

Roseate Spoonbill (*Platalea ajaja*) at Lake Zumpango, State of Mexico

La espátula rosada (*Platalea ajaja*) en la laguna de Zumpango, Estado de México

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Abstract

We documented, for the first time, the presence of the Roseate Spoonbill (*Platalea ajaja*) at Lake Zumpango in the State of Mexico. In October 2016, we spotted a juvenile spoonbill feeding off the shore of this water reservoir. Probably, the bird was an occasional vagrant to the Valley of Mexico, so we advance the idea that the Lake Zumpango might be providing an alternative habitat for the species, given that the wetlands of Lake Texcoco (where the species has been previously recorded) are threatened by the undergoing construction of the new International Airport of Mexico City.

Keywords: Occasional vagrant, Valley of Mexico, waterfowl reservoir, first record, alternative habitat.

Resumen

Documentamos por primera vez la presencia de la espátula rosada (*Platalea ajaja*) en la laguna de Zumpango, en el estado de México. En octubre de 2016 observamos un ejemplar juvenil alimentándose en la orilla oriental del mencionado reservorio de agua. Probablemente se trató de un visitante errático del Valle de México, por lo que proponemos la idea de que la laguna de Zumpango podría estar proveyendo hábitat alternativo para la especie, dado que los humedales del lago de Texcoco (en donde la especie ha sido reportada) están siendo amenazados por la construcción en marcha del Nuevo Aeropuerto Internacional de la Ciudad de México.

Palabras clave: Visitante errático, Valle de México, reservorio avifauna, nuevo registro, hábitat alternativo.

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The Roseate Spoonbill distributes in the Neotropics (tropical and subtropical zones) from southern United States, West Indies, and Mexico to Central and South America (Matheu and del Hoyo 1992, Howell and Webb 1995, Navarro and Peterson 2007). In Mexico, the species is resident along the Gulf of Mexico, as far as the Yucatan Peninsula. The range of the species also includes the Pacific Coastal Plain from Sonora to Chiapas; moreover, there are records from the Peninsula of Baja California, most of these records are located at seashore, and the observations at highlands are rare (Guerrero-Cárdenas *et al.* 2013). The Roseate Spoonbill inhabits swamps, wetlands, marshes and rivers, as well as mangroves and estuaries (Hancock *et al.* 1992, Matheu and del Hoyo 1992). Although the species is not considered to be threatened either nationally or internationally, it is nevertheless included in a list of priority

species for conservation from the Mexican federal government (SEMARNAT 2014).

Lake Zumpango is the second most important reservoir for aquatic birds in the Valley of Mexico, since the larger stretch of wetlands at Lake Texcoco are being transformed by the undergoing construction of the new International Airport of Mexico City (NAICM by its Spanish acronym) (Alcántara and Escalante 2005). According to the project's environmental impact assessment and possible mitigating and compensating measures for aquatic birds, other wetlands in the Valley of Mexico (including Zumpango) might receive the resident and migratory waterfowl displaced by the NAICM (Córdova-Tapia *et al.* 2015, SCT 2016). Our objectives for this contribution are to provide the first record of *P. ajaja* at Lake Zumpango, along with comments on its distribution and range at the highlands of central Mexico. We spotted the Roseate Spoonbill during a prospection of the waterfowl of Zumpango Lake, located northeast of the Valley of Mexico. On October 16, 2016 we covered the shore of this lake in a total of 15.8 km by car, making observations with the help of Bushnell FOV 393ft 8 x 42 binoculars. As proof of

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these observations, photographs and videos were taken with a Canon S x 60 HS with 65x optical zoom. The time of sampling was from 14:00 to 18:00 h. Aiding in taxonomic identification of the waterfowl present, we used two field guides: Kaufman (2005) and Van Perlo (2006). In addition, we collected data of recorded *P. ajaja* from specialized literature and databases from aVerAves "ebird.org".

We observed a juvenile specimen of *P. ajaja* feeding off the shore covered in water lilies on the west side of Zumpango Lake (19°45'45.60"N, 99°8'6.76"W; 2251 m a.s.l; datum WGS84; Figure 2) on the day of October 16, 2016. Such annotations were made around 16:00 h.

The specimen observed presented characteristics of a juvenile which consists of immature plumage, color (whitish-pinkish), bill and a feathered head (Kaufman 2005, Van Perlo 2006) (Figure 1). There has been scarce records on this species at the Valley of Mexico, this new record is located at 29.69 km (in a straight line) to the nearest locality of northwest of the Ex-Textcoco Lake (Ramírez-Bastida *et al.* 2011) and 55 km (in a straight line) north to the swamp of San Gregorio Atlapulco (Meléndez-Herrada *et al.* 2013) (Figure 2). The specimen was feeding in the shore, which was covered by water lilies and trash also accompanied by a group of Snowy Egret (*Egretta thula*) and Great Egret (*Ardea alba*).

This is the first documented record for Lake Zumpango and the most recent record for the state of Mexico; Peterson and Navarro (2006) compiled species lists for the Valley of Mexico, from after 1950 and the nineteenth century, where *Platalea ajaja*'s presence is recorded on both dates; more recently Ramírez-Bastida *et al.* (2011) reported the presence of Roseate Spoonbill in the Ex-Textcoco Lake but not in Lake Zumpango. In the Valley of Mexico Meléndez-Herrada *et al.* (2013) report an occasional presence in the swamp of San Gregorio Atlapulco and the wetlands of Tláhuac in 1998; being these, the only records up-to-date in the database AverAves (Sullivan *et al.* 2009), therefore this record is the most recent for the Valley of Mexico.

The Roseate Spoonbill, has been previously recorded in inner Mexico at El Conejo dam near Irapuato, Gto, the Ignacio Allende dam, San Miguel de Allende, Gto and the Constitution dams of 1917 and Centenario, in the vicinity of San Juan del Río, Qro. (Sullivan *et al.* 2009, Meléndez-Herrada *et al.* 2013). Howell and Webb (1995) consider *P. ajaja* an occasional visitor of Transmexican Volcanic Belt and Mexican Plateau, the recompiled data agrees with the status, due to the fact that the wetlands of Tláhuac observation was made in 1992 (Ayala-Pérez *et al.* 2013, Meléndez-Herrada *et al.* 2013), in the database aVerAves (Sullivan *et al.* 2009) the species is registered in 2008 in Guana-



Figure 1. Roseate Spoonbill specimen observed in Zumpango Lake, State of Mexico, photographed on October 10, 2016 by Constanza Danaee Jiménez-Guevara.

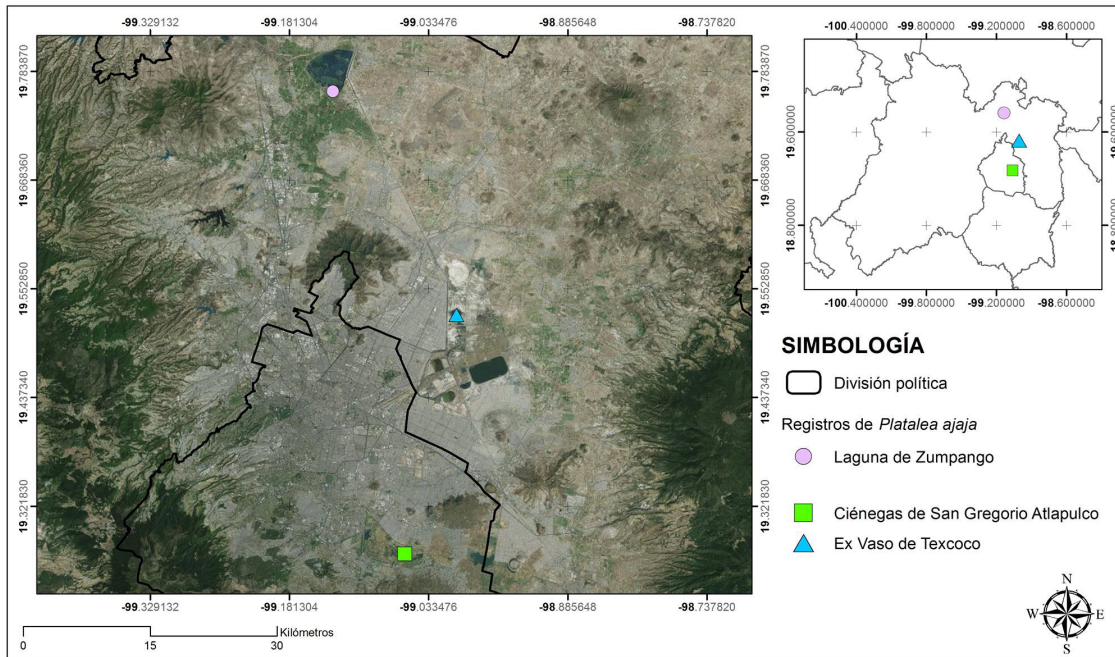


Figure 2. Roseate Spoonbill location record in relation of the available records of the species in the Valley of Mexico.

juato and in 2012 in Querétaro. Ramírez-Bastida *et al.* (2011) do not present a specific date of presence of the species in the Ex- Texcoco Lake. Since the wetlands in the Valley of Mexico were historically connected as one big lake, these records represent the high ability of dispersal that the species has, meaning that before the anthropogenic desiccation of this lake; the Roseate Spoonbill visited more frequently the inner wetlands of the Valley, probably in a migratory route, which nowadays could have stayed as a reminiscence of this migratory movement. Our observations of waterfowl in Lake Zumpango started in June 2016 with monthly visits to the lake, and ended in July 2017; the specimen was recorded on the first two weeks of October, and was not seen after that; neither was seen any other specimen, either juvenile or adult, around the area. With this new record for Lake Zumpango along with the previous records of the species for the Valley of Mexico, we infer that *P. ajaja* could be an occasional vagrant in all the wetlands of the area.

Lake Zumpango is a wetland highly altered by human activity, such as the presence of the highway Circuito Exterior Mexiquense, the construction of the tunnel Emisor Poniente and a tourist attraction on the east side of the lake with a questionable management. This wetland is surrounded by urban and agricultural areas; the water surface aspect is the result of dumping sewage water from such local areas north of the Valley of Mexico. Therefore, the condition of the habitat has been modified, and since it can be considered as an important reservoir for waterfowl, due to its size and the presence of a high variety of priority species for conservation (SEMARNAT 2014), where *P. ajaja* is considered, along with an important

number of species of ducks and teals (Ramírez-Bastida *et al.* 2011).

We consider the bird to be vagrant, due to the distance from its expected breeding, wintering or migrating range, and taking in account that the specimen observed was a juvenile, its vagrancy may have been caused by inexperience at making its first migration. Therefore, we take in account that it is necessary to carry out a public monitoring program, which will allow analyzing the importance of this wetland as a habitat for species like *P. ajaja* that may require a transitory wetland.

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Literature cited

Alcántara-C., J.L., P. Escalante-Pliego. 2005. Current threats to the Lake Texcoco Globally Important Bird Area. Pp. 1143-1150 En: C.J. Ralph, T.D. Rich (eds.). *Bird Conservation Implementation and Integration in the Americas: Proceedings of the Third International Partners in Flight Conference General Technical Report PSW-GTR-191*. U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. Albany, California.

- Ayala-Pérez, V., N. Arce, R. Carmona. 2013. Distribución espacio-temporal de aves acuáticas invernantes en la ciénega de Tláhuac, planicie lacustre de Chalco, México. *Revista Mexicana de Biodiversidad* 84(1):327-337.
- Córdova-Tapia, F., A. Straffon-Díaz, G.A. Ortiz-Haro, K. Levy-Gálvez, O. Arellano-Aguilar, C. Ayala Azcárraga, L. Zambrano, D.J. Sánchez-Ochoa, S.D. Acosta-Sinencio. 2015. Análisis del resolutivo SGPA/DGIRA/DG/09965 del proyecto "Nuevo Aeropuerto Internacional de la Ciudad de México, S.A. de C.V." MIA-15EM2014V0044. Grupo de Análisis de Manifestaciones de Impacto Ambiental. Unión de Científicos Comprometidos con la Sociedad. Ciudad de México, Méx. Disponible en: docdroid.net/file/download/opjn/aeropuerto1.pdf (consultado el 11 de julio de 2017).
- Guerrero-Cárdenas, I., I. Tovar-Zamora, O.R. Cruz-Andrés, J.G. Escobar-Flores, I.Y. Guerrero-Tovar. 2013. Veinte años de ausencia: avistamientos recientes de la espátula rosada (*Platalea ajaja*) en la Bahía de la Paz, Baja California Sur, México. *Huitzil* 14(2):105-109.
- Hancock, J.A., J.A. Kushlan, M.P. Kahl. 1992. *Storks, ibises and spoonbills of the world*. Academic Press. London. United Kingdom.
- Howell, S.N.G., S. Webb. 1995. *A Guide to the Birds of México and Northern Central America*. Oxford University Press. New York, EUA.
- Kaufman, K. 2005. *Kaufman, guía de campo a las aves de Norteamérica*. Hillstar Editions L.C. New York, EUA.
- Matheu, E., J. Del Hoyo. 1992. Family Threskiornithidae (ibises and spoonbills). Pp. 472-507. En: J del Hoyo, A. Elliott, J. Sargatal (eds.). *Handbook of the birds of the world, Vol. 1: Ostrich to ducks*. Lynx Edicions. Barcelona, España.
- Meléndez-Herrada, A., G.R. Wilson, H. Gómez de Silva, P. Ramírez-Bastida. 2013. *Aves del Distrito Federal. Una lista anotada*. Universidad Autónoma Metropolitana, Serie Académicos CBS No. 108. México, D.F.
- Navarro, A.G., A.T. Peterson. 2007. *Platalea ajaja* (espátula rosada) residencia permanente. Distribución potencial. Museo de Zoología, Facultad de Ciencias, Universidad Nacional Autónoma de México, University of Kansas, Museum of Natural History. México. CONABIO, proyecto CE015. Disponible en: conabio.gob.mx/informacion/metadata/gis/plat_ajajgw.xml?_xsl=/db/metadata/xsl/fgdc_html.xsl&_indent=no (consultado el 11 de julio de 2017).
- Peterson, A.T., A.G. Navarro. 2006. Hundred-year changes in the avifauna of the Valley of Mexico, Distrito Federal, Mexico. *Huitzil* 7(1):4-14.
- Ramírez-Bastida, P., D.E. Varona-Graniel, A.E. De Sucre-Medrano. 2011. Aves en los relictos de un gran lago: los humedales de la ciudad de México y áreas vecinas. *El Canto del Cenzontle* 2(1):72-86.
- SCT (Secretaría de Comunicaciones y Transportes). 2016. Visión integral Nuevo Aeropuerto Internacional de la Ciudad de México. Secretaría de Comunicaciones y Transportes. Ciudad de México, México. Disponible en: consulmex.sre.gob.mx/laredo/images/stories/docs/SCT/dan02416%20naicm-espaul.pdf (consultado 21 noviembre de 2016).
- SEMARNAT (Secretaría de Medio Ambiente y Recursos Naturales). 2014. Acuerdo por el que se da a conocer la lista de especies y poblaciones prioritarias para la conservación. *Diario Oficial de la Federación*. 5 de marzo de 2014, Primera Sección. México, D.F.
- Sullivan, B.L., C.L. Wood, M.J. Iliff, R.E. Bonney, D. Fink, S. Kelling. 2009. eBird: a citizen-based bird observation network in the biological sciences. *Biological Conservation* 142:2282-2292.
- Van Perlo, B. 2006. *Birds of Mexico and Central America*. Princeton University Press. Princeton, New Jersey, EUA.



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