

Discovery of Giant Fungus (*Dianjunus rex*)

Prelims: Current events of national and international importance | Environment

Why in News?

Recently, researchers from the Kunming Institute of Botany alongside international collaborators, announcing the discovery of a giant, previously unknown fungus species in the forests of Yunnan Province, China.

- **Named as- *Dianjunus rex*** (popularly dubbed '**D-Rex**').
- This organism establishes an entirely new genus and family (**Dianjunaceae**) within the order Xylariales, with an evolutionary lineage dating back approximately **65 million years**.
- **Physical Morphology**
 - Specimens collected from temperate coniferous and tropical rainforests in Yunnan stand between **20 and 50 centimetres tall**.
 - While most specimens weigh between 250 and 600 grams, an exceptionally large specimen weighed **2.2 kilograms**.
 - It possesses the **largest spore-producing structure (stromata)** ever recorded among fungi belonging to **Ascomycota** (one of the major phyla in the fungal kingdom, comprising over 64,000 species).
- **Etymology** - *Dianjunus* combines a reference to the ancient **Dian Kingdom** in Yunnan with the Chinese word for fungus (*jun*).
- *Rex* means "king" in Latin, signifying its exceptional size within its phylum.
- **Evolutionary Origin**
 - Molecular clock analyses trace the divergence of the **Dianjunaceae** family to roughly **65 million years ago**.
 - This timeline places its emergence immediately following the **Cretaceous-Paleogene (K-Pg) mass extinction event** (which wiped out non-avian dinosaurs).
 - It suggests that it evolved as part of the fungal explosion during Earth's post-cataclysmic ecosystem recovery.
- **Ecological Significance**
 - The fungi were found emerging from the roots of recently dead trees and surrounding soil.
 - It leads scientists to hypothesize a quiet "double life" residing endophytically inside healthy trees before shifting to saprotrophic feeding upon host death to fuel its massive fruiting bodies.



Reference

[Frontiers | D-rex](#)



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