

This rare finch is confined to south-west Ecuador and adjacent north-west Peru, where it inhabits semi-arid scrub and dry forest up to 750 m. Only two areas are known where it appears even fairly common, but too little is known to assess how seriously it is threatened.

DISTRIBUTION The Saffron Siskin (see Remarks 1) is found in the coastal ranges of west and south-west Ecuador (Manabí, Guayas and Loja provinces) and north-west Peru (Tumbes department), and locally in the intermediate lowlands. Localities where the species has been recorded (coordinates from Paynter and Traylor 1977, Stephens and Traylor 1983, OG 1957b, or read from IGM 1989) are as follows:

Ecuador (*Manabí*) Cordillera de Balzar (0°55'S 79°55'W), where a female-plumaged specimen (in BMNH) was taken (also Sharpe 1888; see Remarks 2); between Jipijapa and Puerto de Cayo (c.1°23'S 80°42'W), on the Pacific slope of the coastal range, where the bird was seen at 320 m in February 1991 (P. Coopmans verbally 1991); río Ayampe (1°40'S 80°45'W), where two flocks were seen in December 1990 (NK); (*Guayas*) near Machalilla National Park, where a male (in ANSP) was collected in January 1991; 40 km west of Guayaquil, where three birds were seen in July 1990 (P. K. Donahue *in litt.* 1990); Cerro Blanco reserve (2°09'S 80°02-03'W), 14 km west of Guayaquil in the Cordillera de Chongón, whence come several recent sightings (P. Greenfield *in litt.* 1989, P. K. Donahue *in litt.* 1990, TAP); Guayaquil, at 0-10 m (von Berlepsch and Taczanowski 1883, Chapman 1926; specimens in AMNH, BMNH, MCZ, USNM); Isla Puná, near sea level (Chapman 1926; specimen in AMNH taken in July 1922); Huerta (Puerto) Negra (c.3°00'S 79°44'W), 20 km east-south-east of Balao, and east of Tenguel, on the border of Guayas and Azuay provinces, whence come three specimens (in USNM) taken in August and September 1974 and October 1976; (*Loja*) 10 km by road south of Sabanilla (c.20 km by road north of Zapotillo), where the bird was fairly common at 525 m in April 1992 (M. B. Robbins *in litt.* 1992);

Peru (*Tumbes*) Quebrada Faical (3°49'S 80°17'W), east of El Caucho at 400 m (Wiedenfeld *et al.* 1985; specimens in LSUMZ taken in June 1979); Campo Verde, and nearby Cotrina and Cerro San Carlos (c.3°51'S 80°11'W), whence come sightings at 600-750 m (Wiedenfeld *et al.* 1985, Parker *et al.* ms); and Tumbes, where the bird was seen at 7 m (Taczanowski 1884-1886).

POPULATION In Ecuador, the region where the Saffron Siskin occurs has not been extensively collected ornithologically (Paynter and Traylor 1977), so the scarcity of museum specimens does not reflect its true status; thus at the Cerro Blanco reserve in the Cordillera de Chongón a flock of 25 was seen in December, and on another occasion at the same locality a flock of 18 was seen (P. Greenfield *in litt.* 1989). However, R. S. Ridgely (*in litt.* 1989) believed collecting around Guayaquil to have been sufficient enough to judge the species "not common", and noted that the Cordillera de Chongón may be a stronghold of the siskin, and even there he had not encountered it daily, with no more than 8-10 seen in a day. At río Ayampe two flocks of 5-6 individuals were seen along 1 km of river in December 1990 (NK). In Loja province (see Distribution), the bird was found to be fairly common in April 1992, when over 20 were recorded in a day, with adults feeding young, and five adult males and two immatures collected (in ANSP, MECN): this led to the conclusion that the area was possibly a stronghold for the species (M. B. Robbins *in litt.* 1992). However, it must be stressed that these observations were made in an El Niño year, and no birds were apparently found in the area in 1991 (Best 1992).

In Peru, this species was rare at El Caucho in June and July 1979 (Wiedenfeld *et al.* 1985), and in late July 1988 only three flocks of 4-8 birds were seen in the vicinity (Parker *et al.* ms).

ECOLOGY The localities where this species has been found are semi-arid scrub and dry, deciduous forest (Paynter and Traylor 1977, Wiedenfeld *et al.* 1985, R. S. Ridgely *in litt.* 1989), with birds also being encountered in tall grass and weeds at forest edge (Parker *et al.* ms), from near sea level to 750 m (see Distribution). The flock of over 20 birds, Loja, April (including adult males and immatures), was seen feeding on the seeds of weeds along or near the roadside: adults were feeding fledged young as they sat in second-growth trees or on wire fences within a few metres of the road (M. B. Robbins *in litt.* 1992). Three specimens (in LSUMZ and USNM) from June, August and September had inactive gonads, and juveniles (in ANSP, LSUMZ) with unossified skulls were taken in April and June. The species thus apparently breeds during the wet season, which is January to May (Brown 1941) as do probably most or all species in

this region (Marchant 1958).

THREATS Too little information exists about the species, but as it appears to inhabit arid scrub, forest edge and second growth, it may not be threatened. If, however, as may well turn out to be the case, it depends on deciduous forest (at least for breeding), it may be seriously at risk.

MEASURES TAKEN The species occurs in three protected areas: Machalilla National Park, Manabí, Cerro Blanco reserve, Guayas, and Tumbes National Forest, Peru (see equivalent section under Grey-backed Hawk *Leucopternis occidentalis*).

MEASURES PROPOSED More study on this poorly known species is needed in order to decide whether any species-specific intervention should be undertaken. Proper management of the Machalilla National Park should be encouraged, this site being of paramount importance for conservation in the region. Details of initiatives proposed to preserve the threatened species endemic to western Ecuador and north-west Peru are given in the equivalent section under Grey-backed Hawk. The area in Loja south of Sabanilla, consisted of fairly good deciduous forest and, as one of the strongholds for the Saffron Siskin, it should receive a high conservation priority: the area is also inhabited by other threatened species and by rare (near-threatened) endemics like Pale-browed Tinamou *Crypturellus transfasciatus* (M. B. Robbins *in litt.* 1992: see equivalent section under Grey-backed Hawk).

REMARKS (1) The Saffron Siskin was described as a species (von Berlepsch and Taczanowski 1883), but Chapman (1926) suggested that it might be a subspecies of Hooded Siskin *Carduelis magellanica*, as did Hellmayr (1938) and Meyer de Schauensee (1966). All three, however, maintained it as a species, a treatment followed by all subsequent authors except Dunning (1982), who tentatively treated it as a subspecies of Hooded Siskin. *C. magellanica paula* of the Peruvian coast has been taken as far north as Milagros, Loja province, Ecuador, only some 30 km south-south-east of Campo Verde (Chapman 1926), but M. B. Robbins (*in litt.* 1992) has reported that Saffron Siskin is significantly smaller than even this race, and is undoubtedly a good species.

(2) Concerning the Cordillera de Balzar, Paynter and Traylor (1977) stated that “Balzar” has been erroneously called “Balzar Mts” in the literature, but it is to be noted that “Balzar Mts” is written on the label of the BMNH specimen referred to above; accordingly the cordillera of that name (in Manabí province) and its coordinates (as given in OG 1957b) is preferred here to the town at 1°22’S 79°54’W in Guayas province suggested by Paynter and Traylor (1977). Hellmayr (1938) suggested that the specimen labelled “Balzar Mts” by Illingworth, a native collector in the service of C. Buckley, had no doubt been subject to a confusion of labelling, as this man had also visited Isla Puná. Similarly labelled specimens (in BMNH), however, exist for Grey-backed Hawk, Little Woodstar *Acestrura bombus* and Grey-breasted Flycatcher *Lathrotriccus griseipectus*, and the origin of all these specimens may well be correctly indicated.