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Protected area boost for Svalbard p. 4, 11–13

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Festningen – "the Fortress" is a newly protected geological formation on Svalbard.
Photo: Stefan Norris.

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Editorial

Conservation First: achieving sustainable development in the Arctic

In October, representatives of arctic countries, indigenous peoples' organisations and observers met in Iceland to discuss an action plan for sustainable development. WWF was there, and asked them to consider this important question:

What is sustainable development in a region where economic development depends almost entirely on natural resource use?

Right now, political and community leaders still can choose how to answer this question.

The Arctic is in large part a frontier region, with vast tracts of land and sea that are mostly untouched by large-scale industrial development. Seven of the ten largest unfragmented areas on Earth are found here. Arctic fisheries are among the world's largest and most valuable, with the Bering Sea alone accounting for two to five percent of the world's total fishery production. Northern Canada is home to the world's largest unfragmented boreal forests. Arctic wildlife is still found in close to its natural ranges and numbers.

Harvest and sustainable use of these intact ecosystems bring wealth and sustenance to local communities and contribute significantly to national economies. For example, the largest single source of export income in Greenland is deep-water shrimp. Tourism is a significant source of income in several parts of the Arctic, including Alaska, Iceland, and Norway.

But the Arctic also holds some of the world's largest known reserves of oil and gas, precious metals, and other minerals. Large-scale exploitation of these resources, with the accompanying growth of infrastructure and industry, provides local and national economic benefits. Industrial development, however, also poses serious threats to the cultural heritage and environment of the Arctic, and to the renewable resources that will help sustain future generations.

With the current pace of and approach to industrial development, the Arctic will lose its intact ecosystems – and the ability to choose to maintain them – within a generation. Non-renewable resources are being exploited at an increasing rate. As a result, industry, infrastructure, and significant habitat destruction and disturbance are already a fact in parts of the region.

WWF doesn't pretend to have all the answers. But we think we know what the answer isn't. It isn't following the example of the industrialised regions to the south, where unplanned and unlimited development has decimated renewable resources such as fisheries, forests, freshwater and wild species.

So what is sustainable development in the Arctic? WWF's starting point is the Brundtland Commission's famous statement that "[F]or development to be sustainable it must meet the needs of the present without compromising the ability of future generations to meet their needs." In the Arctic, a good deal of the ability of future generations to meet their needs depends on a healthy environment and ample access to renewable natural resources – fish, animals, plants, clean air and water, and not least space.

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Based on these ideas, we'd like to propose a simple and uniquely arctic solution: Conservation First. Conservation First means protecting the unique qualities of the Arctic, such as space, wildlife, wildlife habitat, and freshwater, before industrial development begins. It means there should be no new or expanded large-scale industrial development across the region where development is planned until a network of areas of high conservation value and cultural significance are identified and protected.

Using Conservation First will safeguard important cultural and wildlife areas from industrial development for the long term. It will also provide planning certainty and predictability for communities, investors, developers, government, and other stakeholders. Once protection has taken place, development can proceed in a conscious fashion, with controls on pollution and unnecessary habitat disturbance.

The principle of protecting land and sea in the Arctic is not new. Arctic countries have committed individually, multi-laterally, and internationally to protecting areas, resources, and ecosystem functions. In particular, the arctic nations have agreed to create a circumpolar protected areas, network – CPAN. CPAN's goals are to maintain the biodiversity of the Arctic region, represent the widest variety of arctic ecosystems possible, contribute to maintaining viable populations of all arctic species, and maintain ecological and evolutionary processes. Through committing to CPAN, the arctic nations emphasised the necessity of networks of protected areas for long term safeguarding of the Arctic's cultural, socio-economic and ecological integrity.

Despite these commitments, governments have yet to move from promises to implementation. In the majority of the arctic countries, the sizes and types of existing protected areas are inadequate to safeguard biodiversity and traditional lifestyles.

Implementing Conservation First now would be a direct deliverable to major national, regional and international commitments. By adopting proactive conservation principles, combined with careful planning of development, the Arctic can still be a leading example of sustainable development in practice.

New protected areas for Svalbard

Svalbard is on course to become one of the best managed wilderness areas in the world.

This autumn the Norwegian Government announced the creation of five new protected areas on the arctic archipelago and now also looks set to extend the islands' protected areas up to 12 nautical miles out to sea.

Under current regulations, the seas around reserves are only protected up to four nautical miles from the coast.

The new protected land areas cover a total area of 4,449 square kilometres, or eight percent of Svalbard's land area.

It is the most extensive establishment of protected areas in Norway since 1973 when the original five large protected areas of Svalbard were established. The original protected areas cover 57 percent of Svalbard, but do not include the most biologically important tundra areas of the archipelago.

The new protected areas include the valley of Reindalen, midway between the Norwegian settlements Longyearbyen and Svea, and Hopen Island in the south-east corner of the archipelago.

Reindalen is the largest single area of continuous rich tundra vegetation on Svalbard, while Hopen Island is an important area for the populations of polar bears and walrus, and has some of the largest seabird colonies on Svalbard.

"The level of protection has now been brought in line with our ambitious aim to preserve this unique Arctic wilderness areas for the benefit of present and future generations," said the Norwegian Minister for the Environment, Borge Brende.

"The new protected areas will ensure that the full diversity of natural habitats and landscapes on Svalbard are represented within protected areas.

"Norway has a moral as well as a legal commitment to save the natural heritage of Svalbard," said Mr. Brende.

More on the protected areas on page 11 and page 24.

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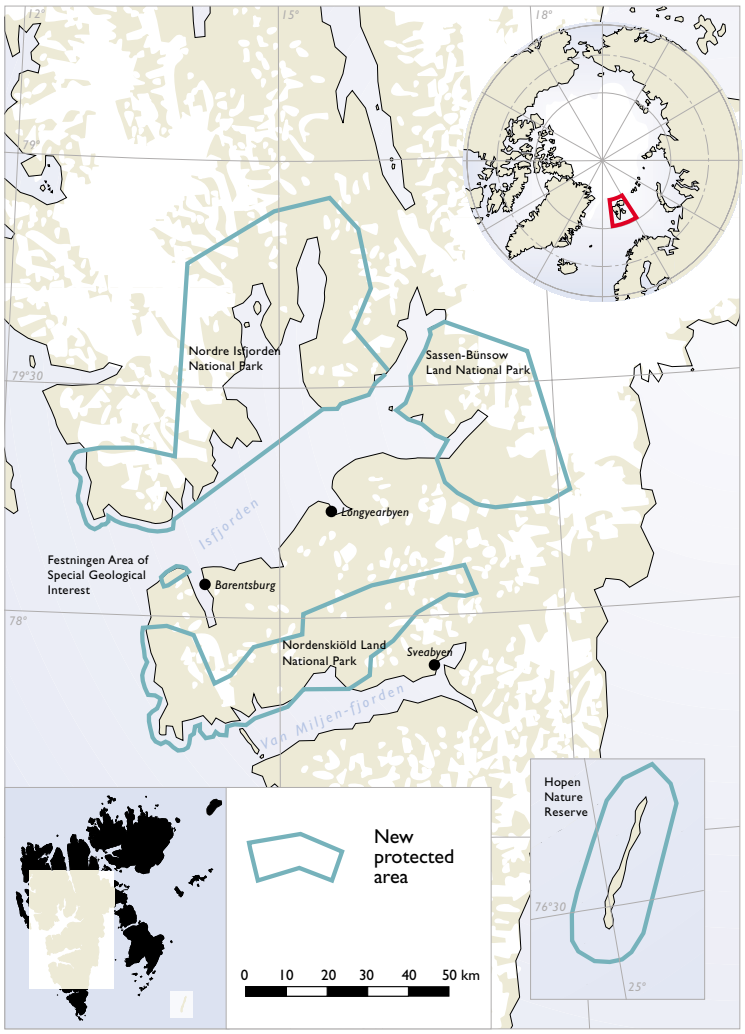


Based on information from the Norwegian Polar Institute

Photo: Stefan Norris

Kittiwake

Photo: Rebecca L. Grambo

A resting bear enjoys the evening light.

Canada's latest national park

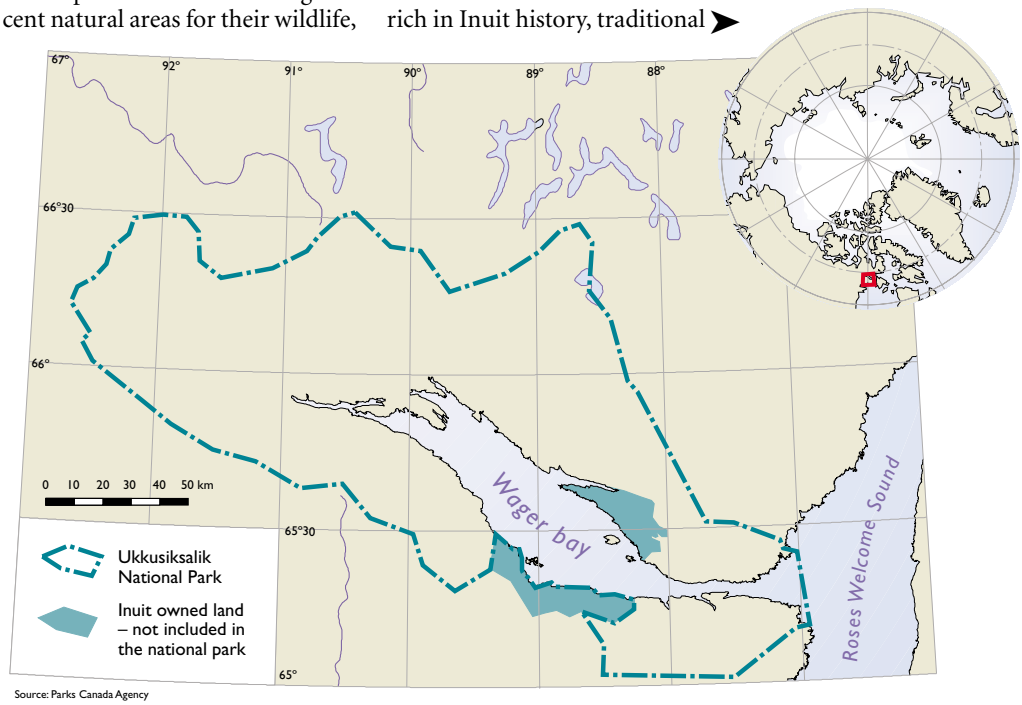
The Canadian Government announced the creation of its 41st national park in August. The 20,500 square-kilometer Ukkusiksalik National Park in the Kivallik region, just south of Repulse Bay and the Arctic Circle, is home to polar bears, caribou, arctic foxes and wolves, and 125 species of bird.

The heart of the park is Wager Bay, a 100-kilometre long inland sea that extends west from Hudson Bay.

"Protecting this spectacular area is of huge importance for wildlife, natural ecosystems and for local people – both now and into the future," said Dr. Peter Ewins, WWF-Canada's Director of Arctic Conservation. "It is vital to complete a network of such protected areas while we still have the opportunity, ahead of major industrial development.

"We welcome the Canadian Prime Minister's personal appreciation of the north," added Ewins. "It has helped set aside some magnificent natural areas for their wildlife, scenic and cultural values."

This extensive area of tundra, freshwater and marine habitats is rich in Inuit history, traditional ➤



Source: Parks Canada Agency

Photo: Rebecca L. Grambo

The remains of an Inuit tent ring.

➤ hunting areas and healthy wildlife populations. Protecting this area for subsistence hunting and ecotourism opportunities is a fundamental step in helping to achieve a well-balanced future for Nunavut, he said.

WWF-Canada strongly supports the 'Conservation First' approach traditionally taken by Canada's aboriginal peoples, so that prior to industrial development, an adequate network of key cultural and ecological areas is withdrawn from industrial development, thereby protecting these critical values for future generations.

"Ukkusiksalik National Park will play a very significant part in this future network of protected areas," said Ewins. "It will help to balance the regional impacts of mining and other development on the cultural, landscape and ecological values of these intact northern ecosystems."

Reflecting general agreement on the importance of protecting a sample of Canada's natural ecosystems and natural regions, in 1992 the federal, provincial and territorial governments committed to establish a representative network of protected areas in all of Canada's 486 natural regions by 2000. At present, this network is less than half completed.

In October 2002, the federal government – along with most other nations – committed to establish, by 2012, a representative network of marine protected areas in Canada's oceans.

"Although the job of completing this network of terrestrial, freshwater and marine protected areas is far from complete," said Ewins, "the establishment of Ukkusiksalik is a major step forward. WWF looks forward to quick completion of Canada's terrestrial national parks network, and to working with all partners to help meet the 2012 marine protected areas goal for Canada's 76 marine natural regions. Canada has the longest coastline of any nation, and Nunavut has nearly two-thirds of Canada's coastlines, but there are, as yet, no marine protected areas in the territory."

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Cool response to Shell and miners' World

Shell's recent announcement that it will avoid drilling for oil in natural World Heritage sites has met with a lukewarm reception from WWF.

Only 149 properties on the World Heritage List are natural, with the bulk cultural sites. Major sites of oil interest, like the controversial Arctic National Wildlife Refuge, are not on the list.

"Certainly it's positive that Shell is putting some areas – any areas – off limits. Until now the oil industry has taken the approach that all areas should be open for exploration and development," said Samantha Smith, director of WWF's Arctic Programme.

"At the same time, the impact of this decision on the environment is minimal. We urge Shell to show greater leadership and agree to stay out of protected areas in IUCN categories I–IV, and I–VI in marine environments, particularly national parks."

The news followed a similar announcement by 15 of the world's largest metal miners and producers who have also said they will not operate in World Heritage sites.

Polar bears focus of population study

A new research project to estimate the population size of polar bears in western Hudson Bay, Canada is being part-funded by WWF. The project will also study bears' condition.

The research, led by internationally-known polar bear scientists Ian Stirling and Nick Lunn, will set out to determine whether observed changes in condition and reproduction of polar bears have resulted in changes in population size.

Knowledge of both population size and trends are necessary for the conservation of polar bears. The last estimate for the western Hudson Bay population was made in 1997 when 1,200 bears were counted. This figure may now be out of date.

The study will also look at whether changes in body condition and reproduction are related to climatic warming.

The first fieldwork for the project took place in September and will help provide long-term monitoring data on the effects of warming temperatures and earlier ice break-up on the condition and reproduction of polar bears in western Hudson Bay.

Declines in body condition of polar bears over the past two decades have already been documented for this population and attributed to progressively earlier break-up of sea ice as a result of climatic warming.

When the ice breaks up, polar bears can no longer catch seals because they need the ice as a platform to hunt from. The trend towards earlier break-up of sea ice in western Hudson Bay is continuing.

Recent analysis by other scientists has shown that the perennial sea ice cover in the Arctic has been declining at a rate of nine per cent per decade from 1978 to 2000, a change that strongly correlated with increasing air temperatures.

Because the presence of sea ice is critical to polar bears, diminished ice cover and progressively longer ice-free periods in summer and autumn will have profound negative effects on the ability of polar bear populations to sustain themselves. This is particularly true for populations at the southern limits of their range, such as those in Hudson Bay which is already ice-free for at least four months of the year, during which time the polar bears much live on their stored fat reserves.

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Photo: Lynn Rosentrater

Scientists at work in Hudson Bay.

Heritage pledge

The International Council on Mining and Metals (ICMM) said its members recognised the role of properly designated and managed protected areas in conservation strategies and the importance of national and global protected areas.

"The mining industry's commitment not to operate in World Heritage sites is a small but positive first step forward for an industry with a bad reputation on environmental matters," said Smith.

"Unlike Shell this agreement actually has some teeth, as the industry is currently operating in several World Heritage sites."

A bigger issue for the Arctic is how the mining and oil and gas industries will approach development in this environmentally sensitive region.

Many of the most sensitive and valuable arctic areas have no protected status, particularly in the marine environment. At the same time there is growing interest in exploiting arctic mineral resources, as witnessed by the recent wave of investments in the region by oil and gas companies.

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Iceland's headache

Environmentalists remain concerned about Iceland's biggest dam project ever, involving three large dams – the largest 190 metres high – and a 57 - square kilometre reservoir.

The controversial project, which will supply electricity to an aluminium smelter built by Alcoa, is being built in a previously undisturbed area in the East Icelandic highlands and will fundamentally effect the fragile environment of the area.

Five hundred nesting sites of the pink-footed goose will be flooded and Iceland's only reindeer herd is likely to diminish. Wetlands downstream are also likely to be impacted, but according to independent studies, the economic benefits of the project are not clear cut.

Despite protests from WWF and other NGOs, and a ruling from the Icelandic planning agency against the dam, the project received the go-ahead from the Icelandic government earlier this year and construction has begun.

When a WWF team visited the dam site in late August, the disturbance was already apparent. Lorries roar up and down a new road in what was previously a tranquil and undisturbed arctic landscape. Gravel pits and camps for construction workers near the site to be flooded look like ugly scars and several years of construction work lie ahead before the flooding of the area in 2006.

While the battle to preserve this area from destruction has been lost, WWF is now focusing on achieving protection for the still undisturbed parts of the highlands, including one of the remaining unregulated glacial rivers, Jökulsa à Fjöllum.

This river also has hydropower potential but development would endanger the Jökulsárgljúfur national park.

On their visit to Iceland, Dr Ute Collier, WWF's Dams Initiative Leader and Samantha Smith, Director of WWF's Arctic Programme, met with the Icelandic environment minister, officials of the Icelandic environment agency and representatives from the electricity company Landsvirkjun and Alcoa to discuss the potential impacts of the Kárahnjúkar dam project.

WWF is urging the Icelandic government to designate a new national park and two Ramsar sites, to protect the area of the Eastern Icelandic highlands unaffected by the dam.

The Goverment has established a committee to examine this question.

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Erosion at dam site.

Beringia – bridge of friendship

Once united by a massive land bridge, the people of Chukotka and Alaska today have to cross the Bering Strait – and the dateline – to meet and discuss their common natural and cultural heritage.

And that's what they did this year at the eighth annual Beringia Days conference organised by the US National Park Service's Alaskan division. It was the first time the event was hosted in Chukotka.

Around 100 delegates signed up for the three-day conference, which was held from September 18th to 20th in Anadyr, Chukotka's capital.

Experts from both sides of the Bering Strait and from other parts of the Arctic gave presentations on Beringia region's natural and cultural heritage.

Special focus was given to the topics of tourism development, traditional lifestyles and the future joint Beringia International Park.

WWF's Arctic Programme gave presentations on tourism in the Arctic and WWF's Bering Sea Ecoregion team on protected areas. Plans are afoot for a new airport in Anadyr, which could see international flights –and a rise in the number of tourists visiting Chutkotka – from Alaska and Japan.

Inspired by vivid traditional dances and songs by one of Chukotka's most prominent traditional performance groups, and through presentations and engaging discussions, delegates were clear that there is a desire for a united vision of the future in this region.

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Photo: Stefan Norris

Eider nesting.

Greenland Government ignores own scientists

Greenland's Brünnich's guillemot and eider are threatened by new Government proposals which allow hunting during the breeding season.

In the last issue of the *Arctic Bulletin* we published a report on Greenland's wildlife management: *Greenland government's u-turn on hunting.*

Since then new and disturbing information has come to the attention of WWF Denmark.

In the piece in the last issue, the authors said that "A colony in Uummannaq in Northwest Greenland declined from 500,000 breeding guillemot to a meagre 10,000 over the past 60 years". This wasn't accurate. In fact, guillemots in Uummannaq are extinct. In 1949, the colony at the small island of Salleq near Uummannaq town had 150,000 breeding birds but that has now vanished.

The numbers given in the previous article referred to an area south of Uummannaq, from Upernavik to the Disco Bay. Here the guillemot population has declined from 500,000 to 10,000 in the last 60 years.

Since the 1930s, 16 breeding colonies of guillemot have become extinct. Today 21 colonies remain in west Greenland and two in east Greenland. The total breeding population has fallen by nearly 50 percent.

In spite of this, Greenland's Home Rule Government has put forward a proposal which will allow hunting well into the breeding season in the most sensitive areas from Disco Bay northwards.

In 2000, the Home Rule's own biological advisors recommended that all guillemot hunting should end on February 15 throughout Greenland. They even said that guillemots should be protected completely from Disco Bay ➤

➤ northwards. The biologists also recommended that guillemot kills should be reduced by 60 percent to protect the current population from further decline.

The current bird legislation proposal will permit hunting between Disco Bay and Thule until May 31.

As these recommendations have been ignored by Greenland's politicians, the future for guillemots does not seem bright.

Another bird under pressure in Greenland is the common eider. A recent study published in 2002 by the Greenlandic Institute for Natural Resources showed that major parts of the west Greenlandic eider population have undergone a rapid decline with an annual loss of four percent. This is an overall decline of 80 percent in the last 40 years. In southern Greenland, there are no significant eider colonies.

This information also seems to have been ignored by the Greenlandic government. The current Bird proposal will, if enforced, allow hunting in southern Greenland until April 30, until May 31 in Disco Bay and north to Thule and in East Greenland, and until June 15 in the Thule area.

In 2000, the Home Rule's biologists said that the breeding season – at a minimum – should be considered as starting from May 1. However, eiders begin their courtship and breeding preparations well before that date.

WWF-Denmark has collected detailed hunting statistics from the Greenland Home Rule Government. They show disturbingly high levels of hunting on pre–breeding and breeding eiders.

On average some 77,000 eiders are hunted annually in Greenland. However several studies indicate serious under-reporting.

Of all hunted eiders around ten to 12 per cent are hunted in March, 11 percent are hunted in April and 11 per cent in May. From early October until early March, up to 90 percent of eiders in southern Greenland are Canadian migrants. Outside these months the birds are from Greenland's breeding population. Hunting is therefore extremely harmful.

Around four percent of eiders – around 3,200 birds – are killed during the breeding season from June to August even though they are protected then. The number of police cases investigating this type of wildlife crime in Greenland is minimal.

A very high loss of eggs is a serious problem in some areas. In one study around 25 percent of eider eggs were lost due to either illegal egging or natural egg predation.

At the beginning of September, the political situation in Greenland took a new turn as the Government coalition of the two parties, Siumut and Atassut, broke down. Negotiations to form a new coalition – the fifth in 20 months – have resulted in a new government consisting of two political parties, Siumut and Inuit Ataqatigiit. It is difficult to predict how the new coalition will deal with the bird proposal.

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Environmental ministers on Svalbard

This summer polar bears wandering the bleak coasts of Svalbard in the Norwegian Arctic were treated to a unique sight; nine environmental ministers from around the world, as well as the head of United Nations Environment Programme, in bright orange survival suits, trudging knee-deep through icy waters.

They were there by invitation of the Norwegian Minister of Environment Børge Brende, who had challenged them to join this icy field-trip.

There was no formal agenda. Instead the venue chosen for meetings was the great outdoors and the themes discussed covered the full range of global environmental topics from climate change and poverty, to over-harvesting and resource exploitation.

The visitors were guided by specialists in various fields, and services and logistics were provided by the Norwegian Polar Institute.

Brende took over the prestigious position of head of the UN Commission on Sustainable Development in May 2003. He knows that in order to be able to make any headway on global environmental issues given the challenges of developing countries and lack of support from the USA and other developed countries, friends in high places are essential.

Sharing small, simple quarters on a research ship, climbing glaciers and rocky peaks, and enjoying hot soup and refreshing drinks under the arctic midnight sun tends to bring people closer together.

His guests included environmental ministers, or there equivalents, from USA, China, Russia, UK, Canada, South Africa, Sweden, Denmark and Iceland, as well as Claus Töpfer, the executive Director of UNEP.

"Svalbard was like a spectacular classroom for us, and was the perfect setting for discussing the world's environmental challenges," Brende said. A clear highlight for visitors from further south was experiencing being out on the sea ice itself. This, coupled with discussions on the consequences to this ecosystem of current global warming trends, was a real eye-opener for the ministers, several of whom are now returning to domestic discussions on ratification and follow-up of the Kyoto climate treaty.

Having now seen the scope of cruise tourism first hand, Brende commended WWF for work the organisation has done on developing guidelines and codes of conduct for arctic tourism, and specifically for work WWF does on strengthening the environmental standards of cruise ships visiting Svalbard.

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Stefan Norris, **WWF Arctic Programme's head of conservation, looks back down the long road towards the creation of Svalbards' newest protected areas.**

Dogsledding in Reindalen – now a national park.

Photo: Stefan Norris

Svalbard – one of the world's best managed wildernesses?

The creation of five new protected areas on Svalbard marks the end of a long political and bureaucratic process dating back to the early 1990s.

In 1996 the Norwegian government published a White Paper on Svalbard which assessed the representativeness of the existing protected areas on the islands. This was the same White Paper in which the government stated that Svalbard was to be one of the best-managed wilderness areas in the world.

The 1973 protections secured mainly remote, unproductive land, consisting mainly of ice, snow and bare rocks. These were relatively easy to establish, in a political sense, as there was little conflicting interest. There were no active mining operations in the area in question, and they were far from settlements.

The new protected areas, on the other hand, were identified and selected based on a scientific analysis of nature types representative for Svalbard's land areas. Nature types underrepresented by the existing protected areas were then selected as candidate areas.

These were primarily biologically rich lowland areas, valleys, mires, coastal areas, and some geological formations. In addition, areas that are particularly important breeding, feeding, moulting or resting habitats for arctic animals were identified.

A prioritised selection of the areas in need of protection, with broad presentations of the ➤

Bearded seal in Isfjorden – the northern part is now a national park.

Photos: Stefan Norris

➤ case for protecting each one, was sent out for consultation with all stakeholders in 2000.

The resulting consultation process engaged local groups, businesses, international commercial interests, scientists, government agencies and environmental NGOs such as WWF.

The main opposition to the proposals came from the local Norwegian and Russian coal mining interests, although both the tourist industry and science community voiced concern over potential restrictions, as did oil and gas interests and local hunters and trappers.

The protection of the large, lush Reindalen valley – the largest, unfragmented ice-free lowland area on Svalbard, which contains the biologically rich Stormyra marsh ecosystem – was the most heavily discussed on the Norwegian side. For environmentalists it was the prime candidate area. For the mining industry it was a potential site for expansion of the large Svea mine complex.

Underlying the coal mining interest in blocking protection of Reindalen was the fact that such a protection would effectively stop any possibility of building a road between the two main Norwegian mining settlements, Svea and Longyearbyen, a project for which the mining interests have been lobbying for years.

WWF has been campaigning against this development for as long, since this would – literally – pave the way for fragmentation of Svalbard's continuous wilderness areas.

On the Russian side there was conflict over the proposed Coles Valley (Colesdalen) plant protection area. The Russians are planning to expand mining to this area. After the Russian president Putin himself took this case up with the Norwegian prime minister earlier this year, this candidate area was removed from the overall plan.

Discussions are now taking place with the Russians with the goal of securing protection of the unique flora of the valley by introducing local routines and safeguards. Coles Valley is thus the only area presented in the original plan that has not been protected in the process.

Hopen Island at the south-east corner of the archipelago, has now been secured as a nature reserve – the strictest form of protection in Norway. Hopen is one of the most important denning sites for the Barents Sea polar bear population, as well as an important breeding area for sea birds.

In the final phases of the stakeholder consultations regarding the protected areas plan, it became clear that the Norwegian Oil Directorate, as well as at least one oil exploration company, had interests in blocking the protection of Hopen and were lobbying to undermine the plans.

They saw the island as an interesting and useful site for oil and gas infrastructure if and when the northern Barents Sea was opened for development.

WWF exposed these tactics in the media, and held them up against the Norwegian Ministry of Oil and Energy's stated policy that oil and gas exploration in the northern Barents Sea is out of the question and not at all on their agenda.

The pressure created by this exposure, as well as WWF's repeated pleas to the Ministry of Environment not to postpone the Svalbard nature protection process, as this would allow commercial stakeholders time to establish claims in the areas, is said to have been key in getting the royal decree declaring protection now in September.

WWF Norway and WWF's Arctic Programme have worked on this issue since 1996, when the mandate was given to analyse gaps in the protected areas network of Svalbard.

WWF supported a successful NGO campaign to stop the road that would have connected the two mining settlements of Longyearbyen and Svea in the mid-1990s. This road would have traversed Reindalen, which has now been protected as a national park, and effectively split it in two.

WWF also ran a campaign in the late 1990s to protect all of Svalbard as one national park. This campaign was not successful, but with the creation of the five new areas, the goal is not so far

The new protected areas are:

- Nordenskiöld Land nasjonalpark
- Nordre Isfjorden nasjonalpark
- Sassen-Bünsow Land nasjonalpark
- Hopen naturreservat
- Festningen geotopvernområde
- An existing plant protected area, Ossian Sars, has been changed to a nature reserve.

Kittiwakes on Hopen.

rom being achieved.

The next major step for WWF is to ollow closely the impacts on the protected areas following Norway's decision to expand the boundaries of ts territorial waters from four to 12 nautical miles from the coast of valbard.

WWF and the environmental uthorities insist that the boundaries of he protected areas, which now go to he current four nautical mile boundary, should extend to the new 12 nautical mile boundary. If not, they argue, the Svalbard mining code would apply from four miles to 12 nautical miles meaning in principle that one could have oil rigs, mining or other damaging activities just outside the areas identified as having the greatest conservation value.

The proposals for expanding the protected areas out to 12 nautical miles was sent out in early October.

As the coastline of Svalbard is highly irregular and made up of many islands, defining how to expand the boundaries from four to 12 nautical miles is a complex task. There are several proposals currently on the table. Those which include the largest marine areas end up with close to 39,000 square kilometres of coastal waters proposed for protection. This is roughly 4,000 square kilometres larger than Denmark's total area.

If passed, as WWF hopes, this would be a major development in Norway's marine protected areas plan.

Cruise tourism and shipping around Svalbard

If you've ever been to Svalbard, the chances are you've experienced some of its magnificent nature from on board a ship. As more and more visitors to the archipelago oin coastal cruises or arrive by ship from overseas, many stakeholders – government, ruise operators, tourists and environmental-sts to name a few – feel the time has come to eview current shipping practices.

From this autumn WWF, together with the Governor of Svalbard and the cruise industry, has joined forces to reduce the impacts and risks of ship-based travel in order to help protect Svalbard as a wilderness area. This follows Norway's pledge to make Svalbard one of the best-managed wilderness areas in the world.

Over the past few years, cruise tourism has seen a considerable increase both in size and number of ships, and this trend is likely to continue in the Arctic. While the large cruise ships traditionally keep to warmer waters, the Arctic has long been a destination for small – and more recently – medium-sized vessels.

This increase in shipping around Svalbard poses high risks to the environment. A report on maritime safety by the Norwegian government has already confirmed this. And, as if to drive the point home, this summer a research vessel of the Norwegian Polar Institute ran aground. Later a ship belonging to the ➤

Photo: Miriam Geitz

Cruiseships around Svalbard.

➤ Norwegian Military met the same fate. And finally, at the end of July, the German cruise ship Mona Lisa hit a rock in Magdalenefjorden.

Luckily, no one was hurt and there was no damage to the environment. Yet the incidents showed the potential for accidents, injury to people and damage to the environment. An oil spill can have devastating impacts on marine and coastal ecosystems, especially in Svalbard's high latitudes. Moreover, response capabilities – either to pollution or to carry out rescues – are often inadequate due to the remoteness of the region and the harsh climatic conditions.

Cruise operators have worked with WWF and others on arctic tourism issues since 1996. Yet it was only following last year's Arctic Ecotourism Conference that the different stakeholders involved agreed the time for action had come. From the outset, it was clear that they wanted to improve the way cruise tourism is conducted around Svalbard. They recognise that the viability of cruise tourism in the area depends on the long-term environmental protection of the archipelago.

Measures that have already been raised include the establishment of shipping routes as well as limiting or prohibiting access to certain areas, perhaps on a seasonal basis. Ideally, efforts to ensure safe and sustainable ship-based tourism around Svalbard, which meets the challenges of operating in such a unique environment through voluntary and proactive management, can serve as a model for other destinations in the Arctic.

As the *Arctic Bulletin* goes to press, representatives from the majority of coastal cruise operators are working towards establishing an industry association to focus on common objectives, particularly environmental issues and safety routines.

This effort will benefit from the experiences of the International Association of Antarctica Tour Operators (IAATO), as some of the Svalbard operators are also members of this organisation.

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IAATO operators adopt Ten Principles

During this year's annual meeting of the International Association of Antarctic Tour Operators (IAATO), the members of the organisation with operations in the Arctic discussed the possibilities of establishing an arctic chapter of IAATO. As a result, the group adopted the following statement:

"Although not a formal mandate from IAATO, representatives present support those members wishing to form an informal sub-group to commence a dialogue with the Arctic Council, in recognition of the fact that IAATO represents best practice in the tourism industry. Arctic operators present adhere to and fully endorse the WWF Ten Principles for Arctic Tourism, and intend to continue coordination with WWF."

In August 2003, Iceland announced plans to take 38 minke whales from the Central Atlantic minke whale stock as part of a scientific whaling program. Samantha Smith**, director of WWF's Arctic Programme, takes a look at what this means for whales and whaling.**

The announcement that Iceland would take minke whales this August was made despite a wave of international protest in the spring against Iceland's initial scientific whaling proposal, under which Iceland would have taken 100 minke whales, 50 sei whales and 100 fin whales. Iceland has not hunted whales since 1989.

There is general agreement that the take of 38 minke whales, from the estimated 43,000 minkes in the central Atlantic stock, will not affect population levels.

In 2002, Iceland rejoined the International Whaling Commission (IWC), the only global management body for whales, in a controversial decision.

The IWC has had a moratorium against commercial whaling since 1986, while at the same time it has tried unsuccessfully to reach agreement on a management scheme that

Iceland resumes whaling

Photo: WWF-Canon/Morten LINDHAR

would allow for limited whaling.

The International Convention for the Regulation of Whaling (ICRW) nonetheless allows limited whaling by member states for scientific purposes. The Convention allowed member states to exclude themselves from the moratorium on commercial whaling by filing an official objection to the moratorium decision within 90 days after the decision was taken.

Iceland did not file such an objection at the time of the decision (when it was a member), then later left the IWC, and has now rejoined with an objection. The legality of that objection continues to be questioned by many IWC members, and the issue remains unresolved.

When Iceland joined the IWC, it stated that it would not start commercial whaling until after 2006, and perhaps later so long as the IWC makes progress towards a management regime that allows for whaling.

Iceland has said that research is the purpose of its current hunt; issues to be covered include feeding patterns, species, and volumes of fish consumed by minke whales, ecosystem dynamics, and contaminants.

Conservation organisations, including WWF, believe that non-lethal methods could provide the same information and oppose any misuse of scientific whaling. Some members of the IWC's Scientific Committee have raised concerns about the legitimacy of the science behind the proposal; others have supported it.

Iceland's research program comes on the heels of a larger debate about whether whales and seals, particularly minkes, consume large amounts of commercially valuable fish and thereby contribute to drops in the populations of these fish. Scientists generally agree that overfishing is the overwhelming cause of declines in commercial fish stocks. Iceland has been a strong opponent of government subsidies of fishing, which most fisheries experts believe is a root cause of overfishing on a global scale.

At the same time, minke whales are opportunistic feeders and do indeed eat fish among other things – though they do not always eat commercially valuable species, and sometimes eat fish that prey on commercial species. Fisheries and whale experts generally do not agree that reducing whale populations would increase fisheries takes without adverse effects on marine ecosystems. Even working from this assumption, however, no country – including Iceland – would be willing to kill the huge numbers of whales it would take to achieve this.

It is unclear whether Iceland intends to begin a larger-scale commercial hunt over the long term. National demand for ➤

➤ whale products is not high, and Norwegian efforts to initiate international trade in whale products with Japan have stalled, apparently due to Japanese concerns about contaminants in Norwegian whale meat and especially blubber. The Icelandic Minister of Fisheries has said that Japanese demand will be a factor in determining whether Iceland resumes a commercial hunt. (Iceland, Japan, and Norway all have reservations to the listing in CITES Appendix I of all species of great whales covered by the IWC moratorium; Appendix I prohibits all international commercial trade).

There is speculation over whether minkes from the Icelandic hunt will have lower contaminant levels than Norwegian minkes. Iceland hunts minkes from the Central Atlantic stock, while Norway takes a few whales from this stock and most from the Northeast Atlantic stock. This latter stock feeds during parts of year in and around Svalbard, in waters that are known to be sinks for both long-range pollution and pollution from northwest Russia.

While polls indicate that 70 percent of Icelanders support the resumption of whaling, the Icelandic Tourism Industry Association opposes it so long as it takes place without international agreement. Tourism is Iceland's second-largest industry, and whale watching in particular has boomed recently. Last year, 62,000 tourists went whale watching in Iceland. WWF and Greenpeace have called on tourists to support Icelandic whale watching as an alternative to whale hunting.

The Icelandic government's goal over time seems to be the establishment of a small-scale, commercial hunt on whales – ideally with international agreement via the IWC. Iceland is heavily dependent on marine resources and for many Icelanders whales are another resource to be managed and used appropriately. This begs the question of whether whale stocks, which migrate in and out of national waters, can be adequately managed on a national basis. But with or without international agreement, for the time being Iceland seems determined to go its own way.

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Gender and decision-making in arctic fisheries

Collapsing fish stocks dramatically impact coastal communities and families dependent on fishing. Ingunn Limstrand **and** Joanna Kafarowski **describe a new project that sets out to promote gender equality in the arctic fishing industry.**

Many arctic communities are dependent upon fisheries for food, employment, and cultural and spiritual sustenance. Yet on a global basis, marine resources are being depleted or over-exploited. Major fish stocks have declined to a level close to collapse, for example the Norwegian Spring Spawning Herring in the 1960s and the North Sea Cod and the Barents Sea Cod in the late 1980s. Some stocks have already collapsed like the Newfoundland cod stock in 1992. The collapse or the serious decline in major fish stocks adversely affects coastal communities and families dependent on fisheries. In Norway and Atlantic Canada in particular, coastal women have become front line soldiers in the battle against the consequences of the fisheries crisis. They often suffer the most but have little influence on the decisions that shape their lives.

She is involved in and dependent on fisheries but is she a part of decision-making processes?

Sustainable development in the Arctic depends on democracy in decision-making processes that affect the management of natural resources. This is a view supported by several international agreements. Agenda 21 states that the involvement of women, indigenous peoples, small-scale fishers and local communities is critical to attaining sustainable fisheries management. The Johannesburg Declaration on Sustainable Development emphasises gender equality and the role of indigenous peoples in achieving sustainable development and specifies that sustainable development: "requires broad-based participation in policy formulation, decision-making and implementation at all levels".

But the fisheries sector has traditionally been male-dominated. This in spite of the fact that women are also involved in and concerned with arctic fisheries even though their roles are less visible and have so far received little recognition. Most fishers are men and the commercial fishing industry itself is dominated by men. Yet many women work in processing industries and play a pivotal role in the life of the family – as administrators of the family fishing business and as caregivers. Indirectly, women influence relevant socio-cultural institutions and networks that support fishing families. Despite some contemporary documentation of women's roles in fisheries, women's access to positions of power and decision-making processes in fisheries is still limited.

Fisheries management models developed in the Nordic countries comprise political and corporate representatives, weighing heavily towards the latter. This corporate model provides membership organisations power and access to participate in decision-making processes and bodies. Membership in these powerful organisations are linked to ownership of boats and quotas. Currently, this management system limits access for women and indigenous peoples' groups who might help promote more sustainable resource management through broadening the arena of debate on fisheries issues.

A fisherwoman from a coastal Norwegian community, one of very few women in the seagoing fishing sub-sector.

A study conducted by the Norwegian Government demonstrates that despite the existence of legislation designed to enforce gender equality, permanent exceptions are permitted. It is impossible for the relevant organisations to find competent women to participate in fisheries councils and the boards with the mandate to define the direction of the future of fisheries. In Norway and other countries in the circumpolar North, women are poorly represented in decision-making processes that determine or distribute quotas.

But now a new project *Women's participation in decision-making processes in arctic fisheries management* is setting out to establish a knowledge base that can be used for promoting gender equality in the decision-making processes of the marine arctic sector; for developing tools and strategies that promote participatory values and practices and for encouraging and promoting international co-operation on questions concerning women's participation in fisheries.

The project was presented at the April 2003 meeting of the Sustainable Development Working Group of the Arctic Council in Reykjavik, Iceland and endorsed by the Senior Arctic Officials of the Council. The project is a first step in documenting women's participation in arctic fisheries management. Spearheaded by Norway, the project has been supported by the national governments of participating partners including Norway, Iceland, Canada, Greenland, Sweden and the Samediggi (the Norwegian Sami Parliament).

In order to study the right to, access to and control of natural resources, three main categories have been identified as part of the project:

- Fisheries resource management
- Ownership and leadership of fisheries
- The discursive power of fisheries (gendered norms and values creating barriers for women's participation)

The project will examine gender distribution within fisheries at various levels: as workers on boats and in fish processing and aquaculture, as managers and owners, and as leaders in decision and policy-making bodies. Qualitative analyses will be conducted to investigate the reasons for women's participation, or lack of participation in arctic fisheries and to explore how women view fisheries management and its effects on their own lives and on that of their communities.

Gender distribution is a matter of sharing power, responsibility and resources. It is also a matter of promoting social welfare and sustainable development. Data collection and analysis of women's and indigenous peoples' participation in decision-making processes within fisheries will support and foster sustainable economic, social and cultural development in the Arctic.

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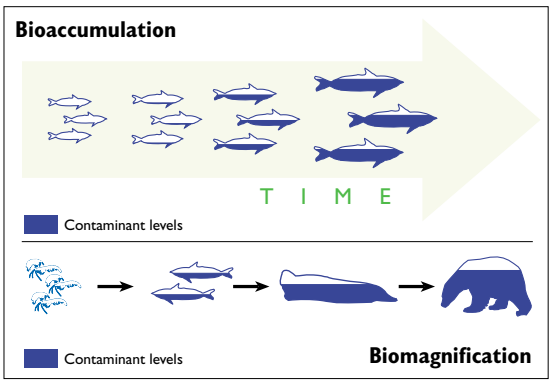
Towards a cleaner Arctic

In 2000, the Arctic Council set out to confront the problems of pollution in the Arctic. The Arctic Council Action Plan to Eliminate Pollution of the Arctic (ACAP) aims to reduce and eventually eliminate pollution in the arctic environment. Per Døvle**, Deputy Director, Norwegian Pollution Control Authority (SFT), describes two of the six projects running under the ACAP umbrella: a project to clean up PCBs and the Cleaner Production Programme in Norilsk, Russia.**

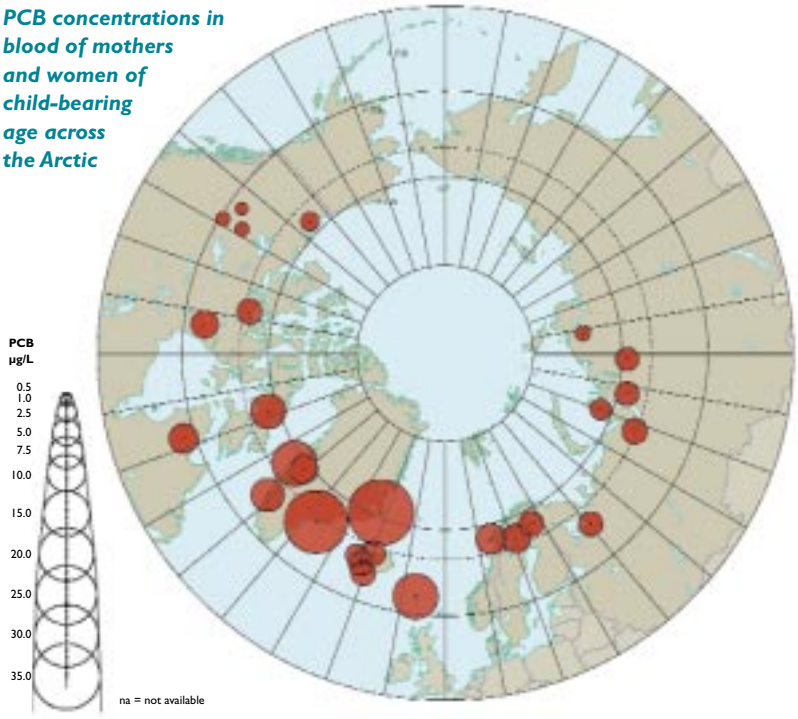
The Arctic Council Action Plan to Eliminate Pollution of the Arctic (ACAP) followed the 1997 Arctic Monitoring and Assessment Programme's (AMAP) first report on toxic pollution in the Arctic. In the report, AMAP documented alarmingly high levels of Persistent Organic Pollutants (POPs) and mercury in animals at the top of the arctic food chain. Most of these pollutants are transported to the Arctic from areas far beyond its boundaries. Indeed the levels of pollutants in many animals were so high that serious effects were observed in some species.

However the most serious concern was that pollutants were also being found in the people who live in the Arctic. High levels of POPs and mercury were found in human blood and in mother's milk in a few areas. Again, in certain areas, the pollutants have had a direct affect on humans: some arctic residents are at risk because of their traditional diet.

To try and reduce these risks some governments have issued nutritional advice. Norway, for example, has issued a warning to fertile and pregnant women not to eat fish liver of any kind due to high concentrations of PCBs. The Faroe Islands has warned fertile and pregnant women not to eat whale meat due to its high concentrations of mercury.



PCB concentrations in blood of mothers and women of child-bearing age across the Arctic



The stark message from the AMAP report was that food from one of the cleanest environments on earth might be hazardous if diets are based too much on animals at the top of the food chain.

To cope with the problems, the Arctic Council established The Arctic Council Plan to Eliminate Pollution of the Arctic (ACAP) in 2000. It aimed to reduce and eventually eliminate pollution in the arctic environment.

PCBs – an environmental threat to the Arctic

The first ACAP project is a cooperation between all the arctic countries, the Netherlands, the Arctic Monitoring and Assessment Programme (AMAP) secretariat, the United Nations Environmental Programme-Chemicals and The Nordic Environmental Fund (NEFCO).

The project aims to show how to identify and destroy waste that contains PCBs, such as transformers and capacitors in Russia. This project is now advancing to its pilot phase and consists of the following elements:

- NEFCO has invested two million euros in an incineration plant at St Petersburg. The plant – based on Russian technology – can destroy liquid PCBs (transformer liquid) and meets the international emission standards for the destruction of PCBs;
- NEFCO is also financing a pilot project to extract PCBs from transformers for incineration so that the transformers can be shredded and the metal recycled.
- The US has offered Russia a Plasma Arc Incineration Plant worth around ten million US dollars that can destruct solid capacitors. The final plan for placing and operating this

Plasma Arc Plant is under way.
- Finally Denmark is financing a pilot project to collect and store PCB waste in Russia.

The pilot PCB-project is very promising. However, several challenges lie ahead.

First, all the technical and practical work in the pilot phase has to be successfully completed and 1,000 tons of PCB waste has to be destroyed.

The main challenge, however, is for Russia to use the experience gained from this demonstration project to collect and destruct all 30,000 tons of PCB waste that have been identified so far.

In this context Russian authorities have to urge their industry, their armed forces and their regional authorities to take part in a national clean-up operation, and bring their PCB waste for safe disposal. Strong involvement and commitment from the Russian authorities will be needed to make this happen.

Tidying up as you go along

In 2001 ACAP started a Cleaner Production project in the Norilsk Nickel Mining Company in Norilsk – NN. The project is lead by the Russian/Norwegian Cleaner Production Centre in Moscow. NN is the major point source of emissions in the Arctic, emitting three million tons of sulphur dioxide and particulate matter each year to the air and consuming vast amount of freshwater and energy.

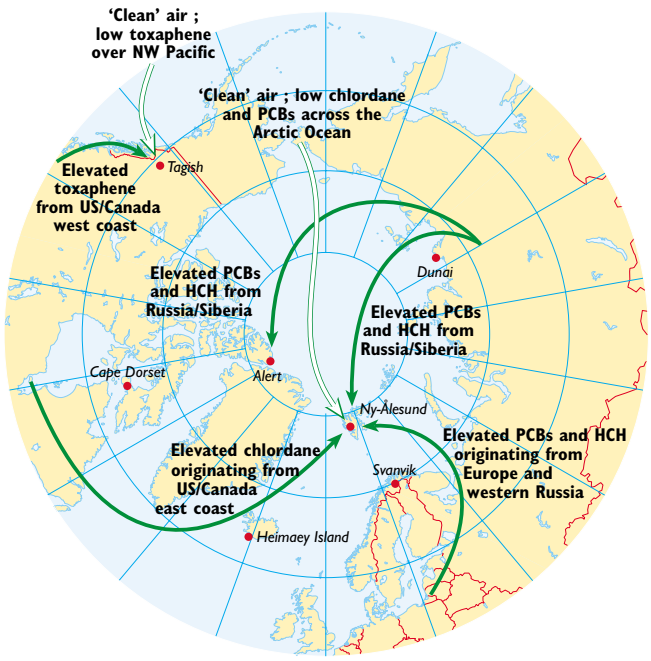
With some modest assistance from the US and Norway, the company has so far certified 48 managers and engineers in the skills of how to go through every part of the different industrial processes in the NN to both save money and the environment. They have also been educated in the financial aspects of engineering projects.

Around 130 project proposals have been developed. Fifty of these projects are low-cost projects that are under implementation and 81 medium to high cost projects. Forty-six of the projects have already been completed.

Some expected reductions are: fresh water – 65 million cubic metres; waste water discharge – 18.3 million cubic metres; natural gas – 175 million cubic metres; and sulphur dioxide, 1.2 million tons. The economic savings are 189 million USD a year and the investments needed are around 460 million USD.

The large projects may lead to large reductions of particles such as sulphur dioxide and carbon dioxide if they are implemented. Such large projects need additional financing from international development banks, so they will need two to three years before they are eventually implemented.

Norilsk Nickel is aiming for a better environmental performance. The introduction of quality management and environmental protection management systems according to ISO 9000 and 14000 has been agreed.



Transportation routes of POPs of concern in the Arctic

ACAP projects:

■ Phase out PCB use and introduce management of PCB-contaminated waste in Russia: the PCB-project aims to develop and implement pilot remedial actions that may serve as a model for a Russian Federal programme on phasing out the use of more than 30,000 tons of PCBs and managing PCB-contaminated waste. Presently the building of destruction facilities using US and Russian technology is being planned and as a pilot project these facilities will destroy eight to nine thousand tons of PCBs from various types of waste.

■ Environmentally sound management of stocks of obsolete pesticides in Russia: about 25,000 tons of obsolete, banned or severely restricted pesticides are stored in numerous locations and are waiting for safe storage and disposal, including destruction. The project aims to provide a model on how to manage these stocks. A full inventory of the stocks in 11 arctic and sub-arctic provinces will be carried out, and methods to take care of these stocks will be selected, and sources for implementation of remedial actions prioritised.

■ Cleaner production at Norilsk Mining and Metallurgical Company: the objective of the Norilsk-project is to carry out a full Cleaner Production Assessment of all production units and utilities, and to introduce instruments of eco-efficiency to these units, and to train engineers of the company about how to achieve economically sound environmental improvements. Currently about 65 engineers and managers are "certified" and about 85 environment-saving projects are developed. Several projects have already been implemented resulting in, for example, reduced use of energy, natural gas, water and raw materials and thereby reduced emissions to air.

■ Reduction of dioxin and furans releases in Russia: the dioxin/furan-project aims to make an inventory of sources in the Russian Federation that can impact the Arctic, quantify the releases to the environment and prioritise sources for implementation of remedial actions.

■ Reduction of mercury emissions from arctic countries: the mercury project is a circumpolar project, where the overall objective is to contribute to reducing atmospheric mercury releases from arctic states by identifying important anthropogenic source categories for mercury emission and to initiate cost effective reduction measures as pilot projects.

■ Releases of brominated flame-retardants: the Arctic Council has endorsed a project to reduce the emissions of brominated flame-retardants. This family of substances are used in many plastic products such as TV sets and PCs in order to reduce fire risks. However, the levels of these substances are increasing rapidly in arctic species and AMAP has described them as the next environmental problem and as dangerous as PCBs.

The ACAP projects are addressing problems identified by the Arctic Monitoring and Assessment Programme – AMAP. See the AMAP Fact Sheets on Heavy Metals and POPs at www.amap.no

Life on the ledge

James Burns from the University of Toronto describes a project to study seabirds in Canada's high Arctic.

Photo: James Burns

Perhaps the best view of seabirds in the Arctic is through a long-term lens. The unpredictable and often harsh conditions of the high arctic summer have selected for bird species that can live through bad years so that they might breed the next season. Understanding what's happening to populations of species with these long-term breeding strategies requires long-term monitoring projects.

On Prince Leopold Island, north-east of Somerset Island in Canada's high Arctic, long-lived seabirds are currently being monitored by Tony Gaston and colleagues at the Canadian Wildlife Service.

This year is the final year of a three-year study to repeat a prior three-year monitoring study at this site in the 1970s. The project focuses on three species: thick-billed murres, black-legged kittiwakes, and northern fulmars. All three species nest on the narrow ledges of the Prince Leopold Island's perilous 1000-foot high cliffs where they can be monitored through the breeding season from observational blinds. In addition, where safety allows, biologists can rappel down the cliff edge to take a close-up look at the breeding colony and to measure and band chicks or brooding adults.

This study was chiefly motivated by the increasing possibility of shipping traffic in the waters of Lancaster Sound, just off Prince Leopold Island. The appeal of the famed North West Passage has not diminished since the time of the Franklin expedition, some of whom met their fate only a short distance from Prince Leopold Island. But today, climate change is making the possibility of using Lancaster Sound as a viable shipping route through the Arctic very real. A recent climate model predicts Lancaster Sound may become ice-free all summer long within a few decades if current climate trends continue. The obvious concern for wildlife is the effect of possible oil spills or dumping by tankers in the bird's feeding grounds, a threat that has never before been a concern in these icy waters.

Black-legged murres.

Photo: James Burns

Interestingly, another sign of climate change may already be turning up in the diet of thick-billed murres. One duty of the researchers is to identify the fish species that adult murres bring to the colony to feed to their chicks. Capelin, a fish species that historically does not live as far north as Lancaster Sound, has been tentatively identified in the diet of thick-billed murres the last three years. This may be an indication the food sources of murres are changing, and should be a subject of further study.

For thick-billed murres, life is already hard enough on the ledges where they breed. If a murre learns to survive its first year of life, annual survivorship is quite high at 90 percent. However, survival through that first year is difficult, and very few young ever reach their first birthday. It will require many attempts by each pair of breeding murres to produce enough offspring to replace themselves in the population.

In 2003, the thick-billed murres breeding season was going very well. Chicks were growing well until an early summer blizzard hit on August 11. With winds topping 100 kilometers per hour, the snowstorm lasted for three days and covered many of the nest sites. Some murres were out of the wind, but unlucky to be in an area where the snow settled and buried their nest sites. If the snow became too deep for the parent's body heat to melt a snow cave to continue brooding in, they had no option but to abandon their chicks to die alone in the snow and try again next year. Choosing a breeding site was critical for the murres, as within individual plots under observation on Prince Leopold Island this summer, anywhere from five percent to 90 percent of breeding attempts were wiped out by the storm. Many really were just at the wrong place at the wrong time.

It's a tough life for seabirds on the arctic ledges. Their attempts to breed are often affected by factors out of their control, including food availability and storms. But because they can live for several years, a one-year study showing a good or poor breeding season can be misleading. It's only by following these birds through several years that we can hope to tell how well they're doing and how well they adjust as the global climate changes around them.

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All change in Alaska

Earlier this year Alaskan Governor Frank Murkowski signed new legislation that transferred responsibility for review and permitting of activities affecting fish habitat from the Alaska Department of Fish and Game Habitat Division to the Department of Natural Resources. The legislation – Executive Order 107 – also effectively eliminated the Habitat Division in the Department of Fish and Game. Evie Witten **of WWF's Bering Sea Ecoregion project talked to** Chip Dennerlein**, a former director of Habitat and Restoration for the Alaska Department of Fish and Game, to find out more.**

■ **WWF:** *The Governor and administration officials portrayed their move as a simple re-organisation. The biologists involved in permit reviews are now in the Department of Natural Resources instead of the Department of Fish and Game. Won't they still be able to carry out their professional responsibilities? Is this a radical policy change that will compromise and degrade habitat protection and stewardship of Alaska's fish habitats?*

Chip Dennerlein: I have great respect for the professional land and resource managers in the Department of Natural Resources. It goes without saying that I think the former Department of Fish and Game habitat biologists who transferred are outstanding. They will certainly do the best job they can. But the current system is not only awkward, it is also inherently flawed.

First, the current management regime reverses the long-held separation of powers between resource development and protection within state government. The first Alaska Legislature established two agencies – The Department of Natural Resources and Fish and Game – with specific separate authorities, to ensure that both resource development and fish habitat conservation had an effective voice in future resource decisions. The Natural Resources mandate, until the Governor's executive order, was to promote development of the state's agricultural, timber, mineral, and oil and gas resources. Put simply, it was always responsible for getting out the cut and Fish and Game department for getting out the catch. Not only has the separation of powers been lost, but under the Governor's order, the final authority for fish habitat now rests with the Deputy Commissioner of Natural Resources, while the authorities of all other Natural Resource divisions (eg. Mining, Land and Water, Forestry and Agriculture) rest with the Commissioner. So, it is literally true, as former Fish and Game Commissioner Frank Rue has said, that a potato now has more representation in a cabinet meeting than fish habitat!

> **So, it is literally true, as former Fish and Game Commissioner Frank Rue has said, that a potato now has more representation in a cabinet meeting than fish habitat!**

The second flaw in the current system involves the parameter of "good science". In the past permit staff in the Habitat division interacted daily with fish and wildlife biologists in other Department of Fish and Game divisions, and were regularly involved in team efforts and research aimed at improving the ability to protect fish habitat as part of resource development or road projects. This is how, and where, science and decision-making came together. They are now separated – by agency and physical proximity – from fish and wildlife biologist colleagues and from on going science and research. Separating permit biologists from research and their professional colleagues cannot possibly improve the link between "good science" and good decisions. The most likely long-term effect will be a decrease in the level of professional experience and quality among permit staff responsible for determining necessary and appropriate habitat stipulations and conditions for many projects.

Lastly, there is a net loss of habitat staff in both the regional and field offices. Fewer people are doing more work. In some areas of the state habitat biologist positions have been eliminated leaving big geographic gaps. Beyond that, there is less opportunity for permit biologists to get out on the ground, to catch potential problems, and work with project managers and engineers on site to resolve them.

■ **WWF:** *How was it possible for the Governor to change the system of fish habitat protection so dramatically and so easily? Why didn't Alaskans speak out and prevent this from happening?*

Chip Dennerlein: That's a very good question and there are several answers. First, the Governor provided no opportunity whatsoever for public input, let alone public hearings. Most Alaskans, including the Legislature, were initially caught by surprise. In addition, most people initially accepted the Governor's assurances that this was simply an internal management restructure involving permitting staff, and that habitat protection would not be diminished. Lastly, the Governor justified ➤

➤ the proposed action by citing a number of important state and community projects that he claimed had been unreasonably held up by Department of Fish and Game Habitat division. As people began to examine the actual order, many did stand in opposition.

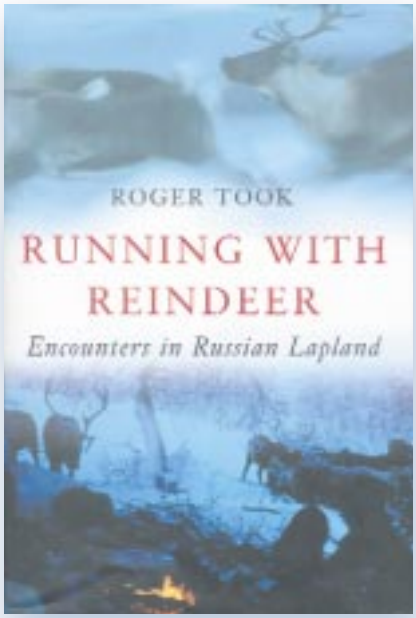
All five previous commissioners of Fish and Game – commissioners who served under Democratic, Republican and Independence Party Governors – wrote to Governor Murkowski asking him not to make this radical change and instead deal with real or perceived management or policy issues through appropriate management or policy changes. Fishermen have traditionally been stalwarts in the political battles to protect stream habitat, buffers, and water quality. Commercial fishermen in particular led efforts to achieve passage of the statutes that established Fish and Game as the lead agency for steam habitat protection, through the Forest Practices Act and the Coastal Management Act. They, and sport and subsistence fishermen, understood that the long-term health of their use of the resource depended on a healthy environment. Some groups, like the Alaska Trollers Association, were outstanding in their opposition. But overall, few fishermen protested, while others supported the Governor's order either outright or tacitly by not saying anything. I believe the new, more immediate and dire threat from farmed salmon has most commercial salmon fishermen worried about their short-term economic survival. In their desperation they felt they could not risk alienating a new governor – who they need to help them deal with these immediate economic threats – by fighting him over the long-term protection of habitat.

Other citizens, conservation and environmental groups, communities, and even some of the state's official Fish and Game Advisory Committees strongly protested. The state's major newspaper found that none of the Governor's examples of problem projects stood up to scrutiny. The claims ranged from completely false to wildly misleading. The Legislature, which originally planned no oversight, held several hearings, all of which were packed. It was obvious that public opinion was not in favor of the EO. But it was also obvious that the Governor had his mind made up, and that the current Legislature was not going to buck a brand new governor. Those were the politics.

■ **WWF:** *So now this major change regarding fish habitat protection is in place. Neither you, any of the state's past Fish and Game commissioners, nor apparently many others concerned with conservation, think the new system will be able to protect stream habitats adequately. Are we condemned to accept an inevitable diminishment of stewardship and sustainability?*

Chip Dennerlein: The immediate outlook is not good. Governor Murkowski has removed other habitat protections, including some within the State's coastal zone and forest management programs. Budget cuts, staff reductions and policy shifts occurring within the present federal administration will also add to a cumulative impact on habitat stewardship. The emerging situation may not produce immediately obvious or dramatic effects, but it lays the foundation for long term impact at the very time that additional science, better inter-agency coordination, and more on site review and decision-making are needed. Everywhere in the world, including Alaska, the habitat pie is smaller, the margins for error narrower, and the stakes higher. Everywhere, including Alaska, habitat sustainability and especially connectivity, are major challenges. Governor Murkowski's action went 180 degrees from the direction in which every biologist and habitat conservationist knows we need to go. But there is always hope. I believe that while some losses will be experienced, the Governor's order will be revisited and the course of habitat stewardship corrected – so long as people shine the light and look at it for what it really is.

● Chip Dennerlein has 25 years of policy and management experience in parks and protected areas, public lands, habitat conservation and transportation. He has served as director of Alaska State Parks, director of Habitat and Restoration for the Department of Fish and Game, and Executive Manager for the Municipality of Anchorage.



■ *Running with Reindeer: Encounters in Russian Lapland*
Roger Took,
ohn Murray (Publishers) Ltd., 2003
365 pp, 4 maps, 31 pictures (b/w)

What happens if an Englishman sets out to discover for himself the essence of Russian Lapland, its people and nature? After the fall of the iron curtain Roger Took, a British art historian and museum curator, decided that he wanted to experience one of the last remaining wildernesses in Europe.

After describing his efforts to prepare himself for his trip, the book follows Took on his quest to meet the Russian Sami culture, via Murmansk, into the heart of the Kola peninsula.

He vividly describes his human as well as natural encounters – some more pleasant than others.

Took manages to describe his observations and experiences in a lively way that – mostly in regards to his own role as an enthusiastic westerner in a indigenous culture – does not lack humour.

The fact that his observations in this book are not based on one trip but are the result of several trips he made in the 1990s make it even more interesting to read as it depicts a society in transition.

Roger Took takes the reader as close as you'll ever get to meeting the Russian Sami without actually going yourself.

Miriam Geitz, mgeitz@wwf.no

Forthcoming arctic meetings & events

Arctic Council Events

Senior Arctic Officials Meeting
• WHERE: **Selfoss, Iceland** • WHEN: **4–5 May 2004** • CONTACT: **www.arctic-council.org**

Other Events

The 8th Circumpolar Co-Operation Conference
• WHERE: **Whitehorse, Canada** • WHEN: **November 7–10**
• CONTACT: www.yukoncollege.yk.ca/conference/CUA/index.htm

Lecture: New Ice Cores from the Yukon
• WHERE: **Whitehorse, Canada/Haines Junction, Canada** • WHEN: **November 9/10**
• CONTACT: www.taiga.net/ysi

Arctic Coastal Dynamics Workshop
• WHERE: **St Petersburg, Russia** • WHEN: **November 10–14**
• CONTACT: Volker Rachold, vrachold@awi-potsdam.de Potsdam Research Unit, Telegrafenberg A43, 14473 Postsdam, Germany, Tlf + 49 331 2882174

Arctic Climate System Study Final Conference
• WHERE: **St Petersburg, Russia** • WHEN: **November 11–14**
• CONTACT: Chad Dick or Tordis Villinger at acsys@npolar.no http://acsys.npolar.no/meetings/final/conf.htm

Socio-Economics Workshop: Management Systems related to fishing and hunting in West Greenland
• WHERE: **Nuuk, Greenland** • WHEN: **November 18–20**
• CONTACT: Michael Kingsley, Email: info@natur.gl/mcsk@natur.gl

Northern Margins: Changing Transition Zones in Time: 5th Circumpolar Ecosystems International Workshop and Symposium
• WHERE: **Churchill, Manitoba, Canada** • WHEN: **February 25 – 29 2004**
• CONTACT: Dr LeeAnn Fishback, Email: fishback@churchillmb.net

The 34th Annual Arctic Workshop
• WHERE: **Boulder, Colorado, US** • WHEN: **March 11–12, 2004**
• CONTACT: http://instaar.colorado.edu/meetings/AW2004 or Email: ArcticWS@colorado.edu

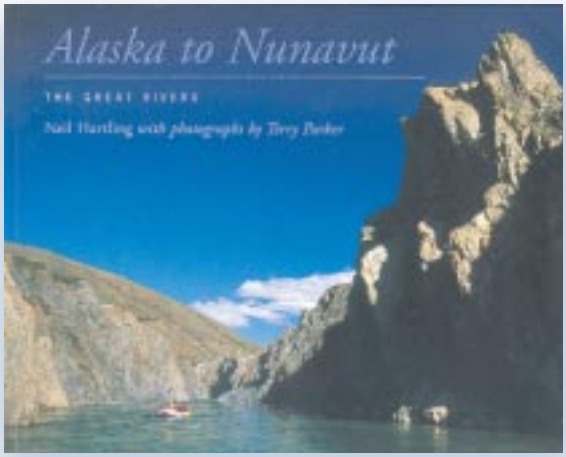
12th International Boreal Forest Research Association Conference
• WHERE: **Fairbanks, Alaska** • WHEN: **May 3–7**
• CONTACT: www.lter.uaf.edu/ibraf/default.cfm

5th International Congress of Arctic Social Sciences
• WHERE: **Fairbanks, Alaska** • WHEN: **May 19–23**
• CONTACT: www.uaf.edu/anthro/iassa/icass5sessab.htm

14th International Offshore and Polar Engineering Conference and Exhibition
• WHERE: **Toulon, France** • WHEN: **May 23–28**
CONTACT: www.isope.org/conferences/conferences.htm

For more on these events and other meetings, please visit:
http://www.arcus.org/Calendar/upcomingEvents.shtml • http://www.iasc.no/SAM/samtext.htm

■ *Alaska to Nunavut – the great rivers*
Neil Hartling, Terry Parker (photographs);
Key Porter Books, 2003
152 pp, glossary, references/suggested readings, color photographs



There are many great photographic books about the North, but some stand out from the crowd. This is one of them.

The rivers in question are the Stikine, Tatshenshini, Alsak, Firth, Wind, Snake, South Nahanni, Horton, Coppermine and Burnside which spread out over the central north-west of the north American continent.

Though undoubtedly Terry Parker has managed to capture the beauty of the rivers through his photographs, it is Neil Hartling who lovingly draws portraits of "the great rivers" in words.

Hartling follows the path of the streams from their origin to end from the perspective of the canoe paddler. His descriptions reveal a great deal of knowledge about the rivers, not only their geology, history, and ecosystems but also the technicalities of paddling them.

It is however his open enthusiasm, respect and compassion for what those rivers represent to him and other canoeists which makes this book so enjoyable to read.

Miriam Geitz, mgeitz@wwf.no

Protecting Svalbard's wilderness

WWF ARCTIC BULLETIN
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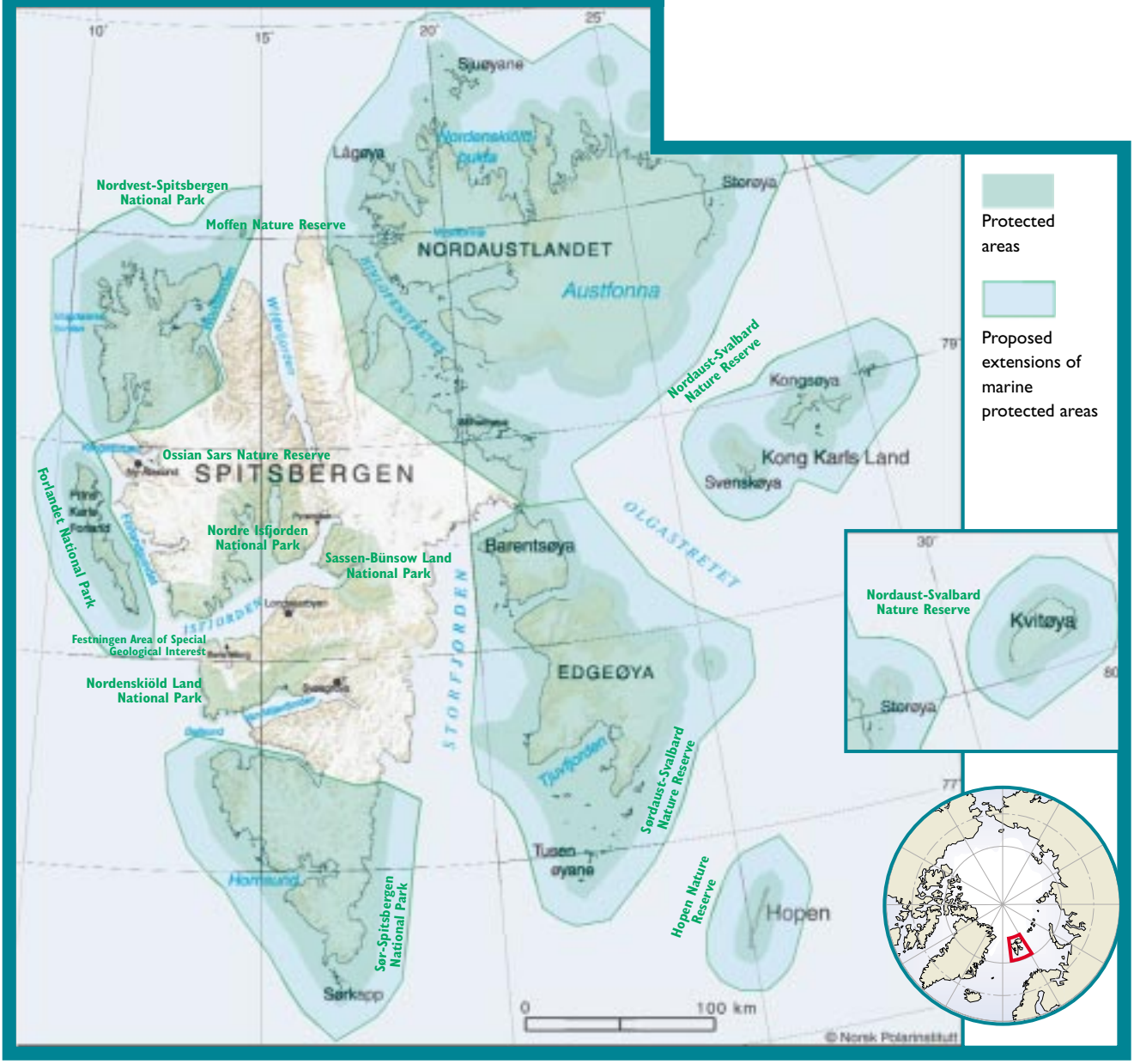

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WWF is the world's largest and most experienced independent conservation organization, with almost five million supporters and a global network active in 90 countries. WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature. WWF continues to be known as World Wildlife Fund in Canada and the United States of America.

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