

An observation of Indian Fox feeding on Rat Snake and Hedgehog in a degraded habitat of Gujarat



The photographic evidence of Indian Fox feeding on Rat Snake and Indian Hedgehog.

Indian Fox *Vulpes bengalensis* a mesocarnivore of the Indian subcontinent is distributed in various habitats of India except the Western Ghats (Desai & Dharaiya 2022). The Indian Fox prefers semi-arid landscape and short grassland or scrub, thorn thickets or dry deciduous forests to make a den with multiple openings to ensure their protection (Desai et al. 2021). The species is listed as Schedule II under the Indian Wildlife Protection Act (1972) and classified as Least Concern (LC) according to the IUCN Red List assessment (Jhala 2016). Being an omnivore, their diet mainly includes insects, small rodents, monitor

lizards, ground nesting birds, their eggs and some selected fruits such as *Ziziphus* sp., *Mangifera indica*, *Syzygium cumini*, *Diospyros montana* (Manakadan & Rahmani 2000; Desai & Dharaiya 2022). Based on the field observation, Johnsingh (1978) reported, foxes feeding on the freshly voided pellets of sheep. It is also found that the diet of Indian Fox varies depending upon the availability of food within its habitat that make them opportunistic feeders (Vyas et al. 2016). In the present note we report the feeding on Rat Snake and Indian Hedgehog by Indian Fox based on field observations.

The northern Gujarat region covers 16% of the total semi-arid forest of Gujarat that administratively classified into five districts (Patan, Mehsana, Sabarkantha, Aravalli, and Banaskantha) (Gajera & Dharaiya 2011). The area has semi-arid climate that falls into biogeographic zone 4 and can be further classified into Ravine thorn forest: 6B/C2 (Champion & Seth 1968). The area almost dries up during the hot summer, whereas the monsoon is short with an annual rainfall of 600–750 mm.

During our field survey on 25 March 2021 in Vagadipolo, one of the degraded habitats of Mehsana District (23.937 N; 72.526 E, forest of Vithoda Village), we found an adult female fox with two pups wandering around the bushes of Ziziphus plant. After careful examination by binocular (Olympus, 10x50), we observed that the female fox was chasing a Rat Snake and killed it by her strong bites and sharp claws. It was noticed that her pups were continuously following the mother like they were learning how to capture the prey.

Just after two days (27 March 2021), we found the skin of a Hedgehog at one of the openings of the fox den. After careful examination of the exoskeleton, we found that all the visceral organs and muscular parts were consumed by the fox. These two observations reveal the opportunistic feeding behaviour and wide range of its diet including a reptile as well as a small mammal like a hedgehog. A similar observation of Indian Fox feeding on venomous Saw-scaled Viper and hedgehog in Kutch by Vyas et al. (2016) and Home & Jhala (2009), respectively,

has been reported previously. Both our observations were recorded in the month of March which is the breeding season of Indian Fox (Manakadan & Rahmani 2000), when a fox possibly requires to feeds on protein rich food.

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