

Giant Antpitta *Grallaria gigantea*

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Introduction

The Giant Antpitta inhabits the Andean slopes in Ecuador and southernmost Colombia. It had only been found at a few sites where habitat destruction was known to be advanced, and the latest verified record of the species dated from 1958. All three subspecies, namely *gigantea*, *lehmanni* and *hylodroma* were therefore treated as globally threatened by Collar *et al.*¹, who published all available information on the species. Since then data on its song, habitat and diet have been obtained. The new records, all from Ecuador, are detailed below.

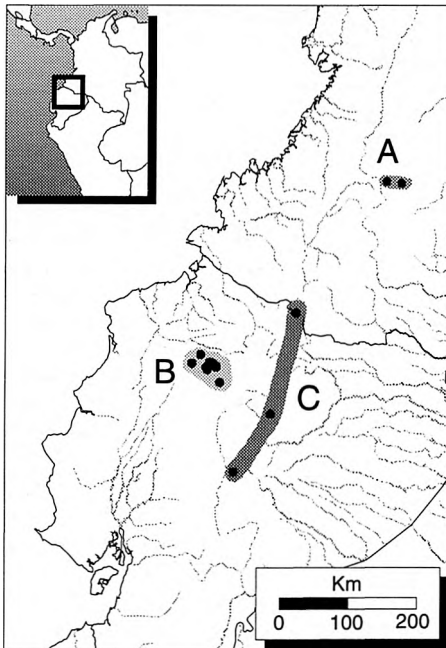
North-western slope of Volcán Pichincha (*hylodroma*):

In early November 1991 Greenfield tape-recorded what he suspected to be Giant Antpittas at 1,730-1,750 m, 1 km south of Tandayapa (0°00'S 78°40'W) along the old road to Mindo. More tape-recordings were obtained there on 6 November 1991 and on 6 and 19-20 January 1994. Natural songs were heard at

dawn, dusk, and during a rainy afternoon. One male was collected after being tape-recorded (Krabbe). They were heard in a ravine, on the steep slopes that were covered with wet mossy forest, and were observed 1-3 m above the ground in patches of mossy understorey, including bamboo. The stomach contained an 6.5 cm long, strongly sclerotized, platyform, black-and-yellow-striped scarabid beetle larva. On 3 December 1993 and 12 February 1994 Matheus observed a Giant Antpitta crossing a track at 1,320 m, 3.1 km south-east of Mindo (0°04'S 78°45'W), in the c.100 m wide plain of Río Mindo. Both slopes were covered by wet, mossy forest, but the plain had only patches of secondary, though still somewhat moss-covered, vegetation.

East slope of East Andes, Napo province - north slope of Cordillera de Guacamayos, Sierra Azul, upper Río Cosanga drainage at Hacienda Aragón (hacienda 0°40'S 77°55'W) (*gigantea*):

In June 1992 Sornoza collected a male that was standing on open pasture, at an elevation of 2,230 m (erroneously given as 2,350 m by Collar *et al.*¹) in the middle of a flat, c.800 m wide, sandy to silty, waterlogged river plain. The wet mossy forest there had mostly been cleared; only small clumps or single trees were left standing in the overgrazed cow pasture, but it was adjacent to untouched forest to the south, where the plain narrowed. In this adjacent forest two more males were collected at 2,250 m at the entrance to Valle Hermosa, and at 2,300 m on the west side of Valle Doloroso, 1.9 km south and 2.3 km south-south-west of the hacienda respectively, in primary forest comprising larger stands of bamboo, and a developed understorey of fallen, moss-covered branches and stems. The two birds were tape-recorded and observed singing from various perches 3-5 m above the ground, on 8 March (Robbins) and on 13 October, 1993 (Krabbe). Only one of the three birds had stomach contents: a piece of a giant earthworm *Rhynodrylus* sp. and remains of a large, apparently scarabid beetle.



Distribution of Giant Antpitta: A = *lehmanni*, B = *hylodroma*, C = *gigantea*.



Giant Antpitta *Grallaria gigantea* (Jon Fjeldså)

Voice

Antpittas are notoriously overlooked if their song is not known, which was the case for Giant Antpitta in 1992. What was thought to be its song recorded on the south slope of Cordillera de Guacamayos¹ has later proved to be that of another, possibly yet undescribed, species of antpitta. The song of Giant Antpitta is indistinguishable from that of Undulated Antpitta *G. squamigera*, except that it is sometimes longer, and the rate of delivery does not decrease at the end of each song-bout, as it invariably does in Undulated Antpitta. Both species give a low-pitched (300-400 Hz) trill (14-21 notes per second) rising in pitch and amplitude, 4-5 seconds long in Undulated Antpitta, 4-8 seconds long in Giant Antpitta, with intervals ranging from four to 12 seconds. Both species are attracted to playback of their song.

Range

East Ecuadorian *gigantea* is known from only three localities (see Map): one specimen from El Pun in north-eastern Carchi province (no elevation available), three specimens from Hacienda Aragón at 2,230-2,300 m, and one from Runtún on Volcán Tungurahua at 2,200 m.

West Ecuadorian *hylodroma* is known from a number of specimens collected at elevations ranging from 1,320 (Mindo) to 2,200 m (Cerro Castillo). A specimen (in the British Museum of Natural History) reported as having been taken at 3,350 m (Lloa) is probably mislabelled, being well within the zone occupied by the very similar, presumably competing Undulated Antpitta *G. squamigera*. All localities of *hylodroma* are from the north-western slope of Volcán Pichincha (see Map), except for two specimens labelled "El Tambo, Loja". Corrobo-

ration of its occurrence near this latter site would be highly desirable, partly because of its remoteness from Volcán Pichincha and partly because of its closeness to the east Andean slope.

Colombian *lehmanni* is known from two specimens taken in one area: at San Marcos, 3,000 m and immediately down slope, at Tijeras, 2,300 m, on the east slope of Central Andes, in Cauca province (see Map). Collar *et al.*¹ included a misidentified specimen of *squamigera* from West Andes, Colombia under *lehmanni* (*vide* R. S. Ridgely and M. B. Robbins).

More records are needed to establish whether the differences between the known elevational ranges of the three forms are real or reflect sampling error.

Habitat and diet

A single sighting by R. Bleiweiss in March 1985 of what he believed to be this species at 2,900 m near Santa Barbara, Sucumbíos province (the northern third of former Napo province), as well as the species's relatively large beak, led to (perhaps entirely unwarranted) speculation by Fjeldsá and Krabbe² that it is found near shallow puddles of stagnant water and possibly feeds on frogs and tadpoles. The only factor present near all the recent sightings is understorey of wet mossy forest. Though all specimens of the subspecies *gigantea* have been taken on or near level ground and have been found to be absent from at least one, otherwise similar area with steep slopes (see below), *hylodroma* has been found on both steep and level ground.

The specimen of *hylodroma* weighed 218 g, with that of *gigantea* 266 g, truly a giant in the genus and probably the heaviest of all Formicariids. Its beak is massive. Of the three stomach items, only giant earthworms *Rhynodrylus* sp. may have been too large to tackle for an Undulated Antpitta, a very similar, but more widespread and smaller species (weights of 112, 129 and 149 g have been recorded), that occurs at higher elevations. Giant earthworms may provide as an easily accessible and plentiful food source in areas of level ground, where these worms are frequently forced to the surface by floods (three worms, severed into five or six pieces each by knife-like cuts and noted at Aragón by Sornoza and Krabbe, could have been the work of Giant Antpittas).

Distribution and conservation

Forest similar to that at Tandayapa is widespread on the south slope of Cordillera de Guacamayos, but intensive surveys at this latter site throughout the year by Krabbe established that the Giant Antpitta does not occur there, despite close vicinity (2 km) to Aragón. Evidently *gigantea* is locally distributed. If found to be restricted to wet forest on level ground it is highly threatened. This habitat is the easiest to clear for pasture and construction of houses, and is now virtually nonexistent at El Pun and Runtún. We hope that the recognition of the Giant Antpitta's song will lead to the discovery of more localities, but presently there is not enough knowledge to advocate changing its status as an endangered species.

Taxonomy

Nominate *gigantea* mainly differs from *hylodroma* by its larger size (266 versus 218 g), barred instead of spotted under wing coverts and flanks, and by its much paler underparts. Colombian *lehmanni* resembles *gigantea*, but has even more heavily barred underparts, and Wetmore⁴ acknowledges that it may be closer related to the Venezuelan Great Antpitta *G. excelsa* than to *hylodroma* and *gigantea*. Further work is needed to clarify the relationships and taxonomic ranks of these four forms.

References

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