
WWF
20 YEARS
IN THE ARCTIC
THANK YOU
FOR YOUR SUPPORT
for a living planet

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Since 1992, WWF's Global Arctic Programme has been working with our partners across the Arctic to combat threats to the Arctic and to preserve its rich biodiversity in a sustainable way.

WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

FROM THE DIRECTOR GENERAL

WWF's work in the Arctic began, appropriately, in a collaboration with Inuit artists in Canada to raise money for conservation.

Jim Leape
Director General,
WWF International

This has been an abiding principle of our Arctic work—recognizing the pivotal role peoples of the Arctic must have in conservation initiatives and decisions.

WWF holds a unique position in the Arctic. We have staff and supporters in every Arctic country except Iceland. Thus WWF brings a distinctive breadth of vision—we look at the Arctic as a whole without being led by local interest.

We bring that voice for conservation to the Arctic Council, the premier governance body for the Arctic—we are the only circumpolar environmental NGO present at the Arctic Council, where we hold observer status, and we work with nations and Indigenous peoples there to map out a sustainable future for the region.

WWF also brings capacity to the Arctic. It's a big place, with few people. Those people are often focused on other priorities—housing, health, transitioning from a traditional economy to a more modern mixed economy. We provide the capacity for local people to engage with conservation values.

Thus, for example, in Chukotka, we have supported the Umky (polar bear) patrol that helps reduce conflict between people and wildlife. In the Lofoten and Vesteralen regions of Norway, we have worked with fishermen to keep oil drilling out of some of Norway's most biologically diverse and richest fishing grounds. In Canada, we have supported local Inuit communities and governments in efforts to establish the population size and distribution of the largely unstudied narwhal. In Alaska, we are helping to examine the effects of underwater seismic exploration on marine life.

Looking back over our history, one appreciates how long conservation in the Arctic can take—gaining protection for an area, or drafting appropriate regulations that recognize and balance development and conservation needs can be many years in the making.

Despite important progress in the Arctic, much more remains to be done. In light of the rapid physical changes in the Arctic, we must find ways to manage Arctic habitats to maximize their resilience. Robust spatial planning and ecosystem-based management must be the cornerstones of Arctic policy, and are prerequisites to large-scale industrial development.

In this context, we welcome the growing importance of the Arctic Council, and, in particular, its foray into making rules for the Arctic states. We want to encourage this development, and help the Council fill gaps in Arctic governance, while increasing transparency and participation.

We pledge to continue the work we have begun, together with Arctic peoples, to build a place where in keeping with WWF's mission, humans live in harmony with nature.

FROM THE FOUNDER

Twenty years ago marked the beginning of an unprecedented era of circum-Arctic environmental cooperation.

In 1991, Finland had invited the environment ministers from all eight Arctic countries to a summit in the city of Rovaniemi, resulting in the creation of the Arctic Environmental Protection Strategy. Subsequently, it became the Arctic Council, today a high level intergovernmental forum that promotes cooperation, coordination and interaction among the Arctic states with the involvement of Indigenous communities and other Arctic inhabitants.

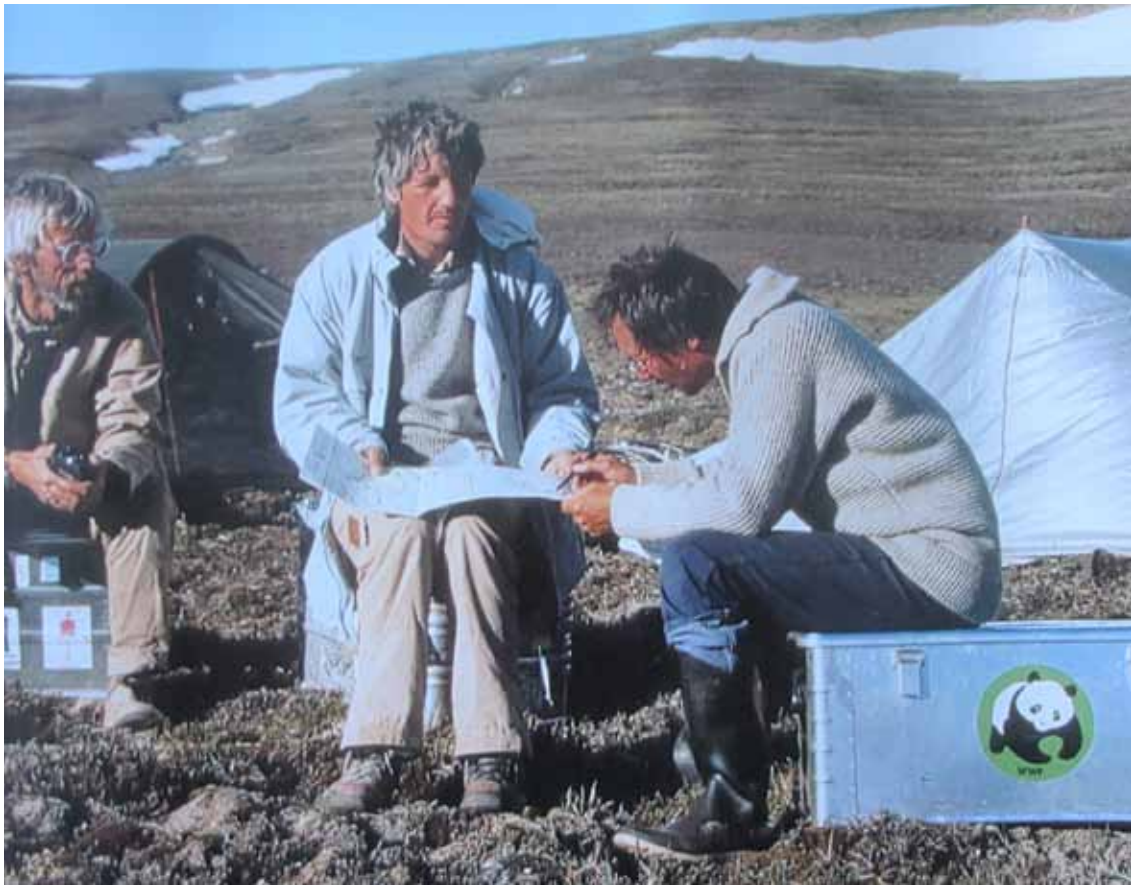
Peter Prokosch is the Managing Director of GRID-Arendal – United Nations Environmental Program's Polar Centre. He founded and was the first Director of the WWF Global Arctic Programme in 1992.

My former colleague and then-coordinator of WWF's Baltic Programme, Bertil Hägerhäll, recognized that WWF—with national offices in six Arctic countries—was in a unique position to get involved in this new initiative. There were already highly-effective WWF regional offices in the Baltic, the North Sea, the Wadden Sea and the Mediterranean. Inspired by that original meeting in Rovaniemi, Hägerhäll invited his colleagues from Arctic countries to a meeting in Copenhagen in November 1991 to create an over-arching WWF Global Arctic Programme. I attended this pivotal meeting as the only non-Arctic WWF representative. At the time, I was working for WWF-Germany and its Wadden Sea Programme aimed at protecting the millions of shorebirds and geese migrating between the Wadden Sea and the Arctic tundra. I had also been privileged to lead expeditions to the Taimyr peninsula in the northernmost reaches of Siberia. In 1993 this resulted in the establishment of the 42,000 km² "Great Arctic Reserve" or Zapovednik, which was WWF's first project in the Russian Federation.

Those exciting developments in Russia were the crucial preconditions to think and cooperate in a true circumpolar manner. When I was asked to establish and coordinate the Arctic Programme of WWF International in 1992, hosted by WWF Norway, I primarily focused on the Russian Arctic and on establishing a complete circumpolar Arctic WWF team. Back then, there was very limited understanding of the Arctic, its importance or its geography. We even took circumpolar maps and rotated them to show the Arctic from each country's perspective and raise recognition and understanding.

Since Russia encompasses half of the entire Arctic, WWF's reach in the circumpolar region was significantly enhanced with the establishment of WWF-Russia in 1994. That left Iceland as the only remaining Arctic country with no WWF presence. We completed the WWF Arctic Team and proper circumpolar oversight by collaborating with the Icelandic Nature Conservation Association.

Its director, Arni Finnsson, became a natural member of our team. With representation from all eight Arctic countries, WWF became the only NGO with a complete, environmental circumpolar perspective. Today the knowledge of and interest in the Arctic is much greater than it was 20 years ago. Many more countries and organizations want to have a role in the Arctic and it has also become a top issue in the media, particularly concerning climate change and oil and gas exploitation.



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I believe it is much more likely that the Arctic will continue to be a region of peace and environmental cooperation than one of increased conflict over resources. My hope is that WWF and others will continue to see the potential of the Arctic to become the leading region on earth demonstrating what environmental protection and sustainable development means in a practical sense.

The Arctic belongs to the most developed and powerful countries in the world, with influence and responsibilities far beyond the polar region. Twenty years of circumpolar cooperation have established and implemented some of the best monitoring and scientific programs in existence. This should also be the region where it is possible to implement the best environmental philosophies and policies. It should be the region that other countries learn from. In the decades ahead, I would like to see WWF challenging the Arctic nations to become world leaders in environmental protection and sustainable development, showing the rest of the world the way.

FROM THE PROGRAMME LEADER

1992 was a remarkable year for the global environmental and conservation community.

It was the year of the historic Rio de Janeiro conference on Environment and Development and the adoption of the Convention on Biological Diversity. 1992 also saw the establishment of WWF's ambitious Arctic Programme, an event with a slightly lower profile, but a legacy of enduring activities.

20 years later, we proudly celebrate the many achievements in the Arctic made possible by dozens of WWF offices and staff and millions of WWF's members and supporters.

Alexander Shestakov
Director, WWF Global Arctic Programme

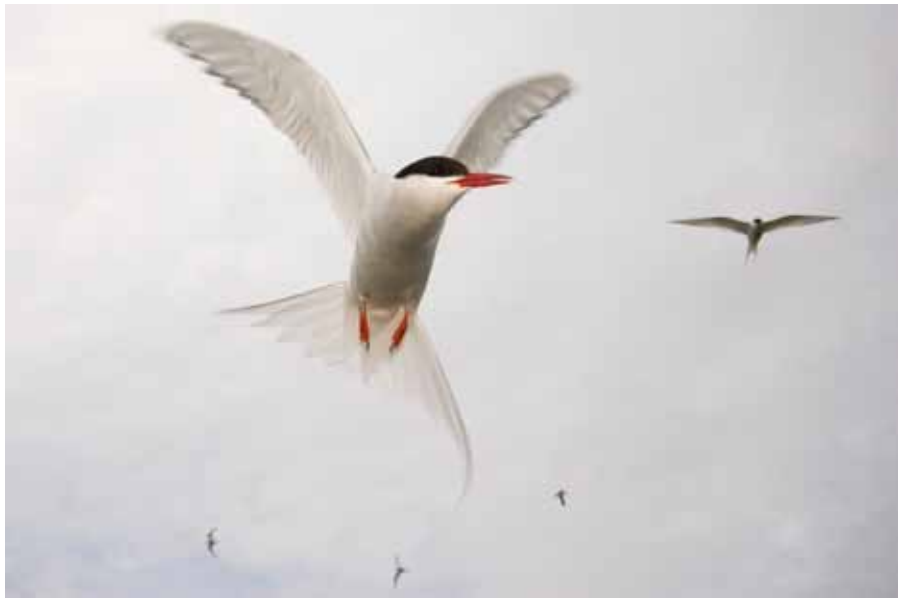
Even before the programme was started, WWF was active in the Arctic, supporting polar bear research in Canada in 1975, and establishing parks in Russia in the late 1980s. We have a long track record of work in the Arctic on species, on numerous protected areas, on making development more sustainable and responsible, on improving northerners' livelihoods and on addressing new challenges and threats like climate change. On the following pages, you will read about the results of our work in the Arctic.

Our Arctic Programme is built on expertise and experience from 13 offices in 7 Arctic states and support from non-Arctic states like the Netherlands and the UK—almost 70 staff members overall. Dozens of ongoing field projects put this expertise into action. We cover key topics such as adaptation to climate change, conservation of key species, building resilience into special management practices, development of protected area networks, making Arctic fisheries more responsible and sustainable, advocating for strong binding international shipping standards for Arctic waters, strengthening the Arctic Council, better regulating the oil and gas sector, and bringing northern peoples' voices to a global audience, and broadcasting arctic issues to the world.

This anniversary year, we're not just celebrating. We're also looking forward and making commitments for the years to come. Our vision is that the Arctic will be shielded from the worst effects of rapid change through effective international stewardship promoting healthy living systems to the benefit of local peoples and all humanity. WWF works to change policies and practices in the Arctic from exploitation to stewardship. We offer our resources to enable resilience-based ecosystem management, establish best practices for shipping, fishing, and hydrocarbon development, and promote sound governance.

WE ARE COMMITTED:

- To continue to provide capacity and expertise to Arctic Indigenous peoples where requested
- To contribute to the Arctic Council's ecosystem resilience assessment and build resilience considerations into management practices, and to give input to Arctic biodiversity assessments, Arctic change assessments and the Arctic Ocean Review
- To promote the adoption of a strong, legally binding Polar Code under the International Maritime Organisation
- To provide for conservation and the sustainable management and use of polar bears, arctic whales, walrus and reindeer
- To campaign for full recognition of key no-go zones in the Arctic, including the Lofoten islands, Bristol Bay and the West Kamchatka shelf
- To further develop new protected areas and other conservation places in the Arctic, to build a representative ecological network on a pan-arctic scale
- To advocate for the development of best practices on marine oil pollution prevention, preparedness and response, and advocate for an oil-free future for the Arctic



Arctic tern (Sterna paradisaea) in flight, Farne Islands, Northumberland, UK

- To continue successfully using our observer status at the Arctic Council to strengthen its work and make strong and sound decisions for the stewardship of the Arctic
- To further contribute to sustainability of Arctic fisheries
- To strengthen communications on climate change in the Arctic, the value of biodiversity and ecosystem services and conservation in the Arctic

20 YEARS IN THE ARCTIC:
HIGHLIGHTS FROM THE HISTORY OF THE GLOBAL ARCTIC PROGRAMME

1992 The International Arctic Programme is created, focusing WWF resources on the entire circumarctic

1993 Great Arctic Reserve created in Russia—WWF's first project in the region protected 42,000 km² of habitat for polar bears, reindeer and walruses

1994 WWF's *Arctic Bulletin* launches, bringing circumpolar conservation news to an influential international audience

1995 Lena Delta International Biological Station, a platform for Arctic research, opens in Russia

1996 WWF supports creation of Kytalyk Resource Reserve in Russia, a cooperative effort between the government and local Indigenous groups

1997 Following WWF intervention, the Government of the Northwest Territories, Canada, hosts the first workshop leading to the NWT Protected Areas Strategy

1998 WWF convenes international meetings of Arctic tourism operators to create a plan for sustainable tourism

1999 WWF and partners begin tracking ringed seals by satellite, improving scientists' understanding of the movements of this key Arctic species through Alaskan waters

2000 WWF and other organizations successfully demand an environmental assessment for a power plant that would irreparably damage the Icelandic Highlands

2001 Environmental Act for Norwegian territory of Svalbard launches, influenced by WWF's Arctic tourism guidelines

2002

WWF's polar bear tracking site goes online, attracting a global audience

2003

The Deh Cho First Nations and the Government of Canada withdraw more than 10,000 km² of land from industrial development in the Northwest territories, creating room for conservation

2004

WWF and partners begin tracking the endangered Lesser White-Fronted Goose, revealing a previously unknown migration route to Iraq

2005

WWF publishes a report on evidence and implications of dangerous climate change in the Arctic

2006

WWF launches an ambitious conservation program to address the complex challenges facing salmon in Kamchatka, Russia

2007

WWF volunteers help the Norwegian coast guard with clean-up efforts after a Cypriot oil tanker spill

2008

Vatnajokull Glacier National Park established in Iceland

2009

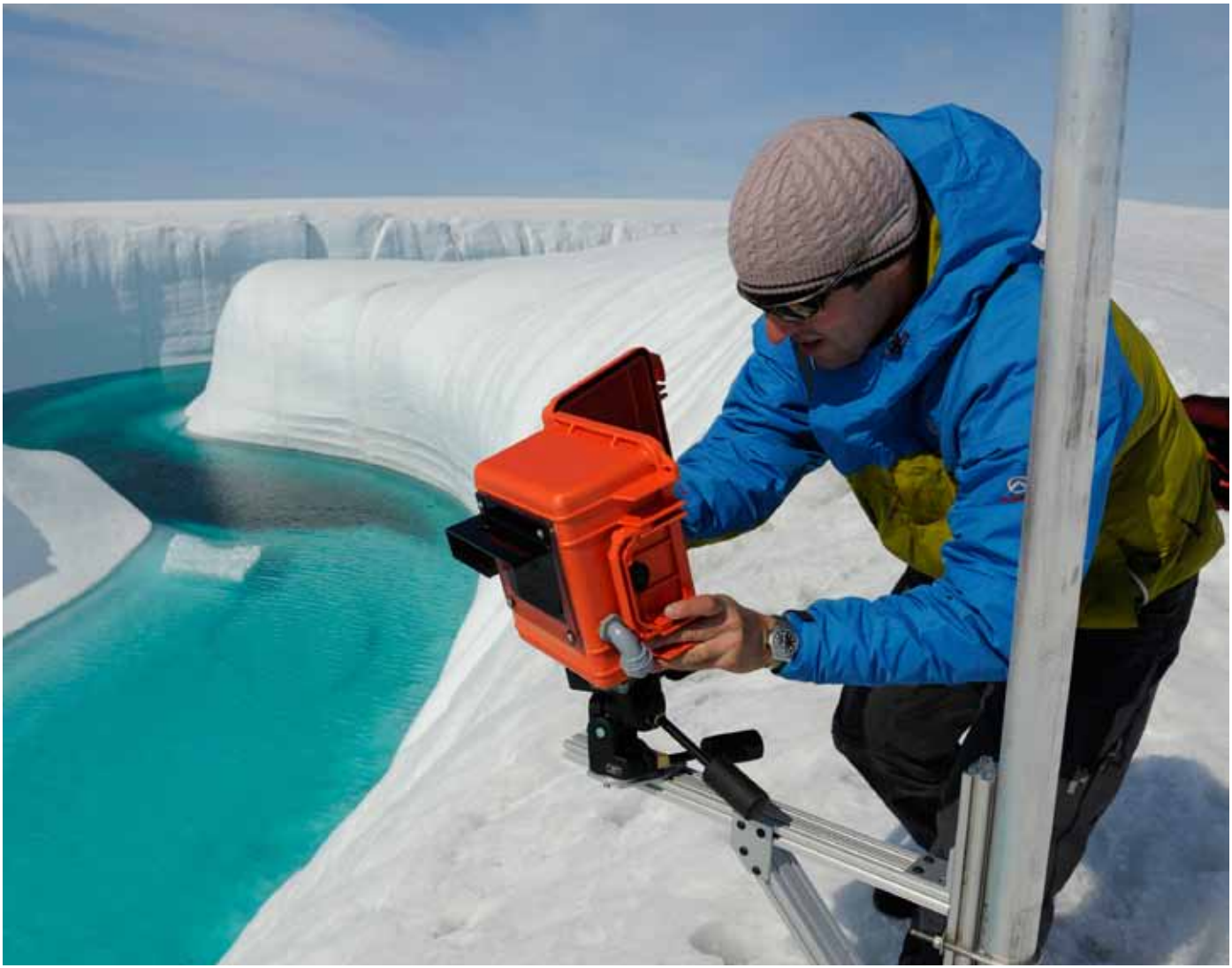
Bowhead whale sanctuary created in Nunavut, Canada

2010

Following a WWF campaign, Bristol Bay in Alaska is removed from an offshore oil and gas leasing plan

2011

WWF supports government and community partners in a joint project to track narwhals in order to better understand the movements and behaviour of these unique creatures



A research expedition to the ice sheet was led by Dr. Marco Tedesco of the City University of New York, and partly sponsored by WWF.

RESEARCHING THE TOP OF THE WORLD

Over the twenty years of its existence, the Global Arctic Programme has supported research around the Arctic.

As a science-based organization, WWF sees the support of scientific research as a valuable contribution to creating informed policy and management decisions.

In our Arctic work we are also supportive of the contributions of Indigenous knowledge. That can mean traditional ecological knowledge, the repository of knowledge about the natural environment compiled and passed down for generations, or it can mean contemporary observations of the environment.

Climate change has eclipsed all other drivers of change in the Arctic, and has become the focus of much of the research supported by WWF. One of the questions of interest to people around the world is the contribution of Arctic warming to the increase in global sea levels. WWF has supported some of this research, including the work of Dr. Marco Tedesco of the City University of New York. Dr. Tedesco and his team have made repeated visits to the Greenland ice sheet, observing and measuring melting on that massive chunk of ice.

In 2011, he contributed to a paper that showed 2010 was a record melt year for the ice sheet. “We were on the ice sheet during the melting season, and we witnessed the melt water roaring down huge holes in the ice. It was spectacular and powerful. While this happens to some extent every year, this past melt season was exceptional, stretching up to 50 days longer than normal.” Dr. Tedesco’s findings show that over the past 30 years, the area subject to melting in Greenland has been increasing at a rate of about 17,000 km^2 per year.

Scientists are now predicting sea levels will rise by more than a metre by 2100. This rise is largely from the melting of land-based ice sources such as the Greenland ice sheet. The impacts of such a rise in sea levels include large-scale flooding in some of the world’s most populous places, and large economic and environmental losses. The only way to minimize sea level rises, as noted in the Arctic Council ministerial declaration is to “Recognize that substantial cuts in emissions of carbon dioxide and other greenhouse gases are the backbone of meaningful global climate change mitigation efforts”.

“We were on the ice sheet during the melting season, and we witnessed the melt water roaring down huge holes in the ice. It was spectacular and powerful.“

Dr. Marco Tedesco of the City University of New York

PREPARING FOR SPILLS

WWF is training volunteers to respond to oil spills and assist in the clean-up effort.

Clean Coast!, WWF's volunteer oil spill response team, was developed to enhance oil spill contingency plans in Norway's Barents Sea region by establishing voluntary oil spill response groups that can assist in the clean-up operations after an oil spill.

3500
VOLUNTEERS IN FINLAND

500
VOLUNTEERS IN NORWAY

250
VOLUNTEERS IN RUSSIA

The training course was developed in collaboration with NorLense and The Norwegian Coastal Administration, and the first course was held during the autumn of 2005.

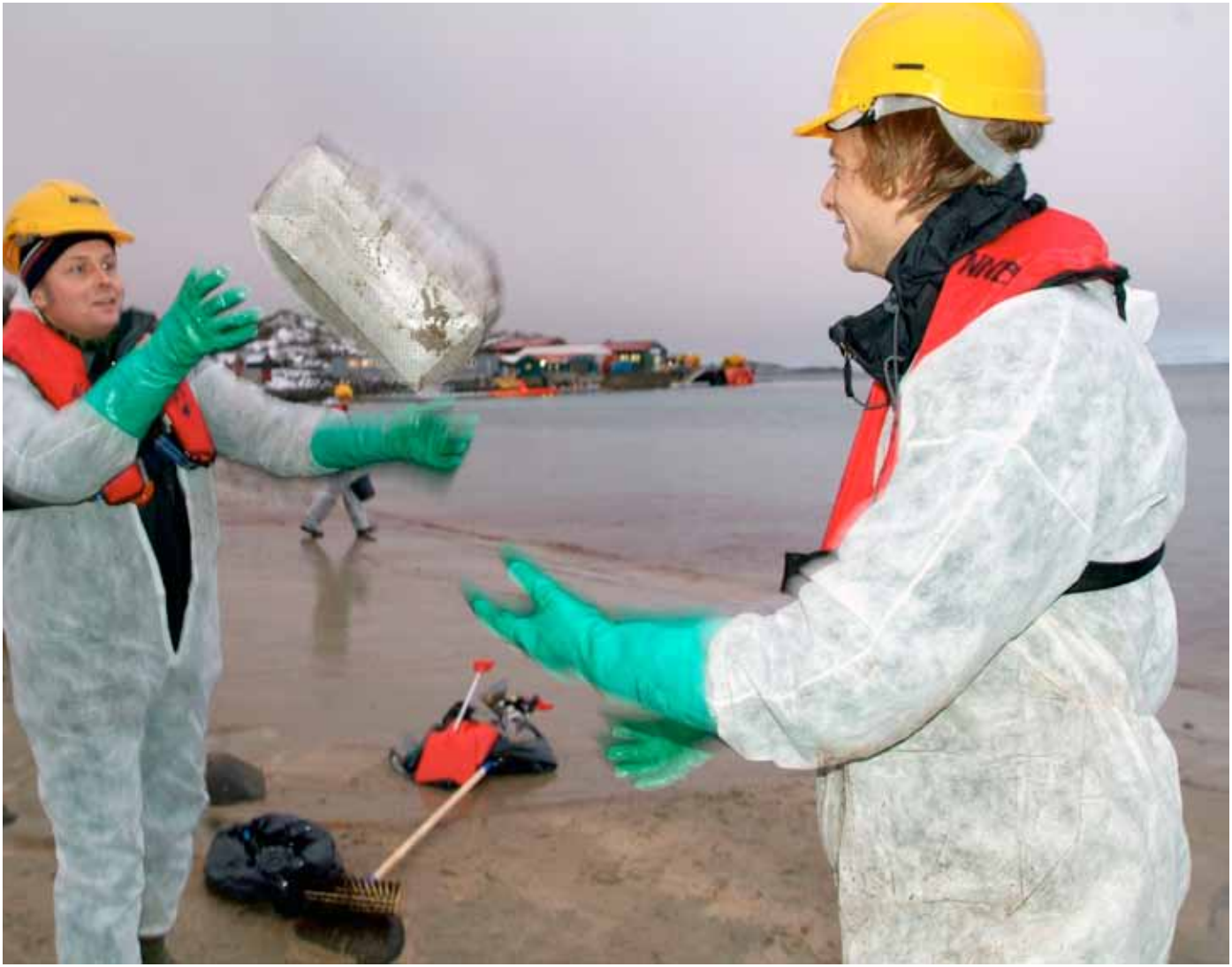
The training programme, which had already been introduced by WWF in Finland and Russia, offers a professional, practical and cost-free training course for volunteers, giving them a broad insight into oil spill clean-up strategies, including organization, execution and general knowledge about the most common strategies for handling oil spills in the open ocean, coastal areas and shorelines.

If a spill happened during the winter months, when the sun barely rises above the horizon, clean-up challenges would be immense. There are no known effective methods for containing a spill in icy conditions as the ice impedes the booms that might hold an oil slick in place in warmer waters. However, the ice does naturally contain some of the oil, giving response teams time to act.

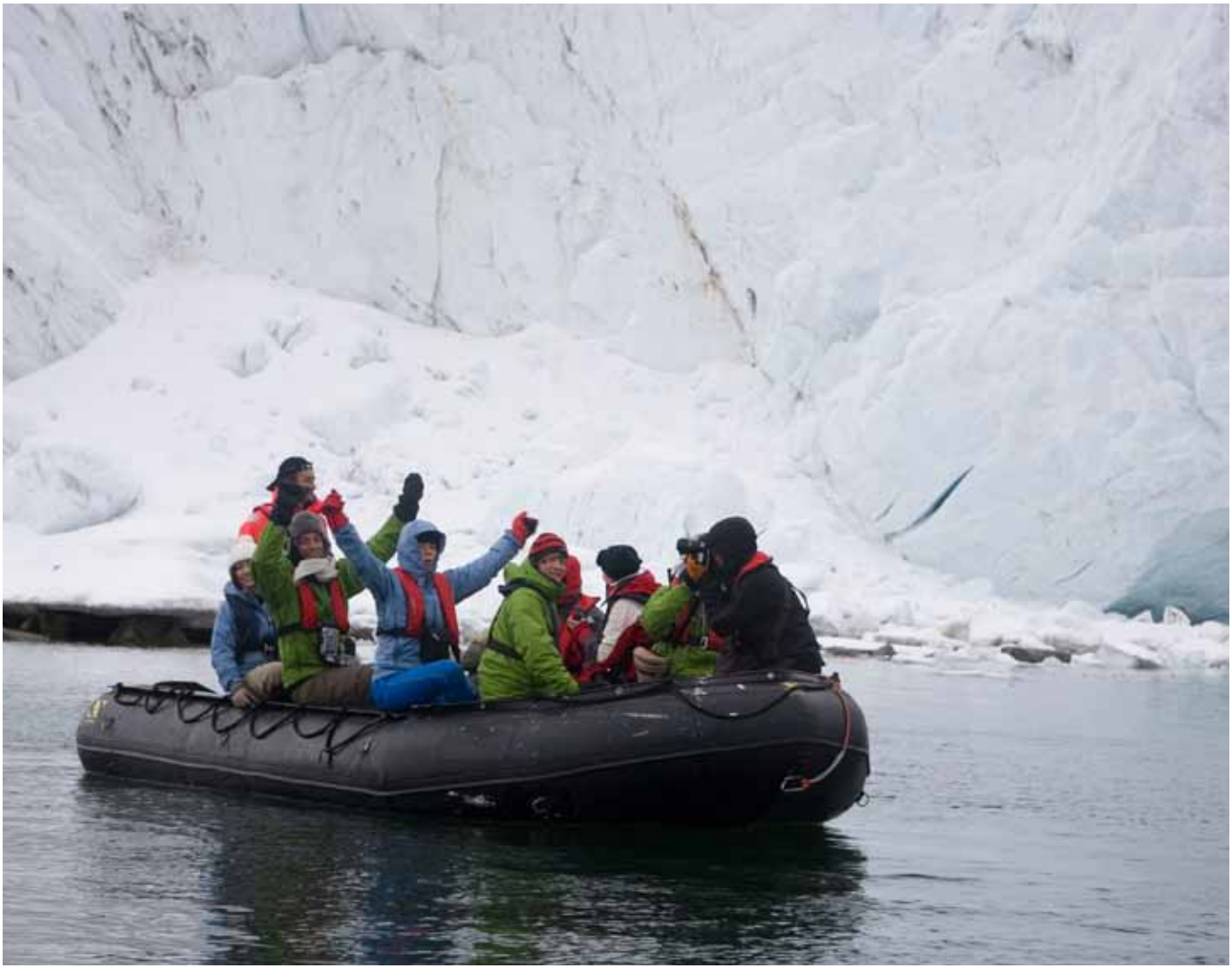
"The most powerful weapon to fight oil spills is people. When an oil spill reaches the shore, manpower is normally the main limiting factor for effective clean-up operations. All of those involved know their new found skills will be put to good use as it is not a case of if a major oil spill happens but when."

Rasmus Hansson
WWF-Norway

Today, WWF has completed the training of over 4,200 volunteers in Finland, Norway and Russia.



WWF staff practicing at the NordNorsk Beredskapssenter in Fiskebol, Norway, a training centre where people learn how to clean up oil and gas spills in water and along the coast.



‘Voyage for the future’ group in Zodiac. 80 degrees north, Spitsbergen (Svalbard) arctic archipelago, Norway.

TELLING THE CLIMATE STORY

Observations, whether from satellites, sensors, or from people who live in the Arctic tell the same story—the Arctic climate is changing. WWF is bringing that story to the world.

"These young people will witness unprecedented change because of the already locked-in effects of climate change. If we do not act quickly the next generation will face a different world."

- Dr. Neil Hamilton, former director, Global Arctic Programme

Copenhagen Climate Negotiations

During the December 2009 climate negotiations in Copenhagen, a team from WWF reached thousands with the urgent climate signals from the Arctic. From our 'Arctic Tent' on Nytorv, a main public square in Copenhagen, Indigenous peoples, scientists, artists, youth and even an Inuit circus troupe helped tell the stories of Arctic climate change.

The uncertain future of the Arctic's inhabitants was poignantly illustrated by the square's centrepiece: a life-sized polar bear carved from ice, slowly melting to reveal the bronze skeleton beneath.

Voyage to the Future

In 2008, 18 students from nine countries around the world - Canada, Germany, the Netherlands, Norway, Russia, Sweden, the UK, Japan, and the United States - joined WWF on the "Voyage for the Future." This 10-day boat trip in the Arctic allowed young people around the world to become the fresh new voices and ambassadors for the future. During this trip, participating students became "Ambassadors of Change" so that they became effective advocates for climate change action on their campuses and in their communities and countries. Now home, students are working with WWF to deliver the message for urgent action on this issue.

Climate Witness

WWF staff visited three Arctic communities in the Climate Witness project, in which people around the world told their stories about how they're experiencing the changes in climate and what it means to them. Local people in Nunavut and Alaska spoke of the disappearance of lakes, changes in wildlife behaviour and long-term shifts in temperature while Saami in northern Europe raised their concerns about the impacts of climate change on their reindeer herding culture.

CREATING AN ARCTIC LABORATORY

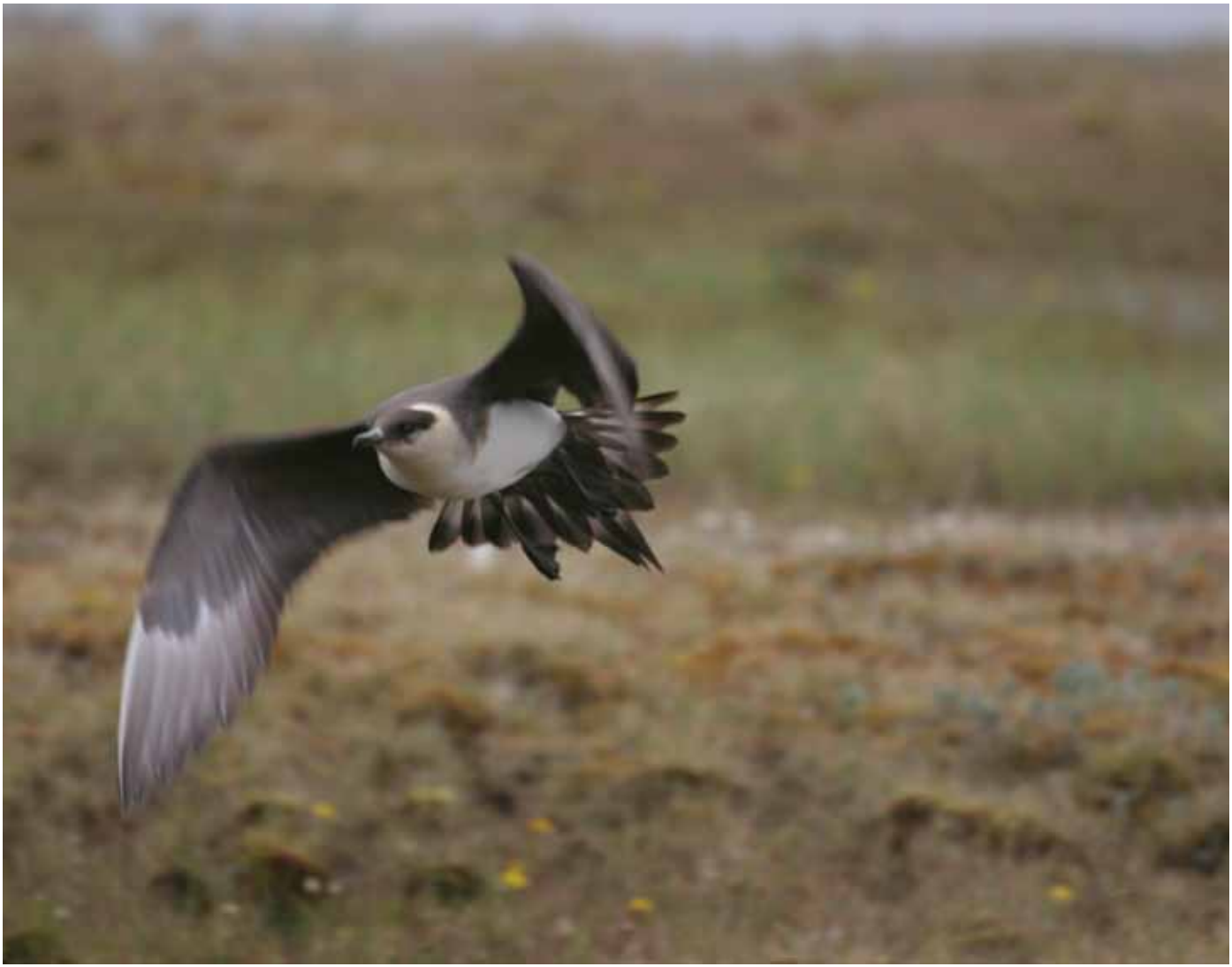
A research laboratory supported by WWF positions Russia's Lena River Delta as a key site for the environmental monitoring of Arctic ecosystems.

The International Biological Station Lena-Nordenskjold, a scientific facility in the Russian Arctic, was created in 1995 through a collaboration between the Republic of Sakha and WWF. The station's mission is to undertake complex research of Arctic ecosystems, observe their bio-diversity and conduct ecological monitoring. The Lena River Delta is one of the key regions in the Arctic due to its sheer land mass, unique research opportunities, flora, fauna and range of species.

Spanning more than 28,000 km^2, the region offers nearly every main type of Arctic landscape. The numerous bodies of water, river branches and nearby estuary zone are rich and varied. Mammals range from tundra, mountain and northern-boreal species. Caribou and Arctic fox are the most important species from the viewpoint of those Indigenous peoples who rely on them for their own consumption. There are also five species of sea mammals, including walrus, whose herd populations are under threat. Ongoing studies undertaken by the researchers at the IBS will help to monitor declines and, we hope, protect these species.

The Lena River Delta is also a main nesting habitat for migratory birds. The intercontinental ties, flight paths and distances flown by delta birds are quite likely unique in the Arctic. The study of these birds such as Bewick's swan, black brant, the snow goose, common and Steller's Eiders, Sabine's and Ross' gulls and peregrine falcons is of particular interest and value to the type of research undertaken by the IBS Lena-Nordenskjold.

The Delta is a prime location for assessing human impact on its many species, as it is a significant accumulator of pollution from runoff along the river's course. Containing both protected lands and industrial areas, the region affords us a good opportunity to study the human influence on the Arctic's environment and natural biological processes.



Pomarine skua (*Stercoraries pomarinus*) in flight, Lena-Delta Nature Reserve.

The aurora borealis creates swirls of light across the night sky over a snowy winter landscape, Northwest Territories, Canada.

SETTING THE STANDARD

WWF's Endangered Spaces campaign set a new standard for large-scale conservation across Canada's Arctic and the world.

The ten-year Endangered Spaces campaign, based on the concept of ecological representation that WWF pioneered, led to the protection of far more land than anyone thought possible. WWF's new scientific approach to conservation used geology, topography and climate to define distinct ecoregions and then assess which regions were under-represented in Canada's network of protected areas.

"Rather than complain from the sidelines that Canadian governments weren't moving quickly enough, why not step up to the plate and lead the effort to get the job done?"

Monte Hummel
WWF-Canada

As a result, over 127,000 km² of new protected areas were established in Canada's Arctic territories—Yukon, Northwest Territories, and Nunavut—between 1989 and 2000.

The campaign's crowning Arctic achievement was the Northwest Territories Protected Areas Strategy. Led by the territorial government and championed by WWF-Canada, it was a decidedly community-driven joint federal/territorial initiative to create a network of culturally and naturally significant protected areas before industrial development changed the landscape irrevocably. Today, 20 areas of interest have been identified under the Protected Areas Strategy and nearly 200,000 km² have been reserved for conservation.

In total, the conservation organizations united by the Endangered Spaces campaign managed to more than double the amount of protected area in Canada, adding over 1000 new parks, nature reserves and wilderness areas by the year 2000.

Looking forward, WWF is working towards a circum-arctic network of innovative mechanisms to ensure responsible stewardship of the Arctic.

CREATING A BOWHEAD SANCTUARY

In a campaign spanning 26 years, WWF worked with the Inuit community of Clyde River to create Canada's first Arctic whale sanctuary.

Isabella Bay (also know as Niginganiq or Igaliqtuuq), an extensive area off the coast of Baffin Island, was announced as a sanctuary for bowhead whales in 2008. It is groundbreaking in a variety of categories; in addition to being the first Arctic whale sanctuary, it is the first Inuit-initiated whale sanctuary, and Canada's first national Marine Wildlife Area.

"This is not only a day to celebrate the protection of the bowhead whale, but also to celebrate a community effort led from the beginning by the Inuit of Clyde River."

Mike Russill, former CEO of WWF-Canada

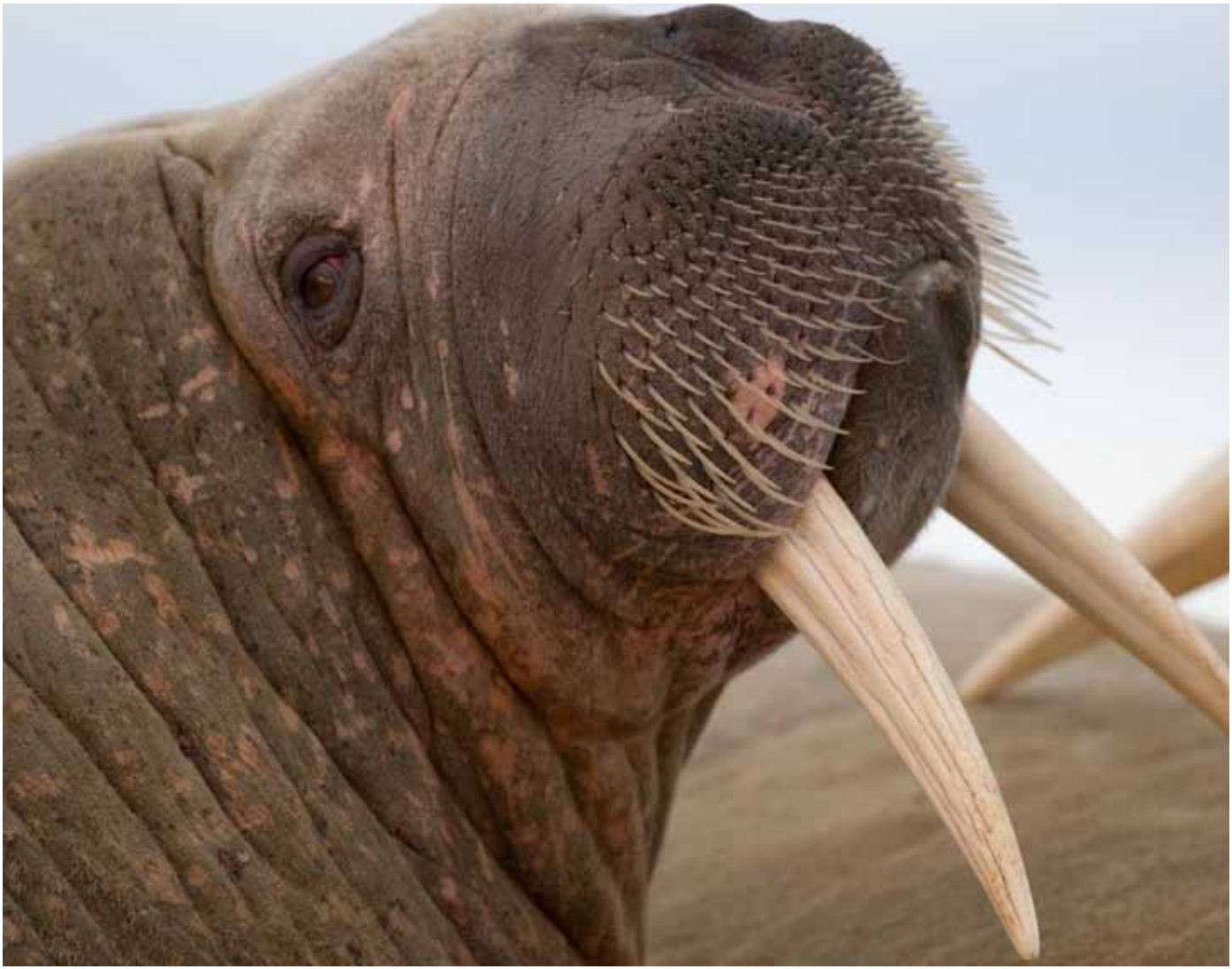
"Isabella Bay is a pristine late summer and fall, feeding and resting stop for many of the Davis Strait-Baffin Bay bowhead whale population," Mike Russill, then CEO of WWF-Canada said at the time. "This is not only a day to celebrate the protection of the bowhead whale, but also to celebrate a community effort led from the beginning by the Inuit of Clyde River."

At the community's request, WWF invested over $1 million in scientific studies and support for Inuit requests for protection of this important area. This included two press conferences with Prince Philip, President of WWF-International from 1980-95, who joined with Inuit voices calling for a protected area for the bowhead. Led by Arlin Hackman, Conservation Vice President, WWF also negotiated with all levels of government and Inuit organizations to develop a management plan for this magnificent northern bay.

The sanctuary includes two deep offshore troughs that provide rich food for the 18 metre-long, 70-tonne bowhead whale. Polar bears, ringed seals, Arctic char, Greenland halibut, narwhals, Canada geese, snow geese and king eiders also benefit from the sanctuary.

Up to 150-200 bowhead whales regularly use the sanctuary in late summer and fall. Bowhead whales can live for over 200 years, making them the longest lived wild mammal on the planet. Thought to once number in the tens of thousands, surveys from 2003 found an estimated 1,500-2,000 bowheads in the population between Canada and Greenland. The decline was brought about through unregulated commercial whaling of the 18th & 19th centuries.

The chin of a bowhead whale (*Balaena mysticetus*) surfaces at Isabella Bay (also known as Niginganiq), Nunavut, Canada.



Portrait of a Walrus (*Odobenus rosmarus*)

MAPPING WALRUSES

An expedition to a remote nature preserve helped WWF research endangered walrus populations, with the help of local people.

In July 2010 WWF organized an expedition to Vaygach Island, on Russia's Arctic coast. A nature reserve established in 2007, the island's surrounding seas are home to many marine mammals such as seals and endangered whales. Vaygach Island is also of great importance as habitat for polar bears and Atlantic walruses.

The expedition's goal was to assess the current state of the island, to identify the effects of climate change on plants, animals and Indigenous people, and map Atlantic walrus rookeries. The Atlantic walrus is on Russia's Red List of Threatened Species, and is threatened by the expansion of the oil and gas industry.

"The fact that there is a rookery of Atlantic walrus, was known before the start of the expedition. But the exact location, number of animals, and date of departure from the rookery, unfortunately, was not. Now we know!"

Oleg Sutkaitis , head of WWF-Russia's Murmansk office

The experts braved rain, thunderstorms, and millions of mosquitoes to observe and map Atlantic walrus rookeries. Combined with information gathered from local indigenous communities, the expedition will help ensure a future for the walruses of the Russian Arctic.

Said Oleg Sutkaitis , head of WWF-Russia's Murmansk office, "The fact that there is a rookery of Atlantic walrus, was known before the start of the expedition. But the exact location, number of animals, and date of departure from the rookery, unfortunately, was not. Now we know!"

The team trained local communities to act as patrols to send updated information on the walrus population. These reports from the field are an important contribution to walrus research and conservation.

FISHING FOR SUSTAINABILITY

In the Barents Sea, a multi-year campaign by WWF helped turn around a cod population ravaged by illegal fishing.

The Barents Sea is home to the world's largest remaining cod stock, but in the past, it has been highly reduced by overfishing, illegal fishing and industrial development. By 2004, global cod catch had suffered a 70 per cent drop in just 30 years.

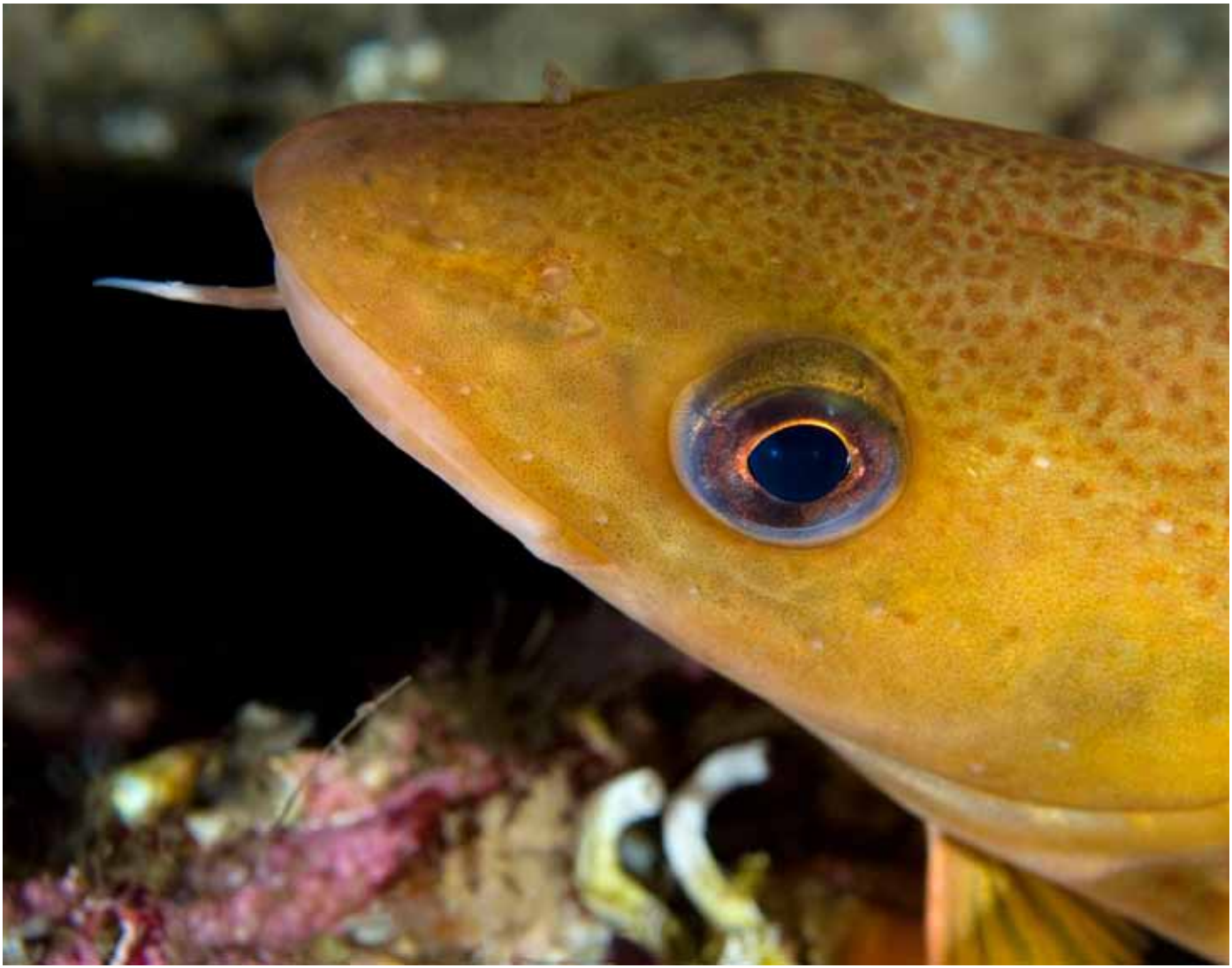
WWF has worked for years to stop illegal fishing in the Barents Sea, and to stop stores from selling illegal fish.

The work has paid off: according to the International Council for the Exploration of the Sea (ICES), illegal fishing of cod in the Barents Sea dropped from 166,000 tonnes in 2005 to 40,000 tonnes in 2007. Reasons for the decrease include a sharp reduction in illegal fishing in line with scientists' recommendations, an increase in spawning stock and an improved conservation plan for coastal cod.

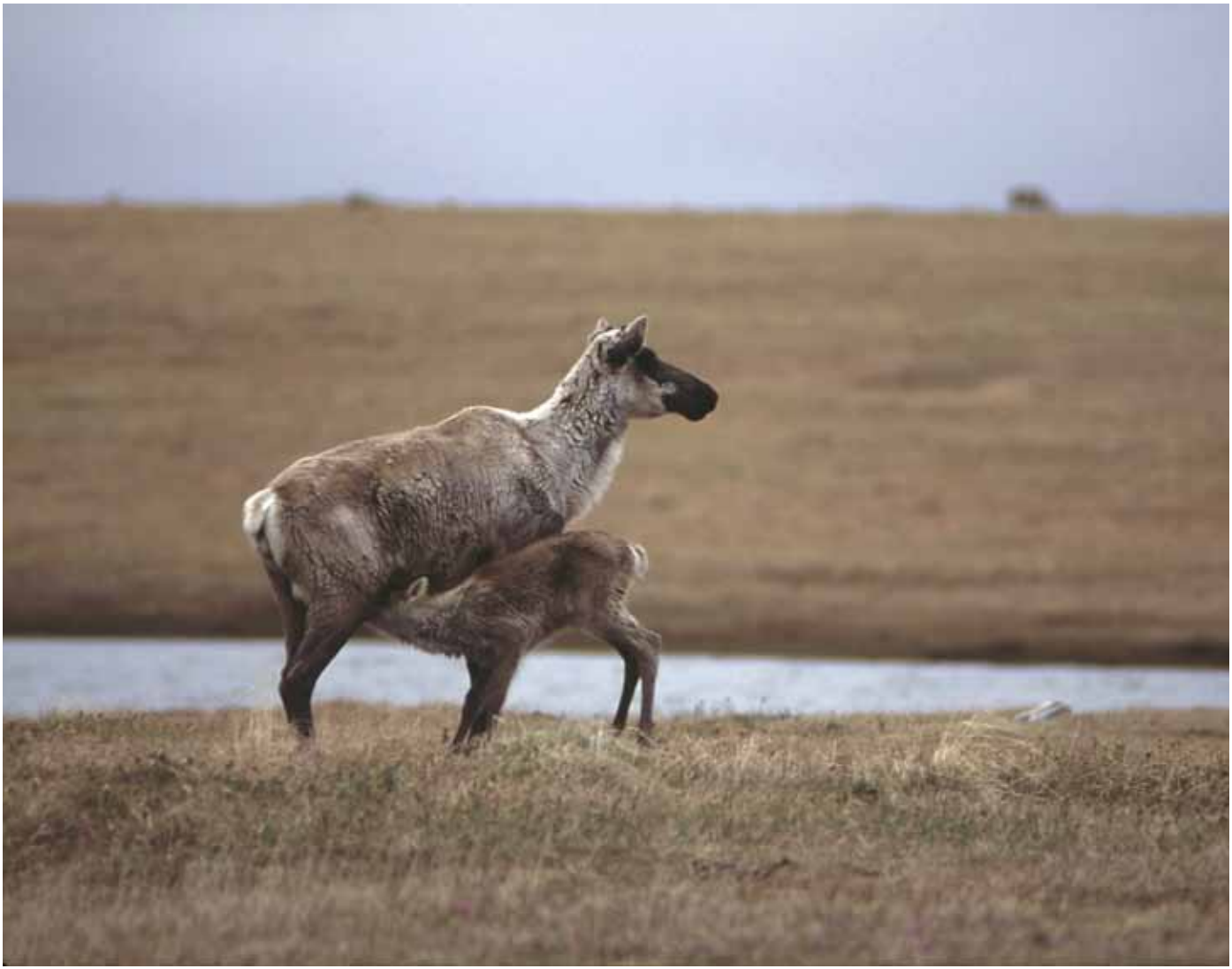
According to ICES, the fishery is now at full reproductive capacity and can be harvested sustainably. Spawning stocks of other commercially important species such as saithe and haddock are at sustainable levels, providing reasonable stability for the Barents fishing industry.

In 2010, The Barents Sea cod fishery was certified as sustainable by the Marine Stewardship Council (MSC), a global initiative to change the way fish are caught, marketed and bought. The MSC certification of Norwegian cod in the Barents Sea has also directly resulted in the development of a recovery plan for the endangered coastal cod. In addition, all the major retailers of frozen fish in Europe have now committed to demand evidence of legal fishing when they buy cod and haddock from the Barents Sea.

For our efforts to reduce illegal fishing, WWF was honoured with the prestigious "Lighthouse Award" from the Norwegian Ministry of Fisheries.



Cod (*Gadus morhua*), Saltstraumen, Bodö, Norway.



Nursing caribou calf

A FUTURE FOR CARIBOU & REINDEER

A collaboration in Canada's north creates space for caribou.

In Canada, the caribou's far northern range has historically protected it from industrial developments, but that is changing as the world's thirst for minerals and oil extends further north.

In Canada's Northwest Territories, caribou range enjoys a degree of protection, thanks to the Northwest Territories Protected Areas Strategy (NWT PAS). WWF was instrumental in this collaboration led by Indigenous communities and supported by territorial and federal governments, industry, and conservation organizations. The PAS lays out a way for Canada's northern communities to identify lands with natural and cultural significance that they wish to protect from industrial development.

Since 2006, over 120,000 km² in the NWT have been slated for protection through either the PAS or national park processes. Many protected areas were designed explicitly around the needs of caribou, which continue to hold great economic, cultural, and spiritual importance to the peoples of the North. In fact, the total range of woodland, mountain and barren-ground caribou extends far beyond the NWT, covering three quarters of Canada. Therefore, guaranteeing the future of this species means safeguarding a huge portion of the country.

Caribou (or reindeer as they're called in other parts of the Arctic) are a truly circumpolar animal, linking regions and people around the globe. As the Arctic warms, caribou and reindeer face new challenges. Vegetation patterns are shifting, forcing them to adapt their range to the availability of their preferred foods. Because their habitat crosses territorial and national borders, it will be increasingly important for governments to implement plans that look at seamless ecosystem wide protection and management measures.

To help meet this challenge, WWF is releasing an Arctic-wide conservation strategy for wild reindeer and caribou. Our work will help provide greater security for all wild caribou and reindeer, and the people who depend on them.

HELPING POLAR BEARS ADAPT

For over 20 years, WWF has been supporting the study and conservation of polar bear populations around the Arctic.

As sea ice levels decline, so does the health of the bears, which must go for longer periods without food. In some regions, we are already seeing lower reproduction rates, declining numbers, and bears spending more time ashore, bringing some into conflict with northern communities.

Reducing conflict between bears and people

Increased interaction between polar bears and people is a growing challenge for some northern communities. WWF has pilot projects with partners across the Arctic to help communities adapt. Along with direct support for polar bear patrol programs, we work with villages in Canada's north to introduce bear proof containers for storing food, and electric fences to protect sled dogs. We also brought members of Russia's polar bear patrol (see page 36) to talk to local people in Alaska about how they safely defuse human-bear conflict.

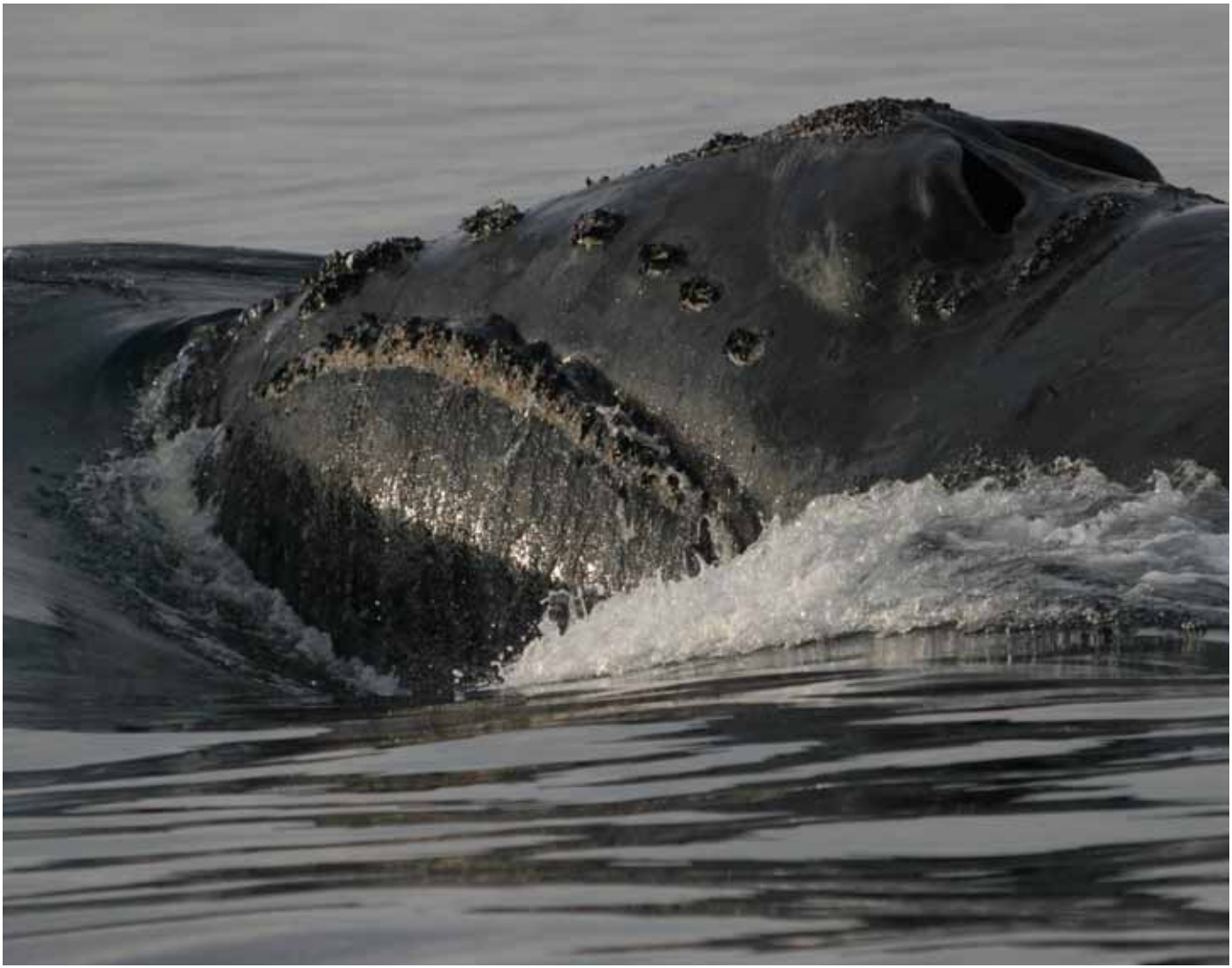
Supporting research

WWF has directly supported polar bear research since 1972 and continues that support today. In 2002, we launched an online polar bear tracker, allowing a global audience to follow bears as they led their lives on the ice. Our support of the researchers behind the tracking data revealed valuable information—when females enter a den, when they emerge with cubs and how far they travel each day. Scientists were also able to map the bears' ranges to determine whether individuals travel vast distances or remain strictly within their home range. It is only through long term monitoring efforts that research teams can address the great challenges polar bears face today, including climate change, habitat fragmentation, and disturbance.

Promoting protection

WWF jumped on a unique opportunity to link a warming Arctic to the future of polar bears in 2009, when delegates from the United States, Canada, Russia, Greenland, and Norway convened a meeting of the parties to the 1973 polar bear agreement—the first in 28 years. We called on the leaders to officially recognize climate change as the primary threat to polar bears and pushed for the development of a range wide conservation plan for the species. Our efforts were successful. Five nations came up with a resolution linking the future of the species to urgent global action on climate change, and a formal call to develop a range wide conservation plan with guidance from the IUCN Polar Bear Specialist Group.

Polar bear (*Ursus maritimus*), Svalbard



North Pacific Right Whale

TURNING DOWN THE VOLUME

Whales depend on sound to survive. WWF is working to limit sound pollution in Arctic waters.

Every year, whales travel hundreds or thousands of miles to reach the Arctic and Subarctic waters off of the coast of Alaska. While the bowhead whale spends most of its time in Alaska seas, other whales, like the northern right whale, migrate to feed in the critical habitat area of the southeastern Bering Sea, in Bristol Bay. These creatures use sound to find their way around the vast, dark ocean.

Whales are critical to both the marine ecosystem and the cultures and traditions of Arctic Indigenous peoples, who depend on the whales for subsistence. As offshore industry grows in the Arctic Ocean, whales and other marine mammals increasingly face new threats associated with oil exploration, vessel traffic, and infrastructure development. A priority concern for the WWF-US Arctic field program is the impact of seismic exploration and other sources of underwater noise in the Arctic. Even the everyday operations of industrial development can cause noise pollution, with potential detrimental effects on sea life.

One of the worst culprits for underwater noise pollution are seismic surveys involving the use of air guns, which send powerful sound pulses through the water and seafloor to look for oil. These pulses can continue every few minutes for weeks at a time. Whales are particularly sensitive to seismic noise—it can cause everything from confusion to damage to the animals' ears to even death. Another source of noise is vessel traffic, which is on the rise in the Arctic, often in areas that are critically important wildlife migration routes, such as the Bering Strait between Alaska and Russia.

WWF is playing an active role in advocating for government regulations and industry practices to limit the adverse impacts of seismic noise on Arctic marine life. WWF has collaborated with acoustic experts, cetacean biologists, subsistence users, and fellow conservation groups in providing strong, science-based input to the US National Oceanic and Atmospheric Association's National Marine Fisheries Service, a primary agency involved in the offshore oil permitting process in the US. Our Alaska-based team is monitoring the situation closely, and providing public comments on NOAA's Programmatic Environmental Impact Statement on seismic noise in the Arctic. We hope this work will encourage standards for limiting seismic noise across the Arctic.

KEEPING BERING SEA SALMON

Wild salmon are the base of economic, cultural and ecological life on the peninsula of Kamchatka, in Russia's far east.

Many of Kamchatka's Indigenous and rural people depend on salmon for their basic needs. But in the early 2000s, increasing demand for Russian salmon and salmon eggs led to widespread overfishing and poaching. This put Kamchatka's salmon—and the region's fishing industry—at grave risk. The high price of salmon eggs and lack of processing facilities in Kamchatka's coastal region meant fishermen were harvesting eggs from spawning salmon and throwing away thousands of dead fish. Unsustainable harvesting of wild salmon could lead to the collapse of the salmon population in the region.

20%
OF PEOPLE IN KAMCHATKA WORK IN THE SALMON INDUSTRY

In 2006, WWF founded the Kamchatka Salmon Conservation Initiative to help turn the tide. WWF is working with local fishermen, communities in the region and government management agencies to promote certification of the salmon fisheries of Kamchatka as per standards established by the Marine Stewardship Council (MSC); to promote processing of salmon locally, in the Russian processing plants on the coast of Kamchatka; and is encouraging cooperation with environmentally responsible buyers of Kamchatka salmon products.

137
SPECIES DEPEND ON KAMCHATKA SALMON FOR FOOD

The project supports conservation of Kamchatka's salmon on several levels: by changing and improving salmon fisheries policy, by increasing the awareness of the local population of existing market-driven incentives for improving the management of marine resources, by working to establish the first Marine Fishery Protected Zone for salmon and by helping to improve the enforcement of laws against poaching.

Today, the Initiative helps protect five species of Pacific salmon and the spawning grounds for one quarter of all Pacific wild salmon.

The ultimate goal and the biggest challenge of the project is to create a market for Kamchatka salmon products that are certified by the Marine Stewardship Council. This, in turn, would provide incentives for fighting illegal fishing and ultimately protecting wild salmon stocks in the region.

Indigenous fisherman from the Even tribe in front of his smoking cabin showing his salmon, Bystrinsky Nature Park, Kamchatka.

"Voyage for the future" Russian ambassadors Dmitry Vladimirov and Ekaterina Levitskaya. Spitsbergen (Svalbard) arctic archipelago, Norway

SUSTAINABLE ARCTIC TOURISM

WWF was instrumental in helping to develop tourism guidelines for the Arctic.

The story begins on the Norwegian Svalbard Island group, high above the Arctic Circle. Despite its northerly location Svalbard has been a draw to adventurous tourists for years. However, an increase in tourism in the 1980s outpaced the island's infrastructure, putting pressure on its renowned landscapes and wildlife.

"We understood the need for public regulations, but also saw that we needed to take more responsibility and regulate our own activities."

Ulf Prytz, Svalbard tour operator

By the early 1990s, some environmental NGOs wanted to ban Svalbard tourism altogether. WWF felt a ban was extreme, but believed tourism had to occur responsibly and with respect for the environment, the people and wildlife of Svalbard. Many tour operators agreed. Conservationist and tourism consultant Ulf Prytz, a Svalbard tour operator, said "We understood the need for public regulations, but also saw that we needed to take more responsibility and regulate our own activities."

Svalbard was not the only place in the Arctic attracting more tourists. To address this growing pressure, WWF developed a set of tourism guidelines. *The Ten Principles of Arctic Tourism*, *Code of conduct for Arctic Tourism* and *Code of Conduct for Arctic Tourists* became an important influence and template for the tourism industry across the Arctic. The guidelines are still cited today as a formative influence on sustainable tourism in the north.

Recognizing northern tourism operators who exemplify the spirit of the Guidelines, WWF created the Arctic Award for Linking Tourism and Conservation in 1999. "This award was designed to acknowledge tourism operators who demonstrated an outstanding commitment to conservation," said Samantha Smith, former director of WWF's Arctic Programme. "It recognized that with commitment and hard work, small businesses can survive in a larger commercial setting and stake out the path for future sustainable tourism."

WWF's work spurred Norwegian authorities to launch a new Environmental Act for Svalbard in 2001, further regulating human activities on the islands through a strict management regime. The Arctic tourism principles live on, providing a base for several other local and regional sustainable tourism initiatives.

WWF has also collaborated with the Association of Arctic Expedition Cruise Operators (AECO), working with them to ensure their operations do not help compromise the places they showcase. Founded in 2003, the AECO has 14 members with 20 ships from seven countries, and operates on Svalbard, Jan Mayen and Greenland.

WATCHING FOR THE UMKYS

An innovative project ensures the safety of people living near polar bears, preserves walrus haul-outs and helps researchers gather data.

In the past, the ice never withdrew from the Arctic coast of Chukotka, Russia, says Vlad Kavry, a Chukchi hunter. Then, walruses migrating to the Bering Strait could rest on the ice at any time. But a warming Arctic has forced the walruses ashore in huge groups called haul-outs.

The people of Vankarem consider 1996 the rebirth of the traditional walrus spear hunt. Since then, every year the walruses now come to Cape Vankarem, a short distance from the village of Vankarem. Up to 40,000 walruses may rest along a kilometre of beach.

The return of walruses has created new challenges. When the haul-out is at its fullest, dozens of walruses are trampled, mostly juveniles. When the sea begins to freeze in November and December, large groups of polar bears arrive at the Cape in search of food, coming into conflict with people and threatening the haul-out.

To reduce conflict between bears, people and walruses, the Umky Patrol was developed in 2006 by WWF and the people of Vankarem. "Umky" means "polar bear" in the local Chukchi language. The patrol works to ensure the safety of people living near polar bears, preserve walrus haul-outs and other unique places, and to help local people participate in scientific research on polar bears and other animals.

The Patrols watch for bears, using long sticks to drive them away and avert deadly conflict with humans. In its first field season in 2006, the Patrol, led by Kavry, proved to be highly successful. About 180 bears nearly surrounded the village for several weeks, but neither humans nor bears were harmed. With scientists providing some guidance, local people also used the opportunity to collect important information about the bears.

Today, similar patrols flourish in Canada, the US and Russia. Patrol members around the pole escort children to school and daycare, patrol communities, and conduct workshops to teach people how to store food, stay safe and minimise conflicts and confrontations with bears.

"We are very pleased with the outcome of a bear patrol in the village and the work of Vankarem coordinator Sergei Kavry. It's great that we feel the great support from the district administration, local scientists, regional press and local residents."

Victor Nikiforov
Head, Model Projects Programme, WWF-Russia

Umky Patrol members discourage a group of polar bears from visiting their village.

An Inuk fishing off the rocks at Pond Inlet, Baffin Island, Nunavut, Canada

HEALTHY WILDLIFE, HEALTHY COMMUNITIES

Scientists and Inuit work together to reveal changes in the health of Arctic wildlife.

In 2005, Inuit Elders and hunters living in three Canadian Arctic communities participated in a study alongside researchers out of concern for the increased rate of physical changes they are seeing in the species they rely on.

The Nunavut Wildlife Health Assessment Project (NWHP), conducted by researchers at Trent University in Canada with support from WWF, investigated the health of Arctic species through a variety of assessment techniques, including contaminant analysis, tissue studies, and the documentation of observations by Inuit hunters.

"I believe that more research needs to be done on animals' (health) to keep track of how things are going because country food is what we depend on to live."

Moe Keenainiak, acting executive director of Qikiqtaaluk Wildlife Board

The project's goal: to assess the impact of contaminants on the health of wildlife such as caribou, arctic char, ringed seal, beluga whale, and polar bear.

Polychlorinated biphenyls (PCBs) and DDT, banned for more than twenty years, were found in Arctic wildlife. Mercury, a potent toxic metal that targets the nervous system and brain development, was detected in arctic char, ringed seals, and beluga whales, in some cases at levels that raised concern for regular human consumption.

These results were worrying given the reliance of Inuit communities on "country food" obtained through hunting and fishing—a main source of the Inuit diet. While further research has confirmed that consumption of these local foods does more good than harm, it is important to continue to monitor levels of both old and new contaminants.

The contamination of Arctic wildlife with chemicals, including some still used in industrial and consumer applications, demonstrates the need for stronger health and environmental protection laws in Canada and elsewhere.

GREAT PROTECTED AREAS

When political changes allowed foreign scientists to visit the Russian Arctic in the 1980s, WWF began work on an ambitious network of protected natural reserves in the country's vast north.

Overall, WWF projects have more than doubled the area of natural reserves, parks and Arctic sanctuaries in Russia. Our projects include:

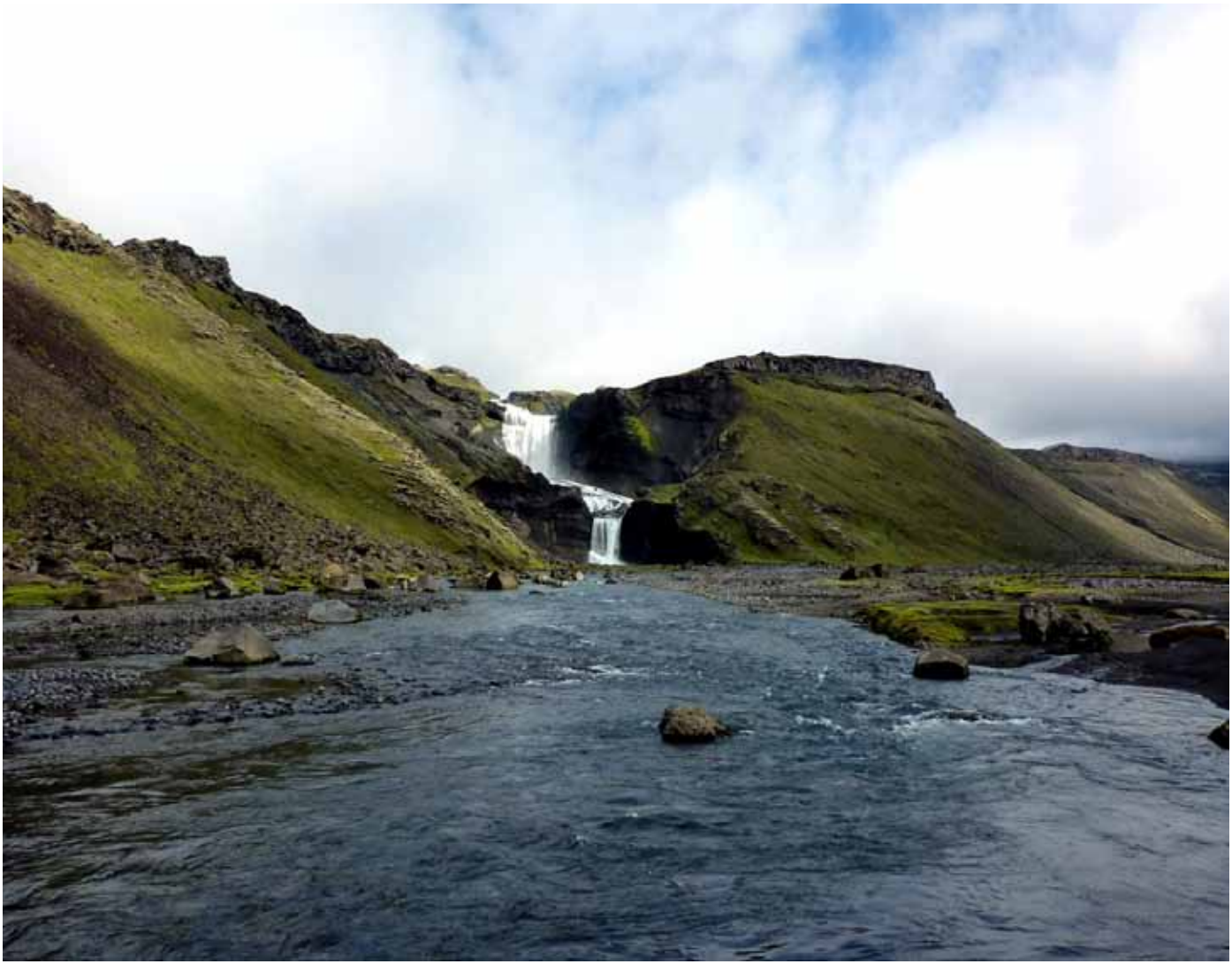
- Creation of the Great Arctic Natural Reserve, the largest in Eurasia and Russia, in 1993
- A network of protected areas in the largest region of the Russian Federation—the Republic of Sakha (Yakutia)—which occupies more than 20 per cent of the country. The state of Yakutia now protects about 80 per cent of all the nesting sites of the Siberian Crane near the Yana and Indigirka rivers—an area of about 35,000 km²
- 8 new protected areas in the Taimyr and Nenets autonomous districts
- Building offices for the Great Arctic and Koryak reserves, staffing the reserves and environmental inspections in Yakutia, and providing Koryakia with radio communications, means of transportation and uniforms
- Wrangel Island and Putorana Plateau's inclusion on the list of UNESCO World Natural Heritage sites—the first area in the Russian Arctic to receive this prestigious status
- Expansion of Taimyr Reserve, and creation of the the Gydansky and the Koryak Reserves

WWF continues to work with federal, regional, and local partners to protect key habitat and prevent illegal harvest of wildlife in the Russian north.

35+
NATURAL PROTECTED AREAS CREATED

370,000
SQUARE KILOMETRES PROTECTED

The rare Ross's Gull nests in the Great Arctic Reserve.



The waterfall Ófærufoss, located in the volcanic fissure Eldgjá. Vatnajökull Glacier National Park was established in June 2008, and covers roughly 13 per cent of Iceland.

SAVING ICELAND'S HIGHLANDS

With WWF's support, the largest national park in Europe became a reality.

In 1997, the Iceland government announced plans for a huge hydropower complex in Eastern Iceland. At stake was Europe's largest remaining wilderness area—15,000 km². The project would have irreparably damaged a rare oasis of highland vegetation—characterized by diverse plant communities and rare geological formations and landscapes—and dammed and diverted glacial rivers. The resulting habitat destruction would have led to the reduction or disappearance of many aquatic species.

The project spurred the creation of the Iceland Nature Conservation Association (INCA), whose goal was to establish a national park in the Icelandic highlands.

Despite the scope of the project and fragility of the landscape, Landsvirkjun (the national power company) and the Icelandic government objected to strong public demands for an environmental impact assessment.

In response to criticism by INCA, supported by the WWF Arctic Programme, the National Power Company was forced to undertake a formal environmental impact assessment. Although the government ultimately overturned the ruling against the project, made by a public institution, the campaign marked a new era of conservation support in the country.

WWF pressure was also key in convincing Icelandic authorities that a park to protect Vatnajökull Glacier, and an associated river and its tributaries would benefit local communities, the national economy and Iceland's image. A new law creating the Vatnajökull National Park was adopted unanimously by the Icelandic Parliament in 2007.

Since then, public support for conservation in Iceland has grown considerably. A 2004 opinion poll showed nearly 70% of Icelanders support a new national park, north of the Vatnajökull Glacier. Likewise, more than 66% were in favour of protecting Jökulsá á Fjöllum, the only glacial river left north of the glacier, previously slated for development. The Icelandic government is now considering a master plan for energy resources and conservation that will call for protection of large and valuable areas in the Highlands.

COUNSELLING THE COUNCIL

WWF is the only circumpolar environmental NGO with an ongoing presence at the Arctic Council.

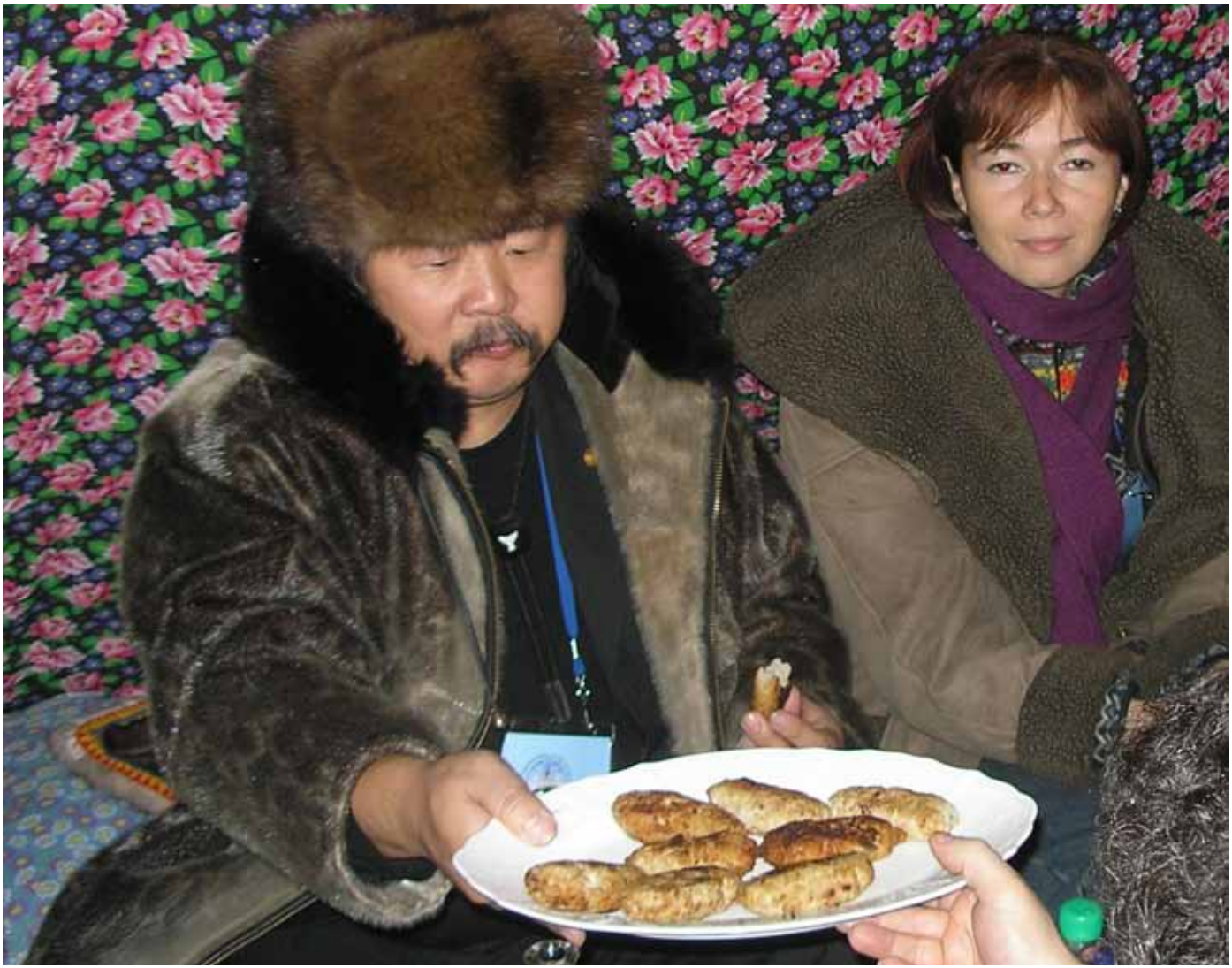
In 2011, the Arctic Council took a momentous step. For the first time in its more than fifteen year existence, the Council went beyond studies and guidelines, and came up with a binding international agreement. "This is not a step forward for the Council—this a great leap forward", said Alexander Shestakov, Director of WWF's Global Arctic Programme. "It proves that leaders around the circumpolar world are capable of working together to meet a common need. The Arctic states will need to make several more such leaps to meet the challenges of an Arctic environment that is facing wrenching physical change, compounded by swift social and economic change."

"[The agreement] proves that leaders around the circumpolar world are capable of working together to meet a common need. "

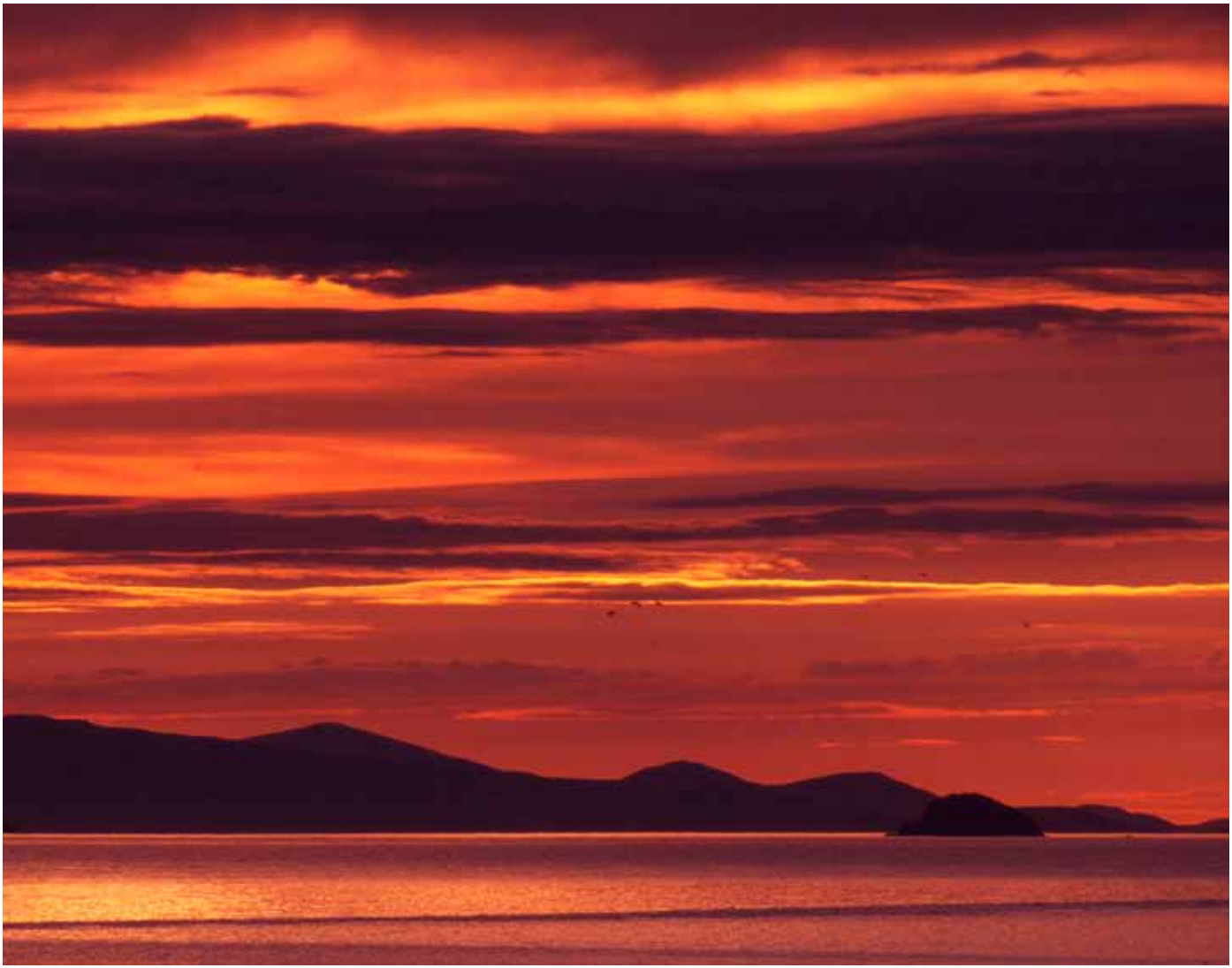
Alexander Shestakov, Director of WWF's Global Arctic Programme

The Council is a sort of mini United Nations for the Arctic, bringing together the eight Arctic states, but also adding international Arctic Indigenous peoples' organizations. When the Council was formed in 1996, WWF was there, and instantly applied to become an official observer, a request that was granted in 1998, making WWF the only circumpolar environmental NGO with an ongoing presence at the Council. In that time, WWF has actively encouraged the Council to strengthen its authority, and has added capacity to the Council's scientific and policy work, and to its ability to reach out to a wider audience. For many years, the WWF quarterly publication, *The Arctic Bulletin* (now *The Circle*) covered Council business and explored associated policy questions. As then Arctic Programme Director Peter Prokosch observed in 1997 "Governments and Indigenous peoples' organisations tell us that our Arctic Bulletin is a leading source of information on the AEPS (Arctic Environmental Protection Strategy, the forerunner of the Arctic Council) and Arctic Council, and that our work helps to promote Arctic environmental interests worldwide."

As an observer, WWF has felt its role should go beyond simply observing, but should also add a distinctive conservation voice to the Council's deliberations. WWF reports aimed at strengthening the work of the Council include a report on oil spill response, an update of the Council's Arctic Climate Impact Assessment, three reports on Arctic governance, outlining governance GAPS, options, and solutions, and most recently, the Rapid Assessment of Circumarctic Ecosystemic Resilience, which is helping inform the Councils own forthcoming report on resilience. On our twentieth anniversary WWF is more involved than ever in the work of the council, participating in several working groups and attending the Senior Arctic Officials and Ministerial meetings, ensuring that a voice for conservation is heard in the ongoing discussion of the Arctic's future.



Indigenous participants at the Arctic Council in a Nenets chum (tent)



Summer sunset over Bristol Bay from Round Island, Alaska

NO OIL IN BRISTOL BAY

A three-year fight to protect Bristol Bay from a planned offshore drilling lease sale paid off.

450
SPECIES OF FISH

25
SPECIES OF MARINE MAMMALS

30
NORTH PACIFIC RIGHT WHALES, THE RAREST WHALE IN THE WORLD

As America's Fish Basket, Bristol Bay's fishery generates $4-5 billion and provides salmon to people around the world. Small villages and towns dot the shore and inland waters of the bay, where many Alaska Natives depend on fishing for commercial and subsistence uses. Bristol Bay is also home to many globally significant wildlife areas, such as Izembek Lagoon, which contains the largest eel grass bed in North America.

An offshore drilling lease sale planned for 2011 spurred WWF and its allies in conservation—local residents, fishing groups and conservation organizations—to speak out on the threat to the bay's abundant fisheries. Soon after taking all the considerations into account, the Obama Administration announced its decision to cancel the lease sale in 2010. Bristol Bay is now under temporary protection until 2017.

WWF's team worked closely with its partners to achieve temporary protection of Bristol Bay, leading the way in making presentations throughout the region, state and in Congress. As an important member of the Fish Basket Coalition, WWF attended fish festivals, potluck dinners, and meetings in Bristol Bay communities to discuss the threats of offshore drilling. On the national front, WWF's Alaska team worked with the Washington, D.C. headquarters to launch a report on the lingering toxic legacy of the Exxon Valdez oil spill and met with many Congressional leaders and decision-makers. The WWF Arctic program also published "The Value of Commercial Fisheries near Bristol Bay, Alaska" in 2011.

The prospect of oil development in these pristine waters continues to concern many in the region, who worry that offshore drilling in Bristol Bay will disrupt important fish and marine mammal habitat and migratory pathways, pollute air and water, and increase the risk of an oil spill like the Deepwater Horizon disaster in Gulf of Mexico in 2010. An oil spill in Bristol Bay could heavily disrupt, if not destroy, the eelgrass beds that provide cover and food for juvenile salmon, and devastate both the habitat and health of many different fish, marine mammals, and seabirds.

The WWF-US Arctic field staff in Alaska will continue to work with its many partners to permanently protect the region from offshore oil development, and are striving to secure a robust, sustainable future of fishing for generations of Alaskan families.

PRESERVING NORWAY'S ARCTIC GEMS

It's been a long political fight to keep the oil industry out of Norway's globally unique marine areas.

The Norwegian archipelagos of Lofoten, Vesterålen and Senja are famous for their mountains, fjords and beaches and the richness of the ecosystem in the sea surrounding the islands.

The area holds unique cold water reefs, pods of sperm whales and killer whales, some of the largest seabird colonies in Europe—and it's the spawning grounds of the largest remaining cod stock in the world.

But the area also holds some of the largest petroleum reserves in Norway, and searching for and producing petroleum present a huge risk to the environment in the area.

Large oil reserves have made Norway one of the world's richest countries. But there is no risk-free oil, particularly in the Arctic. A harsh climate and short, simple food chains make the northern marine environment vulnerable to pollution from chemicals and oil. A large oil spill can cause dramatic impacts on seabirds, marine mammals and fish stocks.

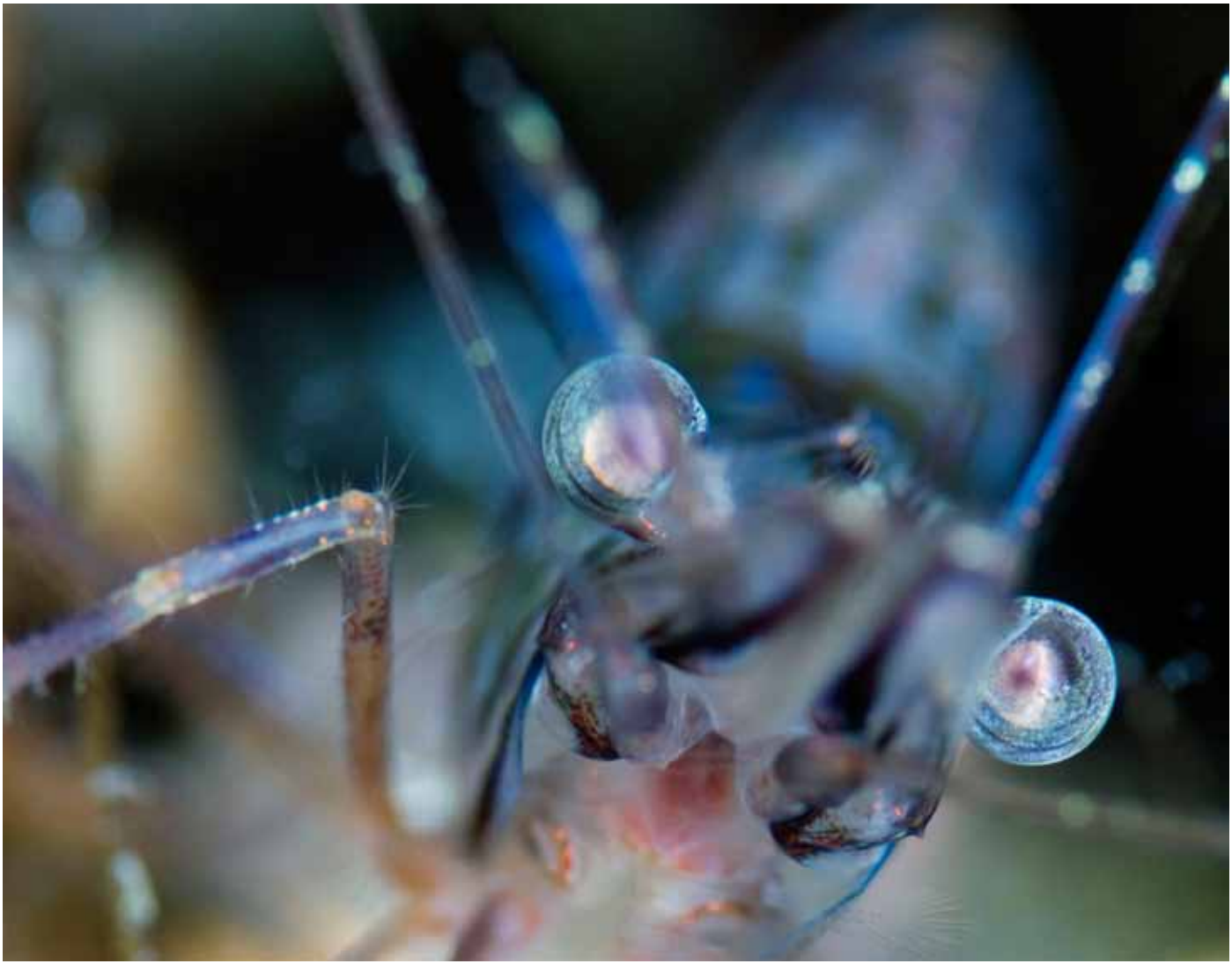
It has been a long political fight to keep the oil-industry out of this unique marine area, and WWF has been campaigning to protect these areas from petroleum exploration since 2003. That year, pressure from WWF, fishermen, and tourist operators, together with deep unease in political and social circles in Norway, forced the government to put a temporary hold on oil drilling in Lofoten.

In 2011, the Norwegian government decided not to undertake an environmental impact assessment in the sea areas outside the Lofoten archipelago—a precursor to oil and gas activities. The decision stands until the next general election in 2013. This shows that the Norwegian government values the concept of particularly valuable and vulnerable areas as a management tool, and it's an important step towards better ecosystem-based management.

WWF is still deeply concerned, however, about the government allowing more petroleum activities in the northernmost areas and new areas in the Barents sea as a compromise. WWF is working to make the waters off Lofoten and Vesterålen permanently petroleum-free.

"Some things are more important than short-term oil and gas profits. It is no longer acceptable to explore for oil in biologically vulnerable and valuable areas. We have seen this happen in the US over the Arctic Refuge and now we have seen it in Lofoten."

Samantha Smith, former Director, Global Arctic Programme



Pink shrimp, Lofoten, Norway

THE ARCTIC OF THE FUTURE

In late May I had the opportunity to visit Murmansk, Russia for the first time.

Murmansk is the largest city north of the Arctic Circle and Russia's only year-round, ice-free port opening directly to ocean waters. Although only founded in the early 20th century, Murmansk has played an extraordinarily important role in Russia's history beginning with the earliest days of the revolution, through the darkest days of World War II and into the tense years when the Soviet Union and the United States faced each other across the North Pole in the contest of wills known as the Cold War.

Bill Eichbaum is the Vice President, Marine and Arctic Policy and the Acting Vice President, US Government Relations for WWF-US.

Since the fall of the Soviet Union, Murmansk—like many other Russian cities far beyond Moscow—has undergone considerable stress and change. This is starkly measured by a roughly 25 percent decline in population to around 300,000 people.

A HOPEFUL FUTURE

But the people of Murmansk and the Russian government envision a very bright future. This was dramatically illustrated while walking through an important public space which was decorated with a large mural depicting an artist's perspective of the city in 2050. The mural showed elegant new high-rise office and apartment buildings with gleaming automobiles and mass transit whizzing through efficient roadways. Dominating all was a vibrant port facility servicing ships bringing products from around the world. This was a stunning and captivating picture of a future, and a stark contrast to the current reality of the city outside my hotel lobby.

This hopeful future for Murmansk and indeed that envisioned by many for the Arctic as a whole can be attributed to two factors. One is the opening up of the Arctic Ocean as global warming causes the eventual decline of sea ice to small remnants. The other is the world economy's insatiable demand for raw natural materials which will increasingly be available as the ice melts. In addition to new access to materials, an ice-free Arctic ocean offers important new lanes for global shipping.

I can appreciate the excitement and anticipation with which many residents of the Arctic look forward to these opportunities. However, part of my heart and my brain wishes there would be no change. I hope that the world will limit its emissions of greenhouse gases and that the Arctic will remain a frozen land of vast seascapes and frozen tundra providing a hospitable home to the unique flora and fauna that have evolved over millennia. And I hope that the people of the north who have evolved a complex lifestyle that depends on and thrives in harmony with that natural world will continue their traditional ways for years to come.

"I can envision a rich, new life for the people of the north."

Unfortunately, another part of my brain tells me that this is not to be. Change is coming and will come even more rapidly to the Arctic. The Arctic warms at about twice the rate of the global average. My choice cannot be to resist change and hold unthinkingly to what has been. Instead I choose to imagine what a vibrant Arctic future can be and will ask how we can ensure that we achieve it.

AN ARCTIC FACING PROFOUND CHANGE

Confronting the need to respond to Arctic change in a positive way provides society for the first time with an opportunity to truly plan for the sustainable future of a vast part of the globe. In order to seize this opportunity however, we need to do things in ways that are a departure from the past. In the past, development has been opportunistic and driven by immediate economic gain—not by long term benefits for human development or sustaining the natural fabric necessary to that development. At all costs we need to avoid the haphazard industrialization that too often characterizes human activity as is the unfortunate case in places like Prudhoe Bay in Alaska which has become the focal point of industrial oil and gas development on the North Slope.

Important principles should guide our actions to achieve this new direction in the Arctic:

- We need to understand the underlying science and traditional knowlege of the region and how its bio-physical processes operate so that we ensure increased human activity and interventions do not disrupt critical sustaining natural functions.
- Development should be carefully planned according to this science while accommodating the full range of human needs and interests in the Arctic. We need to plan for extractive development along with the cultural resources that will enhance the lives of miners and their families.
- We need to ensure that the peoples of the Arctic fully and appropriately participate in decisions and reap the benefits of new economic activity in this region.
- The rich biological resources of the Arctic must be afforded every opportunity to survive through the coming decades which will inevitably be a period of intense stress. Strong standards for economic and human development activities are essential along with protecting certain areas which are especially unique, fragile or otherwise important for the wild world.
- Governments, civil society and economic interests will have to collaborate in new and innovative ways to develop a shared process in deciding how to move into the future in ways that respond to these principles and benefit the people living in the Arctic today and their future generations.

Therefore I do not cling to a future Arctic frozen in the image of the Arctic found by either the Indigenous peoples thousands of years ago or western scientists a hundred years ago. I see an Arctic facing profound change. But within that change I can imagine the vibrant city imagined by the people of Murmansk. I can envision a rich, new life for the people of the north including social and material advances grounded in traditional values. And I can have hope that the wildlife of the north will have an opportunity to thrive in those special and unique places in the Arctic.

CURRENT WWF PROJECTS IN THE ARCTIC

From past to present: The twenty years of the Arctic Programme, and the work by WWF offices before the programme existed have built a solid base for WWF's Arctic work. This map provides a sampling of the reach and diversity of WWF's current Arctic projects.

PROTECTED AREAS

7. WWF continues its work on a protected areas strategy in northern Canada, working with local people and governments to create parks.

13. WWF has been been working with a coalition to bring permanent protection from industrial development to Bristol Bay. This area is referred to as America's "fishbasket" because of the value of the fisheries there.

21. WWF has helped establish many protected areas in Russia, including the recently announced "polar bear park" on Novaya Zemlya.

24. WWF is working on the creation of two national parks in Russia: “Onezhskoe Pomor’e” and “Beringiya”.

CONSERVATION

2. Reducing polar bear/human conflict: WWF has helped supply polar-bear proof fences and food bins to keep them away from conflict with local people.

9. WWF has developed a species plan for Arctic whales: bowhead, narwhal, and beluga are designated as priority species by our Arctic Programme.

11. The Umky Patrol (polar bear patrol) - WWF supports Chukchi villages in their efforts to use non-lethal methods of keeping polar bears at a safe distance. The patrols have also been protecting walrus that have been showing up on shore in record numbers.

12. WWF addresses the protection of polar bears at the international, national and local levels. Internationally, we facilitate cross-border information exchanges in support of the U.S.- Russia Agreement on the Conservation and Management of the Alaska-Chukotka Polar Bear Population.

15. Brown bear conservation and improving management in protected areas are priorities for WWF in Kamchatka.

18. WWF is developing an Arctic-wide conservation plan for wild reindeer and caribou.

25. WWF is working with Saami to explore ways of reducing future cumulative impacts of different pressures (eg. mining, wind power, forestry, tourism and large carnivores) on reindeer herding in Sweden.

SUSTAINABLE USE

6. The WWF office in Inuvik is taking part in a ground-breaking marine spatial planning exercise, along with local people and government.

17. WWF has engaged international experts to advise on how the Arctic Ocean might be better regulated.

RESEARCH

1. WWF supports research on polar bears in western Hudson Bay—this population is showing signs of stress as climate change eats away at the summer sea ice the bears need.

20. WWF is supporting Norwegian scientists on Svalbard who are researching the local polar bear population.

FISHERIES

4. WWF is advising Greenland on sustainability of its fisheries.

10. WWF advocates for improved fishing practices in the Bering Sea, such as the reduction of salmon bycatch in the US pollock fishery and the use of streamer lines in the Russian long line fishery to reduce seabird bycatch.

16. WWF works in Kamchatka with local residents and fishing businesses to promote the sustainability of salmon fishing. We are also advocating for an end to drift-net fishing and the resulting wasteful bycatch, and fighting illegal fishing.

23. With WWF support, fishing companies representing about 20% of the Barents Sea cod and haddock harvest are beginning the process of certification against Marine Stewardship Council principles.

SHIPPING

14. As the Arctic sea ice diminishes, shipping through the Bering Sea will increase. In the Aleutian Islands, WWF has participated in the design and implementation of a shipping risk assessment and further north, we are beginning to work with local partners to research measures to protect marine resources from the threat of shipwrecks and related oil spills, invasive species, ship strikes, and pollution.

19. WWF is making representations to the International Maritime Organization on a Polar Code to ensure a stringent set of rules to govern the increasing Arctic shipping.

OIL

8. WWF has presented to a Canadian government inquiry on regulating offshore oil drilling in the Arctic.

22. WWF's Barents Sea office tackles a variety of issues in the Barents and Kara Seas, including opposing oil drilling plans in places where there is not enough information on the impacts of a spill.

26. WWF is working in Norway to make areas such as Lofoten permanently off limits to oil drilling, because of the natural values of the region, and the economic value of the local fishery.

GLOBAL WARMING

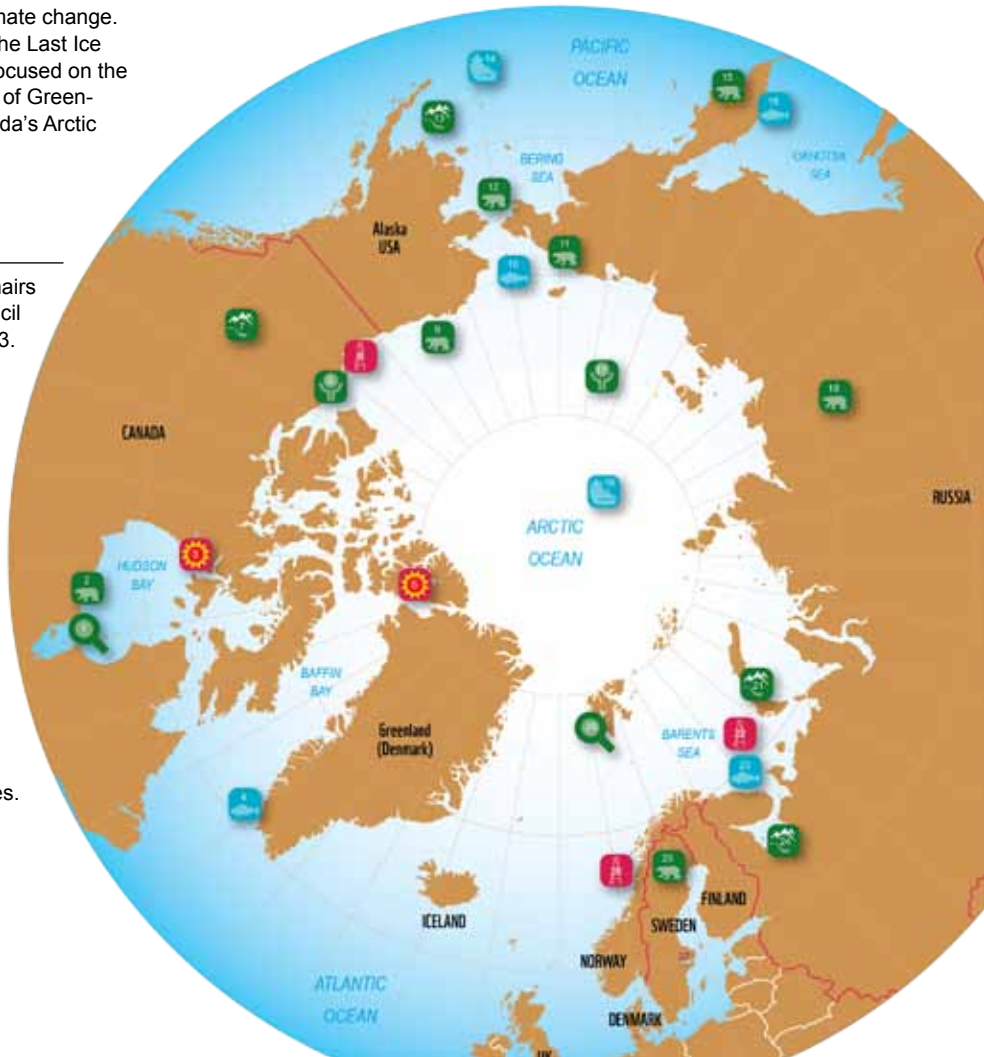
3. WWF supports scientific work to investigate the effects of climate change in the Arctic.

5. WWF is working around the Arctic on a project to define what areas are best placed to cope with the coming level of climate change. This includes the Last Ice Area project, focused on the northern coast of Greenland and Canada's Arctic archipelago.

OTHER

27. Sweden chairs the Arctic council from 2011-2013. WWF is an official observer at the council, and contributes to the council's work in promoting sustainability, conducting research, and in providing direction to minimize environmental damage from human activities.

28. WWF also works outside the Arctic on Arctic issues: we were part of a group that recently presented the British government with ideas for a set of principles that could govern the work of the UK government, and UK companies in the Arctic.



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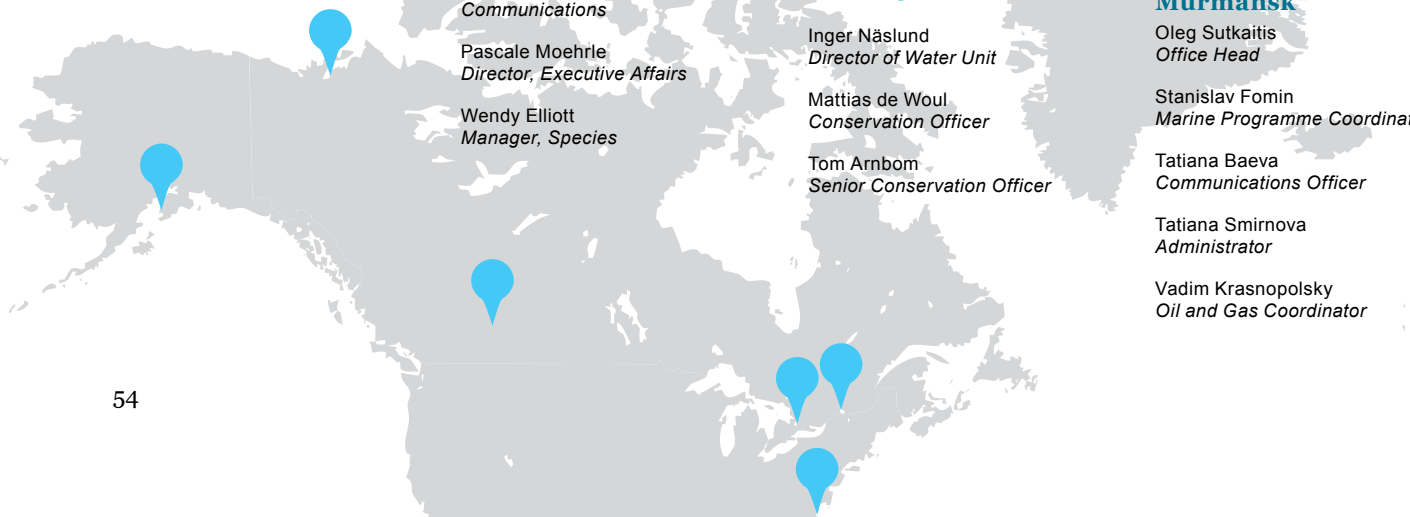

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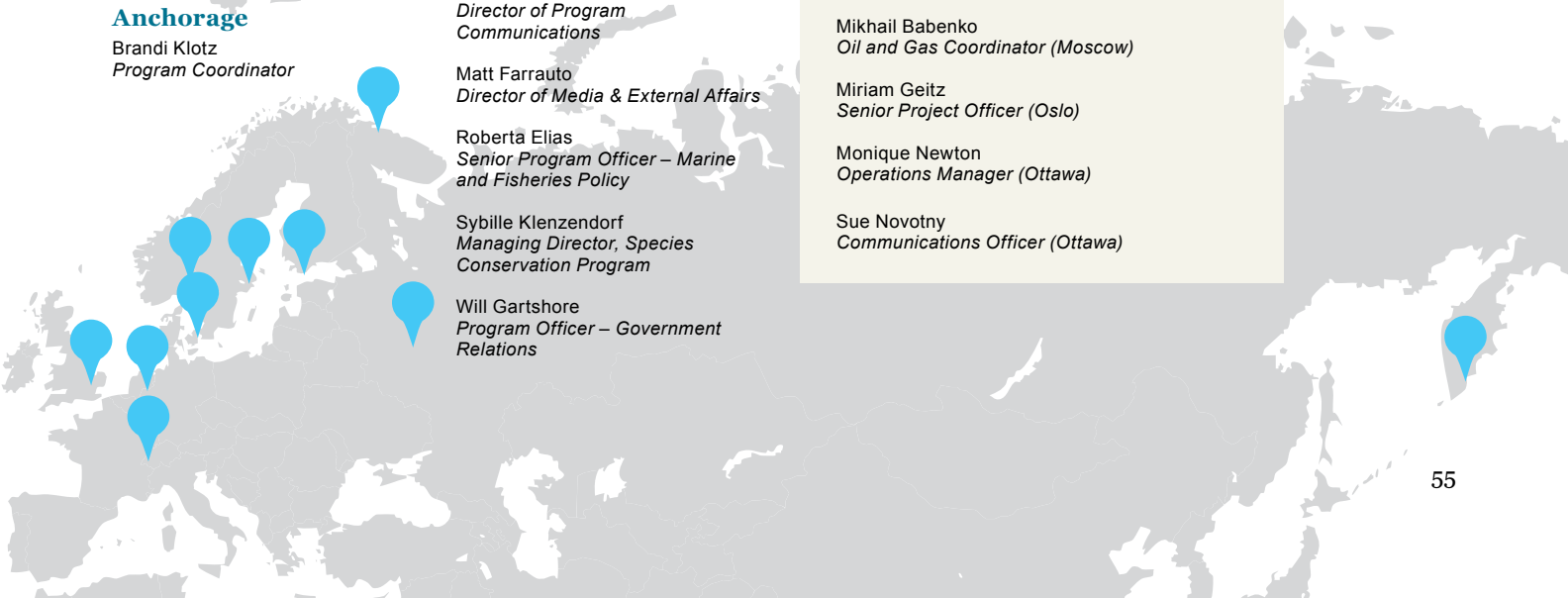

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WWF is in over 100 countries, on 5 continents

+5 M

WWF has over 5 million supporters globally

1992

The Global Arctic Programme celebrates its 20th anniversary in 2012

13

WWF has 13 offices in 7 Arctic countries

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Why we are here.
We are creating solutions to the most serious conservation challenges facing our planet, helping people and nature thrive.

panda.org/arctic