

BABY HADROSAURID MATERIAL ASSOCIATED WITH AN UNUSUALLY HIGH ABUNDANCE OF *TROODON* TEETH FROM THE HORSESHOE CANYON FORMATION (EARLY MAASTRICHTIAN), ALBERTA, CANADA

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A new microvertebrate site occurring as an isolated outcrop in the Horseshoe Canyon Formation, Drumheller Valley badlands, southcentral Alberta, is a deflation lag in interbedded silty sandstones. The site, dated at ≈ 70 MA based on published magnetostratigraphic correlation to other sites of known age, is located in the middle of the formation and represents deposition on a waterlogged coastal plain about 100 km to the west of the Western Interior Seaway. Over one-half ($n=164$) of the 300 elements recovered by intense surface collecting across the top 4 m of the site belong to baby (=embryonic + hatchling) hadrosaurids, suggesting that a nesting site of unknown size was located nearby. Hadrosaurids known from the formation include *Hypacrosaurus altispinis*, *Saurolophus osborni*, and *Edmontosaurus regalis*, but none of the baby elements can be referred to any of these taxa. Nonetheless, these fossils are notable for being the first occurrence of baby dinosaurs in the formation and the geologically youngest occurrence of baby dinosaurs in Canada. The next most common taxa (22%) is the small theropod *Troodon*, represented by abundant teeth ($n=65$). *Troodon* teeth are normally extremely rare in all Late Cretaceous sites in southern Alberta, with the only exceptions being two other small microvertebrate sites found ≈ 10 km northwest in the same formation having similar lithologies. The large number of *Troodon* teeth suggests a non-random association with the baby elements, potentially indicative of predation. Teeth of other small theropods are less common at the site and include: *Richardoestesia* sp. ($n=11$), *Saurornitholestes* sp. ($n=7$) and *Paronychodon* sp. ($n=1$). Indeterminate large theropod (cf. *Albertosaurus*) material is rare and includes 15 tooth fragments. The only other dinosaur fossils recovered are Ankylosauria indet. ($n=4$) and Ceratopsia indet. ($n=2$).

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