



Kluane
National Park
and Reserve

Alsek River

Camping & Travel



Photo: S. McDougall

Photo: S. McDougall



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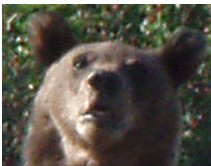
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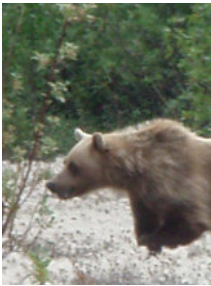
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Photo: K. McLaughlin

Introduction

The information provided in this pamphlet has been compiled to assist you in having a safe and enjoyable trip on the Alsek River. Many of the guidelines and regulations presented here are based on research findings from grizzly bear ecology studies in Kluane National Park and Reserve. As travellers on the Alsek River you will be sharing prime bear habitat with the grizzlies and black bears in the valley. Understanding bear behaviour and ecology, and managing your activities appropriately, will minimize the chance of displacing bears or experiencing negative bear-human interactions during your trip.

Your actions may ultimately affect whether healthy populations of bears are maintained in Kluane. This is a key management goal for the park. We hope you take your role in assisting us seriously. Read the information below and if you have any questions, do not hesitate to call us for more details before you arrive.

Background

To many people, the existence of grizzly bears indicates a true wilderness setting. Tragically, wilderness areas are rapidly disappearing in North America and with them, the grizzlies. Human encroachment into wilderness settings has resulted in a tremendous loss of grizzly bear habitat and an increased number of human caused grizzly bear deaths.

Parks Canada recognizes the significance of protecting wilderness in Kluane National Park and Reserve for grizzly bears and their habitat. The maintenance of a healthy bear population is one of the park's main management objectives. Public safety is also a concern. As such, it is important to reduce the potential for bear-human conflicts in the park, thereby, increasing the safety of both bears and people.

The Alsek River corridor represents a large portion of the important habitat available to black bears and grizzly bears in Kluane. To help in the protection of grizzly bears and their habitat, the upper portion of the Alsek River (from the confluence of the Kaskawulsh and Dezadeash rivers to Lowell Lake) has been designated a Special Preservation Area (see map).

Complicating this situation, is the fact that the popularity of the Alsek River has increased dramatically since the early 1990's. Managing human activities and minimizing human impacts that may cause displacement and/or mortality of bears in this portion of the Alsek River, will be important in meeting Kluane National Park's management objectives.

As a result, visitor access and activities within this area are controlled through special camping and travel restrictions.



Campsite Restrictions

Restricted Use Between Serpentine Creek and Lowell Lake

To reduce the potential for bear-human encounters and displacement of bears from important habitats the following restrictions are in effect within the Special Preservation Area (see Map):

- a) Camping is restricted to designated campsites and/or camping areas (see Table 1).
- b) Camping between the confluence of the Kaskawulsh and Dezadeash Rivers and campsite # 9 above Lowell Lake is limited to one night only per group per trip.
- c) Camping is prohibited in the Goatherd Mountain closure area and is limited to the eastern edge of Lowell Lake.
- d) Off river travel (e.g. day hikes) is not encouraged due to the risk of bear-human encounters and the possible disturbance to bears.
- e) It is mandatory to ensure your food and garbage is not accessible to bears (see section e) Bear Resistant Food Storage on page 9).
- f) Firearms are prohibited in Kluane National Park & Reserve.

Continue reading pages 5 through 10 for further explanations of these restrictions.



Photo: L. Gorecki



Photo: A. Chillbeck



Photo: K. McLaughlin

Table 1. Designated campsites between Serpentine Creek and Lowell Lake along the Alsek River, Kluane National Park and Reserve, Yukon. ¹

Campsite #	General Description/Location	UTM (Zone 8) (NAD 27) Easting/Northing	Side of River ²	Potential for Bear/Human Encounter	Potential for Displacement of Bears
1	Serpentine Creek	350199 / 6734055	RR	Low	Low
2	Point of peninsula	348478 / 6730063	RL	Low	Low
3	Small point in bay before Beachview	347789 / 6728003	RL	Low-Mod	Low-Mod
4	North side of Beachview Fan	347114 / 6727165	RL	Mod	Mod
5	Above Lava Creek	344859 / 6717742	RR	Low	Low
6	Lava Rocks	345103 / 6717252	RL	Low-Mod	Low-Mod
7	Lava Creek	344825 / 6716320	RR	Low-Mod	Low-Mod
8	Marble Creek (downstream)	344568 / 6702934	RR	Low-Mod	Low-Mod
9	Above Lowell Lake	335616 / 6690567	RR	Low-Mod	Mod
10	Lowell Lake	336009 / 6687403	RL	Low	Low-Mod
11	Lowell Lake	335366 / 6685963	RL	Low	Low-Mod

¹ Designated campsites have been assessed as having low, low to moderate or moderate potential for bear/human encounters and possible displacement of bears from their habitat. Use of campsites rated as low or low-moderate potential for encounters is recommended.

The designated campsites locations were chosen and assessed on the following factors:

- evidence of previous use by river travellers;
- the abundance of bear food plants available;
- the abundance/frequency of bear sign such as scats, mark trees, trails and beds;
- features that reduce the ability of bears and people to detect each other (thick vegetation, prevailing winds, and noise from creeks, wind); and
- geographic features which influence the travelling patterns of bears (constriction in terrain, gullies etc.).

² RR = river right, RL = river left (looking downstream).

a) Designated Camping

To minimize the effects of river travel on normal bear activity, the movements of river users should be as predictable as possible. Bears are able to adjust their activities to avoid humans based on predictable behaviour. Some predictability may be accomplished by having regularly spaced departures and by having rafters use designated campsites.

The regular use of designated campsites will make it easier for bears to adjust to human activities, but it also may raise other concerns that need to be considered. Some bears may become habituated to the regular presence of humans and therefore become bolder in their activities around these sites. This may increase the risk of bear-human encounters. For this reason, bear interactions with humans must be reported (refer to Reporting Bear Incidents and Observations on page 19).

In addition, human food and garbage scents may become more prevalent at these sites through regular use and due to careless handling of food and garbage. This could potentially attract habituated bears into the campsites to investigate scents. For this reason, campsites with lower potential for bear-human encounters or bear displacement have been identified and designated for use.

Where possible, cooking areas should be located on the active floodplain so that they are periodically flooded and cleaned of lingering scents. Proper handling and storage of food and garbage are essential to the success of any human-bear conflict program.



Photo: L. Gorecki

Important Points Regarding Designated Campsites

- All designated campsites have the potential for bear-human encounters and displacement of bears. Read the materials provided so that you can reduce risk to yourself and the bears that you will encounter.
- Only designated campsites were assessed for the potential risk of bear-human encounters and displacement of bears. Other potential campsites within designated camping areas may have a higher risk for negative bear-human conflicts.
- Campsites hazard ratings are relative to other campsites assessed. High quality grizzly bear habitat is found along the entire length of the Alsek Valley. The river edge is also an important travel corridor for bears.
- Major game trails parallel both sides of the river. These trails are used regularly by bears, and in many cases trails pass close to designated campsites. Designated campsites have alternative travel routes around the area for bears to move if they detect the campsite is occupied.
- Camp in the open as far away as possible from trails and features that limit visibility.
- The benefits of designated camping can only be achieved if bears do not learn that human food and garbage can be obtained from campsites. Store food and garbage appropriately.



Photo: S. McDougall

- Campsite designation may be modified if changes in bear behaviour at designated campsites occur, problems with bears develop, or lower risk alternatives are assessed.

b) One Night Restriction

The goal of the one night restriction between the confluence of the Kaskawulsh and Dezadeash Rivers and campsite # 9 above Lowell Lake is to minimize the number of people in the Special Preservation Area at any one time, and thus reduce human caused displacement of bears. Camping at Lowell Lake is permitted for a maximum of two nights.

c) Goatherd Mountain Closure Area

The base of Goatherd Mountain is a major travel route for bears moving past Lowell Lake. Bear movement is funnelled through open non-vegetated terrain along the base of a steep mountain face. Use of this area has a high potential for encounters and for the displacement bears. Camping outside the closure area, and minimizing your length of stay at Lowell Lake, will help to reduce the long-term human impacts on bears.

d) Off River Travel

Campsite hazard ratings do not take hiking into consideration. Off river travel (such as day hikes) is not encouraged in the Special Preservation Area, for the same reasons mentioned above.

e) Bear Resistant Food Storage

Bears are opportunistic and quick to learn. As they become habituated to people, the potential for bears to obtain human food and garbage increases. Food-conditioned bears are dangerous. If human food and garbage are not secured from bears, it is only a matter of time before food-conditioned bears become a threat to human safety.

The Alsek River corridor will only continue to be a wilderness area, free of food conditioned bears, by preventing bears from accessing your food and garbage. This is your responsibility as a river user.



Photo: H. Markides

These simple steps will help:

- keep your campsite clean and leave it clean when you leave;
- never leave your campsite, boats, or food unattended; and
- use bear resistant containers and/or portable electric fences to secure food and garbage.

Preventing bears from accessing human food or garbage requires extra effort. As a river user, this may be the most important thing you can do to prevent the demise of the grizzly bear populations in this region and increase your personal safety.

Remember it is mandatory to ensure that human food and garbage is secured or contained in such a manner that it is inaccessible to bears (e.g. bear resistant containers; electric fences etc.).

A list of certified bear resistant food storage options can be found here: <http://www.igbconline.org/index.php/safety-in-grizzly-country/bear-resistant-products>

Examples of certified bear resistant food storage options include specific models of coolers, dry boxes, electric fences and canisters. For more information on requirements for bear-resistant food storage on the Alsek River, please contact Park Staff at 867-634-7207.

f) Firearms

Firearms are not allowed in Kluane National Park and Reserve.

Note: Commercial chemical bear deterrent sprays are available. They should only be used as a last resort. Their effectiveness varies and is dependent upon correct use. Carrying bear deterrent spray should not replace common sense and proper travel precautions.

If you would not feel comfortable travelling in an area without bear spray (or a gun e.g. outside the park), you should seriously consider not travelling in the area at all. Bear spray cannot replace your skills and knowledge.



Bears

Why is the Alsek River so Important to Bears?

The Alsek River valley is home to both grizzly and black bears. The valley is well used by both species throughout their active period (April - October). Plants used by bears in the spring, summer and fall are abundant and widespread along the valley bottom where you will be travelling.

Peak bear use of the valley bottom, in the Special Preservation Area, occurs during the rafting season. Well-used game trails and an abundance of marked trees are evidence that the valley bottom serves as an **important travel corridor for bears**.

Some of the Bear Basics- What They Eat

Like humans, grizzly and black bears are omnivores. They feed on both plants and animals. Although bears on the Alsek River, opportunistically feed on animals such as moose or ground squirrels (and salmon on the lower Alsek), a large portion of their diet consists of specific plants that are abundant and relatively easy to obtain. These plants have been listed in Tables 2 and 3. We strongly recommend that you take the time to practice identifying these plants before you arrive in Kluane. Plant identification guides may be available at your local library or bookstore. You may want to talk to a local naturalist or botanist as well.

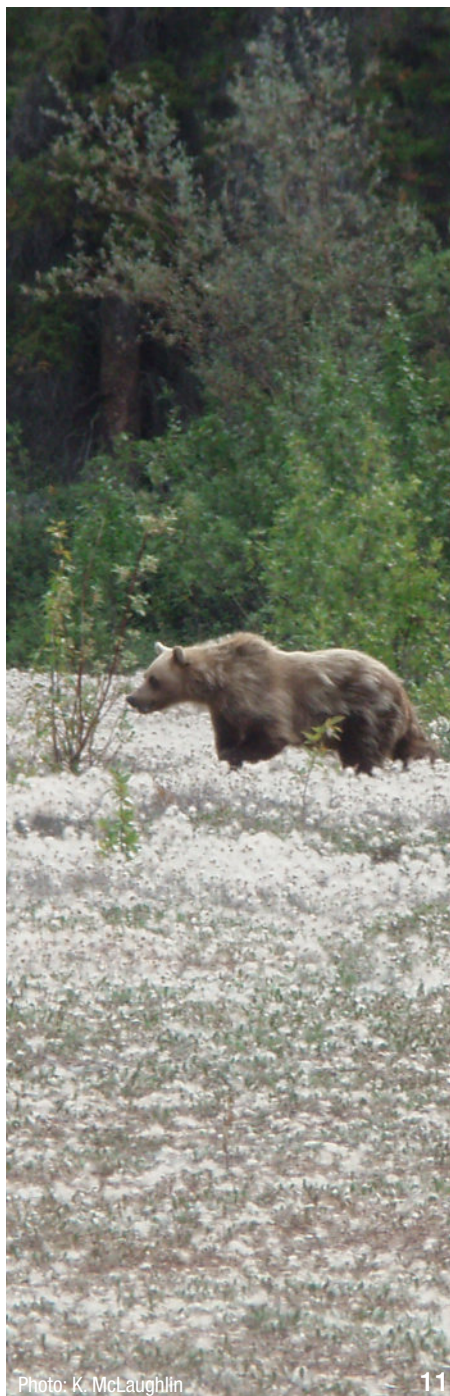
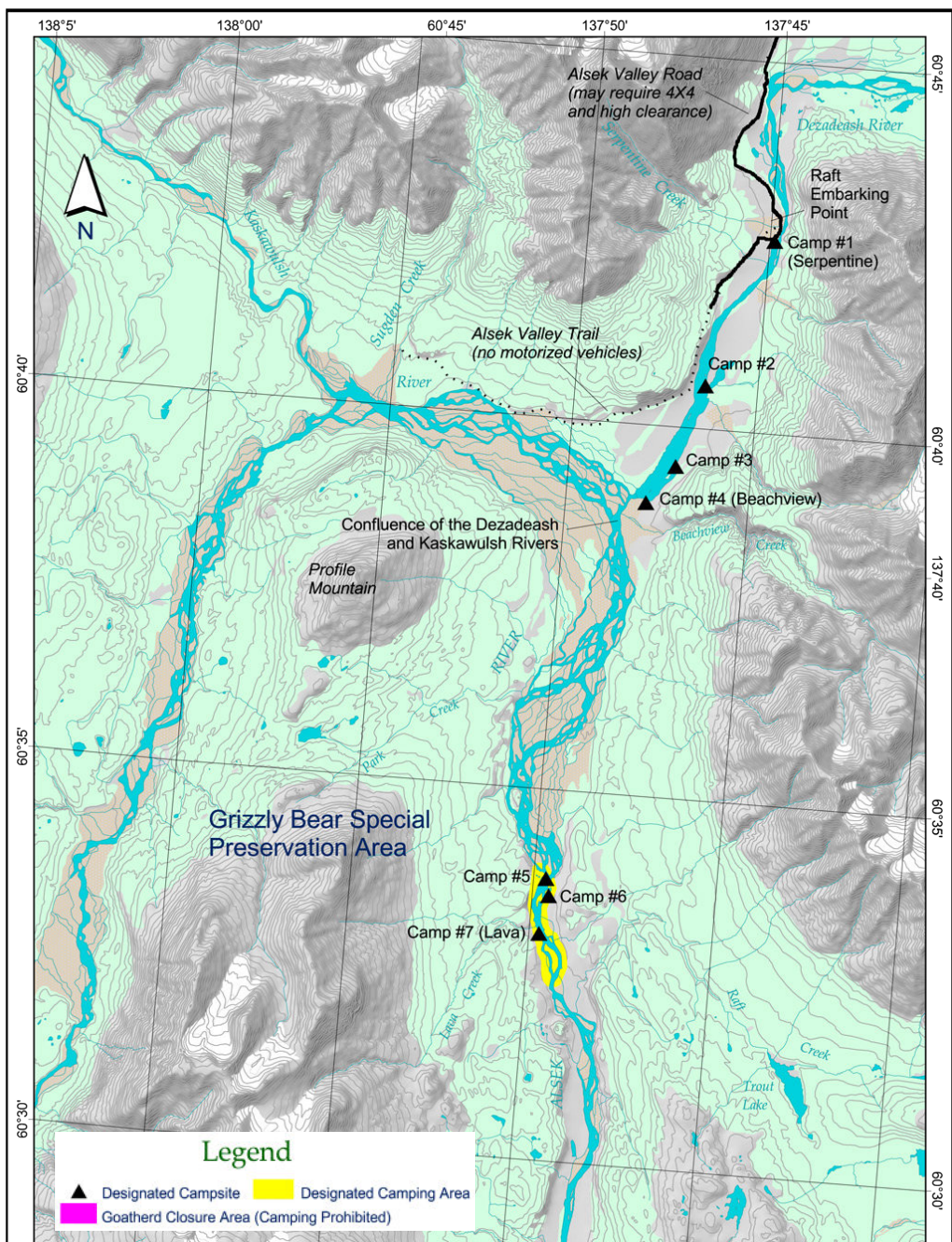
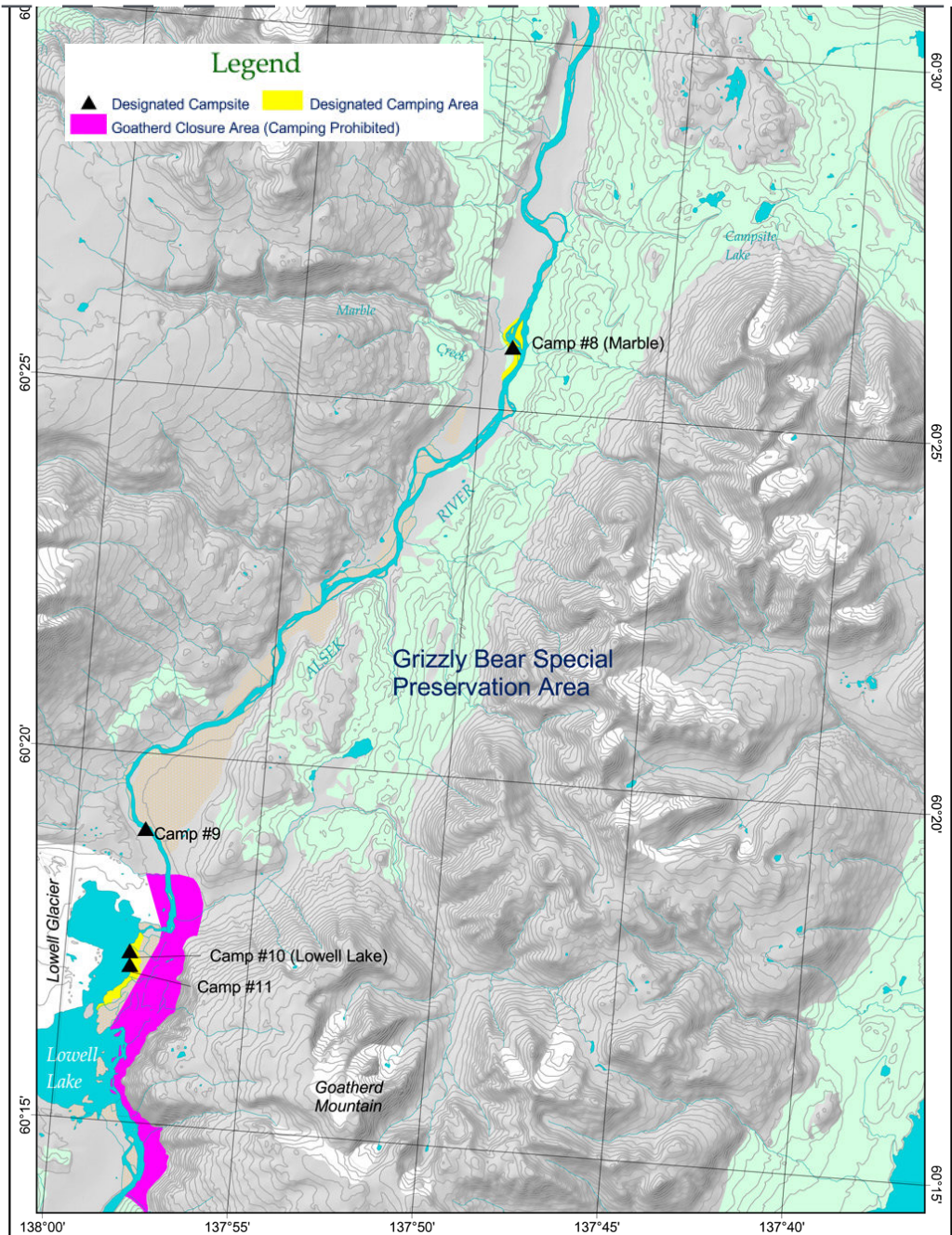


Photo: K. McLaughlin

Alsek River Campsites between Serpentine put in to Camp 7



Alsek River Campsites between Camp 7 to Lowell Lake



Feeding is a grizzly bear's primary activity from April through till October. Bears feed on plants at times of the year when the foliage is easier to digest and full of nutrients. Many leafy plants are eaten just as the leaves emerge. Roots are eaten in spring, late summer and fall (when most of the plant's nutrients are stored there).

Grizzly bear habitat selection is strongly related to the seasonal availability of specific plants. As a result, disturbance or displacement from important feeding habitats have serious impacts on a bear's ability to acquire the necessary nutritional reserves for reproduction and survival through its 5-7 month winter denning period.

Grizzly Bear Habitats and Foods

When selecting a campsite, it is important to learn which plants are eaten by bears and become familiar with habitats where these plants are found. All campsites are potential feeding areas for bears or have potential feeding areas close by. Camp in lower quality bear habitats that have a sparse abundance of bear foods! Remember to also select campsites that are open and sparsely vegetated to maximise the potential for you to detect bears and bears to detect you.



a) Upstream of Lowell Lake

Upstream of Lowell Lake bearroot, kinnikinnick, horsetail, field locoweed and soapberry are the main plants eaten by grizzly bears during the rafting season. These plants are abundant along the river

- Bearroot is common but found in localised areas and is particularly important to bears in years when the berry crops fail.
- Horsetail is common on wet slopes with a white spruce over story and less common on the river edge.
- Field locoweed is common and wide spread on open river flats that are likely to be chosen for campsites.
- Soapberry and kinnikinnick are common and widely distributed along river flats, edges of treed areas and in open stands of white spruce. Soapberry is frequently present in or on the edges of potential campsites.

Wide open benches and gravel fans are common in the Special Preservation Area. These are also popular feeding areas for bears. Bears feeding in these areas may be particularly vulnerable to disturbance by people. The open areas offer no cover or security to which they can escape. In open habitats, bears have been observed running for cover, sometimes for extensive distances. Bears that are wary of humans, particularly females with young of the year, are likely to be displaced from these habitats if disturbed.

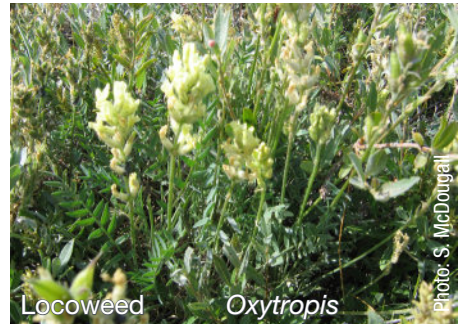


Table 2. Important plants eaten by grizzly bears upstream of Lowell Lake along the Alsek River, Kluane National Park, Yukon. ¹

Month	Plant	Plant Part Eaten
May	Bearroot (<i>Hedysarum alpinum</i>)	roots
	Horsetail (<i>Equisetum spp.</i>)	leaves
	Kinnikinnick (<i>Arctostaphylos uva-ursi</i>)	over-wintered berries
June	Horsetail	leaves
	Locoweed (<i>Oxytropis spp.</i>)	flowers
	(primarily <i>Oxytropis campestris</i>)	
July	Soapberry (<i>Shepherdia canadensis</i>)	berries
	Locoweed	flowers
	Horsetail	leaves
August/ September	Soapberry	berries
	Kinnikinnick	berries
	Bearroot (most important when berries are less abundant)	roots

¹ Less common food items include cow parsnip, grasses, sedges, willow catkins, rosehips, other berries, arctic ground squirrels, and ungulates such as moose.



b) Downstream of Lowell lake

As you travel downstream of Lowell Lake there is a marked transition from drier interior vegetation to wetter coastal vegetation. Habitats along the river below Lowell Lake are also important to bears. However, their food habits here may be different. Several food plants are known to be important to bears (Table 3).

The vegetation is typically more dense downstream of Lowell Lake. While thick vegetation provides greater security for bears, these areas have an increased risk of surprise bear/human encounters.

The terrain is also steeper in some areas leaving bears with fewer travel options along the river.

Table 3. Plants likely to be eaten by grizzly bears in areas downstream of Lowell Lake on the Asek River, Kluane National Park, Yukon. ¹

Plant	Plant Part Eaten
Bearroot (<i>Hedysarum alpinum</i>)	roots
Horsetail (<i>Equisetum spp.</i>)	leaves
Locoweed (<i>Oxytropis spp.</i>)	flowers
Kinnikinnick (<i>Arctostaphylos uva-ursi</i>) Red bearberry (<i>Arctostaphylos rubra</i>) Raspberry (<i>Rubus spp.</i>) Blueberry (<i>Vaccinium spp.</i>) Crowberry (<i>Empetrum nigrum</i>) Currant and Gooseberry (<i>Ribes spp.</i>) Highbush-cranberry (<i>Viburnum edule</i>) Soapberry (<i>Shepherdia canadensis</i>) Red-osier dogwood (<i>Cornus sericea</i>)	berries (including over over-wintered berries of some species)
Devil's Club (<i>Oplopanax horridus</i>)	early leaf shoots, berries
Sweet-Cicely (<i>Osmorhiza spp.</i>)	roots
Angelica (<i>Angelica spp.</i>)	leaves, stems
Cowparsnip (<i>Heracleum lanatum</i>)	leaves, stems
Fireweed (<i>Epilobium angustifolium</i>)	early leaf shoots

¹ Other food items may include arctic ground squirrels, moose, salmon, grasses, sedges, willow catkins, rosehips (*Rosa spp.*), twisted stalk (*Streptopus spp.*) and other berries.

c) Lava North Portage - UTM 8V 666650 / 6670100 (NAD 27)

The Lava North Portage is a high-risk area for surprise encounters. Bear signs such as tracks, scat and diggings are common in this area. Be aware that visibility is poor, noise from the river can be loud and the wind is frequently blowing upstream. All of these factors greatly reduce a bear's ability to avoid you.

When walking through this area, stay in as large a group as possible and make loud noises. Be aware that other high-risk areas are common along the river. Learn to recognize and avoid these areas.





Photo: D. Marois

Report all human-bear encounters immediately

Call Parks Canada

24 hr emergency line:

1-877-852-3100 (toll free)

or 1-780-852-3100

Or call Glacier Bay National Park

24 hr emergency line:

1-907-697-2651

To report bear observations:

Kluane National Park & Reserve

Call: 1-867-634-7207

8 am to 5 pm, leave a message.

Mail bear reports to:

Kluane National Park

P.O. Box 5495

Haines Junction, Yukon

Y0B 1L0 CANADA

Glacier Bay National Park & Tatshenshini-Alsek Park

Call: 1-907-697-2627.

7 am to 9 pm, leave message.

Mail bear reports to:

Attn: Tania Lewis

P.O. Box 140

Gustavus, AK

99826 USA

Bear Safety

In addition to the information provided here, be sure to read the You are in Bear Country brochure provided and other books on bear ecology and biology. You may want to check with your local university for the latest literature recommendations.

Reporting Bear Incidents and Observations

All river users are required to report bear incidents to either Kluane National Park or Glacier Bay National Park. If you are involved in an incident or an encounter with a bear please record and report the information as soon as possible. OBSERVATION forms and contact information for Kluane National Park or Glacier Bay National Park are available at the Visitor Centres.



Photo: R. Edelman

At the end of your trip please return your completed bear report forms to the Dry Bay Ranger, Glacier Bay National Park, or Kluane National Park. This will enable Resource Conservation staff to track changes in bear behaviour and monitor bear use of designated campsites. The information is used to identify potential problems, which may then be investigated and appropriate management action taken.

Appendix 1

Risk assessments of designated camping areas and campsites between Serpentine Creek and Lowell Lake

Designated campsites have been assessed as having low, low to moderate or moderate potential for bear-human encounters and possible displacement of bears from their habitat.

The location of designated campsites were chosen and assessed by considering several factors including:

- evidence of previous use by river travellers;
- the abundance of bear food plants available;
- the amount of bear signs such as scat, marked trees, trails and beds;
- features that reduce the ability of bears and people to detect each other such as thick vegetation, prevailing winds, and noise from creeks; and
- geographic features that influence the likelihood of a bear travelling in an area, such as constrictions in terrain.



1. Serpentine Creek to the Dezadeash/Kaskawulsh Confluence

From Serpentine Creek to Beachview Creek, camping is restricted to four designated campsites. Campsites 1 and 2 are recommended because they have the lowest potential for bear-human encounters and displacement of bears.

a) Campsite 1 (River Right) – Serpentine Creek

UTM 8V 350199 / 6734055 (NAD 27)

This campsite is downstream of Serpentine Creek on the Northeast edge of a large patch of alders. A primitive road leads to this popular campsite and boat launch. There is a low abundance of bear foods at and immediately adjacent to this campsite. There has been no evidence that bears travel through this campsite regularly. The terrain at and adjacent to the campsite is flat and travel is unrestricted. Bears are not funnelled through this campsite.

Potential for Encounters Rated: Low

- Visibility is good in areas surrounding the campsite, however a stand of alders at the campsite makes visibility poor.
- This campsite is frequently used by day visitors, backpackers and river travellers so there may be higher potential for bears to obtain food or garbage at this site.

Potential for Displacement Rated: Low

- This campsite has lower quality feeding habitat.
- Bears travelling along the river have alternate routes to avoid this campsite.



b) Campsite 2 (River Left) – Point of Peninsula
UTM 8V 348478 / 6730063 (NAD 27)

This campsite is on river left at the southern tip of the large peninsula between Serpentine Creek and Beachview Creek. Relative to other areas, food abundance is relatively low. Bearroot and horsetail are sparse. Soapberry and locoweed are scattered along the edge and within the poplar/willow strip. The campsite is open and visibility is good towards the head of the peninsula. Visibility is obstructed along the outer edges of the peninsula, which is surrounded by water. Note: when water levels are low this campsite may be difficult to access.

Potential for Encounters Rated: Low

- High quality bear habitat and a network of well used game trails are located at the north end of the peninsula and on the mainland river edge.

Potential for Displacement Rated: Low

- Bears are likely to choose the higher quality habitats at the head of the lagoon and on the mainland edge of the river for feeding and travel.



c) Campsite 3 - (River Left)
UTM 8V 347789 / 6728003 (NAD 27)

This campsite is approximately 100 - 150 m upstream from the southern tip of a small peninsula. Visibility is relatively good. The main camping area is open and the terrain is flat. Bearroot and locoweed are sparse. Soapberry is common in and along the edges of the open spruce and mixed spruce/poplar forests to the south and southeast. Kinnikinnick and red bearberry are common with patchy distribution in the same habitats as soapberry. While bears are likely to use this campsite occasionally, they can easily avoid it.

Potential for Encounters Rated: Low - Moderate

- Abundance of bear signs and high quality of habitat increases as you move away from the campsite, thus, the potential for encounters also increases.
- Camp in the open and as close to the river as possible. Hiking away from this campsite will greatly increase the potential for encounters and is not recommended.

Potential for Displacement Rated: Low to Moderate

- Bears have alternatives to avoid the campsite if they detect people.



d) Campsite 4 (River Left) – Beachview (north side of fan)
UTM 8V 347114 / 6727165 (NAD 27)

This campsite is located on the upstream edge of the large alluvial fan located upstream of Beachview Creek. There is good visibility in all directions except a thick poplar/willow patch to the southeast. There is a low abundance of bear foods. Soapberry is abundant and kinnikinnick is common along the edge and behind the poplar/willow patch. A prominent and well-used game trail, with abundant bear signs, parallels the edge of the poplar/willow patch directly behind the campsite.

Potential for Encounters Rated: Moderate

- Bears have frequently been observed near this campsite.
- Abundance of bear signs and high quality of habitat increases as you move away from the campsite, thus, the potential for interactions also increases.
- Hiking away from this campsite is not recommended.
- Camp in the open and as close to the river as possible.
- Do not camp near the game trail.

Potential for Displacement Rated: Moderate

- The edges of this fan and the confluence are a productive well-used feeding area with locoweed and soapberry.
- Bears have alternative travel routes around this campsite but may be displaced from what appears to be a major travel route along the river.



Photo: K. McLaughlin



Photo: S. McDougall

2. The Kaskawulsh/Dezadeash Confluence to Campsite 9 above Lowell Lake

Camping within this zone is restricted to one night. Two camping areas have been established on the river. The first area is at Lava Creek, which offers a choice of three assessed campsites, and the second area is at Marble Creek with one assessed campsite. Camping at designated campsites within camping zones is recommended.

a) Campsite 5 (River Right) - upper Lava 1 UTM 8V 344859 / 6717742 (NAD 27)

Bear food and signs observed at this campsite were low. There was little evidence that bears use this area on more than an occasional basis. It is likely that most bears chose to travel on the other side of the river or possibly inland above the rock face. There are higher quality habitats for bears immediately upstream of this campsite.

Potential for Encounters Rated: Low

- Rocky knolls restrict visibility.
- Stay alert for bears and make noise when walking around the lava rocks, particularly when walking to and from the lava pool to the west.
- Hiking away from this campsite is not recommended.

Potential for Displacement Rated: Low

- There are better food sources upstream of the campsite.
- Bears likely chose alternative routes for travel around this campsite.



b) Campsite 6 (River Left) - upper Lava 2
UTM 8V 345103 / 6717252 (NAD 27)

There is a low to moderate abundance of bear foods at this campsite. There are patches of bearroot, kinnikinnick and horsetail. Locoweed is scattered in the openings. Soapberry is sparse in the open flats around the campsite but more abundant along the edges of the trees. There was relatively little bear sign observed at this campsite. Visibility is poor at the base of the large rock outcrop in the small bay to the north. Visibility is good at the campsite downstream of the large rock outcrop. If bears detect people they have alternatives to avoid the campsite. Note: that when water levels are low this campsite may be difficult to access.

Potential for Encounters Rated: Low - Moderate

- Camp in the large open area downstream of the large rock outcrop.
- Poor visibility at the upstream campsite in the small bay will make it more difficult to detect bears.
- The potential for surprise encounters increases with distance from the campsite because vegetation and rock reduce visibility.
- The safest route to the lava pools is to hike in the open where visibility is the best, downstream from the campsite and into the open flats before cutting upstream over to the rocks.

Potential for Displacement Rated: Low - Moderate

- The surrounding area is open rock that offers alternative travel routes up slope.



c) Campsite 7 (River Right) Lava Creek
UTM 8V 344825 / 6716320 (NAD 27)

This campsite is beside the small creek just downstream of Lava Creek. Bearroot, kinnikinnick, horsetail and soapberry are less abundant at this campsite. Locoweed is common on the flats at the campsite. All major bear foods are abundant up slope and downstream of the campsite. Bear sign was low to moderate at the campsite but bears may use the trail that leads up slope from the campsite. Visibility is relatively good at the campsite but decreases in all directions with distance from the campsite. It is unlikely that many bears travel along the river upstream of Lava Creek because of impassable cliffs. Bears are most likely to travel on the East Side of the river or further inland. Because travel along the river to the north appears to be restricted, areas near this campsite may be used by bears for crossing the river. Bears may chose to travel down the trail from higher quality habitats to the west into the campsite. However, the campsite is in the open and bears are likely to detect people before they get into the campsite.

Potential for Encounters Rated: Low - Moderate

- Camp below the rock bluffs on either side of the smaller creek downstream of Lava Creek rather than beside Lava Creek so bears can avoid the camp.
- Hiking from this campsite is not recommended.

Potential for Displacement Rated: Low - Moderate

- This campsite may be located near a favoured river crossing area for bears. Therefore, movement patterns may be disrupted. However, with regular human use of this campsite bears will learn to expect people and cross the river further downstream.



d) Campsite 8 (River Right) Marble Creek
UTM 8V 344568 / 6702934 (NAD 27)

Campsite 8 is located on the downstream edge of Marble Creek. Soapberry is common and abundant in patches in and on the edges of the willow/poplar habitats around the campsite and the long poplar/willow/spruce/alder strips that parallel the river. Kinnikinnick was abundant in patches. All other bear food plants around this campsite are in relatively low abundance. There was a moderate amount of bear sign at this campsite. Visibility is relatively good at this campsite because it is relatively open on three sides. Visibility is poorest to the south because of willows. Bears are not funnelled through this campsite and have alternatives to avoid the campsite if they detect it.

Potential for Encounters Rated: Low - Moderate

- Camp in the open flats away from the shrub edges to give bears the greatest opportunity to detect and avoid people.
- Hiking away from this campsite is not recommended because visibility is poor and the chances of surprising a feeding or travelling bear is high.

Potential for Displacement Rated: Low – Moderate

- Alternatives for bears to bypass this campsite are present.
- There are areas with abundant bear foods upstream of Marble Creek and on the opposite side of the river.



3. Campsite 9 (River Right) 2.5km Above Lowell Lake UTM 8V 335616 / 6690567 (NAD 27)

General Campsite Description

This campsite is located on river right approximately 2.5 km above Lowell Lake. People camping at the site will likely hike to the moraine (>20 minutes) for a view of the glacier. There is a good place to pull boats in.

Broad Habitat Description

The campsite is in open Willow-Dryas shrub habitat. There is a small patch of alder in the middle of the campsite that could be used as a windbreak for a kitchen. Upstream there is balsam poplar with scattered spruce and thick shrubs including soapberry (*Shepherdia canadensis*) and willow (*Salix spp.*). Downstream there is a thick alder (*Alnus crispa*) and willow strip along the river. Inland there is a patch of less dense spruce (*Picea glauca*) with balsam poplar (*Populus balsamifera*) and soapberry. Behind this patch is *Dryas spp.* habitat.

Campsite 9 continued...



Potential for Encounters Rated: Low – Moderate

Encounter Concern:

Spring: L-M	Summer: L-M	Late Summer: L-M
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- Visibility is restricted by vegetation the farther one moves from the site. Visibility concerns are high in some places but moderate overall.
- Trails are broken. Terrain and vegetation do not funnel travel. However, travel concerns increase upstream of the campsite because the moraine is closer to the river edge.

Potential for Displacement Rated: Moderate

Displacement Concern:

Spring: M	Summer: M	Late Summer: M
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- Alternatives for bears to bypass this camp exist

Recommendation

Generally a lower risk campsite but risk increases upstream and downstream of the campsite. Hiking in this area will increase the risk for surprise encounters because there are areas with low visibility and habitat potential increases with distance from the campsite. People walking downstream will be walking into prevailing winds. This site should be considered as a temporary site when weather conditions prevent a safe advancement to the Lowell lake sites



4. Lowell Lake

Camping at the base of Goatherd Mountain is prohibited. Camping is permitted on the western outer edges of glacial till along the eastern shore of Lowell Lake. Camp as far away from the base of the mountain as possible, minimize the length of your stay and keep your activities at the base of the mountain to a minimum.

a) Campsite 10 UTM 8V 336009 / 6687403 (NAD 27)

b) Campsite 11 UTM 8V 335366 / 6685963 (NAD 27)

