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HERRERASAUR AND THEROPOD DIVERSITY IN THE LATE TRIASSIC OF WESTERN UNITED STATES

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Recent discoveries increase the number of herrerasaur and theropod taxa known from the Upper Triassic Chinle Group of the western United States allowing a more accurate assessment of their Late Triassic diversity. A partial skeleton of the herrerasaurid Chindesaurus is known from Revueltian age strata of AZ (Arizona). An indeterminate herrerasaur based on an ilium is known from the Adamanian of TX (Texas). Three new, unnamed genera, two of them herrerasaurs, are based on partial skeletons from the Revueltian of NM (New Mexico). The Ceratosauria is known from fused tibia/fibula/tarsus and other material from the Adamanian of AZ, and a new ?ceratosaur, is based on vertebral, limb and pelvic material from the Adamanian of NM. "Coelophysis" has been reported from the Revueltian of AZ and lectotypes and (probable) topotypes of are known from NM. The theropods Rioarribasaurus (formerly Coelophysis, in part) and Syntarsus are present in Apachean rocks of NM. Indeterminate theropod taxa are known from the Otischalkian of WY (Wyoming) and TX, Adamanian of NM, Revueltian of AZ and NM, and Apachean of NM. We conclude: (1) the diversity of Late Triassic theropods is much greater than previously thought; (2) theropod diversity increased in the Norian and Rhaetian; and (3) the apparent diversification of herrerasaurs in the Norian was followed by their extinction prior to the close of the Triassic (Rhaetian).