



Predation by a Black Mussurana, *Clelia clelia* (Daudin 1803) (Serpentes: Dipsadidae), on an Andean Lancehead, *Bothrocophias andianus* (Amaral 1923), in Bolivia

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Pseudoboine snakes of the genus *Clelia* (Fitzinger 1826) range from Central America to southern Argentina (Zaher 1996; Giraudo 2001; Scott et al. 2006; Drummond et al. 2011). Two species, *Clelia clelia* (Daudin 1803) and *Clelia langeri* (Reichle and Embert 2005) have been recorded in Bolivia (Aguayo 2009; Reichle 2019).

The Black Mussurana (*Clelia clelia*) is a medium to large, mostly terrestrial snake distributed from Mexico to Argentina (Zaher 1996; Giraudo 2001; Giraudo and Scrocchi 2002; Scott et al. 2006; Alencar et al. 2013; Wallach et al. 2014). In Bolivia, it has been recorded in the departments of Beni, Cochabamba, Chuquisaca, La Paz, and Santa Cruz (Embert 2007). Like its congeners, *C. clelia* is opisthoglyphous and at least mildly venomous (Pinto et al. 1991; Silveira and Nishioka 1992). This species is considered a generalist and its diet includes small mammals, lizards, and snakes (Alencar et al. 2013; Gaiarsa et al. 2013), including pitvipers (Cerdas-Fallas and Lomonte-Vigliotti 1982; Giraudo 2001; Pinto and Lemna 2002; Scott et al. 2006; Delia 2009). The Andean Lancehead (*Bothrocophias andianus*) is a terrestrial pitviper distributed in the Andean subtropical mountain forests of Peru and Bolivia (Campbell and Lamar 1989; Harvey et al. 2005).

At 0745 h on 26 August 2020, an adult *Clelia clelia* attacked an adult Andean Lancehead (*Bothrocophias andianus*) on an unpaved rural road (17°23'49.80"S, 65°14'50.11"W; elev. 1,085 m asl) (Fig. 1). After immobilizing the prey by biting its head, the Black Mussurana appeared to suffocate the lancehead without constriction before ingesting the pitviper and moving into the nearby secondary forest. The entire sequence of attack, immobilization, and ingestion took about

2 hours. The sequence was very similar to that described by da Costa Pinto and de Lema (2002) for *C. rustica*, although the *C. clelia* did not constrict its prey, instead “imprisoning” it, as described by Rojas-Morales (2013) for *C. equatoriana*.

Local residents who observed this event readily identified both species, using the Quechua language names *Illawi* (= constrictor) for *C. clelia* and *Qhilla* (= lazy) for *B. andianus*. To the best of our knowledge, this is the first record of any species in the genus *Bothrocophias* as prey of *C. clelia*.

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Fig. 1. Predation in nature by a Black Mussurana (*Clelia clelia*) on an Andean Lancehead (*Bothrocophias andianus*). Photographs by Modesto Zarate.

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