

VEGETATION ZONES OF THE DEASE LAKE MAP AREA (104 J)

1. Explanatory Notes

This map shows Vegetation Regions and Vegetation Zones. A Vegetation Region is an area in which broad regional climate and physiography determine a definitive vegetation of the Region. Vegetation Regions can be further divided into Sections, Zones and Subzones. A Vegetation Zone is an area that is relatively homogeneous with respect to climate and dominant climax vegetation. A Vegetation Zone can be divided into subzones on basis of differences in successional trends or variation in growth-form. Vegetation maps form a necessary input towards determining management alternatives, constraints, use and productivity.

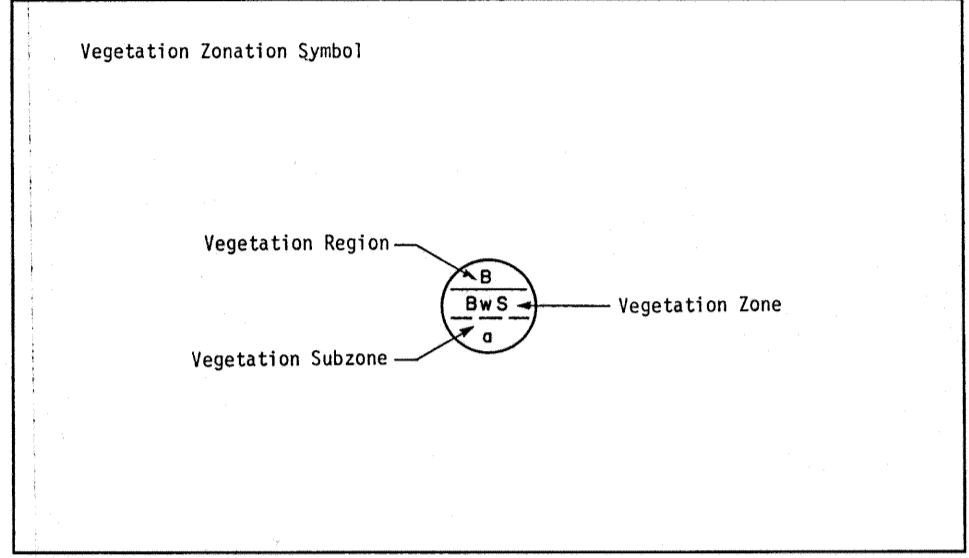
The vegetation is mapped at a scale of 1:250 000 for the National Topographic Series Mapsheet 104J (Dease Lake mapsheet).

The study area was surveyed at a reconnaissance level using standard methodology (Wainwright, et al., 1980). Mapping was done using mapping methodology of the Vegetation Unit of the Surveys and Resource Mapping Branch of the Ministry of Environment. The Vegetation Mapping Methodology Manual is in preparation see Ministry of Environment (in preparation) box 7. More information on methodology and distribution of terrain soils and ungulate capability is available in Fenner et al. (in preparation) as these resources were mapped concurrently with this vegetation survey.

2. Map Boundaries and Plot Symbols

- Vegetation Zone Boundary¹.
 - Plot Location.
 - Site, Soil, and Vegetation Description Form Number^{2,3}.
 - This prefix indicates Laboratory soil analysis carried out.
 - E This suffix indicates plot described by Ministry of Environment Staff.
 - F This suffix indicates plot described by Ministry of Forests Staff.
 - P This suffix indicates plot described by Pedology Consultants Staff.
 - X 72 Plot location and number of reconnaissance plots³.
- ¹ Entire area lies within one Vegetation Region. Sections are not identified.
- ² Complete form numbers indicate Site and Soil information is stored within the B.C. Soil Information System.
- ³ Plots without form numbers not in B.C. Soil Information System.

3. Example of Map Symbols



4. Vegetation Region

| MAP SYMBOL ¹ | REGION NAME | ENVIRONMENTAL DESCRIPTION ² |
|-------------------------|-------------------|--|
| (B) | BOREAL REGION (B) | The study area lies within one Vegetation Region, the Boreal Region. The Boreal Region is defined by the zonal pattern described below (Box 5) in which the Boreal white spruce zone is the characteristic zone. White spruce and black spruce are the characteristic species with white spruce being dominant on mesic sites and black spruce being dominant on poorly drained sites. Alpine fir dominates at higher elevations. Common seral species are lodgepole pine and trembling aspen. Balsam poplar is abundant on floodplains. Glandular birch is of widespread occurrence in this Region. Climatically the area has long, cold winters, short, cool summers, light precipitation and short freeze free period. Lightning-caused fires are common, resulting in large areas with seral vegetation. The productivity of the Region is generally low due to the climatic limitations. Sections are not identified. |

¹ Indicated region remains unchanged, zones in other parts of symbol may vary.

² Nomenclature of plant species follows: Taylor, R.L. and B. MacBryde (1977).

5. Vegetation Zones

| MAP SYMBOL ¹ | ZONE NAME | GENERAL ENVIRONMENT | COMMON VEGETATION ² | MAP SYMBOL ¹ | ZONE NAME | GENERAL ENVIRONMENT | COMMON VEGETATION ² |
|-------------------------|--------------------------------|---|---|-------------------------|-----------------------------------|--|---|
| (BWS) | BOREAL WHITE SPRUCE ZONE (BWS) | The boreal white spruce zone* is characterized by a climatic climax potential of white spruce on medium textured, well to moderately well drained soils. Long, cold winters and short, cool summers with low precipitation and relatively long frost-free period characterize the zone (at Dease Lake; mean daily temperature 1.2°C, mean annual precipitation 394.4 mm, days with frost 244). This zone has the best productivity in the area. Organic matter accumulation in soil is moderate. Common seral species are lodgepole pine (on coarse materials and trembling aspen on fine and medium textured soils). | 1. white spruce - soppol- allie - hairy-panicle mertsensia - common moss (climatic climax on mesic sites with medium textured, well to moderately well drained soils) 2. lodgepole pine - kinnikinnick - common moss lichens (seral vegetation on coarse, gravelly soils) 3. trembling aspen - soppol- allie - prickly rose - fireweed - northern twin- flower (seral vegetation on fine textured soils) 4. juniper - kinnikinnick - grasses (topographic climax on dry, south facing slopes) 5. glandular birch - Altai fescue - Cladina - Cetraria (edaphic climax on rapidly drained, seric sandy soils) 6. black spruce - glandular birch - common Labrador tea - sedge - peat moss (edaphic climax on poorly drained sites) 7. glandular birch - willows (edaphic climax on imperfect to poorly drained soils) 8. willow - sedge - peat moss (edaphic climax on imperfect to poorly drained soils, wetter than 7). | (SAaIF) | SUBALPINE ALPINE FIR ZONE (SAaIF) | The Subalpine alpine fir zone is roughly equivalent to the upper part of spruce - willow-birch biogeoclimatic zone while lower part is similar to the Boreal white spruce forest zone (Pojar, 1982). | 1. alpine fir - granular fir - Canadian bunchberry - common moss (climatic climax on mesic sites) 2. alpine fir - black crow- berry - common moss - lichens (climatic climax krummholz) 3. lodgepole pine - glandular birch - hairy cap moss lichens (seral vegetation on coarse soils) 4. glandular birch - Cladina edaphic climax on rapidly drained soils) 5. glandular birch - willow - sedge (edaphic climax on seepage slopes) 6. willow - sedge (lower seepage slopes or subalpine plains) |
| (AI) | ALPINE TUNDRA ZONE (AI) | The alpine tundra zone* is characterized by low mat forming vegetation lacking tree growth due to the harsh environment which is characterized by very cold temperatures, frozen soils much of the year, desiccating winds, long snow duration and a very short growing season with frost expected any day (based on Cassiar Station; mean daily temperature less than 3° C, days with frost greater than 265). | 1. glandular birch - Altai fescue - Cladina (climax on dry sites) 2. glandular birch - diamond willow - Polytrichum piliferum - TERFARIA (climax on mesic sites) 3. alpine willows - Cassiope - blue grasses (dry sites) 4. willows - sedge - alpine bistort - alpine colts- foot (wet sites) | | | The alpine tundra zone is roughly equivalent to the Alpine tundra biogeoclimatic zones (Krajina, 1965). | |

¹ Indicated zone remains unchanged, other parts of symbol may vary.

² The vegetation communities are defined subjectively. Nomenclature of plant species follows: Taylor, R.L. and B. MacBryde (1977).

6. For Further Information

- A. References:
- Terrestrial Studies Branch, B.C. Ministry of Environment
- (a) Clement C. and M. Fenner, 1981. Forest Zonation Vegetation Landscapes and General Terrain Description for the Level Mountain Range. A 1:50,000 scale map covering portions of 104, 5, 6, 11 and 12.
- (b) Fenner M., A. Stewart, and J. Ryder in preparation. Distribution and Description of Terrain, Soils Vegetation Zones and Ungulate Capability for the Dease Lake Map Area. Surveys and Resource Mapping Branch Ministry of Environment. Working Report and 1:250 000 scale maps.
- (c) Krajina, V.J. 1965. Biogeoclimatic zones and Biogeocoenoses of British Columbia. In Ecology of western North America, Vol. 1. Dept. of Bot., University of B.C., Vancouver.
- (d) Ministry of Environment (in preparation). Vegetation Mapping Methodology Manual, Planning and Resource Management Division, Victoria, B.C.
- (e) Paminter J. 1983. Fire-Ecological Relationships for the Biogeoclimatic Zones of the Cassiar Timber Supply Area. Protection Branch, Ministry of Forests, Victoria, B.C. 179 p.
- (f) Pojar, J. (compiler and Editor). 1982. Forest Ecology In Forestry Handbook. 4th edition. U.B.C. Forestry Club, Vancouver, B.C.
- (g) Pojar J., R. Troubridge, and T. Lewis. 1982. Biogeoclimatic Zones of the Cassiar Timber Supply Area, Northwestern BRITISH COLUMBIA. Ministry of Forests. Working Report Forest Region, Research Section, Bag 5000, Smithers, B.C. 49 p.

- (h) Taylor, R.L. and B. MacBryde. 1977. Vascular Plants of British Columbia: A Descriptive Resource Inventory. Technical Bulletin No. 4. The Botanical Garden, University of British Columbia, Vancouver, B.C.
- (i) Utzig G., M. Wainwright, and C. Clement. 1982. Biogeoclimatic Zonation of the Stikine Basin. Prepared for the Association of United Nations by Pedology Consultants. 21 p and a folio of 1:250 000 scale maps.
- (j) Wainwright, M., G. Utzig, T. Vold, D. Moon and J. van Barneveld (editors). 1980. Describing Ecosystems in the Field. Planning and Resource Management DIVISION, MINISTRY OF ENVIRONMENT and Research Branch, Ministry of Forests, Victoria, B.C. 226 p.
- B. Additional vegetation data and more detailed information is available from:
- Planning and Resource Management Division
Ministry of Environment
Parliament Buildings
Victoria, B.C.
V8V 1X4
- C. Additional vegetation maps are available from:
- Map Library
Planning and Resource Management Division
Ministry of Environment
Parliament Buildings
Victoria, B.C.
V8V 1X4

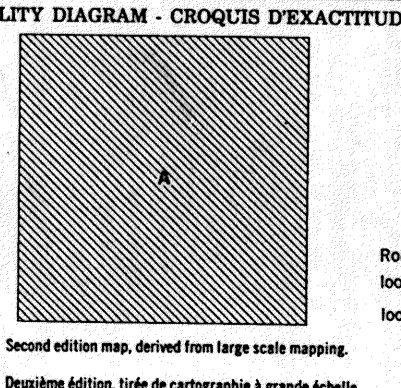
7. Sources of Information

- a) British Columbia Ministry of Environment, Planning and Resource Management Division
- i. vegetation survey (1980) - 27 plots
 - ii. vegetation survey (1981) - 59 plots
 - iii. soils and terrain survey (1980)
 - iv. soils and terrain survey (1981)
- b. British Columbia Ministry of Forests - Forest cover maps for Public Sustained Yield Units (PSYU)
- i. Taku PSYU (proposed)
 - ii. Dease PSYU (proposed)
 - iii. Stikine PSYU (proposed)

8. Credits

Mapping supervised by: M. Raffiq
Mapping correlated by: M. Raffiq
Date of mapping: 1981-82
Drafted by Cartography Unit, Planning and Resource Management Division, Ministry of Environment, Kelowna, B.C.
Date drafted: 1983
Revision dates:
i. Dease PSYU (proposed)
ii. Stikine PSYU (proposed)

Base map provided by Surveys and Resource Mapping Branch, Ministry of Environment, Victoria, B.C.



PROFANE 1981, by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND RESOURCES. Printed 1977.

Magnetic declination 1983 varies from 29'22" westerly at centre of west edge to 29'51" westerly at centre of east edge. Mean annual change 4.7 westerly.

Copies may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa, or your nearest map dealer.

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FOR COMPLETE REFERENCE SEE REVERSE SIDE

DEASE LAKE CASIAR DISTRICT BRITISH COLUMBIA

Scale 1:250,000 Echelle

CONTOUR INTERVAL 500 FEET
Divisions in feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

EQUIDISTANCE DES COURBES 500 PIEDS
Divisions en pieds au-dessus du niveau de la mer
Système de référence géodésique nord-américain, 1927
Projection Transverse de Mercator

Déclinaison magnétique pour 1983 varie de 29°22' est au centre de la limite Ouest à 29°51' est au centre de la limite Est. Variation moyenne annuelle 4.7 Ouest.

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