

## RANGE EXPANSION OF WHITE-WINGED DOVE (*ZENAIIDA ASIATICA*) IN THE LESSER ANTILLES

NIELS J. LARSEN<sup>1</sup> AND ANTHONY LEVESQUE<sup>2</sup>

<sup>1</sup>Medical Genetics, Ross University School of Medicine, PO Box 266, Roseau, Commonwealth of Dominica, West Indies; e-mail: [nlarsen@rossmed.edu.dm](mailto:nlarsen@rossmed.edu.dm); <sup>2</sup>Association AMAZONA & Office National de la Chasse et de la Faune Sauvage (ONCFS), Labrousse, 97190 Le Gosier, Guadeloupe, French West Indies; e-mail: [anthony.levesque@wanadoo.fr](mailto:anthony.levesque@wanadoo.fr)

**Abstract:** This report describes the first observations of White-winged Dove (*Zenaida asiatica*) in Dominica and Guadeloupe and summarizes their status up to the end of 2008. Additionally, the spread through the remaining Lesser Antilles up to the end of 2007 is discussed based on correspondence with several local observers. These observations indicate that the eastward and southward range expansion in the Caribbean is still ongoing.

**Key words:** Dominica, Eastern Caribbean, Guadeloupe, Lesser Antilles, range expansion, St. Martin, status, White-winged Dove, *Zenaida asiatica*

**Résumé :** EXTENSION DE L'AIRE DE RÉPARTITION DE LA TOURTERELLE À AILES BLANCHES (*ZENAIIDA ASIATICA*) DANS LES PETITES ANTILLES. Cette note décrit les premières observations de Tourterelles à ailes blanches (*Zenaida asiatica*) en Dominique et en Guadeloupe et son statut jusqu'à la fin de 2008. De plus, son expansion et son statut jusqu'à la fin de 2007 dans les Petites Antilles sont discutés sur la base de correspondances avec plusieurs observateurs locaux.

**Mots clés :** Caraïbe, Dominique, extension d'aire de répartition, Guadeloupe, Orientale, Petites Antilles, St. Martin, statut, Tourterelle à Ailes Blanches, *Zenaida asiatica*

**Resumen:** EXPANSIÓN DE RANGO DE LA PALOMA ALIBLANCA (*ZENAIIDA ASIATICA*) EN LAS ANITLLAS MENORES. El presente trabajo describe las primeras observaciones sobre la Paloma Aliblanca (*Zenaida asiatica*) en Dominica y Guadalupe y resume su status hasta finales de 2008. Además se discute su propagación por el resto de las Antillas Menores, obtenida mediante correspondencia con algunos observadores locales. Estas observaciones indican que su rango de expansión hacia el este y el sur en el Caribe está aun en desarrollo.

**Palabras clave:** Antillas Menores, Caribe oriental, Dominica, expansión de rango, Guadalupe, San Martín, status, *Zenaida asiatica*

THE WHITE-WINGED DOVE (*Zenaida asiatica*) ranges from California, Arizona, and Texas south to Panama and through at least part of the Caribbean, including the Bahamas and the Greater Antilles (Clements 2007, Schwertner *et al.* 2002). Its northernmost populations are migratory (Schwertner *et al.* 2002). The species has recently expanded its range northward in the USA and eastward in the Greater Antilles (Pruett *et al.* 2000, McNair *et al.* 2006, Raffaele *et al.* 1998). Three subspecies of White-winged Dove are commonly recognized: *asiatica* from eastern Texas to Nicaragua and in the Caribbean, *mearnsi* from south-western USA to western Mexico, and *australis* from Costa Rica to Panama (Clements 2007). The range expansion in the USA involves both *asiatica* and *mearnsi*, with the newly colonized area in northern Texas becoming a mixing area (Pruett *et al.* 2000). The range expansion in the Caribbean involves the nominate subspecies.

Naturally occurring landbirds in the Lesser Antilles have two principle origins: either they arrived from the Greater Antilles by crossing the Anegada Passage, or they arrived from the south by crossing from South America to Grenada or Barbados. Recent examples of the second type are Eared Dove (*Zenaida auriculata*) and Spectacled Thrush (*Turdus nudigenis*; also known as Bare-eyed Robin) (Raffaele *et al.* 1998), whereas White-winged Dove clearly is an example of the first type.

In the Caribbean, White-winged Dove is the only dove with a large patch of white that encompasses the outer lesser coverts as well as the greater coverts on the upper wing; it is therefore relatively easy to recognize when flying if seen well. The white on the wing is most often also visible on the sitting bird, again making it easily recognizable. This report describes the current status of White-winged Dove in the Lesser Antilles, including the first observations for Dominica and Guadeloupe.

METHODS

Our observations were not the result of field work directed specifically at the White-winged Dove. For Guadeloupe and Dominica, we include observations through the end of 2008, including data extracted from the database of Association AMAZONA. These observations were supplemented with observations through the end of 2007 obtained from other observers in response to a request posted on the BirdsCaribbean mailing list.

RESULTS

FIRST RECORDS FOR DOMINICA

A single adult was observed at a roadside location near Cabrits National Park on 8 January 2005 (15°35'02" N, 61°27'44" W). The dove was observed for about 10 min and photographed (Fig. 1) while collecting grit or feeding; thereafter it flew into a thicket and disappeared. A second observation came on 17 May 2005 in Savane Paille, Dominica, about 2.2 km north of the first observation (15°36'14" N, 61°27'44" W). The bird appeared to be collecting grit in a gravel area by the road, then flew into a tree and perched for about 5 min before flying off. Both observations were by Niels Larsen and Lene Larsen.



Fig. 1. Adult White-winged Dove (*Zenaida asiatica*) near Cabrits National Park, Dominica, on 8 January 2005. Photo by Niels Larsen.

FIRST RECORDS FOR GUADELOUPE

A White-winged Dove was killed at Ste Rose

(16°20'57" N, 61°46'13" W) by a hunter at the end of July 2005 (frozen specimen examined by Anasthase Ramsahaï). On 22 April 2006, a single dove was seen on the ground just behind a beach at Saint-François (16°15'00" N, 61°16'13" W) by Anasthase Ramsahaï. On 27 April 2006, two more were seen flying in an easterly direction (and probably continued over the sea) at Pointe des Châteaux (16°14'42" N, 61°10'26" W) by Anthony Levesque, Frantz Du-

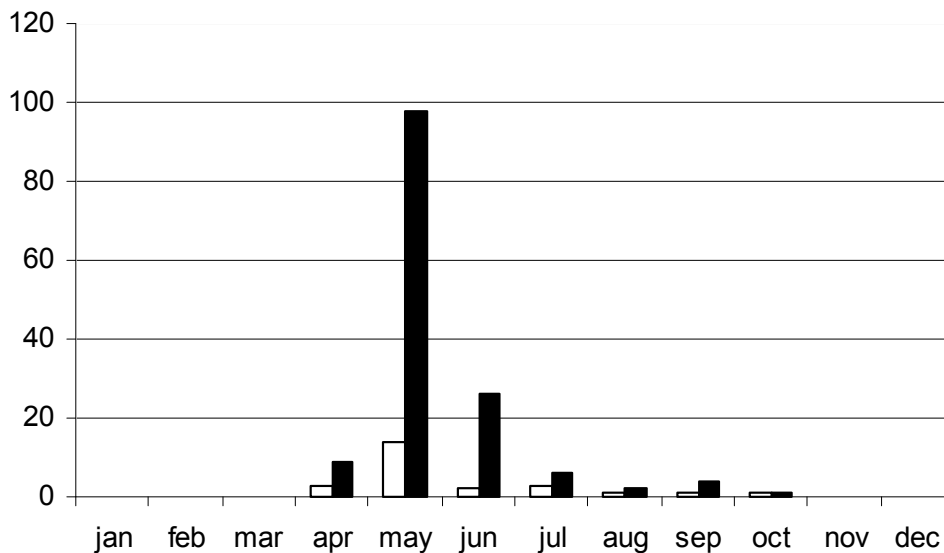


Fig. 2. Monthly distribution of White-winged Dove in Guadeloupe, cumulative for the period 2005-2008. Light bars indicate the number of days observed; dark bars indicate the number of birds observed.

Table 1. Observations of White-winged Dove (*Zenaida asiatica*) from Guadeloupe extracted from the database of Association AMAZONA.

Date	Number of Birds	Location	Observers
14 Jul 2005	1	Sainte Rose	Verified by Anasthase Ramsahaï
22 Apr 2006	1	Morne à l'Eau	Anasthase Ramsahaï
27 Apr 2006	2	Pointe des Châteaux	Anthony Levesque, Frantz Duzont
05 May 2007	10	Le Moule	Jean-Marie Ramaye
21 May 2007	4	Petite-Terre	Anthony Levesque
23 May 2007	5	Pointe des Châteaux	Gilles Leblond
25 May 2007	12	Pointe des Châteaux	Gilles Leblond
27 May 2007	3	Pointe des Châteaux	Frantz Duzont, Alain Mathurin
28 May 2007	1	Pointe des Châteaux	Anthony Levesque
14 Jul 2007	2	Saint François	Anthony Levesque
18 Aug 2007	2	Pointe des Châteaux	Alain Mathurin
01 Sep 2007	1	Port-Louis	Jacky Froidefond
30 Apr 2008	6	Pointe des Châteaux	Anthony Levesque
02 May 2008	11	Petite-Terre	Anthony Levesque, Alain Saint-Auret, Jules Chiffard
04 May 2008	9	La Désirade	Anthony Levesque
05 May 2008	11	Pointe des Châteaux	Alain Mathurin
09 May 2008	12	La Désirade	Alain Mathurin
10 May 2008	1	Pointe des Châteaux	Anthony Levesque
12 May 2008	3	Pointe des Châteaux	Anthony Levesque
22 May 2008	12	Pointe des Châteaux	Anthony Levesque
30 May 2008	3	Pointe des Châteaux	Jean-Marie Boutin
30 May 2008	1	Morne à l'Eau	Jean-Marie Boutin
01 Jun 2008	23	Le Moule	Jean-Marie Ramaye
14 Jun 2008	3	Petite-Terre	Anthony Levesque
12 Jul 2008	3	Le Moule	Anthony Levesque
25 Sep 2008	3	Pointe des Châteaux	Anthony Levesque, ONCFS
09 Oct 2008	1	Pointe des Châteaux	Jean-Marie Ramaye

zont, and Anasthase Ramsahaï. In 2007, 40 birds were observed on 8 days, and in 2008, 102 birds were observed during 14 days (Table 1). More observations occurred at Pointe des Châteaux than anywhere else in Guadeloupe; as a long narrow peninsula, Pointe des Châteaux acts as a migratory hot-spot attracting both observers and birds. Fig. 2 reveals the monthly distribution of observations and observation days for Guadeloupe, demonstrating a clear peak in May and complete absence between October and April. The authors believe this reflects true differences in the occurrence of the species rather than a difference in observer effort (in Guadeloupe, 10 observation days between 30 April and 1 June 2008 averaged 9.2 birds per day contrasting with an average of 2.5 birds per day during 4 days

from 14 June to 9 October 2008).

#### STATUS IN THE LESSER ANTILLES

The Lesser Antilles are usually defined as being east and south of the Anegada Passage, thus most of the British Virgin Islands belong to the Greater Antilles and therefore are not included here. The first record in Anguilla was in 2000, with intermittent observations until January 2003; none were observed during a visit in December 2003. In 2005, up to four birds were observed in each of nine locations on this island, with courtship behavior providing evidence that the species breeds in Anguilla (Steve Holliday pers. comm.).

Saba had at least six observations of White-winged Dove between 1992 and 2003 (Mandy



Fig. 3. White-winged Dove (*Zenaida asiatica*) in St. Martin, 7 September 1999. Photo by Anthony Levesque.

Walsh-McGehee pers. comm.) but the species is still not seen on every visit (Steve Holliday pers. comm.).

White-winged Dove was first observed in St. Martin in 1999; 18 were noted on 7 September by Anthony Levesque (Fig. 3), but the species had been detected some months earlier by Gilles Leblond (pers. comm.). They are occasional to uncommon but the breeding status is unknown (Natalia Collier pers. comm.).

The first observation from Barbuda was a group of four White-winged Doves in April 2005 (Alvaro Jaramillo pers. comm.). A second observation of a single bird came on 20 April 2006, in Codrington (Alvaro Jaramillo pers. comm.). In Antigua, Niels Larsen saw one at McKinnons Salt Pond on 2 April 2006 and met a local birder who said they were regular in some of the residential areas.

Observations from Guadeloupe and Dominica are reported above. There is much less ornithological fieldwork in Dominica than in Guadeloupe, so it is likely that some birds were overlooked in Dominica. Nevertheless, we suspect that the White-winged Dove is much more common in Guadeloupe. Interestingly some of the birds seen at Pointes des Chateaux migrated over the sea in an easterly direction, possibly taking them to La Desiderade rather than southward to Dominica (Levesque *et al.* observation in 2006 and Jean-Marie Boutin observation in 2008).

No records exist for Montserrat (Geoff M. Hilton and Carole McCauley pers. comm.) or Bardados

(Edward Massiah pers. comm.) and no information is available from the remaining islands in the Lesser Antilles.

#### DISCUSSION

In the Lesser Antilles, the majority of White-winged Dove observations occurred in April and May (e.g., see Fig. 2 for Guadeloupe). We suspect that breeding occurs near Guadeloupe, which would account for the increasing number of birds observed, but thus far evidence for breeding in the Lesser Antilles has been obtained only on Anguilla. Breeding may be undetected on other islands.

In Texas, the breeding habitat of White-winged Dove was historically limited to arid to semi-humid woodlands in the extreme south of the state, but recent changes in land usage have led to breeding within urban areas, mostly in older, shade-providing trees. They prefer areas with open feeding areas such as agricultural fields (Schwertner *et al.* 2002). A similar preference for dry forest or a mosaic of agricultural areas within moist forest was reported in Puerto Rico by Rivera-Milan (1992).

The White-winged Dove in the Lesser Antilles usually but not always occurs in open areas at the edges of scrub, often in association with human habitation. The similarity of habitat choice in the Lesser Antilles, Puerto Rico, and Texas suggests that the recent spread of the species is not due to changes in habitat preference. However, most if not all of the islands in the Caribbean have experienced recent human encroachment on the natural habitat (Raffaele *et al.* 1998) and these habitat changes may have made the islands more attractive to White-winged Dove; a similar explanation was given for the spread of this dove into central and northern Texas (Pruett *et al.* 2000).

Ricklefs and Bermingham (2004) argued that only landbird species with strong dispersal abilities can cross the Anegada Strait between the Virgin Islands in the Greater Antilles and Saba or Anguilla in the Lesser Antilles. The White-winged Dove has demonstrated its strong predisposition for dispersal by routinely wandering far north of its regular breeding range in North America (Schwertner *et al.* 2002) and crossing large expanses of ocean as far as Bermuda (June 2003; David Wingate and Andrew Dobson pers. comm.). Given its impressive dispersal abilities and the abundance of favorable habitat (relatively dry scrub, altered by human habitation and agriculture) in the Lesser Antilles, it can be expected to spread rapidly through the islands. How the White-winged Dove will interact with its close

relative the Eared Dove (*Z. auriculata*), which is spreading north from the southern end of the Lesser Antilles, if and when they make contact, is anybody's guess. Rivera-Milan (1996) found positive correlations in nest density between White-winged Dove and Zenaida Dove in Puerto Rico, indicating a lack of significant interspecific competition between these two species.

Ricklefs and Bermingham (2004) also pointed out that several species invading the Lesser Antilles from the north left gaps in their distribution in the form of uninhabited islands, due either to extinction from intermediate islands or the colonists bypassing the islands during the colonization phase. The lack of observations from Montserrat suggests the latter mechanism for White-winged Dove due to Montserrat being a younger, wetter island compared with the lower, drier habitats more common in Antigua, Barbuda, and in parts of Guadeloupe. Alternatively, the eruptions of the Soufrière Hills Volcano, Montserrat, which started 18 July 1995, might have discouraged colonization of the island by White-winged Doves.

Given the White-winged Doves preference for relatively dry habitats, we predict that White-winged Dove in the near future will remain a rare bird in Dominica because very little of Dominica is dry enough to attract White-winged Doves. The low-lying parts of Guadeloupe (Grande Terre, etc.) are somewhat drier, partly explaining the greater abundance of White-winged Dove there, but Guadeloupe is also closer to islands with an established presence of this bird.

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