

Destruction of Atlantic Forest in Brazil and Argentina has reduced the range and numbers of this naturally rare, bamboo-haunting bird, which seems to depend on four or five protected areas (notably Itatiaia and Iguaçu National Parks, Brazil) for its security.

DISTRIBUTION The White-bearded Antshrike (see Remarks 1) is endemic to the Atlantic Forest region of South America, extending from eastern Minas Gerais south through Rio de Janeiro to Santa Catarina (no records this century) in Brazil into Misiones (no records since 1960) in Argentina.

Brazil The occurrence of the species in Espírito Santo, Brazil (Ruschi 1953; see also Meyer de Schauensee 1966), although generally admitted (e.g. Meyer de Schauensee 1970, 1982, Sick and Teixeira 1979, Sick 1985) and quite probable, still awaits confirmation.

Minas Gerais The only records are from Viçosa, 16 May 1934 (specimen in MZUFV; also Monteiro *et al.* 1983, Sick 1985), Itabira, December 1986 (G. T. de Mattos *in litt.* 1987), and São Domingos do Prata, December 1987 (G. T. de Mattos *in litt.* 1988).

Rio de Janeiro Records (east to west) are: Desengano State Park at Rifa, 840 m, October 1986, and ribeirão Vermelho, 830 m, August 1987 (J. F. Pacheco *in litt.* 1987); Cantagalo (Cabanis 1874, von Ihering 1900a); Nova Friburgo (Burmeister 1856, von Ihering 1900a), Pico da Caledônia, 1,300 m, July 1987 (J. F. Pacheco *in litt.* 1987); Sapucaia, Serra do Pião, August 1987 (J. F. Pacheco *in litt.* 1987); Teresópolis, just outside the town on the road to Nova Friburgo, c.700 m, October 1990 and October 1991 (B. M. Whitney *in litt.* 1991), with earlier specimen records from December 1916, June 1926, and at nearby Alpina, June 1914, Fazenda Boa Fé, September 1942 (specimens in MNRJ and MZUSP), and the adjacent Serra dos Órgãos National Park, 1,200 m, December 1986 and August 1991, and Vargem Grande, 1,100 m, September 1987 (J. F. Pacheco *in litt.* 1987, B. C. Forrester *in litt.* 1992); Itatiaia National Park, Maromba, 1,200 m, July and August 1950 (Pinto 1954b), near Véu da Noiva waterfall at c.1,100 m, October 1980 (TAP), near Hotel do Ipê at an unspecified altitude, October 1981 (D. F. Stotz *in litt.* 1991), at two sites, August 1991 (B. C. Forrester *in litt.* 1992), and a few kilometres inside the entrance gate to the park, 700 m, October 1991 (B. M. Whitney *in litt.* 1991).

São Paulo Records (east to west) are from Guarulhos, July 1902 (Pinto 1938), specimen “bought in the market” (in MZUSP); Piracicaba, undated (von Ihering 1898); Ipanema, April, July and August 1819, 1820 or 1821 (von Pelzeln 1868-1871); Itapetininga, April 1966 (specimen in MZUSP; Sick and Teixeira 1979), May 1969 (specimen in CIAL); and Rio Carmo road (24°17'S 48°25'W), 850 m, Fazenda Intervalles, Capão Bonito, 1987 (Willis 1989, whence coordinates) and November 1991 (D. F. Stotz *in litt.* 1992).

Paraná Despite the species's inclusion in a state bird-list (Scherer Neto 1985), a male observed at length at the end of the Poço Preto road along the rio Iguaçu in Iguaçu National Park in October 1987 (TAP) was apparently the first documented record for the state; another was heard c.1 km south of the Hotel Cataratas in the same park in October 1990 (TAP), and a pair was seen at Fazenda Santa Rita, Palmeira, 1,000 m, in November 1990 (L. dos Anjos verbally 1991) (see Remarks 2).

Santa Catarina The only record is from Blumenau, 5 May 1910 (Cory and Hellmayr 1924).

Argentina All Argentine records of the White-bearded Antshrike are from Misiones province, where the largest series of specimens has been obtained. Two birds were collected on the arroyo Aguaray-guazú, May 1948, and two others were observed on the arroyo Urugua-í (25°54'S 54°36'W), July 1948 (Giai 1950, 1951), along which specimens were collected at km 10 and 30, many months from May 1952 to August 1960 (Navas and Bó 1988b, and specimens in AMNH, MNRJ). Two other specimens are from Refugio Piñalitos (Piñalitos, at 25°59'S 53°54'W: Paynter 1985), November 1954 (Navas and Bó 1988b; also M. Nores and D. Yzurieta *in litt.* 1986), and four from Tobuna (26°28'S 53°54'W in Paynter 1985), November 1953 (Navas and Bó 1988b).

POPULATION Sparse nineteenth-century evidence indicates this was always considered a rare bird (e.g. Burmeister 1856, von Ihering 1898). This is certainly an easily overlooked species, but the scarcity of records from an area that has been relatively well explored by collectors and birdwatchers suggests that it is indeed rare (a view shared by D. F. Stotz *in litt.* 1988), which led to its being given this status in a Brazilian list of threatened birds (Sick and Teixeira 1979). It is considered scarce also in Argentina (J.

C. Chebez *in litt.* 1986, M. Nores and D. Yzurieta *in litt.* 1986, *contra* Sick 1985), where its rarity is probably not directly related to human activities since forests were little disturbed when it was discovered in Misiones (M. Nores and D. Yzurieta *in litt.* 1986). However, the species has seemingly never been the object of direct search in any part of its range, and even the relatively large Argentine series was probably fortuitously obtained.

ECOLOGY This peculiar antbird inhabits the bamboo understory of lowland and montane forest, occurring primarily in openings and along edges where thickets are most extensive and tall (TAP). At Capão Bonito in São Paulo it was found in the bamboo-rich, dense undergrowth of montane forest in the fog zone, and in the rainshadow zone north of the study area, but not downslope to the south out of the fog belt (Willis 1989). Bamboo (a “large-leaved” species) was also present in all the sites where this species was recorded in Rio de Janeiro (J. F. Pacheco *in litt.* 1987, B. M. Whitney *in litt.* 1991, TAP), in Misiones, Argentina, where it was identified as *Guadua trinii* (Giai 1950, 1951), and in *Araucaria* forest where it was found in Paraná (L. dos Anjos verbally 1991). On the serra of Itabira in Minas Gerais, in the transition zone between Atlantic Forest and cerrado vegetation, the species was in old second growth rich in thorny “taquaruçu” (giant) bamboo formations (G. T. de Mattos *in litt.* 1987). In Itatiaia and Iguazu National Parks, it was observed only in the most extensive bamboo stands, especially where this plant formed impressive columns of vegetation that climbed into the lower canopy and practically covered numerous medium-sized trees (TAP); tape playback, although possibly not conclusive as evidence, failed to provoke response in certain apparently suitable areas with large-leaved bamboo, suggesting indeed that the species may not be present in all such stands (B. M. Whitney *in litt.* 1991). All of these references to bamboo probably pertain to one or a few large-leaved species, possibly in the genus *Merostachys*, which are a characteristic element in the montane and subtropical forests throughout the range of the White-bearded Antshrike; periodically these large bamboos die off and the bird species confined to them are forced to move elsewhere, and after one such die-off of tall (12 m) *Merostachys* at Itatiaia in 1984 all the bamboo birds disappeared within an elevational range of 900-1,200 m, and many did not reappear until late in 1990, when this same species had grown again in places to a height of 5 m (TAP).

Willis (1989) recorded that the White-bearded Antshrike hops along trunks or on nearby limbs of giant bamboos, principally their horizontal fronds and twigs, pecking insects from dead leaves in the axils or fluttering short distances to foliage nearby. The stomach contents of a specimen in MZUSP from Itatiaia, August, were one spider, legs of another spider, small ants, and many small seeds. On the arroyo Aguaray-guazú the species joined mixed flocks with White-shouldered Fire-eye *Pyriglena leucoptera*, Red-crowned Ant-tanager *Habia rubica*, Black-goggled Tanager *Trichothraupis melanops* and the near-threatened Blackish-blue Seedeater *Amaurospiza moesta* (Giai 1951). At Capão Bonito, pairs of White-bearded Antshrike usually joined flocks of White-collared Foliage-gleaners *Anabazenops fuscus* (see Remarks 2), but at times kept to themselves (Willis 1989). Similarly, in all but one of one observer's records of the species in Rio de Janeiro, it was in the company of this foliage-gleaner (J. F. Pacheco *in litt.* 1987), but the latter has never been recorded at the study area in Paraná (L. dos Anjos verbally 1991) or anywhere in western Paraná or Misiones (TAP).

The only specimen whose gonad condition was recorded had testes undeveloped in mid-May. A pair was recorded building a nest in bamboo in October at Itatiaia (D. F. Stotz *in litt.* 1991), and in Itabira one bird was carrying food for young in mid-December, but the nest could not be found (G. T. de Mattos *in litt.* 1987).

THREATS Although this species appears to be naturally rare wherever it occurs, habitat loss has greatly compounded its poor conservation status. Forest clearance, e.g. in Minas Gerais and much of São Paulo and Paraná, must have caused many local extinctions. The destruction of forest in parts of Misiones (see, e.g., Threats under Brazilian Merganser *Mergus octosetaceus*) must also have resulted in declines in its numbers in Argentina. Because of its apparent restriction to bamboo thickets, whose die-off/regrowth periods create large physical and temporal discontinuities in the distribution of specialist users of such habitat, it would be difficult to maintain in small reserves: it is therefore probably most secure in the largest parks and reserves, especially those that have an abundance of bamboo of different species and at different elevations (e.g. as in Itatiaia National Park).

MEASURES TAKEN The presence of the species in the Desengano State Park, Serra dos Órgãos,

Itatiaia and Iguazu National Parks in Brazil and possibly the recently created Urugua-í Provincial Park on the upper arroyo Urugua-í in Argentina (Chebez and Rolón 1989) may give it some protection (but see Threats).

MEASURES PROPOSED Surveys of the species in the field are needed, particularly now that its calls have been identified and recorded during recent fieldwork (e.g. by P. S. M. da Fonseca and J. F. Pacheco verbally 1988). Its conservation status needs to be better ascertained, and this might best be achieved through a long-term study of bamboo specialist birds in the Atlantic Forest, this to target such other threatened species as Purple-winged Ground-dove *Claravis godefrida*, Fork-tailed Pygmy-tyrant *Hemitriccus furcatus* and the seedeaters *Sporophila falcistrostris*, *S. frontalis* and (near-threatened) *Amaurospiza moesta* (see relevant accounts).

REMARKS (1) The White-bearded Antshrike occupies its own genus. (2) The remarkable resemblance in size and female plumage coloration of this antshrike and the largely sympatric White-collared Foliage-gleaner (Sick 1985) has been interpreted as a case of mimicry (Willis 1989), and may be a source of misidentification in the field under the poor light conditions that usually prevail in their bamboo habitat, but also in museum collections (LPG), where specimens are known to have been mistaken for *Anabazenops* (D. F. Stotz *in litt.* 1989). Another source of confusion in the field might stem from the similarity of the songs of the White-bearded Antshrike and the White-shouldered Fire-eye *Pyriglena leucoptera* (TAP).