

South Spitsbergen

28 September – 05 October 2008

on board

S/V Noorderlicht



The *Noorderlicht* was originally built in 1910, in Flensburg. For most of her life she served as a light vessel on the Baltic. Then, in 1991 the present owners purchased the ship and re-rigged and re-fitted her thoroughly, according to the rules of 'Register Holland'. *Noorderlicht* is 46 metres long and 6.5 metres breadth, a well-balanced, two-masted schooner rig that is able to sail all seas.

With:

Captain: Gert Ritzema (Netherlands)
First mate: Dickie Koolwijk (Netherlands)
Second mate: Elisabeth Ritzema (Netherlands)

Chef: Anna Kors (Niederlande)
Expedition leader: Rolf Stange (Germany)

And 19 brave polar explorers from Germany, The Netherlands, Spain, Switzerland and The United Kingdom

28. September 2008 – Longyearbyen

Position at 1700: 78°14'N /15°37'E. Calm, 6°C

Longyearbyen and there we met by our fearless leader, Rolf Stange from Germany, who was easily identified thanks to a *Noorderlicht* life ring. Soon we were on a bus on the way to the high arctic metropolis of Longyearbyen, where we still had some hours time to explore the settlement with its various excitements such as museum, supermarket and cafes and restaurants. Around 1700, we boarded the *Noorderlicht* which was alongside in the harbour of Longyearbyen. We moved into our cabins, stored our luggage away and then met the friendly crew for the first time. Captain Gert and Rolf welcomed us once again, introduced the ship and her crew, gave us some information about life on board and about some important safety issues. We had a good look around – everything on board the *Noorderlicht* seemed to breathe a spirit of adventure and tradition, but was very purpose-serving at the same time.

Soon, the firealarm was sounded – neither the engine room nor our dinner were going up in flames and smoke, it was only an exercise, and out on deck we were met by our first mate Dickie

who gave us some more instructions and information about the ship.

Finally it was time to try what our chef Anna had prepared in her little gally. We realised soon that the mealtimes were really something to look forward to, three times every day. In the meantime, we sailed out into Isfjord. Our high-arctic adventure was about to begin!

The weather conditions could hardly be better, so Gert and Rolf decided to leave Isfjord already tonight and to sail down the outer west coast to Bellsund, the next large fjord system further south. We were indeed lucky and during the passage the ship was almost completely calm, so we could enjoy a good first night on board while sailing south.



The Noorderlicht waiting for us in Longyearbyen.

29 September 2008 - Bellsund. Van Mijenfjord: Fridtjovhamna, Akseløya

Position at 0800: 77°46' N /14°34' E. Clear, calm, -5°C

e woke up beautiful morning in the calm, protected bay Fridtjovhamna, the mighty calving cliff of Fridtjovbreen glacier) not far to the north, surrounded by some splendid mountain scenery. After breakfast, it was time to board the Zodiac for our first excursion. The coast was shallow, and it was very low tide, but Elisabeth navigated



The first rays of the morning sun on Fridtjovbreen.

the Zodiac carefully to the shore. As soon as we had all assembled, we walked inland to ascended a relatively steep moraine ridge and then we walked up a hill to a height of 1880 decimeters, from which we had a breathtaking view to Fridtjovbreen and some wild mountains surrounding it to the west and the wide, open valley of Berzeliusdalen to the east. A low autumn sun cast its warm rays beautifully over the scene whenever it broke through the cloud. A dramatic view indeed!

When we were all back on board, there was still some time before lunch, so soon the anchor went up and the *Noorderlicht* moved towards the broken ice cliff of the glacier, which had filled the bay almost completely during a rapid advance ('surge') in 1996, but had retreated since then. Gert steered the vessel carefully around a small island not too far (but safely) from the glacier front, stopping the engine occasionally to give us enough time to enjoy the scenery in silence.

During lunch, we moved a few miles to near-by Akseløya. We checked both sides for suitable landing conditions and had the choice between the east side that was exposed to a breeze and the western side that had the swell of the open ocean further west. We went for the eastern side. The island was highly interesting from a natural history point of view, as it consisted of Permian and





Fridtjovbreen.

Triassic sediment layers that had been tilted to a more or less vertical position, thus creating the long, narrow island. The eastern part (Triassic) consisted of flat, low-lying tundra with a relatively rich vegetation cover on which a surprisingly large number of reindeer were grazing, whereas the larger, western part was made up of harder Permian carbonate and flintstone, forming an elevated, rocky ridge that was almost devoid of vegeation.

We landed on a small beach that was more or less protected from the waves by rocky reefs. Not far from the landing beach, some reindeer were grazing on the tundra, but they were not very communicative and soon left us alone. Then, we ascended the rocky backbone of Akseløya, including the highest mountain of the island, which brought us to an altitude of 600 decimetres above sea level. The landscape was amazing, with the layers forming elegant curves and bends to both directions and the island being framed by the magnificent mountains of Ingeborgfjellet to the north and Midterhukfjellet to the south, both containing incredibly beautiful folds of the late-Palaezoic and early Mesozoic layers.

We crossed the narrow island to the dramatic west coast, were vertical layers were standing out in the landscape just as walls, and followed the ridge for some kilometres to the south, walking up and down rocky hills, until several houses on the southern end of Akseløya came into view. We were amazed to hear that one of these houses was actually inhabited by a Norwegian trapper who collects down from Common eider nests in the area, but the man was probably in mainland Norway as the breeding season for these birds had finished quite some time ago already. The place had a long tradition as a hunting territory, going as far back as 1898, when the very first Norwegian trappers of the modern period of hunting came up to the area.

A little walk brought us to the houses, which together made almost a little village. The oldest part was the now almost invisible foundations of an old Pomor hunting station (Russian hunters, 17./18. century). Next was the above-mentioned hunting station dating back to 1898, which was made of stones – quite unusual in this area. The large, modern house was pre-dated by a log cabin that was built during the 20th century. A wooden construction served as a bear-proof storage for seals. We kept a respectful distance from the modern house, as it was a private property, still being in use, although not inhabited at the moment.

The tidal current in the narrow, shallow channel between the southern end of Akseløya (where the houses were located) and near-by, small Mariaholmen was quite amazing, and the beautiful mountain Midterhukfjellet was towering above the scene.

The timing was perfect: soon the sun disappeared behind the rocky hills west of us, so we went back north, towards the landing beach. Some reindeer came to say hello on the way back, and these ones turned out to be significantly more cooperative than their colleageus whom we had seen almost 3 hours earlier. Both good views and fotographs could be obtained, before we finally





Spitsbergen reindeer and hunting station on Akseløya.

came back to the beach, where Elisabeth picked us up again and brought us safely back to the *Noorderlicht*, despite of relatively large waves.

We sailed further south, towards Recherchefjord, rounding Midterhuken. During this passage, the swell that came in from the open ocean reminded many of us that we were still on a relatively small ship. Later in the evening, the anchor went down in Recherchefjord and we could happily enjoy another calm night's sleep.

30. September 2008 – Bellsund.

Recherchefjord: Recherchebreen, Ironmountaincamp-Lægerneset

Position at 0800: 77°30'N /14°34'E. Cloudy, some snowfall, no wind, -2°C.

The day had actually started in the middle of the night, when the bell was sounded – northern lights were seen, the Aurora borealis was burning on the night sky! Conditions were ideal, it was clear and dark, without moonshine, and soon most of us gathered on deck to be amazed by this phenomenon that has put people in awe ever since mankind had come to the Arctic. After a while, we went back to bed for another couple of hours sleep.





Northern light (Aurora borealis) and White whales (Belugas) in Recherchefjord.

At 0800, it was breakfast time and the *Noorderlicht* sailed around a corner to anchor in position near a beach north of Recherchebreen, the glacier in the innermost part of the fjord that bears the same name. The glacier does not reach the sea anymore, but terminates into a lagoon and has thus still a calving front. Just as we started sailing, Gert and Rolf discovered a group of Belugas (White whales) near the beach. The bell was sounded again, and Gert took the *Noorderlicht* as close to the whales as safety allowed. A group of 8 (possibly 9) animals was slowly migrating up and down the coast, without any determined direction. We spent a while observing, until the animals swam away and we continued towards Recherchebreen.

Soon thereafter, we landed on the western end of the beach. A short walk took us across a meltwater plain towards some cones, remains of the former terminal moraine ridge of the glacier, which we ascended for the view, which turned out to be mindblowing: The little hills were located directly on the shore of the lagoon, which separated the beach from the glacier. The lagoon had actually begun to freeze, and most of the surface was covered with fresh ice, n which many small icebergs were trapped, displaying incredible colours and countless shapes. We stopped to gaze at the incredibly beautiful scenery and to document it on film and memory card. Rolf scanned all directions with binoculars and suddenly he stopped. A polar bear! Lying on a piece of ice, not far from the glacier, was the king (or queen?) of the Arctic himself. Although the bear eventually lifted its head to look at us, the distance was large enough to allow us to stay were we were in safety to enjoy the arctic impressions around us. It did not take long until sharp eyes discovered a second bear, standing on a piece of ice on the other (eastern) side of the lagoon. Also





Moraine ridge and glacier ice at the lagoon of Recherchebreen.

this one was far enough away, so no reaction was required on our behalf. We watched both animals for a while, until we carried on to follow the icy beach of the frozen lagoon.

After some hundred metres, we reached the outlet that connects the lagoon with the sea. A strong tidal current kept flowing through it, at the moment directed from the fjord into the lagoon, moving lots of smaller pieces of ice. For a couple of minutes, we avoided all noise. All the sounds of the water and the moving ice were incredible! The whole scene was indeed breathtaking, a beautiful concentrate of many ingredients that were required to prepare a truly high arctic imate. After a while, we dropped back to the beach and walked back to the landing site for lunch on board.

Napping time after lunch was short, as there was more to come. At 1400 we went ashore on the eastern side of Recherchefjord, near a relatively large, old house that was sloping dangerously. Here, the English NEC (Northern Exploration Company) believed to have found a "mountain of iron" and tried to establish a mining business in the 1918-19. The operation turned out to be an economical desaster, and all that was left behind was the house that we could see. It was not in good condition anymore, but turned out to be a very rewarding photographic object for everyone with relevant interest and a good wide-angle lense.

We continued our walk northwards, through a moraine area, along some minor, more or less frozen waterfalls and finally across a large, gently sloping tundra plain. A bit further north, we found remains of a 17th century whaling station, most likely operated by whalers from England. Foundations of houses and blubber ovens reminded us of the heavy industrial use that had depleted the regional stock of whales dramatically and to such a degree that it had not yet recovered, even 350 years later.





"Iron mountain Camp, a failed attempt to mine iron ore in Recherchefjord. Reindeer and Noorderlicht.

Some reindeer were peacefully grazing on the snow-covered tundra. We tried to approach them slowly, but after a while they walked away.

We "climbed" little hill near the corner between Recherchefjord and Van Keulenfjord for the view, which was partly obscured by snowfall, before we went down to the beach to be picked up again. Back on board, we were treated with tea, coffee and some biscuits, while one sail went up and the engine was started: tonight, we were to sail southwards, towards Hornsund, the southernmost of Spitsbergen's large fjords. After dinner, we met as usual with Rolf to discuss today's observations and tomorrow's plans. The passage along the outer coast again turned out to be a relatively calm one, and we enjoyed an undisturbed night – the sky was covered with clouds, and any potential northern light remained unseen from sea level.

01. October 2008 – Hornsund: Treskelen, Austre & Vestre Burgerbukta

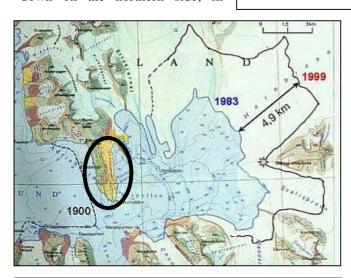
Position at 0800: 76°56'N /15°50'E. Cloudy, strong easterly breeze, -7°C.

he latter assumption had turned out to be wrong: the sky had cleared, and again a northern light gleamed from a cold, dark sky; this time for several hours, but without becoming really strong.

We were anchored in Gåshamna in the entrance of Hornsund in the early morning hours, but repositioned deeper into the fjord during breakfast as the easterly breeze was too strong for a landing here. We enjoyed the passage of about one hour into the central part of the fjord, where the anchor went down on the northern side, in



Walking along Treskelen. Hyrnefjellet in the background.



Retreat of glaciers in innermost Hornsund since 1900. Treskelen is marked with the black circe. Published by and courtesy of the Polish Research Station, Hornsund.

Adriabukta. We went ashore between some quite bizarre rock outcrops that displayed a soft, yet beautiful reddish colour: Devonian "Old Red" conglomerate, the erosional debris of Caledonian mountains originated during a collision of two continents about 400 million years ago, but were worn down again "soon" thereafter. We were now standing in front of the silent witnesses of these events here in Hornsund, some 350-400 million years later and several thousand kilometres further north (Spitsbergen had been south of the Equator during the Devonian). But also from a solely aesthetical point of view, the rock structures were very attractive. Next to catch our attention was a small but that

had been used by Norwegian trappers since the early 20th century and well into the 1960s. One of the legendary figures who had wintered here was Wanny Woldstad, a lady from northern Norway, who had spent several years in Hornsund in the 1930 together with her partner and occasionally with her sons. In contrast to other women who wintered in Spitsbergen, she took fully part in hunting bears and foxes, an occupation that was dangerous and challenging. After having survived this for a number of years, she died in a car accident after her final return to





Polar bear tracks – Triassic sediments forming a "giants chessboard". Treskelen, Hornsund.

Norway.

We felt fully safe as there were no cars here in Hornsund and ventured to ascending a rocky ridge that formed the southern elongation of the mountain Hyrnefjellet. The ridge, called Treskelen ("the threshold"), comprised vertical layers of Permian and Triassic age and was geologically thus quite similar to Akseløya. After ascending several rocky slopes, we had reached the highest part, from which we had the view to the eastern, innermost part of Hornsund called Brepollen ("glacier bay"), a wide, open bay surrounded by glaciers. Rolf told us that this bay did not exist in the early 20th century and was exposed only when the large glaciers retreated into their current position; they are still retreating rapidly.

We followed the ridge to the southern end of the peninsula Treskelen and descended down to a pebble beach. The timing was perfect: as soon as we reached the shore, the two masts of the *Noorderlicht* became suddenly visible behind the ridge to the northeast, and soon the vessel came around the corner, while we inspected some rock structures that resembled a giant chessboard. Dickie came with the Zodiac and some minutes later we were all back on board again for a well-deserved lunch.

After lunch, we had about half an hour of siesta time until we entered Burgerbuka, a northern side branch of Hornsund, consisting actually of two bays, Austre (eastern) and Vestre Burgerbukta. We sailed into the eastern one. Spectacular mountains to both sides, icebergs drifting in waters calm enough to produce mirror images, and above all a huge glacier with an impressive calving cliff at the head of the bay – the scenery could hardly have been more beautiful. Warm clothes were certainly required to be able to enjoy this high arctic spectacle, some of us were covered with up to eight (!) layers! Thus properly equipped, we spent a long time out on the open deck while we approached the glacier carefully, where the engine was finally stopped for a while so we could absorb everything in silence.

After a while, we turned around – a good opportunity to grab a cup of coffee or tee and a piece of cake, before we entered the western branch of Burgerbukta, called Vestre ("western") Burgerbukta; obviously, those early explorers/topographers that had mapped the area and given placenames to its geographical features, were not exactly hit by a spell of inspiration the very day they had worked on this place. But today, there was something magical about the area and we found the impressions certainly highly inspiring. The water of Vestre Burgerbukta, equally calm





Burgerbukta, Hornsund.

as in its eastern counterpart, was dotted with even more icebergs, that were lying so dense that eventually the *Noorderlicht* was just stopped. Fresh ice had already started to form between the small pieces of glacier ice: winter was not far anymore.

Eventually, we left Burgerbukta and crossed Hornsund once again to Gåshamna on the southern side, where the anchor went to the bottom. Dinner was delicious (as usual), and afterwards we met in the bar with Rolf to discuss the various observations of the day, including oceanography, history and glacial history of Hornsund, and the plans for tomorrow. We also agreed on a classification system for northern lights – at nighttime, their "touristic value" should be communicated via a certain number of "dings" (sound of the ship's bell), so everyone could make a decision wether or not to leave bed based on detailed knowledge of the actual geophysical conditions. We would certainly publish our classification system in appropriate scientific periodicals and were confident that it would be widely used by the global scientific community in the near future.



Aurora borealis over Gåshamna.

02. Oktober 2008 – Hornsund: Gåshamna. Dunøyane.

Position at 0800: 76°56'N /15°50'E. Calm, snowfall, -2°C.

fter some initial attempts, last night's northern lights had to give way to a cloud cover. We woke up to some gentle snowfall, and a silent, white cover had fallen on the *Noorderlicht* and everything around her. At 0915, we jumped into the Zodiac and soon we had made it to the shore in Gåshamna – in contrast to yesterday, it was calm and landing conditions were ideal. As soon as everybody was ashore, we walked to the eastern side of the bay where we investigated the remains of the wintering station and astronomical observatory of the Russian-Swedish Arc-de-Meridian Expedition, that operated in Spitsbergen in the years from 1899 to 1902 to investigate the exact shape of the earth. The Russians were active in the southern part of Spitsbergen, whereas the Swedes had their station in Sorgfjord on the northeastern corner of Spitsbergen. Rolf gave us the story of the expedition, their goals and achievements, making use of the snow cover that served perfectly as a whiteboard to explain the details of trigonometry. We





Gåshamna: Russian station (Arc-de-Meridian expedition, 1899-1902) and Noorderlicht.

also paid attention to the remains of a 17th century whaling station (English?) in shape of a gravel cone that had been the foundation of a blubber oven and some large whalebones, before we split up into two groups – our Captain Gert had come ashore with us to take care of one of them. The options were "lazy" or "crazy". Gert went with the "lazy" ones across the snow-covered outwash plain of the meltwater river on the bottom of the valley in Gåshamna, walking to the other side of the beach where a second whaling station had left more impressive whalebones behind. The "lazy" ones turned out to be not lazy at all and were back just 5 minutes earlier than the "crazy" ones, giving the latter ones at least the feeling of having made a greater achievement than the further ones. The destination for the "crazy" hikers was the moraine of the glacier Gåsbreen, a walk of about 45 minutes each direction and a steep, icy attempt that made for some nice sliding and gliding. But we all agreed that the view over Gåsbreen, the valley and the bay were well worth it! We enjoyed the view in silence and made good use of the fact that, for once, Rolf had not forgotten the chocolate bars.

Snowfall increased on the way back and soon the world around us disappeared in greywhite silence.

During lunch, we left Hornsund behind us and set course north along the west coast of Spitsbergen, basically heading for Isfjord but as the weather was nice and we had time, near 1500 the anchor was dropped again at a place that was quite special in that sense that it was rarely visited by tourists: a small group of islands north of Hornsund called Dunøyane, "down islands", due to the fact that in the early 20th century they were often visited by hunting sloops to collect down of breeding Common eiders. Nowadays, access during the breeding season was prohibited to ensure the survival of the birds, but nothing was in the way for a brief visit in early October.

The late afternoon sun cast a fantastic light on the west coast of Spitsbergen with its mountains and large glaciers (Torellbreane), as we went ashore on the northwestern one of the three islands, called Nordre Dunøya. We found a suitable landing beach between some rocks near the southern end of the small island, that was largely flat, covered by remains of postglacially raised beaches. We found two graves near the landing beach and then ventured on a little walk to explore the island. Several small lakes, home to birds such as Red-throated divers and Long-tailed ducks, were frozen now, and the thin snow cover reflected the sunrays beautifully. Small coastal rock stacks, driftwood and old whalebones, all far inland and away from the present day coastline, were silent witnesses to land uplift that followed late Pleistocene deglaciation. But most amazing was the light, which could neither be photographed nor described properly – you must simply have seen it!

A relaxed stroll took us around the frozen ponds to the outer coast and then back to the inner side again, where the *Noorderlicht* was anchored, until we came back to the landing beach. Soon, Elisabeth came with the Zodiac to pick us up again, and it did not take long until we were back on a northwesterly course, heading for Isfjord and tomorrow's adventures. Dinner and our usual meeting to discuss today's observations and the plans for the near future rounded the day off.



Frozen lake in sunset light on Nordre Dunøya.

03. October 2008 – Isfjord: Barentsburg, Ymerbukta

Position at 0800: 78°04'N /14°12'E. Calm, partly suny, -7°C.

The last part of the passage, into Isfjord against a strong easterly breeze, had been a slightly moving experience, but still quite harmless, so most of us awoke after sound sleep to find the *Noorderlicht* alongside at the Russian mining settlement of Barentsburg. It was a cold morning, the mercury had dropped well below zero and a continuous snow covered had turned Grønfjord ("Green harbour"), as the bay was called, into "Kvitfjord" ("White bay"). But Barentsburg itself provided a strong contrast to the previous days that had brought nothing but pure wilderness.

The area had been claimed by a Norwegian company in 1912, when Spitsbergen was still No Man's Land, but was sold to a Dutch company already in 1920, that passed the mine on to a Russian company in 1932. Finally, it became property of the Russian state-owned mining company Trust Arktikugol. Barentsburg had obviously seen better days in the past, during the years of the Soviet Union. A fire in the mine in early 2008 had put a preliminary end to all mining activities, which were not expected to be continued before the summer of 2009. There were currently no more than about 300 persons living in Barentsburg, including several families with





A piece of Russia in the high arctic – a strong contrast!

children. The architecture was deeply rooted in socialist building tradition. For photographers, Barentsburg was currently much more attractive than for miners: Interesting photographic objects could be found everywhere, and the morning passed quickly. We had just enough time for a visit to the souvenir shop that had opened especially for us, although briefly only so some unfortunately missed it. Some of us repaired to the hotel bar in the later morning to test Russian Tchai (tea); stronger drinks were also available, but less popular at this time before lunch. But we all managed to board the *Noorderlicht* again soon.

Not long after lunch, we made good use of the easterly breeze and the sails went up into the fresh arctic air. We set course for our afternoon destination in Ymerbukta, on the northern side of Isfjord. Named after a giant in Norse mythology, Ymerbukta had a beautiful glacier called Esmarkbreen. It took us just under two hours to cross Isfjord. We found the tundra in Ymerbukta snowcovered just as the whole island probably was by now – the arctic summer was really over by now – but the scenery and afternoon light could hardly have been more beautiful.

Dressed with every warm layer we possibly could, we went ashore on the western side of Ymerbukta, to ascend the moraine that the glacier had left behind more than 100 years ago. The ground was frozen solid and mostly snowcovered, but as far as it was exposed, we saw that it consisted of a colourful mixture of all possible rock types, from sedimentary over magmatic (granite etc.) to metamorphic (gneiss, schist, ...) – a nice, natural open air museum of the regional geology.

It was a bit of a climb, but the reward waited on the highest point of the moraine in shape of a stunning view of Ymerbukta. Atmosphere and light could simply be described as "arctic". The temperature was appropriate, certainly near -10° C.





Ymerbukta with the glacier Esmarkbreen and a walk under arctic conditions.

We continued down to the coast towards Esmarkbreen, to a bay that we found largely frozen. Fresh ice had formed between countless small pieces of glacier ice. A walk along the coast brought us back to the landing site, where Elisabeth soon picked us up. We could not possibly imagine anything more beautiful than the scenery we had just seen and experienced, but it could not be denied that most of us were quite happy to get inside to warm up again.

During dinner, we moved northeastwards to the neighbouring bay, Borebukta, where we wanted to spend our last morning out in the wilderness tomorrow. After our daily discussion of today's observations and tomorrow's plans, it did not take long until the bell rang – the *Aurora borealis* could be seen over the southern sky, not too strong, but large. Later, it came back with full strenght, a beautiful curtain of green light all over the dark southern sky.

04. October 2008 – Isfjord: Borebreen

Position at 0800: 78°21'N /14°21'E. Light (but cold!) breeze from the north, -10°C.

The bay Borebukta, where we were at anchor, and the adjacent glacier Borebreen were named after *Boreas*, the cold, northerly wind. The area lived up to its name: the cold breath of the glacier made one shiver. At sunrise time, the light quickly changed from blue through all shades of pink and orange, while the *Noorderlicht* was sailing deeper into the bay, towards Borebreen. After breakfast, we dressed with all layers that we could get hold of and went out to the open deck. The combination of light and scenery can impossibly be described with words – you have to have seen it in order to have a slight idea! It was simply breathtaking.

This was true also in a more direct sense: one deep breath with air of the given temperature made one be more careful next time.

We spent some time drifting near the greenish-blue front of Borebreen, before we sailed closer to the eastern shore near Borebreen for our final excursion. The beach was a bit shallow, but but we were experienced polar explorers by now and nothing could keep us from going ashore – well, the cold had made some of us think twice, but in the end all had decided to come.

The beach was iced over, and plenty of tracks of Arctic foxes were in the snow. We followed the coast towards the glacier, until we split up into two groups: the "lazy" ones with Gert went towards the glacier at sea level, examining all bits and pieces of glacier ice that were lying around near the waterline and thoroughly enjoying the colours and shapes of the ice. Especially in this group, overheated feet were unlikely to be a problem near the end of the excursion.

The "crazy" ones joined Rolf to hike up the moraine, which was a rather chaotic terrain of countless hills, dirt cones and frozen little rivers. Deep snow drifts had accumulated in many places and made walking a challenge, very much to the delight of all those ones who watch the person that disappeared in the snow up to the hip. We reached the rim of Borebreen, that turned





Borebreen: a spectacle of colours in a frozen world.

out to have a small ice cliff above an almost frozen meltwater river. Another short ascent took us up to an even higher moraine ridge, from where we had a splendid view over the whole scene.

We all arrived back on board with perfect timing for lunch, which all of us were really looking foward to after the cold hours on shore. At the same time, the *Noorderlicht* was slowly sailing

towards Longyearbyen. After lunch, we crossed an unexpected belt of many small icebergs – one of the glaciers in inner Isfjord must suddenly have become very active. In brilliant sunshine and under sail, we made our way slowly back to Adventfjord, where we went alongside in the port of Longyearbyen.

In the late afternoon, many of us took the opportunity for a walk to Longyearbyen, before we enjoyed our last, good *Noorderlicht*-style dinner – this time, Anna had indeed prepared something special for us!

In the evening, it was time to pack, although rumour had it that some of us went on to explore Saturday night life in the high arctic metropolis of Longyearbyen.



The last evening on board: "Gert's dinner".

05. October 2008 – Longyearbyen

Position at 0800: 78°14'N/15°37'E. Weather: arctic. Temperature: cold.

It was hard to say goodbye to the *Noorderlicht*, that had been our home during an exciting week, her crew and our fellow passengers when a bus was ready to take us to Longyearbyen at 0900. There, we had some hours to explore the various excitements including the museum and the cafe, before most of us boarded the airport bus at 1300. It was difficult to believe that within a few hours we should be back to the hazzle and dazzle of big city life in Oslo and soon elsewhere on earth, but most of us knew already now that this was possibly the first, but definitely not the last visit to the far north.

Thank you very much for travelling with us! Best wishes & see you again, somewhere between the poles!

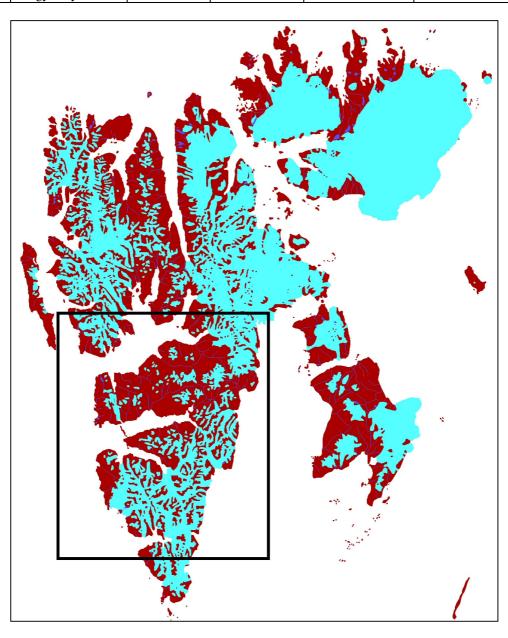
Rolf made this triplog.

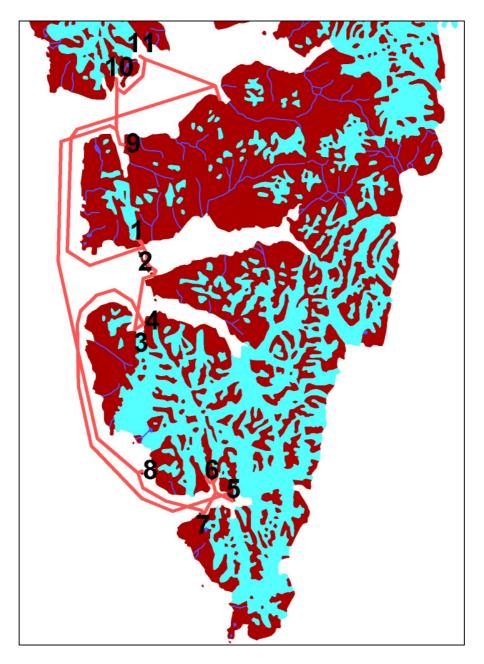
This triplog and the group photo can be downloaded from: www.Spitzbergen.de

For more information, please see <u>www.oceanwide-expeditions.com</u> <u>www.noorderlicht.nu</u>

Sunrise and sunset:

Date	Position	Latitude	Longitude	Sunrise	Sunset
				(UTM-1	(UTM-1
				= local time)	= local time)
28.09.	Longyearbyen	78°14'	15°37'	07.04	18.32
29.09.	Fridtjovhamna	77°45'	14°36'	07.14	18.29
30.09.	Recherchefjord	77°30'	14°34'	07.21	18.22
01.10.	Gåshamna	76°56'	15°50'	07.21	18.12
02.10	Gåshamna	76°56'	15°50'	07.27	18.04
03.10.	Barentsburg	78°03'	12°50'	07.45	17.59
04.10.	Borebukta	78°21'	14°21'	07.53	17.49
05.10.	Longyearbyen	78°14'	15°37'	07.55	17.37





1. Bellsund: Fridtjovbreen 2. Bellsund: Akseløya

3. Bellsund: Recherchebreen4. Bellsund: Recherchefjord eastern side

5. Hornsund: Treskelen

6. Hornsund: Austre and Vestre Burgerbukta

7. Hornsund: Gåshamna 8. Nordre Dunøya
9. Isfjord: Barentsburg
10. Isfjord: Ymerbukta 11. Isfjord: Borebukta