

Distribution of Stripe-Necked Mongoose *Herpestes Vitticollis* by Camera Trapping in Similipal Tiger Reserve, Odisha

Mishra SR*, Paul S and Pati JD

Department of Forest & Environment Government of Odisha Regional Chief
Conservator of Forest & Field director, India

***Corresponding author:** Sandeep Ranjan Mishra, Department of Forest
& Environment Government of Odisha Regional Chief Conservator of Forest & Field
director, Simlipal Tiger Reserve, Baripada, 757002, Odisha, India, Email: sandeep.mishra579@gmail.com

Research Article

Volume 2 Issue 1

Received Date: November 19, 2018

Published Date: January 31, 2019

DOI: 10.23880/izab-16000136

Abstract

The Presence of Stripe-necked mongoose *Herpestes vitticollis* in the Similipal Hills, Odisha, India has been confirmed by Camera-Trapping. This record extends the earlier known distribution range of this species, from southern and central Western Ghats in southwest India far to the north of the Eastern Ghats and hence constitutes a biogeographically significant record. Total forty numbers of Photo captured during the exercise covering the three ranges in Similipal Tiger reserve. Highest (27) numbers of photo captured in Upper barakamuda range followed by (09) numbers in Jenabil Range and (04) numbers in National park range of similipal.

Keywords: Stripe-Necked Mongoose; Camera Trap; Similipal Tiger Reserve

Introduction

Stripe-necked Mongoose *Herpestes vitticollis*, the largest mongoose in Asia, is found in southwest India and Sri Lanka [1]. In India; its stronghold is believed to be the forested Western Ghat [2-6]. However, there is a report well outside the range of other records, from Horsley Konda (tentative location 13 39N, 78 25 E: perhaps about 750 m asl) in the Eastern ghat [7]. As a sight-record without specimen Allen himself expected, in keeping with the norms of the time, that his observation would be taken as unconfirmed. Thus, it was not mentioned even in Pocock's [2] comprehensive review. Van Rompaey, Jayakumar, et al. [5] considered Allen's record doubtful on grounds of habitat. Much further northeast, the species was reported by Mishra, et al. [8] from the state of Orissa. They considered it restricted in the state to similipal

forest of Mayurbhanj district and Bhitarkanika Mangroves of kendrapara districts. A later review of Orissa's small Carnivores Acharjyo [9] doubted these reports given that specimen were not obtained. Nor has the species found a place in the check-list of similipal Tiger Reserve [10]. Hence as of now, it is thought to be confined in India to the Western Ghats [1,6].

Study Area

Similipal Tiger Reserve located in the Mayurbhanj District of Odisha and spreads over 2750km² of the Chotanagpur plateau. The park is surrounded by high plateaus and hills, the highest peak being the twin peaks of Khairiburu and Meghashani (1515m above mean sea level). At least twelve rivers cut across the plain area, all of which drain into the Bay of Bengal. The prominent among them are Budhabalanga, Palpala, Bandan, Salandi,

Khairi, Khadkei, Budhabalanga, West Deo, and East Deo. An astounding 1078 species of plants including 94 species of orchids find their home in the tiger reserve [11]. It host 55 species of mammals, 304 species of birds, 60 species of

reptiles, 21 species of frogs, 60 species of fishes and 164 species of butterflies that have been recorded from the park (Figure 1). The core area comprises of ranges with an area of 1194.75km².

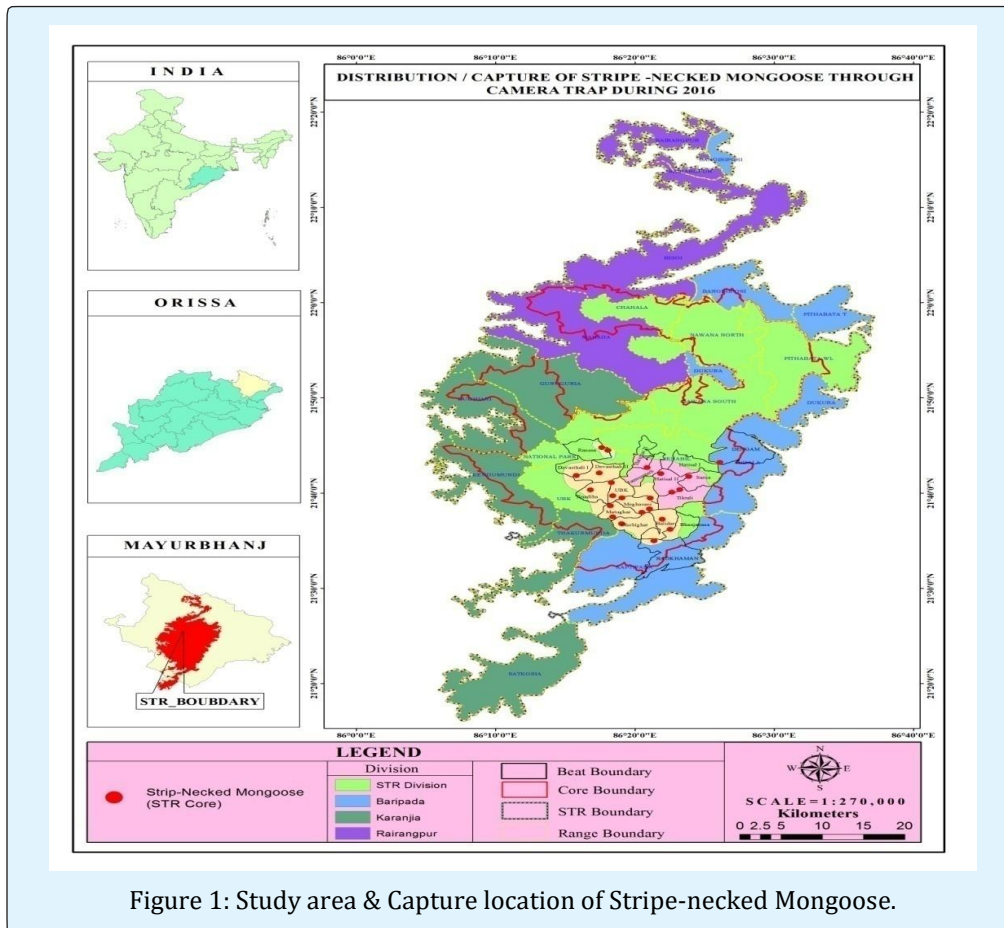


Figure 1: Study area & Capture location of Stripe-necked Mongoose.

Methodology

The Success of camera-trapping depends on the selection of ideal locations to deploy the camera traps so as to maximize the number of captures. Prior to camera placement, survey is done along the forest paths, animal trails, dirt-trackers, dried stream bed to record carnivore presence through indirect signs (pug marks, tracks, scat, scraps, rake marks, scent deposits and kills). Potential location of camera trap stations were then mapped using ArcGIS 9.3. Camera trapping exercise lasted from February 2016 to May 2016 for 119 days. The cameras were active 24h period that accounted for one sampling occasion. Each camera was assigned a unique identification number, Date, time and camera ID was

recorded for every capture. The locations of each capture of stripe necked mongoose was recorded and mapped over similipal Tiger reserve to understand their geographic distribution in the study area..

Result & Discussion

During All Odisha Tiger Estimation in Similipal TR between February 2016 to May 2016 Stipe-necked Mongoose was captured in different places in Similipal Tiger Reserve. Total fourty numbers of Photo captured during the exercise covering the three ranges in Similipal Tiger reserve. Highest (27) numbers of photo captured in Upper barakamuda range followed by (09) numbers in Jenabil Range and (04) numbers in National park range of

similipal. The primary habitat of the Stripe-necked Mongoose is deciduous forest (both dry and moist) and ever green forest, plantations and scrub, favoring swampy areas or those close to water courses. It prefers hilly country and has been recorded up to 2,200m. The study area varied from dry deciduous and moist deciduous to

semi-ever green. The present records of Stripe-necked Mongoose were in moist deciduous forest and semi-ever green forest patches where human disturbance is minimal. Apart from Camera trap photographs most of the direct sightings were during day light near hill streams and the animals crossed forest roads (Table 1 & Figure 2).

SL No	Division	Range	Camera ID	Longitude	Latitude	No of Photo captures
1	STR	UBK	102	86°18'19.1"	21°41'06.2"	1
2	STR	UBK	113	86°17'26.9"	21°42'07.4"	3
3	STR	UBK	111	86°15'47.1"	21°41'51.0"	1
4	STR	UBK	115	86°21'58.2"	21°37'15.8"	1
5	STR	UBK	121	86°18'24.3"	21°39'43.1"	1
6	STR	UBK	122	86°21'06.6"	21°39'28.2"	3
7	STR	UBK	124	86°21'03.5"	21°38'20.4"	2
8	STR	UBK	125	86°20'29.8"	21°37'58.7"	1
9	STR	UBK	127	86°19'03.3"	21°36'47.6"	2
10	STR	UBK	130	86°21'22.3"	21°34'58.7"	1
11	STR	UBK	132	86°22'32.4"	21°36'12.6"	1
12	STR	UBK	138	86°18'24.5"	21°37'30.3"	3
13	STR	UBK	140	86°18'14.5"	21°38'40.0"	2
14	STR	UBK	141	86°16'49.0"	21°40'20.7"	1
15	STR	UBK	126	86°19'04.3"	21°39'30.7"	4
16	STR	JENABIL	206	86°21'51.2"	21°42'02.6"	4
17	STR	JENABIL	209	86°23'13.5"	21°40'22.4"	1
18	STR	JENABIL	216	86°23'51.9"	21°41'45.4"	1
19	STR	JENABIL	219	86°26'05.9"	21°43'13.6"	1
20	STR	JENABIL	231	86°20'52.4"	21°42'41.4"	1
21	STR	JENABIL	234	86°22'39.4"	21°40'05.0"	1
22	STR	NATIONAL	303	86°17'37.3"	21°44'47.5"	1
		PARK				
23	STR	NATIONAL	305	86°18'03.6"	21°44'28.8"	3
		PARK				

Table 1: Capture of Stripe-Necked Mongoose at different place by Camera Trap.



Figure 2: Captured of Strip-necked Mongoose in Camera trap.

Conclusion

Small Carnivore species cannot be Surveyed using direct sighting since they are usually elusive , rare and often nocturnal or sign such as tracks and scat since sign of several sized species cannot be unambiguously identified to species. From different survey it was observed that mongooses are hunted for food and medicines.

References

1. Mudappa D (2013) Herpestids, Viverrids and mustelids. In: Johnsingh AJT, (Ed.), Mammals of South Asia-1, Universities Press, India, pp: 471-498.
2. Pocock RL (1941) The fauna of British India, including Ceylon and Burma, mammalian, 2nd (Edn), 2 Taylor & Francis, UK.
3. Prater SH (1971) The book of Indian animals. 3rd (Edn.), Bombay natural History Society and Oxford University Press, India, pp: 348.
4. Corbet GB, Hill JE (1992) Mammals of the indo-Malayan Region: A Systematic Review. Oxford University Press, UK, pp: 488.
5. Van Rompaey H, Jaykumar MN (2003) The Stripe-necked Mongoose, *Herpestes vitticollis*. Small Carnivore Conservation 28: 14-17.
6. Menon V (2014) Indian mammals-a field guide. Hachette India, India, pp: 200.
7. Allen PR (1911) Mongooses in the Eastern Ghats. Journal of the Bombay Natural History Society 21: 237-238.
8. Mishra CG, Patnaik SK, Sinha SK, Kar CSK, Singh LAK (1996) Wildlife wealth of Orissa. Wildlife Wing, Forest Department, Government of Orissa, India.
9. Acharjyo LN (1999) Status of mustelids, Viverrids and herpestids of Orissa, ENVIS Bulletin: Wildlife and protected Areas 2(2): 62-64.

10. Anon (1999) Checklist of animals: Similipal Tiger Reserve and Similipal Biosphere Reserve (based on compilation by S.S Srivastava and L.A.K Singh) Similipal Tiger Reserve, Baripada, India.
11. Nayak AK, Yadav SP, Behera S (2014) Seasonal Occurrence of available prey densities in Similipal Tiger Reserve, Mayurbhanj, Odisha, India. Int J Conserv Sci 5(3): 379-386.

