



Breeding Fulvous Whistling-Ducks and other notes on the birds of Querétaro's reservoirs

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Abstract

I present a noteworthy breeding record for the state of Querétaro in central Mexico. In addition, I demonstrate records of six species which have not previously been documented in the state. All were seen on a series of reservoirs in the lower half of the state. These further additions to the Querétaro avifauna confirm the importance of these water bodies to a wide range of species.

Keywords: distribution, range expansion, man-made water bodies.

Un registro de reproducción de *Dendrocygna bicolor* y otras observaciones de las aves de las presas de Querétaro

Resumen

Presento un registro notable de reproducción para el estado de Querétaro en el centro de México. Además, presento observaciones de seis especies que no habían sido previamente documentadas en Querétaro. Todas fueron vistas en una serie de presas en el sur del estado, lo que confirma la importancia de estos cuerpos de agua como hábitat para una amplia gama de especies.

Palabras clave: distribución, ampliación de distribución, presas.

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Introduction

In predominantly dry regions, inland bodies of water can be important to breeding, wintering and migratory bird species. Whilst the northernmost part of Querétaro is temperate, much of the state has an arid climate (*e. g.*, León-Paniagua *et al.* 1990), which principally consists of semi-desert and agricultural habitats. A chain of reservoirs interspersing this dry habitat, however, hosts a variety of bird species (*e. g.*, Hiley 2012). Almost 400 species have been documented in Querétaro (*e. g.*, Navarro *et al.* 1993, Pineda-López 2010), of which 70 are wetland birds (Pineda-López *et al.* 2013).

Whilst the Sierra Gorda in the northern part of Querétaro has long been recognised for its biodiversity and has been designated as a 'Biosphere Reserve' since 2001 (UNESCO 2011), the rest of the state has traditionally received little ornithological attention. Querétaro does not receive many visiting foreign bird-watchers, who are more attracted to the coastal regions of Mexico, and unlike neighbouring Guanajuato (see www.audubonmex.org), does not have a strong local bird-watching chapter.

A recent increase in studies of Querétaro's water bodies, however, has resulted in a number of additions to

the documented avifauna of the state (Pineda-López and Arellano-Sanaphre 2010, Hiley 2012, Pineda-López *et al.* 2013). Whilst some of these records represent unusual or 'out-of-range' examples of opportunistic or lost individuals, the appearance of other 'new' species is more likely a result of the aforementioned historical under-recording in the state, and should be treated with care (Sánchez-González 2013).

Here, I present a series of sightings from a chain of reservoirs in southern Querétaro. One is a significant breeding record, whilst the others are species of varying degrees of rarity which have not been previously documented in the state. Potential explanations are discussed.

Methods

I monitored four reservoirs in Querétaro (Figure 1) between August 2012 and June 2013 (El Centenario 20°29'46"N, 99°53'41"W; La Constitución de 1917 20°24'25"N, 100°04'50"W; La Llave 20°28'14"N, 100°00'48"W, and unnamed 20°33'34"N, 99°57'04"W). I made all observations with Leica binoculars and a Nikon spotting scope, and took photographs with a Canon 50D camera.

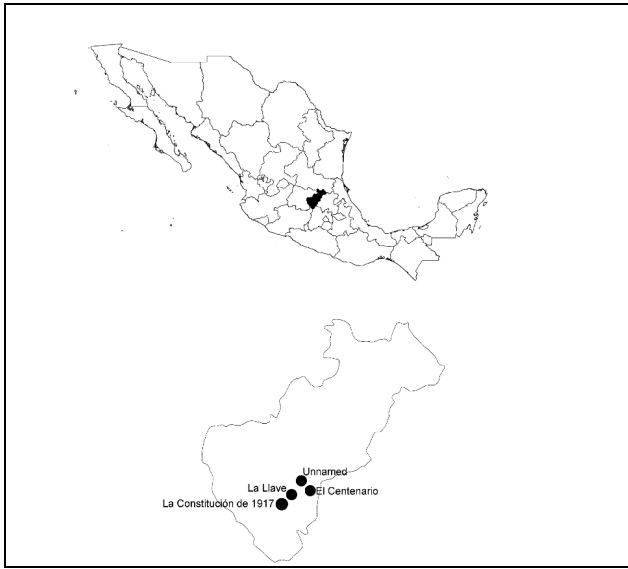


Figure 1. The state of Querétaro (black) in Mexico (top), and the location of the study sites within the state (bottom).

Results

Dendrocygna bicolor (Fulvous Whistling Duck)

On 14th October 2012, I observed six pairs of *D. bicolor* with recently fledged broods at La Llave (Figure 2). Brood sizes were between six and 12 inclusive, and each brood was estimated to be less than three weeks of age.

The following species, which had not previously been documented in Querétaro, were also noted during the study period (Figure 3).

Botaurus lentiginosus (American Bittern)

An adult was seen at La Llave on October 14th 2012.

Platalea ajaja (Roseate Spoonbill)

Individuals were seen at La Constitución de 1917 (11th September 2012), Unnamed (2nd December 2012), and El Centenario (23rd June 2013).

Calidris melanotos (Pectoral Sandpiper)

C. melanotos was noted regularly on passage at both La Llave (*e. g.*, six on 21st April 2013) and at La Constitución de 1917 (*e. g.*, three on 29th September 2012).

Tachycineta bicolor (Tree Swallow), *Riparia riparia* (Bank Swallow), *Petrochelidon pyrrhonota* (Cliff Swallow)

All three species were seen regularly during migration periods, but most noticeably in September at La Constitución de 1917 (*e. g.*, on 9th September 2012, I recorded 30 individuals of *P. pyrrhonota*, 17 of *R. riparia* and four of *T. bicolor*).



Figure 2. *Dendrocygna bicolor* with brood, La Llave (photo: J. Hiley).



Figure 3. Species newly documented in the state of Querétaro. Clockwise from top left: *Calidris melanotos*, *Platalea ajaja*, *Riparia riparia*, *Petrochelidon pyrrhonota*, *Tachycineta bicolor*, and *Botaurus lentiginosus* (photos: J. Hiley).

Discussion

This series of records confirms the increasing interest in wetland birds on Mexico's central volcanic belt (*e. g.*, Pineda-López and Arellano-Sanaphre 2010, Hiley 2012, Pineda-López *et al.* 2013), and furthers our knowledge of the avifauna of the region. As well as corroborating the results of the above studies in demonstrating the importance of man-made water bodies to breeding, wintering, and migrating birds, these records also

confirm a degree of historical under-recording in the southern part of the state of Querétaro.

Dendrocygna bicolor, although considered a coastal resident in Mexico (Howell and Webb 1995), has been recorded inland in Estado de México (Colón Quezada 2004) and Querétaro (Pineda-López and Arellano-Sanaphre 2010). The record presented here is the first demonstration of breeding in central Mexico, however, and is furthermore significant given the large number of pairs observed of this globally abundant but declining species (BirdLife International 2013).

Of the other species recorded, only the observations of *P. ajaja* would be considered out of range according to the maps in Howell and Webb (1995). In conjunction with other recent sightings of rare wetland birds in Querétaro (e. g., Hiley 2012, Pineda-López *et al.* 2013), the presence of this species suggests that these artificial water bodies are potentially attractive to wandering wetland birds.

The remaining species, according to existing information regarding the birds of central Mexico (Howell and Webb 1995), are expected to be present in the state in either the non-breeding season (*B. lentiginosus*, *T. bicolor*) or in periods of migration (*C. melanotos*, *R. riparia*, and *P. pyrrhonata*). Whilst *B.*

lentiginosus is skulking and difficult to see, the absence of previous records of the other species is probably attributable to historical under-recording of birds in the arid, southern part of the state of Querétaro.

It has become increasingly apparent in recent years that Querétaro's reservoirs host a wide variety of birds, including several rare species, and are thus potentially of conservation importance. However, both wetland birds using these water bodies face threats from such things as industrial, agricultural and domestic contamination, human and canine disturbance, and artificially low water levels (pers. obs.). Further studies of the wetland birds in central Mexico should focus on quantifying the effects of such issues.

The results presented here add to the mounting body of evidence that suggests that this state is important for a wide and diverse variety of bird species, and might be used when considering both the descriptions of the distributions of wetland birds in Mexico, and future management actions at Querétaro's man-made water bodies.

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Literature cited

- BirdLife International (online). 2013. Species factsheet: *Dendrocygna bicolor*. <www.birdlife.org/datazone/speciesfactsheet.php?id=349> (accessed September 2013).
- Colón Quezada, D. 2004. Presencia de patos pijije alablanca (*Dendrocygna autumnalis*) y canelo (*Dendrocygna bicolor*), en Toluca, Estado de México. HUITZIL 5:1-2.
- Hiley, J. 2012. First records of Black Tern *Chlidonias niger*, Willet *Tringa semipalmata*, Snowy Plover *Charadrius nivosus* for the state of Querétaro, central Mexico. HUITZIL 13: 54-56.
- Howell, S.N.G. and S. Webb. 1995. A guide to the birds of Mexico and northern Central America. Oxford University Press. New York, USA.
- León-Paniagua, L., E. Romo-Vázquez, J.C. Morales, D.J. Schmidly, and D. Navarro-López. Noteworthy records of mammals from the state of Querétaro, Mexico. The Southwestern Naturalist 35:231-235.
- Navarro, A.G., B.E. Hernández, and H.D. Benitez. 1993. Listados Faunísticos de México IV. Las aves del estado de Querétaro, México. UNAM. Mexico, DF.
- Pineda-López, R. (online). 2010. Listado actualizado de las aves de Querétaro. <www.uaq.mx/FCN/Investigadores/Prod/RPL/ListadoAvesQuerétaroJulio2010.pdf> (accessed February 2012).
- Pineda-López, R. and A. Arellano-Sanaphre. 2010. Noteworthy records of aquatic birds in the state of Querétaro, Mexico. HUITZIL 11:49-59.
- Pineda-López, R., A. Arellano-Sanaphre, and C. de la Vega-Aguirre. 2013. Registros nuevos y notables de aves acuáticas en Querétaro y estados adyacentes. HUITZIL 14:1-6.
- Sánchez-González, L.A. 2013. Cuando un "nuevo registro" es realmente un nuevo registro: consideraciones para su publicación. HUITZIL 14:17-21.
- UNESCO (United Nations Educational, Scientific and Cultural Organization) (online). 2011. Biosphere Reserve Information: Sierra Gorda. <www.unesco.org/mabdb/br/brdir/directory/biores.asp?code=MEX+12&mode=all> (accessed September 2013).

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