

Endemic to the upper cloud- and pine–oak forests of Guerrero and Oaxaca, south-western Mexico, this jay is locally common in undisturbed forest but threatened by widespread habitat destruction.

DISTRIBUTION The White-throated or Omiltemi Jay is endemic to Mexico, being restricted to the Sierra Madre del Sur of Guerrero and to two isolated sierras in Oaxaca. Coordinates in the account below are taken from OG (1956a) for Guerrero and from Binford (1989) for Oaxaca.

Guerrero The species is a permanent resident of the Sierra Madre del Sur in the southern part of the state. The type and most subsequent specimens are from the vicinity of Omiltemi (17°30'N 99°40'W), e.g. 5 km west (specimens in MVZ) and 1 km south-west (Nelson 1903, Hardy 1964). Omiltemi, at between 2,195 and 2,260 m, is a village at the head of a wide canyon on the leeward side of the sierra from the Pacific (Hardy 1964). In the vicinity of Omiltemi, the species has been extensively collected at Cuapango (also referred to as Cuapongo, Coapango, Coapanco and Guapango; specimens in LACM, MCZ, MLZ, MVZ), with one specimen (in AMNH) taken at Puentequilla: the former (and most likely the latter) locality is between Omiltemi and Chilpancingo (A. T. Peterson *in litt.* 1991; see also CETN 1984a). Recent specimens (May and September 1985) taken in the vicinity of Omiltemi come from Cañada de Agua Fría, “camino a Conejos” and Las Joyas (Navarro *et al.* 1991). East of Omiltemi, specimens (in FMNH, LSUMZ, MVZ) come from “Chilpancingo” (17°33'N 99°30'W) and at 1,525 m in the “mountains near” Chilpancingo (specimens in MVZ). The records from “Chilpancingo” need to be qualified, as these collections were made by W. W. Brown who lived in the town and frequently collected in the mountains to the west; consequently, the specimens probably came from nearer Omiltemi (A. T. Peterson *in litt.* 1991). West of this area records are from numerous localities along the road between El Jilguero and Paraiso (the Atoyac de Alvarez–Chilpancingo road) (Ceballos-Lascurain 1989), including 12 km south of Filo de Caballo (Ceballos-Lascurain 1989, S. N. G. Howell *in litt.* 1991), and Cerro Teotepec (17°27'N 100°10'W), probably from the lower parts of the slopes of the Sierra de Atoyac (A. T. Peterson *in litt.* 1991) to as high as 3,500 m (Miller *et al.* 1957), with specimens collected in May and June 1947 (in LACM, MLZ). Near Cerro Teotepec, records come from c.15 km (by road) north of Nueva Delhi at c.2,075 m (S. N. G. Howell *in litt.* 1991), and more generally from cloud-forest at 1,800 m to the top of Cerro Teotepec (A. G. Navarro and A. T. Peterson *in litt.* 1991), specific localities (a number of which are represented by specimens taken in 1983) including La Golondrina (13 km north-north-east of Paraiso, at 1,800 m), El Descanso (2 km south-west of Puerto El Gallo, at 2,000 m), El Iris (3 km north-east of Puerto El Gallo, at 2,200 m) and Puerto El Gallo (15.5 km north-north-east of Paraiso, at 2,500 m) (Navarro *et al.* 1991, Navarro 1992).

Oaxaca The White-throated Jay is a permanent resident in Sierras de Miahuatlán and de Yucuyacua (Binford 1989), but is apparently recorded from just three localities, these being: 1.5 km north of San Andrés Chicahuaxtla (17°11'N 97°53'W), near the highest point on the Putla de Guerrero road (three specimens taken May 1964 in LSUMZ); río Molino, 3 km south-west of San Miguel Suchixtepec at its intersection with the Puerto Angel road (16°04'N 96°28'W; specimens taken April 1962 and November 1964 in AMNH, DMNH); río Guajolote, 8 km south of San Miguel Suchixtepec at its intersection with the Puerto Angel road, between ríos Molino and Jalatengo (16°00'N 96°28'W; specimen taken November 1964 in DMNH; see also Phillips 1966, Rowley 1966, Binford 1989).

POPULATION Despite the large numbers of specimens of White-throated Jay that have been collected, very little has been published regarding the population of the species, although it is apparently not uncommon in what habitat remains in Guerrero (S. N. G. Howell *in litt.* 1987; see Threats).

Guerrero The species is locally common in the Sierra Madre del Sur (in Guerrero) (Miller *et al.* 1957), and in the vicinity of Omiltemi this certainly appeared to be the case, with c.70 specimens (in MCZ, MLZ, MVZ) taken at Cuapango during 1936–1941, and over 190 (in ANSP, BMNH, CAS, DMNH, LSUMZ, MCZ, MLZ, WFVZ) taken at Omiltemi itself in the period 1943–1953 (a maximum of 10 taken in five days May 1945, and c.50 during 1949). In July 1963, Hardy (1964) made two observations of pairs and one of a group of three or four birds c.1 km south-west of the village. While Phillips (1986) says that here it “now seems scarce” at Omiltemi (his field experience does not appear to be recent), recently it has been found common on the humid slopes above the village (several groups seen daily: A. T. Peterson *in litt.* 1991), and it persists in good numbers within the Omiltemi State Ecological Reserve (A. G. Navarro *in litt.* 1991). Elsewhere, 12 specimens were taken in eight days during May and June 1947 at Cerro

Teotepec (nine males, three females in LACM, MLZ), and flocks of c.6 birds were readily found along the road between Puerto el Gallo and Paraiso (Ceballos-Lascurain 1989). Clearly from this evidence, the White-throated Jay was not rare at the few localities where it was collected, and is still seemingly common at Omiltemi, fairly common just north of Nueva Delhi, and common between Nueva Delhi and Cerro Teotepec (S. N. G. Howell *in litt.* 1991, A. T. Peterson *in litt.* 1991).

Oaxaca The White-throated Jay was (in 1964) common at the San Andrés Chicahuaxtla site, where 13 were seen on 24 May, but very uncommon or rare at ríos Molino and Guajolote (Binford 1989, L. C. Binford *in litt.* 1991). There are seemingly only seven specimens from Oaxaca, all taken in 1962 and 1964 (in AMNH, DMNH, LSUMZ).

ECOLOGY Despite its small range and localized distribution, the White-throated Jay apparently has a wide ecological tolerance: near Omiltemi, two pairs and a small flock were seen in much disturbed pine–oak woodland, but the species was also found to range into dense humid forest lacking pine and resembling cloud-forest (except for the lack of tree-ferns and sweetgum); also in these mountains the species inhabits fir forests which appear at c.2,700 m (Hardy 1964). Other reports identify the habitat as humid pine–oak forest and possibly cloud-forest (Binford 1989); oak forest (Blake 1953); and cloud-forest (Phillips 1986). The habitat at San Andrés Chicahuaxtla was described as a high pine–oak association within the cloud-forest, and at río Molino as a pine–oak association in what was formerly a semi-cloud-forest area (Rowley 1966). In Guerrero it seems that the bird is clearly restricted to undisturbed cloud- and pine–oak forest, generally above 1,800 m (although below this altitude the cloud-forest has been almost completely cultivated: see Threats) (Navarro 1992). In Guerrero during June 1986, pairs were seen in mixed-species flocks including Unicoloured Jays *Aphelocoma unicolor* and Emerald Toucanets *Aulacorhynchus prasinus*, although no White-throated Jays were seen there in December (and no Unicoloured Jays in January) suggesting that at least local seasonal movements might occur (S. N. G. Howell *in litt.* 1991); however, fieldwork in all months (other than December) in suitable habitat suggests that the birds may be resident (A. G. Navarro *in litt.* 1991). Pairs and a group of three to four birds were observed near Omiltemi in July (Hardy 1964), and S. N. G. Howell (*in litt.* 1991) reported that they can occur in flocks of six to eight birds, often as part of mixed-species flocks. Specimens have been taken between 1,525 and 3,500 m in Guerrero, and between c.2,000 and 2,600 m in Oaxaca. Nothing has been reported concerning diet, but breeding has been recorded during May and June at Cerro Teotepec (Miller *et al.* 1957); eggs were noted in April, May and June at Omiltemi, and in August at Chilpancingo, breeding being recorded in June and July at Cuapongo (specimens in MVZ).

THREATS The habitat of this species within its restricted, local range is being cleared and rapidly grazed out (S. N. G. Howell *in litt.* 1987; see Population). Just north of San Andrés Chicahuaxtla, Rowley (1966) noted that the vegetation, a high pine–oak association in cloud-forest, was being destroyed rapidly by the agricultural practices of the Trique Indians who inhabit this area; a similar situation obtained at río Molino where the forest was being cut rapidly and burnt out for agriculture. Between Atoyac and Teotepec, the semi-deciduous forest at the base of the range (important for the Short-crested Coquette *Lophornis brachylopha*) is being rapidly cleared for cultivation of maize, fruit and coffee; the cloud-forest zone (important for White-throated Jay and the White-tailed Hummingbird *Eupherusa poliocerca*) has been almost completely cultivated for coffee below 1,800 m (with undisturbed forest only on the steepest slopes); and the higher altitude forests of pine–oak and fir (important for this jay) are being cut for timber at an alarming rate (Navarro 1992). The extensive collections of W. W. Brown may also have contributed to the scarcity of this species in certain areas (A. G. Navarro *in litt.* 1991).

MEASURES TAKEN In 1963, the pine–oak woodland near Omiltemi was noted as greatly disturbed and altered by lumbering (Hardy 1964), although at about this time lumbering was stopped to protect the watershed that supplied Chilpancingo, the result being that the forest there has regenerated (A. T. Peterson *in litt.* 1991). Around Omiltemi, the main conservation area is the Omiltemi State Ecological Park (embracing 9,600 ha, and supported by the government of the state of Guerrero), the main objective of which is to preserve the Omiltemi watershed but which also harbours good numbers of this jay and the White-tailed Hummingbird (see relevant account) (Navarro and Muñoz 1990, A. G. Navarro and A. T. Peterson *in litt.* 1991).

MEASURES PROPOSED An extension of the park (mentioned above) over the mountains to the lowlands of the Sierra de Atoyac has already been suggested in various reports (A. T. Peterson *in litt.* 1991), and this is clearly the best way in which the three threatened endemics can be preserved. Surveys are needed in suitable remaining habitat in the Sierra Madre del Sur (especially west of Nueva Delhi, in the Atoyac drainage and north of Tecpan: A. T. Peterson *in litt.* 1991) and the Sierras de Miahuatlán and Yucuyacua. It is imperative that protection from agricultural encroachment be given to the remaining areas where the species is currently known to occur, especially around Omiltemi, between Nueva Delhi and Cerro Teotepec, and near San Andrés Chicahuaxtla. Special consideration should be given to the protection of localities where this species occurs on the same slopes as the Short-crested Coquette, White-tailed Hummingbird or Oaxaca Hummingbird *E. cyanophrys* (see relevant accounts, also Remarks), e.g. along the Atoyac de Alvarez–Chilpancingo road, the Puerto Angel road, the Putla de Guerrero road and around Omiltemi. The recommended surveys and proposed protected areas must incorporate the requirements of these hummingbirds, but should also consider the recently described White-fronted Swift *Cypseloides storeri*, which is only currently recorded from Tacámbaro in Michoacán and the Sierra de Atoyac in Guerrero, and although probably not threatened (presumably nesting in rocky canyons, etc.), remains virtually unknown (Navarro *et al.* 1992).

REMARKS The altitudinal ranges of the White-tailed Hummingbird and White-throated Jay overlap, and the two species have been noted occurring sympatrically near Puerto el Gallo (Ceballos-Lascurain 1989, Navarro 1992).