

YELLOW-GREEN BUSH-TANAGER *Chlorospingus flavovirens* K¹²

Only known from two areas in north-west Ecuador and one in south-west Colombia, this species of humid moss-forest seems to be restricted to a narrow elevational belt; in Colombia it is common on the single ridge where it has been recorded.

DISTRIBUTION The Yellow-green Bush-tanager is known from just three areas: one ridge on the Pacific slope of the West Andes in Valle department, Colombia; and very locally in Imbabura and Pichincha provinces, northern Ecuador. Coordinates are taken from Paynter and Traylor (1977, 1981).

Colombia The species was discovered in Colombia in 1972 (Hilty 1977), where localities are as follows: “Alto Yunda” (3°32’N 76°48’W; 3.5 km south of La Cascada), where at around 1,000 m the bird was collected and observed between 1972 and 1975 (Hilty 1977); and “Alto Anchicayá” (near El Danubio, at 3°37’N 76°53’W), where F. R. Lambert (*in litt.* 1989) found a bird at 680 m in February 1989. Both of the above localities are from a single ridge near the río Anchicayá–río Verde watershed, on the east side of the upper Anchicayá valley (the Pacific slope of the West Andes), Valle department.

Ecuador The undated type-specimen was described simply from “Ecuador” (Chapman 1926), although another specimen was later found to have been collected at Santo Domingo (= Santo Domingo de los Colorados, at 0°15’S 79°09’W; Pichincha province) in July 1914, apparently at 490 m but perhaps on the slopes “above” this locality (Griscom 1935): Isler and Isler (1987) suggested that the species was described from two specimens originating in Pichincha, implying that the type also came from this province. Recent sighting of the bird come from eastern Esmeraldas province on the ridges at El Placer (along the railroad to San Lorenzo) (R. S. Ridgely *in litt.* 1992).

POPULATION Very little is known of the population of this species: Ridgely and Tudor (1989) considered the bird to be very local and uncommon, but at least in the upper Anchicayá valley of Colombia, even if the population is extremely localized, the species was found to be relatively common between 1972 and 1975 (Hilty 1977, Hilty and Brown 1986). At this same locality, three birds (in AMNH, LSUMZ) were collected and several others mist-netted, banded and released during 1972 and 1975, when pairs or groups of 3-5 individuals were observed: over 90 feeding observations were made during fieldwork in these two years (Hilty 1977, Isler and Isler 1987). The 1989 record in the upper Anchicayá valley confirmed that this population is still extant. Almost nothing is known of the status of either Ecuadorian population, other than the generalization made above by Ridgely and Tudor (1989).

ECOLOGY The often quoted altitudinal range of this species is 950-1,050 m (Hilty and Brown 1986, Isler and Isler 1987), or 900-1,100 m (Ridgely and Tudor 1989): however, the specimen taken at Santo Domingo de los Colorados may have been collected at 490 m (see Distribution), and F. R. Lambert (*in litt.* 1989) observed a bird at 680 m in the upper Anchicayá valley. The species occurs in wet, mossy cloud-forest, and is also recorded from forest edge and adjacent tall trees in clearings (Hilty and Brown 1986).

It is conspicuous and highly vocal (making it easy to locate in feeding flocks), and almost always occurs in pairs or groups of 3-5 birds, often associated with mixed-species feeding-flocks (Hilty 1977, Hilty and Brown 1986). Most foraging is done well above 7 m (although F. R. Lambert *in litt.* 1989 observed a bird feeding at 3-4 m above the ground), and often at canopy heights (22-30 m), and birds appear to be reluctant to descend into thickets or lower vegetation, although they readily forage out into large isolated trees in clearings (Hilty 1977); the median foraging height was calculated as 12 m (Isler and Isler 1987). Of 91 observations of feeding birds, 45% were taking fruit, 34% insect searching, and 21% at flowers (Isler and Isler 1987). Fourteen species of fruit have been recorded as eaten by this bird, 75% of which are melastomes (especially *Miconia* spp.), and 13% are from epiphytic and parasitic plants (Isler and Isler 1987). Fruits are taken from a perched position, and insects generally searched for on the sides of large mossy branches and tree-trunks (Isler and Isler 1987).

In the upper Anchicayá valley, nests have been found in March and April, and nest-building has been recorded in August, with a breeding-condition male collected in October (Hilty and Brown 1986).

Threatened birds of the Americas

The breeding season of March to May suggested by Isler and Isler (1987) thus appears an oversimplification. The two nests found were placed 5 and 7 m up, one in a mossy tree-fork, and the other at the base of palm fronds (Hilty and Brown 1986).

THREATS None is known. The upper Anchicayá valley is still extensively forested, and seemingly safe (see below), and large areas of apparently primary or old secondary forest still exist in Valle department (F. R. Lambert *in litt.* 1989); nevertheless, with such a localized and poorly known distribution, in Ecuador at least, this bird must be potentially at great risk from forest destruction.

MEASURES TAKEN The Anchicayá–Verde watershed (covering an area where this species is recorded) surrounds two hydroelectric plants, and is protected by the CVC (Hilty 1977); this area functions as an ecological reserve, although illegal hunting and clearance for agriculture still occur (F. R. Lambert *in litt.* 1989), and it lies within Los Farallones de Cali National Park (150,000 ha: CNPPA 1982, Hernández Camacho *et al.* undated, Areas Protegidas 1989), which may support other populations of the species, although Hilty (1977) did not encounter it elsewhere during fieldwork in the area. In Ecuador, there are apparently no protected areas within the bird's range (CNPPA 1982): however, it undoubtedly occurs in the Cotacachi–Cayapas Ecological Reserve (NK), for which see equivalent section under Plumbeous Forest-falcon *Micrastur plumbeus*.

MEASURES PROPOSED There is an urgent need to determine the status of this bush-tanager within both Colombia and Ecuador. Formal designation of the Anchicayá forest region as a protected area, perhaps forming an extension to the Los Farallones de Cali National Park, would hopefully ensure the survival of at least one apparently viable population, and perhaps facilitate further work in this important area, where conservation initiatives should be integrated with those proposed for the Banded Ground-cuckoo *Neomorphus radiolosus* (see relevant account), which was also recorded at Alto Anchicayá in 1989, and for other threatened species known to occur in or near to this national park (see the equivalent section under Multicoloured Tanager *Chlorochrysa nitidissima*). The ecological requirements of the Yellow-green Bush-tanager are relatively well known although the evidence that the bird occurs at lower altitudes than usually thought suggests that further work could be undertaken to determine whether vertical migrations are in play.

REMARKS Ridgely and Tudor (1989) reported this species Ibarra, Imbabura province, although this is evidently in error (R. S. Ridgely *in litt.* 1992).