

MULTITUBERCULATES FROM THE MEDICINE POLE HILLS LOCAL FAUNA (CHADRONIAN) OF BOWMAN COUNTY, NORTH DAKOTA.

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ABSTRACT

The presence of *Ectypodus lovei* in the Medicine Pole Hills Local Fauna makes it one of only three potentially early Chadronian occurrences of this multituberculate species. The Medicine Pole Hills specimens match the published descriptions of *E. lovei* with the only differences being a slightly higher cusp formula on the P⁴. The sample is significant because it is the largest known (80 specimens) and represents a complete dental arcade with the first known anterior upper premolars, mandible and unbroken P⁴s for the species. The sample supports ideas suggested by earlier authors: the structure of the P₄ supports the assignment of the species to *Ectypodus* as opposed to *Parectypodus*; there appears to be a slight increase in size from the Duchesnean to the middle Chadronian for the species; and there is an increase in the development of the first cusp in the medial row of the M² over this same time. The large sample size also allows for the assessment of individual variation, supporting the idea that only one species is present at the Badwater Creek Localities. A second species of multituberculate is represented in the fauna by a single, partial M¹. It most likely represents a ?neoplagiaulacid, larger in size and with a higher cusp formula than *E. lovei*.