

Predation of a Three-lined Snake *Atractus trilineatus* by a Trinidad Black-backed Snake *Erythrolamprus melanotus nesos*

Erythrolamprus melanotus nesos (Dixon and Michaud, 1992), commonly known as the Trinidad Black-backed Snake or Beh Belle Chemin (in Trinidad) or Doctor Snake (in Tobago) is endemic to Trinidad & Tobago (Murphy *et al.* 2018). It is widely distributed across the islands and reaches a length of about 600 mm SVL (snout-vent length), inhabiting forests and forest edges closely associated with streams and ponds (Murphy *et al.* 2018). It is a diurnal snake that feeds on frogs, lizards and fish (Murphy *et al.* 2019). However, unlike other *Erythrolamprus* species in the country, snakes have not previously been reported as part of its diet (Murphy *et al.* 2018).

The Three-lined Snake, *Atractus trilineatus* (Wagler, 1828), is a very distinctive reddish-brown (in females), and greyish-brown (in males) snake easily recognized by a three-lined pattern of dorsal and lateral stripes (Murphy *et al.* 2020). It is distributed throughout Trinidad and Tobago, Little Tobago, and the Bocas Islands and is known from Venezuela and northern Brazil (Murphy *et al.* 2018). It is a small (250 mm SVL) fossorial (burrowing) snake that inhabits forests, savannas and urban areas and is often found under leaf litter, compost heaps, rocks, boards and other debris lying on the ground (Murphy *et al.* 2018). *A. trilineatus* is a nocturnal snake and is known to be predated on by *Erythrolamprus ocellatus* and *Micrurus circinalis* (Murphy *et al.* 2020).

This note provides the first record of predation of *Atractus trilineatus* by *Erythrolamprus melanotus nesos*. The event was observed on 7 February 2023, at approximately 0917h. near Point Fortin in Trinidad (UTM 641945E, 1123299N). The *E. m. nesos* was recognizable by its bright yellow and black coloration as it lay stretched out and motionless in the shelter of grass swards. It was surrounded by leaf litter and broken branches of a mango tree above. It was located approximately seven metres from a pond measuring about 2.4m wide and reaching 0.76m deep. Upon closer inspection, the *E. m. nesos* was observed to be consuming the *A. trilineatus*. The latter was identified by its conspicuous three-lined pattern and sharply pointed tail.

The author captured the images using a cellular phone (Samsung A03). The author moved within 0.3 metres of the snake, being careful to avoid disturbing the snakes and causing regurgitation. The lower half of the body of *A. trilineatus* was wrapped tightly around the stems of some grasses. *E. m. nesos* was observed tugging and pulling at its prey as it attempted to free it from the entangled grasses

(Fig.1). As *E. m. nesos* swallowed the snake, it moved up the body of *A. trilineatus* with its jaws to the part that clung to the grasses (Fig. 2). It then clasped its jaws tightly around the body of the snake before pulling it away from the grasses with a strong tug (Fig. 3). It continued this process traveling up the snake's body and then pulling, until it was eventually freed (Fig. 4) and ultimately consumed. Immediately after the entire body of the *A. trilineatus* entered *E. m. nesos* mouth, the predator slithered away.



Fig. 1. Trinidad Black-backed Snake *Erythrolamprus melanotus nesos* feeding on a Three-lined Snake, *Atractus trilineatus*.



Fig. 2. *E. melanotus nesos* travelled up the body of *A. trilineatus* to the grass stem around which it had wrapped its body.



Fig. 3. *E. melanotus nesos* tugging at the body of *A. trilineatus* to free it of the entangled grass.



Fig. 4. *A. trilineatus* lower body half (pointed tail) finally free of the grass.

This event took approximately nine minutes from first noticing it, to complete consumption. *E. m. nesos* was estimated to be approximately 310 mm SVL. This estimate was made by noting the position of the snake's head and tail on the grasses while it lay motionless, and then measuring this distance with a ruler after it had left.

It is unclear whether *A. trilineatus* was actively foraging during the day, despite being a nocturnal species, or whether *E. m. nesos* happened to encounter the *A. trilineatus* while it took refuge under leaf litter surrounding the site where the snakes were observed. However, their habitat does overlap, which may explain this predation encounter.

I would like to thank Dr Ryan S. Mohammed and Mr Renoir J. Auguste for their comments and feedback on this note.

REFERENCES

- Murphy, J.C., Downie, J.R., Smith, J.M., Livingstone, S.M., Mohammed, R.S., Lehtinen, R.M., Eyre, M., Sewlal, J-A.N., Noriega, N., Casper, G.S., Anton, T., Rutherford, M.G., Braswell, A.L. and Jowers, M.J. 2018.** A Field Guide to the Amphibians and Reptiles of Trinidad and Tobago. Trinidad and Tobago Field Naturalists' Club, Port of Spain 336 p.
- Murphy, J.C., Braswell, A.L., Charles, S.P., Auguste, R.J., Rivas, G.A., Lehtinen, R.M. and Jowers, M.J. 2019.** A new species of *Erythrolamprus* from the oceanic island of Tobago (Squamata, Dipsadidae). *Zookeys*, 817: 131.
- Murphy, J.C., Salvi, D., Braswell, A.L. and Jowers, M.J. 2020.** Morphology and natural history of Three-lined Snakes, *Atractus trilineatus* (Squamata, Dipsadidae), in the Eastern Caribbean. *Reptiles & Amphibians*, 26: 189-196.

Shaquille Everod George

West Indian Herping Organisation

georgewildlife@outlook.com