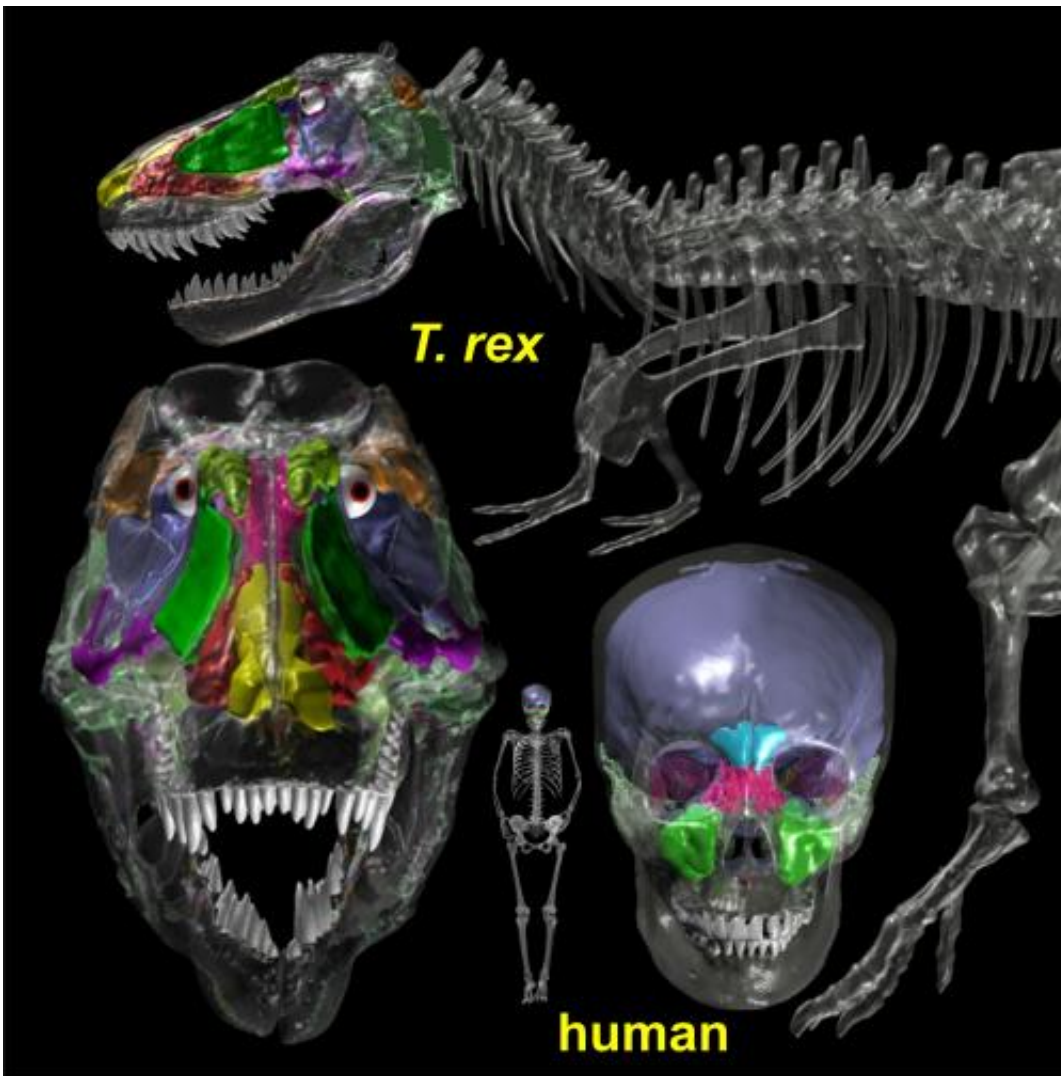


Rebuilding the head of an armoured dinosaur (w/ video)

September 29 2011



(PhysOrg.com) -- A University of Alberta-led research team has taken a rare look inside the skull of a dinosaur and come away with unprecedented details on the brain and nasal passages of the 72 million year old animal.

Lead researcher Tetsuto Miyashita, a U of A master's student in paleontology, examined the armoured skull of a Euoplocephalus, a six-metre long plant eater. The [skull](#), which had been sitting in the U of A's paleontology collection, was broken, allowing Miyashita and his colleagues a unique view of the interior nasal cavities and details of [blood vessels](#).

The researchers obtained CT scans from undamaged Euoplocephalus skulls to reconstruct the twisted, looping nasal passages and brain chamber. The team concluded Euoplocephalus had good senses of smell and hearing.

The researchers say the entire brain of a Euoplocephalus would fit inside a coffee mug, but the size was not small for a dinosaur. The dinosaur may have generated sound through its looping nasal passages, enabling it to communicate with other Euoplocephalus. The reconstructed [inner ear](#) was tuned for this "nasal roar" because the length of the ear indicates that the dinosaur could pick up low-frequency sounds.

Provided by University of Alberta

Citation: Rebuilding the head of an armoured dinosaur (w/ video) (2011, September 29) retrieved 25 April 2024 from <https://phys.org/news/2011-09-rebuilding-armoured-dinosaur-video.html>

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