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 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.