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## Unusual Titanosaurid Dinosaur egg found in Madhya Pradesh | Madhya Pradesh | 15 Jun 2022

### Why in News?

- Recently, for the first time in the Bagh area of Dhar district of Madhya Pradesh, a team of Indian researchers has discovered egg-in-egg or unusual Titanosaurid dinosaur egg.

### Key Points

- This finding was published in the latest issue of nature group journal-Scientific Reports. The study is titled 'First ovum-in-ovo pathological Titanosaurid egg throws light **on the reproductive biology of sauropod dinosaurs**'.
- Researchers recently documented a large number of Titanosaurid Sauropod nests near the village of Padalia, near the town of Bagh. Studying these nests, researchers have discovered the nest of a Sauropod dinosaur containing 10 eggs, including an unusual dinosaur egg.
- The abnormal egg has two continuous and spherical egg shell layers, separated by a wide gap, reminiscent of the deformity of the ovum-in-ovo (an egg inside the other egg) birds.
- Pathological eggs in the same nest and the microscopic structure of adjacent eggs identify it with Titanosaurid Sauropod dinosaurs.
- This is the first egg-in-egg unusual fossil egg discovery in India. Never before has India found an unusual fossil egg of eggs-in-eggs of other reptiles, including dinosaurs, lizards, turtles and crocodiles.
- The pathological egg was discovered during PhD fieldwork by the lead author Dr. Harsh Dhiman (Department of Geology, University of Delhi) in this area. Apart from Dhiman, the team includes Vishal Verma (Higher Secondary School, Bakner, Dhar District) and corresponding author Prof. Guntupalli VR Prasad (Department of Geology, University of Delhi).
- Dr. Harsh Dhiman said the discovery of ovum-in-ovo eggs from the Titanosaurid nest opens up the possibility that the Sauropod dinosaurs had a ovulatory morphology similar to crocodiles or birds and could adapt to a way of egg-laying characteristic of birds.
- Prof. Guntupalli v. R. Prasad said the discovery brings out important information about whether dinosaurs had the same reproductive biology as turtles and lizards or their nearest crocodiles and birds.
- It was previously suggested that the reproductive function of dinosaurs, in contrast to the fragmented reproductive tract of crocodiles and birds, is similar to that of turtles and other reptiles (unbroken oviduct- **unsegmented oviduct**).
- Crocodiles however ovulate and release all eggs together, like turtles and other reptiles, in contrast to the sequential ovulation of birds, which lay one egg at a time.
- The new discovery suggests that there is a lot of potential for dinosaur fossils in central and western India, which can provide important information on the diversity of dinosaur species and the behavior and reproductive biology of their nests.