

Good dentistry may have saved the dinosaurs

December 14 2009

Infectious diseases can be transmitted by sneezing, touching, or - for Tasmanian devils - biting each other on the face, a habit that may have driven the dinosaurs to extinction through the transmission of a protozoan parasite.

Jacqueline Upcroft, a member of f1000 Biology, highlights the 'paleobiological detective work' of David Varricchio and colleagues published in [PLoS One](#). This led them to deduce that a protozoan parasite was to blame for the diseased jaw bones seen in many tyrannosaurid fossils.

The parasite's modern-day equivalent, which infects birds, eats away at the jawbone and can cause ulcers so severe that the host starves to death. Living in the jaw, the parasite may have been passed from one dinosaur to another during head biting.

Upcroft said, "this organism commonly infects doves, [pigeons](#), turkeys and raptors, causing necrotic ulceration in the upper digestive tract," and in extreme cases it can fully penetrate the bone.

The similarity of the fossilized jawbones and modern-day samples suggests that the parasite was deadly enough to kill infected dinosaurs. Furthermore, as Upcroft notes, "this may not have been an isolated situation but may have occurred en masse and led to the extinction of the species."

[More information:](#) The full text of the evaluation can be viewed free for

90 days at www.f1000biology.com/article/z...8ggr2zxv9/id/1166623

The original paper, Common Avian Infection Plagued the Tyrant [Dinosaurs](#), by Wolff et al., is free to view at www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0007288

Source: Faculty of 1000: Biology and Medicine

Citation: Good dentistry may have saved the dinosaurs (2009, December 14) retrieved 25 April 2024 from <https://phys.org/news/2009-12-good-dentistry-dinosaurs.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.