

This lowland forest antshrike is endemic to eastern Panama and north-western Colombia, where it has been recorded infrequently from very few localities (once in Colombia in 1940) and appears to be local and in need of fuller investigation.

DISTRIBUTION The Speckled Antshrike (see Remarks) is endemic to San Blas and eastern Darién provinces, eastern Panama, and Chocó department in north-west Colombia.

Panama Localities where this species has been recorded are restricted to provinces in the east of the country: (*Panama*) Altos de Cerro Azul, on the Cerro Vistamares trail, where a bird was seen in January and February 1992 (Engleman 1992a); Cerro Jefe, where a bird possibly this species was seen during the mid-1980s (Engleman 1992a); Cerro Guagaral (east of Altos de Pacora, but west of Cerro Jefe), where a pair was seen in February–March 1992 (Engleman 1992b); (*western San Blas*) Nusagandi, where a female (netted) and a few others were seen during April and May 1985 (Ridgely and Gwynne 1989), and in February 1989 and January 1992 (Whitney and Rosenberg in prep.); (*eastern San Blas*) Permé (Meyer de Schauensee 1948-1952); Quebrada Venado, in the hills above Armila (a Kuña Indian village), where three males and three females (in AMNH, USNM) were taken in March 1963 (also Wetmore 1972); Obaldía (Meyer de Schauensee 1948-1952); (*eastern Darién*) the middle slopes of Cerro Tacarcuna (Ridgely and Gwynne 1989); at “the old village site” at 580 m on the río Tacarcuna, where the type-specimen was taken in March 1915 (Chapman 1924), with another taken in March 1964 (Wetmore 1972); and La Laguna (on the ridge leading up to the cerro), where a female was taken at 575 m in June 1963 (Wetmore 1972).

Colombia Two females were collected at “Baudó” (= Pizarro; on the coast: Paynter and Traylor 1981) in July 1940, at 550 m (Meyer de Schauensee 1941) apparently beside the río Baudó (ANSP label data) on the lower slopes of the Serranía de Baudó (Meyer de Schauensee 1948-1952).

POPULATION This species is seemingly rare and very local throughout its very limited range (Hilty and Brown 1986, Ridgely and Gwynne 1989): however, in March 1963, once a pair had been located two other pairs were found with relative ease by searching in similar terrain (Wetmore 1972; see Ecology). Recent observations (during and subsequent to 1985) of a number of birds in western and eastern San Blas suggest that, prior to an adequate description of its vocalizations, the bird may previously have been overlooked (Ridgely and Gwynne 1989, B. M. Whitney and G. H. Rosenberg *in litt.* 1991), and although repeated searches at Nusagandi during the past three years failed to relocate the bird (Engleman 1992a), it was seen again during January 1992 and considered to be fairly common at this locality, although generally difficult to detect (Whitney and Rosenberg in prep.). The species's secretive habits (Wetmore 1972), and the lack of fieldwork in the Darién mountains along the border, may also have contributed to the paucity of records, although this cannot account for the lack of records elsewhere in Panama where known localities are relatively well watched.

ECOLOGY Records of this species come from between 150 and 600 m (Meyer de Schauensee 1941, Wetmore 1972, Hilty and Brown 1986, Ridgely and Gwynne 1989, Whitney and Rosenberg in prep.). The Speckled Antshrike inhabits lowland and foothill humid forest, where birds forage in pairs, favouring dense viny undergrowth (Wetmore 1972, Ridgely and Gwynne 1989). Wetmore (1972) recorded birds in a narrow, steep-sloping side-valley (not near the main stream draining the area), and others in similar terrain. The recent sighting from Cerro Azul was of a bird perching 2-3 m above the ground (often on thin saplings), whence it would make a flycatching sally and/or fly to a new perch; it was never seen to skulk in dense undergrowth, but foraged over rather open forest floor (Engleman 1992a).

The Kuña Indian reserve around Nusagandi forms part of the ridge system that makes up the continental divide (on the Caribbean slope), and has an extremely wet climate (in contrast, the Pacific slope just a few kilometres away is remarkably arid for much of the year): this area consists of ridges, steep-sided valleys and ravines with clear, fast-flowing streams (Whitney and Rosenberg in prep.). The forest within this reserve is largely undisturbed with a canopy varying from 15 to 25 m high and generally rather open (i.e. the crowns of the taller trees often do not interlock), and the resultant understorey is dense up to a height of about 2.5 m above which it opens out significantly (Whitney and Rosenberg in prep.). One of the most conspicuous elements of the vegetation in this area is the abundance and variety of palms in the understorey, with some of the species reaching the canopy (Whitney and Rosenberg in prep.). The Speckled Antshrike was found (in February 1987 and January 1992) mostly on the sides of steep slopes

below ridges, but was also noted ranging into the damp bottoms of ravines (Whitney and Rosenberg in prep.). Although Ridgely and Gwynne (1989) suggested that this bird does not generally associate with mixed-species flocks, and it is possible that the species undergoes some seasonal shift in foraging strategy (perhaps during breeding activities), Whitney and Rosenberg (in prep.) suggest that this is unlikely, and that it should be regarded as an inveterate member of mixed-species foraging flocks. At Nusagandi, pairs (and in one instance three birds) foraged exclusively as members of such assemblages in the undergrowth of undisturbed forest: the composition of these flocks was fairly constant with respect to at least three “core” species which were present in all flocks (namely Checker-throated Antwren *Myrmotherula fulviventris*, White-flanked Antwren *M. axillaris*, Half-collared Gnatwren *Microbatas cinereiventris*), and several other species that were present in most of them, a total of at least 21 species being noted in understory mixed-species flocks with this bird (Whitney and Rosenberg in prep.). Canopy and subcanopy foraging flocks sometimes appeared to be loosely associated with the understory flocks, in which the Speckled Antshrike may possibly be a “flock leader”; within these associations, it typically foraged between 0.5 and 2.5 m (most often at c.1 m), but ranged from practically on the ground to as high as 5 m (Whitney and Rosenberg in prep.). Never more than one pair was observed within any particular flock (although on one occasion an adult male and two female-plumaged birds were seen in a single flock), with the two birds usually staying in close proximity to each other: whilst scanning for prey items, birds would sit motionless for an average of 20 seconds (ranging from c.2 to 60 seconds), and would forage by sally-gleans to live foliage, taking prey from the leaf surfaces (Whitney and Rosenberg in prep.).

THREATS The forest in Darién, on the border of Panama and Colombia (including the Cerro Tacarcuna massif), is seemingly mostly unaffected by agricultural or logging activities (CNPPA 1982), but whilst it is expected that large areas of habitat suitable for the Speckled Antshrike remain in easternmost Panama (on the Caribbean slope of San Blas and Darién), it is also likely that these forests will be cleared at the steady rate of deforestation presently going on in San Blas, if they are not in some way protected (Whitney and Rosenberg in prep.). In the Serranía de Baudó there are still large expanses of forest (A. J. Negret *in litt.* 1987); however, both the Colombian side of the border and the Serranía de Baudó (especially around Ensenada Utría) have been identified as of the highest conservation priority (within the Colombian Chocó) owing to the building of roads encouraging settlement, and to timber companies causing further deforestation (IUCN TFP 1988a: see below); aerial observations (as of January 1992) of the Pacific lowlands of Colombia near the Panamanian border and up the río Atrato revealed that practically all of the forest had been cleared (Whitney and Rosenberg in prep.).

MEASURES TAKEN In Panama, the Darién National Park (597,000 ha), which is also a World Heritage Site, covers about 80% of the border area with Colombia, and although it apparently includes much of the Cerro Tacarcuna massif (CNPPA 1982, Ridgely and Gwynne 1989), the Speckled Antshrike has not yet been found in the park (Whitney and Rosenberg in prep.). There are two tribes of Indians (Chocó and Kuña) within the park, but the areas of agriculture and disturbed forest (principally along river courses) are very limited (CNPPA 1982: see Threats). Further west, the area around Nusagandi is protected as a 40,000 ha forest reserve (Ridgely and Gwynne 1989), 12,000 ha of which is a Kuña Indian reserve of largely undisturbed forest in which ecotourism is promoted (Whitney and Rosenberg in prep.).

In Colombia, Los Katíos National Park (72,000 ha) covers areas along the border (CNPPA 1982), and although the bird has not been recorded there or in the surrounding area (on the Colombian side), its location and altitudinal coverage (50-800 m) almost definitely make it an extremely important conservation area for this and other Chocó endemics (Haffer 1975, Whitney and Rosenberg in prep.); and Ensenada Utría National Park (c.50,000 ha) protects some areas of the Serranía de Baudó (IUCN TFP 1988a), although again it is unknown whether the Speckled Antshrike occurs in the immediate area. This latter reserve has been threatened by road-building associated with the construction of a hydroelectric dam (IUCN TFP 1988a), and Fundación Natura is currently undertaking management studies and an inventory in it (M. G. Kelsey *in litt.* 1992).

MEASURES PROPOSED Where possible, conservation efforts for this species should seek to address the needs of the other threatened birds in the region, namely Chocó Tinamou *Crypturellus kerriae* and Baudó Oropendola *Psarocolius cassini* (see relevant accounts), the other 10 lowland endemic birds (ICBP 1992, Crosby *et al.* in prep.), and the Tacarcuna Wood-quail *Odontophorus dialeucos* and Pirre Warbler *Basileuterus ignotus* (endemic to highland forest above 1,050 m on Cerros Tacarcuna, Pirre and Mali),

which, although not imminently threatened, need to be considered in any initiatives. The ecological requirements and distributions of all these birds are in urgent need of clarification, which could be attained by fieldwork and surveys in the Cerro Pirre foothills, Cerros de Quía area, Serranía del Darién (including Cerro Tacarcuna), and Serranía de Baudó. The status of each species in the national parks mentioned above also needs to be assessed in order to determine the viability of the populations within them and the effectiveness of the existing protected areas system. The status of this antshrike and the forest it inhabits within San Blas, Panama, also urgently requires assessment and probably protection. A protected area in the Serranía de Baudó, perhaps adjoining the Ensenada Utría National Park, is of the highest conservation priority within the Chocó region owing to its exceptionally high biological diversity (IUCN TFP 1988a; see also equivalent section under Baudó Oropendola).

For several years, INDERENA in Bogotá has been studying the possibility of linking with Panamanian efforts to preserve the Darién area through the creation of a bi-national reserve along the border (LGN), and such a reserve would undoubtedly help to protect this and the other important species mentioned above.

REMARKS The Speckled Antshrike is the only representative of the genus *Xenornis*.