

The diversity of cimolestan mammals within the White River Group of South Dakota and Nebraska

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The synonymization of the cimolestan taxa *Cymaprimadon* and *Chadronia* from the Late Eocene Chadron Formation is consistently upheld, despite a lack of supporting evidence. Here we show that the synonymization is unjustified, owing to distinct differences between these taxa in the mandibular tooth count (1-1-3-3 vs. ?-1-4-3), the identity of the enlarged anterior mandibular tooth (incisor versus canine), and the morphology of the crown of m3 (e.g., paraconid on m3 in *Cymaprimadon*). We also refer a specimen recently collected from the Early Oligocene Brule Formation within the Badlands National Park (BADL 16917) to *Chadronia* sp., thus making it the youngest occurrence of a pantolestean from North America. Examination of an additional specimen (FMNH UC 349) revealed the presence of a further cimolestan taxon in the White River Group of South Dakota, although the poor quality of the locality and stratigraphic data associated with this specimen precludes erecting a formal name. In total, this study doubles the number of cimolestans from the Late Chadronian and Orellan (Ch4 to Or1) of North America from two to four, and extends the biostratigraphic range of Pantolestina into the North American Oligocene.

Key words: Mammalia, Pantolestidae, *Chadronia*, Cimolesta, *Cymaprimadon*, Pantolestina, Chadron Formation, Eocene, White River Group, South Dakota, Nebraska.

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