

By Sachin K. Bej, Science Editor

Pterosaurs Had Teen Sex

So say their bones

These were the first flying vertebrates, and the largest: some had a wingspan of over 10 m (33 ft). But pterosaurs were precocious also from other points of view: they had teen sex, before reaching full size. These are the results of a research published in the journal *Biology Letters*, which analyzed the growth rings in hundreds of bones belonging to the species *Pterodaustro guinazui* that inhabited Argentine 100-million years ago. Fossils varied from an embryo inside an egg to infants and adults with wingspans of 1 to 8 ft (0.3 to 2.5 m). *Pterodaustro* reached 53 % of its adult body size in two years, when they likely started breeding, but the full size was attained in 3 to 4 extra years. Amongst hundreds of fossilized pterosaurs, none was older than six or seven years. "Then they stopped growing and maybe they didn't live much longer. The finding shows that the flying reptiles, like dinosaurs, did not grow throughout their entire lives - as do modern turtles and crocodiles" said co-author Luis Chiappe, paleontologist and director of the Dinosaur Institute at the Natural History Museum in Los Angeles, California. Similar growth pattern and sexual precociousness have been found in dinosaurs, too, based on bone analysis. "All of them grow faster than modern reptiles, and none of them grow as fast as modern birds. That's something that's consistent across analyses." Kristi Curry-Rogers, a paleontologist at Macalester College in St. Paul, Minnesota, who studies growth patterns in dinosaurs, told *National Geographic News*. Modern birds grow to full adult size within just one year but often delay breeding for several years. Eagles usually mate at the age of four and albatrosses even at 10 years or older. "The addition of pterosaurs to this data set pushes the evolution of faster growth rates back along the lineage of animals that split from modern reptiles and gave rise to birds," said Curry-Rogers. The faster growth rates could have sped up sexual maturity and enabled dinosaurs to pass their genes faster.