

*Atlantic Forest destruction has isolated the two races of this ground-haunting insectivore in a few sites in north-east and south-east Brazil; in the latter region it is uncommon where it occurs, while in the former the areas involved are extremely small.*

**DISTRIBUTION** The Scalloped Antbird is endemic to eastern Brazil in three adjacent north-eastern states (race *soror*) and from southern Bahia (no records since 1933) through eastern Minas Gerais (no records since 1930) to Espírito Santo (nominat *ruficauda*).

*Paraíba* The only record is from Mamanguape, where five birds were obtained in July 1957 (Pinto and de Camargo 1961).

*Pernambuco* Records (north to south) are: Engenho Água Azul (Usina Cruangi), Timbaúba, June 1971, and recently (specimens in MZUSP, A. G. M. Coelho *in litt.* 1986); Usina São José, Igarassu, March and May 1945 (Berla 1946); Fazenda São Bento, Tapera (corresponding to present-day Tapacurá Ecological Station near São Lourenço da Mata: Coelho 1979), December 1938, March 1945 and recently (Pinto 1940, Berla 1946, A. G. M. Coelho *in litt.* 1986); UFPE Ecological Station at Serra (or Brejo) dos Cavalos, 980 m, Caruaru, and Salinho Biological Reserve, Rio Formoso, August 1986 (A. G. M. Coelho *in litt.* 1986).

*Alagoas* Older records are from São Miguel (north bank of the rio São Miguel, opposite Roteiro), September 1951; Fazenda Canoas on the rio Prata (c.12 km north of Maceió, municipality of Rio Largo), October 1951; and Usina Sinimbu (near present-day Sinimbu – not Ginimbu as in GQR 1991), October and November 1952, February and March 1957 (Pinto 1954a; specimens in FMNH, LACM and MZUSP). From this latter locality are two birds collected in October 1983 and April 1984 (specimens in MNRJ). Other modern records are from Usina Utinga Leão, Rio Largo, December 1990 (J. F. Pacheco *in litt.* 1991); Pedra (“Serra”) Branca, Murici, 550 m, February 1979 and May 1984 (specimens in MNRJ), October 1990 and January 1991 (J. F. Pacheco *in litt.* 1991), and the adjacent Fazenda Bananeira (to which all forest is now reportedly confined), April 1992 (M. Pearman *in litt.* 1992); and Fazendas Pedra Talhada and Riachão (now converted to the Pedra Talhada Biological Reserve: see Measures Taken), Quebrangulo, 1981–1985 (Studer 1985), August 1989 (B. C. Forrester *in litt.* 1992) and October 1990 (J. F. Pacheco *in litt.* 1991).

*Bahia* Older records (all coordinates from Paynter and Traylor 1991) are from as far north as rio Gongogi at Cajazeiras, 300 m, 14°24'S 39°51'W, June 1928, and rio Pardo at Verruga (rio Verruga confluence, 15°16'S 40°37'W), July 1921 (Naumburg 1939; specimens in AMNH); and from the Braço Sul do rio Jucuruçu at Cachoeira Grande (17°15'S 39°25'W), March 1933 (Pinto 1935). At least 14 old specimens in AMNH, ANSP, BMNH, MCZ, UMCZ, and USNM are merely labelled “Bahia” or “Bahia trade skin”. No recent records are known.

*Minas Gerais* The only record is from the rio Doce at Resplendor, 120 m, north shore, January 1930 (Naumburg 1939; specimen in AMNH).

*Espírito Santo* Older records are (north to south) from the rio Itaúnas, Fazenda Boa Lembrança, October 1950 (Schubart *et al.* 1965, Aguirre and Aldrichi 1983, 1987); Lagoa Juparanã (in one case precisely Santana), August and September 1925 (specimens in MNRJ), October and November 1929 (Naumburg 1939); Linhares, Fazenda Europa, September and October 1939; Colatina, north of rio Doce, November 1940; Baixo Guandu (in one case precisely Fazenda da Serra), October 1925 (specimen in MNRJ), December 1929 and January 1930 (Naumburg 1939); Pau Gigante (now Ibirapu) (in one case precisely Lauro Müller), February and March 1906 (Pinto 1938), April and August to October 1940; Água Boa, Santa Cruz, October and November 1940; Porto Cachoeiro (now Santa Leopoldina), November and December 1905 (Pinto 1938) (where no source before semi-colon, records are from specimens in LACM, MNRJ, MZUSP, USNM). Two specimens are from an unspecified locality on the rio Doce, July 1906 and December 1913 (Cory and Hellmayr 1924, Pinto

1938). Recent records (all to the north of Lagoa Juparanã) are from the Córrego do Veado Biological Reserve, October 1986 (Gonzaga *et al.* 1987), and Sooretama Biological Reserve, December 1980/January 1981 (Scott and Brooke 1985), February 1986 and 1987 (C. E. Carvalho *in litt.* 1987), October 1989 (M. Kessler *in litt.* 1989).

**POPULATION** There seems to be little reason to doubt that a serious decline in numbers and a fragmentation of populations must have taken place owing to habitat destruction, so that the species is now restricted to a few patches of forest. In the largest of these, the Sooretama Reserve, it was considered uncommon (occasionally encountered in appropriate habitat) during a survey in December 1980/January 1981 (Scott and Brooke 1985) and in more recent fieldwork there (B. M. Whitney *in litt.* 1991), although “fairly common” there in October 1989 (M. Kessler *in litt.* 1989). At the adjacent CVRD Linhares Reserve, where it has not yet been recorded, the species must be quite rare if present (D. F. Stotz *in litt.* 1991). Even though numbers in the much smaller reserves listed under Distribution might be expected to be low, the species has been considered locally still fairly common to common (A. G. M. Coelho *in litt.* 1986, J. Vielliard *in litt.* 1986, D. M. Teixeira *in litt.* 1987), but this possibly applies only to the subspecies *soror*, which was fairly common (several pairs located easily) at Murici, while a couple of pairs were found at Pedra Talhada in October 1990 (B. M. Whitney *in litt.* 1991).

**ECOLOGY** The Scalloped Antbird inhabits primary and secondary forest (Pinto 1954a, Scott and Brooke 1985, Sick 1985, A. G. M. Coelho *in litt.* 1986), but has been found also in much degraded secondary growth (D. M. Teixeira *in litt.* 1987), most of the records being from lowland localities. Birds have been collected and observed mostly in the undergrowth of primary or secondary forest, close to the ground (specimens in MNRJ, A. G. M. Coelho *in litt.* 1986, M. Pearman *in litt.* 1990). At Sooretama the nominate form has been reported from the interior of tall forest (M. Isler and P. Isler verbally 1992), possibly (in the light of what follows) around large treefall gaps, but it has most often been encountered in drier-looking forest along the north–south track through the western side; several territorial pairs were found repeatedly over several years within a few metres of the same spots, and territories thus appear to be well under 1 ha in size, even though pairs are very well spaced (TAP). The undergrowth in these areas was characterized by an abundance of thick, woody vines and small tree trunks (a habitat seemingly also preferred in the reserve by the threatened Striated Softtail *Thripophaga macroura* and the near-threatened Yellow-legged Tinamou *Crypturellus noctivagus*), and birds use vine perches for cover when alarmed and as song-posts (TAP). The race *soror* is similarly almost entirely terrestrial, foraging particularly around light gaps (such as fallen trees and brush piles) and fairly open areas near denser cover in well developed forest; members of a pair have been observed foraging on the ground a few metres apart, often moving into the shelter of a fallen tree or dense understorey (B. M. Whitney *in litt.* 1991).

The birds forage in shady places in the leaf-litter, vigorously flipping leaves to uncover prey items (TAP) but also picking at the lower stems and leaves of understorey plants (B. M. Whitney *in litt.* 1991). The stomach of one specimen contained three spiders, three grasshoppers, one cockroach, one beetle, and other insects (Schubart *et al.* 1965).

A female collected in Espírito Santo on 30 November had a ripe egg in the oviduct, whereas two others from the same locality had slightly enlarged ovaries on 30 October and 17 November; males taken at the same locality on these dates had testes either undeveloped or half-enlarged; of the four birds collected in December and January (also in Espírito Santo), only one male had (slightly) enlarged testes on 28 December; two males collected in Minas Gerais (January) and Bahia (June) had undeveloped testes (specimens in AMNH). From this evidence, breeding seems to occur in Espírito Santo in October/November, whereas in the north-east it apparently takes place between March and May (A. Studer *in litt.* 1987); one nest with two eggs was found on the ground in closed forest at Quebrangulo, 15 April 1985 (A. Studer *in litt.* 1987).

**THREATS** The massive deforestation which has taken place throughout the species's range has certainly had a major impact on its populations, its present distribution being now heavily fragmented, with most lowland forest localities currently cleared or under pressure, and even reserves not being secure (A. G. M. Coelho *in litt.* 1986, Gonzaga *et al.* 1987).

**MEASURES TAKEN** The species is protected under Brazilian law (Bernardes *et al.* 1990). Efforts for the preservation of the forests in the Serra das Guaribas at Quebrangulo (Studer 1985) resulted in the creation in December 1989 of the 4,500 ha Pedra Talhada Biological Reserve. The privately owned forest of Engenho Água Azul at Timbaúba is one of the best-kept reserves in Pernambuco (A. G. M. Coelho *in litt.* 1986). The 450 ha UFPE reserve, the 500 ha Saltinho Biological Reserve and the 350 ha Tapacurá Ecological Station might give it some additional protection in the north-east. The species's occurrence in the 24,000 ha Sooretama Biological Reserve and in the 2,200 ha Córrego do Veado Biological Reserve is only partially reassuring, since the numbers observed remain so small.

**MEASURES PROPOSED** The conservation of the Pedra Branca forests at Murici is clearly important, this being apparently the largest remaining continuous forest area in extreme north-eastern Brazil (Teixeira 1987) and holding several other threatened birds (see Remarks under Alagoas Foliage-gleaner *Philydor novaesi*). Effective protection of already created reserves is obviously an equally urgent need. The few remaining patches of forest within the species's range could still harbour small and so far undetected populations, and merit being identified and searched to assess its conservation status more accurately.