

Mimophis mahfalensis (common big-eyed snake) predation on *Furcifer major* (giant carpet chameleon) in Isalo, Madagascar

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Snakes are carnivorous and many are specialist feeders on a particular type of prey. Some of the prey may include other reptiles such as lizards and even other snakes (Bauchot, 1994; Mercurio et al., 2006). In Madagascar there are about 100 species of non-marine colubrids in which the Lamprophiidae family represents over 80 of the described species (Cadle, 2003; Laduke et al., 2010; Crottini et al., 2012). *Mimophis mahfalensis* (Grandidier, 1867), is an endemic colubrid with a widespread distribution in Madagascar (except on the east coast) (Glaw & Vences, 2007). The diet of this snake includes frogs, other snakes and lizards (Glaw & Vences, 2007; Jenkins et al., 2009).

During our ongoing research on the herpetofauna of the Isalo Massif, central-southern Madagascar, an adult individual of *M. mahfalensis* was observed preying on an adult male of *Furcifer major* (Brygoo, 1971) on 14 February 2011. The episode took place in Malaso, 22°35'29.28"S; 45°21'26.82"E (Fianarantsoa Province, Antsohy Fivondronona, Ranohira Firaisana).

When the team approached the animals (at 13:00), the snake was already wrapped tightly around the chameleon, which was still alive. For few minutes the prey was moving but struggling in failed attempts (Fig. 1A). After the lizard apparently abandoned attempts at resistance and showed no signs of life, the snake adjusted its prey in order to start swallowing from the head (Fig. 1B). Twenty minutes later the snake began swallowing the lizard head, first briefly pausing when reaching the front limbs (Fig. 1C). The rest of the swallowing process took about 40 mins (Fig. 1D), which made the total observation last over an hour since the animals were first spotted.

F. major is a common chameleon endemic to Madagascar (Raxworthy et al., 2003; Florio et al., 2012). As part of *F. lateralis* complex, it has also been reported as a prey for other snake species (e.g. *Ithycyphus oursi*; Domergue, 1986; Crottini et al., 2010). Although a not recorded previously as a prey species for *M. mahfalensis*, it is known to prey on other chameleons (e.g. *F. labordi*; Andriamandimbarisoa, 2007). This opisthoglyphous snake (Rosa et al., 2014), uses a combination of mild envenomation and constriction to immobilise and kill its prey. As commented by Domergue (1989), *M. mahfalensis* seems to have a preference for saurians. Given how

common both species are, particularly in the Isalo region, predation on *F. major* by *M. mahfalensis* is likely a frequent event, especially when *F. major* moves through open areas.

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Figure 1. Predation of the chameleon *F. major* by a snake, *M. mahfalensis* in Isalo Massif, central-southern Madagascar: **A.** snake seizing the chameleon; **B-C.** snake starting to swallow its prey by the head; **D.** snake unwrapped the chameleon and swallows in gentle motions. Photos by P. Eesebio Bergò.

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