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A Description of a New Allosaurus (Dinosauria: Theropoda) Skull with Comparison to Additional Specimens

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A Description of a New *Allosaurus* (Dinosauria: Theropoda) Skull with Comparison to Additional Specimens

Allosaurus was a genus of large theropod dinosaur from the Late Jurassic Period (Kimmeridgian to early Tithonian). The history of the taxonomic classification of Allosaurus species is muddled at best, and the number of recognized species varies significantly between researchers. Most Allosaurs from the Morrison Formation are typically lumped into a single species, Allosaurus fragilis. Given the amount of variation seen in Allosaurs through the Morrison, the genus may more diverse than generally recognized. A nearly complete Allosaurus skull (CM 279) located in the Creation Museum in Petersberg, KY is described, with comparison of its skull morphology to two other well-known Allosaurus skulls at the Dinosaur National Monument (DNM 2560) in Jensen, Utah, and the Museum of the Rockies (MOR 693) in Bozeman, Montana. Similarities are noted between CM 297 and DNM 2560, which share the same rectangular muzzle shape, differing from the pointed muzzle and triangular skull of MOR 693. This difference suggests CM 297 and DNM 2560 belong to a different species than MOR 693, which potentially belongs to the recently described A. jimmadsenni, though more research into this classification is needed. Furthermore, CM 297 and DNM 2560, while classified as Allosaurus fragilis, show a notable difference from the neotype for A. fragilis, AMNH 4734. This difference is often attributed to supposed taphonomic distortion in AMNH 4734, though this claim may be erroneous.