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Mating behavior of *Herpestes auropunctatus* (Hodgson, 1836) (Carnivora: Herpestidae) in National Capital Territory of Delhi

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ABSTRACT: This note reports on an observation, made on the mating behaviour of *Herpestes auropunctatus* in an urban park of the National Capital Territory of Delhi. Though, the species is protected in India, very less work has been carried out on its ecology, specifically on its breeding habits. Documenting such small behavior and responses of the native wild species in the green spaces would be of paramount importance in management and conservation of the urban ecosystems.

Keywords: *Herpestes auropunctatus*, mating behavior, north India, urban ecosystem.

INTRODUCTION

The Small Indian Mongoose *Herpestes auropunctatus* (Hodgson, 1836) (Carnivora: Herpestidae) is a diurnal mammalian species. Native to southern Asia, the species found across the parts of Afghanistan, Bangladesh, Bhutan, India, Iran, Islamic Republic of Iraq, Jordan, Myanmar, Nepal, Oman, Pakistan and Saudi Arabia (Gilchrist *et al.*, 2009). In order to reduce the crop depredation by field rodents and reduce incidence of snake bites in humans, the species was introduced to many islands in the Pacific, the Indian Ocean and the Caribbean Sea; in parts of the West Indies, the Hawaiian Islands, Mauritius, the Fijian islands and Okinawa between the late 19th and early 20th century (Simberloff *et al.*, 2000; Barun *et al.*, 2011; Global Invasive Species Database, 2020). Though, the natural habitat of the common Indian mongoose has been considered as dry forests, scrub and grass lands, they are well adapted to thrive in human-altered habitats. The small Indian mongoose is an opportunistic omnivore and is known to feed on a wide array of food, which includes rats, mice, scorpions, centipedes, wasps and insects (Prater, 1971). Small Indian mongoose is listed as Least Concern in IUCN Red List of Threatened Species, however, is protected under Wildlife (Protection) Act, 1972, Schedule II, Part II, which prohibits all trade of animals listed in it. The species is also covered under the Convention on International Trade in Endangered Species of Wild Fauna and Flora, with a complete ban on its commercial trade. Though, the species is protected in India, very less work has been carried out on its ecology, specifically on its breeding habits. In this note, we report on an observation made on the mating behavior of small Indian mongoose in an urban park in the National Capital Territory of Delhi.

OBSERVATIONS

On 1 November 2020 (11:10 h), while documenting the birds in Siri fort park (28°55′37.86″N, 77°22′77.50″E), we saw two individuals of common Indian mongoose mating in a thick cover of grasses under the trees having open canopy (Fig. 1& 2). After spotting the pair, we silently observed their activities. The individuals were running one behind the other, sometimes lying on the ground, exhibiting mock charging and playful behavior. After a while (~10-12 minutes later), the male mounted over the female and copulated for about 15-20 seconds. Immediately, after the attempt, the male started hovering near the spot at a distance of about one meter, felt like expressing his excitement and victory. After quite a few seconds, the male again approached the female and copulated once again. This continues randomly for about 7-8 times. During the copulation, the female supported the male to mount by lying on the ground, placing her tail on either side of the body. Every course of copulation took about 15-20 seconds. Whole act continued for about 35minutes. Later the female entered into a burrow made on a trunk of a dried tree, having two ended opening. However, the male was wandering around the trunk of the tree. Similar observations were also received in a southern Indian State (Tamil Nadu), wherein Murali *et al.* (2012) have reported the mating of *Herpestes edwardsii*. The information and literature on the mating behavior of species is lacking. Though, mongoose is able to mate throughout the year and any confined breeding season has not been recorded, their breeding has been maximum observed twice or thrice in a year (Sharma, 2016). Siri Fort Park (161874 Square meter) is located near Siri Fort Sport Complex in south Delhi.

The park is a self-sustaining natural ecosystem, which gives a feel of wilderness in the heart of city. Some of the large old trees of the park witness our historical forest management and conservation initiatives undertaken in the past. Plant species in the area where the incident was observed include: *Cassia fistula* (Amaltas), *Ficus religiosa* (Pipal), *Ficus virens* (White Fig), *Ficus benghalensis* (Indian Banyan), *Bombax ceiba* (Semal), *Bauhinia variegata* (Kachnar), *Polyalthia longifolia* (Ashok), *Pithecellobium dulce* (Jungle Jalebi), *Alstonia scholaris* (Blackboard tree), *Mimusops elengi* (Maulsari), *Azadirachta indica* (Neem), *Dalbergia sissoo* (Indian Rosewood) and *Bambusa vulgaris* (Bamboo).

The Sirifort Park is one of the most diverse urban parks in the National Capital Territory of Delhi, which forms an important repository of bird's fauna and is home to several species of threatened herpetofauna and mammals. Documenting such behavior and responses of wild animals, underpinning the species' functional role in maintaining ecosystem and biological diversity, especially in context of changing climatic conditions, would thus be of paramount importance in management of native faunal species in the urban ecosystems.

Fig. 1. An individual of *Herpestes auropunctatus*.

Fig. 2. *Herpestes auropunctatus* mating in Sirifort Park.

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