

Although now being found fairly widely in Rio de Janeiro state following the identification of its call, this Atlantic Forest flycatcher of south-east Brazil, eastern Paraguay and northern Argentina occurs at very low densities and remains very poorly known. It has suffered from habitat destruction and is in urgent need of study.

**DISTRIBUTION** The Russet-winged Spadebill is endemic to the Atlantic Forest region of south-east South America, from Espírito Santo south to northern Rio Grande do Sul (no records from Santa Catarina) in Brazil into eastern Paraguay and north-eastern Argentina.

**Brazil** In the following account, localities are listed from north to south.

*Espírito Santo* The species was included in the state bird list by Ruschi (1953), and a specimen, formerly in MNRJ but now missing, was collected in the state (J. F. Pacheco *in litt.* 1991, LPG). Recent records are from the Santa Lucia Reserve (700 ha, kept by MNRJ: see Oliver and Santos 1991: 82), Santa Teresa, October 1986 (J. Vielliard verbally 1986), and the Augusto Ruschi (Nova Lombardia) Biological Reserve, 900 m, 1984-1990 (C. E. Carvalho *in litt.* 1987, TAP), and October 1989 (M. Kessler *in litt.* 1989).

*Rio de Janeiro* Four old skins in BMNH are labelled "Rio de Janeiro". This state holds the bulk of modern records, all from the late 1980s and early 1990s (and all supplied by J. F. Pacheco *in litt.* 1987, 1991): Desengano State Park, at three sites, 500-1,000 m: Morumbeca do Imbé, February to April, October 1987 to 1989, Marreiros, April 1989, and ribeirão Macapá, April 1989; Mata da Cicuta, Volta Redonda, October 1987; Caiçara, Piraí, July 1989, May 1990; Piraí Ecological Station, December 1987; Serra do Mendanha (north of Campo Grande), August 1988; rio Florestão, Angra dos Reis, December 1990; Horto Florestal (adjacent to Tijuca National Park), September 1988; and Sítio Palmeiras, Parati, September 1989, April and November 1990.

*São Paulo* Records are from: Rio Feio, Bauru, 1901 (von Ihering 1902, von Ihering and von Ihering 1907, Pinto 1944); Fazenda Barreiro Rico, Anhembi, November 1964 (specimen in MZUSP) and 1975-1977 (Willis 1979); near Ubatuba, September 1991 (D. F. Stotz *in litt.* 1991); Boracéia Biological Station, near Salesópolis, November 1945, September 1963 (specimens in MZUSP) and September and December 1991 (D. F. Stotz *in litt.* 1991, 1992); Casa Grande, February 1968 and in 1972 (specimens in CIAL); Sete Barras State Reserve, 1979 (Willis and Oniki 1981a); and Fazenda Poço Grande, rio Juquiá, May 1940 (Pinto 1944). E. O. Willis *in litt.* (1986) mentioned having found this species at three unspecified localities in the state.

*Paraná* Scherer Neto (1985) indicated that the species was known in the state from material in museums; this was evidently based on a specimen in MHNCI from Santa Cruz Forest Reserve, 25°35'S 48°35'W, July 1946 (F. C. Straube *in litt.* 1985; coordinates from Straube 1990). Sick's (1985) record of Londrina derived from Steffan (1974), who reported having netted one bird at Água do Quati dam, rio Tibaji, c.20 km east of Londrina, on an unstated date. Other recent records are from the Fazenda de Irmãos Thá, Antonina (25°15'S 49°15'W), December 1986 (SPVS 1988), and Guaraguaçu, near Praia de Leste, c.15 km south of Paranaguá, August 1991 (F. C. Straube *in litt.* 1991). Small numbers were recorded in Iguazu National Park, 1985-1990 (TAP).

*Rio Grande do Sul* The only record is from the vicinity of Torres, in subsequently destroyed wet coastal forests, where four birds were collected in October 1928 and September 1973 (Belton 1984-1985; also Sick 1985).

**Paraguay** Records are from Sapucay, September 1904 (Chubb 1910), and Picada del Monte Caaguazú, November 1930 (specimen in AMNH).

**Argentina** The only records are those of a bird banded in the Iguazú National Park, April 1978 (Olrog 1979) and of one seen there in January 1989 (P. Cano *per* J. C. Chebez *in litt.* 1992); however, in the absence of a photograph or skin these first reports for the country must remain technically open to question (J. C. Chebez *in litt.* 1992).

**POPULATION** This species is apparently rare and local, although it is certainly also very inconspicuous and may therefore be overlooked to a large degree: the number of records in Rio de Janeiro, for instance, has increased significantly since its advertisement call was learnt (J. F. Pacheco verbally 1991). Nevertheless, it has been stated that the species “never seems to be common anywhere, one pair or two at most being present at any given site, which makes it always rare” (D. F. Stotz *in litt.* 1991). It is considered rare at Augusto Ruschi (Nova Lombardia) Biological Reserve (C. E. Carvalho *in litt.* 1987), where during annual visits (1980-1990) individuals or pairs were located (with the aid of tape playback) in only four widely separated areas (TAP). It is also rare in the sites where it has been recorded in Rio de Janeiro (J. F. Pacheco *in litt.* 1991): at Morumbeca, Desengano State Park, an estimated population of at most 10 birds was present in early 1987 (J. F. Pacheco *in litt.* 1987), and numbers at Barreiro Rico and Sete Barras in São Paulo were, respectively, eight and seven birds per 100 hours of fieldwork (Willis 1979, Willis and Oniki 1981a). In extensive good-looking habitat in Iguaçu National Park only four individuals were found, most of them repeatedly in the same areas year after year (TAP). Most of the records at each of the other localities have been of isolated birds or pairs; but while unobtrusiveness of the bird alone may not account for this scarcity of records, it should be noted that several modern records have resulted from the use of mist-nets (specimens in MZUSP, some of the Paraná and the Argentina records at least).

**ECOLOGY** The Russet-winged Spadebill has been recorded from the understorey of primary and (old) secondary forest both in the coastal mountains and lowlands and in more inland tableland forests. In both Augusto Ruschi and Iguaçu the species occurs in tall (25-30 m) closed-canopy forest with a well developed (and shaded) middle tier of small to medium trees and fairly open undergrowth below: nearly all observations were of individuals perched on slender branches in the crowns of small trees 3-8 m above the ground (thus they do not normally occur near the ground in thick undergrowth or bamboo as does the White-throated Spadebill *Platyrinchus mystaceus*) (TAP). One bird collected near Torres was in a “heavily shaded area of wet coastal forest with only moderate undergrowth at a height of about 1.8 m” (Belton 1984-1985), this description corresponding well to the situation in which the species was found at one site in Desengano State Park in lower montane forest (LPG), but on the Serra do Mendanha birds were in the undergrowth of regenerating forest in an old banana plantation (J. F. Pacheco verbally 1988). Pairs seem to stay far apart when foraging, and indeed are only rarely seen together (e.g. in response to song playbacks at dawn); and although territories seem to be very small (less than 0.5 ha) individuals may spend much time in small portions of a much larger area (TAP). One at Augusto Ruschi was found in the same small area (within 20 m of a few frequently used small trees) every year in September or October from 1984 to 1990, occasionally accompanied by a second individual; this site was characterized by an abundance of small understorey palms and scattered small trees in the full shade of tall forest on a moderately steep slope (TAP). Another bird seen annually from c.1985 to 1990 at Iguaçu was consistently found in the tops of small trees (at 3-6 m) in a shady, level area bordering a small stream: it rarely moved more than 50 m from the centre of its territory and was usually perched in one of a few regularly used trees (TAP). A third bird, also at Iguaçu, frequented similar streamside habitat but ranged up and down a slope and occasionally perched high in a bamboo thicket (TAP).

Birds perch motionless, often for several minutes at a time, scanning surrounding foliage: most foraging movements were diagonal sallies (up to 2 m) to small and medium-sized leaves; an individual watched for 20 minutes in Iguaçu captured two green katydids c.3 cm long (TAP). One bird at Augusto Ruschi was in a mixed-species flock in forest undergrowth (P. K. Donahue *in litt.* 1987).

As with White-crested Spadebill *P. platyrhynchos* of Amazonia, territorial Russet-winged Spadebills rarely if ever occur close to other pairs: the closest adjacent territories in Augusto Ruschi were c.600 m apart (TAP). The only evidence of breeding are that a female collected on 30 September 1973 had an enlarged ovary and follicles (Belton 1984-1985), two males obtained in October and November had testes fairly enlarged, and a female collected with the October male had an ovary slightly enlarged (specimens in AMNH).

**THREATS** The fragmentation of the species's range by extensive forest destruction has been and remains the one significant threat; even if current records are from a number of protected areas, the species's ecological requirements remain very poorly known and its recorded numbers in those areas are too low to inspire confidence in the future of the populations they hold. Furthermore, some of these areas, such as Desengano in Rio de Janeiro and the southern coast of Paraná, are also suffering from deforestation (Straube 1990, J. F. Pacheco *in litt.* 1991).

**MEASURES TAKEN** The species is protected under Brazilian law (Bernardes *et al.* 1990). Some of its present remnant populations should persist so long as the protected areas where they have been found continue to be preserved; but see Threats.

**MEASURES PROPOSED** Surveys of the species in the field are needed to confirm and monitor its continued existence in the localities where it has been recorded, as well as to locate any new populations and to redefine its range, particularly now that its song and calls have been taped (J. Vielliard verbally 1986, LPG) and could be used, perhaps in conjunction with mist-nets, to enhance its detection. It should be noted that this species, like many Neotropical flycatchers, sings primarily at first light, and then normally for only a few minutes; moreover, the most frequently heard call-note (a sharp *queek*) is similar to that of the Rufous-capped Antthrush *Formicarius colma* (TAP). A study programme into its population dynamics and habitat requirements at various sites where it occurs should partner a general review of its conservation status in these areas, whose continued protection is an obvious need.