Evidence found of ostriches in India 25,000 years ago

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A team of researchers with members from several institutions in India has found evidence of ostrich relatives living in India as far back as 25,000 years ago. In their paper uploaded to the open access site *PLOS ONE*, the group describes finding avian eggshells, their DNA analysis of them and why they believe the finding bolsters certain aspects of continental drift theory.

After finding partially fossilized avian eggshells during a dig, the researchers sought to learn if they were from an ancient ostrich relative. This is because the ostrich family tree is believed to have originated in Africa—for them to be living in India at some point suggested a path between Africa and India that does not exist today.

By subjecting the shell fragments to DNA analysis, the team determined that they were, in fact, from an ancient African ostrich relative, which, the team notes, bolsters a theory that approximately 150 million years ago, there existed a supercontinent called Gondwanald, which broke up approximately 130 to 100 million years ago, its pieces becoming South America, Africa, Antarctica, Australia, Madagascar and Arabia. The theory explains how ostriches could have made their way to India and perhaps other faraway places. Prior to the breakup of Gondwanald, birds of the ostrich family were known as ratites (large flightless birds). After being separated, new long legged flightless bird types evolved, including emus in Australia and cassowaries in New Guinea. But if ostriches made their way to India prior to the breakup of the supercontinent, that suggests they could have been living there for over a 100 million years.

Prior research had suggested that ostriches might have made their way to India, but until now, there has been little hard evidence. Shells have been found that were believed likely to have come from an ostrich ancestor, but there was no DNA material that could be analyzed. The findings by the team with this new effort offer the first molecular evidence of ostriches in India, which the team suggests adds a lot of credence to the continental drift theory.

More information: Sonal Jain et al. Ancient DNA Reveals Late Pleistocene Existence of Ostriches in Indian Sub-Continent, *PLOS ONE* (2017). DOI: 10.1371/journal.pone.0164823