

## Ritt Kellogg Memorial Fund Registration

Registration No. 6821-3VY68 Submitted Feb 2, 2022 11:04am by Savian Czerny RITT KELLOGG FUND Approved Feb 9, 2022 3:55pm by Kate Macklin

### Registration

Jul 1, 2021-Jan Ritt Kellogg Memorial Fund

Registered

26, 2022

### **RKMF Expedition Grant** Group Application 2021-22

This is the group application for a Ritt Kellogg Memorial Fund Expedition Grant. In this application you will be asked to provide important details concerning your expedition. In addition to this Group Application, each team member must submit an Individual Application. All Group Applications and Individual Applications must be received by Wednesday, January 26th at noon. For more information, example applications, proposal writing tips, and further guidance, please visit https://www.coloradocollege.edu/other/rittkelloggfund/grants/expedition-grants/overview.html Note: For the 2020-2021 application year, the following additional parameters have been established due to the COVID-19 pandemic: - 2021 RKMF grants are limited to travel in the contiguous United States only (no Alaska, no Hawaii, no Canada). 2021 RKMF grants are limited to travel by personal vehicles only (no airplanes, buses or other forms of public transportation) -An additional COVID-19 preparedness section has been added to the Group Application -Expedition teams which receive funding must submit an updated COVID-19 preparedness form 3 weeks prior to their expedition If you have any questions please email Kate Macklin, Outdoor Education and Ritt Kellogg Memorial Fund Coordinator, at kmacklin@coloradocollege.edu

### **Participant**





### **Expedition Summary**

### **Expedition Name**

Boys in the Bugs \*CC Edition\*: An Alpine Rock Climbing Adventure

### Alternate Expedition Name

Rock Climbing in the Bugaboos: A Canadian Rockies Adventure

### **Objectives**

\*Before listing the objectives for this trip, there must be an acknowledgement that much of this proposal has been inspired by the 2016 Ritt Grant Proposal, which represented a very strong foundation to build our own application. Although much of the structure of this application mirrors the 2016 proposal, the goals of the trip, food, budget and writing are uniquely our own expedition's.

Listed below are the objectives of our trip, but whether or not we succeed at summiting these towers, we plan on having an incredible experience in one of the most beautiful alpine playgrounds this world has to offer. We plan on having first and foremost a safe, fun trip into the alpine where we can enjoy, appreciate, and be humbled by the sheer presence and beauty of the nature that surrounds us.

Bugaboo Spire: North-East Ridge: Grade IV 5.8 Crescent Spire: McTech Arete: Grade III 5.10-

South Howser Tower: Beckey-Chouinard: Grade IV 5.10 Snowpatch Spire: Sunshine Crack: Grade IV 5.11-

### Location

Bugaboo Provincial Park, Purcell Mountains, British Columbia, Canada. See the Trip Itinerary, and Digital Map for topographic maps and photos of the area. See the Wilderness Experience section for more description.

### **Departure Date**

Jul 25, 2022

### **Return Date**

Aug 11, 2022

### Days in the Field

14

### Wilderness Experience

Although from our dorm rooms, we are fortunate enough to see Tava Mountain most mornings, this scenery does not quench our thirst for adventure, but rather ignites a fire for exploration. What we seek, however, is not conquering nor ownership of any landscape, but rather we seek beauty. Beauty in the mountains is not hard to find, but it is perpetually given by the mountains of the Bugaboos — or so we have heard. From what we have learned, and seen through google is a landscape as old but unique as time itself. Massive granite spires ascending from glaciers is the main attraction, yet the rest of the ensemble is equally hard to overlook. The alpine lakes, the lush forest down below, and the culminating view are parts of what makes these mountains so special. Despite the solidity and timelessness of these mountains, it is crucial to acknowledge that they are dynamic and alive. This dynamism is not solely because of the many people and animals that inhabit this wilderness. but also because of the ever changing nature of the mountains. The glaciers are often shifting (and too-often melting), the rocks are often loose, and the weather is often described as temperamental. This temperament does not detract from its beauty, but our ability to balance its beauty with our safety will be a priority for us on this trip. The granite that forms these monoliths happens to also form cracks and crimps on a micro-scale that will be almost familiar to what we have in Colorado. This will be comforting given the sheer magnitude of what is otherwise unwelcoming and severe. The Bugaboos are undoubtedly contradictory. They are solid yet temperamental. The rocks are severe, yet familiar. The mountains are universal yet unique. These contradictions provide the perfect balance between adventurous and welcoming. In spite of (and because of) these inevitable incongruencies, the only certainty is that we will get to see the beauty of the Bugaboos.

### Participant Qualifications

### **Expedition Team Member Graduation Dates**

Savian Czerny: Wiley Holbrooke:

### **Medical Certification Dates**

Savian Czerny: WFR expiration 01/19/2024

Wiley Holbrooke: WFR expiration 07/10/2022, WFR Recert expiration 05/27/2024

### Does your group have adequate experience?

Yes

### **Training Plan**

For this trip, both members of the team have more than adequate technical experience needed to make this expedition safe, successful, and efficient. With this said, our team is aware of our different strengths in the different environments we will encounter in the Bugaboos. Our plan is to lean into our different strengths, learning and improving off of each other's separate experiences.

Despite massive obstacles associated with any expedition of this kind, Wiley has the skills and background necessary to continuously identify risks and adjust accordingly. He has experience with glacier travel, snow travel, and has spent countless hours on rock learning and making decisions. His experience, however, is not limited to the personal realm of big walls (Grade III and up). Much of Wiley's experience comes from a professional setting, where decision making is necessary for the outcome of an entire group of people. In October of 2020, he completed his Rock Guide Course, for which the scope of practice involves guiding up to Grade III climbs. Since then, he has spent two years guiding rock, ice, and via ferrata. In August of 2020, he joined San Miguel County Search and Rescue, which requires professional understanding of all mountainous environments. He has been a member of multiple rescues in the San Juan mountains—each a high-stress test of physical and emotional strength. Although Wiley is fortunate enough to have professional experience in the mountains, it

stems from a pure love of the rocks that surround us. His personal resume includes multiple Grade IV+ climbs and hard climbing in every discipline from bouldering to single-pitch trad climbing to alpine. This includes climbs in the Black Canyon of the Gunnison, Indian Creek, Chamonix, and Yosemite. As far as non-rock disciplines (snow and ice), his professional experience involves an AIARE Avy 1 course taught in a SAR context as well as snow safety and ice-specific SAR trainings. Personally, he has done alpine routes in Chamonix and backcountry skied many times. As intimidating as the mountains can be, Wiley can find comfort within its beauty.

As for Savian, he aims to be a well rounded climber and plans to utilize these different skills in the Bugaboos. Although lacking the same professional resume as Wiley, Savian has a technical rock climbing resume that highlights his level of skill and technique. Savian has climbed routes including grade III-V faces on The Diamond (Longs Peak), El Capitan, Elephant's Perch (Idaho), El Torro (El Potrero Chico), Big Rock Candy Mountain (South Platte)(climbed with Wiley), as well as many smaller endeavors on Pikes Peak, the rest of South Platte, and Eldorado Canyon. Outside of rock climbing, Savian has spent five winters backcountry skiing at his uncle's ski lodge in the heart of the San Juan mountain range. Although Savian has no formal avalanche training he has learned crucial snow travel skills and snow science from certified mentors such as his uncle and friends.

Before the trip begins, Wiley will have re-certified his WFR through 05/27/2024 and hopefully will have his WEMT Certification and both members will have taken a Crevasse Rescue and Glacier Travel course through the Pikes Peak Alpine School (dates TBD) to supplement our previous skills and knowledge and increase our safety when approaching and descending from our objectives. Due to the unlikelihood of avalanches in late July and Early August in the Bugaboos, our group's knowledge of avalanche safety seems adequate without additional certifications.

Beyond technical certifications and training, we understand the need to physically train in order to prepare ourselves for the objectives we wish to be successful on. Over the course of the next few months, Savian and Wiley will be utilizing their weekends, block breaks, and summer to hone in their granite crack climbing skills, as this is the style that will be found in the Bugaboos. We have ambitions to do El Cap in a day, this will undoubtedly be training for long days on granite. We will also train in the black canyon with goals such as Astrodog 5.11+ 14 pitches and Tague Your Time 5.12, 15 pitches. If we can complete these objectives, the physical demand of the Bugaboos can be met. Also, we are always looking to improve our technique and strength as climbers, and months before the trip we will be continuously working on our finger strength and footwork by training in our local climbing gyms, as well as the other necessary climbing skills.

### **Expedition Logistics, Gear and Food**

### **Travel Plan**

Travel Plan:

On July 24th, Wiley will depart from his home in and meet Savian at his home in solution. From there, on the 25th they will leave early in the morning in Savian's 2009 Subaru Forester XT with all of their needed gear and drive to Montana where they will stay the night at a friend's house in order to avoid driving at night. We will continue the drive to the Bugaboos the next day (July 26th) where we will park at the Conrad Kain Hut Trailhead. On the way back we will depart on the 9th of August, stay the night at the friends house in Montana, and complete the drive to where Savian lives. Wiley will then drive home to the next day.

Wiley: ~ 302 miles x 2 = 604 miles 604 miles/ 20 mpg = 30.2 gallons ~3.50/gal x 30.2 gal = \$105.70

Savian and Wiley: to Trailhead ~ 1,311 miles x 2 = 2,622 miles 2,622 miles/19 mpg = 138 gallons ~3.50/gal x 138 gal = \$483

Total Travel: \$588.70

### **Expedition Itinerary**

Expedition Itinerary (1).pdf (4.7MB)
Uploaded 2/2/2022 10:58am by Savian Czerny

### **Digital Map**

https://caltopo.com/m/E6GF8

**Re-Ration Plans** 

We will not re-ration during the expedition and we will carry all of our supplies on the first day into the Applebee campground. We will allot enough time on the first field day to potentially have to do two trips from the trailhead to bring all of our supplies up.

### **Food Storage**

In order to protect our food from wildlife we will use the established bear boxes at the Applebee Campground to store food. During the trip we will make sure that no food is left in our climbing bags, out in the open unattended, or in our tents. We will bring food on our climbs and will ensure that all trash and food waste is packed out. All trash will be stored in the bear boxes and will be packed out at the end of the expedition.

### Food List

### Food List\_.pdf (56KB)

Uploaded 2/2/2022 10:59am by Savian Czerny

### **Equipment List**

### Equipment List (1).pdf (49KB)

Uploaded 2/2/2022 10:59am by Savian Czerny

### First Aid Kit List

### Equipment List (1).pdf (49KB)

Uploaded 2/2/2022 11:00am by Savian Czerny

### **Impact**

Both members of this trip are experienced with LNT principles through summer camp jobs and proper backpacking practices. We are dedicated to utilizing these principles throughout our trip.

Plan Ahead and Prepare: Planning ahead is important in order to avoid unneeded impact, and also putting yourself in dangerous scenarios where you might need to use impactful practices such as fires or emergency shelters. This application takes up the majority of our planning for the trip and will adequately prepare us for our expedition. However, we will also focus on packing everything including our food as minimally as possible as to avoid excessive trash while camping.

Travel and Camp on Durable Surfaces: We will be spending the majority of the expedition crossing and camping on snow and glaciers, which will allow us to minimize our impact. If and when we come across watermelon snow, we will carefully avoid disturbing it. When not on snow or glaciers we will look for and travel on established trails.

Dispose of Waste Properly: We will take extra care to pack out all of the trash we create, especially micro-trash. We will use WAG bags to dispose of human waste during the course of our trip due to the fact that we will be spending the entire time in the alpine. Dishwater will be buried in a sump hole 200+ feet from the nearest water source. All food and waste scraps will be packed out at the end of the trip.

Minimize Campfire Use and Impact: We will not be having campfires on this trip and through our in depth planning we will be avoiding the need for an emergency fire.

Leave What You Find: We will only be taking photos and experiences from the Bugaboos so as to not disturb the landscape for future parties. If trash or other modern human trash is found in the backcountry, we will also pack this out.

Respect Wildlife: If we see any wildlife we will respectfully admire it from a distance. We will not harass or chase any of the high alpine species such as marmots that west encounter. The area we are camping in has permanent bear boxes, therefore reducing personal risk and risk that animals will interact with humans in this more densely populated area.

Be Considerate of Other Visitors: The base camp for this expedition is in an official campground and is well traveled by many international groups of people. That said, we plan on being very considerate of the other groups of climbers at the campground. We plan on being very congenial and open to meeting new friends, while also understanding that many people come to this area to experience the incredible beauty and serenity of the Canadian Rockies, and prefer to appreciate it alone in peace. We will also be considerate of people's comfortability with the current state of COVID-19 and will maintain a six foot distance from other groups for their sake and ours.

Additionally to lower impact on a global scale we are driving instead of flying, in order to keep our carbon footprint as low as possible. Driving from to Brisco, British Columbia, we will be emitting 1.9 metric tons of CO2 and in order to offset this we will be paying \$9.50.

### **Risk Management**

### **Objective Hazards**

Rockfall and Icefall: As previously mentioned, mountains are dynamic and unpredictable. No matter how cautious our movements are, rockfall and icefall is always a possibility. The first line of defense to protect ourselves from such a hazard is our ability to navigate through the mountains on generally durable terrain. In other words, the shapes and sounds of rock and ice can give clues on the soundness of it. The best way to travel on durable rock is to stick with well-traveled routes. Our next tool to mitigate this risk is our judgment in regards to bad rock. If a rock is loose, generally a tap with the knuckles can help us determine its strength (hollow sound is not trustworthy). A visual inspection can also determine if a hold is unstable. Next — if the rock's fragility is not diagnosable — our protocol is to shout "ROCK" to warn all parties of the falling heavy object. Our purpose in this exclamation is not to allow time to watch and dodge the falling rock (watching the rock defeats the point of a helmet), our goal is to get others to get close to the wall and maximize the effectiveness of their helmet. In the guiding business, we explain this action as "turtling up." Lastly, if our terrain is somehow unstable, if the rock is unpredictably bad, and if the person above cannot warn the person below in time, our helmets can be our final resort. The modern climbing helmet can deflect a rock that would otherwise cause a brain injury. Helmets are absolutely mandatory for any time there are rocks above us. This order of operations can significantly reduce the likelihood and consequence of rockfall causing harm. Rockfall and icefall can only be fully avoided by staying away from the mountains. Therefore the nature of the Bugaboos includes the potentiality of rockfall regardless of judgment. However, with good judgment and working helmets the chances of unexpected, precise, large rockfall to hit one of us is not impossible but certainly extremely unlikely. Icefall is far less likely given our wish to stick with rocky terrain, but the order of operations remains the same to rockfall. Good judgment and appropriate tools must be exercised regardless of our terrain.

### Injury:

Due to the nature of the Bugaboos, potential for getting injured inherently exists. The causes of these injuries would most likely be either climber fall or rockfall. The only acceptable way to deal with injury is to prevent it from happening. With regards to rockfall, see "Rockfall and Icefall" above. With regards to climber fall, many risk mitigation strategies exist. First, we are both confident in our ability to not take unexpected falls in alpine terrain. If we are uncomfortable with the terrain we are in, we both have the judgment and ability to either aid climb through that section, or turn around. We are both completely comfortable with the prospect of not getting to the top. No summit is worth the risk of an injury. After our hands and feet, our second line of defense is our protection and rope. Both Savian and Wiley are perfectly comfortable placing traditional (trad) gear to protect falls. We trust each other as belayers and as climbers. We both have the knowledge and skills to avoid falling in a place that would cause an injury. The potential of falling unprotected or in a spot without an adequate catch is slim. Lastly, if an unpredictable series of events causes one of us to get injured, the other is perfectly capable of getting them off the wall and performing wilderness first aid if that is required. Rappelling off the wall with an injured partner is a skill we both have practice with. In this scenario, we will rappel the route with the injured partner and safely retreat back to the campground and reassess.

### Getting lost:

In the backcountry, there is always the possibility of getting lost, therefore stranding yourself from resources you need to survive. Getting lost can often be a more serious issue in flat, tree-covered landscapes where it is difficult to get bearings since everything looks the same. In the Bugaboos, this will be less of an issue because of the mountainous and alpine-style environment. Both Savian and Wiley have the knowledge to navigate unfamiliar mountains without getting lost. In order to mitigate the risks of getting lost, we will always have downloaded maps on our phones as well as paper maps and headlamps in case it gets dark. If we do truly become lost and we cannot find our way back to camp, our final resort is a satellite phone, which can locate us and tell local SAR teams of our position.

### Glacier Travel:

The climbing in the Bugaboo Provincial Park is perfect introductory alpine-style climbing because although the routes are almost completely granite, the approaches require moving across glaciers. Glaciers can be very dangerous with hidden crevasses that you can fall into without the proper precautions so both members of this expedition will have taken a crevasse rescue and glacier safety course and additionally practiced building snow and ice anchors, self arresting, building 3-1 and 5-1 direct haul systems along with 2-1 and 4-1 drop loop hauls as a team on their own time. In the Bugaboos, we will make sure to always carry the necessary gear such as ropes, axes, ice screws, and anchor material in case of a needed crevasse rescue. This said, most of the snow should have melted off of the glacier by late July, therefore exposing the crevasses and making them easily avoidable. Upon arrival, we will discuss our objectives with fellow climbers and obtain more current and accurate information on what crevasses and glacial challenges may directly impact our approaches to the routes. We will take note of the current and changing glacial information and adjust our itineraries accordingly. In the case of a fall into a crevasse, we will follow our training, set up a haul system, and pull our partner out of the crevasse (we will be attached by a rope). From there, we will assess their state and either retreat back to camp, or if need be call in rescue in the need for a rapid evacuation.

### Steep Snow, Ice and Avalanche Potential:

Avalanches are unlikely in late July and early August in this area, which is one of the many reasons this time of year is so incredible for exploring the Bugaboos! That said, this never rules out avalanche completely and for this reason we will approach our missions with the knowledge needed to assess snow conditions. Avalanches can be caused by a multitude of

factors, and large avalanches can create very serious danger. Wiley and Savian both have many years of backcountry skiing in the San Juan mountain range under their belt (Wiley is also certified AIARE level 1) and these skills will come into play in the event that we encounter steep snow slopes. Our biggest worry this time of year is the possibility of wet slides, in which case we will avoid by approaching climbs early in the morning when the snow is still frozen and solid. That said, we will be avoiding steep snow whenever possible, and the majority of our itinerary already avoids these areas. Similarly with steep ice, we will avoid it whenever possible and utilize proper crampon and ice ax techniques to safely surpass if needed. The Avalanche risk is low enough that it is unnecessary to bring normal backcountry skiing equipment (beacon, probe, shovel) and therefore in a worst case scenario where someone is buried by an avalanche, the safe partner would immediately call in help via the Somewhere hotspot and do their best to track down their partner. Realistically, this will not happen unless there is an unprecedented amount of snow in late July. We will continue to monitor the weather in the area, and if there seems to be an incredible amount of snow, we will reassess and potentially bring avalanche safety gear (beacon, probe, and shovel).

### Wildlife:

The Bugaboos are home to a variety of animals including grizzly and black bears. Although black bears are not known to be aggressive, interactions with grizzlies can prove to be deadly. Growing up in Colorado, both of us have plenty of experience with black bears and how to avoid injury from them but this experience does not translate in totality to grizzly bears. In order to mitigate interaction with these bears, we will follow all proper bear protocols including no food in or near the tent, leaving food in the designated bear boxes, and we will also be cautious on our climbing goals, staying on well traveled and visibly clear paths to and from the climbs. In the event of an interaction, we will be carrying bear spray, which is our last result in protecting ourselves against the bear. In the event of a bear attack where we survive, if injury is severe and we are unable to travel back to the campsite, we will call in a rescue team via the Somewhere hotspot.

### **Evacuation Plan**

Although hopefully no injuries will occur on this trip, we acknowledge that even with the best of risk-mitigation techniques and well experienced team members, serious accidents can still happen. In any scenario we find ourselves in, our evacuation plan will be rooted in the severity of the situation and our assessment based upon our Wilderness First Responder Training and Wiley's Search and Rescue training. Evacuation will be assessed on whether we must self-evac, assisted-evac, or assisted rapid evac. In the case of a self-evacuation, the non-injured partner will help assist the injured partner in whatever way is deemed safe and within the practice of a trained WFR. For example, if one of us breaks an arm halfway up a route, both Wiley and Savian know how to fashion temporary splints, pulley systems, prusiks, third hands, etc. to help them retreat to the base of the climb. Upon arrival back at the Applebee campground in any self-evacuation, we will then hike down the Kain Hut trail to the trailhead where we will drive to the nearest hospital in Invermere, BC. In case of any sort of assisted evacuation(rapid evac or not), we will have a Somewear hotspot that can immediately notify emergency resources of our distress via multi word text messages. In an assisted evacuation, our partner will do everything within their practice as a WFR to aid in their partner's survival. In the case of evacuation due to weather or natural disaster, dangers are low. If we find ourselves caught in a snowstorm we will work our hardest to evacuate efficiently and safely back to the ground (if on route) and hike back to our camp. Ideally all scenarios described above will be avoided through calculated and educated risk mitigation.

### **Special Preparedness**

Neither Savian or Wiley have any serious medical condition or history that would warrant special preparedness for this expedition. This said, we are going into the mountains far from where we both consider home, so we will emphasize mental health and being there for each other in this strange time of the COVID-19 pandemic.

### **Emergency Resources**

Closest Town: Brisco, BC (28.5 miles away via dirt road)

Closest Facility to Applebee Campground: The Kain Hut (0.5 mi away)

Closest Hospital: Invermere & District Hospital, 850 - 10th Avenue Invermere BC V0A 1K0, Normal: (250) 342-6303 Emergency: 911

ER open 24/7

Helicopter Rescue: Golden and District Search and Rescue (75 miles away) Box 1332, Golden, BC V0A 1H0 911 for emergency calls or (250) 344-5902 for non-emergency

### **Emergency Communication**

We will have a Somewear Hotspot which can send communication to anyone from anywhere in the world. In the case of an emergency, the Somewear Hotspot has an SOS button that immediately dispatches local SAR teams to our location. It also

allows for two-way communication with SAR if we have our phones on us. If the Somewear Hotspot is for some reason incapacitated, we can create SOS signals with our headlamps which we will always have on us.

### **COVID-19 Preparedness**

### What is the current COVID-19 situation in the area where you are intending to travel?

Currently Canada has a strict vaccination policy to enter Canada, but luckily both Wiley and Savian have two doses of a COVID-19 vaccine as well as booster shots and, therefore, are allowed to enter Canada. For the Bugaboo Provincial Park and the rest of British Columbia, COVID-19 case rates are higher than ever due to the Omicron variant, however, these rates are still drastically lower than the United States—and more specifically Colorado. Additionally, the death rates are still very low in Canada and dying from the Omicron variant with full vaccination and booster is highly unlikely.

# How do you intend to mitigate the risks of exposing yourself and your teammates to COVID-19 while traveling to your trailhead?

Because we are driving to the trailhead where our expedition begins, the worry for exposure is very low. The only places we will be interacting with other people will be at gas stations and the US-Canadian border. In these places, we plan to wear K-N95 masks to protect ourselves as well as others. Both Wiley and Savian are fully vaccinated and also have the booster shot which will help mitigate the risk of exposure. We will also carry hand sanitizer to use after touching germ-dense surfaces such as gas pumps (as an extra precaution despite COVID-19 being most largely transmitted by air).

### How do you intend to mitigate the risks of exposing the residents of the area(s) where you will be traveling to COVID-19?

In order to protect the locals of the area we are visiting, we plan on wearing K-N95 masks for all interactions outside of our expedition team whether they are outside or inside. \*This way we protect ourselves and others from spreading any variant of COVID-19.

### How do you intend to mitigate the risks of COVID-19 while in the field?

In the field, our team plans to stay as a "Family Unit" by limiting contact with other parties. When we are interacting with other climbers, we plan on keeping six feet of distance between us and them to protect each other as recommended by CDC guidelines. We plan on always having masks on us in the scenario we encounter other people.

### If someone on your expedition develops COVID-19 symptoms, how will you handle it?

In the situation that someone on our team develops COVID-19 symptoms, we will have them, as well as the other team member, test using an "At-Home" COVID-19 test that we will have available with us. If either member tests positive for COVID-19, we will bail on our expedition and depending on severity either go straight to a hospital in Canada, or have on hand proper N95 masks, and drive home to Colorado Springs or Telluride where we can comfortably quarantine until we are no longer symptomatic and contagious. Both members will wear N95 masks in order to protect the unexposed member (if there is one) on the drive home.

### **Budget**

### **Budget**

### Total Budget.pdf (50KB)

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**Transportation** 

588.70

Food and Fuel

451.48

Maps and Books

19.42

Permits/Fees

280

**Gear Rentals** 

0

**Carbon Emissions Offsetting** 

9.50

### **Total Funding Request**

1527.96

### **Funding Per Person**

\$763.98

### **Cost Minimization Measures**

For this expedition, costs are being managed most importantly by driving and only using one vehicle. Although it may be faster to fly, the costs of flying and renting a vehicle to get from the airport to the Bugaboo Provincial Park far out-pass the cost of driving (even with rising gas prices). Logistically it could be easier for us to meet there with our separate cars depending on our own separate plans, but using one vehicle will drastically decrease the cost of the trip. Also, with our food budgeting we avoided bringing any sort of insanely expensive foods such as pre-packaged backpacking meals. Although these are easier to manage and cook, they are ridiculously expensive for the amount of energy they give you.

### **Expedition Agreement**

### **Expedition Agreement**



### **Expedition Itinerary:**

This given itinerary is our ideal and perfect plan for what we wish to accomplish. However, injury, route finding, and weather are all possible forms of unexpected setbacks that may force us to stray from our original plan. Ideally, all figures and maps shown below are to be used in hopes that we successfully accomplish our objectives with safety as our number one priority!

Date	Day Number	Objective/Activity
7/25/2022	Travel Day 1	Savian and Wiley leave early morning and drive to MT
7/26/2022	Travel Day 2	Team drives from to Bugaboo - Septet Campground
7/27/2022	Day 1	Hike into Applebee Campground
7/28/2022	Day 2	Bugaboo Spire via the North East Ridge
7/29/2022	Day 3	Rest Day - stay at camp, read, play cards/chess, socialize with other campground climbers
7/30/2022	Day 4	Rest Day - stay at camp, read, play cards/chess, socialize with other campground climbers, discuss plan for next day, pack and organize gear so we are ready for the morning
7/31/2022	Day 5	Crescent Spire via the McTech Arete
8/1/2022	Day 6	Rest Day - stay at camp, read, play cards/chess, socialize with other campground climbers
8/2/2022	Day 7	Rest Day - stay at camp, read, play cards/chess, socialize with other campground climbers, discuss plan for next day, pack and organize gear so we are ready for the morning
8/3/2022	Day 8	South Howser Tower via Beckey-Chouinard
8/4/2022	Day 9	Rest Day - stay at camp, read, play cards/chess, socialize with other campground climbers
8/5/2022	Day 10	Rest Day - stay at camp, read, play cards/chess, socialize with other campground climbers, discuss plan for next day, pack and organize gear so we are ready for the morning
8/6/2022	Day 11	Snowpatch Spire via Sunshine Crack
8/7/2022	Day 12	Rest Day - discuss plans for our extra day and decide/pack for that decided plan

8/8/2022	Day 13	Extra day to give climbs another attempt if unsuccessful on previous days
8/9/2022	Day 14	Pack up camp and hike out. Camp at Bugaboo - Septet Campground
8/10/2022	Travel Day 3	Drive back to, MT
8/11/2022	Travel Day 4	Drive from back to Colorado Springs!
Total Days:	18	

### **Route Planning: Descriptions, Approaches, and Descents:**

\*unless otherwise noted the approaches and descents are 3rd class or less

### Bugaboo Spire via the North-East Ridge, 1500 ft, Grade III / IV 5.8

Approach (1.5 miles, ~ 1.5 hours): In order to avoid the many parties that will inevitably be climbing this popular route, we will leave early in the morning (5-5:30am). To approach the route, we will leave to the north from the east side of the campground, walk alongside the northwest side of the first larger lake, and pass the second smaller lake on the southeast side. From there we will hike up the north side of Crescent Glacier and hike up the 4th class face to access the low point in the saddle between Bugaboo Spire and Crescent Spire. From here we will walk along slabs split by wide cracks to the south to the start of the climb, which begins on the left of a small pinnacle. If we need to bail on the approach due to weather we will simply turn around and follow our path back to Applebee Campground.

\*See figure 1b Route (Figure 1a): For the first three pitches, keep left of the crest of the ridge proper. These three pitches are at hardest 5.7. The rest of the route follows the crest of the ridge and with a final 5.7 chimney and a more technical move up over a block to the North Summit. For a more specific topo and photos of the beginning of each pitch see links:

- P1 https://farm9.static.flickr.com/8122/28641924846 6d38ac55ee b.ipg
- P2 https://farm9.static.flickr.com/8567/28641926076 6336c82bb8 b.jpg
- P3 https://farm9.static.flickr.com/8070/28641927396 e3e517ed00 b.jpg
- P4 <u>https://farm9.static.flickr.com/8881/28641928276\_82d8223b40\_b.jpg</u> P5
- P6 https://farm9.static.flickr.com/8095/28641929366 a9901d3b16 b.jpg
- P7 https://farm9.static.flickr.com/8030/28595916841 019b42f865 b.jpg
- P8 https://farm9.static.flickr.com/8645/28641932106\_ded6a771cf\_b.jpg
- P9 https://farm9.static.flickr.com/8319/28595998581 47eb01f4d5 b.jpg
- P10 https://farm9.static.flickr.com/8283/28596000411 1daf78a030 b.jpg
- P11 https://farm9.static.flickr.com/8707/28596002521 02a0442cd9 b.jpg

In the event that we have to immediately bail on the route due to weather, we will rappel back down the way we came since we will have double ropes with us. However, if we decide to bail near the top and we have the time, we will finish the last few pitches and then utilize the descent (described below) for bailing since it will be much faster and more efficient than rappeling the route.

Descent: From the summit of the northern spire, the easiest descent is through a "v"-notch where there is a set of rappelling anchors. See figure 1c for more visual context. From here we will rappel the Kain route, which will take us down to the Bugaboo Spire/Snowpatch Spire Col. From here we will descend down onto the south side of the Crescent Glacier and hike back to the campground to the northeast. Around the top near the v-notch there are few 4th class sections.

### Crescent Spire via the McTech Arete, Grade III 5.10-

Approach (1 hour) \*See Figure 2b: The approach to the base of Crescent Spire is the shortest and quickest of our approaches, however, this does not mean a lack of potential risk with rock fall and glacier travel. Consistent with the other objectives, when traveling on glacier's we will use ropes to minimize risk related to falling into crevasses and we will wear helmets for rock fall. From the Applebee Campground, we will leave from the eastern part of camp and head north via a trail to the moraine. We will walk along the west side of the first larger lake, and then on the east side of the further, smaller lake. Then, we will travel up the Crescent glacier to the base of the McTech Arete (we will have photos of the base for visual context), which can be identified by a leaning flake under a twenty foot roof. We will climb with everything we brought so we do not have to walk back to the base of the climb after coming down the descent route. In the face of bad weather, we will bail and descend back to camp in the manner that we approached.

Route (See figure 2a for further information and visual context):

P1: Climb up flakes to a small corner roof, step left to another crack and continue up a short chimney to a belay on top of a pillar. (5.9) It is also possible to jam straight up the roof with perfect hands at 5.10.

P2: Follow a finger and hand crack out left from above the belay to an alcove. Climb up through the alcove jamming the crack up a steep face to a ledge and belay at a chain anchor. (5.10-) \*There is potential to link the first two pitches, which Wiley and Savian may attempt if they have sufficient gear at the top of pitch one to continue.

P3: Climb up corners and easy ground upwards right to another two bolt anchor. (5.4)

P4: Step right from the anchor behind a flake and climb up a corner to a roof. Traverse out right under the roof to another corner and pull a second roof to a belay ledge on the left with chains. (5.9)

P5: Climb cracks on the face to the right and gain a corner which leads to another ledge with chains. (5.8)

P6: Climb up a steep corner and scramble left around the arete. Continue up a face to the ridge crest and belay. (5.7) \*From the top we will have gear anchors to protect the second as they follow if there is no bolted anchor on top.

If weather does not permit, we will not be pushing to the summit above the climb because of the danger of lighting. If anywhere on the route when weather hits, or if we see weather coming in, we will rappel the route the way we came because we will have double ropes that can rappel the distance of the pitches.

Descent: To descend from the top of the climb, we will first hike to the true summit of Crescent Spire (some 4th class sections), appreciate the views, and then descend down the southwest scree gully. This descent is full of loose scree so we will continue to be cautious. At the bottom of these gullies, we will be spit back out onto the Crescent Glacier. We will hike the same same way we approached back to the Applebee Campground. \*See figure 2b

### South Howser Tower via Beckey-Chouinard, 15 Pitches, 2000', Grade IV, 5.10

Approach (2-3 hours): Because this approach and climb are much longer than our previous objectives, we will leave very early (in the dark) to give ourselves the highest chance for success. Night time hiking will be made safe by covering familiar territory in the dark. The descent we took from Bugaboo Spire will become the beginning of the approach for this objective. From the top of the Bugaboo/Snowpatch Col, we will cross the Vowell glacier on the southeast side. We will then continue to the east creek bivy site and hike down 1,000 feet to the bottom of the West Buttress on South Howser Tower. The climbing route follows the ridgeline of this buttress to the very top of South Howser Tower. If we have to bail on the approach, we will turn around and follow our path back to Applebee Campground. \*See figures 3a, 3b, 3e

Route (for further visual context see figures 3b and 3c): For the first 1,000 feet of the ridge, scramble through 4th class terrain until an obvious split boulder where we will rope up to begin the climb.

P1-3: Step around the boulder and up through a corner system to where the wall steepens.

P4-5: Low angle climbing on cracks up to a large corner.

P6-8: Climb corner 250 ft (5.8).

P9-10: Scramble easy loose rock to a large sandy ledge at the base of a headwall.

P11-13: Climb through wide cracks and chimneys until the obvious corner.

P14-16 Climb corner to chimney to an easy 4th class gully

P17-18: Climb dihedrals to the top of the pinnacle and traverse left. Climb easy corners to notch and summit ridge. Rappel right from notch and scramble to the summit.

In the event that we have to bail off this route, we will assess what our best option is in the given context. We will always have double ropes in the case that we have to rappel the route, and if lower on the route this is what we will do. However, if nearing the summit of the climb and the weather deams it safe enough, the quickest way down is the planned descent on the backside of the face. This descent will get us onto the glacier quicker and safer in the event that we need to leave quickly before weather rolls in.

Descent: To descend, we will rappel the Northeast Face route, which is located ten feet south of the summit. Six double rope rappels will bring us onto the Vowell Glacier. From here, we will hike back across the Glacier the way we approached all the way to the campground. \*See figures 3a, 3d and 3e.

### Snowpatch Spire via Sunshine Crack, Grade IV 5.11-

Approach (1 hour): To approach this route, we will once again hike on the south side of the Crescent glacier to the base of the Bugaboo/Snowpatch Col (leaving around 7am since this climb is much shorter). From here, we will walk halfway up the Col until we spot a large obvious offwidth/chimney to the east on the north face of Snowpatch Spire. The beginning of the route is just below this offwidth feature. If we decide to bail on our approach, we will turn around and descend back to Applebee campground the way we came. \*See figure 4b and 4c.

### Route (see figure 4a):

P1 (start of pitch 1 photo: <a href="https://farm9.static.flickr.com/8695/28058167583\_8087318ecb\_b.jpg">https://farm9.static.flickr.com/8695/28058167583\_8087318ecb\_b.jpg</a>): Climb up a steep right facing dihedral with two cracks and pull through a slight overhang on the left. Continue up an obvious crack bypassing the first anchor. The crack gradually widens to an offwidth as the wall gets steeper. Work your way up the 5.10 OW and pull onto lower angle rock to the anchor. (~ 5.10c)

P2: Continue up the crack for 10 feet until you reach another crack that angles slightly up and right. Hand traverse right until the crack starts heading straight up again and follow it past an anchor into a perfect 2" crack. Move to the right off a wide crack and into a dihedral and belay at the anchor. \*If need be we will stop at the first of the two anchors on this pitch.

P3: Continue up the dihedral until you get to another overhang. Climb through a crack near the left side of the overhang and then traverse back right to gain another crack that continues upward. Belay about 20 feet below the crux roof. (~5.10+)

P4: Climb 20 feet until you are beneath a large corner roof. Climb up through the roof, past another anchor, and up another overhanging bulge to a good belay stance with bolts.

P5: Follow the cracks up and slightly right in a left facing dihedral. The crack gradually goes back left following a large flake until you get to a stance beneath a clean wide-hands/fist crack.

P6: Climb the steep hand and fist crack for about 100 feet until the crack splits left and right. Traverse right into a perfect hand crack that heads up and back left to the summit.

In the face of bad weather, we will rappel the route with double ropes as is the normal descent. If we are near the top of the route when weather hits, we will rappel as quickly and efficiently as possible without sacrificing safety measures (normal rappelling, always double and triple checking systems etc.).

Descent: To descend this route, we will rappel straight back down the way we came with double rope rappels, back to the base of the northern face of Snowpatch Spire. We will then hike back to the Bugaboo/Snowpatch Col and hike down to Applebee Campground via the Crescent glacier.

### **Rest Day Plans:**

Although our rest days have been included as a preventative measure to make sure we successfully complete our goals, there is a high possibility we will not utilize all of them for additional attempts at the climbs we have planned. This said, on rest days most of every day will be spent reorganizing and preparing for our next objective but in the free time (especially on the rest day immediately after an objective) we will spend time socializing with other climbers at the campground, playing cards, journaling, and reading. Although there is no true objective of these rest days, their intent is to give us plentiful time to prepare as much as possible for our objectives: pre-packing bags with all the necessary gear, obtaining new and current beta from fellow climbers, resting our muscles and fingers, etc. We do not plan on leaving camp on our rest days.

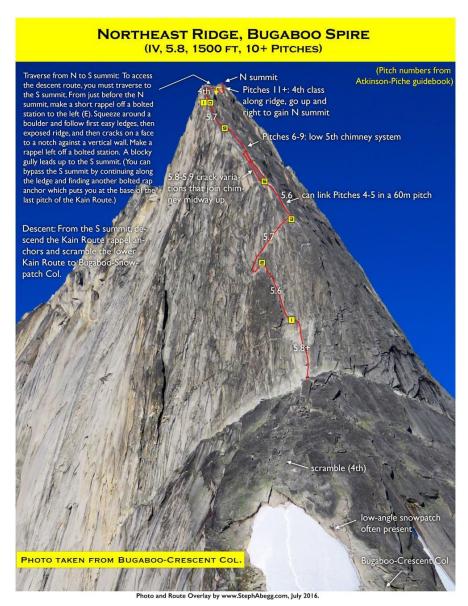


Figure 1a: Topo of the Northeast Ridge of Bugaboo Spire

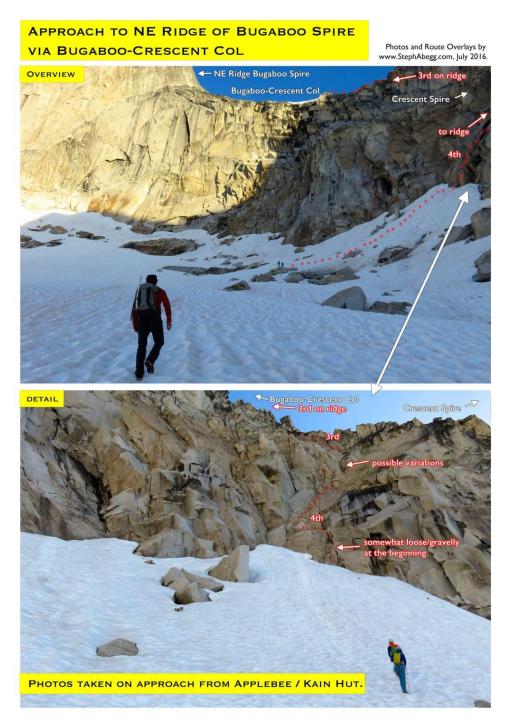


Figure 1b: The approach to the base of the NE Ridge of Bugaboo Spire

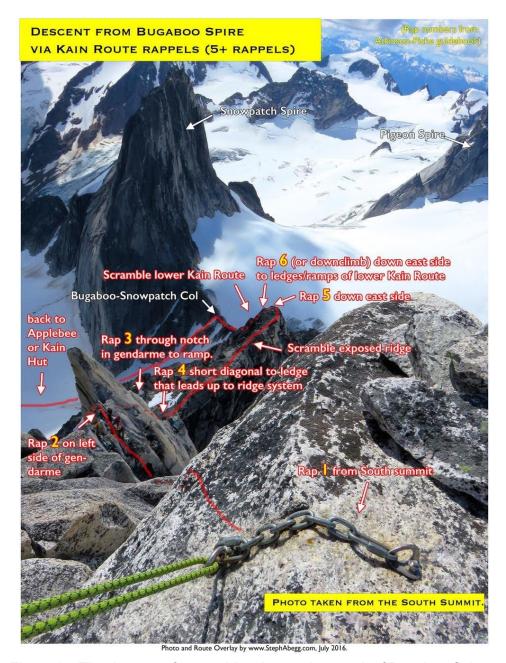


Figure 1c: The descent after reaching the south summit of Bugaboo Spire

# McTech Arete, Crescent Spire (III, 5.10-, 500', 6p) Photo: www.ericandlucie.com, July 2003. Overlay: www.StephAbegg.com, 2016.

Figure 2a: A topo of the McTech Arete route on Crescent Spire



Figure 2b: The red line is roughly the approach we will be taking to the McTech Arete, as well as the climb itself. The yellow dotted line shows the descent back onto the Glacier. This old map will be supplemented by newer maps purchased in Canada.

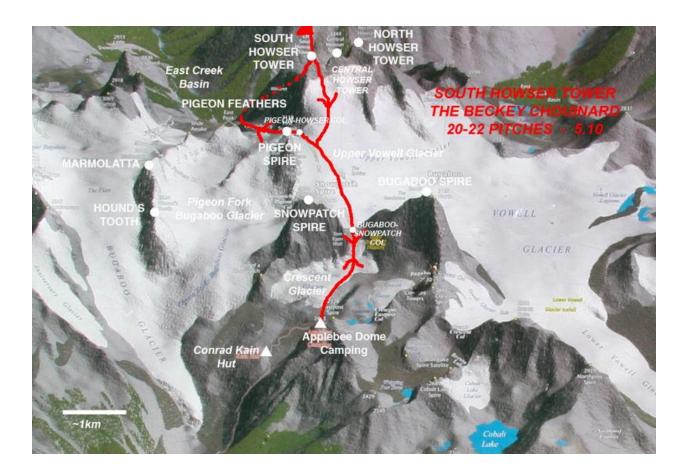


Figure 3a: This is a visual depiction of the approach for the South Howser Tower. This will be supplemented by topographic maps upon purchase.

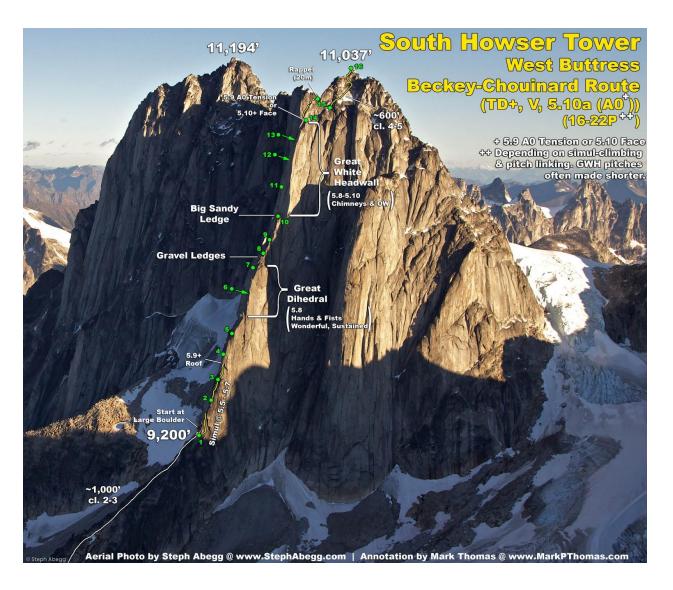


Figure 3b: A topo of the Beckey-Chouinard route up South Howser Tower, as well as the very end of the approach to the base of the climb.

# BECKEY-CHOUINARD, SOUTH HOWSER TOWER (IV, 5.10, 2000 FT, 15+ PITCHES) (Pitch numbers from Atkinson-Piche guidebook) north side (11 rappels with single 70m rope, can combine some with double ropes) 20m rappel, then 150-200m of 4th + several short low 5th moves to summit. White Headwall PHOTO TAKEN FROM THE SCRAMBLE -300m scrambling UP THE LOWER RIDGE. Photo and Route Overlay by www.StephAbegg.com, July 2016.

Figure 3c: Another view of the Beckey-Chouinard route pitched out.



Figure 3d: The descent off of the east face of South Howser Tower.

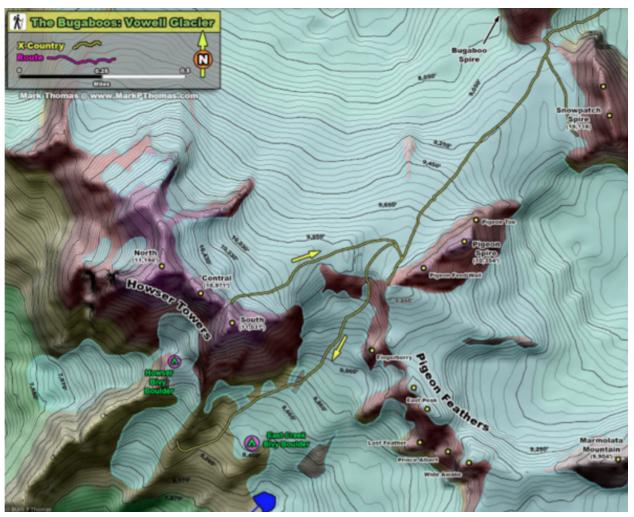


Figure 3e: Here is another approach map that shows where to approach and descend from the South Howser Tower.



Figure 4a: The topo for Sunshine Crack on Snowpatch Spire

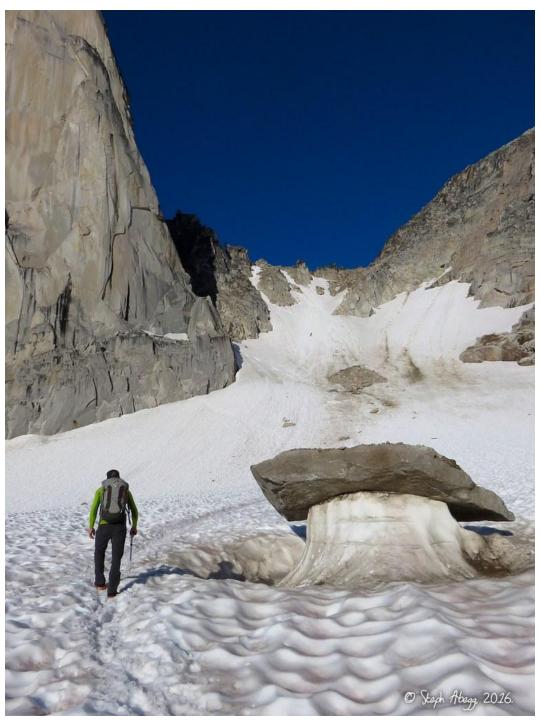


Figure 4b: This is the approach to the base of the route with Snowpatch Spire on the left and Bugaboo Spire on the right.



Figure 4c: A closer view of the approach. At this point, they have headed left halfway up the Bugaboo/Snowpatch Col and are headed to the base of the climb.

\*To supplement the given maps, topos, and photos above, we will be printing off our detailed and comprehensive digital map.

# Food List:

\*The layout and idea of doing the expedition based upon pounds per person per day came from the 2016 Bugaboos Ritt Grant Proposal

Number of People	Days in Field	Food Days	PPPPD	Total Pounds
2	18	36	1.95	70.2

Category	Multiplier	People	Days	Weight (lbs)
Breakfast	0.36	2	18	12.79
Lunch	0.49	2	18	17.79
Dinner	0.82	2	18	29.69
Miscellaneous	0.28	2	18	9.93
Total				70.2 lbs

Breakfast Food	Cost per unit	Amount (lbs)	Total
Instant Oatmeal	\$4.99 (15.1oz)	2.83	\$14.97
Granola	\$6.49 (24.1oz)	4.52	\$19.98
Powdered Milk	\$8.99 (25.6oz)	1.6	\$8.99
Cranberries	\$3.49 (4oz)	0.5	\$6.98
Brown Sugar	\$3.99 (24oz)	1.5	\$3.99
Pecans	\$12.99 (16oz)	1	\$12.99
OvaEasy Eggs	\$9.89 (4.5oz)	0.84	\$29.67
Total:		12.79 lbs	\$97.06

Lunch Food	Cost per unit	Amount (lbs)	Total
Clif Bars	\$1.29 (2.4oz)	2.7	\$23.22
Larabars	\$1.99 (1.7oz)	0.74	\$13.93
ProBars	\$2.99 (3oz)	1.31	\$20.93

Dried Mango	\$9.99 (8oz)	1	\$19.98
Peanut Butter	\$4.99 (16oz)	2	\$9.98
Jelly	\$5.49 (13oz)	0.81	\$5.49
Bread	\$6.99 (27oz)	1.69	\$6.99
Peanuts	\$3.99 (16oz)	2	\$7.98
Raisins	\$3.49 (12oz)	0.75	\$3.49
M&M's	\$7.99 (19.2oz)	1.2	\$7.99
Cashews	\$8.99 (16oz)	2	\$17.98
Sunflower Nuts	\$1.99 (8oz)	1	\$3.98
Banana Chips	\$3.99 (6oz)	0.38	\$3.99
Total:		17.79 lbs	\$145.92

Dinner Food	Cost Per Unit	Amount (lbs)	Total
Pesto	\$2.99	0.81	\$5.98
Pasta	\$1.60	2	\$3.20
Canned Pasta Sauce	\$3.49 (24oz)	3	\$6.98
Canned Chili	\$3.79 (14.7oz)	3.68	\$15.16
Macaroni	\$2.19 (16oz)	1	\$2.19
Lentils	\$3.49 (16oz)	1	\$3.49
Canned Beans	\$.99 (15oz)	7.5	\$7.96
5-Minute Rice	\$5.79 (42oz)	2.63	\$5.79
Tortillas	\$3.79 (17.5oz)	1.09	\$3.79
Tomato paste	\$.99 (6oz)	1.5	\$3.96
Cheddar Cheese	\$8.99 (32oz)	4	\$17.98
Couscous	\$2.99 (4.7oz)	1.18	\$11.96
Total:		29.69 lbs	\$82.66

Miscellaneous	Cost per Unit	Amount (lbs)	Total
Hot Cocoa Mix	\$3.49 (11.04oz)	1.38	\$6.98
Теа	\$3.69	2.95	\$7.38
Spices	Varying prices ~ \$3 (2.3oz)	0.71	\$15
Brownie Mix	\$3.99 (18oz)	1.13	\$3.99
Oreo Cookies	\$5.99 (19.1oz)	1.19	\$5.99
Tates Cookie	\$5.99 (7oz)	0.68	\$11.98
Frosting	\$2.79 (16oz)	1	\$2.79
Chocolate	\$3.49 (7oz)	0.88	\$6.98
Total:		9.93 lbs	\$61.09

Total Food Budget: \$386.73 Cost per person per day: \$10.74

# Fuel Budget:

Stove	Fuel Cost per Unit	Amount	Total
MSR Whisperlite International	\$12.95/quart	5	\$64.75

# **Equipment List:**

\*The structure of this list is based upon the 2016 Bugaboos Ritt Grant Proposal

Camping Gear:	Cooking Gear:	Climbing Gear:	Clothing (per person):	First Aid Kit:
1x Big Agnes Copperspur UL2 Tent	Whisperlite Stove	2x 70 meter 9.5 mm ropes	3x Underwear	Duct Tape
2x 0-15 Degree Sleeping Bags	Whisperlite Repair kit	2x harnesses	2-3x Synthetic T-Shirts	4x Adhesive Bandages
2x Sleeping Pads	4x lighters	2x chalk bags	3-4x Wool Socks	4x gauze
2x Camp Lights	MSR Dromedary 6 liter	2x comfort climbing shoes	Camp Shoes	Medical Kit Bag
2x Camping Chairs	2x Large tarp	2x technical climbing shoes	Long Underwear	4x Alcohol pads
2x 60-70 liter pack	2x knife	2x ATC	Fleece pants	WFR field guide
2x Headlamp	2x MSR fuel bottles	2x Petzl Hollowblock 2	Fleece jacket	Acetaminophen (20 pills)
12x AAA Batteries	1.5 gallons White Gas	2x Petzl GriGri	Softshell pants	Ibuprofen (20 pills)
2x Sunglasses	4x Trash Bags	70 meter 7mm tagline	Softshell jacket	SAM splint
4x Water bottle (1 liter)	6x gallon ziplock bags	10x locking carabiners	Gaiters	3x Mole skin
2x Toiletries	Medium sized pot	10x non-locking carabiners	Rainpants	Trauma Shears
2x Bowl	Medium size pan	2x 5 meter cordelette	Mountaineering Boots	60cc syringe
2x eating utensil	spoon	4x quadruple length slings	Rainpants	tweezers
2x 12 oz Sunscreen	spatula	4x double length slings	Down Puffy	4x gloves
2x Lip Balm (spf 15)	Steel wool	2x micro traxions	Raincoat	

12x Wag Bag	Biodegradable soap	2x aiders	Beanie (warm hat)	
Topography Maps	sponge	2x ascenders		
Compass		20x alpine draws		
Somewear Hotspot Emergency Device		2x rack of cams (.1-5 BD C4 and Z4)		
4x toilet paper roll		2x set of stoppers		
2x Bear Spray		4x Climbing tape roll		
4x Aquamira Purification		4x Crampons		
		2x ice axes		
		Black totem		
		4x quicklinks		
		4x ice screws		
		2x nut tools		
		2x helmet		
		2x day pack		

Transport ation	Miles (round trip)	MPG	Gallons Needed	Gas Price /gallon	Sub Total	Total:
Savian Czerny	2,622 miles	19 MPG	138	\$3.50	\$483	
Wiley	604 miles	20 MPG	30.2	\$3.50	\$105.70	
					Total:	\$588.70
Food:	Total Pounds	PPPPD	Cost PPPD			
	70.2	1.95	\$10.74			
					Total:	\$386.73
Fuel:	Amount:	Cost /quart				
White Gas	5 qt	\$12.95				
					Total:	\$64.75
Maps and Books:	Cost					
Howser Creek Map	\$9.71					
Bugaboo Creek Map	\$9.71					
					Total:	\$19.42
Gear Rental:	none					
Miscellan eous:	Amount	Cost	Sub total			
Wag Bags	12	\$35 for 12	\$35			
Bear Spray	2	\$54.95	\$109.90			
Aquamira	2	\$16.98	\$33.96			
					Total:	\$178.86
Permits	Person	Cost	Sub Total:			

and Fees:	days				
Camping	28	\$10	\$280		
				Total:	\$280
				Trip Total:	\$1,518.46