

## Cotinga 23

## Range extension for Short-tailed Finch *Idiopsar brachyurus* in Peru with notes on its behaviour, plumage and soft-part coloration and nomenclature

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Damos a conocer las primeras observaciones de *Idiopsar brachyurus* de la Cordillera del Vilcanota en el dpto. Cusco, en el sur del Perú. Estas observaciones presentan para esta especie una extensión significativa hasta el norte. Entre agosto 2001 y enero 2004 encontramos *I. brachyurus* en seis diferentes lugares en la Cordillera del Vilcanota, pero sorpresivamente esta especie nunca fue registrada para la zona de Abra Malaga, que es parte también de la Cordillera del Vilcanota y siendo uno de los lugares mas visitado por observadores de aves en los Andes peruanos. Presentamos mas datos de observación sobre los cantos, despliegue y comportamiento alimenticio de esta especie y se intercambio opiniones sobre variaciones en el plumaje. Finalmente sugerimos un nuevo nombre vernácula basándonos en su aparente preferencia de habitat.

Short-tailed Finch *Idiopsar brachyurus* is a large uniform grey finch that is relatively uncommon and local in high-Andean grass-steppe habitats at 2,800–4,500 m<sup>4,7–9</sup>. The species was first collected by Thomas Bridges near La Paz, Bolivia, in 1841–1846<sup>2,10</sup> but was not formally described until 1866 (although the description was actually published in 1867) by Cassin, based on specimens taken in 1864 by D. R. Cartter, also near La Paz<sup>1–3</sup>. Cassin originally placed the species amongst the icerids, somewhere between the genera *Quiscalus* and *Scolecophagus*<sup>2,3</sup>. Sclater subsequently placed the species amongst the Fringillidae<sup>11</sup>. Now placed amongst the Emberizines, this monotypic species is considered to be most closely related to the *Phrygilus* sierra-finches<sup>9</sup>.

In Peru, the species was known from only two locations, Huancasalani and Limbani, in southern dpto. Puno<sup>4,8,9</sup>. *I. brachyurus* is also known from northern Bolivia (Iquico, Pongo, the río Choquekkota valley, Rinconada, the Zongo pass area and Viloca in dpto. La Paz, and Colomi and Tiraque, dpto. Cochabamba)<sup>5</sup> and north-west Argentina (Sierra de Santa Victoria, north Salta; Sierras de Zenta and Calilegua, Jujuy; and Sierra de Aconquija, Tucumán)<sup>7,8</sup>. Previous authors have reported that its presence is in some way dependent on boulders<sup>4,9</sup>. In Bolivia the species is found in the puna zone (areas with flat or rolling puna grass-steppe), where there is an abundance of large boulders and areas of sparse, low grass<sup>8</sup>. In Argentina, *I. brachyurus* usually favours localised moist substrates either in the pre-puna zone or in high-Andean grass-steppe habitats above the puna zone with boulder-strewn river banks, areas with *Festuca* tussock clumps, shrub cover and wet cushion-plant bogs<sup>7</sup>. There is one record from Argentina of birds perching on stone walls and adobe roofs, and of birds foraging along dirt streets in a small village<sup>6</sup>.



Figure 1. *Idiopsar brachyurus*, Cancha Cancha, Cordillera Vilcanota, Cusco (F. Schmitt)



Figure 2. *Idiopsar brachyurus*, Mantanay, Cordillera Vilcanota, Cusco (B. Walker)

Here we report the first observations of *I. brachyurus* in the Cordillera Vilcanota, dpto. Cusco, southern Peru. These observations represent a significant northward range extension. We also present observational data regarding the species' display, foraging behaviour and discuss plumage and soft-part coloration. Based on these observations, we propose a new and more suitable vernacular name for the species.

### Observations

On 7 August 2001 FS observed *I. brachyurus* at Mantanay (13°12'S 72°09'W, c.3,900 m) in the Cordillera Vilcanota, above the village of Yanahuara (13°16'S 72°12'W), dpto. Cusco. FS recorded three individuals, which were flushed from open ground amidst large boulders. Two birds returned to the ground whilst the third momentarily perched atop one of the large boulders. FS immediately identified them as *I. brachyurus* based on the large bill, and the area below the eye that was strongly mottled dark and pale grey. After a couple of minutes watching the perched bird, all three drank from a small stream for 2–3 minutes before they departed.

On 7 August 2002 FS observed a pair of *I. brachyurus* near the *Polylepis* woodland of Sacsapata, at Cancha Cancha (13°13'S 72°02'W, c.4,100 m), above the village of Calca, in the Cordillera Vilcanota. This pair was observed foraging on the ground amongst boulder scree partially covered in small *Brachyotum* shrubs. During 15 minutes of observations FS was able to approach to within 12 m and photograph the birds (Fig. 1). On 12 August 2002, FS observed a group of three foraging in an area of small rocks dominated by *Stipa ichu* tussock grass, near Huillquijasa pass (13°09'S 72°03'W, c.4,455 m). Another four were seen later the same day foraging in an area with many large boulders, near one of the lakes at Quellacocha (13°09'S 72°03'W, c.4,150 m).

On 9 July 2003 HL flushed a pair feeding on the ground between large boulders at Mantanay. He immediately noted that both had very large bills, paler primaries, pale margination on the outer tail feathers and a highly distinctive red iris. On six occasions during the following 13 days HL observed several pairs feeding on the exposed ground between large boulders, amongst smaller boulder scree and in heavily grazed tussock grass, often using the bill to dig the ground for food. They were very wary and upon approach would often fly to the edge of *Polylepis racemosa* forest fragments. On three further occasions HL observed individuals of a flock of ten birds digging into moss clumps 3 m above ground on the branches of *P. racemosa* trees. On another occasion he flushed a pair from the ground that subsequently perched on nearby boulders and emitted a series of high-pitched *schrii*

calls that were tape-recorded. These recordings have been deposited at the Department of Environmental and Geographical Sciences, Manchester Metropolitan University (UK).

On 25–26 August 2003 R. Ahlman (pers. comm.) observed two pairs of *I. brachyurus* in areas of rocks and tussock grass at Laguna Queuña-cocha (13°12'S 72°10'W, c.4,350 m), in a neighbouring valley to Mantanay, above the village of Huilloc. On 29 August 2003 HL and BW returned to Mantanay to make further audio and video recordings of the species (Fig. 2). During the day they encountered 12 individuals, sometimes perched 1–10 m high in *Polylepis* trees, and foraging at ground level at the interface between *P. racemosa* woodland and open ground dominated by boulder scree and grazed puna tussock grass. Perched birds often emitted the same single note *schrii* calls as when foraging on the ground or when flushed onto the top of boulders. All of those observed appeared longer tailed than their English name suggests, with a red iris, pale mandible and pale flesh-coloured legs, whilst some had a distinctive brown plumage (not simply a brownish cast to grey).

HL and BW video-taped two individuals displaying 1 m above ground on a horizontal branch in a *P. racemosa*. Vocalisations consisted of a long series of whistled notes, *schrii su su schrii su su schrii su su*, repeated several times. During this song the displaying birds would throw the head back, pointing the bill upwards, and then lowering the head to its normal posture, before repeating the display and turning around every 7–10 seconds to sing in the opposite direction.

On 22 November 2003 CAC found a pair of *I. brachyurus* foraging in open grass between large boulders near *Polylepis* woodland at Hatunqueuña, Quishuarani, above Calca (3,800–4,000 m). Upon close approach the birds would fly into the *Polylepis* but CAC was able to photograph one bird.

On 10–18 December 2003 HL visited Laguna Queuña-cocha, above Huilloc, where Ahlman had reported the species in August the same year. *I. brachyurus* was observed daily in pairs or groups of loosely associated pairs (up to six birds), foraging in the open ground among boulders between *Polylepis peppei* forest fragments (4,210–4,400 m). The majority of foraging observations involved individuals digging the ground for seeds of *Gentianella aurantiaca*. Individuals would often spend several minutes digging around a small area, extracting the seeds and discarding the outer sheath before breaking and eating the seed. Examination of the holes revealed that the birds were digging to a depth of 2.7 cm for these seeds and often discarding grubs and other larvae. On a small number of occasions HL observed individuals tearing at encrusted lichens on boulders. Following prolonged bouts of feeding the birds would often

## Cotinga 23

## Range extension for Short-tailed Finch in Peru

perch atop small boulders and use an edge of the boulder to remove earth from their bills. *I. brachyurus* appeared tolerant of other species foraging close by, particularly Plumbeous Sierra-finch *Phrygilus unicolor* and Ash-breasted Sierra-finch *P. plebejus*. White-winged Diuca-finch *Diuca speculifera*, although foraging in the same area, was never seen in close proximity to foraging *I. brachyurus*. When not foraging on open ground, *I. brachyurus* often perched atop boulders, sometimes occupied by *P. unicolor*, or was found roosting 0.5–1.0 m above ground in the interior of *P. pepei* fragments.

*I. brachyurus* was again observed at Hatunqueña, Quishuarani, by CAC on 15–17 January 2004. He observed one pair near an agricultural field and a second pair foraging in open grassy areas. On 24 January 2004 CAC observed four individuals foraging between boulders in open ground near some small patches of *Polylepis* woodland at Pachas, above the wooded areas of Mantabay (4,400–4,500 m). Birds were observed feeding on encrusted lichens that covered most of the boulders in the area, and one pair was observed with bills heavily covered in mud, probably as a result of digging into the ground or areas with dense moss and lichens. The birds appeared tolerant of other bird species foraging close by, namely Bar-winged Cinclodes *Cinclodes fuscus*, Streak-throated Canastero *Asthenes modesta*, Junin Canastero *A. virgata*, *Muscisaxicola* ground-tyrants, House Wren *Troglodytes aedon*, *P. unicolor* and *P. plebejus*.

### Plumage and soft-part coloration

Our observations cast new light on a number of distinctive plumage and soft-part characteristics of the species. Whilst the large, stout bill is undoubtedly the most obvious field character, also immediately noticeable is the red iris, paler primaries and pale margination to the outer tail feathers. Tail length, however, is not such an obvious field characteristic. The tail lengths of specimens collected from Pongo and Rio Choquekka valley, in Bolivia, housed at the Museum of Natural Sciences, Louisiana State University (LSUMZ) also do not appear to be particularly short, but are rather normal for a finch of its size (J. P. O'Neill pers. comm.).

The ten LSUMZ specimens have bicoloured bills with the maxilla described as greyish horn<sup>8</sup>, the mandible as being paler (pinkish or grey), with iris colour varying from buffy brown, brown or orange-rufous, but none is red (J. P. O'Neill pers. comm.). Previous literature has described the iris colour of Bolivian birds as ranging from red to pale-chestnut for adults and brown for immatures<sup>8</sup>. In Argentina iris colour is described as pardo<sup>3</sup> (a word used to describe almost any shade of brown,

brownish grey, reddish brown or grey), coffee<sup>12</sup> or reddish<sup>7</sup>, with the birds having a somewhat paler mandible, and tarsus flesh or brown<sup>7</sup>. The tarsal colour of the LSUMZ specimens ranges from silvery-flesh to brown (and brown for immatures)<sup>7,8</sup>. Female plumage is said to be tinged with brown<sup>4</sup> whilst juveniles are described as being brownish grey<sup>4</sup>, which could explain our observations of distinctive brown-plumaged birds at Mantabay. Juvenile plumage and soft-part colours, based on slides of Bolivian birds (M. Pearman pers. comm.), is reported to differ from those of adults in having a darker iris, a pale (yellowish or pink) mandible and pale pink tarsi, with pronounced white grizzling on the ear-coverts<sup>7</sup>. These field characteristics are important, as the bill is considerably smaller in juveniles<sup>1</sup> and they could be more readily confused with *P. unicolor* (M. Pearman pers. comm.).

### Distribution and habitat preferences

Our observations represent a significant northward range extension for *I. brachyurus*. Surprisingly, the species has never been found at Abra Malaga (13°08'S 72°17'W, c.3,900–4,400 m), at the north end of the Cordillera Vilcanota. Why it has never been recorded there is mysterious, given that the habitat is identical to those sites in the Cordillera where we have found *I. brachyurus*. It is also unlikely that the species has been overlooked at Abra Malaga, as this is one of the most visited locations in Peru. The lack of observations from similar habitat in Bolivia has been attributed to its elusive nature and low population density<sup>13</sup>. Furthermore, in Peru, it is possible that the species occurs north of Huancasalani and south of the Cordillera Vilcanota in the Cordillera Carabaya. The northern part of this range remains ornithologically unknown and surveys of the montane and foothill bird communities and habitats in the Cordillera Carabaya are urgently required, given the possibility that several globally threatened and restricted-range bird species could occur.

Our observations and those from Argentina<sup>6</sup> and Bolivia (M. Pearman pers. comm.) demonstrate that *I. brachyurus* is not specifically a puna species. If this were the case, *I. brachyurus* would occur throughout the puna grass-steppe within its known range, which it does not (M. Pearman pers. comm.). Our observations demonstrate that *I. brachyurus* is a local Andean species with specific, localised microhabitat requirements in high-Andean grass-steppe habitats.

### Nomenclature

The vernacular name Short-tailed Finch was probably first used by Hellmayr in 1937<sup>5</sup> (from the Greek deviation *brachyurus* meaning short-tailed). However, we strongly consider this name to be

**Cotinga 23**

## Range extension for Short-tailed Finch in Peru

misleading for two main reasons. Firstly, the birds are not short-tailed. Secondly, as a consequence of this, the vernacular name does not aid identification, particularly for those unfamiliar with Andean birds. We are aware of recent representations by various authors for stability in nomenclature, particularly when the vernacular name is well established and in widespread use. However, we firmly believe that a new vernacular name is required for this species. We prefer to highlight the species' habitat preferences and propose the name Andean Boulder-finch.

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