

FIRST DESCRIPTION OF THE EGG AND NOTES ON THE NEST OF THE CINNAMON-TAILED SPARROW (*AIMOPHILA SUMICHRASTI*)

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Primera descripción del huevo y notas sobre el nido del Zacatonero Istmeño (*Aimophila sumichrasti*).

Key words: Cinnamon-tailed Sparrow, *Aimophila sumichrasti*, breeding, egg, nest.

The Cinnamon-tailed Sparrow (*Aimophila sumichrasti*) is a generally common resident endemic to arid lowland scrub of the Isthmus of Tehuantepec region in southeastern Oaxaca and extreme southwestern Chiapas, Mexico, from sea level to 900 m elevation (Wolf 1977, Binford 1989, Howell & Webb 1995, AOU 1998). Owing to its restricted range and the continued destruction of its habitat, the Cinnamon-tailed Sparrow is considered a federally endangered species (Diario Oficial de la Federación 2002) and an internationally near-threatened species (BirdLife International 2004). Despite the species's abundance within its range, little is known of its life history and its eggs have not been described (Wolf 1977, Howell & Webb 1995). Although Howell & Webb (1995) reported the nest of this species as apparently undescribed, Wolf (1977)

outlined basic details of nest placement, dimensions and composition of four nests discovered near Tehuantepec, Oaxaca. Here, we present the first description of an egg of the Cinnamon-tailed Sparrow with detailed notes on a nest.

On 31 August 2005, the authors encountered a Cinnamon-tailed Sparrow carrying nesting material c. 1500 m northeast of La Venta, Oaxaca (16°34'00"N, 94°48'25"W), at approximately 70 m elevation. From a distance of about 15 m and using 10x binoculars, the material the bird carried resembled four long dry pine needles, although no pines exist in the region. The nest-building individual remained perched in plain view for approximately 2 min before dropping into a thick patch of low shrubs. To avoid disturbance, the authors did not investigate further until a return visit 20 days later, on 20 September 2005; on close approach to the presumed nesting area within the low shrubs, a Cinna-

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FIG 1. The nest of the Cinnamon-tailed Sparrow (*Aimophila sumichrasti*) in dense *Lantana birta*, near La Venta, Oaxaca, 22 September 2005.

mon-tailed Sparrow was discovered sitting on a nest. Two days later, on 22 September 2005, the authors returned to find the nest without an attending parent, eggs or chicks. Upon closer inspection, one empty though nearly intact egg was discovered on the ground underneath the nest, the nest appearing to have been depredated.

The nest and egg were photographed, measured and collected. The oval-shaped open cup nest had the following dimensions: external height 64.1 mm, external length 122 mm, external width 83 mm, interior depth 37.5 mm, interior length 78.3 mm, interior width 42.5 mm. The nest had been constructed in the fork of a *Lantana birta* plant 35 cm from the ground, the nest plant measuring 55 cm tall and its leaves shielding the nest

from above (Fig. 1). The nest's outer materials consisted of dead grass stems and blades, vine stems and sorghum sheaths and the inner materials contained many leaf stems of a Leguminosae plant (what the authors thought resembled pine needles) and a few leaf parts of a *Hechtia* bromeliad. The sole egg was ovate in shape, pure white in color without gloss or markings, and measured 21.0 mm in length and 15.2 mm in breadth.

The immediate vegetation surrounding the nest location was composed of small islands of primarily *Acacia collinsii* averaging 2.0 m in height intermixed with mostly *Lantana birta* and *Croton* spp. averaging 0.5 m in height, and criss-crossed with multiple cattle trails. Located within 0.5 m of the southern edge of a thick patch of *Acacia collinsii*, we

hypothesize the nest location was elected for protection from the area's strong north winds. Large sorghum wheat fields were located approximately 90 m west and 20 m south of the nest site, and 70 m to the east was a moderate-sized patch of seasonally tropical dry forest. At least four other Cinnamon-tailed Sparrow territories surrounded the depredated nest, although after a brief search no other active nests were encountered. From our observations at La Venta, the Cinnamon-tailed Sparrow appears to occasionally form clustered territories, as per the Rufous-crowned Sparrow (*Aimophila ruficeps*) (Collins 1999). Wolf (1977) made no mention of such territory groupings for the species.

The egg was laid presumably between the date the nest-building individual was seen (31 August) and the discovery of the egg (22 September), coinciding with the dates of presumed second clutch attempts observed by Wolf (1977). Due to depredation the authors were not able to determine the clutch size of the nest. Local farmers communicated to the authors that the rainy season that year had arrived very late, commencing just before our arrival in late August. As suggested by Wolf (1977), the Cinnamon-tailed Sparrow may synchronize its breeding with the onset of the rainy season, as per several other species of the genus *Aimophila* (Webb & Bock 1996, Dunning *et al.* 1999, Lowther *et al.* 1999).

The egg is similar in color, lack of markings and dimensions to those of other *Aimophila* species (Groschupf 1992, Webb & Bock 1996, Collins 1999, Palacios-Silva *et al.* 2005), and does not resemble the eggs of either Bronzed (*Molothrus aeneus*) or Brown-headed (*Molothrus ater*) cowbirds (Lowther 1993, Lowther 1995), both of which are resident in the region. Although little has been published on the breeding biology of Mexican species of *Aimophila*, the egg appears most similar to described eggs of the four other members of the *Haemophila* group, as defined in Wolf

(1977) (Rowley 1962, Lowther *et al.* 1999, Palacios *et al.* 2005). While mean egg measurements for the Rufous-winged Sparrow (*Aimophila carpalis*) are smaller than those of the Cinnamon-tailed Sparrow, the largest of its eggs are comparable in proportions to the egg we discovered (Lowther *et al.* 1999). Increasing egg description samples for Mexican *Aimophila* species may help to show more conclusively similarities within the genus.

The nest of the Cinnamon-tailed Sparrow we discovered is similar in composition, dimensions and placement to the described nests of several *Aimophila* species; however, notably absent was animal hair in the nest lining, a material commonly used by most other species in the genus (Wolf 1977, Groschupf 1992, Howell & Webb 1995, Collins 1999, Dunning *et al.* 1999, Palacios-Silva *et al.* 2005). As per the egg type, the nest appears most similar to those of other *Haemophila* members, particularly in their consistent elevated placement (Wolf 1977, Palacios *et al.* 2005). The Cinnamon-tailed Sparrow nests described in Wolf (1977) are similar in basic composition, dimensions and general placement to the nest we discovered, including a common lack of animal hair in all but one of the four nests. The nest and egg were deposited at the Institute of Ecology, A.C. in Xalapa, Veracruz without catalogue number.

The greatest apparent threat to the Cinnamon-tailed Sparrow is the continued alteration of its habitat for agriculture and cattle pasture. The proposed mass establishment of wind turbines throughout the Isthmus of Tehuantepec region may contribute to habitat degradation via wind tower and road construction, thus further fragmenting the last of the area's remaining arid thorn scrub habitat. Of note, the authors returned to the site in the spring of 2006 to discover a wind tower 10 m from the nest location and all vegetation within a 20 m radius of the tower had been cleared and covered with gravel. While the

Cinnamon-tailed Sparrow may be common where suitable habitat exists and is tolerant of some human disturbance (Wolf 1977, authors' pers. observ.), analysis of satellite images indicate the Cinnamon-tailed Sparrow near La Venta presently inhabits small islands of arid scrub amid seas of sorghum wheat and cattle pasture. The range of the Cinnamon-tailed Sparrow does not fall within any protected area nor is it included in any of Mexico's Important Bird Areas (or AICAS, in Mexico), though it has been recently considered a species of hypothetical occurrence in La Sepultura Biosphere Reserve (H. Gómez de Silva pers. com.). Continued fragmentation of this species's habitat may result in the decline of the Cinnamon-tailed Sparrow due to loss of breeding habitat and high predation rates as the result of increased scrub edge, habitat degradation and human encroachment.

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