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EVIDENCE FOR INTERSPECIFIC EGG DESTRUCTION BY BEWICK'S WRENS

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Abstract.—Four adult and two young Bewick's Wren's, *Thryomanes bewickii,* were captured in traps placed in two wren territories. These traps were baited with a nest and egg of Red-winged Blackbird and could be triggered only by animals attempting to remove the eggs. These observations provide the first evidence for egg-destroying behavior in this wren species.

EVIDENCIA DE LA DESTRUCCIÓN INTERSPECÍFICA DE HUEVOS POR *THRYOMANES BEWICKII*

Sinopsis.—Cuatro adultos y dos jóvenes de *Thryomanes bewickii* fueron capturados en trampas colocadas en dos territorios de la familia Troglodytidae. Las trampas tuvieron como carnada un nido de *Agelaius phoenicius* con un huevo y sólo podría activarse por animales que trataran de remover los huevos. Estas observaciones proveen la primera evidencia de que la especie *Thryomanes bewickii* destruye huevos.

Although destruction of eggs is a rare phenomenon among small passerines, this behavior seems to be relatively common among members of the wren family (Troglodytidae), including the Marsh Wren, (*Cistothorus palustris* (e.g., Allen 1914); House Wren, *Troglodytes aedon* (Kendeigh 1941); Cactus Wren, *Campylorhynchus brunneicapillus* (Anderson and Anderson 1973); and Sedge Wren, *Cistothorus platensis* (Picman and Picman 1980). Egg attacks could: (1) provide attackers with food, (2) promote spatial segregation of breeding activities of ecologically similar birds (e.g., Verner 1975), and/or (3) facilitate acquisition of limited nesting cavities.

In 1976 I initiated a study of behavioral interactions between Red-winged Blackbirds (*Agelaius phoeniceus*) and Marsh Wrens. Observations of intraspecific and interspecific egg destruction by Marsh Wrens (see Picman 1977a, b) and evidence for egg destruction by the above wren species have led me to hypothesize that the egg-destroying behavior might be characteristic of the wren family. The goal of this study was to establish if Bewick's Wrens, *Thryomanes bewickii,* also exhibit the egg-destroying tendency.

METHODS

I conducted this study between May and the first half of August, 1977, on Westham Island, Delta, British Columbia (49°6′N, 123°4′W). To establish if Bewick's Wrens destroy eggs, I placed 2–4 Red-winged Blackbird nests in two Bewick's Wren territories in strips of dense shrubs and trees bordering agricultural lands. Each nest contained one Red-winged Blackbird egg that I covered with several layers of transparent glue to make it "unbreakable" for the wrens. I placed the nests in hoop-netting traps

designed to capture Marsh Wrens (Picman 1980). Traps are set off when a wren pecks an egg that is glued to the trigger, which is inside the nest, and they effectively catch Marsh Wrens as they attempt to break eggs (Picman 1977a, b, 1980). Direct observations of Marsh Wrens on these traps demonstrated that the trap mechanism could only be triggered by a bird pecking an egg (Picman 1980). Therefore, capture of a bird in this trap provides strong evidence for egg-destroying behavior.

RESULTS AND DISCUSSION

In 15 d of trapping in two male Bewick's Wren territories, I captured six Bewick's Wrens (two males, two females, and two young of the year). I marked these birds with color bands, released them and occasionally observed their movements for several days to establish their origin. The adults were residents from the two territories and the young birds were from a fledged brood still being fed by one pair. Although eggs were covered with glue, one male apparently punctured one egg presumably before triggering the trap. The only other bird that I captured in the two territories was a female Brown-headed Cowbird (*Molothrus ater*). Parasitic female cowbirds are well known to remove or damage eggs in host nests (e.g., Friedmann 1963, Payne 1977). The fact that adult male and female Bewick's Wrens and two of their young (fully grown fledglings) responded positively to eggs suggests that, as in Marsh Wrens (see Picman 1977a), both sexes and even juvenile Bewick's Wrens exhibit the egg-destroying behavior.

This study provides the first evidence of egg destruction by Bewick's Wrens. That the six Bewick's Wrens accidentally triggered the traps seems unlikely. First, one of the adult males apparently punctured the hardened egg. Second, all adult Bewick's Wrens in the two territories were trapped, but no other birds occurring in this area, with the exception of the female cowbird, were captured (passerines in the area included Song Sparrows, *Melospiza melodia,* Yellow Warblers, *Dendroica petechia,* American Robins, *Turdus migratorius,* Bushtits, *Psaltriparus minimus,* and Bohemian Waxwings, *Bombycilla garrulus*). There is a need, however, for a large-scale investigation that would examine stimuli that elicit the egg attacks, establish how widespread this behavior is within and between populations of this species, and examine the ultimate causes of this behavior in Bewick's Wrens.

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