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Diet of *Drymarchon corais* (Squamata: Colubridae) and a new prey record

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Resumo

Drymarchon corais é uma espécie generalista, com dieta que inclui anfíbios, lagartos, anfisbenas, outras serpentes, ovos, aves e pequenos mamíferos. Em 9 de agosto de 2025, registramos um indivíduo adulto de *D. corais* predando um juvenil de *Boa constrictor*. A interação foi observada durante uma trilha no Santuário Ecológico de Pipa, localizado no município de Tibau do Sul, no Rio Grande do Norte, no norte do Brasil. Além disso, apresentamos uma revisão da dieta de *D. corais*; foram registrados 28 itens alimentares, dos quais metade eram serpentes, evidenciando uma tendência à ofiofagia. Este constitui o primeiro registro documentado desse tipo de interação entre as duas espécies e o segundo registro de predação de uma serpente da família Boidae por *D. corais*.

Palavras-chave

Boa constrictor, ofiofagia, predação, região Neotropical, Serpentes.

Abstract

Drymarchon corais is a generalist species, with a diet that includes amphibians, lizards, amphisbaenians, other snakes, eggs, birds, and small mammals. On 9 August 2025 we recorded an adult *D. corais* preying on a juvenile *Boa constrictor*. The interaction was observed during a trail survey at the Santuário Ecológico de Pipa, municipality of Tibau do Sul, Rio Grande do Norte, Brazil. Additionally, we provide a review of the diet of *D. corais*: 28 prey items were reported, of which half were snakes, showing a tendency to ophiophagy. This represents the first documented record of this predatory interaction between the two species and the second record of predation on a member of the family Boidae by *D. corais*.

Key words:

Boa constrictor, ophiophagy, predation, Neotropical region, Snakes.

The eastern indigo snake, *Drymarchon corais* (Boie, 1827) (Squamata: Colubridae), occurs across most South American ecoregions, including dense forests, open woodlands, savannas, and semi-arid areas (Uetz et al., 2026). It is a large, non-fanged species, reaching a total length of 2.95 meters (Garcia-da-Silva & Soares Filho, 2024). It is diurnal and predominantly terrestrial, although it may also display semi-arboreal and even arboreal habits (Prudente et al., 2014). Its foraging strategy is active, as it searches for prey both on the ground and in vegetation (Oda et al., 2022). The species is a generalist, feeding on amphibians, lizards, amphisbaenians, other snakes, birds, eggs, and small mammals, with the predominant direction of ingestion being anteroposterior, from the head to the tail of the prey (Prudente et al., 2014).

On August 9, 2025, at approximately 9:10 h, we observed an adult *Drymarchon corais* preying on a juvenile *Boa constrictor* Linnaeus, 1758 (Fig. 1). The interaction occurred along an open trail area within the Santuário Ecológico de Pipa, municipality of Tibau do Sul, Rio Grande do Norte, northeastern Brazil (6.22498° S, 35.06759° W; WGS84). The observation lasted approximately 10 minutes, during which *D. corais* was observed ingesting the head and the anterior portion of the body of the live prey, while *B. constrictor* attempted to coil defensively. The individuals were not disturbed or captured during the predation event; only georeferenced photographic records were made.



Figure 1. Adult *Drymarchon corais* preying on a juvenile *Boa constrictor* at Santuário Ecológico de Pipa , Tibau do Sul, Rio Grande do Norte, Brazil.

Between January and April 2026, we conducted a literature review to identify and collate available natural history information about the diet of *Drymarchon corais*. We searched for prey records in scientific databases and search platforms (e.g., Google Scholar and Web of Science) and specialized herpetological journals (e.g., Herpetological Review and Herpetology Notes). To ensure comprehensive coverage, search terms combined the species name, recognized synonyms, and dietary keywords, e.g. *"Drymarchon corais"* and "diet" (1070 results in Google Scholar) or "prey" (1060 results) or "feeding" (1080 results), or "dieta" (320 results) or "presa" (235 results), additionally "*Coluber corais*" and "diet" (870 results) or "prey" (1060 results) or "feeding" (1090 results) or "dieta" (133 results) or "presa" (139 results). Search in Web of Science resulted in 2 records. Dietary records attributed to *D. corais* in North America were excluded from this review (Belson, 2000; Daza-R, 2005; Lazcano et al., 2005; Dugan et al., 2006), since *D. corais* is restricted to South America, with a northern limit in Colombia; North American occurrences refer to other taxa in the genus (Wallach et al., 2014; Uetz et al., 2026).

In total, 30 prey items were recorded across 20 distinct localities (18 municipalities, 10 states, and four countries), comprising five records of amphibians (three families), 19 of reptiles (eight families and an egg record), two of birds (one family and an egg record), and four of mammals (one family and bone fragments) (Table 1). This shows that *Drymarchon corais* exhibits a highly generalist feeding strategy. However, there is a high representation of serpentiform prey in these dietary records; half consisted of snakes, including venomous species from the families Elapidae and Viperidae, and two comprised amphisbaenians. Although testudines have been recorded in the diet of other *Drymarchon* species in the USA (Lazcano et al., 2005), there are currently no documented records of testudines as prey of *D. corais*.

Despite the high representation of snakes in their diet, predation by *D. corais* on large constrictors is a recent discovery. Until recently, there were no documented records of this species preying on the family Boidae. Mensah et al. (2025) reported predation on an *Epicra-*

tes cenchria (Linnaeus, 1758) in French Guiana on 26 January 2025, noting that *D. corais* ingested the prey in a posterior-to-anterior direction, while the *E. cenchria* unsuccessfully attempted to anchor itself to a branch by its head. This behavior partially contrasts with Smith and Antonio (2007), who state that *Drymarchon* species typically immobilize live prey using their powerful jaws and press them against the substrate.

A review of all 30 available records, including the predation event on *B. constrictor* reported in this study, indicates that 56.7% (17 records) of predation events occurred anteroposteriorly, 13.3% (4 records) were postero-anterior, 3.3% (1 record) occurred at the midsection, and 26.7% (8 records) were undetermined or not reported. For serpentiform prey (snakes and amphisbaenians; 17 records total), 64.7% (11 records) of ingestions occurred anteroposteriorly, indicating a behavioral preference for head-first ingestion. While previous reports for this species include prey such as amphibians, amphisbaenians, lizards, mammals, and other snakes (Prudente et al., 2014), this is the first published record of *D. corais* preying on *Boa constrictor*.

Table 1. Prey taxa recorded in the diet of *Drymarchon corais* based on published records. Prey items are grouped by family.
*Under the name Phrynohyas venulosa, redefined following Frost (2025).
**Under the name Erythrolamprus miliaris, redefined following Grazziotin et al. (2012).
***Under the name Lachesis muta, redefined following Hamdan et al. (2024).

PREY	LOCATION	DIRECTION OF INGESTION OF PREY	REFERENCE
AMPHIBIA			
ANURA			
BUFONIDAE			
Rhinella diptycha	Brazil: Minas Gerais: Campina Verde	Antero-posterior	Oda et al. (2022)
Rhinella marina	Brazil: Pará: Dom Eliseu	Antero-posterior	Prudente et al. (2014)
HYLIDAE			
*Trachycephalus typhonius**	Costa Rica: Guanacaste Province: Palo Verde Field Station	Midsection	Leary & Razafindratsita (1998)
LEPTODACTYLIDAE			
Leptodactylus fuscus	Not informed	Antero-posterior	Prudente et al. (2014)
Leptodactylus knudseni	Brazil: Amazonas: Presidente Figueiredo	Postero-anterior	Oliveira et al. (2017)
REPTILIA			
AMPHISBAENIA			
AMPHISBAENIDAE			
Amphisbaena alba	Brazil: Mato Grosso: Nova Xavantina	Antero-posterior	Campos et al. (2010)
Leposternon polystegum	Brazil: Maranhão: Arari	Undetermined	Prudente et al. (2014)
"LIZARDS"			
TEIIDAE			
Ameiva ameiva	Brazil: Pará: Dom Eliseu; Brazil: Pará: Viseu	Antero-posterior	Prudente et al. (2014)
TROPIDURIDAE			
Tropidurus hispidus	Not informed	Postero-anterior	Prudente et al. (2014)
SERPENTES			
BOIDAE			
Boa constrictor	Brazil: Rio Grande do Norte: Tibau do Sul	Antero-posterior	**This work**

PREY	LOCATION	DIRECTION OF INGESTION OF PREY	REFERENCE
Epicrates cenchria	French Guiana: La réserve naturelle des Nouragues	Postero-anterior	Mensah et al. (2025)
COLUBRIDAE			
Clelia clelia	Peru: Madre de Dios: Las Piedras River	Antero-posterior	Champagne et al. (2021)
Oxyrhopus melanogenys	Peru: Madre de Dios: Las Piedras River	Postero-anterior	Champagne et al. (2021)
Siphlophis cervinus	French Guiana: La réserve naturelle des Nouragues	Antero-posterior	Mensah et al. (2025)
DIPSADIDAE			
Atractus sp.	Brazil: Minas Gerais: Paruá	Undetermined	Prudente et al. (2014)
Erythrolamprus reginae	Brazil: Minas Gerais: Paruá	Undetermined	Prudente et al. (2014)
Leptodeira annulata	Brazil: Pará: Novo Repartimento	Antero-posterior	Pelegrini et al. (2019)
*Liophis miliaris***	Brazil: Minas Gerais: Paracatu	Antero-posterior	Serafim et al. (2010)
Pseudoboa nigra	Brazil: Maranhão: Arari	Antero-posterior	Prudente et al. (2014)
Egg (not determined)	Brazil: Maranhão: Arari; Brazil: Pará: Marabá	Undetermined	Prudente et al. (2014)
ELAPIDAE			
Micrurus lemniscatus	Brazil: Mato Grosso: Paranaíta	Antero-posterior	Nogueira et al. (2024)
VIPERIDAE			
Bothrops atrox	Brazil: Pará: Alenquer	Antero-posterior	Garcia-da-Silva & Soares Filho (2024)
Bothrops taeniatus	Brazil: Pará: Juruti; Brazil: Pará: Marabá	Antero-posterior	Prudente et al. (2014)
*Lachesis rhombeata****	Brazil: Bahia: Itacaré	Antero-posterior	Santos et al. (2024)
AVES			
GALLIFORMES			
PHASIANIDAE			
Gallus sp.	Brazil: Pará: Viseu	Antero-posterior	Prudente et al. (2014)
Egg (not determined)	Brazil: Pará: Marabá; Brazil: Pará: Dom Eliseu; Brazil: Pará: Capitão Poço	Undetermined	Prudente et al. (2014)
MAMMALIA			
MARSUPIALIA			
DIDELPHIMORPHIA			
Didelphis marsupialis	Brazil: Amazonas: Presidente Figueiredo	Undetermined	Silva et al. (2025)
RODENTIA			
CRICETIDAE			
Calomys expulsus	Brazil: Maranhão: Arari	Antero-posterior	Prudente et al. (2014)
Rattus sp.	Brazil: Amazonas: Presidente Figueiredo	Undetermined	Silva et al. (2025)
Bones and fur	Brazil: Maranhão: Nova vida; Brazil: Pará: Marabá	Undetermined	Prudente et al. (2014)

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