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GRASSLANDS NATURE TRAIL GUIDE

LAST MOUNTAIN LAKE NATIONAL WILDLIFE AREA

Canada

Cat. CW66-753/2021E-PDF
ISBN: 978-0-660-38558-7
EC21035

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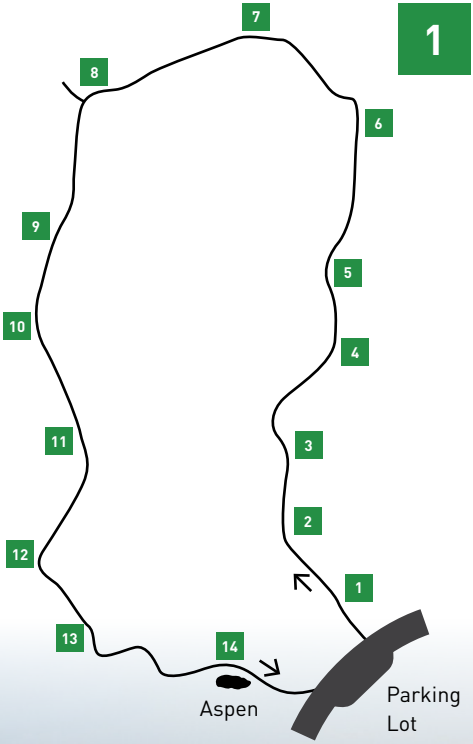


1

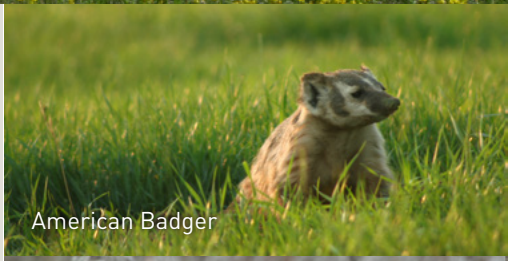
WELCOME TO THE LAST MOUNTAIN LAKE GRASSLAND TRAIL

Enjoy an easy stroll through rare native Prairie grassland. The hike is 1 km in length. Be sure to bring water on a hot day, as there is no shade on the trail.

Mowing on the trail mimics the grazing patterns to which Prairie plants are adapted. You will find many rare native plants on the mown trail, right under your feet. In contrast, non-native brome grass grows in the ungrazed and unmown areas along the trail.

WATCH YOUR STEP!

There is a lot of life underground in the Prairie. Small holes, a few centimetres in diameter are a sign that pocket gophers or ground squirrels are active. Larger holes, closer to 30 cm in diameter, are signs that a badger has been hunting the gophers.


American Badger


Richardson's ground squirrel

LOOK FOR ground plum, a low-growing legume that shades its sweet, fleshy fruit with its leaves.

2 WIND, WATER, SUN AND GRASS AS FAR AS THE EYE CAN SEE

From this location on the trail, the horizon line is the edge of Last Mountain Lake National Wildlife Area and Migratory Bird Sanctuary, in every direction.

You may have already noticed that the landscape here is fully exposed, with very few places to hide from unrelenting sun and wind. All the plants and animals that live here have special adaptations to survive when they are exposed to the elements:

PLANTS	ANIMALS
• **Deep, complex root systems** (as deep as 3.5 metres from the surface to reach water during dry periods) • **Narrow leaves** that lose less water through evaporation • **Tough seeds**, which sometimes need to be digested by an animal or heated by fire to germinate • **Brightly coloured flowers** to attract pollinators	• **Require very little water** to drink • Dig burrows and **hide underground** • **Quick reflexes** and ability to run fast • **Dull colours** that match the surrounding landscape (including changing to a white coat in winter to blend in with snow) • **Active at night**, when it's cooler

3 WHAT KIND OF PRAIRIE IS THIS?

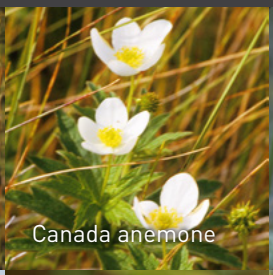
The Prairie around Last Mountain Lake is Moist Mixed Grassland. Last Mountain Lake's grassland areas are important natural habitat, since less than 20% of native prairie grasslands remain in Saskatchewan.

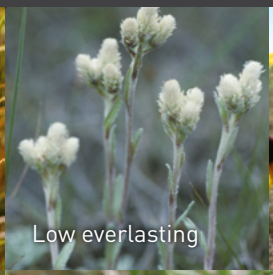
The Last Mountain Lake NWA Plant Identification Guide, available at Headquarters, provides illustrations.

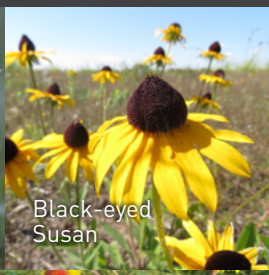
THE MOIST MIXED GRASSLAND ENVIRONMENT:
Average summer temperature: 15.5°C
Average winter temperature: –11°C
Average annual precipitation (rain and snow): 350–400mm

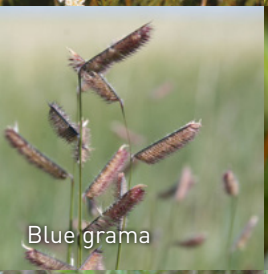
NATIVE PLANTS OF THE MOIST MIXED GRASSLAND

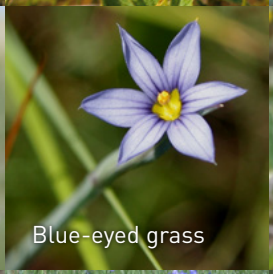

Yarrow


Canada anemone


Low everlasting


Black-eyed Susan

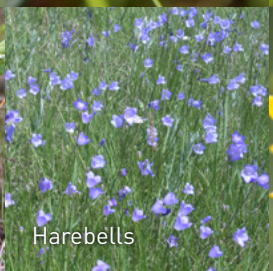

Blue grama

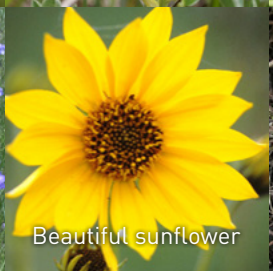

Blue-eyed grass

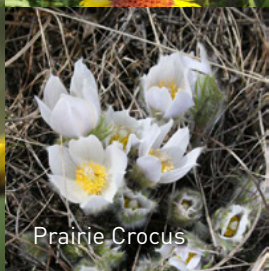

Golden bean


Gaillardia


3-flowered Avens


Harebells


Beautiful sunflower


Prairie Crocus

Prairie sage

CAN YOU SPOT THE CULTURALLY IMPORTANT PLANTS?

Pasture sage is a native plant that First Nations collect for ceremonial and medicinal purposes. It is used to cure coughs and colds, heal wounds, and to heal stomach complaints. Different First Nations have varying uses for it. You will often find sage growing in this area on the trail. Pluck a leaf, rub and smell it for a full prairie experience. Many other native plants also have uses as food, medicine and for ceremony in Indigenous Plains cultures.

EVIDENCE OF WET AND DRY CYCLES

As you can see, trees are rare at Last Mountain Lake National Wildlife Area. The trembling aspen trees that stand out on the horizon southwest of the Grassland Trail gained a foothold on the Prairie in the wet years of the 1950s. Aspens usually only live 50 to 60 years, so these trees are nearing the end of their lives.

Other young trees that established during a more recent wet cycle between 2006–2011 may eventually grow to adulthood and become new trees on the horizon.

New Aspen suckers in foreground

6

MAKING MOIST MIXED GRASSLAND OUR HOME

While many mammals live underground to stay cool and keep safe, you may also see coyotes, white-tailed deer, and white-tailed jackrabbits, especially near dawn and dusk. A rustle in the grass may be a field mouse, meadow vole or ground squirrel.

Where uplands and wetlands meet, you will see an interesting mix of shorebirds, waterfowl and grassland birds. You may see an upland sandpiper nesting nearby, and hear the whistles and warbles of the meadowlark or the tsss of a Savannah sparrow.

Thurteen-lined ground squirrel

Mule deer

Coyote

7 130 YEARS OF CONSERVATION

2017 marked the 130th year of the Last Mountain Lake Migratory Bird Sanctuary (MBS). Itis the oldest bird sanctuary in North America.

Last Mountain Lake is important to wildlife because it offers excellent breeding habitat, and is located on the central flyway for migratory birds in North America. The NWA is a breeding ground for more than 120 species of birds, including more than nine shorebirds, 43 species of songbirds and 13 species of duck.

You may be lucky enough to spot one of the nine species of vulnerable, threatened or endangered birds that make their homes here:

Peregrine falcon
Loggerhead shrike
Piping plover
Baird's sparrow
Whooping crane
Caspian tern
Sprague's Pipit
Cooper's hawk
Ferruginous hawk

LOOK FOR:


Whooping Crane


American avocet


American white pelican

8 SHAPED BY FIRE

Fire is a normal and natural part of the Prairie ecosystem. The native plants that grow here are adapted to being burned frequently. Many plants, such as snowberry bushes, grow back from burned stems or from their roots.

Last Mountain Lake NWA conservation staff often use cattle to mimic the grazing patterns of bison, to which many Prairie plants are adapted. They also use fire, in the form of controlled burns, to control the buildup of plant material that would prevent native plants from competing with invasive grasses.

LOOK FOR: signs of recent burns, such as blackened stems or blackened ground with new green shoots poking through. If you see a wire fence, be aware that cattle may be in the area.

9 A VIEW OF LANIGAN CREEK

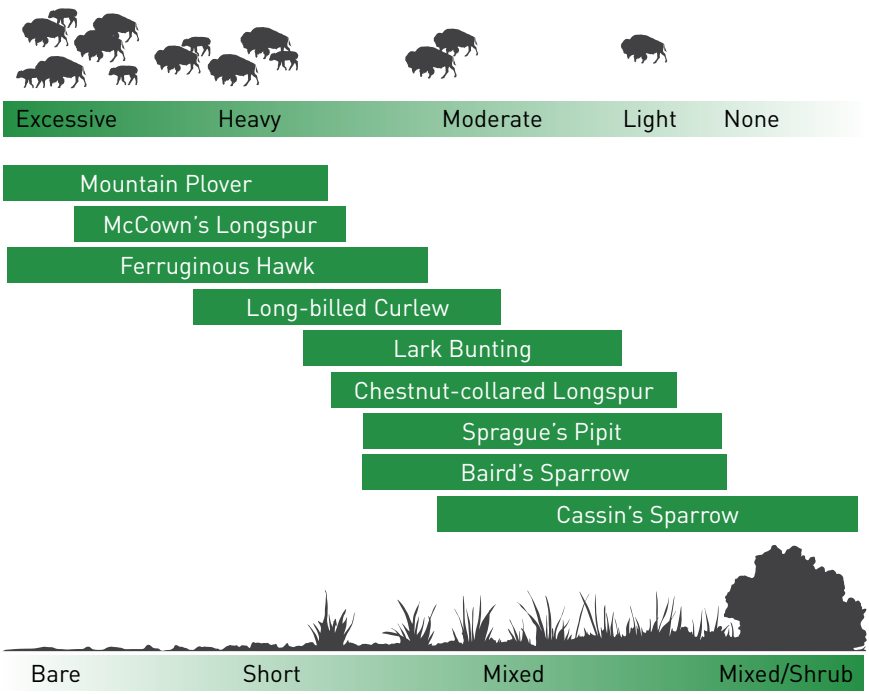
To the east of the trail, Lanigan Creek flows into Last Mountain Lake. Lanigan Creek is the remnant of a glacial meltwater channel from the last ice age. Other remnants of retreating glaciers from around 10,000 years ago include the boulders you see scattered on the Prairie.

What appears as small islands in the lake are actually clumps of bulrush. This kind of wetland is known as a broken marsh. The bulrushes are not actual islands, but do provide excellent cover for waterfowl.

10 ECOZONES WITHIN ECOZONES

Even in a landscape that appears unchanging right to the horizon, birds and animals find ways to make their own niche. There are several sparrow species living on the Plains, but they have specialized their preferences to avoid competition with each other.

Shrubby Grasslands	Native Grasslands	Wetland Edge
Clay coloured sparrow requires shrubs for nesting	**Baird's sparrow** lives in dense grasslands without shrubs	**Sharp-tailed sparrow** lives next to marshes or along lake shores
Vesper sparrow nests on the ground and uses shrubs as singing posts	**Savannah sparrow** lives in less dense grasslands with few low shrubs	**Le Conte's sparrow** prefers moist or wet grassy fields and marsh edges



Grassland bird preferred habitat and grazing regime: reprinted from Knopf 2006

11 BUFFALO RUBBING STONE

This stone is one of the few remaining signs of the time in history and pre-history where millions of bison roamed the grasslands. There are several of these types of stones in the NWA. Thousands of bison used this stone to scratch against, wearing the stone smooth and creating a depression in the soil around the stone in the process.

The original bison population numbered from 40 to 60 million animals. Between 1830 and 1885 bison were shot for sport and profit, to the point of extinction. Last Mountain House was a Hudson's Bay Company trading post that was established in 1869 near modern day Craven to follow the bison, who had moved farther south from their traditional habitat.

Visit the Last Mountain House Provincial Historic Park to learn more.

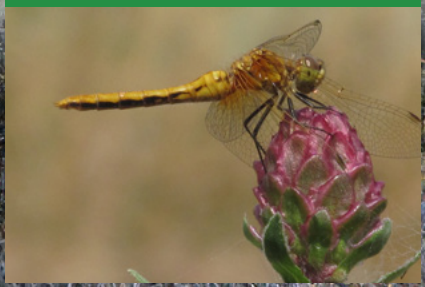
12 INSECTS: SO MUCH MORE THAN PESTS

They may get up your nose, in your mouth, and buzz annoyingly around your face, but insects are key to the survival of the grasslands. They are the pollinators, the recyclers, and the food of choice to many foundational species. At the edge of the wetlands, you get a double dose of both grassland and wetland insects.

Several species of mayflies and stoneflies hatch in the water and offer food for fish and birds such as swallows and flycatchers. They are harmless, and short-lived. Several species don't even have digestive systems. They hatch, they breed, lay eggs, and die.

You may also encounter one of the most successful grassland insects—the grasshopper. After a hot, dry spring they can be present in great numbers.

LOOK FOR: fish flies, (chironomids, non-biting midges) Dragonflies.



LOOK FOR: Richardson's ground squirrels and thirteen-lined ground squirrels. A number of big holes on hilltops may be a fox den.

A WHOLE WORLD BENEATH YOUR FEET

What would you do if you had no shade or air conditioning in summer, or protection from the cold in winter? You might consider going underground, like many Prairie animals. Burrows can be 12° cooler in summer and 14° warmer than the surface in winter. It's also more moist underground.

While burrowing animals can escape from surface predators by hiding underground, weasels and foxes also have burrows, and often prey on ground squirrels and gophers in their burrows. Badgers will also dig for access to underground prey, excavating so fast that the gophers cannot escape.

ASPEN GROVE

This aspen grove shows the classic tree succession common to prairie potholes. Aspen trees start to grow in the hospitably damp centre of a low-lying area that collects run-off. Their roots then sucker and create a small aspen bluff in a circle within the pothole. When another series of wet years happens, the trees that are in the centre die as their roots are submerged in water, leaving a ring of aspens around the water's edge.

This grove offers welcome shelter to several animal species.

LOOK FOR: Swainson's hawk, sharp-tailed grouse, black-billed magpie, red-tailed havwk, great-horned owl, yellow warbler, least flycatcher.