

# **Woolly Mammoth**

**Prelims:** Current events of national and international importance

### Why in News?

The world's oldest RNA was found in a 40,000-year-old woolly mammoth recently.

- Yuka Mammoth In 2010, the mummy of a juvenile mammoth was discovered on Siberia's Arctic coast.
- The animal, nicknamed "Yuka" after the nearby village of Yukagir, had been frozen for nearly 40,000 years.
- The permafrost preserved its carcass in exquisite detail, with patches of reddish fur, a twisted trunk, and even its brain intact.
- Recent Scientific Interest -Yuka's tissues preserve traces of <u>ribonucleic acid (RNA)</u>, genetic molecules that are crucial to life but usually deteriorate shortly after death.
- These bits of genetic material have helped construct the species' genome, revealing how closely mammoths are related to living elephants.
- Scientists are exploring "de-extinction" using gene-editing (e.g., CRISPR) to introduce mammoth traits into Asian elephants

## **Woolly Mammoth**

- Scientific Name Mammuthus primigenius
- The woolly mammoth was a large, elephant-like mammal that lived during the Ice Age (Pleistocene epoch) and went extinct about 4,000 years ago.
- Distribution Lived across Northern Eurasia and North America.
- **Habitat** Adapted to extremely cold, tundra-like environments.
- Physical Features
  - $_{\circ}$  Thick shaggy fur and dense undercoat
  - Curved long tusks
  - Small ears to reduce heat loss
  - $_{\circ}$  A hump of fat on the back for insulation and energy storage
- Diet Herbivore, fed on grasses, sedges, shrubs, and herbs and had flat

teeth for grinding tough vegetation

## Adaptations to Cold

- Layer of fat under skin
- $_{\circ}$  Reduced extremities exposed to cold
- Hair-covered body

#### Extinction

- Factors believed to have caused extinction:
- $_{\circ}$  Climate change after the Ice Age
- Human hunting
- Habitat loss
- $_{\circ}$  Small isolated populations suffered from inbreeding



#### Reference

National Geographic | World's oldest RNA

