Spitsbergen

Polar Wilderness

A Greentours Reconnaissance

27th June to 5th July 2004

Ian Green and Fiona Dunbar

Day 1Sunday June 27thArrival

The Manchester and Heathrow contingents met up in Oslo with plenty of time for a meal before catching the evening flight up to Longyearbyen. Bizarrely this flight starts in the dark and after about forty minutes is back in sunlight again as you head north into the Polar day. It was a three hour flight giving some idea of the distance involved – Spitsbergen is as far north of Norway's North Cape as Oslo is to the south and of course Norway is a very long country.

Spitsbergen suddenly reared up pinnacles of rock and ice through the low cloud and then half an hour later we descended towards the airport. There followed the most amazing approach to an airport that I have ever encountered. The plane dropped into cloud and suddenly emerged into a land of ice and snow – and cloud. The pilot turned the aircraft into a valley and so the ridges moved above us on each side – the incredible landscape seemed all too close to the wingtips. A flick round a corner and we were on a final approach to the runway and the first signs of habitation appeared below us. Moments later the sea came into view then we landed.

A bus took us up to our hotel and gave us our first glimpse of the pioneer/mining/wild west/just plain amazing settlement of Longyearbyen. The landscape seemed utterly barren – and in places covered in coal dust. However Snow Buntings and Reindeer were seen on the short drive and there were patches of bright pink and yellow indicating that the flora was also of great interest. We settled into the very comfortable Spitsbergen Hotel and met up for a very late evening glass of wine and looked out of the window to see Snow Buntings, Reindeer and massed groups of Little Auks flying along the clifftops!

Day 2Monday June 28thLongyearbyen

After a short nights sleep we awoke to find the scene was every bit as otherwordly as it had seemed when we arrived. The scene up the valley from the hotel took in a smaller part of the settlement backed by a glacier which disappeared up into a whiteness that became indecipherable from the sky. Nearer at hand steep hillsides rose up towards snow. Perched on their sides were the remains of mining operations and overhanging their tops was snow. Flocks of what looked like starlings whizzed back and forth along these cliff-tops – these were in fact Little Auks – hundreds of them. Nearer at hand the Snow Buntings proved both common and confiding with singing males on

chimney pots and other manmade perches. Occasionally one would fly upwards and turn itself into a ball of black and white fluff and descend to earth all a-flutter. We moved to the breakfast room which featured a substantial feast including a mixture of international and Scandinavian breakfast specialities – the latter including sill and caviar. A wonderful feast to keep us going for the day. Packing in our rooms started with an Arctic Fox just outside the window – this entranced and then ran off with something nasty!

After breakfast we went shopping. There was a large cluster of shops in the centre with expedition outfitters and all sorts of 'arctic' clothing on sale – expensive and very gorgeous Norwegian Jumpers in every shop. There were also plenty of books as well as all sorts of Spitsbergen mementoes – in short there was plenty to browse amongst! The walk down into town introduced us to some of the common Arctic plants here. First up was the lovely endemic poppy *Papaver dahlianum* otherwise known of course as the Svalbard Poppy. We found the gorgeous *Cassiope tetragona* flowering with Windflower *Dryas octopetala*.

Eventually it was time to head down to the pier. Down by the shore were numerous Arctic Terns and Glaucous Gulls. There were flocks of Eider offshore and one group swam along next to five King Eiders – two of these immaculate males. Further along Peter spotted the bird of the day – a fabulous adult Ivory Gull which flew around a bit then came in and landed on a rock – very obliging. Red-throated Divers in summer plumage flew in and there were some lovely Black Guillemots in the harbour. Arctic Terns were nesting on the jetty and gave anyone who came near them a harsh telling off. By five we had boarded the Professor Molchanov and after settling into our surprisingly spacious cabins we attended the initial get together. Expedition Leader Olle introduced himself the ship and everyone on it in a very witty and entertaining style – a man of real presence clearly ideally suited to his job! Then it was through the lifeboat drill and into dinner – an excellent three course meal.

Before we'd even finished this we were being invited to the decks as the weather had cleared and blue sky and Mountain snow and glacier were before us – wonderful! Auks were everywhere especially Brünnich's Guillemots. Black Guillemots and Puffins were evident too and Fulmar were abundant. These seemed to enjoy cruising along the boat sides often zipping up for a spot of how close can I get my wingtip to you – though their movement was never so easy to predict as to make photography a cinch. Liz spotted a Great Skua, not a common species hereabouts, and later we saw the first Arctic Skua of the tour. Several of us enjoyed a bottle of wine on the bow – it was so calm that we could put our glasses down to watch a passing bird or photograph the stupendous scenery.

Day 3Tuesday June 29thKrossfjorden and Ny Ålesund

Even before breakfast the plans for the day had changed to allow for the wind direction. On entering Krossfjorden we realised there was too much sea ice for the RIBs (zodiacs) to take us ashore, so we viewed the breathtaking scenery and turquoise blue icebergs from the Professor Molchanov. There were several decks to watch from, the front one great for photography, the upper one possibly the best for spotting, for example, Ringed Seals resting on the ice. Viewing was also great from the bridge, a large room surrounded by windows, and pleasingly cosy after standing outside for a while! As the boat moved gently through the ice towards the seals we were surrounded by sea birds in the air and on the water. Mainly Kittiwakes, Brünnich's Guillemots, Fulmar, Glaucous Gulls, Black Guillemots and Little Auks, but also a few Puffins. Some areas of the cliffs were white-washed where colonies of Brünnich's Guillemots had their nests, and we had very close approach to a smaller colony close to sea level. Amongst the nesting guillemots were Barnacle Geese and even a Pink-footed Goose and a few Puffins. The cliffs otherwise were coloured by yellow lichens, dark green Scurvy Grass and jewel-like cushions of purple Moss Campion and a yellow buttercup. Ian spotted a rare blue-phase Arctic Fox crossing a snow gully near the colonies.

The boat took us out of the fjord and we headed inside for lunch and a short talk on correct procedures for landings from the zodiacs, and the history of Ny Ålesund, which started life as a mining and trapping outpost. The weather had improved and we entered the bay where the scientific settlement of Ny Ålesund is situated. Several glaciers snaked into the waters of the bay. The water was full of growlers and bergy bits (little icebergs), some white, some orange with soil and debris and some jade green or blue. The latter come from the lower levels of the glaciers where the weight of the upper parts has squeezed out any air bubbles, and we were told that all the ice in the bay had calved off the glaciers within the last day. We were taken ashore quickly and efficiently in the zodiacs. Our guides had rifles and we were not allowed to wander far from them, or off the roads, as polar bears are always a possibility. A short walk took us through the few wooden houses of the tiny settlement, which included the most northerly post office in the world and such oddities as the South Korean Polar Research Institute. The ground was a mosaic of tiny arctic plants growing on a thin, spongy layer above the permafrost. Arctic Foxes seemed quite common, quartering the tundra looking for food, and we must have seen half a dozen or more of these wonderful, small foxes in their dark tan and blonde summer coats. One pair had eight cubs living under one of the wooded buildings, and the youngsters trotted out from underneath from time to time to view us and the world. A small lake attracted Barnacle Geese, Ringed Plovers, Turnstones, Purple Sandpipers and a stunning pair of Red-throated Divers. Arctic Terns were nesting everywhere on the ground and were allowing some great photographic opportunities. A wooden building where the huskies are kept had seal carcasses hanging to dry (dog food) which attracted a Ivory Gull, and Ian and Peter had great fun photographing a pair of these on the snow at close range later on. They ended up being last back due to a sudden influx of great photographic opportunities. After the Ivory Gulls came a pair of Long-tailed Duck just five metres away and a couple of baby Snow Buntings that were little more than balls of fluff and certainly didn't look as if they should have left the nest already. Then there was the large-antlered male Reindeer and an Arctic Skua that wheeled gently through the air right in front of us.

The zodiacs returned us to the boat. One had a brief final excursion to collect a piece of glacier ice – the ice machine in the bar had broken down. The ice in the icebucket cooling the celebratory Arctic Fox cava was therefore glacier ice this evening. There was a very good talk on plans for the following day, and ice and glaciers and stuff, and we could examine the incredibly clear lump of glacier ice, which could have been a couple of hundred years old.

Day 4Wednesday June 30thRaudfjorden, Liefdefjorden and Moffen Island

We awoke to find that an overnight conversation with passing sailing ship the Noorderlicht had changed our plans marginally. We were still in the northwestern-most corner of Spitsbergen but had pulled into Raudfjorden (apparently Hamburger Fjord!) and the scenery was really magnificent. Blue-tipped Glaciers plunged into the sea and stark mountains were heavily streaked in snow. And the weather was clear with occasional hints of sunshine too. Anders was first up on deck and at the moment several of us were getting up – so around six fifteen – he found a mother and baby Polar Bear walking along the shore! Our first Polar Bears and though they walked steadily away from us we were at least able to obtain good 'scope views. As the upper deck hummed with excitement and in some cases, envious disappointment (the later arrivals!) Anders did it again – this time three Polar Bears and really not so far away. It was a mother and two cubs on an island at the foot of the nearest glacier. Wow! We watched as they searched the island for Eider nests before they disappeared round the back of the island – we weren't to know it at the time but in fact they'd got into the water and swum over towards the glacier.

We took breakfast very excited at the prospect of zodiac cruises around the head of the glacier and the possibility of seeing the bears at closer range. Once in the zodiacs we approached via a small bird cliff with Brünnich's Guillemots in residence. The bears however proved elusive and though we did eventually find them they were some distance across the ice that separated us from the glacier's head and they could only be seen intermittently. We pottered back and forth, waiting for them to come out, and enjoying some very close encounters with the local birdlife. Black Guillemots hardly seemed to bother to get out of the way and it was easy to see their bright red legs as you could just look into the water by them. Several sat on the edge of the ice with a group of very fine Common Eider. Eventually we had to give up on the bears and head back to the ship passing a fine pair of Great Skuas en route.

We weighed anchor and headed out to sea and then around in an arc into Woodsfljorden and thence Liefdefjorden. All the while off our starboard side was the largest area of continuous tundra in Spitsbergen, the flatlands of Reinsdyrflya which translates as Reindeer Flats. It was then not a surprise to see ones and twos as we chugged along the coast. They are a very short and very pale subspecies here. Glaucous Gulls, Kittiwakes and occasional Arctic Skuas patrolled these shores.

Anders, not content to be 5-0 up on the 'finding Polar Bears' count then produced three more. These were a classic sight as they walked along a large snow bank. They were unusually 'white' for this time of year and the cubs were large indicating that they must have been last year's youngsters. A Great Northern Diver, a rare bird in Spitsbergen, flew past them. Then there was confusion for a moment as a large yellowish adult bear was spotted lying on the shingle spit along which the other bears had eventually walked. Surely not the same mother? And this was confirmed moments later as she got up and two really small cubs bundled after her! She walked towards the other family and there were now six bears in the one spot! Though they never came closer than thirty metres to each other there was clearly tolerance and even interest between the mothers and cubs. The 'white' family had split – the cubs stayed partly hidden behind the shingle whilst the mother had walked out on to the ice and had found something of great interest to her – it could have been part of a seal corpse? She lay down on the ice and looked a real picture with her nearly pure white fur and black nose. It was an impossible spot to launch the zodiacs and get any closer to the bears so it was decided that we should continue up the fjord. Suddenly, as we looked back, we saw the 'white' family come down the shingle and then to the end of the promontory and to the water. The mother

promptly walked into the water followed by the first cub. The second cub hesitated a moment and then jumped in with a splash! We watched from a distance as they started swimming and they seemed to make rapid headway – and the direction – they seemed to be heading into the fjord itself. At this point the fjord was a mile or two wide but bears are strong swimmers and it is entirely possible that this was their intention as with the opening up of the seas off the north coast the seals, their main prey, had moved east towards the pack ice. So the bears needed to follow and perhaps these were?

By now the sun was out and it was a fantastic scene in front of us. Numerous glacier dropped from high ice-covered plateaux inland and beautifully sculpted mountains were laced with the white stuff. A few clouds in the sky and you had the perfect day for a polarising filter – a lot of pictures were taken as this is one of Spitsbergen's most beautiful fjords.

An early evening landing took us onto the tundra for a couple of hours. One could have the choice of a longer walk to stretch the legs or a potter about the coast to see what was in the tundra! Both groups saw Reindeer and Arctic Skuas at close range. Those of us in the lower group spent a good deal of time enjoying the marvellous tundra flora. When one lands initially the impression is of barren-ness or perhaps even boggy-ness. However the rich purple of Saxifraga oppositifolia soon becomes apparent and indeed colours some of the drier areas. It was growing with plentiful Windflower Dryas octopetala making for a lovely colourful combination especially when the little yellow spots of Draba oxycarpa were added to the palette. This draba occurred in white and cream colour forms too. There were mounds of Moss Campion, most not in flower but a few had pretty pink flowers and one or two had one side of the mound completely covered! There were other saxifrages. The white Saxifraga hyperborea had glandular hairy red calyxes and columns of leaves. The tiny Saxifraga nivalis was found in flower just once and what was probably also Saxifraga *tenuis* was in bud. There was a beautiful bright yellow buttercup too – again red-brown sepalled. This was Ranunculus sulphureus. Other plants included the tiny Polar Willow, red sepalled Minuartia rubella and the bog-loving Cerastium regeli. Two Reindeer sat and watched us and as Olle approached them carefully they circled the group and with everyone being patient they eventually walked almost right up to them – certainly to within ten metres! Many photographs were taken of the boat in its marvellous setting with glaciers behind and not a few of our Expedition Leader with a similar background. Then it was time to return to boat for another excellent dinner – and some Polar Bear champagne that we'd brought along to celebrate our first encounter with the mighty bear - we hadn't expected to see eleven on our first day amongst them though!

It wasn't over for the day yet though. Olle had decided to take us out to an island north of Spitsbergen – in fact north of 80°N. A celebration on the foredeck took place as this 'really far north' line was crossed. Minutes later we reached the low lying island of Moffen. Even from a distance it was apparent that the Walruses were home – they are, after all, rather large! There were perhaps just under fifty of them hauled out in two groups or playing at the water's edge. They looked rather as if it was all a bit too warm for them and they need to frolic in the surf a bit to keep cool before another sun-bathing session on the fine gravelly beach. There were many 'teeth' visible some really rather long and there were some impressive animals – all wobbly and sleek looking as they hauled themselves up and down the beach – but rippling with muscle too – they looked like they must be strong swimmers. Of course there were plenty of birds around too – Great Skua, Barnacle Geese, Red-throated Divers and the Swedish Group found two distant Sabine's Gulls in breeding plumage but we failed to see these, concentrating instead on the big blubbery ones!

That was it for most for the day except Anders and I who spent an extra half hour on the top deck as the seas were really calm and the light good. Sure enough we were rewarded with first a distant sighting of a cetacean then a much closer and better view confirming it to be a Minke Whale. This one was feeding quite deeply as its dives were very arched and long – and so when it did come to surface it took a number of breaths before diving again.

Day 5Thursday July 1stHinlopenstretet including Alkefjellet and
Sorgfjorden

We woke up to mist and rain, and huge pieces of sea ice visible outside the cabin window. We had entered Hinlopenstretet which separates Spitsbergen from Nordaustlandet, and it is unusual at this time of year to be able to penetrate as far in as we were doing. Now and again there was a deep, muffled thud and the ship would lurch slightly as we forced our way through a sheet of sea ice, vast cracks opening eventually at the prow. After breakfast the ever-present numbers of auks increased dramatically as we approached a vast, towering, pinnacled series of basaltic cliffs. Here lives an enormous number of Brünnich's Guillemots, Glaucous Gulls and Kittiwakes. Every ledge was lined with tightly packed black and white bodies. Moving off we skirted sheets of sea ice, carved turquoise below the water line, white above, scanning for mammals and staring at the icy spectacle before us. The ice was 'multi year ice', lumpy and bumpy, and not as popular with seals and big white furry seal predators as the smooth one year old sea ice. We saw no mammals, just vast numbers of auks, and headed for Lomfjorden after lunch. This was completely icebound, so we headed to a fjord on the east side of the passage, Murchinson Fjorden. This also was iced solid, (though we could see the 17th century cross built by whalers) so we headed for Sorgfjorden. En route we watched for mammals - just the one Ringed Seal, and enjoyed the constant close passes of the Fulmars and a few Lesser Black-backed Gulls. An elegant Sabine's Gull caused much excitement. The zodiacs crossed a glassy smooth bay to take us to shore after tea. We walked up a small rocky hill to an area of graves – just rocks piled up because of the permafrost. The remains were from a rare skirmish between whalers and the navy of a competing country. There were Eiders nesting amongst the rocks, and a pair of Red (Grey) Phalaropes were a beautiful sight at the edge of the water. From the top of the hill we viewed a group of eight Red-throated Divers, and one group saw a Bearded Seal. A very close Sanderling in summer plumage was a good find. The little hilltop proved a great spot for flowers most noticeably of course the beautiful mats of here very deep purple Saxifraga oppositifolia. There were no less than four other species of Saxifrage. Rounded hemispheres of Saxifraga cespitosa were just coming into yellowish white flower and Saxifraga nivalis was in bud. We also found a single plant of Drooping Saxifrage Saxifraga cernua and several miniature rockeries of Saxifraga hyperborea. There were two buttercups – the beautiful Ranunculus sulphureus and the little Ranunculus hyperboreus. Amongst Polar Willow we saw Draba oxycarpa and Minuartia rubella – it was amazing how much variety one could find on an apparently desolate looking spot!

Day 6Friday July 2nd

Ytra Norskoyane, Fuglesangen and Smeerenburg Glacier

We awoke to a grey and rather damp drizzly scene. The scenery round about was clearly spectacular (as it nearly always is on Spitsbergen) but the mountain tops and even middle slopes were hidden by low cloud. We were moored by the little island of Ytra Norskoyane at the northwestern tip of Spitsbergen. This had been an important centre in the Dutch whaling operations from the seventeenth to mid eighteenth centuries. This seasonal settlement alone could have hosted upwards of a thousand people. Offshore many boats would have been taking on board the oil from the dismembered whales and of course there would have been boats ready to go out and catch the Bowhead Whales which, because of these depredations have long been extinct in the area. There are now occasional late summer sightings so perhaps one day they will come back to Spitsbergen. There was plenty of evidence of man's occupation on shore and after a zodiac landing Olle showed us the remains of the huge 'blubber pots' where they melted the whale's blubber into oil. The land here was very damp and covered in a thin layer of moss – perhaps an indication that even after two hundred or more years this is how slow regeneration in the Arctic is for elsewhere one generally finds deeper moss cushions.

Most of us took a hike up to the whale lookout points. These were obviously ideal spots to keep an eye on any approaching whales and on another clearer day a long seawatch might have been attractive! Now though it was foggy and damp so we contented ourselves with a look at the Puffins, Black Guillemots and Brünnich's Guillemots on the cliffs not far below us – the Puffins in particular a wonderful sight. Glaucous Gulls and Great Skuas patrolled the cliffs. The usual saxifrages were present in small numbers on the drier areas of the slopes along with *Draba subspicata* and in one damper gully what was probably *Ranunculus hyperboreus*.

Back on ship it was a chance to dry out (it had actually been quite warm) and then have lunch before moving a couple of miles to the island of Fuglesangen which literally means 'Bird Song'. The reason was soon apparent once we landed. The crazy cackling and laughing of many hundreds of Little Auks was a wonderful welcome! Most of them had taken flight before our arrival and were now swirling back and forth across their breeding screes in a whirr of wings. We took positions up along the edges of the white rocks in which they had their nests. It was an amazing experience as flocks of several hundred would arc round over the sea and then move over the screes and us like a whirring blanket giving their evocative laughing calls all the while. We had expected them to settle quickly for this is apparently what they normally do but after fifteen and then twenty minutes of fly pasts we were becoming concerned – maybe we were disturbing them? Then the culprit appeared – an Arctic Fox which walked very close to those of us perched highest. This wandered off across the slopes (there had been a superb male Reindeer doing the same when we arrived) and eventually the auks began to settle. The advance party sat upon a rock near the top and many of the group were able to carefully approach them to within three metres and take many photographs - it was clear that it couldn't be us that was keeping them in the air. All of a sudden the mass started to land and the rocks all around became alive with Little Auks – the cameras were clicking quickly now. Sadly they were clearly still nervous and a flypast by yet another Glaucous Gull sent them into the air again after just a few minutes and this pattern was repeated a couple of times over the next half an hour. Peter pointed out some yellow flowers on the lower cliffs - some really fine Ranunculus sulphureus, the best we'd yet seen with bright golden flowers on four inch tall stems. We now headed south into the Smeerenburg Fjord and thence to the Glacier at its end. Both Bearded and Ringed Seals were hauled out on the ice in front of the various subsidiary glaciers that

came down the fjord's side. Glaucous Gulls and Kittiwakes were numerous and became more so the nearer the main glacier we came. Arctic Skuas harried Kittiwakes and Arctic Terns. We approached the main wall of the glacier. A fabulous blue wall of ice. Bergy bits of the most intense blue drifted past and ice was everywhere. It was a truly spectacular spot despite the light rain that was falling. This didn't deter the ships crew nor the guests when a superb barbecue and party was provided outside on the aft deck. Surrounded by magnificent glacier and fjord scenery there were never-to-be-forgotten scenes aboard the boat as the conga went in and out of the kitchen, or when Hans danced with an elephant on his head or perhaps best of all the expedition leader's air guitar to a Beetles number. There was much dancing eating and drinking as the rain got heavier and heavier – until eventually the majority of us headed to the bar! The boat left anchor at ten as suddenly the rain stopped and clouds cleared. We all regained the deck for a mass photo session as the stunning grandeur of the landscape was revealed by the sun.

Day 7Saturday July 3rdBird Cliffs, English Bay and Ny Ålesund

Rather a sluggish answer to the call for breakfast this morning! The zodiacs took us right in to a Brünnich's Guillemot colony which was on a little cliff at sea level. There were some of the arctic subspecies of Puffin nesting there too, with the same red feet, but almost completely red bills and an evenly grey face, and overall larger size. A short distance along we went ashore. The flora was rich and colourful, particularly on a 5m high little cliff where a pair of Snow Buntings were flying in and out, feeding their chicks. Reindeer trotted past on the slopes above us. The group split, some staying to botanise, and some walking up to the head of the magnificent glacier. There were a couple of explosive retorts and a few small pieces fell, but not the big calf we were all hoping for! At the back of the beach were a pair of Arctic Skuas, watching our progress with interest. The zodiacs took us all right in to the front of the glacier on the way back - very impressive and beautiful, translucent almost luminescent blue in places, fissured and worn. Some of the boats also went back for a second look at the bird cliff as the weather had improved markedly.

Those that stayed by the green slopes by the landing had a real flowery treat. On a low cliff behind the landing site was a mass of colourful flowers. Most obvious were the two pink species – *Silene acaulis* and *Saxifraga oppositifolia*. Rather tall yellow *Draba alpina* grew amongst them with masses of cream *Saxifraga caespitosa* and white *Saxifraga rivularis*. Amazingly there were another three species of saxifrage here making six for the cliff (and later *Saxifraga hyperborea* making seven for the site). Tall *Saxifraga heraciifolia* made a striking sight and it flowered with its close relative *Saxifraga nivalis*. *Saxifraga cernua* with its white flowers and bulbil-filled leaves axils made up the set. Drabas were additionally represented by *lactea* and the local *norvegica* – both white flowered species. In damp mossy areas we found little patches of *Chrysosplenium tetrandrum* the Dwarf Golden Saxifrage. Almost invisible amongst this and all the moss was the tiny *Ranunculus hyperborea*. Growing on drier patches was *Potentilla hyperarctica* and *Cerastium arctium*. A Glaucous Gull followed our botanical progress with interest was certainly not about to fly off with so much entertainment at hand.

After lunch, we had a bit of a way to cruise, and most people were happy to rest up for a little while. The weather worsened, so we could not make our proposed landing, and instead we went ashore in a sheltered bay on English Island. The glacier here was fronted by earthy, stony hillocks, the still melting remains of the retreating glacier now separated from the main body. The gravelly landscape was washed with Purple Saxifrage. Again the group split into walkers and potterers. The potterers

did very well with new plants. First was a sandwort *Arenaria pseudofrigida* which offered numerous white stars in a cushion a couple of inches across. Then the plant of the day – the lovely purple and white inflated calyx and little mauve petals of *Silene uralensis*. This proved to be a fabulous spot for whitlow-grasses. The widespread yellow *Draba alpina* flowered on gravelly banks with just the odd plant of *Draba corymbosa* and also what was either *micropetala* or *pauciflora*. There was variety too amongst the white ones. Tiny pyramidal domes of *Draba subspicata* were noticeable only if you knelt down! Rather easier to spot was the two-inch tall pure white flowered *Draba daurica* and the smaller glabrous-stemmed *Draba lactea*. Most numerous was a very short hairy-stemmed and hairy-fruited species – *Draba arctica*. 7 species of draba in one spot to match the 7 saxifrages in the morning. There was another crucifer here – and a rather beautiful little thing it was too with white to purple flowers – *Braya purpurascens*. In addition we found the sedge *Carex nardina*, the bistort, *Polygonum viviparum*, the fine low-growing *Potentilla pulchella* and quite a number of the lovely lousewort *Pedicularis hirsuta* in fine flower. Birds included Red-throated Divers, a gorgeous pair of Long-tailed Ducks in addition to the usual background of Black Guillemots, Arctic Turns etc...

A few Reindeer were seen again, and a curious Harbour Seal examined us as the Dutch/Swedish penalty rematch was played with an improvised set of goal posts on the beach. This was a rematch of the recently played European Championship quarter final and as in the real match the Dutch prevailed on penalties this time by the grand score of one zero!

During dinner we heard various calls to the bridge and had we looked outside would have seen the boat steaming at full speed (which was much faster than we normally moved!). The boat's second engineer had been diagnosed with internal bleeding and the ships doctor recommended and immediate evacuation to Longyearbyen. What followed was an impressive show of just how organised and efficient are the procedures to deal with an emergency medical situation in the high Arctic. The helicopter crews and medical personnel were scrambled in Longyearbyen and we sped to the harbour at Ny Ålesund. The evacuation could have taken place off the bow but with the harbour within steaming distance it was clearly felt why risk an airborne rescue. Within two hours the engineer was off ship and shortly afterwards we saw the helicopter rise above the mountains and head off to the hospital.

As this was going on one of the Swedish AviFauna group spotted Belugas! So our rather downbeat mood was suddenly raised as the Molchanov headed off towards them. They were travelling along the shore and there were very many of them. A minimum of fifty and perhaps sixty or more. They hugged the shoreline as we cruised along parallel to them perhaps five hundred metres further offshore. The pure white adults were a spectacular sight as they surfaced regularly and many were accompanied by youngsters. There were just a few tiny almost black ones presumably from the current year? But there were numerous 'yearlings' varying from pale to dark grey. One youngster breached repeatedly when we were some distance from them but once we were close he was told to stay close to his mother. Another memorable event to end another memorable day.

Day 8Sunday July 4thPoolepynten in Forlandsundet and Barentsburg

Our visit to Ny Ålesund meant that we were still steaming down the west side of Prins Karls Forland, the long island of Spitsbergen's west coast, before breakfast. The planned visit to a Walrus haul out had been cancelled the previous day as the sea was too disturbed in that area to launch the zodiacs so the expedition leader had promised us another go in the morning.

After breakfast we cruised up Forlandsundet in now calm and occasionally even sunny conditions. The swell had now disappeared as we sheltered from the ocean and conditions looked ideal. Ideal in fact for spotting cetaceans and the trips second group of Belugas were spotted – this time in the distance and we hadn't time to go and look at them. Eventually we reached the Walrus haul out only to find it empty! Rather sad about this we turned the boat and headed south. Pomarine, Arctic and Great Skuas were seen and also an odd-looking second winter gull which must have been some form of Herring Gull but which we knew not! Another hour south and the Expedition Leader was checking out one last Walrus haul out spot and glory be - there they were! Only two of them looking like great maggots on the beach but we settled happily for that. Olle was clearly convinced that they would remain as we took lunch (in a hurry!) before taking the zodiacs ashore and landed on the southerly side of the Poolepynten. This kept us hidden from the Walruses and allowed us to see the reason for the name of the spot - it was a large gravelly/sandy spit which contained a pool a very good looking birding spot. In fact we did see numerous Glaucous Gulls and Kittiwakes offered reflective photo opportunities. Down by the shore two beautiful Red (Grey) Phalaropes landed briefly. However it was the Walruses that we were here for. Olle took us over the spit and we found that in fact only one was left. He was a large battered old animal that we assumed to be a bull. We came easily to within twenty metres of his great bulkiness and though he stirred and looked at us and even raised his head high to have a look he settled happily again. It was a most marvellous scene with the old boy snoozing on the beach with a mirror calm sea beyond and backed by glaciers and mountains. In fact it meant a lot of fiddling around with the photography – closeups with just the Walrus or zooming out to take in the fantastic background. I think the majority of people shot off a couple of films or the digital equivalent during the next magical hour! This old individual showed evidence of previous battles with scars here and there on his thick hide. Occasionally he raised himself onto his front flippers and looked about - then another battery of clicks would emanate from forty cameras!

Suddenly two more Walruses were seen swimming along the water's edge. They cruised slowly round the large bergy-bit stranded on the end of the spit and then came inshore by the beaches sole walrusine inhabitant. However they didn't come out of the water, merely sitting up on their front flippers photogenically before deciding that a trip on round the beach was for them. They were almost whale-like in the way they 'blew' as they surfaced and of course the size of them was very impressive. These two were almost lured ashore by Arjan doing a sport of splashing but though they came almost right up to him they went on along the beach. Attention focussed back on the beached Walrus and the Glacuous Gulls on the iceberg at the end of the spit. Then the two reappeared and this apparently annoyed him enough to send a few stabbing teeth towards them – really quite powerfully. It took awhile for them to sort themselves out and this made for a wonderful photogenic sequence as they pushed and shoved one another. Kneeling down on the beach was fantastic as when they rose up they seemed (and probably were) above us! We stayed a good while with them then the zodiacs were summoned from the boat. We were reluctant to leave as one of them had swum off and come back with two more and these were hauling out on the beach as we left

We then headed south passing skuas, auks, gulls, seals and even a lone Beluga en route to Barentsburg. After a final dinner of exquisite venison (reindeer?) followed by lemon meringue we had the chance to go ashore. Barentsburg is a most strange place – at least to take a tourist! It is a Russian mining town. And still stuck in the communist era too. It had an aura of decay and of hardship. Open sewers trickled down to the sea and the harbour was covered in coal dust. Most went to visit the museums etc but we pottered off to one side and looked at the slopes amid the town. These looked distinctly unpromising but on closer inspections held a fascinating flora. *Ranunculus sulphureus* grew abundantly and in mossy places we found *Ranunculus pygmaeus* as well. Amongst many drabas was *nivalis* and *daurica* and there were new plants as well in the shape of white *Taraxacum arcticum* and pretty *Erigeron humilis*. Snow Buntings were common and so too Glacuous Gulls. The latter had a pair of well-grown young and didn't hesitate to dive-bomb anyone who came too close. Sadly the Ivory Gull that was seen from the ship had gone by the time we'd landed.

Day 9Monday July 5thLongyearbyen

Our morning call came at a sunlit two fifteen and downstairs a breakfast of sumptuous pastries were waiting. A farewell to the crew at the pier in Longyearbyen then a five minute bus journey to the airport and check-in. Now four in the morning we came back out the front of the airport terminal and spent a while on the gravelly slopes by the carpark. These had a most wonderful flora with patches of Moss Campion shining pink and green – the best we'd seen. The lovely endemic poppy *Papaver dahlianum* produced photogenic clumps of creamy green-centred inch and a half wide flowers. *Saxifraga cepsitosa* once again confused in its seemingly endless variety of form and colour. There was also *Saxifraga rivularis* and *cernua*. The white *Silene furcata* formed little clumps by the roadside and there were some lovely stands of *Cassiope tetragona*. Drabas of course were present in numbers with *Draba nivalis* seen again. Over the road was a superb area of 'heath' going down to the sea with more of the same plus the lovely bright yellow *Saxifraga hirculus* in flower. Purple Sandpipers and Snow Buntings foraged amongst all the flowers. Then it was finally time to board the aircraft. We took off and rose steeply over the mind-boggling landscape below. Much of Western Spitsbergen's glaciers and sharp mountains were bathed in sunlight as we headed south towards the Arctic Circle and thence to Oslo.

Systematic List Number 1 Mammals

Summary of Localities visited

Day 2 June 28 th	Longyearbyen				
Day 3 June 29 th	Krossfjorden and Ny Ålesund				
Day 4 June 30 th	Raudfjorden, Reinsdyrflya, Liefdefjorden and Moffen Island				
Day 5 July 1 st	Hinlopenstretet including Alkefjellet and Sorgfjorden				
Day 6 July 2 nd	Ytra Norskoyane, Fuglesangen and Party at Smeerenburg Glacier				
Day 7 July 3 rd	Bird Cliffs on Prins Karls Forland, English Bay and Ny Ålesund				
Day 8 July 4 th	Poolepynten in Forlandsundet and Barentsburg				
Day 9 July 5 th	Longyearbyen and departure				
Arctic Fox	Alopex lagopus	1 in Longyearbyen, what looked very like a blue phase			
Alcue Pox	Αισμέλ ιαξορίας	fox on the bird cliffs on east side of Krossfjorden, at least two adults and several small babies in Ny Ålesund and an adult in the Little Auk colony on Fuglesangen			
Reindeer	Rangifer tarandus platyrhynchus	Widespread in low numbers – the small Arctic race			
Polar Bear	Ursus maritimus	11 seen in total comprising a mother with a cub and			
		another mother with two cubs in Raudfjorden, the latter			
		initially on a small island in front of the glacier. Then another six seen later the same day at Reinsdyrflya. Here			
		a mother with two 1+ year old cubs all of whom were			
		unusually white for this time of year were watched until			
		they approached another much yellower bear with two			
Ringed Seal	Phoca hispida	small current year cubs. Amazing! Noted in all areas with ice though in low numbers			
Common (Harbor) Seal	Phoca vitulina	One that was almost certainly this species seen at close			
(range from the shore in English Bay			
Bearded Seal	Erignathus barbatus	A few seen en route to the Smeerenburg glacier and also			
XX7 1		noted in English Bay and one at Poolepynten			
Walrus	Odobenus rosmarus	Between 40 and 50 on Moffen Island and eventually 5 on Poolepynten the latter seen at very close range –			
		highlight of the trip!			
Beluga	Delphinapterus leucas	A large group of in excess of 50 animals just outside Ny			
6	1 1	Ålesund. These included numerous yearlings and a few			
		very small calves. Also a few in a pod in Forlandsundet			
Minha Whala	Dalassestona asstingaturat	followed by another lone animal there			
Minke Whale	Balaenoptera acutirostrata	1 seen at close range about an hour south of Moffen Island			

Systematic List Number 1 Birds

Summary of Localities visited

Day 2 June 28 th	Longyearbyen		
Day 3 June 29 th	Krossfjorden and Ny Ålesun	d	
Day 4 June 30 th	Raudfjorden, Reinsdyrflya, Liefdefjorden and Moffen Island		
Day 5 July 1 st	Hinlopenstretet including Alkefjellet and Sorgfjorden		
Day 6 July 2 nd			
	Ytra Norskoyane, Fuglesangen and Party at Smeerenburg Glacier		
Day 7 July 3 rd	Bird Cliffs on Prins Karls Forland, English Bay and Ny Ålesund		
Day 8 July 4 th	Poolepynten in Forlandsundet and Barentsburg		
Day 9 July 5 th	Longyearbyen and departure		
Red-throated Diver	Gavia stellata	Widespread in low numbers – seen almost daily	
Great Northern Diver	Gavia immer	An adult in summer plumage seen at the entrance to Liefdefjorden	
Fulmar	Fulmarus glacialus	Widespread and common	
Pink-footed Goose	Anser brachyrhynchus	Scattered throughout	
Barnacle Geese	Branta leucopsis	Rather commoner than previous species – seen almost daily	
Common Eider	Somateria mollissima	Widespread and common	
King Eider	Somateria spectabilis	5 seen in Longyearbyen and a few in Ny Ålesund	
Long-tailed Duck	Clangula hyemalis	Ny Ålesund and English Bay	
Ringed Plover	Charadrius hiaticula	1 at Ny Ålesund	
Sanderling	Calidris alba	1 in summer plumage at Sorgfjorden	
Purple Sandpiper	Calidris maritima	Widespread in low numbers	
Turnstone	Areneria interpres	2 at Ny Ålesund	
Red (Grey) Phalarope	Phalaropus fulicarius	Pairs in fabulous summer plumage at Sorgfjorden and 2 at Poolepynten	
Great Skua	Stercorarius skua	Scattered throughout – seen most days	
Pomarine Skua	Stercorarius pomarinus	An adult with fine spoons at ????? and 3 in	
		Forlandsundet	
Arctic Skua	Stercorarius parasiticus	Widespread – low numbers seen daily	
Lesser Black-backed Gull		1 in Longyearbyen and singles also in Hinlopenstretet	
Great Black-backed Gull		Scattered – uncommon	
Herring Gull	Larus argentatus	A second winter bird of uncertain race seen in	
TT1 1	·	Forlandsundet	
Kittiwake	Larus tridactyla	Widespread and common	
Sabine's Gull	Larus sabini	An adult seen in Sorgfjorden (other saw two at Moffen	
Glaucous Gull	I arus honorborous	Island) Widespread in low numbers	
Ivory Gull	Larus hyperboreus Pagophila eburnea	2 adults in Longyearbyen, 2 adults in Ny Ålesund at	
Ivory Gun	Ταξορπιά εσάπεα	close range and 1 adult at Barentsburg. Others saw 1 adult in Hinlopenstret	
Arctic Tern	Sterna paradisea	Widespread and common	
Little Auk	Alle alle	Widespread and very common – amazing breeding	
		colonies	
Puffin Plack Cuillamot	Fratercula arctica	Seen daily but not common	
Black Guillemot Brünnich's Guillemot	Cepphus grylle Uria lomvia	Widespread Widespread and common – very very common!	
Snow Bunting	Plectrophenax nivalis Widespread		
Show Dunning	1 icciropnenus nivuus	Widespiedu	

Systematic List Number 3 Plants

The nomenclature and taxonomic order is taken from 'The Flora of Svaldbard' (1996) by Rønning with one or two adjustments from 'Den Nordiska Floran' by Stenbery & Ericsson (2004 edition).

Equisteceae		
Field Horsetail	Equisetum arvense	Longyearbyen and Barentsburg
Salicaceae		
Polar Willow	Salix polaris	Widespread and common everywhere
Polygonaceae		
Alpine Bistort	Polygonum viviparum	Bird Cliffs on Prins Karls Forland, English Bay and Barentsburg
Mountain Sorrel	Oxyria digyna	Widespread
Caryophyllaceae		
Mountain Sandwort	Minuartia rubella	Liefdefjorden
Fringed Sandwort	Arenaria pseudofrigida	English Bay
Tundra Chickweed	Stellaria crassipes	Longyearbyen
Polar Mouse-ear	Cerastium regelii	Scattered – commonest in the north
Arctic Mouse-ear	Cerastium arcticum	Widespread
Polar Campion	Silene uralensis (arctica)	English Bay
Moss Campion	Silene acaulis	Widespread
Arctic White Campion	Silene furcata	Longyearbyen
Ranunculaceae		
Tundra Buttercup	Ranunculus hyperboreus arnellii	Bird Cliffs on Prins Karls Forland, Sorgfjorden and Ytra Norskoyane
Snow Buttercup	Ranunculus nivalis	?probably this species at Sorgfjorden
Sulphur-coloured Buttercup	Ranunculus sulphureus	Scattered throughout – best population at Barentsburg
Pygmy Buttercup	Ranunculus pygmaeus	Barentsburg
Papaveraceae		
Svalbard Poppy	Papaver dahlianum	Common in Longyearbyen
Brassicaceae		
Purplish Braya	Braya purpurascens	English Bay
Polar Scurvy Grass	Cochlearia groenlandica	Widespread
Cushioned Whitlow-grass	Draba corymbosa	Longyearbyen and English Bay
Pale Whitlow-grass	Draba oxycarpa	
Polar/Tundra Whitlow-grass	Draba micropetala/pauciflora	English Bay
Golden Whitlow-grass	Draba alpina	Scattered but way the best was at Barentsburg
Lapland Whitlow-grass	Draba lactea	Bird Cliffs on Prins Karls Forland, English Bay and Barentsburg
Rock Whitlow-grass	Draba norvegica	Bird Cliffs on Prins Karls Forland
Hemispherical Whitlow-grass	Draba subcapitata	English Bay and Ytra Norskoyane
Snow Whitlow-grass	Draba nivalis	Longyearbyen and Barentsburg
Scree Whitlow-grass	Draba daurica	English Bay and Barentsburg
Mealy Whitlow-grass	Draba arctica	Bird Cliffs on Prins Karls Forland and English Bay

Saxifragaceae		
Purple Saxifrage	Saxifraga oppositifolia	Widespread and very common - locally dominant
Hawkweed-leaved Saxifrage	Saxifraga hieracifolia	Bird Cliffs on Prins Karls Forland and
		Barentsburg
Alpine Saxifrage	Saxifraga nivalis	Scattered throughout
Dwarf Saxifrage	Saxifraga tenuis	In bud Sorgfjorden
Drooping Saxifrage	Saxifraga cernua	Widespread
Yellow Marsh Saxifrage	Saxifraga hirculus	Longyearbyen
Highland Saxifrage	Saxifraga rivularis	Bird Cliffs on Prins Karls Forland
Polar Saxifrage	Saxifraga hyperborea	Bird Cliffs on Prins Karls Forland and at Sorgfjorden
Tufted Saxifrage	Saxifraga cespitosa	Widespread and common
Dwarf Golden-Saxifrage	Chrysosplenium tetrandrum	Bird Cliffs on Prins Karls Forland
Rosaceae		
Tufted Cinquefoil	Potentilla pulchella	English Bay
Arctic Cinquefoil	Potentilla hyparctica	Scattered throughout
Windflower	Dryas octopetala	Scattered – commonest in Longyearbyen
Ericaceae		
White Arctic Bell-Heather	Cassiope tetragona	Common in Longyearbyen
Scrophulariaceae		
Hairy Lousewort	Pedicularis hirsuta	Scattered – common in Longyearbyen
Asteraceae		
Black Fleabane	Erigeron hummilis	Barentsburg
Arctic Dandelion	Taraxacum arcticum	Barentsburg
Juncaceae		
Two-flowered Rush	Juncus biglumis	Liefdefjorden
Northern Wood-rush	Luzula confusa	Scattered
Arctic Wood-rush	Luzula arctica	Widespread
		I
Cyperaceae		
Arctic Cottongrass	Eriophorum scheuchzeri	Longyearbyen
Cushion Sedge	Carex nardina	English Bay
Poaceae		
Polar Foxtail	Alopecurus borealis	Barentsburg
	mopecaras voreaus	Daonsourg