

## **Palynological studies of the Upper Devonian of New York State and Pennsylvania, U.S.A.**

Sarfraz Ahmed, Institute of Geology, Punjab University, Lahore-54590, Pakistan.

Palynological and biostratigraphical studies have been made of the upper Devonian strata in western New York State and northern Pennsylvania, U.S.A. Sediments from this region, which represents the stratotype for the Devonian of North America have disclosed profuse assemblages of spores and microplankton the former constituting the basis of the present investigation. The assemblage contain a diversity of trilete spores while an acritarch component is relatively inconspicuous qualitatively and quantitatively.

Within the area studied correlations are made between sediments of diverse non-marine and marine facies. Stratigraphical and phytogeographical distributions of the Upper Devonian miospores are described and the implications of their distribution patterns are discussed.

Marine and non-marine facies may contain many species in common. In the Upper Devonian of New York State and Pennsylvania, this phenomenon has been observed in the marine Ellicott Member of the Chadakoin Formation and in the lower part of the non-marine Ellicott Member of the above mentioned formation, which have most species in common and concluded to be coeval.

In marine facies miospores range from 5 to 90 per cent.; whilst in continental strata they are hundred per cent of the total assemblages. The occurrence of acritarchs is surprisingly erratic and range from 2 to 74 per cent.