

## OCCURRENCES OF *PANTOLAMBDA INTERMEDIUM* IN THE SAN JUAN BASIN, NEW MEXICO, USA

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In the wake of the end-Cretaceous extinction, pantodonts were among the first mammals to achieve truly large body sizes. Paleocene pantodonts occupied large herbivore niches across North America, Asia, and Europe. In North America, the Torrejonian genus, *Pantolambda*, encompasses three species ranging from large dog- to small cow-sized. Of the three species, *P. intermedium* is the most poorly represented with known material consisting of a fragmentary dentary with m1-2 and isolated lower premolars. All the originally referred material was recovered from the Gidley Quarry, Montana. We describe cranial and postcranial fragments of the species from the Nacimiento Formation of the San Juan Basin (SJB), New Mexico. Interestingly, although it is intermediate in size between *P. bathmodon* and *P. cavirictum*, *P. intermedium* occurs lower in the stratigraphy (Tj2) than these other species and is the first appearance of pantodonts in the SJB.

The presence of *P. intermedium* in the SJB is validated with a worn dentary (NMMNH P-19774) containing m1-2. A pronounced entoconid on m1 and m2 distinguishes these teeth from those of *P. cavirictum*, whose entoconid is weakly developed, and from those of *P. bathmodon*, which lacks an entoconid on the anterolingually-sloping postcristid. An isolated m3 (NMMNH P-72117) shows a partial, narrow trigonid with a wide talonid basin that is shallower than in *P. bathmodon*. A concretioned, partial braincase (NMMNH P- 21646) bears low sagittal and nuchal crests similar to *P. bathmodon*. A partial scapula (NMMNH P-21647) preserves the glenoid region and the distal portion of the scapular body. The glenoid cavity is an elongated oval that tapers anteriorly to a prominent, triangular supraglenoid tubercle. A coracoid process distinct from the tubercle is not present. A similar pattern is observed in *P. bathmodon*. The condition observed in *Pantolambda* contrasts with other pantodonts. *Alcidedorbigna* possesses a relatively small tubercle distinct from a rounded coracoid process and the larger-bodied pantodonts, *Barylambda* and *Coryphodon*, exhibit both a prominent tubercle and a well-developed coracoid process. A prior hypothesis posited that *P. intermedium* from Montana could simply represent larger morphs of *P. bathmodon* following Bergmann's Rule. However, the presence of *P. intermedium* in New Mexico in a similar environment to and at the same latitude as *P. bathmodon* and *P. cavirictum* supports its distinction from the other two morphs as a unique species.

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