Ice Age History of Ddhaw Ghro

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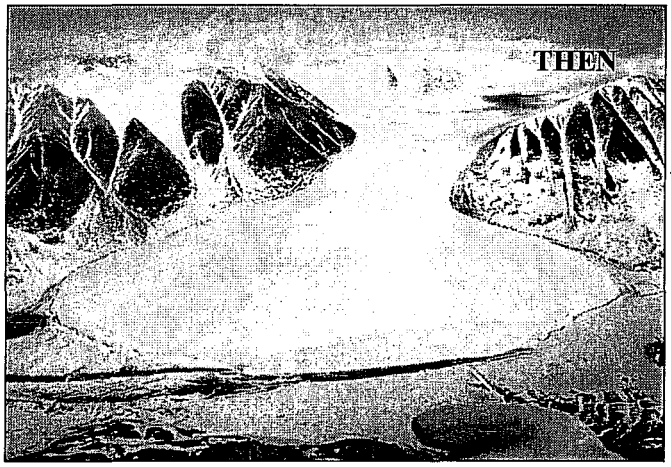
Ddhaw Ghro special management area (S.M.A.) has been glaciated many times during the current global cool phase that began 2.5 million years ago. The last glaciation (McConnell) reached its maximum extent in the area about 20,000 years ago. The glaciation prior to the McConnell reached its maximum extent between 300,000 and 190,000 years ago. That glaciation is referred to as the Reid glaciation, named after Reid Lakes where it reached its terminus.

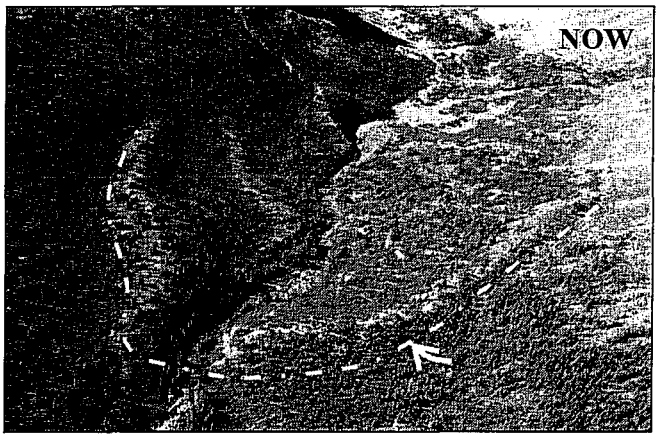
Glaciations begin when the right climatic parameters allow annual snow fall to exceed annual summer melting. The first areas ice accumulates during a glacial period are the high mountain ranges like the Selwyn, Cassiar, Pelly, Ogilvie and St. Elias mountains. As the glaciation progressed in Yukon the ice thickened and began to flow into the valleys. Once in the large valleys, the ice advanced to the west and northwest, similar to the flow of the large rivers today. Central Yukon and the area including Ddhaw Ghro were some of the last areas to be covered by ice during the glaciations.

Ice formed in the highlands of Ddhaw Ghro during each of the last two glaciations. These local alpine glaciers flowed a short distance out of the mountain range (see photographs). Large valley glaciers that were part of the great ice sheet occupied surrounding valleys such as the Tintina Trench, Nogold Creek and Stewart River. Importantly, during each of the last two glaciations, large land areas in Ddhaw Ghro also remained exposed above the ice limit. It is uncertain what the environment of these unglaciated areas would have been like at the height of the last glaciation.

Glaciations had a significant impact on the Ddhaw Ghro land area. Alpine glaciers carved out deep mountain valleys leaving a rugged landscape at the heart of the SMA. Cirques and tarns characterize the environment at the headwaters of most of the streams in the SMA. Cirques are amphitheater shaped erosional features that form as a result of ice erosion. Tarns are small lakes that form in the bottom of cirques due to over-erosion of the land, which creates a depression in the bedrock. Both of these glacial features play an important role in the alpine wildlife habitat found in the SMA. Lower in the valleys, different sediment types deposited during a glaciation will create varying soil conditions. This, along with topography, plays an important role in vegetation distribution.



During the last glaciation the uplands at the heart of Ddhaw Ghro may have looked similar to this environment found on Ellesmere Island today.



Today only remnant features of the ice age remain. Landforms such as this end moraine mark the outer limit of the ice advance.