



First camera-trap record of Rusty-spotted Cat *Prionailurus rubiginosus* (I. Geoffroy Saint-Hilaire, 1831) from Balaram-Ambaji wildlife sanctuary, Gujarat, India

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ABSTRACT

The present study is a part of an ongoing study on sloth bear ecology in the North Gujarat region. A rusty-spotted cat is believed to be the smallest cat from the family Felidae native to India, Nepal, and Sri Lanka. During the camera trap survey of bear movement, a rusty-spotted cat was captured in the camera trap, which was deployed close to a water body at the Bedapani region of Balaram-Ambaji wildlife sanctuary, North Gujarat. Rusty-spotted cat has been reported from central Gujarat, south Gujarat, and Gir forests. This camera trap photograph is the first photographic report of the presence of a Rusty-spotted cat in the Balaram-Ambaji wildlife sanctuary adjoining to the Aravalis of Rajasthan state. This record is providing the presence of a very shy nocturnal cat in the study area which can be helpful for further studies on its distribution and range extension.

Key words: Camera trap, mammals, small cat, western Aravalis, North Gujarat.

INTRODUCTION

Mammals have occupied a global distribution from pole to pole and from the tip of the mountain to the deep sea. According to Wilson and Reeder (2005), a total of 5,416 mammalian species are recorded worldwide. Among them, 427 are found in India; comprising 48 families and 14 orders (Sharma et al. 2014). A total of 15 cat species are listed in the family Felidae from India. The rusty-spotted cat is the world's smallest cat restricted to India, Nepal, and Sri Lanka. Dry-deciduous habitat with dense vegetation and the rocky area is identified as the most preferred habitat for this species (Nayak et al. 2017). It is listed as a Schedule I species under the Indian wildlife protection act (1972) and classified as Near-threatened according to the IUCN Redlist[®] assessment of threatened species (Mukherjee et al. 2016). In India, this cat is

documented from Rajasthan, Uttar Pradesh, Jammu & Kashmir, Tamil Nadu, Madhya Pradesh, Odisha, Andhra Pradesh, Karnataka, Kerala, Maharashtra, Uttaranchal, and Telangana (Aditya & Ganesh 2016; Nayak et al. 2017; Sharma et al. 2014). While in Gujarat, it is recorded from Gir from Saurashtra in 1988 (the first record from Gujarat), Vansda from South Gujarat and Kutch, while no record is found from Balaram-Ambaji wildlife sanctuary in north Gujarat. Balaram-Ambaji Wildlife Sanctuary is the largest protected area in the North Gujarat region. It was declared as a wildlife sanctuary on August 7, 1989, in order to protect the pristine forest of the Aravali Mountain system and propagation of wildlife (Singh 2001).

MATERIALS AND METHODS

The present observation was made during our long-term monitoring of sloth bear movements and habitat use in North Gujarat. The sanctuary covers an approximate area of 542.08 km² and falls into the catchment zone of River Banas and Sabarmati with a great floral and faunal diversity where sloth bear is a flagship species. The forest type is dry deciduous and it mostly dries up during the hot summer with an annual rainfall of 600 to 750mm. A camera trap is a widely used tool for monitoring and conservation of wild animal species. Camera traps were diploid near water bodies on wooden stacks or trees to cover as possible as capturing area.

RESULTS AND DISCUSSION

A rusty-spotted cat is captured in a camera trap from Bedapani area located in Balaram-Ambaji wildlife sanctuary (24.360 N latitude and 72.792 E longitude) on January 19, 2020 at 07:16 PM IST (Figure 1). Along with the Rusty-spotted cat, 12 other mammalian species were captured during the study period including Indian gerbil, Five striped palm squirrel, Ruddy mongoose, Porcupine, Common palm civet, Small Indian civet, Jackal, Ratel, Sloth bear, Indian wild boar, Common langur, and Blue bull.



Fig. 1: Camera trap images of a rusty-spotted cat.

Due to increasing urbanization and biotic pressure, the biological diversity, especially small to medium-sized mammalian species are losing their habitat. Habitat fragmentation is one of the significant threats to mammals as they required a large home range. Although, some populations are found adapted in disturbed habitats but long-term consequences on their survival are not known. This article is providing an important finding on the range extension of a rusty-spotted cat in India suggesting their presence in the Aravali Mountain range in Gujarat which is the oldest mountain range of India having a presence of rusty-spotted cat recorded from Rajasthan (Singh & Kariyappa 2020) possibly help to study connectively distribution of rusty-spotted cat in entire Aravali Mountain range. Aravali Mountain range has dry-deciduous forest considered prime habitat for this nocturnal cat (Mukherjee et al. 2016) may suggest a

significant population inhabiting this landscape. A long-term camera trapping survey could provide more information about the population, status and distribution of this small cat in the sanctuary. There are very less documents are available on the behavioral ecology of the rusty-spotted cat, revealing the need for further studies to understand the distribution, population ecology, and threats to develop better conservation practices.

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