

## **Diary 16 – 9 August 2012**

### **Rush hour in Tyrolerfjord**

The thing about nature is that it does not always act the way you want it to. This sometimes makes the fieldwork for researchers even more difficult than participated.

For me this week started two days earlier than the usual week at Zackenberg, which means it started Tuesday 31 July.

Per and Morten from Asiaq and myself, an assistant from GeoBasis, was heading out to measure the discharge from some of the major streams that ends in Tyrolerfjord. We set sail Tuesday before noon in a small rubber boat with a whole lot of equipment and almost two Zarges boxes filled with food.

It was nice and sunny and there was very little wind, but the wind was actually more than enough for our little heavy boat. As we sailed carefully through the passage between Lerbugten and Louiseelven, we saw the great steep mountains on both sides, rising from the clear blue water. While this was incredibly beautiful, it also meant that we would have nowhere to dock if we had problems. Fortunately, we were not the only ones who had gotten the idea that this was a good day for sailing; Nanok had two boats in Tyrolerfjord and the MarineBasis ship, Aage V. Jensen, was also nearby. So we knew that help was nearby if needed.

Our first camp would be in the bottom of Tyrolerfjord where the biggest discharge area runs out in the fjord. On our way, we made a few stops to investigate some other rivers of interest for the project. While we concluded that the water in these rivers was running too fast, was too turbulent and that there simply was too much of it for us to make a measurement, those stops were nice opportunities to stretch our legs and see some of the amazing nature in the area. We saw several musk oxen, some foxes and some "wolf tracks" left by snow hares and also what we think was a bearded seal in the fjord.

We reached the delta at high tides around midnight, and saw that there was water practically everywhere, and ice shards were flowing through the major streams in the delta. After investigating the area further, we came up with a plan on how to establish a wire so we could start measuring. So we made camp and went to sleep, planning to start work the next morning.

But when we woke up the following morning, the water level had raised so much, that our plan was not possible anymore. So we had to come up with a new one. And when we tried the new plan, the water level had raised even further, so the new plan was not possible either. The only thing we managed to do was to run around in the uncomfortable survival suits and move our heavy equipment from place to place so it would not get too wet.

This was not the most uplifting start on this part of the project, so to pick up the mood a bit we went a bit up the steep slope to see the gyrfalcons nest that Per had spotted the night before less than 200 meters from our camp. There were three young birds and two parents I think. Now I am not normally that fascinated by birds, but this was a great experience. These birds were really beautiful and looked really strong and their black sharp eyes just tells everyone that this bird is a hunter and at the top of the food chain around here. Morten and I was watching the weakest of them from 20 meters distance while Per got as close as 6 meters or so from the two stronger young birds. It was amazing. We also found four hares that night, and this little trip and animal experiences helped a lot on the mood.

The next day we went on to another river. It was really close by, and even though the discharge area was not that big, there was a lot of water here.

Judging from the delta, we could see that the riverbed had relocated some times over the years. The delta on which we made camp was a big area covered by round rocks and sand, and as we went further up the mountainside to find a good spot for measuring, we got a good look at the delta. It formed two half-perfect circles, one of them maybe 2 kilometres wide, and the other one was even bigger. And as we walked around on the delta later, we realised that there was literally no vegetation anywhere on the delta itself. It was a really interesting place, because you could see how the water at formed every piece of the land, and how it still do.

The main stream was running close to a steep slope, which it was eroding as the permafrost thawed, so big piles of gravel and dirt fell to the river and disappeared right next to where we were measuring. We could also hear huge rocks rolling over the riverbed and in the late afternoon where the water level was highest, you could almost feel the ground shake at certain places. There was really some movement here.

In the two days, we were there, "Aage V Jensen" and the Nanok boats passed by a couple of times. While we were glad to see them, we joked that the undisturbed nature suddenly did not feel that undisturbed.

After completing the measurements here, we went on to the next river – a river at the northern side of Pearland. As we docked, we saw an eider kindergarten run by. This area was full of life – lots of different birds, a few hares and a lot of big furry musk oxen, or "hippie cows" as Per calls them.

The water in the river was clear and perfect for drinking water and somehow the vegetation in the area seemed bigger and greener than any of the other places we had been, including the Zackenberg valley. It was also here I encountered the first mosquitoes on the trip. But there was so few of them that they did not really annoy us. They just made us realize that we had had no mosquitoes in any of the other camps. What a place!

Per spotted a second gyrfalcon nest here, even though there was no birds in it.

The measurements here went very well, but since we were blocking the hippie cows' favourite path between two of their favourite areas, we occasionally had to wave and shout at them so they could find another way.

The first two days in this area had been really nice and warm, but during the afternoon of the third day in this camp wind picked up. This was also the day we planned to leave for Zackenberg.

When we made our daily phone call to Zackenberg, we got news: first of all, it was too windy at Zackenberg for us to sail home with our little boat - which by the way at this point was quite unstable to put it mildly - and second: There had been a surge in the Zackenberg river which not only flushed all the research equipment except the data logger away down there, but also changed the riverbed and the discharge/water level-relation of this river. The last part was quite sad, since we wanted to relate the data from our trip to the data from the Zackenberg River.

And to make things worse: we could not stay at this beautiful camp since we only had enough instant coffee left to keep our helmsman awake during the trip.

Luckily, Aage V Jensen was still nearby, and was actually heading that way anyway and offered us a ride home. 15 minutes did not pass from we heard that to the camp was packed in sacks and boxes and we were all ready to go.

When we got back Kenny helped us getting our equipment back to the station and Lone was ready with real coffee, real food and freshly baked cakes!

So while this has been an amazing trip and we have seen some of the fantastic nature around here, it is really good to be home. Now we are looking forward to collect some new data from

the Zackenberg River. We just need to figure out how to do that when our equipment is buried somewhere in the delta.

So that was my week here at in northeastern Greenland, and it was fantastic!

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