

# Banff National Park

Cover: Lake Louise

## Introducing a park and an idea

Canada covers half a continent, fronts on three oceans, and stretches from the extreme Arctic more than half-way to the equator.

There is a great variety of land forms in this immense country. National Parks have been created to preserve important examples for you and for generations to come.

The National Parks Act of 1930 specifies that National Parks are "dedicated to the people . . . for their benefit, education and enjoyment," and must remain "unimpaired for the enjoyment of future generations."

With its majestic peaks, deep valleys, and glacial lakes, Banff National Park is a superb example of the Rocky Mountains. Situated some 70 miles west of Calgary, Alberta, it preserves 2,564 square miles of breathtaking scenery and is the oldest and most popular of Canada's National Parks.

## The park environment

Each National Park has its own character, its unique story as a living, outdoor museum. Banff is the story of an extreme landscape dominated by ice-capped mountains and great valleys. To survive, all living things have adapted to the extreme and variable conditions of topography and climate that are characteristic of the park.

## How the Rockies were born

Banff National Park is situated on the eastern slopes of the Rocky Mountains. The Rockies form the spine of the continent and divide the drainage systems of the Pacific, Arctic, and Atlantic oceans. The waters from Banff flow east into Hudson Bay.

The Rocky Mountains had their beginning in the distant past when this portion of North America was periodically covered by great shallow seas. For many millions of years, mud, sand and gravel were carried into the seas from the surrounding highlands by rivers and laid down in successive layers. Living things thrived in the seas, and their fossilized remains are now preserved in the rocks as evidence of early life.

The many thousands of feet of sediment laid down were eventually compressed into solid rock by their own weight. About 75 million years ago, the flat-lying layers of rock were pushed up thousands of feet, folded, buckled, and broken by enormous pressures from within the earth. The Rockies were born.

The great Ice Age, which began about a million years ago, greatly altered the appearance of the Rockies. As the earth's climate cooled, snow accumulated and was compressed into ice by its own weight. Huge icefields formed and glaciers flowed through the valleys of Banff like slow-moving rivers. A vast sheet of ice over one-half mile deep once covered what is now the townsite of Banff.

Bow Falls; lichen, yellow dryas



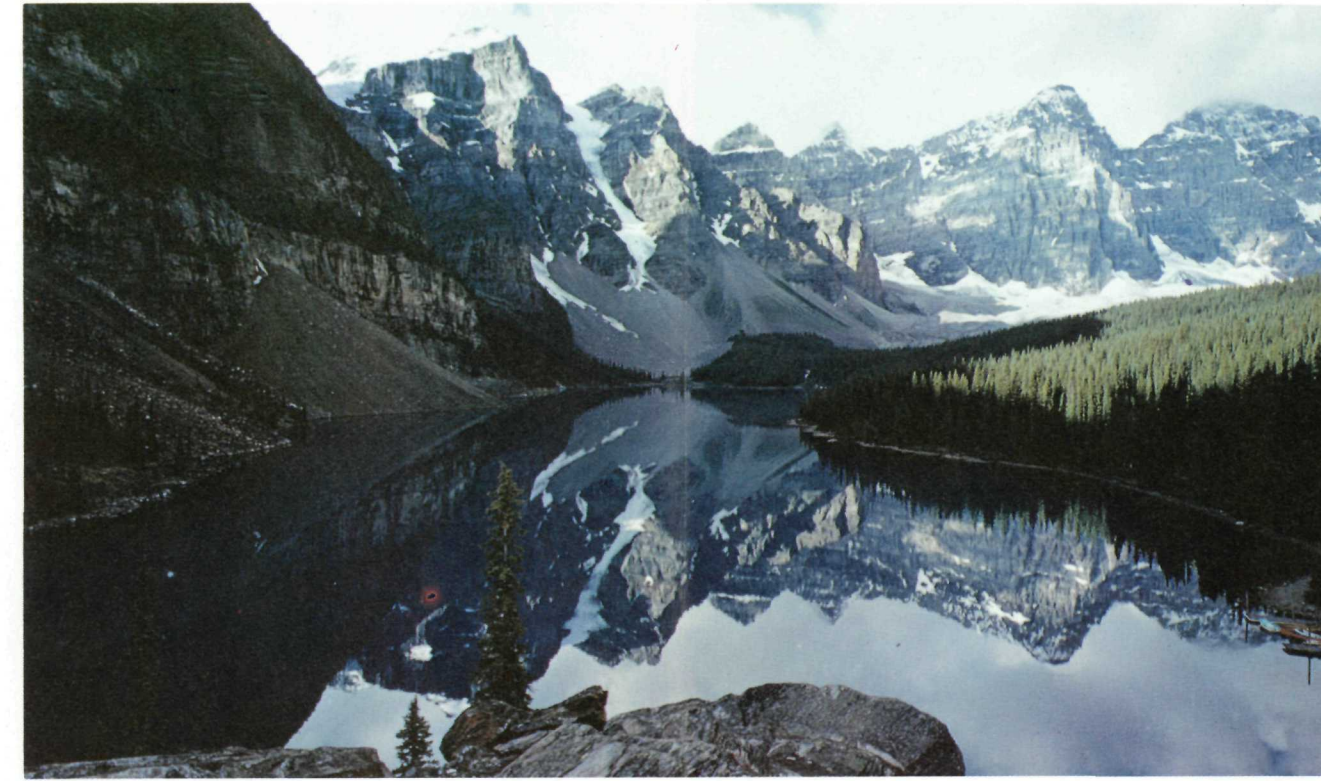
Again and again, the great glaciers advanced and retreated, each time etching their mark on the landscape. Their crushing force rounded the tops of the smaller mountains and gouged out and widened the narrow valleys, leaving their sides sheer and steep. The mountains were sharpened into horns, and great bowls were carved in their sides. Rivers were blocked and forced to cut new channels through the mountains.

The glaciers now present in Banff are only remnants of the vast sheets of ice that once covered the land. The fact that they are still retreating suggests that the earth has not yet completed its warming cycle from the last ice advance.

The great Columbia Icefield, the largest sheet of glacial ice on this continent outside the Arctic Circle, is shared by Banff and Jasper National Parks. From this icefield, many glacial tongues reach down into the valleys of both parks.

Where meltwaters from the glaciers pour into the flat valleys of Banff, beautiful blue-green lakes have formed, many of them dammed by moraines, or glacial rubble. Silt particles, crushed from rock by the moving glaciers, are carried by the meltwaters into the lakes. These suspended particles give the lakes their unusual and beautiful turquoise colour.

Beautiful Moraine Lake is a popular attraction



## The plants: a simulated voyage north

Plant life in Banff National Park reflects the wide range of climatic conditions found at different altitudes in mountainous areas. The succession of plants encountered when climbing a mountain is often compared to the sequence of plants found on a trip toward the Arctic. In both cases, the plants become more specialized as the climate becomes more rigorous.

In Banff, as in other mountain parks, the valleys are heavily forested, but a number of prairie grasses and flowering plants have entered by way of the valleys and thrive in small open areas. The result is a transitional flora, an interesting blend of mountain and prairie flowers. Mountain plants, the paintbrush, aven, and small orchid, may grow within sight of gaillardia and crocus anemone from the prairies. Nearby, the most common forest trees are lodgepole pine. First to appear after a fire, they are followed many years later by white spruce and alpine fir, which grow up under the pine and finally become dominant. On the drier slopes, Douglas fir, limber pine, trembling aspen, and a few balsam poplar are found.

The lower levels of the intermediate slopes support lodgepole pine and white spruce. As the forest reaches higher, it grades into alpine fir, then Engelmann spruce, and finally, near treeline at about 7,000 feet,

white bark pine and Lyall's larch. Larch, a deciduous conifer, is confined to the southwestern portion of the park. In autumn it changes to a spectacular golden colour before its needle-like leaves drop.

Above timberline, the alpine life zone is characterized by stunted, wind-shaped vegetation. In this Arctic-like environment the growing season is short, cold, and unpredictable. Snowdrifts last until late summer, and frost may occur at almost any time. In spite of this, small bright alpine and Arctic plants grow in great profusion. Many early spring species flower into late summer.

## The animals: each has his place in the sun

The animals of Banff National Park, like the plants, are an interesting mixture of prairie, forest, and Arctic forms. Each has its own particular requirements, and can survive only where these are met.

In summer, the large grazing animals range throughout the mountains, each seeking its preferred habitat. The mountain goat and bighorn sheep prefer the high alpine pastures, elk and deer the lush forest meadows, and moose the marshy valley bottoms.

Food, which is plentiful in summer, becomes scarce in winter, and animals are forced into the valleys or on to small windswept slopes, where they wage a grim battle for survival against the extreme climate.

Flesh-eating animals, or carnivores, frequent the habitats of their prey. Larger forms, such as cougar and wolf, feed on elk, deer, sheep, and moose, while smaller flesh-eaters, such as coyote, wolverine, badger, lynx, and marten prey primarily on the small rodents.

The rare grizzly bear roams throughout the high, remote portions of Banff. It is an animal of the wilderness, and because of its shy and secretive nature, is seldom seen by visitors. Black bears and their brown colour phase are common. All bears are dangerous and should be treated with extreme caution.

Banff contains a large variety of birds, although they are rather thinly distributed throughout the park. Concentrations of birds are found in only a few places, such as the Vermilion Lakes.

The ptarmigan, pipit, golden eagle, and falcon live in the high places; the thrush, warbler, kinglet, woodpecker, and hawk in the forest and woodlands; several species of waterfowl frequent the ponds, lakes, and marshes. The most conspicuous birds are the bold grey jay, Clarks nutcracker, and the jaunty black-and-white magpie.

The lakes and streams of Banff National Park contain Eastern brook trout as well as cutthroat, Dolly Varden, splake, rainbow and brown trout. The cold, silt-laden glacial waters of Banff contain little food for fish, and most are rather poor fish producers.

## A brief park history

The valleys and passes through the mountains in Banff National Park were well known and used by the Indians. The first recorded history of the area is found in the diaries and reports of men who explored routes for the fur traders. In 1883, surveyors for the Canadian Pacific Railway searched for a route through the mountains to connect the then isolated colony of British Columbia with the rest of Canada. In that year, railway workers learned of a cave formed by hot springs bubbling on the northwest slopes of Sulphur Mountain and filed a claim on the thermal springs.

In 1885, far-sighted legislators reserved an area of 10 square miles around these springs to preserve them for the people of Canada. From this small beginning, Canada's present national park system has emerged.

Early activities in the park centred around these mineral hot springs. Access to the park was by train, and travel in the park was either on foot, on horseback, or in "tallyho's", carriages drawn by four-horse teams. Motor cars were prohibited until 1916.

In 1940, the long-planned highway from Lake Louise to Jasper National Park was completed. Called both the Banff-Jasper Highway and the Icefields Parkway, it provides access to the great Columbia Icefield and the magnificent mountain scenery just east of the Continental Divide.

Alberta







**How to get there**

Banff National Park is serviced by commercial bus lines. Trans-continental trains of the Canadian Pacific Railway stop at Banff and Lake Louise. In addition, there are five highway approaches. From the east, the Trans-Canada Highway links the park with Calgary, and Highway No. 11, the David Thompson Highway, enters from Red Deer. The park is accessible from the north by the Icefields Parkway, and from the west by the Trans-Canada Highway and the Banff-Windermere Highway.

The nearest commercial airport is at Calgary, but there is a grass landing-strip near the Banff townsite for daylight landings of light aircraft. Pilots must notify the park administration office immediately after landing.

A park motor vehicle permit is required for all vehicles and may be purchased at the park gate.

**How to enjoy the park**

*Season* – The park is open throughout the year, although some visitor services are only seasonal. Summer is the busiest season, but winter skiing is very popular. Ski developments operate from mid-November to late April. The Icefields Parkway is open the year round, except during the hours of darkness in winter.

*Motor boats* – Motor boats may be used on the Bow River

near Banff and on Lake Minnewanka, provided they conform with federal navigation regulations and carry proper safety equipment.

*Hiking* – This is an ideal way to see the park. There are over 700 miles of trails, providing access to all areas. Many leading to remote spots are well suited to overnight trail trips. Other areas are readily accessible for day walking or riding, particularly the Lake Louise and Moraine Lake districts. A printed guide to the trails of the park and detailed maps of trails in the Banff and Lake Louise areas may be obtained from information centres.

*Mountain climbing* – This is a popular sport in Banff. Mountain climbers and overnight hikers must register with a park warden before and after each trip. Inexperienced climbers should hire a guide.

*Fishing* – Fishing in the park is by permit, available at information centres or the park administration office.

**What to see**

*Banff area*

*Hoodoos* – unusual erosion-carved formations, situated near Banff townsite. There is a viewpoint and a self-guiding trail.

*Bankhead* – an old, abandoned coal mining town on the Lake Minnewanka scenic drive.

*Cave and Basin* – the thermal springs which led to the initial establishment of the park. They are one mile west of the park administration building.

*Johnston Canyon* – a spectacular erosion-cut canyon, accessible by Highway 1A. An easy self-guiding trail leads up the canyon to the lower falls.

*Lake Louise area*

*Lake Louise* – an exceedingly beautiful, glacial-fed lake beneath Mount Victoria. Numerous hiking trails lead into the mountains.

*Moraine Lake* – a lovely lake in the valley of the Ten Peaks, seven miles south of Lake Louise.

*Icefields Parkway*

*Peyto Viewpoint* – a vantage point at Bow Summit, offering a superb view of Peyto Lake and the Mistaya Valley. There is a self-guiding trail.

*Mistaya Canyon* – an unusual example of water-caused erosion, a quarter-mile off the highway, a few miles south of Saskatchewan Crossing.

*Parker Ridge* – situated just south of the Banff-Jasper boundary, a trail leads to an excellent viewpoint for the Saskatchewan Glacier. Fossils and alpine plants can be seen along the trail to the top of the ridge.

**Some don'ts**

National Parks are selected areas set apart as nature sanctuaries and special care is taken to maintain them in their natural state. For this reason, all wildlife, including birds, and all plants, trees, rocks, and fossils are to be left undisturbed. Even wildflowers are not to be picked; they must be left for others to enjoy. Feeding, touching, or molesting wild animals is not permitted. Dogs and cats may accompany visitors into the park, but dogs must be kept on leash. No permit or vaccination certificate is required.

**Where to stay**

Camping facilities are provided at 11 campgrounds, the largest of which are at Lake Louise, Tunnel Mountain, Two Jack Lake, and Johnston's Canyon. Daily fees at campsites vary and depend on whether the site is serviced or unserviced. Camping space is allocated on a first-come, first-served basis. Campgrounds open about May 15 and close about September 15, depending on the weather. Semi-serviced winter camping facilities are available at Tunnel Mountain from mid-October to May 1. The maximum allowable stay in a campground is two weeks.

It is not permissible to camp outside established campgrounds, although people on overnight trail trips may bivouac en route, provided they register at designated locations before and after each trip – please inquire at any information centre. A campsite permit must be purchased.



for all types of campgrounds, except primitive ones. Picnic areas and wayside tables are located along highways

A variety of commercial accommodation is offered in the park, details of which are available at all park information centres. Reservations can be made through commercial booking services in Banff.

**Other facilities**

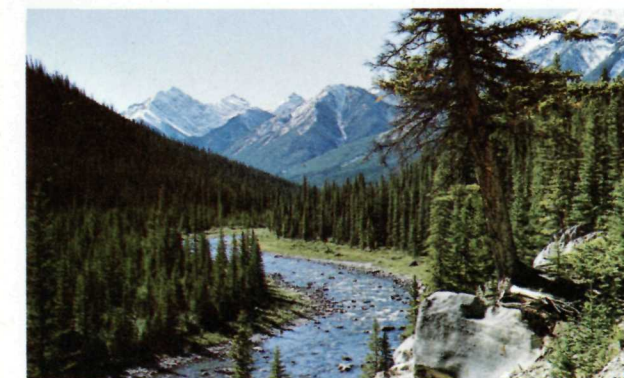
Nearly all the facilities of a modern town, including garages, grocery stores, and restaurants, are found within the park. The majority are convenient to Banff townsite, which is situated beside the Trans-Canada Highway.

In addition, visitors will find a large variety of recreational facilities, including swimming pools, bus and boat tour operations, riding stables, sight-seeing gondola lifts, a golf course, and ski-developments.

**Fire**

Campfires may be lit only in fireplaces provided for this purpose, or in portable stoves. Barbecues may be used only in campgrounds or picnic areas, and all coals must be dumped in existing park fireplaces. Fire permits must be obtained from a park warden or interpretation centre for any open fires during trail travel.

Anyone finding an unattended fire should try to extinguish it, or if it is beyond his control, report it at once.



**How to get the most out of your visit**

To help you understand and appreciate Banff's natural environment, you are urged to take advantage of the free interpretive program, conducted by a park naturalist and his staff. It will provide you with an insight into how climate, land formations, plants and animals are interrelated, and your stay will be more rewarding.

During the day, there are conducted hikes; in the evening, slide and film programs, and talks are held in campgrounds and major visitor centres.

Self-guiding trails, roadside exhibits, signs and viewpoints also explain the park's natural features, and free interpretive pamphlets provide more detailed information on points of special interest.

A naturalist will meet and address organized groups, if arrangements are made in advance.

Information on the interpretive program is available from bulletin boards, park information centres, and park staff.

**Where to get information**

Detailed information may be obtained from park information centres at Lake Louise and Banff townsite. Uniformed staff will answer questions, provide maps, outline travel routes, and refer visitors to various areas and facilities in the park. Special events are posted on bulletin boards.

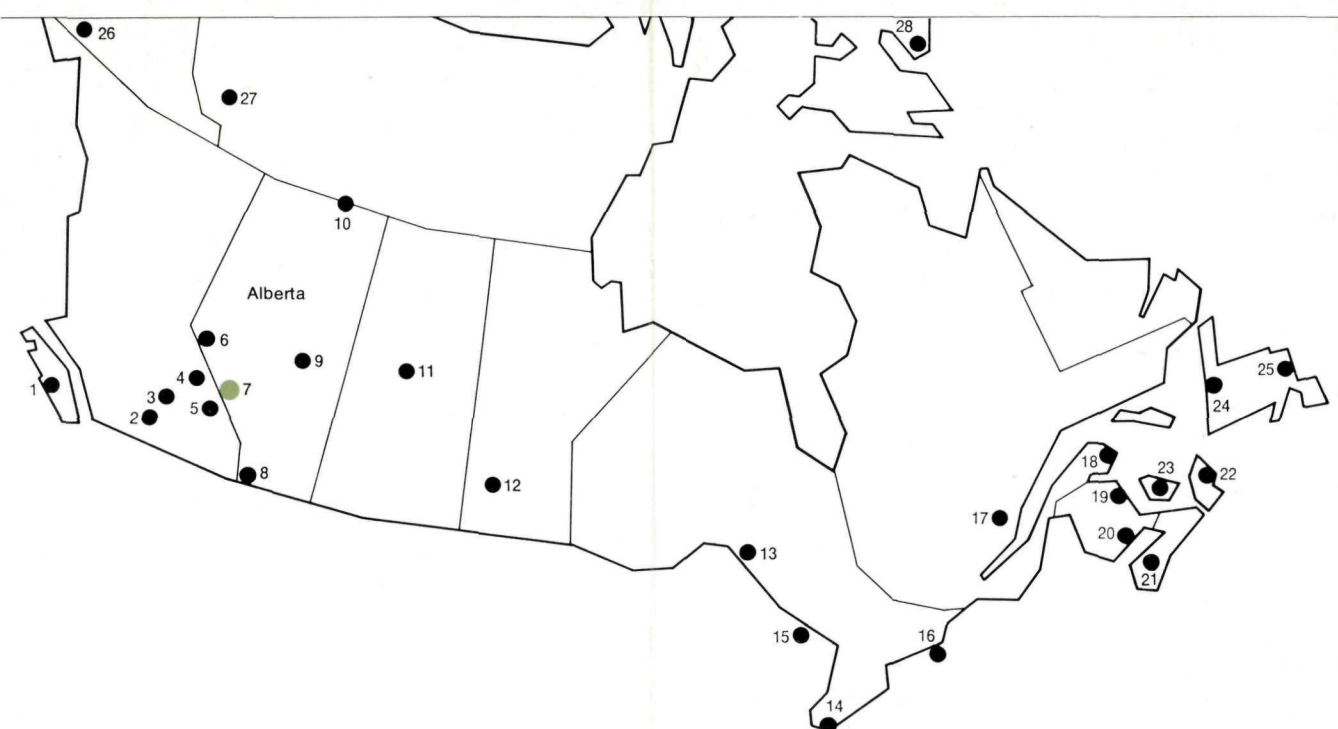
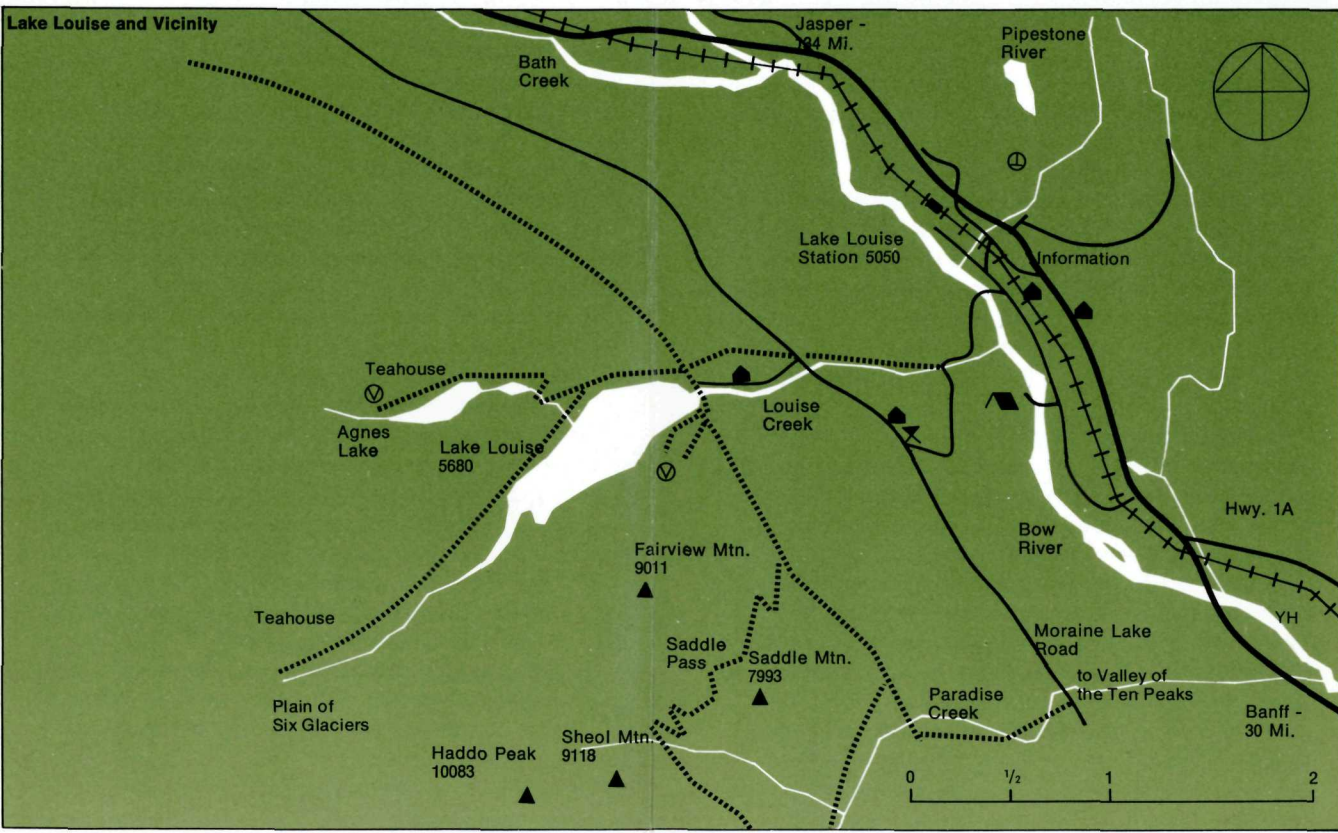
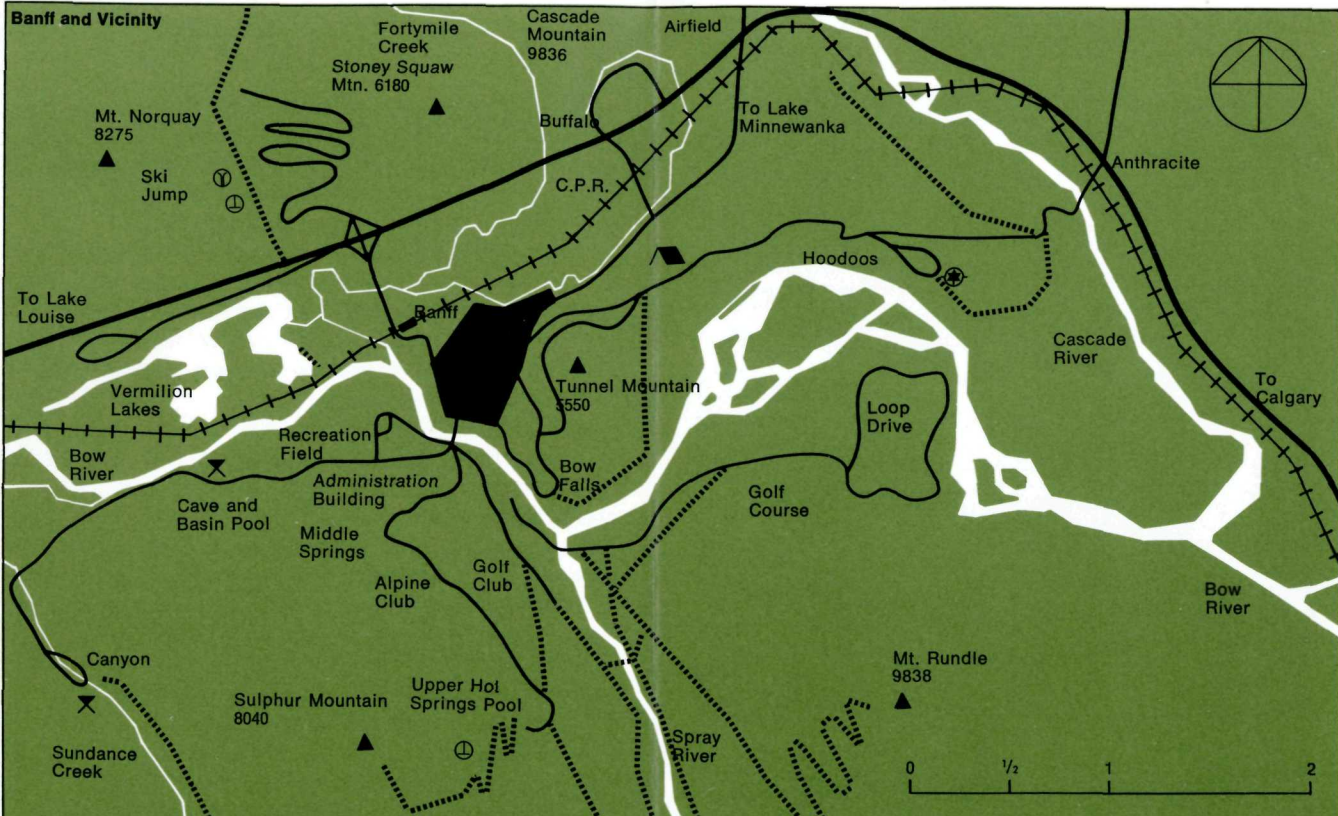
Park wardens and naturalists, though not primarily responsible for general information, will help you whenever possible.

Additional information on Banff is available from the Superintendent, Banff National Park, Banff, Alberta. For information on other National Parks write the Director, National and Historic Parks Branch, Department of Indian Affairs and Northern Development, Ottawa, Ontario, K1A 0H4.

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### Banff National Park

- Legend**
- Trans-Canada Highway
  - Secondary Road
  - Walking or Hiking Trail
  - ++++ Railroad
  - Lake, River, Creek
  - Glacier, Icefield
  - ▲ Mountain
  - Warden's Cabin
  - ⊗ Picnic Area
  - ▲ Accommodation
  - ▲ Campground
  - ⊙ Viewpoint
  - ⊙ Interpretive Trail
  - YH Youth Hostel
  - ⊙ Ski Area
  - ⊙ Mountain Lift
  - 1 Highway Number

- Canada's National Parks**
- |                         |                          |
|-------------------------|--------------------------|
| 1 Pacific Rim           | 21 Kejimikujik           |
| 2 Mount Revelstoke      | 22 Cape Breton Highlands |
| 3 Glacier               | 23 Prince Edward Island  |
| 4 Yoho                  | 24 Gros Morne            |
| 5 Kootenay              | 25 Terra Nova            |
| 6 Jasper                | 26 Kluane                |
| 7 Banff                 | 27 Nahanni               |
| 8 Waterton Lakes        | 28 Baffin Island         |
| 9 Elk Island            |                          |
| 10 Wood Buffalo         |                          |
| 11 Prince Albert        |                          |
| 12 Riding Mountain      |                          |
| 13 Pukaskwa             |                          |
| 14 Point Pelee          |                          |
| 15 Georgian Bay Islands |                          |
| 16 St. Lawrence Islands |                          |
| 17 La Mauricie          |                          |
| 18 Forillon             |                          |
| 19 Kouchibouguac        |                          |
| 20 Fundy                |                          |

Note: This is but a reference map, designed to give you a general idea of what you will find in this park. It is not a hiking, boating or road map.

