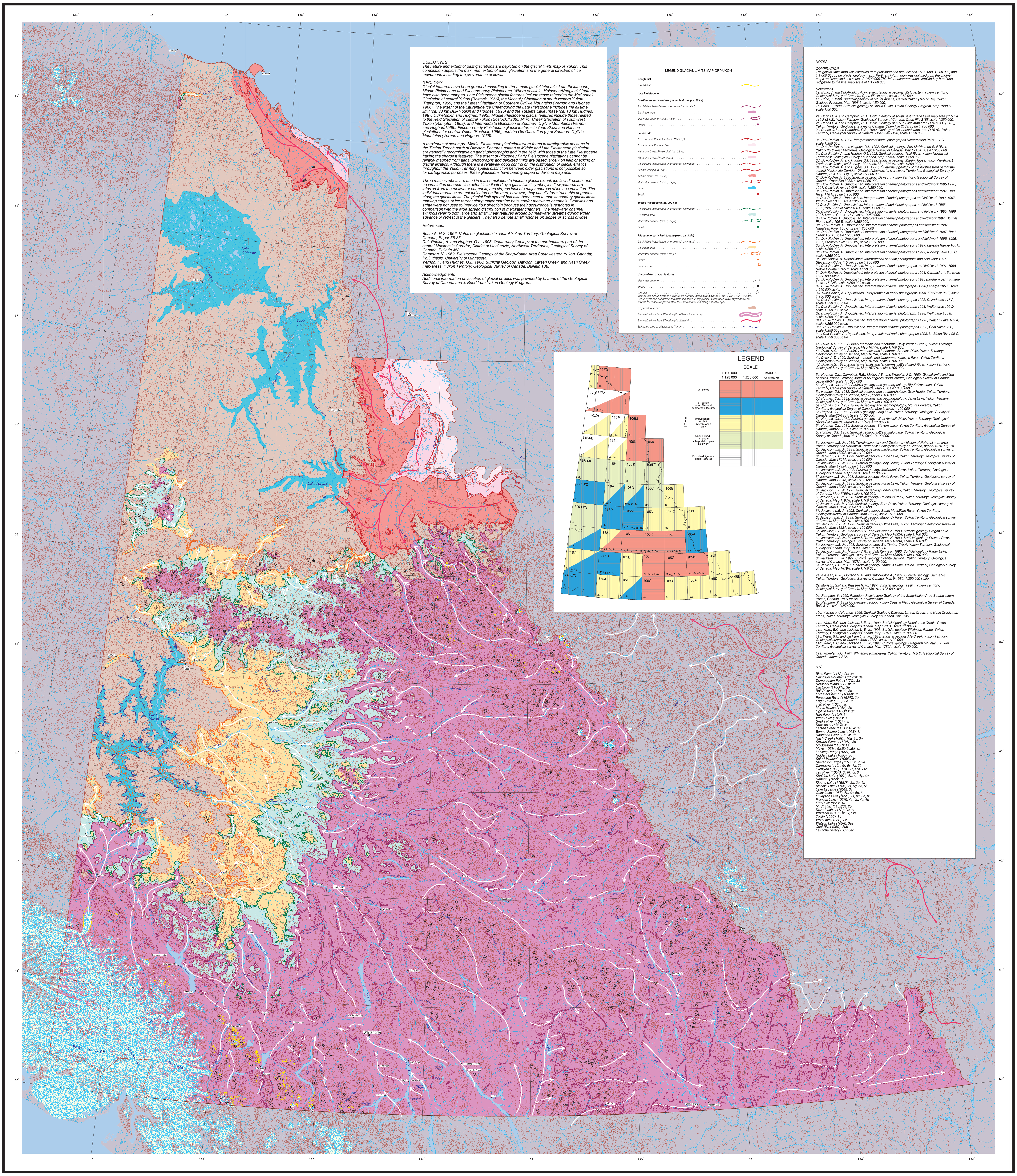


OBJECTIVES
The nature and extent of past glaciations are depicted on the glacial limits map of Yukon. This compilation depicts the maximum extent of each glaciation and the general direction of ice movement, including the provenance of flows.

GEOLOGY
Glacial features have been grouped according to three main glacial intervals: Late Pleistocene, Middle Pleistocene and Pliocene-early Pleistocene. Where possible, Holocene/Neoglacial features have also been mapped. Late Pleistocene glacial features include those related to the McConnell Glaciation of central Yukon (Bostock, 1966), the Macauly Glaciation of southwestern Yukon (Rampton, 1969) and the Latest Glaciation of Southern Ogilvie Mountains (Vernon and Hughes, 1966). The extent of the Laurentide Ice Sheet during the Late Pleistocene includes the all time limit (ca. 30 ka; Duk-Rodkin and Hughes, 1995) and the Tutsieta Lake Phase (ca. 13 ka; Hughes, 1987; Duk-Rodkin and Hughes, 1995). Middle Pleistocene glacial features include those related to the Reid Glaciation of central Yukon (Bostock,1966), Mirror Creek Glaciation of southwest Yukon (Rampton, 1969), and Intermediate Glaciation of Southern Ogilvie Mountains (Vernon and Hughes,1966). Pliocene-early Pleistocene glacial features include Klaza and Nansen glaciations for central Yukon (Bostock, 1966), and the Old Glaciation (s) of Southern Ogilvie Mountains (Vernon and Hughes, 1966).

A maximum of seven pre-Middle Pleistocene glaciations were found in stratigraphic sections in the Tintina Trench north of Dawson. Features related to Middle and Late Pleistocene glaciation are generally recognizable on aerial photographs and in the field, with those of the Late Pleistocene having the sharpest features. The extent of Pliocene / Early Pleistocene glaciations cannot be reliably mapped from aerial photographs and depicted limits are based largely on field checking of glacial erratics. Although there is a relatively good control on the distribution of glacial erratics throughout the Yukon Territory spatial distinction between older glaciations is not possible so, for cartographic purposes, these glaciations have been grouped under one map unit.

Three main symbols are used in this compilation to indicate glacial extent, ice flow direction, and accumulation sources. Ice extent is indicated by a glacial limit symbol, ice flow patterns are inferred from the meltwater channels, and cirques indicate major sources of ice accumulation. The individual moraines are not indicated on the map, however, they usually form traceable segments along the glacial limits. The glacial limit symbol has also been used to map secondary glacial limits marking stages of ice retreat along major moraine belts and/or meltwater channels. Drumlins and striae were not used to infer ice flow directioin because their occurrence is restricted in comparison with the wide spread distribution of meltwater channels. The meltwater channel symbols refer to both large and small linear features eroded by meltwater streams during either advance or retreat of the glaciers. They also denote small notches on slopes or across divides.

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LEGEND GLACIAL LIMITS MAP OF YUKON

**Neoglacial**

*Glacial limit*

**Late Pleistocene**

***Cordilleran and montane glacial features (ca. 22 ka)***

*Glacial limit (established, interpolated, estimated)*
*Glaciated area*
*Meltwater channel (minor, major)*
*Erratic*

***Laurentide***

*Tutsieta Lake Phase Limit (ca. 13 ka Bp)*
*Tutsieta Lake Phase extent*
*Katherine Creek Phase Limit (ca. 22 ka)*
*Katherine Creek Phase extent*
*Glacial limit (established, interpolated, estimated)*
*All time limit (ca. 30 ka)*
*All time extent (ca. 30 ka)*
*Meltwater channel (minor, major)*
*Lakes*
*Erratic*

***Middle Pleistocene (ca. 200 ka)***

*Glacial limit (established, interpolated, estimated)*
*Glaciated area*
*Meltwater channel (minor, major)*
*Erratic*

***Pliocene to early Pleistocene (from ca. 3 Ma)***

*Glacial limit (established, interpolated, estimated)*
*Glaciated area*
*Meltwater channel (minor, major)*
*Erratic*
*Local ice cap*

***Uncorrelated glacial features***

*Meltwater channel*
*Erratic*
*Cirques*
*(compound cirque symbol; 1 cirque, no number inside cirque symbol; < 2; < 10; < 20; < 30; etc. Cirque symbol is oriented in the direction of the valley glacier. Orientation is averaged between cirques that share approximately the same orientation along a local range).*
*Unglaciated terrain*
*Generalized Ice Flow Direction (Cordilleran & montane)*
*Generalized Ice Flow Direction (Continental)*
*Estimated area of Glacial Lake Yukon*

NOTES

COMPILATION
The glacial limits map was compiled from published and unpublished 1:100 000, 1:250 000, and 1:1 000 000 scale glacial geology maps. Pertinent information was digitized from the original maps and compiled at a scale of 1:500 000. This information was then simplified by hand and redigitized to the final map scale of 1:1 000 000.

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NTS

Blow River (117A): 9b; 3e
Davidson Mountains (117B): 3e
Demarcation Point (117C): 3a
Herschel Island (117D): 9b
Old Crow (116O/N): 3e
Bell River (116P): 3b, 3e
Fort MacPherson (106M): 3b
Porcupine River (116J/K): 3e
Eagle River (116I): 3c, 3e
Trail River (106L): 3c
Martin House (106K): 3d
Ogilvie River (116G/F): 3g
Hart River (116H): 3h
Wind River (106E): 3i
Snake River (106F): 3j
Dawson (116B/C): 3f
Larsen Creek (116A): 10 a; 3k
Bonnet Plume Lake (106B): 3l
Nadaleen River (106C): 3m
Nash Creek (106D): 10a; 1c; 3n
Stewart River (115O/N): 3o
McQuesten (115P): 1a
Mayo (105M): 5a,5b,5c,5d; 1b
Lansing Range (105N): 3p
Niddery Lake (105O): 3q
Sekwi Mountain (105P): 3s
Stevenson Ridge (115J/K): 3r; 9a
Carmacks (115I): 6r, 6s, 7a; 3t
Glenlyon (105L): 11a,11b,11c, 11d
Tay River (105K): 6j, 6k, 6l, 6m
Sheldon Lake (105J): 6n, 6o, 6p, 6q
Nahanni (105I): 6a
Kluane Lake (115G/F): 2a; 3u; 5a
Aishihik Lake (115H): 5f, 5g, 5h, 5i
Lake Laberge (105E): 3v
Quiet Lake (105F): 6b, 6c, 6d, 6e
Finlayson Lake (105G): 6f, 6g, 6h, 6i
Frances Lake (105H): 4a, 4b, 4c, 4d
Flat River (95E): 3w
Mt.St.Elias (115B/C): 2b
Dezadeash (115A): 2c; 3x
Whitehorse (105D): 3y; 12a
Teslin (105C): 8a
Wolf Lake (105B): 3z
Watson Lake (105A): 3aa
Coal River (95D): 3ab
La Biche River (95C): 3ac

Yukon Government


Compilation by: A. Duk-Rodkin, Geological Survey of Canada
Digital cartography by: K. Shimamura, Geological Survey of Canada


Digital base map at the scale of 1:1 000 000 from the Digital Chart of the World (DCW) from Environmental Systems Research Institute (ESRI), with modifications by the Terrain Sciences Division

Contour interval 1000 feet with index contour interval 5000 feet.

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COMMISSION GÉOLOGIQUE DU CANADA
OTTAWA
1999


# GLACIAL LIMITS MAP OF YUKON TERRITORY

Scale 1:1 000 000/Échelle 1/1 000 000
kilometres 25 0 25 50 75 kilomètres

Lambert Conformal Conic Projection
Standard Parallels 62°N and 68°N

Projection conique conforme de Lambert
parallèles d'échelle conservée a 62°N et 68°N



YUKON GEOLOGY PROGRAM

Geoscience Map 1999-2

Natural Resources Canada | Ressources naturelles Canada

Indian and Northern Affairs Canada | Affaires indiennes et du Nord Canada


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