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Leiosphaeridia (Acritarchs) from Talchir Formation of West Bokaro Coalfield and its Palaeoenvironmental Significance

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Abstract

Well preserved, dominant and matured forms of *Leiosphaeridia* (acritarchs) group of palynofossils were recovered along with pollen grains from the Talchir Formation of West Bokaro coalfield, Jharkhand. The acritarcha assemblage includes *L. minutissima, L. tenuissima, L. crassa* and *L. jacutica* in which *L. tenuissima* dominates the assemblage. The dominance of *Leiosphaerids* along with pollen grains in the assemblage suggests a definite shallow marine incursion and transgression in the Talchir Formation of west Bokaro coalfield. The inferred paleoenvironment of palynofossils assemblage correspond to present day analogue of shelf zone which is also strengthened by the record of several ichnofossils, bioturbation and wave generated sedimentary structures. The marine transgression in the west Bokaro coalfield corresponds with the well known global transgressions during Permian.

Keywords: Leiosphaeridia (acritarchs), Permian, Palaeoenvironment, West Bokaro coalfield