## Diary 6: 28 June 2011

## Life and death on the tundra

The last week has been intensive as almost every day here in Zackenberg. That is not only the case for the researchers and the technicians here, but certainly also for the living animals on the tundra. They only have a short arctic summer to reproduce and have to be worried for their own live as well, many of them being delicious food for others in the food web. Since this year is again a year with very few lemmings, the foxes will have a hard time to raise their pups without eating many bird eggs. Yesterday I already saw a flock of 22 skuas, which is a sign that they have given up reproduction. Many did not even start because of the lack of lemmings; others that did take the effort to lay a single egg unfortunately had to sacrifice their egg to a passing hungry fox. The food waste of the station is now not available any more for the foxes, although we every once in a while still see a hopeful fox looking at the garbage can. It is good to see that my old cages that I used to protect sanderling nests against foxes are now being used to prevent them from getting into the old oil drums that Henrik and Kim use to burn some of the waste. As a revenge for that, one of the foxes dug out a nest of snow buntings and not only ate the chicks, but the adult female as well. Our logistic team was clearly disappointed to find out that this nice singing bird that accompanied them daily during their hard work with nice songs now was gone to meet its maker. Given the lack of lemmings, Jannik and I are very surprised that none of the many wader clutches that we already found has been taken by a fox yet. Of the already 14 sanderling nests that I found with good help from the BioBasis team (Jannik, Lars and Line: thanks a lot for the good company and help!), none of them has been found by the foxes yet. But we know that the foxes are going to disappoint us at some stage this summer. If it is not tomorrow, it will probably be the day after tomorrow, and if not then.... Not only the predators are a problem for the waders, but their fellow species might be too. The short season makes some of the male birds apparently a little desperate to find an attractive mate in time. One day I saw a male sanderling rape a female that was already incubating a full clutch of four eggs. Her caring partner eventually chased the unwelcome neighbour away so that she could continue incubation. And if this is not already enough trouble for the birds, many also have to deal with scientists that (try to) catch them on their nests. We have been lucky to catch two long-tailed skuas and provide them with geolocators on their legs. With these small technical devices, we can guite precisely find out where these elegant birds hang out when they are not in Zackenberg. The only bird that we provided with a geo-locator last year returned but did not nest (yet). Only then we can catch it again and get the data it collected by flying around the world.

Life is not much easier for our invertebrate friends. Although the mosquitoes have been quite friendly with us so far, many already did not survive a slap of our hands. Also, the small and cute caterpillars have to fear for their life. The many spiders on the tundra (which themselves are a delicious snack for birds) are probably a real threat for them, which Tomas and his team will find out. Luckily, the spiders are likely still a much severer danger for the caterpillars than the Finnish team itself that daily collects several caterpillars to drown them in ethanol or let them reproduce in a plastic tube. That is if they are not glued to a small rope so that it is easier for birds to pick them up.

Both Julie and Maria seem to have not much problem with their equipment this year and both look very happy; their hard work is not interrupted with any serious technical problems. The only serious threat that we humans have to deal with here is not the risk of encountering a polar bear. None has been observed after the observation that Tapani reported about in his last nice week letter. No, the danger comes from a small flu virus that Claus brought with him from Copenhagen via Iceland... After Claus, it is now on tour through the station. After Claus, it hit Maria, then Tomas and now I am experiencing a throat ache and stuffed nose. I hope I will be the last one. Jannik has also been struggling with the smaller creatures rather than the bigger ones. His little helper (and accompanying software) did not correctly transmit his hard gained data to his computer, which meant he had to repeat a long walk on the tundra, which was unnecessary if his little helper had actually helped. I don't know what is worse though, having to go out another time or spending a day in the office while the weather is as great as it has been the last week, with almost uninterrupted sunshine and a nice breeze that keeps the "mozzies" away. Only half a day, we experienced some rain drops and a little fog.

Having to deal with these hard facts of life, some entertainment is a nice welcome to our daily routines. Last Saturday we celebrated Sankt Hans with a great bonfire, nice games, good conversations, some drinks and not the least the delicious food that Dina keeps on preparing and serving with a smile. Line convincingly won the shooting contest. Henrik was so kind to give us the needed confidence with rifles by letting all of us at least be just as good in aiming as he was. Malin was certainly less kind to her competitors and convincingly was the winner in a game in which she kicked off each of us from a wooden bar with a sleeping bag. The Arctic volleyball and tea-bag eating contest were less competitive. Kim and Jannik were equally good in the latter and can both be called kings of the teabags. Zackenberg was less fortunate in the entertaining mafia games that we also played; the station staff was killed at least twice by the mafia! However serious all the above may sound, don't worry about us. We just had another great week in Zackenberg!

Jeroen Reneerkens