

INVESTIGATIONS ON THE QUATERNARY DEPOSITS IN THE FISKENÆSSET REGION, SOUTHERN WEST GREENLAND

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As a part of the mapping of the Quaternary deposits for a map sheet in 1:500 000, covering Søndre Strømfjord to Frederikshåbs Isblink, key areas in the region between Ravns Storø and Ameralik fjord were investigated in the period 24th June to 25th August.

In general the Quaternary sediments are related to post-glacial events in connection with the retreat of the Inland Ice after Wisconsin-Würm. Minor halts in this recession are marked by ice margin deposits parallel to the present Inland Ice margin. Usually these deposits are too scattered to allow for a morphological correlation over large distances, but at least two moraine zones approximately 50 km and 5–25 km from the present ice margin may indicate major halts in this recession. Moraine systems close to the present Inland Ice margin are related to shorelines at 60–65 m above sea level and this must indicate that the ice cover had retreated close to the present extent several thousand years ago. The recession was continued beyond the present extent and followed by a hypothermal expansion, which is indicated by the occurrence of marine shells in the moraines at Sermilik – Alangordlia and at Frederikshåbs Isblink. Shells were collected at the last locality by D. Heling (see this report).

Moraines from a subsequent expansion in historical time were visited at the ice margin at the head of Bjørnesund. Lichens (*Umbilicaria* and *Alectoria* species) 2–3 cm across on moraine boulders adjacent to the ice indicate that the ice margin has not retreated for several years and that it may be under slight expansion.

Ice margin deposits from local glaciers are usually related to the foreland close to existing glacier lobes and this, in addition to the direction of glacial striae, shows that only small fluctuations of local glaciers occurred in post-glacial time.

The post-glacial glacio-isostatic uplift is indicated by numerous raised shorelines, mostly in the form of terraces. Only in few places (Sanerâta timâ, Marraq, Qeqertaq) were these found to contain marine shells.

The maximum altitudes of the shore lines decrease from 100–110 m a.s.l. in Ameralik and Buksefjord in the north to 45–65 m a.s.l. in the area between Grædefjord and Frederikshåbs Isblink, an observation accordant with the narrowing of the present ice-free margin and the consequent smaller former ice load.