

# A Ruddy Mongoose *Urva smithii* observed to attempt to prey on an Indian Giant Squirrel *Ratufa indica*, Similipal Tiger Reserve, India

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**Abstract**

Many aspects of Ruddy Mongoose *Urva smithii* ecology, including its diet, are unknown. We observed a predation attempt by a Ruddy Mongoose on an Indian Giant Squirrel *Ratufa indica* in Similipal Tiger Reserve, Odisha, India. The rare observation also highlights the arboreal ability of the Ruddy Mongoose.

*Keywords:* Deccan Peninsula, diet, *Herpestidae*, predation, Similipal

## Introduction

The Ruddy Mongoose *Urva smithii* is a relatively large member of the family *Herpestidae*, weighing 1.8–2.7 kg (Hunter & Barrett 2018). It is distributed across India (up to 28°N), as well as Sri Lanka (Muddapa & Choudhury 2016). It has not yet been reported in north-east India (Choudhury 2013) but has been recorded in Nepal (Subba *et al.* 2014). On account of its wide geographical distribution and assumed large population, the Ruddy Mongoose is listed as of Least Concern on The IUCN Red List of Threatened Species (Muddapa & Choudhury 2016). It is thought to prefer dry forests, thorn scrub and mosaics of dry grasslands and forests; evergreen forests and heavily modified habitats near humans are apparently avoided (Hunter & Barrett 2018, Muddapa & Choudhury 2016). Though the Ruddy Mongoose is widespread, its diet and other aspects of its ecology are poorly known (Muddapa & Choudhury 2016). Here, we present a rare observation of a Ruddy Mongoose predation attempt on an Indian Giant Squirrel *Ratufa indica* in Similipal Tiger Reserve, Odisha, India.

Among the first nine tiger reserves in the country declared in 1973, Similipal Tiger Reserve lies in the Deccan Peninsula Biogeographic Zone and the Chhotanagpur Biotic Province (Rodgers & Panwar 1988). The Reserve is situated between 21°31' and 22°02'N and 86°06' and 86°36'E. It is spread over an area of 2750 km<sup>2</sup> in the Mayurbhanj District of Odisha State.

Similipal Tiger Reserve is a high rainfall area, receiving an average of 2000 mm of precipitation annually; this protected area gives rise to many perennial rivers (Nayak 2014). The two major forest types in Similipal Tiger Reserve are Tropical Moist Deciduous Forest and Tropical Semi-evergreen (see Champion & Seth 1968). The minimum temperature in Similipal Tiger Reserve drops as low as 2°C in winter.

Four species of the mongoose family *Herpestidae* are known from Similipal Tiger Reserve: Small Indian Mongoose *Urva auropunctata*, Indian Grey Mongoose *Urva edwardsii*, Striped-Necked Mongoose *Urva vitticollis* and Ruddy Mongoose (Nayak 2014). The Ruddy Mongoose (Fig. 1) has been recorded in both Tropical Moist Deciduous and Tropical Semi-evergreen forest types by the authors, using camera-traps.



**Fig. 1.** Camera-trap picture of a Ruddy Mongoose *Urva smithii* in Tropical Semi-evergreen forests of Bhanjabasa Range, Similipal Tiger Reserve, Odisha, India, 400 m away from the reported observation.



**Fig. 2.** Camera-trap picture of an Indian Giant Squirrel *Ratufa indica* on the ground, Similipal Tiger Reserve, Odisha, India.

## Observation

On 10 January 2020, at about 14h15, H.S.R. observed a Ruddy Mongoose attempting to predate upon an adult Indian Giant Squirrel in the Tropical Semi-evergreen forest of the Bhanjabasa range of Similipal Tiger Reserve (21°35'13.2"N, 86°21' 06.0"E). This predation event was initially detected by a loud sound that came from a distance of approximately 60 m, repeated every 5-10 seconds.

On moving towards the noise, H.S.R. reached the edge of a stream that was 4 m wide, where, along with the peculiar sound, rustling in the leaf litter could also be heard. Upon closer approach towards the source of the noise, now some 8 m away, H.S.R. saw a Ruddy Mongoose, identified through its long black-tipped tail and the absence of a black stripe on the neck, on the ground, on the other side of the stream, trying to subdue a struggling Indian Giant Squirrel, with their bodies entwined. The Indian Giant Squirrel was continuously emitting what was apparently a distress call and trying to escape from the hold of the Ruddy

Mongoose, which was trying to choke it but could not get a firm grip on the throat of the fighting Squirrel. The Indian Giant Squirrel suddenly broke free of the Ruddy Mongoose and ran towards a tree pole, which was approximately 4.5 m from H.S.R., who was on the other side of the stream. As the Indian Giant Squirrel ascended the tree, the Ruddy Mongoose quickly followed, catching the Squirrel by the rump at approximately 3.5 m above the ground. However, the Mongoose let go of the Squirrel, possibly because it had noticed the presence of H.S.R. at very close range on its right. The Ruddy Mongoose descended from the tree and vanished into the undergrowth and the Indian Giant Squirrel ascended higher up in the canopy and started giving its characteristic alarm call. Two other Indian Giant Squirrels, higher in the canopy, then came to the attention of H.S.R. when they also gave alarm calls.

### Discussion

Indian Giant Squirrels are highly arboreal and spend most of their time in trees foraging and resting (Borges 2013). The water requirements of the Indian Giant Squirrel are reportedly fulfilled through its diet (Borges 2013), though it is possible that the observed Giant Squirrel came to the ground to drink from the stream. Very occasionally, the Indian Giant Squirrel has been observed to descend to the ground to feed on germinating seeds (Borges 1989). In Similipal Tiger Reserve, multiple images of the Indian Giant Squirrel on the ground have been captured during annual camera-trapping exercises conducted by the authors (Fig. 2).

The species's average bodyweight of around 2 kg (Thorington *et al.* 2012) is similar to the Ruddy Mongoose (Mudappa 2013). The observation reported here shows that the Ruddy Mongoose attempts to prey on animals its own size and is an able climber; it has also been reported that Ruddy Mongooses carry their prey into trees (Shekhar 2003).

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