

MILVAGO CHIMACHIMA (FALCONIDAE) FIRST KNOWN PREDATOR OF THE SNAKE ENULIUS FLAVITORQUES (COLUBRIDAE)

MILVAGO CHIMACHIMA (FALCONIDAE) PRIMER DEPREDADOR CONOCIDO DE LA SERPIENTE ENULIUS FLAVITORQUES (COLUBRIDAE)

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Resumen.— Ampliamos el rango alimenticio de *Milvago chimachima* y reportamos por primera vez un depredador para *Enulius flavitorques*.

Palabras claves.— Fossorial, oportunista, depredador, presa.

Abstract.— We expand the diet diversity of *Milvago chimachima* and report for the first time a predator of *Enulius flavitorques*.

Key words.— Fossorial, opportunist, predator, prey.

Milvago chimachima (Vieillot, 1816), known in Panama as pollero hawk or common caracara, belongs to the Falconidae family, has a wide geographic distribution, from the south of Costa Rica to the north of Argentina and Uruguay (Del Hoyo et al., 1994; Rodríguez Mata et al., 2006). It is considered an omnivorous and opportunistic species, and its diet can include carrion, live prey, ticks from farm or wild animals, termites, and even some seeds (Hilty & Brown, 1986; Sazima, 2007; Motta-Junior et al., 2010; De La Ossa et al., 2018; Gálvez, 2019; Gijnsman & Guevara, 2020).

Enulius flavitorques (Cope, 1868) is a fossorial snake distributed throughout the Pacific slope from Jalisco, Mexico, to Panama, and on the Atlantic slope from Chiapas, Mexico, to Honduras, and from Costa Rica and central Panama to Colombia and towards the northwest of Venezuela in elevations 0-1300 m a.s.l. (Savage, 2002; Solórzano, 2004; Natera-Mumaw et al., 2015). Due to its fossorial habits and secretive life, little is known about its biology, and its predators are still unknown, despite its wide distribution.

On January 8, 2022, at 11:50 h, during the activities of clearing, rescue, and relocation of the wildlife of the Bordada Cucaracha project in Panama (9.039°N, -79.639°W; WGS84; elevation 136 m a.s.l.) we observed a common caracara (*M. chimachima*)

perched on a tree on the edge of the area. While photographing, the bird dived to capture a snake scared off by the machinery (Figure 1). Upon noticing our presence, the bird withdrew to a log approximately 15 m away, leaving the prey in place, which allowed us to identify it as a Colombian long-tailed snake (*E. flavitorques*). Then, we moved about 20 m away from the prey, and the bird returned to continue feeding. This process lasted about 15 minutes, and the consumption started by the head and continued by ingesting the rest of the body in chunks (Figure 1).

The predator-prey relationship generally conditioned the habits and habitats of both species (Smith et al., 2019). However, there are opportunistic predators such as *M. chimachima* that are adapted to colonize different types of habitats and feed on different kinds of prey, varying their diet widely (Hilty & Brown, 1986; Sazima, 2007; Motta-Junior et al., 2010; De La Ossa et al., 2018; Gálvez, 2019; Gijnsman & Guevara, 2020). Despite this, it is the first time this species is reported to consume the fossorial snake *E. flavitorques* for which very little is known, making this bird the first known predator.

It has been proposed, for other semi-fossorial snakes such as the genus *Urotheca*, that the long tail of *E. flavitorques* is the result of high predation pressure (Savage & Crother, 1989; McCranie

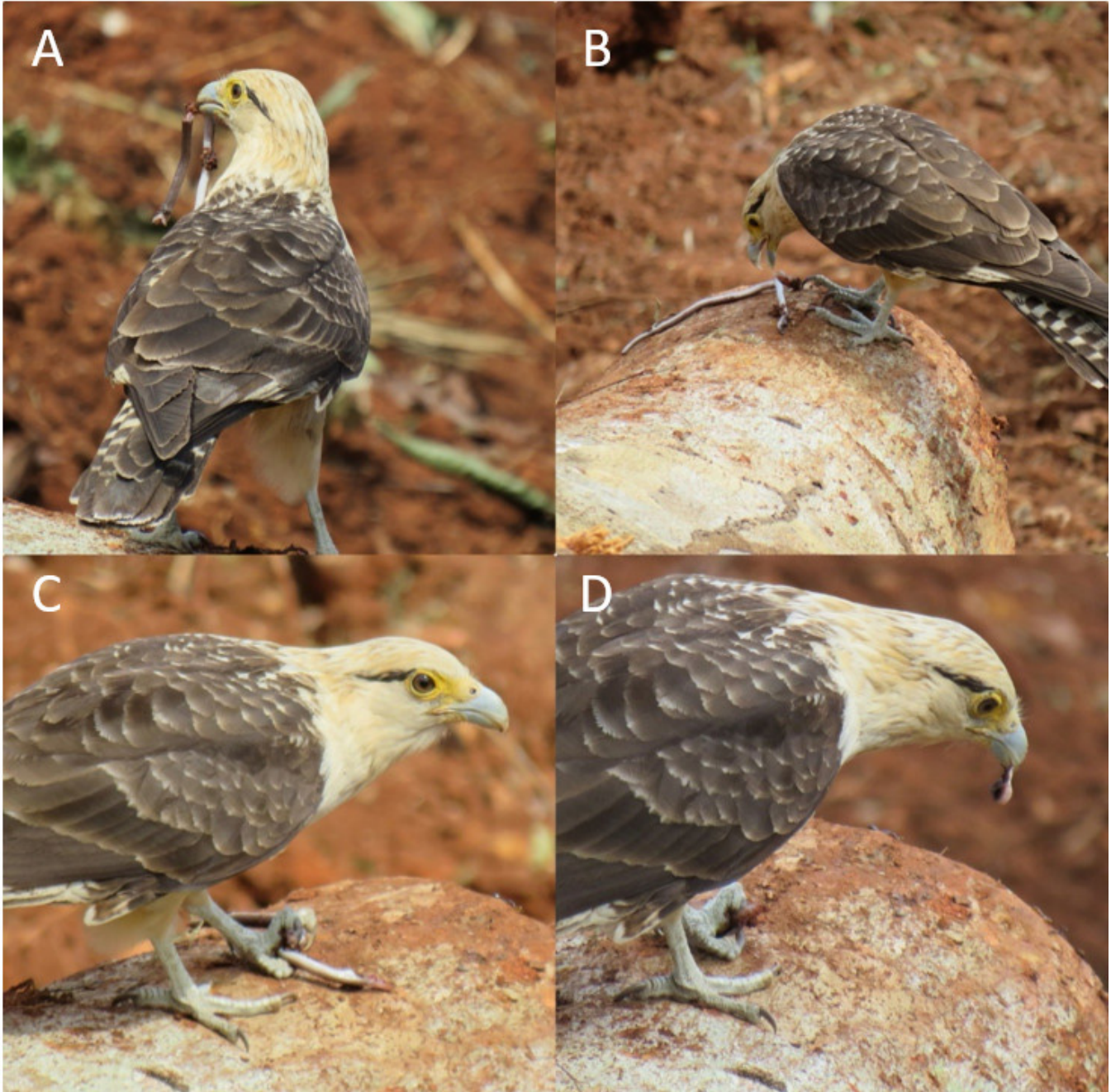


Figura 1. (A) *Milvago chimachima* se posa en un tronco con *Enulius flavitorques* en el pico, (B) la rapaz comienza a acomodar la presa, (C) el ave sujeta la serpiente con su pata izquierda y comienza a alimentarse, (D) la serpiente es desgarrada para ser ingerida.

Figure 1. (A) *Milvago chimachima* perched on a trunk with *Enulius flavitorques* in the prey, (B) the raptor begins to accommodate the prey, (C) the bird holds the snake with its left leg and starts feeding, (D) the snake is torn to be ingested.

& Villa, 1993), as many of the specimens found lack part of the tail (Savage & Crother, 1989). Due to the habits/habitat of *E. flavitorques* (Savage, 2002), we propose that this snake may be a prey of caecilians or even of other fossorial or semi-

fossorial snakes, but the absence of reports does not allow us to corroborate the latter. This lack of information on predation upon *E. flavitorques* may result from its cryptic habits that make it difficult to witness.

The circumstances under which the event was observed allowed it to be recorded, and potentially occurring frequently, but further sampling effort is required.

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