

## Gaia BH3

## Why in News?

Recently, the astronomers have discovered a gigantic black hole, Gaia BH3.

- Gaia BH3 It is a dormant black hole, and it is the 3rd kind of Gaia Black Hole.
- It is the **1**<sup>st</sup> **black hole** found in the Milky Way galaxy's outer reaches and the largest known stellar-mass black hole in the galaxy.
- Discovered in <u>2024</u>.
- **Discovered by** European Space Agency's Gaia telescope.

**Gaia telescope** has been <u>constantly monitoring the motions of billions of stars</u> in the galaxy since 2013 under European Space Agency's astrometry mission.

- **Distance** 1,926 light-years from Earth, which makes it the <u>2<sup>nd</sup> closest black hole to the</u> Earth.
- **Located in** About 2,000 light years away in the constellation.
- **Constellation** <u>Aquila</u> and appears to be a passive black hole.
- Solar Mass Nearly 33 times the mass of the Sun.



- **Features** It isn't actively pulling material from its surroundings due to lacks of significant supply of matter in its neighborhood.
- It doesn't have associated X-ray emissions either.

| Gaia BH1 | <ul> <li>It is the closest black hole to the earth.</li> <li>Located in - About 1,560 light years away in the constellation Ophiuchus.</li> <li>Distance - 1.4% of Milky Way's width.</li> <li>Galaxy's centre - 26,670 light years away.</li> </ul> |
|----------|--|
| Gaia BH2 | <ul> <li>Located in - About 3,800 light years away in the constellation Centaurus.</li> <li>Solar Masses - 9 times that of the sun.</li> </ul>   |

## References

- 1. The Hindu| Gigantic Black Hole, Gaia BH3
- 2. ESA Gaia BH3

