A NEW RECORD OF MITES (OPHIONYSSUSNATRICIS) FOUND ON THE BODY OF INDIAN COBRA(NAJANAJA)FROM THE WESTERN GHATS OF NORTH PUNE DISTRICT,MAHARASHTRA [INDIA]

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ABSTRACT:

Snake mites have been spread worldwide by herpetoculture. It's not known with certainty where they originated or which snake species are their natural hosts. Some authorities propose an African origin for snake mites and ball pythons as a possible natural host. Snake mites usually do not infest mammal species, yet they have been known occasionally to parasitize rodents and humans, taking a blood meal and then moving on (Mader, 1996). Snakes are not known to be parasitized by any of the mite species that commonly parasitize rodents.*Ophionyssusnatricis* is common arachnid ectoparasite of snakes. Snake mites have five life stages: egg, larva, protonymph, deutonymph, and adult. Each of the three intermediate life stages is shed once to become the next life stage. Ideal environmental conditions for all life stages of snake mites are temperatures of 75 to 85 degrees) and relative humidity of 70 to 90 percent. Average longevity is affected by relative humidity and temperatures, and the period of development of the nymphal stages and the length of adult life are greater at lower temperatures. The development and

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survivorship of all life stages of mites are negatively affected by unfavorable environmental conditions. All life stages are apparently killed by exposure to temperatures in excess of 105 degrees or below 35 degrees for periods of several days. We observe and found mites (*Ophionyssusnatricis)* on Indian cobra (*Najanaja*) during the field work in WesternGhats of north Punedistrict. Perhaps we report the first occurrence of mites on Indian cobra(*Najanaja*).The aim of our team of NGO,S is to contribute towards sustainable development of India through rescue the snakes in the area and increase its population.

Key wards: Indian cobra, Western Ghats, sustainable development, Mites.

Introduction:

Snakes are symbols of healthy environment performing the role predator in nature. These are fascinating, amazing creatures of limbless reptiles. There are few reasons why snakes are becoming endangered namely the venom they posses (Hudson and Wiokra Maratha 2006) and the misbelieve about snakes. Although snakes in some cultures tend to have an unfavorable reputation, the reality is that they offer important ecological, economic, and symbolic values ecologically; they help to maintain the balance of nature, and are important in controlling pest rodents and insects that can damage agricultural crops, infest homes, and serve as vectors of disease. They have served as food and provided snake skin for commercial products. They have also served as symbols throughout history. They have been revered in some historical cultures, such as Ancient Egypt, and even in some present societies, such as India, which is steeped in tradition regarding snakes (Deane 1833). Three important medical symbols involving snakes are used today: the Bowl of Hygeia, symbolizing pharmacy, and the caduceus and Rod of Asclepius, which are symbols denoting medicine in general (Wilcox and Whitham 2003).Narudi village located in north pune district, Maharashtra is harboured by snakes since 2005 snake , mostly the cobra *(najanaja*). The snakes are one of the dominant groups of reptiles in north Pune district a part of Western Ghats, as it is primarily dry zone area, the beneficial effects of snakes in the environment is still in poor condition. Western Australia are three records from near Perth of snake mite infestations in wild caught carpet pythons (*Morelia spilotaimbricata*). The first of these was a very dehydrated specimen from Roleystone in September 1994 and documented in the Western Australian Society of Amateur Herpetologists' *WASAH Newsletter* No. 2. This snake died shortly afterwards from what was believed at the time to be a mite-related disease;

however no autopsy was done to confirm if this was so. A second infested individual was collected at Martin in late 1995 and a third as recently as October 1999. The occurrence of snake mite in the wild in WA probably explains the sudden outbreaks of infestation in collections reported to me recently. Hoser (1995) refers to the establishment of mite in Melbourne, Victoria.

Materials and Methods

The present study was carried out during 2008-2009 as a part of UGC minor research project. The study was carried out in North part of Pune District which is region under Western Ghats of Maharashtra. The snake programme was guidelines of expert, Snake Friends and NGO's. the present paper focus on the main target area "Narodi village" which is fifteen km. away from Manchar (Poona Nasik highway) and 40 km.away from Bhimashankar forest reserve. The snake species are observed in field. The survey involved an active search ie close visual inspection of shrubs, trees, tree holes, ground, leaf litters, stones and rocks. Every effort was made eco-friendly. The species observed in the field are live shooted and photographed by Sony Handy Cam. Collections received from peoples ie dead or occasionally alive are also taken the consideration. They are alsoshooted and photographed. The injured snakes are treated under medical supervision and after rescue few days in the laboratory they are released in Bhimashanker forest.

While handling the Indian cobra, we found cobra unable to act actively because it become sluggish. So we thought that something wrong with cobra. Finally we decided to take him to rescue centre. Then we performed keen observation of its body. Microscopic observation of Indian cobra; reviled that the snake was infected by parasites. The parasites then identified taxonomically and these were mites*Ophionyssusnatricis*.

The mites were hidden under the body scales. Entire body was harboured by mites. We picked up and removed 32 mites from the body of Indian cobra with forcep.Then the cobra was released from where it was collected.

Mite (*Ophionyssusnatricis)*

Results/Review

We observe and found ectoparasitic pest the mites (*Ophionyssusnatricis)* on Indian cobra (*Najanaja*) during the field work in Western Ghats of north Pune district. The mites were hidden under the scales of cobra. Perhaps we report the first occurrence of mites on Indian cobra (*Najanaja*).The aim of our team of NGO,S is to contribute towards sustainable development of India through rescue the snakes in the area and conservation of the snakes.

References

Camin, J. H. 1953. Observations on the life history and sensory behavior of the snake mite, *Ophionyssusnatricis* (Gervais), (Acarina: Macronyssidae). *Special Publications Number 10*. The Chicago Academy of Sciences, 10: 1-75.

Dave and Tracy Barker, 2006.*Pythons of the World, Volume II: BALL PYTHONS: The History, Natural History, Care, and Breeding*. Barker and Barker. 2006.

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Neelmkumar khaire.2008.A guide to the snakes of Maharashtra, Goa, Karnataka, India.Pub.Indian Herpetological Socity.pp 129