

NEW OBSERVATIONS OF TWO RARE RALLIDS
(AVES: GRUIFORMES: RALLIDAE) ON HISPANIOLA

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ABSTRACT

The Yellow-breasted Crake, *Hapalocrex flaviventer* (Boddaert, 1783), and the Spotted Rail, *Pardirallus maculatus* (Boddaert, 1783), are rarely reported and poorly known birds on Hispaniola. Of the first species there were no recent records, while for the second, the range of distribution is significantly expanded based on new observations, which are chronologically summarized in order to assess the possibility of breeding in the island. Some rarely reported aspects of the latter species' behavior are commented. The habitat is generally characterized in at least one locality where both species are syntopic.

Keywords: *Hapalocrex flaviventer*, *Pardirallus maculatus*, Rallidae, distribution, Malacophagy, Hispaniola.

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RESUMEN

La Guineíta, *Hapalocrex flaviventer* (Boddaert, 1783), y el Gallito Manchado, *Pardirallus maculatus* (Boddaert, 1783), son aves rara vez reportadas y poco conocidas en la Hispaniola. De la primera especie no se tenían registros recientes, mientras que de la segunda se expande la distribución por medio a nuevas observaciones, las cuales son resumidas cronológicamente con el fin de evaluar la posibilidad de su reproducción en la isla. De la última especie se comenta sobre aspectos de comportamiento raramente reportados. Se caracteriza el hábitat de manera general en por lo menos una localidad donde ambas especies son sintópicas.

Palabras clave: *Hapalocrex flaviventer*, *Pardirallus maculatus*, Rallidae, distribución, Malacofagia, Hispaniola.

Many members of the family Rallidae, especially the rails and crakes, are secretive and generally nocturnal. They tend to forage in dense, often aquatic vegetation; such habits make them difficult subjects to study. The most conspicuous species in this family (gallinules and coots) are generally known by the common generic names of “gallaretas” or “gallinas de agua” in the Dominican Republic. As one taxon has been recently synonymized (“*Fulica caribaea*” with *F. americana* [American Ornithologists' Union 2016]), the eight species that have been recorded from Hispaniola have a fairly broad distribution (Raffaele *et al.*, 1998; Latta *et al.*, 2006). One of these species (*Porzana carolina*) is a migrant or winter resident, while five are confirmed breeding residents (*Rallus crepitans*, *Porphyrio martinica*, *Gallinula galeata*, *Fulica americana* and *Hapalocrex flaviventer*). The status of the two remaining species (*Pardirallus maculatus* and *Laterallus jamaicensis*) needs to be determined since no nests have been found (Latta *et al.*, 2006). Most records in the literature of these latter two species on Hispaniola are limited to the late 1970's and early 1980's (Dod, 1980, 1986; Raffaele *et al.*, 1998), except from single sightings mentioned in Keith *et al.* (2003) and Latta *et al.* (2006).

This contribution presents new observations on the long-overlooked Yellow-breasted Crake (*Hapalocrex flaviventer*) and summarizes both historical and recent records of the Spotted Rail (*Pardirallus maculatus*) in Hispaniola. These are two of the least known rallid species on Hispaniola. One of the goals is to aid in clarifying the status and distribution of the Spotted Rail in the Dominican Republic, report behavioral observations, and provide a basis for more systematic study of these elusive rallids.

YELLOW-BREASTED CRAKE (*HAPALOCREX FLAVIVENTER*)

The Yellow-breasted Crake is resident on all four of the islands of the Greater Antilles, and it is considered very rare, rare or scarce only on Hispaniola (Dod, 1981, 1987; Raffaele *et al.*, 1998; Keith *et al.*, 2003); although Latta *et al.* (2006) mentions it was formerly common. The species was first recorded on Hispaniola in 1917, when it was described by Bartsch (1917) as a different subspecies (*Porzana flaviventer hendersoni*), which also occurs on Puerto Rico (Vilella *et al.*, 2011). On Hispaniola, all records were from Haiti (Wetmore and Swales, 1931) until it was found in the Dominican Republic on July 15th 1936 (Keith *et al.*, 2003). Although it has been observed multiple times in the Laguna de Cabral, Barahona Province, and elsewhere (Dod, 1981, 1987; Latta *et al.*, 2006), documentation of most of such sightings, are imprecise and lack data such as specific dates (Keith *et al.*, 2003) or georeferencing. The most recent, precise records in the literature are those of two nests found on April 13th 1976 at Laguna de Cabral, Dominican Republic, and one bird seen on March 24th and April 15th 2001, at Étang Bois Neuf, Haiti (Keith *et al.*, 2003). This species seems to have avoided detection for some time, being unreported on lists and regular bird counts performed at Laguna de Cabral in recent decades (Perdomo *et al.*, 2010; eBird, 2017; Grupo Jaragua, 2016), including multiple visits by the author (MALT) since the late 1990's.

On February 4th 2011, at 0900 h, the author photographed one individual of this species among rush (*Juncus* sp.) and short grasses in proximity to a cluster of cattail (*Typha domingensis*) at the southern shore of the Refugio de Vida Silvestre Laguna de Cabral, Barahona Province (18.25648° N, 71.24271° W). At this site called Paso de Los Botaos, the vegetation is dominated by cattails and rushes, but also includes tall grasses (*Cladium jamaicense*, and possibly *Arundo* sp.), with other rushes (*Juncus* spp.), sedges (*Fimbristylis* sp.) and ferns (*Achrostichum* sp.) locally patched towards the shores. In subsequent visits by the author and José M. Pantaleón during the same month, the species was located again (February 6th and 12th; fig. 1), and in one instance there were two individuals present (J. Pantaleón, pers. comm. 2011). The water was about 30-50 cm deep, but this varies seasonally and yearly, and the lagoon saw its water levels very reduced by 2016 (Grupo Jaragua, 2016; MALT, pers. observ.). Further sporadic visits resulted in no more sightings of the species until February 11th 2017 when a pair of Yellow-breasted Crakes were observed and one individual was photographed, approximately at 800 m WNW of the spot where it was first observed (measured with Google Earth). Sightings of single birds in the same area were made by the author and groups of birdwatchers on March 30th, April 5th and May 30th 2017.

SPOTTED RAIL (*PARDIRALLUS MACULATUS*)

The Spotted Rail (fig. 2) was first identified in the Dominican Republic on April 1978 when a live specimen was captured in Madre Vieja near Nagua, María Trinidad Sánchez Province, and kept in captivity in San Francisco de Macorís, Duarte Province,



FIGURE 1. *Hapalocrex flaviventer* in Laguna de Cabral, Barahona Province. Photo by the author (MALT).

by local birdwatchers (Dod, 1980). Two more birds were also recorded from the same general area that same year, and were turned into specimens (Dod, 1980, see discussion below). For two decades this species remained unreported anywhere except for the Río Yuna basin in northeastern Dominican Republic (Dod, 1981; Raffaele *et al.*, 1998), until it was recorded north of Santo Domingo (Keith *et al.*, 2003; Latta *et al.*, 2006). The species has been considered rare and local (Raffaele *et al.*, 1998), and Vulnerable (MIMARENA, 2011). Almost nothing is known about its status and ecology in the Greater Antilles (Hispaniola, Cuba and Jamaica), although it is considered a resident in the Greater Antilles, with an unknown breeding season on Hispaniola (Latta *et al.*, 2006). The history of records of this species in Jamaica was reviewed and discussed by Graves *et al.* (2015), who documented the first evidence of breeding with photographs of a juvenile taken on February 2014, plus the mention of three other juveniles that were observed on March 1st and July 2nd of 2014. The only evidence of potential breeding of the Spotted Rail on Hispaniola is that of a male collected on June 29th 1978 that reportedly had enlarged testes (Dod, 1980).

There are discrepancies in one original label number and in the date of collection listed in the literature from those specimens' labels at the Museo Nacional de Historia Natural "Prof. Eugenio de Jesús Marciano" (MNHNSD), Dominican Republic. The specimen with enlarged testes (MNHNSD 24.115, mentioned above) is especially noteworthy, and it is labeled as collected on "June 3rd 1978", however, the difference in the date of this specimen is only of days, thus the month and year remained unchanged. The other specimen, listed by Dod as "MNHN 966" with the date of March 15th 1978, was found to have a different original number. In this regard, it comes necessary to paraphrase the text with the data associated to those two specimens provided by Dod (1980) after she introduced the anecdote on the live individual she first identified (April 17th 1978, from Madre Vieja): "A male with enlarged testes, was taken in the same area on 29 June 1978 and was made into a study skin. A second specimen, taken alive at the edge of a rice field in Pimentel on 3 January 1978, died in captivity on 15 March 1978 and was injected with formalin. The two specimens are in the collection of the Museo Nacional de Historia Natural in Santo Domingo (MNHN #936 and MNHN #966)".



FIGURE 2. *Pardirallus maculatus* in Salas, Monte Plata Province. Photograph made using a (camouflaged) blind. Photo by José M. Pantaleón.

The two specimens at the Museo Nacional de Historia Natural are in the catalog records as follows: MNHN #936 (now MNHNSD 24.115), while “MNHN #966” seems to be an error in the original publication, since that catalog number belongs to a Cape May Warbler (*Setophaga tigrina*) specimen. The number that matches the catalog records of such specimen is actually MNHN #932, which is now recorded as MNHNSD 24.114. A third specimen has the former number 996, with the date of February 5th 1979, and is now MNHNSD 24.116. The latter specimen is not in Dod’s report, and the only other data linked to it is the locality of Pimentel, Duarte Province. It remains unclear what the fate was of the first (live) individual identified by Dod (on April 17th 1978), but apparently it was not made into a museum specimen.

Besides the previously mentioned historical records from the northeast and the area north of Santo Domingo, additional reports from eBird include other localities from the east to the northwest (Table I). Sightings made by the author and entries of sightings on eBird record the species from other regions, increasing the range of the Spotted Rail in the Dominican Republic considerably (Table I). In addition to the eBird observations, other observers in the Dominican Republic have additional reports of the Spotted Rail. Surprisingly, a wandering bird was found on the balcony of a second-floor apartment on April 28th, 2012, at 1045 h, in the Evaristo Morales section of Ensanche Quisqueya, Distrito Nacional, Santo Domingo, and was photographed by the local resident Bernardo Sánchez (J. Pantaleón, pers. comm. 2012).

On March 21st 2013, 0742 h, one individual landed in front of view of the author and its companion while standing aside a marsh just outside of El Copey, Montecristi Province, on RD 45 that takes to the town of Montecristi. The bird was photographed seconds after landing on a grassy semi-open area, then stood still and eventually ran and disappeared into the nearby, taller vegetation, which consisted of rushes (*Juncus* sp.). This constitutes the first record of this species from the northwestern region and by then the western-most for the island. Combined with the observations mentioned above, the current-known distribution of the Spotted Rail on Hispaniola ranges from the extreme east at the Laguna Limón, El Seibo Province, to Saladillo, Montecristi Province (eBird 2017) in the northwest, while the southwestern-most point is Laguna de Cabral in the Barahona Province (from March 30th, April 5th, May 30th and 4-6th August 2017).

TABLE I.

Records of the Spotted Rail (*Pardirallus maculatus*) in the Dominican Republic.

Date	Locality	Source	Coordinates
3 January 1978*	Pimentel, Duarte	Dod 1980; MNHNSD 24.114	Not provided
17 April 1978	Madre Vieja, Nagua, María Trinidad Sánchez	Dod 1980	Not provided
29 June 1978	Madre Vieja, Nagua, María Trinidad Sánchez	Dod 1980; MNHNSD 24.115	Not provided
5 February 1979	Pimentel, Duarte	MNHNSD 24.116	Not provided
25 March-10 April 1999	Laguna Villa Isabela, Santo Domingo	Keith et al 2003	Not provided
Early August 2002	Caño Hondo, Los Haitises National Park, Hato Mayor	Latta et al 2006	Not provided
29 January 2007	Guerra, Monte Plata	P. Rodríguez pers. comm.	N18.56244° W69.69553°
8-9 November 2008	Playa Esmeralda, El Seibo	eBird	N18.98519° W68.99190°
7 March 2010	Laguna Limón, El Seibo	R. Jordan pers. comm.	N18.97415° W68.85921°
28 April 2012	Ensanche Quisqueya, Distrito Nacional, Santo Domingo	J. Pantaleón pers. comm.	N18.45922° W69.94918°
15 December 2012	Laguna Mata La Vieja, Salas, Monte Plata	This study	N18.62482° W69.75820°
22 December 2012	Laguna Mata La Vieja, Salas, Monte Plata	M. Dávalos pers. comm.	" "
12 January 2013	Laguna Mata La Vieja, Salas, Monte Plata	J. Pantaleón pers. comm.	" "
22 February 2013	Laguna Mata La Vieja, Salas, Monte Plata	J. Pantaleón pers. comm.	" "
4 March 2013	Laguna Mata La Vieja, Salas, Monte Plata	This study	" "
15 March 2013	Laguna Mata La Vieja, Salas, Monte Plata	This study	" "
21 March 2013	North of El Copey, Montecristi	This study	N19.67995° W71.67994°
19 October 2013	Laguna Limón, El Seibo	eBird	N18.97415° W68.85921°
20 January 2014	La Gran Laguna, Nagua, María Trinidad Sánchez	eBird	N19.47937° W69.89415°
29 January 2014	Laguna Saladilla, Montecristi	eBird	N19.71031° W71.68364°
4-5 March 2014	Laguna Limón, El Seibo	eBird	N18.97415° W68.85921°
5 May 2014	Laguna Saladilla, Montecristi	eBird	N19.71031° W71.68364°
7 October 2014	Arroyo Guaraguo, Nagua, María Trinidad Sánchez	eBird	N19.40961° W69.87030°
8 October 2014	La Gran Laguna, Nagua, María Trinidad Sánchez	eBird	N19.47937° W69.89415°
13-14 December 2014	Wetland west of Sabana de la Mar, Hato Mayor	eBird	N19.04899° W69.41220°
14 December 2014	Paraíso Caño Hondo, Los Haitises, Hato Mayor	eBird	N19.05813° W69.45421°
25 January 2015	Laguna Dulce (Cilito), Montecristi	eBird	N19.71031° W71.68364°

*Capture date.

Based on the observations summarized herein (Table I), the Spotted Rail has been recorded year-round in the Dominican Republic except in the months of July and September. However, the author has noted very actively vocalizing birds through the day (without employing the use of playback of their calls) in late May and early August in the Refugio de Vida Silvestre Laguna de Cabral, Barahona Province, supporting the previous suggestions of the species' breeding in the island. The breeding season was unknown in the West Indies until recently (Raffaele *et al.*, 1998; Keith *et al.*, 2003; Latta *et al.*, 2006; Garrido and KikConnell, 2010). The male with enlarged gonads collected in the month of June (Dod, 1980) and the juveniles reported by Graves *et al.* (2015) from Jamaica on February, March and July might indicate an undefined breeding season. Such reports fall within the known breeding season for Cuba, from March through December (Garrido and KikConnell, 2010).

The Spotted Rail is known to feed on aquatic snails (March and Baird, 1864; De la Peña, 2001; Lucero, 2012), although it often feeds on insects (Del Barco and Beltzer, 2002; Ferrer-Sánchez *et al.*, 2011). In the Dominican Republic, the Spotted Rail has been observed carrying the invasive Apple Snail (*Pomacea canaliculata*, Ampullariidae) in its beak (M. Dávalos, pers. comm. 2012; fig. 3). In South America, this rail has also been documented doing so, eventually taking the snails to spots within dense vegetation called “comederos” (Lucero, 2012) where snails are eaten and shells are piled. During another visit to Paso de Los Botaos at Laguna de Cabral on 4-6th August 2017, the author photographed two structures which likely fit this description (Lucero, pers. comm. 2017) in an area where up to 6 rails were heard (stimulated by playback). These structures were nest-like platforms built within clusters of cattails (*Typha domingensis*) and rushes (*Juncus* sp.) using dry material from same plants (fig. 4); one was placed approximately 3 cm above the water surface and the other 2.5 cm below, measured 40x28 cm and 32x28 cm, and contained 52 and 23 snail shells, respectively. The shells were of several sizes, and all were empty, although some had residual soft tissue, which suggest that they were recently consumed. Each pile of shells were grouped in the middle of each of the platforms, where bird dung was also found (fig. 4).



FIGURE 3. *Pardirallus maculatus* carrying a shell of the snail *Pomacea canaliculata*. Salas, Monte Plata Province. Photo by Mario Dávalos.



FIGURE 4. Presumed feeding site (comedero) used by the Spotted Rail, where bird dung can be observed. Laguna de Cabral. Photo by MALT.

Another bird species (related to the rails) that is known to have a similar feeding behavior is the Limpkin (*Aramus guarauna*), which also occurs in the area. However, this much larger species often poke holes to the shells of a variety of snails including *P. canaliculata* (Snyder and Snyder, 1969; Collett, 1977; Reed and Janzen, 1999; Tanaka *et al.*, 2006). None of the snail shells found in the platforms had holes. The species of apple snail (*P. canaliculata*) is native to South America, and its introduction on Hispaniola dates from several decades ago where it has a wide distribution (A. Espinosa, pers. comm. 2017). It is possible that the apparent recent expansion in the range of the Spotted Rail may be associated with the spread of the invasive aquatic snail, but further studies of this relationship are required.

ACKNOWLEDGEMENTS

I especially thank William Báez, the boat captain and also fisherman of the Refugio de Vida Silvestre Laguna de Cabral, who showed me my first Yellow-breasted Crake, and assisted in the follow up search of the two rallid species treated in this note. Pedro Genaro Rodríguez, Mario Dávalos, José M. Pantaleón, Brian Fowler and Raphael Jordan contributed with their observations supported by photographs. Francis Ortíz and Wilber Báez helped with field assistance. Hodali Almonte and Gabriel de los Santos assisted during a visit to the collections of the Museo Nacional de Historia Natural “Prof. Eugenio de Jesús Marcano”. Steven C. Latta made useful comments and helped with the English revision of an earlier draft. Altagracia Espinosa confirmed the identification of the snail *Pomacea canaliculata*. Yuley Encarnación and Cristopher Jiménez helped with the plants’ identification. I also thank Francisco Lucero with whom I shared images of the nest-like structures thus confirming them as “comederos”.

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