

Spitsbergen

with Oceanwide aboard *MV Plancius*



Expedition Log
8th July – 17th July 2011

With

Captain Evgeny Levakov

and his Dutch, Russian, German, Polish and Filipino Crew

Including:

First Officer: Alexey Nazarov (Russian)

Second Officer: Artur Iakolev (Russian)

Third Officer: Franz Doomen (Belgian)

Chief Engineer: Erwin Vermeulen (Netherlands)

Bosun: Ronald Allan Donguines (Philippines)

And the *MV Plancius* Expedition Staff:

Expedition Leader: Delphine Aures (France)

Assistant Expedition Leader: Tarik Chekchak (France)

Guide: Jim Mayer (UK)

Guide: Piero Bosco (Italy)

Guide: Adam Garde (Denmark)

Guide: Jordi Plana

Guide: Michelle van Dijk (Netherlands)

Guide: Brent Houston (USA)

Zodiac Drivers: Neil Apwan, Yury Sabol, Vitaly Zuev, Ilya Gres.

Chef: Ralf Barthel (Germany)

Sous Chef: Mathias Schmitt (Germany)

Hotel Manager: Alan Hogan (Canadian)

Asst. Hotel Manager: Lilian van Meurs (Poland)

Bartender: Rosireen Avillon (Philippines)

Doctor: Peter van Dijken (Netherlands)

8th July – Day 1

Longyearbyen

GPS 0730 position: 78°14.0'N, 015°35.4'E



Embarkation Day. All passengers were aboard by 5pm. Many of us earlier had the opportunity to explore Spitsbergen's capital, including the local souvenir shops, café, and excellent Svalbard Museum.

Longyearbyen (population 1800) is situated in Adventfjord which lies within Spitsbergen's largest fjord, Isfjord. Its location at 78° 13'N makes it one of the most northerly towns in the world.

Hotel manager Alan and the team were on-hand to meet all new arrivals to the ship. With the assistance of the friendly crew we gradually found our way around the ship. Our first general get-together was held in the observation lounge for a welcoming glass of champagne. Here the Captain greeted us all and the Expedition staff were introduced.

Plancius gently manoeuvred out to sea and our adventure was beginning!

9th July – Day 2

14th of July Glacier, Blomstrandhalvøya and Ny Ålesund

GPS 0800 position: 79°06.9N 011°41.7E

Our long zodiac cruise in the morning, in splendid, calm and warm weather gave us opportunities to study birds, the local ecosystem, bedrock geology and glaciation. The landscape around the bay in front of the glacier of 'Fjortendejulibreen' is impressive. It displays several wide, U-shaped glacial valleys that have been carved out by former glaciers during the latest Ice Age, separated by narrow, pointed ridges of crystalline rocks. The landscape is young and measured in thousands of years, but the rocks themselves are old. The western part of Svalbard belongs to the 400 million years old Caledonian mountain building episode, Svalbard and was rifted off East Greenland when the North Atlantic Ocean was opened about 65 million years ago.



The low cliffs on the east side of the bay displayed an impressive layer of ground moraine with huge boulders on the solid bedrock (photo). The steeper part of the cliffs host a small Kittiwake colony with many birds in the air and rocks behind and below them, painted in vivid colours by their excrements: White by guano around the nests themselves, orange by lichens on the steep rock faces below, and lush green, where mosses grow in plenty on the lower screes. We got very close looks at Kittiwakes resting on ice floes in front of the glacier, sneaking up towards them at slow speed with the zodiacs. In addition to the open sea, the natural stirring of the water at the glacier front provides supplementary feeding possibilities for the colony.

We also encountered several Puffins in a small bay, as well as Glaucous gulls with small chicks less than two weeks old.



The hike at Blomstrandhalvøya in the early afternoon went over glacial debris displaying well-developed periglacial stone rings, as well as yellow, frost-shattered marble and local boulders of brown-grey metasedimentary rocks. Their elongate textures resembled fossil wood, but in fact witness intense stretching during the Caledonian mountain-building episode. Several reindeer were grazing the fresh, new vegetation, and we were attacked by a pair of Great skuas when we inadvertently came close to their nest. The hike ended at New London, where the industrious businessman Ernest Mansfield attempted to quarry marble between 1910–1920. We could see some of the old steam-raising and quarrying machinery on the slopes below the old quarry.

After a visit to the shop at Ny Ålesund for some retail therapy, we took a walk from the statue of Norwegian explorer Roald Amundsen, to the mast. This prominent iron structure was used to tether the airships of Nobile, an Italian engineer, who along with Amundsen was the first man to sight the North Pole. They flew from Spitsbergen in 1926 taking 20 hours to reach the pole and a further 40 hours to complete the transpolar flight to Alaska. There was also opportunity to observe several families of Barnacle geese grazing beyond the houses. The geese took advantage of the fact that the Arctic foxes who often live under the houses, have so far been absent this summer.

10th July – Day 3

At sea west of Prins Karls Forland

GPS 0800 position: 78°14.8N 015°00.2E



An unexpected exchange of a staff member at Longyearbyen in the morning due to illness was followed by a day with very strong winds and rain all over the western part of the archipelago, and we headed north again after having abandoned a planned landing in the morning, just like other tourist vessels in the area.

During the day the expedition team entertained us with lectures and a re-cap of the activities of the previous day, with subjects ranging from botany, to bird life, place names and glacial retreat.

Eventually the wind calmed down in the evening, and many Brünnich's guillemots and Little auks were seen on the water. As we cruised along the northern part of Prins Karls Forland in the evening, we had a fine overview of the glacial valleys, the remaining glaciers, the mountain sides striped by patches of winter snow, and not least the pointed peaks that made the Dutch whalers name these Arctic islands 'Spitsbergen'. One of the very first landings made in Spitsbergen by Wilhelm Barents was on the northern tip of the foreland. Here a few days after 19th July 1596 he landed to water his ship.

11th July – Day 4 Morning Liefdefjord, Andoyane

GPS 0800 position: 79°38.5N 013°19.9E



An early morning call and straight into the zodiacs at Andøyane in Liefdefjord: a female Polar bear with two small cubs had been sighted and were waiting for us on the beach.

The topography of these flat, red islands and the smooth hills of the surrounding mainland reflect the fact that the advancing ice sheets of the recent ice ages could easily erode the Old Red sandstone that forms the bedrock in outer Liefdefjord. The Old Red sandstone itself is a continental sandstone of Devonian age (about 350–400 million years) that consists of debris from the collapsing Caledonian mountain chain. Their characteristic colour of over-matured red wine is due to oxidised iron, the same as rust. Driftwood timbers from Siberia and large erratic boulders helped to set a very decorative scene for the bears.

The Polar bear was leading her young cubs along the beach, stopping from time to time – probably to feed on eider duck eggs. The cubs were just a few months old, having been born in late December, emerging from the den in March at the beginning of spring. The males and non-pregnant females are active even during the coldest months. We enjoyed this bear

family for about an hour, and some spotted an Arctic fox, before cruising around with the zodiacs between the islands. Their name is a clue to the inhabitants of the area, as Andøyane means “duck islands”. Looking for more wildlife, we had the luck on our side this morning to see many of these birds: Long-tailed ducks, Common eiders and not least the spectacular King eider on the shores of Store Andøya. Red phalaropes, Arctic and Great skuas were also spotted in the small island of Vesle Andøya. Some boats made a short landing to observe the characteristic feeding habit of the Phalarope, spinning around itself in a shallow pond to stir up food.



As we made our way deeper into Liefdefjord along its 30 km in length between icebergs and ice floes, the numerous black-legged kittiwakes were testimonies of the richness of the waters in this fjord, as they mainly feed on small pelagic and ice-related fish. Fulmars, Little auks, Guillemots as well as Minke whales were also benefiting from the food supply, and we watched several specimens of this, the smallest common baleen whale close by. They are fast swimmers, and repeated and good observations like ours today are not common.

Later in the morning, the *Plancius* took us all the way up to the head of Liefdefjord, where we cruised along glacial valleys and finally made a U-turn at the head of the Monaco glacier. This is named after Duke Albert I of Monaco, who led cartographic expeditions here in 1906 & 1907. The dramatic retreat of the main twin glacier and of all the smaller side glaciers

along the fjord was obvious: high curtains of side moraine decorated with big boulders drape the lower parts of the mountains and show where there was solid ice until about 50 years ago when the retreat of the ice began in earnest. The proof of the recent retreat is provided by the black lichens that cover all the higher parts of the mountains. The lichens have not yet had sufficient time to invade the side moraines, which still retain their natural grey colour.

11th July – Day 4 Afternoon

Woodfjord and Mushamna

After lunch Delphine informed us of the presence of some “big whales” around, so we took a small detour to check up. They ended up being several Fin whales, the second-largest whale after the enormous Blue whale, and we were able to observe them for a long while, feeding close to the ship.

In the mid-afternoon the ship anchored at Mushamna (harbour of mice) on the east side of Woodfjord – named for the abundant driftwood from Siberia along its coasts. For many years this has been a traditional hunting area for Norwegian trappers, and the hut and other constructions we saw behind the beach were still in use until a couple of years ago. Any Norwegian could apply to stay there for a year.

Most of us walked up over the raised beaches on the Arctic tundra and some climbed the nearest hill, struggling up its steep front in a chain to obtain a rare view over the whole outer fjord. Others had a good look at the local Red-throated divers (Loons) and Eiders. One of the latter was nesting just outside the cottage, testing how well its camouflage colours would work with Oceanwide Expedition passengers! This group also studied the raised beaches up to at least some 50 m above the present sea level and discussed the post-ice age isostatic rebound that still raises the entire archipelago about 1 cm per year in delayed response to removal of the weight of the ice sheet. And up came a genuine surprise party – a distinguished New Zealand couple aged about 50. They were out on their afternoon walk from their sailing ship that had been their home for the last seven years and was anchored in the nearest small bay. A third group stayed at and near the beach itself, helping to clean up Svalbard. It is just amazing how much indestructible plastic, nylon and Teflon with a past history on ships can be picked up from just a few hundred metres of coastline.

12th July – Day 5 Morning

Sorgfjord

GPS 0800 position: 79°55.25N 016°43.65E



This was a dark and misty morning. Our destination of Sorgfjord in the north-eastern mainland of Spitsbergen means ‘the fjord of grief’. Happily though we were able to enjoy excellent views of three sleepy Walruses resting on the beach.

This is also a traditional walrus haul-out, but until recently it has not been occupied for many years. However, from last season it seems that the Walrus are slowly returning to this spot. The three of them snoozing on the beach were an extra excitement of this morning, although their actual position made a close-by landing impossible without scaring them off. So we remained in silence on board the zodiacs and we had a close look, a very quiet and enjoyable experience drifting in front of these incredible animals for a while.

The fjord’s name is a reminder of various troubles the whalers encountered, often due to extensive ice cover or quarrels with competitors. There is much history associated with this small fjord, including a 1693 battle in which three French men-of-wars pounded 40 Dutch whaling vessels. Long after the peak whaling period, Parry brought the *Hecla* here in 1827 for his attempt at the North Pole.

We aimed for a landing at Eolusneset, named after the Norwegian sealing vessel “*Aeolus*” used by several Arctic expeditions in the 19th century and that anchored here in 1855. They raised the tall cross which we could all see from the decks of *Plancius*, to honour the 17-18th century whalers buried farther out on the point.

The landing permitted us to walk up onto a small hill and view the walrus from above and enjoy the harsh tundra with a small hut left from former trappers, the driftwood and the tiny flowers.

Reindeer were grazing in the far distance, and our guides protected us from white mammals not wanted on land.

The dolerite sill that forms the hill at the landing site controls the entire local landscape. This dark brown, crystalline igneous rock is very resistant to weathering, and thus allows sediment to accumulate behind it and build out several rows of active and past lagoons (photo). Also numerous Siberian tree trunks come to rest here. The dolerite sill itself was formed as a horizontal sheet of molten rock (magma) that was injected from below into bright green and red marble. This took place at the time when Svalbard was about to break off from Greenland (Mesozoic period) due to plate-tectonic tension. Such tension lowers the pressure in the upper mantle just under the Earth's crust, which in turn induces melting, rise and emplacement of magma into the upper crust.



12th July – Day 5 Afternoon

Faksevågen

In the afternoon we explored the inlet of Faksevågen in Lomfjord (fjord of Loons) in the north-eastern part of the Svalbard mainland near Hinlopenstretet. It is a 30 km long fjord with one side bay on its Western side, Faksevågen.



The scenery in Fagsevangen testifies to geological activity through almost one billion of years. As we were climbing up the hill for our hikes, we got good foothold on red, purple, greenish and grey sandstones from the late Precambrian era, from the time before shell-bearing animals had emerged. They were deposited as sands in a warm, continental environment almost a billion years ago. By contrast the glacial activity is very young (measured in thousands of years), and we obtained an excellent view of a retreating glacier with a vast alluvial plain at the head of the fjord. This is a large flat area covered by fine sediments and small pebbles have been deposited by glaciation.

All the walks this afternoon ended up being a bit adventurous, the long one climbing up on the highest ridge of Fagsevangen, up there on the plateau they were met by ptarmigans in various stages of moulting from winter white to summer brown, and several reindeer were grazing on. Much of the plateau was still water-logged due to the prevailing frost in the ground that prevented drainage, but the drier parts were occupied by Purple saxifrage, Mountain avens, Arctic bell-heather, hairy lousewort and other plants. The medium walk wandered on lower hills and the slow group stayed on the flat area between the beach and the first slopes to the mountains.



Purple saxifraga



Mountain avens viewed from behind, and Arctic bell-heather



Hairy lousewort: two, young specimens

12th July – Day 5 Evening

Alkefjellet

Around 19:00 h we left the area, sailing again in the Hinlopen Strait, heading for the place where we plan to do the third activity off the ship for the day: the magnificent Alkefjellet.

After a short visit to a glacier front, we turned our zodiacs to the cliffs. This is one of the best places in Spitsbergen to view a Brünich's guillemot breeding at close proximity. They live packed tightly together on narrow rock ledges cutting across the face of the dramatic 100m cliffs. The rock shelves are only just wide enough for a bird to catch a dubious footing. Alkefjellet is one of the largest Brünich's guillemot colonies on Spitsbergen, with an estimated 100,000 breeding pairs that lay their eggs on the narrow ledges, which are stained white and pink (so were parts of our zodiac and a few anorak hoods by the end of the night zodiac cruise!). Near the beginning of this cliff we also spotted an Arctic fox up in the slopes. The agile foxes have plenty to feed on including dropped eggs or chicks.

The spectacular cliffs are made up of two thick limestone layers obtruded by a thick stratum of basaltic rock. The glacier on top melts in summer giving rise to quite large waterfalls and streams.

Glaucous gulls were present everywhere, waiting patiently for a chick or egg to prey upon. Black-legged kittiwakes also nest here on the higher ridges. Unlike the guillemots that lay their eggs directly on the rock ridges, the kittiwakes actually construct nests. Some of the guillemots in the water were rather curious and approached the zodiacs to peer up at us. Others rested on ice floes, resembling small penguins. A constant stream of birds leaving and returning from fishing trips flapped over our heads. It was wonderful to see these beautiful birds up so close, admiring them in every detail.

We slowly drifted past the guillemots before arriving at a high glacier front with a nice roaring melt-water waterfall, from where we started our way back to the ship.

On our way back we were able to gain a different perspective and realise the magnitude of the cliffs and huge bird colony from a distance. We were able to put all this landscape and wildlife together, making us think about the links between the marine and terrestrial ecosystems in Spitsbergen. The birds feed in the ocean, breed on the cliff, and the guano they drop fertilizes the slopes. This attracts geese because these are superb grazing grounds. The arctic fox is also attracted to these areas, often lurking around, looking for an unattended gosling or a chick that has fallen from the cliff.

Another great day in the heart of the High Arctic ecosystem. Fortunately, the fog that appeared last night and has been with us during the day it was not thick or low enough to prevent us of any of the activities that we planned: two landings and a zodiac cruise!

Back on board our Hotel Manager Alan and his team were kindly waiting for us on deck, with a hot chocolate seasoned with a bit of rum! A good drink to put an end to a good day.



13th July – Day 6

Torellneset and in the Pack Ice

GPS 0800 position: 79°21.21N 020°47.55E

Our wakeup call was a bit later than usual today. Delphine woke us up at 08:00 h, after a night sailing in the Hinlopen Strait.

At breakfast time the ship was positioned in front of Torellneset, on western Nordaustlandet ('the north-eastern land') next to Hinlopenstretet. This was our destination for walks and especially more Walrus-watching in the morning. Already from the ship we could see quite a large group of walrus on the beach. The approach with the zodiacs to the landing site had to be slow and silent in order not to scare them away.

This barren, high-Arctic land is dominated by three features: Flat-lying Permo–Carboniferous limestone, raised beaches, and dolerite sills. This combination makes for a flat, almost vegetation-free landscape in yellow and brown, and with topography like giant steps due to the raised beaches and resistant sills. We could easily convince ourselves of the raising land responding to the recent melting of the ice sheet that covered the entire Svalbard: parts of large whale skeletons were sticking out of the ground as we walked up through the successive terraces of the former beaches.

Most of the rocks are in small pieces due to the intense frost-shattering that goes on today, but the rocks themselves and their many fossils of animal sponges, sea lilies, corals and other colonial animals witness a past warm climate in a shallow, quiet sea with both chemical and biological deposition of carbonates. A scene like Bermuda, 300 million years ago when Svalbard was located

close to the Equator. Flowering plants are scarce in the alkaline ground, but we saw Svalbard poppy, Purple saxifrage and tiny Sulphur-coloured Buttercups.

The most exciting attraction for most was a large herd of Walrus on the beach and in the water. There were about 30 of them, mostly or entirely males. They spend up to six days at a time on land, digesting, farting and yawning after feeding on mussels on nearby banks. The cows and their offspring are farther north at the edge of the sea ice.

We all enjoyed creeping up the walrus, our guides leading the way, for a close photograph without causing the slumbering animals to be disturbed.

The afternoon was quiet, sunny and very bright, as the *Plancius* slowly made its way through drifting pack-ice, her sides giving off hollow thuds when they bumped large pieces of sea ice. All the guides were on watch for wildlife, and several fat Bearded seals were spotted, besides the familiar and ubiquitous Brünnich's guillemots and Kittiwakes.

The evening was passed in good company in the stern, where the crew had rigged up the scene for a fine Arctic barbeque with the best views of sunny, endless drifting ice that one could have wished for.

14th July – Day 7

At sea and in the Pack Ice east of Edgeøya

GPS 0800 position: 78°30.9N 026°27.7E

Take strong winds with gusts up to force 7 (30 knots), add 3-4 m high waves and spice with poor visibility, and you are enjoying just another summer's day in Svalbard! We soon left the drifting sea ice and made our way south along the eastern side of Edgeøya, aiming to be the first vessel that manages to sail all the way round Spitsbergen in the 2011 season. We found our sea legs and sat in for lectures, or drew some fresh air outside the bridge wings. It is suspected that some also took a short nap after lunch! The waters around southern Edgeøya are shallow, providing good feeding banks for Walrus, and a few were spotted in the waves during our late afternoon recap.

During the day several lectures were given by our guides. Jim talked about some of the episodes in the history of Spitsbergen. This included the tale of his own misadventures when polar bears ate all his food!

Adam's talk knitted together the different geological formations that we had seen in the previous days in a talk that he called 'The way the Earth works'. All the major geological events, stretching over a period of about one billion years, took place within the framework of Global Plate Tectonics. Adam explained how the plate movements are driven by the internal (and almost eternal) heat production in the interior of the Earth, and showed what happens at the plate boundaries when they are rifted apart, duck under each other or collide.

It is not easy to be a plant in the Arctic. Michelle is fascinated by the way adapted plants survive. That is why she always strives to pass on the information of flower adaptation in this harsh climate. During her lecture a few different strategies were pointed out. For example: wind-breaking and insulating hairs, growing in tufts to keep the moisture like a sponge and parabolic flowers with reflecting petals that causes a micro climate in the flower.

Brent's talk was about the seabirds of the North Atlantic, specifically the birds here in Spitsbergen, like the little auks, puffins and guillemots that dive for fish; the fulmars that smell decaying animal remains from long distances; the kittiwakes that fish in the ice edges and the Glaucous gulls preying on chicks and eggs of other birds.

15th July – Day 8

At sea around southern Spitsbergen

GPS 0800 position: 77°24.9N 020°39.3E



Old and young sea ice. The old ice is 'dirty' from brownish algal growth, a first step in the local ecosystem.

Today was another day at sea, rounding the southernmost tip of Spitsbergen and changing course towards the North, heading towards Hornsund, the fjord located in the South of Spitsbergen.

Once we crossed Storfjord, the body of water between the islands of Barentsøya–Edgeøya and Spitsbergen, we followed the brash and pack ice accumulated along the coastline of the main island.

Our main direction was towards the south trying to get around this stretch of ice, and starting to sail north.

As we still had a long sail, we expected to spend the whole day at sea before reaching our next planned destination, Hornsund, by the evening. So our guides presented several more lectures, and a couple of Arctic documentaries were broadcasted on our cabins' TV.

Brent presented some of his best Polar Bear shots and stories, having spent many Arctic seasons with them. The topics also included their biology and natural history. This great storyteller also gave some explanations about the behaviour of females with cubs, the young bears, males on sea ice, and bears in water. Brent's last story was about a bear looking through a ship's porthole and how he missed his 1000 dollar photo but was saved by an excellent snapshot by the cook!

Because of the death and destruction of the whale population caused by the Dutch a few centuries ago, Michelle took the opportunity to apologise by wearing a 'Whales – will only words remain?' T-shirt! She gave a lecture about what was going on in those early days. The record year for the Dutch was 1701 when they manage to catch 2071 $\frac{3}{4}$ whales. Can you imagine how the view must have been? Whale blows everywhere!

Tarik gave a lecture about how nature inspires sustainable innovations. At this critical time for the future of our planet and humanity, learning from – and being inspired by – nature can literally be life-saving for us as individuals, for all our business and enterprises. Jordi also had a busy lecture day, doing several talks in Spanish that were open to everybody but especially appreciated by our Italian and Spanish fellow travellers. He talked about Polar ecosystems and how the wildlife deals with these harsh environments. He also addressed the race for the North Pole at the end of the 19th century, with the Andree Expedition. His last lecture was about his studies and research on Kelp forests, mostly based on work in Patagonia but with many concepts and ideas valid for kelp species all over the world.

16th July – Day 9

Attempted Hornsund, found success in Bellsund.

GPS 0800 position: 77°14.5'N 014°51.4E

During the night we attempted to make our way through the ice to Hornsund. Despite a favourable ice report from the inhabitants of the Polish research station and fantastic pilotage by our Captain, the ice did not yield. At around 4am we turned our bow northwards and a few of us had a quick nap.

Everyone was excited to be going back ashore after two days on the ship and as we landed in Bellsund we had a little more excitement than we really needed. The long walking group had seen a Polar bear! Although it was walking away, it was still not clear if the bear would continue in that

direction, so we had to pause the landing operation and keep the bear under observation. Once it was certain that the bear had left the area, we landed and enjoyed being back in the tundra of the relatively fertile west coast of Spitsbergen. The bird and plant life were abundant. We spotted a large group of around 130 Barnacle Geese, feeding on a mossy bank, numerous snow buntings and purple sandpipers.

Each walk included a visit to Bamsebu, a cabin built in the 1930's to house whalers on Ahlstrandhalvøya. The evidence of their "success" surrounds the cabin. Here the beach is littered with the bones of hundreds of Beluga whales, and the wrecks of several small boats that would have been used to drive the whales into the fjords.



Making up for lost time we made a second landing in the early evening at Recherchefjord, an idyllic combination of glacial and tundra scenery. Here our guides provided a large perimeter of protection from polar bears and we were able to spend some time wandering freely to enjoy our last visit to the wilderness, for this cruise at least!

After the landing it was time to turn the bow of *Plancius*, our comfortable home for the last 9 days, towards the north and our final destination of Longyearbyen.

Thank you for sharing the journey with us, and we hope one day to travel with you again.

Trip statistics

Total distance travelled:	1350 nautical miles
Total landings/cruises:	13
Total photographs taken:	far too many to count! But at a guess, the same as the number of Brünich's Guillemots at Alkefjellet!!!