

PROFILES

 Parks Canada
Parcs Canada

JASPER NATIONAL PARK

National Parks Centennial **1985**

Volume 2, Number 4



The parks are hereby dedicated to the people of Canada for their benefit, education and enjoyment, . . . and such parks shall be maintained and made use of so as to leave them unimpaired for the enjoyment of future generations." (Section 4, 1930 National Parks Act)

Welcome to Jasper National Park, a special place set aside in 1907 to preserve part of Canada's natural and cultural heritage.

The 10,878 sq km park, abutting the Continental Divide, is one of the largest in Canada. Jasper, along with Banff, Kootenay and Yoho national parks, protects a representative cross-section of the Rocky Mountains. These young mountains form the backbone of North America and are the birthplace of the Canadian national park system which began a century ago.

Special events planned throughout special year

Jasper is a summer paradise for hikers, canoeists and vacationers. This year Jasper has even more to offer with special activities planned to celebrate and commemorate the national parks centennial. Details of each event will be advertised at the park information centres, on posters around town and in the local newspaper. Some of the major centennial events planned for Jasper follow:

- June 8 — A plaque unveiling ceremony to commemorate the Yellowhead Pass will be sponsored by the Historic Sites and Monuments Board of Canada. The public is welcome to attend.
- July 1 — A pancake breakfast sponsored by the Boys' and Girls' Club of Jasper will take place before a centennial parade along main street. Community groups are organizing events for the afternoon.

Aug. 3 — Alberta's Heritage Day will be celebrated in Jasper with an outdoor fair (weather permitting). The fair will feature arts and crafts, music and food of local ethnic groups. This promises to be a fun-filled day for the whole family. Watch for Boomer the Beaver, the centennial mascot, who will be giving out balloons and centennial stickers.

Sept. 13, 14 and 15 — September 14 is Jasper National Park's birthday. To celebrate this birthday and the centennial of national parks, Superintendent George Balding has declared this homecoming weekend. This weekend is dedicated to all those who have visited, lived in or worked in the park and helped to make it what it is today. The main activities for the week-end are:

- Sept. 13 — Octoberfest, dinner and dance; sponsored by the Jasper-Yellowhead Historical Society
- Sept. 14 — Bridge naming ceremony and family picnic
- Sept. 15 — Ecumenical services sponsored by the Jasper Ministerial Association
- Compound open house hosted by Parks Canada.

Many other special activities will occur in Jasper, from kayaking races on local rivers to hiking historical trails through the wilderness. Thanks to local businesses and community groups working in co-operation with Parks Canada, the national parks centennial should be a memorable year for all Jasper visitors.

Special events are scheduled in national parks and national historic parks and sites across Canada. Some of the highlights for parks in the western region are:

- June 15 — *Banff National Park* — Cave and Basin Centennial Centre opening
- June 29 — *Waterton Lakes National Park* — author's inaugural hike for a new trail guide
- June 30 — *Kootenay National Park* — Windermere Highway re-dedication ceremony
- July 1 — *Rocky Mountain House National Historic Park* — Great Heritage Canoe Pageant send-off
- July 28 — *Fort St. James National Historic Park* — B.C. Heritage Brigade departure ceremonies
- Aug. 5 — *Revelstoke National Park* — Mt. Revelstoke rediscovery hikes
- Sept. 28 — *Elk Island National Park* — Wood Bison Trail opening.

Centennial events are also taking place in centres outside the national parks making lots of opportunities to celebrate 100 years of heritage conservation in Canada.



Be bear-wise with food storage

Bears and people have similar ideas about food — both like to get it the fastest and easiest way possible. People can stop by a local supermarket, but bears have to forage constantly for roots and berries. To make matters worse, they have only six or seven months to obtain all their food requirements for the entire year. It's no wonder food left unattended on picnic tables or in tents is so tempting for them.

But human food may not help bears build the fat reserves they need to make it through the long mountain winters. Worse yet, in taking food from campsites bears can cause damage to camping gear, tents and people. If they prove to be a continual nuisance, they have to be destroyed.

The following guidelines are designed to help visitors help the bears in Jasper National Park:

Store all food containers in a vehicle — preferably in the trunk, otherwise in the interior with the windows closed.

Clean up all food, food containers, cooking utensils and table scraps immediately after each meal. Never

leave food unattended, even for a few minutes.

Deposit all garbage in the nearest refuse container provided by the park.

Ensure that your sleeping area is removed from food storage and preparation areas. Do not store or cook food inside a tent or tent trailer.

In the backcountry, hang food from a high tree limb, or from the crossbar provided in some camping areas.

When hiking make enough noise to warn bears of your presence. Burn empty food containers and pack them out of the backcountry with any other garbage.

Do not attempt to retrieve food taken by a bear.

Encourage fellow campers to be bear-wise. If you notice food left unattended at a campsite, notify the campground attendant or a park warden.

For further information about bears, read *You Are In Bear Country*, a free pamphlet available at the park information centres.

Care on the road helps animals

National parks provide a refuge for wildlife, but each year many animals die unnecessarily. In Jasper National Park, more than 50 animals are killed annually by cars, trucks and trains. Park visitors can help reduce this loss.

Animals frequently graze along the grassy roadside slopes. They may wander onto the road to lick salt from the road surface. Some animals are enticed to the roads by handouts offered illegally by park visitors. Once on or near the road, they are in danger and pose a hazard for drivers.

Park visitors can help reduce the number of animals killed on the highways by driving cautiously, obeying the speed limit, stopping only at roadside pull-offs to watch wildlife and never feeding or enticing wildlife. Many animals are most active between dusk and dawn so it's necessary to be especially alert at night.

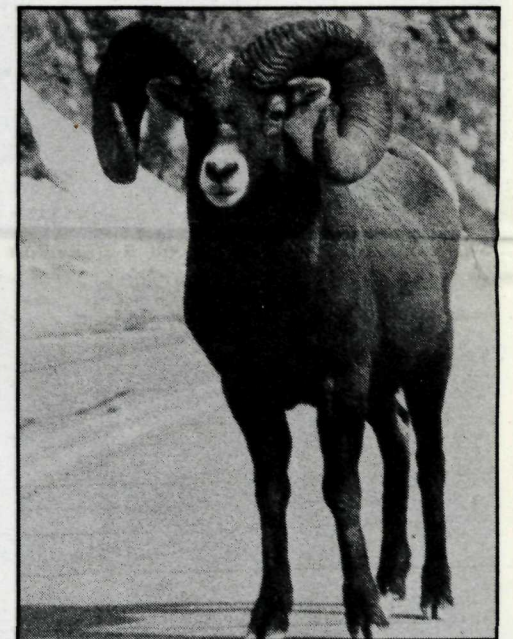
Superintendent invites participation in party

It is 1985 — Parks Canada's Centennial — a celebration of 100 years of heritage conservation in Canada.

Banff, our first national park, is the only park that is actually 100 years old this year. The other parks vary in age from being mere infants to middle aged. Jasper, the fifth park to join the system, will celebrate its 78th birthday on September 14.

Canada's national park system has expanded since 1885 to include historic parks and sites, heritage canals and it now embraces 31 national parks and reserves.

This year is a time to celebrate the birthday of one of the greatest heritage conservation systems in the world. If possible, join in some of the centennial events in Jasper or in other parks across Canada. Or



Bighorn sheep on Highway 16

make your own plans to discover the rich natural beauty of this land — an inheritance shared by all Canadians.

Enjoy your visit to Jasper. Explore it, appreciate it and help protect it.

George Balding
Superintendent of
Jasper National Park

The production of articles for this issue would not have been possible without the time and talents generously contributed by volunteers.

Special thanks go to:

Murray Christman; Jeff Dolinsky; Utta Gagel; Joan Norman; Bo Semeniuk; Cleone Todgham and Terry Willis.

Jasper National Park offers special treasures to visitors

National parks protect representative examples of Canada's diverse landscape. To achieve this, Parks Canada has divided the country into 48 natural regions, of which 39 are terrestrial and nine are marine. The goal is to have each of these natural regions represented in the national park system.

Jasper National Park is in the Rocky Mountains natural region which includes the mountain ranges extending from the Liard River in northern British Columbia, south to the border with the United States. A representative cross-section of the Rocky Mountains is protected in the five national parks in the region — Jasper, Banff, Kootenay, Yoho and Waterton Lakes.

The early establishment of national parks in Canada did not follow the systematic process used today. Canada's first national park, Banff, was established along the southern transcontinental railway route in 1885. Plans for construction of a second railway across the Canadian Rockies led to the establishment of Jasper Forest Park in 1907. Jasper was set aside initially for preservation of forest trees and for the proper maintenance of the watersheds in the area.

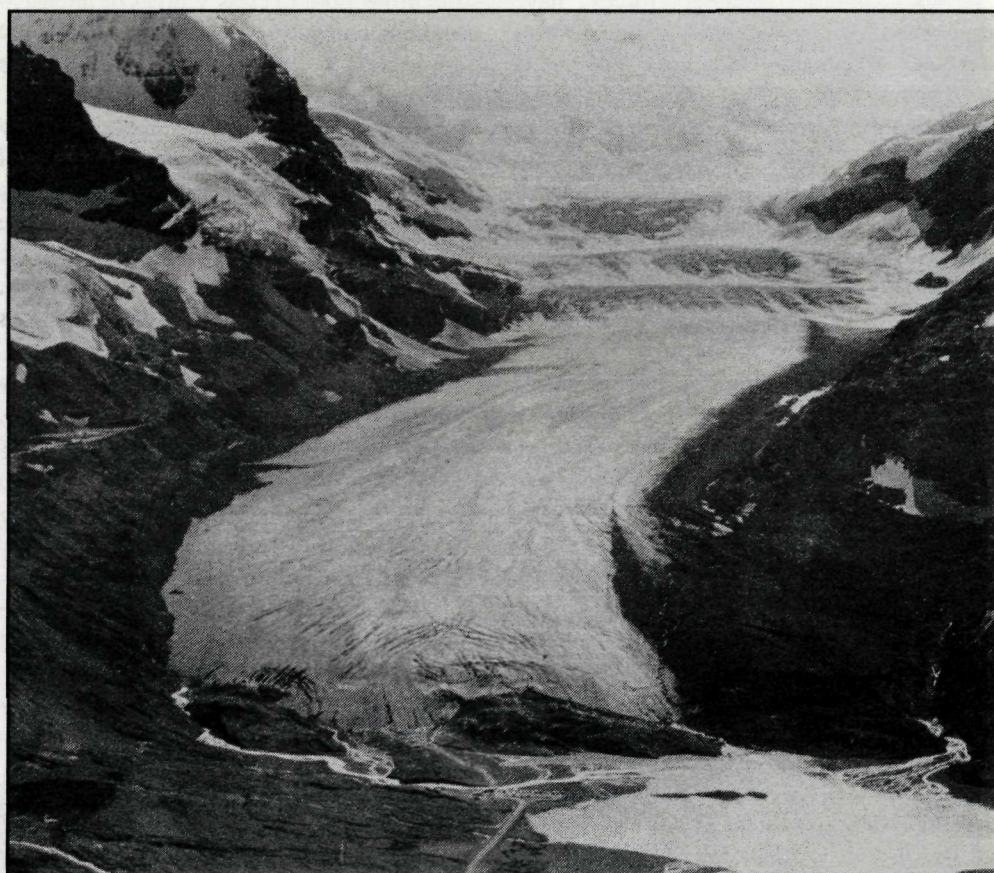
Within Jasper National Park, a number of nationally and internationally significant

resources are protected. In the Maligne Valley there is an unusual karst system, created by water erosion, which contains an extensive underground drainage network.

The Columbia Icefield in the southern end of the park is the largest and most accessible icefield in the Canadian Rockies. From this icefield, which spans the Continental Divide, rivers flow westward to the Pacific Ocean, northward to the Arctic Ocean and eastward to Lake Winnipeg and ultimately, Hudson Bay. Jasper contains the headwaters of many rivers which are important to the rest of Canada.

Jasper also contains a number of sites and features of national historical significance. The Committee's Punch Bowl at the summit of Athabasca Pass and the site of Jasper House are reminders of the fur brigades of more than a century ago.

Due to its outstanding resource value, Jasper has received international recognition from the United Nations. In October 1984, the four contiguous national parks in the Canadian Rockies — Jasper, Banff, Yoho and Kootenay — were declared a World Heritage Site, for the benefit and enjoyment of all nations.



Athabasca Glacier

Steamy discovery sparks national park system

What Frank McCabe and William McCardell discovered in the fall of 1883 while casually prospecting on a mountain near present-day Banff was more than a cavern and a hot spring. It became the focal point of an inspired idea and a major showpiece in a nationwide system of parks.

The months of controversy surrounding ownership and future disposition of the springs drew the attention of the Dominion government. Investigating officials saw beyond the commercial potential of the site and recommended instead that, because of its inherent value, it be retained as a public trust.

In November 1885, a 26 sq km (10 sq mi) area containing the mineral hot springs was set aside as a federal reserve, and the nucleus of Canada's first national park — Banff. This was a modest but significant step toward what was to become one of the finest national park systems in the world.

Following 1885 the number of national parks grew steadily, reaching 14 by 1929. But with the transfer of Crown lands to the provinces in 1930, the establishment of new national parks in southern Canada required inter-governmental consultation and co-operation. The Depression, the Second World War and the post-war resources boom also combined to slow the growth of the park system. Only four new parks were formed between 1930 and 1967.

The five-year period from 1968 to 1972 showed extraordinary growth. Ten new national parks and one national park reserve were created, an achievement never equalled.

Meanwhile, Parks Canada has developed a planning framework aimed at balancing the

inventory of national parks. It divided the country into 48 natural regions (39 terrestrial, nine marine). Assessing the existing parks against this backdrop, it became clear which regions were represented, partially represented, or not represented at all.

The process was further fine-tuned so that within each region the best sites (called Natural Areas of Canadian Significance) could be identified, analysed and ranked according to their suitability for national parks.

Today, once a site is selected, consultations, feasibility studies and negotiations must be carried out with the provinces, territories, federal agencies, local communities and other interested groups. When agreement is reached on a particular site, a management strategy is drawn up. When the lands are assembled, and the National Parks Act amended the new national park becomes a reality.

Three recent additions to the parks system — Northern Yukon, Grasslands in southern Saskatchewan and Mingan Islands in the eastern St. Lawrence Lowlands region — have brought the present complement of national parks to 31. These parks encompass 139,749 square kilometres, or 1.4 per cent of Canada's land area.

Every province and territory now boasts at least one national park. The smallest is St. Lawrence Islands at 4.1 sq km, dwarfed by Wood Buffalo National Park in Alberta and the Northwest Territories which is more than 11,000 times larger.

The parks contain a variety of land forms from arctic tundra and boreal forest, to

eastern hardwood forest, alpine meadow, west coast rain forest and semi-arid grassland. They include Canada's highest mountain (Mt. Logan, Kluane National Park), its southernmost point of land (Point Pelee National Park), as well as the largest continental icefield south of the Arctic Circle (Columbia Icefield, Banff and Jasper).

Thirty-eight national historic parks, more than 65 major historic sites, and more than 900 historic markers and plaques are also part of Canada's national park system. In addition, recent co-operative agreements with the provinces have paved the way for a network of historic waterways and trails, scenic and historic parkways. Nine heritage canals have made more than 1,000 km of water linkages accessible to recreational boaters north of the Great Lakes.

Yet, for all the gains that have been made, the ultimate goal of one park in each of the 48 natural regions has yet to be reached. Twenty-eight of those regions, mostly in central and northern Canada, remain unrepresented.

The national parks of today yield economic and employment benefits far beyond what McCabe and McCardell ever thought possible for the original Banff hot springs. But they encompass much more.

Canada's national parks are a valid expression of national identity, pride and hope for the future. Part of the fabric of the country, they are dedicated and preserved as much for future generations as for today.

SOLUTIONS TO GAMES

Answers to Heads and Tails from p. 10

- | | |
|-----------------|---------------|
| 1. moose —D | 4. elk —B |
| 2. mule deer —A | 5. caribou —F |
| 3. goat —E | 6. sheep —C |

Answers to Crossword treasure hunt from p. 10

- | Down | Across |
|--------------|------------|
| 1. elk | 2. lobster |
| 3. squirrels | 4. Edith |
| 5. Whistlers | 6. rabbits |
| 7. duck | 8. sheep |
| 9. Indian | |
| 10. nest | |

secret word: wilderness

Hot springs closed

For those who would go to Miette. I'm afraid we must say with regret, Tho' the new pool is there, The road still needs repair, And won't open for several months yet.

The Miette Road and new hot springs pool will re-open for public use in the spring of 1986. The new road bed will not be paved until the fall of that year. Parks Canada regrets any inconvenience caused by this year's closure for redevelopment.

Write a limerick about your visit to Jasper and drop it off at the information centre, or mail it to Profiles. It may wind up on a bulletin board, be read at an evening program or be printed in the next issue of Profiles.

Parks belong to people

For centuries natural forces have dominated the shaping, molding and changing of Canada's landscape. Today, man is leaving his mark – modifying the environment at an ever-increasing pace.

National parks preserve significant examples of Canada's heritage in their natural state. To ensure that natural processes are allowed to occur, man's interference is kept to a minimum and natural resources are protected from such uses, as mining or hunting.

National parks are not merely warehouses of natural resources. They belong to and have been dedicated to the people of Canada – for their benefit, education and enjoyment.

Parks Canada has a dual mandate — to protect park resources while providing opportunities for public appreciation and use. These two interests are not always compatible. Seeking the best balance between them is the chief task of park management.

Zoning is an important tool which helps to minimize this conflict. Areas of a park are classified into zones which reflect the degree of resource protection required and the type and intensity of visitor use that is appropriate. The zones provide a guide for the activities of both visitors and managers, and help to achieve a balance between visitor use and wilderness preservation.

Five basic zones, or land-use areas, have been established. They range from class I areas which have unique qualities requiring

strict protection, to class V areas of intensive use. Less than one per cent of Jasper National Park is class V. More than 50 per cent of the park is wilderness recreation area, class II.

In addition to zoning, a quota system for backcountry use has been established in Jasper to reduce damage to fragile landscapes and overcrowding on the trails.

For the past three years, Parks Canada and the public have been involved in preparing a management plan for the four contiguous mountain parks — Jasper, Banff, Kootenay and Yoho. Since these parks share many common issues, resources and users, they have been jointly studied. A report called "A Planning Scenario for the Four Mountain Parks Block (draft)" has been prepared and it provides the framework for future planning and management of the individual parks.

A park management plan for Jasper will be prepared in the next few months to provide more detailed direction specific to this park. Public participation is an essential part of the planning process. If you wish to be involved, contact:

Four Mountain Parks Planning Program
Parks Canada
520, 220 - 4th Ave. S.E.
Calgary, Alberta T2P 3H8
(403) 231-4418

The future of Canada's parks depends on man's actions not only through the legislative process, but the day to day actions of each and every visitor. All park users are managers of these national parks because they belong to all Canadians.



Saw-toothed mountains such as Chetamon Mt. are typical of the Rocky Mountain front ranges of Jasper National Park.

Guidelines for wise park use

Jasper National Park has been set aside for the enjoyment of today's visitors while being preserved for tomorrow's. This natural area is sensitive to man's presence. With two million people visiting it every year the co-operation of everyone is essential to meet this challenge.

A few basic guidelines for wise park use follow:

- All plants, animals, rocks and natural objects, should be left alone. Taking home pictures and fond memories doesn't rob the park of its treasures.
- Resist the urge to feed, touch or entice wildlife – including birds, squirrels, chipmunks and sheep. It is illegal and potentially dangerous to both the visitor and the animal. Animals that get handouts become dependent on unreliable, non-nutritious food sources. Animals enticed to the roads are a traffic hazard and many are killed. Park animals are wild animals and they have a better chance of survival with the nutrition received from their natural food.
- Camping is permitted only in designated areas where facilities are provided.
- To reduce the risk of wildfire, campfires are permitted only in the metal fireboxes provided by the park.
- Barbecues are allowed in campgrounds and picnic areas. Coals must be dumped in existing fireplaces, not in garbage containers.
- Hikers are encouraged to carry their own gas-burning stoves because fireplaces and wood are limited in the backcountry.
- To minimize overcrowding on the trails and at campgrounds, a free park-use permit is required for all overnight trips into the backcountry. Permits are available at park information centres.
- Hikers are asked to stay on the main trail even if it is wet and muddy. Cutting

corners and widening the trail increases erosion and leaves unsightly scars on some of the most beautiful landscape.

- Bury human waste 15 cm (6") deep and make sure you are at least 100 m (about 100 yards) from any water source.
- Fishing is good on many lakes and rivers. A national parks' fishing licence is required and may be bought at information centres and sporting goods stores in the park. A list of *fishing regulations* comes with it.
- Boating in rowboats and canoes is allowed on most ponds and lakes in the park. Power boats may be used only on Pyramid and Medicine lakes. Boats with electric motors without on-board generators are permitted on any lake where boats are allowed.

This is only a partial list of guidelines. Additional information on park use and safety is available from park wardens and at park information centres.

The challenge for visitors is to ensure that enjoyment of the park today allows future generations to share the same experience.

Water enthusiasts find Jasper National Park a haven, with spectacular glacial lakes and rivers. But these sparkling turquoise waters disguise danger. Drowning isn't the only hazard. Most waters in Jasper are very cold, making hypothermia a serious threat.

Boaters are required to wear life jackets at all times and to follow proper boating safety. Anyone spending time on or near the water should know the treatment for hypothermia as well as basic first aid.

Wardens and other park staff at park information centres can recommend safe areas to boat and fish in the park.

Comments

We welcome your comments on *Profiles*. They will help us ensure that future issues reflect the interests and needs of park visitors.

What did you like about *Profiles*? _____

What didn't you like? _____

What information do you think should be included in future issues? _____

Superintendent: Jasper National Park
P.O. Box 10
Jasper, Alberta
T0E 1E0

Grab bag of programs, activities, talks, campfire circles

Parks Canada offers interpretive services to help visitors learn more about the natural and cultural history of Jasper National Park. Everyone is invited to join a park interpreter for a free evening program or a special event.

SCHEDULE OF EVENING PROGRAMS June 21 to Sept. 1

Campground	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.
Whistler	*10 pm	*10 pm	*10 pm	*10 pm	*10 pm	*10 pm	*10 pm
Wapiti	8 pm		8 pm		8 pm		
Wabasso				8 pm		8 pm	
Pocahontas			8 pm			8 pm	
Honeymoon Lake				8 pm		8 pm	
Wilcox Creek		8 pm			8 pm		

*Aug. 15 - Sept. 1, Whistlers theatre programs start at 9 pm. Ample car and bus parking is close to the theatre for those visitors not staying in the campground.

Whistlers Campground Theatre

Beginning around dusk, enjoy a leisurely hour as the interpreter presents aspects of the Jasper National Park story, illustrated by slides or films.

Wapiti Campground Theatre

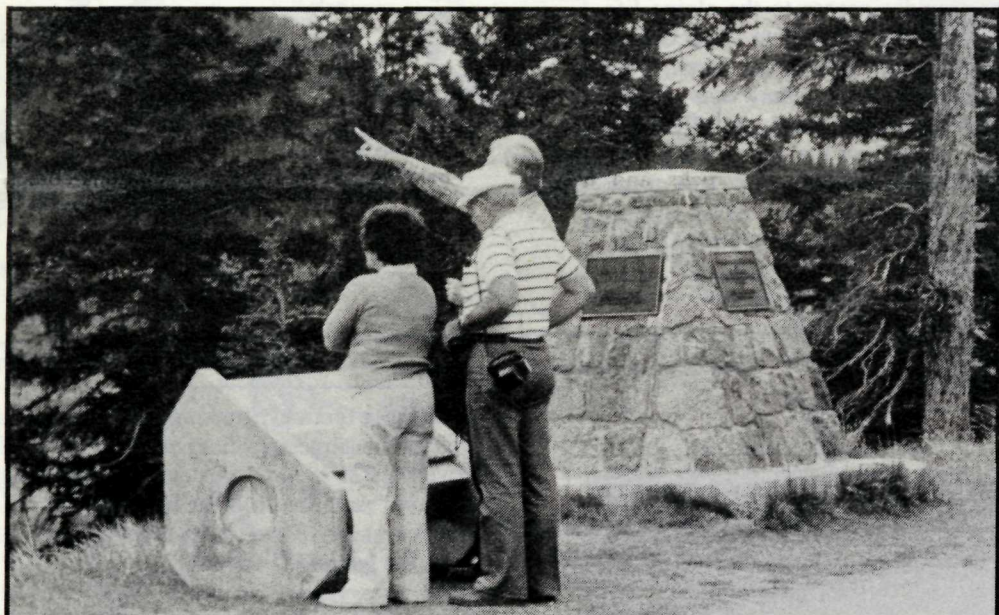
A small, cozy theatre provides the setting for interpretive talks. Bring the children - programs begin and end before bedtime.

Campfire circles at Wabasso, Wilcox, Pocahontas, and Honeymoon campgrounds

Join the interpreter for an old-fashioned talk around the campfire, complete with hot, spiced tea. Bring your cup.

Hotels

Evening programs are offered at some of the hotels in Jasper townsite at various times throughout the summer. Check at the park information centre for details.



In addition to evening programs, park interpreters will offer a variety of daytime activities. Events change from day to day, so check at the park information centre for the current schedule.

Townsite Activity

Informal programs are presented on the front lawn of the Jasper townsite information centre. Presentations range from displays of horns and antlers to puppet shows.

Roving Interpreters

Watch for park interpreters at viewpoints and places of interest. They may bring a portable exhibit and are happy to answer questions about the park.

Special Events

These unique programs range from children's events and beach programs to special centennial programs.

Guiding Yourself

Self-guiding trails allow visitors to explore an area at their own pace and to learn about the natural resources and history of the park. Self-guiding trails exist at Mt. Edith Cavell, Maligne Canyon, Lake Annette, Athabasca Falls, The Whistlers and Athabasca Glacier.

Tune in to 1490

Number 1490 on the car radio broadcasts interpretive notes on the area. Stations are

located at the beginning of the Maligne Road Athabasca Falls and in the Columbia Icefield area.

Stop as You Go

Interpretive signs and exhibits located at roadside pull-offs are designed to help visitors discover the story behind the scenery.

Good Companions

Two useful publications to take along while exploring Jasper are Maligne: Valley of the Wicked River and Mt. Edith Cavell - In the Heart of the Subalpine. History buffs will enjoy Tracks Across My Trail, the story of Curly Phillips, an early guide and outfitter. These publications are for sale at many outlets in the park. A variety of free brochures, including Day Hikes in Jasper are also available at park information centres.

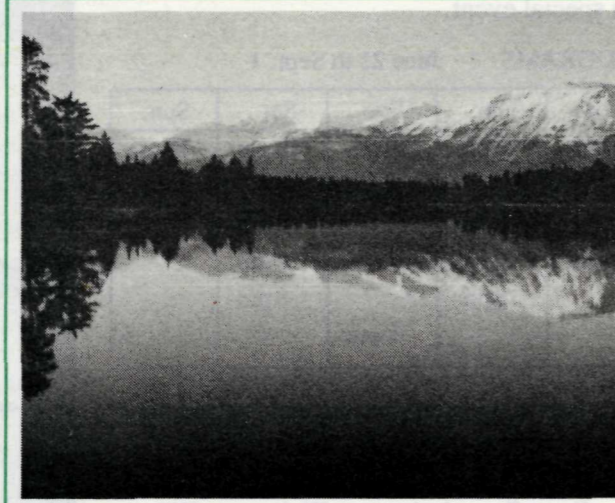
Visit our Neighbours

Free interpretive programs are available in all national parks and national historic parks in Canada. Inquire at park information centres.

Jasper National Park

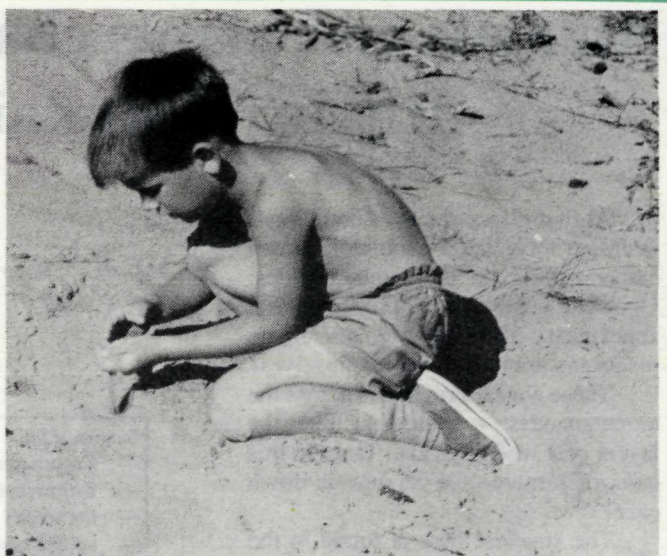


Pyramid Lake and Patricia Lake (7 km from Jasper)
 More than 10,000 years ago, glaciers gouged troughs into the soft shale bedrock on Pyramid Bench. Today these troughs are beautiful lakes. Close to town, Patricia and Pyramid Lakes are ideal spots for picnicking, windsurfing, canoeing, horseback riding and walking on the extensive trail network. Pick up a free trail guide at the information centre. Boat rentals available at Pyramid Lake.



Lake Edith and Lake Annette (5 km from Jasper)
 As the Athabasca Glacier melted and retreated from this valley 10,000 years ago, massive blocks of ice broke from its edge and were buried by glacial debris. When these stagnant ice blocks finally melted they left depressions in the landscape – called kettles. Edith and Annette lakes are examples. This area offers opportunities for swimming from sandy beaches, picnicking in open woods and cycling the paved bike paths which criss-cross the area. Lake Annette also features a paved interpretive trail, specifically designed for ease of access by the disabled.

Miette Hot Springs The drive east of Jasper, along Highway 16 passes through one of Canada's most spectacular geological landscapes. The patterns of rock layers on the mountainsides vividly display the thrust fault and folding movements which contorted the earth's crust to form the Rockies. Seventeen kilometres up the Fiddle Valley, in the midst of this geological splendor, are the Miette Hot Springs. Unfortunately, the Miette Road and Hot Springs pool are closed for redevelopment until 1986. Pocahontas campground will be open for those wishing to spend more time exploring the eastern ranges of the park.



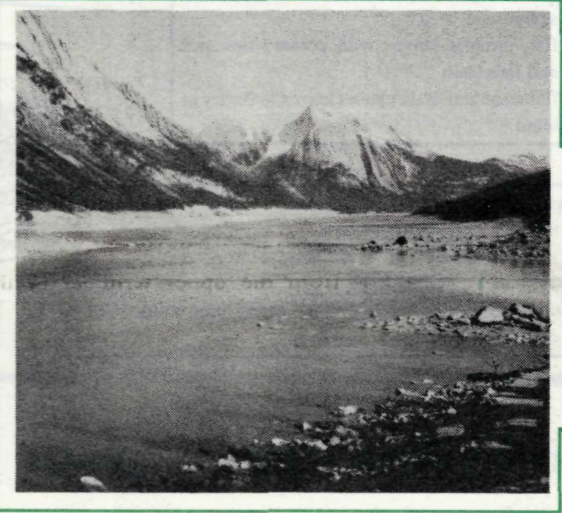
Jasper Lake Sand Dunes
 Surrounding Jasper Lake, a widening of the Athabasca River, are distinctive wind-blown sand deposits up to 25 m thick. This sand originated on the bed of a large lake formed as the valley glaciers receded 10,000 years ago. Jasper and Brule lakes are remnants of this old lake. In winter, water in Jasper Lake recedes, exposing the sediments to strong winds which shift the dunes. The vegetation in the area, which has developed in response to the ongoing deposition of sand, is unique in Canada and possibly North America.

The Icefields Parkway (230 km long)
 Linking Banff and Jasper National Parks is one of the most scenic routes in the world. Highlights include the Columbia Icefield, the Athabasca Glacier, Sunwapta Falls and Athabasca Falls. Interpretive exhibits and signs are located at roadside pulloffs.

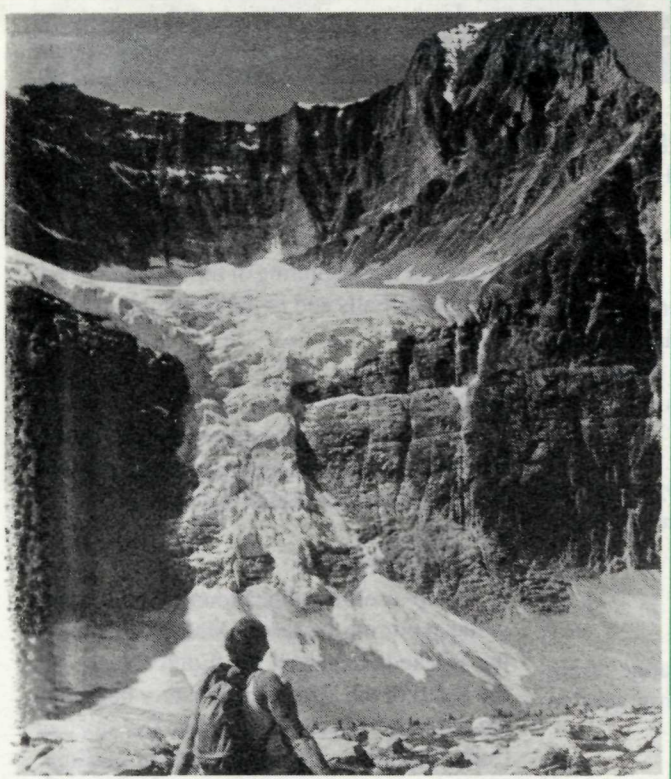
The Whistlers (7 km from Jasper)
 A commercial tramway provides access to the alpine life zone – the land above the trees which makes up 40 per cent of the park. The fragile ecosystems reflect the harsh, cold climate. Picking flowers and taking short cuts causes extensive damage. Visitors are asked to tread carefully. For a new perspective on the park, follow the self-guiding trail from the upper terminal to the summit (1.4 km) for a panoramic mountaintop view. There's also a hiking trail up the mountain, starting near Whistlers Hostel (9 km to upper terminal).



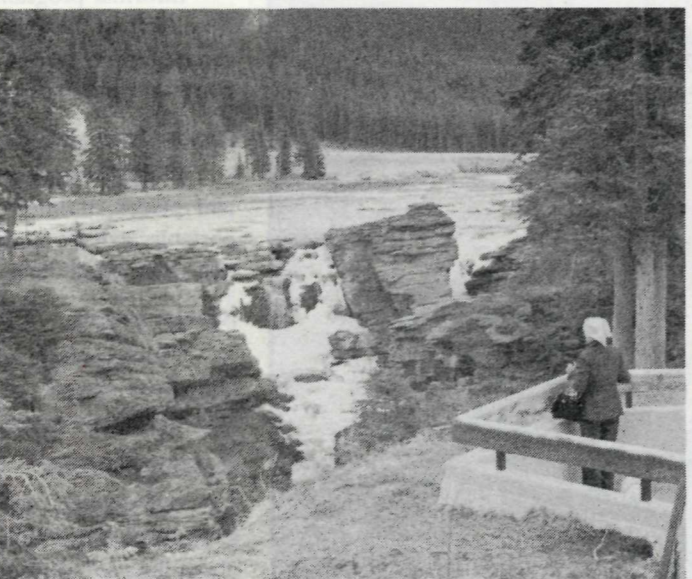
Maligne Canyon (11.5 km from Jasper)
 A spectacular example of the sculpturing effects of flowing water. For more than 10,000 years water has carved a deep, jagged gorge into the limestone rock. Today the canyon is over 50 m deep. A self-guiding trail and footbridges provide excellent views of the canyon.



Medicine Lake (27 km from Jasper)
 A most peculiar lake. The Maligne River flows in, but there is no surface outlet. Instead, the water flows underground for 16 kilometres, through what may be one of the largest inaccessible cave systems in the world. The water emerges down valley in such places as Maligne Canyon and Lac Beauvert. Exhibits and signs are located at pulloffs along the road.

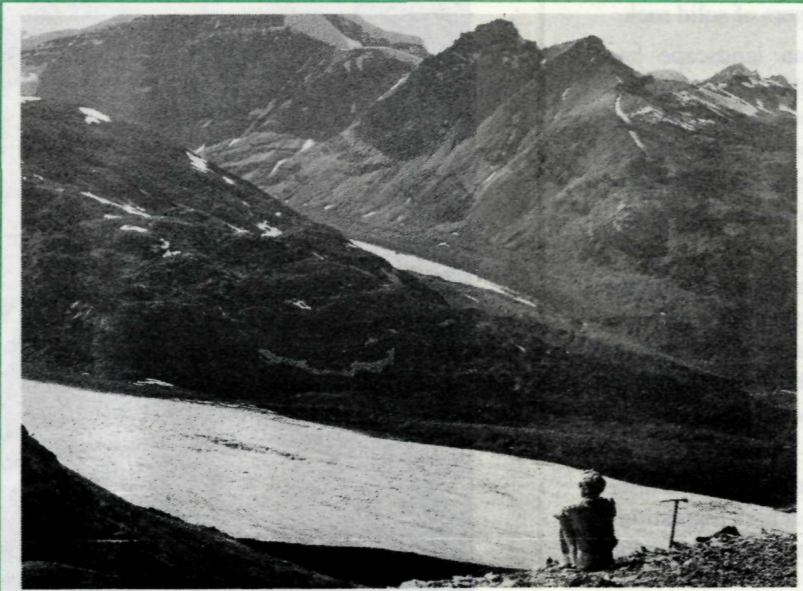


Mt. Edith Cavell (29 km from Jasper)
 Composed of erosion-resistant quartz sandstone, this towering peak is accessible by a switchback road (14.5 km, trailers not permitted) which leads right to its base. A spectacular icefall of the Angel Glacier cascades down the mountain's northeast face. Ice avalanches frequently thunder off the glacier during summer months. A 3.5 km trail climbs through the vast forested slopes up to a tranquil meadowland dotted with wildflowers. This is the subalpine – home of the spruce grouse, Clark's nutcracker and caribou. In the valley, a self-guiding loop trail tells the story of a recent ice age.

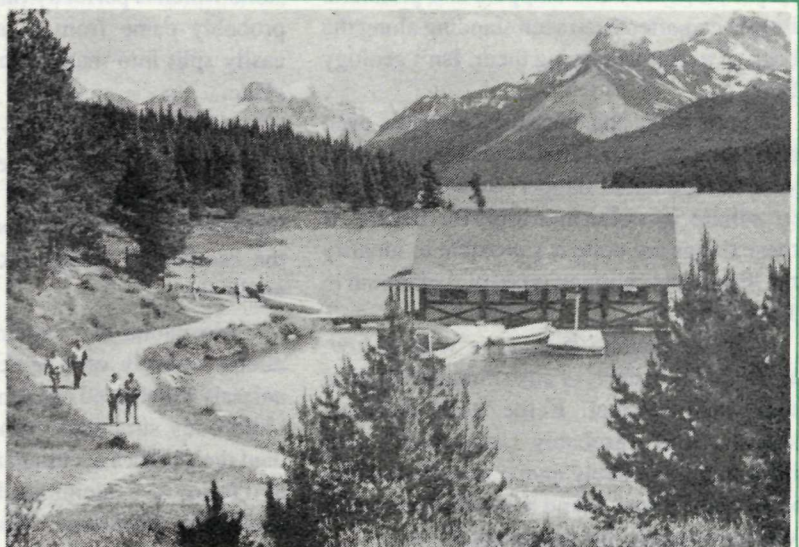


Athabasca Falls (30 km from Jasper)
 The Athabasca River plummets 23 m at Athabasca Falls. The channelled force of this powerful river has cut a narrow canyon in very hard, quartz-rich rock. An interpretive trail, with a bridge and platforms at the better vantage points, makes exploration easy. Highway 93A provides an alternate route between Athabasca Falls and Jasper.

Columbia Icefield Straddling the Continental Divide, this is the largest icefield in the Rocky Mountains, covering 325 sq km. Considered the hydrological apex of North America, it is the headwaters of three major rivers systems. Three of its main glaciers can be seen from the Icefields Parkway.



Athabasca Glacier (103 km from Jasper)
 Located adjacent to the Icefields Parkway, this is the most accessible glacier in North America. A self-guiding trail leads to the toe of this glacier, while commercial snowcoaches go directly onto the ice providing a great chance to witness the power of ice action. Visitors can learn more at the Icefield Centre where exhibits, publications, a slide show and information on snowcoach tours are available. Two campgrounds and several popular trails are nearby.



Maligne Lake (48 km from Jasper)
 The largest glacial-fed lake in the Canadian Rockies (22 km long) and one of the deepest (97 m). Renowned for its breathtaking scenery and brilliant turquoise-colored water, the area also offers exceptional hiking, canoeing and fishing. Boat cruises provide the visitor with a glimpse into the wilderness along the mountainous upper reaches of the lake. Rowboat rentals and restaurant service available. Day use area; no camping or overnight accommodation.

Animals and plants change with trip up mountain

At first glance the trees and forests in Jasper look like a continuous green carpet rolling up the mountainsides. Upon closer inspection, three major life zones each with their own characteristic plants and animals, reveal themselves.

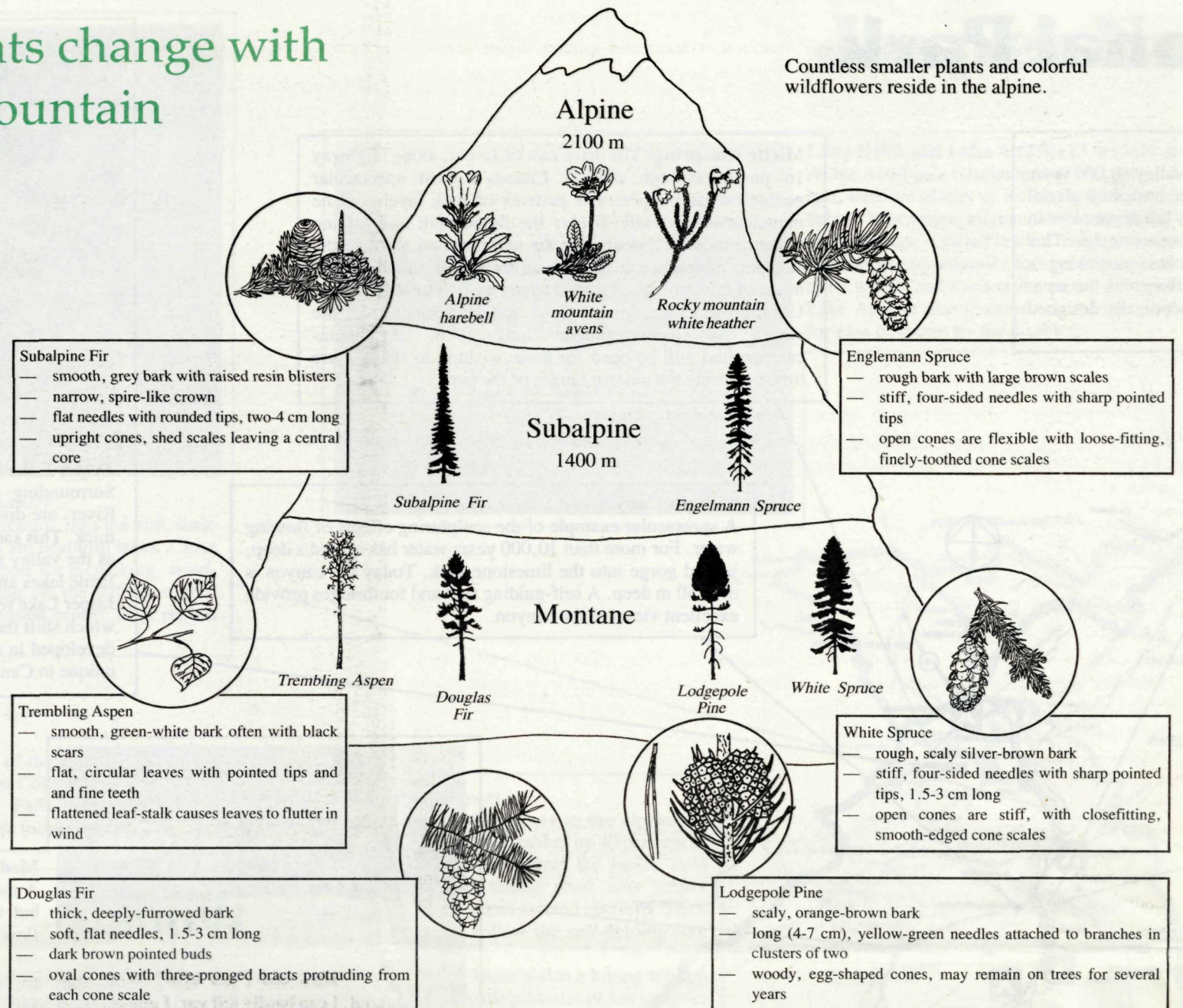
These zones form bands across the mountainsides – somewhat like the layers of a wedding cake. Only in this case, it's more like an upside-down cake.

The smallest slice is found in the valley bottoms, below 1400 m. This zone, called the montane covers only 20 per cent of the park.

The subalpine forms the middle layer, between 1400 and 2100 m. It comprises 40 per cent of the park.

The top 40 per cent of the park is the land above the trees. The alpine zone occurs above 2100 m.

It's possible to spot changes in the forests when climbing higher. The following diagram and tree key includes some of the common plants found in each life zone.



Skippers and plunkers – poor man's guide to geology

There are only two shapes of rock in Jasper National Park: skippers and plunkers. People can often be seen standing along the bank of a river and trying them. Isn't geology fun?

Sure it is, and the surface hasn't even been scratched yet. That's what you do with your next potential skipper. Scratch it, fondle it, admire its color and look for fossils. If these things are done it's possible to identify the three most common types of rock found in Jasper Park.

Try scratching the stone with a key, knife, bottle opener, or any similar geological tool made of steel. If the stone does not scratch and probably scratched your implement, it's likely *quartz sandstone*. This is the hardest rock found in the Rockies and is very common in the Athabasca River.

If the stone is grey and scratched by the knife it's probably a piece of *limestone*, or possibly dolomite which is formed from limestone. The two rocks are so similar that even geologists have a hard time separating them in the field. Limestone is found in a variety of colors although grey is the most common.

When the perfect skipper is found — a stone which is perfectly flat on two sides — it probably came from a larger stone which easily split into many thin layers, typical of *shale*.

After scratching the surface of Rocky Mountain geology and identifying the three basic types of rock found in the park, dig a little deeper and have a look inside. What is the essence of these rocks? What are they made of?

Limestone is a calcium-rich rock made almost entirely of fragments of plants and animals which used calcium from sea water to build body structures. When these creatures died their bodies accumulated on the sea floor to form a calcium-rich sediment and eventually limestone. Though most of the sediment particles are too small to be easily identified, limestone often reveals recognizable fossils such as corals, plant parts and shells.

The Palliser limestone formation forms many of the spectacular grey cliffs and mountain tops along the Athabasca Valley east of Jasper. The steep faces of Roche

Miette and the Palisade are excellent examples of limestone cliffs.

Shale and sandstone are made of sediments which were eroded and carried from upland terrain and deposited in lowlands and sea beds.

Shale is made of layers of very fine particles of sediment, silt and clay. The particles originally settled to the bottom of ancient seas and calm backwater areas of rivers. Shale breaks easily along its layers and so is not very erosion resistant. For this reason it is more commonly seen in valley bottoms than on high mountain tops.

Quartz sandstone started off as clean grains of quartz sand. Over time, a little of the quartz dissolved and then re-deposited itself between the grains of sand as quartz cement. This process took a very long time. Since the Gog sandstones around Jasper are about 550 million years old, time was not in short supply. These sandstones form the steep, pinkish faces of Mount Edith Cavell, Pyramid Mountain, The Ramparts, Endless Chain Ridge, and many more.

Countless smaller plants and colorful wildflowers reside in the alpine.

All of the rocks in Jasper National Park are sedimentary rocks. Over millions of years different kinds of sediment accumulated in layers thousands of metres thick. As each type of sediment was buried it became subjected to weight from above, the earth's heat from below and chemical processes within. Thus the different sediments were slowly transformed into layers of solid rock.

The western Canadian landscape has changed many times since the sediments were first deposited. The most outstanding change has been the formation of the Rocky Mountains which thrust the buried sediments into view thousands of metres above sea level.

So, there is more to a potential skipper than meets the water! What is seen and felt can take a rock skipper back to times when western Canada collected the debris of distant mountains or rested beneath the seas of antiquity.

Please remember to return the rocks after examining them. It's against park regulations to collect rocks, plants or other objects in the parks.

Animals active at dawn and dusk



Common loon

Jasper National Park is famous for its glaciers, mountains and especially its wildlife. Pikas collect grasses in high alpine meadows as mountain goats graze on precarious slopes. Black bears rummage for berries and roots down in the pine forests of the valley while ladderback woodpeckers search out insects hidden under tree bark.

The variety of habitats ranging from the wide valleys to icy mountain tops offer shelter to 56 mammal species — animals as different in size and habits as the moose and tiny pigmy shrew. More than 250 species of birds live, breed or migrate through the Rocky Mountains. Amphibians, reptiles, fish and numerous insects also make their home in the park. Each of these creatures has its unique role to play in the mountain community.

Many of these animals once ranged across North America but now live only in a handful of undisturbed natural areas. Bighorn sheep, wolves, grizzly bears, woodland

caribou, cougar and golden eagles are all found in Jasper National Park. In some areas outside of parks and nature preserves these animals are becoming endangered as man develops their wilderness habitats.

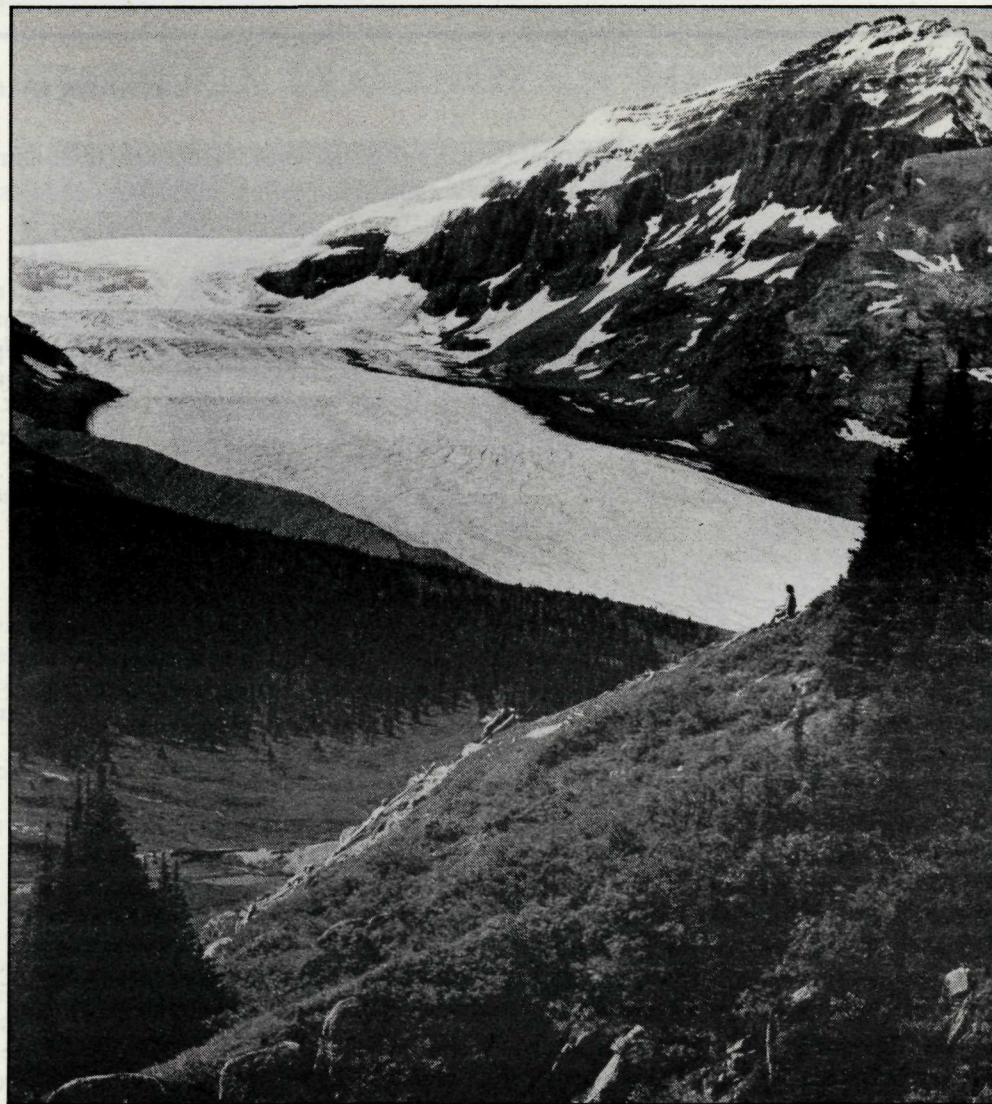
Large mammals are usually easier to observe than the smaller creatures. Elk and deer often graze along grassy roadsides and near Jasper townsite. Bighorn sheep and mountain goats can be seen when they visit mineral licks. The mineral licks at Disaster Point and Mount Kerkeslin are popular with both wildlife and visitors.

Beaver, muskrat, moose and many bird species are wetland residents and can be found around sloughs and shallow lakes. Cottonwood Slough, Mina and Riley Lakes, and Valley of the Five Lakes are often rewarding spots to visit.

Most animals are active at dawn and dusk, but rest for much of the day. It's possible to increase the chances of seeing wildlife by being in the right place at the right time.

Visitors are asked not to interfere with the animals while watching them; many mother animals are ferociously protective of their young. Resist the temptation to feed the wildlife. Animals that associate people with food become nuisances and traffic hazards. A bighorn sheep with a longing for cookies could easily become another roadkill as it walks the highway looking for handouts.

Enjoy Jasper National Park and the unique opportunities it offers for viewing wildlife and wilderness which may not be seen anywhere else in the world.



Wilderness abounds

"How did I get hyar? Well, upon my soul, I can hardly tell yar. I guess I jis' drifted hyar, that's all." So said Lewis Swift, friend of the legendary Wild Bill Hickok. Swift held jobs ranging from stage coach driving to gold prospecting. Searching for peace and solitude beyond the frontier, Swift drifted west across the continent from Ohio. In 1892 his search ended when he settled in the Athabasca Valley, homesteading in what became Jasper National Park.

Even in Swift's day, wilderness meant different things to different people. By the turn of the century a steady trickle of explorers, railway surveyors and mountaineers were passing by "Swift's Place." While sharing the frontiersman's love of virgin country, the adventurers sought to tame and conquer it — to bridge rushing rivers, climb soaring peaks and construct railroads through almost impenetrable mountain passes.

When Jasper Forest Park was created by the federal government in 1907, the goal of politicians was to add to government coffers. Most were eager to manage the natural resources and promote development in parks such as Jasper. Coal was mined at Pocahontas and there was commercial logging in the Whirlpool Valley. Hunting was permitted.

The idea that wilderness should be protected grew slowly. One of the early supporters was Howard Douglas, the first superintendent of Rocky Mountain Park (now

Banff). Douglas convinced many people of the need to protect wildlife in the parks, and to control commercial activity and resource development. He wanted visitors to be able to enjoy the natural advantages and beauties of the national parks.

Preservationists welcomed the passage of the National Parks Act in 1930, a device to protect all park resources. It ensured there would be no commercial or industrial development of minerals, forests or water power and it protected vegetation and wildlife. As settlers and developers spread across the Canadian West, untouched areas of land quickly disappeared. More people began to recognize wilderness as part of the wealth of the country, worthy of protection for its own sake.

Today many Jasper visitors are searching for the same things Lewis Swift sought a century ago and cherish the opportunity to enjoy the natural splendor of a wilderness area; about 98 per cent of the park remains relatively untouched.

But controversies persist between people supporting preservation, and those battling for increased use, more services and facilities. How many Jasper visitors would agree with James Harkin, an early Dominion Parks Commissioner who said, "... it is as much a desecration to mar this natural harmony as to draw a razor across the Mona Lisa."?

Staff happy to help

Who is that woman who greets visitors at the park entrance, the man who collects camping fees or the cheerful girl who helps visitors at the information centre?

They are all part of a 100-strong staff who work for Visitor Services in Jasper National Park.

Actually to call one section of the Parks Canada organization "Visitor Services" is misleading. All staff members provide services to the visitor, whether they maintain the roads (Engineering and Works), present interpretive programs (Interpretation) or patrol and backcountry (Warden Service). During a visit to the park most people will likely have the most direct contact with staff from Visitor Services.

Much planning, organizing and work goes into operating 10 established campgrounds with 1,700 sites, 104 backcountry campsites, 25 picnic areas with more than 200 picnic tables, trail offices, information centres, gateway kiosks and the Miette Hot-springs Pool (closed for this year only). All these facilities are the responsibility of Visitor Services.

Many of the staff are students working at the park for the summer. Others live in the park year-round. Most of them are here because they love the mountains and are eager to share their enthusiasm for and knowledge

of the park with visitors. Their responsibilities are not only to collect the fees that help maintain park facilities, but also to assist the visitor and to ensure everyone gets the most out of their visit. Visitors are encouraged to stop by at any park office, information centre or campground and ask questions.

Beat the bug — Giardia

Giardia lamblia is an intestinal parasite carried by some domestic and wild animals. It can infect humans as well, causing giardiasis or "beaver fever."

This parasite can get into any surface water — lakes, streams, rivers — and has recently been detected in various locations throughout the mountains of Canada and the United States.

Giardia is frequently associated with outbreaks of diarrhea and may cause abdominal cramps, bloating, fatigue and loss of weight.

Giardiasis can be contracted by drinking water from an infected stream. Backcountry travellers should boil water for at least one minute before using it for drinking or brushing teeth. Treatment with chemicals is not considered as reliable as boiling in killing this bug.

Heads and tails game

Most animals in Jasper National Park are shy and would rather turn tail and run than let you get a close look. See if you can match the heads to the tails of the following Jasper residents using the clues provided.



1. Shovel-like antlers, long legs and large snoz, dark brown with no rump patch, I browse marshes, lakes and bogs.

Who am I? _____

My head is __



2. Notice my large ears and rump patch of white, black tip on my tail, I'm a frequent sight.

Who am I? _____

My head is __



3. Black pointy horns and a shaggy white coat, seen perched on steep cliffs,

You bet I'm a _____

My head is __



4. Straw-colored bum, antlers that branch like a tree, dark brown neck, in grassy fields you'll see me.

Who am I? _____

My head is __



5. To high alpine meadows for summer I go, with large rounded hooves for walking in snow. Both males and females carry a rack, my profile is seen on a quarter's back.

Who am I? _____

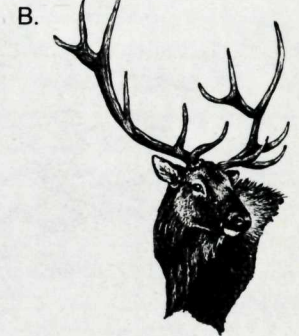
My head is __



6. My coat is light brown except for the rear, over steep mountain slopes I graze without fear. The horns of the ram have a large curled sweep, You've guessed it all right,

I'm a Bighorn _____

My head is __



Hunt for hidden treasure in crossword puzzle

Can you find all these treasures during your visit to Jasper National Park?

DOWN

- At twilight you'll have a good chance of seeing e __ feeding on the grassy slopes along some of Jasper's roadways.
- During a walk in a pine forest look for big piles of cone pieces. These are called middens and are the feeding areas of red s _____.
- Take the tramway up The W _____ mountain and you may see a hoary marmot - a small rodent after whose call the mountain was named.
- Keep company with a Harlequin d ____ as you go boating or rafting down the Athabasca or Maligne Rivers.
- This brilliant red flower is common in grassy areas throughout the park. Try to find (but please don't pick) an I _____ paintbrush.
- Along the shores of Jasper's lakes and rivers look way up high in the tallest trees and you may see a n ____ of the fisherman of hawks, the Osprey.

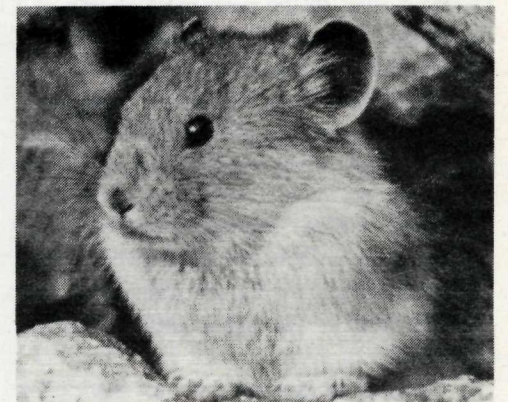
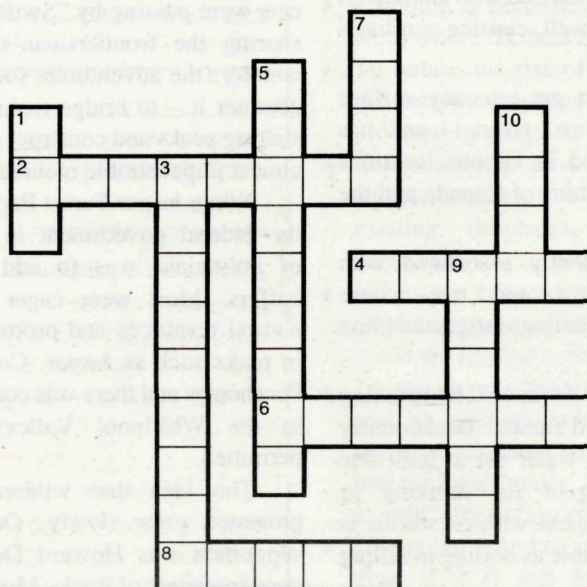
ACROSS

- Two kilometres north of Jasper, along the banks of the Athabasca River you may spot the l _____. This tree, with all but its top branches lopped off was used by early explorers to mark a river crossing.
- Scan the rocks carefully and you may see a pika making hay piles in the moraine at Mt. E _____ Cavell. These small-eared, buff and grey colored animals are related to r _____ although they look like guinea pigs.

- On grassy slopes in the eastern part of the park see if you can spot a bighorn s _____.

As you find the treasures in Jasper, fill in the missing words. Then rearrange the first letter of each answer to discover one of the greatest treasures found in Jasper National Park.

W _____
(Hint: Jasper has more of this than any of the four mountain parks.)



Pika

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Covering more than 10,000 sq. km, Jasper National Park preserves one of North America's largest natural areas. Less than 10 per cent of the park has been developed – much of it remains as untouched wilderness.

Due to the rugged terrain and inaccessibility, many areas of the park are rarely visited by man. But for true backcountry enthusiasts, the park's 1,000 km of trails offer possibilities for extended trips into some of Jasper's wilderness. The staff at the trail office, located in the park information centre, can suggest available opportunities, assist with route selection, and issue a park-use permit. Hikers undertaking any activity they feel is hazardous are encouraged to participate in a voluntary safety registration.

