



Distribution of Asian Chameleons (*Chamaeleo zeylanicus* Laurenti 1768) in Different Forest Types of Rajasthan, India

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Asian Chameleons (*Chamaeleo zeylanicus*; Fig. 1) are known to occur in India, Sri Lanka, and Pakistan (Srinivasulu et al. 2014). In India, the species has been reported from the entire Indian Peninsula, including the Eastern and Western Ghats. It occupies scrublands, dry deciduous forests, and secondary forests (Tikader and Sharma 1992; Srinivasulu et al. 2014), but detailed ecological requirements and habitat studies are lacking. In the course of the last two decades, Gaur (2004), Bhatnagar and Mahur (2008), Bhatnagar et al. (2010), Sharma et al. (2011), and Sharma (2014) contributed new records of the species' occurrence in Rajasthan, where it occurs in the southern and central parts of the state, but is absent from the extreme north and the western parts of the state (Srinivasulu et al. 2014). Although Srinivasulu et al. (2014) listed the species as being of "Least Concern" in the IUCN Red List, it is rarely encountered in Rajasthan. Herein we present an overview of its distribution, status, new sighting records, habitat preferences, and vernacular names in Rajasthan.

Champion and Seth (1968) listed three types of forests in Rajasthan: Group 5 – Tropical dry deciduous forest (A), Group 6 – Tropical thorn forest (B), and Group 8 – Subtropical broad-hill forest (C). From 2000 to 2016, we visited all three forest types to investigate the distribution of *Chamaeleo zeylanicus* in Rajasthan. Because chameleons are primarily arboreal, we emphasized scrublands, woodlands, and denser forested areas. Other than during the rainy season, chameleons are difficult to find; consequently, we conducted most of our surveys after the onset of the monsoons, when both males and females are encountered on the ground, where they are conspicuous when crossing blacktop roads. We noted the location where an animal was sighted, the forest type, and ethnozoological aspects of its presence via interviews with local people, who helped us define conservation issues.

This species has so far been documented in 12 Aravallian districts of Rajasthan (Table 1; Fig. 2), where it occurs

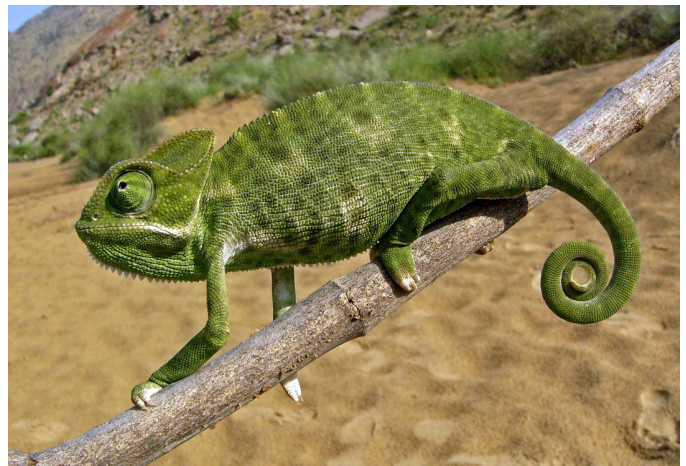


Fig. 1. An adult Asian Chameleon (*Chamaeleo zeylanicus*). Photograph by Dr. Dharmendra Khandal.

throughout the Aravalli Mountain Range from Udaipur to Sikar in tropical thorn forest and where tropical dry deciduous forest and subtropical broad-hill forests meet. Although present in all three forest types in Rajasthan, chameleons appear to be most abundant in tropical dry deciduous forest and tropical thorn forest and in areas where the two forest types meet. Tropical thorn forest is most common where a strip of varying width of this forest type occurs along the western edge of the Aravalli Mountains. However, very arid fragmented thorny forest comprised largely of sparse, low vegetation in the far western region of the state is devoid of these arboreal lizards.

Although arboreal and cryptic, chameleons are well known in Rajasthan, where a number of vernacular names (Table 2) accurately describe the animal and its behavior. A number of superstitions regarding to these lizards exist among the Kathodi. For instance, if a pregnant Kathodi woman sees a chameleon, she will give birth to an ugly child. The tribe

Table 1. Sites in Rajasthan, India, where Asian Chamaeleons (*Chamaeleo zeylanicus*) are known to occur. Site numbers correspond to districts marked in Fig. 2. Forest types: A = Group 5 – Tropical dry deciduous forest; B = Group 6 – Tropical thorn forest; C = Group 8 – Subtropical broad-hill forest.

Site (District)	Location	References	Forest type
1 (Nagaur)	Nimod Village and other parts of the district	Sharma et al. 2016	B
2 (Sirohi)	Mt. Abu	D'Souza 1978; Sharma 2001	C
	Morus Reserve Forest near Rameshvarum Temple	Present study	A
3 (Pali)	Dururi Area	Bhatnagar and Mahur 2008	B
	Ranakpur, Parshuram Mahadev, Desuri	Present study	A, B
4 (Udaipur)	Sajjangarh Wildlife Sanctuary	Sharma 1999	A, B
	Jaisamand Wildlife Sanctuary	Sharma 2014	A, B
	Baghdarah Nature Park	Bhatnagar and Mahur 2008	A, B
	Phulwari-ki-nal Wildlife Sanctuary	Sharma 1997	A
	Ogna, Falasiya, Adkailiya, Nala, Patiyam, Som Ghata, Ramkunda, Samoli, Dhala, Kolyari, Kamalnath, Keoda ki nal, Khokhariya ki nal, Sayra, Bokhada (Khumbhalgarh Wildlife Sanctuary)	Present study	A
5 (Banswara)	Kela pani, Kushalgarh	Present study	A
6 (Dungarpur)	Near Modimata Temple, Forest Range Antrii; Rata Pani and Rani Jhula Forest Block, Forest Range Dungarpur; Ratanpur, Range Bichiwada	Virendra Singh Bedsa, pers. comm. 2016; D.S. Rathore, ACF, 2016	A
		Present study	A
7 (Jaipur)	Nahargarh Wildlife Sanctuary	Sharma 2000	A, B
	Jamwa Ramgarh Wildlife Sanctuary	Present study	A, B
8 (Pratapgarh)	Arnod	Sh. Udairam Jat, ACF, pers. comm. 2016	A
	Sitamata Wildlife Sanctuary	Bhatnagar et al. 2010	A
9 (Chittorgarh)	Choti Sadri and Badi Sadri	Present study	A
10 (Rajasmad)	Kumbhalgarh (Kumbhalgarh Wildlife Sanctuary), Charbhujia, Jhilwara	Present study	A, B
11 (Sikar)	Sanwali Village near Dujodh Village (dead-on-road near Sikar City during rainy season in 1999)	Present study	B
12 (Ajmer)	Jawaja	Present study	B

also believes that these animals are poisonous and avoid them whenever they are encountered. When encountered on the ground during breeding season (monsoon period), fearful tribal people kill them. Roadkills also threaten these slow-moving creatures as wide multi-lane roads and fast-moving vehicles lead to high chameleon mortality rates.

Acknowledgments

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Table 2. Vernacular names for Asian Chameleons (*Chamaeleo zeylanicus*) in Rajasthan, India.

District (location)	Tribe/Community	Vernacular names	Etymology
Udaipur (Udaipur)	Bhil, Garasia, Damor, Kathodi	Halanviya, Halniya, Halanmera, Leelo Kachindo, Peeye	From <i>bilna</i> = moving in a to-and-fro swinging manner
Sirohi (Mt. Abu, Morus)	Bhil, Garasia	Holinda, Holihinda, Halar, Halanhinda	From <i>bilna</i> (see above)
Sikar (Sanwali Village)	All sects	Ichhadgawa	From <i>ichhadgawa chaal</i> (i.e., chameleon walk) = walking in a “humpty-dumpty” manner
Banswara (Kushalgarh)	Bhil, Bhil Meena	Halarmeha	From <i>bilna</i> (see above)
Jaipur (Jamwa Ramgarh)	Meena	Reengangora, Reenganghoda	From <i>reengana</i> = crawling and <i>ghoda</i> = horse (i.e., a crawling horse)
Pali (Pali)	All sects	Khad Kakeda	From <i>khad</i> = jungle and <i>kakeda</i> = garden lizard

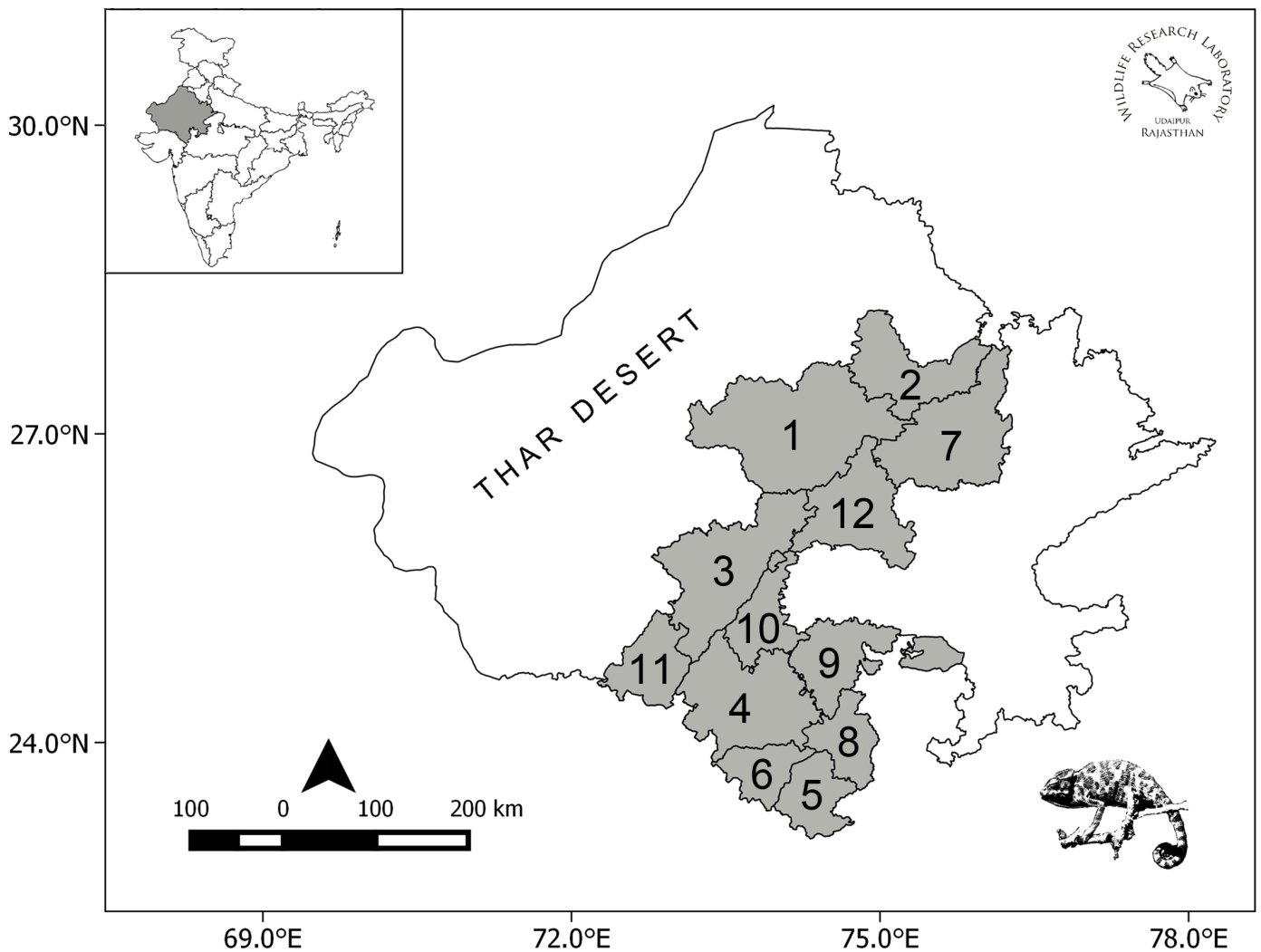


Fig. 2. Twelve districts in Rajasthan, India, where Asian Chameleons (*Chamaeleo zeylanicus*) have been recorded. See Table 1 for District numbers.

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