

*This guan has suffered from the almost total loss of its humid forest habitat in the middle and upper Cauca valley, Colombia, to which it is almost wholly confined; however, it survives in three protected areas, although poaching is prevalent in two of them.*

**DISTRIBUTION** The Cauca Guan (see Remarks 1) is endemic to the upper tropical and subtropical zones of western Colombia (being principally confined to the middle Cauca valley), with records from both slopes of the West Andes and the western slopes of the Central Andes (Vaurie 1968, Blake 1977).

Localities for the species, as given in Hellmayr and Conover (1932, 1942), Meyer de Schauensee (1948-1952), Vaurie (1966a) or else as indicated, with elevations and coordinates from Paynter and Traylor (1981), are (north to south): (*Risaralda*) Ucumari Regional Park, Pereira municipality, 1,850 m, on the western slope of the Central Andes, from 1989 to the present (E. Nadachowski *in litt.* 1992, E. Velasco *in litt.* 1992, LGN); (*Quindío*) Salento, 1,895 m, 4°38'N 75°34'W; (*Valle del Cauca*) Bosque de Yotoco Reserve (on the ridge and east slope of the West Andes, not above Buga, *contra* King 1978-1979), 3°52'N 76°24'W, and again in the period 1988-1989 (E. Velasco *in litt.* 1992); Pavas, 1,350 m, 3°41'N 76°35'W; heights of Caldas (apparently the same as Dagua), 816 m, 3°40'N 76°41'W; San Luis (type-locality), 1,350 m, 3°40'N 76°40'W; Lomitas, 1,400 m, 3°38'N 76°38'W; Bitaco valley, 1,350 m, 3°36'N 76°36'W (see Remarks 2); Miraflores, 2,050 m, 3°35'N 76°10'W; San Antonio, 1,750 m, 3°30'N 76°38'W; río Lima, near San Antonio, untraced; Primavera, also near San Antonio, untraced (see Remarks 3); Palmira, 1,066 m, 3°32'N 76°16'W; (*Cauca*) Santa Helena, 3°10'N 76°14'W, on the western slopes of the Central Andes, 1989 (E. Velasco *in litt.* 1992, including coordinates); río Mechengue, 2°40'N 77°12'W; Charguayaco, 2,200 m, 2°40'N 76°57'W; Munchique, 2°32'N 76°57'W; a remnant woodlot on the eastern flank of the western cordillera belonging to Cartón de Colombia (but given in a paper concerning records from Munchique National Park), September 1987 but not subsequently, despite searches (Negret 1991); Valle de Patía, 900 m, c.2°27'N 76°36'W, recently (A. Negret *in litt.* 1992, including coordinates and altitude); Patía, 1950s (specimen in MHNUC).

Two other sites are Clementina, named in Hellmayr and Conover (1942) as in the Western Andes but not traced by Paynter and Traylor (1981) (specimen in AMNH collected on 5 April 1898; see Remarks 4); and La Palma, south-west of San Agustín, at the head of the Cauca valley, 1°47'N 76°22'W, identified as the source of an egg by Delacour and Amadon (1973) but treated with some scepticism by Hilty and Brown (1986), evidently for being so far out of range. Hilty and Brown (1986) also commented that the species is unlikely to be found extensively on the Pacific slope (i.e. west slope of the West Andes), most records there being from low passes.

**POPULATION** At the beginning of this century the species was regarded as "not uncommon" (Chapman 1917a). Since then, however, habitat loss has obviously made it much scarcer, with almost no further specimens being collected: of 16 skins in AMNH, ANSP, CM and MCZ, 15 were obtained between 1898 and 1918, the exception being a female from Charguayaco in ANSP, collected 10 July 1955; the only other post-1918 specimen is a bird (in MHNUC) from Patía taken in the 1950s (LGN). The dearth of recent records before the mid-1980s and the destruction of forest in the Cauca valley caused real concern that the species was approaching extinction (Delacour and Amadon 1973, King 1978-1979, Hilty and Brown 1986); however, new observations in Ucumari and Yotoco (see Distribution), plus live specimens (held captive in Cali) from Santa Helena (taken as a young bird) and Yotoco (egg removed from nest and incubated) (E. Velasco *in litt.* 1992), indicate that, at least in these areas, small but stable populations still remain; indeed, the density of that in Ucumari appears fairly high, with (e.g.) 16 birds counted over 10/11 November 1990 (C. I. Acevedo and L. M. Renjifo *in litt.* 1992). The species is rare in Munchique National Park, despite extensive forest cover (C. I. Acevedo and L. M. Renjifo *in litt.* 1992).

**ECOLOGY** The Cauca Guan is an inhabitant of humid forest at 1,300-2,100 m (Hellmayr and Conover 1932, Hilty and Brown 1986). It is known to occur both in primary forest and second growth, including groves near dirt roads (LGN). Birds forage and apparently roost in flocks up to 16 individuals, from low trees and shrubs (c.3 m) almost to the canopy at up to 20 m (LGN). Food has been studied by E. Nadachowski (*in litt.* 1992). Concerning breeding, there is the somewhat unsatisfactory egg dating from 3 May (see Distribution), a one-third-grown juvenile collected near Pavas on 29 March 1908 (specimen in MCZ), a nest with two eggs (presumably one taken for captive rearing; see Population) from Yotoco (date

unknown) (E. Velasco *in litt.* 1992) and a nest with two eggs at Ucumarí (date unknown) (E. Nadachowski *in litt.* 1992).

**THREATS** The deforestation of the middle Cauca valley has been almost total (Delacour and Amadon 1973, King 1978-1979, Hilty and Brown 1986), and it is more than likely that hunting has compounded the problem: poaching is prevalent in Ucumarí and the species is also persecuted in Munchique National Park (L. M. Renjifo *in litt.* 1992). However, the squatters who moved into the Bosque de Yotoco in 1977 (King 1978-1979) were prevented from taking up residence there (see below).

**MEASURES TAKEN** In the 1970s the Bosque de Yotoco was being given token protection by a local college (King 1978-1979), but squatters have now been effectively excluded and hunting and logging prohibited (LGN). The species also occurs in the Ucumarí Regional Park and Munchique National Park (see Distribution). All three sites have guards and human disturbance is prohibited by law. Recent surveys and studies have been conducted by E. Velasco and E. Nadachowski, gathering data on habitat, food preferences, population density, etc. (LGN).

**MEASURES PROPOSED** The three protected areas where the Cauca Guan is known to survive at present merit intensive conservation efforts, and ongoing studies in them should be fully supported; in two of them, Munchique and Ucumarí, poaching clearly has to be eliminated. Moreover, the apparently disjunct population around Cerro Munchique appears largely to have been ignored in calculations of the chances of the species's survival, and it is to be noted first that the (apparently) most recent specimen comes from this area, and that at río Mechengue there was "dense rainforest" in the lower reaches in 1970 (Paynter and Traylor 1981), possibly therefore also higher up, this being a locality also worth investigating for the near-threatened Baudó Guan *Penelope ortonii*. Any sites not investigated in recent years, such as Salento (see equivalent section under Moustached Antpitta *Grallaria alleni*), Patía and, possibly, La Palma, merit investigation. Obviously, any conservation initiatives focused on this species should consider the needs of the threatened species known to be sympatric with it, which for Munchique National Park, Bosque de Yotoco Reserve and Ucumarí Regional Park are listed in the equivalent section under Multicoloured Tanager *Chlorochrysa nitidissima*.

**REMARKS** (1) This bird has long existed as a subspecies of either Crested Guan *P. purpurascens* (Peters 1934) or Spix's Guan *P. jacquacu* (Meyer de Schauensee 1966, Vaurie 1968, Blake 1977); it is better considered a full member of a superspecies that includes these and others, including *ortonii* (LGN). (2) Paynter and Traylor (1981) synonymize "Bitaco valley" with Bitaco at the coordinates given for the former, but San Luis, the type-locality, is identified as in the Bitaco valley (see, e.g., Hellmayr and Conover 1942), and it may in fact be that specimens labelled as from the "Bitaco valley" were taken at San Luis, and hence that one locality exists, not two; Bitaco and San Luis certainly exist as separate localities within the valley, however (LGN). (3) Primavera might be a small village in the municipality of Darién, Valle del Cauca, on the west slope of the West Andes at c.3°56'S 76°31'W (LGN). (4) Clementina is likely to be Rancho Clementino, as Paynter and Traylor (1981) noted an MCZ specimen (not of this species) from this locality on the same date; however, they could not trace it beyond guessing it to be in Valle del Cauca.