

Carboniferous-Permian Boundary in Kansas, Midcontinent, U.S.A.

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Abstract

The placement of the Carboniferous (Pennsylvanian)-Permian boundary in Kansas has been debated since the rocks of this age were first described and named. With the ratification of the Global Stratotype Section and Point (GSSP) for the base of the Permian System in the southern Ural Mountains, the Carboniferous-Permian boundary in Kansas can now be confidently defined. Based on the identification of the first occurrence of the conodont *Streptognathodus isolatus* that definitively correlates the Kansas rock section to the basal Permian GSSP, the Carboniferous-Permian boundary in Kansas can be placed at the base of the Bennett Shale Member of the Red Eagle Limestone.

The Kansas Geological Survey proposes that the Tuttle Creek Lake Spillway section, located in northeast Kansas, be considered for the Carboniferous-Permian boundary stratotype in Kansas. It is further suggested that the stratigraphic position of the Carboniferous-Permian boundary in the Tuttle Creek Lake Spillway section be considered as a potential North American stratotype.

In addition to being a significant biostratigraphic boundary, the Carboniferous-Permian boundary and enclosing strata also have significance because they reflect important geologic events and changes that occurred on a regional and global scale.

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