

Star dunes

By iastoppers | 2024-03-07 15:55:00



Key Facts

Star dunes

Scientists unveiled the first in-depth study of a star dune, revealing the internal structure of these geological features and showing how long it took for one of them to form.

- The study reveals the internal structure and formation process of star dunes, focusing on Lala Lallia in the Sahara Desert.



[ref- natgeofe]

About Star dune:

- Star dunes are **vaguely pyramid-shaped sand formations**, reaching heights of up to about 1,000 feet (300 meters).
- **On the ground**, star dunes **resemble pyramids**, but when viewed from above, a central peak is visible, **extending arms in three or four directions**, creating a star-like appearance.
- Star dunes constitute nearly **10% of Earth's desert dunes**, towering over other types like barchan and linear dunes.
- They are found in Africa, Asia, North America, and on **Mars and Saturn's moon Titan**.
- Star dunes are formed in areas with **complex wind regimes**, which means **winds blowing from different directions**.
- They also require **net sand accumulation**, which is when large piles of sand can be blown around to form giant dunes.
- The largest star dunes on Earth are located in the **Badain Jaran desert in western China**.
- These distinct dunes are also present in various places worldwide, such as the **Namib Sand Sea** in Namibia, expansive sand seas in **Algeria** like the **Grand Erg Oriental** and Grand Erg Occidental, and the **Rub' al Khali in Saudi Arabia**.
 - Notably, in North America, Great Sand Dunes National Park in Colorado features a series of these unique dunes.
- While many star dunes are known at present, only a single ancient one has been found **preserved as sandstone** in the **geological record**, dating to about 250 million years ago, in Scotland.

About Lala Lallia star dune:

- Lala Lallia, which translates to "**highest sacred point**" in the local **Berber language**, is located within the **Sahara Desert**.

- It is situated in a **small sand sea named Erg Chebbi**, approximately 3 miles (5 km) from the town of Merzouga, near the **border with Algeria**.