

OBSERVATIONS ON THE NESTING OF SPOT-BACKED ANTBIRD (*HYLOPHYLAX NAEVIA*) IN EASTERN ECUADOR

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Observaciones sobre el nido del Hormiguero dorsipunteado (*Hylophylax naevia*) en el este del Ecuador.

Key words: *Hylophylax naevia*, Spot-backed Antbird, feeding rate, nest, hatching, nestling, egg, parental care.

Hylophylax antbirds are a small genus of plump, short-tailed antbirds ranging from Honduras to northern Bolivia, generally below 1100 m elevation, and often associated with ant swarms (Hilty & Brown 1989, Ridgely & Tudor 1994, del Hoyo *et al.* 2003). The Spot-backed Antbird (*H. naevia*) ranges from southeastern Colombia, southern Venezuela and the Guianas to eastern Ecuador and Peru, and northern Bolivia and Amazonian Brazil (Ridgely & Tudor 1994). *Hylophylax n. teresae* occurs from eastern Ecuador, south of the Rio Napo, to northeastern Peru and east to southwestern and southcentral Brazil, generally in *terra firme* forest below 700 m, but occasionally as high as 1250 m (Ridgely & Greenfield 2001, del Hoyo *et al.* 2003). What is known of its nesting has recently been summarized in del Hoyo *et al.* (2003), mostly from unpublished observations. Ecuadorian data include active nests from late April to May and September, but other observations support breeding throughout the year in this area. Here I provide observations on parental care at a single-nestling nest from

Ecuador, as well observations from five additional nests.

On 26 August 2003, I encountered three nests, each with incubation underway, at the Tiputini Biodiversity Station (0°45'S, 75°45'W, elev. 250 m), located in the Sucumbios Province, on the south side of the Napo River, in eastern Ecuador (see Freiberg & Freiberg 2000 for a complete site description). I found three additional nests in the private reserve of the Mushullacta community (00°22'S, 78°08'W, elev. 1150 m) near the Napo-Galeras portion of Sumaco National Park. I found all of these nests from 3–11 April 2005, and all were well within primary forest. Of these, two were incubating and one contained a very young nestling.

All nests were thick, messy, fungal rhizomorph and rootlet cups (with much dead leaf debris attached) slung between two horizontal branches arising from the main trunk of small saplings. In all cases the two sides of the nest were attached to branches leaving the trunk at a roughly 90° angle to each other and at different levels, one above the other (mean

distance between the two 8.5 cm, range 4–15 cm). In the single exception the lower portion of the nest was attached directly to the stem at a vertical Y branching. Mean nest height was 88 cm (range = 40–111) and mean supporting sapling height was 120 cm (range = 1–150). Mean nest measurements (cm \pm SD) for 4 nests were: outside height 6.8 ± 1.0 , outside width 7.0 ± 0.8 , inside width 4.8 ± 0.2 , inside depth 4.8 ± 0.2 , tail of material below nest 24.0 ± 15.0 , supporting branch diameter 0.5 ± 0.1 , diameter of sapling at nest height 0.9 ± 0.3 . Three nests were in unknown, but different, species of woody saplings, and others were in *Pourouma* (Cecropiaceae), *Piper* (Piperaceae), and unknown Rubiaceae saplings, respectively. All three nests at Tiputini were situated at or near the bottom of 3–5 m deep depressions and 0.75–8 m from small streams. The three nests at Mushullacta were also in small depressions, none of which contained running water. They were, however, 10–40 m from small streams. One nest was built immediately adjacent to, and slightly below, what appeared to be an old nest of this species, and incorporated some material from this structure. At the Tiputini, two of the nests, while separated by a 4–5 m high ridge of land, were found along the same winding stream and situated no more than 40 m apart in a straight line.

Five nests contained a single, buffy white egg, heavily streaked and spotted with dark red-brown such that most of the ground color was obscured. Mean egg measurements were (\pm SD) 19.9 ± 1.2 by 14.5 ± 0.4 mm (range = 19.0–21.8 by 14.1–15.0 mm). Both sexes were incubating at all of these nests.

The newly hatched nestling at Tiputini and the young nestling found at Mushullacta were nearly identical in appearance. Their skin was black, including the legs, feet, and cloaca. Their gapes were pale yellow-white with black mandibular tips and the mouth linings were bright yellow.

On 27 August at Tiputini, the egg in one nest hatched and behavior at this nest was videotaped from 05:30 h to 18:30 h on 27 and 28 August. A video camera was placed on a tripod, slightly above the level of the nest, approximately 5 m from the nest. Adult behavior appeared unaffected by the camera and, while aware of my presence, adults did not flush from the nest during my activity at the camera.

Of the 60 prey items offered to the nestling by the adults, only seven were estimated to be larger than 5 mm in length. Because of the small size of the prey items, none were able to be identified, but appeared to be small winged insects. On several occasions, especially on the day of hatching, the adults brought food that was not fed to the nestlings. In each case, after up to 45 s perched on the rim with prey, occasionally nudging the nestling, the adult ate the prey item. On most occasions, when adults were switching places at the nest, a soft squeaking sound was produced by one or both of the adults, and appeared to signal the approach of one and the awareness of the other.

On 27 August, while setting up the camera, the female was seen sleeping on the nest, which she left before 06:05 h. No adult visited the nest until 06:40 h, when the female arrived and removed the egg shell. This was the first indication that the egg had hatched and from this time until 18:00 h, adults brooded the nestling for 78% of the day. On-bouts averaged (\pm SD) 18.8 ± 16.1 min and off-bouts averaged 5.2 ± 5.5 min. The longest period the nestling remained uncovered was 20.1 min. On 28 August the female left the nest for the first time just after 06:00 h. Until 18:00 h the adults again brooded the nestling for 78% of the day. On bouts averaged 21.2 ± 16.6 min and off-bouts averaged 5.9 ± 7.7 min. The nestling was never left uncovered for longer than 36.9 min. The male performed 69% of the brooding on 27 August

and 56% on 28 August.

On 27 August the female made 14 trips to the nest while the male made 24 trips. The female arrived without food on half of these trips and was unsuccessful at feeding the nestling on an additional three trips. The male arrived only twice without food and unsuccessfully offered food on seven trips. Thus, throughout the day the nestling was fed a total of 15 times by the male and only four times by the female. The male retrieved and ate two fecal sacs and the female ate one. On 28 August the female made 12 trips to the nest, arriving without food only twice. She successfully fed the nestling nine times. The male made 22 trips and arrived only once without prey. He was successful in all of his attempts to feed the nestling. The nestling was fed 30 times during the day and produced six fecal sacs, three of which were eaten by the male and three by the female.

While brooding, the female, but never the male, was observed to occasionally stand and peer into the nest. After standing, she frequently leaned into the nest and rapidly thrust her bill in and out of the lining of the nest. This behavior has been observed in a variety of species including Bicolored Antvireos (*Dysithamnus occidentalis*) (Greeney 2004), and Scaled Antpitta (*Grallaria guatemalensis*) (Dobbs *et al.* 2003). Various functions of this behavior, including parasite removal and egg rolling, have been postulated (Halforn 1994, Dobbs *et al.* 2003).

While del Hoyo *et al.* (2003) give the clutch size for the Spot-backed Antbird as 1–3, “probably most often 2,” they also note that one-egg nests were most frequently reported from French Guiana but that a nest with three young was found in Ecuador. Until more information is published it is difficult to speculate on the normal clutch size in Ecuador. It is reasonable to believe, however, that there may be seasonal variation in clutch size, reflecting varying resources, in a species

potentially breeding year-round.

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