

In the beginning, there were three versions of this expedition: the version I told my mum, the version I told at the pub, and the version I actually believed would happen. The 'pub' version was heavily embellished: bush plane flights, first ascents, bear encounters etc. etc. Stuff like that happened in YouTube videos, but it wouldn't happen to a bunch of duffbags like us. Therefore, it was quite a surprise when all the awesome things we had joked about actually came to fruition. Maybe we aren't duffbags? Or maybe Alaska is just soft? After all, it ain't grit.

The expedition was broken into five sections, from 30 Jun to 1 Aug, each detailed in the logbook. Firstly, we spent several days in Talkeetna, the so-called 'gateway to Denali Park', gathering local climbing knowledge. After this, we spent two weeks climbing alpine routes from our basecamp on Pika Glacier. Thirdly, we made a brief venture to Fairbanks, but were soon deterred by mosquitos. Having fled Fairbanks, we spent a week developing new single pitch routes in Hatcher Pass and, despite our best intentions, bouldering. Lastly, we spent a few days en joying the wildlife around Whittier.

Overall, the trip was a great success. All members of the team gained formative experience with establishing a remote basecamp, glacier travel and alpine simul climbing. Furthermore, the team learned how to clean and safely equip new routes, key skills for crag development. Lastly, Isabel proved herself as a superb expedition leader and Ben gained international fame when a tourist plane flew over him pooing.



Photos from left: the view from Pika Glacier basecamp with the Kahiltna in the distance; the group heading towards Snowbird Slab in Hatcher Pass.

OVERVIEW

Introduction to trip objectives and locations.

2 **TEAM**

Details of the expedition members, their roles and relevant experience.

3 LOGBOOK

Diary and detailed information on routes. In four location subsections: Pika Glacier, Fairbanks, Hatcher Pass and Whittier.

4 LOGISTICS

Training, travel arrangements, finances, equipment, insurance, communication, medical arrangements.



Photos from left: Izzy and Jake fishing in Whittier; view of Crown Jewel on Pika Glacier.

5 CONCLUSIONS

Recommendations for future similar expeditions.

CONTACT

Contact details for the expedition members, should those planning future expeditions need advice.

ACKNOWLEDGEMENTS

Thanking those who contributed to making the trip happen.

RISK ASSESSMENT

This is appended at the end of the PDF, since we wish to print this as a book and thought including the risk assessment would be unsightly.

1 OVERVIEW

Introduction to trip objectives and locations.

The objective of the expedition was to spend five weeks in Alaska, travelling between Anchorage, Pika Glacier, and Hatcher Pass from the 30th of June until the 1st of August. The team consisted of 6 members, introduced on the following page.

AIMS

- To develop our alpine climbing skills and improve rock climbing skills on different terrain
- To gain experience with remote expeditions, including the logistics of self-reliance.
- To discover new bouldering routes in a large boulder field in Hatcher Pass and document online to encourage more climbers to the area
- Create a documentary of the trip and share to younger club members to inspire them to pursue more adventurous climbing activities
- To learn about the cultural history of the mountains we are visiting

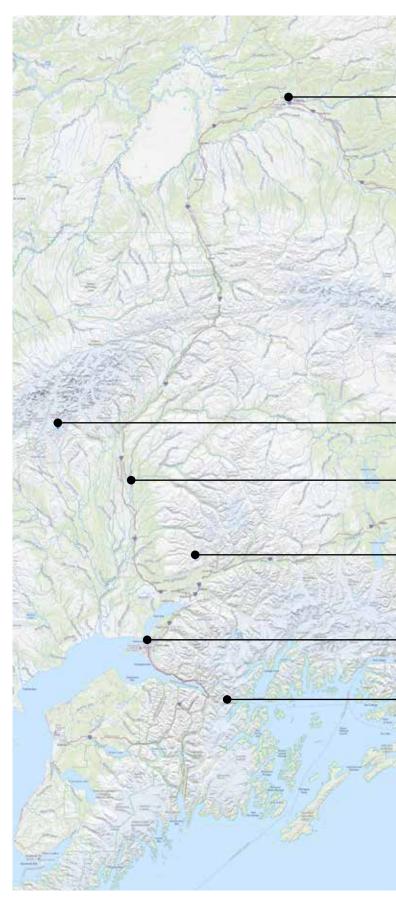
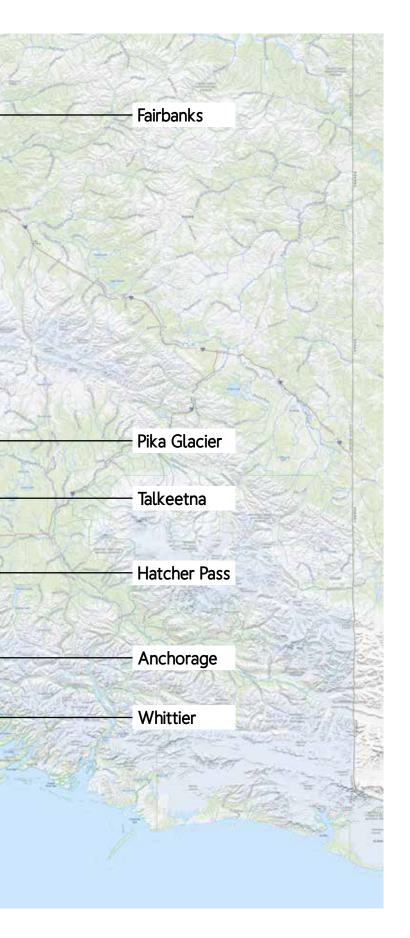


Photo: USA Geological Survery topo map of Alaska with the places we travelled to labelled.



Alaska's latitude is between 54 degrees to 73 degrees north latitude and located west of Canada. The main regions of focus for this expedition include Denali National Park (specifically Pika Glacier), and Hatcher Pass, located in the Talkeetna Mountains.

Pika Glacier, roughly 4.5 miles long and at an elevation of roughly 1200-1800m, is an offshoot of the famed Kahiltna Glacier, the latter holding the most popular basecamp for Denali. Pika Glacier is in the middle of an area known as 'Little Switzerland', so named by a pilot for its supposed resemblance to the Alps, and provides both the airstrip and basecamp for the surrounding peaks and glaciers. Little Switzerland is a popular destination for climbers on their first expedition in the Alaska Range, due to many of its peaks having relatively straightforward approaches and amenable climbing; the Alaska Mountaineering School often run glacier travel and Alpine climbing courses there. Popular easier peaks include Middle Troll and The Throne, with harder objectives being Royal Tower and Crown Jewel, among many others. There is still a great deal of unclimbed rock, and new routes are still being put up, such as some hard aid routes up the imposing South Face of the Throne.

Hatcher Pass itself is located at an elevation of 1,184 m (3,886 ft) in the south-west part of the Talkeetna mountains, and can be accessed directly from Anchorage via car. It is a rather remote area best known for its hiking trails and technical rock-climbing. There are a few small private land holdings in the area, however most land is public and frequented by skiers, hikers, mountain bikers and climbers. During the skiing season (late September to April), Hatcher Pass is one of the most popular and easily accessible backcountry skiing regions in the area due to it offering one of the longest ski seasons in North America. The area contains a mixture of traditional and sport climbing routes with a variety of jagged aretes, hanging valleys and glaciers characterising the terrain.

In early July, these regions of Alaska get 19 hours of daylight. The remaining 5 hours of each day are twighlight, during which one can see clearly without a torch. This is a mixed blessing, as it makes benightment impossible but can lead to disorientation and poor sleep.

EXPEDITION LEADER ISABEL JONES

- BSc Physics Graduate 2021
- ICMC Social Secretary 2019-2021
- Trad E2, sport 7a, bouldering f7a
- Lead grade II Scottish winter
- Trad/sport multi-pitch up to 300m in Scotland and Europe



WEATHER OFFICER JAKE LEWIS

- MEng Aeronautical Engineering Graduate and 1st Year PhD in High Speed Aerodynamics
- ICMC Social Secretary 2020-2022 and Treasurer 2022-2023
- Trad HVS, bouldering f7a
- Lead grade II Scottish winter, seconded grade III



MEDICAL OFFICER BENJAMIN JONES

- Medical Student
- BSc Remote Medicine Graduate
- ICMC Webmaster 2021-2022
- Trad E2, sport 7a+, bouldering f7b.
- Some alpine experience, 4000ers and guiding
- Bolivia 2019 exped alumnus





WRITER-PHOTOGRAPHER COSIMA GRAEF

- MEng Biomedical Engineering Graduate
- ICMC Secretary 2019-2021
- Trad HVS, sport 6b+
- Lead grade II Scottish winter
- Trad/sport multi-pitch up to 130m across Europe



DRIVER MIGUEL BOLAND

- 2nd Year Maths PhD Student
- ICMC Postgraduate Secretary 2022-2023
- Trad E2, sport 7a, bouldering f7a
- Trad and sport multi-pitch in UK, France, Spain, Switzerland, Indonesia
- Triathlon and Ultramarathon enthusiast



FILMMAKER ISAAC BLANC

- 3rd Year Mechanical Engineering Student
- Trad HVS, sport 6a
- Lead grade III, 4 Scottish winter
- PD+ to 6000m with a guide
- Week-long trekking and cycling expeditions

3 LOGBOOK

Diary of events throughout the trip, including detailed information on routes and summits. Broken into four location subsections: Pika Glacier, Fairbanks, Hatcher Pass and Whittier.

Photos below from left: Susitna river in front of Denali; group meeting in Talkeetna.



ARRIVAL IN ALASKA

Day 1 - Thursday 30th June

After a lot of planning and many multi-mode, noisefilled meetings, it was finally time to head to Alaska. Ben, Izzy and Jake had set off to Anchorage a week early. Unfortunately, the group had received some lastminute information from the mountain guide they had been talking with, which made much of the initial itinerary impossible. Furthermore, the guide was no longer able to climb with them. This meant that a full expedition plan did not exist when the trio arrived in Alaska. However, Izzy had seen clues online that there was a secret book of Pika glacier climbing routes (the guidebook only described three), and though she didn't know where that book would be, clues led to Talkeetna. The trio went straight there from the airport, where they would be trapped for a week (no one could drive), on what was effectively a hunch. But it worked out! The town was set up for mountaineers because of its proximity to Denali and they found lots of information from extremely helpful Talkeetna employees and locals that couldn't be found online, including the secret, hand drawn book. They alerted the rest of the team that there was a new, very exciting plan and spent the week making sure it was possible.

However, this first week was spent on more than just planning. The trio morphed into locals, with Ben and Jake being crowned team captains in a town-wide game of 'kick ball'. This involved playing rounders with a football while trying not to spill a pint.

Cosima, Miguel and Isaac flew to Frankfurt with varying degrees of comfort. Whilst Cosima only waited at the airport for a few hours before the flight to Anchorage, Miguel had to wait for 6 hours, and Isaac spent the entire night before sleeping on his B2 boots. Certainly a unique way to get acquainted with the gear ahead of time.

Flying over Iceland, Greenland and Canada, we eventually obtained a great ærial perspective of the





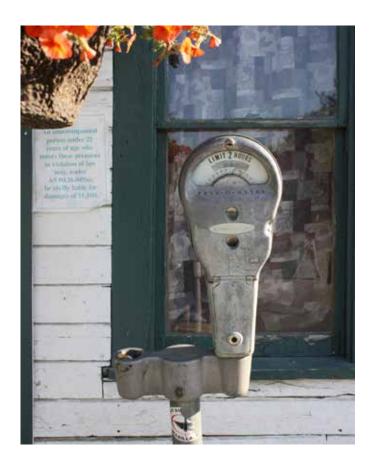


snow-covered Alaskan mountain ranges looming beyond miles of desolate tundra. After so much planning, it was surreal to see such a foreign and lonely landscape home of the midnight sun. At the border control, our luggage got inspected for signs of foreign pests and diseases that may harm Alaskan agriculture and, as a result, our tent pegs were disinfected. Apparently, the mud on them might have contained nematodes, which are not welcome in Alaska. Then again, they had let Ben in. Miguel and Cosima stocked up on more climbing gear, paid for by the Harlington grant, at the local REI store. Meanwhile, Isaac paid 200\$ to be told "you probably don't have Lyme disease, but would you like the drugs anyway because this is America". Back at the 'Basecamp Anchorage' hostel, we discussed our first impressions of Alaska: 4-lane one-way streets, very few pedestrian crossings and a saddening number of people living on the streets.

Day 2 - Friday 1st July

The sun was already (or still?) shining when Isaac, Miguel and Cosima went to CostCo to buy 14 days of food for 6 people (around 252 servings). This was no easy feat! It was the biggest supermarket any of them had seen, strongly resembling an XXL Ikea warehouse filled with bulk-buy groceries. Visualising 252 servings became increasingly difficult. Forty apples weighed a lot, but would mean one apple per person only every other day! Once the shop was finished and the car packed to the brim with gear and food, they drove north to meet Izzy, Jake and Ben in Talkeetna.

Once at the campsite in Talkeetna, the 6 of us were finally reunited and ate together at 'Mountain High Pizza Pie', where a local band were playing. We walked down the main street towards the Susitna river, for a direct view of Denali (Mount McKinley). This is the highest peak in North America at an impressive 6,190 metres (20,310 ft). We sat by the river and discussed our next steps. With a 5-8 day storm imminent, we weren't sure about flying to Pika Glacier. Ultimately, we decided to ask the park rangers and mountaineering school first thing in the morning.





Photos from top: parking meter in Talkeetna; Isaac on rail tracks.





Photos from top: Isaac, Ben, Jake and Izzy by Susitna river; the common Alaskan wildflower, fireweed.

Talkeetna was a strange and whimsical place. Once a mining town, it now resembled a Clint Eastwood film. On the day before their 4th of July celebrations, a local told us "it gets pretty lawless around here" before locking eyes with Ben. "Pretty lawless" she muttered again, this time in a lower tone. In true western style, we might have reported this to the town mayor, except she was a democratically elected cat, called 'Denali'. Though unconventional, this seemed characteristic of Talkeetna.

On a separate occasion, we saw a couple run out of a bar and onto the road to dance in a downpour of rain. Live music was played at most hours, including by Izzy at the open mic night. This took place at the Fairview Inn, a saloon-style bar filled with hunting trophies, mountaineering gear and paintings of deceased patrons. Above the bar hung a bell, which guests would ring if they were buying everyone a round. This happened with surprising frequency, especially given the two-drink limit on their local speciality: Ice Axe Ale.

PREPARATION IN TALKEETNA

Day 3 - Saturday 2nd July

Miguel and Cosima woke up at 6am and spent the morning walking around Talkeetna before it got crowded by tourists. They woke everyone up a few hours later to start preparing for our day of errands! It really felt like we were on a detective mission, first stopping by the Alaska Mountaineering School building and then the park rangers office to ask questions about the weather conditions on Pika Glacier. This was much nicer than the anonymity of emails or forums we had used in the preparatory stage of the expedition, and gave us access to information we weren't able to online. The woman at the mountaineering school told us weather forecasts were not to be trusted in this area and that it had (very unusually) not rained in the region in 2 months.

We registered our details with the park rangers as a safety precaution and quickly put together a to-do list taking a food inventory and planning meals, buying more food, getting glacier toilets, sorting the air taxi booking, laundry, charging electronics etc. We also brought all 317kg (700lbs) of food to a large wooden hanger next to the air taxi airport to weigh and pack. It was an incredibly tiring day but definitely the hardest part of glacier preparation over.

Day 4 - Sunday 3rd July

Game day! After weighing gear, we had a final meeting. The weather forecast was iffy and we were wary of getting stuck somewhere remote in bad conditions. Only the night before, we had read the account of four skiers who flew to a glacier and, as they put it, got "Alaska'ed". This entailed spending two weeks shovelling snow and hunkering in their sleeping bags. However, the Talkeetna Air Taxi staff said the glacier usually avoided storms. Furthermore, conditions were only likely to worsen if we waited until later in the month, since the climbing season was coming to an end. We all voted to fly out, accepting that the weather might turn our climbing trip into a camping trip. Just being on the glacier would be worth it.

We flew over marshlands and into striking, granite mountains untouched by human infrastructure and spanning as far as the eye could see. The flight was just 30 minutes long but equivalent to 5 days of hiking. Now, we were truly remote. The landing was smooth and once off the plane, we got the first glimpse of our new home. Massive, looming faces of granite looked over us with watchful eyes from all directions of the glacier. With mystical names like 'The Throne', 'The Crown Jewel', 'Middle Troll' and 'The Hobbit's Foot', it all felt very Tolkienesque. The sun was bright as we unloaded our gear and three tourist planes were landing just next to ours. We'd soon find out that tourist planes visited this glacier multiple times a day, removing some element of remoteness, yet offering a sense of welcome safety as well.

After unloading what we thought (and were told) was all 900lbs of gear and supplies, we roped up for glacier travel and went in search of a basecamp. We pulled sleds, loaded with our gear, and used a probe to check for crevasses.

Photo opposite: the team in front of the air taxi. Photo on next page: ærial view of the Pika Glacier basecamp.





PIKA GLACIER

"Little Switzerland"



BASECAMP

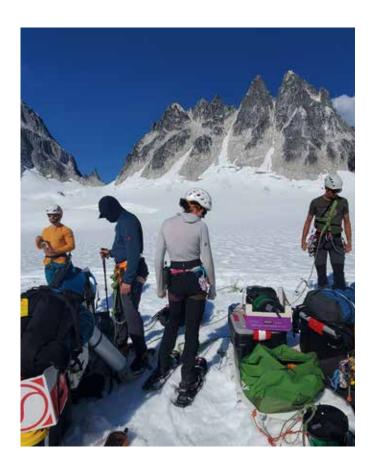
Day 4 - Sunday 3rd July (continued)

At basecamp, we started digging out an area for our tents, the kitchen, our food and our bathroom with shovels. We used special snow pegs for our tents and put all food on a tarp so the cardboard boxes wouldn't get soggy. There was a wall between the kitchen and bathroom area for privacy, although this wall ended up melting each day. We dug out a pee well which got deeper with use, and set up our CMCs (clean mountain containers) which were portable toilets to prevent human waste polluting the glacier. Although in practice, this really just meant they were plastic buckets to poo in which we had to bring back out of the glacier with us when we left.

Whilst setting up camp, we quickly realised that the 6 gallons of fuel we had bought from Talkeetna Air Taxi didn't get loaded onto our plane. It was already nighttime (although with 24/7 daylight this was hardly noticeable) so we decided Isaac would call them the next morning. Fortunately, we had backup JetBoil fuel and a plentiful supply of freeze-dried meals, that would last us for a week.

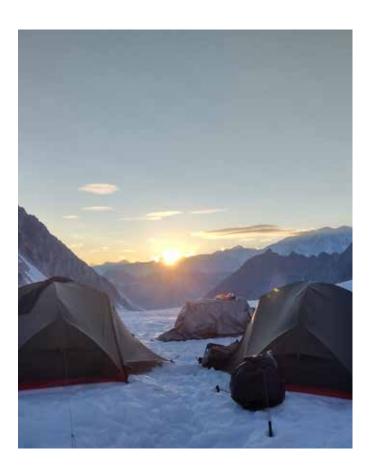
Despite the forecast, the weather on the glacier was stunning. Indeed, we spent more time worrying about sun cream than storms. As Ben boiled water for supper, the sun re-emerged from behind the Royal Tower and its rays caught in the steam. The air was crisp, the sky was clear and we could see to the Kahiltna Glacier.

We had read in a guidebook that it was best to climb between 11pm and 8am, since temperatures would be lower. This would reduce the risk of rockfall and snow bridge collapse, two of the objective dangers we were most wary of. Therefore, we roped up as a team of 6 and explored the region next to The Munchkin. It was a great feeling to be on the glacier, especially since the conditions were so much better than expected. However, we soon turned back at the sight of a serac hanging the next region of the glacier. It was the height of a London tower block and several times wider. With time, we came to refer to it endearingly as 'Death Serac' but left that region of the glacier unexplored.





Photos, from top: Jake, Ben, Izzy and Miguel with gear shortly after landing; Isaac bringing gear to basecamp with his sled.





Photos, from top: sunset over basecamp; hanging out in the basecamp kitchen. Photo on next page: Jake cooking in evening light.

Day 5 - Monday 4th July

In the morning, we met two ski mountaineers also staying on the glacier who stopped by our camp to say hello on their way to check the weather. Apparently you could get phone signal there at the top of a slope behind our camp. They said that, at this time of year, there was no point in climbing at night, so we decided to once again shift our sleep schedule. They gave us the weather update that Tuesday and Wednesday would be great weather but there would be storms Thursday.

Once the fuel arrived, Miguel found that the Omnifuel stoves weren't working. We all tried to set it up but ultimately, Cosima, Jake and Ben ended up roping up to head to the phone signal spot the skiers recommended to try and download the user manual. Although the views at the top of the hill into the next glacial valley seemed very worth the walk, they weren't able to get any signal and returned back to camp empty handed. The other four had managed to make the stoves work and were cooking pasta with bell peppers, sauce and parmesan. Mmm very yummy.

We planned the next day to make the most of the good conditions, choosing two routes we had discussed with the mountaineering school. They would involve a lot of scrambling and a few pitches of climbing at grades well within our ability. We had also discussed these routes with the mountaineering school, so felt they were a good starting point.

With plans made for the following day, Isaac, Ben and Jake still felt restless, so went to scout the approach for the Southwest Ridge of The Munchkin. At this early stage of the trip, the glacier felt unfamiliar so the trio were cautious and turned back when they saw dark depressions in the snow that they suspected were weak snowbridges.

Once back at camp and in the warmth of their sleeping bags, the team listened to the sound of rockfall. These sounds became a staple part of glacier life but were always unsettling. We tracked where they came from, in order to avoid these regions. For instance, this was why we never attempted Gargoyle Buttress.





SOUTH FACE OF MIDDLE TROLL 5.8 YDS 400 M

Day 6 - Tuesday 5th July

We woke up at 8am to prepare for our big route day. We packed our gear, food and water, and agreed to text base camp at midnight to check in on our progress. There wasn't much water left so Miguel and Cosima only took 1 bottle each. Big mistake. It was going to be a sweltering day climbing on a south facing wall and they both ended up severely dehydrated. Roped up with snowshoes on, the pair started the approach to Middle Troll.

Since she was lighter, Cosima lead the way to the bergschrund crossing. Ice axe in one hand, walking pole in the other, it was hard work climbing up the snow slope. The weight of the rope coils around their chests and the trad rack weighing down their harnesses, made it even more challenging to find their footing in the slushy snow. Eventually they made it to the bergschrunds. It was absolutely terrifying trying to gently step across a snow bridge, whilst also not losing their footing. Cosima ended up breaking off parts of the snow bridge and climbed into the smaller bergschrund. Once at the rock, she built an anchor and belayed Miguel up only to find that the next sections of rock were all loose choss. Dehydrated and tired, Cosima felt quite lightheaded so Miguel ended up leading the rest of the 400m route. The first few pitches consisted of chossy scrambling. Technically not that difficult, but not trusting anything you stepped on or held onto made for slow progress. Even though Miguel checked the topo regularly, without any points of reference, it was difficult to navigate up the 3rd/4th class scramble. The snow cover was much lower than usual for ascents of this route, meaning the guide lacked details which were now exposed to the elements. They passed a lot of tat anchors, but rather than reassuring them they were on route, just added to how confusing route finding was. The route finally turned into really enjoyable granite climbing with great holds to pull on, things to push up on, and incredible views. Eventually they made it to the top around midnight after 14 hours of climbing - the midnight sun still shining brightly.

Coming down was where things got fruity... Rather than follow the recommended descent, they started abseiling back down the same anchors from their way up, which included some diagonal abseils, and short climbs up buttresses between abseils. Two hiccups occurred. Miguel abseiled down and back up a small buttress, causing Cosima (who was last down) to become stuck in the small troth, unable to ascend or descend the rope. A short stint of rope soloing ensued, and Miguel rejoined Cosima to help her untangle the ropes and take an easier way down. The second hiccup occurred when the rope popped over a rock, causing Cosima to flip and hit her butt and head before regaining control. Thankfully, the only scratches were to our egos, as we found our snowshoes, abseiled over the bergschrunds in the nicer fashion and made it back to base camp at 6am, after 20 hours. What a relief. We saw the sunset from the top of the route, and the sunrise on our walk back.

Photo opposite: the south face of Middle Troll with topo drawn on. Photo below: Miguel and Cosima on the route.

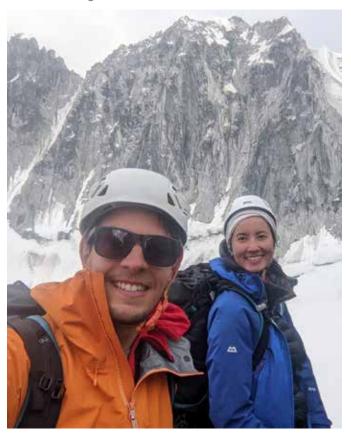






Photo opposite: The Throne with topo drawn on. Photo above: Izzy above the crux pitches. Photo on next page: our daily backdrop.

THE LOST MARSUPIAL 5.8 YDS 400 M

Day 6 - Tuesday 5th July

On the day of the Lost Marsupial, Isaac and Izzy left camp at about 9am. Izzy had suggested a more alpine start of 5am so that the bergschrund crossing would be less slushy, but Isaac had stayed up late the night before to attempt the Munchkin and thought an early start unnecessary. When he led over the bergschrund, however, both team members were slipping and sliding the whole way up as the snow was too slushy! They got to the base at around 12pm and it was very very hot.

The first 5.8 pitch was an extension to the climb for when the gully has too little snow to be safe to climb, so you exit onto the rock sooner. They were glad the conditions required this because it was a splitter crack and lots of fun. The second crux was a few pitches later and was a super nice lay back. After this second crux, the grades were low so Isaac and Izzy simul climbed the rest. Unfortunately, the rock got looser as the climbing

got easier so the best climbing was in the first half of the route. They reached the summit 400m later at about 7pm. The sun was still high in the sky and the views were stellar so they sunbathed for half an hour to an hour and collected some snow to melt and put through a water filter. At that point, they did not realise how long and arduous the descent would be, with lots of rappelling and down climbing over scree in between abseils. When they walked back over the glacier to the tents it was sunset and the twilight sky was lined with orange and red. They arrived at camp tired and hungry at around 2am.

Jake and Ben had decided they wanted to try a smaller objective before attempting one of the larger peaks, so went on a scouting mission to find the "Hobbit's Footstool", an area supposedly containing some shorter routes, some even bolted. They eventually found this, passing the skiers' abandoned camp on the way, and then continued down the glacier towards the Kahiltna, turning back when the terrain became more crevassed. They then returned to the camp, to spend the evening worrying about the other two teams (luckily unnecessarily).







Photo: Ben and Isaac at basecamp, preparing for an exploratory trip to Your Highness.

Day 7 - Wednesday 6th July

We started our rest day today, taking the day to prepare for the rain we were expecting. Although it was a rest day, there was always something to do at camp. Washing dishes, maintaining our bathroom privacy wall, making water, going to CMC, sorting gear. We put snacks in each tent and Miguel and Cosima spent the entire day melting and filtering snow to drink and cook with.

Jake, Isaac and Ben went off to the bottom of the glacier to check out the approach to Your Highness since it was a field of crevasses. Isaac got some really nice drone footage there but it turned out there were a lot of crevasses down the glacier! The weather was not as bad as we expected, but by the end o the day, big clouds had come in from all directions. We were glad to have stayed at camp. With the weather changing and our day busy with errands, we were finally realising the scale of our undertaking. We really were in the midst of a mountain range! On a proper mountaineering expedition! All by ourselves!

Day 8 - Thursday 7th July

It was raining all day so we took shelter in our tents. Miguel was reading and playing chess, Isaac, Ben and Jake listened to an audiobook, Izzy was reading and Cosima was updating the trip diary. The boys took turns delivering bread, coffee and tea to the tents which was really sweet. Nothing like hearing the rain on the tents, sipping fragrant chai and the sound of rockfall in the distance. It was really cozy today. The music being played was gentle and soothing, and we were all in good spirits! It was so refreshing to take a step back from our lives in London. All the responsibilities, the distractions of the internet, the complex social webs we subscribed to. We were feeling content in our little family on the glacier.

Isaac noticed that one a hole had formed under one of the tent pegs. Reaching down, he knocked the peg loose and it fell out of sight into the glacier. This unnerved him and, thinking a crevasse might have formed under the Hilleberg, he spent a while doing some enthusiastic probing. Fortunately, it was a false alarm.



Photo: Jake climbing on the approach to The Hobbit's Footstool.

AMS ARETE ON THE HOBBIT'S FOOTSTOOL 5.10_{YDS} 180_M

Day 9 - Friday 8th July

It was supposed to rain again today but with a clear sky in the morning, we decided to take the risk and journey to the base of the glacier to The Hobbit's Footstool. Porridge in our bellies, gear in our packs, and our favourite expedition member (the drone) on Isaac's sled, we set off under the scorching sun. We crossed at least 15 crevasses on our way there, with some crossing basecamps long abandoned from earlier in the season.

Isaac wishes to add that during this approach, he and Jake both had to use sanitary pads for non-sanitary activities. No more shall be disclosed. Fast and light!

When we finally arrived, we had a hard time figuring out if we were in the right place. Jake, Isaac and Izzy decided to climb up some rock and scramble to what they suspected were the single and multi pitch routes we were looking for. Miguel, Ben and Cosima were still dubious about this, and retraced their steps to head further down the glacier. The rock there looked even less like the topo so they had to walk all the way back.

By the time they made it up the scramble, the others were already halfway up a 4-pitch (YDS 5.6, 5.5, 5.10, 5.6) route named 'AMS Arete'. It was a classic American 'half trad, half sport' affair. The first two pitches were nice easy climbing on natural gear, with one awkward (but short lived) flared corner. These were followed by a stunning and very well bolted arete, leading to another pitch of naturally protected crack climbing.

After lunch Ben, Cosima and Miguel started up the same route. Cosima abbed down after the second 5.8 pitch while Ben and Miguel continued. Izzy became our new videographer and shot some interviews while waiting for Ben and Miguel to finish.

Around midnight, the whole group abbed back down to the snow and returned to camp. Cosima led the way, dreaming of the delicious mac and cheese they would

make. The sky was displaying its most mesmerising sunset yet, the dark red streaks contrasted vividly against the black silhouette of The Dragon's Spine. Back at camp we discovered ravens had raided our bin bags and trash was strewn everywhere. We'd forgotten to bury our trash so spent the next half hour doing that. We made mac and cheese to warm up but were met with a horrendous surprise. It was by far the most abysmal, disgusting creation any of us had ever eaten. Too bad we had bought 24 packs of the sour, yellow sludge!

Day 10 - Satuday 9th July

It was raining again today so we all huddled up in our tents once more. Except this time, we definitely smelt worse. Most of us had been taking wet wipe 'showers', but they were rather futile. Miguel found the ravens had managed to dig up our buried trash (again) and so we braved the rain and dug even deeper holes. Tea, water filtering, eating way too many mixed nuts.





Photos, from top: Jake on the crux pitch of AMS Arete; Isaac, Cosima and Jake having lunch on The Hobbit's Footstool.

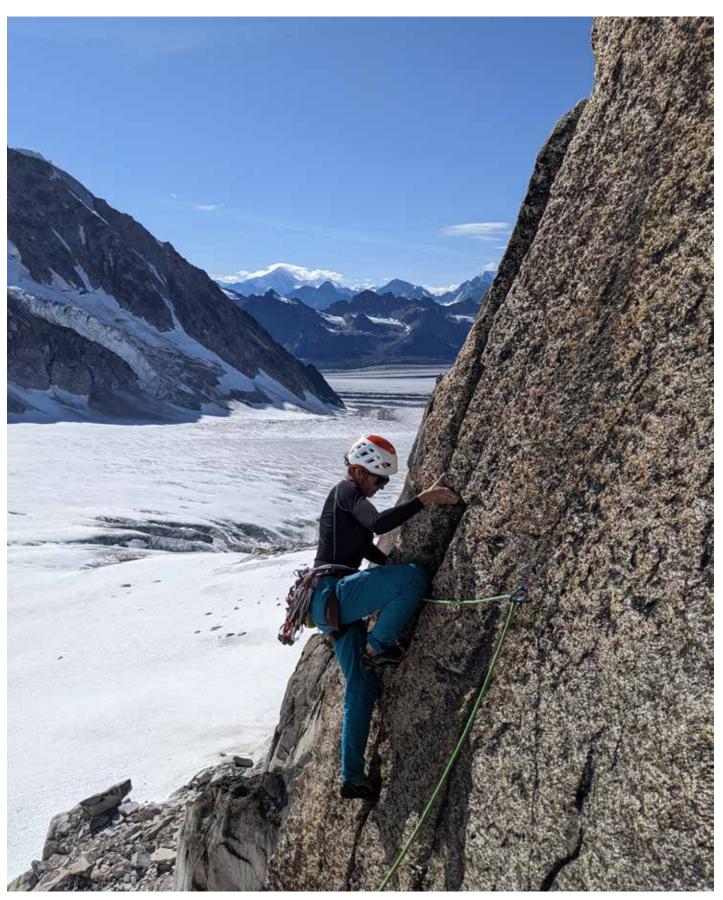


Photo: Izzy leading the crux pitch of AMS Arete. Photo on next page: Migual leading the same pitch with Ben belaying below.









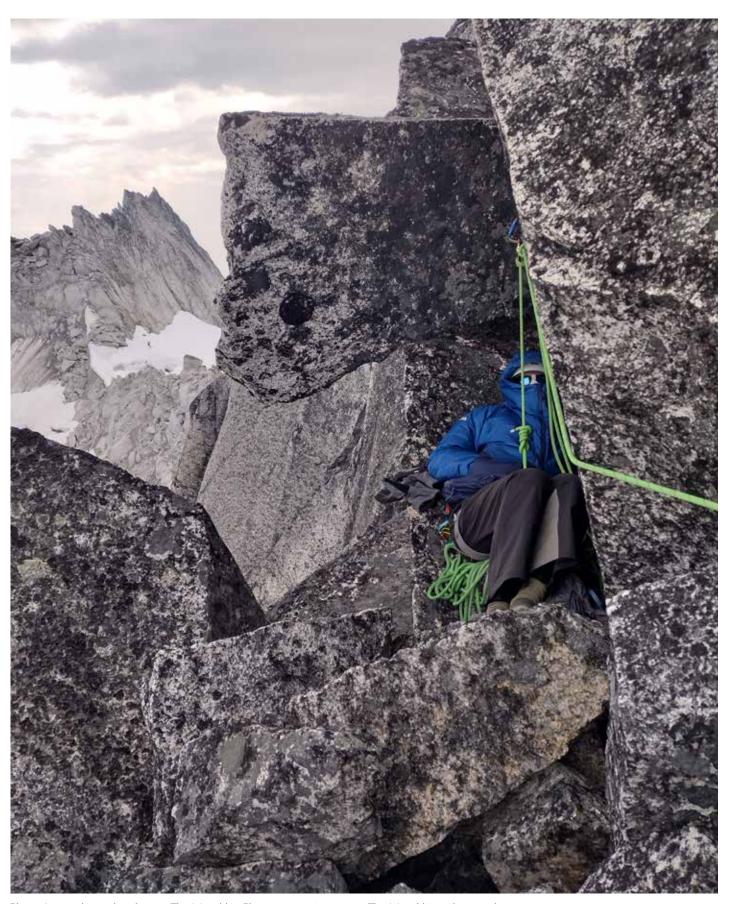
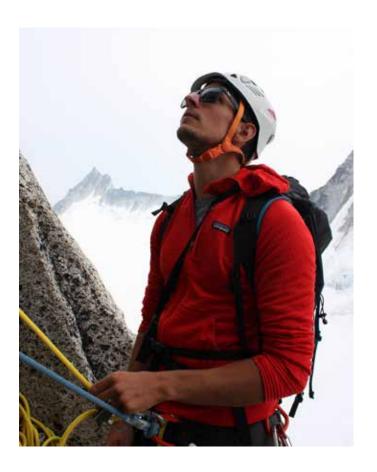


Photo: Isaac taking a break atop The Munchkin. Photo on previous page: The Munchkin with topo drawn on.



Photos, from top: Miguel belaying on The Munchkin; Ben abseiling back down. Photo on next page: Jake abseiling down The Munchkin.

THE MUNCHKIN SOUTHWEST RIDGE

5.4YDS 120M

Day 11 - Sunday 10th July

The weather was uncertain today but, having had the munchies for The Munchkin since we got here, today seemed like the day for it. Izzy wasn't feeling well so stayed at camp to rest, poor soul. The other five of us roped up for the risky approach, stopping by the tourist planes to ask about the weather forecast. The pilots were unable to give us any indication of the weather to come, but we certainly made it into a bunch of tourist photos in the process of asking.

We zigzagged across the crevasses to not be parallel to them and reached a deep bergschrund at the base of The Munchkin. Isaac was brave in leading across it to the rock, to then belay the rest of us up. After seeing how deep the berg was, the rest of us had newfound respect for Isaac's boldness. Despite being on belay, Ben managed to partly fall into the berg, which amused Cosima so much she slipped on the slow from laughing too hard.

Once on the rock, we split into 2 teams. Jake and Isaac, and Miguel, Ben and Cosima. We weren't quite on the route so the latter team went right, on some loose rocks, whereas the other two stayed left to avoid rockfall. Once almost at the top of the route, gentle rain started drizzling on top of us. At the Munchkin's peak, Jake found a nut labelled 'AMS', indicating it belonged to the Alaska Mountaineering School. Since we weren't technically on an established route the climbing was exploratory with an air of mystery of what was to come.

Isaac led us in prayer to the abseil Gods before pulling the ropes after the last 60m ab. Fortunately, they were pitiful and the ropes came without snagging - a real blessing. We walked back to camp in our snowshoes after an enjoyable faff-free day of climbing. We were in luck! Despite being unwell, sweet Izzy cooked our best meal yet: pasta with peas and the creamiest, cheesiest,garlickiest white sauce. A day well spent despite the unpredictable weather.





THE PLUNGER AND LOST MARSUPIAL 2.0

Day 12 - Monday 11th July

It was around 10pm when Isaac and Izzy decided to bail off a route to the left of The Plunger because the rock was too loose for their liking. Bad weather seemed to be rolling in, but the fog appeared to dissipate just as it hit the ridge, which created an atmosphere that somehow made it much more exciting. They thus decided to traverse onto the Plunger, eager to get to the top of something (and because it looked so so cool!!!). They didn't have a topo but had read somewhere that there were amenable grades, so off they went.

After Isaac led a lovely 5.6 pitch, they were met with a steep crack. The crack had a fairly consistent width which was ever so slightly too narrow to get a good hand jam in (even for Izzy's relatively small hands). After pulling on and doing the first two moves, it was pretty clear that

Photo: Jake and Ben preparing for The Lost Marsupial.



this was going to have to be aid climbed. It looked as though the steep angle eased off after a few metres so they were hoping to free climb the second half.

Rotating her three middle-sized cams, Izzy pulled herself up the wall and reached the slightly slabby part of the rock. But, alas, the goal of free climbing died as the crack became a finger lock crack at a weird angle, with smears for feet! Not easier! She swapped her three cams for smaller ones and aided up the rest, just managing to top out just as the rain started. It was here that she learnt what the word clutch meant. They still had no idea if they were on the right line, or even what grade the line they did would get (she's more of an Isabel than an Isabeastabel when it comes to cracks), but nevermind, they got up it!

Super exciting situation, super views, and cracking climbing (hehe). Then there were just many many awful hours of soggy descent to get through.

In the meantime, Jake and Ben had gotten ready for their big day up The Lost Marsupial on the Throne, setting off first thing in the morning to maximise their chances of summiting. Miguel and Cosima sorted out errands at camp as our bin bags had been attacked by crows again. They then set off the same way as the others to do the first three pitches of The Lost Marsupial.

By the time Miguel and Cosima arrived, Ben and Jake were still on the first pitch of the approach. After waiting in the snow, Cosima led into the moat, guided by Ben's snow footprints, and up the rock, doing an incredibly clumsy belly flop up the chimney. It was really enjoyable granite climbing with everything from a slab with an amazing hand crack, to bouldery moves onto a large ledge. Meanwhile, Jake led up what he thought was a 5.8 pitch: a striking arete with some powerful moves towards the top. Miguel and Cosima saw this same feature when they were climbing, but thought it looked incredibly difficult and was off route. Jake later realised the pitch was not 5.8 at all, nor was it part of The Lost Marsupials. It might have been E1/E2.

They quickly realised the echoes they'd attributed to rockfall were actually thunder. Looming clouds were quickly closing in around them. They decided to bail off

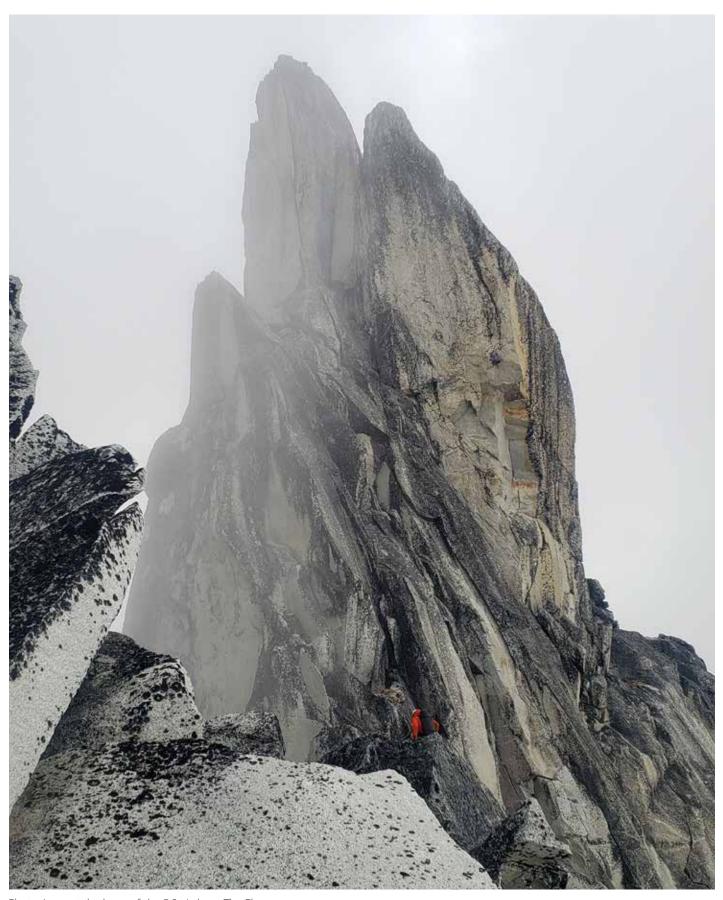


Photo: Isaac at the base of the 5.6 pitch on The Plunger.

the route despite being just short of the start of the main route. Who knew what a storm could bring all the way out here? They certainly didn't want to stick around to find out. Cosima texted Izzy and Isaac on the satellite phone that they were bailing. They decided to tie their ropes together to abseil all the way down to where they'd left their boots above the moat. They successfully abbed down to their B2 boots and started pulling down the ropes for the final abseil to the snow picket anchor. They successfully got one rope down when the other half got stuck. Miguel abbed down on the freed rope to try to pull the other down from a different angle with no luck. Ben climbed all the way back up to free the stuck rope while Miguel and Cosima waited on the snow slope trying to stay warm. Ben freed the rope, abseiled to Jake, and then got the other rope stuck. Ben climbed back up again a 3rd time. Amazing effort and perseverance from Ben. Whilst this was going on, the clouds closed in and they were all caught in a whiteout. Luckily by the time they had put their snow shows on and roped up, it

cleared up and they walked back to base camp.

Back at camp we all made freeze dried meals and went to bed around 3am. Everyone made it back safely after a long rainy, foggy day. The Lost Marsupial remained unclimbed by 4 of us, but better home safely than an epic titled 'The Lost Imperialites'.

Day 13 - Tuesday 12th July

We all felt achy and tired so dubbed today as 'Hangover Day', despite the closest thing to alcohol being our rotten bell peppers. Our basecamp was caught in a whiteout and more rain was forecast for the day. We all spent the day at our basecamp. Slightly malnourished from the days on the mountains, Miguel and Cosima made tomato carrot soup whilst Ben set off to make cheese toasties for everyone. We filtered more water and sat around our slowly melting snow kitchen together, eating and talking. There was a sense of unity after almost 2

Photos, from left: Miguel cooking tomato-carrot soup; the basecamp kitchen with sleds hiding the CMCs.



weeks on the glacier. We gained a lot of respect for each other's bravery, badassery and perseverance, despite the long, cold days. Each and every one of us had shown our strengths on the mountain and brought with us a strong spirit and appetite for the Alaskan wilderness. We felt quite proud to be a part of this team and to be sharing glacier life and mountain ascents together. Go team!

Just as it started drizzling, Ben, Isaac and Jake (also dubbed 'The Hilleboys') started re-pegging their Hilleberg tent. Our entire basecamp sank every day as the snow melted, creating hard snow platforms underneath our tents. The three of them also renovated our kitchen with new shelves and reorganised our food supply.

The weather forecast said it would rain for the rest of the week and, since planes wouldn't be able to land in a whiteout, we thought we might not be able to leave on Sunday as planned. We were reluctant to leave earlier than planned, but 5 days stuck at basecamp didn't appeal.

Day 14 - Wednesday 13th July

Yet another rainy day at camp. Izzy and Ben tried to make pancakes using 'Great Alaskan Pancake Mix' with questionable results. There was a pancake 'cake' which didn't taste as bad as it looked, but only because it looked revolting. Luckily, Izzy made delicious burritos for dinner and our spirits were definitely lifted at the sight of good, hot food. The weather forecast still predicted rain, but Thursday and Saturday offered potential weather windows to climb or leave the glacier.

Ben had brought a book from Talkeetna titled "Oh No We're All Going To Die", which, although uplifting, was very badly written. Having grown tired of it, the boys in the Hilleberg listened to a podcast about a man nearly dying in a hideous bear attack, with Seth Rogan. Izzy had been passing the time by reading Isaac Asimov books, but this had gotten the better of her. She stumbled into the Hilleberg, eyes glazed, and announced "I am entering into the fourth dimension".

Photo: Ben preparing cheese toasties. Photo on next page: Jake and Isaac on the summit of Middle Troll.



THE MIDDLE TROLL EPIC AND LOST MARSUPIAL 3.0

Day 15 - Thursday 14th July

We woke up feeling broken and unmotivated for what was probably our final climbing day on the glacier. Isaac, Jake, Izzy and Ben left for Middle Troll in the early afternoon, shortly followed by Miguel and Cosima leaving for their second attempt at The Lost Marsupial. In hopes of making a speedier ascent and faff free descent, Miguel and Cosima gave the others as much beta about Middle Troll as possible. Unfortunately, it turned into the biggest epic ever. They abseiled back down the route as a four, which took approximately 9 hours thanks to rock fall and rain.

On their second attempt, Miguel and Cosima managed to swing leads up 6 pitches on The Lost Marsupial. Except for when a big rock came loose and Cosima fell onto a rock spike (on the exact same spot that was still bruised from the South Face of Middle Troll...), their descent was flawless. On their walk back to basecamp around 2am, they could see the head torches of the others twinkling at the top of Middle Troll, illuminating it like some wild lighthouse. At least they knew all 4 of them made it to the top. Around 3am, a strong rain began but Miguel and Cosima had received no messages from the others on the satellite phone, and it was getting increasingly cold and wet.

Day 16 - Friday 15th July 2022

Cosima and Miguel barely slept from 3 to 6am. Partly because of the terrible stench in their tent, mostly because they couldn't stop thinking about what was going on, on Middle Troll, now a wet chossy slope. By 6am there was no sign from the other four. At 12pm they still weren't back. Finally, around 1pm after 24 hours on the route, Izzy, Ben, Isaac and Jake all made it back safely to basecamp, the rain still relentless. Their waterproof layers drenched through, it was not a good time to hear about what had happened. The only hint Cosima and Miguel got was noticing the yellow rope had been cut in two.





Photos, from top: Jake chilling on the summit of Middle Troll; Izzy climbing right at her limit, with characteristic style and grace.



Photo: Izzy on the bear-shaped 'diving board' atop Middle Troll.





DEPARTURE

Day 17 - Saturday 16th July

Today was supposed to be the only time the rain would ease for at least a few more days. We tried to call the air taxi the night before to tell them we wanted to leave, but the weather window was not workable. Cooped up in our tents as the rain kept on, the clouds rolled in, leaving us in a whiteout. Miguel checked in with Talkeetna Air Taxi about the weather every few hours but by early afternoon they had grounded all planes. We'd try calling again the next day but one satellite phone was already out of battery and the other two were running low.

Day 18 - Sunday 17th July

There was not much to remember from these days of being stuck in our tents, waiting and hoping for even the smallest of weather windows so we could leave Pika Glacier. It was raining too heavily to cook proper meals, so we ate a mixture of wraps, peanut butter, canned pineapple and nuts. Our phones were dead, for we couldn't use the solar panel charger, and we'd all read the books we brought with us. It snowed at night and Izzy's tent collapsed. We busied ourselves filtering water or standing outside whenever the weather eased up enough.

Morale was low and visibility was worse, and the fear that at some point we'd have to eat the disgusting mac and cheese was looming over us. Although we were lying down or sleeping most of the time, our bodies ached and were overcome with fatigue. Dubbed as the 'Pika People' by the air taxi, we felt a sense of loyalty to the glacier that had been so welcoming to us. Yet at the same time, as long as we were awake, we couldn't help dreaming of an escape.

These 4 days of being tent bound blended into one long limbo of snow and sleep. There was talk of all the amazing food we'd have back in Talkeetna, and every time the weather changed ever so slightly, our hearts thundered with excitement. No luck today, another night on Pika.





Photos, from top: Ben and Jake celebrating the arrival of the air taxi; Isaac and Ben taking shelter in the Hilleberg tent.





Photos, from top: Miguel checking the weather; Izzy getting ready to leave her tent. Photo on next page: glad to be back in the air taxi.

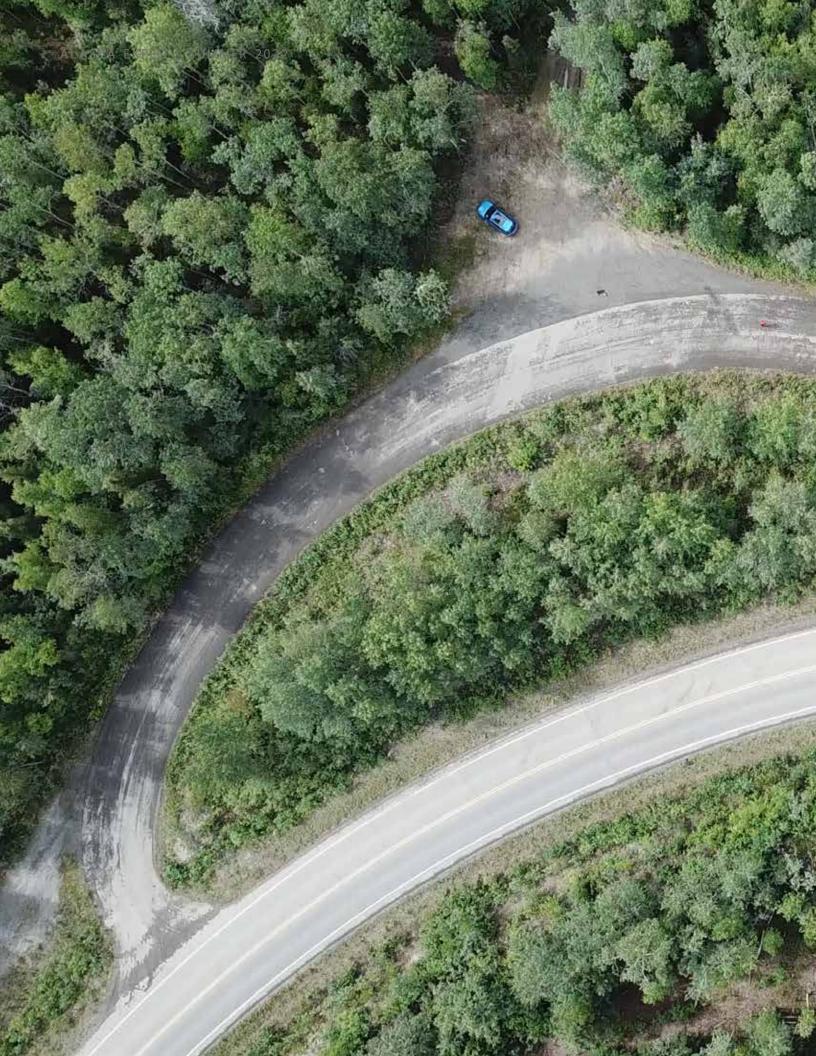
Day 19 - Monday 18th July

Miguel called the air taxi at 8am, 10am and 12pm. The weather was still not good enough - we were waiting for blue skies and clear visibility. We boiled water for freeze dried meals to keep busy. We weren't optimistic until suddenly, the sky started clearing, revealing little patches of blue. Screams of delight were heard from the Hilleberg tent. Was this it? We waited a little longer and called the air taxi. They were coming! We frantically started packing up camp but just as we were almost done, the clouds returned. Would the pilot decide to land? We saw him circle above us and then he emerged from the cloud cover and landed right next to our camp. We started ferrying our gear to the plane, the pilot (the air taxi boss himself!) shouting at us to hurry up. Though he was right, this weather window was small and if we had been stranded any longer, the air taxi company would have suggested we walk out. A 5-day walk through bear territory... We packed into the plane, feet frozen, harnesses still on from pulling the sleds, and finally let our departure sink in. As we took off, we had one final glance at Pika and the surrounding crevasse fields, before setting off into the clouds. It was beautiful and a great time to reflect on all we'd achieved on our expedition. All to the sound of Jake proudly announcing, 'I'm an æronautical engineer' to the unimpressed pilot.

Back at Talkeetna the sensory overload was overwhelming. Buildings, new faces, colours other than black and white. It was like entering a modern action blockbuster after living in a silent black and white film. We got driven to Talkeetna Air Taxi's bunkhouse where we were allowed to stay for free and sorted our gear to dry while taking turns to shower. These showers were positively, ground breakingly, life changing. We felt human again after 16 days without a shower. Our orders of burgers and curly fries tasted phenomenal. We then went to the Fairview Inn to play table tennis, followed by the 'Tippee Lounge'. We immediately got talking with the friendly locals whilst playing pool and a local singer started performing. We danced together, celebrating our return to civilization.











Photos from left: Miguel hitchhiking; organising gear in the Talkeetna Air Taxi bunkhouse. Photo on previous page: arrival at Grapefruit Rock.

PREPARING FOR FAIRBANKS

Day 20 - Tuesday 19th July

Miguel and Isaac hitchhiked to Wasilla to pick up the rental car. It was a rainy morning of errands and planning. Rain was forecast in Hatcher Pass so Izzy researched a new location. The others returned the snowshoes and wandered through the local cemetery. Instead of gravestones, some had æroplane propellers and there was a memorial for those who died on Denali. It was strange and humbling to be reminded of the dangers of the mountains we'd just returned from. Rest in peace to all those brave mountaineers - some still in their teens.

We then headed to the high street, now emptier than we'd seen it so far. It was a peculiar rest day, waiting for the next day to arrive, restless after our adventures on the glacier. We decided to go to Fairbanks the next day, a 5 hour drive away, to explore the climbing there. Isaac made some incredible arancini for all of us while we sorted our gear.

Day 21 - Wednesday 20th July

We left for Fairbanks around lunchtime. Miguel was driving, the Hilliboys (Isaac, Ben, Jake) were cramped in the back, Cosima with a few bags in front, and some bags strapped to the roof. Izzy took the train. On our way to Fairbanks, we stopped by an abandoned igloo hotel that had failed all of its safety testing and as a result never opened to the public. It was an eerie half-finished structure, covered in graffiti, a hula hoop and adult diaper abandoned at its entrance. The 5 of us snuck in to get a better look but didn't stay long. Except Isaac of course, who decided to explore a little longer and creep up to the level above. Back on the road, we learnt that a horrific bear attack had happened very close to the igloo and that the igloo itself was a popular bear hangout. Scary stuff, but with our eyes peeled to the scenery in hopes of seeing a bear, it was almost a bummer we didn't meet one in the igloo. We finally arrived in Fairbanks and checked into 'Sven's campsite'. Cosima drove to the train station to pick up Izzy, we tried some Alaskan beers and Isaac made miso soup with veggie katsu curry.



Photo: The Imperial College Mountaineering Club motto immortalised at the bunkhouse.

Day 22 - Thursday 21st July

Miguel and Cosima made pancakes for everyone in the morning after he'd driven an old irish woman he met at the campsite to the airport. It was a slow morning, since the others woke up a lot later than expected. Maybe the Alaskan beers were too strong, or maybe it was the tiredness from a few weeks in the mountains.

We went to REI (an American outdoor shop) to look for a bouldering pad to rent without success. After borrowing a bouldering pad from the local climbing gym, we ate lunch at a Mexican restaurant, with amazing burritos, tacos and enchiladas. We agreed to go to the hotsprings later that day, where we soothed our aching bodies in the hot water. It felt like we really needed it.

On our drive back to the campsite, we were lucky to see a moose and its babies on the side of the highway. Ben cooked fried rice with homemade chilli oil sauce, surprising us yet again with his culinary genius. Isaac befriended a bloke who had worked as a kayak guide on Ben's favourite film: Big River Man.

THE MOSQUITO CATASTROPHE

Day 23 - Friday 22nd July

We left food and gear at the campsite lockers, and drove to the public use cabin near Grapefruit Rock to drop off our things. Already, there were swarms of mosquitoes and we had to be careful not to let them follow us into the car. The moment we arrived at the parking lot for Grapefruit Rock, we knew it would be a disaster. Mosquitoes swarmed the car in huge hives like we'd never seen before. We put on as much protection in clothes as we could, hoping they wouldn't be able to bite through. Equipped with bear spray, we quickly left the car so as not to let more mosquitos inside, and hit the trail.

At the rocks, the mosquitos were even worse. The air was ridden with angry black swarms of mosquitoes. At any given point, mosquitoes populated our sleeves, itching to get hold of our flesh. It was impossible to climb with such swarms. We admitted defeat and walked back

to the car. Driving back to the cabin, we kept finding more mosquitces in the car. No climbing today. We made a fire outside the public use cabin to ward off mosquitos, and played cards at the lake where dragonflies kept the mosquitos at bay.

Day 24 - Saturday 23rd July

Back in Fairbanks, we went to the local bouldering gym: Ascension Rock Club. It was a basic place, at least compared to the London gyms we've been spoiled with. However, the staff were warm and offered consolation over our recent defeat by mosquitos. "They're the state bird", the owner of the gym told us, "they're worse than the bears". Much to Ben's excitement, and everyone else's bewilderment, a vertical treadmill stood in the corner of the gym. This was, he told us, an American invention known as the 'Treadwall', that never reached Europe. You could adjust the incline, from slab to overhung, and adjust the speed. The wall, which was a sort of mechanical conveyor belt, would then move downwards as you climbed up it, while making awful clanking sounds. This meant you could climb upwards for an eternity, without ever reaching the top, which reminded the other's of Middle Troll.

We decided a trip to the Fairbanks Anthropology Museum would be a great way to learn more about the culture, history and geographical significance of Alaska. We were surprised to learn that the state had originally belonged to Russia, before being purchased by the USA in 1867 for around \$7 million. Looking back, some of our Alaskan experiences made more sense with this in mind. For instance, the packaging for the Alaskan-Siberian Sausage, with a drawing of the Russian and American flags shaking hands, with Cyrillic characters on one side and English on the other. Or the talk we had heard of Russian-speaking Alaskans, which had all seemed out-of-place for the USA.

Lastly, we stole a glimpse at Chris McCandless' 142 Bus, which had recently been airlifted from the Stampede Trail, for renovation and display at the museum. A few of us had read Into the Wild, and it was part of what drew us to Alaska.





Photos, from top: taking a break on the drive to Fairbanks from Talkeetna; view of Olnes and from the public use cabin.

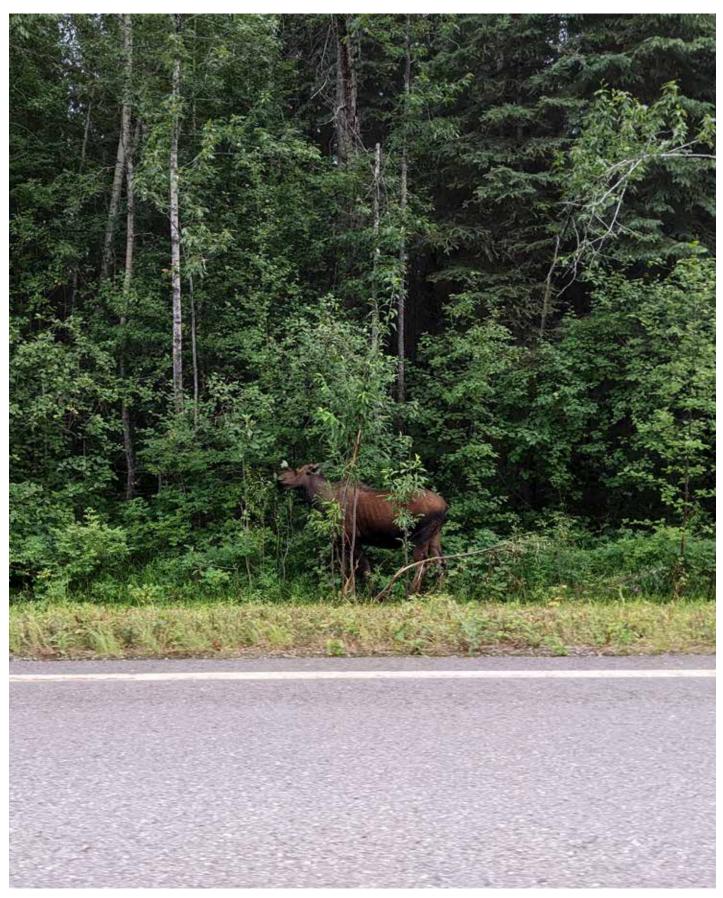


Photo: a moose on the side of the road to Chena Hot Springs. Photo on next page: Kelsey teaching Izzy and Jake to clean routes.





MEETING KELSEY GRAY / LEARNING HOW TO BOLT

Day 25 to 28 - Sunday 24th July to Wednesday 27th July

With the weather in Hatcher Pass looking much better than before, we drove there in the morning to set up camp at Gold Mint Trailhead. After a 30 minute walk-in, we reached 'Snowbird Slab', which offered a series of single-pitch climbs. This was recommended to us by none other than Kelsey Grey, the author of the Alaska climbing guidebooks. Izzy had previously messaged Kelsey on Facebook for advice on where to go for when it was raining, and he was incredible friendly and knowledgable. He let us know that he would be cleaning a route up there that day and to come and say hi. When he was finished, he wandered over to us at perfectly bad timing because Izzy was tangled in a lot of bad rope drag and climbing with a mosquito head net on which

he found very amusing. Isaac had to reassure him that we weren't always such punters. Nonetheless, Kelsey embraced us with an openness and kindness, which we later came to miss dearly once departing Alaska. He very generously invited us to his lake-side cabin to stay during the upcoming days, in which we spent most of the time learning how to clean and bolt new routes.

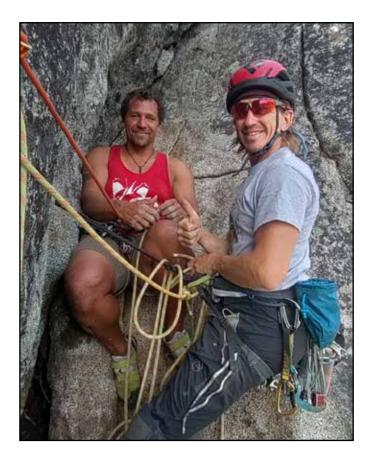
Developing a new route was not easy, despite Kelsey making it look effortless. He already secured an anchor at the top of the wall where we would be spending a few days putting up routes and first ascents, which allowed the setting up of ropes to access the rock. The first, and longest, step was to clear the moss and dirt off the rock. Starting either at the top of the route and abseiling down, or rope soloing up from the bottom, the five of us (Ben had departed in Fairbanks) set off with wire brushes and ice axes to clean the routes. The ice axes were particularly useful for clearing mud out of cracks, whereas the brushes could dust off dirt and moss.

Photo, from left: Miguel, Randy and Kelsey packing gear for route development; the group on the approach to Snowbird Slab.

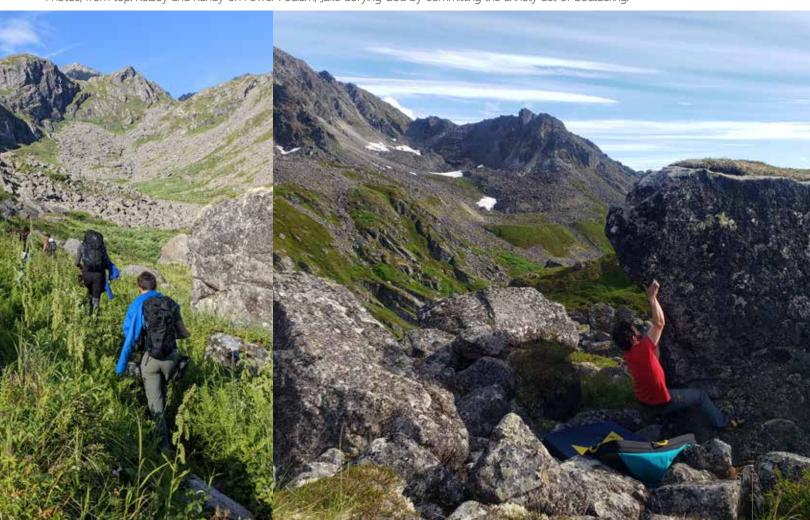


Working with Miguel was Randy, a documentary film-maker, who joined us in learning how to bolt with Kelsey, so that he would be able to set off on his own and bolt routes. Isaac soon wandered off, lacking the attention span and work-ethic required to clean routes. In retrospect, he would like to add that his objection to route-cleaning was purely conscientious. Being a man of strong ethics and integrity, he could not partake, nor even cast eyes upon, the sordid act of bolting. Work ethic had nothing to do with it, he claims.

In the end, it took around 2-3 days to clean the two new routes we were setting up, and around half a day to bolt them. After cleaning the routes, we all had a go at climbing them to see where good bolt placements would be. We marked potential spots with chalk and after adjusting and discussing them with bolt-god Kelsey, learned how to hammer, drill and bolt the hangers in place. The most exciting part was finally climbing the newly bolted routes, which we had spent hours cleaning



Photos, from top: Kelsey and Randy on Power Podium; Jake defying God by committing the unholy act of bouldering.



and bolting. Izzy, Cosima and Jake had set-up 'A Nightmare of Black Bears' graded 5.9 and 34 metres tall, whereas Miguel and Randy set-up 'Live and Learn' graded 5.10b and 35 metres tall. It was incredible to be the first people to climb these routes and we felt grateful for Kelsey's mentorship in allowing this to be possible in the first place.

LAKE-CABIN BLISS

Day 29 - Thursday 28th July 2022

The long summer days meant we had barely slept, always leaving the crag close to midnight and waking up early the next day to continue cleaning the rock face. We slept in and made pancakes, and spent the day relaxing in Kelsey's cabin and sunbathing by the lake. To think we would have spent the last days camping on the gravel campsite at Gold Mint Trailhead if we hadn't met Kelsey! It seemed things could not possibly turn more idyllic, when Kelsey offered to teach us how to fish. Miguel followed him to the lake and managed to catch a rainbow trout. Instead of catching it with the rod however, Miguel took a leap of faith and jumped directly into the lake to grab the fish after struggling to pull it out of the water. We went swimming and eventually watched the day come to an end with a mesmerising sunset. Pure bliss.

Day 30 - Friday 29th July

We went back to the same crag in Hatcher pass for our last day of climbing with Kelsey and Randy. Miguel, Cosima, Kelsey and Randy spent the day climbing 'Power Podium', a 4-pitch route Kelsey himself had developed.

Jake finally did what he'd been attempting to do for the last week, and went bouldering, attempting "Seasons in the Mist" V5, a classic of the area. This was an excellent problem in an amazing setting, and ideally suited to Jake's skillset, with powerful moves (and very little technique!). Jake sent it after 5 or so attempts, with the key being a reasonably flexible heel hook. Jake is the least flexible person in the world, so getting this heel hook actually led to a pulled calf muscle.

Izzy and Isaac embarked on the 5.10 multipitch Toto recommended by Kelsey. It had been a tiring week so





Photos, from top: Cosi bolting; Izzy's trad reputation being absolutely demolished, she will never get over the embarrassment and remorse of her actions that day, tamishing such natural rock.



The four new routes we helped to develop on Pulp Culture Wall: 1. A Nightmare of Black Bears (5.9), 2. Live and Learn (5.10b), 3. Melatonin League (5.8) and 4. Rising Tide (5.7).





they sat for at least half an hour at the base eating peanut butter and jam sandwhiches while watching Jake sunbathe and play around on boulders. Ah such a simpler life down there they thought. Why were they going to do this? Should they not just go and join him... But no! They snapped out of it for it was the last day of climbing so they had to climb and bouldering doesn't count.

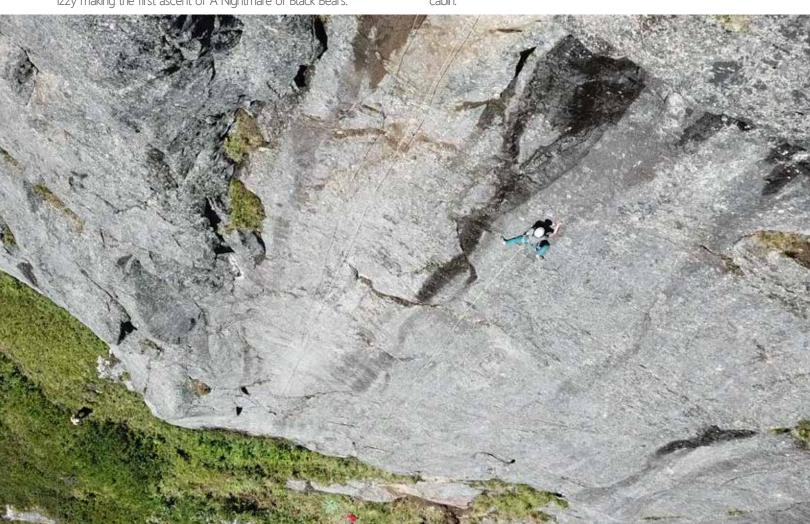
The climbing was pretty stellar and went smoothly until the first of the two wide pitches. Armed with big cams from Randy, Isaac decided to lead the 5.10a 'Beastiality' offwidth pitch, so called because it feels like humping a dog. Isaac 'didn't think it looked that bad'. Izzy stared longingly at the 5.9 corner variation as he began fighting his way up, soon remembering he'd never climbed an offwidth before. He made up some technique that seemed to work, but not well enough to stop him having to aid climb some of it. When Izzy followed up, she tried crimping, laybacking, and anything that didn't require being wedged into a crack. Nothing really worked, she

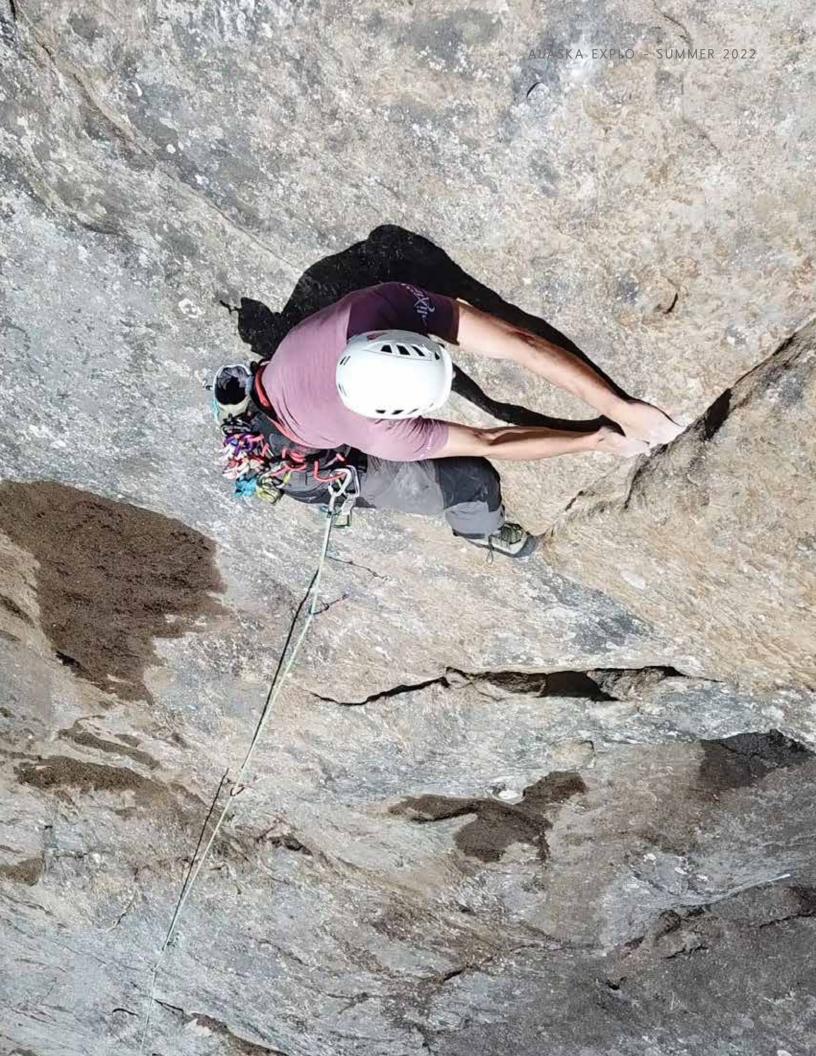
Photo below: Cosima climbing Live and Learn. Photo on next page: Izzy making the first ascent of A Nightmare of Black Bears.

dogged her way up and thought that was potentially the most physically challenging climb she'd done to that point, and she was on a tight top-rope. Fair play to Isaac!

This was followed by the final pitch: a physical-looking fist-sized crack up a steep corner. It was Izzy's turn to lead. Unfortunately the crack was the perfect size for her foot to get stuck. She got pretty scared because her protection was a peg and she couldn't see that she had the perfect size cam on her harness because her hip was wedged into the rock. She eventually took on the peg because her foot was acting as if it was a bomber nut that you'd need a hammer to get out. Luckily the peg held her weight, she found the good cam, and with a lot of effort, removed her foot and continued to the top. The descent was swift, with Isaac living up to his reputation as 'abseil Gandhi'.

Photo opposite: Miguel on the first ascent of Live and Learn. Photos on previous page, clockwise from top-left: Kelsey abseiling back down Power Podium; Izzy preparing dinner in Kelsey's cabin; sunset over the lake by Kelsey's cabin; Kelsey's cabin next to his sister's cabin.













OTTERS, A BEAR AND A WATERFALL: BECOMING ALASKAN FISHERMEN

Day 31 - Saturday 30th July

After our days climbing in Hatcher Pass together, we weren't quite ready to say goodbye to Kelsey. So we made the only reasonable decision to follow him all the way to Whittier. Whittier is a town around 60 miles southeast of Anchorage, known for its fishing, kayaking, scuba diving and boating. We stopped by 'The Hoarding Marmot, a second-hand outdoor shop in Anchorage, which we ended up visiting on around 5 different occasions throughout our time in Alaska. After running a few more errands in Anchorage, such as finally washing our clothes at a laundromat, we drove to Whittier to meet Kelsey at his other cabin in the early evening. Cosima, Isaac and Miguel were lucky to experience driving in Alaska, as the roads were wide, the traffic infrequent, and the views beyond beautiful. It was raining the day we arrived so everything was glistening in the light, and the waterfall next to Kelsey's cabin offered a soothing background murmur

There was a fishing spot just a few metres down the road from the cabin, where Kelsey spent the evening teaching us. It was a picturesque little spot, where we watched a black bear catch salmon, a bald eagle soar above us, and a family of otters playing in the water. We learned how to gut the salmon back at the cabin, keeping an eye out for the bear we had seen earlier.

Day 32 - Sunday 31st July

Miguel and Cosima brought Isaac to the airport in the morning, bringing the group down to the final four. Izzy had caught some type of flu and unfortunately spent the day at the cabin trying to recover from her fever. Miguel and Cosima spent the afternoon observing Kelsey's impressive fishing skills. Not only was his aim far superior to our group's comedic flailing the evening before, but he was able to catch a red salmon amongst an entire school of pink. We brought the salmon back to the cabin and prepared a barbeque with potatoes and smores.





Photos, from top: outside Kelsey's cabin; filleting the salmon we caught. Photo on previous page: Izzy catching yet another salmon.

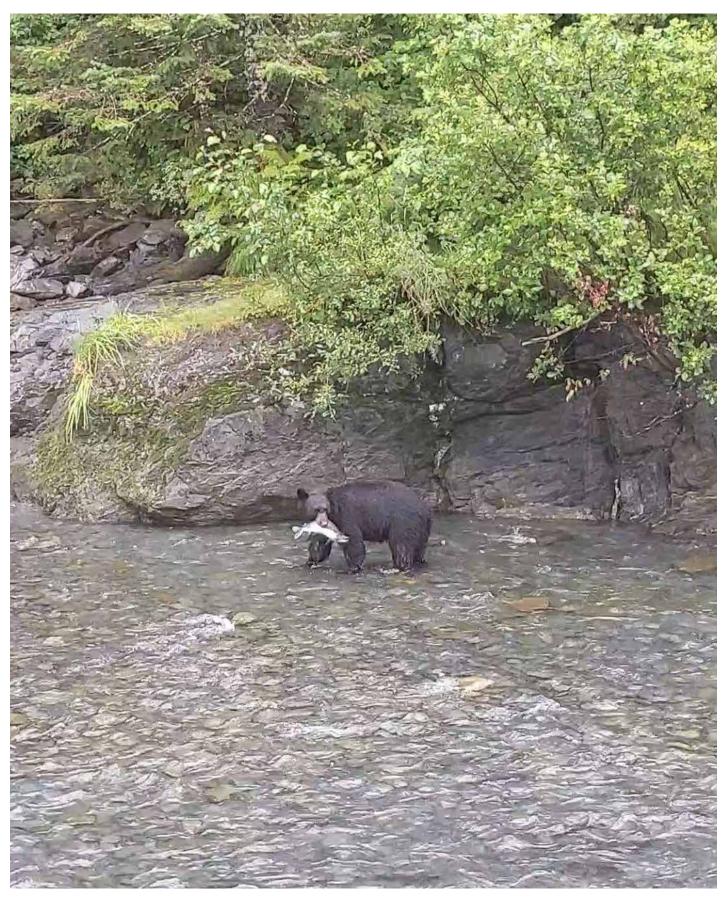


Photo: a young black bear catching salmon. Photo on next page: Isaac deep in conversation with a family of sea otters.





4 LOGISTICS

Training, travel arrangements, finances, equipment, insurance, communication, medical arrangements.

TRAINING

While everyone on the expedition had experience with Scottish Winter climbing, no one except Ben and Izzy had any experience of glacier travel and alpine climbing. After looking at different options, Cosima, Miguel, Jake, Isaac and Izzy (who's previous alpine experience was limited) managed to get places on Conville courses. These are highly subsidised alpine climbing courses run in Chamonix by the Jonathan Conville Memorial Trust (JCMT), set up by the family of Jonathan Conville, a young climber sadly lost on the Matterhorn in 1979. The courses are aimed at young mountaineers, and hope to give them a good base of skills to enable them to safely get into alpinism. As it turned out, Chamonix is the most expensive place in the world (maybe), and nobody realised that to do any route you first have to spend many euros on a lift pass, so the courses being subsidised ended up being sorely needed.

The only bit of Chamonix that wasn't priced as if it was a ski resort was the campsite, Camping du Glacier



Photo: supplies and equipment labelled with weight tags, waiting to be loaded into the air taxi.



d'Argentiere. This was for two reasons: one, it wasn't actually in Chamonix, and two, it was full of cheap climbers like us. It ended up being probably one of the best campsites we'd ever stayed in, with great facilities, a cafe offering decently priced coffee, and a nightly bread ordering service. It even seemed to have a bit of magic in the air, with the woman who ran the campsite able to be in two places at once, at least until we realised she had a twin.

Everyone learnt many valuable skills on their Conville courses, which were then crucial for Alaska, such as: glacier travel; crevasse rescue (fortunately no one had to do this for real!); moving with the rope; and the logistics of Alpine climbing, among many other things. Some people managed to get some climbing done after their Conville courses, in particular Izzy, who had 3 weeks between her Conville course ending and the trip to Alaska, and ticked off many classic routes such as Aretes des Cosmiques AD, Rebuffat-Pierre TD-, and Into the Wild TD. Miguel also had a few days to climb after his course, doing Papillons Arete D+ and Hotel California D+, among others.

Ben and Jake, not wanting to feel left out, decided to do Arete a Laurence PD as a warm-up. While enjoyable, they deemed the approach (the Midi ridge) scarier than the route itself, so decided to try something a bit harder, with the Traverse of the Perrons AD looking very appealing, being relatively low level so avoiding the worst of the forecast afternoon rain. The route itself was excellent, like ten North Wales scrambles combined into one and then raised 1500m, but in classic British style Ben and Jake managed to get benighted. This was partially due to Rockfax giving some very questionable route time estimates (backed up by a trawl through online logbooks afterwards), but mainly due to a planned car lift falling through that morning, leading to a gruelling 2 hour hike up from the valley floor just to reach the start of the approach. Both Ben and Jake decided to view the experience as character building, and to never trust Rockfax again.

In addition to the Conville courses in Chamonix, Jake and Izzy both attended a Conville Alpine Preparation course in North Wales a few months before heading



Photos, from left. Ben and Jake on an early section of the Traverse of the Perrons in Chamonix; Ben and Jake on a later section.

out to the Alps. Isaac joined for a 14-hour linkup of Idwal Slabs, Cneifion Arete, Dolmen Ridge, Bristly Ridge, Nor' Nor' Groove and Tryfan North Ridge, which provided valuable moving together practise.

TRAVEL ARRANGEMENTS

All team members booked individual flights to and from Alaska, as members linked other trips together with this expedition. Cosima, Miguel and Isaac flew from Frankfurt to Anchorage, having made their way there from Geneva, Nice and Austria respectively. Ben, Jake and Izzy flew from Geneva following their Conville courses in Chamonix. Travel around Alaska was arranged through car rentals, and the driving was split between Miguel, Cosima and Isaac. Various bus and train journeys were made before the arrival of the drivers in Alaska or to allow all 6 members of the expedition to travel to Fairbanks. Individual flights out of Alaska were also booked, as Ben, Isaac and Jake headed back to London while Cosima, Isabel and Miguel headed to Squamish (British Columbia) for further climbing adventures.

PERMITS / PERMISSIONS

Denali national park permits were purchased for our two weeks on the glacier. 24h fishing permits were purchased whilst in Whittier. Camping permits were purchased for two nights in Hatcher pass.

FOOD AND ACCOMMODATION

The team camped in Talkeetna, on Pika Glacier, in Fairbanks, and for part of our time in Hatcher Pass. The Talkeetna Air Taxi bunk house provided much-needed comfort following our return from Pika Glacier for a night, and Kelsey generously offered sleeping space in his cabins in Wasilla and Whittier. A hostel was also briefly used when arriving or departing from Anchorage.

During the stay on Pika Glacier, the team ate their way through a mountain of food bought beforehand at CostCo. Following this, smaller meal-by-meal planning was done to avoid over-burdening the team.



Photo: Tags used to label gear weights for Talkeetna Air Taxi when flying to Pika Glacier.

COMMUNICATION

Due to the isolation and risk associated with staying on a remote glacier, a regular check-in with the expedition member's relatives in Europe was organised. This would allow an alarm to be raised if no updates were received for 48 hours. Daily messages were relayed via sat-phone, and forwarded onto a WhatsApp group, allowing for all relatives to be informed without greatly increasing the operating costs of the sat-phones.

Flying conditions and weather updates were obtained at regular intervals from the Talkeetna Air Taxi, and more general forecasts were communicated by friends and partners in Europe via sat-phone.

Two group members bought GCI SIM cards for 25\$. This was the cheapest option and only permitted calls or SMSs to other Alaskan numbers. The bundle included 1GB of data, but this was soon used up. Other group members had better results by pre-buying American SIM cards. Phone network coverage in towns and cities was better than expected, but non-existent in remote areas.

EQUIPMENT

Rock climbing equipment:

- Rock shoes
- Approach shoes
- Trad rack
- Helmet
- Harness
- Walking poles (optional)

Winter climbing equipment:

- Winter climbing boots (B2 or B3)
- Crampons (C2 or C3)
- Walking axe

Camping equipment:

-20C sleeping bag

- Sleeping mat
- Personal toiletries, including SPF suncream and moisturizer because of the high UV on the glacier

Clothing:

- Underwear (except for one expedition member)
- General casual clothing
- Category 5 sunglasses because of the high UV
- Waterproofs
- Belay jacket

Group equipment:

- Climbing ropes (3 triple-rated single ropes, 1 pair half ropes)
- Cooking pots
- ARVA avalanche transponders
- Avalanche probes

Equipment from the Imperial College Expedition board:

- One Hilleberg Kaitum 4 GT (4 person tent) and two MSR Hubba Hubba NXs (2 person tents)
- 2 Primus Omnifuel stoves
- 3 Iridium satelite phones with SIM cards purchased from a UK supplier called G-Comm
- Katadyn water filtering system
- Platypus water filtering system

Equipment rented in Alaska for the glacier section of the expedition:

- Snowshoes for all members
- Clean Mountain Cans (CMCs) for all members
- 3 snow sleds





Photos, from top: white gas used as fuel for the Primus Omnifuel stoves; discovering the wonders of American CostCo.

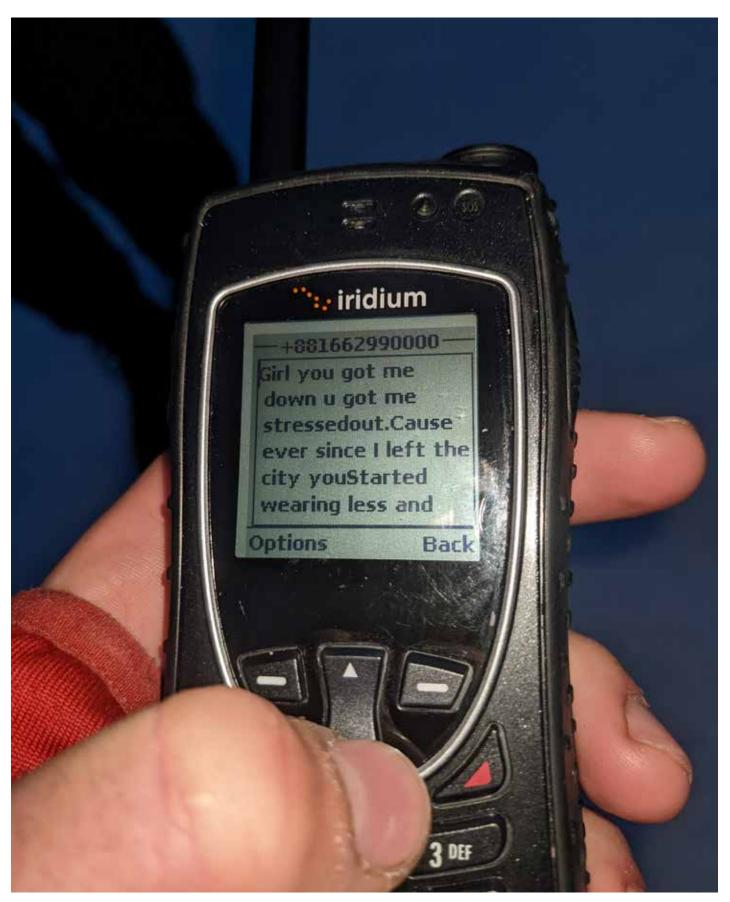


Photo: in order to save battery and reduce operating costs, satellite phones were reserved for important communication.

5 CONCLUSIONS

Recommendations for future similar expeditions.

Glacial basecamps

- Know where you're going to put the basecamp before you arrive. It's a complicated decision with serious consequences, and you may not have much time between the air taxi dropping you off and the weather turning sour. Consider avalanche runouts, alpha angles, rock fall, prevailing wind, new crevasse formation, glacier concavity, tension zones etc. A lot of this information comes from topography and weather, so you can work it out beforehand from reading map contours and long-term forecasts. The full decision process is well covered in "Glacier Mountaineering: An Illustrated Guide to Glacier Travel and Crevasse Rescue", by Andy Tyson and Mike Clelland
- The Hilleberg Kaitum 4 GT may be sold as a fourperson tent, but if you intend to lie in it for 20 hours a day, 4 days in a row, having gone two weeks without washing, we recommend no more than three people.

- Glacier crows are bastards. They will peck through your rubbish bags, your food packets, even your wet wipes. Keep everything in tents or thick plastic boxes when away from camp, and bury rubbish until you leave the glacier.
- Keeping 2 weeks worth of food in good condition requires some thought. Eat perishable food first. Don't let perished food spoil other food.

Stoves

- Stoves are safety equipment. If your stove breaks and you can't melt snow, you have no drinking water.
- Test stoves thoroughly beforehand. This includes testing whatever you use to light the stove.
- Take a backup. This means a different type of stove that uses a different type of fuel, that you light using a different method and that is packed in a different bag.

Water filtration

- We found that a Katadyn hand-pump filter was much quicker and easier to use than a Platypus gravity filter.
- Melting snow with a stove is slow and uses lots of fuel. Instead, we dug a hole and lined it with a tarpaulin to collect rainwater. Solar stills are supposedly another good alternative. Note that both of these options depend on weather conditions, so shouldn't be relied on as a backup if your stove breaks.

Air Taxis

- Don't rely on the air taxi coming to get you. If weather conditions mean that visibility is bad, the pilots won't fly. This can go on for days/weeks, so you should have lots of spare food. In the worst case, be prepared to walk out.
- If the air taxi does come to pick you up in

poor weather, be prepared to get in and leave immediately. Don't make them wait while you pack up basecamp and risk missing the weather window.

Communication

- As far as we could tell, the explo board satellite phones cannot be charged via USB so cannot be charged from a solar charger or power bank. During our time on the glacier, we sent 70 SMSs (one message is often several SMSs) and called for 80 mins (a lot of this was discussing landing conditions). Otherwise, the satellite phones were mostly kept off. It did not feel like we were using them a lot. Yet, by the end of the two weeks, one battery was flat and the other two were low. In contrast, Garmin InReach devices can be charged by USB, are lighter and are easier to setup/use.
- Before travelling to a remote place, arrange for someone to send detailed and regular weather forecasts. Ensure you and this person have a shared understanding of what "detailed" means.
 For instance, "well hun, it's sunny where I am" does not count as "detailed".

Glacier travel

- "Glacier Mountaineering: An Illustrated Guide to Glacier Travel and Crevasse Rescue", by Andy Tyson and Mike Clelland, is a truly awesome book
- Snowshoes are annoying, slow and prevent you from kicking steps on steeper snow. They also make you look like a penguin. If you have any self-respect (and ski-touring competence) then take skis with skins.
- You can use a walking pole to probe a region of glacier before stepping on it. This stopped Isaac from falling into at least two crevasses.
- Travelling around the glacier, you're likely to spend a lot of time looking at surface features (cracks, discolouration, depressions) and thinking "oh no, is

that a crevasse?". You might go around it, go over it or go back home. In any case, you rarely find out whether it really was a crevasse. Instead, take the time to actively investigate these bits of the glacier. This means trying to break open the snow bridge by digging, and then looking inside of the glacier. As long as this is done safely (on belay and with mates ready to haul you out), this can be a good way to improve your judgement.

- Crevasses might be filled with water, adding a risk of drowning to the already appealing offer of hypothermia, entrapment and in jury.
- Glacier travel with a sled requires special rope work. Simply attaching a sled to the back of your harness is dangerous. See aforementioned book.

Wildlife

- Know what you'll do when you see a bear/ moose. This is well covered online so I won't repeat it here, but note that different bears should be treated differently and identifying them isn't necessarily straightforward.
- Never underestimate mosquitos

Transport

- Alaskan public transport is a joke.
- Alaskan hitchhiking is ok, but not good.
- Consider how much equipment/food you intend to carry when hiring a car. A five person car is almost certainly not big enough for five people and their gear.

Research

- Research/planning is much easier if you are in Alaska, especially if you are somewhere like Talkeetna and can visit the rangers office or mountaineering school.
- Don't be afraid to contact guidebook authors.

6 ACKNOWLEDGEMENTS

Thanking those who contributed to making the trip happen.

Finally, a very very large thank you to Kelsey Grey for teaching us how to bolt and clean routes, inviting us to stay at both of his beautiful cabins, teaching us how to catch, gut, and smoke salmon, and showing us all the best Alaskan wilderness. He gave us a new appreciation of the effort and dedication members of the climbing community put into maintaining and developing crags purely just so that other climbers can enjoy them. We thank him also for his kindness, warmth, and company.

First and foremost, a massive thank you to the Exploration board for providing us with funding, support, equipment, and a belief that our expedition would succeed. On the board we'd like to thank Dr Lorraine Craig especially for answering any of our questions and reading over our proposal and suggesting edits two weeks before the deadline, and also Chris Green and Ciaran Mckeown. We thank the Harlington Grant and the ICMC president who applied to it, for providing us with money for equipment we needed which now belongs to the club. Thank you also to the Old Centralians Trust for supplying us with funding.

A major thank you to all the mentors the team has had over the years to teach us the necessary skills. Namely, the Jonathan Conville Memorial Trust course leaders for this is such an invaluable institution and we couldn't have done the expedition without the knowledge gained here. One such leader, Mark Walker, helped us further by being available to answer questions and give us advice when we needed it in the planning stages.

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If you wish to contact **Ben**, go to Tom's cave, Stoney Middleton, at midnight. Chalk up and power scream three

times. He shall appear.

4.9 Risk Assessment

Hazard	Cause	Control
Minor trauma	Multiple	Appropriate provision in medical kit.
Major Trauma (general)	Multiple	Appropriate provision in medical kit. Adhere to major incident/serious accident and evacuation plan.
Crevasse fall	Crevasse, route finding	Seek local advice, careful wayfinding, move together (roped) on glaciated terrain, carry crevasse rescue equipment.
Unprotected fall	Trips, gear ripping, slides	Practice crampon technique, self arrest. Practice caution on poor rock or with 'off-piste' climbing. Wear Helmets.
Wildlife attack	Bears, wolves, moose etc.	Follow official advice, carry recommended equipment (bear spray, food cage etc.) See specific bear safety section below.
Exposure (cold)	Extreme weather, inappropriate clothing or shelter	Carefully monitor conditions forecast and take appropriate clothing and shelter (see gear).
Exposure (sun, heat)	UV, strenuous activity	Carry sunscreen and wear UV protection. Use a layering system of clothing to control comfort and temperature.
Dehydration	Lack of water source, inadequate water intake	Carefully plan routes with adequate water sources, monitor hydration, carry appropriate means of purification (multiple

		-
		filtration systems, multiple purification methods)
Medical emergency (other)	Pre-existing or unforeseen conditions	
Foot health (blisters)	Strenuous activity, footwear	Ensure footwear is broken in and appropriate to terrain (also socks). Carry blister care.
Gastrointestinal complaint	Food, water	Carry recommended antibiotics, antiemetics, antidiarrheals and means of rehydration. Ensure proper food hygiene and water purification.
Road traffic accident	Other road users, driver error, wildlife, obstacles, conditions	Ensure quality vehicles are rented with seatbelts and airbags. Drivers should be well rested. Conditions should be monitored alongside local roads information.
Drowning	River crossings	Careful navigation and seek advice on river crossing methods
COVID-19	-	Follow the advice of local and national authorities. Monitor throughout the expedition.
Infectious disease (non- GI)	Multiple	Carry antibiotics and means of wound care.