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Source: The Wilson Journal of Ornithology, 125(1):217-221. 2013.

Published By: The Wilson Ornithological Society

DOI: <http://dx.doi.org/10.1676/12-111.1>

URL: <http://www.bioone.org/doi/full/10.1676/12-111.1>

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The Wilson Journal of Ornithology 125(1):217–221, 2013

A New Record of James's Flamingo (*Phoenicoparrus jamesi*) from Laguna Melincué, a Lowland Wetland in East-Central Argentina

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ABSTRACT.—James's Flamingos (*Phoenicoparrus jamesi*), also known as Puna Flamingos, are distributed primarily in the Andean wetlands of southern South America during the breeding season, and dispersed through the lowland wetlands in Argentina during the non-breeding season. However, the main sites where they concentrate during the non-breeding season still remain unknown. Here, we report the first records of James's Flamingos observed in two consecutive years (two adults in Aug 2010, one adult and two subadults in Jul 2011) at Laguna Melincué, a Ramsar site in Santa Fe Province, Argentina (33° 25' S, 61° 28' W, 84 m asl). James's Flamingos were feeding in a mixed flock of Andean and Chilean flamingos (*Phoenicoparrus andinus* and *Phoenicopterus chilensis*, respectively). Our observations constitute the southernmost record for presence of this flamingo species at any lowland site and indicate the high dispersal ability of this species and its plasticity in occupying different wetland types during the non-breeding season. *Received 3 July 2012. Accepted 14 September 2012.*

Key words: Argentina, James's Flamingo, Laguna Melincué Ramsar Site, *Phoenicoparrus jamesi*, Puna Flamingo, winter distribution.

James's Flamingo (*Phoenicoparrus jamesi*), also known as the Puna Flamingo, is the second rarest flamingo species in the world (Rose and Scott 1994, Caziani et al. 2007), with an estimated population of around 100,000 individuals (Mar-

coni et al. 2011). It is considered Near Threatened by the IUCN Species Survival Commission, and is included in Appendix I of the Convention of Migratory Species (CMS 2012) and Appendix II of the Convention on International Trade in Endangered Species (CITES 2012). This species is distributed primarily in the Andean wetlands of southern South America during the breeding season, from November–February (Caziani et al. 2007). In winter (Jun–Sept), some of these high altitude wetlands freeze completely; those with thermal springs tend to remain available for flamingos. Thus, a portion of the flamingo population moves to lowland wetlands during the non-breeding season, although the main sites where they concentrate at this time of year still remain unknown (Caziani et al. 2007). Winter surveys carried out at lowland sites in Argentina reported the presence of James's Flamingos at Laguna Mar Chiquita in Córdoba province (Bucher 2006, Torres and Michelutti 2006). However this species had not been recorded at Laguna Melincué, a relatively accessible site that has been surveyed systematically in recent years, and where Andean and Chilean flamingos (*Phoenicoparrus andinus* and *Phoenicopterus chilensis*, respectively) have been recorded (Romano et al. 2008, Romano et al. 2011). Here, we report the first observation of James's Flamingos, feeding in a mixed flock of Andean and Chilean flamingos at Laguna Melincué.

Laguna Melincué is a Ramsar site in Santa Fe Province, Argentina (33° 25' S, 61° 28' W, 84 m asl, Fig. 1). Its watershed comprises 678 km² and is the collection basin of several wet meadows. This shallow lake has a maximum depth about 6–7 m and a highly variable surface area ranging from 48 to 145 km². The water is moderately saline (about 3–6 g/dm³ of total dissolved solids), with high pH (range 9–11) and low water transparency (about 0.15 m with a Secchi disk) (Romano et al. 2005, Romano et al. 2008). Water level fluctuations expose extensive mud flats and

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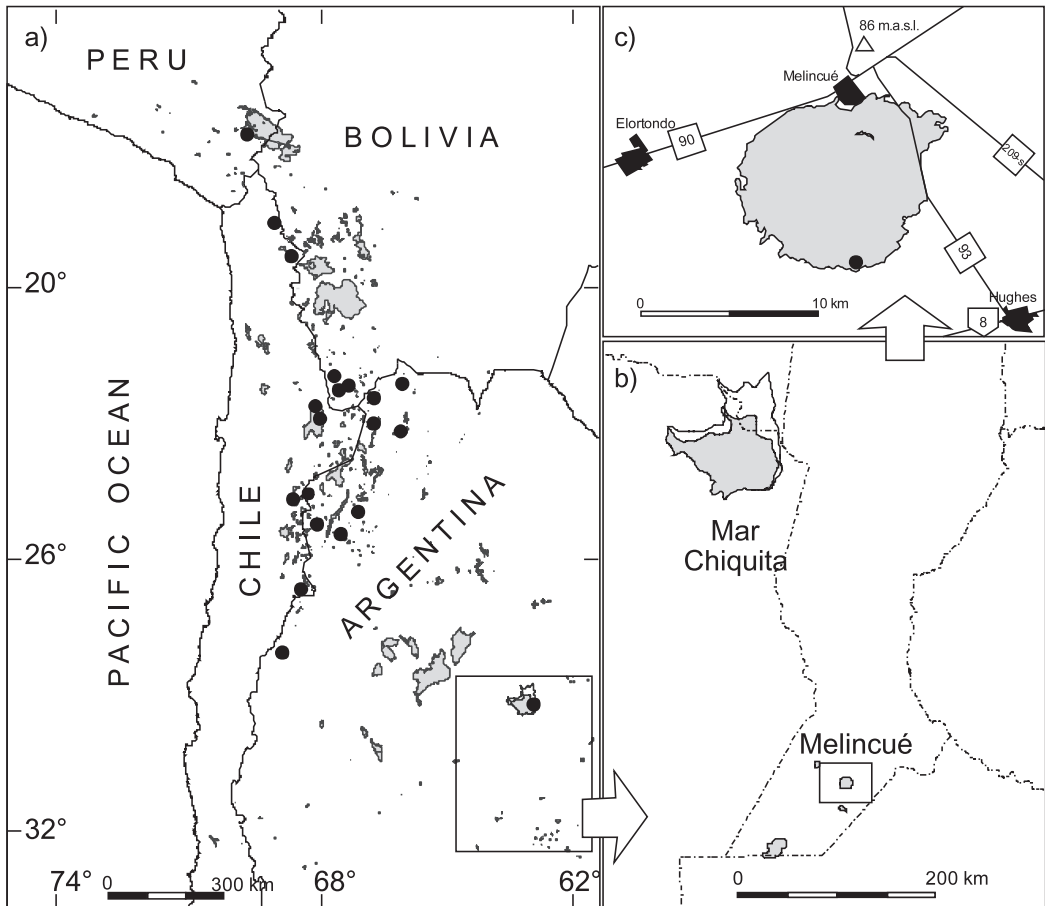


FIG. 1. A) Map showing known wintering sites for James's Flamingos (modified from Caziani et al. 2007). B) Lowland wetlands in Argentina showing locations of the Mar Chiquita and Laguna Melincué Ramsar sites. C) Location of new records of James's Flamingos at Laguna Melincué.

the surrounding vegetation is mainly composed by halophilous prairies dominated by *Distichlis spicata* and *Paspalum vaginatum* (Romano et al. 2005).

Since the early 1990s, we have been conducting periodic waterbird surveys at Laguna Melincué. In 2007, we started systematic surveys in 37 lakes and lagoons of southern Santa Fe province, where Laguna Melincué is located, as part of an annual comprehensive survey of wetlands throughout the distribution range of Andean and Puna flamingos in Argentina, Bolivia, Chile and Peru (Romano et al. 2008).

During nearly 20 years of surveys carried out in wetlands in Santa Fe province, we had not observed James's Flamingos. On 24 August

2010 at 15:37, we detected two adult James's Flamingos standing about 50 m from the southern shore of Laguna Melincué (Fig. 2). We observed them for 30 min among a flock of 127 Andean Flamingos.

Also, we observed and photographed three individuals of James's Flamingo on 13 July 2011. These were one adult and two subadults (with light gray plumage) that were in a mixed flock of Andean and Chilean flamingos (Fig. 3). These individuals were observed approximately in the same location within the lake where we had observed the James's Flamingos from the previous year. In 2011, we recorded the presence of James's Flamingos at Laguna Melincué for at least 16 days (until 29 Jul 2011), when we left the



FIG. 2. Adult James's Flamingo walking among Andean Flamingos in Laguna Melincué.

site. Most of the time we observed them close to each other, within a group of Chilean Flamingos that varied from 800–1,300 individuals, while only occasionally they mixed with a smaller group of Andean Flamingos that varied from 50–275 individuals. During our opportunistic observations, James's Flamingos spent most of the time preening, walking, or feeding.

DISCUSSION

In some years, during the non-breeding season, more than 50% of the global population of Andean Flamingo can be found at Laguna Melincué and nearby wetlands (Romano et al. 2008). However, this is the first record of James's Flamingo in 20 years of systematic surveys in the Southern Santa Fe wetland complex (Romano et al. 2005). A recent study listing new species records for Laguna Melincué does not mention James's Flamingo (Giraudó et al. 2008), and a recent revision of the checklist of birds for Santa Fe province did not list this species (Fandiño and Giraudó 2010). A series of 314 surveys carried out

in different seasons at 66 wetlands in the southeast Córdoba province from 2007–2010, less than 100 km from our study area, did not record the presence of James's Flamingos (Brandolin et al. 2011).

Our new record of James's Flamingos for Laguna Melincué is important for several reasons. First, it was recorded in two consecutive years, confirming the robustness of our observations. To our knowledge, this is the southernmost record for the presence of this flamingo species at any lowland site in the Pampas region in winter (Caziani et al. 2007, Marconi et al. 2011). This species has been recorded at similar latitude but in summer in a high Andean wetland (Laguna Llancañelo, Mendoza province, Argentina, 35° 30' S, 69° 09' W, 1,280 m asl, Sosa 1995). There was also an unusual observation of two individuals in summer on a Patagonian lake at 750 m asl in the Andean foothills of western Chubut Province, Argentina (Muñoz and Muñoz 1975). Second, it shows the high mobility of this species and its ecological plasticity in occupying different



FIG. 3. Two subadult James's Flamingos preening among Chilean Flamingos in Laguna Melincué.

wetland types during the breeding and non-breeding season. Mar Chiquita, an important site used by James's Flamingos in winter, is located 350 km north of Laguna Melincué (Caziani et al. 2007). Third, our record shows the importance of carrying out more extensive and prolonged surveys at these lowland wetlands. We observed James's Flamingos at Laguna Melincué during focused behavioral studies of Andean and Chilean flamingos lasting several weeks versus during snapshot surveys. It is possible James's Flamingos had been using Laguna Melincué prior to our observations but were not detected because they were in large groups of other flamingo species or were in areas of the wetland that were not surveyed on prescribed routes. We recommend studying individual James's Flamingo movements using satellite telemetry to identify important sites for this species, because wintering sites remain unknown. Similar studies on Andean Flamingos provided novel information on movement patterns and habitat use that are crucial for developing

conservation actions at a regional scale (Marconi et al. 2011; F. Arengo, unpubl. data).

The small number of James's Flamingos observed recently at Melincué does not allow us to evaluate the importance of the site for this species. However, it should be noted that very few James's Flamingos were recorded for the first time at Mar Chiquita in 1990 (Bucher 1992, Michelutti 1994). They were later sporadically recorded through the 1990s and early 2000s (Bucher 2006, Torres and Michelutti 2006), and in the last 3 years from 3,000–5,000 individuals have been observed in this large wetland in winter (Grupo de Conservación Flamencos Altoandinos database). Similarly, when we began systematic surveys in the wetlands of Santa Fe province 20 years ago, there were few records of Andean Flamingos in the area, and our studies over the years have consistently recorded increasing numbers of this species, to the point where now the Southern Santa Fe wetland complex is considered a high priority for conservation of

the species with Laguna Melincué its most important wetland (Marconi 2007).

ACKNOWLEDGMENTS

We would like to thank the owners of Laguna San Carlos for allowing access to their property, and Santos Sánchez and his family for their kind hospitality during censuses at Laguna Melincué. We thank Víctor Torres and Carolina Trigo for their assistance in the field, and the Rufford Small Grant for Nature Conservation for financial support. We thank two reviewers for improving the quality of the manuscript.

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