

Abstract Submitted
for the MAR16 Meeting of
The American Physical Society

A phylogenetic study of the section moduli of the humerus in bipedal 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 dinosaurs including Tyrannosauroidae and Allosauroidae had strong humeri, presumably to hold struggling prey during hunting. The herbivorous dinosaurs of Ornithomimosauria had weak arm bones. This is believed to reflect the fact that their arms were never subjected to large bending torques. The unusual dinosaurs of Therizinosauria had arms as strong as found in the carnivorous dinosaurs. This is consistent with the hypothesis that their manus suggests a digging lifestyle. Other groups including Oviraptorosauria, Troodontidae, Dromaeosauridae and Compsognathidae are also examined.

Scott Lee
University of Toledo

Date submitted: 05 Nov 2015

Electronic form version 1.4