



An Interesting Observation: Monitor Lizard (*Varanus bengalensis*) using the Den of Indian Fox (*Vulpes bengalensis*)

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The Monitor Lizard or Common Indian Monitor Lizard (*Varanus bengalensis*) is widely distributed lizard across South-Central and Southeast Asia (Papenfuss et al., 2010). Occupying both terrestrial and fresh water it occurs in variety of habitats from forest to scrubland, desert to floodplains at elevation below 1500 m (Papenfuss et al., 2010). However, it is reported more common in human dominated landscapes including agriculture fields, dams and gardens (Auffenberg, 1994). The species due to its wide distribution and generalized niche is listed as Least Concern in IUCN Red list; however, in India it is listed as Schedule I animal under the Indian Wildlife Protection Act (1972) as it is heavily exploited animal for its skin (Koch et al., 2013; Bhattacharya & Koch, 2018; Varadraju, 2013).

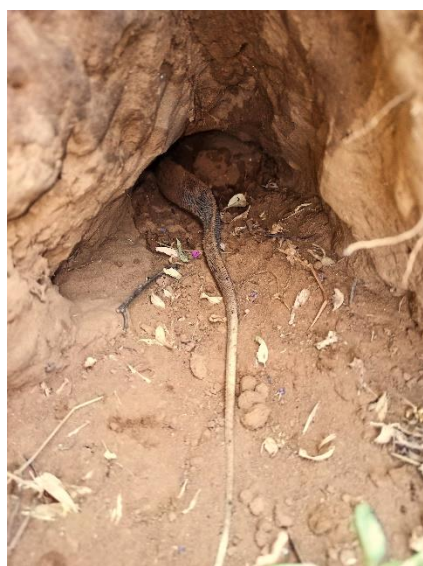


Image 1. Indian monitor lizard entering the fox den (October 19, 2020)

Indian Monitor Lizard prefers drier places compared to the Asian Water Monitor Lizards (*Varanus salvator*). Monitor Lizards take refuge to burrows on land and under trees, hollows of trees, dense vegetation, creeks and crevices (Manakadan & Rahmani. 2000; Varadraju, 2013; Yang & Lok chan, 2020).

Indian Fox makes den with multiple openings to ensure their protection and sanitization purposes (Jhonsinh and Jhala, 2004). Although all these openings are not used as regular basis by fox, hence such unused openings are often used by some other rodents like gerbil and reptiles like lizards as a place to hide or rest (Gompper and Vanak, 2006). Manakadan and Rahmani (2000) observed presence

of the Indian Monitor Lizard in the active den of Indian Fox in South India and noted that the presence of Indian Monitor Lizard as a threat to Indian Fox because monitor lizard killed Indian fox pups (Manakadan & Rahmani, 2000).



We are monitoring the fox dens under our ongoing denning study in the degraded habitats of North Gujarat since 2019. During this monitoring, on October 19th, 2020 we have observed a monitor lizard entering in one of the openings of the fox den at 07:30 hrs. (Image 1 and 2). This particular den covered nearly 12 sq. m area inside the ground with 7 openings. Nearby



Image 2: Indian monitor lizard entering the fox den (October 19, 2020)

water source and human settlement is approximately 150 m and 350 m away respectively from the den. Such observation is very surprising and new for us. Hence, with the loads of curiosity, we have visited the same den (location) on the next day (October 20th, 2020).

Here, we have again observed one individual of monitor lizard moving in and out in the same opening.



Image 3: Monitor lizard observed on the next day on same den opening on next day (October 20, 2020)

For more information we have inspected the den in the evening (18:40 hrs) and did close verification. However, we did not notice any activity of monitor lizard inside the den (Image 3).

Close verifications reveal that Monitor Lizard was approximately two feet interior in the den from the opening. While observing the other

openings of the den, we found all other openings were closed or unused except the one where we observed the lizard. This indicates the regular use that opening by monitor lizard.

**References:**

- Auffenberg, W. (1994). The Bengal Monitor. University Press of Florida, Gainesville, xxi+561pp.
- Bhattacharya, S. & Koch, A. (2018). Effects of Traditional Beliefs Leading to Conservation of Water Monitor Lizards (*Varanus salvator*) and Threatened Marshlands in West Bengal, India. *Herpetological Conservation and Biology* 13(2):408-414.
- Gompper, M. & Vanak, A.T.(2006). *Vulpes bengalensis*. *Mammalian Species*, 795(795), 1–5.
- Koch, A., Auliya, M. and Ziegler, T. 2010. Updated checklist of the living monitor lizards of the world (Squamata: Varanidae). *J. Bonn Zoological Bulletin*, 57(2): 127-136.
- Manakadan, R. & Rahmani, A. R. (2000). Population and ecology of the Indian fox *Vulpes bengalensis* at Rollapadu Wildlife Sanctuary, Andhra Pradesh, India. *Journal of the Bombay Natural History Society*, 97(1), 3–14.
- Papenfuss, T., ShafieiBafti, S., Sharifi, M., Bennet, D. & Sweet, S.S. (2010). *Varanus bengalensis*. The IUCN Red list of threatened species, 2010. (accessed on 20 October 2020).
- Varadraju. (2013). Present status of three monitor lizards (*Varanus bengalensis*, *V. flavescens* and *V. salvator*) in the Sundarbans. *Rec. Zool.Surv. India* 113(part-1): 203-210.
- Yang, J. & Lok chan, B. P. (2020). Distribution, Status, and Ecology of the Water Monitor (*Varanus salvator*) on Hainan Island, and the Role of Folklore in its Conservation. *Herpetological Conservation and Biology*. 15(2):427-439.

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