



# Predation of a Cachabi Robber Frog (*Pristimantis achatinus*) by a Smooth-billed Ani (*Crotophaga ani*)

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The Cachabi Robber Frog, *Pristimantis achatinus* (Boulenger 1898), is a medium-sized strabomantid (SVL 23–46 mm) that inhabits the eastern lowlands of Panamá, the Chocóan region, the foothills of the Cordilleras Central and Occidental, and the Cauca-Magdalena Valley in Colombia, and southwestern Ecuador, at elevations of 0–2,700 m asl (Rojas-Rivera et al. 2013). Typically found in secondary forests, grasslands, and plantations, *P. achatinus* is notably absent in mature forests and is not tied to bodies of water (Lynch and Myers 1983; Isaacs and Urbina-Cardona 2011; Arteaga et al. 2013; Ortega-Andrade et al. 2010). By day these frogs typically seek shelter under leaf litter, logs, or rocks, whereas by night they often perch on low vegetation or move through grasslands (Lynch and Myers 1983).

The Smooth-billed Ani, *Crotophaga ani* Linnaeus 1758, is widely distributed in the Americas, ranging from the southeastern United States through Central and South America to northern Argentina (BirdLife International 2024). These diurnal, social birds live in groups of two to more than twenty individuals, and exhibit cooperative behaviors for nesting and group survival (Davis 1940). As omnivorous generalists, they consume primarily arthropods and plants, occasionally supplementing their diet with small vertebrates (Gill and Stokes 1971; Köster 1971; Ridgely and Greenfield 2001; Connett et al. 2016; Cooke et al. 2019; Espinoza and Yáñez-Muñoz 2023). We herein report the predation on a Cachabi Robber Frog by a Smooth-Billed Ani.

While mowing grass on 4 December 2022 in a rural area dedicated to livestock within a sub-Andean ecosystem (Cuatrecasas 1958), in the Municipality of Cajibío, Department of Cauca, southwestern Colombia (2.57245, -76.59281; elev. 1,765 m asl), we observed a group of eight Smooth-billed Anis foraging mainly for grasshoppers and spiders. A frog, later identified as an adult Cachabi Robber Frog, was found in the grass and relocated to the mowed area.

Shortly thereafter, one of the anis captured it (Fig. 1) and repeatedly shook and struck it before swallowing it whole. This 15-minute predation event highlights the opportunistic hunting behavior of Smooth-billed Anis.

Known predators of *P. achatinus* include the Phrynid Whip Spider (*Heterophrynus armiger*) (Wizen and González 2016) and several snakes including the Terciopelo (*Bothrops asper*) (Boada et al. 2005), Neotropical Blunt-headed Treesnake (*Imantodes cenchoa*), Northern Cat-eyed Snake (*Leptodeira septentrionalis*), and Highland Eyelash Pitviper (*Bothriechis schlegelii*) (Arteaga et al. 2013). Reptilian prey of *C. ani* includes the Roughskin Anole (*Anolis trachyderma*) (Espinoza and Yáñez-Muñoz 2023), Common House-Gecko (*Hemidactylus frenatus*), and Eastern Galápagos Racer (*Pseudalsophis biserialis*) (Cooke et al. 2020). Although Young (1929) and Köster (1971) mentioned that Smooth-billed Anis prey on frogs, the only documented case of which we are aware occurred in the Galapagos Islands, where both the Smooth-billed Ani and its prey, a Fowler’s Snouted Treefrog (*Scinax quinquefasciatus*), are introduced (Cooke et al. 2020).

Although, to the best of our knowledge, the predation event described herein is the first record of *Crotophaga ani* preying on *Pristimantis achatinus* or any anuran in the mainland Americas, the generalist diet of Smooth-billed Anis and the readiness of at least one individual to take the Cachabi Robber Frog suggest that frogs might be more frequently taken by anis than the few records would indicate. In the immediate vicinity of the predation event described above, we encountered Boettger’s Treefrog (*Dendropsophus columbianus*) and Stripe-throated Rocket Frog (*Leucostethus brachistriatus*) (Fig. 1). Other anurans known to occur in nearby areas include *Centrolene quindianum*, Savage’s Cochran Frog (*Centrolene savagei*), Northern Cordilleras Robber Frog (*Pristimantis thecopternus*), Zurucuchu Robber Frog



**Figure 1.** Predation of a Cachabi Robber Frog (*Pristimantis achatinus*) by a Smooth-billed Ani (*Crotophaga ani*) on 4 December 2022 in a rural area in Cajibío Municipality, Department of Cauca, Colombia (A). Species of frogs detected in the area were the Cachabi Robber Frog (*Pristimantis achatinus*, Strabomantidae) (B), Boettger’s Treefrog (*Dendropsophus columbianus*, Hylidae) (C), and the Stripe-throated Rocket Frog (*Leucostethus brachistriatus*, Dendrobatidae) (D). Photographs by Gustavo Adolfo Pisso-Florez.

(*Pristimantis w-nigrum*), and Mesoamerican Cane Toad (*Rhinella horribilis*) (Guerrero-Vargas et al. 2007), and anis likely are ready predators of all but the last of these.

**Acknowledgements**

We thank The Mohamed Bin Zayed Species Conservation Fund (grant 192521814) for supporting this research and

Daniela Tobar for her invaluable assistance in creating the photomosaic.

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