New Records From New Mexico of the Cretaceous Ammonite *Placenticeras* Extend Its Biostratigraphic Range in the Western Interior

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The chronostratigraphically highest ***Placenticeras*** previously reported from the Western Interior is ***Placenticeras costatum*** Hyatt, 1903, from the late Campanian ***Baculites reesidei*** Zone (Larson et al., 1997; Cobban, 2016). We report here ***Placenticeras*** as high as the ***B. baculus*** Zone in the Pierre Shale of northeastern New Mexico. The ***B. baculus*** Zone is three ammonite zones higher than the ***B. reesidei*** Zone. ***P. costatum*** was recovered by us from the ***B. reesidei***, ***B. jenseni***, and ***B. baculus*** zones, and ***P. meeki*** Böhm, 1898 from the ***B. baculus*** Zone in the Cimarron area. The ***B. jenseni*** Zone is one ammonite zone higher than the ***B. reesidei*** Zone. In a postscript, W. J. Kennedy (Cobban, 2016) reported that, in the Western Interior, the youngest species of ***Placenticeras***, ***P. costatum***, extends into the lower half of the ***B. reesidei*** Zone, and ***P. meeki*** disappears a little lower in that zone.

Two well preserved, compressed half whorls of ***Placenticeras costatum*** with nacreous layer from NMMNH (New Mexico Museum of Natural History) localities 12260 and 12261 are from the ***Baculites baculus*** Zone. There are five moderately strong, but small, umbilical bullae in the half whorl. The small, weaker, outer lateral nodes are about one-third the distance from the ventrolateral shoulder to the umbilical shoulder. Low, weak flexuous ribs connect the umbilical bullae to the outer lateral nodes and finally to ventrolateral clavi as delicate riblets. The weakly concave venter bears two rows of small, alternating, ventrolateral clavi. Five ventrolateral clavi occur between every two outer lateral nodes (Kennedy et al., 1996, p. 6), and the shells have distinct, sinuous growth striae, both of which are characteristic of ***P. costatum*** (Cobban, 2016, p. 597). Suture is not visible.

One specimen from locality 12259 is a well preserved whorl that is part of a larger ***Placenticeras meeki*** with iridescent nacreous layer. It has a highly compressed shell with a very narrow, tabulate, concave venter. Fragments of the larger, outer whorl are less compressed with a tabulate venter that becomes less concave on the largest fragment, which is still septate. The shell is completely smooth and unornamented. Suture is not preserved.

The occurrence of ***Placenticeras costatum*** in the upper Campanian ***Baculites jenseni*** Zone and the lowermost Maastrichtian ***B. baculus*** Zone, and ***P. meeki***, in or a little above the ***B. baculus*** Zone in the Raton Basin, significantly extends the known presence of ***Placenticeras*** in the Western Interior.

References:

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