

Little known in Venezuela and traded in high volume in north-east Brazil, this small open-country finch needs to be studied to determine more of its ecology and needs, particularly at sites where it remains locally common.

DISTRIBUTION The Yellow-faced Siskin (see Remarks 1) is known from two widely disjunct regions 3,500 km apart in northern Venezuela and north-eastern Brazil (see Remarks 2).

Venezuela The species's occurrence in the country is poorly documented, specimens being known from only two localities, the Hacienda El Trompillo, in the vicinity of Lake Valencia, April and May 1914 (Todd 1926, Hellmayr 1938, Meyer de Schauensee and Phelps 1978; specimens in CM, MCZ), and Hacienda La Araguata, Pirapira (Ridgely and Tudor 1989), both in south-eastern Carabobo state (see Remarks 3).

Brazil Records within states (north to south) are:

Ceará The species occurs all over the state, including the serras (R. Otoch *in litt.* 1986). Specimens are from Açudinho, Baturité, August 1958 (in MZUSP; also Pinto and de Camargo 1961); São Paulo, Serra de Ibiapaba, February 1910 (in MNRJ and MPEG; also Sneath 1926); Juá, near Iguatu, August 1913 (Hellmayr 1929a, 1938); Serra Verde, Joazeiro (corresponding to present-day Juazeiro do Norte; see Naumburg 1935), 560 m, December 1926 (in AMNH).

Paraíba A specimen obtained alive “at Paraíba” and sent to the Zoological Gardens of London in 1880 (Forbes 1881) and another from Uruba, Mamanguape, July 1957 (in MZUSP; also Pinto and de Camargo 1961), are the only records.

Pernambuco Older records (east to west) are: Recife, a pair seen close to the city in a cultivated area and a single bird seen about 80 km to the south (Lamm 1948); Fazenda São Bento, Tapera (corresponding to the present-day Tapacurá Ecological Station: Coelho 1979), one bird collected in December 1938 (Pinto 1940, 1944); a pair seen close to Quipapá in September 1880 (Forbes 1881); São Caitano, undated (Lamm 1948); Garanhuns, one bird seen in September 1880 (Forbes 1881), three specimens collected in February 1927 at 900 m (in AMNH) and two obtained in November 1957 (in USNM); and Brejão, 750 m, February 1927 (two specimens in AMNH). Modern observations are (east to west) from the Tapacurá Ecological Station, São Lourenço da Manta, September 1977 (Coelho 1979), Saltinho Biological Reserve, Rio Formoso; Caruaru; Catimbau, March 1970; Ibimirim; and Serra Negra Biological Reserve, Inajá (A. G. M. Coelho *in litt.* 1986).

Alagoas The species has been recorded from Quebrangulo, where one specimen was collected in November 1951 (Pinto 1954a) and three others in March and April 1957 (Pinto and de Camargo 1961), the species still being present in the first half of the 1980s (Studer 1985) and found there (in crop fields) in August 1989 (B. C. Forrester *in litt.* 1992); Pedra (“Serra”) Branca, Murici, where one bird was seen in October 1990 (J. F. Pacheco *in litt.* 1991) and small groups of up to five were present at forest edge and in a recently burnt clearing of the remaining forest at Fazenda Bananeira on two dates in April 1992 (M. Pearman *in litt.* 1992); and Usina Laginha, União dos Palmares, where two pairs were seen in January 1991 (J. F. Pacheco *in litt.* 1991).

Bahia At least 15 specimens, in AMNH, BMNH, MCZ, MHNG, MPEG and USNM, are merely labelled “Bahia” (see Remarks 2). Specimens with indication of locality are from Leopoldina (untraced) (Cabanis 1865-1866, Todd 1926; see Remarks 4) and Fazenda da Serra (probably near Barra), on the rio Grande, 1903 (Reiser 1926, Hellmayr 1938). One bird was seen near Jeremoabo in May 1986 (C. Yamashita *in litt.* 1986) (see Population).

POPULATION The species has been considered extremely hard to find in Venezuela (M. L. Goodwin *in litt.* 1986). In Brazil it was judged to be common but in steep decline in most of its range in Ceará, having disappeared from some localities where it used to be fairly common as a result of intensive trapping (R. Otoch *in litt.* 1986 and verbally 1988; see Threats), but apparently it remains locally common in Pernambuco and Alagoas (A. G. M. Coelho *in litt.* 1986, D. M. Teixeira *in litt.* 1987), and had not yet become rare in northern Bahia by the 1970s (Sick 1985).

ECOLOGY Despite the species's seemingly reasonable abundance in much of its range, very little has

been reported on its biology. In Venezuela its habitat is given as “open terrain and cultivated areas, up to 400 m” (Meyer de Schauensee and Phelps 1978). In north-eastern Brazil, it has been found in caatinga (Pinto 1954a), forest edge (M. Pearman *in litt.* 1992), crop fields (B. C. Forrester *in litt.* 1992), second growth, plantations and even large urban centres (D. M. Teixeira *in litt.* 1987). This may be a bird which, like its congener the Red Siskin *Carduelis cucullatus* (see relevant account), utilizes forest at certain seasons or at certain periods of the day. The stomach of one specimen in MNRJ contained fruits. There are no data on breeding, except that of the four specimens in AMNH collected in Pernambuco and Ceará whose gonad condition was recorded, two had them “slightly” or “half” enlarged and one “not enlarged” in February, and the other “slightly enlarged” in December.

THREATS The Yellow-faced Siskin has been under pressure from trapping in numbers for the cagebird trade in Brazil (see below), and even in Venezuela, where it is very hard to find, canary breeders seek it (M. L. Goodwin *in litt.* 1986). It has been suggested that it may be threatened owing to this traffic (Ridgely and Tudor 1989) and its very limited range (Sick 1985). Although Sick (1985) asserted that the time is past when skins of handsome species such as this were exported to Europe as decoration material, trade in live birds obviously still flourishes: at the Sunday bird market at Fortaleza (judged to be the second in importance in Brazil after Rio's Caxias) lots of hundreds (e.g. 700) Yellow-faced Siskins may be offered for sale every week (R. Otoch verbally 1988). Many of these birds are already sick when they arrive in Fortaleza and soon die (most often from coccidiosis); in recent years traders have begun marking females and young males on the crown with black ink so that they can be sold as subadult males about to become valued singing adult males, a trick that has allowed trappers to profit from the post-breeding wandering of immatures in April/May (R. Otoch verbally 1988). This trade in Ceará is thought to feed both internal and the international demand, possibly through Belém and Guyana (R. Otoch verbally 1988). The species is heavily traded also in Pernambuco (A. G. M. Coelho *in litt.* 1986) and in Rio de Janeiro, where in the 1980s it was relatively common in Caxias market, appearing seasonally in lots of 60-100 birds (C. E. Carvalho *in litt.* 1987).

MEASURES TAKEN The species is listed on Appendix II of CITES and is protected under Brazilian law (Bernardes *et al.* 1990). The creation of the Pedra Talhada Biological Reserve is described in the equivalent section under Scalloped Antbird *Myrmeciza ruficauda*. The species's occurrence in the 350 ha Tapacurá Ecological Station, the 500 ha Saltinho Biological Reserve and the 500 ha Serra Negra Biological Reserve might give it some additional protection, but at Saltinho in the mid-1980s vigilance was slight, and at Serra Negra there was none at all (A. G. M. Coelho *in litt.* 1986).

MEASURES PROPOSED Surveys are needed to delimit the current range of the Yellow-faced Siskin and assess its status more accurately: given its relative abundance still in parts of north-east Brazil, a study of its general biology and ecology would be both valuable and apparently straightforward. A call for a

complete ban on the capture of wild birds for the pet trade, as any partial controls would be so open to abuse as to be ineffective (Scott and Brooke 1985), clearly applies in this case. Meanwhile, the species's full protection under Brazilian law needs validation by the enforcers; and 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 *Philydor novaesi*).

REMARKS (1) A suggestion that the Yellow-faced Siskin is probably conspecific with the Andean Siskin *C. spinescens* (Hellmayr 1938) has not found support (Pinto 1944, Meyer de Schauensee 1982, Ridgely and Tudor 1989). (2) The type-locality of this species was originally given as "upper California", but after further clarification Bahia was substituted (Todd 1926). However, the type was received from W. Swainson, who might have secured it on his trip to eastern Brazil (Hellmayr 1938) and it has been suggested that it may have come from Pernambuco, since Swainson did not venture far from the coast in Bahia (Pinto 1944). (3) A suggestion that Venezuelan records may refer to escaped cagebirds (A. B. Altman *in litt.* 1988; also Ridgely and Tudor 1989) requires further consideration, taking into account the fairly large series of 28 specimens (Todd 1926; 24 still in CM and MCZ) obtained by S. M. Klages between 25 April and 23 May 1914 (specimens in CM and MCZ). (4) It is not certain that the untraced Leopoldina was in Bahia. Cabanis (1865-1866) gave the range of the species as Bahia and mentioned two birds from the state, but then added that a skin in Hamburg was labelled "Leopoldina" without clarifying whether a state was given.