Oldest lizard embryos discovered in fossil eggs

July 16 2015

Scientists looked inside tiny fossil eggs, long thought to harbour the embryos of dinosaurs or primitive pirds, using the powerful European Synchrotron Radiation Facility in Grenoble, France

Tiny fossil eggs long thought to harbour the embryos of dinosaurs or primitive birds, in fact contained unhatched baby lizards—the oldest ever found, scientists said Wednesday.

The eggs, roughly the size of a one-euro coin or sparrow egg, are about

125 million years old, and were discovered in Thailand in 2003.

They have hard shells, unusual for lizards, and initial examinations concluded they must have been laid by a small carnivorous dinosaur or early type of bird.

Not satisfied, an international team of scientists decided to look inside the fossil eggs using the powerful European Synchrotron Radiation Facility (ESRF) in Grenoble, France.

High-resolution, ultra-bright X-rays allowed them to observe the finest details of the minute bones inside the six knob-covered shells, and recreate the skeletons in 3D.

They found features of a "hitherto unknown lizard", including a long and slender skull ending in a pointed snout, and a "quadrate"—a jaw articulation bone found in the lizard family.

"These embryos were neither dinosaurs, nor birds, but lizards from a group called anguimorph," the ESRF said in a statement.

The group includes komodo dragons and mosasaurs, a type of extinct marine reptile.

"The discovery of anguimorphs in hard-shelled eggs comes as a considerable surprise," said the statement—and recast the evolution of lizard reproduction.

"So far, only geckos were known to lay hard-shell eggs."

The study was published in the journal *PLOS ONE*.