

# Saskatchewan River

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## From glaciers to grasslands

**Cree name:** Kisiskatchewan, meaning '*swift current*'

**Current official name:** Saskatchewan, from the Cree original

**Source:** Rocky Mountains, east of the Continental Divide

**Mouth:** Hudson Bay, via Lake Winnipeg and Nelson River

**Direction of flow:** east

**Length :** 4618 kilometres, including main north and south branches to Lake Winnipeg

**Main Characteristic:** Drains the vast Canadian Prairie

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The Saskatchewan River system has been the vital, life-giving force of the Canadian Prairies. In little more than a century, the basin has seen the destruction of the bison herds, the dispossession of Native food sources and land, and the conversion of great, natural grasslands to agriculture. More recently, the people of the Saskatchewan River basin have been the source of many of Canada's political freedoms, innovations in health care, and co-operative enterprise.

The Saskatchewan River system forks across the vast Canadian Prairies like a flash of lightning. Its branches and tributaries collect meltwater from Rocky Mountain glaciers and rain runoff from the broad prairie grasslands and grain fields. The collected waters flow eastward from the Continental Divide to Lake Winnipeg and then, down the Nelson River, and into Hudson Bay.

The Saskatchewan and its tributaries drain one of the largest and most diverse river basins in North America. The basin includes much of Alberta and Saskatchewan, parts of Manitoba and the state of Montana in the United States. Three million people live in the system's basin.

The main stem of the Saskatchewan River starts only in mid-Prairie, east of Prince Albert, Saskatchewan. The two main branches feeding the main stem are the North Saskatchewan and the South Saskatchewan Rivers.

Starting life as a frigid waterfall at the foot of a glacier in Banff National Park, the North Saskatchewan drains the milky meltwater from the glaciers eastward to Rocky Mountain House, Alberta. There, it absorbs the tributary Clearwater River, and continues onto Edmonton, Alberta. As it rolls past the Saskatchewan cities of North Battleford and Prince Albert, the river accumulates a heavy load of fine silt flushed from farm fields by runoff from rainstorms and spring snowmelt.

The South Saskatchewan begins in southern Alberta at the junction of the Oldman and Bow Rivers. Flowing eastward past Medicine Hat, it heads northeast into Saskatchewan, past Saskatoon and on to meet the North Saskatchewan.

The North and South Saskatchewan include several major tributaries in their system: the Clearwater, the Brazeau, the Vermillion, the Bow, the Oldman, and the Red Deer Rivers. The immense herds of bison that once dominated the Prairies waded in these rivers to drink and seek relief from the hot summers on the treeless grasslands. For aboriginals, these waterways were vital routes for hunting and trading, as well as important sites for their fisheries.



Fur traders navigated the rivers in canoes and heavy wooden York boats to exchange European consumer goods for the pelts of animals trapped by aboriginal hunters. Then, once the dominion of the bison and the aboriginals had been surrendered to European government and business powers, the rivers became routes for European farm settlers who ploughed under the natural grasslands to plant crops.

Finally, the railways were driven westward across the Prairies, following branches and tributaries of the great river system. The railways needed the rivers' water to make the steam that powered their locomotives. The railways spread their branch lines across the Prairies, rapidly filling them with settlers from all over Europe.

It was only in 1870 that the new government of Canada purchased the huge expanse of Prairie then known as Rupert's Land. Until then it had been the property of the Hudson's Bay Company. The purchase did not effectively establish Canadian control over the West, and the government rushed to occupy it with a railway, a police force and, above all, immigrant farmers from Europe.

In 1881, settlers could buy huge, fertile homesteads from the Canadian government - for \$1 per acre (0.4 ha). Many of the descendants of those homesteaders are millionaire farmers today. They use computers and the Internet to manage their businesses. Some even rely on global satellite positioning systems to map crop yields and apply fertilizer locally, in just the right amounts and locations.

Prairie prosperity was hard won. Even in the best years, weather shifts rapidly between extremes. Hot summers are punctuated by violent thunderstorms, hail, and tornadoes. Blizzards of deep winter can give way in hours to above-freezing chinook winds blowing down from the mountains.

In the 1930s, the families of the homesteaders suffered a devastating drought. The Canadian government's response was to draw once again on the river system to create an irrigation system to water the prairie farms.

As the people of the Prairies recovered from the drought and the worldwide economic depression of the 1930s, they created courageous new ways of organizing society. Farmers created co-operative, non-profit businesses to buy their supplies and sell their products. Saskatchewan was the first place in North America to make health care the right of every citizen.

The land, water, and people of the Saskatchewan River basin have defined a great deal of what Canada is today.

## Saskatchewan River: Early Bird

[http://www.ccge.org/resources/rivers\\_of\\_canada/saskatchewan\\_river/early\\_bird.asp](http://www.ccge.org/resources/rivers_of_canada/saskatchewan_river/early_bird.asp)

### Beaked dinosaur is missing link to birds

The badlands of southern Alberta are a treasure-trove for dinosaur investigators. The absence of plant growth and the soft sandstone easily expose the fossilized bones of prehistoric animals.

Alberta's badlands region is where, in 1996, convincing evidence was discovered to support the theory that modern birds are the direct descendants of dinosaurs.

Dr. Phil Currie of the Royal Tyrrell Museum does his research from the field station in Dinosaur Provincial Park in the Badlands. He has discovered a fossilized dinosaur with a beak like a bird's. The dinosaur was a familiar species that looked very much like a modern ostrich. But this one was the first that had retained the animal's beak, a soft structure that does not easily fossilize.

Alberta, 65-90 million years ago, was as warm, moist, and sandy as Florida is today. It was an ideal place for dinosaurs to live, and for their bones to be preserved when they died.

Dinosaur fossils originated when bones were buried under protective covers of sand or mud. Over thousands of years, the sand or mud hardened into porous rock. Water gradually dissolved the bones, creating cavities in the rock. As water flowed through the cavities, it left behind mineral deposits that eventually filled the cavities completely and became fossils.

Soft material, such as beaks, usually decayed before the fossilization process could begin. The unusual find of a dinosaur fossil with a beak was the missing link that paleontologists had been seeking to prove what most now believe: dinosaurs never did become extinct. Instead, dinosaurs evolved to become more efficient animals that could fly to find food and to escape their enemies.

"Personally, I think dinosaurs are alive and doing extremely well," declared Currie. He said 90 percent of his professional colleagues would now agree that "birds are the direct descendants of dinosaurs."

Birds and dinosaurs share about 125 physical characteristics. "If you pluck the feathers off the first bird, the archaeopteryx, it's a dinosaur," noted Currie.

The theory that birds evolved from dinosaurs first emerged 150 years ago, but was buried under the general belief that dinosaurs all died off in some environmental disaster, such as the crash of a moon-size meteorite.

Alberta's badlands have delivered key evidence to support the revived belief that dinosaurs did not die off at all, but evolved into birds.

In this view, the disappearance of the prehistoric dinosaur was not the failure of a species. Instead, dinosaurs may represent a monumental triumph of evolution.

## Saskatchewan River: Dry Bones

[http://www.ccge.org/resources/rivers\\_of\\_canada/saskatchewan\\_river/dry\\_bones.asp](http://www.ccge.org/resources/rivers_of_canada/saskatchewan_river/dry_bones.asp)

### Dinosaurs abound in Alberta's badlands

Picture a landscape that is sparsely vegetated, parched like a desert, totally unsuited to any kind of farming or horticulture, and containing exposed bands of 75 million-year-old mudstone and sandstone. Welcome to the badlands.

In prehistoric times, ancient streams deposited sediment all over the great plains region of the continent to form these fossil-rich layers. Then gullies were worn down, being carved and sculpted by the erosion of powerful winds and running water following the last glacial retreat. Hoodoos are the result.

The fossils in Dinosaur Provincial Park in the badlands of southern Alberta are considered to be so precious that the site has been declared a World Heritage Site by the United Nations. It is located along the Red Deer River, a major tributary of the South Saskatchewan River, in a region of Alberta called the badlands.

Fossilized remains of dinosaurs, reptiles, amphibians, birds, and prehistoric mammals are being mined for information by the Royal Tyrrell Museum of Paleontology in nearby Drumheller.

## Saskatchewan River: Plains Speaking

[http://www.ccqe.org/resources/rivers\\_of\\_canada/saskatchewan\\_river/plains\\_speaking.asp](http://www.ccqe.org/resources/rivers_of_canada/saskatchewan_river/plains_speaking.asp)

### Dinosaurs abound in Alberta's badlands

Hardship and self-reliance developed a strong sense of fair play among settlers of the Canadian Prairies. It made the region a leader in many political struggles for equal rights and social justice.

One of the best-known leaders in the fight for social justice was Nellie McClung.

Born in Ontario, Nellie Letitia Mooney moved west with her family when she was 10. She became a teacher and joined her first social cause, the Women's Christian Temperance Union. It was dedicated to banning alcohol.

After becoming a wife and mother, Nellie McClung campaigned tirelessly against the evils which plagued childhood in the early part of the century - undernourishment, slums, child labour, and parental drunkenness. She helped organize the Political Equality League, worked for the Red Cross, and fought for aid to prisoners of war. She also brought attention to prison conditions and advocated more liberal divorce laws. She somehow found time to pen sixteen books and have a demanding career as a public speaker.

Nellie McClung was elected to the Alberta Legislature from 1921-26. She went on to serve on the Board of Governors for the Canadian Broadcasting Corporation, and became a delegate to the League of Nations in 1938.

## Saskatchewan River: Last Stand

[http://www.ccge.org/resources/rivers\\_of\\_canada/saskatchewan\\_river/last\\_stand.asp](http://www.ccge.org/resources/rivers_of_canada/saskatchewan_river/last_stand.asp)

### The Northwest Rebellion ends Métis autonomy

As European immigrants began pouring into the Prairies, the more Métis and aboriginal groups became frustrated with the Canadian government's treatment of them. Their festering anger exploded in the Northwest Rebellion of 1885.

Aboriginals — especially the Cree — believed that the federal government had broken its treaty promises to provide food in times of scarcity. The aboriginal people also had little say in what lands would be set aside as reserves for them.

Many Métis had moved west after the Red River uprising of 1869 and the government's refusal to recognize their claims to land in Manitoba. Both Métis and aboriginal leaders worried, with reason, that the influx of Europeans threatened their ways of life.

The Métis called on Louis Riel, their proven hero who had led their uprising in Manitoba, to lead them in yet another campaign of resistance against the government in Ottawa. But Louis Riel was now a changed person, and perhaps mentally unwell.

At first, Riel and his followers peacefully petitioned Ottawa to express their grievances. But the government did not respond to their entreaties and the Métis and their aboriginal allies prepared for war.

Gabriel Dumont, Riel's second in command, defeated the North-West Mounted Police at Duck Lake. Chief Poundmaker and his Cree warriors surrounded Battleford. But conditions on the Prairies were very different from those of the Red River in 1869. Thousands of European settlers lived in the region and, most important, a new railway linked central Canada to the West.

Ottawa rushed 3,000 troops and 2,000 volunteer militia to the Saskatchewan River by train in order to join the North-West Mounted Police. A number of skirmishes culminated in a decisive battle at Batoche.

Riel's fighters ran out of ammunition after three days and retreated. Louis Riel surrendered while his adjutant-general, Gabriel Dumont, and others fled to the United States.

The federal government prosecuted the rebels severely. Some Native leaders were hanged publicly in Canada's largest mass execution. Chief Poundmaker of the Cree and Big Bear were both imprisoned.

Some people argued that Louis Riel was not sane enough to be legally tried. Nonetheless, he was convicted of treason and hanged in Regina in 1885. The trial aroused fierce passions and split the country along French and English lines.

In death, Louis Riel became an even greater hero to many Métis and French Canadians than he was in life.

## **Saskatchewan River: End of Steel**

[http://www.ccge.org/resources/rivers\\_of\\_canada/saskatchewan\\_river/end\\_steel.asp](http://www.ccge.org/resources/rivers_of_canada/saskatchewan_river/end_steel.asp)

### **Canada's northernmost metropolis**

Edmonton is the northernmost big city in North America. Once, it was called "End of Steel," known for little more than the fact that the railway went no further north.

Calgary was directly on the main Canadian Pacific Railway line and boomed as a cattle and railway centre. Then the competing Canadian Northern pushed through Edmonton to the Pacific Coast and the city joined the mainstream of western development. Edmonton became the capital of the young province of Alberta.

At the turn of the 20th century, Edmonton is a city that likes to keep starting afresh. Few older buildings survive amid the sparkling glass towers of its downtown. The West Edmonton Mall is the world's biggest shopping centre and visitors drive and fly from far away to experience its size and theme-park-style attractions.

## Saskatchewan River: Dirty Thirties

[http://www.ccqe.org/resources/rivers\\_of\\_canada/saskatchewan\\_river/dirty\\_thirties.asp](http://www.ccqe.org/resources/rivers_of_canada/saskatchewan_river/dirty_thirties.asp)

### Prairie life in the era of the Bennett Buggy

At first, the crash of the New York stock market in October of 1929 seemed like a remote event to the people of the Saskatchewan River valley. They were soon to learn differently.

The stock market crash was the beginning of an economic depression that spread around the world. Foreign customers could not afford to buy prairie wheat and the incomes of Saskatchewan farmers dropped by 72 percent from 1929 to 1933.

A vicious circle of cutbacks and unemployment resulted. The railways had no wheat exports to ship. The farm machinery industry had no customers. While millions around the world were on the verge of starvation, unsold wheat overflowed the grain elevators across the Prairies.

The people of the Prairies suffered more than other Canadians. Not only did they lose the markets for their wheat, but a series of natural disasters also devastated the region.

The first was drought. Rain and snow, essential sources of moisture for the wheat crop, seemed to vanish in the early 1930s. Crops withered and died in the field. With no living plants to anchor the surface of the land, precious prairie topsoil and freshly-sown seeds were carried away by the wind.

The Prairies looked like a desert during this time, as the rich soil drifted into dunes that almost buried people along with their houses. Every farm house had drifts of dust on the window sills and floors. Dust even filtered into closets, cupboards and food. Sometimes people could not breathe without holding a wet cloth over their faces.

The drought brought a companion plague of grasshoppers that easily thrive and proliferate in a dry, warm spring season. Prairie grasshoppers eat the grain as it pokes out of the soil in early spring. They grow along with the grain, feeding on it at every stage, until they eventually kill the plant.

The 1930s were a time of utter hopelessness and despair. Families who could not pay their mortgages lost their farms. Most of them had no place to go once this happened. Many children could not attend school because they had no clothes to wear. Thousands of unemployed men rode the rails or wandered the countryside, looking for any kind of work.

Gas was unaffordable so people hitched horses to their cars. With bitter humour, they called the horse-drawn cars, "Bennett buggies," to mock R.B. Bennett, the prime minister at the time. He had been elected on the promise that his government would bring an end to the what came to be known as the Great Depression.

But governments seemed unable to relieve the suffering. In 1931, hundreds of people set out by train to voice their anger in Ottawa. The government was fearful of the demonstration and ordered the Royal Canadian Mounted Police to stop it. When the protesters arrived in Regina, they were blocked from continuing. The 1,300 hungry, angry men met to express their deep frustration.

Police tried to maintain order by arresting anyone who attempted to speak at this gathering. Soon, a riot broke out. Before it ended, many people had been injured and downtown Regina was left in a shambles of broken glass and debris.

The Co-operative Commonwealth Federation (CCF), the fore-runner of the New Democratic Party (NDP), was founded in Regina as a result of the Great Depression.

## Saskatchewan River: Unwild West

[http://www.ccqe.org/resources/rivers\\_of\\_canada/saskatchewan\\_river/unwild\\_west.asp](http://www.ccqe.org/resources/rivers_of_canada/saskatchewan_river/unwild_west.asp)

### Mounties keep order on the Prairies

The first fear of the young government of Canada was that it would lose control of the newly-acquired West. The anger of aboriginal and Métis leaders, and the call by many American politicians for a military takeover of the Canadian West, led the government to create a federal police force organized in military style.

The North-West Mounted Police (NWMP) was created in 1873 with all the trappings of a cavalry regiment: horses, lances, carbines, and even a few artillery guns. Its uniform scarlet tunic and blue trousers were chosen to impress aboriginal leaders whose own ceremonial dress was colourful and dramatic.

The first job of the NWMP was to stop American whisky traders from selling liquor to the Blackfoot of southern Alberta. This action earned the respect and co-operation of their leader, Chief Crowfoot.

Meanwhile, just to the south, the cavalry of the United States Army attacked Native American tribes in a determined effort to eliminate as many of them as possible. The American attempt to destroy Native Americans helped Canada to secure the military support of aboriginal groups against the threat of invasion.

Gradually, the number of officers and posts throughout the West increased. In the early years, establishing close relations with aboriginal groups remained the main goal of the NWMP. The force actually warned the federal government that it should act to avoid rebellion brewing in the Northwest in 1885, but the warnings were ignored.

In 1920, the NWMP became the Royal Canadian Mounted Police. Since that time, the "Mounties" have endured as a symbol of deep, national pride. Recently, many Canadians expressed regret when the Mounties sold commercial rights to their image to the Walt Disney Corporation of the United States.

## Saskatchewan River: Dream of Wheat

[http://www.ccqe.org/resources/rivers\\_of\\_canada/saskatchewan\\_river/dreams\\_wheat.asp](http://www.ccqe.org/resources/rivers_of_canada/saskatchewan_river/dreams_wheat.asp)

### Prosperous farmers feed the world

Wheat is Canada's most important crop. Flour from Canadian wheat is prized by French bakers as the best for baguettes. Italian gourmets demand it to knead, roll, and cut into strips of spaghetti, lasagna, and linguini. The main ingredient of the pasta purchased from food stores in North Battleford may well have made a return trip to Italy.

More than half of Canada's wheat grows in the grain belt of Saskatchewan which includes both the north and south branches of the Saskatchewan River. The region often is called, "breadbasket to the world."

The success of wheat farming in the pioneering years was only intermittent and unreliable in the golden Prairies. Many European species of wheat were tried but none fared very well in the too-short Canadian growing season that usually ended abruptly, with a killing, autumn frost.

New strains of wheat suited to the prairie soils and unpredictable climate had to be bred before the industry could prosper on the Prairies.

Uneven rainfall from year to year is another challenge to prairie agriculture. After the devastating droughts of the 1930s, farmers were urged to excavate pools, called dugouts, to collect the spring runoff. The water is used later in the season to irrigate crops.

Since the 1940s, government research stations have been developing and testing new strains of wheat. Strong stems, the ability to withstand drought, disease, and insects such as the wheat-stem saw-fly, and a high yield of grain are the desired qualities.

Marquis wheat, first developed as a mixed variety, was superior because of its early maturing characteristic and its ability to withstand gale-force winds. Marquis wheat expanded the region where quality wheat could be grown.

## **Saskatchewan River: Wonder City**

[http://www.ccqe.org/resources/rivers\\_of\\_canada/saskatchewan\\_river/wonder\\_city.asp](http://www.ccqe.org/resources/rivers_of_canada/saskatchewan_river/wonder_city.asp)

### **Saskatoon sprouts from the Prairie**

Saskatoon is sometimes called the "City of Bridges" because of its seven spans that straddle the South Saskatchewan River. It was once better known as the "Wonder City" because of its sudden emergence from the seeming-vacuum of the boundless Prairies.

The first white settlers arrived in 1883 after the area had been selected to be a "temperance colony" where alcohol would be banned. The rapid development of prairie agriculture caused Saskatoon to boom.

Saskatoon today is an urban multicultural city of Cree, Mennonite, Ukrainian, Scandinavian, Dutch, Austrian, and Polish cultures. Most recently, Asians and South Americans have arrived to contribute to Saskatoon's community blend.