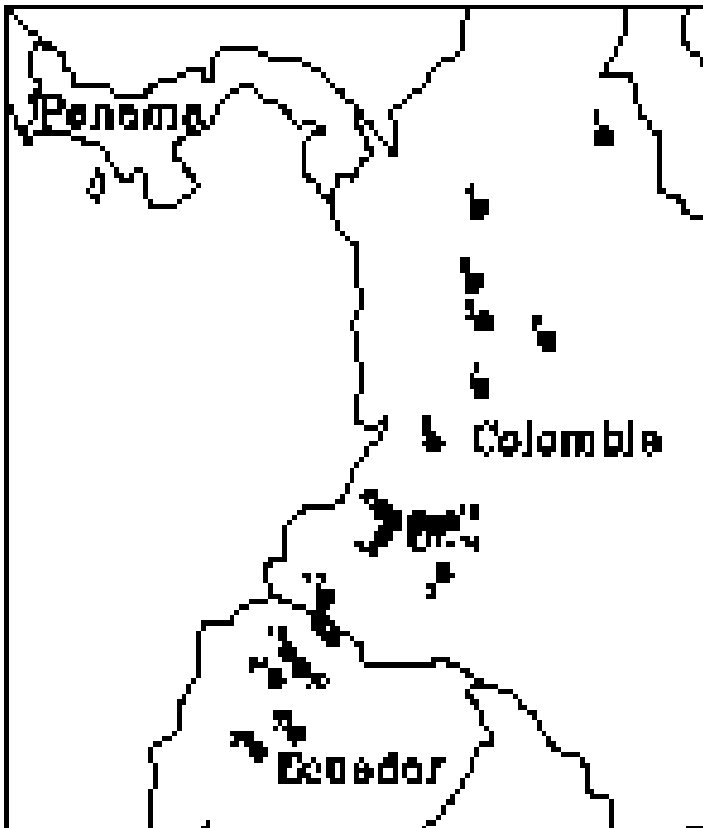


Although formerly found at scattered localities in all three ranges of Colombia and in north-west Ecuador, when it was in places common or even abundant, this distinctive parrot is now rare owing to the widespread loss of its wax palm habitat, with recent records from only a few localities in the southern half of the West Andes and at the head of the Magdalena valley in Colombia and in Carchi and Cotopaxi provinces, north-west Ecuador.

DISTRIBUTION The Yellow-eared Parrot (see Remarks) has been recorded from humid montane forest and partially cleared terrain, especially where there are wax palms *Ceroxylon* spp. in all three ranges of Colombia, and in Carchi, Imbabura, Pichincha and Cotopaxi provinces, north-west Ecuador, mainly at 2,000-3,000 m, though occasionally down to 1,200 m and up to 3,400 m (Chapman 1926, Ridgely 1981a, Hilty and Brown 1986, P. Greenfield verbally 1986). On the basis of the evidence below, for which all coordinates unless otherwise stated are from Paynter and Traylor (1977, 1981), the species may currently be confined to the Cerro Munchique region in Cauca department and Alto Quindío, Colombia, and the north-western slope in Ecuador, though a small population may also persist near the head of the Magdalena valley, Huila department, Colombia (Ridgely 1981a, Hilty and Brown 1986).



Colombia Records (see Remarks 2) are from:

Threatened birds of the Americas

East Andes Ocaña (1,200 m), on the west slope but on the eastern watershed of Sierra de Ocaña¹, Norte de Santander department, at 8°15'N 73°20'W (Peters 1937); old “Bogotá” specimens (in AMNH, USNM), although these cannot confidently be attributed to the East Andes; Zipaquirá², 1,525 m, on the east slope in Cundinamarca department, at 5°02'N 74°00'W, late last century (one specimen in BMNH), although again this record is questionable (J. I. Hernández Camacho verbally 1991); a small group sighted in 1975 in Cueva de los Guácharos National Park³, Huila department, at 1°35'N 76°00'W (Hilty and Brown 1986);

Central Andes La Frijolera⁴, 1,525 m, on the west slope in Antioquia department, December 1914 and January 1915, at c.7°10'N 75°25'W (specimens in AMNH and USNM); San Félix⁵, west slope in Caldas department, at 5°26'N 75°20'W (Rodríguez and Hernández Camacho 1988); La Ceja⁶, río Toche valley between 2,500 and 2,800 m, where a flock of less than 10 was seen flying over wax palms in May 1991 (J. I. Hernández Camacho verbally 1991); Alto Quindío Acaime Natural Reserve (Renjifo 1991: see Population); río Toché⁷, 2,070 m, on the east slope in Tolima department, at 4°26'N 75°22'W, October 1911 (12 specimens in AMNH, FMNH, MCZ and USNM); Miraflores east of Palmira⁸, 2,070 m, on the west slope in Valle del Cauca department, at c.3°35'N 76°10'W, April 1911 (specimen in AMNH); Laguna San Rafael páramo⁹, c.3,400 m, on the summit in Cauca department, at c.2°25'N 76°25'W, where a pair was sighted in May 1976 (Hilty and Brown 1986); La Plata¹⁰, on the east slope in Huila department, at 2°23'N 75°53'W, March 1939 (specimen in ANSP); Tijeras¹¹, 2,560 m, on the east slope in Huila, at 2°22'N 76°16'W, March 1952 and February 1958 (specimens in LACM and USNM); Moscopán¹², 2,450 m, on the east slope on the border of Huila and Cauca departments, at c.2°20'N 76°05'W, March 1954 (specimens in YPM); Coconuco¹³, 2,750 m, on the west slope in Cauca department, at 2°20'N 76°28'W, December 1939 (specimens in ANSP);

West Andes El Tambo¹⁴ below Cerro Munchique, 2,100 m, on the east slope in Cauca department, at 2°25'N 76°49'W, September 1939 (specimen in ANSP); on the north-east slope of Cerro Munchique¹⁵, at 3,400 m, in Cauca department, where a flock of 25 was seen in July 1978 (Hilty and Brown 1986), and whence presumably come two specimens labelled “coast range west of Popayan, Cauca, 10,340” (3,150 m) and dated 13 and 17 July 1911 (in AMNH); río Timbío¹⁶, an affluent of upper río Patía, 1,280 m, on the west slope in Cauca, at 2°11'N 77°00'W, January 1939 (specimen in ANSP); Ricaurte¹⁷, 2,000 and 2,500 m, at 1°13'N 77°59'W, on the west slope in Nariño, where four specimens (in FMNH and LACM) were collected in April 1958 (Blake 1959); and adjacent La Planada Nature Reserve, where birds appeared in February 1983, February 1984 and February 1985, almost to the day, although on the last occasion they stayed until mid-May (Orejuela 1985, Rodríguez and Hernández Camacho 1988), with annual records continuing into the late 1980s but then ceasing (J. E. Orejuela verbally 1992).

Ecuador Records are given from north to south. What was presumably this species was heard at c.2,400 m in Carchi, at c.0°53'N 78°04'W¹⁸ (coordinates read from IGM 1981), in January 1982, but during an ANSP expedition in July and August 1988 none was recorded despite intensive searching (R. S. Ridgely *in litt.* 1989). A bird was collected at Intag¹⁹ (“1,200 m”) on the west slope in Imbabura province at c.0°24'N 78°36'W in December 1877 (specimen in BMNH), and another at Hacienda Piganta, 2,620 m, on the west side of Mojanda mountains²⁰, northern part of Pichincha province, at 0°09'N 78°23'W, on 15 June in a year before 1921 (Lönnberg and Rendahl 1922). A few birds were sold on the cagebird market in around 1970, and one of these had supposedly been captured near Mindo²¹, Pichincha province, at c.0°02'S 78°48'W (R. Wirth *in litt.* 1989); Mindo, however, remains one of the ornithologically best known parts of Ecuador, so this bird was presumably a straggler (NK). There is a recent specimen (in MECN) labelled “Lita”²², i.e. on the border of Imbabura and Carchi provinces, at 0°52'S 78°28'W, and a local claimed in 1990 that a small flock can still be seen there between November and February (T. Arndt *in litt.* 1991). Four freshly shot birds, three of which are preserved in Museo de Mundo Jovenil, Quito, were collected recently by J. Aro (a bird trapper in Quito) near El Corazón²³, Cotopaxi, at 1°08'S 79°05'W, supposedly at a place called La Calera (not located) (I. Mora verbally 1991).

POPULATION Although Chapman (1917a) reported the Yellow-eared Parrot “common and in places abundant” in the subtropical zone of the Central Andes of Colombia, these sites are now almost entirely

deforested, and are unsuited for the parrot (Ridgely 1981a). There is still considerable forest on the west slope of the West Andes north and south of Cerro Munchique, so it is possible that this region retains an undetected population (Ridgely 1981a). Lehmann (1957) had found birds numerous in the Moscopán region of Huila in the period from December to April up until the early 1950s, but in July 1956 he observed only one. Despite spending considerable time in the same region, Ridgely (1981a) reported seeing only a single pair on one occasion, on the east slope in Puracé National Park (R. S. Ridgely *in litt.* 1989), and the region is now largely deforested (King 1978-1979). The bird does not appear to be regular in the East Andes at the head of Magdalena valley, although considerable forest, some of it at present well protected, exists there (Ridgely 1981a). The only recent records are from La Planada Nature Reserve in Nariño, where over three years birds returned in increasing numbers, perhaps because of the relative lack of disturbance there, with a flock of 21 in 1985 (Orejuela 1985), Alto Quindío, Colombia, where birds were seen in May 1991 (see Distribution) following reports by local people that the species was still present (Renjifo 1991), and an undisclosed area of central western Ecuador, whence a few skins and some traded individuals were reported in the late 1980s (NK). Thus, on present knowledge, the total population could be very small and on the verge of extinction.

ECOLOGY The Yellow-eared Parrot inhabits humid forest and partially cleared terrain, especially where there are wax palms *Ceroxylon* spp., at 2,000-3,000 m, occasionally down to 1,200 m and up to 3,400 m (Ridgely 1981a, Hilty and Brown 1986). The association with wax palms appears to be strong; however, the species is absent from one region in Napo, northern Ecuador, where a wax palm is abundant (Ridgely 1981a, R. S. Ridgely *in litt.* 1989).

The bird feeds on wax palms, probably of all species but certainly *Ceroxylon quindiuense* (J. I. Hernández Camacho verbally 1991). At Reserva de la Planada in Nariño all observations of feeding over a period of three months involved fruits of *Sapium* spp. (Orejuela 1985, Rodríguez and Hernández Camacho 1988). Flocks probably wander seasonally in search of food (Hilty and Brown 1986).

In May 1911 it was found nesting in colonies at río Toché, Tolima department, Colombia, the nest-holes being just under the lowest leaves, more than 25 m up in wax palms, and in places nearly every palm had an occupied nest-hole (Chapman 1917a: 29). On 27 October 1911 12 specimens (in AMNH, FMNH, MCZ and USNM; also Chapman 1917a) were collected at this same locality, one (in USNM) being indicated as having undeveloped gonads. A female laying and a male with large testes were collected in March 1954 at Moscopán (specimens in YPM). A male and a female collected in December 1914 in Antioquia, and a female collected in April 1911 in Valle del Cauca, all had undeveloped gonads (specimens in AMNH). The presence of the parrots at the wax palms in Tolima in both May and October (Chapman 1917a; specimens in MCZ, AMNH, USNM and FMNH) suggests that the palms were attractive as both breeding and feeding sites.

THREATS Extensive deforestation over much of its range is responsible for the serious decline of the Yellow-eared Parrot (Ridgely 1981a). Two wax palm species, *Ceroxylon alpinum* and *C. quindiuense*, with which these parrots have been associated, are now considered vulnerable or endangered owing to lack of regeneration (Moore 1977, Ridgely 1981a); the problem is caused less by cattle-grazing than by the species' inability to regenerate in stands of introduced kikuyu grass (J. I. Hernández Camacho verbally 1991). The parrot has always been extremely rare in captivity (Ridgely 1981a). Its colonial habits render it highly vulnerable to hunting, capture and forest clearance, and it may already be very close to extinction.

MEASURES TAKEN In Colombia the species has been recorded in Munchique, Puracé and Cueva de los Guácharos National Parks, plus La Planada Nature Reserve, although it may not be regular in any of them (Ridgely 1981a, Hilty and Brown 1986). Only in Munchique National Park and La Planada Nature Reserve have there been (relatively) recent sightings of enough birds to suggest that a viable population may exist there or nearby. The parrot may occur in Nevado de Huila National Park (King 1978-1979), also Los Nevados and Las Hermosas National Parks. In Ecuador the recent creation of the Cotacachi-Cayapas Ecological Reserve in Imbabura and Esmeraldas provinces may protect the southernmost part of the species's known range (Ridgely 1981a).

MEASURES PROPOSED Additional study of this parrot is badly needed, as is protection of areas found to harbour any of its populations (Ridgely 1981a). It is obviously now very pressing that searches take place around Cerro Munchique to determine whether a significant population occurs in the forests there; such work could be combined with field studies to clarify the status in this area of many other threatened bird species (see below). The Cotacachi-Cayapas Ecological Reserve in Imbabura and Esmeraldas provinces, north-west Ecuador, needs strengthened management (Ridgely 1981a). The Yellow-eared Parrot is sympatric with a number of other threatened species, and any conservation initiatives should take into account their best interests: details are in the equivalent sections under Moustached Antpitta *Grallaria alleni* (for Cueva de los Guácharos National Park), Bicoloured Antpitta *G. rufocinerea* (for Alto Quindío Acaime Natural Reserve and Puracé National Park), Tolima Dove *Leptotila conoveri* (for the río Toche wax palm area), Colourful Puffleg *Eriocnemis mirabilis* (for Munchique National Park) and Hoary Puffleg *Haplophaedia lugens* (for La Planada Nature Reserve and vicinity).

REMARKS (1) The Yellow-eared Parrot is a highly distinctive bird in its own genus. (2) A record based on three specimens (in AMNH and ROM) collected on 31 January and 1 February 1907 at the untraced “Torre”, Valle del Cauca department, may refer to the Central or West Andes.