

A Bolivian breeding range extension and field identification aids for Thick-billed Siskin *Carduelis crassirostris*

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La distribución de *Carduelis crassirostris* es poco conocida en Bolivia. Entre octubre del 1999 y enero del 2000, durante un estudio de anillamiento en un bosque de *Polylepis* en Sacha Loma, depto. Cochabamba, se observó la especie repetidamente y se capturó un juvenil aún sin poder volar, el cuál indudablemente nació en un nido ubicado en dicha localidad, constituyéndose en el primer registro de crianza para el dpto. Cochabamba. También se presentan sonogramas indicando las diferencias entre las llamadas de *C. crassirostris* y *C. magellanica*, especies difícilmente distinguidas por plumaje. *C. crassirostris* aparentemente depende de flores y semillas de *Polylepis* durante la época de reproducción, pero usará otros recursos y hábitats oportunísticamente fuera de dicha época. Por lo tanto, la distribución potencial de esta especie puede ser mucho más amplia que el área de ocurrencia en cualquier momento del año.

Thick-billed Siskin *Carduelis crassirostris* primarily inhabits high-Andean *Polylepis* (Rosaceae) forests of Peru, Bolivia, Argentina and Chile^{4,5,8,10}. In Bolivia, prior to the late 1980s, *C. crassirostris* had been recorded only in dptos. Oruro and Potosí⁹. Cabot¹ obtained the first record for dpto. Cochabamba in 1988 'at c.70 km NW of Cochabamba city', and S. Mayer (*in litt.*) observed it in the Cordillera de Sama, dpto. Tarija (21°42'S 65°10'W, 4,000–4,100 m), on 15 November 1994. A single juvenile observed in the Cordillera Cocapata⁶ is only the second report of the species from dpto. Cochabamba despite the extensive distribution of *Polylepis* and intensive ornithological work in this habitat in Cochabamba².

During banding work in a fragment of *Polylepis besseri* at Sacha Loma, prov. Mizque, dpto.

Cochabamba (17°44'S 65°34'W, c.75 km east-south-east of Cochabamba city, 3,750–3,900 m), on 28 January 2000, we hand-captured a recently fledged juvenile *C. crassirostris* (Fig. 1) incapable of sustained flight, hopping on rocks and low *Polylepis* branches. All remiges and rectrices were obviously growing. It had undoubtedly hatched in a nest at Sacha Loma, thus representing the first breeding record of the species in dpto. Cochabamba. Standard measurements were taken and the bird was banded and released; it was re-sighted a day later. During the entire field work period (27–31 January 2000), SKH repeatedly observed small numbers of adult and juvenile/immature *C. crassirostris*, and obtained tape-recordings of calls on 28–29 January 2000.

Like its primary habitat, Thick-billed Siskin is patchily distributed^{3,4,8} and generally considered at least uncommon^{8,10}, although Fjeldså & Kessler³ regarded it as potentially overlooked among the more common and widespread Hooded Siskin *C. magellanica*, whose plumage resembles that of *C. crassirostris*¹⁰. At Sacha Loma, *C. crassirostris* is sympatric with *C. magellanica*, but despite exceedingly similar plumages their frequently heard calls are separable (as noted by Fjeldså & Krabbe⁴) and therefore can serve as a field mark—in addition to bill size—to distinguish between them safely. Both species have a repertoire of calls, but those of *C. crassirostris* are lower pitched (by c.1 kHz, Fig. 2), more raspy and nasal in quality. Additionally, calls of *C. crassirostris* frequently comprise several different notes (Fig. 2A and B), whereas *C. magellanica* typically utters single-note calls (Fig. 2F–L), or fast repetitions of the same note. The most distinctive call of *C. crassirostris* is a relatively long (c.0.8 second), nasal down-slurred *da-whoop* (Fig. 2C). Calls of *C. crassirostris*, recorded by SKH, are included on *Birds of Bolivia 2.0*⁷.

C. crassirostris was also observed at Sacha Loma

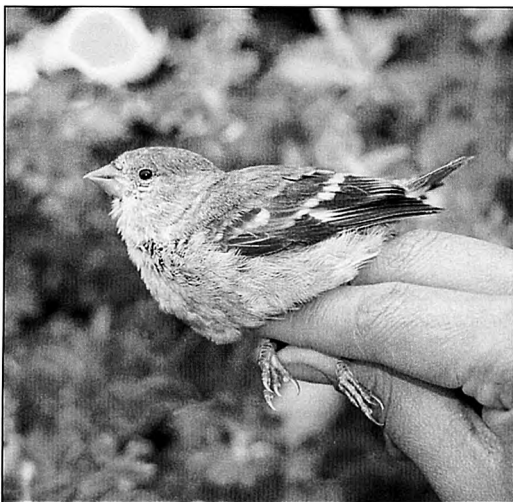


Figure 1. Juvenile Thick-billed Siskin *Carduelis crassirostris* incapable of sustained flight, Sacha Loma, prov. Mizque, dpto. Cochabamba, Bolivia (Sebastian K. Herzog)

during three previous visits (29 October–1 November, 10–12 November and 7–12 December 1999), mainly in small groups in the canopy, feeding on flowers and seeds of *Polylepis*, and once in a mixed-species flock with Tawny Tit-spinetail *Leptasthenura yanacensis* and Giant Conebill *Oreomanes fraseri*. In contrast, it was not found on 16–23 March and 13–18 April 2000, when *Polylepis* at Sacha Loma no longer had flowers or seeds. Though *C. crassirostris* depends on flowering and seeding *Polylepis* for breeding², it opportunistically uses other available food resources and habitats in the non-breeding season (J. Fjelds a in litt.). This is supported by our observations from Sacha Loma and indicates that it can respond effectively to changing patterns of resource availability within its patchy environment where seeding of particular plants may vary between years. Consequently, the potential range of *C. crassirostris* may be much larger than the area of occupancy at any given time, explaining the scarcity of records from areas with suitable habitat such as dpto. Cochabamba.

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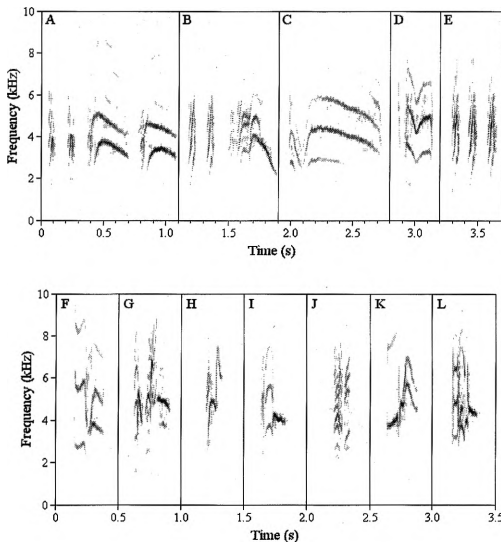


Figure 2. Sonograms of calls of *Carduelis crassirostris* (A–E) and *C. magellanica* (F–L). Both recordings are of females, made by Sebastian K. Herzog at Sacha Loma, prov. Mizque, dpto. Cochabamba, Bolivia, on 29 January 2000.

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