

PALYNOLOGY OF THE CARBONIFEROUS/PERMIAN BOUNDARY STRATOTYPE, AIDARALASH CREEK, KAZAKHSTAN

Dunn, Michael T., Department of Environmental and Plant Biology, Ohio University, Athens, Ohio, 45701

The base of the Permian global stratotype section and point (GSSP) has recently been established at the stratigraphic section in Aidaralash Creek, Kazakhstan; the definition is based on the first appearance of the conodont *Streptognathodus isolatus* in the *S. wabaunsensis* chronocline (Davydov et al., 1998). Ammonoids and fusulinids provide additional data. Palynostratigraphic data across the Carboniferous-Permian boundary at the stratotype section facilitates correlation with other Carboniferous/Permian boundary sections where marine invertebrate biostratigraphic data may not be available. Sixteen samples were analyzed, spanning the C/P boundary (-24 meters to +26 meters above the boundary). The palynomorph assemblage correlates with the *Limitisporites monstrosus*-*Vittatina costabilis* Assemblage Zone first described from Artinskian strata of the Sverdrup Basin (Utting, 1989) and is similar in many respects to a number of late Autunian palynomorph assemblages of western Europe. Characteristic taxa include abundant and diverse taeniate disaccate pollen (e.g., *Protohaploxypinus* spp., *Hamiapollenites bullaeformis*, *Striatoabieites* sp.) and a variety of members of the genus *Vittatina* (e.g., *Vittatina costabilis*, *Vittatina vittifera*, *Vittatina saccifer*, *Vittatina subsaccata*, *Vittatina simplex*). *Limitisporites monstrosus* is present, as are members of the monosaccate genus *Potonieisporites*. Trilete spores are present, but not abundant. The diachronous occurrence of this palynomorph assemblage may be the result of the spread of the Sub-angara floral province, or as the result of parallelism in the evolution of pollen in response to climate change during Early Permian time.