Marmots and Plague

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.

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.

**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 **inhilation 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.