

This peculiar ovenbird is known from only four specimens and a few sight records from three localities in lower montane forest in the Bolivian departments of La Paz, Cochabamba, and Santa Cruz. It is apparently scarce and confined to a very narrow elevational zone (670-800 m), and may be severely threatened owing to rapid deforestation within its small range.

DISTRIBUTION The Bolivian Recurvebill (see Remarks 1) is known from just three localities in the yungas of Bolivia, in the departments of La Paz, Cochabamba, and Santa Cruz. Until recently it was known only from four specimens collected by M. A. Carriker at two localities in the 1930s (coordinates from Paynter *et al.* 1975): three specimens, including the type (taken in July 1934), are from Santa Ana, 15°50'S 67°36'W, at 670 m on the río Coroico, La Paz department, with one (taken in July 1937) from Palmar, 17°06'S 65°29'W, at 800 m in Cochabamba department (Carriker 1935a, Bond and Meyer de Schauensee 1941, 1942-1943). In August 1989 the species was recorded at 700-800 m along the upper río Saguayo, in Amboró National Park (17°50'S 63°39'W), Santa Cruz department (Parker *et al.* 1992).

POPULATION Little information is available, but the species is presumably rare and declining owing to habitat destruction (see Threats). Of the 385 bird specimens procured at Santa Ana from 11 July to 2 August 1934 only three were of the present species (Bond and Meyer de Schauensee 1942-1943), and Carriker (1935a) therefore considered it rare. Of the 420 bird specimens procured at Palmar, 1-28 July 1937, only one was a Bolivian Recurvebill (Bond and Meyer de Schauensee 1942-1943), so apparently the species was even rarer there (see also Ecology). Along the río Saguayo, at least four individuals, including a territorial pair, were found within an area of c.50 ha (TAP). The Amboró National Park population is presumably large (hundreds to low thousands) and stable, but populations to the north (including those near Santa Ana and El Palmar) are undoubtedly seriously threatened by habitat loss.

ECOLOGY The Bolivian Recurvebill inhabits foothill tropical forest (see Remarks 2) and has been found at 670-800 m (Carriker 1935a: see Distribution). In Amboró National Park, the species was found in the interior and along the edges of 30 m tall forest on steep slopes above the upper río Saguayo: two individuals were noted at 0.5-2 m in dense vegetation (1-3 m tall) covering natural landslides above a small stream at c.800 m, where they were foraging in the tangled branches of fallen trees, and in the shrubby growth and vines that had overgrown them (Parker *et al.* 1992, TAP). Another bird was seen in similar tangles on a steep bank bordering the río Saguayo at 700 m (Parker *et al.* 1992, TAP). In contrast to these was a pair that foraged primarily in vine tangles at 12 to 20 m (in the upper middle storey), in the interior of tall forest: these birds hopped along and up vines and pecked at rotting branches, palm fronds, and large dead leaves trapped in the darkened recesses of extensive tangles; they also probed in large bromeliads and other arboreal epiphytes, such as species of *Philodendron*, growing on trunks and large limbs (Parker *et al.* 1992, TAP). This pair responded strongly to song playback as if territorial, and was noted repeatedly within an area of c.2 ha (TAP). They regularly associated with a large flock of canopy insectivores that included pairs and/or families of the following species: White-throated Woodpecker *Picus leucolaemus*, Ocellated Woodcreeper *Xiphorhynchus ocellatus*, Rufous-rumped Foliage-gleaner *Philydor erythrocerus*, Ashy Antwren *Myrmotherula grisea* (see relevant account), Slaty-capped Flycatcher *Leptopogon superciliaris*, Tawny-crowned Greenlet *Hylophilus ochraceiceps*, White-shouldered Tanager *Tachyphonus luctuosus*, and other smaller species of *Tangara* tanagers (Parker *et al.* 1992). The area surveyed along the upper río Saguayo is also an important site for the threatened Southern Helmeted Curassow *Pauxi unicornis* (see relevant account).

THREATS Forests in the elevational range of this and other yungas bird endemics (lower montane forest at 500 to 1,500 m), on interior ridges of the Andes in north-western Bolivia, are drier than true montane forest, are easier to burn, and often occur on moderate slopes with rich soils that are well-suited to subsistence agriculture, as well as to the cultivation of cash crops such as coca and coffee: for this reason, they are a favoured target for colonization projects (involving colonists from the altiplano), and large areas in this zone have already been deforested, especially in La Paz and Cochabamba (as around the early localities for this species at Santa Ana and El Palmar) (Remsen and Quintela unpublished, TAP).

MEASURES TAKEN The Bolivian Recurvebill occurs in Amboró National Park in the department of

Santa Cruz, a biologically important protected area of 180,000 ha (Parker *et al.* 1992), and also (presumably) in the adjacent Carrasco National Park (1,300,000 ha: IUCN 1992) in Cochabamba. In both parks, suitable habitat for this species is restricted to a narrow band of forest just above the most heavily colonized lands at 300-600 m, and thus remains vulnerable.

MEASURES PROPOSED Satellite images should be analysed to estimate the extent to which the upper tropical zone forest in Bolivia has already been cleared (Remsen and Quintela unpublished), and to locate areas suitable for protection. More reserves in the foothill tropical, upper tropical and lower subtropical zones should be created throughout the Andes in order to save the many species restricted to these elevations: montane forests from Puno, Peru, south to Santa Cruz, Bolivia, have been shown to be especially rich in endemic species of plants and animals, including at least 19 species of bird (ICBP 1992, Crosby *et al.* in prep.). In Bolivia a reserve encompassing the entire range of habitats along the Amazonian slope of the Andes, from the puna zone through the humid montane forests to the Amazonian lowlands, including the mosaic of riverine habitats of a major river system such as the río Beni or río Madre de Dios, would include some 900-1,000 species, or 72-80% of the Bolivian avifauna and most of its threatened or potentially threatened species; the best location would be somewhere in the relatively undisturbed regions of the northern department of La Paz, possibly as a north-eastward extension of the Ulla-Ulla Wildlife Reserve (250,000 ha: IUCN 1992), but if such an “all-elevations” reserve cannot be created, priority should be given to creating one or several areas in the foothills and upper tropical forests of La Paz and Cochabamba, to encompass the full range of montane forest types from c.600 to 3,500 m, a critical (and inadequately protected) habitat for at least 400 species, including 13 species that are threatened or potentially threatened (Remsen and Quintela unpublished, TAP). A forest reserve should be established primarily to protect the watershed of the upper río Beni, where flooding and massive soil erosion will increasingly affect people living along the base of the mountains (TAP).

A large corridor of forest from the headwaters of the upper río Madidi at 400 m to tree-line forests (at 3,500 m) north of Lake Titicaca has recently been proposed as a national park that would protect populations of more than 1,000 species of birds, including most of the yungas endemics (Parker *et al.* 1992).

Financial support (from both national and international development agencies and conservation organizations) for Amboró National Park is an ongoing priority, and similar aid for Carrasco National Park is an urgent necessity. The latter park probably provides the best hope, at present, for endemic species not known as far south as Amboró (see Yellow-rumped Antwren *Terenura sharpei* account). Further clarification of the boundaries of this reserve, as well as of the Serranía Pilon-Lajas Reserve along the La Paz–Beni border, are also imperative. The integrity of habitat within Amboró National Park must be ensured, and hence encroachment upon the park by settlers should be effectively stopped.

Failure to strengthen existing reserves or to establish new ones in the department of La Paz (and elsewhere in Bolivia) will almost certainly result in the extinction of numerous endemic plant and animal taxa, as well as serious socio-economic problems caused directly by destruction of the forested watersheds (TAP). The Southern Helmeted Curassow, Ashy Antwren and Yellow-rumped Antwren inhabit the same general areas as this species, and should be considered in any conservation initiatives.

REMARKS (1) The vocalizations of the Peruvian Recurvebill *Simoxenops ucayalae* are similar in quality and pattern to those of *Syndactyla* foliage-gleaners (Parker 1982b), indicating the close approach of these genera. Despite morphological and vocal similarities, the Bolivian Recurvebill should continue to be regarded as a species distinct from the (near-threatened) Peruvian Recurvebill, which is a bamboo specialist that occurs patchily in lowland and foothill forest in Amazonia; though long thought to be rare, it has recently been found to occur as far east as the rio Xingu in Brazil (Graves and Zusi 1990; see Ecology under Chestnut-throated Spinetail *Synallaxis cherriei*). (2) Remsen and Quintela (unpublished) defined “foothill tropical forest” in Bolivia as the forest in the foothills of the Andes from about 500 m to 1,100 m, too low in elevation to receive the oreographic rainfall that marks the beginning of true montane forest, the lower (1,100-1,700 m) zone of which they called “upper tropical zone forest”.