

A wide-angle landscape photograph of a mountain valley. In the foreground, a dense forest of evergreen trees covers the lower slopes. A small stream flows through the forest towards a turquoise lake in the middle ground. The lake is surrounded by more forest and a small clearing. In the background, rugged mountains rise under a blue sky with scattered white clouds. The overall scene is a beautiful representation of a wilderness area.

# **Jumpin' Jasper: Backpacking the North Boundary Trail**

Jasper National Park, Alberta and Mt. Robson Provincial Park, British  
Columbia

Sean Buck and Elizabeth Schoder

August 9-24, 2012



## Ritt Kellogg Memorial Fund Expedition Application - Group Application

*Note, items to be attached to this application are indicated in bold text.*

### **I. Expedition Summary**

Expedition name:

Jumpin' Jasper: Backpacking the North Boundary Trail

Briefly describe the objective of your expedition below:

Our main goal is to safely explore the North Boundary Trail in Jasper National Park, Alberta, Canada.

However, we also aim to practice and act as examples of Leave No Trace Principles, experience a remote and nearly untouched wilderness setting, connect with the wilderness, learn and observe the constellations of the sky (Greek and Native American) while sleeping in the largest "Dark Sky Preserve," and hopefully see some of the most extensive wildlife populations in Canada.

Location of expedition:

Jasper National Park, Alberta, Canada (beginning in Mt. Robson Provincial Park)

Firm expedition dates:

August 9-24, 2012

# days in the backcountry:

13

Describe the wilderness character of your expedition:

The North Boundary Trail in Jasper National Park traverses some of the most diverse terrain of any trail in the Rocky Mountains, mainly because it uncharacteristically runs East-West. Completed in 1910 as a trail from the Smoky River to the Jasper House, it is also extremely remote, with most points on the trail being at least 3 days hike from the nearest road. It offers many opportunities for side trips within the area across varied terrain, as well. Parks Canada ensures (and warns) that the trail has hardly changed since the early 20th century and hikers are not likely to see other groups, even at peak times. However, the entire expedition is along a well-marked trail that has footbridges over the more dangerous river crossings. Special terrain considerations include muddy, boggy conditions on the western half of the trail and alpine terrain on Robson Pass and Caribous Notch.



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**II. Participant Qualifications**

List expedition members, expected date of CC graduation and Wilderness First Responder or Wilderness Emergency Medical Technician certification expiration in the table below.

Expedition Member	Date of Graduation	WFR expiration date*
Sean Buck	May 2013	NOLS; Jan 9-19, 2012
Elizabeth Schoder	May 2013	June 2014

\* If WFR training is needed, list the intended training provider and course date. Funding is not released until all expedition members show proof of WFR or WEMT.

Are all proposed expedition members experienced and/or trained to meet your expedition objectives? Yes  No

**NOTE:** If any expedition member is deemed unqualified, funding may be denied.

Describe your team's plan to solidify technical skills prior to the start of the expedition. (The RKMF provides education grants for technical training to support CC students in planning and executing responsible wilderness expeditions. Visit [www.rittkelloggfund.org](http://www.rittkelloggfund.org) for information.)

Both applicants have strong technical skills in hiking, LNT, camping, backpacking, and route-finding. However, the proper maintenance and upkeep of these skills is imperative. We have no plans to attend any formal training (e.g. Swift Water/ Avalanche) throughout the spring, but both of us will remain physically fit (Sean runs Varsity Track and Lizzie runs 3-4 times/week). Furthermore, we will attend a REI Route-finding seminar offered to members in March/ April of 2011 (staff have confirmed that it will be offered again this spring), and Sean will complete Advanced Outdoor Education Training with the Colorado College Outdoor Recreation Club. This training will complement prior experience in the wilderness and provide a review of LNT principles and other hard skills.

Note: Sean also is EMT-B certified and anticipates WEMT certification as part of the WFR course at Colorado College

**Attach the Ritt Kellogg Memorial Fund Expedition Application – Individual Questionnaire for each expedition member (includes outdoor-skills résumé, references, copies of WFR certification, copies of relevant training certification, and medical release with original signatures).**

**Attach the Participant Acknowledgement and Assumption of Risks & Release and Indemnity Agreement, read and signed by each applicant and their parent (even if applicant >18 years). This agreement must have the original signatures.**

**Attach the Expedition Agreement, read and signed by all expedition members.**



## Ritt Kellogg Memorial Fund Expedition Application - Group Application

### III. Expedition Logistics, Gear, and Food

Describe how expedition members will travel from home to the trailhead and back again.

Sean will travel from Denver International Airport while Lizzie will travel from Chicago O'Hare International Airport and meet at Prince George International Airport in British Columbia, Canada.

From this airport, a Greyhound bus will be used to get to Mt. Robson (town), where we will speak with rangers about current conditions and any recent area concerns. From Mt. Robson it is a 2km walk to the trailhead. Because of the necessity of flying, public transportation is the only option; bus proved to be the least expensive option. To return, the trip will be repeated in reverse--Sean returning to Denver, and Lizzie to Chicago.

**Attach a detailed, day-by-day itinerary, including maps, elevations, route topos, tide charts, etc., as appropriate. Don't just photocopy a guidebook, provide a discussion to demonstrate your understanding of the itinerary.**

Do you have plans to re-ration during the expedition? Yes  No   
If "yes", describe the re-rationing plan below.

Describe how you will prevent wildlife from getting into your food.

Since a range of animals are found in the park including bears, wolves, caribou, and small mammals, we will use a bear resistant container (BearVault, not provided by park) for our food storage at night (required) and put it at least 20 meters from our sleeping area. Toiletries (if they do not fit in the container) are acceptable to be hung at least 100m from our sleeping area. Also we will cook and dispose of waste 100 meters from our sleeping area to avoid any contact with wildlife.

**Attach a detailed food list and show how it meets the caloric needs of the expedition.**

**Attach a thorough equipment list, including the detailed description of the contents of the First Aid kit.**



## Ritt Kellogg Memorial Fund Expedition Application - Group Application

Are all expedition members familiar with Leave No Trace principles? Yes  No   
Describe now you will adapt LNT principles to meet the environment of your expedition.

Both members have been trained and actively practice LNT principles. Because this is a premier hiking destination, we very much want this wilderness to remain as if it were untouched. Our environment should pose no unique difficulties to following the LNT principles. If necessary, waste will be removed using human waste removal bags; however, our route does not take us in a place where we cannot get 200 ft (60m) from a water source. With two of us, it will be easy to remain accountable to these principles and to each other. We plan to avoid wildlife and use established campsites whenever possible. When we do not use an established campsite, we will return it to its natural appearance as we depart. We will take lots of pictures, and work to barely even leave footprints. It is our privilege to hike and camp in this wilderness, and we hope that others will be able to experience it in years to come.

Are there cultural considerations for the expedition area? Yes  No   
If "yes", describe how you will address those concerns.

There are some cultural considerations regarding artifacts from early explorers, settlers, and trappers. Jasper National Park was a main route for trappers and traders since the early nineteenth century. If any of these are found, we will leave them where they are and report any finds to park rangers. Several National Historic Sites exist nearby, and all will be treated with respect.



#### IV. Risk Management Plan

List the anticipated hazards of your expedition and explain how they will be evaluated, avoided and managed. Discuss the technical skills your expedition members have to handle anticipated hazards. **NOTE:** Failure to identify major hazards and how they will be managed may result in denial of funding. (Attach more pages if necessary.)

##### Possible risks:

**Bears:** Black and Grizzly bears are found in the park. We will bury food and human waste downwind and per LNT guidelines and watch for fresh bear signs (scat and/or footprints). We will also ensure that the bears know we are there by making some noise (e.g. conversation). We will use a bear resistant container for our food storage at night (required) and put it at least 20 meters from our sleeping area. Toiletries (if they do not fit in the container) are acceptable to be hung at least 100m from our sleeping area. If we unintentionally encounter a bear, we will back away slowly. In the case of a bear attack, bear spray will be used. Since bears are more likely to attack lone hikers, we will never split up for any reason.

**Moose, caribou, elk and other animals:** Per LNT principles we will leave all animals alone, especially moose and caribou (30m/ 90ft plus), and move quietly and quickly away. Cougars, wolves, and other carnivores will be given 100m/ 300ft and food will be stored to minimize attraction. These animals rarely attack humans, especially in the late summer when prey and food is plentiful.

**Bugs:** Mosquitos and flies may be an issue of discomfort and health, and spray (containing DEET or other botanicals) will be used to keep them away from us and our food.

**Trail condition:** The trail passes over some bridges. Because this is a remote area, we will examine each bridge to ensure that it is in good condition and proceed cautiously to avoid falling. If it is not, we will examine the possibility of a river crossing, or turn around if it is too dangerous. Most of the rivers will be low, as spring runoff will be finished, so this is probably not going to be a problem. Much of the western half of the trail has been described as boggy and muddy. This may be a hazard in that it may impede our travel time. We will talk with a ranger to see about trail conditions and change our route accordingly. If time is the only issue, we will get up earlier to ensure that we make it to our next campsite, or use a layover day to gain extra time.

**Weather:** Though our hike does not exceed more than 8,500 feet in elevation, extreme cold weather is possible as is wet weather. We will have the proper gear with us to keep us warm and will be cautious when in exposed areas. Lightning is a problem in August, so we will always be mindful of a possible safe, enclosed space when we are hiking across open terrain. Rivers and bridges will be avoided in storms. Alternately, hot weather may be an issue. We will drink 4-5L of water per day and apply sunscreen (70 SPF) frequently (we are both redheads, the sun is our sworn enemy). At the first sign of any heat-related illness, we will stop and adjust our day accordingly.

We will leave our itinerary with Mt Robson ranger station and fax itinerary to Jasper National Park office; this itinerary will be strictly followed. We will talk with the rangers prior to heading into the backcountry to gain an assessment of any recent updates on terrain, especially those that may delay us. We will also be carrying a compass, first-aid kit, signal mirror, and whistles. We also plan to carry a satellite phone in case of an emergency, since many of the areas on the hike will be a 3+ hike out of the backcountry. Both of us will carry copies of the trip itinerary and evacuation plans. Obviously, we will not split up. Accurately anticipating risks is very important on a two-person trip.



## Ritt Kellogg Memorial Fund Expedition Application - Group Application

Describe your self - evacuation plan in the event of an emergency. Discuss any technical skills your expedition members have to handle various self-evacuation scenarios. NOTE: Failure to thoroughly discuss evacuation plans may result in funding denial.

We will follow the WFR protocol in case of an medical emergency.

If the injured person is able to walk, we will examine and record symptoms and treat as well as possible with our first aid kit. We will then call the closest ranger station on the satellite phone to arrange a pickup or request aid from a ranger hiking in with more advanced medical supplies. Most times, we are less than a three day hike from a road or station, so we will attempt to meet help there in order to expedite access to treatment. We will follow directions from the ranger station to meet them at an area or move to an area where we can be picked up. The non-injured person will continue to monitor the injured's condition and any environmental hazards.

If the injured person cannot walk, symptoms will be examined and treated as possible. It will be assessed whether the person can be carried to the nearest area. Because there are only two of us, we may have to call the ranger to fly in, hike to us, and assist in carrying the injured to a safe evacuation place. Depending on the terrain, the non-injured may be able to carry the injured, but this would prove to be very slow and potentially dangerous to the non-injured person. Throughout the situation we will remain in contact with the ranger station and monitor personal and environmental conditions. These procedures are what the ranger station suggested and are in line with Parks Canada policy.

Our trip begins in Mt. Robson Provincial Park (British Columbia) but mostly travels through Jasper National Park (Alberta). After Day 3, it seems we are closer to Jasper services, but return closer to Mt. Robson services on Day 10.

Describe any measures taken for expedition members with medical histories that warrant special preparedness.

Though Lizzie has been on backpacking trips and canoe trips that required extensive portages over the past two years, it is important to always consider her back. Lizzie will carry less weight throughout the trip in order to try to prevent any over exertion over this long period of time. Ice packs will be carried in the first aid kit, as will Bengay Back Patches designed to warm and relax the back. Our layover days built into the trip are also designed to give both of us a rest, so that we may continue safely and comfortably. Once again, though, given her participation in the activities for the past two years without any problem, we do not expect an issue.

List emergency resources available in the vicinity of your expedition (phone #s for ranger station, hospital, etc).

Ranger Stations:

Jasper National Park Ranger Station: 780-852-6176

BC Mt. Robson Visitor Center: 519-826-6850

Nearest Hospitals:

Seton General Hospital (780-852-3344) in Jasper, Alberta

Valemount Health Centre (250-566-9866) in Valemount, British Columbia

McBride and District Hospital (250-569-2251) in McBride, British Columbia

List emergency communication devices you will be carrying. If none, explain why.

We will be carrying cell phones and a satellite phone (Iridium 9500). Maps and compasses will be used in case the GPS device (Garmin eTrex handheld) fails, to notify rangers of our position in an emergency.



Ritt Kellogg Memorial Fund Expedition Application - Group Application

**V. Budget**

**Attach a detailed expedition budget and write totals in USD below. Do not round numbers up. Emergency money, supplies for first aid kits, first aid kit rental, and gear purchases are not funded. Car travel costs will be funded based on the vehicle mpg and may not include wear and tear/maintenance costs.**

Transportation: \$2,036.37

Food and Fuel: \$206.55

Maps/Books: none

Communication Rental: \$132.00

Permits/Fees: \$217.40

Gear Rentals: none

**Total Funding Requested (not to exceed \$1500 per applicant):** \$2,610.32

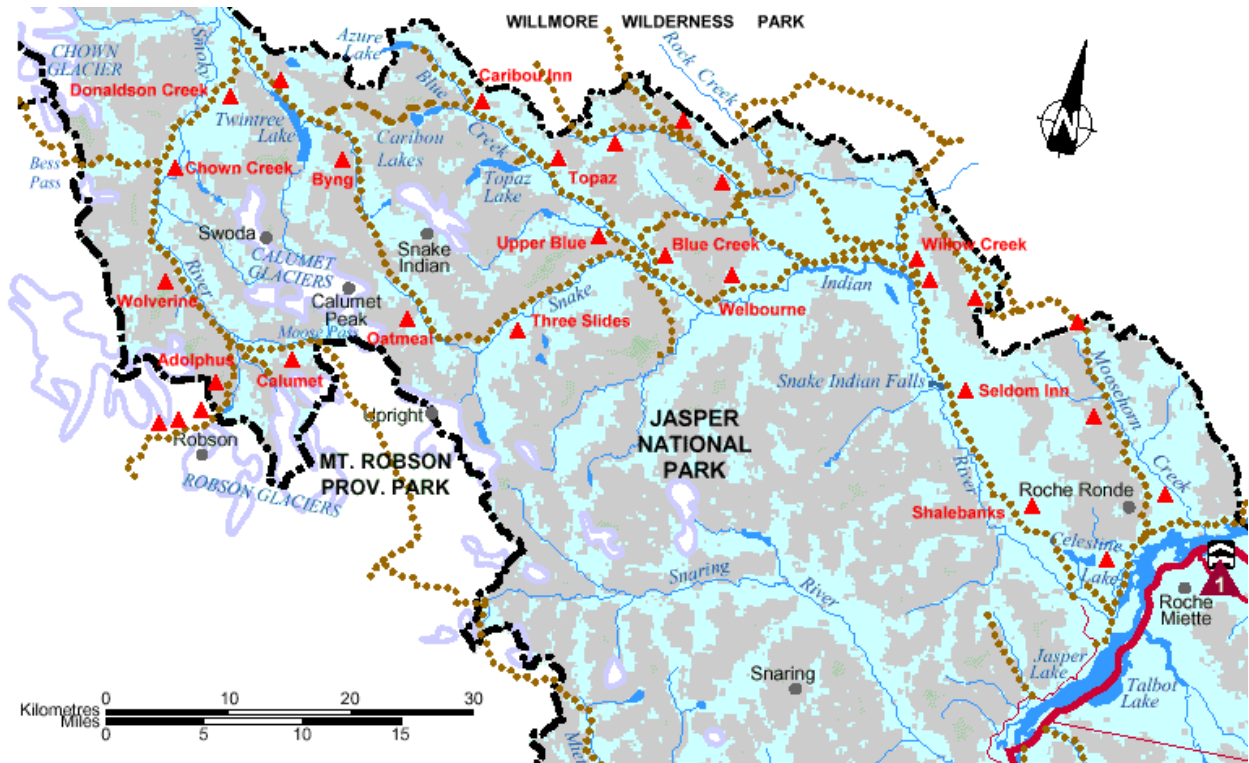
Describe what measures you have taken to minimize expenses.

We have examined the easiest routes to get in and out of the area (e.g. bus from Denver, train travel, driving personal vehicles). In the end these proved just as expensive and also took a considerable amount of time out of the trip. Our food costs will be kept low by buying bulk (Sean is a Costco member), and we will be sure to not exceed airline weight limits. By purchasing season passes to Jasper National park, we save nearly \$120. We plan to book our flights as soon as we hear from the Ritt Kellogg Memorial Fund, and we plan to fly out on non-weekend dates to cut costs. We have compared satellite phone rental outfitters to find the least expensive rate.

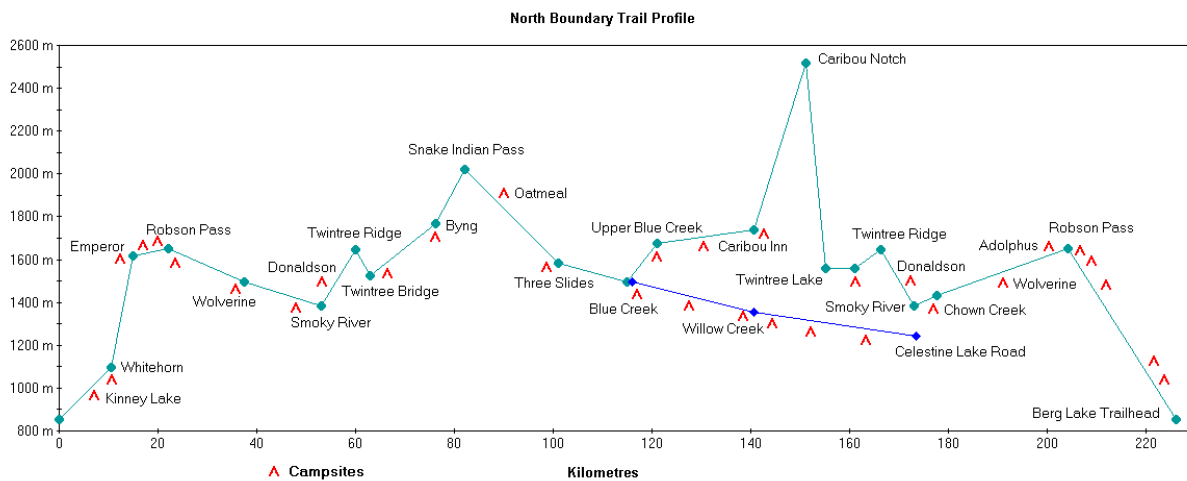


## Detailed Route Plan

*Route Overview:* The route is a loop beginning at the Berg Lake trailhead outside of Mt. Robson in Mt. Robson Provincial Park, British Columbia. It continues as a figure-eight loop/ out and back mostly on the Northern Boundary Trail through Jasper National Park, Alberta.



From ParksCanada brochure.



Elevation profile and route idea/ plan with some amendments provided courtesy of “Waputik” from [www.waputik.tripod.com](http://www.waputik.tripod.com).

## Day 1: Off to Whitehorn!

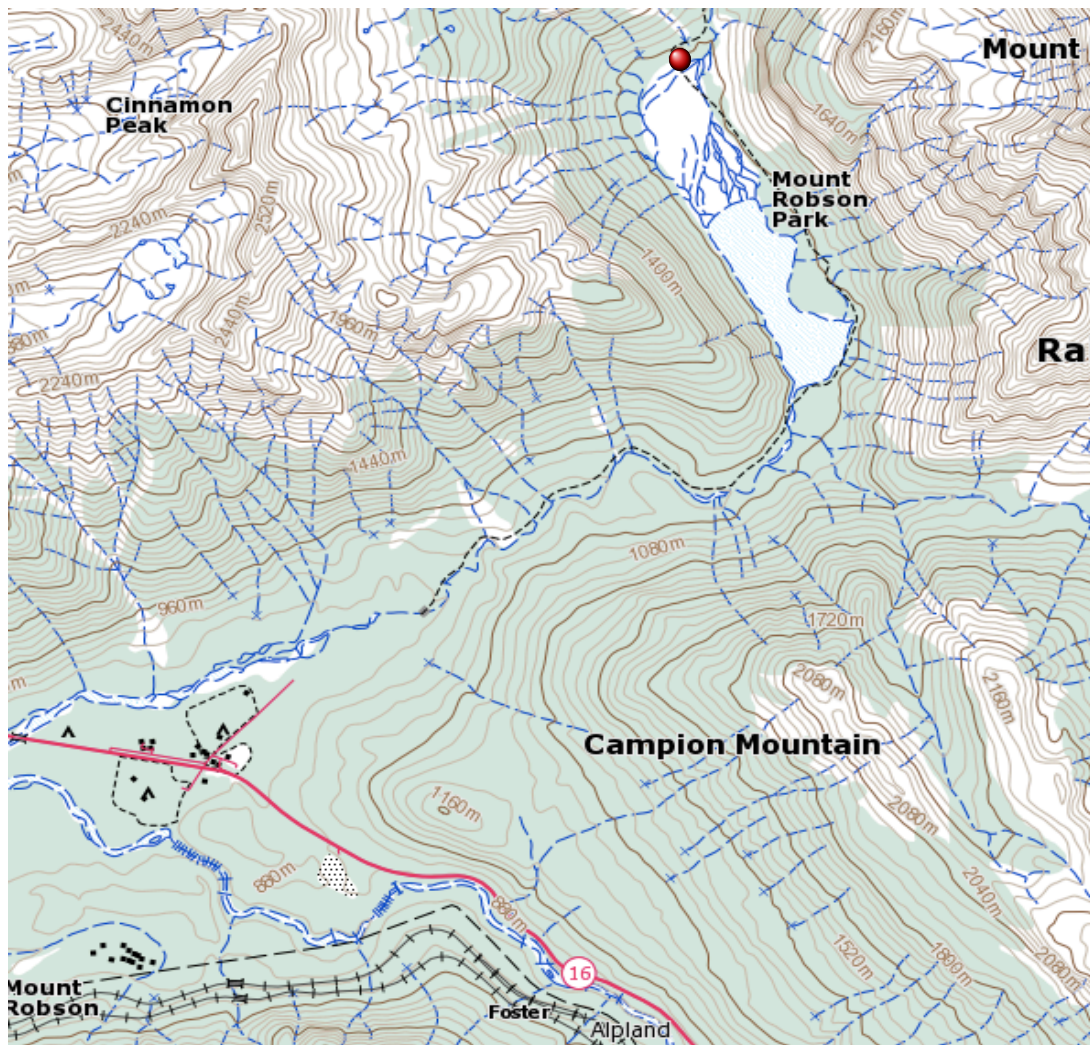
Distance: 6.5mi

Elevation: 794 ft gain

Estimated time: 5hrs+

Total mileage at this point: 6.5mi

The Mt. Robson is reached via the Greyhound bus. After checking with ranger in Mt. Robson, we will proceed to the trailhead (Berg lake trailhead) to camp at Whitehorn camp. If this campsite is unavailable we will use one on the north end of Kinney Lake (6.7km). (Note: trail is marked by dots line on map. Red dots denote projected campsite.)



## Day 2: Robson Pass

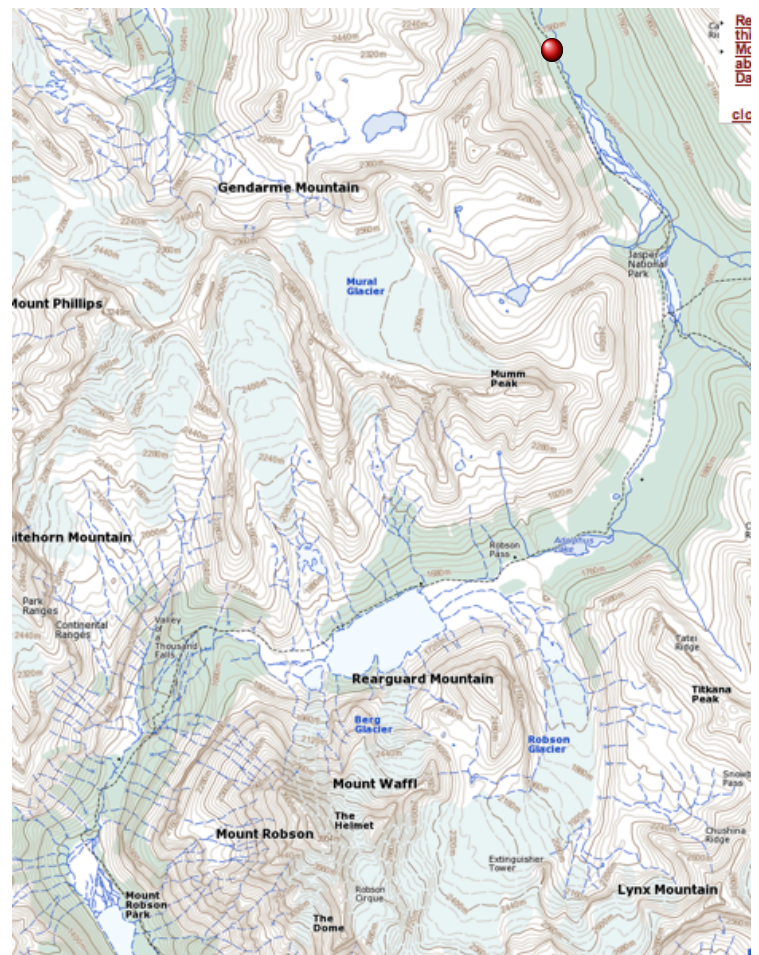
Distance: 16.7mi

Elevation: 1,820ft gain, 518ft loss

Estimated time: 10hrs+

Total mileage at this point: 23.2mi

Certainly the hardest day with full packs, a large elevation gain, and high mileage, we will ascend Robson Pass to camp on the other side at Wolverine Camp. This climb may be the most beautiful of the trip, as we go over the Continental Divide. We then descend to the Wolverine camp on the edge of the forest (clearly marked).



### Day 3: Layover Day

Distance: Possible day hikes, 4-6mi

Elevation gain: none

Estimated time: 2hrs+

Total mileage at this point: 23.2mi

The valley is exceptionally beautiful, so we plan to explore it a bit and take in the views of Calumet Ridge.



### Day 4: Wolverine to Donaldson

Distance: 11.4mi

Elevation: 358ft gain

Estimated time: 7hrs

Total mileage at this point: 34.6mi

Leaving west from Wolverine camp we will proceed along the trail towards Chown Creek. After crossing a signed junction with the Short Creek Trail, we will continue to Donaldson Creek and a forest campsite.

### **Day 5: Donaldson to Byng**

Distance: 12.7mi

Elevation: 900ft gain, 400ft loss, 800ft gain

Estimated time: 8hrs

Total mileage at this point: 47.3mi

On Day 5 we will climb over the ridge of Twintree Mountain into Twintree Valley and then ascend to subalpine meadows just below Snake Indian Pass. This day includes some very rough and wet conditions. We will continue to Twintree Lake, all while enjoying the continuity of names in the area. After the footbridge is the campsite.



## Day 6: Byng to Three Slides

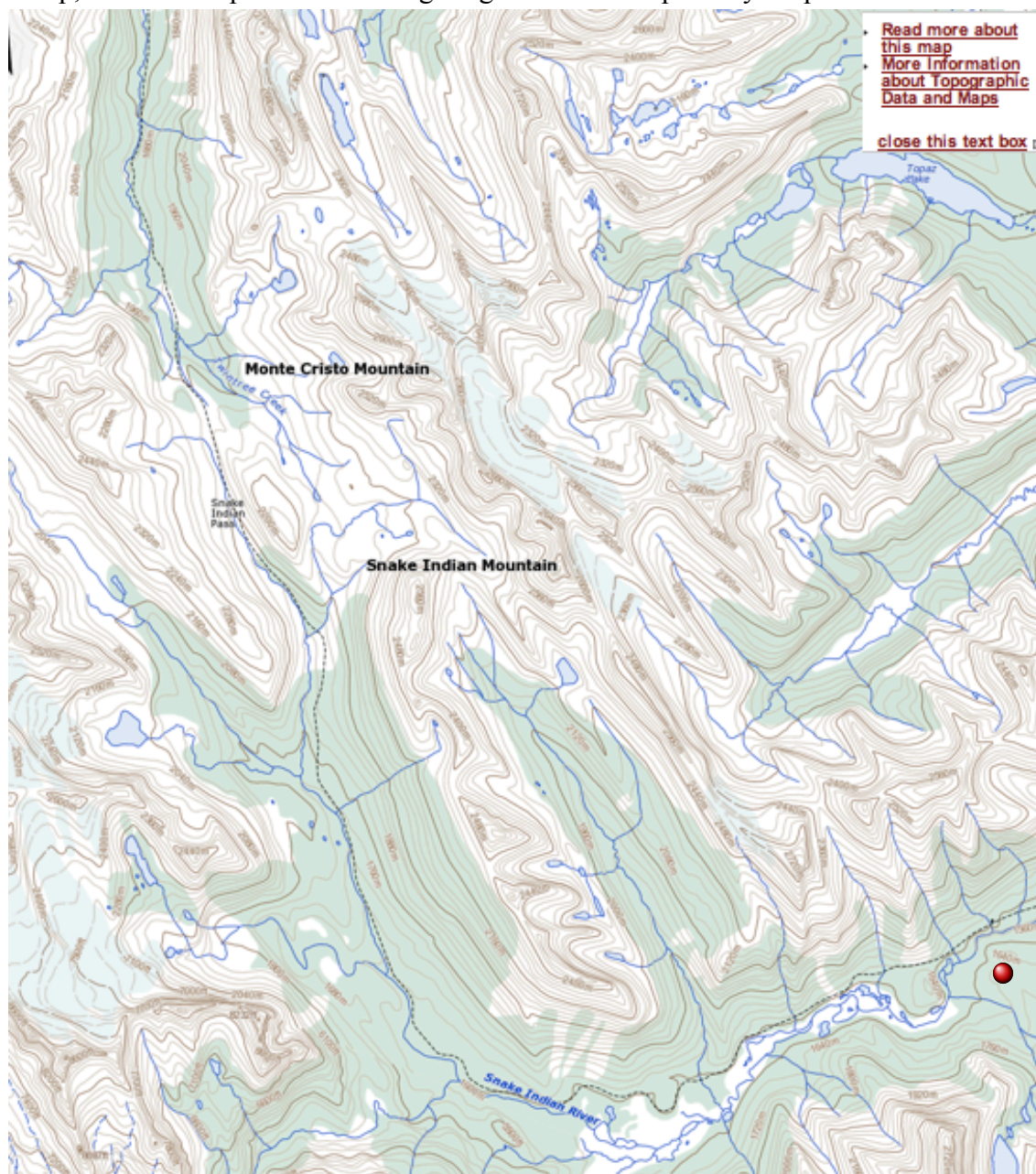
Distance: 15.4mi

Elevation: 827ft gain, 1,427ft loss

Estimated time: 8.5hrs

Total mileage at this point: 62.7mi

Day 6 will find us in amazing scenery along Snake Indian Pass. After the 2.5mi ascent up the pass we hope to see elk or caribou as we pass along the Snake Indian River, which we will cross twice. After passing Oatmeal camp (and hoping for Bacon Camp) we will find Three Slides Camp, a common spot for moose sightings. We will keep our eyes open!



### **Day 7: Three Slides to Blue Creek**

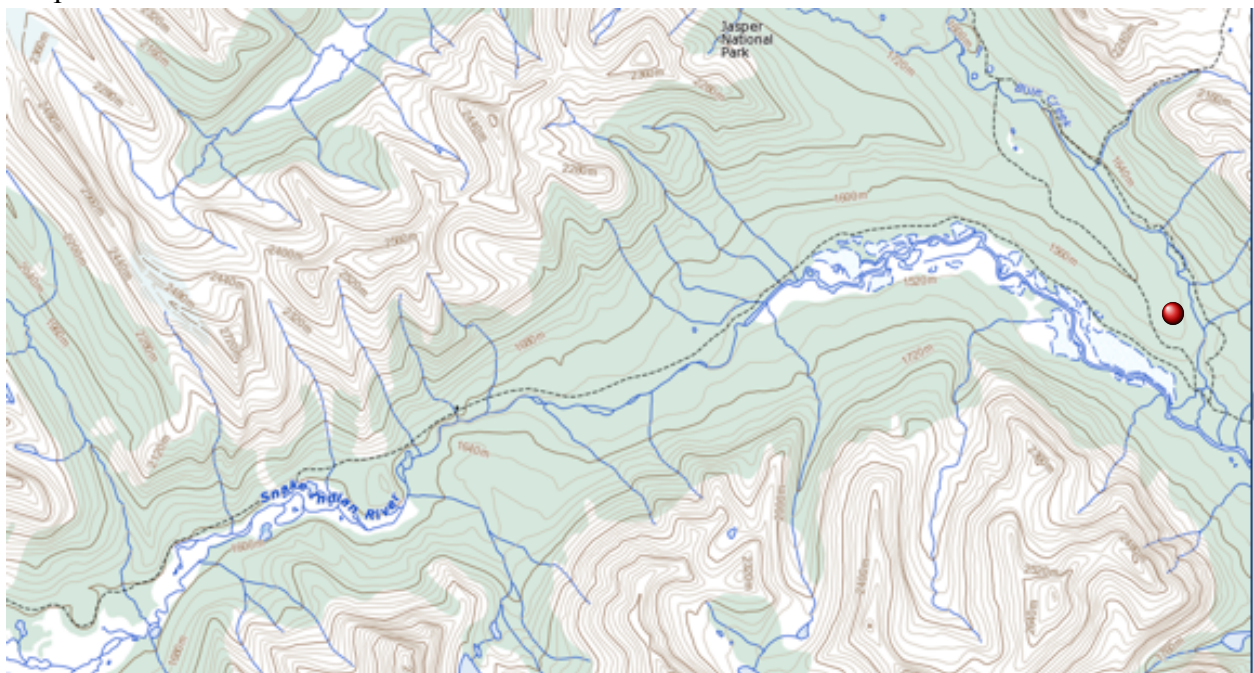
Distance: 12.5mi

Elevation: 600ft gain

Estimated time: 8hrs

Total mileage at this point: 75.2mi

Some great overflow lakes will greet us as we continue along the NBT, with the Blue Creek Trail entering about 7mi into the hike. We will camp at the mouth of Blue Creek; though we may continue up the valley to a better campsite because of the exposed flood risk of the Blue Creek campsite.



## Day 8: Upper Blue Creek to Caribou Inn

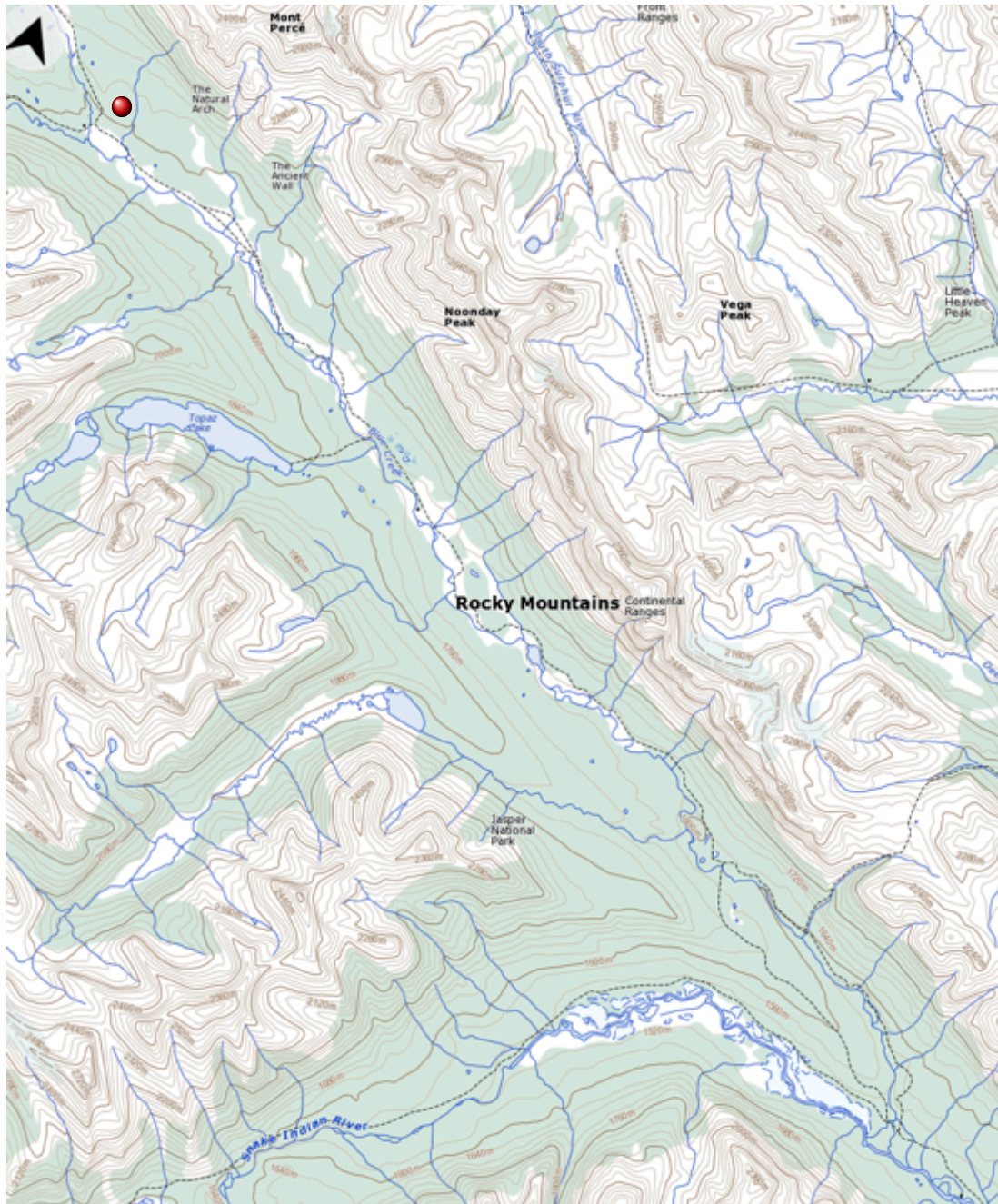
Distance: 12mi

Elevation: 200ft gain

Estimated time: 7hrs

Total mileage at this point: 87.2mi

Though we may be praying for an inn at this point, we will continue another 12mi up Blue Creek to cross a suspension bridge. After this, we will continue along the same side of Blue Creek until we see the Caribou Inn Warden cabin. We will camp near the Warden cabin.





**Day 9: Layover Day/ Head start to Twintree Camp**

Distance: Possible day hikes, 4-6mi

Elevation: none, maybe 1,000ft gain

Estimated time: 2-4hrs

Total mileage at this point: 87.2mi+

Day 10 will include a large hike on some trail-less ground, so we may get a head start. Alternatively, we may explore the Hardscrabble Pass and Azure Lake at the head of Blue Creek. We're guessing the water will be exceptionally blue. In the case of a head start, we would camp in a meadow about 3mi from Caribou Inn.

**Day 10: Caribou Inn to Twintree Camp**

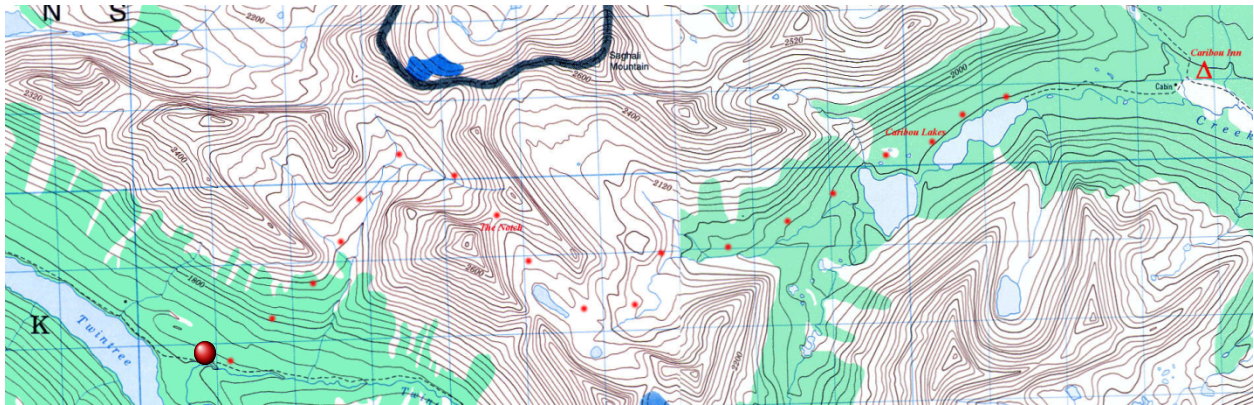
Distance: 12.7mi

Elevation: 2,550ft gain; 3,140ft loss

Estimated time: 12hrs

Total mileage at this point: 99.9

We suppose that we will be treasuring our trekking poles on Day 10 as our route takes us off the trail and over Caribou Notch. The map below connects the relevant sections of Twintree Lake 83 E/6 and Blue Creek 83 E/7. We will walk the footbridge over Blue Creek and find a trail blazed 30m SW of the Warden cabin. The trail will become faint around the lower lake, but we will continue until we reach the inlet creek at the western edge of the upper lake. A well-defined game trail will lead us upwards, but we will avoid the boulder field. We will aim for the peak at grid reference 673172. The game trail ends about 6mi into the hike in an alpine meadow. (Possible campsites are here, too). Across the meadows we will see the two headwalls we will need to hike up. The rock is stable and the climbing reasonable, but we will continue up these, keeping grid reference 647194 in our sights (a prominent notch). Over the notch, we will descend into a basin (also possible campsites) along the safest route: down the gully towards the low point of the basin. Another descent (~1,200ft) continues down the left side of the creek bed, possibly on scree until we cross the creek when it makes a sharp turn to the left. We will continue down the meadow to treeline where we will cross a tributary stream that sits in a thin gully. The remaining descent is down the forested slope above Twintree Lake, where we will keep upground to avoid the steep ground near the stream. We will arrive again on the North Boundary Trail and en route to Mt. Robson/ Berg Lake. Certainly a tough, but well-planned day.



### Day 11: Twintree Camp to Chown Creek Camp

Distance: 10.2mi

Elevation: 400ft gain, 900ft loss

Estimated time: 7hrs

Total mileage at this point: 110.1

Here we begin to retrace our tracks along the NBT en route back to Mt. Robson. We will follow the NBT from Twintree to find a campsite along Chown Creek.



## Day 12: Chown Creek to Robson Pass Camp

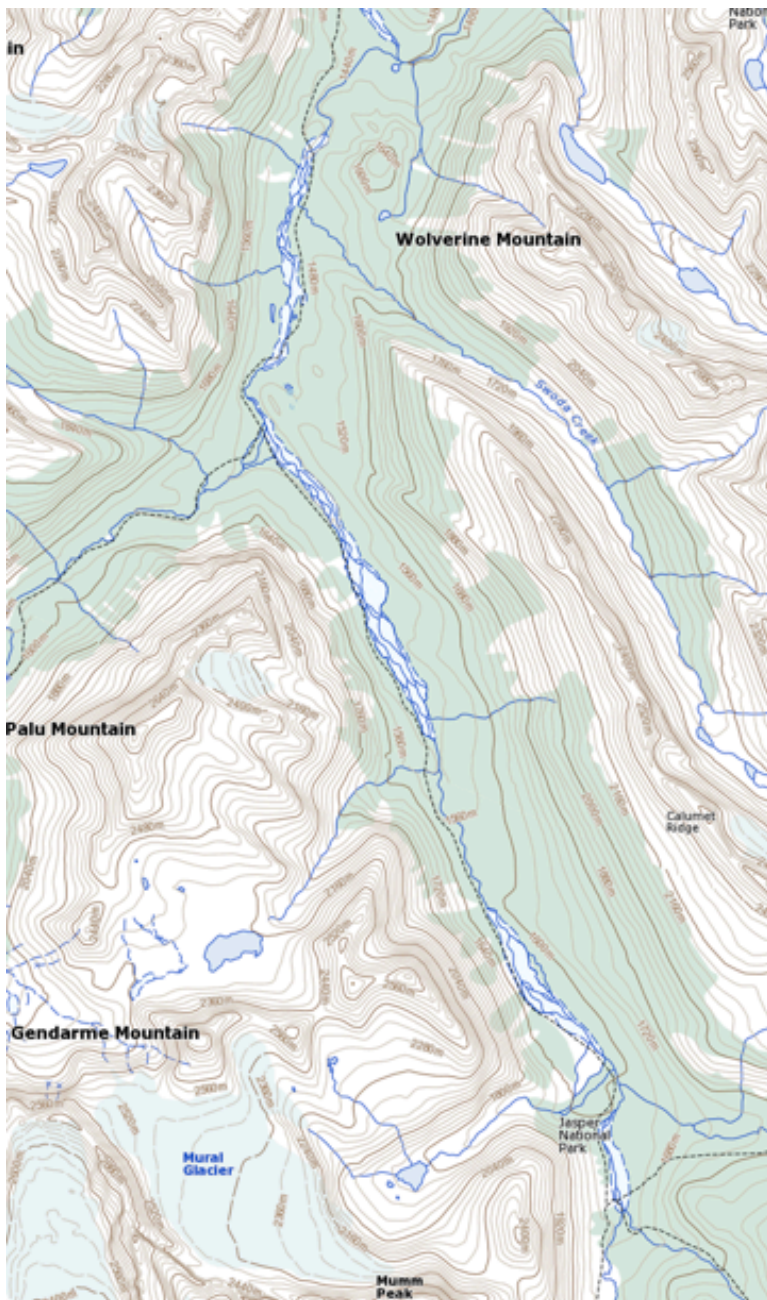
Distance: 16.7mi

Elevation: 719ft gain

Estimated time: 9.5hrs

Total mileage at this point: 126.8mi

We plan to easily ascend Robson Pass, where we will camp at a designated campsite. If this campsite is full or too busy, we have the option to continue to Adolphus Lake (2.6mi north).



### Day 13: Robson Pass Camp to Berg Lake Trailhead

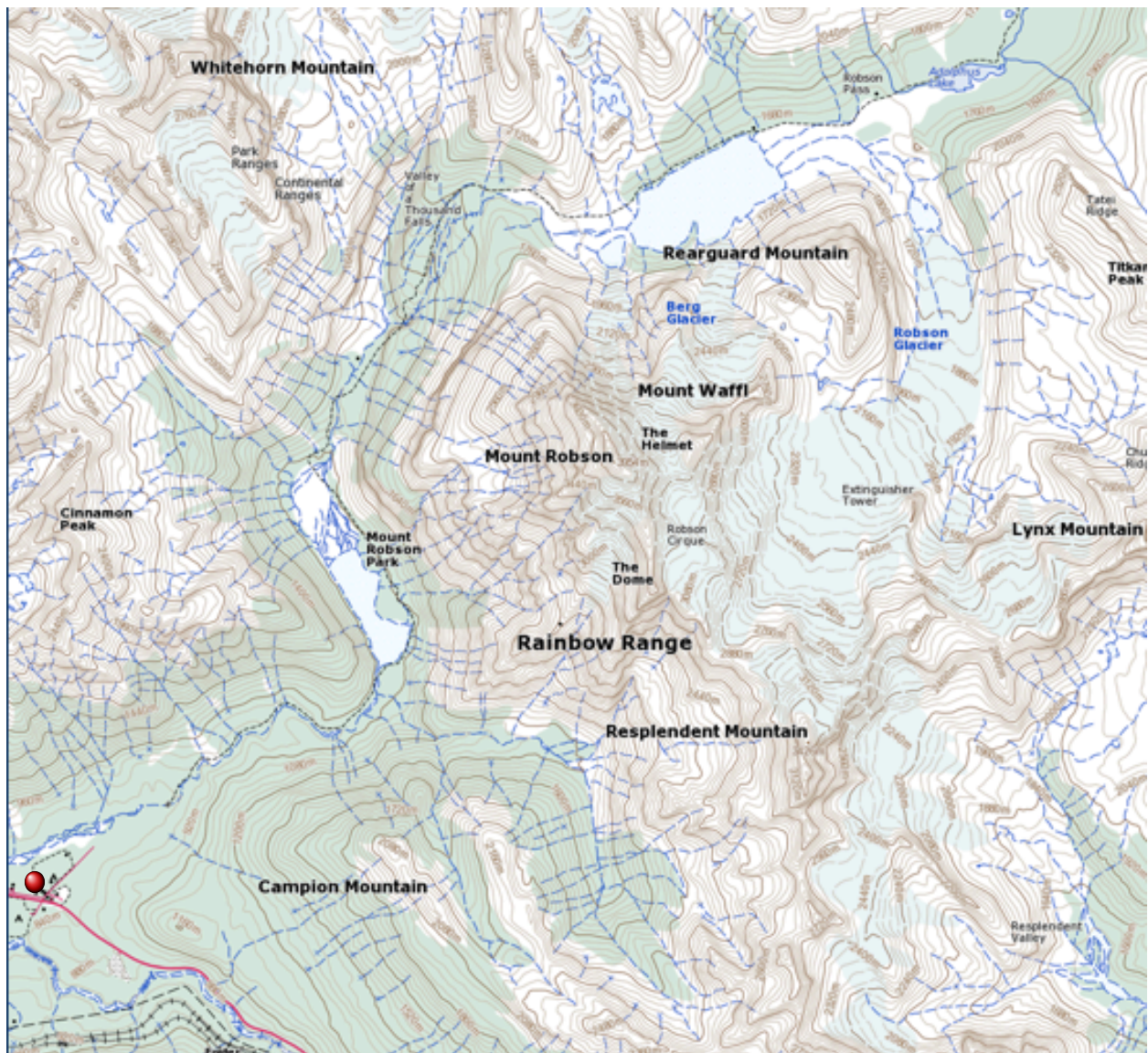
Distance: 13.4mi

Elevation: 2,614ft loss

Estimated time: 5hrs

Total mileage at this point: 140.2mi

An easy descent back to Mt. Robson (town) with enough food and light packs will be the perfect ending to the trip. We will check in with a ranger and catch a Greyhound out of town that day or early the next depending on the schedules. What a trip!



## Detailed Food Plan

Breakfast: 0.4 pounds/person/day  
Lunch (Trail foods): 0.4 pounds/person/day  
Cheese/ Oil: 0.3 pounds/person/day  
Dinner: 0.5 pounds/person/day  
Drinks: 0.1 pounds/ person/ day  
**Total: 44.2 lbs or 1.7 pounds/person/day**

This amount allows for the possibility of us being delayed, and certainly errs on the side of extra food, but we are large believers in better safe than sorry.

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### **Breakfast**

2lbs of bagels @ \$5.70/lb  
2lbs of granola @ \$5.99/lb  
3lbs of oatmeal @ \$2.50/lb  
3lbs of pancake mix @ \$3.00/lb  
*Breakfast Total: \$38.88 (10lbs)*

### **Lunch/ Trail Foods (incl. fats)**

6lbs of cheese @ \$7.45/lb  
2lbs of butter @ \$2.15/lb  
3lbs of tortillas @ \$3.70/lb  
1lb of peanut butter @ \$2.25/lb  
1lb of jam/ jelly @ \$2.50/lb  
3lbs of salami/ smoked sausage @ \$6.00/lb  
1lb of dried fruit @ \$8.40/lb  
1lb of chocolate candy (Snickers) @  
\$5.50/lb  
0.2lbs of gummy bears @ \$5.00/lb  
*Lunch/Trail Foods total: \$97.75 (18.2 lbs)*

### **Dinner Foods**

5lbs of pasta @ \$2.25/lb  
2lbs of soup mix @ \$8.00/lb  
2lb of couscous @ \$4.70/lb  
1lb of rice @ \$1.50/lb  
0.5lb of dried tomatoes @ \$3.00/lb  
1lb canned tomatoes @ \$1.25/lb  
1lb of fresh vegetables (carrots, onions) @  
\$5.00/lb  
0.5lb of brownie/cake mix @ \$4.00/lb  
Sauces (7 packets @ \$0.99/packet)  
Spices (already have in backcountry cook  
kit)  
*Dinner Foods Total: \$54.90 (13lbs)*

### **Drinks**

0.5 lbs (1box) of tea @ \$4.05/box  
1lb of Gatorade @ \$6.99/lb  
0.6lbs of hot cocoa mix @ \$7.00/lb  
*Drinks total: \$15.24 (2.6lbs)*

**TOTAL: Food: \$206.77 (44.2lbs; 1.7/person/day) Fuel: \$17.78 (1/6 L/person/ day @\$3.95/L)**

Food projections from NOLS Cookery (5<sup>th</sup> Edition) edited by Claudia Pearson and based on prices found on Kingsoopers.com. 1.5 lbs/ person/ day equals 2,500-3,000 calories. We expect to need more than this; therefore, we went with 1.7 lbs/person/ day of high quality, calorie-dense food. This should provide us enough food while managing weight concerns.

## Detailed Equipment List and First Aid Kit Contents

### *Equipment*

#### Each individual will have:

##### Clothing

- 1 pair base layers/ long underwear
- 2 pairs underwear
- 1 fleece/ thin insulating layer
- 1 insulating jacket (fleece or down)
- 1 pair rain shells top/ bottom
- 2 synthetic t-shirts
- 2 pair synthetic shorts
- 1 sunhat
- 1 mosquito headnet
- 1 pair fleece or wool gloves
- 1 pair heavy, over the ankle hiking boots
- 4-6 pairs wool hiking socks
- 1 pair gaiters (shin-high)
- 1 pair camp shoes (closed-toed)

##### Gear

- 1 internal frame pack (60-70L)
- Small daypack
- Waterproof bag liners
  - Stuff sack for individual and group gear
- Sleeping bag (rated to 15°F at least)
- Waterproof sleeping bag stuff sack
- Sleeping pad
- 1 bandana

### *First Aid Kit*

#### Miscellaneous

- 3 pairs nitrile gloves
- 1 12cc irrigation syringe
- 1 pair tweezers
- 1 pair trauma shears
- 1 biohazard bag
- 1 pencil and paper
- 3 face shield

- 1 waterproof watch and alarm
- 1 cell phone
- 1 compass with mirror
- 1 pair sunglasses
- Mess kit (mug, bowl, plate, spork)
- Pocket knife/ multi tool
- 2+ 1L water bottles
- Sunscreen
- Bug spray
- SPF Lip Balm

#### Group Gear

- 1 REI HalfDome Tent
- 1 MSR Whisperlite Stove
- 5 IL Fuel bottles
- 1 cookset (frypan, pots, utensils)
- 1 set of maps
- 1 tent/sleeping pad or bag repair kit
- Reference books (first aid, animal keys)
- First Aid kit
- Bear canister
- 1 can Bear mace
- Water purification systems (Steripen with filter backup)
- Trowel
- GPS Device
- Satellite phone

Medical information written down (insurance, allergies)

- 1 digital thermometer
- 10 safety pins
- 4 ziploc baggies
- 1 WFR reference book
- 50 water treatment tablets (Chlorine)
- 25 Bengay Medicated Back Patches

#### Medications

25 pills ibuprofen  
25 pills diphenhydramine  
30 pills anti-diarrheal  
25 pills acetamenophin  
1 tube iodine  
5oz isopropyl alcohol  
25 antispetic towlettes  
1 tube triple antibiotic ointment

Wound Care

4 WetPrep Soap Sponges  
3 sterile gauze rolls (3")  
5 3x3 sterile gauze pads  
3 2x3 non-adherent dressing  
2 3x4 non-adherent dressing  
10 closure strips  
2 transparent dressings  
5 second skin/ moleskin pads  
1 elastic bandage  
20 adhesive bandages  
2 1"athletic tape roll  
1 2" athletic tape roll  
1 pressure wrap  
10 butterfly bandages  
10 sterile cotton tipped applicators

### Detailed Expedition Budget

Travel	Lizzie Flight ORD to YXS	\$967.25
	Sean Flight DEN to YXS	\$895.92
	2 bus tickets	\$46.60 ea
	Flight increases by February	+\$40each
Transportation Total		\$2,036.37
Food	Expedition food	\$206.77
	Fuel	\$17.78
Food Total		\$224.55
Communication	Satellite Phone Rental	\$91.00
	GPS Rental	\$41.00
Communication Total		\$132.00
Permits and Fees	Mt. Robson: 4 nights, \$10/person	\$80.00
	Season Jasper National Park Permit, \$68.70/person	\$137.40
Permits and Fees Total		\$217.40
Maps and Guidebooks	Printed from CC GIS Lab	free
	Guidebook: Canadian Rockies Trail Guide	Free on Googlebooks
Maps and Guidebooks Total		\$0.00
<b>Total</b>		<b>\$2,610.32</b>