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## **Food preferences by Desert fox (*Vulpes vulpes pusilla*) in the Thar desert of Rajasthan**

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### **Abstract**

The Thar desert of Rajasthan having a fragile ecosystem due to its harsh climatic conditions and limited biological resources. So, like mostly other carnivores, Desert fox, *Vulpes vulpes pusilla* also having adaptations towards omnivorous diet. Desert fox feeds on pulp and seeds of Ber (*Ziziphus nummularia*), Kachar (*Cucumis callosus*) and Matira (*Citrullus lanatus*). Arthropods (insects, spiders and scorpions), Reptiles (small lizards and snakes), Birds (mainly ground birds), Mammals (rodents, hedgehogs, desert hares and neonates of sheep, goat and wild mammals) and during scarcity of food on carcasses of both domestic and wild animals and dung of cattle too. In the study it was found that Desert fox also prefers to feed on Groundnut (*Arachis hypogaea*), Dhalu (ripen fruits of *Capparis decidua*) and Umbilical cord (jer), which is shaded off by mammals during the time of delivery.

Key words: Desert fox, Thar desert, omnivorous diet, food preferences.

### **Introduction**

The Red fox is distributed in Eurasia and northern America but the sub-species *Vulpes v. pusilla*, the desert fox is found from Iraq to the Thar desert. (Prakash, 1994). Like all the hot deserts, the Indian Thar desert is also characterized by low rainfall, arid land and expanse of sand, salt or rock, largely barren except for very sparse or seasonal vegetation. Hence, the Thar is considered to be a fragile ecosystem mainly because of harsh climate and limited biological resources. (Bohra, 2009). When there is a serious shortage of food availability, carnivores begin to take insects which are comparatively easily available, they also take carcasses of wild and domesticated animals. Taking of fruits of *Zizyphus* and *Cucurbita* by carnivores e.g. the wolf, jackal, fox and mongoose etc. is also notable adaptation towards omnivorism; these carnivores, have been observed taking dung of cattle too. (Sharma, 1978). There food

is much varied, from small vertebrates and invertebrates to vegetation. They feed on field rodents, hare, lizards, a variety of insects, scorpions, large spiders, seeds and fruits of watermelon, ber (*Ziziphus nummularia*). (Prakash,1994).

### **Material and methods**

The present study was carried out in Barmer district of the western Rajasthan by intensive survey. The study was carried out in all three regions viz. sandy, rocky and plain habitats. Food preferences by the desert fox was detected through scat analysis, interviewing villagers and also through questionnaire.

### **Results and Discussion**

Through Scat-analysis, interviewing villagers and also through questionnaire it was found that Desert fox prefers to feed on Ber (*Ziziphus nummularia*), Kachar (*Cucumis callosus*) and Matira (*Citrullus lanatus*), Groundnut (*Arachis hypogaea*), Dhalu (ripen fruits of *Capparis decidua*) as vegetarian diet and Arthropods (insects, spiders and scorpions), Reptiles (small lizards and snakes), Birds (mainly ground birds), Mammals (rodents, hedgehogs, desert hares and neonates of sheep, goat and wild mammals) umbilical cord as carnivores diet. and during famine period it turns saprophagus, nomadism is also adapted.



Plate-1. Desert fox *Vulpes vulpes pusilla* searching food in its habitat.



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