

### **Mount Edith Cavell**

in the heart of the subalpine

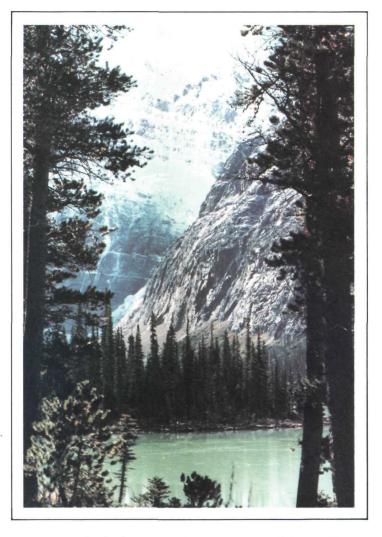
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On the cover . . . Rising to an elevation of 3363 m above sea level, the ice-covered face of Mount Edith Cavell overlooks the Athabasca Valley near Jasper townsite. The mountain's impressive 1500 m north wall is composed of resistant, cliff-forming quartz sandstone.

 Inside front cover: Franchère Peak viewed from the Cavell Meadows.



You may be lucky and arrive at Mount Edith Cavell on a hot summer afternoon, when dry heat, rising from the rocky moraine beneath the mountain, may move you to seek refreshment from cool breezes blowing over Angel and Cavell glaciers.

The sun's rays penetrate the mountain's chilly shadow and strike the wings of Angel Glacier. Suddenly, the mountain roars! A chunk of ice peels off the glacier, plunges to the cliffs below and shatters into a million pieces.

Close by, in the forest, birds and animals remain unmoved as they quietly go about their daily lives. Primitive plants spread soft carpets of green over the damp, shaded floor. Crisp mountain air, lightly scented by fir and spruce, wafts through filtered sunlight.

Higher, at timberline, the forest opens onto rolling meadows, where tree islands dot the landscape and wild flowers glow in the afternoon sun.

Indeed, you would be lucky to arrive at Mount Edith Cavell on such a fine summer day. Plants and animals resident year-round, however, would tell a different tale -one of long, cold winters, smothered by snow, and brief, cool summers, dampened by rain. These residents, toughened by the rigours of mountain life, would tell you that here, in the heart of the subalpine, a harsh climate rules.

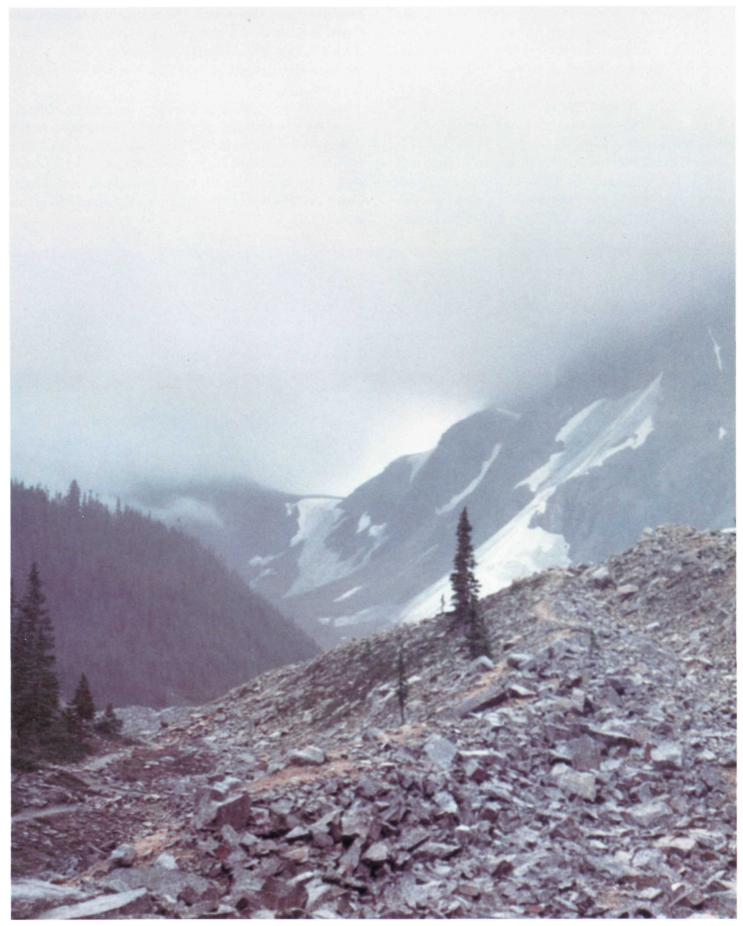
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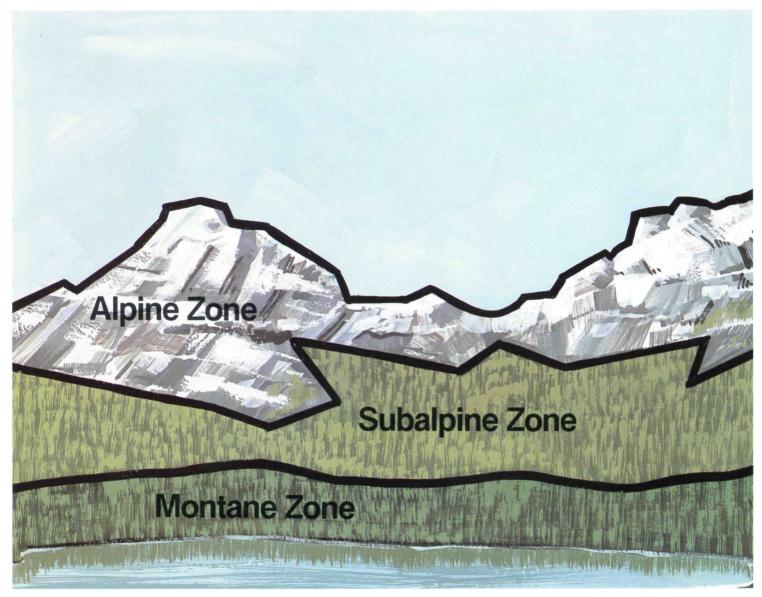
# **The Ruling Climate**



Climate in the subalpine is a reflection of the high elevation. For one thing, it is cool here. At any time of the year, the temperature may drop below freezing. The subalpine also receives high rain and snowfall. Near the Continental Divide, 15 km west of Mount Edith Cavell, up to 700 cm of snow may fall in one year! In addition to low temperatures and high precipitation, wind is stronger and the sun's radiation is more intense here than in the lower valleys. These harsh climatic conditions challenge life but, to survive, it is a challenge that plants and animals of the subalpine must meet.

In the Mount Edith Cavell area, the climate is further influenced by the mountain itself. By deflecting moist air and raising it to cooler altitudes, tall mountains increase local precipitation. In Jasper National Park, this effect is particularly pronounced around mountains close to the Continental Divide, such as Mount Edith Cavell, since they are more exposed to moist Pacific air than are peaks farther east. As a result, the subalpine environment at Mount Edith Cavell is generally damp, especially in poorly drained and shaded areas. These conditions favour the growth of moisture-loving plants, such as leather-leaved saxifrage and *Luetkea*.

Much of the snowfall on the north face of Mount Edith Cavell soon avalanches over the cliffs and collects in the cirque, on ledges and in the valley below. Here, protected from the sun in the mountain's cold shadow, it accumulates and, over time, is transformed into glacier ice. Angel, Cavell and Ghost glaciers are continually nourished in this way.



#### Life zones in Jasper

From the warm, dry forests and grasslands of the montane, through the cool, wet forests and meadows of the subalpine, to the cold, windswept barrens of the alpine, Jasper National Park contains three life zones.

The subalpine - the middle life zone - occurs between 1300 m and 2150 m on shaded, north-facing slopes and between 1500 m and 2200

m on sunny, south-facing slopes. In total, it occupies 40 per cent of the park's  $10800 \text{ km}^2$  area.

*Representative examples of the three life zones may be found in the following areas of the park:* 

Montane - Lower Athabasca Valley Subalpine - Mount Edith Cavell Alpine - The Whistlers

### Life in the Subalpine





Mosses and lichens - primitive life on the forest floor.

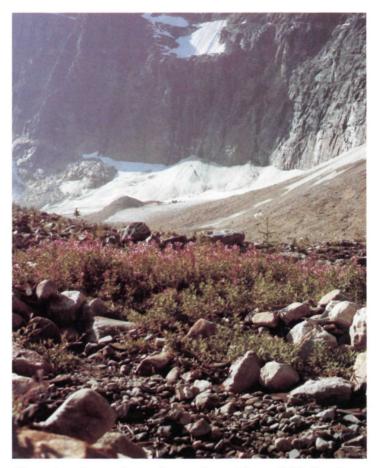


Yellow mountain heath adds soft colour to timberline meadows.

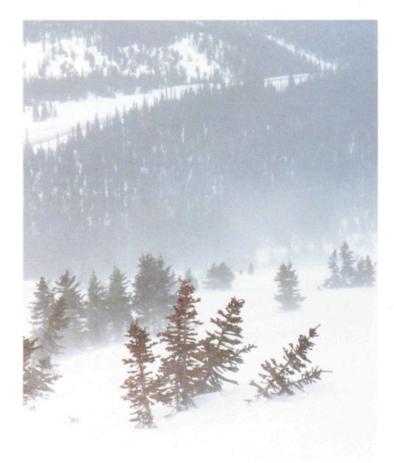
In damp, shady forests, pale green lichens resembling delicate armour coat the surfaces of rotting tree stumps. Higher, in bright, open timberline meadows, bells of mountain heather, fresh from overnight rain, dance cheerfully in the morning breeze. Life in the subalpine is sometimes quiet, sometimes vibrant. Every life form is adapted to its habitat.

In some areas, special habitats have been created by forces of nature. The rocky moraine beneath the cliffs of Mount Edith Cavell is an example. Abandoned by a recently-retreating glacier, this barren land now invites the colonization of plants and animals.

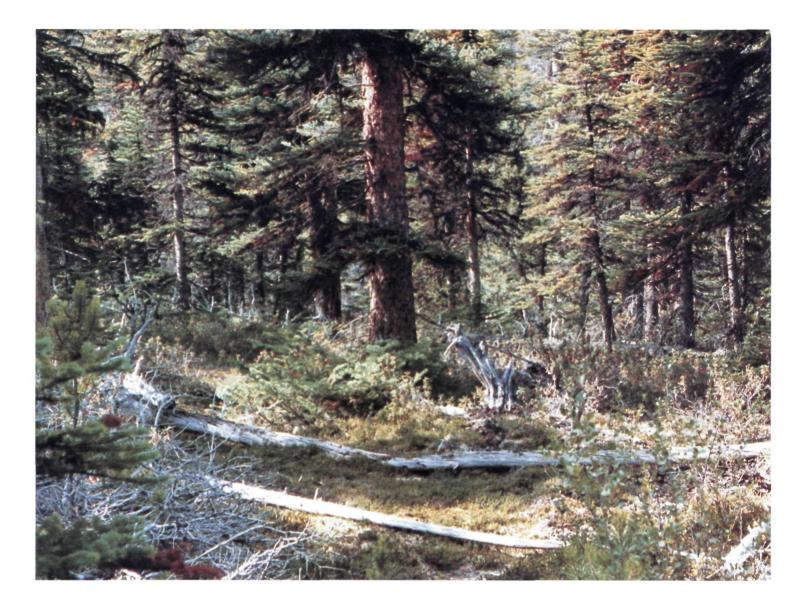
Most visitors see the subalpine in summer, when life seems busy yet comfortable. Winter, however, brings changes to which life must respond, or perish.



Pioneering plants colonize the moraine at Mount Edith Cavell.



The challenge of winter.



#### The Forests ... quiet, protected places

Vast, forested slopes endlessly clothe the valleys of Jasper National Park. Most lie within the subalpine zone. Dark, impenetrable, and frequently obstructing views of mountain scenery, forests sometimes seem rather dull. A closer acquaintance, however, reveals intriguing life - an aspect of the forest that often remains undiscovered.

In the overall story of the subalpine, forests play a vital role. They are protected havens, where the harsher elements of the subalpine climate are denied entry. Beneath the canopy, plants and animals find shade, shelter and cover. The cool moisture provides a perfect environment for mosses, lichens and agents of decay, such as fungi and bacteria.

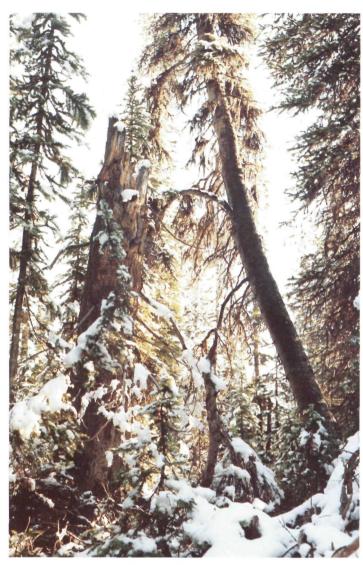
Fallen tree trunks form a nutritious home for a myriad of tiny plant life. Crumbling deeply into the contours of the forest floor, rotting logs return nutrients to enrich the soil. Pastel-coloured lichens smother the ground layer with their mysterious growth. Some resemble crusty trumpets, stunted deer antlers or ocean corals. On a larger scale they might look grotesque, but, in the miniature world of primitive life, they are pictures of delicate beauty.

The thick floor cover is a good habitat for other forms of life. Insects thrive here, providing abundant food for birds and shrews. Voles, intent on avoiding discovery by wily predators, build tunnels in the moss. Bright, beady eyes sometimes appear at a tunnel entrance as a vole pauses briefly before making a rapid dash to the safety of a neighbouring piece of deadfall.

Forests are refuges for red squirrels, which run up and down tree trunks and leap from branch to branch with incredible ease. Their speed and agility is matched by that of their prime enemy, the pine marten. During a chase, escape is never assured.

Spruce and pine seeds form a major part of the squirrels' diet. Cone scales shed at favourite feeding sites gradually accumulate into large heaps, known as middens. These multi-purpose mounds serve as foodstores, kitchen tables, garbage piles and winter retreats.

Dense, dimly-lit forests of lodgepole pines are typical of



Early snowfall in an old spruce/fir forest.

the lower reaches of the subalpine. These young forests sprang up in the wake of extensive fires which swept through many of Jasper's major valleys before the turn of the century. In the early years of growth, the young pines competed enthusiastically for sunlight. The strong grew vigorously and formed a thick canopy. The weak, overcrowded in their youth, died and fell. Now they lean at awkward angles, bowed over in attitudes of defeat, or lie criss-crossed over the forest floor, forming an untidy tangle of spindle timber.

Meanwhile, almost unnoticed in the soft carpet of feather moss below, changes are underway. Quietly biding their time in the shadows, seedlings of spruce and fir have become well established. One day, in the progress of forest succession, they will challenge the supremacy of the hasty lodgepole pines.

In higher regions of the subalpine, where the climate is cooler and moister, many forests escaped the ravages of recent fire. Here, subalpine fir and Engelmann spruce have been maturing for a long time. These are forests of stature



The harsh call of the Clark's nutcracker sometimes breaks the forest's calm.

and stability. Some of the sturdy spruces are ancient -perhaps as old as 400 years. They have withstood centuries of winter storms and have even witnessed the passing of a little ice age. Some, like tired, beaten warriors, have collapsed and now lie at rest on soft beds of moss.

While walking through an old spruce-fir forest on a quiet summer afternoon, one cannot help but respect the silence and grandeur. Take a deep breath...aahh, the firs - the fragrant tonic of the subalpine! A splash of sunlight burning through the dense canopy catches the wings of a gray jay, gliding moth-like between the trees. Nervously shredding a spruce cone, a red squirrel sits on a low branch, keeping a wary eye on all intruders, then suddenly breaks the stillness with a burst of angry chatter.

The size and lifespan of the firs do not quite match those of the spruces. However, because of the firs' ability to produce a prolific growth of seedlings in the forest litter, they are able to compete with the spruces which are not so tolerant of thick, mossy seed beds.

Except in isolated, sunlit spots, there are few flowering



A red squirrel keeps a watchful eye on the forest.



Subalpine fir cones - the scales are shed, leaving upright cone-axes.



The brilliant colour of wolf lichen.

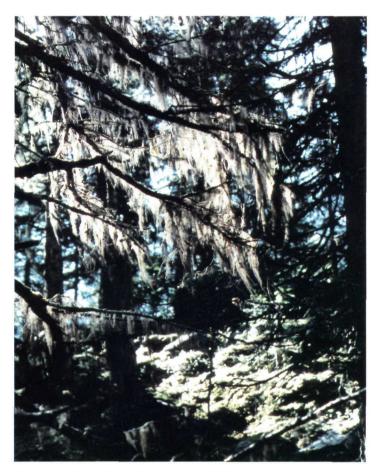


Spruce grouse, a year-round resident of the subalpine forest.

plants in these shady forests. But higher, in the uppermost reaches of the subalpine forest, the canopy begins to open up. Reminiscent of the meadows at timberline, bright, sunny glades, coloured with blooms of heather and flowering herbs, become common. The heathers may be accompanied by other dwarf shrubs, such as crowberry and grouseberry, whose fruits are enjoyed by the spruce grouse and other seed-eaters.

After a fresh summer rainfall, it feels good to breathe the air of the open subalpine forest! Dense mats of bright green moss carpet the floor below, while above, the moist atmosphere permits the growth of tree-dwelling lichens. Some hang sadly from the branches, like fine, straggling strands of an old man's beard. Others, such as the wolf lichen, flash their brilliant colour. Higher in the canopy, acrobatic chickadees busily search for insects and rubycrowned kinglets sing their cheerful song.

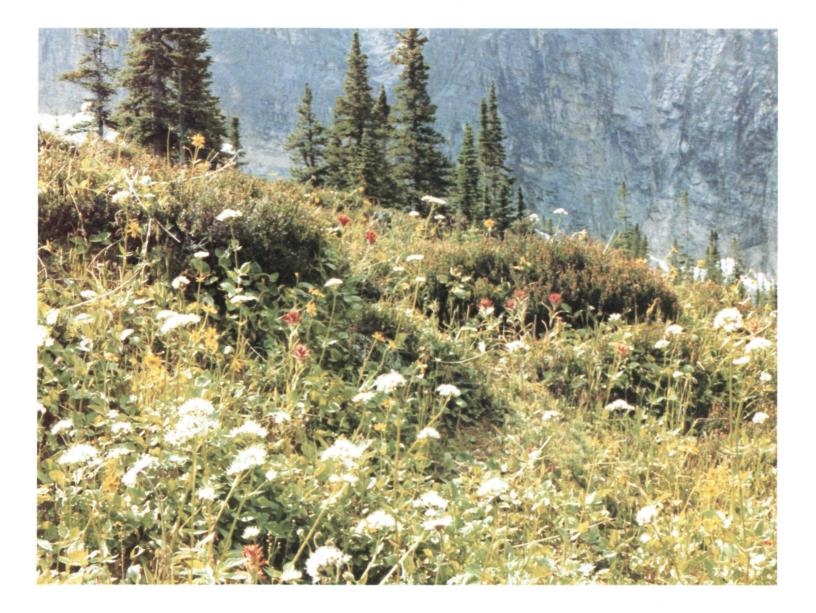
The forests harbour a wealth and diversity of life, each type dependent upon another for survival. In the shelter of the dark subalpine forest, all seems quiet and protected. At timberline, however, life faces a tougher challenge.



Sunlight, filtered by old man's beard lichen.



Bunchberry - one of the few flowering plants found in the forest's shade.



#### The Meadows - meeting the elements face to face

The subalpine is famed for its colourful timberline meadows. The Cavell Meadows, on the upper slopes of the Cavell Creek valley, are a fine example. Mid-July to mid-August - the height of the flowering season - is the best time to visit them.

Rolling carpets of heather - pink, yellow and white -red Indian paintbrush, blue alpine speedwell, yellow arnica, purple fleabane, white valerian ... For a brief few weeks, the gentle slopes, broken here and there by tree islands and cooled by trickling meltwaters, are brought to life by flashes, sparkles and blends of colour.

But this tranquility is deceiving, for the open meadows of the upper subalpine feel the greatest impact of the harsh climate. Here, the vegetation is exposed to sun, wind, rain and snow, and the growing season may be as short as one month.

In the upper subalpine, snow persists well into June. At this time of the year, the meadows are a patchwork of whites, browns and greens. Although exposed slopes and ridges are now completely snow-free, snowbanks still lie in sheltered areas. This revealing picture reflects the patterns of vegetation that will show up later in the summer, after the last traces of snow have melted.

Dips and depressions are choked with late-lying snow and chilled by summer frosts. Black sedge is one of the few species that can tolerate the miserable conditions of these cold, wet hollows. On better-drained slopes, which become snow-free a little earlier, colourful heathers and a variety of lush herbs grow, while stunted firs and spruces are typical of the drier, snowblown ridges.

Life in the meadows is a race against time and a struggle against the elements. Plants which lie patiently dormant throughout the winter must make full use of the short summer to grow, flower, produce seed and build food reserves for the following spring. Conditions are so harsh that, except in isolated localities, trees cannot establish themselves. This is timberline - the uppermost limit of tree growth. At the highest elevations of the subalpine, a few hardy individuals of subalpine fir and



The Cavell Meadows exposed to the elements.



Krummholz - low, twisted tree growth at timberline attests to the strong winds.



Heather carpets timberline meadows near the Skyline Trail.



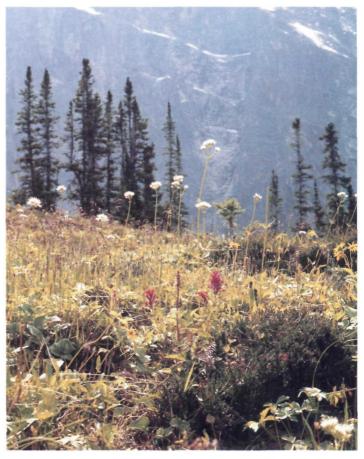
Marsh-marigold - a water-loving plant of subalpine meadows.

Engelmann spruce battle the strong winds which beat them into low, contorted growth forms, known as krummholz (German for "crooked wood").

Above this point, the subalpine meadows merge into the alpine tundra, where exposure is so extreme and the soil so impoverished, it's amazing that life of any form is possible. Indeed, from a distance, the tundra looks barren. But a closer look reveals brightly coloured and highly specialized plants, resolutely hugging the ground for shelter.

In the meadows, bird and animal life is sparse. Occasionally, a group of golden-crowned sparrows flit through the krummholz. A slender long-tailed weasel may be spotted silently bounding over the heather, its quarry - a vole - firmly locked in its jaws. Golden eagles sometimes soar overhead, searching for small mammals. This open country is a typical habitat for grizzly bears but, possibly because of their shyness of human visitors, they are rarely sighted in the Cavell Meadows.

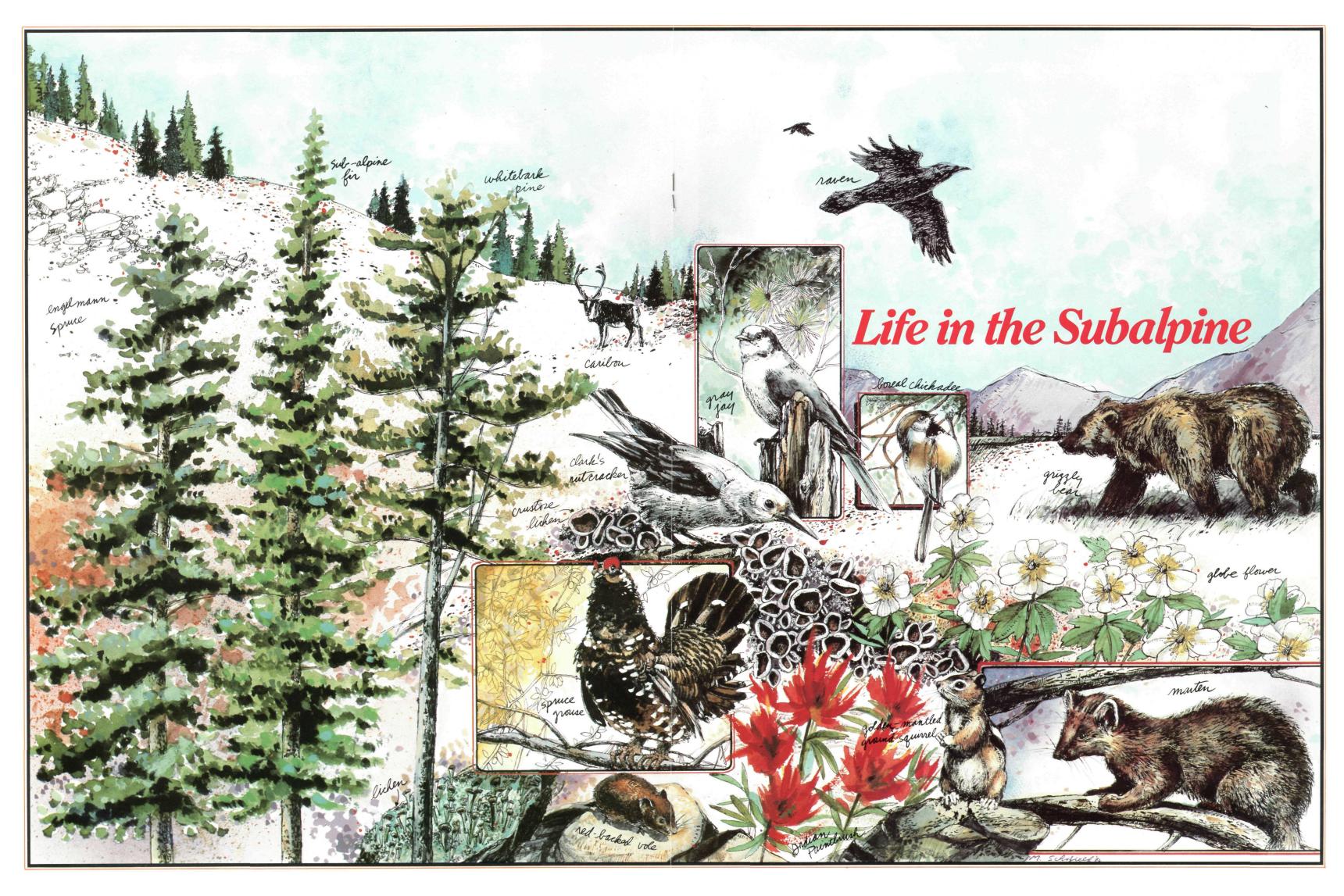
As summer draws to a close, the flowers, like dimming candles, fade and die. The celebration was brief, but joyful. Now, all colour drained from them, the meadows take on the drab browns and dull greens of autumn - solemn overcoats for the serious matter of winter survival.



Valerian, arnica and Indian paintbrush - August blooms in the Cavell Meadows.



Purple mountain heath - miniature bells of vibrant colour.





#### **Rocky wastelands - after the glacier**

Heaps of bouldery rubble beneath the cliffs of Mount Edith Cavell are all that remain of a recent ice age. It began about 400 years ago when a slight cooling of the earth's climate caused most of the world's mountain glaciers to advance. This was the Little Ice Age.

In the Cavell Creek valley, glacier ice crept down to the present-day parking area, but, in response to a warming trend within the last 100 years, the ice has melted back. In its wake, it has left a mass of glacial debris, called a moraine.

Although this rocky wasteland appears inhospitable, life is slowly returning to the ice-ravaged valley.

Near Cavell Glacier, the moraine is very fresh, yet roots of pioneering plants, including young spruce and fir seedlings, have already taken a firm footing. Blown by wind, thousands of seeds from neighbouring forests are scattered over the moraine every year, but only those that fall in favourable environments, such as fine, moist sand, take root. These conditions are provided in pockets of sediments, carried downslope by water seeping through the rubble. Gradually, as sediments accumulate and larger rocks are broken down by frost, more and more seedlings will colonize this wasteland.

Farther down the valley, where the moraine has been exposed for almost 300 years, mature trees now straddle the rocky ridges. However, it will take several more icefree centuries before the entire valley is reforested.

As the name Little Ice Age implies, the advance of glacial ice at this time was relatively minor. But during the better-known period of glaciation which ended about 10,000 years ago, ice covered most of the northern half of North America. As the ice retreated from that great surge, vast areas of the continent must have looked as desolate as the Cavell Creek valley of today. Yet, from those humble beginnings, forest, grasslands and meadows slowly spread back over the land.

Moraines are ideal habitats for rock-pile denizens, such as hoary marmots, golden-mantled ground squirrels and pikas. All may be seen among the rocks beside the Cavell Meadows Trail. For these mammals, the moraine provides shelter from the weather and protection from large predators, such as golden eagles and grizzlies. Only smaller, slimmer enemies - weasels and martens - are able to enter their rocky retreats.

Like guardians of a fortress, chunky marmots perch high on the crests of moraines, surveying the surrounding territory. They appear rather lethargic, as they lie sunning themselves, but they are ever alert. At the slightest indication of danger, a shrill warning whistle from one will bring the others to attention, ready to seek sanctuary between the heavy rocks.

While the rubble provides security for these morainedwellers, it does not offer much nourishment. So, when hunger calls, the animals make brief excursions to the richly-vegetated slopes nearby to graze on a variety of plants. During August and early September, you may see pikas scurry across the trail, carrying huge mouthfuls of greenery back to the moraine, where they cache it under large boulders. They are building hay piles - their food supplies for the fast-approaching winter.



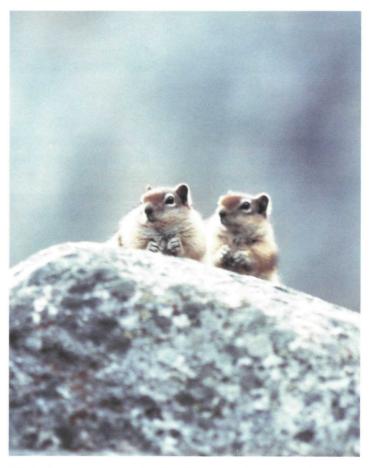
The Path of the Glacier Trail winds its way through the moraine at Mount Edith Cavell.



A fir seedling takes root among the boulders.



An aerial view of the recently-glaciated Cavell Creek valley.



Curiosity overcomes a pair of golden-mantled ground squirrels.



#### Winter - the time of test

It took the skiers completely by surprise. The weather was good when they left the valley bottom, but when they reached timberline, they were in for a shock!

Without warning, the wind burst over the ridge, lifting blinding curtains of fine snow and twisting them into whirling spirals, like mini-tornadoes hissing over the hardpacked snow.

They could hardly see. Snow stung their faces numb. So they retreated to the trees for shelter.

The fierce squall experienced by these cross-country skiers is typical of winter in the open, subalpine meadows. Skiers can retreat but the long-suffering timberline trees must stand and take it. And they carry the scars: bare, bleached trunks, blasted by snow; brown, shrivelled shoots, dessicated by wind. Temperatures are sometimes extremely low, freezing both ground and tree tissues. For the hardy subalpine fir and Engelmann spruce, winter survival demands tough defences, such as waxy leaf surfaces and thick cell sap. Many birds and mammals have ways of avoiding the hardships of winter. Most birds leave the mountains altogether, flying south or west to milder climes. Among the few that stay are chickadees, gray jays and grouse.

Deep snow blankets the subalpine in winter, posing serious problems to large mammals. Food supplies are smothered and movement is severely hampered. Elk, mule deer and some bighorn sheep escape the problem by migrating to lower elevations, where snowfall is lighter and life is a little easier. Through a similar vertical migration some summer residents of higher alpine regions become winter visitors to the subalpine. Notable examples are mountain caribou and white-tailed ptarmigan.

While deep snow presents difficulties to large mammals, it offers salvation to smaller mammals and plants. A snowpack is an effective insulator. Even on cold winter nights, when the air temperature may fall to -40°C, it will rarely be colder than - 7°C beneath a deep forest snow cover. In dark, silent surroundings under the snow, small mammals, such as voles and pikas, are active all winter



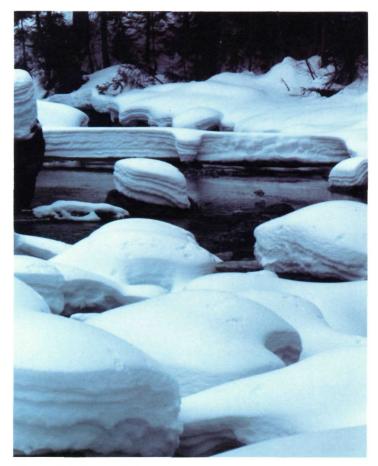
The harsh winter climate limits tree growth at timberline.



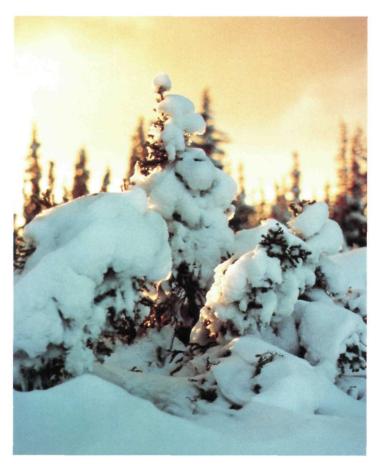
The ptarmigan's white winter plumage provides excellent camouflage.



The thick blanket of snow insulates small mammals and plants from extreme winter temperatures.



The cold shadows of winter.



Bright sky follows a heavy snowfall.



Subalpine meadows buried in deep powder snow.

long. Also protected by the snowpack, marmots go into true hibernation, grizzlies enter a lighter state of winter sleep and perennial plants lie dormant throughout the long subalpine winter. Red squirrels spend most of their winter out in the forest, but during very cold spells, they seek the refuge of tunnels they build into their middens.

Despite the rigours, some mammals meet winter on its own terms. Problems of winter travel are lessened for the caribou by its large splayed hooves, which spread the animal's weight over a greater area and prevent it from sinking too deeply into the snow. In the same way, the varying hare makes good use of its "snowshoes". Moose are able to lift their long legs above the deep snow, so they avoid wading, which would waste valuable energy. During a chase by a pack of wolves, this ability could be their saving grace.

As summer food supplies become buried under snow or frozen in ice, many birds and animals change to special winter diets. Trails of little footprints in the snow reveal the ptarmigan's habit of visiting one willow shrub after another to feast on the tender buds. Shoots of willow are a good food source for moose, while caribou make the most of their supalpine winter by grazing on forest lichens.

Some means of winter survival is crucial for every form of life in the subalpine, where winter — the time of test, is the dominant season, lasting up to eight months of the year.



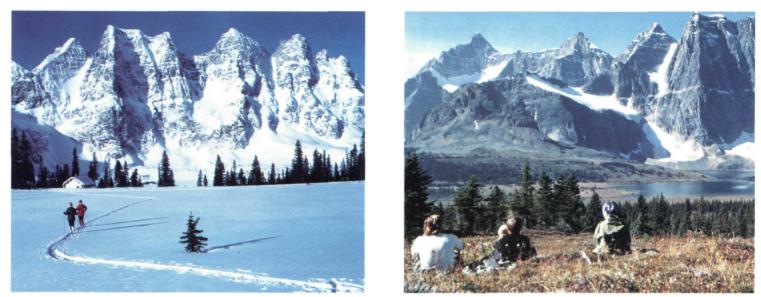
The moose gets its name from an Algonkian word meaning "eater of twigs".



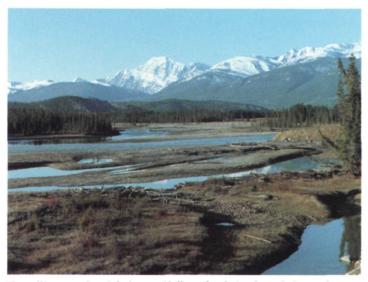
Winter winds dessicate shoots of subalpine fir.

# Man in the Subalpine





Accessible by an 18 km trail, the Tonquin Valley is a popular backcountry destination in summer and winter.



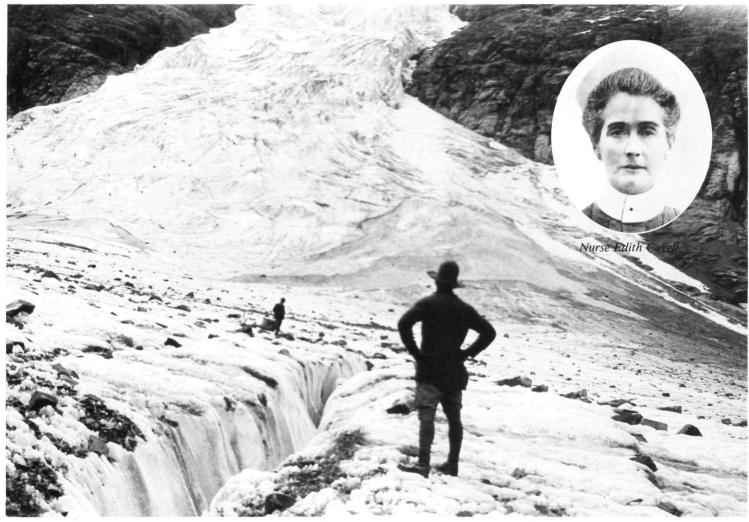
Travelling up the Athabasca Valley, fur brigades of the early 1800s watched for La Montagne de la Grande Traverse.

In the early days, lured by the raw wilderness and driven by a thirst for adventure, mountain pioneers came to explore the high valleys of the Canadian Rockies. Today, the tradition continues as backpackers, ski tourers and mountaineers follow some of the same trails into Jasper's backcountry, vast tracts of which lie within the subalpine zone. But their motives have changed slightly. With increasing pressures of urban life, many now turn to the mountain wilderness for a temporary escape. The fresh air and sense of freedom they discover in the high subalpine offer relief to tired spirits.

The rewards, however, are not won easily. Natural hazards, such as steep and rugged terrain, unpredictable weather, irritating insects, winter avalanches and possible encounters with grizzly bears, face every backcountry traveller. But, without these challenges, the experience would not be complete.



Backpacking through subalpine forest in the Smoky River valley.



The early years of tourism at Mount Edith Cavell. In the 1920s, glacier ice filled much of the Cavell Creek valley.

#### Man and the mountain

The magnificent ice-covered face of Mount Edith Cavell has long captured the eye of man. Possibly inspired by the mountain's haunting glow in moonlight, Indians once called it the White Ghost.

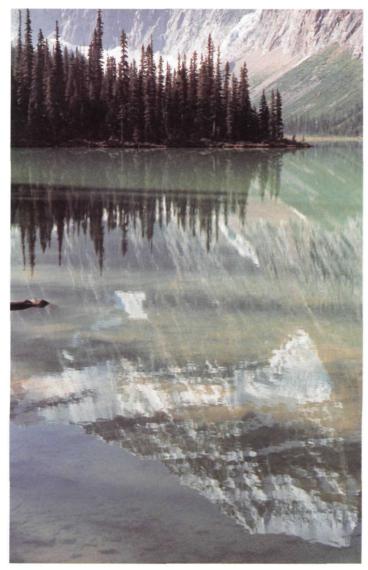
In 1811, David Thompson's discovery of Athabasca Pass opened a new fur-trading route across the Rocky Mountains. To the travelling fur brigades of the time, the mountain was an important landmark. On their long treks to the Columbia District of present-day British Columbia, Washington and Oregon, the brigades watched for La Montagne de la Grande Traverse ("The Mountain of the Great Crossing"). It marked the point where they left the Athabasca Valley and followed the Whirlpool River to Athabasca Pass, where they crossed the Continental Divide and descended to the Columbia River. La Montagne de la Grande Traverse, however, was never officially recognized as the mountain's name.

In 1915, A.O. Wheeler, Surveyor General in the Selkirk Mountain Settlement and first president of the Alpine Club of Canada, was asked to suggest a suitable peak in the Canadian Rockies to serve as a lasting memorial to the heroic British nurse, Edith Cavell, executed for helping prisoners of war escape German-occupied Belgium in the First World War. He chose "the beautiful mountain facing the Athabasca Valley". In 1916, the Geographic Board approved his choice, and so the mountain was officially named. A memorial plaque at the foot of the mountain tells more of the story of nurse Edith Cavell.

To mountaineers, Mount Edith Cavell has always presented an irresistible challenge. The first successful ascent was made by Dr. A.J. Gilmour and Professor E.W.D. Holway in 1915. They climbed the mountain's western slopes. Now, the more difficult east ridge is the most commonly-used route. The imposing north face is seldom attempted because of the dangers of falling rock and ice.

The mountain also played a significant role in the early years of tourism in Jasper National Park. The strong attraction of the great white mountain led to the construction of a road to the base of the north face. The road, still in use, was completed in 1927. Two years later, a teahouse was built and remained in operation until 1972.

Today, the mountain has lost none of its historic appeal, as thousands of visitors annually stand dwarfed beneath its awesome walls.



Mount Edith Cavell reflected in Cavell Lake.

#### A heritage preserved

The value of the subalpine is hard to measure, but its spirit is easy to feel. The freedom and refreshment of the high mountains, the exhilaration of the open meadows, the soothing tranquility of the forest - there will always be a place for these things in the human heart.

Man, however, shall always remain a visitor here, lacking the special qualities of the resident plants and animals. They have adapted well to the natural hardships, but man's encroachment upon this harsh mountain land brings new threats. Vegetation is easily trampled; it may take years to recover. Wild animals are easily disturbed; they, too, need their freedom. The subalpine is sensitive to human intrusion - there are limits which cannot be stretched.

In protecting this environment in a national park, an important step has been taken toward its preservation, but it is the responsibility of those who venture into the subalpine to treat it with care and respect. Otherwise, they may lose the very experience they come to seek.



Pyramid Mountain viewed through subalpine forest on The Whistlers Trail.

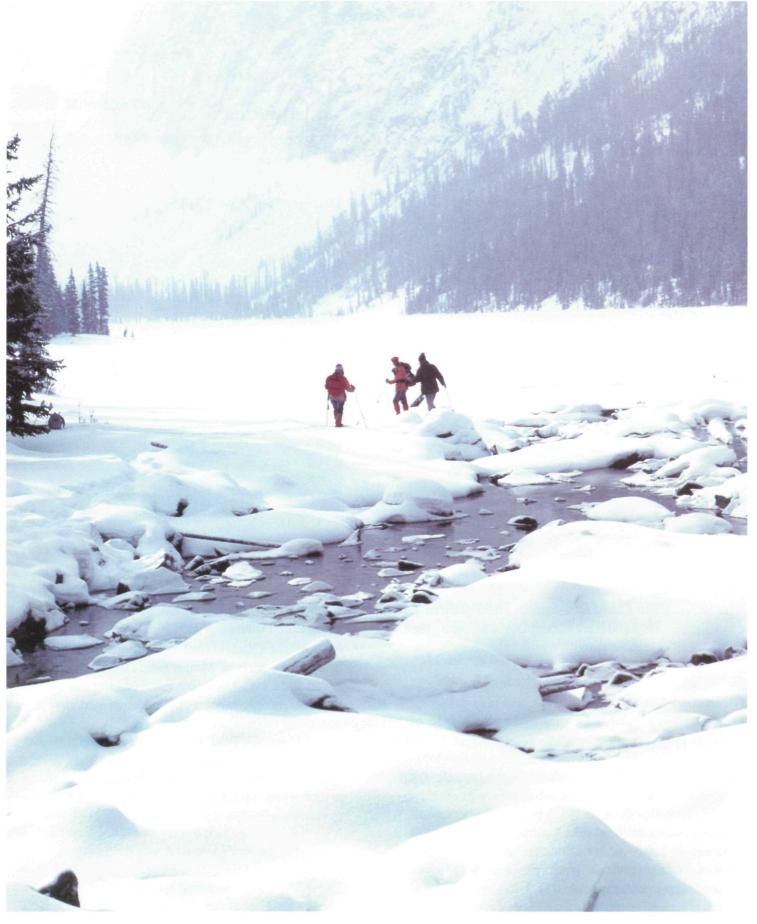


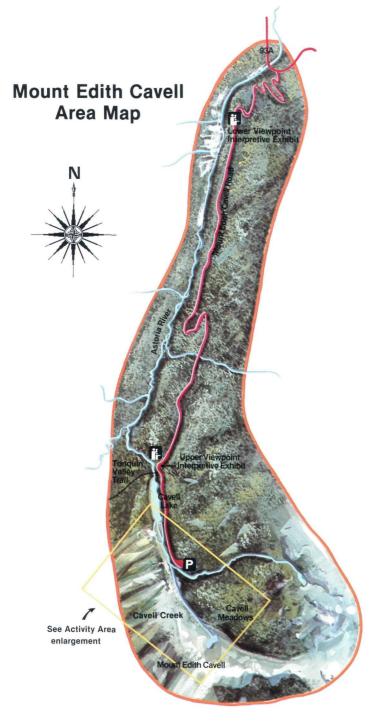
Jasper's subalpine wilderness, near Southesk Pass on the South Boundary Trail.



Above the subalpine in the alpine tundra of the upper Cavell Meadows.

# **Discovering the Subalpine**





#### Mount Edith Cavell area

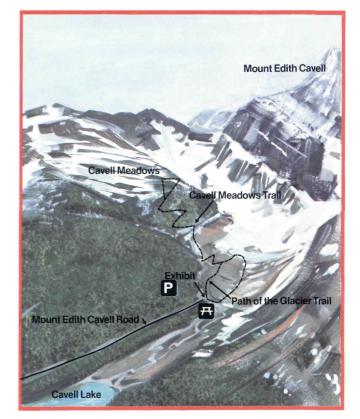
The Mount Edith Cavell area is an excellent place to see the subalpine first hand. Trails, exhibits and signs there help ensure an enjoyable visit.

#### Mount Edith Cavell Road

- The road climbs through lower and mid-subalpine forest to a parking lot beneath the north face of Mount Edith Cavell.
- Two roadside viewpoints provide views of the Athabasca and Astoria River valleys. Signs identify the mountains and introduce the subalpine environment.
- Tonquin Valley Trail, an 18 km backpacker's and outfitter's trail, follows the Astoria River valley to Amethyst Lakes, where primitive campsites and outfitter's cabins provide overnight accommodation. Camping permits are required and may be obtained at park information centres.

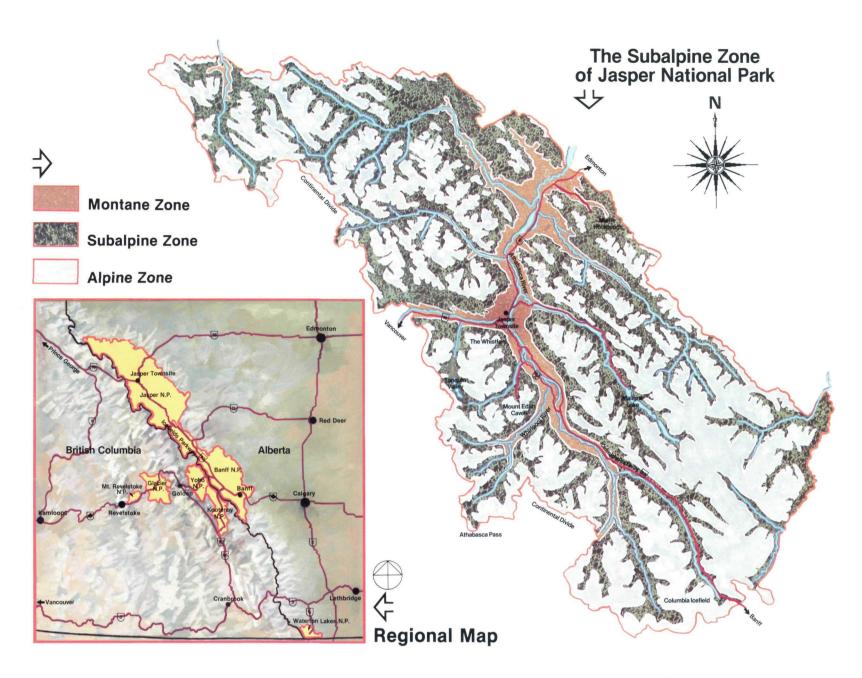


### **Activity Area**



#### At Mount Edith Cavell

- An exhibit introduces the area, including trails, major features and wildlife.
- Path of the Glacier Trail, 45 minutes return, leads beneath the cliffs of Mount Edith Cavell to views of Angel and Cavell glaciers. Signs along the way explain how this valley was recently glaciated and how it is now being recolonized by pioneering plants.
- Cavell Meadows Trail, three hours return, climbs over the Cavell Creek valley moraine, through an old spruce/fir forest and opens onto the Cavell Meadows at timberline. Mid-July to mid-August is the best time to view the meadow flowers.



#### Other subalpine areas

Elsewhere in Jasper National Park, and throughout Canada's other mountain national parks, there are more opportunities to explore the subalpine zone. Here are some suggestions:

#### **Jasper National Park**

- Maligne Lake, Opal Hills Trail and Bald Hills Trail
- Miette Hotsprings and Sulphur Skyline Trail
  - The Whistlers Trail, from the hostel

#### **Banff National Park**

- The Icefields Parkway, Bow Summit and Parker Ridge Trail
- Lake Louise and Plain of Six Glaciers Trail
- Sulphur Mountain

#### **Yoho National Park**

• Lake O'Hara

.

#### **Kootenay National Park**

• Stanley Glacier Trail

#### Waterton Lakes National Park

- Cameron Lake and Summit Lake Trail
  Mount Revelstoke and Glacier National Parks
- Mount Revelstoke Summit Road and Mountain Meadows Nature Trail

#### **Exploring Jasper**

If you have enjoyed this booklet on the subalpine zone of Jasper National Park, you may be interested in some of the park's other stories. By means of trails, exhibits and signs, they are told at various locations in the park.

The Whistlers Maligne Valley Columbia Icefield Icefields Parkway

- the alpine zone
- landscape sculpturing
- alpine glaciation
- land, life and man in the shadow of the Great Divide

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### **Further reading**

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#### **Questions or Comments?**

If you would like further information on the Mount Edith Cavell area and the subalpine zone, please contact: The Superintendent Jasper National Park Box 10, Jasper, Alberta, TDE 1E0

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