

**HIGH IN THE ANDES: COLONIAL NESTING OF ECUADORIAN HILLSTAR  
(*OREOTROCHILUS CHIMBORAZO*: TROCHILIDAE) UNDER A BRIDGE**

**Anidación colonial por la Estrella Ecuatoriana (*Oreotrochilus chimborazo*: Trochilidae)  
en los altos Andes**

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**ABSTRACT**

In this note I present information documenting colonial nesting of Ecuadorian Hillstar (*Oreotrochilus chimborazo*) under a concrete bridge in the northern Andes of Ecuador. Eleven nests were found and activity was confirmed in seven of them. In general, nests were similar to those previously described in the literature. Possibly the main factor favoring colonial nesting exhibited by Ecuadorian Hillstar is the restricted number of suitable nesting sites found in the high Andes; the presence of a stream under the bridge may ameliorate the low and variable temperatures at such high elevations.

**Key words:** colonial nesting, Ecuadorian Hillstar, Ecuador, human-made structures, *Oreotrochilus chimborazo*.

**RESUMEN**

En esta nota se documenta la anidación colonial de la Estrella Ecuatoriana (*Oreotrochilus chimborazo*) bajo un puente de concreto en los Andes del norte de Ecuador. Once nidos fueron encontrados y se confirmó actividad en siete de ellos. En general, los nidos fueron similares a los previamente descritos en la literatura. Posiblemente el principal factor que favorece la anidación colonial de esta especie es el número reducido de sitios aptos para anidación encontrados en los altos Andes; la presencia de una quebrada debajo del puente podría amortiguar las temperaturas bajas y variables de estas elevaciones.

**Palabras clave:** anidación colonial, Estrella Ecuatoriana, Ecuador, estructuras antropogénicas, *Oreotrochilus chimborazo*.

The hummingbird genus *Oreotrochilus* Gould 1847 is endemic to the high Andes of South America; it comprises six species which more or less replace each other latitudinally, with some overlap in several taxa (Fjeldså & Krabbe 1990). Species limits have been discussed for the genus (Ortiz-Crespo & Bleiweiss 1982), and basic natural history information was recently summarized (Schuchmann 1999). The northernmost taxon (*O. chimborazo*, Ecuadorian Hillstar) was once considered endemic to Ecuador, but there are recent records documenting its presence in extreme southern Colombia (Woods et al. 1998, Salaman & Mazariegos 1998). Regarding the breeding behavior of Ecuadorian Hillstar, bulky nests have been found in caves, gullies and

rock walls, and have been mentioned as colonial (Corley-Smith 1969). In this note I present information documenting colonial nesting of the Ecuadorian Hillstar under a bridge in the northern Andes of Ecuador, its first reported use of a human-made structure.

On 15 February 2007, while visiting Reserva Ecológica Antisana, Pichincha-Napo (ca. 3900 m, 00°29'S, 78°08'W), I observed several (4-6) female plumaged Ecuadorian Hillstars. The birds were conspicuous as they fed at copiously flowering *Chuquiragua* sp. (Asteraceae) shrubs in the immediate surroundings of the canyon of Jatunhuaico Creek. After 5 min of observation I noticed a pat-



**Figure 1.** Panoramic view of Jatunhaico creek canyon and bridge, Reserva Ecológica Antisana, Pichincha-Napo, Ecuador. Inset: one of the eleven nests of Ecuadorian Hillstar (*Oreotrochilus chimborazo*) found in the underside of the bridge in 2007. Photo: A. Solano-Ugalde

tern in foraging flights, in which females would feed for a minute or so and then return towards the underside of the Jatunhuaico bridge. Upon a closer inspection, eleven nests were found attached to the point where the concrete foundations joined the lower surface of the bridge (Fig 1).

In seven of these nests, only females were observed attending. The remaining nests were apparently not in use at the moment or the young had recently fledged, as the cups exhibited wide-open rims. Four active nests were under the southern end of the bridge: one with two chicks almost ready to fledge, one with two medium-sized chicks, and two in which the females did not move from the nests during the observation period (15 min), which suggested the presence of young chicks or eggs. In the northern end of the bridge, three nests were active: one had young chicks (Fig 2), and the attendance of the females in the area clearly indicated activity at the other two, but the angle of placement of these nests made closer inspection impossible.

In general, the nests were cup-shaped and were located 6-8 m above the ground. Although no specific measurements were taken, the major components of the nests were green mosses externally, feathery awns of paramo grasses, wool from sheep and/or rabbit fur (both common in the area), and interwoven thin grasses. Also, down feathers suspected to be from Andean Gull *Larus serranus* and other



**Figure 2.** Nest with chicks of Ecuadorian Hillstar (*Oreotrochilus chimborazo*), found in 2007 on the underside of the Jatunhaico bridge. Reserva Ecológica Antisana, Pichincha-Napo, Ecuador. Photo: A. Solano-Ugalde.

unknown materials formed the lining (Fig. 2). The cups were bulky and their components seemed important in isolation from the cold nights characterizing the high Andes. The immediate habitat was a canyon with dense elfin forest, supporting a clear-water creek emanating from extensive nearby grassy paramos.

Although the nest of the Ecuadorian Hillstar has been described (Corley-Smith 1969), detailed information is lacking and no documentation was previously available regarding the placement of nests in human-made structures. However, nesting of the Black-breasted Hillstar *O. melanogaster* under roofs of houses was documented in Peru (Fjeldså & Krabbe 1990). The colonial nesting mentioned here is probably a reflection of the limited number of well-protected and suitable nesting substrates available, a conclusion that is in accordance with the information collected by Corley-Smith (1969) on Cotopaxi volcano and in the Guamani pass. Additionally, it is plausible to suggest that the placement of nests in the vicinity of a creek could also ameliorate the sudden changes in temperature during the day and the often below-freezing temperatures at night.

That the breeding biology of *Oreotrochilus* is among the least known of Andean hummingbirds is probably due to the infrequent visits by ornithologists to the areas with the harsh highland climate

inhabited by the members of this genus. More information is therefore necessary, and I encourage others to document any such details that would complement information regarding the breeding of Ecuadorian Hillstar and other members of the genus *Oreotrochilus*.

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#### LITERATURE CITED

- CORLEY-SMITH, G. T. 1969. A high altitude hummingbird on the volcano Cotopaxi. *Ibis* 111: 17-22.
- FJELDSÅ, J. & N. KRABBE. 1990. Birds of the High Andes. Zoological Museum, University of Copenhagen & Apollo Books, Svendborg, Denmark.
- ORTIZ-CRESPO, F. & R. BLEIWEISS. 1982. The northern limit of the hummingbird genus *Oreotrochilus* in South America. *Auk* 99:376-377.
- SALAMAN, P. & L. MAZARIEGOS. 1998. The hummingbirds of Nariño, Colombia. *Cotinga* 10:28-33.
- SCHUCHMANN, K. L. 1999. Family Trochilidae (Hummingbirds). Pp. 468-682 in: del Hoyo, J., A. Elliott & D. A. Christie (eds.). Handbook of birds of the world, vol. 5. Lynx Edicions, Barcelona.
- WOODS, S., ORTIZ-CRESPO, F. & P. M. RAMSAY. 1998. Presence of Giant Hummingbird *Patagona gigas* and Ecuadorian Hillstar *Oreotrochilus chimborazo jamesoni* at the Ecuador-Colombia border. *Cotinga* 10:37-40.

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