Myths and road kills put the docile chameleon in trouble in MM Hills

The Indian Chameleon *Chamaeleo zeylanicus* is a fascinating reptile of the family Chamaeleonidae; is primarily arboreal found on trees or on small bushes; is best known for their ability to change body colour; and is found in Indian states of Tamil Nadu, Gujarat, Kerala, Goa, Chhattisgarh, Rajasthan, Maharashtra, Karnataka, Madhya Pradesh, Andhra Pradesh, & Odisha and also in countries like Sri Lanka and other parts of southern Asia.

The term 'chameleon' is a combination of two Greek words, 'Chamai', meaning 'on the ground/earth' and Leon, meaning 'lion'. Thus, 'chameleon' means 'earth lion'. This is the only species of chameleon found in Indian subcontinent. However, they

The Indian Chameleon *Chamaeleo zeylanicus* © Ashritha Anoop.

Moist deciduous habitat at MM Hills Wildlife Sanctuary ©Ashritha Anoop

Chameleon road kill: Hanur to Ellemala road © Abhishek M Palya.

Vision is the primary sense for prey detection in chameleons. The bulging eyes are nearly covered by eyelids and have independent movement of up to 360^{0} rotation. Its feet are shaped like bifid claspers with sharp claws that help in climbing trees. It has a prehensile tail by which it can cling to branches of trees and bushes.

It survives by feeding on locusts, mantis, crickets, and other insects like cockroaches keeping their numbers in check. It is an important food for larger animals like snakes thus helping in keeping them out of our homes.

The Malai Mahadeshwara Wildlife Sanctuary (MMWS in MM Hills) is located in the Chamarajanagara district of Karnataka which was notified as a wildlife sanctuary in 2013 with an area of 906.1

are rarely seen in areas that receive heavy rainfall. Unique features of the Indian chameleon are not just restricted to its ability to change its body colour; it has a long, slender projectile tongue with a sticky end, which helps it in catching prey.

km^2. The forest vegetation is dominantly dry deciduous, scrub woodland, scattered patches of moist deciduous and riparian habitat (Harisha & Padmavathy 2013; Gubbi et al. 2017). The altitudes ranges 400–1,200 m with rugged terrain. The temperature ranges 18–40 ^{0}C and annual rainfall is less than 900 mm (Gubbi et al. 2017; Aravind & Páll-Gergely 2018).

Indian Chameleons are docile creatures. They move slowly with a bobbing or swaying movement. Unfortunately, these harmless animals are killed by people out of fear because of superstitious beliefs related to these species and are also subjected to roads kills. I have observed these both live and dead in and around MMWS during my travel to the field from one village to another along with my colleagues. Usually, they

Chameleon killed by using stones at Sulekobe-Yarambadi Corridor. © Ashritha Anoop.

Chameleon covered with leaves after being killed at Sulekobe-Yarambadi Corridor. © Ashritha Anoop.

are seen on roads moving slowly during the months of July to November and their slow movement acts as a disadvantage to these reptiles as they become victims of road kills. The breeding season falls around the month of October, however, maximum deaths are also recorded during these months.

People believe chameleons are omens of bad luck; that they are poisonous and are

fed to enemies. They are therefore used in black magic and thus, killed for their blood. They are also killed with stones and then covered with leaves and pebbles to keep 'misfortune' away. This brings me back into thinking that conservation challenges include education and awareness and to change people's perceptions and behaviours. As a conservationist, one has to work with all aspects of life including superstitious beliefs of people. Among other threats, unplanned agricultural practices also destroy their habitats (Karunarathna et al. 2009).

Chameleons play an important role in the balance of an ecosystem and by killing them, we impact nature as well. They form a vital part of food chains and they play a huge role both as the prey species and the predators in ecosystems. Many insects which damage agricultural fields can benefit from chameleons as they feed on insects and their population are kept in check.

The Indian Chameleon needs to be protected in such places where people kill them for their own skewed perceptions and blind beliefs.

References

Aravind, N.A. & B. Páll-Gergely (2018). *Dicharax (?) bawai* n. sp from southern India (Gastropoda: Cyclophoroidea: Alycaeidae). *Archiv für Molluskenkunde* 147(1): 55–62. https://doi.org/10.1127/arch.moll/147/055-062

Gaur, S. (2004). Discovery of the Indian Chameleon (*Chamaeleo zeylanicus* Laurenti) in the Aravalli foothills of Rajasthan (India). *Tiger Paper* 31(3): 3–5.

Gubbi, S., H. Nagashettihalli, H.R. Bhat, H.C. Poornesha, A. Anoop & M.D. Madhusudan (2017). Ecology and conservation of leopards in protected and multiple use forests in Karnataka. Report of the Nature Conservation Foundation, Mysore, India.

Harisha, R.P. & S. Padmavathy (2013). Knowledge and use of wild edible plants in two communities in Malai Mahadeshwara Hills, southern India. *Journal of Botany* 9(2): 64–72. https://doi.org/10.3923/ijb.2013.64.72

Prasanna, G. (1996). A structural and functional analysis of the tongue and hyoid apparatus in the feeding behavior of the Indian Chameleon *Chamaeleo zeylanicus* Laurent, 1768. PhD Dissertation, Graduate School of Wayne State University, Detroit, Michigan.

Karunarathna, D.M.S.S., M.A.J.S. Nawaratne & A.A.T. Amarasinghe (2009). A review of the distribution and conservation status *Chamaeleo zeylanicus* Laurenti, 1768 (Reptilia: Chamaeleonidae) in north-western Sri Lanka.

Ashritha Anoop
Door #747, 11th Main 4th Cross, Vijayanagara Ist Stage, Mysore, Karnataka 570017, India.
Email: ashrithaanoop@gmail.com