

FIRST RECORD OF A WEST INDIAN WHISTLING-DUCK (*DENDROCYGNA ARBOREA*) NESTING IN GUADELOUPE

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Abstract: We document the first nesting of West Indian Whistling-Ducks (*Dendrocygna arborea*) in Guadeloupe. One parent with nine ducklings was observed on Terre-de-Bas, one of two offshore cays that comprise the Petite-Terre Nature Reserve, located off the southeast coast of Guadeloupe. The nest was located under a bush of *Lantana involucrata*. In recent years West Indian Whistling-Ducks are being documented with increasing frequency in Guadeloupe. The birds are most likely dispersing from Antigua, where the population has been increasing due to local conservation efforts. The first nesting in Guadeloupe represents a range expansion for the species. Guadeloupe appears to have adequate wetland habitat needed for feeding, roosting, and nesting. If given protection from hunting, the West Indian Whistling-Duck could become established as a breeding resident in Guadeloupe.

Key words: *Dendrocygna arborea*, first nesting, Guadeloupe, range expansion, West Indian Whistling-Duck

Resumen: PRIMER REGISTRO DE LA YAGUAZA (*DENDROCYGNA ARBOREA*) NIDIFICANDO EN GUADALUPE. Documentamos la primera nidificación de la Yaguaza (*Dendrocygna arborea*) en Guadalupe. En Terre-de-Bas, uno de los dos cayos que forman parte de la Reserva Natural Petite-Terre y que está ubicado en la costa sudeste de Guadalupe, se observó un individuo adulto de Yaguaza con nueve pichones. El nido fue encontrado debajo de un arbusto de *Lantana involucrata*. En los últimos años se ha documentado con frecuencia la presencia de esta especie en Guadalupe. Es muy probable que las aves se estén dispersando desde Antigua, donde la población se ha incrementado producto de los esfuerzos de conservación locales. La primera nidificación en Guadalupe representa una expansión del rango de la especie; y al parecer los humedales de la isla tienen las características adecuadas para que sean utilizados como sitio de alimentación, descanso y nidificación por esta especie. Si se evita la caza de *Dendrocygna arborea*, la misma pudiera establecerse como una especie residente de verano con poblaciones reproductoras en Guadalupe.

Palabras clave: *Dendrocygna arborea*, expansión de rango, Guadeloupe, primera nidificación, Yaguaza

Résumé : PREMIER CAS DE NIDIFICATION DU DENDROCYGNE DES ANTILLES (*DENDROCYGNA ARBOREA*) EN GUADELOUPE. Nous documentons ici le premier cas de nidification du Dendrocygne des Antilles (*Dendrocygna arborea*) en Guadeloupe. Un adulte avec neuf poussins a été observé à Terre de Bas, un des deux îlets de la réserve naturelle de Petite-Terre, située au sud-est de la Guadeloupe. Le nid a été découvert sous un buisson de *Lantana involucrata*. Depuis quelques années, le Dendrocygne des Antilles a été observé de plus en plus fréquemment en Guadeloupe. Les oiseaux arrivant probablement d'Antigua, où la population a beaucoup augmenté grâce à des efforts de conservation. Ce premier cas de nidification en Guadeloupe représente un élargissement de son aire de reproduction. La Guadeloupe possède les zones humides nécessaires à la présence, au nourrissage et à la reproduction de l'espèce. Si les chasseurs respectaient le Dendrocygne des Antilles, il pourrait s'établir de manière durable en Guadeloupe.

Mots clés : *Dendrocygna arborea*, Dendrocygne des Antilles, expansion d'aire, Guadeloupe, première nidification

The West Indian Whistling-Duck (WIWD) is one of the rarest ducks in the Americas. The species is endemic to the West Indies, and found mainly in the Greater Antilles with Antigua and Barbuda at the southern edge of the species's range. Once abundant and widely distributed in these areas, it has undergone drastic declines throughout its range in recent decades, and it has been extirpated from several islands (Collar *et al.* 1992, Staus and Sorenson 1997, Raffaele *et al.* 1998). Resident populations are currently known to exist in the Bahamas, Cuba, Cayman Islands, Jamaica, Dominican Republic, Puerto Rico, Turks and Caicos Islands, and Antigua

and Barbuda. Populations on most islands are small (i.e., < 1,000 birds) and fragmented, with the exception of Cuba where the bird has reportedly thrived in recent years due to legal protection from hunting and the availability of extensive wetland habitat, including rice fields (L. Mugica pers. comm.).

The status of the West Indian Whistling-Duck on the IUCN Red List is "vulnerable." Its survival is threatened by overhunting, destruction and degradation of wetland habitat, and predation by introduced invasive mammals such as raccoons (*Procyon lotor*), rats (*Rattus* spp.), and Indian mongoose (*Herpestes javanicus*). Although Hellmayr and



Fig. 1. Area on Petite-Terre Nature Reserve (south-east side of Terre-de-Bas), Guadeloupe, where a West Indian Whistling-Duck nest was found on 26 February 2008. The red arrow points to the bush where the nest was located. Photo by Anthony Levesque.



Fig. 2. Hatched West Indian Whistling-Duck nest showing eggshell fragments and two infertile eggs at the Petite-Terre Nature Reserve, Guadeloupe, on 26 February 2008. The nest was located under a bush of *Lantana involucrata*. Photo by Anthony Levesque.

Conover (1948) included Guadeloupe, Martinique, and Barbados within the species's range, Collar *et al.* (1992:79) remarked that "there is no evidence to support its occurrence there other than as a casual vagrant." Here we report the first documented nesting of the species in Guadeloupe, on Terre de Bas, part of the Petite-Terre Nature Reserve.

Petite-Terre Nature Reserve is situated 10 km off the main island of Guadeloupe (61°07'01.39" W, 16°10'12.46" N), southeast of Pointe des Châteaux, and consists of two islets (Terre de Bas and Terre de Haut) for a total of 148 ha. The islands are very dry (c. 1,100 mm rainfall each year) and contain four salt ponds with very few mangroves around them. There is no fresh water on the reserve.

OBSERVATION

On 26 February 2008, Anthony Levesque (AL), working at the time as a ranger in the Petite-Terre Nature Reserve, observed a West Indian Whistling-Duck adult with ducklings in Guadeloupe (French West Indies, FWI). It was close to 1100 when AL, after finishing his monthly shorebird watch on Terre de Bas, walked close to a bush of *Lantana involucrata*, and spotted a tall duck standing in the bush nearby the trail (Fig. 1). The duck flew away a moment later. AL identified it as a West Indian Whistling-Duck, a species he had never before observed at this site (Levesque 2009), nor ever seen alive anywhere in Guadeloupe (Table 1, Levesque *et al.*

2009).

The surprising observations continued when AL heard noises in another bush nearby. Suddenly, he caught sight of numerous downy ducklings. He was able to capture a short video of the ducklings hiding under a bush. It appeared to be the first documented case of West Indian Whistling-Ducks nesting in the French West Indies.

AL returned to the observation site at dusk the same day and heard the typical whistling call of the adults. As the parent called, nine ducklings emerged from the bush but the adults remained hidden in the bush.

The next day, AL searched the area and found the nest close to the bush where the ducklings were observed. The nest, a depression lined with dead leaves, contained broken eggs shells plus two infertile eggs, indicating a clutch size of 11 eggs (Fig. 2). No whistling-ducks were observed at this time. The parents had probably led the ducklings to a salt pond 500 m away where they could feed (newly-hatched ducklings usually remain at the nest for about 24 hr; Todd 1997).

The nest was located about 50 m from the ocean's edge in low scrubby bushes of *Lantana involucrata* growing on limestone rock. This bush is the dominant species in this area.

DISCUSSION

Until the discovery of this nest, AL had only observed the species three times in Guadeloupe; all

Table 1. Observations of West Indian Whistling-Ducks in Guadeloupe from 2004 to 2010.

Date	<i>n</i>	Locality	Observer	Comments
?? Oct 2004	2	Marie-Galante	hunter	shot
?? Oct 2006	1	Marais de Port-Louis	hunter	shot
25 Sep 2007	7	Barrage de Gaschet	hunter	5 shot
26 Feb 2008	10	Petite-Terre	A. Levesque	adult + 9 ducklings
02 Mar 2008	1	Petite-Terre	A. Levesque	on salt pond
02 May 2008	1	Petite-Terre	A. Levesque	at night, on salt pond
13 May 2008	2	Petite-Terre	A. Levesque & F. Duzont	at night, on salt pond
20 May 2008	3	Petite-Terre	A. Saint-Auret	on the shore, at 15:00
21 May 2008	1	Petite-Terre	A. Saint-Auret	on the shore, at 09:00
20 Nov 2008	1	Morne à l'Eau	hunter	shot
03 Jul 2009	7	Petite-Terre	M. Fury	on salt pond, at 17:00

three observations were of birds that had been killed by hunters (Table 1). After finding the nest, we recorded the West Indian Whistling-Duck (or foot prints in salt ponds) ten more times on the Nature Reserve, from March 2008 to July 2010. Several more individuals were known to be shot by hunters during this period. Because the West Indian Whistling-Duck is new to Guadeloupe, it is not on the protected species list, nor are they on the game bird list. The latter means that it is illegal to shoot them (www.oncfs.gouv.fr). Because the whistling-duck nested in a protected area, recently designated as an “Important Bird Area” (Levesque and Mathurin, 2008) that is relatively safe from introduced mammalian predators on the island (rats, but no cats, dogs, or mongoose), we believe the site has great potential value as a reserve where the species could nest successfully.

Efforts to conserve the threatened West Indian Whistling-Duck have been ongoing throughout the Caribbean for a number of years. Since 2001, the Society for the Conservation and Study of Caribbean Birds (SCSCB) has led the West Indian Whistling-Duck and Wetlands Conservation Project—a region-wide outreach and education program to raise public awareness and appreciation of the many functions and values of local wetlands and their bird life. The project has produced a number of educational materials on birds and wetlands, including a 267-page manual. *Wondrous West Indian Wetlands: Teachers’ Resource Book*, and through intensive two-day workshops, trains enthusiastic teachers and local natural resource agency partner staff who, in turn, teach children and train others. This “multiplier effect” has helped to reach a large number of people, enabling us to develop a network of locals

that care about birds and wetlands, and have become involved in their conservation (Sorenson *et al.* 2004, 2005, Sorenson 2008).

The project has had many positive outcomes including increased legal protection of West Indian Whistling-Ducks, reduced shooting by hunters, monitoring of the species, and conservation of mangroves and other important wetland habitats. In addition, there is good evidence that West Indian Whistling-Duck populations are stable or increasing in several islands where the project has been most active (Cuba, Antigua and Barbuda, Jamaica, Puerto Rico, Bahamas, Cayman Islands; Sorenson *et al.* 2004, 2005).

AL’s discovery of the first nesting of the West Indian Whistling-Duck in Guadeloupe is significant and exciting as it represents a range expansion of the species. Antigua has long been considered the southernmost point in the species range (Raffaele *et al.* 1998). In the early 1990s, populations were small and scattered (Haynes-Sutton pers. comm.), but following years of hard work and conservation efforts (especially hunter education and intensive monitoring), led by Joseph Prosper of the Environmental Awareness Group of Antigua and Barbuda, the population has been increasing steadily (J. Prosper in prep.), apparently to the point where birds are now dispersing to Guadeloupe which is only about 115 km away. If similar conservation measures are implemented in Guadeloupe and the species is protected from hunting, it could become established as a breeding resident there.

Guadeloupe contains the largest areas of mangrove remaining in the Lesser Antilles. Mangroves, salt ponds, and other wetlands as well as coastal scrub could provide the habitat needed by West

Indian Whistling-Ducks to feed, roost, and nest successfully (Staus 1996). The ability of the species to survive and become established as a breeding resident in the country is dependent, however, on the evolution of hunters' behavior. Hunting is a popular tradition in the French West Indies and many hunters are either unaware of the duck's threatened status or disregard hunting laws. Hunter organizations, government, and NGOs must work together in order to give the West Indian Whistling-Duck a chance to become established. Protection of the duck in Guadeloupe will also contribute to the global conservation of the species.

The authors hope that Guadeloupe will follow its neighboring countries and provide legal protection to the West Indian Whistling-Duck in Guadeloupe so that everyone in the country can enjoy seeing these birds and take pride in knowing they are providing a home for a rare and beautiful duck that future generations may also enjoy.

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