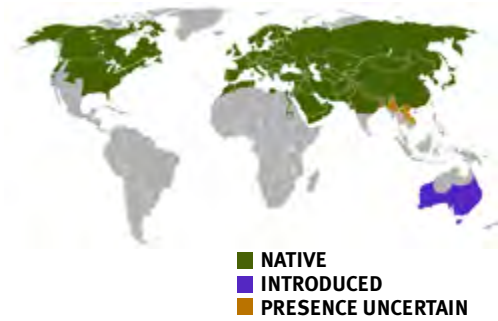


# FOX & the desert storm



The Indian desert fox is a subspecies of the Red fox, the widest spread wild mammal in the world. Despite this, there is very little known about this particular neglected subspecies. Let us take a closer peek into the life and struggles of this hardy animal.

TEXT: DIVYA AND DHARMENDRA KHANDAL

It was monsoon time in the desert; the meadow of Tal Chapar had turned green and a fox was on the hunt. The fox was hiding itself behind a few inches of high grass, its ears pointed towards the target in front. Creeping forward slowly, it watched its prey intently; the target – a Spiny-tailed lizard. These odd-looking, chiefly herbivorous lizards live in a colony and do not stray far away usually, so that they can swiftly enter the

burrow when they perceive danger or are disturbed. These lizards are, thus, always alert, because they are vulnerable in the exposed surroundings of the desert landscape and it is a challenging task for a predator to prey upon these lizards. The fox charged at full pace and missed capturing the target; in the same attempt, it missed three lizards, but was successful in getting hold of the fourth one. These four attacks were made in the same go, helping the fox save up some valuable energy. It was interesting

The Indian desert fox is a subspecies of the widespread Red fox



The Indian desert fox has a distinctive breeding and non breeding pelage



to note that the fox had locked target on not just one but many lizard, which were within a distance of 10-12 feet of each other. Usually predators lock target on a single prey, but these foxes have many such tricks of survival up their sleeves in such tough terrains.

**MAKING THE FOXY DISTINCTION**

The Indian desert fox is one of the subspecies of the Red fox, which is prevalent in Europe. Now this Indian desert fox has been christened with a new common name, the White-footed fox. There are 45 subspecies of the Red fox on the planet and they hold ground in as many as 83 countries, giving it the status of the most widely distributed wild mammal in the world. For a very

long time, the Grey wolf was regarded as the most widely distributed mammal, but ever since its number has declined due to our intrusion, this crown has gone to the Red fox. No wonder our folklores have acknowledged them as *chatur lomdi* (clever fox). Across the globe, the survival instinct of this fox has fascinated researchers and wildlife lovers alike, but unfortunately, not much scientific work has been done in our country.

The Red fox can be found all across the Earth's northern hemisphere. Out of its many subspecies, three are found in India – the Indian desert fox (*Vulpes vulpes pusila*), the Kashmir fox (*V. v. griffithi*) and the Tibetan fox (*V. v. monatna*). The distribution of Indian desert fox is limited to India, Pakistan, Iran and Iraq.

Apart from the three red foxes, we also have two other foxes, i.e., the Indian fox (*Vulpes bengalensis*) and Tibetan sand fox (*Vulpes ferrilata*). The Indian desert fox is found mainly in the Thar Desert of Rajasthan and Gujarat. The fox is, however, not distributed in the entire of these two states. It is found in the 11 western desert districts of Rajasthan and also along the river banks that flow in from the west towards the east, such as Banas, Morel, etc. Because of the Banas River, the Indian desert fox also comes along towards the extreme southeastern district of Sawai Madhopur. The Banas River takes the fox towards Chambal and therefore, it is sometimes found in the Chambal ravines, too. The fox is also found along Dholpur-Chambal ravines,

DHRIITIMAN MUKHERJEE



Desert foxes build their dens in sand dunes or undulating areas



Of the 25 or so members belonging to the subfamily of foxes, 12 belong to the genus Vulpes. These are called true foxes.



Pups stay with their mothers for 8-9 months

NIRAV BHATT

which is its extreme eastern distribution record (sighted and photographed by wildlife writer and filmmaker Janki Lenin). In Gujarat, the Indian desert fox is found in the Little Rann of Kutch & the Greater Rann of Kutch. Besides, reports of Indian desert foxes are also found in the Thar Desert parts of Punjab and Haryana states, although bringing this land under agricultural use has made the fox very rare in these parts now. Reports from ravines of Yamuna in Uttar Pradesh and ravines of Chambal in Madhya Pradesh need to be confirmed.

The Indian desert fox shares the same ecosystem with Indian fox in many of these places, though they have some level of distinctions. The Indian fox prefers to den near agricultural fields that touch a flat open grassland, while the Indian desert fox favours sand dunes or undulating surface areas. Indian foxes make dens beneath shrubs so that the walls strengthen with the root stock of the shrub. Such dens are also cooler in



Outside the breeding season, Indian desert foxes are solitary animals

NIRAV BHATT



The Red fox is the largest of the true foxes.



DHRITIMAN MUKHERJEE



On an average, three pups are born in each litter. But upto five pups in a single litter have been recorded



The Red fox has been introduced to Australia by humans, where it has caused considerable damage to the local wildlife.



Across the globe, Red foxes are found in diverse habitats, such as forests, grasslands, mountains, deserts and even in urban landscapes.





NIRAV BHATT

Indian desert foxes use their keen sense of hearing to locate burried insects and dig them with their front legs

comparison to dens in open areas. All of the openings in an Indian fox' dens lie on the ground. On the other hand, Indian desert foxes prefer to make dens with a single vertical opening in lower parts of dunes. More number of openings can cause the den to collapse in the loose sand. In areas like Kutch, where the

dunes are absent, they make dens on the ground surface and also have more den openings in such cases. An observation made by Yogendra Shah, a wildlife enthusiast from Gujarat, shed more light on this aspect. He observed that two to three openings for a den are quite common in the Kutch area. Kutch-based

wildlife researcher Chetan Misher says that dens in the area usually collapse due to waterlogging in Kutch. These collapsed dens reveal that the Indian desert fox dens are longer and the den complex is bigger compared to the Indian foxes' den complex.

In Tal Chapar Wildlife Sanctuary, forest



Red fox subspecies are divided into two groups - one containing the larger, northern and brightly-coloured subspecies and the other containing the primitive, southern, desert subspecies.



DHRITIMAN MUKHERJEE



DHRITIMAN MUKHERJEE



The English name Desert fox could refer to two species - *Vulpes vulpes pusilla*, a subspecies of the Red fox or Fennec fox (*Vulpes zerda*), found in the Saharan desert.





BHARAT HEGDE

Although Indian desert foxes do not have many natural enemies, rapid development in the desert area is harming their population



NIRAV BHATT

officer Surat Singh Poonia observed that Indian fox are now increasing in the sanctuary area— pushing desert foxes out who are now dominant in the area outside the sanctuary. In recent times, the sanctuary grassland has improved a lot with better management practices, as a result of which there are increased number of insects in the area too. Possibly the improved habitat is more suitable to the Indian fox, which is why they have pushed the Indian desert foxes out.

Characteristically, the Indian desert fox can be identified with a white tail-tip, while the Indian fox has a black tail-tip. Indian desert foxes are taller and leaner, while Indian foxes are smaller and stout. Desert foxes have perfectly adapted to harsh climatic conditions where temperatures reach up to 50 degree Celsius and average rainfall is less than 60 mm. They depend on small animals such as rodents and Indian hare for food, but also feed on desert vegetation, such as Cucurbitaceae plants and berries for survival. They often raid desert crops like melons, fruits and berries, too. During the rains, when grasshoppers are attracted to vehicle lights on the roads, these foxes are commonly seen on desert roads to gorge on them. However, more often than not, they themselves end up as victims of road accidents. The most popular folklore in desert areas is of how an Indian desert fox urinates on a hedgehog to open its curled body, and once open, they start biting on the soft spineless ventral parts. During our few days of observation on the feeding habits of the Indian desert fox and Indian fox, we found out that the Indian desert fox is more dependent on plant material, while the Indian fox feeds mainly on insects, especially termites. The Indian jird is a rodent that lives in colonies in the deserts, much like the Spiny-tailed lizard. The jird makes its colonies in the sand dunes and the landscape looks

like a honey comb, with hundreds of jird burrows scattered all over. The fox takes the opportunity to feed on these jirds only when it feels that a jird is stuck in a burrow, which is distant and superficial. With one leg up and ready to dig, the fox keeps moving its head, one ear at a time, to detect the faintest of sounds from the rodent. It then starts digging with both legs and when it finds the jird, randomly and rapidly starts biting it, catching the rodent from its tail end to avoid its bite. A very interesting observation recorded by Nirav Bhatt, a wildlife enthusiast, is when he saw 24 or more Indian desert foxes feeding on peanuts mixed in cattle feed in a government fodder depot in Khuri village of Jaisalmer. This mass congregation was recorded in the month of February and according to Nirav, all of them were adults.

### MATING MOVES


Indian desert foxes begin courtship in November, but this period varies as per the region and climatic conditions; courtship of these foxes is even reported in the last week of January. The coat colour of the Indian desert fox changes during the courtship time. Their ventral and neck parts turn blackish, in contrast to their legs becoming whiter. The tear mark also becomes darker, while the upper body becomes more brownish and their coat, furrier. Frequent vocalisation can be heard during the mating season. The gestation period of the Indian Desert fox is 50-52 days. Usually there are up to three pups in a litter, but Yogendra Shah has reported the presence of even five pups. The pups are very playful and the mother keeps them with her for 8-9 months, and later they get separated. Post this period, Indian desert foxes are solitary animals.

### TROUBLE IN THE FOXES DEN?

In the Wildlife Protection Act (1972), the Indian desert fox is a Schedule I species;

the protection to be offered equivalent to that afforded to the tiger. Some experts feel that this is too high a protection level for this species and we should rethink and re-categorise it. The argument might be perilous for this particular subspecies of the Red fox, because Indian desert habitats of the animal are rapidly changing due to high human density and urbanisation. Also, they are not used to the urban set-up, like the subspecies of the Red fox in Europe, which are used to living in gardens of houses near towns and other urban areas.

Indian desert foxes often damage a rare bird's eggs in the desert, especially that of the Great Indian Bustard. But because of the high degree of protection status, forest managers cannot control the population of foxes. Senior forest officer, Gobind Sagar Bharadwaj, believes that the bustard can protect its eggs from the Indian desert foxes as it is a big bird and can fight. In winter months, when the fox has a rich coat, the animal is poached by desert nomads for trading. Besides, it is also killed for its meat. The animal is localised and it is easy to track its den, which makes it vulnerable to such attacks. However, there is another big threat for the fox – urbanisation and its contact with stray dogs that carry many diseases such as canine distemper. But then, this is a widespread problem with many wild species living around urban settlements.

It is the desert fox which is one of the main mammalian predators of the Indian desert. The wolves were killed widely and now reside in restricted pockets only; jackals have decreased in numbers, and caracals are very elusive and already low in number. In spite of losing ground due to urbanisation and habitat loss, this mighty desert fox has managed to exist only due to its survival tricks and great adaptation. 



On account of its large distribution range and stable population trend, IUCN classifies the Red fox as a species of Least Concern.



Although the Red fox is the most widely distributed mammalian species and also one of the more widely studied, no attempts have yet been made to estimate the global population of the animal.