Science & Education Report

Circumnavigating Svalbard – The Ultimate Expedition

MS Spitsbergen

14 – 26 July 2026

Science & Education Programme

Our Science and Education Team accompanied you during your expedition to the remote nature of the Svalbard archipelago.

You had the opportunity to explore our destination's natural beauty, exceptional wildlife, and rich history. We organised lectures and interactive activities on board, and you explored our destinations during landings, nature walks, and from the water.

History & Culture

We cruised to remote areas with a relatively short, but complex, history.

You learned about the unique international and political situation of Svalbard thanks to the Svalbard Treaty that was signed in 1920.

Whalers, trappers, miners, researchers, and explorers shaped the culture of this Arctic archipelago.

Polar Exploration

For over four centuries, Svalbard has drawn explorers into the Arctic ice. It has been a proving ground for human endurance, a place where whalers, trappers, and scientists tested themselves against the polar wilderness, and where Salomon Andrée's doomed 1897 balloon flight toward the Pole became one of the era's most haunting failures.

Decades later, Roald Amundsen used Svalbard as a launching point for his own polar ambitions, cementing the archipelago's place at the centre of the Heroic Age of exploration.

Trapping & Whaling

During our landings in Svalbard, you encountered traces of the region's early whaling era, as well as the more recent period of trapping.

Scattered across the landscape were huts, some still maintained and in use, along with abandoned traps and the crumbling remains of old whaling ovens. These relics offered vivid glimpses into the human history that once shaped these remote shores.

Natural History

The natural history of Svalbard is a centrepiece of the high Arctic, with a close connection to the cryosphere.

During our lectures and workshops, you received insights into the adaptations plants and animals have made to survive in this harsh landscape.

During landings, small boat cruising, and hikes in various locations, you saw and experienced this highly unique ecosystem.

Geology

The geology of Svalbard is truly special. The sparse vegetation opens a wide window to the rocks that form this landscape. The time span stretches as far back as a billion years, and with the many stops along our journey, we caught glimpses of the geological processes that have shaped our planet throughout time.

From ancient mountain-forming events to remnants of the last volcanic events that have left us with the northernmost hot springs at Jotunkjeldene.

NASA's GLOBE Cloud Observer

Together with our Environmental Scientist Niclas, you observed the clouds and submitted your observations to NASA's GLOBE Cloud Observer on two occasions.

These cloud observations help NASA improve our understanding of Earth's atmosphere and climate by providing valuable data for scientific research and climate modelling.

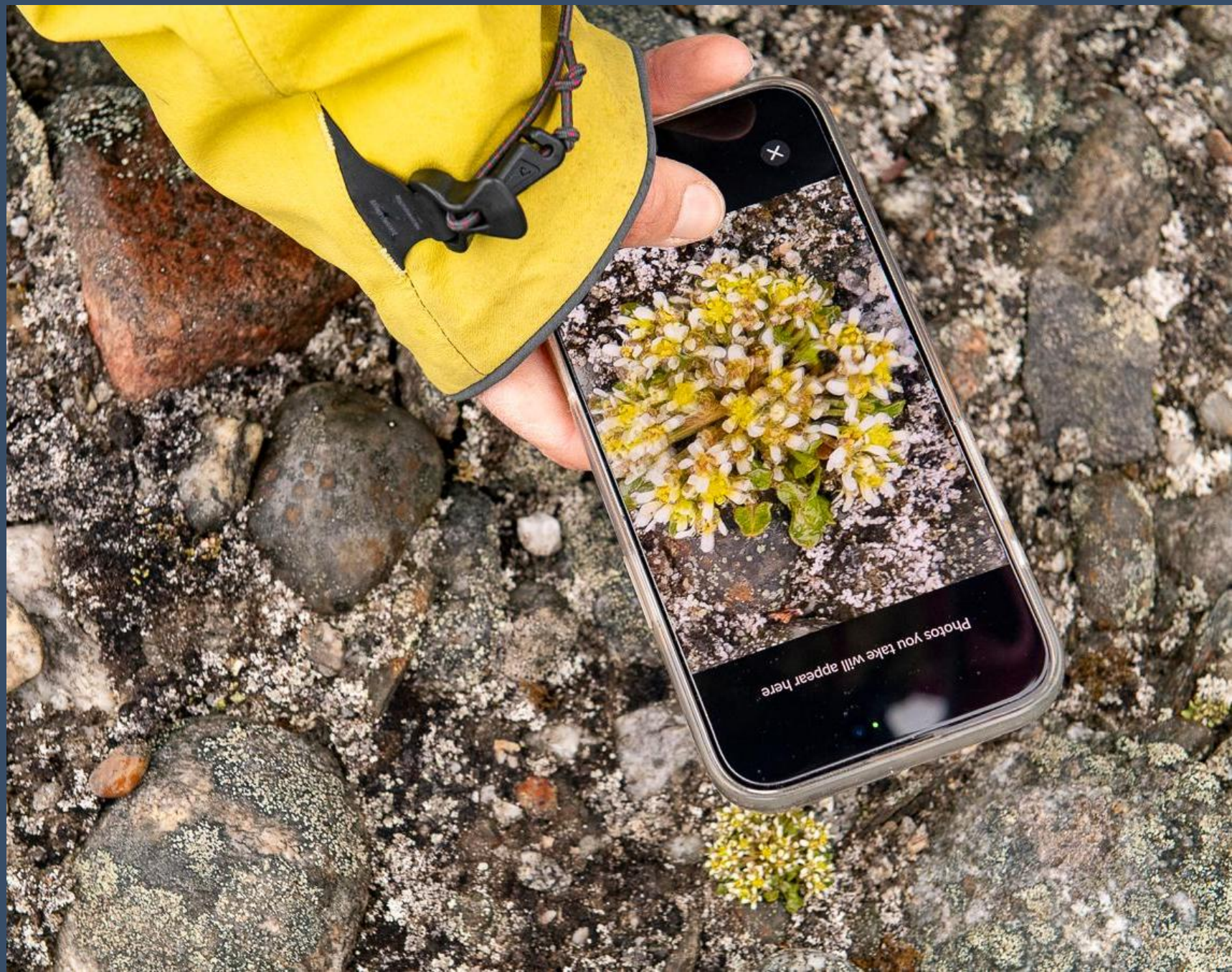
View our data on the global map

iNaturalist

Throughout our expedition, you and the team documented the flora and fauna of Svalbard and uploaded all findings to the biodiversity platform iNaturalist.

During our voyage, we submitted 308 observations of 65 different species. This effort contributes to a comprehensive understanding of the current distribution of species in the archipelago and can aid researchers in their ongoing studies and conservation efforts to protect these species.

View our data submitted on our iNaturalist project



Flora

Many of you were keen on exploring the beauty and wonders of the Arctic tundra in bloom.

So close to the North Pole, many flowering plants develop fascinating adaptations. You encountered minuscule trees no higher than a couple of centimetres, such as the Arctic willow, colourful saxifrages, and even Svalbard's national flower: the polar poppy.

Photo: Dave Tindell

Science Boat

52 eager participants joined our six science boat sessions in Graveneset, Jotunkjeldene, Mushamna, Chermsideøya, Gnålodden, and Calypsobyen to study plankton and the hydrography of our destination.

You helped monitor ocean clarity through participation in the Secchi Disk Citizen Science study, contributing to important research on the distribution of phytoplankton blooms and collecting water profiles for the marine database EMODnet.

View our data submitted to the Secchi Disk Project

Plankton Samples

You explored the microscopic world of plankton, the tiny organisms that drift in our ocean.

In the plankton samples collected during our science boat sessions, we found a large number of copepods, a keystone species of the Arctic Ocean.

During our microscope sessions, you also observed various types of other zooplankton, such as the polychaete worm (bristle worm) captured in the picture, as well as diatoms and dinoflagellates belonging to the phytoplankton community.

Beach Clean-up

Over the course of our voyage, you participated in the Clean Up Svalbard initiative.

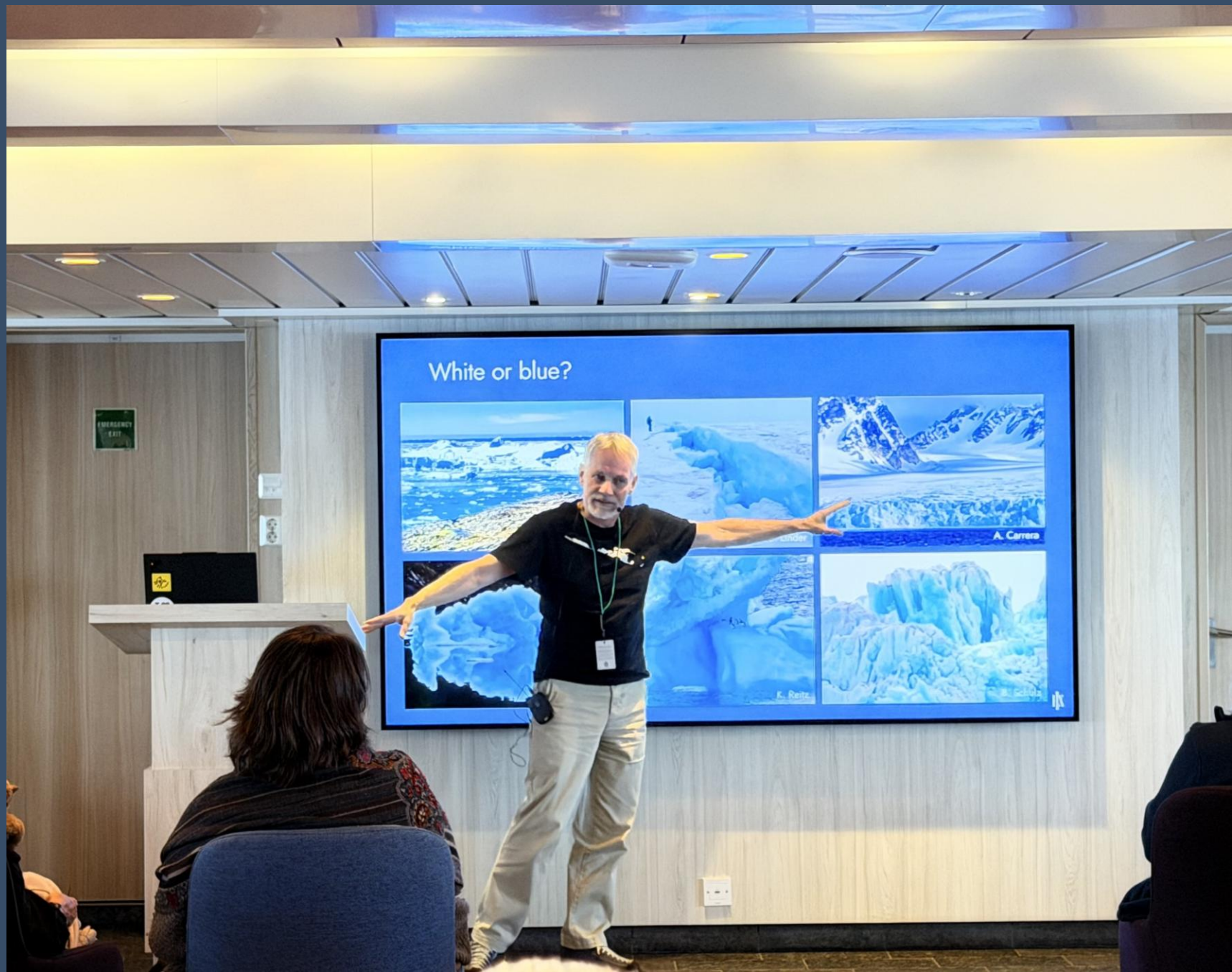
Combined, you collected over 50 kg of general litter, with items ranging from fishing nets and lines to secondary microplastics — and even a shoe.

The efforts in the Clean Up Svalbard project contributed directly to the preservation of Arctic ecosystems, enhancing environmental sustainability and fostering a cleaner, healthier future for the region.

Guest Lecturer

The seasoned glaciologist and expert in glacial dynamics Dr Urs H. Fischer joined us as a Guest Scientist and shared insights into Svalbard's cryosphere and his fieldwork in Ny-Ålesund, where he conducts research on the glaciers of Kongsfjorden.

Visit our Science & Education Hub online to find out more



Glaciers

Svalbard's landscape has been shaped by glaciers, some of which you were able to experience close up from the ship, our small boats, or from land.

An outstanding experience was seeing parts of the glacier front of Bråsvellbreen, part of the Nordaustlandet ice cap — a tidewater glacier front that spans 200 km wide (pictured above).

Ice Edge

At 80°40′ North you experienced the beauty and vastness of the Arctic pack ice.

This ever-shifting boundary between sea ice and open ocean harbours a rich community of life, from the smallest ice algae to the largest whales, some of which you saw during small boat and ship cruising along the ice.

Wildlife List — Birds

Wildlife List – Seabirds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
Fulmarus glacialis	northern fulmar	Eissturmvogel	fulmar boréal
Stercorarius skua	great skua	Große Raubmöwe	grand labbe
Stercorarius parasiticus	Arctic skua (parasitic jaeger)	Schmarotzerraubmöwe	labbe parasite
Stercorarius longicaudus	long-tailed skua (long-tailed jaeger)	Falkenraubmöwe	labbe à longue queue
Rissa tridactyla	black-legged kittiwake	Dreizehenmöwe	mouette tridactyle
Larus hyperboreus	glaucous gull	Eismöwe	goéland bourgmestre
Pagophila eburnean	ivory gull	Elfenbeinmöwe	mouette blanche
Sterna paradisaea	Arctic tern	Küstenseeschwalbe	sterne arctique
Alle alle	little auk (dovekie)	Krabbentaucher	mergule nain
Fratercula arctica	Atlantic puffin	Papageitaucher	macareux moine
Cepphus grille	black guillemot	Gryllteiste	guillemot à miroir
Uria lomvia	Brünnich's guillemot (thick-billed murre)	Dickschnabellumme	guillemot de Brünnich

Auks

Auks are members of the family Alcidae, which includes puffins, murres, guillemots, and their relatives. They spend most of their lifetime at sea, only coming to land for breeding, and are therefore considered seabirds.

They dive by propelling themselves with their wings to catch fish and crustaceans such as krill or plankton, reaching depths of over 200 m in the most extreme cases.

Auks nest in massive colonies of thousands of breeding pairs, as you saw in Alkefjellet and Gnålodden.

Wildlife List – Shore birds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
Charadrius hiaticula	common ringed plover	Sandregenpfeifer	pluvier grand-gravelot
Calidris maritima	purple sandpiper	Meerstrandläufer	bécasseau violet

Wildlife List – Waterbirds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
Anser brachyrhynchus	pink-footed goose	Kurzschnabelgans	oie à bec court
Anser anser	greylag goose	Graugans	oie cendrée
Branta leucopsis	barnacle goose	Weißwangengans	bernache nonnette
Branta bernicla	brent goose	Ringelgans	bernache cravant
Somateria mollissima	common eider	Eiderente	eider à duvet
Somateria spectabilis	king eider	Prachteiderente	eider à tête grise
Clangula hyemalis	long-tailed duck	Eisente	harelde kakawi
Gavia stellata	red-throated diver (red-throated loon)	Sterntaucher	plongeon catmarin

Wildlife List – Land birds

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
Plectrophenax nivalis	snow bunting	Schneeammer	bruant des neiges
Lagopus muta	rock ptarmigan	Alpenschneehuhn	lagopède alpin

Snow Bunting

The snow bunting is one of two species of land bird you saw on this voyage. It nests in natural rock cavities or in artificial cavities in human settlements, feeding mainly on insects during summer and seeds during winter.

When the grey fledglings leave the nest, it is common to see them begging for food on the ground.

eBird

During our wildlife watches, our Ornithologist Andres conducted detailed seabird surveys, recording observations for the Citizen Science platform eBird. We recorded 24 different species of birds in 60 checklists.

This initiative contributes valuable data to global bird conservation efforts, enhancing our understanding of seabird populations and their habitats.

View our data on our e-Bird trip report

Wildlife List — Marine Mammals

Polar Bear

Polar bears were the one species most of you hoped to see during your time in Svalbard, and you were not disappointed. After our initial sighting of a mother and cub at the bird cliff of Alkefjellet, the remote island of Kvitøya offered us even more sightings.

The largest carnivore found on land, the polar bear is classed as a marine mammal because of its dependence on and connection with life in and around the sea ice. Seeing this impressive animal in its natural habitat was a highlight of the voyage for many.

Wildlife List – Marine Mammals

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
Balaenoptera acutorostrata	common minke whale	Zwergwal	rorqual à museau pointu
Balaenoptera musculus	blue whale	Blauwal	rorqual bleu, baleine bleue
Balaenoptera physalus	fin whale	Finnwal	rorqual commun
Megaptera novaeangliae	humpback whale	Buckelwal	baleine à bosse
Delphinapterus leucas	beluga, white whale	Beluga, Weißwal	bélouga
Erignathus barbatus	bearded seal	Bartrobbe	phoque barbu
Phoca vitulina	harbour seal	Seehund	phoque commún
Pusa hispida	ringed seal	Ringelrobbe	phoque annelé
Odobenus rosmarus	walrus	Walross	morse

Walrus

The walrus is probably one of the species that captures the hearts of most of us visiting the Arctic. With their charismatic whiskers, comical behaviour, and iconic tusks, they never fail to amuse and entertain those lucky enough to spend time watching them.

Some memorable walrus moments for us on this voyage included sailing past a walrus haul-out on the island of Amsterdamøya, and being surrounded by them while cruising in our expedition boats off Kvitøya.

Wildlife List – Land Mammals

Wildlife List – Land mammals

SCIENTIFIC NAME	ENGLISH	DEUTSCH	FRANÇAIS
Rangifer tarandus platyrhynchus	Svalbard reindeer	Spitzbergen-Ren	renne de Svalbard
Vulpes lagopus	Arctic fox	Polarfuchs	renard arctique

Thanks for your participation!