

Fast-growing linear infrastructure shrinking India's forests into islands

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DECODING WILD LIFE

TIGER

- It is tough to identify a pregnant tiger because the large chest bumps show until the last 12 days of pregnancy.
- Each litter is an average of 2 to 4 cubs.
- Tigress breeds once in 18 to 20 months.
- Tigress usually does not breed again until cub is independent.

SEXUAL MATURITY
3 to 4 years

REPRODUCTION PERIOD
92-112, 148-168, 110-120, 190-105

ELEPHANT

- It weighs about 2.5 to 3.5 tons and weighs nearly 100kg.
- Adult weighs up to 6000kg.
- Sheets about 12 feet tall.
- Trunk weighs about 100kg.
- Can drink water by sucking up to 10 litres in mouth in one go.
- Can live up to 60 years in captivity, 40 in the wild.
- Can swim about 100kg food, 2000m with a step.
- Can hear calls by other elephants up to 10km.

SEXUAL MATURITY
10 to 14 years

LION

- Lioness breeds once in two years.
- Litter size 1 to 4 cubs.
- Animals are blind, have thick coat with thick spots that usually disappear with maturity.
- Start participating with us around 12 months of age.
- Lions live in groups, also called as prides. A pride may consist of 4 to 17 members.

SEXUAL MATURITY
1 to 4 years

LEOPARD

- Leopards give birth to 2 to 4 cubs.
- Cubs remain with mother for 18-24 months.
- Average life span 12-17 years.
- Presumably more because of their skills in forests of 1000.
- Automatic response are also known as black panthers.

SEXUAL MATURITY
2 to 3 years

The 3,000km marathon walk of the famous Indian tiger Walker came to a halt at Dnyanganga Wildlife Sanctuary (DWS) with a billion-dollar question — what next for him? How will Walker's progeny connect with the rest of the world? Walker had entered an island-like forest after walking for nine months.

Walker's presence in a disconnected forest triggered a question about forests converting into islands due to increasing linear infrastructures. Walker had reached the DWS in February 2020, after starting the journey from Yavatmal in Maharashtra and traversing through the forests of Telangana, before re-entering Maharashtra that has 351 big cats.

Conservationists say connectivity between forests is essential for maintaining the 'genetic plurality' of wildlife. But the age-old migration paths of wildlife are being challenged. Any infrastructure work in forests leads to wildlife-vehicle collisions, habitat loss and fragmentation, human-wildlife conflict, reduced genetic connectivity and increased poaching. According to a global study by scientists from different countries, including the UK and France, tiger is among the apex predator species that is endangered by roads and their impact.

DECODING WILD LIFE

Do you know how many months young ones of wild animals remain in the womb? How long they stay with their parents?

TIGER

- > It is tough to identify a pregnant tigress because the bulge doesn't begin to show until the last 10-12 days of pregnancy
- > Each litter on an average is of 2 to 5 cubs
- > Tigress breeds once in 18 to 24 months
- > Tigress usually does not breed again until cubs are independent

ELEPHANT

- > Newborn is about 3.3 feet tall and weighs nearly 100kg
- > Adult weighs up to 8,000kg
- > Stands 10 to 13 feet tall
- > Trunk weighs about 130kg

- > Can drink water by sucking up to 10 litres in trunk in one go
- > Can live up to 80 years (in captivity), 60 in the wild
- > Consumes about 100kg food, 100 litres water a day
- > Can hear calls by other elephants up to 4km

- > Lions once in 1
- > Litter
- > Newb have thi dark spec disappe
- > Start in kills a months
- > Lions also ca A prid of 4 to

SEXUAL MATURITY
3 to 5 years

GESTATION PERIOD 93-112 DAYS

SEXUAL MATURITY
10 to 14 years

548-669 DAYS (LONGEST OF ANY MAMMAL)

SEXUAL MATURITY
3 to 4 years

110-120 DAYS

SEXUAL MATURITY
3 to 4 years

90-105 DAYS

The study titled 'Severe conservation risks of roads on apex predators', published in Nature journal (in 2022), found out that 'all' the 36 apex predator species are at risk. "The sloth bear suffers the highest risk of all apex predators, followed by tiger and dhole," it read. India alone has a 5.2 million km of road network while 30 million passengers travel on at least 12,000 trains everyday. India is now home to 3,167 tigers in 53 reserves and despite an increasing infrastructure push, success stories in tiger conservation are being weaved constantly.

Central India Landscape (CIL) also includes Maharashtra and Madhya Pradesh that boasts of having the largest population of tigers in the world, with almost 1,100 big cats, according to India's latest 'Status of Tiger Report'.

The mitigation measures implemented in CIL have given a ray of hope to wildlife biologists, scientists, engineers and architects. Dr Bilal Habib from Wildlife Institute of India, Dehradun, who played key role in its planning, says, "Nine animal underpasses ranging from 50 metre to 1,500 metre on Pench-Kanha (NH44) corridor, which passes through the National Highway 44 in Maharashtra and Madhya Pradesh, saw wildlife habituating itself to using them. In 2019, nearly 5,675 animals used underpasses and the number rose to 19,309 in 2021."

In Madhya Pradesh, which has 526 big cats, initiatives like having sound barriers, underpasses and overpasses on all major road and rail projects are bearing positive results. One of the major problems for tigers and leopards in MP is Budni-Midghat track. Passing through Ratapani sanctuary, it has witnessed several animal deaths, earning it the infamous moniker of the 'suicide point of the majestic'.

Asia's longest wildlife corridor is under-construction Delhi-Dehradun Greenfield Expressway which will conclude in Uttarakhand, having 442 tigers. The corridor would help tigers in Rajaji Tiger Reserve to spread across Himachal Pradesh, UP and Haryana. The 12km road from Ganeshpur to Dehradun would have six animal underpasses, two elephant underpasses, two big bridges and 13 small bridges.

"We are working to restore the population on the western side of Rajaji. The Chilla-Motichur corridor has partly improved. One of our tigers is roaming in HP and beyond," says Samir Sinha, chief wildlife warden of Uttarakhand forest department.

BK Singh, former head of forest force of Karnataka, which has the highest number of tigers (524) in India, and member of the NTCA evaluation committee, says, "If the corridors are degraded, there will be inbreeding of tigers. If tiger reserves are without adequate buffer and corridor connectivity, source populations will be left on islands of tiger reserves and there will be no interaction between them; wild animals and tigers will suffer from diseases, eventually jeopardizing the conservation efforts. "

Green infrastructure is the way to reduce mishaps, provided the pace of executing orders that are dispensed by NTCA, NGT and Supreme Court is increased. Former member of Maharashtra State Wildlife Board, Bandu Dhotre, says, "While the expansion of tiger habitats is a positive development, there is a need to pay attention and act quickly in conflict zones to reverse the trend of extinction of small populations and avoid negative human-tiger interactions. "

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