

# Snake predation by the Whistling Heron *Syrigma sibilatrix* in the Venezuelan Llanos

Galo Buitrón-Jurado<sup>1,2</sup> and Marcial Quiroga-Carmona<sup>1</sup>

<sup>1</sup> Centro de Ecología, Instituto Venezolano de Investigaciones Científicas, Caracas 1020-A, Apartado 2032, Venezuela.

<sup>2</sup> Corresponding author: e-mail: galobuitronj@yahoo.es

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**ABSTRACT:** We describe a predation event on the snake *Mastigodryas boddaerti* (Colubridae) by the Whistling Heron *Syrigma sibilatrix* (Ardeidae) in the Venezuelan llanos. The Whistling Heron seems to include snakes occasionally in its diet as indicated by our observation, which also provide the second species of snake recorded in the diet of this heron.

**KEY-WORDS:** Ardeidae, Colubridae, diet, *Mastigodryas boddaerti*, ophiophagy.

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Hérons and egrets (Pelecaniiformes: Ardeidae) are birds whose diet is principally constituted by fishes and crabs, which are captured after a quick movement of the head and neck, being least important other items such as earthworms, insects, frogs and other small vertebrates (Kushlan 2004). Twenty-eight species of herons are found in South America, including the Whistling Heron *Syrigma sibilatrix* (Remsen *et al.* 2014). This species of heron is endemic to South America where it occurs in two disjunct populations. One population is found throughout the grasslands of the Bolivian Pantanal south to Paraguay, southeastern Brazil, Uruguay and northeastern Argentina, whereas the second population inhabits in the Colombian and Venezuelan llanos, which lies north of the Orinoco River (Dean 2012).

In Venezuelan llanos, the Whistling Heron is commonly found in tall dry grass pastures and less frequently in flooded fields until 500 m (Hilty 2003). This species is considered one of the least aquatic herons, mostly seen alone or as pairs walking very slowly or standing erect for several minutes, eating eels, frogs, earthworms and several types of insects (Kushlan *et al.* 1982). As for other species of tropical herons, there are few published accounts about the diet and preys of the Whistling Heron (Franz *et al.* 2007; Aoki & Filho 2013). In this paper we described the successful capture and consumption of a Boddaert Tropical Racer (*Mastigodryas boddaerti*) by a Whistling Heron in the Venezuelan llanos.

Our observation was carried out in the Hato Santa Luisa (coordinates: 7°40'N, 67°32'W, 60 m), Apure State, Venezuela. Hato Santa Luisa is located in the low

llanos region which is characterized by a climate markedly seasonal with a rainy season comprised between May to October and a dry season during November and April. Rainfall is near 1500 mm and annual mean temperature averages 25°C. Vegetation corresponded principally to flooded savanna, seasonal flooded gallery forest and aquatic plant communities dominated by *Eichhornia* and *Paspalum* species (Castroviejo & López 1985).

At 12:06 h on the 16 August 2014 a solitary Whistling heron was observed and photographed for five minutes while walking through a flooded pasture of *Paspalum* and *Eichhornia* until it stopped before catching from the ground a long yellow snake. The heron handled shortly the snake by the head before it was completely swallowed (Figure 1). The snake size was estimated between 40 to 50 cm and it was identified as belonging to the genus *Mastigodryas* (G. Montigelli pers. com.) and to species level as the Boddaert's Tropical Racer *Mastigodryas boddaerti* (Colubridae) (C. Molina pers. com.) based on its slender and slightly compressed body, well defined head, long tail, brown-olive coloration with a pair of beige dorsolateral stripes extending from neck to tail (Montigelli 2009). *Mastigodryas boddaerti* is a diurnal species of snake widely distributed in South America, occurring from eastern Venezuela to northern Bolivia including the Amazon region of Colombia, Peru and Brazil (Montigelli 2009).

Previous accounts by Kushlan *et al.* (1982) about the diet of Whistling Heron in the Venezuelan llanos have described their generalist and opportunistic feeding habits, and marked preference for invertebrates, especially insects such as grasshoppers and dragonfly



**FIGURE 1.** Predation and swallowing of a Boddaert's Tropical Racer (*Mastigodryas boddaerty*) by the Whistling Heron *Syrigma sibilatrix* in Apure, Venezuela (Photo by G. Buitrón-Jurado).

larvae. These account, however, also noted the capture of a small snake although it was not swallowed. However, in southern Brazil the effective predation of water snake, *Helicops infrataeniatus* (Serpentes, Colubridae), by the Whistling Heron has been documented previously (Franz *et al.* 2007). Our observation on the predation of *Mastigodryas boddaerty* was similar in foraging method to those provided by Franz *et al.* (2007) corroborating the occasional predation of snakes by Whistling herons in Neotropical floodplain savannas.

Inclusion of snakes in the diet of Neotropical herons seems rare, with most studies on heron's diets indicating preference for fishes, crabs, earthworms and insects to a lesser degree (Kushlan *et al.* 1982; Smith 1997). Other species of Neotropical herons recorded feeding on snakes include the Great Egret (*Ardea alba*), the Great Blue Heron (*Ardea herodias*), and the Pinnate Bittern (*Botaurus pinnatus*) (Smith 1997; Franz *et al.* 2007). Nevertheless, the only snakes identified to species level consumed by herons to date have been *Helicops infrataeniatus* (Franz *et al.* 2007) and *Seminatrix pygaea* (Smith 1997). Therefore, *Mastigodryas boddaerty* is the third species of snake recorded in the diet of a Neotropical heron.

Our observation and those of Brazil confirm the inclusion of non-venomous snakes in the diet of the Whistling Heron, although more detailed studies are needed to determine the importance of different species of snakes in the diet of Neotropical herons.

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