

**THE NEST AND NESTLINGS OF THE LONG-TAILED
TAPACULO (*SCYTALOPUS MICROPTERUS*) IN ECUADOR**

El nido y pichones del Churrín Colilargo (*Scytalopus micropterus*) en Ecuador

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ABSTRACT

We describe two nests of the Long-tailed Tapaculo (*Scytalopus micropterus*) from the eastern Andes of Ecuador, on the slopes of Sumaco Volcano. One was a typical ball of moss built inside a cavity within a fallen log. The other was an undomed cup built inside an earthen cavity, accessed through a short earthen tunnel. We suggest neither cavity was excavated by the adults. We provide the first detailed description of the nestlings of *Scytalopus* and make observations on the loud, insect-like begging calls of the nestlings. Our video observations at one nest show that both adults cared for nestlings and provisioned young with large arthropods.

Key words: Long-tailed Tapaculo, nest, nestlings, parental care, *Scytalopus micropterus*.

RESUMEN

Describimos dos nidos del Tapaculo Colilargo (*Scytalopus micropterus*) de los Andes orientales de Ecuador, en una ladera del volcán Sumaco. Un nido era una estructura esférica construida de musgo dentro de una cavidad en un tronco caído. El otro era una taza sin techo construido dentro de una cavidad en la tierra al final de un túnel corto. Sugerimos que ninguna de las dos cavidades fue excavada por los adultos. Suministramos la primera descripción detallada de los polluelos de *Scytalopus* y describimos los reclamos fuertes y similares a los sonidos de ciertos insectos, usados por los polluelos para pedir alimento. Videograbaciones en un nido muestran que ambos adultos cuidan los polluelos y los alimentan con artrópodos grandes.

Palabras clave: cuidado parental, nido, polluelos, *Scytalopus micropterus*, Tapaculo Colilargo.

The genus *Scytalopus* contains around 40 species distributed from Costa Rica to Tierra del Fuego (Krabbe & Schulenberg 2003). The Long-tailed Tapaculo (*Scytalopus micropterus*), formerly considered conspecific with Rufous-vented Tapaculo (*S. femoralis*), ranges from eastern Colombia to northern Peru (Krabbe & Schulenberg 2003). Little is known of the breeding biology of the genus, but described nests are globular structures of grass, moss, or roots (Sclater & Salvin 1879, Johnson 1967, Skutch 1972, Stiles 1979, Hilty & Brown 1986, Rosenberg 1986, Sick 1993, Krabbe & Schulenberg 1997, Christian 2001, Young & Zuchowski 2003), usually placed underground among roots or in an earthen cavity. Here we describe two nests with nestlings of the Long-tailed Tapaculo, from the slopes of Volcán Sumaco in Ecuador.

Observations were made during December of 2002, near the town of Pacto Sumaco on the northern slope of Volcán Sumaco, Napo Province, northeastern Ecuador. Description of nestling pterylosis follows Proctor & Lynch's (1993) synthesis of methods developed by Miller (1928) and Stewart (1953).

NEST LOCATION AND CONSTRUCTION.- We encountered the first nest at 11:30 h (EST) on 3 December; it contained two nestlings, and no adults were seen or heard in the area at the time of discovery. However, adults seen and heard subsequently at the nest site were definitely *S. micropterus* and no other species is to be expected (N. Krabbe, pers. comm.). The nest was at an elevation of 1750 m in a small stream valley 1 m

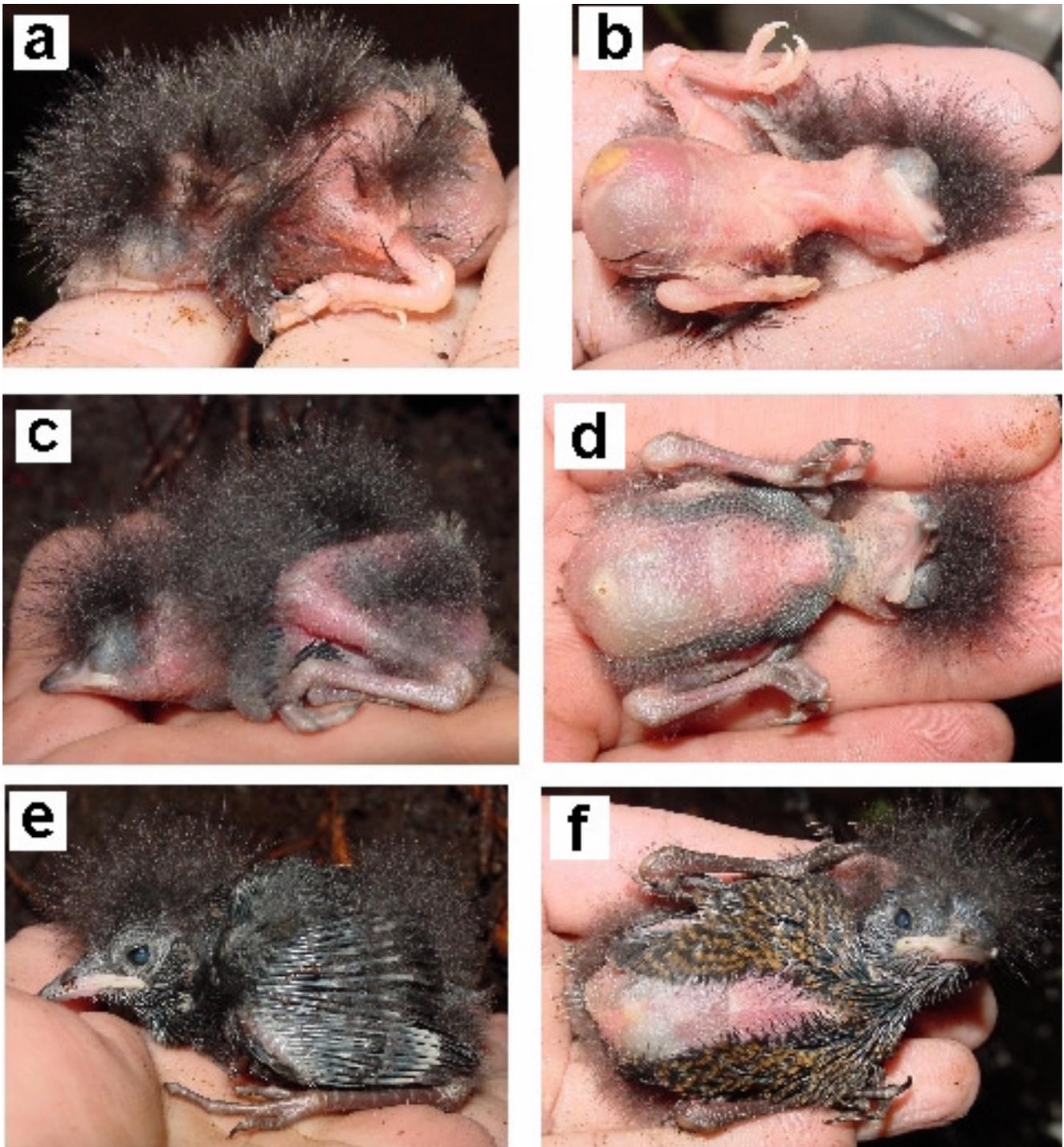


Figure 1. Nestlings of the Long-tailed Tapaculo, *Scytalopus micropterus*, December 2002, Volcán Sumaco, Ecuador. **a & b.** Lateral and ventral views of young nestling: nest 2, 10 December. **c & d.** Lateral and ventral views of mid-aged nestling: nest 1, 3 December. **e & f.** Lateral and ventral views of older nestling: nest 1, 10 December. Photos by HFG.

from the 1-2 m wide stream. Canopy cover in the area was fairly intact and consisted of 30-40 m, heavily epiphyte-laden trees. The understory was dense to fairly open immediately surrounding the nest and dominated by various species of Melastomataceae, Rubiaceae, Solanaceae, and Urticaceae.

Surprisingly, this first nest was not a globular structure, but instead a simple cup of moss and rootlets, whose inner dimensions were roughly 9 cm wide by 4 cm deep. This nest was built inside a cavity 1.6 m up under the top of a 45° angled root mass of an overturned tree. The soil here was

clay-like and sticky. The inside dimensions of the cavity were estimated to be roughly 9-10 cm wide and 10-11 cm high. The inner surface was uneven across the top and sides and the cavity appeared to be natural. The cavity was entered via a 9 cm long tunnel measuring 10 cm wide by 7 cm high. The entrance was overhung by roots, dirt, and vegetation such that it was necessary to peer under these obstructions to view it.

On 10 December we discovered a second nest, approximately 1 km away, also at 1750 m elevation. At 11:30 h an adult was flushed from the nest and remained nearby making a repeated scolding *chuck!* and approaching to within 1 m of the observer. Unlike the first, this nest was a globular ball. It was located within a small stream valley and was built inside a natural cavity in the broken trunk of a 60-70 cm diameter tree lying across the 1 m wide stream. It was well concealed below the trunk such that it was visible only from below. The cavity was 1 m above the water and the vegetation surrounding the nest was dense and tangled, dominated by *Ortiga* sp. (Urticaceae) and various species of vines. The exact dimensions of the cavity could not be determined but it appeared to have been unmodified by the birds. The opening measured 7 cm wide by 5.5 cm tall with the lip of the egg cup at the opening edge. The nest was a ball constructed entirely of dark rootlets and moss, filling all visible parts of the cavity. The egg cup appeared unlined and measured 9 cm in diameter by 4 cm deep.

NESTLING DESCRIPTIONS.- At the second nest, on 10 December at 11:30 h the two similar-sized nestlings weighed 10 g together and their tarsi measured 10.0 mm and 10.1 mm respectively (Fig. 1a, b). Except for barely visible development of the ventral sternal tract, contour feathers had not yet begun to develop. The eyes were closed and only partially slitted. Otherwise, the nestlings were extensively covered with black down. The down was concentrated into distinct regions, effectively covering the majority of the dorsum. On the head the down was broken into one large, well defined patch on the crown and forecrown as well as three much smaller patches on the hindcrown. On the back, the largest and densest patch was located on the dorsal spinal and scapular area with a large patch on each femoral tract and three small patches in the pelvic spinal region. Large patches, nearly joining with the dorsal spinal-scapular patch, ran along the leading dorsal edge of the humerus to the wrist joint. Additionally, small sparse tufts adorned the cural region. The skin, legs, and feet were pink with the cloaca being only slightly paler whitish than the surrounding skin. The beak was flesh colored except for the tip, which was dark grey with the white egg tooth still present. The gape was white with a pink mouth lining, the same color as the skin. Flight feather development had begun but no pin feathers had broken the skin. These nestlings were not observed further.

The first nest on 3 December contained two nestlings weighing 8.5 g and 8.75 g at 12:45 and with tarsal measurements of 13.0 mm and 13.2 mm respectively. Their bills from the front of the nares measured 2.7 mm and 2.9 mm respectively. In overall appearance they were similar to the younger nestlings at the other nest. Their eyes were closed, but both were able to lift their heads to beg. The skin and legs were pale pink. The bill was white to flesh colored except for the tip, which was dark grey, especially on the upper mandible. The gape was white, and the mouth lining pale pinkish white. The nestlings were patchily covered in dense tufts of long (c. 12 mm) dark grey to blackish down, concentrated on the capital, spinal, femoral, and humeral tracts. Sparser patches of down were located along the primaries, secondaries, and rectrices, as well as the cural and abdominal tracts. Contour feather development was barely noticeable except along the ventral sternal and abdominal tracts, where none had yet broken the skin. Primary and secondary pins were unbroken and approximately 1.5 mm long. This nest was revisited at 08:15 h on 5 December at which time the nestlings weighed 11.0 g and 12.5 g with tarsi measuring 15.6 mm and 16.2 mm and bills at nares 3.4 mm and 3.6 mm respectively. Their appearance was much the same as on 3 December, but contour feathers had begun to break the skin, especially on the ventral sternal tract (Fig. 1c,d). On our final visit on 10 December at 14:15 h, the nestlings weighed 23.5 g and 24.0 g, or roughly 80% of adult weight (Krabbe & Schulenberg 2003). Their tarsi measured 23.2 mm and 25.1 mm while their bills from the front of the nares measured 4.4 mm and 4.6 mm respectively. The nestlings were very alert, with their eyes almost fully open. Their skin was still pink and the gape remained bright white. Mouth linings had darkened and legs had darkened to gray-brown. Some down remained, especially on the capital tract. Contour pin feathers had broken their sheaths, just breaking on the cervical tracts and broken several millimeters on the ventral tracts where their subterminal light-brown bands were apparent. Dorsal contour feathers were predominantly dark gray with some dark brown visible, especially in the cervical region. The vanes of the primaries and secondaries extended some 3-7 mm beyond the broken sheaths, but rectrices were just breaking sheaths (Fig. 1e,f).

OTHER OBSERVATIONS.- Videotape of the nest revealed that both adults fed nestlings as, at one point, the second adult arrived as the first was leaving the nest. In one instance, an adult appeared to bring several small arthropods, but in most cases they brought a single, relatively large prey item (2-4 cm). Prey included large spiders (Araneae) and katydids (Tettigoniidae, Orthoptera). Skutch (1972) implied prey loading during nestling provisioning by the Blackish Tapa-culo *S. latrans*, but our own observations with this and other *Scytalopus* suggest that single prey item delivery is most prevalent within the genus. The begging calls of the nest-

lings, especially the older ones at the first nest, were loud and insect-like. They often anticipated the adults' arrival by a few seconds and continued for several minutes after the adult had left the nest.

The nest consisting of a simple cup differs from the globular structures of all other described *Scytalopus* nests (e.g., Stiles 1979, Krabbe & Schulenberg 1997, Christian 2001, Young & Zuchowski 2003). The nest inside a tree trunk cavity also differs from the earthen cavities described for most other *Scytalopus* (but see description for *S. affinis* in Fjeldså & Krabbe 1990). Skutch (1972) and Young & Zuchowski (2003) suggested that the burrows of the Blackish Tapaculo and the Silvery-fronted Tapaculo (*S. argentifrons*) were excavated by the adults. For the Long-tailed Tapaculo it is possible that some modification of an existing cavity occurred, but doubtful that the entire cavity was excavated by the adults at either nest.

Both nests in this study were adjacent to streams, and in situations nearly identical to those frequently used by Spotted Barbtails (*Premnoplex brunnescens*) at the nearby Hacienda San Isidro (Greeney unpubl.). Despite three years of intensive work on Spotted Barbtails at San Isidro, resulting in the discovery of over 200 nests by HFG, no nests of Long-tailed Tapaculo have been found there, where it is fairly common (M. Lysinger, unpubl.). This suggests that either the nest sites utilized here were atypical, or that there may be population level differences in nesting habits. Further studies of this fascinating and poorly known genus are warranted.

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