



Marmots

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Why in News

Recently, reports of an outbreak of **bubonic plague** in Mongolia, China and far east Russia have emerged, caused mainly by **Tarbagan Marmot** (a **species of Marmot**).

It has been compared to the **Covid-19 pandemic** which was apparently spread by the consumption of **bat** meat.



Key Points

- **General Description:**

- Marmot (**genus *Marmota***) belongs to the **squirrel family (*Sciuridae*)** within the **order Rodentia**.
- These have **almost 15 species** and the closest living relatives of marmots are **ground squirrels and prairie dogs**.
 - Prairie dogs are **herbivorous burrowing rodents native** to the grasslands of **North America**.
- Marmots are well suited for life in **cold environments** and have **small fur-covered ears, short, stocky legs, and strong claws** for digging.
- Marmots are **diurnal** (active during the day) and are almost **entirely vegetarian**.

- **Habitat:**
 - They are found primarily in the continents of **Europe, Asia and North America.**
 - **South Asia or the Indian Subcontinent** is home to the **Himalayan Marmot and the Long-tailed Marmot** (both are **Least Concerned** in the **IUCN Red List**).
 - **Tarbagan or Mongolian Marmot (Endangered)** is found in Mongolia, China and parts of Russia.
- **Importance:**
 - **While digging burrows, marmots increase aeration in the soil which increases nutrient circulation and helps different plants to propagate.**
 - Marmots also play a very important role in **Himalayan ecology**. They are **prey species for predators** including the **snow leopard**, red fox, hawks, eagles, etc.
- **Threats:**
 - Marmots are **hunted for their meat in China and Mongolia.**
High altitude regions lack proteins. Pastoral nomads usually eat these when they do not have any other means of sustenance.
 - Marmots are **also hunted for their fur.**

Plague

- Plague is caused by the **bacteria *Yersinia pestis*** usually found in **small mammals and their fleas.**
It is transmitted between animals and humans by the **bite of infected fleas, direct contact** with infected tissues and **inhalation of infected respiratory droplets.**
- It is one of the examples of **bacterial zoonoses.**
- There are **two main clinical forms** of plague infection:
 - **Bubonic plague** is the most common form and is characterized by painful **swollen lymph nodes** or 'buboes'.
 - Highly infectious bubonic plague killed about 50 million people across **Africa, Asia and Europe in the 14th century.**
 - Over 3,200 people were infected worldwide between 2000-15, resulting in 584 deaths.
 - The bacterial disease was named the **Black Death** after the dark swellings or buboes that victims suffered.
 - **Pneumonic plague** is a form of severe lung infection.
- **Antibiotic treatment is effective** against plague bacteria, so **early diagnosis and early treatment can save** lives. However, **if left untreated, the fever can kill** a victim in a very short time.

Source: DTE