## PALEOCURRENT ANALYSIS IN A PART OF BHAGIRATHI VALLEY BETWEEN MANERI AND GANGNANI AREA DISTRICT UTTARKASHI, GARHWAL HIMALAYA UTTARAKHAND

## N.P. NAITHANI & MALA BHATT

Deptt. Of Geology H.N.B. Garhwal University Campus Badshahithaul, Tehri Garhwal-249 199 E-mail:naithaninp@rediffmail.com

## **ABSTRACT**

The Investigated area lies in lesser and central Himalayan part of Garhwal Himalaya in Uttarkashi District. Geologically the rocks of lesser Himalaya separated from central Himalaya. by main central thrust which passes near Sainj i.e 20 km from Uttarkashi along Uttarkashi Gangotri highway. The rocks of lesser Himalaya represented by Garhwal group comprises of quartzites, epidiorites and talc chlorite schist etc while central Himalaya represented by central crystalline comprises of schists, gneisses and various type of migmatites. Attempt here been made to study the drainage pattern and paleocurrent analysis. For this purpose help of toposheet (Geological survey of India) has been taken to analysis of drainage pattern. For paleocurrent analysis the pebble orientation direction along Bhagirathi valley measured, and for rose diagram the pebble orientation direction of various terraces measured at four places at Hinna, Maneri, Lata and Bhatwari and rose diagrams were prepared.

Keywords: Paleocurrent Analysis, Bhagirathi Valley Uttarkashi

## **REFERENCES**

Auden, J.B (1949) In Director General, Gneral report for (1939) Rec. Geol. Surv. India 78,74-78. Agarwal, N.C. & Kumar,G (1973) Geology of the upper Bhagirathi and Yamuna valley, Uttarkashi District HimGeol. Volum 3, 1-23.

Gansser A (1964) "Geology of the Himalaya"Inter Science Publishers London Page no 102-238. Gupta, S.K & Dave V.K.S(1982) Petrology and metamorphism of the upper Bhagirathi valley Central crystallines, District Uttarkashi U.P. Himalaya publ. in Him, Geol, volum 9 part II 512-528.

- Heim, A & Gansser, A (1939) Central Himalaya geological observations of Swiss expeditions mem soc, halv nat, 77, 1-245.
- Jain, A.K. (1971) Stratigraphy and tectonics of lesser Himalayan region of Uttarkashi district Garhwal Himalaya, publ. in Him, Geol, volum 1Page no 25-58.
- Krumbein W.C. (1939) Preffered orientation of pebbles in sedimentary deposits J Geol, 19, 675-705).
- Naithani, N.P. (1992) Study of Quaternary sediments along Bhagirathi river between Maneri and Gangnani area Garhwal Himalaya.U.P unpublished Ph,D thesis submitted to Garhwal University Srinagar.
- Prasad, C (1975) Geomorphological and sedimentological studies in Doon valley unpubl, thesis submitted to the Meerut University Meerut.

Rawat, G.S.(1983) Some aspects of Quaternary geology in Alaknanda valley Garhwal Himalaaya Unpublished thesis submitted to the Garhwal University Srinagar Garhwal.

Saklani, P.S & Nainwal D.C. (1986) Metamorphites and migmatites of Sasinj area Uttarkashi District Garhwal Himalaya U.P. publ, in Current trends in Geology volum IX Himalayan thrusts and associated rocks Saklani ed, 1986 page 99-122.