



New Prey Records for the Black Mussurana, *Clelia clelia* (Dipsadidae), in Ecuador

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The Black Mussurana, *Clelia clelia* (Daudin 1803), locally known as “Chontas,” is a large and robust snake with a cylindrical body; the species is distributed from southern Mexico to northern Argentina (Wallach et al. 2014). In Ecuador, this species occurs at elevations of 0–1,990 m asl (Solórzano and Sasa 2002). Black Mussuranas have an ophiophagus diet that includes venomous snakes (Savage 2002; Solórzano 2004). However, recent evidence indicates that

the species also preys on lizards, birds, and small mammals (Savage 2002; Solórzano 2004; Chavarría and Barrio-Amorós 2014). In general, little is known about predation by these snakes on lizards because the state of decomposition of the prey often prevents taxonomic identification at the species level (Vaughan and Ruiz-Gutierrez 2006) (Table 1).

At 1945 h on 19 October 2022, we captured a *Clelia clelia* in Lita, Imbabura Province, Ecuador (0.79370, -78.36147;

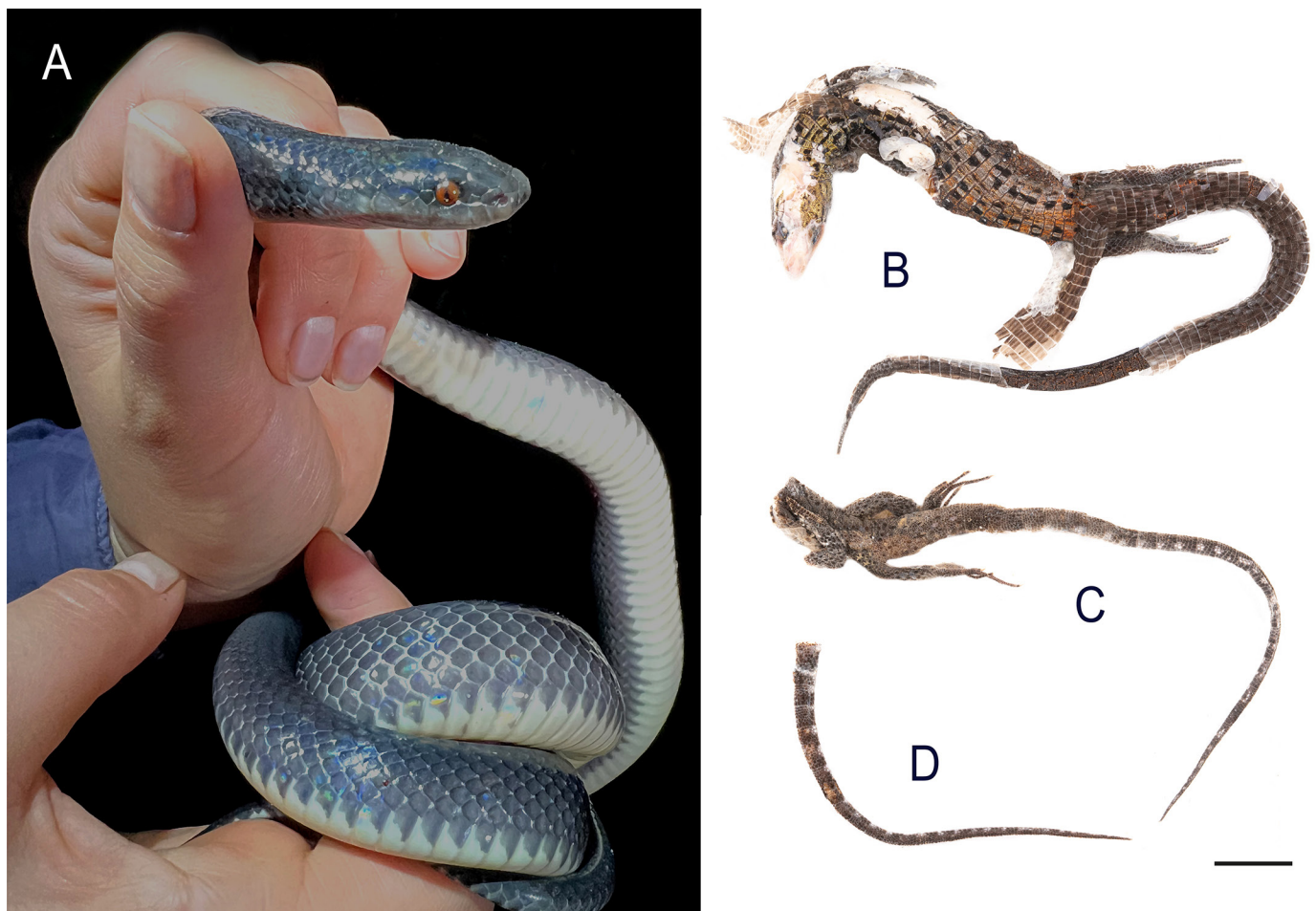


Figure 1. A Black Mussurana (*Clelia clelia*) (A) from Lita, Imbabura Province, Ecuador, and three prey items: *Andinosaura oculata* (QCAZ 18225) (B) and *Echinosauro brachycephala* (C) (QCAZ 18226) and (D) (QCAZ 18227). Scale bar = 1 cm. Photographs by Katherin Hinojosa (A) and Fernando Ayala (B–D).

Table 1. Predation records for Black Mussuranas (*Clelia clelia*).

Prey	Reference
Reptilia: Squamata (snakes)	
<i>Atropoides mexicanus</i>	Solórzano 2004
<i>Atropoides nummifer</i>	Cerdas and Lomonte 1982
<i>Atropoides picadoi</i>	Cerdas and Lomonte 1982
<i>Boa constrictor</i>	Beebe 1946
<i>Bothriechis lateralis</i>	Cerdas and Lomonte 1982
<i>Bothriechis schlegelii</i>	Chavarría and Barrio-Amorós 2014
<i>Bothrocophias andianus</i>	Quinteros and Aguayo 2021
<i>Bothrops asper</i>	Solórzano and Sasa 2022
<i>Bothrops jararaca</i>	da Costa Pinto and de Lema 2002
<i>Cerrophidion godmani</i>	Cerdas and Lomonte 1982
<i>Crotalus durissus</i>	Cerdas and Lomonte 1982
<i>Drepanoides anomalus</i>	Duellman 1978, 2005; Dixon and Soini 1986; Yanosky et al. 1996; Campbell 1998; Starace 1998; Gaiarsa et al. 2013
<i>Helicops angulatus</i>	Duellman 1978, 2005; Dixon and Soini 1986; Yanosky et al. 1996; Campbell 1998; Starace 1998; Gaiarsa et al. 2013
<i>Lachesis muta</i>	Cerdas and Lomonte 1982
<i>Lachesis stenophrys</i>	Solórzano 2004
<i>Leptodeira polysticta</i>	Barrio-Amorós and Remon 2017
<i>Micrurus nigrocinctus</i>	Cerdas and Lomonte 1982
<i>Phrynonax poecilonotus</i>	Solórzano and Sasa 2022
<i>Porthidium nasutum</i>	Solórzano 2004; Delia 2009
<i>Xenodon</i> sp.	Duellman 1978, 2005; Dixon and Soini 1986; Yanosky et al. 1996; Campbell 1998; Starace 1998; Gaiarsa et al. 2013
Reptilia: Squamata (lizards)	
<i>Ameiva</i> sp.	Beebe 1946
<i>Basiliscus vittatus</i>	Duellman 1978, 2005; Dixon and Soini 1986; Yanosky et al. 1996; Campbell 1998; Starace 1998; Gaiarsa et al. 2013
<i>Holcosus festivus</i>	Vásquez et al. 2016
<i>Iguana rhinolopha</i>	Solórzano and Sasa 2022
<i>Neusticurus</i> sp.	Duellman 1978, 2005; Dixon and Soini 1986; Yanosky et al. 1996; Campbell 1998; Starace 1998; Gaiarsa et al. 2013
<i>Tropidurus</i> sp.	Duellman 1978, 2005; Dixon and Soini 1986; Yanosky et al. 1996; Campbell 1998; Starace 1998; Gaiarsa et al. 2013
<i>Tupinambis</i> sp.	Duellman 1978, 2005; Dixon and Soini 1986; Yanosky et al. 1996; Campbell 1998; Starace 1998; Gaiarsa et al. 2013
<i>Andinosaura oculata</i>	This study
<i>Echinosaura brachycephala</i>	This study
Aves and Mammalia	
Bird	McCranie 2011
Marsupial	Martins Teixeira et al. 1991
Small mammals (e.g., rats)	McCranie 2011

elev. 1,553 m asl), and released it following observations. The snake, which was active near a body of water, regurgitated one complete and one partially digested gymnophthalmid lizard, and a tail (Fig. 1). The regurgitated specimens were taken to the laboratory of the Pontifical Catholic University of Ecuador and deposited in the herpetological collection of the Museo de Zoología (QCAZ 18225–7).

Because the lizards were largely intact, using taxonomic keys (Kizirian 1996; Köhler et al. 2004) we were able to identify them as one Tropical Lightbulb Lizard (*Andinosaura oculata*) (SVL = 77.1 mm, TL = 134.7 mm; QCAZ 18225; Fig. 1B) and two *Echinosaura brachycephala*. The first *E. brachycephala* (QCAZ 18226; Fig. 1C) was incomplete and the second (QCAZ 18227; Fig. 1D) consisted solely of a tail.

The family Gymnophthalmidae is a highly diverse Neotropical lizard clade (Mamani et al. 2020). Nevertheless, ecological information, particularly in regard to predation, is minimal (Torres-Carvajal et al. 2016). These records are the first reported cases of predation of *Andinosaura oculata* and *Echinosaura brachycephala* by *Clelia clelia* in Ecuador.

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