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A new subspecies of the least parauque *(Siphonorhis brewsteri*) (Aves: Caprimulgidae) from Gonave island, Haiti, with comments on the genus

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ABSTRACT: The genus *Siphonorhis*, endemic to the Greater Antilles, is comprised of three species: *S. brewsteri* (Least Pauraque), from Hispaniola and Gonave Island (Ïsle de la Gonave), the only extant form; *S. americanus* (Jamaican Pauraque), of Jamaica, considered extinct; and *S. daiquiri* of Cuba known from fossils. Even *Siphonorhis brewsteri* described under the genus *Microsiphonorhis*, but Bond (1928a) proposed placing it under the synonymy of *Siphonorhis*. Because only five specimens were collected, *brewsteri* was subsequently considered extinct. Following George Reynard´s recordings of its vocalizations in Dominican Republic in the 1970s, Stockton de Dod located the Pauraque in several localities (Río Limpio, Dajabón; La Leonora; La Descubierta; Hondo Valle, Estrelleta; Galindo, near Loma del Curro, Azúa; Pedro Santana, near San Juan de la Majuana; and Jarabacoa). According to Ridgway (1914), Bond (1928a; 1928b; 1936), and Wetmore and Swales (1931), only adults, juveniles, and eggs of *S. brewsteri* were known to science. It was not until the Cuban botanist, Alberto Areces, while collecting cactus in Hispaniola, found a nestling in a downy plumage that the chicks was described. The nestling closely mimicked the cactus *Mamillaria prolifera* var. *haitiensis* (Bombillito). A new subspecies, *Siphonorhis brewsteri gonavensis*, from Gonave Island, which differs mainly in size, color, and pattern, is described here.

Key words: Aves, Caprimulgidae, *Siphonorhis brewsteri gonavensis,* new subspecies, Gonave Island, Hispaniola, West Indies.

INTRODUCTION

The genus *Siphonorhis* (Sclater 1861), endemic to the Greater Antilles, is comprised of only three species represented in four islands. *S. brewsteri* (Least Pauraque) from Hispaniola and Gonave Island (Ïsle de la Gonave) is the only extanct form, *S. americanus* (Jamaican Pauraque) of Jamaica is considered extinct, with the last specimen collected in Trewlany in 1859 (Bond, 1956); and *S. daiquiri* known only from fossils remains in Cuba (Olson, 1985; Suárez, 2000). *Siphonorhis brewsteri* was described in 1917 under the genus *Microsiphonorhis* (Chapman 1917), but Bond (1928a) proposed placing it under the synonymy of *Siphonorhis*. With no records of the species since 1923, it was considered possibly extinct in Hispaniola, although Bond had discovered a population on Gonave Island. In the mid-1970s, George Reynard made the first recordings of *brewsteri* vocalizations in Dominican Republic, which facilitated its localization. Aided by playback techniques, A. S. de Dod thereafter, discovered the bird in several localities (Río Limpio, Dajabón; La Leonora; La Descubierta; Hondo Valle, Estrelleta; Galindo near Loma del Curro, Azúa; Pedro Santana, near San Juan de la Maguana.

In this paper I describe a new subspecies of *S. brewsteri* from Gonave Island, Haiti and write about the history of the systematic of the genus in the West Indies.

RESULTS

Before Reynard and Dod´s work, Least Pauraque *S. brewsteri* was practically unknown in the Dominican Republic. Few specimens had been collected: one is mounted at the Museo Nacional

de Historia Natural de Santo Domingo (MNHNSD), and the holotype specimen plus three topotypes are in the American Museum of Natural History, New York. On the other hand, a nice series was secured by James Bond during his three trips to Gonave Island. Most of Bond´s specimens are deposited in the Academy of Natural Sciences of Philadelphia (ANSP), and others are deposited in the Louisiana State University Museum of Natural History, Baton Rouge (LSUMNH); National Museum of Natural History, Smithsonian Institution, Washington, DC (NMNH); Field Museum of Natural History, Chicago (FMNH); and Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts (MCZ).

Of the three *Siphonorhis* species, *jamaicensis* was the basis for the genus (Sclater, 1861). *Siphonorhis jamaicensis* was always considered very rare and presently is presumed extinct (Downer and Sutton 1990, American Ornithologist´s Union, 1998)). Bond (1936; 1952; 1962), believed that it may still survive in localized areas of Jamaica, especially in the semi-arid Hellshire Hills. Certainly, the introduction of the Java mongoose (*Herpestes javanicus*) has been considered responsible for the decline or extintion of several species of birds and reptiles in the West Indies (Lewis, 1942; Greenway, 1967). This is certainly the case for many species but, perhaps, the mongoose was only part of the problem with *Siphonorhis*. Whereas in recent years *S. brewsteri* has had a local distribution in several localities in Hispaniola, not many years ago the species was considered extinct. In Jamaica, the last specimen of *americanus* was collected in 1859, whereas the mongoose was introduced in 1872 (Bond, 1952). In Cuba, *S. daiquiri* apparently disappeared during the late Holocene; although it could be very well still be living undetected in certain semi-arid habitats in Eastern Cuba (Olson, 1985). I agree with Olson (1985), because no bird surveys have ever been made at night in the Eastern xerophitic coast of southern Cuba, where occurs the same variety of cactus (*Mammillaria prolifera* var. *Haitiensis,* Fig. 1) with which *S. brewsteri* associates in Hispaniola. This cactus is also found in Navassa Island, where there is also a possibility of habitat for *Siphonorhis* (see Discusion).

Little is known about the genus *Siphonorhis*. The best descriptive account is presented by Ridgway (1914), although *S. brewsteri* was still unknown to science, (Chapman 1917; Bond 1928a, 1936; Vogel and Lewis 1998) have reported on various aspects on *Siphonorhis* distribution, status, and, to a lesser degree, on topics of natural history. Until recently, only adults, juveniles, nests, and eggs of *S. Brewsteri* were known to science (Ridgway, 1914; Bond, 1928a and b; 1936; Wetmore and Swales, 1931). However, the nestling of S. *brewsteri* was not known until the renowned Cuban botanist Alberto Areces found a chick while collecting cactus in Hispaniola with a local guide in June 1996. As Areces was collecting in Cabo Rojo (Pedernales province, Dominican Republic), he leaned down to gather one of the individuals, and was surprised to see that the cactus moved. After examining it carefully, he found out that the supposed cactus was actually a nestling bird, which the guide identified as a baby Antillean Nighthak (*Chordeiles gundlachii*). However, a photograph taken by Areces at the end of June, clearly demonstrated that the nestling was not *C. gundlachii*, nor the Greater Antillean Nightjar (*Caprimulgus cubanensis eckmani*), but rather *S. brewsteri* (Fig. 2). The chick was among a tightly clustered group of cactus (*Mammilaria prolifera* var. *Haitiensis,* Fig. 1), locally known as "Bombillito", which also occurs in Cuba and Navassa Island. The downy chick when alarmed, placed his bill between its legs, squatted, and remained motionless. When picked up, the chick would not move. The downy feathers matched the cactus spines identically. The size and color of the chick almost exactly matched those of the cactus (see color slide included); i.e. white, with a tinge of gray. The nestling is about the size of a golf ball. The "bombillito" cactus occurs as small clusters (three to six individuals). Among the cluster, the larger cactus resembled the body, whereas the head and wings mimicked other, smaller, individuals. Father Julio Cicero, an experienced naturalist, told Areces that the bird was a Caprimulgid. I have observed in life all the juvenile stages of the other two Caprimulgid species that inhabit Cuba; i.e., Greater Antillean

Nightjar (*Caprimulgus cubanensis*) and the Antillean Nighthawk (*Chordeiles gundlachii*). Downy and juveniles of these species are either brownish with grayish marks, or grayish with some dark marks, but never entirely white or light gray without any darker markings, as shown in the photograph (Fig. 2). Therefore, unless the nestling belongs to an unknown species, it must be recognized as a baby *Siphonorhis brewsteri*. Its characteristic camouflage, as well as being rare, nocturnal, and cryptic within its surroundings, makes it quite difficult to encounter a motionless chick. I do not know if the other two members of the genus in Jamaica and Cuba have the same habits; but now we can use three new "weapons" in searching for S. *brewsteri;* vocalizations, habitat, and habits.

Because they are different enough at the species level, Hispaniolan caprimulgid vocalizations may differ enough that one species does not respond to the vocalizations of another species. All caprimulgid species look quite alike, but some differ notably in their vocalizations. It is interesting to point out that when G. Reynard played the Antillean Nightjar vocalizations he recorded in Hispaniola and Cuba, the local bird did not respond, despite the fact that both were supposedly the same species. Further trials demonstrated that Cuban birds responded very well to its own vocal recordings. In a recent revision, (Garrido and Reynard, 1998), the taxa were shown to differ at species level

After examining and comparing the available skins of this genus in North American museums, I determined that birds from Gonave Island differ from Hispaniolans birds not only in size (Table 1), but in some color patterns. Therefore, I propose to name these populations as a new subspecies.

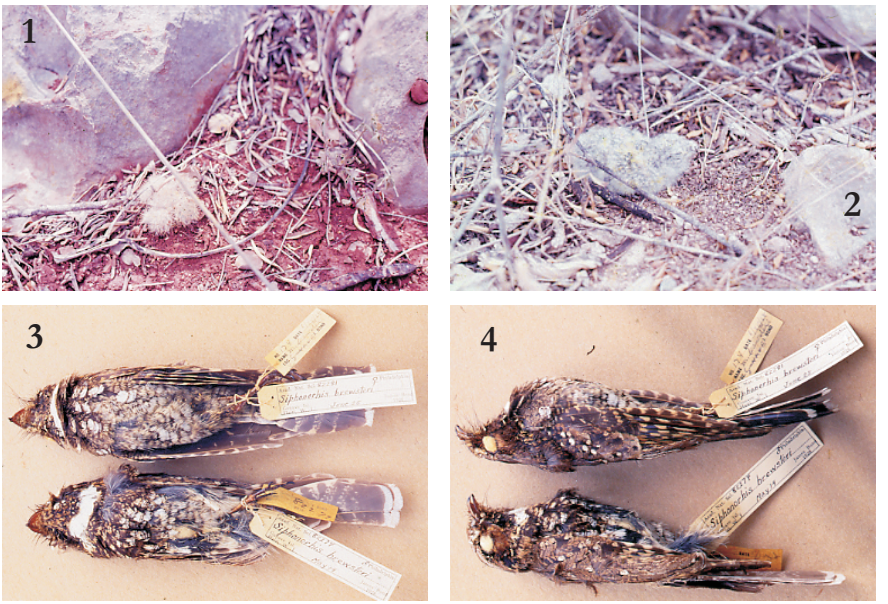
Siphonorhis brewsteri gonavensis subsp nov.
(Figs. 2-4)

Types. Holotype. ANSP 82286 adult male. Collected by James Bond in GONAVE ISLAND, 27 June 1928. **Paratypes.** All topotypes. Males: ANSP 82274, same data as holotype, but collected on 14 May 1928; ANSP 82282, collected 25 June 1928. Females. ANSP 82276, collected 17 May 1928: ANSP. 82279, collected 19 May 1928; ANSP 82281, collected 25 June 1928; ANSP 89634 collected 18 May 1930, Inmatures. ANSP 82277 and 82278, collected 17 May 1928; and ANSP 82280, collected 25 June 1925, Male. MCZ 17996, same data as the holotype, collected 14 May 1928; female. MCZ 17996, collected 25 June 1928. Females MNHN 354527, 310670, collected on May 16 and 25 June 1928. Female LSUMNS 14682, collected 18 May 1930. Female FMNHM 96633, collected 27 June 1928. All specimens collected by J. Bond.

Differential diagnosis. Birds from Hispaniola are definitely darker, buffer on the upperparts, belly, and upper tail coverts. Birds from Gonave are much whiter, almost devoid of any trace of buff. Tip of tail also more pure white (Figs. 3 and 4); two Hispaniolan birds (AMNH.477165 and 477167) show a tinge of beige over the white. Flanks are also buffer in Hispaniolan specimens, with bars very conspicuous and somewhat thicker than those in birds from Gonave. White collar on throat, somewhat wider in Hispaniolan specimens; but those specimens show narrower markings in the lower belly feathers. Upper breast feathers are whiter in Hispaniolan birds. Although rather similar in the upperparts, Hispaniolan specimens are darker.

Variation. There is some variation in ventral coloration (Fig. 3). Some have the upper breast tinged with cinnamon. Center of feathers with a dark line. Females appear to have these feathers grayish, with no tan suffusion. The rest of the under parts are whitish-gray. Some specimens have the barring on the flanks darker and more conspicuous. Width of tail tip is uniform. Upperparts are also variable, perhaps as an artifact of age. The dark blotches of the primary coverts very black

in some specimens, and edged or surrounded by beige. These blotches are not as well developed in some individuals, especially specimen ANSP 82279 collected in May, which shows white spots on the primaries rather than black blotches. The cinnamon nuchal patch is darker in some individuals; this could be also an artifact of age. General color of the upperparts brownish-grayish (brownish than grayish). The opposite in the neck color (more grayish than brown). Male ANSP 82292 and female 82276 show conspicuous white lores, whereas white spots over the orbit occur in other specimens.



Figs. 1-4. Fig. 1. Cluster of cactus *Mammillaria prolifera* var. *haitiensis*. Figs. 2-4. *Siphonorhis brewsteri gonavensis* subsp nov. 2. Baby chick. 3. Ventral view. 4. Lateral view..

Type locality. Confined to the island of Gonave, off Haiti.

Etymology. In reference to the type locality.

Natural History. Practically all known data on *S. brewsteri* is based were gathered by James Bond (1928a, 1928b) during his work on Gonave Island. Not only did Bond secure more specimens, he was also the only worker fortune enough to locate two nests, each with a set of two eggs. He described the eggs as being" dull white with rather evenly distributed markings of pale violet-gray and numerous buff or pale brown spots or scrawls". One set measured 25.0 X 18.2 mm and 25.2 X 18.9 mm, whereas the other set had dimensions of 24.8 X 18.9 mm and 24.6 X 18.9 mm. The nest was "a slight hollow formed by the bird, on the top of a narrow ridge at the edge of burnt land." Dod (1978; 1981) also mentions the nest, but is not explicit in describing it, if she found it herself, or was based in Bond´s descriptions. Bond also described three of his specimens as young birds, but with full plumage and able to fly; these specimens were examined at the ANSP.

DISCUSSION

Part of the Cuban xerophytic coast extends from Guantánamo Bay to the extreme Eastern Punta de Maisí. Several species of vicariant cactus forms *(Harrisia taylorii, Opuntia militaris, O.cubensis, Cylindropuntia hystrix, Leptocereus maxonii*, *Consolea macracantha, and C. monoliformid* ssp.) occur in that area. Species found in Cuba, Jamaica, Hispaniola, and Puerto Rico include: *Opuntia taylorii, O. antillana, Cylindropuntia caribaea, Leptocereus weingartianus*, and *Consolea monoliformis* ssp. One species, *Stenocereus peruvianus*, is common in the four countries. Cactus scrub habitat is physiographically identical to the semi-desert habitat of the southern coast of Guantánamo in Cuba, and is particularly similar to the above-mentioned eastern section of Cuba, where the noted vicariant forms occur. It is interesting to point out that the same variety of "bombillitos" (*Mammillaria prolifera* var. *haitiensis,* Fig. 1) found in Hispaniola and Navassa Island occurs in the southeastern region of Cuba.

The species of the genus *Siphonorhis* are strictly nocturnal, secretive, very localized in particular habitats, and have a cryptic plumage and behavior that help the bird to past unnoticed. Only during the breeding season are they heard vocalizing, and this is the best way to locate them. The possibility that the endemic forms survive in Jamaica (*S. americanus*) or Cuba (*S. daiquiri*) is given hope by the late detection of *S. brewsteri* in Hispaniola. This bird was not discovered until 1917, when Chapman described it based on a single specimen collected by Rollo Beck in a locality called Túbano now Padre Las Casas. Beck was an outstanding collector, who made collections sponsored by Frederick F. Brewster. After his discovery of *S. brewsteri*, very few specimens were collected. Three specimens collected in 1924 by Kaemeter, a German ornithologist, were sent to the British Museum in Tring (Dod, 1978), whereas the other two (topotypes), collected on 13 and 14 August 1923, went to the AMNH (477165, 477166). After these findings, *brewsteri* was not located for many years and was even considered extinct (Dod, 1978).

Fortunately, George B. Reynard in one of his many trips to the Dominican Republic, recorded an unknown voice that turned to be *S. brewsteri.* Once its voice was known to science, it became a much easier task to locate this species. Annabelle Stockton de Dod and her husband, Donald, using Reynard´s vocal recordings, subsequently found *S. brewsteri* in several localities in the Dominican Republic. Finding a race of *Siphonorhis* in Gonave Island should not be taken as a surprise, because several subspecies of other resident birds of Hispaniola have been described from that island.

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Material examined. *Siphonorhis americanus*. Holotype. AMNH. 43877, probably a male, from Jamaica; NMNH. Male 22109, Spanish Town, Jamaica.
Siphonorhis b. brewsteri. Holotype. Female AMNH. 163903, Túbano, Santo Domingo.Topotypes: male 477165, Túbano, Azúa, Santo Domingo; female AMNH. 477166 same locality; female AMNH. 477167 same locality. A mounted specimen at MNHNSD.

Table 1. Mean, standard deviation, range, and sample size (in parenthesis) for measurements of wing, tail, culmen (from base and width), and tarsus in samples of *Siphonorhis* from Jamaica, Dominican Republic and Gonave Island.

		Males			
Locality	Wing	Tail	Tarsus	Culmen	Width
Jamaica	134.5; 4.9	123.0; 4.2	22.5; 1.7	11.4; 1.3	11.9; 0.7
(americanus)	131.0-138.0	120.0-126.0	21.0-23.5	10.5- 12.4	11.4-12.5
	(2)	(2)	(2)	(2)	(2)
Dominican Republic	120.0	97.0	20.5	12.7	10.2
(brewsteri)	(1)	(1)	(1)	(1)	(1)
Gonave Island	117.1; 3.5	100.7; 3.3	22.1; 1.2	12.6; 1.4	11.5; 1.0
(gonavensis)	111.5-120.0	97.0- 106.0	20.5-23.4	11.0-15.0	10.2-13.0
	(5)	(5)	(4)	(5)	(5)
		Females			
Dominican Republic	121.6; 0.5	100.6; 1.1	21.9; 0.5	11.7; 0.2	10.3; 0.5
(brewsteri)	121.0- 122.0	100.0-102.0	21.5-22.5	11.6-12.0	10.0-11.0
	(3)	(3)	(3)	(3)	(3)
Gonave Island	115.1-3.6	95.8; 6.9	21.4, 1.1	11.3; 1.0	10.6; 0.5
(gonavensis	109.0-122.0	85.0-113.0	18.5-23.0	10.1; 14.0	9.7; 12.4
subsp. nov.)	(12)	(12)	(12)	(12)	(12)

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