



Natural Resources
Canada

Ressources naturelles
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Canada Centre for Remote Sensing
Centre canadien de télédétection

LAND COVER MAP OF CANADA 2005 DESCRIPTIONS OF LAND COVER CLASSES

TREE DOMINATED

Land dominated by vegetation with a tree (woody plants with a height exceeding approximately 5 metres in most cases) crown density (percentage of the surface covered by projected tree crown perimeters) greater than 25%.

Closed tree canopy

Crown density of trees greater than approximately 60%.

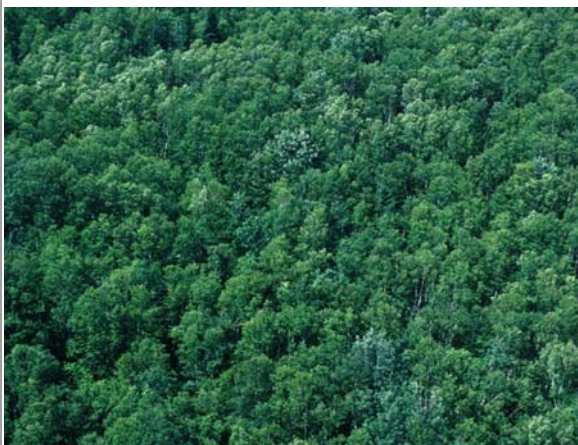
Evergreen needle-leaved trees occupy more than 75% of total tree cover.



Temperate or subpolar needle-leaved evergreen closed tree canopy (1)

High density (> 60% cover) mature needle-leaved evergreen (> 75%) forest. This class is found primarily in the southern boreal forest and in mountainous regions of western Canada.

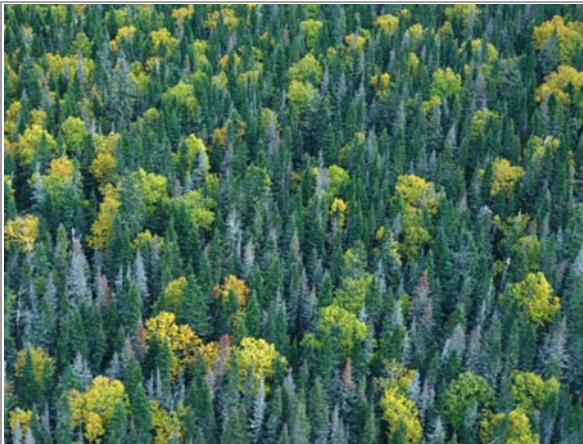


Cold deciduous trees occupy more than 75% of total tree cover.



Cold deciduous closed tree canopy (2)

High density (> 60% cover) mature broad-leaved deciduous (> 75%) forest. Concentrated occurrence of deciduous broad-leaved forest with high crown density that is generally composed of tolerant hardwood species such as maple and yellow birch in eastern Canada.

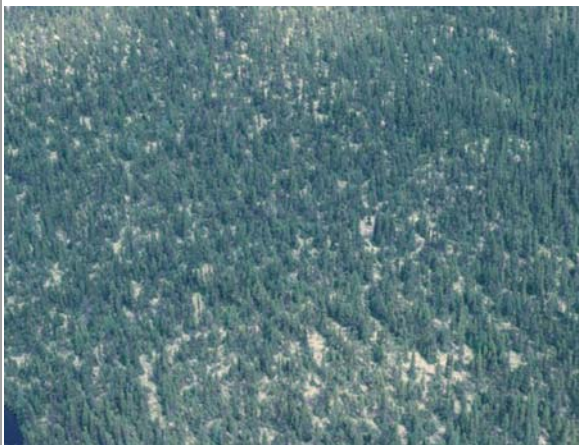
Mixed needle-leaved evergreen – deciduous where dominant tree type

	occupies less than 75% of total tree cover.
	<p>Mixed needle-leaved evergreen – cold deciduous closed tree canopy (3)</p> <p>High density (> 60% cover) mature mixed forest with 50 – 75% needle-leaved evergreen trees.</p>
	<p>Mixed needle-leaved evergreen – cold deciduous closed young tree canopy (4)</p> <p>High density (> 60% cover) young mixed forest with 50 – 75% needle-leaved evergreen trees.</p>
	<p>Mixed cold deciduous – needle-leaved evergreen closed tree canopy (5)</p> <p>High density (> 60% cover) mature mixed forest with 25 – 50% needle-leaved evergreen trees. This class is found in the southern boreal forest between classes 1 and 3.</p>
<p>Open tree canopy Crown density of trees between approximately 25-60%.</p>	Evergreen needle-leaved trees occupy more than 75% of total tree cover.



Temperate or subpolar needle-leaved evergreen medium density, moss-shrub understory (6)

Medium density (40 – 60% cover) mature needle-leaved evergreen forest with understory dominated by mosses and shrubs. This class is found primarily in the central boreal region.



Temperate or subpolar needle-leaved evergreen medium density, lichen-shrub understory (7)

Medium density (40 – 60% cover) mature needle-leaved evergreen forest with ground cover dominated by lichen, shrubs and moss. This class occurs primarily in the central-northern boreal region.



Temperate or subpolar needle-leaved evergreen low density, shrub-moss understory (8)

Low density (25 - 40% cover) mature needle-leaved evergreen forest with understory dominated by moss and shrubs. This class is commonly located on wet, poor sites in the central boreal region.



Temperate or subpolar needle-leaved evergreen low density, lichen (rock) understory (9)

Low density (25 - 40% cover) mature needle-leaved evergreen forest with ground cover dominated by fruticose lichen or crustose lichen on rock. This class is particularly common in the northern boreal forest (taiga).

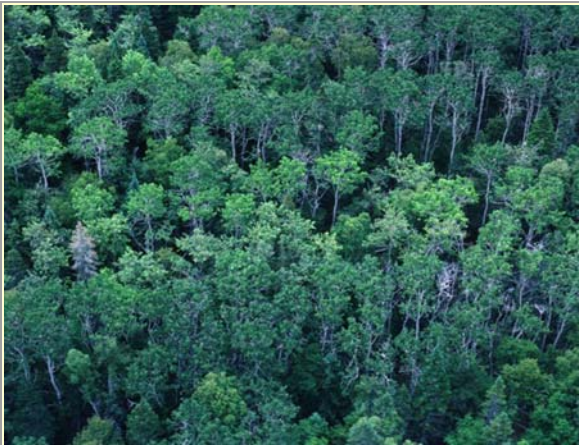


Temperate or subpolar needle-leaved evergreen low density, poorly drained (10)

Wet treed bogs with a low density (25 - 40% cover), mature needle-leaved evergreen tree layer, composed of spruce and tamarack. Variable shrub-herb-lichen-moss present in the understory.



Cold deciduous trees occupy more than 75% of total tree cover.



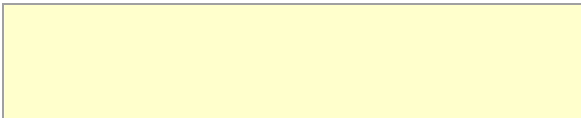
Cold deciduous broad-leaved, low to medium density (11)

Low to medium density (25 - 60% cover) mature deciduous broad-leaved

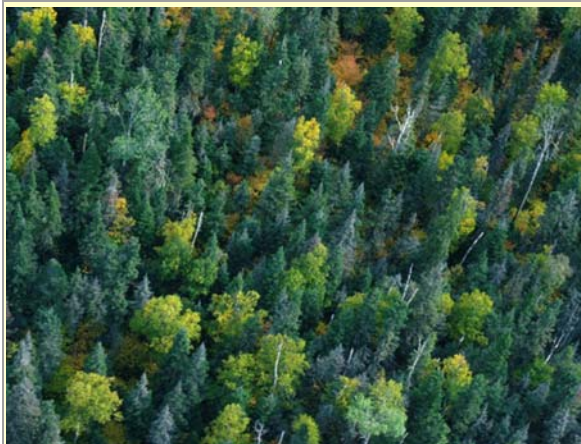


**Cold deciduous broad-leaved,
medium density, young
regenerating (12)**

Young cold deciduous broad-leaved class that often occurs as regeneration cover in old disturbances.

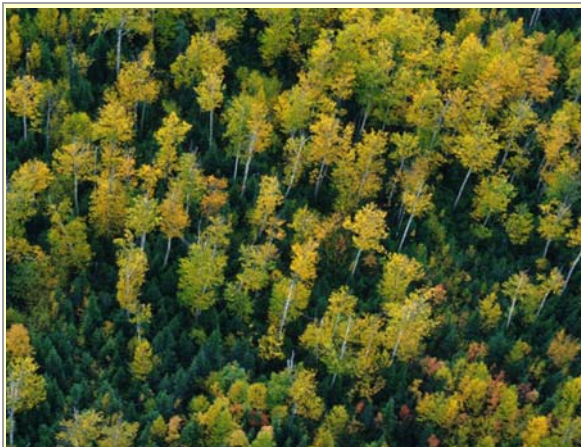


Mixed needle-leaved evergreen – cold deciduous where dominant tree type occupies less than 75% of total tree cover.



**Mixed needle-leaved
evergreen – cold deciduous,
low to medium density (13)**

Low to medium density (25 – 60% cover) mature mixed forest with 50 - 75% needle-leaved evergreen trees and an irregular canopy structure that often occurs as regenerating cover in old disturbances.



**Mixed cold deciduous -
needle-leaved evergreen, low
to medium density (14)**

Low to medium density (25 – 60% cover) mature mixed forest with 25 – 50% needle-leaved evergreen trees and an irregular canopy structure that often occurs as regenerating cover in old disturbances.



Low regenerating young mixed cover (15)

This class contains a mosaic of mixed coniferous and cold deciduous young canopy and openings after disturbance.

SHRUBLAND

Land dominated by vegetation with a shrub (perennial woody plants that branches at ground level from several stems) cover generally greater than 0.5 m in height with individuals or clumps not touching together.



High-low shrub dominated (16)

Dry to wet areas dominated by shrubs > 50 cm. This class occurs over extensive regions in the North and along riparian corridors throughout Canada.

HERB DOMINATED

Land dominated by plants without woody stems, including grasses, forbs and ferns.



Grassland (17)

Land with herbaceous (non-woody) vegetation cover with a tree or shrub cover < 10%.



Herb-shrub-bare cover (18)

Herbaceous vegetation on thinly developed soils with barren patches on ridges and shrubs in depressions.



Wetlands (19)

Vegetated areas where the water table intersects the land surface all or part of the year, including fens, swamps, mashes and shallow water.



Sparse needle-leaved evergreen, herb-shrub cover (20)

Sparse, needle-leaved evergreen tree layer < 25% density, composed of spruce and tamarack with herbs, shrubs and mosses present in the understory.

Tundra

Treeless plains characteristic of high latitude (arctic) and high altitude (alpine) regions.



**Polar grassland, herb-shrub
(21)**

Mesic, generally non-tussock tundra dominated by graminoids and also including dwarf shrub.



Shrub-herb-lichen-bare (22)

Mesic to dry tundra dominated graminoids and erect and prostrate dwarf shrubs < 50 cm. Also contains varying amounts of lichen and bare soil.



**Herb-shrub poorly drained
(23)**

Wet tundra dominated by graminoids, often tussock and including dwarf shrubs < 50 cm and moss. May also contain trace amounts of lichen and bare soil between tussocks.



Lichen-shrub-herb-bare soil (24)

Mesic, lichen dominated tundra, also includes varying mixtures of vascular plants (graminoids, dwarf erect and prostrate shrubs) and may contain bare soil due to cryoturbation.



Low vegetation cover (25)

Barrens dominated by rock outcrops and bare soil with generally < 10% vegetation cover. This class is particularly abundant at high altitudes and high latitudes.

Annual Graminoid or Forb Vegetation
Land containing agricultural cropland or a mixture of forest, shrubland, grassland or built-up areas.



Cropland-woodland (26)

Mosaic land composed of a mixture of forest and cropland, located in agriculture regions in the prairies and eastern Canada.



High biomass cropland (27)

Farmland dominated by high-biomass broadleaved crops owing to the type of crop (e.g. corn) or climate.



Medium biomass cropland (28)

Farmland dominated by medium-biomass broadleaved crops owing to the type of crop (e.g. soybean), climate or developmental stage.



Low biomass cropland (29)

Farmland dominated by low-biomass broadleaved crops owing to the type of crop (e.g. alfalfa), climate or developmental stage.

NONVASCULAR DOMINATED

Barren land in which lichen is the dominant cover type.



Lichen barren (30)

Treeless barren land with shallow soils supporting lichen growth that occurs on the northern mainland and arctic islands



Lichen-sedge-moss-low shrub wetland (31)

Lichen bogs with sedges, sphagnum moss and low dwarf shrubs such as Labrador Tea and Crowberry. This class occurs primarily to the west of Hudson Bay.



Lichen-spruce bog (32)

Wet lichen dominated treed bogs covered by a sparse needle-leaf evergreen tree layer < 25% density composed of black spruce and tamarack. Variable understory also includes graminoids, mosses and dwarf shrub such as Labrador Tea.

VEGETATION NOT DOMINANT

Vegetation is scattered or nearly absent; total vegetation cover, excluding crustose lichens is generally less than 10%.



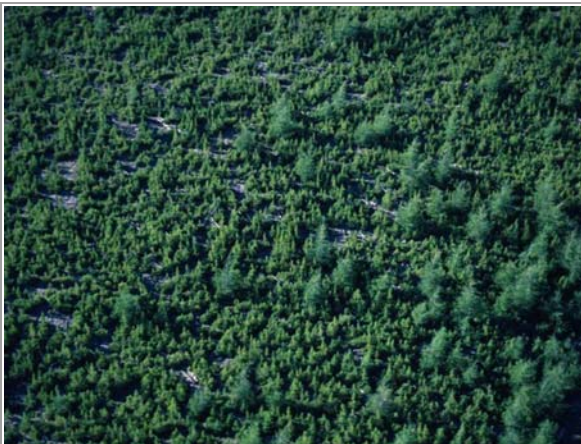
Rock outcrops (33)

Pavement with sparse vegetation that occurs on nonacidic and calcareous parent material in the high arctic.



Recent burns (34)

Areas burned within the last ~ 5 years. Standing dead trees, charred duff and sparse live vegetation related to fire intensity are often present.



Old burns (35)

Areas burned within the last ~ 10 years. A mixture of standing and fallen dead trees, char and regeneration consisting of seedlings, shrubs and herbs are present.



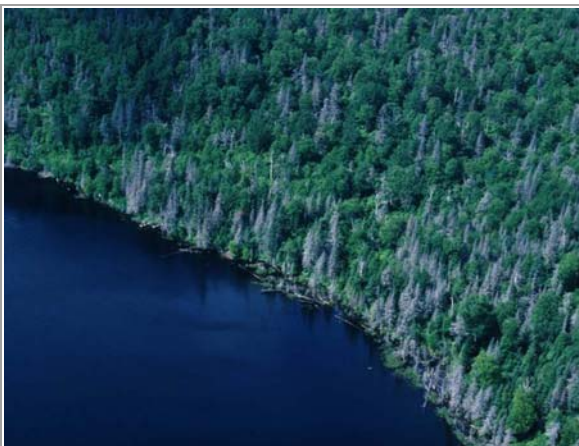
Urban and Built-up (36)

This is a land use category that is composed of a mixture of surface types, including green vegetation and bare ground-type materials such as concrete, asphalt and soil.



Water bodies (37)

Area covered with liquid water.



Mixes of water and land (38)

This class occurs where water occupies a significant percentage (generally $> 40\%$) of the pixel area.



Snow/ ice (39)

Land covered with permanent
ice or snow