

# Rotten ready-to-eat: observation of a Malagasy Cat-eyed Snake, *Madagascarophis colubrinus* (Schlegel, 1837), feeding on the carcass of a Panther Chameleon, *Furcifer pardalis* (Cuvier, 1829)

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The Malagasy Cat-eyed Snake (*Madagascarophis colubrinus*) is a medium-sized colubrid of the Family Lamprophiidae, reaching a total length of up to 1060 mm (Glaw and Vences, 2007). It is widely distributed across Madagascar and occupies a broad range of habitats, making it one of the island's most common endemic snake species (Domergue, 1987; Glaw and Vences, 2007). *Madagascarophis colubrinus* is oviparous and predominantly terrestrial, although it is also capable of climbing (Domergue, 1987; Glaw and Vences, 2007). The species is crepuscular to nocturnal and appears to be particularly active following heavy rainfall (Domergue, 1987; Glaw and Vences, 2007). It is an opisthoglyphous snake with a weakly neurotoxic venom that is effective in subduing small prey. However, it may also employ constriction when necessary (Domergue, 1987; Kryukova et al., 2023). In humans, envenomation can result in acute local effects (Domergue, 1964, 1989).

*Madagascarophis colubrinus* is known to prey upon a broad range of vertebrates, including frogs, toads, skinks, geckos, snakes, rodents, and birds (Domergue, 1987; Andreone et al., 2001; Licata et al., 2007; Glaw and Vences, 2007; Mizuta, 2009; Andreone et al., 2013; Jono et al., 2019). An overview of verified prey records, including three new observations obtained from iNaturalist, is presented in Table 1. Skinks have been mentioned only once previously as prey of *M. colubrinus*, without reference to a specific observation or supporting evidence (Domergue, 1987). A recently introduced invasive toad species has been shown to be toxic to *M. colubrinus* following ingestion (Licata et

al., 2022). Chameleons are repeatedly cited as prey of *M. colubrinus* in the literature (Domergue, 1987; Glaw and Vences, 2007), but these accounts are anecdotal. In contrast, several dietary observations involving chameleons and snakes other than blindsnakes have been reported for the closely related species *M. meridionalis* from southern Madagascar (Andriamandimbiniaina, 2007; Rosa et al., 2016; Neaves et al., 2019). We here report an unusual feeding event in *M. colubrinus*.

During a nocturnal survey on 10 August 2024 at 18:27 in Akanin'ny Nofy Reserve, Atsinanana Region, Madagascar (18.6047°S, 49.2124°E; elevation 10 m), we observed an adult *M. colubrinus* swallowing the carcass of a Panther Chameleon (*Furcifer pardalis*; Fig. 1). Two days prior during daytime, the dead adult male chameleon had been seen lying exposed on the leaf litter of the lowland rainforest at the same location. At that time, the body had already begun to decompose and showed initial signs of putrefaction. Thus, at the time of the feeding observation, the chameleon had been dead for at least 48 h. The cause of death could not be determined. The snake was observed consuming the carcass for approximately 20 min and was then left undisturbed. A few hours later, neither the snake nor the remains of the chameleon could be located at the observation site or in the surrounding area. Although it is theoretically possible that the snake regurgitated the prey and that the carcass was subsequently removed by another predator, this appears unlikely given that it had remained undisturbed at the site for an extended period prior to the observation.

Scavenging behaviour has been reported for at least 35 snake species worldwide (DeVault and Krochmal, 2002). In contrast to live prey, carcasses may be advantageous because they do not defend themselves and therefore reduce the risk of injury and the energetic costs associated with prey capture. However, they may also be less digestible due to advanced decomposition and sometimes

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**Table 1.** List of species reported as prey of *Madagascarophis colubrinus* in the wild. Numbers in the Sources column are hyperlinked to iNaturalist observations.

Species	Common name	Source
<b>Frogs</b>		
<i>Boophis alilabris</i>	White-lipped Bright-eyed Frog	Andreone et al., 2001
<i>Boophis tephraeomystax</i>	Dumeril's Bright-eyed Frog	<a href="#">37358</a>
<i>Duttaphrynus melanostictus</i>	Asian Common Toad	Licata et al., 2002
<i>Laliostoma labrosum</i>	Madagascar Bullfrog	Mori and Ikeuchi, 2006
<i>Ptychadena mascareniensis</i>	Mascarene Grass Frog	<a href="#">1738215</a>
<i>Scaphiophryne gottlebei</i>	Madagascar Rainbow Frog	Andreone et al., 2013
<b>Lizards</b>		
<i>Hemidactylus</i> sp.		<a href="#">267535110</a>
<b>Snakes</b>		
<i>Madatyphlops</i> ssp.		Jono et al., 2019
<b>Birds</b>		
<i>Terpsiphone mutata</i>	Malagasy Paradise-flycatcher	Mizuta, 2009
<b>Mammals</b>		
<i>Eliurus myoxinus</i>	Dormouse Tufted-tailed Rat	Andreone et al., 2001



**Figure 1.** An individual of *Madagascarophis colubrinus* preying on the carcass of an adult *Furcifer pardalis* in Akanin'ny Nofy Reserve in central eastern Madagascar.

pose risks from microorganism-derived toxins (DeVault and Krochmal, 2002; Kane et al., 2017). In the present case, the circumstances of the encounter between the snake and the chameleon carcass indicate opportunistic feeding. In other, comparatively rare instances in which reptile carcasses were observed in the area during routine day and night surveys by reserve staff, *M. colubrinus* had not been recorded feeding on carrion. We therefore suggest that *M. colubrinus* occasionally supplements its usual prey acquisition strategies by scavenging, as documented for numerous other snake species. To our knowledge, this represents the first record of *M. colubrinus* feeding on a chameleon carcass and the first documented case of scavenging in this species. A recent observation of the sister species *M. meridionalis* from St. Luce in southeastern Madagascar suggests scavenging on a rodent carcass, based on the presence of dipteran eggs associated with a wound (Neaves et al., 2019). Together, these observations indicate that scavenging behaviour within the genus *Madagascarophis* may be more common than previously assumed.

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