



An Amazon Coachwhip, *Chironius carinatus* (Linnaeus 1758), Preying on a Pepper Treefrog, *Trachycephalus typhonius* (Linnaeus 1758), in Trinidad, West Indies

Shaquille Everod George

West Indian Herping Orgainsatoin, Trinidad and Tobago (georgewildlife@outlook.com)

Snakes in the genus *Chironius* are diurnally active foragers that primarily but not exclusively feed on frogs, but also prey on lizards, birds, and rodents (Roberto and Souza 2020). The Amazon Coachwhip (*Chironius carinatus*) ranges from Trinidad to Venezuela and the Guianas to northeastern Brazil, where it is known to forage in both terrestrial and arboreal environments along forest edges, savannas, and coastal regions (Murphy et al. 2018). Several other anuran species, including *Trachycephalus typhonius*, as well as reptiles, some birds, and mammals identified only as Rodentia also have been reported as prey of other species of *Chironius* (Roberto and Souza 2020). Notably, a predation event on a *T. typhonius* by an unidentified *Chironius* sp. was recently reported in Brazil (Silva et al 2021).

The Pepper Treefrog (*Trachycephalus typhonius*) is a large hylid that feeds primarily on insects and arachnids, although adult anurans have occasionally been recorded as prey (Moreira Sugai et al. 2017; Marín and Mora 2022). The species inhabits dry lowlands, moist and wet forests, and has been observed in forests, forest edges, savannas, secondary growth forests, as well as open and disturbed habitat types (La Marca et al. 2010; Mora et al. 2022; Murphy et al. 2018). Mora et al. (2022) reported for the first time that the species occurs in tropical premontane moist forest and noted records of occurrence in the highlands of Costa Rica. The species is distributed from Mexico to southern Brazil extending to northern Argentina, including western Ecuador, eastern Venezuela, Trinidad and Tobago, and the Guianas (La Marca et al. 2010; Savage 2002).

Trachycephalus typhonius is a largely nocturnal, arboreal species known in part for its very loud advertisement call, especially during explosive breeding episodes in the early rainy season of Trinidad (June to December) and occasionally during exceptionally heavy rains during the wet season (Murphy et al. 2018). During the day they hide in bromeliads, tree hollows,

and under the bark of trees or sheaths of heliconia and bananas (Savage 2002). Sometimes they can be seen basking by day (Murphy et al. 2018). When threatened, they emit a loud, squeaking distress call and a sticky secretion that smells strongly and hardens on contact with the skin and mucous membranes of potential predators, presumably a strategy to deter predators (Murphy et al. 2018). Despite this defense, a number of amphibians (e.g., *Chacophrys pierottii* and *Leptodactylus labyrinthicus*) and snakes (*Chironius fuscus*; *Erythrolamprus poecilogyrus*, previously *Liophis poecilogyrus*; *Leptophis ahaetulla*; *Leptophis diplotropis*; and *Leptophis coeruleodorsus*) are known to feed on *T. typhonius* (Hayes 2021; García Mata et al. 2020; Roberto and Souza 2020). Herein, I describe predation on *T. typhonius* by *Chironius carinatus* in Trinidad.



Figure 1. An Amazon Coachwhip (*Chironius carinatus*) preying on a Pepper Treefrog (*Trachycephalus typhonius*) in Guayaguayare, Trinidad. Photograph by Shaquille George.

At approximately 0838 h on 24 May 2023, shortly after a light rain shower, as the sun protruded through the forest canopy, I was alerted to the presence of a *C. carinatus* on top of a *Heliconia bihai* patch at the edge of the forest in Guayaguayare, Trinidad (10.14839, -61.061627), by the distress call of a *T. typhoni*. The distress call consisted initially of loud, continuous, prolonged squeaky bursts I thought to be those of either a Silver-beaked Tanager (*Ramphocelus carbo*) or a Palm Tanager (*Thraupis palmarum*). These birds were observed flying around the area, occasionally perching as if investigating the source of the disturbance. However, upon closer inspection, the call turned out to be that of a Pepper Treefrog being consumed by an Amazon Coachwhip (Fig. 1).

The snake (total length ~150 cm) had the posterior body of the frog in its mouth and continued to eat it even after capture. Blood and the frog's sticky white secretion were evident around the snake's mouth and on the frog's body. The frog, periodically continuing to emit shorter-burst distress calls, managed to wrap its forelimbs around the snake's body, likely a last attempt at defense. When I released the snake, it let go of the frog and moved into nearby undergrowth. The frog jumped to a nearby bush. I was unable to determine whether it survived or later succumbed to its injuries.

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