

Abstract Submitted
for the OSS14 Meeting of
The American Physical Society

Section moduli of the humerus bones in theropod dinosaurs

SCOTT LEE, ZACHARY RICHARDS, University of Toledo — The section modulus of a bone is a measure of its ability to resist bending torques. Carnivorous bipedal theropod dinosaurs used a variety of strategies to kill their prey. Some used just their teeth, others used vicious claws (usually on their feet) while still others used both teeth and claws. In this work, the section moduli of the humerus bones of bipedal theropod dinosaurs (from *Microvenator celer* to *Tyrannosaurus rex*) are studied to determine the typical bending loads on their arms during predation. The results show that bending strength is not of uniform importance to these magnificent hunters. Holding their struggling prey was clearly important to some theropods, but less so to others. These differences are presumably related to their hunting strategies.

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Date submitted: 24 Feb 2014

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