

The last hope for this small insectivore appears to be an unprotected and rapidly diminishing tract of upland forest, only 1,500 ha in extent, near the type-locality in Alagoas state, Brazil.

DISTRIBUTION The Long-tailed Tyrannulet (see Remarks) is known chiefly from (Fazenda) Pedra Branca ("Serra Branca": see Remarks 2 under Alagoas Foliage-gleaner *Philydor novaesi*), near Murici (9°19'S 35°57'W), on the south-eastern escarpment of the Borborema plateau in Alagoas, north-eastern Brazil (see, e.g., Teixeira and Gonzaga 1983; D. M. Teixeira *in litt.* 1987), although it appears now to be present only in the remaining part of this area, Fazenda Bananeira (see Threats, Measures Proposed under Alagoas Foliage-gleaner). It was discovered in November 1983 when one young male was collected; four other specimens (two pairs, including the type) were obtained in May 1984 (Teixeira 1987a). A second population was found in the general Quebrangulo area in February/March 1987 (Teixeira and Luigi 1987: 609), and specifically at Pedra Talhada Biological Reserve in August 1989, when six or more were observed in a mixed-species flock (B. C. Forrester *in litt.* 1992), birds being seen there again in October 1990 (J. F. Pacheco verbally 1992). The species seems to be restricted to highland forest (550 m), not having been found in the coastal lowlands, which had previously been explored ornithologically, but it is difficult to locate on account of its small size and arboreal habits (Teixeira 1987a).

POPULATION Numbers are not known. In the type-locality it was considered "rather common", although difficult to locate (Teixeira 1987a; see Distribution); this seems borne out by other observations referred to in this account (by B. M. Whitney and B. C. Forrester).

ECOLOGY The Long-tailed Tyrannulet inhabits the tops of middle strata trees, often joining mixed-species flocks of other tyrant-flycatchers, woodcreepers, foliage-gleaners, antbirds, gnatwrens and Bananaquits *Coereba flaveola*; its food consists of small insects, which are taken from the surface of leaves and branches (Teixeira 1987a). Birds observed in October 1990 foraged with mixed-species flocks, travelling mostly in pairs in the mid-storey and subcanopy, 6-15 m above ground, taking prey in quick, darting movements from both surfaces of leaves but also sometimes more slowly and methodically searching along limbs (B. M. Whitney *in litt.* 1991). Birds in April 1992 were always in mixed flocks, inside forest or at forest edge (M. Pearman *in litt.* 1992). A breeding period between September and February has been inferred from the observed small size of gonads and intense moult of adult birds collected in May; an immature collected on 20 November was being fed by two adults in the tree-tops; pairs seem to remain together longer than expected, since two of them were collected and several other possible pairs were observed in April and May following mixed flocks (Teixeira 1987a). A nest found in October 1990 was c.45 cm in length, hanging 6 m above ground from the low limb of a 20 m high tree in a rather open area (see Remarks 2); at least one adult was feeding young in the nest, one prey-item being a 3 cm long katydid (B. M. Whitney *in litt.* 1991).

THREATS Destruction of forest at Pedra Branca is the single most serious threat to this and all other upland forest species in Alagoas (see Threats under Alagoas Foliage-gleaner).

MEASURES TAKEN The Long-tailed Tyrannulet is protected under Brazilian law (Bernardes *et al.* 1990; see equivalent section under Alagoas Foliage-gleaner).

MEASURES PROPOSED An initiative to preserve forest and its rich birdlife at Pedra Branca (Bananeira) needs urgent impetus (see Measures Proposed and Remarks under Alagoas Foliage-gleaner).

REMARKS (1) The Long-tailed Tyrannulet is apparently closely related to the Serra do Mar Tyrannulet *Phylloscartes difficilis* from south-eastern and southern Brazil (Teixeira 1987a). However, field observations point to a closer relationship with Oustalet's Tyrannulet *P. oustaleti*, *difficilis* being a highly distinctive bird, dissimilar in voice and behaviour to other *Phylloscartes* (B. M. Whitney *in litt.* 1991). (2) The nest consisted of three parts: a 10 cm long attachment to the limb, the ball-like nest proper (a rounded basket with a 2-3 cm wide entrance hole to one side), and a 20 cm long "tail" of dangling material that may have served to camouflage or stabilize the structure; it was made entirely of one type of moss-like material common on tree-trunks (B. M. Whitney *in litt.* 1991).