



Glacial landforms and relicts in the high mountains of Taiwan

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Glacial landforms and relicts are well preserved in the high mountains of Taiwan although substantial orographic precipitation, periglacial, earthquakes, and surface erosion processes have been active ever since the retreat of the last glaciations. Variations of glacial landforms and relicts in the northern, central, and southern areas of Taiwan are attributed mainly to differences in lithology. Cirque glaciers and rectilinear trough valleys are distinctive glacial landforms in the Hseuhshan (3884m) and the Nanhutashan (3742m) area, respectively, in north-central Taiwan. Both of these areas are composed of hard and durable thick layers of meta-sandstone, meta-conglomerate, and quartzite with minor slate. Diagnostic glacial landform and glacial erosional features of streamlined bodies and striated moraines are widely distributed in the high ground above 3300m of the Hohuanshan (3416m) area and the Shangyang Shan (3496m) - Sanchar Shan (3602m) area, respectively in north-central and southern Taiwan. These two areas are mainly composed of weaker rocks of slate, schist with minor meta-sandstones. Whereas in central Taiwan, in the Mount Yushan (3952m) area, limited glacial landforms of polished and striated bedrock surface was found. The preservation of geomorphic surfaces with glacial erosional forms is highly favorable near or at the top of drainage divide where the effect of stream headward erosion, mass wasting, and surface creeping are not obvious.