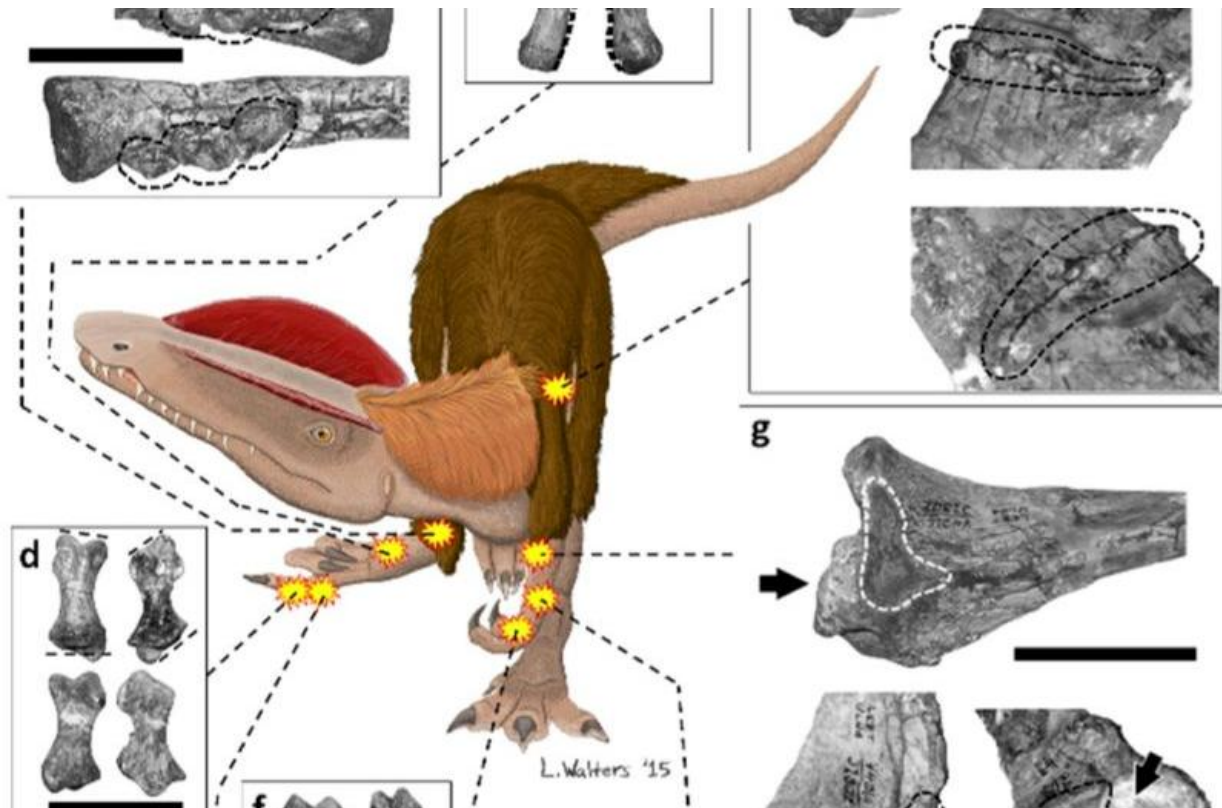


# Dinosaur had record number of bone problems and lots of pain

February 26 2016, by Bob Yirka



Credit: PLOS ONE

A pair of researchers has found that a dinosaur unearthed in Arizona back in 1942, had a record number of injuries and bone growth problems. In their paper published in the open access site, *PLUS ONE*, Phil Senter, with Fayetteville State University and Sara Juengst with

Appalachian State University describe the condition of the dinosaur and suggest that it very likely had problems hunting and was almost certainly in a lot of pain for the latter period of its life.

In examining the dinosaur (*Dilophosaurus wetherilli*) the researchers found eight places where bones were either broken or were damaged through infections, they included: a fractured left shoulder blade, fractured left radius, an infection in its left ulna, two areas of damage due to [bone infection](#) in its left thumb, an injury to its right humerus and two examples of osteodysplasia, where the bone was deformed due to unusual growth.

The researchers theorize that several of the injuries likely occurred as the result of a single fight, from broken bones to infections due to piercings. There were also parts of bones that were simply missing—prior research has shown that unlike mammals, [dinosaurs](#) were unable to re-grow lost bone. But, the dino clearly survived, for months or even years, as all of the injuries showed signs of healing. The researchers surmise that the dino likely had to live off smaller prey while it healed, which presumably led to weight loss and it would have walked with a noticeable limp for the rest of its life; it also would have had to make use of permanently twisted 'fingers' presenting an overall challenging existence. With all of its injuries, they note, the dinosaur was probably in a lot of pain.

*D. wetherilli* had large back legs used for walking and running and very small front legs, likely used for fighting or killing prey. It also had a split cranial crest and an empty expanse behind the first row of teeth—they typically measured approximately 20 feet long and weighed approximately 1,100 pounds—the sample under study was found in a rock formation and has been dated back to time between 190 and 183 million years ago.

**More information:** Phil Senter et al. Record-Breaking Pain: The Largest Number and Variety of Forelimb Bone Maladies in a Theropod Dinosaur, *PLOS ONE* (2016). [DOI: 10.1371/journal.pone.0149140](https://doi.org/10.1371/journal.pone.0149140)

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