

## First Photographic Evidence of the King Cobra, Ophiophagus hannah (Cantor 1836), from Bardia National Park, Nepal

Rabin Bahadur K.C.<sup>1</sup>, Rabin Kadariya<sup>1</sup>, Umesh Paudel<sup>1</sup>, and Bishnu Prasad Shrestha<sup>2</sup>

<sup>1</sup>National Trust for Nature Conservation, Bardia Conservation Program, Nepal (rbn.kc80@yahoo.com)

<sup>2</sup>Bardia National Park, Nepal

The King Cobra, Ophiophagus hannah (Cantor 1836), the lacksquare longest venomous snake in the world, has a wide distribution across southeastern Asia (David and Vogel 1996; Daniel 2002; Stuart et al. 2012). It is listed as Vulnerable on the IUCN Red List of Threatened Species because populations are thought to be declining throughout the species' range (Stuart et al. 2012), and is included in CITES Appendix II (CITES 2023). Ophiophagus hannah was first reported in Nepal in 1974 in the Rautahat District (Fleming and Fleming 1974) and has been recorded in 42 districts since then (Devkota et al. 2021). In Nepal, O. hannah is a protected species and is declared Vulnerable by the National Red Data Book (Thapa et al. 2019). Intentional human killing, increasing human population, and habitat fragmentation due to land use change are major threats to O. hannah in Nepal (Devkota et al. 2021)

Female King Cobras are the only snakes known to build nests for their eggs (O' Shea 2018). *Ophiophagus hannah* generally makes its nests in areas with an average leaf litter height of 10–17 cm, such as along the edges of forests, mangrove

swamps, pristine rainforests, plantations, agricultural fields, and open scrublands in proximity to water (Rao et al. 2013). In Nepal, *O. hannah* has been recorded at elevations from below 100 m asl in Terai to 2,566 m asl in the high mountains (Thapa et al. 2019).

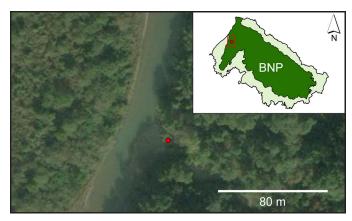
Thapa et al. (2019) reported *O. hannah* from the Chepang area and Satkhluwa in Bardia National Park, but provided no photographic evidence. At 1630 h on 26 April 2022, Gilles Peigne, a tourist who was visiting the Balcony area near Laguna Machan, photographed an *O. hannah* at an elevation of 188 m asl (Figs. 1 & 2). Anjali Mahatara, a renowned nature guide, also recorded two adult snakes about 3 m long at 1307 h on 28 April 2022 at the same site. This locale is a famous tourist destination for observing Royal Bengal Tigers (*Panthera tigris tigris*).

Thapa et al. (2019) noted that, of 219 records of *O. han-nah* in Nepal since 1974, 172 were outside protected areas. This suggests that the species is under significant pressure from anthropogenic threats, which include the loss of nesting sites and the effects of climate change (Bhattarai et al. 2020;



**Figure 1.** The King Cobra (*Ophiophagus hannah*) photographed in Bardia National Park, Nepal. Photograph by Gilles Peigne.

1



**Figure 2.** Map showing the location of the King Cobra (*Ophiophagus han-nah*) photographed in Bardia National Park, Nepal. Inset: Bardia National Park (BNP) and buffer zone.

Devkota et al. 2021; Sapkota et al. 2021). Further studies on the distribution of the *O. hannah* in Nepal are crucial for its conservation and to better understand these and other potential threats.

## Literature Cited

Bhattarai, S., A. Gurung, B.R. Lamichhane, R. Regmi, M. Dhungana, B. Kumpakha, and N. Subedi. 2020. *Amphibians and Reptiles of Chure Range*,

- Nepal. President Chure-Terai Madhesh Conservation Development Board and the National Trust for Nature Conservation, Lalitpur, Nepal.
- CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora). 2023. *Appendices I, II, and III.* Valid from 23 February 2023. <a href="https://cites.org/sites/default/files/eng/app/2023/E-Appendices-2023-02-23.pdf">https://cites.org/sites/default/files/eng/app/2023/E-Appendices-2023-02-23.pdf</a>.
- David, P. and G. Vogel. 1996. *The Snakes of Sumatra: An Annotated Checklist and Key with Natural History Notes*. Edition Chimaira, Frankfurt am Main, Germany.
- Devkota, K., B. Maharjan, D.N. Mandal, R. Giri, and M. Goode. 2021. Save the king: Human-King Cobra *Ophiophagus hannah* (Cantor 1836), conflicts and the need for conservation strategies in Nepal. *Reptiles & Amphibians* 28: 197–204. https://doi.org/10.17161/randa.v28i2.15596.
- Fleming, R.L., Jr. and R.L. Fleming Sr. 1974. Some snakes from Nepal. *Journal of the Bombay Natural History Society* 70: 426–437.
- O' Shea, M. 2018. The Book of Snakes. A Life-size Guide to Six Hundred Species from Around the World. Ivy Press, Brighton, UK.
- Rao, C., G. Talukdar, B.C. Choudhury, P. Gowri Shankar, R. Whitaker, and M. Goode. 2013. Habitat use of King Cobra (*Ophiophagus hannah*) in a heterogeneous landscape matrix in the tropical forests of the Western Ghats, India. *Hamadryad* 36: 69–79.
- Sapkota, S., D.B. Gurung, A. Nepal, and K.B. Shah. 2021. Ecological niche modelling of King Cobra, Ophiophagus hannah (Cantor, 1836) in Nepal. Indonesian Journal of Social and Environmental Issues 2: 163–175. https://doi. org/10.47540/ijsei.v2i2.259.
- Stuart, B., G. Wogan, L. Grismer, M. Auliya, R.F. Inger, R. Lilley, T. Chan-Ard, N. Thy, T.Q. Nguyen, C. Srinivasulu, and D. Jelić. 2012. Ophiophagus hannah. The IUCN Red List of Threatened Species 2012: e.T177540A1491874. https://dx.doi.org/10.2305/IUCN.UK.2012-1.RLTS.T177540A1491874.en.
- Thapa, K.B., N. Rana, and K.B. Shah. 2019. Distribution of King Cobra in Nepal. *The Himalayan Naturalist* 2: 26–33.