NOTES

FIRST NESTING RECORD OF THE BLACK-BELLIED WHISTLING-DUCK ON THE BAJA CALIFORNIA PENINSULA, MEXICO

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The Black-bellied Whistling-Duck (*Dendrocygna autumnalis*) ranges from the southern United States to northwestern Peru, Argentina, and Brazil, occupying lakes and shallow freshwater marshes in the tropical and subtropical zones (A.O.U. 1998). It is a largely nocturnal species that often forms small groups, nests at heights of up to 3 m in large trees, and feeds on aquatic plants, cultivated grains, and seeds (Alsop 2001). Although the species is generally nonmigratory, extralimital records (some of which probably involve escapees) are scattered across the United States to southern Canada, as well as parts of Mexico outside of the normal range (James and Thompson 2001). The Baja California Peninsula is not part of the Black-bellied Whistling-Duck's historical range (Grinnell 1928, Wilbur 1987), but Howell and Webb (1992) reported one at San José del Cabo in June 1999, Carmona *et al.* (1999) reported four at Lagunas de Chametla, within the city of La Paz (11 and 12 December 1997; 14 February and 4 March 1998), and Erickson *et al.* (2001) reported additional sightings at both locations from 1992 to 1998. This paper updates the species' status in La Paz since that time and documents the first breeding record for the peninsula.

The La Paz region has a subtropical dry climate, with annual mean rainfall of 200 mm (Garcia and Mosiño 1969). It has two areas of permanent fresh water: the tank of Ejido El Centenario and five oxidation lagoons bordering Ejido Chametla (Lagunas de Chametla) (Castillo-Guerrero et al. 2002; Figure 1). The lagoons have an area of 25 ha, and more than 17 ha of flooded grasslands lie adjacent to them. Around these ponds grows typical desert vegetation, such as mesquites (*Prosopis* spp.) and chollas (*Opuntia* spp.), and such exotic trees as eucalyptus (*Eucalyptus* spp.) and salt cedar (*Tamarix* sp.). The lagoons make up a freshwater ecosystem that is used by numerous migrant and resident bird species (Castillo-Guerrero et al. 2002).

We documented the distribution and abundance of aquatic birds at Lagunas de Chametla in 1998 and from 2002 to 2004 (Table 1). We visited the area on 71 occasions and observed Black-bellied Whistling Ducks during 60 of those visits (many records, after 2001, published in *North American Birds*). We observed the maximum number, 37 birds, in December 2004.

Over the years, the average number of Black-bellied Whistling-Ducks per visit has increased (Table 1). Numbers in September and October were consistently low; this is related to the species' reproductive chronology along the mainland coast, since in those months the birds remain near their nesting sites.

Another month with low numbers is March. With the available data, we cannot explain this pattern, since February and April are well represented. With exception of the September–October decrease, there is substantial variation in the duck's monthly abundance from year to year (Table 1). We propose three probable reasons for these fluctuations: the numbers observed are not sufficiently large to reveal patterns, variation in the species' schedule of nesting on the mainland (such differences modifying the dates of beginning of the birds' dispersal), and/or local movements.

On 20 September 2004 we confirmed breeding at Lagunas de Chametla by observing two adults swimming with three small chicks. This date is somewhat later than the species' typical reproductive season of July–August (Leopold 1959). Four days

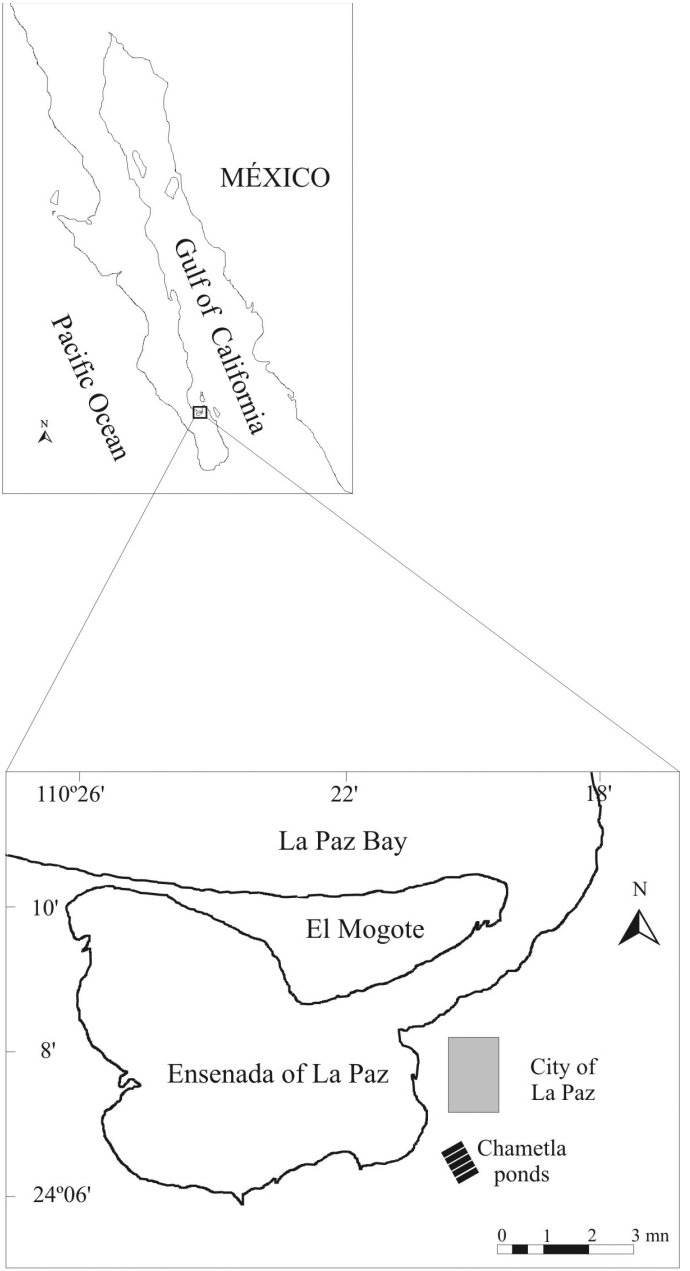

Figure 1. Location of Lagunas de Chametla.

Table 1 Monthly Average Abundance of the Black-bellied Whistling-Duck at Lagunas de Chametla

Month	1998	2002	2003	2004	Average per month
January	1	6	15	2	6.0
	(2)[a]	(1)	(3)	(1)	
February	1	5	16.25	11	8.3
	(2)	(1)	(4)	(2)	
March	0	NA[b]	2	4	2.0
	(2)		(1)	(1)	
April	9	NA	8	NA	8.5
	(2)		(1)		
May	9	NA	5	NA	7.0
	(2)		(1)		
June	5.5	10	9.5	NA	8.3
	(2)	(1)	(2)		
July	4.5	12.5	0	NA	5.7
	(2)	(2)	(1)		
August	13	6	NA	7	8.7
	(2)	(2)		(1)	
September	0.5	5	6	2.8	3.6
	(2)	(1)	(2)	(5)	
October	0	15	0	4.5	4.9
	(2)	(1)	(1)	(2)	
November	0.5	13.5	NA	18.5	10.8
	(2)	(4)		(2)	
December	1	1	0	20	5.5
	(2)	(1)	(1)	(2)	
Average per year	3.8	8.2	6.2	9.0	

[a]Figures in parentheses are the number of surveys per month.

[b]NA, no survey.

later, on 24 September, we photographed one adult accompanied by the same three chicks, which by then were about half grown (Figure 2). Their bills were blue-gray, and they had large gray legs and feet. A dark line from the back of the neck to the head broadened to form a dark crown. Each chick had a dark line from the beak to the eye and a light spot behind the eye.

The nesting of the Black-bellied Whistling-Duck on the Baja California Peninsula represents an extension of the species' known breeding range. This extension may have been due to birds that for some reason (e.g., incomplete molt, parasites) did not return to the normal breeding grounds. This record increases to eight the number of aquatic bird species known to breed at Lagunas de Chametla (see Carmona et al. 1999). Considering the scarcity of extensive freshwater marshes in this region and threats to such areas posed by human activities (Rodríguez Estrella and Arriaga 1997), the protection and conservation of Lagunas de Chametla is important for bird conservation on the peninsula.

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Figure 2. Adult (A) and young (B) Black-bellied Whistling-Ducks at Laguna de Chametla, 24 September 2004.

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