

Nature Notes

Dicephalic *Oxybelis rutherfordi* (Serpentes: Colubridae) hatchling in Trinidad, W.I.

Snakes with two heads are known as dicephalic, axial bifurcated or bicephalic snakes. They were first described 2400 YBP by Aristotle. Fascination with these animals resulted in many cases being reported worldwide. Two review papers by Wallach (2007, 2018) uncovered 1850 cases of snake dicephaly. These were based upon records in the primary literature, museum specimens, the internet, and images on postcards. From these cases, Wallach identified 213 species from 111 genera. Here we report on an occurrence of a dicephalic snake discovered by SM.

In early June 2019, a gravid adult *Oxybelis rutherfordi* Jadin *et al.* 2020 was collected from a poui tree (*Tabebuia* sp.) in Endeavour, Chaguanas, Trinidad by SM. It was kept in captivity and laid six eggs on 6 June. This timing and clutch size concurs with previous reports (Emsley 1977). The adult was then released the following day. The clutch contained one infertile and five fertile eggs, four of which hatched on 14 September 2019. These hatchlings were all healthy, but the fifth egg could not hatch unaided. SM cut open this egg and found a dicephalic snake (Fig. 1).

The snake was alive but only showing limited movement. Tongue flicking was observed from one of the heads. After a few hours it died of natural causes. Without human assistance it is most likely that this snake would not have hatched at all. Of 450 dicephalic snakes, for which there was data, 40% were stillborn and 18% died within hours or days (Wallach 2018) so this occurrence is not unusual. The extreme angle of the neck, approximately 1cm behind the heads, would likely have interfered with movement and feeding even if the snake had survived.

The two heads looked to be complete and separate with two short necks fusing together approximately 5mm from the back of the skulls (Figs. 2 & 3). An x-ray was taken (Fig. 4) and although the resolution was not very clear, it does seem to confirm that the skulls are totally separate and that the axis and atlas vertebrae are also separate making this a prodichotomous example of dicephaly (Smith and Pérez-Higareda 1987).

The total length of the specimen was 321mm and the snout to vent length (SVL), 203mm. This is similar to the 200mm SVL for hatchlings reported by Murphy *et al.* (2018).

As far as we are aware there have been no records of dicephaly in the genus *Oxybelis* and no records of any occurrences of two-headed snakes in Trinidad (V. Wallach per. com.). Therefore, this note is a first record for dicephaly in



Fig. 1 *Oxybelis rutherfordi* hatchling with yolk sack and egg attached. Scale in cm.



Fig. 2 Dorsal view of dicephalic *Oxybelis rutherfordi* heads.



Fig. 3 Ventral view of dicephalic *Oxybelis rutherfordi* heads.

the genus and species and for its occurrence in Trinidad.

The specimen was preserved by MGR using formalin and is currently kept in SM's private collection.



Fig. 4 X-ray of *Oxybelis rutherfordi* hatchling with yolk sack and egg attached.

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