



SHORT NOTE

FIRST DESCRIPTION OF THE NEST AND EGG OF THE STIPPLE-THROATED ANT-WREN (*EPINECROPHYLLA HAEMATONOTA*) FROM PERU

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ABSTRACT · The life histories of most *Epinecrophylla* antwrens are poorly known. I describe the first nest and egg of the Stipple-throated Antwren (*E. haematonota*), which was found in the southern lowland rainforest of Amazonian Peru. The closed and globular nest was located 0.33 m from the ground, and was laterally supported by palm fronds. The single egg was off-white and partially covered by dark magenta spotting. The nest and egg descriptions match other *Epinecrophylla*, but differ from *Myrmotherula*. The results support the split of *Epinecrophylla* from *Myrmotherula*.

RESUMEN · Primera descripción del nido y huevo del Hormiguerito Dorsirrojo (*Epinecrophylla haematonota*) en Perú

La biología de casi todas las especies de hormigueritos del género *Epinecrophylla* es muy poco conocida. Aquí describo el primer nido y huevo del Hormiguerito Dorsirrojo (*E. haematonota*), encontrado en el sur de la selva amazónica del Perú. El nido cerrado y de forma globular estaba ubicado a 0,33 m del piso, con soporte lateral de cañas de palma. El único huevo era blanco con manchas magentas. La descripción del nido y huevo es similar a las de otras especies de *Epinecrophylla*, pero diferente de *Myrmotherula*. Estos resultados apoyan la identidad de *Epinecrophylla* como género separado de *Myrmotherula*.

KEY WORDS: Eggs · *Epinecrophylla haematonota* · Nest · Stipple-throated Antwren · Thamnophilidae

INTRODUCTION

The genus *Epinecrophylla* contains eight species of antwrens (Family Thamnophilidae), which are characterized by a “stippled” throat pattern, brownish body plumage, dead-leaf foraging specialization, and a high-pitched series of notes as the loudsong (Hackett & Rosenberg 1990, Zimmer & Isler 2003, Isler *et al.* 2006). The genus was recently split from the *Myrmotherula* complex to reflect physical, behavioral, and genotypic differences (Isler *et al.* 2006).

Life histories of *Epinecrophylla* are poorly known. The physical appearance and placement of the nest and eggs affect nest defense strategy, and adults invest significant resources to constructing the nest and incubating eggs (Montgomery & Weatherhead 1988, Rompré & Robinson 2008, Evans & Stutchbury 2012). There are nest and egg descriptions for only three of the eight species of *Epinecrophylla*: Checker-throated (*E. fulviventris*), Brown-bellied (*E. gutturalis*), and Rufous-tailed Antwren (*E. erythrura*; Skutch 1969, Oniki & Willis 1982, Zimmer & Isler 2003). The nest and eggs of the Stipple-throated Antwren (*E. haematonota*), the type species of the genus *Epinecrophylla*, remain to be described (Isler *et al.* 2006).

The Stipple-throated Antwren is common to uncommon in the lowland rainforest of the western to central Amazon Basin in Venezuela, Colombia, Ecuador, Peru, and Brazil (Restall *et al.* 2007, Schulenberg *et al.* 2007). It is geographically variable in physical appearance and vocalization, and potentially contains up to four distinct populations that may represent species (Whitney *et al.* 2013, Remsen *et al.* 2015). The male of the nominate *haematonota* has a gray breast and auriculars, a buffy belly, a black throat with white stippling, a deep-red back, brown to black upperwings with pale-tipped coverts, and a brown cap and tail. The plumage of the female is muted compared to the male, the throat is lightly streaked gray without any stippling pattern, and her underside is extensively buffy. Its song is even-paced, and rises, then falls in pitch (Clements & Shany 2001, Schulenberg *et al.* 2007, Whitney *et al.* 2013). It forages by probing dead leaves for insects (Rosenberg 1993). Here I provide the

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first nest and egg description of the Stipple-throated Antwren in southeastern Peru, and compare the nest and egg to other *Epinecrophylla* and other thamnophilids.

METHODS

During May–July 2015, I was conducting fieldwork on the behavioral ecology of mixed-species flocks at Los Amigos Biological Station in Madre de Dios, Peru (12°34'38"S, 70°05'06"W, 350 m a.s.l.). The site sits among at least 1456 km² of primary rainforest. I found the nest on 23 July 2015 at 15:00 h PET when I flushed a male Stipple-throated Antwren that appeared to take flight less than a meter from my legs. I viewed details of the antwren's plumage through Zeiss 10x42 binoculars. I found the nest with two eggs within five minutes after flushing the antwren. I left the area immediately so as not to disturb the nest site. I revisited the nest on 24 July 2015 between 07:00–10:00 h, on 25 July between 10:30–11:30 h, and once during the night for 5 min on 27 July at 20:15 h. Observations at the nest were made from a hide 10 m away from the nesting site. Measurements of nest were taken on 24 July, using a millimeter ruler and egg mass with a tubular spring scale to the nearest 0.125 g. In the present manuscript, I use nest-type terminology following Simon & Pacheco (2005).

RESULTS

The nest corresponds to a closed, globular shape that was supported laterally with a lateral entrance. It resembled a simple cup with a domed roof and side entrance (Fig. 1A), and was built among adjacent palm fronds in the understory of *terra firme*. The nest was suspended between two fronds of *Geonoma* sp. (Arecaceae), one of which was dead. The stems and blades of the fronds ran through the walls of the nest (Fig. 1B). The highest fronds of the palm reached 2.5 m above the ground. The interior of the nest was composed of strips of palm leaves and pieces of other monocot and dicot leaves. The exterior of the nest was composed of large leaves interwoven by strips of palm leaves and rootlets. The canopy above the nest was closed, and surrounding plant species included *Psychotria* sp. (Rubiaceae) and some aroids.

The nest was 0.33 m from the ground, and had an outer diameter 85 mm, inner diameter 42 mm, outer depth 102 mm, inner depth 78 mm, opening diameter 46 mm, opening depth 54 mm. The egg weighed 1.25 g, and was 17.5 mm long by 12.5 mm wide. The egg was white speckled with spots between brick red and dark magenta in color (Fig. 1C). The egg that was missing had a similar appearance when viewed on 23 July.

I saw an adult incubating the nest only once, which was a male on 23 July 2015 at 15:00 h. Two eggs were present in the nest on 23 July, but when I arrived to the nest at 07:00 h on 24 July 2015, the

nest was unoccupied and there was only one egg remaining. The nest did not appear to be disturbed in any way on 24 July. No antwrens visited the nest during my observations on 24–27 July, although the single egg was still present. Unfortunately, the nest appeared to have been abandoned on the day following the discovery of the nest, despite the nest appearing undisturbed. The fate of the second egg remains unclear. Reproductive behavior was not observed.

DISCUSSION

The Stipple-throated Antwren shares the basic, closed nest type with three other *Epinecrophylla*. The Rufous-tailed Antwren builds a dome or furnace-shaped nest (Zimmer & Isler 2003). The nest of the Checker-throated Antwren is a deep pouch with the entrance that faces diagonally upward at the top of the nest. The nest is suspended at the top of the pouch by a fork of a branch (Skutch 1969); it resembles a closed/long/pensile nest. The Brown-bellied Antwren apparently builds two kinds of nests: either a roofed, deep pouch similar to the Checker-throated Antwren or a furnace-shaped nest similar to the Rufous-tailed Antwren (Oniki & Willis 1982, Zimmer & Isler 2003).

The nests of Stipple-throated and Checker-throated Antwren, and the pouched nest of the Brown-bellied Antwren are similar in that they are pouched nests suspended by a couple branches. The nests of Checker-throated and Brown-bellied Antwren differ in that they have higher entrances and are supported at the top of the pouch compared to the side entrance and side support of the Stipple-throated Antwren's nest. The domed or furnace-shaped nests of Rufous-tailed and Brown-bellied Antwren are similar to the nest of the Stipple-throated Antwren; they may differ from each other only by the depth of the inner cup. *Epinecrophylla* members share the characteristics of building their nests suspended by branches or palm fronds, and using dead leaves for the walls of their nests, which gives the nests the non-descript appearance of a messy collection of fallen leaves (Skutch 1969, Oniki & Willis 1982, Zimmer & Isler 2003).

Brown-bellied and Checker-throated Antwrens lay two eggs (Skutch 1969, Oniki & Willis 1982). Along with the present finding, this suggests that a typical clutch size of *Epinecrophylla* is two eggs, as it is for *Myrmotherula*, Thamnophilidae, and many Neotropical passerines (Skutch 1985, Stutchbury & Morton 2001). Eggs of Brown-bellied and Checker-throated Antwren are white with "violaceous" or "purplish-chestnut" spots, respectively, which is similar to the appearance of the Stipple-throated Antwren eggs (Zimmer & Isler 2003). The distance from the ground of Brown-bellied and Checker-throated Antwren nests ranges from 0.4–2 m, and the nest presented in this study was 0.33 m from the ground. Therefore, a distance of 0.3–2 m seems typical of *Epinecrophylla*,



FIG. 1. A) Lateral view facing the opening of the Stipple-throated Antwren nest, B) oblique view through the opening into the nest, and C) egg of the Stipple-throated Antwren. The black ticks in C are millimeters. Photographs by the author.

as well as of other thamnophilids (Zimmer & Isler 2003).

Epinecrophylla was recently split from *Myrmotherula*, in part on the basis of different nest elementary standards (Isler *et al.* 2006). Although the variant types of the four described nests of *Epinecrophylla* differ, they share the closed standard type. In contrast, all described nests of *Myrmotherula* are high cups (Isler *et al.* 2006, Chaparro-Herrera & Ruiz-Ovalle 2014). The shared closed standard type among *Epinecrophylla* and shared cup standard type among *Myrmotherula* further support the hypothesis that *Epinecrophylla* is a group distinct from *Myrmotherula*. Future studies on any aspect of the reproductive behavior of the Stipple-

throated Antwren will shed light on its breeding biology.

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