Darwin's Bark Spider

Prelims: *Current events of national and international importance | Species*

Why in News?

Darwin's bark spider has drawn scientific attention as studies explain why only adult females produce the toughest spider silk ever recorded.

- Darwin's Bark Spider is a ***large orb-weaving spider.***
- **Scientific name –** Caerostris darwini.
- **Family –** Araneidae (orb-weaver spiders).
- **Related species –** *Caerostris kuntneri.*
- **Habitat –** Forests and wetlands in Madagascar.
- They build orb webs directly above rivers or lakes, a habitat other spiders can't access.
- **Distribution – *Endemic to Madagascar.***
- **Characteristics –** Females are largely black in colour, with white hairs, and Males are redder and lighter brown in colour.
- Adult females are significantly larger than males.
- **Behaviour –** Largest orb webs ever recorded, reaching up to 25 metres in width.
- Only large adult females produce exceptionally tough silk, that outperforms steel and most human-made fibres in both strength and toughness.
- Used as safety lines, anchor threads, and escape ropes by the spider.
- **Threats –** Habitat disturbance from river/wetland degradation and infrastructure projects (e.g., hydroelectric dams).
- Water pollution reduces prey availability and impacts silk quality.
- **Ecological Significance –** Large river-spanning webs help control insect populations, especially flying insects.

References

1. The Hindu | Darwin’s Bark Spider
2. iNaturalist | Darwin's Bark Spider (Caerostris darwini)

SHANKAR IAS PARLIAMENT
Information is Empowering