

Parkland:

1. Central Parkland

The Central Parkland Subregion extends in a broad arc up to 200 km wide, north of the Grassland Natural Region and south of the Boreal Forest Natural Region.

Climate

The mean annual temperature for the Central Parkland Subregion is 2 degrees celsius with a May - September average of 13 degrees celsius. The frost-free period averages 95 days. Mean annual precipitation is 350-450 mm, and May - September precipitation averages 300 mm.

Soils

Black and Dark Brown Chernozems predominate under grassland vegetation while under the moister aspen woodlands Dark Gray Chernozems and Luvisolics are most common. Dark Brown Chernozems occur under woodland vegetation on sandy parent materials. A strip of Brown Solonetz soils runs through the centre of the subregion from Vegreville, through Beaverhill Lake and into the Sullivan and Dowling lakes areas.

Vegetation

Within the Central Parkland Subregion, there is a continuum from south to north of grassland with groves of aspen (*Populus tremuloides*), to aspen parkland, to closed aspen forest in the north. True parkland vegetation with continuous aspen forest broken by grassland openings is now very rare due to large scale clearing. In much of the rest of the Central Parkland Subregion, native vegetation is scarce because of the high productivity of the soils for agriculture. Consequently, most of the remaining parkland sites are on rougher terrain or sites with Solonchic soils.

Two major forest types are recognized here on morainal and glaciolacustrine materials; a *Populus tremuloides* type and a *Populus balsamifera* (balsam poplar) type on moister sites in depressions and in the northern part of the subregion. Both are characterized by a dense, lush, species-rich understory. Species characteristic of the *Populus tremuloides* type include *Symphoricarpos albus* (snowberry), *Amelanchier alnifolia* (saskatoon), *Corylus cornuta* (beaked hazel), *Prunus virginiana* (choke cherry), *Cornus canadensis* (bunchberry), *Maianthemum canadense* (wild lily-of-the-valley) and *Schizachne purpurascens* (false melic grass).

Species characteristic of the moister *Populus balsamifera* forests include *Cornus stolonifera* (red osier dogwood), *Salix discolor* (pussy willow), *Ribes oxycanthoides* (northern gooseberry), *Alnus crispa* (green alder), *Lonicera involucrata* (bracted honeysuckle), *Mertensia paniculata* (bluebells), *Petasites palmatus* (palmate-leaved coltsfoot), *Mitella nuda* (mitrewort) and *Actaea rubra* (baneberry). Species common to both types include *Rosa acicularis*, *Rosa woodsii* (woods rose), *Viburnum edule* (low-bush cranberry), *Rubus idaeus* (wild red raspberry), *Rubus pubescens* (dewberry), *Lonicera dioica* (twining honeysuckle), *Aralia nudicaulis* (sarsaparilla), *Agropyron trachycaulum* (bearded wheat grass), *Disporum trachycarpum* (fairy bells), *Pyrola asarifolia* (pink wintergreen), *Aster ciliolatus* (Lindley's aster), *Galium boreale* (northern bedstraw), *Epilobium angustifolium* (fireweed), *Lathyrus ochroleucus* (cream-colored peavine), *Vicia americana* (American vetch), and *Smilacina stellata* (star-flowered Solomon's seal).

The grassland vegetation of the 'parks' is essentially the same as that of the Northern Fescue Subregion. *Festuca scabrella* (rough fescue) dominates most sites with *Stipa curtisetata* (western porcupine grass) being important on south-facing slopes in the southern part of the subregion and on solonchic soil areas. Other grasses of solonchic areas are *Koeleria micrantha* (June grass) and *Agropyron smithii* (western wheat grass).

Shrub communities are more extensive in the northern portion of the subregion and often extend in belts outward from the forest communities. Major species are *Symphoricarpos occidentalis*, *Rosa* spp., *Prunus virginiana*, *P. pensylvanica*, *Amelanchier alnifolia* and *Elaeagnus commutata*.

Wildlife

At the southern edge of the Subregion, grassland species such as upland sandpiper, Sprague's pipit and Baird's sparrow occur but become less common further north. Along the northern boundary, boreal forest species such as woodchuck,

broad-winged hawk and rose-breasted grosbeak are more common. Franklin's ground squirrel and piping plover range primarily in this Subregion.

Species characteristic of forested uplands include red-eyed vireo, red-tailed hawk, least flycatcher, Baltimore oriole, yellow warbler, white-tailed deer, American porcupine, northern pocket-gopher and snowshoe hare.

Wetlands are more common in this Subregion than in the Grassland Natural Region and contain a wide variety of birds and amphibians.

2. Foothills Parkland:

The Foothills Parkland Subregion occupies a narrow band along eastern edge of the geological foothills from Calgary south to the Porcupine Hills, and from Pincher Creek south to the U.S. border in the Waterton Lakes National Park area.

Climate

Mean annual precipitation ranges from 650 mm in the far south to 500 mm in the northern part of the subregion. Mean May - September precipitation is 290 mm. The mean January temperature is -10C and the mean July temperature is 14 degrees celsius. The mean May - September temperature is 12-13 degrees celsius and the frost-free period averages 90 days.

Soils

Predominant soils in the forested areas are Black Chernozems with Dark Brown and Black Chernozems in the grasslands. Regosolics occur on active stream floodplains while Gleysolics occur in wetland sites.

Vegetation

. Desiccation by wind and low precipitation appear to be the main factors determining the extent of this subregion. The northern boundary of this subregion has been placed near Calgary since this is apparently about the limit of a number of distinctive southwestern species. This is the most northerly place where *Lupinus* spp. (lupines), *Danthonia* spp. (oatgrass), and *Festuca idahoensis* (Idaho fescue) occur commonly. However, the majority of southwestern species do not occur north of the Whaleback-Porcupine Hills area. Central Parkland species conspicuously absent here include *Corylus cornuta* (beaked hazel), *Viburnum opulus* (high-bush cranberry), *Aralia nudicaulis* (sarsaparilla), *Cornus canadensis* (bunchberry), and *Maianthemum canadense* (wild lily-of-the-valley).

Populus tremuloides (aspen) is generally dominant in the upland forests with *Populus balsamifera* (balsam poplar) occurring on moister sites. Common understory species include *Symphoricarpos albus* (snowberry), *Amelanchier alnifolia* (saskatoon), *Spiraea betulifolia* (white meadowsweet), *Lathyrus ochroleucus* (cream-coloured peavine), *Fragaria virginiana* (strawberry), *Aster subspicatus* (leafy aster), *Osmorhiza occidentalis* (western meadow rue), *Viola canadensis* (Canada violet), *Smilacina stellata* (star-flowered Solomon's seal), *Heracleum lanatum* (cow parsnip), *Angelica dawsonii* (yellow angelica), and *Geranium richardsonii* (white geranium). A distinctive characteristic of these woods in the southwestern part of the subregion is large amounts of *Erythronium grandiflorum* (glacier lily) which bloom in early to mid-May.

Willow groveland dominated by *Salix bebbiana* (Bebb's willow) occurs extensively on fine-textured glaciolacustrine material and on imperfectly to poorly-drained morainal sites. This distinctive community occurs mainly in the northern part of the subregion. Understory species include *Perideridia gairdneri* (squaw root), *Anemone canadensis* (Canada anemone), *Delphinium glaucum* (tall larkspur) and *Geranium richardsonii* (white geranium).

Populus angustifolia (narrow-leaved cottonwood) forests occur on shifting fluvial terrace deposits in the southern part of the subregion. These are most extensive in the Foothills Fescue Subregion and are described more there.

Wildlife

Rocky Mountain species in upland forests and shrublands include dusky flycatcher, MacGillivray's warbler, lazuli bunting and white-crowned sparrow. In the far south, black-headed grosbeaks and blue grouse are typical of aspen forests.