This largely montane forest species is, for reasons unclear, very sparsely distributed in south-east Brazil (one record from Argentina) with only a few current localities known (notably Itatiaia and Serra da Bocaina National Parks).

DISTRIBUTION The Black-capped Manakin (see Remarks 1) is endemic to the Atlantic Forest region of south-eastern South America, occurring locally from southern Minas Gerais and adjacent portions of Rio de Janeiro and São Paulo to Paraná, Santa Catarina and Rio Grande do Sul in Brazil into Misiones, Argentina.

Brazil The occurrence of the species in Espírito Santo (Ruschi 1953), although admitted by Meyer de Schauensee (1966, 1982), apparently lacks documentation and is not accepted here.

Minas Gerais The species was included in the state bird list (de Mattos *et al.* 1984) from observations "in forests near Itatiaia National Park" (G. T. de Mattos *in litt.* 1987). Other records from this region are from Bocaina de Minas, near Santo Antonio at Fazenda do Machado (22°13'S 44°30'W), c.1,800 m, December 1984; Alagoa, right bank of stream at Brejo da Lapa (22°42'S 44°42'W), c.2,100 m, July 1984; Passa Vinte at Morro do Chapéu (22°11'S 44°21'W), c.1,700 m, July 1985; and Mirantão at Fazenda Mauá, c.1,500 m, January 1988 (R. B. Pineschi *per* H. Sick verbally 1987, 1988, whence coordinates).

Rio de Janeiro All modern records are from the Itatiaia massif and, except for a record from Visconde de Mauá, 1,200-1,600 m, in 1988 (Pineschi 1990), all are from within the Itatiaia National Park, where two males were collected at Maromba, 1,550 m, in January 1954 (Pinto 1954b), one female was collected at Macieiras, 1,830 m in July 1955 (specimen in CPNI), and elsewhere more recently, thus: almost annually in the 1980s in small numbers (up to six pairs or family groups) in three areas, above Véu da Noiva waterfall, along a track in the upper forest, and along the main road to Agulhas Negras (which may partly pass through Minas Gerais), mostly at 1,550-2,000 m, though as low as 1,400 m (TAP); four in December 1986 between 1,600 and 1,700 m (B. M. Whitney *in litt.* 1987), a minimum of 10 being involved in a display in the forest canopy on 25 October 1987 at 1,700 m (J. F. Pacheco *in litt.* 1987); three in August 1988 (M. Pearman *in litt.* 1990); and "good views of singing males" in September/October 1989 (B. M. Whitney and J. C. Rowlett *in litt.* 1990). An old specimen is from Nova Friburgo; another is labelled simply "Rio" (Hellmayr 1929b).

São Paulo Records are from: Campos do Jordão, where two males were collected in February 1906 (von Ihering and von Ihering 1907, Pinto 1944; specimens in MZUSP), with other birds observed in the Campos do Jordão State Park, 1,500-2,000 m, 1976-1979 (Willis and Oniki 1981a); and the Serra da Bocaina (not in Rio de Janeiro as in Sick 1985), where a male was collected at 1,600 m in May 1951 (specimen in MNRJ), with other birds observed in the Serra da Bocaina National Park, c.1,200 m, November 1989 (Fonseca and Pacheco 1989).

Paraná The species was described from 10 specimens collected in Curitiba, October 1820 (von Pelzeln 1868-1871, Hellmayr 1929b). Other specimen records are of one bird from Tibaji (Fazenda Monte Alegre, 900 m), March 1930 (male in AMNH); Castro, June 1914 (Pinto 1944); and seven from Invernadinha (near Guarapuava), 1,065 m, Cara Pintada (30 km from Invernadinha, north of Guarapuava), 1,007 m, and Vermelho (30 km north of Cara Pintada), 935 m, May and June 1922 (Sztolcman 1926). Scherer Neto (1985) indicated that the bird was known in the state via references in the literature, specimens in museums and his own observations, but no details are given; nevertheless, there is at least one recent record, from the Fazenda Santa Rita, Palmeira, 1,000 m, recently (L. dos Anjos *in litt.* 1987) (see Remarks 2).

Santa Catarina The only records are from Ouro Verde (Meyer de Schauensee 1966), this being based on a female taken there at 750 m on 2 May 1929 (in AMNH), and the São Joaquim area, February 1992 (E. I. Abadie *per* M. Pearman *in litt*. 1992).

Rio Grande do Sul The species has been recorded only three times in the state, from the Fazenda das Amoreiras (29°20'S 50°41'W), between Canela and São Francisco de Paula, 840 m, in September 1972 and January 1976 (Belton 1984-1985, whence coordinates), and in Aparados da Serra National Park in July 1991, when three birds were seen (B. C. Forrester *in litt*. 1992).

Argentina The only Argentine record of the Black-capped Manakin is one specimen collected on

3 September 1959 at Tobunas (Tobuna, 26°28'S 53°54'W: Paynter 1985), Misiones (Partridge 1961, Nores and Yzurieta 1986).

POPULATION This species is apparently rare and local, although there is little reason to believe that it was ever much more numerous than at present (see Threats).

ECOLOGY The Black-capped Manakin is largely confined to montane forest (see records under Distribution) in the Araucaria angustifolia and Podocarpus lamberti domain. The species has been considered a bird of forest canopy (Meyer de Schauensee 1982, Belton 1984-1985, Sick 1985). At Itatiaia in the 1980s it was found in small numbers in the canopy of dense upper montane forest, primarily at 1,500-2,000 m: nearly all (c.12) observations were of 2-4 individuals foraging inside the crowns of medium-sized trees about 10-14 m tall (TAP). The species was frequently noted in the upper branches of an Inga-like tree with rough, blackish bark: individuals often remained in these trees for long periods of time, and even long after the flocks they were following had passed out of earshot (TAP). However, another observer in the same area in 1984/1985 found birds c.1 m from the ground in a dense thicket of Chusquea bamboo with 2 m tall treelets (Roupala sp.) on hilltops (R. B. Pineschi per H. Sick verbally 1988). Three birds seen in August 1988 were in the forest subcanopy, one associating with a mixed flock (M. Pearman in litt. 1990). Each of four sightings in December 1986 at Itatiaia National Park involved a bird accompanying a mixed-species flock of frugivores and insectivores; the Black-capped Manakin was always on or near the periphery of the flock, and 8-15 m from the ground; hover-plucking of possibly arthropod prey from the surface of leaves was recorded (B. M. Whitney in litt. 1987). Other pairs or small groups of this species in the park were noted with canopy mixed-species flocks that included Buff-fronted Foliage-gleaner Philydor rufus, Sharp-billed Treerunner Heliobletus contaminatus, Rufous-backed Antvireo Dysithamnus xanthopterus, Rufous-crowned Greenlet Hylophilus poicilotis and numerous small tanagers, especially the Brassy-breasted Tanager Tangara desmaresti (TAP). That the diet of the Blackcapped Manakin includes animal food is confirmed by the stomach contents of birds collected in Paraná, which were given as insects, including beetle larvae, and vegetable remains including "chanterelles" (Sztolcman 1926). Fruits taken at the Itatiaia massif included those of four species of Rapanea (Pineschi 1990), Leandra sulfurea (R. B. Pineschi verbally 1987), and Geonoma sp. (R. B. Pineschi per H. Sick verbally 1988), all of which were eaten also by a variety of other bird species. Birds foraging for arthropods sallied short distances to glean or hover-glean leaves and twigs (TAP).

The only evidence on breeding comes from a pair engaged in courtship display on 25 September 1972; the male collected that day had much enlarged testes (Belton 1984-1985). The male from Paraná, March, had a three-quarters ossified skull, the female from Santa Catarina, May, an unossified skull (specimens in AMNH). The species was readily located each year using tape playback at known sites, two individuals (presumably a pair) typically responding by flying back and forth calling loudly and almost antiphonally, as if territorial (TAP).

THREATS The species was considered threatened by disappearance of primary araucaria forests (Sick 1969), yet was absent from subsequent lists of threatened birds (Sick 1972, 1985, Sick and Teixeira 1979, 1980). It should be noted, however, that it is not truly an araucaria forest specialist, being found in other mixed subtropical forests within the araucaria range, although it is apparently of restricted occurrence even where these formations remain (TAP).

MEASURES TAKEN The species is protected under Brazilian law (Bernardes *et al.* 1990). It has been recorded from Itatiaia, Serra da Bocaina and Aparados da Serra National Parks and Campos do Jordão State Park in Brazil.

MEASURES PROPOSED Surveys are needed better to assess the species's conservation status and distribution, particularly in the states of Paraná, Santa Catarina and Rio Grande do Sul in Brazil and in Argentina. Special attention should be given to existing protected areas and to monitoring the size of the populations they hold, but other, ornithologically neglected areas within the species's potential range could still harbour so far undetected populations, and merit being searched.

REMARKS (1) The systematic position of this bird, which is atypical of manakins, remains unclear,

biochemical studies suggesting the genus is not piprine (see Sibley and Monroe 1990, who proposed the name "Black-capped Piprites". (2) Contrary to what might be expected from the species's occurrence in Paraná and Misiones, it has not been found in the Iguaçu and Iguazú National Parks in Brazil and Argentina respectively, where the Wing-barred Manakin *Piprites chloris* is common (LPG, TAP, B. M. Whitney *in litt.* 1987); however, the mixed broadleaf forest with araucaria and austral conifers that apparently occurs within Iguaçu National Park has not been well surveyed for birds, if at all, but it is in such formations that this bird (along, e.g., with Vinaceous Amazona vinacea) would be most anticipated (TAP).