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First record of Turkey Vultures (*Cathartes aura*) nesting on Hispaniola

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Photo: Ryan Phillips

First record of Turkey Vultures (*Cathartes aura*) nesting on Hispaniola

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Abstract Though the Turkey Vulture (*Cathartes aura*) is present year-round on Hispaniola, nesting for this species has not been documented in either Haiti or the Dominican Republic. During March to June 2011 and 2012, we located four active Turkey Vulture nests in the Dominican Republic: three in Los Haitises National Park and one on private land near the town of Pedro Sanchez. This paper provides the first nesting record of Turkey Vultures on Hispaniola, a description of these four nests, and general information on three other previously unreported nests.

Keywords *Cathartes aura*, Dominican Republic, Hispaniola, Los Haitises National Park, nesting records, Turkey Vulture

Resumen Primer registro de anidación de *Cathartes aura* en la Española—Aunque *Cathartes aura* está presente todo el año en La Española, la anidación de esta especie no ha sido documentada en Haití o República Dominicana. Durante marzo y junio de 2011 y 2012, encontramos cuatro nidos activos de esta especie en República Dominicana: tres en el Parque Nacional Los Haitises y uno en terrenos privados cerca de la ciudad de Pedro Sánchez. Este documento proporciona el primer registro de nidificación de *Cathartes aura* en La Española, una descripción de estos cuatro nidos e información general sobre otros tres nidos no reportados previamente.

Palabras clave *Cathartes aura*, La Española, Parque Nacional Los Haitises, registros de anidación, República Dominicana

Résumé Première mention de nidification de l'Urubu à tête rouge (*Cathartes aura*) à Hispaniola—Bien que l'Urubu à tête rouge (*Cathartes aura*) soit présent toute l'année sur l'île d'Hispaniola, la nidification de cette espèce n'est pas documentée en Haïti ni en République Dominicaine. De mars à juin 2011 et 2012, nous avons trouvé quatre nids occupés d'Urubu à tête rouge en République Dominicaine: trois nids dans le parc national Los Haitises et un nid sur des terrains privés près de la ville de Pedro Sanchez. Cet article présente la première mention de nidification d'Urubu à tête rouge sur l'île d'Hispaniola, une description des quatre nids, et des informations générales sur trois autres nids non signalés précédemment.

Mots-clés *Cathartes aura*, données de nidification, Hispaniola, Parc national Los Haitises, République Dominicaine, Urubu à tête rouge

The Turkey Vulture (*Cathartes aura*) is a resident or seasonal migrant throughout much of the Americas. In North America it can be found from southern Canada through the United States, though this population is steadily expanding its range northward (Kiff 2000). It is also found from Mexico into Central and lowland South America, and the Greater Antilles (American Ornithologists' Union 1998). The group of islands in the Greater Antilles is comprised of Cuba, Jamaica, Puerto Rico, and Hispaniola, the latter of which contains the countries of Haiti and the Dominican Republic. Though fossil evidence places Turkey Vultures on some Greater Antilles islands as far back as the Pleistocene, there is a lack of a general consensus as to when this species first appeared on Hispaniola (Santana *et al.* 1986). Despite its widespread dis-

tribution in the Neotropics, the breeding habits of this species are generally understudied in this region (Houston 1994). While the Turkey Vulture is considered a permanent resident in Hispaniola, and breeding is assumed, nesting has not previously been documented on the island (Latta *et al.* 2006).

Results and Discussion

Between 2011 and 2012, we discovered four Turkey Vulture nests in the Dominican Republic; three within Los Haitises National Park (LHNP; 19°01'45.0"N, 69°43'44.2"W) close to the town of Los Limones, in the northeastern region of the Dominican Republic; and one in Loma La Herradura (18°51'35.9"N, 69°06'12.6"W) near the town of Pedro Sanchez, on property owned by Central Romana, Ltd. LHNP covers approximately 1,600 km² (Woolaver 2011) with elevations ranging from sea level to 380 m, and is composed principally of limestone karst hills (*mogotes*), valleys, caves, and sink holes (Wiley and Wiley 1981, Latta 2005). The park is made up of "blocks and fragments of humid broadleaf forest intermixed with human-cultivated

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areas consisting of *conucos* (e.g. mixed plantings of root crops, banana, citrus and cocoa), coconut plantations, pastures, grasslands and secondary forests in various states of regeneration" (Thorstrom *et al.* 2005), and some mangrove habitat on the coastal side. The Loma la Herradura site is located approximately 30 km southeast from LHNP in the Cordillera Oriental where elevations range from 89 m to 570 m. The landscape here is also a mixture of human-cultivated areas, ranch land that supports herds of cattle, and some of the last remaining intact forest in an otherwise heavily degraded region (MGC pers. obs.).

Between February and early June 2011 and 2012 we monitored a nesting population of approximately 35 pairs of the critically endangered Ridgway's Hawk (*Buteo ridgwayi*) in LHNP. This involved hiking long distances in search of nests, nesting pairs, and individual hawks. During this time, we observed Turkey Vultures throughout the park and they appeared to be very common. On the morning of 4 March 2011, JGA witnessed a pair of vultures copulating in an unidentified tree in an agricultural field within the park boundaries (19°03'02.5"N, 69°44'33.9"W). On 9 March 2011, MGC and HJP flushed an adult Turkey Vulture from a small limestone cave (19°02'36.7"N, 69°42'32.2"W, 195 m asl) located in the middle of an open field. Ferns (*Pteridium aquilinum*) further obscured the cave. Upon closer inspection, we found two large eggs inside the cave. There was no observable nesting material and the eggs were lying directly on the substrate, about 0.6 m back from the cave entrance. The cave opening was approximately 0.75 m from the ground, and measured 128 cm tall by 110 cm wide. It extended 0.4 m back from the entrance beyond which a long tunnel tapered into a recessed cove too small for us to access.

On 10 April of that year, we checked the nest to determine its status. A large fire had swept through the area days prior to this visit, burning within close proximity of the nest. We did not observe the adults, but a close inspection of the cave revealed the presence of two downy chicks sleeping at the entrance. Upon our approach, the chicks retreated to the small cove at the back of the tunnel out of our view and began to hiss, which is a well-documented reaction of young to a perceived threat (Davis 1983). Based on their plumage characteristics, we estimated the young to be approximately 21 days old (see Nelson *et al.* 2009), placing their hatch date on or around 20 March. Assuming that incubation is approximately 40 days, as observed in this species in other areas, and that the young fledge at about 67 days after hatching (Kirk and Mossman 1998), based on the age of the young, we estimated laying date at 9 February and predicted fledging by 26 May. Our field season ended shortly thereafter, so we did not return to the nest site to confirm if the young survived to fledging.

The following year, on 1 March 2012, HJP returned to this nest site, but it appeared to have been abandoned. HJP observed ashes and burnt logs inside the cave, suggesting someone had deliberately made a fire there. There was no evidence of the adult vultures, eggs, or young.

Two additional nests were discovered in 2012 in LHNP, both located inside caves. The first (19°02'14.7"N, 69°44'07.7"W, 232 m asl; Fig. 1) was located on 19 March 2012 by HJP and volunteer Christine Hayes during routine monitoring of the Ridgway's Hawk. The nest contained one chick estimated to be 26 days old.



Fig. 1. Young Turkey Vulture in its nest in Los Haitises National Park, Dominican Republic. Photograph by Joshua LePergola.

The nest cave measured 54 cm tall, 96 cm wide, and approximately 4–5 m deep. It was located on a rocky hillside covered with trees. On 16 April we visited the nest cave again. The chick appeared healthy. We did not return to this site to see if it had fledged.

The second nest, discovered on 29 March by TIH, JGA, and HJP (19°02'55.3"N, 69°41'38.1"W, 235 m asl), was at the west end of a large boulder at the top of a hill. The overhang, which formed the nest cave, was 34 cm tall, 140 cm wide, and 104 cm deep. The boulder itself measured 100 cm tall, 270 cm wide, and 440 cm long. The two eggs, sitting at about 45 cm from the front of the cave, were mottled white and brown. Both measured 46 mm x 65 mm, and weighed 61 g and 72 g, respectively. On 11 May 2012, HJP and JGA visited the nest again and found that both chicks had hatched. They were estimated to be 37 days old, and appeared to be in good health. We visited the nest again on 10 July. There was no sign of the young, who had presumably fledged by this time.

The nest discovered by MGC and volunteer Pedro Costa on the Loma la Herradura property (18°52'37.0"N, 69°05'27.1"W, 466 m asl) on 18 March 2012, was not in a cave, but rather on a ledge adjacent to a limestone or granite wall approximately 4.5 m tall surrounded by second growth forest. The ledge had some leaf litter, and eggshell remains, and a few trees and vines growing nearby. Though the rock wall would offer some shelter from the elements, overall this nesting site appeared to offer little protection from extreme weather or predators. Two chicks, estimated to be 16 days old were huddled together sleeping when we unknowingly walked close to the nest while checking transmitter signals on a number of Ridgway's Hawks. No adult vultures were observed. We did not visit this nest again.

These nests are the first documented records of Turkey Vultures reproducing on Hispaniola. We are aware, however, of additional Turkey Vulture nest records which were previously unreported in the Dominican Republic. In April 2010, a Turkey Vulture nest was found in La Malena, San Francisco de Macoris

(19°15'37.2"N, 70°09'17.9"W), by Eudes and Angelis Paulino and field assistants from the Grupo Acción Ecológico. The nest was found at an elevation of 534 m asl in a small, sheltered opening, which was created by a pile of very large rocks at the top of a hill in a cattle pasture. The cave was further obscured by long grasses and ferns. The nest contained two eggs. The nest was periodically monitored; one egg hatched and the chick was assumed to have fledged. The second egg was collected when it was clear that it would not hatch, and it remains in a private collection. Two other previously unreported nests of which we are aware include one located on 23 June 2009 in Cap Cana, Altagracia Province (18°28'08.8"N, 68°25'31.5"W), which was found by local workers and contained one downy chick; and another, located near a slaughterhouse in Bani, Peravia Province (18°16'50.2"N, 70°19'51.4"W), was discovered when individuals were seen trying to sell the young chicks (J. Brocca pers. comm.). Few other details are available about these two nests.

Nearly the entire island of Hispaniola, including LHNP and other protected areas, has been affected by human activity, and especially by clearing for agriculture through slash-and-burn techniques (Wiley 1986, Thorstrom et al. 2005). This has had an effect on the survivability of many species, such as the Ridgway's Hawk (Thorstrom et al. 2005). However, in the case of the Turkey Vulture, which is more widespread across the Dominican Republic and Haiti (Latta et al. 2006), it is unclear how anthropogenic activities throughout the island could affect, either positively or negatively, the availability of nest sites and nesting success for this species. Further studies of the ecology and reproductive biology of this species are needed.

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