ABSTRACT

TITLE:	Chasing Fossils: The Timing and Extent of an Upright Calamites/Lycopod Forest, Pennsylvanian Hermosa Group, SW Colorado
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ABSTRACT: This study investigates a unique Calamites-bearing layer exposed in the Pennsylvanian Hermosa Group, north of Durango, Colorado. In these strata, three previously undocumented localities containing over 65 Calamites and one 4m x 50cm lycopod fossil were identified. These plant fossils are found encased by braided river deposits, composed of trough crossbedded, felspathic-arenites. At the locality providing the best exposure of the three new locations, a 72 meter thick stratigraphic section was measured. Using a combination of biostratigraphic marker-beds and measured sections, the strata were correlated to Sequence Two of the Hermosa Cliffs (Gianniny and Miskell-Gerhardt, 2009). This correlation helps delineate the lateral extent, and the early Desmoinesian age of the Calamites-bearing layer (Eastep and Gianniny, 2013) along a 4.5 kilometer section of the Hermosa Group. These new data update the depositional model for Sequence Two, of Gianniny and Miskell-Gerhardt (2009). In addition to this, these fossils provide evidence for repeated pulses of fluvial deposition and rapid subsidence on thistectonically active eastern margin of the Paradox Basin.