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yoho NATIONAL PARK

HIGHLINE



Study leads to better bear management



Protecting the bears and their environment will help ensure their long-term survival.

"That's the real benefit of a study like this," McLaughlin says. "When human/bear conflicts occur, the bear might win initially, but he loses in the end unless we can protect his environment."

The project is the first detailed bear study conducted in Yoho, and employs the latest technological equipment for monitoring bear movement, recording data, and ensuring statistical reliability. Culvert traps are used to capture the bears, which are then tranquilized and fitted with motion-sensitive radio collars that allow their movements to be followed. Wardens then record information about the grizzly's physical characteristics and the area in which it was found.

Park wardens must be absolutely certain they are able to safely handle the bear once it's trapped. This means everything from making sure the bear fully recovers from the tranquilizer to keeping a close eye on a cub that might linger near its trapped mother.

"Everything has to be right before I set a trap or snare," Kevin McLaughlin says. "Safety is number one — for both the bears and wardens!"

Last year, seven different grizzlies were collared in Yoho and Kootenay; the goal between the two parks is twelve. The bears were monitored on foot and by air throughout the summer to determine their range and feeding habits up until denning time. Information from further investigations over the next two years will help bear managers ensure the protection of park visitors and the survival of the grizzly bear.

New research is being conducted on grizzly bears in Yoho and Kootenay national parks to help bear managers make better decisions on conservation and public safety, according to Yoho park warden Kevin McLaughlin.

"Knowledge leads to more effective bear management," McLaughlin says. "If we know the bear's habits and home range during the course of the year, we can reduce the potential for human/bear conflicts and protect the bear population and its habitat."

Wardens in Yoho and Kootenay are assisting contractor Michael Raine in gathering extensive data on grizzly bears, including bear numbers, food habits, habitat use, and movement. The study will focus on three main areas: identifying places where human/bear conflicts might exist, determining the specific requirements of grizzlies at different stages of their development, and evaluating watershed areas in the parks to identify those which best support the bear population.

The information gathered from the study will allow park officials to better recognize areas where the likelihood of bear encounters exist and then plan hiking trails around those areas.

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Exploring the Yoho Valley



When Jean Habel left Field one day in July of 1897, all he had in mind was finding another approach to Mt. Balfour. The peak along the Great Divide had previously eluded a host of climbers, and Habel was determined to find a new route to the summit.

Tom Wilson outfitted the 60-year-old doctor with supplies and a hearty crew consisting of a packer, a cook, and a guide, Ralph Edwards. With pack horses in tow, the group set out for the shores of Emerald Lake. Ralph Edwards' guiding skills were

put to the test as they slowly found a way to the top of Yoho Pass. It took eight days to reach the pass, a hike which today can be made in three hours from the Emerald Lake parking lot.

When the unsuspecting group of adventurers emerged from the trees, they were rewarded with a spectacular view of the Takakkaw Falls and the Daly Glacier. During the next few days, much time was spent exploring Twin Falls, the Waterfall Valley, Yoho Glacier, and the Waputik Icefield. Dr. Habel climbed and named Trolltinder Mountain.

However, in their enthusiasm for exploring the valley, the adventurers ran low on supplies. Instead of returning the difficult descent from Yoho Pass, they risked finding a more direct route out of the valley. The group negotiated a way down the narrow canyon formed by the Yoho River, and returned to Field with stories of their adventure.

Although Dr. Habel did not conquer Mt. Balfour, his adventure proved to be far more valuable than expected. He established that Balfour could be accessed from the Yoho valley, and the peak was achieved soon after. More importantly, Canadian Pacific Railway officials were enthusiastic about the tourism potential for the area and decided to expand their operations at Field. In turn, the federal government expanded the boundaries of the park reserve.

Today the Yoho valley can be explored easily. A network of trails provides hiking opportunities for all abilities — from short walks to the Angel Staircase waterfall to extended overnight trips.

Iceline Trail receives rave reviews

"It's a new trail," the information attendant exclaimed. "You can touch a glacier!"

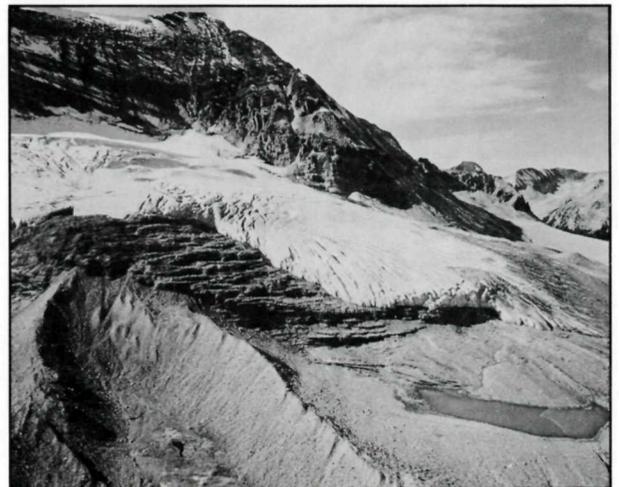
Construction has been completed on the new Iceline trail, designed to replace the environmentally damaged Highline-Skyline trail system. The Iceline bypasses the old trail's slippery gullies, unstable slopes, and eroded sections in sensitive alpine meadows. It will allow the closed sections of the Highline-Skyline trail to rejuvenate naturally.

The Iceline trail provides a great hiking experience from July to October. From the trailhead at Whiskey Jack hostel, the trail climbs 700 metres, emerging into a stark world of shattered rock, mountains, waterfalls, and glaciers. The ravages and forces of glacial erosion are apparent here.

A suggested day hike begins at the hostel, following the Iceline to the Stanley Mitchell hut in Little Yoho Valley. Continue to Laughing Falls and return to Takakkaw Falls along the valley bottom. The circuit is 22.6 km long, and can be hiked in the opposite direction.

The trail is high and exposed so be prepared for the unpredictable mountain weather. Hikers should carry a day pack with rain gear, extra clothing, food, and water. Hiking boots or sturdy walking shoes are recommended, as much of the Iceline traverses glacial debris. Due to the greater intensity of the sun at higher elevations, hikers should protect themselves from ultra-violet rays.

For assistance in planning an overnight backpacking trip, please visit the backcountry reservation counter in the information centre. Fires are not allowed at backcountry campsites in Yoho Valley. Park use permits are required to camp in a backcountry campground in national parks.



Watch for these signs



Services



Information



Viewing

A system of signs and symbols communicates information to park visitors. For example, the services symbol informs the visitor that basic services such as gasoline are available here. Look for these symbols as you travel through the park.

LIST OF CONTRIBUTORS:

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Duty Calls



National park wardens are the men and women in uniform who patrol the roadways, trails, and facilities in Canada's national parks. They are educated and trained in a natural resource management, law enforcement, and public safety.

In Yoho, there is a designated "duty warden" on staff each day. The duty warden responds to emergency calls, provides information to visitors, patrols the park's roadways and facilities, and performs a variety of regular duties. The duty warden is also on standby call throughout the night for emergencies. The days are long, but rewarding.

A typical day for a Yoho warden begins with a drive up the "Big Hill" to record the eight o'clock weather at the Wapta weather station. Weather is also observed at the Boulder Creek station to note the differences in climate on each side of the Great Divide. Observations are made en route for wildlife sightings, visitors requiring assistance, and any abnormalities.

During the summer and fall, park horses must be tended to early in the morning. The sometimes ornery animals meander through the pasture to the corral where they are fed and then checked for sores and loose or lost shoes. The rest of the day is

spent patrolling the park, working on ongoing projects, and catching up on paperwork. But, on a busy day it's almost impossible to get any paperwork done.

First, a call comes in just as the duty warden starts to write some field notes. The highway crew has found a dead elk lying partly in the driving lane at the west end of the park. This is the fourth road kill this month, not counting a few coyotes, a porcupine, a mule deer, and a black bear. Traffic has been fast and heavy.

Next, the duty warden sees a car cross a double solid line and pass another vehicle on a hill. After being stopped, the driver stammers, "I didn't know park wardens could write tickets!" Yes, park wardens are peace officers and not only enforce the National Parks Act, but also assist the R.C.M.P. in the enforcement of other federal and provincial laws.

Before the ticket is completed, an information attendant calls for assistance in advising a group of would-be mountaineers on a route. The group is not properly equipped to cross a crevasse on the glacier and are advised not to proceed with the trip. A suitable alternative is found to meet their skill and equipment level.

The information attendant provides the duty warden with the weekly bear observations. A sow grizzly with two cubs has been observed a number of times in Yoho valley. After consulting the warden responsible for bear management, it is decided that warning signs will be posted at strategic locations.

A patrol through park campgrounds and day-use areas completes the day. It's a pleasure to leave the highway and walk through the facilities, chatting with visitors — even though it's long past quitting time.

During dinner, a call comes in to report hikers who are long overdue from a day-hike in the Lake O'Hara area. Information is gathered on the missing hikers, and a hasty search is initiated. A team of wardens is dispatched to hike some of the trails, even after nightfall. A helicopter is put on standby for a more intensive search at first light.

The following morning, footprints are spotted in the snow in Goodsir Pass. Shortly after, the lost hikers are found — tired, hungry, and somewhat humbled by their experience. A relief, and a rewarding conclusion to another long day for a Yoho National Park warden.

The Friends of Yoho

Have you ever wondered how you could help in the preservation and conservation of Canada's natural and historic treasures?

Across Canada, concerned citizens have created non-profit organizations to further the goals of Canada's national parks and historic sites. Canadian Parks Partnership is a national affiliation of these co-operating associations, with over 30 member groups from British Columbia to Newfoundland.

In Yoho National Park, a group of citizens have founded the Friends of Yoho Society. Last November, the Friends signed an agreement with the Canadian Parks Service to co-operate in the "protection, preservation, and interpretation of natural and historic resources in Yoho National Park."

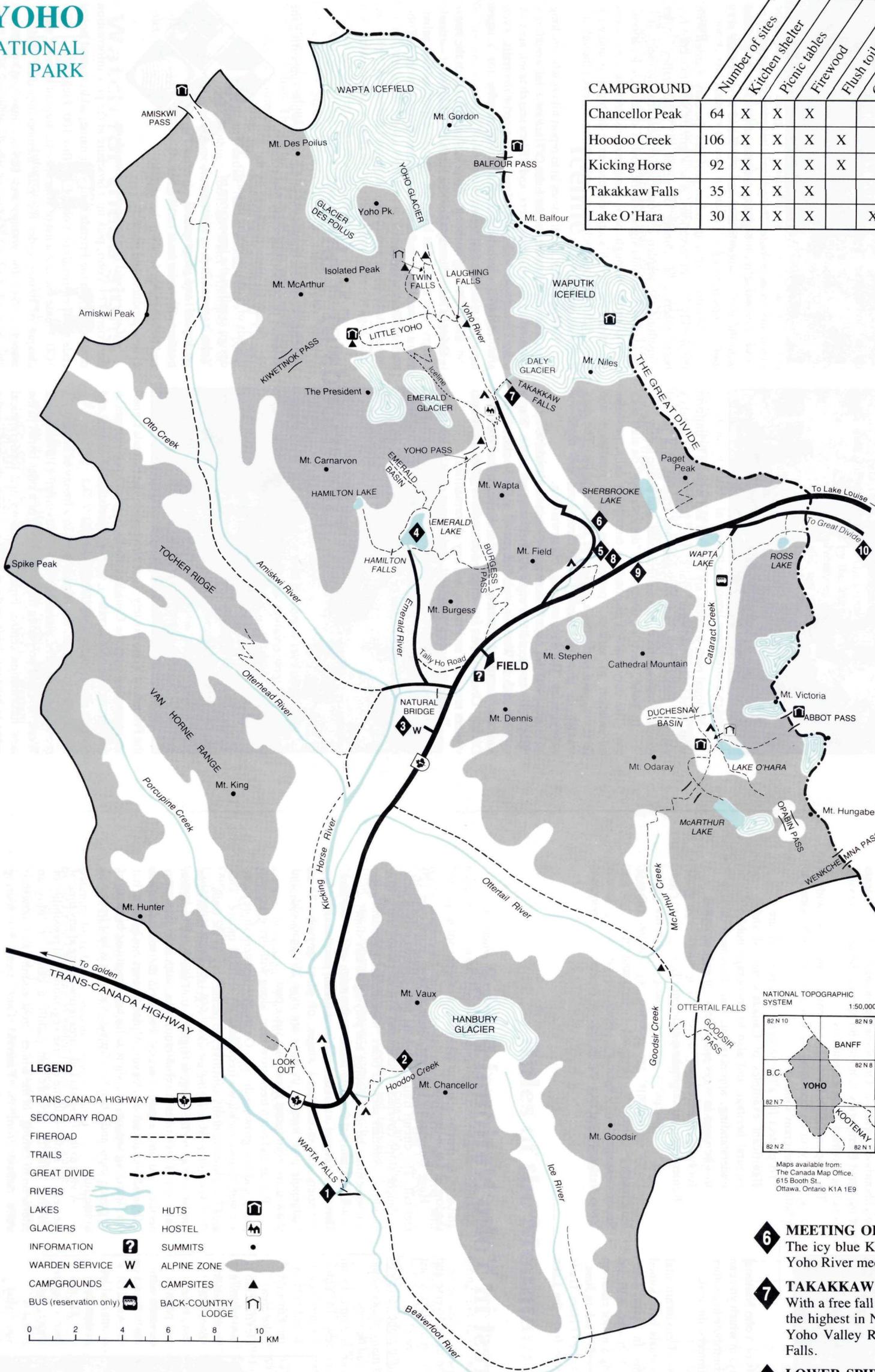
Earlier this year, the friends were in a frenzy of activity — recruiting members, planning various activities for Environment Week '89, and preparing for the opening of a sales outlet in the new information centre. From guidebooks and topographical maps to biodegradable garbage bags and soap, the retail outlet provides the information and products that help improve your

understanding and enjoyment of the park, while supporting the mandate of conservation and preservation.

Watch for items produced by the Friends of Yoho, sporting this logo. The design signifies the importance of Yoho National Park as a historical, geological, and geographical treasure. Revenue from retail sales and membership fees will be applied to new products and projects.



If you would like to know more about the Friends of Yoho, pick up a brochure at the park information centre. To join the Friends mail your name, address, and postal code to: The Friends of Yoho, P.O. Box 100, Field, B.C., V0A 1G0. Please include a list of your specific areas of interest, and a cheque or money order for your membership dues (\$10 for associate, \$15 for voting, and \$25 for families). Members receive a number of benefits, such as a discount at the sales outlet.

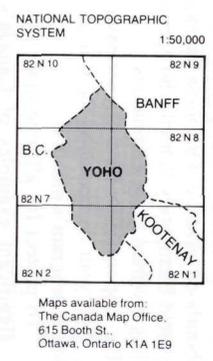


CAMPGROUND	Number of sites	Kitchen shelter	Picnic tables	Firewood	Flush toilet	Chemical toilet	Pit toilet	Showers	Sani-dump station	Playground	Outdoor theatre
Chancellor Peak	64	X	X	X		X					
Hoodoo Creek	106	X	X	X	X			X	X	X	
Kicking Horse	92	X	X	X	X		X	X	X	X	
Takakkaw Falls	35	X	X	X		X					
Lake O'Hara	30	X	X	X	X						

LEGEND

- TRANS-CANADA HIGHWAY
- SECONDARY ROAD
- FIREROAD
- TRAILS
- GREAT DIVIDE
- RIVERS
- LAKES
- GLACIERS
- INFORMATION
- WARDEN SERVICE
- CAMPGROUNDS
- BUS (reservation only)
- HUTS
- HOSTEL
- SUMMITS
- ALPINE ZONE
- CAMPsites
- BACK-COUNTRY LODGE

0 2 4 6 8 10 KM



Points of Interest

- 1 WAPTA FALLS**
In the vicinity of Wapta Falls, Sir James Hector was kicked by a packhorse in 1858 — The Kicking Horse River got its name as a result! The falls are accessed by a short drive up a dirt road, and then a 2 km walk.
- 2 HOODOOS**
A fork in a steep trail (6.1 km return) takes you to upper and lower viewpoints just before reaching these capped pillars of glacial debris. The trail starts in the Hoodoo Creek campground.

- 3 NATURAL BRIDGE**
The Kicking Horse River has carved a natural bridge through solid rock in this location, 1.6 km from the Trans-Canada highway.
- 4 EMERALD LAKE**
Discovered by Tom Wilson in 1882, Emerald Lake has become a popular destination for many visitors. Canoeing, fishing, hiking, and horseback riding are available here.
- 5 UPPER SPIRAL TUNNELS VIEWPOINT**
From this viewpoint you can watch the trains enter the upper tunnel. Nearby, visit an old locomotive by hiking the Walk-In-The-Past trail.

- 6 MEETING OF THE WATERS**
The icy blue Kicking Horse River and the silt-laden Yoho River meet here. See if you can tell them apart.
- 7 TAKAKKAW FALLS**
With a free fall of 254 meters, this waterfall is one of the highest in North America. A 12 km drive on the Yoho Valley Road will bring you to the Takakkaw Falls.
- 8 LOWER SPIRAL TUNNELS VIEWPOINT**
An interpretive display explains the history and present operation of the Spiral Tunnels. You can see the Yoho Valley from the viewing platform.
- 9 OLD BRIDGE ON THE BIG HILL**
An old railway bridge that was part of the original Canadian Pacific Railway route through the Kicking Horse Pass is located here. The Big Hill had the most severe grade of any railway hill in North America — dropping 400 meters from the Great Divide to the valley bottom.
- 10 GREAT DIVIDE**
Here you can see a small stream which splits into two branches — one flowing east to Hudson Bay and the other flowing west to the Pacific Ocean.

SUPERINTENDENT'S MESSAGE:

In the Spirit of Co-operation



As you travel and search out the secrets of Yoho National Park, I encourage you to reflect upon the ways in which you can contribute to the park, or the ways you can contribute to another special place near your own home. Volunteers do make a difference — and you can too!

There has been an increased awareness of environmental issues in recent years, and concerned individuals have joined forces to help resolve some of the problems. In Yoho, a co-operating association called the Friends of Yoho has initiated many worthwhile projects, such as organizing a major clean-up of the Kicking Horse River during Environment Week in June.

Another co-operating association, the Lake O'Hara Trails Club, is constructing a day-use shelter across from the Lake

O'Hara warden cabin. The shelter will provide basic services to visitors to the O'Hara area.

The Royal Ontario Museum in Toronto has signed a co-operating agreement with the park to research and catalogue fossils from the Burgess Shale and other fossil beds in the Cathedral escarpment. During the last decade, a team of paleontologists under the direction of Dr. Des Collins has expanded our understanding of this significant fossil discovery and of the earth's evolutionary past.

Your contribution to environmental protection could be as simple as observing the no littering regulations in the park. Take this one step further and practice maintaining a cleaner neighbourhood at home. Or follow the example of the students of the Field Elementary School who operate the first successful recycling program in the community.

The responsibility for a cleaner environment rests with all of us. With your co-operation the Canadian Parks Service can uphold the program's mandate:

"To protect for all time those places which are significant examples of Canada's natural and cultural heritage and also to encourage public understanding, appreciation, and enjoyment of this heritage in ways which leave it unimpaired for future generations."

Remember, you can make a difference!

Ian Church,
Superintendent,
Yoho National Park

A Rain Forest in Yoho National Park?

The Emerald Lake area has some of the most diverse and interesting vegetation in the park, and a walk on the lake's east side is similar to a walk through a coastal rain forest!

In the small area around Emerald Lake all but one variety of the park's coniferous trees can be found, and many plants which are usually found in more westerly climates can be seen.

The east, or moister, side of the lake is home to an abundance of western cedar, hemlock, and yew. In Yoho,



western yew is found only in the Emerald Lake area.

Devil's club is also plentiful on the eastern shore. This low, broad-leaf plant is covered with nasty thorns on the woody stems and leaf undersides.

On the lake's western shore, the forest is somewhat drier because it's in the rain-

shadow of the mountains.

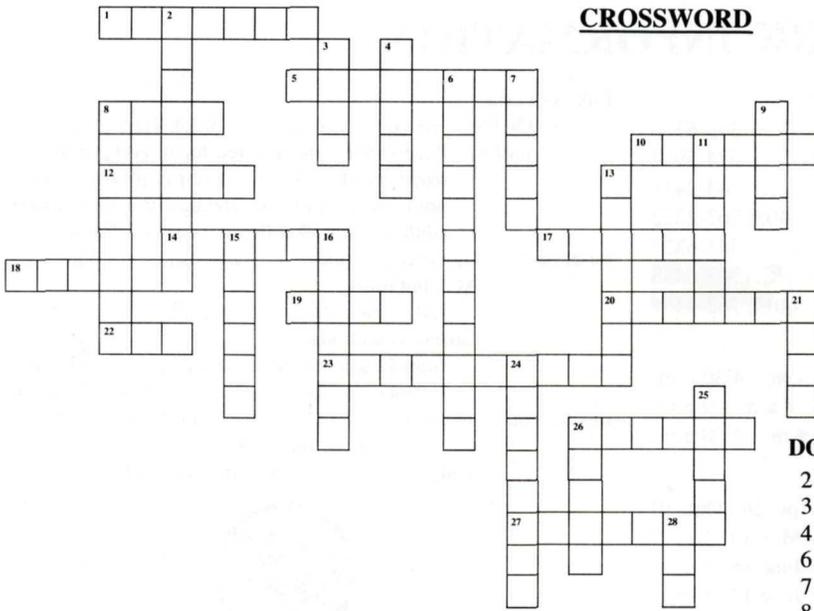
Huge Douglas fir trees are common here, some over 120 feet tall. The circuit trail around the lake crosses over a large avalanche slope covered by alder and willow shrubs and grassy meadows. Animals such as bears, moose, and mountain goats can sometimes be seen feeding and playing on this slope.

Large alluvial fans are found at the north end of the lake. These fans (gravel outwash deposits at stream junctions) display a variety of successional stages of plant growth. Some Lodgepole pine trees in the area are over 250-years-old, and show scars from forest fires long since past.

Poplar and birch trees grow here, along with dry grass-like plants and low growing dryads. On the northeastern shore there are wet, grassy meadows frequented by resident moose. This area is environmentally sensitive, so please stay on the trails.

Above the lake, alpine meadow vegetation and larch trees can be seen along the Burgess Highline trail and in the Hamilton Lake area. Larch trees are coniferous trees, with soft, pale green needles that turn a golden orange colour in the autumn before falling off like deciduous leaves. Alpine flowers can be seen, but the flowering seasons are short at higher elevations because of lingering snow and a harsher climate. Viewing is best from mid to late July.

A visit to the Emerald Lake area is rewarding at any time of the year. In addition to the diverse vegetation and possibility of viewing wildlife, visitors can paddle a canoe or enjoy an afternoon of fishing. In the winter, cross-country and snowshoe trails radiate from the Emerald Lake area. Ski touring possibilities exist, but information should be obtained on avalanche hazards before venturing beyond marked trails.



CROSSWORD

ACROSS

1. A large body of moving ice
5. A waterfall 254 metres high
8. Melting agent used on winter roads
10. Depression between two mountains
12. Female goat
14. A horse kicked him
17. Park visitors need one
18. The Great _____
19. Catch limit for trout
20. Lake the colour of a gemstone
22. Common park animal
23. Yoho has many of these
26. Natural rock formation
27. New hiking trail

DOWN

2. Natural winter hazard to skiers
3. Low place in mountain range
4. One of the 4 mountain parks
6. World Heritage River (2 words)
7. Namesake for a lake and waterfall
8. Can't have enough of this when on holidays
9. You are in _____ Country
11. Please do not _____
13. Mountain home of world famous fossils
15. Small cousin of the wolf
16. Important to park history
21. Must be kept on a leash
24. Gravel outwash from a stream
25. Large ruminant animal
26. Explored the Yoho Valley
28. French for "no"

SOLUTIONS ACROSS: 1. Glacier; 5. Takakaw; 8. Salt; 10. Valley; 12. Nanny; 14. Hector; 17. Permit; 18. Divide; 19. Five; 20. Emerald; 22. Elk; 23. Waterfalls; 26. Hoodoo; 27. Iceline
DOWN: 2. Avalanche; 3. Pass; 4. Banff; 6. Kicking Horse; 7. Wapta; 8. Sunshine; 9. Bear; 11. Litter; 13. Burgess; 15. Coyote; 16. Railway; 21. Dogs; 24. Alluvial; 25. Moose; 26. Habel; 28. Non

Rules of the Mountain Road

For many new visitors to Yoho National Park, the experience of travelling mountain roads can be overwhelming. Driving in the mountains conjures up ideas of narrow, winding roads suspended high above steep gorges, and you will experience this on the Yoho Valley Road. But most of your travel through the park will be on the Trans-Canada highway.

The Trans-Canada was constructed between 1955 and 1958, and is the major transportation corridor through the Rocky Mountains. The highway is a single lane each way through Banff and Yoho national parks, except for a short twinned section from Banff's east gate to the Sunshine Village exit. It is used by both commercial and recreational vehicles, and traffic volumes are always increasing. Unfortunately, accident rates are also increasing.

Motor vehicle accidents are unwanted at any time, but can cause additional problems for out-of-province travellers. Unfamiliar roads and too much sightseeing while driving have caused many accidents. Drivers should exercise caution, use common sense, and apply good defensive driving skills to ensure their visit to Yoho will be a safe and happy one.

The speed limit is 90 km/h, except for viewpoint areas where the limit is 60 km/h. When road conditions are good, drivers should strive to maintain a safe, consistent speed, always watching for reduced speed limit areas. The highway is patrolled by the Royal Canadian Mounted Police and park wardens.

Rest stops, picnic areas, and viewpoints are located along the Trans-Canada. It is much safer to stop your vehicle in these designated areas rather than along the road. If you must stop, make sure that your vehicle is safely off the travelled portion of the road, out of the way of other traffic.

Poor visibility and black ice are not uncommon, even in the spring and fall. Driving conditions deteriorate during winter months, and summer rain storms can turn into snow at mountain elevations. Snow tires or chains are required by law on the Trans-Canada when travelling through any mountain park between November 1 and April 30.

The following points may be useful to you:

- The use of seat belts is mandatory in Canada.
- It is illegal to drive on the paved shoulder. Cyclists ride their bikes on the shoulders and vehicles might be parked there.
- Be patient with slow moving vehicles on hills. Steep mountain passes cannot be climbed or descended quickly by motorhomes and transport trucks.
- Check your mirrors and blind spots before pulling off the road. Put your hazard lights on, and be careful getting out of your vehicle. Never stop your vehicle in the driving lane.
- Do not pass on double solid lines or on the right.
- Watch for wildlife straying onto the road, especially where the white elk signs are posted. These signs are posted near common elk migratory routes.
- Read and obey the traffic signs and painted lane markings, especially the speed limit signs.
- Drive with your headlights on in the mountains.
- Drive defensively by looking for people who disobey these rules.
- Report the licence plate numbers of unsafe drivers to the local R.C.M.P. detachment at 343-6316 or the park warden office at 343-6324.
- Have a safe and enjoyable holiday.

PARK INFORMATION

Important Telephone Numbers

R.C.M.P.	343-6316
AMBULANCE (Dispatch)	374-5937
HOSPITAL (Golden)	344-2411
HOSPITAL (Banff)	(403) 762-2222
PARK ADMINISTRATION	343-6324
LAKE O'HARA RESERVATIONS	343-6433
ACC RESERVATIONS	(403) 762-4481

Information Centre Hours

May 19 - June 15, 1989	8 a.m. - 4:30 p.m.
June 16 - September 19, 1989	8 a.m. - 9 p.m.
September 20 - June, 1990	8 a.m. - 4:30 p.m.

Campground Dates

Chancellor Peak	Apr. 28 - Oct. 10
Kicking Horse	May 19 - Oct. 2
Takakkaw Falls	June 16 - Oct. 1
Lake O'Hara	June 17 - Oct. 1
Hoodoo Creek	June 23 - Sept. 5

Lake O'Hara

Access: On foot: Hike the 13 km Cataract Brook Trail.

By bus: Reservations are required for in-going trips and may be made up to two months in advance. Please notify the park of cancellations. Bus fee is \$4.00 adults and \$1.50 children, one-way. No dogs.

Reservations: Day-users, campers 343-6433
ACC hut users
(after reservations is made) 343-6433

Lake O'Hara Lodge

(mid-June to late September) 343-6418
(October to June) (403) 762-2118

Bus Schedule: Incoming: 8:30 a.m., 11:30 a.m., & 4:30 p.m.
daily (plus 8:30 p.m. Fridays)

Outgoing: 8 a.m., 9:30 a.m., & 4 p.m.



Be beary careful

To avoid attracting bears, keep food locked in your car or hung high in a tree away from camp. Keep your campsite clean. Pack out all garbage or use the park's bear-proof garbage cans. Hike with others or make noise if you are alone to warn bears of your presence. Remember — wild animals can be dangerous! Keep a safe distance from them. Read the brochure, **YOU ARE IN BEAR COUNTRY**, for more information about grizzly and black bears.

Interpretive Programs

Self-Guiding Trails

The Walk-In-The-Past self-guiding trail offers a glimpse into the railway history of the "Big Hill." Brochures that guide you to interpretive signs along the route are available at the trailhead. The trail begins at the trailer circle in the Kicking Horse campground. On your way through the campground, visit the old bake oven used by the men who constructed the railway more than 100 years ago. Kicking Horse was their campground, too.

The trail around Emerald Lake is one of the easiest and most enjoyable in the park. Signs along the way interpret the environment that you are walking through. There is also a self-guiding trail to the base of Takakkaw Falls.

Burgess Shale Exhibits

Visitors to Yoho National Park will no longer have to go on a guided walk to learn about the Burgess Shale fossils thanks to two new exhibits and a recently printed brochure. An outdoor exhibit is located adjacent to the Kicking Horse overflow parking area on Yoho Valley Road. It describes the undersea environment in which the Burgess Shale animals lived, and the process which led to their preservation. Geological structures described in the exhibit are visible from this site.

An indoor exhibit housed in the new information centre showcases some of the fossil species found in the Burgess Shale. The brochure details the discovery and scientific importance of the fossils, describes some of the species, and explains the associated geology. A colour picture depicts the undersea environment in which the Burgess Shale creatures once lived.

ADDITIONAL INFORMATION

For additional information about Yoho National Park, please call (604) 343-6324, or write:

Visitor Services, Yoho National Park
P.O. Box 99
Field, B.C., V0A 1G0

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