

### The nest, eggs and nestlings of Grey-chinned Hermit

#### *Phaethornis griseogularis*

*Phaethornis* is one of the largest genera of hummingbirds, with 26 species distributed throughout tropical America<sup>6</sup>. The nests and general breeding biology for most species have been studied, and the genus is well known for its lekking behaviour<sup>6</sup>. The reproduction of Grey-chinned Hermit *Phaethornis griseogularis*, however, is almost completely unstudied. The species ranges from Colombia and Venezuela to northern Peru, at elevations of 600–2,000 m<sup>5,6</sup>. Based on the distributions given by Schuchmann<sup>6</sup> and Ridgely & Greenfield<sup>5</sup>, the nest we studied belonged to *P. g. porcellae*, which taxon is restricted to the Tumbesian region of south-west Ecuador and north-west Peru. Gould<sup>2</sup>, in the plate accompanying his discussion of this species, figured two nests, drawn from examples in his own collection. Although Gould<sup>2</sup> provided no further details or locality data for these nests, they are figured with the nominate subspecies, and thus probably belong to *P. g. griseogularis*. Thus, although the nest of Grey-chinned Hermit has previously been illustrated, this is the first formal description.

On 10 February 2010 we found a nest of *P. griseogularis* at the Jorupe Reserve, near Macará, prov. Loja, south-west Ecuador (04°23'S 79°57'W; 600 m). At 08h45 we flushed an adult from a nest which contained two immaculate white eggs (Fig. 1) that measured 12.27 × 8.05 mm and 12.15 × 7.95 mm, and weighed 0.40 and 0.39 g, respectively. At 16h00 on 13 February, the second egg described above had hatched, but we were unable to detect any pips in the shell of the other egg. The single nestling weighed 0.37 g, indicating that it had hatched only shortly before our arrival. It was pink-skinned, darker dorsally, and bore 11 pairs of beige-coloured natal plumes on its back. At 06h45 the following morning the other egg remained unhatched, but on our return that day at 14h00 the nest contained two nestlings.



Figure 1. Eggs of Grey-chinned Hermit *Phaethornis griseogularis porcellae*, prov. Loja, Ecuador, 10 February 2010 (Harold F. Greeney)



Figure 2. Nestlings of Grey-chinned Hermit *Phaethornis griseogularis porcellae* five and six days old, prov. Loja, Ecuador, 19 February 2010 (Harold F. Greeney)

At this time the newly hatched nestling weighed 0.37 g and the one which was now one day old 0.48 g. We weighed them only once more, on 17 February at 06h45. While we were unable to identify the nestlings individually, one was significantly heavier (0.86 g), and we presume the other (0.65 g) to have been the younger sibling. By six days of age the nestlings were porcupine-like, with contour feather pins emerged from the skin (Fig. 2). These pin feathers began breaking their sheaths by day seven or eight, and the nestlings

appeared well feathered by day 17 or 18. The nest was visited every two days and, on 6 March at 08h40, it still contained two nestlings that appeared very close to fledging. On 7 March, at 15h00, one nestling had left the nest, but we were unable to locate it. The second nestling remained at 08h30 the following day, but was gone by 12h00 on 9 March. Thus, hatching occurred c.24 hours apart and the nestlings fledged at least 24 hours apart, possibly even closer to 48 hours. These observations provide a nestling period of 21–23



Figure 3. Adult Grey-chinned Hermit *Phaethornis griseogularis porcellae* incubating two eggs, prov. Loja, Ecuador, 12 February 2010 (Harold F. Greeney)

days for *P. griseogularis*, similar to that reported for other small *Phaethornis*<sup>3,6-8</sup>.

In typical hermit style, the nest was attached to the underside of a leaf, 1.3 m above the ground (Fig. 3), at the bottom of a small riparian area. The leaf belonged to an unknown species of Lauraceae, and measured c.28 cm long by 6.5 cm wide (max. dimensions). The nest comprised a complex mix of small bark pieces, seed down, small dried flower inflorescences and (predominantly) green moss. It

was bound together and attached to the leaf with copious spider webs, and had a sparse inner lining of soft white seed down (Fig. 1). The front rim (furthest from the leaf) was c.1 cm lower than the portion attached to the leaf. Internally the cup measured 28 mm wide by 24 mm deep at the shallowest point. Externally the nest was 47 mm wide by 38 mm front to back (perpendicular to the axis of the leaf blade). From the back rim of the nest (against the leaf) to the tip of the leaf it measured 49 mm, and 32 mm from the front rim. The nest had a well-formed 'tail' of material dangling below the leaf, which extended 11 cm, with an additional 4 cm of sparse scraps below this.

Unsurprisingly, the nests illustrated by Gould<sup>2</sup> appear very similar to the nest described here, including having the appearance of being composed, at least externally, of moss and seed down. Similarly, the nest of *P. griseogularis* closely resembles, in form and attachment, those of other *Phaethornis*<sup>6</sup>, including two well-studied species thought to be closely related; Stripe-throated *P. striigularis*<sup>4,7,8</sup> and Reddish Hermits *P. ruber*<sup>1,3</sup>. The other two presumed relatives of *P. griseogularis*, Black-throated Hermit *P. atrimentalis* and White-browed Hermit *P. stuarti* still lack published descriptions of their nests.

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#### Harold F. Greeney, Isaac Lichter-Marck and Eli Lichter-Marck

Yanayacu Biological Station & Center for Creative Studies, Cosanga, Napo, Ecuador; c/o 721 Foch & Amazonas, Quito, Ecuador. E-mail: revmmoss@yahoo.com.

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