Prelim Bits 05-05-2023 | UPSC Daily Current Affairs

Scary Barbie

Scientists discovered a supermassive black hole and have named it 'Scary Barbie,' after a beloved children's character.

- Scary Barbie is a supermassive black hole that is devouring a star with a thousand times the brightness of a supernova.
- Scary Barbie was first observed in 2020 and it was named ZTF20abrbeie.
- It is one of the most luminous, energetic, long-lasting transient objects in the sky.
- But it is also extremely far away and in a somewhat neglected corner of the sky.
- The researchers discovered it using an AI engine called REFITT (Recommender Engine For Intelligent Transient Tracking).
- The AI engine looks through observations from many different telescopes around the world.

> ***Spaghettification*** *- It is a process in which the forces around a black hole, called tidal disruption, pull other objects apart.*

References

1. IE - Meet Scary Barbie: A supermassive black hole
2. Futurity - Meet 'Scary Barbie,' a black hole tearing apart a giant star

Ekatha Harbour

Defence Minister of India and his Maldivian counterpart laid the foundation stone for the Coast Guard 'Ekatha Harbour'.

- 'Ekatha Harbour' is a harbour for the Coast Guard of the Maldives National Defence Force (MNDF).
- It is located at Sifavaru in Uthuru Thila Falhu (UTF) atoll.
- The UTF Harbour Project is among the biggest Indian grant-in-aid projects in Maldives.
- At UTF atoll India is assisting in construction of a naval dockyard.
- India recently gifted a fast patrol vessel to Maldives Coast Guard and the ship was commissioned as ***CGS Huravee***.
- These were in line with India's vision of Security and Growth for All in the Region (SAGAR).
- **India-Maldives -** Maldives is among India's key maritime neighbours in the Indian Ocean Region.

- In 2021, an Action Plan on Defence Cooperation between Maldives and India was signed.
- In 2020, India had gifted a Dornier aircraft to Maldives and in 2019 handed over a patrol vessel.
- In 2022, India had also given a coastal radar system to Male.

References

1. IE - Delhi-assisted harbour construction launched at Sifavaru
2. The Hindu - India to build Harbour for Maldivian Coast Guard

Zoonomia Project

The ambitious genome project, Zoonomia, shows how humans fit with other mammals.

- The Zoonomia Project is an international collaboration to discover the genomic basis of shared and specialized traits in mammals.
- A team of scientists from Uppsala University and Broad Institute started the project in 2015 and later joined by researchers across the world.
- Zoonomia project compares the genomes of 240 mammal species as well as people to trace evolutionary changes spanning 100 million years.
- It aims at pinpointing genetic traits widely shared and those more uniquely human.
- **Key Findings -** The project identified parts of the genome functionally important in people and other mammals.
- It showed how certain mutations can cause disease.
- The project revealed the genetics of uncommon mammalian traits like hibernation and showed how the sense of smell varies widely.
- Some mammals have a very keen sense of smell like the African savanna elephant while others have almost none like whales and dolphins.
- Humans have average sense of smell.

References

1. IE - Zoonomia project shows how humans fit with other mammals
2. Nature - Zoonomia project offers fresh insights on human evolution
3. Zoonomia Project

Petersberg Climate Dialogue

The two-day meeting recently held in Berlin is a key negotiating step in the run-up to the 2023 international climate conference COP 28 in Dubai.

- The Petersberg Climate Dialogue (PCD) is an annual high-level political and international forum that takes place ahead of the annual United Nations Climate Change Conferences (COP).
- The 14th Petersberg Dialogue on Climate Change was held in Berlin, Germany.
- It was hosted by Germany and the United Arab Emirates, the incoming COP-28 Presidency.
- Delegates from 40 countries attended this year’s high-level dialogue series including

Indian Union Minister for Environment, Forest and Climate Change.

The next Climate Change Conference COP28 will take place in Dubai in the United Arab Emirates from 30 November to 12 December 2023.

- COP28 President-Designate Sultan Ahmed Al Jaber called on meeting participants to ramp up renewable energy capacity building.
- He called for a tripling of renewable energy capacity by 2030 followed by a doubling in 2040, but his address focused on reducing fossil fuel 'emissions'.

Petersberg Climate Dialogue
• The first Petersberg Climate Dialogue took place in 2010 at Petersberg hill near Bonn city, where the UNFCCC is headquartered.
• In subsequent years, the Petersberg Climate Dialogue conference was held in Berlin.
• Initiated by former German Chancellor Angela Merkel after unsuccessful negotiations at the 2009 United Nations Climate Change Conference in Copenhagen (COP15)
• It is aimed at improving communication between leaders and environmental ministers.

- **Global Stocktake** - It is a periodic review of global climate action which aims to assess whether current efforts will enable us to reach the objectives set out in the Paris Agreement.
- 2023 is the year for the Global Stocktake and also the first Global Stocktake year since the Paris Agreement was signed in 2015.
- The report is set to be released in September of 2023.

References

1. DTE - Some key takeaways from the Petersberg Climate Dialogue
2. UNRIC - Petersberg Climate Dialogue 2023

Chinnar Wildlife Sanctuary

The tribal settlements in Chinnar Wildlife Sanctuary are reviving cultivation of millets and endemic crops through Punarjeevanam scheme.

- Chinnar Wildlife Sanctuary in Idukki district of Kerala and comes under Munnar Wildlife Division.
- Chinnar Wildlife Sanctuary is home to the Great Grizzled Squirrel of India.
- There are 11 tribal settlements comprising Muduvan and Hill Pulaya communities under the Wildlife Division.
- **Punarjeevanam** (revival or resurrection) scheme was launched in 2016 by Kerala Forest and Wildlife Department.
- The scheme was launched to revive farming of millets and endemic crops in the tribal settlements under Chinnar Wildlife Sanctuary.
- It has revived 34 varieties of ragi, in addition to multiple kinds of beans, millets,

amaranthus, maize and pumpkin.

References

1. The Hindu - Punarjeevanam scheme in Chinnar Wildlife Sanctuary
2. Kerala Tourism - Chinnar Wildlife Sanctuary

