

Predation attempt of *Rhombophryne laevipes* by *Compsophis albiventris*

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Data on diet and ecology in Madagascar's reptiles and amphibians are scarce. We lack basic information on diet, predation, and predators for many species, especially rare and cryptic ones. We report here a predation attempt involving two poorly known species: *Rhombophryne laevipes* (Mocquard, 1895) and *Compsophis albiventris* Mocquard, 1894.

One of us (R. Eudeline) encountered a specimen of *R. laevipes* in the process of being predated upon by an adult *C. albiventris* on 26 December 2014 at around 09:00 a.m. in Montagne d'Ambre National Park near the Ampijoroana cascade (-12.6119°, 49.1542°). The episode occurred in low vegetation near the trail. The snake caught the frog by the head (Fig. 1a), and pulled it into denser vegetation. The frog tried repeatedly to flee, during which it emitted a high-pitched, rasping distress call. After a few minutes of struggle, the snake changed its grip to the left side of the frog, and then to its left foot (Fig. 1b). It proceeded to swallow this leg (Fig. 1c). After twenty minutes, the left leg of the frog was completely engulfed, and the snake progressed to its side. Twenty-five minutes after the beginning of the predation, the frog stopped moving, and our observation ended.

Judging by the last position observed and other observations of predations of frogs by snakes (e.g. Macdonald, 2009), it seems likely that the snake continued to swallow the frog by pinning the right leg against its flank. *Rhombophryne laevipes* is a relatively large frog; the observed individual measured an estimated 55 mm in snout-vent length. The observed *C. albiventris* was an estimated 500 mm in length—around the maximum known length for this species.

Rhombophryne laevipes was described from Montagne d'Ambre by Mocquard (1895). This species has been reported from humid forests across northern Madagascar, but it may be a species complex (Nussbaum et al., 2008). As this observation was from the type locality, it is probably of the true *R. laevipes*. Although it is likely diurnal and perhaps the most gregarious of all *Rhombophryne* species, the calls of *R. laevipes*, its reproductive mode, and diet are not known (Glaw and Vences, 2007). This is the second potential record of it being predated upon by snakes, the first being a tentative identification based on a single hindlimb in the stomach contents of the female paratype of *Liopholidophis dimorphus*, also collected in Montagne d'Ambre (Glaw et al., 2007b).

Montagne d'Ambre is also the type locality of *C. albiventris*, and it is the only *Compsophis* species known from this location. We assign the observed specimen to this species on that basis, in addition to its colouration (white nuchal collar, white supralabial spots, dark dorsal scalation). This is the first published record of predation preferences in *C. albiventris*, which was only recently rediscovered (Glaw et al., 2007a). An unpublished series of photographs by C. Smith documents the predation of a *Gephyromantis* (*Duboisimantis*) species by a snake that we tentatively assign to *C. cf. albiventris* (Smith & Smith 2002). We therefore suspect that *C. albiventris* is a frog and frog-egg specialist, like other *Compsophis* species (Cadle, 1996).

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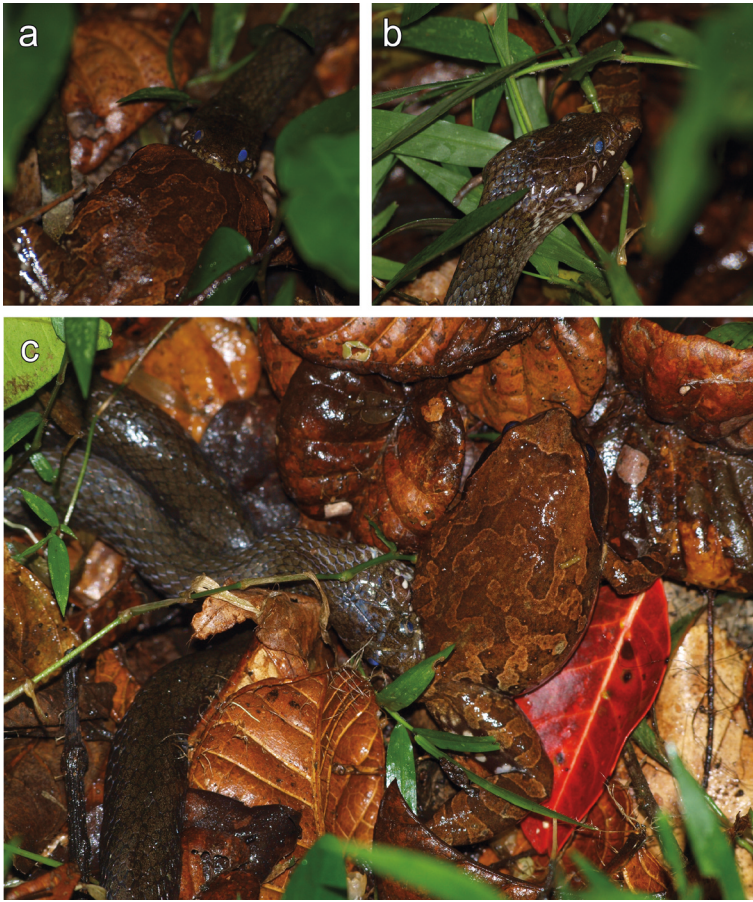


Figure 1. Capture of *Rhombophryne laevipes* by *Compsophis albiventris*: a, initial capture of the head of the frog; b, after struggling to get free, the grip of the snake moved to the foot of the frog; c, the snake proceeded to swallow the left leg of the frog.

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