Ny Ålesund fieldwork 1-15 August 2022 Jasmine Zhang SLU, Sweden

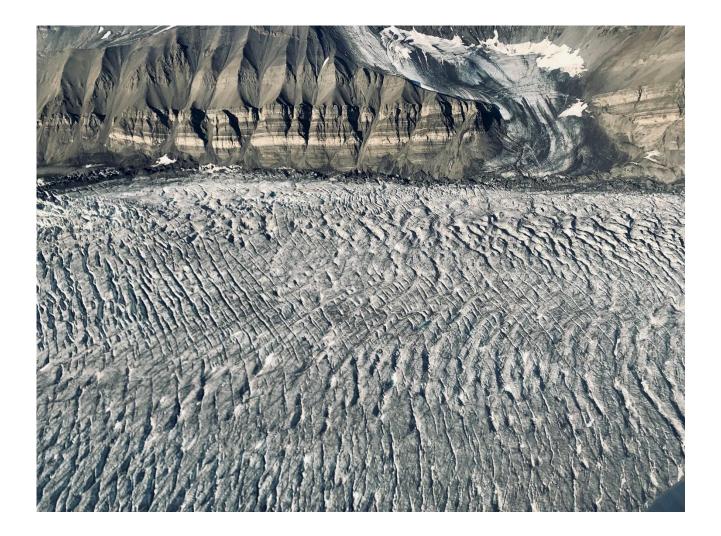
# 31 July

In between meetings with friends in Longyearbyen, I sat down by the road and observed an enormous herd of barnacle geese. They came up really close, unafraid. There are geese litter everywhere on streets in town. Later I saw this video on FB: <u>https://youtu.be/y-v0TgA5jw0</u>

Related topics:

- Fertilizing grass in LYR
- Goose hunt
- Long-term monitoring of the geese





It was a stunning day and we had a wonderful flight to NÅ over amazing landscape. It stuck me how soft and sharp everything seemed. Imagining the deep force from the earth gave me chill. Got settled at Londen3 (as the Dutch way of saying London3). Sharing the lovely cultural heritage house with Anne, Pyter, and Ramsey was delightful. The Terrestrial Ecosystem Flagship Workshop started after lunch and we were all expected to participate for the three days' program. Many interesting discussions, particularly on local fox-trapping issues, future funding for the flagship (where societal relevance was discussed but no social science was mentioned), and the shared space for lab work.

Had interesting conversations with Anne and Pyter. Christophe, Maarten and Ramsey went to sample a lake at Storholmen but it was too dry. Evening walk and talk with Pete Convey. Music sharing evening at Londen3. Keith Jarrett.

Day2 of the Flagship Workshop. It was decided that all participants would go to three field plots to take different measurements and from the results to find synergies for future collaboration. We went to two sites that are close to Knudsenheia area, just a bit north from the airport. The measurements taken include vegetation survey, soil sampling, insect sampling, albedo measurement, lake water sampling, and GPS positioning. I got to help with the vegetation survey and water sampling.

Then the memorable geese catching, ringing and measuring in the evening after a popular polar bear seminar. A very theatric act to herd the geese to the net. Then two hours sitting in the sun before taking the measurements and ringing them. It is a well rehearsed team and systematic procedure. I got to hold the geese in the end. Some discussions about feelings afterwards. Ramsey said "I don't dislike the conduct. I dislike the fact that they (the geese) are distressed".



Jesper shows how to do the vegetation survey. Photo: PC



Designated roles are important: Pyter weighs, Maarten measures, Ramsey takes notes, Mo prepares the swap and blood tubes, Anne bleeds, Jasmine releases.



<sup>3</sup> August

Day3 of the workshop. Rainy day but we still headed out to a plot used by a team from Arberdeen Uni 30 years ago, in the area of Strandvatnet. Ramsey and I teamed up to count flowerheads of dryas. Interesting process of understanding, being questioned, questioning, reasoning, going back and forth, what each number means, why this and why that. We went back by lunch as the soil became too wet for the soil ecologists to do their measurement.

The next Flagship workshop will be held in Prague. Time undecided.

Getting familiar what Dutch Station's 'own' fieldwork entails: Village counts of barnacle geese twice a day, and collect insects trapped every other day. Grass monitoring once every 6 days. All done in town.

Evening at Mellageret, Christophe talked about stories behind species (even the ordinary ones), and invisible knowledge of non-scientists. We later moved to the Italian Station, where I talked with Pete Convey about emotions when working in the field. Interesting things he said about 'offdays' and their functions to release tensions.

Pic: Anne shows me how to collect insects from the trap

Said goodbye to most people from the workshop in the morning before heading out to Stuphallet for fieldwork.

A great day out, helping Christophe to sample some lakes. Well I didn't need to do much, except carrying some samples back. After done with the sampling, we went up to sit under the bird cliff, right under a puffin colony. I sat by myself for a while, feeling so connected with everything around me. It was an incredible experience, to see the beauty, and also to feel the pain.

Encountered a family of Arctic Skua, whose father tried to fake an act of building a nest to distract us. And so many stories told by Christophe when hiking!

Had a super nice talk with Maarten after dinner.





Today the whole team (except Mo who needed to work) got to go to Ossian Sars Nature Reserve. It is a yearly tradition, according to Maarten. The Dutch team is known to work extremely hard (yes I've heard multiple comments already the first three days), but "it is also important to enjoy the moment, the place, and feel being here". The reserve is a very special place and normally is not accessible. Maarten is one of the few who has permission to go. We went with two boats. Hiked up and sat beside the Kittiwakes colony for half hour. They give a prolific feeling, but not so peaceful © Afterwards we went to another lake for sampling but this time the lake was completely dry. Had some tundra nap instead.

People continued to bring up this trip in the following days, for various reasons. Social gathering at the blue house (AWIPEV station) in the evening. On the way back, Pyter reflected on why people kept coming back. Is Svalbard a place that connects?

Saturday is a day when we are allowed to start the day late. Instead of breakfast at 7-8, it is brunch at 10-13. I did some labelling work for Christophe's bottles while talking with Katarina. Interesting things she said about the Baltic Sea, and trending discourses in scientific research.

We were planning to go to Kolhaugen after lunch, but then I decided spontaneously to help Mo to harvest grass from his shading experiment. It got me understand why people said plant ecologists are the hardcore ecologists. You lie in wet and cold tundra, and despite all sorts of protections water leaks in. You work with the tiniest measurement with great precisions, while lying basically still, holding stuff with frozen fingers. But there was so much laughter and exchanges! Anne said, "I really don't mind about the work, as long as it's with nice people, then it's just fun!". It was indeed great fun, mostly for the social part. I finally had a sense of Mo as a person, behind the hardworking scientist who often disappeared early from breakfast and ate alone after everyone else at late evenings. We arrived late to the 'fancy Saturday dinner' but were all happy.

And it's Mellageret again, this time Pyter on bar duty! I think they played the Helikopter song five times...





Pic: Pyter counts geese and reads their rings. We also count seals, reindeers, cars and persons on the road. All numbers and notes go into a <u>data base</u> open to public.

#### 7 August

We continued to help Mo and did more grass sorting. Turned out Mo lives in Sweden and his wife is a <u>science writer</u>!

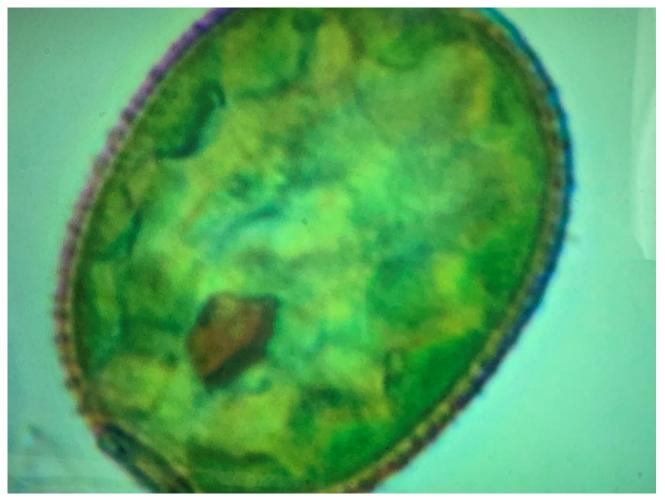
Anne, Pyter and I signed up for a sea kayak course so we did that in the afternoon. It was great fun, especially the part that we had to practice falling into the water and then getting back to the kayak, both alone and in pairs. A cruise ship was by the shore and we became some sort of attraction. Unpleasant sight of human faece (not sure if from the ship or from town) while we were in water!

Counted geese, collected insect traps. Continued to work in the lab till late evening.

An 'off day' as when we woke up, the fog was so thick that we couldn't even see Solvatnet. This meant no fieldwork both on foot or boat. People who were supposed to be on the flight out were anxious. We started to hear stories of people being trapped here for more than a week. A mixture of uncertainty, restlessness, anxiety, and sadness hung in the air. We talked about how strange it is to say goodbye to people. Finally, the plane got to leave just after lunch. It became a very hectic act of hugging around. And suddenly the village became so quiet.

It came the news that a French tourist was attacked by a polar bear. Some people talked about it with irritation that tour operators should stop kayak camping trips, "it's stupid".

Back in Londen3 we talked more about scientific conduct, doubts, and the peculiarity of Ny-Å. I mostly listened to Pyter and Anne. It was amazing to witness the process of their own searching. In the afternoon we had a great lecture with Christophe where he showed us what one could see with his modified microscope. A mesmerizing world of desmids and plankton. He kept saying "Most creatures on earth is neither plant nor animal, but something inbetween". He's also discovered a new type of desmid, And guess what he'll name it after – Mellageret!



Pic: Christophe shows a mixotroph plankton that "has an eye"



In the morning we split into two teams: M, C, and P went to Corbel to sample a lake; A and I went to Kolhaugen area to do some preparation work over some grass plots for the coming winter. We basically just hammered down all the markings so that they won't stick out from the snow so reindeers won't come digging around. But through hammering it became obvious how thin the tundra active layer is. What Anne said about dynamics around 'helping out' in research and fieldwork made me think.

In the afternoon M, C, A and I went to the other side of Kongsfjorden to sample another lake. We drove pass some impressive cave alongside Blomstrandhalvoya, a peninsular in the past and an island today, after Blomstrandbreen retreated dramatically. On the beach, Maarten said "So these are the extra things that SVALUR is about. Extra things that also happen in science but we don't talk about." Had a look at the Ragnahytta, built in the 1930s, destroyed by a polar bear in the 90s and restored by KB in 2000.

More talks about polar bear safety following the incident. The death case two years ago from the campsite was brought up and things Christophe told brought some background nuance into it. There's always much more untold, besides the newspaper storyline.

At first I thought there's not so much to do today besides the village counts. Anne and I did some cleaning and tidying up instruments used by Mo as the final thing on the list he left us.

Then completely out of the blue we were invited on a boat trip to Blomstrandbreen. An officier from Kartverket was visiting and there were spots on the boat. To see this famous retreating glacier was quite an experience, but to hear it was even more profound. I was filled with pain, but the pain was not quite related to the phenomenon of it. On the way back we drove pass Ny London an abandoned mining area, where the four London houses in Ny-Å were originally built. Later Maarten recalled in the 90s he could hear the sound of the surrounding glaciers from Solvatnet, but now they are so far away he doesn't hear it anymore.

After dinner we went for a walk around Kolhaugen. Ombretta the Italian station leader went with us. It was a nice evening walk. Upon returning I met up with Dominika who works as a guide on MS Nordstjernen and comes to Ny-Å twice a week.





Farewell day is always strange, as it reminds everyone how temporary everything is, especially in a place like Ny-Å. We said goodbye to Christophe, and then went to Thissbukta to take out Pyter's tea bags. This is his Master project, using green tea and red tea to measure the decomposition of soil according to effects of exclosure and nutrine. Everything needs to be systematic to avoid mistakes. So everything is extra well marked. Still it took long time to sort out the 400 bags after washing them. I felt like a pharmacist.

Looked into the data base of the geese with Anne, one can follow each individual's story. Anne said Maarten sometimes gives rings to people with a piece of paper with all the information of that particular bird. What a nice idea and great present!

In the morning I helped Maarten to take some soil and grass samples from the exclosure plots around Solvatnet. We then needed to take out the biomass from the soil, seperate green grass, dead grass, green moss, roots, etc, before putting the soil back to the plots. It was a relaxing task as we got to chat at the same time. We talked about the balance between social time and work time in Ny-Å, his role of providing and facilitating, how he prefers to communicate, the importance of having master students there, etc.

After lunch Pyter and I started measuring his exclosure plots. We needed vegetation description of all plots. It was rainy and cold and we mainly remained still. Maarten jokingly said before "I'm not a plant ecologist so when it's raining I'm not going out". Interesting still to discuss with Pyter about how one has to reply on senses when taking scientific measurements, in this case active layer depth, and moss depth. We also talked about the rewarding feeling after being through hardcore fieldwork. Hiking or going on difficult terrain is not hardcore, standing still or lying in wet tundra is...We finished work at 22:10 and Anne made us hot chochlate. We then sat and talked about life till 2am.



Pic: Maarten and my 'mess'. The yellow building outside is "the shop".



Another day on the wet tundra. At some point I felt my eyes closing during those seconds while waiting for Pyter to read out the numbers. But I got to sit comfortably today, whereas P struggled to find a spot in the tiny space of the exclosure. It was interesting for me to observe various methods natural science employs to minimize the unavoidable subjectivities. Somewhere, somehow, lies the blurring line between reasoning and imagining. Neither of them needs to be better than the other, and one indeed needs both to research the unknown. But having faith in things that one doesn't yet understand is never easy. Is science also about having faith? I don't know but I imagine 'faith' can mean very different things to people.

Having spent some time now on tundra, especially moist tundra, really makes me understand the sensitivity of them. How resilient the tundra is towards human tramping varies greatly depending on how moist it is. It felt not so nice to be at the exclosure areas as we ended up making quite a mess. Maarten has rules that we should always go around the sensitive areas, trying only to step on the less moist tundra on the way in, partly to avoid being seen by tourists, partly to minimize damage as much as possible. Putting soil back and only using a stick to measure moose depth are also measures one takes to minimize damage.

We finished all the measuring just before dinner. It's Saturday again and I still don't have any suitable clothes for the occasion. Brought only two pair of pants and only warm clothing. The whole thing about Kings Bay's dining rituals deserves a long essay on its own.

The last Mellageret evening! We went to bed at 3am. One KB personal came to us in the beginning, asked Anne what we were doing on the tundra all the time. It somehow shows that Mellageret is one place where KB and scientists interact.

13 August

Pyter left with MS Nordstjernen in the afternoon. The rest of the day Anne and I were working in the British Station to weigh all the tea bags we dried some days ago. It's 800 weighings and the procedure is not complicated but time-consuming. When we ran out of topics to chat we thought to try watch a film at the meantime. But we ended up working in parallel to double up the speed instead. When we went back to Londen3 at 22:20 we were one third through. The rest Anne would do it on her own, as I was leaving the next morning. Something she said about "when I'm in the field I'm prepared to work hard so I'm fine with working late hours" made me think about my own work ethics. That when I'm doing ethnographical fieldwork, I am 'turned on' all the time, even in my dreams. Many people didn't seem to get it, so it was somehow comforting to find that commonality between social science and natural science, although it is still different.





It was a bit foggy in the morning and people were joking again that I should have gone with the boat the day before. Stein Tore reassured me that it was Robert the golden pilot on duty that day and "weather doesn't matter, he can fly". Stein Tore comes to Ny-Å twice a year and he seemed to be always sitting with the KB elderlys. Later on in the shuttlebus to the airport, Stein Tore talked about how the early fur changing for Arctic fox can mean an early winter, and the elderlys predict an early winter this year, because "the snow buntings have almost all gone". "You should always listen to the elderlys", he added.

Had nice conversations with Lise Chapman about her seaweed company, her perceptions of social science, and Ny-Ålesund. After that did the final village count with Anne, returned things to AWIPEV, ran into the museum and had a quick look. When we arrived at the airplane, a 17 members AWIPEV team arrived, excited faces full of anticipation. This is life of Ny-Ålesund, people come and go till the end of the season.

I was sitting on the wrong side of the plane when it lifted, couldn't see if Anne was waving. Goodbye Ny-Ålesund! What a wonderful time being a fieldassistant. Thanks Maarten, and thanks Londen3 team!

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