

Feeding macaques affects forests

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Macaques that were fed fruit were less effective as seed dispersers. Photo: Mohd Arif

Among the most common experiences in the country, when on a pilgrimage or a trip through the forests and hills, is the sight of rhesus macaque opportunistically lined up for a treat or two from passing tourists.

Videos abound of these clever primates stealing picnic snacks or scurrying around for food thrown by visitors. However, a study on primate-man interaction shows that this “benign act” by tourists is increasingly affecting the ecology of the region.

Researchers from the School of Natural Sciences and Engineering, National Institute of Advanced Studies in Bengaluru studied the effects of provisioning food to the rhesus macaques on the forests of Buxa Tiger Reserve (BTR) in West Bengal.

In a previous study at the same reserve, Asmita Sengupta, Kim R. McConkey, and Sindhu Radhakrishna from the institute had observed the effects of seed dispersal due to a troop of rhesus macaques. Nearly 50 per cent of the seeds handled by these primates had germinated.

The study

However, in a study published recently in the peer-reviewed journal *PLOS ONE*, the researchers turned their focus to a group of 64 macaques who received a majority of their food from visitors at a neighbouring highway during the visiting season (October to April), and the forests in the remainder when the park is shut to tourists (May to September).

The results are stark. Fruits accounted for nearly 71 per cent of the diet of the troop of monkeys during the closed seasons, and barely 29 per cent in the seasons when the arrival of tourists provided the group with other sources of food.

At the height of the closure of the park (September), nearly 94 per cent of the diet of the macaques comprised of fruits, while in the height of the tourist season (April), the primates avoided fruits almost completely.

What happens to the forest then? The range of the macaques considerably decreased, from 4.7 km during the 'off' seasons to just 2.5 km during the tourist season, primarily along the roads itself.

This affects the plant dynamics, which rely on long-distance dispersal of their seeds. One-third of the seeds eaten or spat out ended up on the roads, making the macaques "clearly less effective as seed dispersers than macaque troops that were completely dependent on natural resources," note the researchers.