

Mother of Dragons' Comet

By IAS Toppers | 2024-04-06 16:10:00



Mother of Dragons' Comet

The **Mother of Dragons' Comet** is visible in the sky of the Northern Hemisphere.



[Ref: NDTV]

About Mother of Dragons' Comet:

- **Visible in the Northern Hemisphere**, the Mother of Dragons' Comet is an astronomical phenomenon.
- Known as **12P/Pons-Brooks**, this comet belongs to the Halley-type category, featuring a large nucleus about **30 kilometres in diameter**.
- It is part of the Jupiter family, meaning **Jupiter's gravity affects its path**.

Composition and Behavior

- Composed of **ice, dust, and rocky material**, the comet undergoes a transformation when it approaches the Sun.
- Its ice changes from **solid to gas**, creating a tail that points away from the Sun, propelled by solar wind.

Viewing the Comet

- The comet's visibility varies, appearing bright during peak activity but faint at other times.
- **Optimal viewing** occurs in late March and early April in the Northern Hemisphere, just after dusk, looking towards the western horizon.
- It can be seen with the naked eye, binoculars, or ideally, a small telescope.

Orbital Characteristics

- The comet completes an orbit around the Sun approximately every **71 years**.
- It comes closest to the Sun near Mars' orbit, which allows for visibility from Earth.
- Its **next approach to Earth** is in June 2024, with the best viewing period in late March and early April of the same year.

STRUCTURE OF A COMET



plasma tail

Length: up to ~100 million km

hydrogen envelope

Length: up to ~10 million km

nucleus

Diameter: few km to tens of km

dust tail

Length: up to ~10 million km

coma

Diameter: up to ~1 million km



Comet 153P/Ikeya-Zhang

Credit: Pekka Parviainen/Science Photo Library



Comet Hale-Bopp

Credit: ESO/E. Slawik



Comet NEOWISE

Credit: Zixuan Lin (Beijing Normal U.)

[Ref: ESA]