



Prairies and Savannahs of NW Ontario



Fieldwork conducted by the Natural Heritage Information Centre over the past decade has discovered prairies and savannahs in northwestern Ontario. They occur just west of Thunder Bay near the village of Stanley, and further west along the shores of Rainy Lake, Rainy River, Lake of the Woods, and along the Winnipeg River.



Stanley Area Grasslands

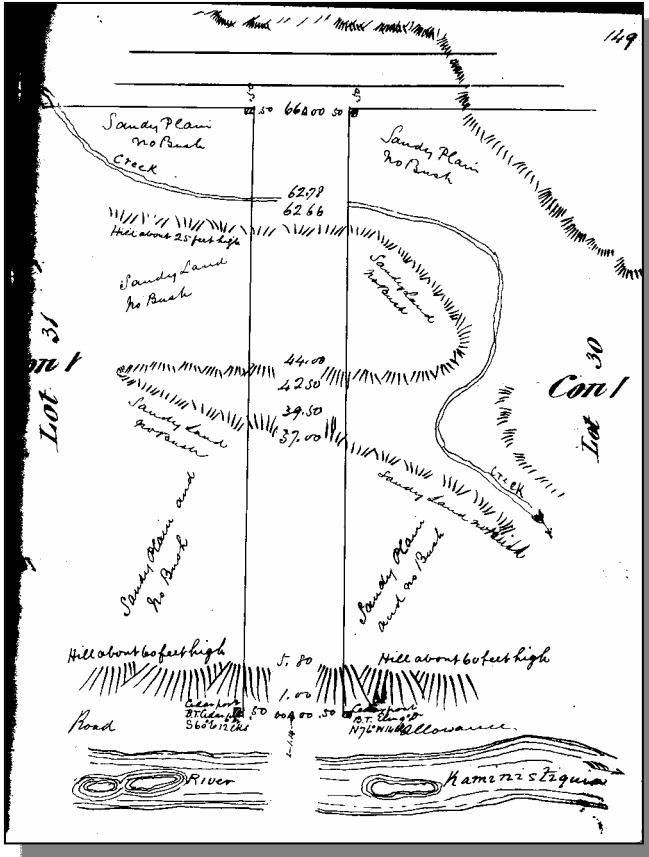
The grasslands in the vicinity of Stanley are now used as pasture or hay meadows. Although disturbed by these agricultural activities, some areas remain dominated by native grass species, such as this patch of Hall's Fescue (*Festuca hallii*).



Hall's Fescue is a tall, native fescue that occurs in Ontario primarily in the Stanley area. This grass is a dominant species of the fescue grasslands which are the northernmost grasslands in Alberta and Saskatchewan. An extensive fescue grassland also occurs in Manitoba at Riding Mountain National Park, where it is disjunct. The occurrence of this species at Stanley is itself disjunct from Riding Mountain by some 800 km.

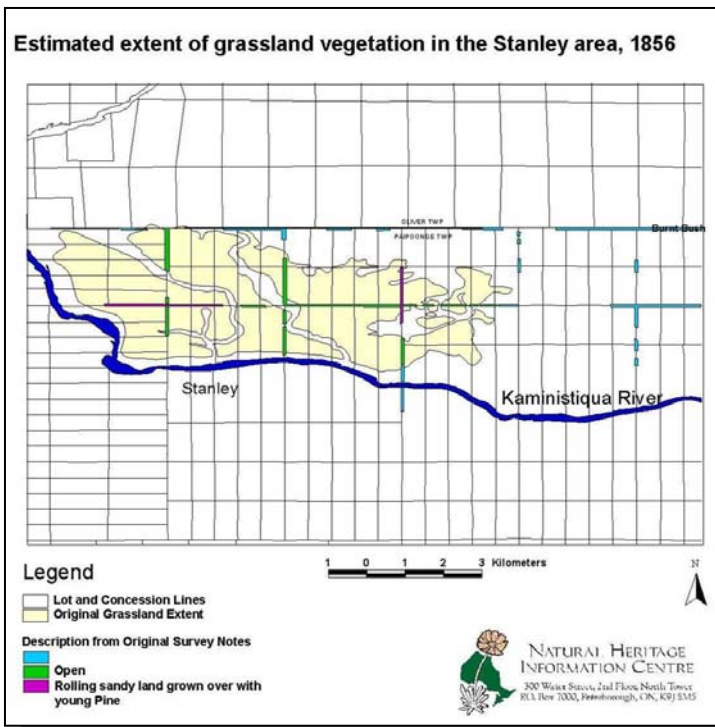


The best remaining examples of native grasslands at Stanley occur in the vicinity of the Stanley Hill Cemetery.



Original Land Survey of Paipoonge Township, Stanley Area. Conducted by T.W. Herrick, P.L.S, 1856, Field Notebook #1572.

This section shows the flat sandy terrace north of the Kaministiquia River, dominated by "Sandy Plain and no Bush", interrupted only by the stream and creek valleys which dissect this plain.



Map showing the original extent of grassland in the Stanley area, based on the original land survey notes of 1856. According to the survey notes, the entire gently rolling sandy plain north of the river to the northern township boundary was open sandy plain, interrupted by thicket vegetation along the stream and creek valleys. Through aerial photo interpretation, the extent of the sandy plain can be mapped. Approximately 16 km² of this grassland occurred in this area.



White foliage of Western Mugwort, and pink flowers of the provincially rare Flodmann's Thistle (*Cirsium flodmannii*) growing together near Stanley Cemetery.



Smooth Fleabane (*Erigeron glabellus*), is known in Ontario from only a few sites in the Stanley Area.



A large patch of Smooth Fleabane near an abandoned glider field northwest of Stanley Cemetery. Other western species here include Hall's Fescue, Drummond's Thistle (*Cirsium drummondii*), and the western variety of Wild Bergamot (*Monarda fistulosa* var. *menthaefolia*).



Closeup of Drummond's Thistle, showing the distinctive white stem and foliage of this species.



The compressed stem of Drummond's Thistle a provincially rare species only found in Ontario in the vicinity of Stanley.



Wild Heliotrope (*Phacelia franklinii*), a provincially rare western species found in the Stanley grasslands, as well as herbaceous meadows associated with steep slopes and talus of the nearby Nor-wester mounts.



Hoary Puccoon (*Lithospermum canescens*), found in the grasslands at Stanley, as well as prairies and oak savannahs of southwestern and northwestern Ontario.



Long Sault Mounds

The burial mounds at Long Sault, along the Rainy River west of Fort Francis, were built in tallgrass prairie. The site is now part of a First Nation interpretive centre, Kay-Nah-Chi-Wah-Nung. John Macoun referred to the prairies along this river in his travels to the west more than a century ago.



The dense herbaceous vegetation of the tallgrass prairie at Long Sault Mounds. The site has a long history of aboriginal burning, and was (and continues to be) an important source of medicinal and ceremonial plants for First Nation peoples.



Open grown
Bur Oak
(*Quercus
macrocarpa*)
at Long Sault
Mounds.



Big Bluestem (*Andropogon
gerardii*) is a characteristic
tallgrass species, found in
both southern and
northwestern Ontario prairies.



Prairie June Grass (*Koeleria macrantha*), was originally known from northwestern Ontario at only one site, the Stanley area grassland. It has declined greatly in the relict tallgrass prairies of southern Ontario, and is now known from fewer than a half-dozen sites in that region, although it is still common in the oak and oak-pine savannahs at Pinery Provincial Park. Fieldwork by NHIC biologists have found it common in the prairies at Long Sault and Lake of the Woods.



The fires which burn through the tallgrass prairie at Long Sault also burn into the adjacent Bur Oak woodland, maintaining the characteristic open aspect of tallgrass savannah.



Small patches of open Bur Oak woodland similar to that found at Long Sault Mounds occur on silty knolls scattered throughout the length of Rainy River



Ground shot of the tallgrass prairie at Long Sault Mounds, showing a clump of Big Bluestem, Golden Alexanders (*Zizia aptera*) and Purple Vetchling (*Lathyrus venosus*).



Closer view of groundlayer vegetation at Long Sault, with Showy Ladyslipper (*Cyripedium reginae*), Seneca Snakeroot (*Polygala senega*) in flower.



Leiberg's Panic Grass (*Panicum leibergii* var. *leibergii*), a prairie species found at Long Sault Mounds. It also occurs at two other prairie sites in southern Ontario, Walpole Island and the Mohawk Cemetery at Tyendinaga.



Torrey's Sedge (*Carex torreyi*), a western species recently discovered new to Ontario, occurs at Long Sault Mounds as well as a few prairies along the shores of Lake-of-the-Woods.



Long-toothed Lake Sedge (*Carex laeviconica*) is a characteristic species of prairie sloughs in the central American Midwest. It has recently been found at a few sites along Rainy River, including Long Sault Mounds, the town of Manitou Rapids, and the mouth of the La Vallée River.



Heavy Sedge (*Carex gravida*) is a prairie species recently rediscovered new to Ontario, where it was found at Long Sault Mounds and the town of Manitou Rapids. The only prior Ontario collection was a turn of the century record by John Macoun from Walkerville (now a part of Windsor) in Essex County.



Pale Vetchling (*Lathyrus ochroleucus*) is a prevalent species of tallgrass prairie and savannah in northwestern Ontario (as well as dry open boreal forest). It also occurs in oak savannahs in southern Ontario.



**Kreger Road and
Budreau's Point,
Rainy River
District**

Tallgrass prairie and Bur Oak savannah occur at Kreger Road and Budreau's Point along the south shore of Lake-of-the-Woods, in Rainy River District. Here, NHIC biologists are conducting stem counts of Western Silvery Aster (*Symphiotrichum sericeum*) at Budreau's Point.



Bur Oak savannah with Big Bluestem understory, Kreger Road.



Leadplant (*Amorpha canescens*), a prairie species recently discovered at a number of prairies and oak savannahs on Lake of the Woods. These are the only known locations of this species in the province. A turn-of-the-century record from Guelph in southern Ontario is suspect, as this vegetation never was present in the Guelph area, based on review of original land survey records, and the lack of collections of any other prairie species



Bur Oak savannah with Needlegrass (*Stipa spartea*) understory, Budreau's Point.



Western Ragweed (*Ambrosia psilostachya*), a rare native species of northwestern Ontario prairies, Kreger Road.



Lake-of-the-Woods

The prairies and oak savannahs on the Lake-of-the-Woods shorelines are floristically the richest ones in northwest Ontario. The best sites occur on base-rich andesitic bedrock, colloquially referred to as greenstone.



A prairie dominated by Needlegrass on a west-facing slope, Lake-of-the-Woods shoreline a few kilometers south of Sioux Narrows, on the east shore of Whitefish Bay. The bedrock becomes increasingly granitic further south in this part of the lake, and is devoid of prairie and Bur Oak savannah vegetation.



In many cases, prairies occur in narrow bands along the shoreline, and grade into stunted Bur Oak forest, followed by a band of Ironwood (*Ostrya virginiana*). Behind this is mixed boreal upland forest, or Red Pine (*Pinus resinosa*) or White Pine (*Pinus strobus*) forest.



Another look at a mixed tallgrass prairie along a Lake of the Woods shoreline, this one composed of Prairie June Grass, Needlegrass, Big Bluestem Poverty Grass (*Danthonia spicata*) Soils are shallow clay loam over base-rich bedrock.



A shallow-soiled Bur Oak savannah northeast of Picture Rock Point, Outer Bay, Lake-of-the-Woods. This is one of the richest sites, in terms of rare plants, on Lake of the Woods.



An extensive Oak Savannah along the south shore of Cliff Island, Lake-of-the-Woods. In a scene reminiscent of North Dakota, scattered stunted Bur Oak, with an understory dominated by Big Bluestem and Smooth Sumac (*Rhus glabra*). The yellow flowers are Stiff Sunflower (*Helianthus pauciflorus* ssp. *subrhomboideus*), a prairie species usually adventive along railways in Ontario, but here clearly in native habitat. There is a large population of Western Silvery Aster here, as well as the western variety of Heath Aster (*Symphiotrichum ericoides* var. *pansus*), which is distinguished by its thick cormoid roots, absent in the typical variety



A Red Pine savannah, Split Rock Narrows, Sabaskong Bay, Lake-of-the-Woods.



A cottage built in a rich Bur Oak savannah, Lake-of-the-Woods, an unfortunate land use in this provincially rare habitat.



Closeup of Bur Oak showing acorns.



Downy Arrow-wood (*Viburnum recognitum*), a common understory shrub in Oak Savannahs and Woodlands in both southern and northwestern Ontario.



The attractive orange-red anthers of Side-Oats Grama (*Bouteloua curtipendula*), a provincially rare prairie species recently discovered new to northwestern Ontario at Lake-of-the-Woods. It is also present at a few prairie and alvar sites in southern Ontario.



Canada Wild-rye, another attractive grass of prairies and sand dunes in Ontario. It is common in prairies, dunes and beaches along the shore of Lake-of-the-Woods.



Kalm's Brome Grass (*Bromus kalmii*), yet another attractive grass found in the prairies and oak savannahs of Lake-of-the-Woods. It is also found in southern Ontario prairies, savannahs, alvars, and in rocky calcareous forests and woodlands.



Western Wheat Grass (*Elymus smithii*) occurs as a native in the richer prairie and Oak Savannahs on Lake-of-the-Woods. It has a distinct glaucous (grey-waxy) hue to the leaves and stem. Previously thought to be adventive in Ontario, where it can be found growing in railway ballast and rights-of-way, it is clearly native in the undisturbed and remote habitats on Lake-of-the-Woods.



Yellow Panic Grass (*Panicum xanthophysum*) is commonly found in prairies and Bur Oak savannahs on Lake-of-the-Woods.



This extremely boring-looking grass is Plains Muhly (*Muhlenbergia cuspidata*). In Ontario it is only known from Picture Rock Point, Outer Bay, Lake-of-the-Woods.



The long awns of the distinctive Needlegrass make it readily identifiable when in fruit.



Smooth Beardtongue (*Penstemon gracilis*) is a provincially rare species common in the prairies of Lake-of-the-Woods.



Western Silver Aster is considered to be a Threatened species in Ontario. Only two sites are known from the province, both along the shore of Lake-of-the-Woods. It was formerly known from Ingolf, Ontario, but recent surveys have failed to find it there.



Prairie Sage (*Artemisia frigida*) is a fragrant prairie herb occurring in northwestern Ontario prairies, and also from Stanley and the Nor'Wester cliff rims near Thunder Bay, Ontario.



Prairie Smoke (*Geum triflorum*), a showy and conspicuous herb well-known from alvars in southern Ontario, has recently been found at a few prairies in the vicinity of Sioux Narrows, Lake-of-the-Woods.



Narrow-leaved Goosefoot (*Chenopodium pratericola*), a native goosefoot found in northwestern Ontario prairies and cliff sites.



Collomia (*Collomia linearis*), a western species found in Lake-of-the-Woods prairies, and also in the Stanley area grasslands.



Fragile Prickly-Pear (*Opuntia fragilis*) is a native cactus found on rocky outcrops in prairies and Bur Oak savannahs on Rainy Lake and Lake-of-the-Woods.



Until recently, Purple Prairie Clover (*Dalea purpurea*) was thought to be extirpated from Ontario. It is known from a single location in a Bur Oak savannah along Echo Bay Road, near Lake-of-the-Woods.



The long (> 1 mm) white setae (moss awns) of Western Spikemoss (*Selaginella densa*) distinguish it from the more common Rock Spikemoss (*Selaginella rupestris*). Both species occur on rocky outcrops in northwestern Ontario prairies and oak savannahs.



Mountain Woodsia (*Woodsia oregana*) is a rare fern that is frequently found on the base-rich bedrock found in some sections of Lake-of-the-Woods shorelines. It occurs in crevices and on rock outcrops in prairies and bur oak savannahs, as well as cliffs in this region.



The lavender inflorescences of Blue Hedgehyssop (*Agastache foeniculum*) are a characteristic component of prairies and Bur Oak savannahs in northwestern Ontario.



On sites with the richest bedrock, the interface between shoreline cliff and prairie is one of the most interesting habitats. These sites are particularly rich in terms of plant species, many of them tiny in stature. The whitish plant is Prairie Sage.



In this closer view, in a little over a square foot, the following diminutive species appear: Rough Pennyroyal (*Hedeoma hispidum*), Northern Androsace (*Androsace septentrionalis*), Prairie Cinquefoil (*Potentilla pensylvanica*), Blue Hedge-hyssop, Purple Harebell, Poverty Grass, and rosettes of Prairie Buttercup (*Ranunculus rhomboideus*).



The chestnut-red upper sheaths of Richardson's Sedge (*Carex richardsonii*) readily identify this species in the spring when it's in flower. Later in the summer it can be identified vegetatively by its distinctly 3-ranked splayed leaves, and their bluish-green leaf colour. It is a western species found in prairies and savannahs throughout Ontario. It is also found in calcareous dunes, alvars and woodlands.



Field Sedge (*Carex conoidea*) is another provincially rare western species found in prairies and Bur Oak savannahs along Lake-of-the-Woods shorelines.



Winnipeg River

The Winnipeg River, which drains Lake-of-the-Woods into the Nelson River drainage basin in Manitoba, also supports small local areas of prairie, and at one site just west of the White Dog First Nation, a Bur Oak savannah, illustrated above.



Another view of the Bur Oak savannah, with a large patch of Big Bluestem in the foreground.



The attractive flowers of Nodding Onion (*Allium stellatum*), found along the Winnipeg River and other northwestern Ontario prairie and Bur Oak savannah sites.



A local area of tallgrass prairie dominated by Big Bluestem along the Winnipeg River, with Stiff Sunflower in the foreground. This site is located approximately 100 m east of the Manitoba border on the Winnipeg River