

## NOTES ON THE NATURAL HISTORY AND DISTRIBUTION OF RAIMONDI'S YELLOW-FINCH (*SICALIS RAIMONDI*)

### Notas sobre la historia natural y la distribución del chirihue de Raimondi

FERNANDO MEDRANO<sup>1,2</sup> & JHONSON VIZCARRA<sup>3</sup>

<sup>1</sup>Red de Observadores de Aves y Vida Silvestre de Chile (ROC). Santiago, Chile

<sup>2</sup>Instituto de Ecología y Biodiversidad. Departamento de Ciencias Ecológicas. Facultad de Ciencias, Universidad de Chile. Casilla 653. Santiago, Chile.

<sup>3</sup>Av. 28 de Agosto 1645, Urb. Leoncio Prado, Tacna, Perú

Correspondencia: F. Medrano, fmedrano@renare.uchile.cl.

**Resumen.-** El chirihue de Raimondi (*Sicalis raimondii*) es una especie escasamente conocida del lado occidental en los Andes centrales. Tanto la distribución como el uso de hábitat de esta ave no están bien descritos. En este estudio describimos y confirmamos que la especie es regular en el departamento de Tacna, Perú y, al menos, en los valles del extremo norte de Chile. Además, confirmamos el uso regular de paisajes agrícolas por esta especie.

*Manuscrito recibido el 05 de mayo de 2017, aceptado el 13 de junio de 2017.*

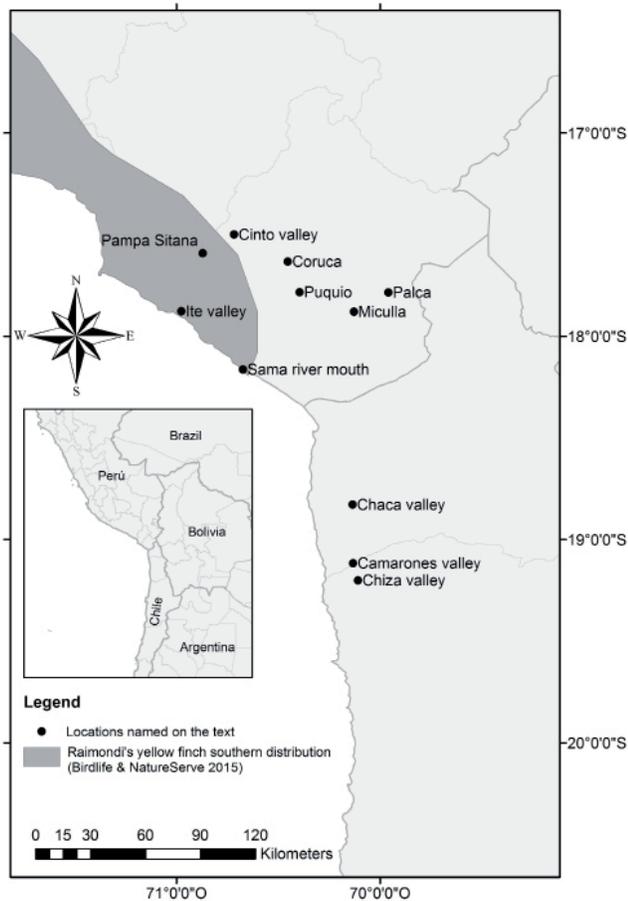
The Raimondi's Yellow-Finch (*Sicalis raimondii*) is one of the least known Yellow-Finches, chiefly because most aspects of its ecology and natural history remain undescribed (Schulenberg 2012). Particularly, distribution and habitat selection are poorly understood, and there are no details of its diet or reproductive biology.

The Raimondi's Yellow-Finch is usually described as endemic to the western side of the Peruvian Andes, distributed from the Huascarán National Park in Ancash Department to the Quebrada de Burros, in the north of Tacna Department (Hogsas *et al.* 2002, Jaramillo 2011, Schulenberg 2012). However, the species has been recorded several times in central and southern Tacna Department, being regularly recorded in Ite (Wust & Valqui 1992, Vizcarra 2006), and in the Sama river delta (Falla 2011, eBird 2017). This species has also been recorded once near Palca, in the foothills of the Andes (eBird 2017). Additionally, a flock of 40 individuals were recorded in the Chiza Valley, Chile, 130 km south of the southernmost known location for the species (Barros *et al.* 2016). Barros *et al.* (2016), however, were not able to determine the residence status of the recorded individuals. Consequently, the current distribution of the species is rudimentary at best.

The description of the habitat of the Raimondi's Yellow-Finch is still little known. This species has generally been recorded using dry grasslands and arid rocky hills with cacti and steppe vegetation, and rarely or

never it has been recorded using agricultural landscapes (Fjeldsa & Krabbe 1990, Schulenberg *et al.* 2007, Ridgely & Tudor 2009, Jaramillo 2011). However, most of the recent records in the Tacna Department have been made in agricultural fields (Vizcarra 2006, 2010). In this paper, we gathered non-published records for this species in Chile to increase the knowledge on the distribution and habitat use of this species.

The first record for the species in Chile was made by M. A. Vukasovic in the Chaca Valley (Arica y Parinacota Region, 380451E 7917805S), on November 2013 (Fig 1, Fig 2A). At this location, a flock of approximately 17 individuals was recorded in an agricultural field (M. A. Vukasovic comunicación personal). The second record was made by Barros *et al.* (2016) at the Chiza Valley (Tarapacá Region, 383482E 7876582S), in August 2016 (Fig 1). A flock of 40 individuals was recorded in this arid valley, feeding on corn and wheat, beside the road. After Barros *et al.* (2016), Raimondi's Yellow-Finches have been recorded several times in the Chaca Valley (November 2016) and in the Camarones Valley (Arica y Parinacota Region, 380826E 7885949S) (between October 2016 and January 2017, eBird 2017, Fig 1). In one record, we observed a flock of approximately 300 individuals in the Camarones Valley (December 2016), with some birds entering rock crevices on a hillside (Fig 2D) and performing similar calls to those used on their breeding grounds, in southern Peru (Fig 3). This suggests that they may be breeding in Chile,



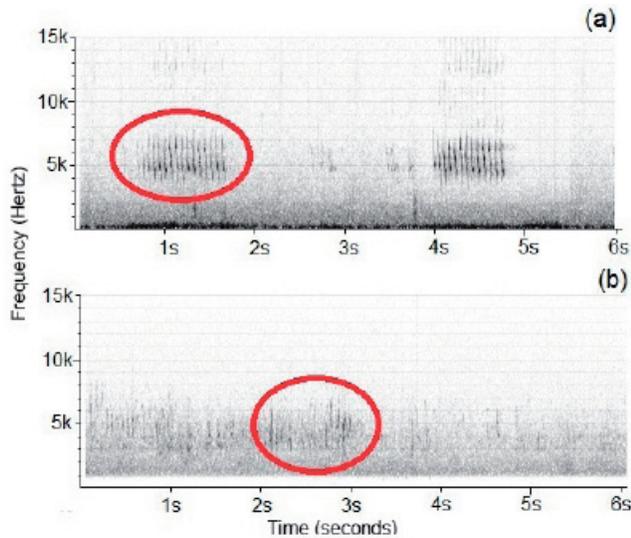
but more evidence is needed to confirm this observation.

Although the literature describes this species as rarely using agricultural fields, two of the three locations in Chile were in this habitat type: (a) corn fields (Chaca Valley) and (b) alfalfa fields (Camarones Valley). On the other hand, in Peru the species has been recorded in: (a) peach orchards (Cinto Valley, Tacna Department, 317770E 8064340S) (Fig 2B), (b) corn fields (Palca, Ite Valley, Tacna Department, 398393E 8033369S), (c) pepper fields (Miculla, Ite Valley, Tacna Department, 380493E 8022790S) and (d) alfalfa fields (Coruca, Tacna Department, 345817E 8049880S) (Puquio, Tacna Department, 352189E 8033266S) (Sama river delta - Los Baños, Tacna Department, 322996E 7990974S) (Pampa Sitana, Tacna Department, 301469E 8053979S) (Ite Valley, Tacna Department, 290628E 8022298S) (Fig. 1). Furthermore, the Raimondi's Yellow-Finches recorded in the Camarones Valley were observed feeding on seeds of *Amaranthus* sp. (Fig. 2C). This is one of the few known food items utilized by the species, in addition to the corn

**Figure 1, left.** Map of records of Raimondi's Yellow-Finch in the southern range of their new distribution.

**Figure 2, below.** Photos of Raimondi's Yellow-Finch: (a) First record of the species for Chile in the Chaca Valley on 2013 (M. A. Vukaso- vic), (b) Record in a peach plantation in the Cinto Valley, (c) Record where individuals were feeding on *Amaranthus* sp., in the Camarones Valley (Diego Reyes) and (d) Record on the hillside where the species was performing the reproductive call (Ivo Tejedá).





**Figure 3.** Sonogram of Raimondi's Yellow-Finch recorded in (a) San Pablo, Tacna, Perú (Fernando Medrano) and (b) Camarones Valley, Arica y Parinacota, Chile (Fernando Medrano). Red circles indicate the call, which has the same frequency and duration in both places, although the audio quality is lower in (b).

and wheat described by Barros *et al.* (2016), confirming that seeds are part of its diet (Schulenberg 2012).

Our results confirm the hypothesis that Chile should be included on the regular range of Raimondi's Yellow-Finch, expanding the regular distribution in 130 km (Fjeldsa & Krabbe 1990). The omission of this species from the Chilean bird lists in the past may have different - and complementary - explanations: (i) misidentification of the species - confusing it with Greenish Yellow-Finch, (ii) a relatively recent range-expansion process to the south, and/or (iii) the increasing number of birders visiting the area. Finally, we confirm that this Yellow-Finch uses agricultural landscapes, at least in this newly described southern range of its distribution.

**ACKNOWLEDGEMENTS.-** We are grateful to M. A. Vukasovic for her information, Patrich Cerpa who reviewed a first draft of this article, Cristián Estades, Tomás Ibarra, and an anonymous reviewer who made us improve this text with their comments. We also thank Erik Sandvig who helped us reviewing the English of the manuscript and Diego Reyes, Ivo Tejeda and

María Angélica Vukasovic, who provided access to their pictures of the species. FM thanks his MSc grant: CONICYT-PCHA/MagísterNacional/2015-22150082.

## REFERENCES

- BARROS, R., F. DÍAZ, F. MEDRANO & R. PEREDO. 2016. El Chirihue de Raimondi (*Sicalis raimondii*), una nueva especie para Chile. *La Chiricoca*. 21: 4-8
- EBIRD. 2017. *eBird basic dataset*. Cornell University. New York, United States.
- FALLA, C.A. 2011. *Evaluación de la diversidad ornitológica en el monte ribereño de la desembocadura del río Sama - Tacna*. Tesis de grado, Universidad Nacional Jorge Basadre Grohmann, Tacna, Perú.
- FIELDSÁ, J. & N. KRABBE. 1990. *Birds of the high Andes: a manual to the birds of the temperate zone of the Andes and Patagonia, South America*. Zoological Museum, University of Copenhagen, Copenhagen, Denmark. 880 pp.
- HOGSAS, T.E., E. MÁLAGA-ARENAS & J. PIZARRO. 2002. Noteworthy bird records for South-west Peru. *Cotinga*. 17: 60-61.
- JARAMILLO, A. 2011. Raimondi's Yellow-Finch *Sicalis raimondii*. Pp. 637 in: DEL HOYO, J, A ELLIOT & D CHRISTIE (eds). *Handbook of the birds of the world*. Volume 16. Tanagers to New World Blackbirds. Lynx Edicions, Madrid, España.
- RIDGELY, R. & G. TUDOR. 2009. *Field guide to the songbirds of South America: The passerines*. University of Texas Press. Texas, United States.
- SCHULENBERG, T., D.F. STOTZ, D.F. LANE, J.P. O'NEILL & T.A. PARKER III. 2007. *Birds of Peru*. Princeton Univ. Press. Princeton, New Jersey. 656 pp.
- SCHULENBERG, T. 2012. Raimondi's Yellow-Finch (*Sicalis raimondii*). Disponible en: [http://neotropical.birds.cornell.edu/portal/species/overview?p\\_p\\_spp=639116](http://neotropical.birds.cornell.edu/portal/species/overview?p_p_spp=639116). Consultado el 27 de Abril de 2017.
- VIZCARRA, J.K. 2006. Aves de los humedales de Ite y alrededores. *Biodiversidad y conservación integral*. 11: 41-50.
- VIZCARRA, J.K. 2010. Nuevos registros ornitológicos en los humedales de Ite y alrededores, Tacna, Perú. *Biologist* 8: 1-20.
- WUST, W. & T. VALQUI. 1992. *Evaluación preliminar de la fauna ornitológica de la bahía de Ite, Tacna*. Asociación de Ecología y conservación, Perú. 31 pp.