Predation on birds by the Cuban racer *Cubophis cantherigerus* (Squamata: Dipsadidae) in Cuba

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The Cuban racer *Cubophis cantherigerus* Bibron, 1840 is an alsophiine snake endemic to Cuba and Little Swan Island in the West Indies. Five subspecies are currently recognized (Hedges, Couloux and Vidal, 2009). The species inhabits a wide range of habitats, from human altered sites to pristine forests, where it can be found at ground level, or even climbing into trees up to 10 m in height (Schwartz and Henderson, 1991). *Cubophis cantherigerus* preys on vertebrates: frogs, lizards, other snakes, turtles, birds and mammals (Henderson and Powell, 2009). Novo and Arazoza (1986) reported that *C. cantherigerus* occasionally feeds on domestic chicks (*Gallus gallus*) and other birds, whereas Henderson and Sajdak (1996) found two unidentified birds in preserved specimens. However, there is no other published information about species or age of birds consumed by this snake, or about its predatory behaviour on birds. In the course of a multi-year avian breeding biology study we recorded two cases of predation on birds by the Cuban racer in the Siboney-Juticí Ecological Reserve, eastern Cuba, which we describe herein.

On 3 June 2010, at 1320 h, we detected an adult individual of *C. cantherigerus* (ca. 1000 mm total length) coiled inside a nest of the Common Ground-dove (*Columbina passerina* (Linnaeus, 1758)) and noticeably distended at midbody (Fig. 1A). The nest was situated 3 m above ground, in a Sea grape tree (*Coccoloba uvifera*) of 6 m height, situated 57 m from the ocean in Sea-grape woodland (19°57'29''N, 75°45'40''W). We also noticed an adult dove on the ground, 10 m from the nest site, performing a distraction display of feigning wing injury. We collected the snake and upon dissection we found a Common Ground-dove chick in its stomach (Fig. 1B). We had monitored this nest beginning on 12 May, when two eggs were found, and on 26 May we observed two newly-hatched chicks, so the depredated nestling was 9-10 days old. We assume that the other nestling escaped from the snake by dropping from the nest, considering that Common ground-dove chicks can leave the nest at 11 days of age (Goodwin, 1983; Reyes Vázquez and Segovia Vega, unpublished data).

On 8 July 2010 at 2055 h, we observed an adult *C. cantherigerus* (about 1000 mm total length, Fig. 2A) inside a nest containing three chicks of the Red-legged Thrush (*Turdus plumbeus* Linnaeus, 1758). The snake was ingesting one of the chicks, which was approximately half consumed (head and a half of the body, Fig. 2B). The nest was 2.6 m above ground in a Soldierwood tree (*Colubrina elliptica*) of 6.3 m height, and it was wrapped in *Tillandsia* sp. plants, which partially camouflaged it. The dominant vegetation in the area consisted of xeromorphic scrubs (19°57’39”N, 75°42’53”W). On 9 July we returned to this site at 0630 h and found the nest empty, so we assume the other two Red-legged thrush chicks were also depredated by the snake during the previous night. These chicks were about 10 days old and had no developed feathers in their wings as to let them fly, so it is unlikely that they escaped by exiting the nest, as the fledglings of this species often do when disturbed (Reyes Vázquez and Segovia Vega, unpublished data). Also, we searched the tree surroundings and did not find any evidence of the chicks.

Pérez and Laboy (1996) described the behaviour of another alsophiine snake, *Alsophis portoricensis* (now *Borikenophis portoricensis*), when preying upon a nest of Bananaquit (*Coereba flaveola*) in Puerto Rico, but to the best of our knowledge, this is the first study to document predation of birds by the Cuban racer, and to describe the behaviour of nest predation by this snake. *Columbina passerina* and *Turdus plumbeus* are among the most numerous diurnal birds in this Reserve (Melián et al., 2005) and might represent a frequent component of the diet of *C. cantherigerus* in this area, especially during the avian breeding period when nestlings are more abundant.

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References


Figure 1. An adult Cubophis cantherigerus found coiled inside a nest of Columbina passerina (note the distension at midbody) (A) and its prey, a nestling of the dove (B). Photos by A. E. Reyes Vázquez.

Figure 2. Adult Cubophis cantherigerus found inside a nest of Turdus plumbeus (A) and the same snake ingesting a chick of this species (B). Photos by A. E. Reyes Vázquez.

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