

**Tectonic Significance of Minor and Major Structures Associated with Thrust Tectonics Along Alaknanda Valley Garhwal Himalaya, India.**

ARUN K. SHANDILYA, Reader, Centre of Adv.Studies in Geology, DR.H.S.G.University Sagar M.P. India – 470003

The minor linear and planar structures are associated with thrust tectonics along the Alaknanda valley in the part of Garhwal Himalaya are discussed and used to identify the effects of the stage of deformation at different tectonic levels. The structural and tectonic history are derived from sequential development of minor structures associated with various important Himalayan thrusts in Garhwal i.e. –Main Central Thrust (MCT). Vaikrita, Munsia, Chail, Pratapnagar, Almora Thrusts, Krol thrust, Garhwal Thrust and Main Boundary Thrust/fault etc. The rocks in the study area have four generations of fold trending (F1-E-W, F2- NW-SE, F3-NE-SW, and F4 –N-S) directions.

These thrust sheets have been modified and obliterated at a later phase of deformation during the Himalayan uplift. The deformations in the thrust sheets are diachronous with the chronological events by progressive development of structure from deep crystal level, at the root of thrust sheet to shallow crystal level at the leading edge.

Attempt has also been made to correlate tectonic significance of the minor structure, folding, various stages of development of thrusts in Garhwal Himalaya with the stages of Himalayan uplift.