parasitism*, *egg laying*, *Molothrus rufoaxillaris*, *Screaming Cowbird*.