

This rare mountain-finch is confined to scrubby ravines in a small area of mountain slopes in north-western Argentina, where it is known from relatively few localities, and the total population may be extremely small.

DISTRIBUTION The Tucumán Mountain-finch (see Remarks) has been found at relatively few localities in the Sierra del Manchao and Sierra de Ambato, Catamarca province, on the east slope of Sierra del Aconquija and Sierra de Medina in Tucumán province, and in adjacent Salta, Jujuy and La Rioja provinces, north-western Argentina, as follows (with coordinates, unless otherwise stated, from Paynter 1985):

Jujuy río de la Quesera (c.24°11'S 65°26'W), where a female (in MCNAS) was collected in October 1950 (also Chebez and Heinonen Fortabat 1987); unspecified quebradas of streams in the prepuna in Valle Grande and Humahuaca departments, August 1991 (C. G. Ostrosky *per* J. C. Chebez *in litt.* 1992);

Salta above Chicoana (c.25°06'S 65°33'W), on the east slope of Cumbre de Obispo, along the road to Cachi, Chicoana department, where one was seen at c.2,600 m in November 1984 (M. Rumboll *in litt.* 1986, R. S. Ridgely *in litt.* 1988); El Alisal, untraced but at 2,800 m in the Sierra del Cajón in the southernmost part of the centre of the province, January 1914, where nine were collected (Navas and Bó 1991);

Tucumán Las Cuchillas (c.26°23'S 64°54'W), at 2,000 m on the east slope of Sierra de Medina, Burruyacú department (Olrog 1958c); Lagunita (26°38'S 65°34'W), at 3,000 m (Oustalet 1904, Olrog 1958c; specimens in AMNH); El Infiernillo (c.26°44'S 65°47'W), at 3,000 m above Tafí del Valle, (Narosky and Yzurieta 1987; specimen in LSUMZ), while birds labelled "Tafí del Valle, 2,135 and 2,200-2,500 m" and "above Tafí del Valle, 2,900 m" (Olrog 1958c; specimens in AMNH, NRM) were probably taken nearby, but possibly closer to Tafí del Valle, at 26°52'S 65°41'W, and those labelled "Aconquija" (ANSP and FMNH; also Navas and Bó 1991) may have been taken at c.27°00'S 65°53'W; Las Pavas (27°15'S 65°52'W), at 2,100 m (Olrog 1958c; specimens in FMNH, USNM); Concepción (27°20'S 65°35'W; Paynter 1985 accidentally has 63°35'W), August 1927 (Navas and Bó 1991);

Catamarca Sierra de Ambato (exact location unknown, but these mountains stretch from c.27°50' to c.29°00'S at c.66°W: IGM 1963, 1965b), where specimens (in MCZ) were collected in December 1920; Sierra del Manchao, a continuation of Sierra de Ambato, whence come eight specimens collected in the last few years (M. Nores *in litt.* 1989); Chumbicha (28°52'S 66°14'W), August 1918 (Navas and Bó 1991), this being at 3,000 m on the eastern slope of the Sierra de Ambato (J. C. Chebez *in litt.* 1992);

La Rioja an unspecified locality in the Sierra de Velasco, in around 1990 (A. Serret *per* J. C. Chebez *in litt.* 1992).

POPULATION M. Nores (*in litt.* 1985) estimated a population of not much more than 180-200 birds in the six ravines in Tucumán known to hold the species at the time. With suitable habitat in these (4-6) ravines possibly amounting to only a few hundred hectares (the longest ravine in the area is c.10 km long), the population there may well be only c.20 pairs (M. Pearman *in litt.* 1990, B. M. Whitney *in litt.* 1991). No estimate of the total population has been made since the latest range extensions to the north and the south became known: the extent of remaining habitat in these areas is unknown (see Threats).

ECOLOGY The Tucumán Mountain-finch is found at 2,000-3,000 m, and inhabits semi-humid watered (steep-sided) ravines with dense growths of bushes, within an area of rocky scrubland and pasture, but may also frequent forest edge (Narosky and Yzurieta 1987, M. Nores *in litt.* 1985, 1986), or shrubbery admixed with patches of grass and trees such as *Polylepis* and *Alnus* (Fjeldså and Krabbe 1990). It has been recorded singly and in loose groups (members of a pair keeping in contact with a quiet call), and forages within bushes, close to or on the ground itself, picking (often intently) at the woody bases and bark of the scattered shrubs in the ravines: when alarmed, birds may perch atop bushes (Narosky and Yzurieta 1987, Fjeldså and Krabbe 1990, B. M. Whitney *in litt.* 1990). No information exists on its diet, but it probably eats seeds and a few insects like its close relative the Cochabamba Mountain-finch *Poospiza garleppi* (see relevant account).

Males sing from perches usually just under the tops of shrubs on the sides of ravines (B. M. Whitney *in litt.* 1991). The nest has never been found, but recently fledged young have been collected in

March and April (specimens in AMNH, NRM); a bird with slightly enlarged gonads was taken in December, and one with enlarged gonads in March (four others taken in March and April were reproductively inactive) (specimens in AMNH, LSUMZ), hence the main breeding season appears to be from January to March.

THREATS Relatively few of the ravines along the east slope of Sierra del Aconquija (which provides the majority of sightings and specimens: see Distribution) have suitable habitat (M. Nores *in litt.* 1985). The few ravines in Tucumán which hold both suitable habitat and the species (possibly as few as 20 pairs: see Population) are seemingly easily accessible, with the surrounding grasslands susceptible to fire which in turn could present a threat to vegetation within the gullies (M. Pearman *in litt.* 1990). The species's restricted range, limited habitat and small population render it vulnerable to both habitat destruction and trapping for the pet trade (the bird is attractive, lethargic and approachable) (M. Pearman *in litt.* 1990). M. Nores (*in litt.* 1986) suggested that it receives some protection through the inaccessibility of its habitat, but although this may be true at a number of localities it does not generally seem to be the case in Tucumán (see above).

MEASURES TAKEN A reserve holding some ravines inhabited by this species has been created at El Infiernillo in Tucumán (M. Nores *in litt.* 1989), this being an area that was included in the projected Aconquija National Park (J. C. Chebez *in litt.* 1992).

MEASURES PROPOSED There is an urgent need for the distributional status and ecological requirements of this rare species to be better defined. An assessment of the state and distribution of suitable habitat is also needed, after which measures are essential to ensure the protection of small but presumably viable populations. Educational initiatives may be necessary to impress upon the relevant local communities the importance of conserving the vegetation within the ravines for protecting the watercourses and preventing erosion, and thereby aiding the conservation of this species. The effectiveness of the reserve at El Infiernillo, and the status of the mountain-finch within it, also require investigation; meanwhile, the projected Aconquija National Park (covering parts of both Tucumán and Catamarca) would help protect not only this species but also the Rufous-throated Dipper *Cinclus schulzi* and White-tailed Shrike-tyrant *Agriornis andicola* (J. C. Chebez *in litt.* 1992; see relevant accounts). In Jujuy, the mountain-finch was collected at the same locality as the dipper, and initiatives in this area should consider the requirements of both species.

REMARKS The Tucumán Mountain-finch is closely related to the Cochabamba Mountain-finch, and may possibly be conspecific with it (Hellmayr 1938). They were separated from the warbling-finches *Poospiza* as the genus *Compsospiza* (von Berlepsch 1893, Hellmayr 1906b); however, Bond (1951a) suggested their inclusion in *Poospiza*, a treatment followed by some (e.g. Paynter and Storer 1970), but not by others (e.g. Meyer de Schauensee 1966, Narosky and Yzurieta 1987). B. M. Whitney (*in litt.* 1991) favours the retention of *Compsospiza* owing to the larger size and different song pattern (and quality) of *baeri* and *garleppi* when compared to the true warbling-finches, although Fjeldså (*in press*), in an analysis of the evolution of warbling-finches, places the two species together with Chestnut-breasted Mountain-finch *Poospiza caesar* and (the threatened) Rufous-breasted Warbling-finch *P. rubecula*.