

TANGLED FOOD: FOREST ANIMALS NEAR VILLAGES 'GULP' DOWN PLASTIC

Relevant for: Environment | Topic: Environmental Pollution - Air, Water, Soil & E-waste

Deadly mix: A macaque with a wrapper removed from municipal waste. | Photo Credit: [Special Arrangement](#)

Plastic has found its way into the stomachs of numerous animals — from street-dwelling stray cattle to elephants in forests. More recently, wildlife biologists discovered carry bags and packets of gutka, chips and biscuits in elephant dung in northern Bengal.

However, some animals, including carnivores and ruminants such as deer, run a higher risk of consuming plastics because they are 'gulpers', lacking "dexterous hand or mouthparts, and consequently not able to separate food from plastic and other indigestible matter", write the authors of a study published recently in *Current Science*.

Scientists at Dehradun's Nature Science Initiative observed various animals that visited two garbage dumps along a forest edge in Uttarakhand's Nainital. Over two months in 2015, the team, including the study's lead author Gitanjali Katlam, observed the species and numbers of animals that visited the dumps during the day. At night, activity at the dumps was captured on camera traps.

The dumps drew 32 species (19 birds and 13 mammals), they found.

The team classified the animals based on their feeding strategies to see if the differences in this behaviour put certain animals more at risk of consuming plastic. 'Peckers' included birds that could pull out food from other inedible waste, 'handlers' were dexterous-fingered animals such as rhesus macaques which could separate food material, and 'gulpers' were unable to sift out plastic. To see how these animals processed unsegregated garbage at one of the dumps, the team tied up a measured portion of the waste in a bag (mimicking one of the ways that garbage is disposed at the site) and monitored open patches of waste (where they mixed similar amounts of food and plastic waste available at the dump). In half of the instances, animals tore open bags with waste while trying to feed. 'Handlers' and 'peckers' encountered plastic more than twice as frequently as 'gulpers'. But the 'gulpers' — sambar deer and carnivores such as red foxes, which could not extract food efficiently from bags — spent more time foraging at dumps and were more likely to tear open polythene bags.

"This puts 'gulpers' more at risk of consuming plastic," said Ms. Katlam. Elephants (though not among mammals observed in the study) are 'gulpers,' as they cannot sift through unsegregated waste well, said Sreedhar Vijayakrishnan, a researcher at the Nature Conservation Foundation.

Garbage dumps offer easy access to food and elephants are attracted to them. Closer home, elephants have been known to frequent the municipality dump yard in Tamil Nadu's Gudalur to feast on vegetable waste, unwittingly consuming plastic as well.

But apart from ingesting garbage, leaching of wastes from dumps is yet another problem, said Ms. Katlam.

"Most animals at the dump sites I studied came in contact with the leachate, which could affect their health in the long-term," she said.

According to her, one of the most crucial management actions that can be taken is to segregate waste at the source. This is especially crucial in areas near natural habitats and reserves.

“The local forest department could help increase awareness about the problems that unsegregated waste create,” she added.

Researcher Aviad Scheinin says the hundreds of sharks flocking exclusively to the Hadera power plant every winter qualifies as “a legitimate and rare phenomenon.”

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