



First Record of Dicephalism in the Banded Kukri, *Oligodon arnensis* (Shaw 1802), from Nepal

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The latest tabulation of verified cases of axial bifurcation in snakes lists 2,007 cases, including 221 species in 114 genera; if one includes anecdotal reports the total number of cases rises to 2,071 (V. Wallach, unpubl. data). A total of 600 cases of dicephalism have been documented in the family Colubridae (*sensu lato*; V. Wallach, unpubl. data), including two species of *Oligodon* from Thailand: *O. joyntsoni* (Nutphand 1998) and *O. barroni* (D. Sweerland 1999, unpubl. data). Herein we report the first case of dicephalism in the Banded Kukri (*Oligodon arnensis*).

Dicephalic snakes rarely survive long in nature (Wallach 2018). So, as with all individuals captured in the wild, the snake in question is a recently hatched proarchodichotomous neonate (Fig. 1) with two long necks that are united at the anterior quarter of the body. The junction of the two necks with the body exhibits a smooth transition and lacks the normally seen enlargement or kinking of the spine. The left neck is slightly longer than the right, constituting 26.5% of SVL (or 22% of total length), whereas the right neck is 25.4% of SVL (or 21% of total length) (percentages are based on measurements from Fig. 1 and utilize a mean relative tail length ratio of 16.5%, *fide* De et al. 2018). This suggests that the left neck has 1 or 2 more vertebrae than the right neck.

This dicephalic Banded Kukri was captured by local villagers in October 2018 near Daldale, Devchuli Municipality, Nawalpur District, Gandaki Province, Nepal (27°40'15.81"N, 84°11'48.90"E; elev. 177 m asl). According to park rangers from Kasara, Chitwan National Park (Santa Bahadur Magar and Amrita Pudasaini), local people were carrying the snake from Nawalpur to Kathmandu. The snake was rescued by police officers and transferred to the park rangers, who subsequently released it into natural habitat. During the release, team members were able to observe its

behavior. According to them, the snake was having difficulty crawling smoothly and moved very slowly. This is a normal condition for newborn dicephalic snakes because each head is independent of the other and each has its own mind about where to go, resulting in a jerky back-and-forth struggle to control the body. The inability to crawl normally in a coordinated manner inevitably will result in the animal's death as it cannot successfully escape predators or capture food. The

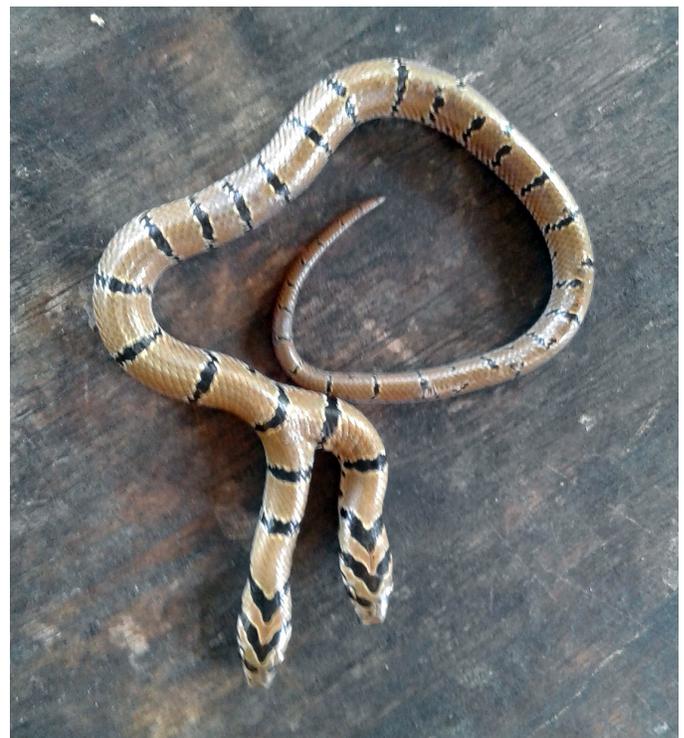


Fig. 1. A neonatal dicephalic Banded Kukri (*Oligodon arnensis*) from Nepal. Photograph provided by Kasara, Chitwan National Park.

only chance for survival of two-headed snakes is to live in captivity. Because the living individual was released, we were unable to acquire any detailed information. However, digital voucher images were deposited in Lee Kong Chain Natural History Museum, National University of Singapore (cat. no. ZRC(IMG) 2.422a,b).

Two previous reports documented two-headed snakes from Nepal. Mishra and Shah (1983) described a juvenile Checkered Keelback (*Fowlea piscator*), which was deposited in the Natural History Museum of Nepal. Devkota et al. (2020) reported a neonatal Common Krait (*Bungarus caeruleus*), with digital voucher images deposited in Lee Kong Chain Natural History Museum, National University of Singapore (cat. no. ZRC(IMG) 2.407a,b). This most recent addition to the list of two-headed snakes represents the first documented case of dicephalism in *Oligodon arnensis* worldwide and the third record of dicephalism from Nepal.

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