GIANT ANTPITTA *Grallaria gigantea* **K**[12]

Restricted to swampy areas in the cloud-forest of south-west Colombia and Ecuador, this rare antpitta is known from few localities outside of the Pichincha area, and is notable for the lack of recent records and the extent of deforestation within its range.

DISTRIBUTION The Giant Antpitta is known from three subspecies in the West and Central Andes of Colombia (*lehmanni*), and in Ecuador primarily on the western slope (*hylodroma*: see Remarks 1) and eastern slopes (*gigantea*) of the Andes (Peters 1951: see Remarks 2). Coordinates below are from Paynter and Traylor (1977, 1981), with localities arranged from north to south, as follows:

Colombia (race *lehmanni*) Cerro Munchique (most probably at 2°32'N 76°57'W; in the West Andes of Cauca department: see Remarks 3), where a specimen (in WFVZ) was collected in May 1959; San Marcos (untraced, but on the eastern slope of the Central Andes near Páramo de Puracé at c.2°24'N 76°27'W, i.e. the Moscopán region of Cauca department), where a bird (in USNM) was taken at 3,000 m in November 1941 (Wetmore 1945); Tijeras (2°22'N 76°16'W; at c.3,000 m on the eastern slope of the southern Central Andes, in the Moscopán region of Huila department) (Meyer de Schauensee 1948-1952);

Ecuador (*gigantea*) Pun (= El Pun at 0°40'N 77°37'W; possibly between 2,600 and 2,800 m, Carchi province) (Salvadori and Festa 1899); and much further south, Runtún (1°26'S 78°24'W; on the north-eastern shoulder of Volcán Tungurahua, Tungurahua province), where a female (in ANSP) was taken at 2,200 m in December 1938 (also Meyer de Schauensee 1966); "Hacienda Aragón", on the upper río Cosanga (south of the Cordillera de Huacamayos, Napo province), where a specimen was collected at 2,350 m in June 1992 (R. S. Ridgely *in litt*. 1992); Cordillera de Guacamayos, Napo province (at c.0°40'S), where calls of what was presumably this species were heard at 2,050-2,300 m during 1990 and 1991 (Krabbe 1991, NK: see Ecology);

(*hylodroma*, Pichincha province) Pachijal (= río Tambillo, c.0°18'N 78°59'W), where a specimen (in MNHN) was taken during the 1900s (also Ménégaux 1911); Cerro San José (untraced, but probably in the Montañas de Mindo at 0°10'N 78°55'W), where three birds (in ANSP, BMNH) were collected at 2,000 m in July 1938 and April 1939; Gualea (0°07'N 78°50'W; c.5 km west of Nanegal), where four birds were taken between 1,370 and 1,525 m in 1909, 1910, and 1921 (Chapman 1926; specimens in AMNH, USNM); San Tadeo (0°01'N 78°48'W), where two specimens (in MNHN) were taken in June 1935; río Nambilla (0°00' 78°56'W; a river originating on the western slopes of Pichincha, flowing north) (Meyer de Schauensee 1966); Milpe (0°00' 78°57'W), where a bird (in ANSP) was taken in 1930; Mindo (0°02'S 78°48'W), whence comes a bird (in BMNH) taken at 1,200 m in February 1939; Cerro Castillo (= El Castillo; untraced, but apparently near the previous locality), where the bird was collected in August 1936 (two in AMNH), August 1937 (one in IRSNB), and July 1958 (one in MHNG); Guarumos (0°04'S 78°36'W), whence comes a specimen (in MNHN) taken in June 1936; "Pichincha", where an "immature" (in BMNH) was collected apparently in November 1914; Lloa (0°15'S 78°35'W; on the side of Pichincha mountain), where a male (in BMNH) was apparently taken at 3,350 m in August 1937; Taguaquiri (untraced, but in the Cordillera Occidental), where a specimen (in FMNH) was taken in February 1929; "Bola" or "Tóbalo de Montaña" (untraced), apparently in the Cordillera Occidental, where a bird (in ANSP) was collected in August 1930; El Tambo (c.4°08'S 79°17'W; near the continental divide, Loja province), where a male and female (in ANSP) were taken in March 1938 (also Meyer de Schauensee 1966, Fjeldså and Krabbe 1990; see Remarks 2).

POPULATION Throughout its distribution, this antpitta is poorly known, rare and local, the last record from Colombia being in 1959, with very few recent observations in Ecuador, and just one specimen taken (June 1992) since the previous one was collected in 1958 (Hilty and Brown 1986, Fjeldså and Krabbe 1990; see above). However, the number of specimens (of *hylodroma*) taken in Pichincha during the 1930s (at least 13: see above) suggests that at this time the Giant Antpitta may have been local but not uncommon.

ECOLOGY The Giant Antpitta inhabits humid highland forests in the upper subtropical to temperate zones (Meyer de Schauensee 1966, Hilty and Brown 1986), at altitudes apparently ranging for *hylodroma* from 1,200 to 2,000 m (the record from 3,350 m needing corroboration), for *gigantea* from 2,200 possibly

to 2,600 or 2,800 m, whilst *lehmanni* has so far only been recorded at 3,000 m (see Distribution). Almost nothing is known of its ecology, although it has been reported that the bird frequents the floor of humid cloud-forest, especially in swampy places with shallow puddles of stagnant water, where it possibly (based on morphology, comparative observations and characteristics of the old collecting localities) feeds on tadpoles and frogs (Hilty and Brown 1986, Fjeldså and Krabbe 1990, J. Fjeldså *in litt*. 1992). What was presumably this species has been tape-recorded in all months of the year at 2,050-2,300 m in the Cordillera de Guacamayos (along the Baeza–Teng road), Napo province (at c.0°40'S), always near streams on extremely steep slopes with impenetrable wet forest undergrowth (Krabbe 1991, NK).

THREATS Along the Andes of Colombia, cloud-forest above 2,000 m has been the habitat facing the heaviest impact from human disturbance (LGN), and in Pichincha, Ecuador, there seems to have been some alteration of primary forest at this elevation (IUCN TFP 1988b, NK: see Measures Taken). In eastern Ecuador, however, the elevation inhabited by this species is the last to be deforested and remains almost entirely intact (NK).

MEASURES TAKEN The last record of the Giant Antpitta from Colombia was from Cerro Munchique and is presumably referable to the locality in the West Andes (see Remarks 3) now protected by the Munchique National Park (44,000 ha: Hernández Camacho *et al*. undated); also, the record from San Marcos may come from the northern end of Puracé National Park (possibly along the río San Marcos; see map in Hernández Camacho *et al*. undated). In Ecuador, forests around Mindo and Pichincha are designated Protected Forests (covering 27,300 ha: IUCN 1992), although nearby areas where this antpitta has been collected are now almost entirely deforested (NK). The Cotacachi–Cayapas Ecological Reserve (204,400 ha: IUCN 1992) in Esmeraldas may well hold a population of this bird (NK: see equivalent section under Plumbeous Forest-falcon *Micrastur plumbeus*), and in eastern Ecuador, records from Tungurahua and Loja lie just outside two major national parks, namely Sangay (272,000 ha) and Podocarpus (146,300 ha), which along with the Cayambe–Coca Ecological Reserve (403,100 ha) presumably hold populations of this species (NK; sizes from IUCN 1992).

MEASURES PROPOSED The status of the Giant Antpitta needs to be assessed through searches and studies in Munchique and Puracé National Parks, Colombia, and Sangay and Podocarpus National Parks, Ecuador, with fieldwork targeting the specific habitats described in Ecology. An assessment of suitable remaining habitat in Pichincha province needs to be undertaken to determine which areas should be targeted for survey and then be given protected area status. Obviously, all such initiatives in these areas need to consider the requirements of the other threatened species that occur in them, which for Munchique National Park are given in the equivalent section under Colourful Puffleg *Eriocnemis mirabilis*, and for Puracé National Park under Bicoloured Antpitta *Grallaria rufocinerea*.

REMARKS (1) The subspecies *hylodroma* with its distinctive plumage and range at low elevations may be a separate species (R. S. Ridgely verbally 1990). (2) Meyer de Schauensee (1966) mentioned that the subspecies *hylodroma* (presumably referring to the two birds in ANSP collected in March 1938) of the western slope of the Ecuadorian Andes (Peters 1951), had been collected at El Tambo, Loja, on the eastern slope, thus suggesting that a geographic redefinition of the three subspecies might be necessary: however, El Tambo is actually situated west of the continental divide (NK). (3) The record from Cerro Munchique appears to have been overlooked in the recent literature (e.g. Hilty and Brown 1986, Fjeldså and Krabbe 1990), but is significant as it apparently extends the known range of the species into the West Andes. However, there are some problems with the location of "Cerro Munchique": most specimens originated from the mountain in the West Andes, now protected by the Munchique National Park, but some records come from a locality of the same name on the western slope of the Central Andes (at c.3°00'N 76°20'W: see Paynter and Traylor 1981); which of these two localities is the one where M. A. Carriker collected the WFVZ specimen on 27 May 1959 remains uncertain, although it seems more likely that it was the former.