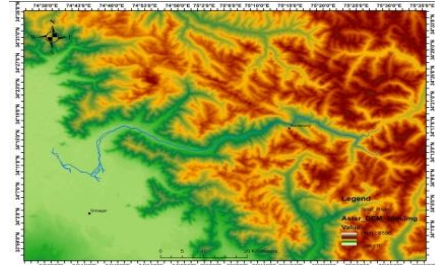


Field Report

Geological Field Tour in Sonamerg and Thajiwas

Department of Geology



Acknowledgement

We the faculty and the students of geology thank the Principal GDC Ganderbal, HOD geology and the rest administration and organizing members for helping the department of geology to make this field tour possible.

Introduction

Sonamarg is situated at 87 km away from Srinagar and lies about 3000m above mean sea level. All along the route from Ganderbal to Sonamarg, Quaternary sediments, Salkhala rocks, Boulders of basic volcanic rocks, Triassic Jurassic Limestone and Schists are exposed along the road side sections (Fig.1). Beside these Thajiwas glacier is also located adjacent to Sonamarg

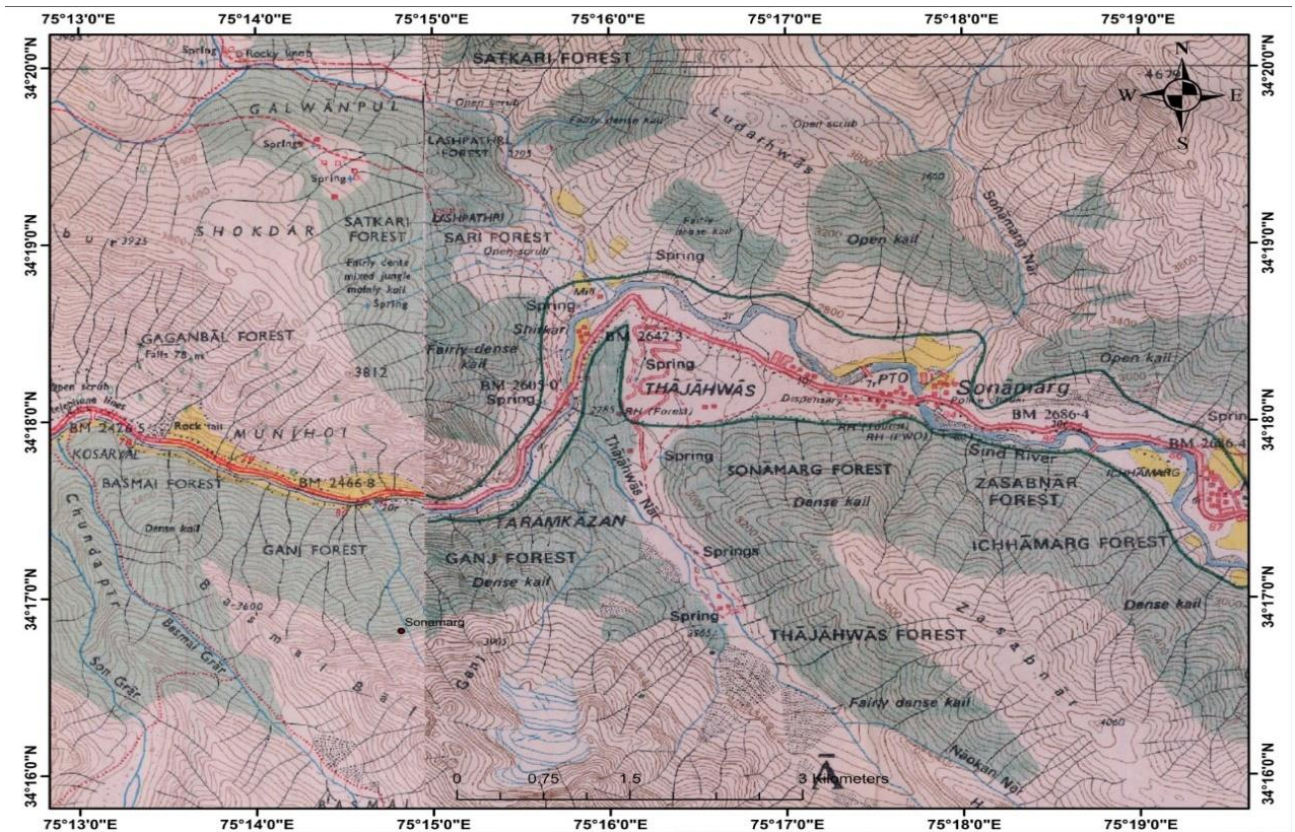


Fig 1. Showing Toposheet of sonamerg and adjacent areas

Spot 1

Mammar Kangan

34 13' 52.92

74 58' 27.22

Mammar Kangan area lies at the latitude longitude of 34 13' 52.92 74 58' 27.22. While travelling from Gandebal to Sonamerg the area shows the exposure of numerous morphological features like point bars the students observed the boulders of different mafic and felsic rocks along the banks of the stream at Mammar Kangan (Fig. 2). The different textural features developed during the solidification of igneous rocks and further the later stage vein intruded in the boulders of mafic rocks were observed at the site. The polymictic conglomerates showing the clasts of limestone, rhyolite, granite along with the lithic fragments (Fig. 3a).



Fig 2. Showing boulders of different mafic and felsic rocks along the banks of the stream at Mammar Kangan.



Fig 3a. Showing polymictic conglomerate along the banks of the stream at Mammar Kangan.

Mammar to Sonamerg

Along the Road from Mammar to Srinagar large scale structural features are present. The different types of anticline folding and the chevron folding catches the eye of the geologists (Fig. 4a). Further the triangular facets show that the area is under stress. Along the left of the road sides the different lithology (limestones) of sedimentary and metamorphic origin (schists and phyllites) are present that shows the numerous joints and faults of different dip amount and strike (Fig. 5).



Fig 4. Showing anticline and the chevron folding near Sonamerg.



Fig. 5. Showing fractures and effect of weathering in rocks at sonamerg.

Thajiwas Glacier

Thajiwas Glacier lies at the distance of about 3kms from the sonamerg area. This glacier is located at an altitude of 3000ms above mean sea level. This glacier is one of the primary attraction of geologists as well as the tourists and local people too. The glacier is loaded with the snow clad peaks. The lateral moraine deposits and the terminal moraines are the treasure of morphological study. The snout of this glacier is surrounded by the talus and scree that represents the rock and debris fall from time to time (Fig 6). The fan structures are observed at the foot of the mountains and numerous small channels have formed due to the glacial melt and runoff.

This field trip was helpful both for the students and the faculty, as the students learnt about the geologic aspects. The fundamental geological lectures related with the stream flow, deposition, erosion, nature of magmatic flow, and the lithological characteristics were explained to the students by showing the field evidences. The students were inquisitive towards the lectures as they find the field evidence based knowledge easy and interested.



Fig 6. Showing snout of the Thajiwas glacier surrounded by talus and scree at Sonamerg.

Field Glimpses



