

## Nesting of Rufous-capped Motmot *Baryphthengus ruficapillus* in an armadillo burrow

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Se describe un nido excavado en el techo de una gran cavidad que posiblemente perteneció a un tatu. Junto a la galería de *Baryphthengus ruficapillus* en actividad se hallaron otras dos inactivas utilizadas en ciclos reproductivos anteriores. La galería activa medía 2.8 m de largo y poseía una segunda entrada a solo 0.8 m del nido terminal, esta última parecía ser utilizada solo para atender el nido, ya que no poseía trazas de montículo de tierra y era la única que demostraba actividad reciente.

Rufous-capped Motmot *Baryphthengus ruficapillus* occurs from central (Goiás) to east Brazil (Bahia to Rio Grande do Sul), Paraguay and Misiones, Argentina<sup>2</sup>. Like other Momotidae<sup>2,3</sup> it nests in burrows excavated in steep slopes on river banks, but the species also reuses burrows of other animals on slopes; the nest is unlined<sup>2</sup>. Sick's drawing of a nest depicts a 1 m horizontal burrow on a vertical slope ending in a small cavity, where two eggs are laid on bare earth.

I describe a nest found on 11 November 1998, in Iguazu National Park (25°36'S 54°22'W), Argen-



Figure 2. Entrance to the large cavity and branch (tagged) with earth marks used as a perch by *Baryphthengus ruficapillus* (Jorge J. Protomastro)

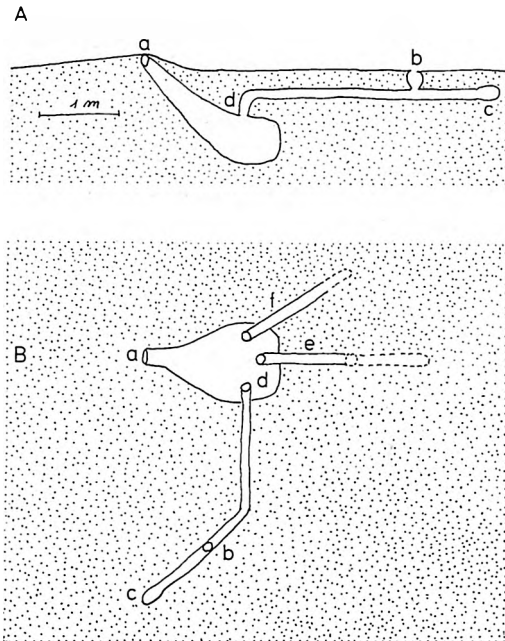


Figure 1 A. Projection of *Baryphthengus ruficapillus* burrow on a vertical plane, with the active burrow displaced from the main axis to depict its junction with the roof of the large cavity; a: entrance to the cavity probably dug by a tatu and used by the motmot to excavate the gallery, b: entrance for nest attendance, c: nest, d: start of active burrow in roof of large cavity. 1B. Projection on the horizontal plane; e and f: inactive burrows.

tina. A week before I had discovered a pair of *Baryphthengus ruficapillus* perched on a small branch near the ground, on C2L5 transect, on part of the Jacaratia trail, c.2 km from La Botera boat port. This area is characterised by tall humid Atlantic Forest of six principal tree species: *Ocotea diospyrifolia* (Lauraceae), *Nectandra megapotamica* (Lauraceae), *Cedrela fissilis* (Meliaceae), *Piptadenia rigida* (Leguminosae), *Holocalyx balansae* (Leguminosae) and *Diatenopteryx sorbifolia* (Sapindaceae). The mound of the motmot burrow was large, as was the cavity below, which was c.1 m in diameter, 0.6 m high and almost 0.5 m<sup>3</sup> in volume (Fig. 1a,b). The perch possessed earth marks typical of burrowing birds (Fig. 2). I assume that the cavity had principally been dug by an armadillo, because motmots usually construct only narrow burrows<sup>2,3</sup>. At the bottom of the cavity there were three narrow burrows, each 12 cm in diameter. I discovered that one was active, ending in a small nest cavity (35 x 14 cm), 2.8 m below the large cavity, without a lining and lacking eggs. The other two burrows were inactive, although they may have been used previously. Motmot pairs do not share burrows<sup>2</sup>. The burrows ran from the large cavity to the nest 25 cm below the surface of, and parallel to, the ground. Active burrows can be noted by the pres-



Figure 3. Small entrance, without earth mound, probably for nest attendance (Jorge J. Protomastro)

ence of a smooth-shining humid surface and cleaned roots in the hole, as in the interior nest cavity and adjacent part of the tunnel, resulting from the frequent passage of the pair. The active burrow had a small entrance (12 x 10 cm), 0.8 m forward of the nest cavity, which also had a smooth-shining surface and cleaned roots (Fig. 3). The entrance to the large cavity and surface of the burrow, from the large cavity to its small entrance, did not possess such a surface. Spider webs were present at the entrance of the large cavity. I assume the entrance to the large cavity was principally used in excavating the burrow, and the small entrance for nest attendance. The inactive burrows did not have clean nest cavi-

ties. The smaller active entrance lacked any traces of an earth mound and was covered by live ferns and herbs, below which was a small globular cavity (15 cm in diameter) that connected the entrance to the nesting burrow. One inactive burrow had a small, closed, entrance, the other none. A gallery with a second entrance, without an earth-mound, has not been described for other species of Momotidae.

*Baryphthengus ruficapillus* is not rare in this forest: I found a mean of 0.006 individuals per point count, against a mean of 0.491 for all bird species (120) based on observations over areas 50 m in diameter and lasting 10 minutes (n=45 censuses, repeated four times in each study area). In a comparative area, 'Cuesta del Tigre' on the Timbó trail, Iguazu National Park, there were means of 0.025 and 0.687 (n=30, repeated four times). Common Long-nosed Armadillo *Dasypus novemcinctus* burrows were abundant, constituting many of the available holes in the area (pers. obs.). Other tatus, such as Greater Naked-tailed Armadillo *Cabassous tatouay* and Yellow Armadillo *Euphractus sexcinctus*, prefer open areas and forest edges'. *Baryphthengus ruficapillus* will excavate burrows at the bottom of cavities probably dug by *Dasypus novemcinctus* far from slopes, a habit that probably decreases predation risk, compared to less protected, open burrows on river banks. Tatu holes increase nesting possibilities where steep slopes are scarce and may offer decreased predation risk if they avoid concentrations of other nesting birds.

## References

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