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THE NEST, EGG, AND NESTLING OF THE DUSKY SPINETAIL (*SYNALLAXIS MOESTA*) IN EASTERN ECUADOR

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El nido, huevo, y pichón del Colaespina obscura (*Synallaxis moesta*) en el este del Ecuador.

Key words: Nest architecture, natural history, Andean foothills, Dusky Spinetail, *Synallaxis moesta.*

The genus *Synallaxis* includes 33 species of small, secretive furnariids which are distributed throughout Central and South America (Remsen 2003). The Dusky Spinetail (*Synallaxis moesta*) inhabits the lower slope of the eastern Andes (generally 250-1350 m) from Colombia south to northeastern Peru, where it is generally found associated with the dense undergrowth of forest borders and disturbed habitats (Hilty & Brown 1986, Ridgely & Greenfield 2001, Remsen 2003). Remsen (2003) recognized three subspecies; two (*moesta* and *obscura*) are restricted to eastern Colombia, and one (*brunneicaudalis*) ranges from extreme northeastern Ecuador to Peru. Despite the widespread distribution of this speciose genus within Latin America, the nests of many *Synallaxis* spinetails remain undescribed (Remsen 2003). Until now, Dusky Spinetail was among these, and here I describe for the first time the nest, egg, and nestling, from the foothills of eastern Ecuador.

On 3 February 2007, I discovered a nest of Dusky Spinetail (ssp. *brunneicaudalis*) along the road to Mushullacta (00°50'S, 77°34'W, 950 m a.s.l., Napo province, eastern Ecuador). At the time of discover (08:15 h EST), the nest contained a single egg, heavily pipped, and a very young nestling. I weighed the egg and nestling at this time and took nest measurements. Upon my return at 13:00 h, the second egg had hatched and, as it typical of furnariids (Skutch 1996), both adults were feeding the two nestlings. In addition, one adult was bringing in large strips of fresh snake skin, and stuffing them into the small opening I had made in the side of the nest during my examination. During half an hour of observation, an adult fed the nestlings three times and brought snake skin on eight occasions. The following day, I visited the nest at 08:00 h, at which time there were no adults present but both nestlings begged vigorously when I tapped the nest. Curiously, there were a large number of *Cephalotes* sp. ants (Formicidae) cutting up and removing the snake skin, most of which was already gone. The ants did not appear to be disturbing the nestlings. Several weeks later I

FIG. 1. A nest of Dusky Spinetail (*Synallaxis moesta*) in northeastern Ecuador. Upper right inset shows a recently hatched nestling and lower left inset the all-white egg.

returned to collect the nest. At this time the nest appeared intact, but all of the snake skin had been removed. I brought the nest indoors and allowed it to dry for 3 months before taking it apart to examine and weigh its components.

Nest. The nest was a large, retort-shaped, bulky ball of sticks with a long tubular side entrance running nearly parallel to the ground, but angled slightly downward (Fig. 1). The nest and entrance tube were supported by multiple small vines, 1.6 m up in a thick vine tangle, with the nest chamber partially supported by an angled tree trunk. The nest was beside an infrequently traveled road in an area of second growth and agricultural plantations. The main chamber of the nest was roughly circular and c. 20 cm in diameter externally. On top of this was a thick (11 cm tall) pile of leaf material that formed a water-resistant cover. The tubular side entrance tunnel was 15 cm in external diameter and 30 cm long. The internal chamber of the nest was c. 12.5 cm tall and 9 cm wide. The bottom portion of the chamber was thickly lined, and measured 6.5 cm in diameter and 4 cm deep.

Once the nest was dry, I took it apart to examine its components. I carefully separated the chamber lining from the rest of the nest and weighed both sections separately. Dry-weight percentages of the various components are given in Figure 2. The external bulk of the nest weighed 288 g, while the lining weighed only 4 g. The external portion was composed almost entirely of 10-20 cm long

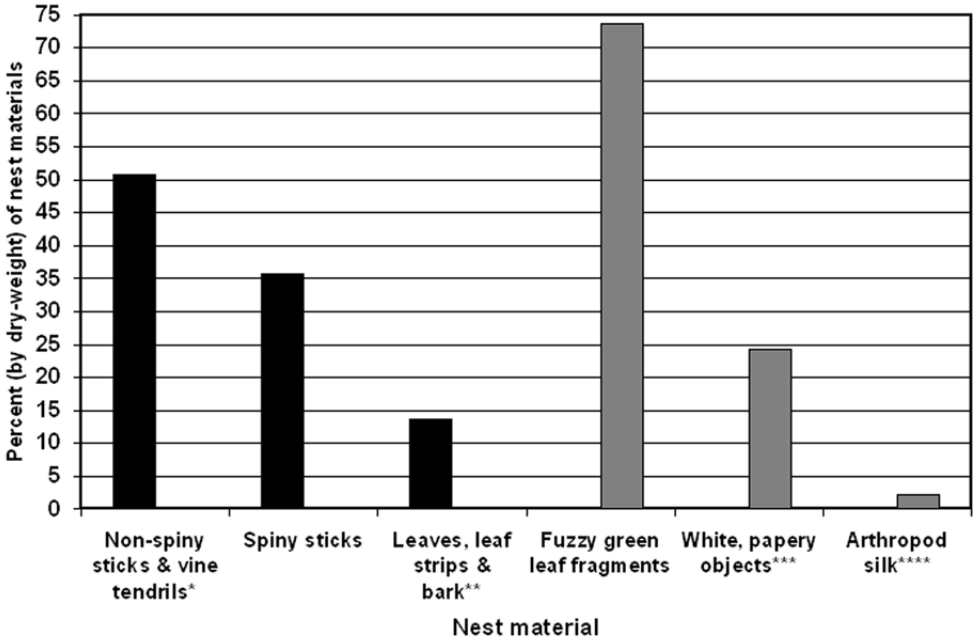

FIG. 2. Percent (by dry-weight) of various materials used in the construction of a Dusky Spinetail (*Synallaxis moesta*) nest in eastern Ecuador. The external portion of the nest (black bars) was considered separately from the internal cup lining (grey bars).

sticks, with a few vine tendrils. The leafy material piled on top of the nest chamber was comprised of dead dicotyledon leaves, palm leaf strips (Arecaceae), skeletonized leaves, and bark strips. The internal lining was mostly soft, fuzzy pieces of partially dried green leaves, with a lesser portion of other soft materials such as pale, paper-like pieces of dry leaves, plastic, mushroom fragments, and orthopteran wings. The smallest component of this lining was a combination of both spider egg sacs and lepidopteran cocoon silk.

Egg and nestling (Fig. 1). The hatching egg (24.1 x 16.5 mm) was immaculate white and weighed 3.3 g. The nestling was pink-skinned, with dark grey down plumes. Its bill was yellow-orange with well-differentiated yellow-white rictal flanges, and a bright yellow mouth lining. The cloaca was yellowish, but not distinctly different from the skin around it. The nestling weighed 3.4 g, suggesting it had hatched very recently. Its tarsus measured 7 mm. Not surprisingly, both the egg and nestling are similar to those described for other species of *Synallaxis* (e.g., Bosque & Lentino 1987, Skutch 1969, 1996).

Conclusions. The overall structure of the nest comes as no surprise, and is similar to nests described for other *Synallaxis* (Lea & Edwards 1951, Miller 1963, Belton 1984, Bosque & Lentino 1987, Balchin 1996, Simon & Pacheco 1996). Other *Synallaxis* nests show variation in the percentage of spiny vs. non-spiny sticks used (Vaurie 1980, K. Zyskowski pers. com.), but this aspect of *Synallaxis* nest architecture is rarely quantified. Similarly, there is a good deal of between-species variation in the materials used for cup linings. Like

Dusky Spinetail, several other species are known to use green leaf fragments, often combining these with reptile skin or nearly any type of soft pale material (e.g., Skutch 1969, Bosque & Lentino 1987, Balchin 1996). The quick removal of snake skin by ants suggests that this material may be infrequently used in this area, and may explain why this material was absent from the cup lining.

At first glance, the nests of this diverse genus appear to be architecturally uniform, especially when compared to the diversity seen in the rest of the Furnariidae (Zyskowski & Prum 1999). I encourage others, however, to carefully describe nests of this and other *Synallaxis* species, with particular attention paid to the percentage of spiny vs. non-spiny sticks, as well as the composition of the nest lining. These characters, and other architectural details, will likely prove to be the most phylogenetically informative within the genus *Synallaxis* (pers. observ., K. Zyskowski pers. com.).

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