

# New sandpiper from an interior sea: confirmation of Curlew Sandpiper (*Calidris ferruginea*) for Argentina

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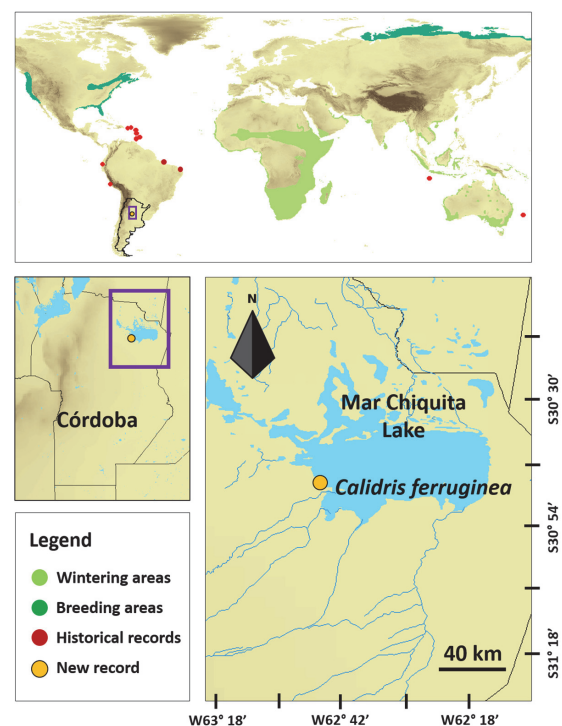
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**ABSTRACT:** We present the first documented record of the Curlew Sandpiper (*Calidris ferruginea*) for Argentina. On 17 October 2013, we photographed an individual of Curlew Sandpiper feeding in the south coast of Mar Chiquita inland sea, one of the biggest saline lakes of South America. Our finding of the Curlew Sandpiper confirms the presence of this species previously considered as hypothetical for Argentina.

**KEY-WORDS:** central Argentina, distribution, Mar Chiquita Lake, occurrence, shorebirds.

The family Scolopacidae comprises 91 species worldwide (Piersma & Bonan 2017). In Argentina, 27 species have been reported, while six are considered hypothetical, due to lack of collected specimens, proper pictures and/or sound records (Mazar-Barnett & Pearman 2001, Piersma & Bonan 2017). Most of species listed as hypothetical for Argentina belong to the genera *Calidris* (Mazar-Barnett & Pearman 2001), including the Curlew Sandpiper (*Calidris ferruginea*), historically reported to be present at the country's marine coast (Mazar-Barnett & Pearman 2001).

The Curlew Sandpiper breeds in coastal regions of central Siberia, and it is known wintering grounds are in west Africa to New Zealand (O'Brien *et al.* 2006, van Gils *et al.* 2017, Fig. 1). Movements across Europe after its breeding season generally take place in a southeastern direction from July till October (Hayman *et al.* 1986). In a review of the records of the Curlew Sandpiper within North America, Hanson (2006) emphasized that this species a regular spring migrant along the Atlantic and northern Pacific coast, rarely occurring at western Atlantic coastal areas south of United States and Canada. However, the Curlew Sandpiper occasionally visits Central America and the Caribbean (Hayman *et al.* 1986, Stiles & Skutch 1989, Raffaele *et al.* 1998). In South America, there are substantially less records of Curlew Sandpiper. Currently, six records from South American countries have been published: two from the Pacific coast of Ecuador and Peru, three from northeastern Brazil (Graves & Plenge



**Figure 1.** Distribution map for the Curlew Sandpiper (*Calidris ferruginea*). Light green color indicates wintering areas and dark green indicate the areas of presence during Spring–Summer. Red points show the historical records outside of what is considered the species range. The bottom map shows the location of Mar Chiquita Salt Lake and highlights the Argentinean record of Curlew Sandpiper (orange point). Map based on Piersma & Bonan (2017).

1978, Ridgely & Greenfield 2001, Musher *et al.* 2016), and for Argentina, Kovacs *et al.* (2005) mentioned that the only record proceed from a collected specimen in the Atlantic coast of Chubut province. Mazar-Barnett & Pearman (2001) considered this species as hypothetical for Argentina because the specimen collected by W. Burnett and Cap. Fitzroy in the east of Patagonia was not found in the British Museum of Natural History. Here, we report the first confirmed record of the Curlew Sandpiper for Argentina and listed it as a new sandpiper species for the inland Mar Chiquita Salt Lake. This record was supported by photographic material.

Mar Chiquita Salt Lake, is located in Córdoba province and present a different geological origin than the homonymous lake in Buenos Aires province. It harbors 18 species of Scolopacidae (Torres & Michelutti 2007), 17 of them with breeding areas in North America (Piersma & Bonan 2017). Thus, the majority of these species occur from December to March at this wintering ground (only *Calidris bairdii*, *Tringa melanoleuca* and *Tringa flavipes* are present in low abundance during winter; Acosta *et al.* 2006). This lake is one of the largest inland saline wetlands in South America and worldwide, with *c.* 2000 km<sup>2</sup> (Bucher & Herrera 1981). Currently, many wetlands are experiencing an alarming process of disappearance and degradation around the globe. However, Mar Chiquita Salt Lake still conserves its physiognomy, characterized by a high heterogeneity of landscapes and fluctuating hydroperiod (Bucher 2006, Troin *et al.* 2016). Regarding the aquatic bird diversity, 142 species occur in this wetland (Torres & Michelutti 2007). A total of 42 migratory species are present in the area, 30 from northern hemisphere and 12 from southern areas in Patagonia and the Andean region. Many of these species mainly use the Argentina's marine coasts and Mar Chiquita Salt Lake as feeding and wintering areas. In this salt lake, sandpipers (Charadriidae and Scolopacidae) represent the most important group of migratory birds regarding their abundance, with some species such

as *Phalaropus tricolor* forming flocks of hundreds of thousands birds (Torres & Michelutti 2007).

During 2013 and 2015 we visited trimonthly the southern coasts of Mar Chiquita Salt Lake near to the river mouth of Río Primero (30°54'44.70"S; 62°51'56.91"W). Along these prospections, we focused our observations on shorebirds and other aquatic birds. On 17 October 2013, we photographed a Curlew Sandpiper individual feeding at Río (River) Primero mouth (in the place called Bahía de Mare; 30°48'23.7"S; 62°52'48.4"W; Figs. 1 & 2). The bird was observed with other sandpiper species (*C. bairdii*, *P. tricolor*, *T. flavipes* and *T. melanoleuca*). The Curlew Sandpiper looks similar to the Stilt Sandpiper (*Calidris himantopus*), a common bird in this wetland. Both species have long and curved beak and alike size. These sandpipers differ, among other features, mainly in the color of the legs, being black in Curlew Sandpiper and yellowish-green in Stilt Sandpiper (Fig. 2, Hayman *et al.* 1986). Another characteristic supporting the final identification was some reddish feathers appearing in the abdomen (Fig. 2).

This record of Curlew Sandpiper adds a new species to Mar Chiquita Salt Lake and confirms its presence in Argentina. Additionally, some authors suggest that the records of Curlew Sandpiper in the Atlantic and Pacific coasts of South America might have been of vagrant or pseudo-vagrant individuals far from their regular south bound migration, along the Palearctic-Afrotropical Flyway and West-Pacific Flyway. Musher *et al.* (2016), for example, proposed that birds recorded at northeastern Brazil could have displaced from their migration routes through Europe to west Africa. These authors suggest that this hypothesis would be supported by the regularity of Curlew Sandpipers in Barbados, where a bird was recorded 14 days after had been banded in Belgium (Hayman *et al.* 1986). Contrary to what was proposed by Musher *et al.* (2016), we suspect that the individual reported here came from the Pacific coast, where this species is a regular visitor (considering the Andes would



**Figure 2.** Curlew Sandpiper (*Calidris ferruginea*) recorded at Bahía de Mare (Río Primero mouth), in Mar Chiquita Lake, 17 October 2013. Note the curve bill, black legs and reddish feathers in the abdomen. Photo author: M. Toledo.

not be a barrier for the Curlew Sandpiper movements; Graves & Plenge 1978, Ridgely & Greenfield 2001). Alternatively, this bird could have come from the West-Pacific Flyway, through Australia, along the westerlies. In addition, the nearest record of Curlew Sandpipers was made at the Lluta River in Chile's north Pacific coast (Medrano & Vielma 2016), 1500 km northwest from Mar Chiquita Salt Lake.

The long coastal area of Mar Chiquita has high availability of feeding areas for different species of sandpipers. The large numbers of some sandpiper species are an indication of the feeding opportunities provided at this lake. That being so, the new record reported here for Mar Chiquita enhances the importance of this unique saline wetland not only for the extremely abundant sandpipers that use the salt lake, as well as for vagrant species arriving in central Argentina. Finally, here we connect the Mar Chiquita Lake with the West-Pacific Flyway of the Curlew Sandpiper resulting in a new hypothetical vagrant pathway.

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