



**OCEANWIDE
EXPEDITIONS**

Expedition Log **The Antarctic Peninsula**

5th – 15th March, 2010

On board the

M/V Plancius



Plancius was named after the Dutch astronomer, cartographer, geologist and vicar Petrus Plancius (1552-1622). Plancius was built in 1976 as an oceanographic research vessel for the Royal Dutch Navy and was named “Hr. Ms. Tydeman”. The ship sailed for the Dutch navy until June 2004 when she was purchased by Oceanwide Expeditions and completely rebuilt in 2007 and converted into a 110 passenger vessel. “Plancius” is 89 m (267 feet) long, 14.5 m (43 feet) wide and has a maximum draft of 5 m, with an Ice Strength rating of 1D, top speed of 12 knots with three diesel engines generating 1230 hp each.

With

**Captain Yury Gorodnik
and his International Crew of 34**

Expedition Leader – Troels Jacobsen (Denmark)

Assistant Expedition Leader – Shoshanah Jacobs (Canada)

Guide/Lecturer – Stephen Bailey (USA)

Guide/Lecturer – Gerard Bodineau (France)

Guide/Lecturer – Andrew Bishop (Australia)

Guide/Lecturer – Axel Krack (Germany)

Hotel Manager – Natascha Wisse (Netherlands)

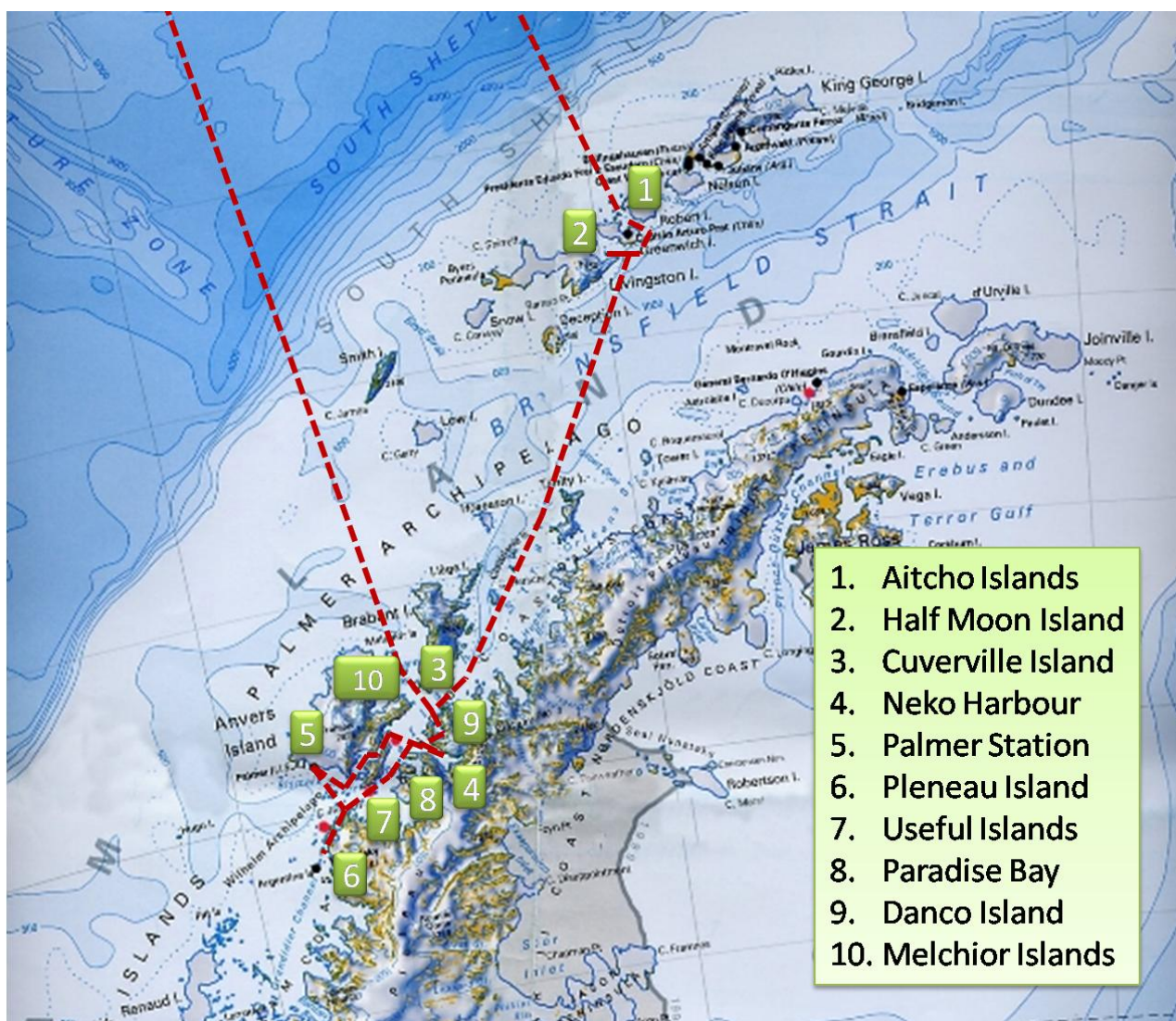
Restaurant Manager – Francis De Buck (Belgium)

Head Chef – Ralf Bartel (Germany)

Sous Chef – Mario Hribernik (Austria)

Nationalities

Argentina 1, Australia 2, Brazil 2, Canada 1, Denmark 1, France 3, Germany 6, India 6, Italy 8,
Japan 3, Liechtenstein 1, Netherlands 23, New Zealand 1, Russia 4, Slovakia 2, Sweden 3,
Switzerland 4, UK 9, USA 43



Total distance travelled = 1648.2 nm = 3052 km = 1896 miles.

5TH MARCH, 2010 - USHUAIA, ARGENTINA

Position: 54°15'S, 68°19'W



With a rapidly growing population of 55,000 people, **Ushuaia** is a flourishing duty free port with a fishing industry particularly famous for its crabs. There are other new industries as well, notably electronics. The new buildings and roads give the appearance of a latter day “frontier town” and one of the few remnants of the last century is a beautiful Victorian timber building right on the harbor. Its first owner purchased the so-called Casa Beban building through a catalogue over a hundred years ago. The museum in the former prison had a fascinating and well-arranged series of displays.

After spending some time on our own getting to know the little town of Ushuaia, we boarded *Plancius* and our luggage made it to the cabins before we could even find our way around our proud new ship. Over a glass of champagne, we were introduced to the hotel and expedition staff. A change of plan included the addition of a group of passengers on board and a delay in the flights of some of our guides meant that our departure would also be delayed. Not to worry, the staff were working on a plan.

6TH MARCH, 2010 – BEAGLE CHANNEL / EN ROUTE TO THE ANTARCTIC PENINSULA

Position at 07.30: 54°15'S, 68°19'W



Weather Conditions: Partly cloudy, no wind, air temperature 6°C.



Our departure morning was devoted to the transfer of diving and other equipment to *Plancius* while we awaited the delayed arrival of our dive guides Henrik, Peter, and Johan. Only later did most of us learn that their one-day delay in Paris had been caused by their airplane having a jet engine explode in flames! Luckily the pilot was able to abort the takeoff on the ground. This

happy ending just added to our busy departure. While we waited and worked, a male Ringed Kingfisher delighted us by perching on the adjacent ships.

Leaving Ushuaia at quarter past eleven in the morning meant that we cruised out the Beagle Channel during daylight hours, not during the night or fading evening light as usual. We all enjoyed the sunny, calm, and mild weather as the ship sped east, hardly seeming to be on a liquid medium because the water was so smooth. The unusual weather made a sharp temperature inversion close to the water that created several striking superior mirages (“fata morgana”). One long band of water toward the horizon appeared to be formed of vertical bristles. One of the Chilean islands appeared to be overwashed by a gigantic wave from a sloping waterline, but the titanic “wave” did not flow and only changed shape as the viewing angle changed. Other islands, most dramatically Staten Island, looked like early aircraft carriers, with flat tops almost unsupported from below (i.e. with sky showing underneath) and with small islands of “superstructure” in the form of mountain tops protruding above the mirage’s inversion layer.

The diurnal departure time also meant that we saw unusual numbers of coastal birds, in total 21 species. One huge (thousand-bird) feeding flock just outside of Ushuaia Bay kick-started our bird list with eight species of seabirds. Small numbers of Magellanic Penguins were scattered almost everywhere on the water, showing that post-breeding dispersal was well underway. Nevertheless, we saw much activity in the colonies of Magellanic Penguin, Imperial



Shag, Rock Shag, and South American Tern that we cruised past. It was the pungent aroma that first alerted us to the presence of a haulout of South American Sea Lions on a small island – about 100 of these large, odoriferous pinnipeds. Some alert observers spotted two Minke Whales



swimming the opposite direction to our ship. A pod of about 20 dolphins was continually leaping well clear of the water, but unfortunately they were nearly three miles away and thus we could not tell whether they were Dusky Dolphins or Peale’s Dolphins from the side patterns that we could see. Many Black-browed Albatrosses and other seabirds were becalmed on the surface of the Beagle Channel, waiting for the winds that

make flying so easy for them. Careful study of the shores revealed such unexpected additions to our Antarctica cruise species list as Black-faced Ibis and Turkey Vulture. As soon as we reached

the northern limit of the open Drake Passage – almost as flat calm as the Beagle Channel! – we began seeing more seabirds, including the first Wandering and Southern Royal albatrosses, Sooty and Greater shearwaters, White-chinned Petrels, and a single Arctic Tern that may have been commencing the epic return migration back to its Arctic breeding grounds. Generations of scientists and authors have long believed that the Arctic Tern has the longest migration of any bird. However, now that scientists have satellite-tagged shearwaters and albatrosses these birds have been proved to fly even farther in a year than the known annual travels of the Arctic Tern. On the other hand, when Arctic Terns are similarly tagged and studied they may well reclaim the world title.

We settled into a very relaxed evening while anticipating a busy sea day tomorrow.

7TH MARCH, 2010 – CROSSING THE DRAKE

Position at 07.30hrs: 58°03'S, 064°48'W



Weather conditions: Mostly overcast, wind increasing throughout the day from the north, waves breaking, air temperature 4°C.

Following a beautiful, fair early-mid-morning, we entered dense fog that lasted the rest of the day and greatly reduced bird and mammal observations. Fortunately, the wind was roughly behind us and the seas remained pretty flat, with only gentle rolling at times. It was a good day for lectures, and we enjoyed them in abundance. Steve launched the lecture series by “introducing the cast of characters” in “Southern Ocean Seabirds.” Troels delivered the essential briefings on the Code of Conduct in the Antarctic and our zodiac landing protocols. Our special guest Dr. Roberta Marinelli, Antarctic Project Manager for the US National Science Foundation informed us about “Ocean Acidification – The Other CO2 Problem.” For most it came as news that the increasing atmospheric CO2 is supersaturating the oceans with dissolved CO2 that shifts the carbonate/bicarbonate ion equilibrium such that many critical marine organisms may have difficulty forming and maintaining their vital shells of calcium carbonate, likely having profound but little understood effects on ocean ecosystems globally. In the evening Amos Nachoum shared his stunning Antarctic images featuring underwater wildlife including Leopard Seals at point-blank proximity. Throughout, the favorable weather allowed *Plancius* to continue making speeds in excess of 12.5 knots, thus speeding us toward our first landing tomorrow morning and reclaiming most of the time lost due to our delayed departure. All of us, but most conspicuously the divers and the campers, worked hard on the preparations to make the most of our eagerly-awaited opportunities.





Weather conditions: Overcast and foggy, wind from the north, air temperature 3°C.



Our first views of land in the Antarctic region were dim shapes through the fog, which lasted all morning. Today we had two good landings in the South Shetland Islands, with the morning offering being Barrientes Island in the Aitcho group. Despite the fog providing a bit more “atmosphere” than we wanted for our visit, we were happy. As we rode the zodiacs toward shore large groups of Chinstrap Penguins cavorted in the water. Similarly, on land there were more penguins than we had expected – both Chinstraps and Gentoos – a benefit of the late

start of the breeding season caused by heavier snows than usual during the austral spring. Although molting adult penguins dominated the colonies, there were still some chicks present as well. Gentoo Penguin chicks seem to find any way to get into mischief, so some came to nibble us! Naturally, the continued occupancy by the penguins meant that the colony predators and scavengers – skuas, giant petrels, and gulls – were still around too. While most of us walked around the far end of the island to enjoy the volcanic geology plus a few Southern Elephant Seals and Antarctic Fur Seals, some lucky divers were thrilled by a close underwater encounter with a Leopard Seal! Similarly, three zodiacs full of lucky passengers returning to the ship had superb close views of an Antarctic Minke Whale. Newcomers to Antarctica were surprised by the sudden appearance of brash ice and bergie bits that had not been there when we had gone ashore. Welcome to Antarctic waters.

The fog partially cleared during our short ship cruise around Greenwich Island, but then the rain started. Today was a wet day, no doubt about it, but we have to take the weather that nature deals us and make the best of it. Again, good numbers of Chinstrap and Gentoo penguins, skuas, etc., greeted us for the afternoon landing on Half Moon Island. Well over 100 Antarctic Fur Seals were also lounging around, sometimes threatening us with a snort or an irritated display of teeth. Three Weddell Seals were hauled out and resting on the island, as usual without showing us any movement at all. The cold rain began to be driven by an increasing north wind, thus many of us headed back to the ship even before the deteriorating weather required the



rest of us to follow suit. We had already seen what Half Moon Island offered us, and we re-embarked satisfied after two good landings. In his briefing, Troels pointed out that the weather in the Drake Passage was very stormy; by being to the south in the South Shetlands we had dodged the main storm and were just feeling its edge. Just after that we felt the ship list from the force of a katabatic wind off of Livingstone Island as we cruised south into the Bransfield Strait, hopefully further avoiding the storm to the north of us. Tomorrow, Antarctica itself!

9TH MARCH, 2010 – THE ANTARCTIC PENINSULA , CUVERVILLE ISLAND AND NEKO HARBOUR

Position at 06.30hrs 64°27'S, 062°15'W



Weather conditions: Overcast with rain, strong winds from the northwest, air temperature 3°C.



Today it snowed almost constantly, reducing our views but giving us a true Antarctic feeling. At Cuverville Island many of the Gentoo Penguins remained, both molting adults and full-grown chicks completing their molt from their natal down. As always, the chicks were tolerant and curious about our presence. It was amusing to note how some of the chicks were still squealing their shrill begging calls while others at the same stage of physical development were already trumpeting like adults. Small numbers of combative Antarctic Fur Seals amused both the walkers on the land and the divers in the

water. South Polar Skuas (plus a few Brown Skuas) cleaned up the carcasses of penguins that had not survived. The new snow on every rock all the way up the slopes to the island's summit gave a new beauty to one of the favorite islands in Antarctica.

Neko Harbor was the chosen site for most of us to take our first steps on the Antarctic continent; for many it completed the world's continents! Even in the densely driven snow, the notorious glacier close beside our landing site made a vivid picture. Again a colony of Gentoo Penguins greeted us. It seems that this penguin species selects the same sorts of places for its colonies as people choose for good landing sites. The particularly aggressive South Polar Skuas at Neko were still so defensive of their territory and their young – even though breeding was long finished – that they actually hit Mary's head three times (lightly), instead of merely using the whoosh of a near-miss to intimidate her. Our first Crabeater Seal made



a brief appearance by the brash ice that continued to pile up against the landing beach. Cold and wet, most of us gladly returned to the ship after having added the coldest continent to our list of special places visited.

Roberta Marinelli gave us a very articulate overview of the United States Antarctica program in preparation for tomorrow's planned special visit to Palmer Station.

Plancius cruised down the Neumayer Channel while we saw only the closer, lower parts of its glacial margins. It became clear that the weather was not going to improve, and indeed right after Axel had officially canceled the night's camping on Damoy Point the wind gusted to storm force again. And all the time the wet snow steadily blanketed everything. As Captain Gorodnik looked for the best anchoring site at Dorian Bay beside our would-have-been camping site at Damoy Point, he took the ship past a large iceberg. Suddenly, just as we were about to pass the mass of ice, a large piece calved off right before our eyes, followed by another calving on our side, then a third from the back side! Water streamed off the berg's right corner in a transient waterfall. With its mass distribution altered, the big iceberg began to roll over close beside us! As our ship safely left the rambunctious frozen mass behind, a fourth large piece calved off, immediately followed by yet a fifth! Finally, the large iceberg rocked slowly and ponderously back and forth as it found its new balance equilibrium. What an amazing spectacle! Understandably, Captain Gorodnik chose not to anchor our ship there. Instead, as a safer alternative he headed out to open Bismarck Strait waters to cruise all night.

10TH MARCH, 2010 – THE ANTARCTIC PENINSULA, PALMER STATION AND PLENEAU ISLAND

Position at 06.30hrs 64°50'S, 064°00'W



Weather Conditions: Overcast with low cloud, breeze from the northwest, air temperature 0°C.



We had “paid our dues” by experiencing the less pleasant side of Antarctic weather, but now the weather turned in our favor. The morning was cloudy but without snow or rain. The winds had also died, but a swell made zodiac embarkation from the gangway something to be done with care and patience. In a complex feat of logistics, we divided into three large groups and switched activities with near clockwork precision as the only way to achieve the morning's

objectives in the face of strict limitations of time and visitor group sizes. Divers dove a famous shipwreck near Palmer Station while the rest of the passengers split between Torgersen Island and a rare visit to Palmer Station. Torgersen Island proved to be a low, rocky island on which 300 molting Adelie Penguins remained after breeding. Amongst its shattered granite rocks it had a surprising amount of green, representing algae, moss, and even grass – one of only two flowering plants native to Antarctica. Skuas (mostly South Polar) and Antarctic Fur Seals were the only other prominent inhabitants. Palmer Station, operated by the United States of America, is one of

the premier research stations in the Antarctic. Only ten or twelve ships are allowed to visit the station each year, so we were privileged. The gracious staff welcomed us with a fine station tour and delicious brownies. The aquaria holding samples of the local marine life are always a highlight of Palmer Station. We agreed that it had a spectacularly beautiful location.

After lunch and relaxation time, we cruised south through the world-famous Lemaire Channel, a straight, very deep cleft between Booth Island and the Antarctic Peninsula that many consider the apex of Antarctic scenery. Clouds draped around the mountain peaks, giving fleeting displays of the upper reaches of this magnificent flooded gorge. However, there was nothing fleeting about the beauty of the gorgeous Lemaire Channel up to the clouds. Between the glaciers forming icefalls down the faces, the fresh snow highlighted each detailed shape of every rock face and steep slope. Wow!



When we rounded the south corner of Booth Island the sky was clear and the water was glassy flat! Pleneau Island had perfect conditions for our zodiac cruising and the divers' iceberg diving. We racked up an impressive number of marine mammals: 50 Crabeater Seals, 10 Leopard Seals, 2 Weddell Seals, and 5 Antarctic Minke Whales. The Crabeater and Leopard seals snoozed on the icebergs, sometimes craning their necks to peer at us, or even wriggling up or down the ice slope. Our views were prolonged and in great light, often as close as the

wildlife protection regulations allow. Of course, the expected volant seabirds patrolled the still waters, which were frequently rippled by passing Gentoo Penguins. And then there were all the fabulously sculpted icebergs in this renowned "iceberg graveyard." Each iceberg revealed different shapes and textures, often varying markedly from one side to another. Old waterlines at tilted angles showed how the bergs had shifted their balance as they melted and sometimes calved off parts of their ice mass. ["iceberg breaks up"] One berg formed a very large, soaring, natural arch. Another featured a diagonal band of transparent, textured, blue ice. The variations were seemingly endless, and each was beautiful in its own right. And right behind them were as spectacular snow-dusted, glaciated mountains as one will ever see! Many thousands of stunning images were preserved on our memory cards. This was what we had come to Antarctica to experience firsthand. Some said that there was no way that our afternoon could be improved upon.



It was also the perfect weather and the perfect site for our surprise barbecue on the aft deck. The chefs had cooked up a devilishly delectable assortment of yummys, and a good time was had by all. As the dusk began to fall, the Captain had the anchor

raised so that he could take us back north through the Lemaire Channel while there was still some light. This time all the peaks were in full view, and in the fading light the Lemaire was most memorable. An added bonus was the area of drift ice in the channel that the Captain navigated through at just over four knots – a new experience for some passengers. How could we ever top this day?

11TH MARCH, 2010 – ANTARCTIC PENINSULA, USEFUL ISLANDS AND PARADISE BAY

Position at 07.30hrs 64°43'S, 063°02'W



Weather Conditions: Overcast with breeze from the northwest, air temperature 2°C.



Today's weather was almost a copy of yesterday's, except that our zodiac cruising was not in sunlight and an evening wind did not spring up. Troels had relied on the recommendation of another Expedition Leader that Useful Island in the Gerlache Strait was well worth a landing. Thus it was a new site for every one of us. At the end of our morning there, we had to agree that Useful Island was indeed a worthy visitor site that has been unduly overlooked. The island itself proved to be fairly bare granite,

combining rounded bedrock with angular fractured rocks. The lower parts of the island were covered by a thick layer of penguin poop mud and were inhabited mostly by Gentoo Penguins plus a few Snowy Sheathbills and Antarctic Fur Seals. Those of us that braved the slippery granite domes and foul mud to climb up the slopes found that the fractured granite higher up allowed easier ascent right to the summit. There we discovered up to 75 Chinstrap Penguins remaining from the recently concluded breeding season. The 360-degree views of the Gerlache Strait were spectacular even on a day when some mountains were cloaked in low clouds. During our departure a Weddell Seal swam around the landing area to investigate us and our zodiacs. This island proved to be Useful indeed!

Then we cruised into Paradise! – Paradise Bay, that is. Again we broke into three groups, with the divers making a very good dive on the wall beside the unoccupied Argentine



station Almirante Brown, half of the non-divers landing at the Station, and the other half zodiac

cruising in Skontorp Cove. After an hour and a half, the non-diving groups exchanged places. The Almirante Brown Station has one of the most beautiful surroundings of any Antarctic station, and we enjoyed every minute of our calm afternoon there. Gentoo Penguins and Snowy Sheathbills vied for our attention. The Skontorp Cove zodiac cruising, through much brash ice, featured the infinitely varied icebergs, including one that had formed a complete, exquisite, bowl largely full of meltwater. All the while the surrounding glaciers with their deep indigo crevasses popped loudly such that we continually looked for possible calving from their stunning faces. We had little luck on that score. Most zodiacs saw five Crabeater Seals on the ice behind the bowl iceberg, but only the second cruising group witnessed the aquatic antics of the smallest of the Crabeaters as it swam around our zodiacs with no fear, only curiosity. It really seemed to be friendly toward us. As our time enjoying this bold seal advanced, eventually it began to vocalize with loud moans, sneezes, sputterings, and other odd sounds. It also poked its face out of the water to breathe in our faces. The climax of this extraordinary performance came when two of our zodiacs had drifted together and pinned a small ice floe between us. The curious Crabeater launched itself onto the floe and wriggled on its smooth surface only one meter from each of our boats! “No sudden movements.” Camera shutters blazed! It was still not afraid when it chose to slip back into the water. Amazing!

Back aboard *Plancius* we reflected on another very satisfying day in Antarctica while brash ice and substantial icebergs drifted slowly past. The preregistered campers went ashore to enjoy a night sleeping on the Antarctic continent above the rescue hut close to the Almirante Brown Station. The weather was certainly appropriate this time, so we expected them to be happy campers in the morning.

12TH MARCH, 2010 – THE ANTARCTIC PENINSULA, DANCO ISLAND AND MELCHIOR ISLANDS

Position at 07.30hrs 64°53’S, 062°51’W



Weather Conditions: Overcast with no wind, air temperature -1°C.



Happy campers they were, after spending a night sleeping comfortably on the Antarctic continent with no wind and occasionally even stars overhead. After collecting the campers and the camping gear we cruised north to Danco Island. Many of us hiked to the top of the island for the unsurpassed 360-degree scenic views of both sides of Errera Channel. The Polar Dip attracted an impressive 23 people eager enough to subject their bodies to sub-zero water, at least for a

brief experience. From Danco Island we cruised through four named bodies of water, each one essentially as calm and flat as the preceding: Errera Channel, Gerlache Strait, Schollaert Channel, and Dallmann Bay. Although we tallied marine mammals in each of these waters, the Schollaert Channel between Anvers Island and Brabant Island stood by hosting 18 of the day’s 20 Humpback Whales.

Our final zodiac cruise amongst the Melchior Islands featured glacier-covered islands, more icebergs, and seals. Careful driving and rock-spotting got us through the shallow and narrow channel that appears to have been under the glaciers when the nautical chart was produced. Leopard Seals were seen both by zodiac cruisers and divers. It was a satisfying end to our off-ship activities, and as the day's recap and briefing concluded we were just beginning to feel the long swells from the open ocean as we headed into the Drake Passage homeward bound.

13TH MARCH, 2010 – THE DRAKE PASSAGE

Position at 07.30hrs 61°51'S, 064°02'W



Weather Conditions: Partly cloudy with a light breeze from the south, air temperature -2°C.



Another smooth sea day in the Drake Passage pleased all but the die-hard storm-wishers. Unlike our trip south, however, we had good visibility nearly all day, allowing observations of over 400 seabirds of 16 species. Highlights were locally rare Fairy Prion and Common Diving-Petrel plus the trip's first Light-mantled Albatross. For those of a more indoor mentality we offered three informative lectures: "The Debate about Climate Change" by Shoshanah; "Antarctica Rocks – The Geology of Antarctica" by Andrew; and "Antarctic Seals" by Troels. Tomorrow promises to be much the same in these respects: gentle weather, good observing, and stimulating lectures.

14TH MARCH, 2010 – THE DRAKE PASSAGE AND THE BEAGLE CHANNEL

Position at 05.00hrs 56°53'S, 065°45'W



Weather Conditions: Partly cloudy with a light breeze from the south, air temperature 2°C.



For the northern portion of the Drake Passage crossing the wind increased a bit but swung around almost directly from our stern, thus helping us speed back toward Ushuaia at nearly thirteen knots. On the other hand, as usual the westerly swells enlarged somewhat, giving our ship more roll this morning. Under the clouds the visibility remained excellent. A few hours of morning observation tallied twelve species of tubenosed seabirds, of which the highlights were a scarce Gray Petrel, two each of the largest seabirds in the world – Wandering Albatross and Southern Royal Albatross – and eleven Soft-plumaged Petrels displaying the matchless flying abilities of these so-called "gadfly" petrels. Steve dragged himself off the bridge to deliver his lecture "The Life of a Seabird" that explains how and why true seabirds have such a unique life history strategy and have become such extreme marine flyers. In the afternoon Axel told the ever-fascinating story of Ernest Shackleton – considered by many to have been the ultimate Antarctic

exploration leader. Later, for a special treat we watched the unique film of rounding the Horn on the huge sailing ship “Peking,” narrated most enthusiastically by the filmer – then a retired sea captain – fifty years later! By then we were back in the sheltered waters of the Beagle Channel, waiting for our nocturnal appointment with the Ushuaia harbor pilot.

The Drake Passage

The Drake Passage geologically opened about 22 to 30 million years ago, and connects the Atlantic with the Pacific Oceans south of Tierra del Fuego. To the south, the South Shetland Islands bound this waterway which is here about 800-900 km wide. The Drake played an important part in the trade of the 19th and early 20th centuries before the opening of the Panama Canal in 1914. The stormy seas and icy conditions made the rounding of Cape Horn through the Drake Passage a rigorous test for ships and crews alike, especially for the sailing vessels of the day. Though bearing the name of the famous 16th-century English seaman and explorer, the Drake Passage was, in fact, first traversed in 1616 by a Flemish expedition led by Willem Schouten. Sir Francis Drake did not sail through the passage but passed instead through the Straits of Magellan to the north of Tierra del Fuego, although he was blown south into the more extreme latitudes of the passage by a Pacific storm.

The passage has an average depth of 3400 m (11,000 feet), with deeper regions of up to 4800 m (15,600 feet) near the northern and southern boundaries.

The winds through the Drake Passage are predominantly from the west and are most intense in the northern half. The mean annual air temperature ranges from 5°C in the north to -3°C in the south. Cyclones (atmospheric low-pressure systems with winds that blow clockwise in the Southern Hemisphere) formed in the Pacific Ocean traverse the passage towards the southern end. Surface water temperature varies from near 6°C in the north to -1°C in the south, with the temperature altering sharply in a zone near 60°S. This transitional zone is known as the Antarctic Convergence, or Polar Front. It separates the sub-Antarctic surface water from the colder and fresher Antarctic surface water. At depths of between approximately 500 to 3000 m there occurs a layer of relatively warm and salty deep water.

The maximum sea ice cover occurs in September; 25% to a full cover of 100% extends to 60°S, with occasional ice flows reaching Cape Horn.

The water within the passage flows from the Pacific into the Atlantic, except for a small amount of water in the south that comes from the Scotia Sea. The general movement, known as the Antarctic Circumpolar Current, is the most voluminous in the world, with an estimated rate of flow between 950 to 1500 Mio cubic meters per second.

15TH MARCH, 2010 – USHUAIA, ARGENTINA

Position at 07.30hrs 54°15’S, 68°19’W

We awoke to an early breakfast and said our final goodbyes to the staff and crew of the Plancius and to the new friends that we had made on this journey.

On behalf of Oceanwide Expeditions we wish you a safe journey home and hope to see you again sometime, maybe in the other polar region.

www.oceanwide-expeditions.com