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A note on the distribution of Asian Chameleon in Maharashtra with a new photographic record from Katol in Nagpur district

Pawan U Gajbe

ABSTRACT

Chameleons are unique lizards. They are well known for their distinctive ability to exhibit complex changes in body coloration. The Asian chameleon *Chamaeleo zeylanicus* Laurenti, 1768, is a member of the family Chamaeleonidae. It is the only chameleon species found in India. A new photographic record of this species from Katol tehsil in the Nagpur district of Maharashtra is provided along with a summary of other distribution records from Maharashtra.

Keywords: *Chamaeleo zeylanicus*, Chamaeleonidae, faunal diversity, lizard, reptilia.

1. INTRODUCTION

The Asian chameleon, *C. zeylanicus* is also known as the Indian chameleon. It occurs in India, Sri Lanka and Pakistan (Daniel, 2002; Karunarathna et al., 2009; Uetz et al., 2021). It is found in the entire peninsular region of India (Sengupta, 2023). It is a laterally compressed lizard with independently movable eyes, a prehensile tail and a highly extensible tongue that is club-shaped at the tip (Daniel, 2002). Chameleons possess the unique ability to change their body coloration. Chameleons have been reported to shift color by actively tuning a lattice of guanine nanocrystals within a superficial thick layer of dermal iridophores (Teyssier et al., 2015). The Asian chameleon is arboreal and diurnal in habit and predominantly feeds on insects (Daniel, 2002). It prefers habitats consisting of scrub jungles, secondary forests, and dry deciduous forests (Tikader and Sharma, 1992; Srinivasulu et al., 2014).

2. METHODOLOGY

The present distribution record is based on the actual sighting of an Asian chameleon. The chameleon was observed on 30 July 2023 near Sawanga village in Katol tehsil of Nagpur district, Maharashtra (Figure 1). The chameleon (Figure 2) was seen crossing a countryside road bordered by vegetation and cultivated fields. The chameleon was photographed with a mobile phone as it slowly moved

into the foliage on the other side of the road. The identification was made with the help of the handbook by (Daniel, 2002). The other distribution records of Asian chameleons from Maharashtra are based on a review of the literature and photographic records uploaded on the websites 'inaturalist.org' and 'indiabiodiversity.org'.

EXPLANATION OF FIGURES

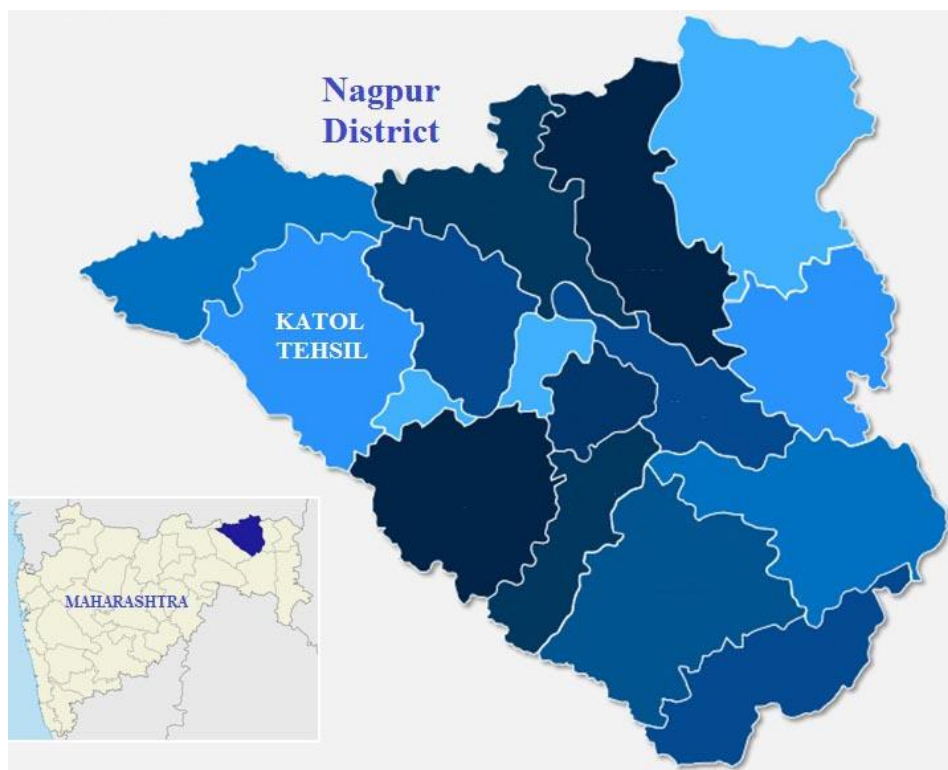


Figure 1 Map showing Katol tehsil in Nagpur district, Maharashtra



Figure 2 Asian chameleon crossing a road

3. RESULTS AND DISCUSSION

The distribution records of Asian chameleons in Maharashtra are contained in (Table 1). These records show that the Asian chameleon is found in most parts of Maharashtra, including the eastern region (Amravati, Chandrapur, Nagpur, Washim, Yavatmal), northern region (Jalgaon), western region (Pune, Sangli, Satara, Solapur), Konkan (Raigad, Sindhudurg), and the Western Ghats. Nagpur district lies in eastern Maharashtra. This part of Maharashtra is also known as the Vidarbha region. Nagpur has a tropical savannah climate, and dry conditions prevail most of the year (Bawaskar et al., 2018).

Even though Asian chameleon has previously been recorded from Nagpur city, this is the first photographic record of an Asian chameleon from Katol tehsil of Nagpur district. Although well-distributed in Maharashtra, the Asian chameleon is rarely observed outside its wild habitat. Sometimes a chameleon may be observed crossing a road in a vegetated area. This species receives legal protection under Schedule II of the Indian Wildlife (Protection) Act, 1972. It has been listed as 'Least Concern' in the IUCN Red List of Threatened Species (Srinivasulu et al., 2014).

Table 1 Distribution Records of Asian Chameleons from Maharashtra

S. N.	Recorded from	References
1.	Amravati, Washim and Yavatmal districts of the Vidarbha region	Dandge and Tiple, 2014
2.	Bhusawal (Jalgaon district)	Anon, 2022a
3.	Chandrapur district	Dasgupta et al., 2012
4.	Khandala (Satara district)	Deshpande et al., 2012
5.	Konkan, Ghatmatha and Mawal areas of Western Ghats	Ravi, 2013
6.	Melghat Tiger Reserve (Amravati district)	Pradhan, 2005
7.	Mhasala (Raigad district)	Anon, 2013
8.	Nagpur city	Bawaskar et al., 2018
9.	Pench National Park (Nagpur district)	Pradhan, 2004
10.	Pune city	Thakur and Gour-Broome, 2000
11.	Sangli district	Sathe et al., 2016
12.	Sindhudurg district	Anon, 2021
13.	Solapur district	Anon, 2022b
14.	Tadoba-Andhari Tiger Reserve (Chandrapur district)	Pradhan, 2006

4. CONCLUSION

The Asian chameleon is well-distributed in Maharashtra. It is also found in Nagpur district. However, just like the other wild fauna of India, it is threatened by habitat loss, climate change, and poaching. Hence, further research is required regarding its habits, habitat, and conservation status in Maharashtra.

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Ethical approval & declaration

In this article, as per the animal regulations in Department of Zoology, Shri Mathuradas Mohota College of Science, Maharashtra, India, the author observed the chameleon (*Chamaeleo zeylanicus*) on 30 July 2023 near Sawanga village, Nagpur district, Maharashtra. The Animal ethical guidelines are followed in the study for species observation, identification & experimentation.

Informed consent

Not applicable.

Conflicts of interests

The authors declare that there are no conflicts of interests.

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The study has not received any external funding.

Data and materials availability

All data associated with this study are present in the paper.

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