Project Cheetah and Radio Collar Infections

For Prelims: Cheetah Reintroduction Plan, Kuno-Palpur National Park (KNP), Gandhi Sagar Wildlife Sanctuary

For Mains: Challenges Associated with the Translocation of Cheetah in India

Source: IE

Why in News?

Recently, the use of **radio collars** in the cheetah reintroduction project **in** Kuno Wildlife Sanctuary, Madhya Pradesh, India, has resulted in unexpected setbacks, with cheetahs experiencing neck wounds and septicaemia, an infection of the blood by bacteria.

- This situation has raised concerns among experts familiar with collaring practices in India and Africa.

What are Radio Collars?

- **About:**
  - Radio collars are used to **track and monitor animals in the wild.**
  - They consist of a **collar with a small radio transmitter.**
  - Collars provide **data on animal behavior, migration, and population dynamics.**
    - They can be combined with GPS or accelerometers for additional information.
  - Collars are designed to be **lightweight and comfortable for animals.**
  - Potential risks and challenges, such as injuries or infections, must be managed.
- **Challenges Associated with Radio Collars:**
  - **Festering Neck Wounds and Septicaemia:**
    - **Two cheetahs in Kuno died due to suspected septicaemia** caused by festering neck wounds from radio collars.
      - Additional cheetahs, including Oban, Elton, and Freddie, have exhibited similar injuries.
    - These setbacks have raised concerns about the use of radio collars in the cheetah reintroduction project.
  - **Problems with Long-term Collar Usage:**
    - Carrying something on the body for an extended period can have downsides, as seen in studies on watch wearers and pet dogs.
    - **Staphylococcus aureus bacteria** presence was higher on watch wearers' wrists, which can lead to sepsis or death.
    - Dogs wearing collars can develop **acute moist dermatitis or hot spots, aggravated by ticks or fleas.**
    - Tight-fitting collars can cause **pressure necrosis and rapid hair loss around the neck,** similar to bedsores.
  - **Weight Considerations:**

        - Globally, the general guideline is to keep **radio collar weight below 3% of the animal's body weight.**
        - Modern collars for wild cats typically weigh **around 400g**, which is suitable for cheetahs weighing between 20 kg and 60 kg.
            - However, fitting collars on cheetahs can be challenging due to their **small necks, especially for younger animals.**
    - **Vulnerability to Collar-Induced Injuries:**
        - Cheetahs' winter coat, **which is thicker and furrier than that of tigers or leopards,** can retain more water and take longer to dry.
        - In a 2020 study, the collar weight rule was criticized for not considering **animal athleticism**, revealing that **collar forces can surpass the collar's weight during movement.**
            - For instance, the forces exerted by collars were found to be generally **equivalent to up to five times the collar's weight for a lion and a staggering 18 times for a cheetah.**
        - African Cheetahs may be **more susceptible to local pathogens compared to Indian tigers and leopards,** potentially due to differences in immunity and environmental conditions.
    - **Lack of Adaptation to Monsoon Conditions:**
        - Secondary bacterial infections under collars are not commonly reported in **African conditions due to drier skin between rain spells.**
        - In historical times, **cheetahs in India did not wear collars during the monsoon and may have adapted differently to the local climate.**
    - **Implications for the Reintroduction Project:**
        - Tracking, immobilizing, and assessing cheetahs for neck injuries poses challenges and potential delays.
        - The absence of a clear roadmap for the next monsoon raises questions about re-collaring cheetahs and their well-being.

What is Cheetah Reintroduction Project in India?

- **About:**
    - The Cheetah Reintroduction Project in India formally commenced on **September 17, 2022,** with the objective of restoring the **population of cheetahs**, which were declared **extinct in the country in 1952.**
    - The project involves the translocation of cheetahs from South Africa and Namibia to Kuno National Park in Madhya Pradesh.
- **Reintroduction Process:**
    - **20 radio-collared cheetahs** were translocated from **South Africa (12 cheetahs) and Namibia (8 cheetahs) to Kuno National Park.**
        - In March 2023, India announced the **birth of 4 cubs** to one of the eight cheetahs that were relocated from Namibia.
    - The cheetahs underwent a **quarantine period** and were then shifted to larger acclimatization enclosures.
    - Currently, there are **11 cheetahs in free-ranging condition and 5 animals, including a cub,** in quarantine enclosures.
    - Dedicated monitoring teams ensure round-the-clock monitoring of the free-ranging cheetahs.
- **Mortalities:**
    - 8 cheetahs have died in Kuno National Park due to natural causes.
    - Preliminary analysis by the **National Tiger Conservation Authority (NTCA)** indicates that the **deaths were natural and not related to other factors like radio collars.**
- **Project Implementation and Challenges:**
    - The project is implemented by the NTCA in collaboration with the **Madhya Pradesh Forest Department,** Wildlife Institute of India (WII)**,** and cheetah experts from Namibia and South Africa.
    - Challenges in the project include monitoring, protection, and management of the reintroduced cheetah population.
- **Conservation Efforts and Measures:**

- Consultation with international cheetah experts and veterinary doctors from South Africa and Namibia is ongoing to investigate the cause of cheetah deaths.
- Independent national experts are reviewing monitoring protocols, protection status, managerial inputs, veterinary facilities, training, and capacity building.
- Efforts are underway to establish a **Cheetah Research Center**, expand forest areas under **Kuno National Park's administrative control**, provide additional frontline staff, establish a Cheetah Protection Force, and create a second home for cheetahs in **Gandhi Sagar Wildlife Sanctuary.**
- The government is committed to conserving the reintroduced cheetah population and ensuring its long-term success.

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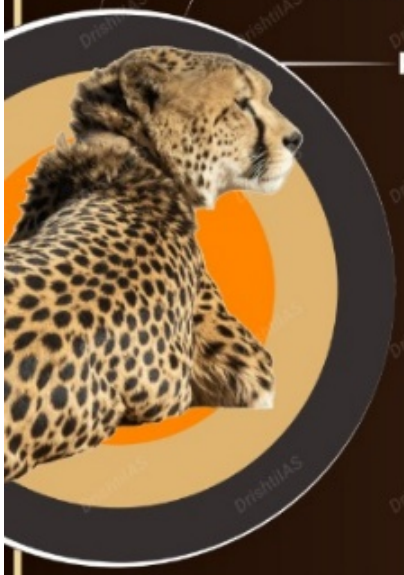
Cheetah

Common Name – Cheetah

Scientific Name – *Acinonyx jubatus*
- *Acinonyx jubatus jubatus (African Cheetah)*
- *Acinonyx jubatus venaticus (Asiatic Cheetah)*



Reintroduction of Cheetah to India:

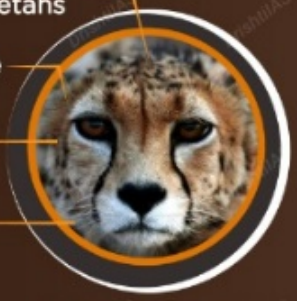
- The **"Action Plan for Introduction of Cheetah in India"** was released by MoEF&CC at the **19th meeting of the National Tiger Conservation Authority** (NTCA) (January 2022).
  - Such a plan was first proposed in 2009.
- In September 2022, **eight cheetahs landed in India from Namibia.**
  - The 8 cheetahs have been relocated to the **Kuno-Palpur National Park, Madhya Pradesh.**
  - The relocation of cheetahs to India from Namibia is the **world's first inter- continental large wild carnivore translocation project.**

Slightly brownish and golden **skin; thicker than the Asiatic Cheetahs**

More prominent spots and lines on the face

Found all over the African continent

IUCN Red List Status – Vulnerable



African Cheetah

Slightly smaller than the African ones.

Pale yellowish fawn coloured skin – **more fur under body, belly specifically.**

Found only in Iran; the country claims there are only 12 of them left. **Year 1952** – Asiatic Cheetah officially **declared extinct from India.**

IUCN Red List Status – Critically Endangered

Asiatic Cheetah

Drishti IAS

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims

Q. Consider the following: (2012)

1. Black-necked crane
2. Cheetah
3. Flying squirrel
4. Snow leopard

Which of the above are naturally found in India?

(a) 1, 2 and 3 only
(b) 1, 3 and 4 only
(c) 2 and 4 only
(d) 1, 2, 3 and 4

Ans: (b)