Metadata Details

Title
Some Observations on the Glacial Geomorphological Features of Wohlthat Mountains, Central Queen Maud Land, Antarctica.

Science Keywords

Category	Land Surface
Topic	Geomorphology
Expedition Year	1985-1986
ISO Topic	Geodesy

Summary

Abstract
The part of central Queen Maud Land between the Indian station Dakshin Gangotri at shelf and about 200 km inside, towards south, encompasses four distinct geomorphological units: namely the shelf area, piedmont zone, the mountain barrier and polar ice plateau. Glacial geomorphological features of the mountain barrier, formed by the Wohlthat mountain chain, were studied during the Fifth Indian Expedition to Antarctica and are briefly described in this paper. The prominent features comprise the differential relief, various types of moraines, wind scoops and desert weathering (honeycomb features). Level of glaciation has been inferred and several features associated with deglaciation have also been described.

Purpose
The Wohlthat mountain range in the central Queen Maud Land is a distinct physiographic unit girdling this part of Antarctica. The mountain chain exposed between about 200 to 350 km from the shelf (Princess Astrid Coast) trends in a NE - SW direction. The area from the coast to south of Wohlthat range, from where the polar plateau starts, has a gradual rise in slope from sea level to beyond 3000 m.a.s.I. The section between the coast and the polar plateau has been divided into four disinct morphological units: (1) the ice shelf, (ii) the piedmont zone of polar ice sheet, (iii) the mountain barrier, dissected by outlet glaciers and (iv) the polar plateau. All these divisions have their own characteristics. The aim of this paper is to bring out the major glacial geomorphological features in and around the mountain barrier (Wohlthat mountains), which were observed during the Fifth Indian Expedition to Antarctica.

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