



Circumpolar Protected Areas Network (CPAN)

CPAN Country Updates Report 2004

CAFF Habitat Conservation Report No. 11

About CAFF

The program for the Conservation of Arctic Flora and Fauna (CAFF) of the Arctic Council was established to address the special needs of Arctic ecosystems, species and their habitats in the rapidly developing Arctic region. It was initiated as one of four programs of the Arctic Environmental Protection Strategy (AEPS) which was adopted by Canada, Denmark/Greenland, Finland, Iceland, Norway, Russia, Sweden and the United States through a Ministerial Declaration at Rovaniemi, Finland in 1991. Other programs initiated under the AEPS and overtaken by the Arctic Council are the Arctic Monitoring and Assessment Programme (AMAP), the program for Emergency Prevention, Preparedness and Response (EPPR) and the program for Protection of the Arctic Marine Environment (PAME).

Since its inaugural meeting in Ottawa, Canada in 1992, the CAFF program has provided scientists, conservation managers and groups, and indigenous people of the north with a distinct forum in which to tackle a wide range of Arctic conservation issues at the circumpolar level.

CAFF's main goals, which are achieved in keeping with the concepts of sustainable development and utilisation, are:

- to conserve Arctic flora and fauna, their diversity and their habitats;
- to protect the Arctic ecosystems from threats;
- to improve conservation management laws, regulations and practices for the Arctic;
- to integrate Arctic interests into global conservation fora.

CAFF operates through a system of Designated Agencies and National Representatives responsible for CAFF in their respective countries. CAFF also has an International Working Group which meets regularly to assess progress. CAFF is headed up by a chair and vice-chair which rotate among the Arctic countries and is supported by an International Secretariat.

The majority of CAFF's activities are directed at conserving Arctic biodiversity—the abundance and diversity of Arctic flora, fauna, and habitats—and at integrating indigenous people and their knowledge into CAFF. In recognition of this, the Arctic Ministers in 1998 endorsed CAFF's Strategic Plan for Conservation of Arctic Biological Diversity as a framework for future program activities. The Strategic Plan is built around five objectives addressing biodiversity monitoring, conservation of genetic resources, species and habitats, establishment of protected areas, conservation outside protected areas, and integration of biodiversity conservation objectives into economic plans and policies. Examples of major projects CAFF is currently working on are: a status report on Arctic biodiversity; development of a program to monitor Arctic biodiversity; assessment of climate change impacts on Arctic ecosystems in collaboration with AMAP and other Arctic organisations; assistance with implementation of circumpolar conservation strategies for murres (guillemots) and eiders and for a Circumpolar Protected Areas Network (CPAN); preparing a Circumpolar Arctic Vegetation Map and listing and mapping rare Arctic vascular plants. Whenever possible, CAFF works in co-operation with other international organisations and associations to achieve common conservation goals in the Arctic.

CONSERVATION OF ARCTIC FLORA AND FAUNA

CAFF

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November 2004

FOREWORD

I am pleased to present this CPAN Country Updates Report which describes actions taken by the CAFF countries to establish new protected areas since the publication of the 1997 Progress Report, as well as new legislative initiatives and other measures to enhance cooperative management with indigenous and local communities. The Report is a contribution to the ongoing work of CPAN and is consistent with the Circumpolar Protected Areas Network Strategy and Action Plan approved by Ministers in 1996.

The report represents a compilation of responses from the Arctic Council countries. It shows clearly that Arctic countries have made significant progress in establishing new protected areas and contributing to a circumpolar network, as well as improving the legislative and policy base for managing such areas. Almost 20 % of the arctic land mass is now under protected area status, classified according to IUCN categories. This is significantly greater than the global statistic that stands at about 11.5 %. Despite this important achievement, the Arctic still has little of its marine environment designated as marine protection areas and greater effort is needed to establish such areas. In this regard the Arctic is facing the same challenge as the rest of the world, where, on a global basis, less than 2% of the marine and coastal environment is managed as protected areas or conservation zones according to statistics compiled for the 2003 World Parks Congress.

Arctic countries have also made significant strides in updating and creating legislation and policies to provide an improved basis for managing protected areas. No less than 18 new or updated statutes and laws that address arctic protected areas directly or indirectly have been proclaimed over the period covered by this report. Similarly, the report shows that Arctic Council countries have been leading by example in managing protected areas in cooperation with indigenous and local communities through innovative governance arrangements that provide them with an active role in decision-making. Increasingly arctic protected areas are being managed within a larger ecosystem and landscape context. This helps achieve biodiversity as well as social, cultural and economic objectives, and contributes to the larger goals of the Arctic Council.

Four protected areas in the Arctic were inscribed on the World Heritage List in July 2004. This achievement is a testament to the global significance and values of arctic protected areas and the standard of protected area management by CAFF countries.

I would like to express my appreciation to the representatives of the CPAN Experts Group for providing data for the report and to Canada for serving as the lead country to coordinate its preparation.

Kent Wohl
CAFF Chair
September 2004

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Overview

The concept of a circumpolar network of protected areas established and managed in cooperation with indigenous peoples was initially referenced in the Arctic Environmental Protection Strategy (AEPS) of 1991. The original rationale for such a network included the highly migratory nature of many arctic wildlife species and the need for countries to work together to ensure protection for certain key areas that are critical to maintaining Arctic ecosystems and species. Arctic nations also recognized that many northern indigenous and local people are dependent on harvesting of wildlife for a livelihood and there is a need to protect resources that are important to maintaining traditional ways of life and which can also contribute to national and international conservation goals. Northern ecosystems are relatively intact, but vulnerable; and are increasingly recognized as an important natural heritage of global significance that warrant protection and careful management.

The first Ministerial Declaration after the establishment of the Council (1988) “welcomed CAFF's continued role in coordinating the implementation of the Circumpolar Protected Areas Network.” and a number of protected area projects undertaken by CAFF have been cited in subsequent Ministerial Declarations.

Much of CAFF's focus on protected areas has been in the form of a series of Habitat Conservation Reports (HCR), including three new reports that have been produced since the 1997 CPAN Progress report. These include:

- The State of Protected Areas in the Circumpolar Arctic, (HCR 1);
- Proposed Protected Areas in the Circumpolar Arctic, (HCR 2),
- National Principles and Mechanisms for Protected Areas in the Arctic Countries (HCR 3),
- CPAN Principles and Guidelines (HCR 4);
- Gaps in Habitat Protection in the Circumpolar Arctic - a Preliminary Analysis (HCR 5);
- CPAN Strategy and Action Plan (HCR 6);
- CPAN Progress Report 1997 (HCR 7);
- A Summary of Legal Instruments and National Frameworks for Arctic Marine Conservation, (HCR 8);
- Gaps in Habitat Protection in the Russian Arctic (HCR 9); and
- Protected Areas of the Arctic: Conserving a Full Range of Values (HCR 10).

CPAN in cooperation with CAFF has co-sponsored or sponsored several workshops and meetings in recent years that have provided opportunities to discuss topics of importance to arctic protected areas and their management, hear about emerging issues that affect protected areas and exchange information and to report results and recommendations.

These include:

- The Circumpolar Marine Workshop, November 1999, that brought together a diverse group of managers, scientists, regional government officials and arctic

- residents with the aim of improving the protection and conservation of the shared Arctic marine environment and its resources;
- The “Wild Places for Wild Life” workshop, co sponsored with the Canadian Council on Ecological Areas, held in September, 2003 that focussed on criteria for designing protected areas to effectively conserve protect northern wildlife and habitat; and
 - A Marine Compendium workshop held in Akureyri, Iceland in October 2003 to develop a working spatial model of databases applicable to support studies and management of ecologically important areas in Circumpolar Arctic coastal and marine waters.

In addition to these special purpose workshops, four CPAN experts group meetings have been held since 1997. These have provided opportunities to exchange information, review progress and develop protected areas proposals for inclusion in the CAFF work plan.

CPAN has also provided a protected area perspective to other projects of the Arctic Council programs by ensuring that the role of protected areas is recognized. Increasingly protected areas, together with conservation, sustainable use and ecological restoration initiatives in the wider land-and seascape are viewed as essential elements in national and global biodiversity conservation strategies. Parks and protected area provide an array of goods and ecological services while preserving both natural and cultural heritage. They contribute to social and economic goals by providing employment opportunities and livelihoods to people living in and around them. They also serve as sites for research and monitoring to provide data to track climate change.

Since the CPAN progress report was prepared in 1997, one hundred and twenty four new protected areas have been created in the Arctic (Table 1). These new protected areas total about 220,000 sq kms. This brings the total percentage of the Arctic region having some type of formal of protection to about 18%. The map at the end of this report shows protected areas in the Arctic, 2004, according to the World Database on Protected Areas.

CPAN uses primarily the 1993 protected area category system of the IUCN - the World Conservation Union to classify protected areas at the circumpolar level (Appendix 1).

CPAN countries have also made important progress in updating protected area and habitat conservation legislation, developing a number of protected area strategies and engaging local communities and aboriginal organizations in protected area management. Much of the progress accomplished since 1997 has been due to the efforts of individual CPAN countries pursuing national conservation goals, albeit with the recognition that actions at a national level also contribute to the overall regional goals of CPAN, CAFF and the Arctic Council. To improve the effectiveness of CPAN in the future, greater effort is needed to work at a regional and network level.

In recent years global meetings and declarations have called for a fresh and innovative approach to protected areas and their role in broader conservation and sustainable

development agendas. The World Summit on Sustainable Development in 2002 reaffirmed the need to manage human activities within the context of an ecosystem approach and to address environmental, social and economic objectives. In particular, the Plan of Implementation called upon countries to establish marine protected areas, including representative networks. The 2003 World Parks Congress called for a new approach to enhance the core conservation goals of protected areas while also equitably integrating them with the interests of all affected people and ensuring that benefits are equitably shared. The protected areas program of work adopted by Parties to the Convention on Biological Diversity is premised on the ecosystem approach, designed to help achieve a balance between the convention's three objectives of conservation, sustainable use and equity. Its objective is the establishment and maintenance by 2010 for terrestrial and by 2012 for marine areas of comprehensive, effectively managed, and ecologically representative national and regional systems of protected areas that collectively contribute to achieving the three objectives of the Convention and the 2010 target to significantly reduce the current rate of biodiversity loss.

The CPAN structure and mandate provides a good basis to respond to the new global priorities for protected areas. CPAN, with a renewed focus and a greater emphasis on regional action, can serve as a means for Arctic Countries to individually and collectively contribute to achieving international targets and global biodiversity conservation strategies.

Country Updates

Table 1. Protected areas in the Arctic as of 2004 (includes terrestrial and marine protected areas.)

Country	No. of protected areas established 1997-2004	Total area protected in 1997-2002 (km ²)	Total number of protected areas in Arctic	Total area (km ²) of protected areas in Arctic	% of Arctic in protected areas (approximate)
Canada	7	50,424	68 ¹	550,000	11
Finland ^{2,3}	50	8	138 ⁴	24,937	31.53
Greenland	4	4,028.4	8	1,000,00	47
Iceland	8	192.29	24 ⁵		13
Norway ⁶	3	13,526.26	88	124,276.5	9.6
Russia	19	app. 150,000	314	+/- 649,266	65 (Svalbard)
Sweden ⁷	Data	being compiled	47	21,707	10.5
USA ⁸		662.65 km ² Nat'l Wildlife Refuges System (NWRS)	9 NWRS ⁹ 7 National Parks, Preserves or Monuments ¹⁰	214,465.54 (NWRS) 97,675 km ² National Park System (NPS)	57 % of all NWRS in US
Total	124	218,840	631	2,660,619	

1 Includes territorial parks and historic sites, national parks and national historic sites and migratory bird sanctuaries and national wildlife areas, located north of 60 degrees north latitude.

2 Only small protected areas have been established on state-owned land by Metsähallitus and on private land by the Regional Environment Centre. Their total area is only about 2 km².

3 The fundamental decision on Finnish sites in the European Union (EU) network of protected areas, Natura 2000, was made in Council of State in 1998. Especially in arctic areas, most of the sites are existing protected areas or areas belonging to earlier protection programmes. Since then, the EU has made several assessments to define the favourable conservation status of habitat types and species with consequent requests to add sites into network. Supplementary decisions on new sites have been made several times and the process is still going on. At the moment in the arctic part of the Natura 2000 programme there are about 560 km² (220 km² on private land), which were not in earlier protection programmes. After an assessment, the Commission of EU has already approved the list of Natura 2000 sites for the Alpine biogeographical region which includes parts of Finnish and Swedish Lapland and a similar kind of decision concerning the Boreal biogeographical region which includes the rest of the Finnish arctic area will be made soon.

During 1997-03 about 355 km² private land belonging to protection programmes was purchased for state ownership. In September 2004 there are totally about 3070 km² reserved for nature protection on state owned land. Of these approximately 2800 km² and 47 sites are in areas being over 10 km². Once established, there will be an additional 15-25 protected areas, depending on how they are integrated into existing areas.

4 Of these 138 areas, 58 areas are larger than 10 km² and their total area is 24 869 km². Since 1997 six areas have been enlarged so they are now over 10 km², through the purchase of land from private landowners.

5 Year 200 figure

6 Includes Svalbard

7 Year 2000 figures

8 Protected areas include entire national parks, preserves, or refuges that overlap any of the CAFF area.

9 Includes 12 units of National Wilderness Preservation System

10 Includes 4 units of National Wilderness Preservation System

Table 2. Terrestrial and marine protected areas established between 1997 and early 2004.

Country	Name and location	Date established	Size (km ²)	IUCN Category
Canada (terrestrial)	<i>Sirmilik National Park</i> , North Baffin Island, Nunavut	1999/2001	22 200	II
	<i>Ukkusiksalik National Park</i> , Nunavut	2003	20,558	II
	<i>Hidden Lake Natural Environment Recreation Park</i> , Yellowknife, Northwest Territories	1998	31	V
	<i>Blackstone Outdoor Recreation Park</i> , Liard River, Northwest Territories	1998	0.7	V
	<i>Gwich'in Outdoor Recreation Park</i> , Inuvik, Northwest Territories	1998	88	V
	<i>Fishing Branch Ecological Reserve and Wilderness preserve</i> , Central Yukon	2003	5383	I/II
	<i>Tombstone Territorial Park</i> , Central Yukon	1999	2164	
	<i>Akilia Island</i> , South of Nuuk	1998	1.4	
	<i>Ilulissat Icefjord</i> , Ilulissat, land and glacier ice	2003	3638	
Greenland (marine)	<i>Ikka Fjord</i> , Southwest Greenland	2000	3	I
	<i>Ilulissat Isfjord</i> , Ilulissat, Fjord	2004	386	
Iceland	<i>Valhúsaheð</i> , Seltjarnarnes, southwest Iceland	Feb. 5, 1998	0.017	
	<i>Blautós and Innstavogsnes</i> , Akranes, west Iceland	March 3, 1999	2.42	
	<i>Fossvogsbakkar</i> , Reykjavik, southwest Iceland	May 3, 1999	0.18	
	<i>Bakkatjörn</i> , Seltjarnarnes, southwest Iceland	Nov. 30, 2000	0.13	
	<i>Snæfellsjökull National Park</i> , Snæfellsbær, west Iceland	June 28, 2001	167	II
	<i>Húsafellsskógur</i> ¹¹ , Borgarfjörður, west Iceland	July 27, 2001	4.4	
	<i>Hvanneyri</i> , Borgarfjörður, west Iceland	May 3, 2002	17.44	
	<i>Hverastrytur</i> , Eyjafjörður, north Iceland	March 12, 2001	0.12	
	<i>Store Sametti</i> , Finnmark	Dec. 21, 2000	73.37	I
Norway (terrestrial)	<i>Junkerdalsura</i> , Nordland	Dec. 21, 2000	13.72	I
	<i>Grunnfjorden</i> , Nordland	Dec. 21, 2000	14.72	I
	<i>Bjørnøya (Bear Island)</i> , Svalbard	August 16, 2002	782.6	I
Norway (terrestrial and marine)	<i>Svalbard Protected areas, marine & terres (7 areas)</i>	1.1.97 -1.7.04	9622	
	<i>New PAs in Norway (31 areas)</i>	1.1.97 – 1.7. 04	3904	
	<i>Bolshoe Morskoe Lake Protected landscape (regional)</i> , Sakha Republic (Yakutia)	1997	383	V
	<i>Chukochie Lake Protected landscape (regional)</i> , Sakha Republic (Yakutia)	1997		V
Russia (terrestrial)	<i>Simboozersky Sanctuary (zakaznik) (regional)</i> , Murmanskaya oblast	2003	395, 68	IV
	<i>Sedyavvr Sanctuary (zakaznik) (regional)</i>	2003	174	IV

¹¹ Boundaries were changed.

	<i>Murmanskaya oblast</i>			
	<i>Popigai Traditional use territory, Taimyr (Dolgano-Nenets) Autonomous Okrug Yana Delta Wildlife refuge (regional), Sakha Republic (Yakutia)</i>	2003	26631, 44	VI
Terrestrial and Marine	<i>Medvezhie Islands Wildlife refuge (regional) Nizhnekolymski ulus (district), Sakha Republic (Yakutia)</i>	2002	60	VI
	<i>Katalyk Wildlife refuge (local), Sakha Republic (Yakutia)</i>	2001	10379.6	VI
Terrestrial and Marine	<i>Kurdigino-Krestovaya Wildlife refuge(regional), Nizhnekolymski ulus (district), Sakha Republic (Yakutia)</i>	2002	10671	VI
Terrestrial and Marine	<i>Kolyma-Koren Wildlife refuge (regional), Nizhnekolymski ulus (district), Sakha Republic (Yakutia)</i>	2002	2200	VI
Terrestrial and marine	<i>Nenetsky Nature reserve (zapovednik), Nenets Autonomous Okrug</i>	1997	3134	Ia
	<i>Nizhnepechorsky Sanctuary (zakaznik) (regional), Nenets Autonomous Okrug</i>	1998	1060	IV
	<i>Shoinsky Sanctuary (zakaznik) (regional), Nenets Autonomous Okrug</i>	1997	164	IV
	<i>More-Yu Sanctuary (zakaznik) (regional), Nenets Autonomous Okrug</i>	1999	547.65	IV
	<i>Pym-Va-Shor Nature monument (regional), Nenets Autonomous Okrug</i>	2000	24.25	III
	<i>Kolguev Island Traditional use territory, Nenets Autonomous Okrug</i>	2002	5124.95	VI
	<i>Put Il'icha Traditional use territory, Nenets Autonomous Okrug</i>	1999	11016.01	
Terrestrial and marine	<i>Brekxovskie Islands Sanctuary (zakaznik) (federal), Taimyr (Dolgano-Nenets) Autonomous Okrug</i>	1999	2884.87	VI
Russia (marine) United States (terrestrial and marine) ¹³	<i>Wrangell and Gerald Islands</i> ¹² Fish and Wildlife Service National Wildlife Refuges	1997	14300.5	Ib
	<i>Kachemak Bay National Estuarine Research Reserve, southern Alaska</i> ¹⁴	1997	1482	

12 The Russian Federation Government Order about annexation of adjacent to Wrangel and Gerald islands 12-miles zone of inside waters and territorial sea (excluding zone bordering to southern coast of Wrangel Island between Khischniki river mouth and Gavayi Cape) to State Nature Reserve "Wrangel Island" (1997).

13 Since 1997, the US Fish and Wildlife Service has added over 662.65 km² of Arctic habitat to its National Wildlife Refuge System in Alaska. Nearly 35.54 km² are designated Wilderness areas.

14 Part of the National Estuarine Reserve System which is overseen by the NOAA; administered "on the ground" by the Alaska Department of Fish and Game. This area does not fall fully within the CAFF boundary.

Table 3. Terrestrial and marine areas proposed for protection in the circumpolar Arctic as of 2004. The areas in this list are in varying states of completion, ranging from identified areas of interest to those nearing designation.

Country	Name and Location	Proposed size, if known (km ²)
Canada	<i>Nordenskiöld Wetland Habitat Protection Area</i> , Southern Yukon	
	<i>Ddhaw Ghro Habitat Protection Area</i> , Central Yukon	
	<i>Llutsaw Wetland Habitat Protection Area</i> , Southern Yukon	
	<i>Bathurst Island (Tuktusiuqviauluk) National Park</i>	approx. 9000
	Nunavut Territory	
	<i>East Arm of Great Slave Lake National Park</i> , Northwest Territories	approx. 7400
	<i>Torngat Mountains National Park Reserve</i> , Labrador	approx 9700
	<i>Edehzhie Wildlife Area</i> , Horn Plateau/Mills Lake, Northwest Territories	approx. 24 500
	<i>Tuktut Nogait National Park</i> - extensions in Sahtu Settlement Area and Nunavut	Approx 11 850
	<i>Sahyoue/Edacho National Historic Site</i> , Great Bear Lake, Northwest Territories	approx. 5500
	<i>Nahanni National Park expansion</i>	
	<i>Mealy Mountains National Park</i>	Approx 21,000
Canada (marine)	<i>Qaqqulluit and Akpait National Wildlife Area</i> , SE of Qikiqtarjuaq, Nunavut	Approx 2800
	<i>Southern Beaufort Sea</i> , Northwest Territories	
	<i>Gilbert Bay</i> , southeast Labrador	47
	<i>Iqalituq National Wildlife Area</i> , Baffin Island, Nunavut	Approx 6800
Greenland	<i>Austmannadalén</i> , Nuuk Municipality	Approx 700
Finland ¹⁵	<i>Pallas-Ylläs National Park</i> ¹⁶	approx. 1000
	<i>Pyhä-Luosto National Park</i> ¹⁷	approx. 120
Iceland ¹⁸ (terrestrial)	<i>Hlíð</i> , Bessastaðahreppur, southwest Iceland	
	<i>Kasthúsatjörn</i> , Bessastaðahreppur, southwest Iceland	
	Árnahellir, Ölfusi, south Iceland	
Iceland (marine)	<i>Stagley</i> , Reykhólahreppur, west Iceland	
Norway (terrestrial)	<i>Varangerhalvøya</i> , Finnmark	2000
	<i>Seiland</i> , Finnmark	80
	<i>Goatteluobbal</i> , Finnmark	350
	<i>Lyngsalpene</i> , Troms	750

¹⁵ Approximately 2600 km² is reserved for protection on state-owned land, the individual sites being over 10 km². Once established, there will be an additional 15-20 protected areas, depending on how they are integrated into existing areas.

¹⁶ At the turn of the year 2001-2002, the management of Pyhätunturi and Pallas-Ounastunturi National Parks was transferred from the Finnish Forest Research Institute to Metsähallitus. The aim is to establish a combined Ounas-Ylläs National Park (about 1000 km²) from Pallas-Ounastunturi National Park and Ylläs-Aakenustunturi's old-growth forests conservation programme and other areas (490 km² new area for protection)

¹⁷ Planned combination of *Luosto's* old-growth forest conservation programme (80 km² new area for protection) area with *Pyhätunturi National Park* (43 km²)

¹⁸ These areas were designated in 2002.

	<i>Rebbenesøy, Troms</i>	150
	<i>Sørdalen-Isdalen, Troms</i>	250
	<i>Møysalen, Troms/Nordland</i>	120
	<i>Svellingflaket, Nordland</i>	230
	<i>Tysfjord-Hellemo, Nordland</i>	1000
	<i>Røstøyene, Nordland</i>	120
	<i>Mistfjorden-Valnesfjorden, Nordland</i>	400
	<i>Junkerdal-Balvatnet, Nordland</i>	500
	<i>Sundfjordfjella, Nordland</i>	10
	<i>Colesdalen, Svalbard</i>	14
Norway ¹⁹ (terrestrial and marine)	<i>Nordre Isfjorden National Park, Svalbard</i>	2050 terres.; 904 marine
	<i>Sassen-Bunsow Land National Park, Svalbard</i>	1157 terres.; 73 marine
	<i>Nordenskiold Land National Park, Svalbard</i>	1182 terrestrial 155 marine
	<i>Hopen Nature Reserve, Svalbard</i>	46 terres.; 695 marine
	<i>Vardeborgsletta, Svalbard</i>	20 terres.; 4 marine
Russia (terrestrial and marine)	<i>Russian Arctic National Park (federal) Archangels Oblast</i>	
	<i>Vaigachski Traditional Use Territory (regional), Nenets Autonomous Okrug</i>	
	<i>Yugorski Sanctuary (zakaznik) (regional), Nenets Autonomous Okrug</i>	
	<i>Indigski Sanctuary (zakaznik) (regional), Nenets Autonomous Okrug</i>	
	<i>Tazovskaya Guba Sanctuary (zakaznik) (regional), Yamalo-Nenets Autonomous Okrug</i>	
	<i>Yamalsky Sanctuary (zakaznik) (regional), Yamalo-Nenets Autonomous Okrug</i>	
	<i>Gydayamovski Sanctuary (zakaznik) (regional), Yamalo-Nenets Autonomous Okrug</i>	
	<i>Basin of Popigai River Traditional Use Territory, Khatangski district, Taymyr Autonomous Okrug</i>	
	<i>Beringovsky Traditional Use Territory (regional), Chukotski Autonomous Okrug</i>	
	<i>Kosa Russkaya Koshka Nature monument (regional), Chukotski Autonomous Okrug</i>	
	<i>Cape Navarin Nature monument (regional), Chukotski Autonomous Okrug</i>	
	<i>Ruddera Bay Nature monument (regional), Chukotski Autonomous Okrug</i>	
	<i>Verkhneillirneiskie Lakes Nature monument (regional), Chukotski Autonomous Okrug</i>	
	<i>Krasnoe Lake Nature monument (regional), Chukotski</i>	

19 To expand the network of protected areas that already include 56 % of the terrestrial part of the Svalbard archipelago, a new protected areas plan has been worked out by the Directorate for Nature Management and the Governor of Svalbard. The intention is making the network more representative by including valleys and other areas having high biological productivity. If all six areas are protected the level of terrestrial protection in Svalbard will increase to 64 %

	Autonomous Okrug
	<i>Meechkin Spit Nature monument</i> (regional), Chukotski
	Autonomous Okrug
	<i>Tytl Lake Nature monument</i> (regional), Chukotski
	Autonomous Okrug
	<i>Mainits Lake Nature monument</i> (regional), Chukotski
	Autonomous Okrug
	<i>Seutakan Lake Nature monument</i> (regional), Chukotski
	Autonomous Okrug
Sweden ²⁰	
United States ²¹ (terrestrial)	Fish and Wildlife Service National Wildlife Refuges

The fundamental decision on Finnish sites in the European Union (EU) network of protected areas, Natura 2000, was made in Council of State in 1998. Especially in arctic areas, most of the sites are existing protected areas or areas belonging to earlier protection programmes. Since then, the EU has made several assessments to define the favourable conservation status of habitat types and species with consequent requests to add sites into network. Supplementary decisions on new sites have been made several times and the process is still going on. At the moment in the arctic part of the Natura 2000 programme there are about 560 km² (220 km² on private land), which were not in earlier protection programmes. After an assessment, the Commission of EU has already approved the list of Natura 2000 sites for the Alpine biogeographical region which includes parts of Finnish and Swedish Lapland and a similar kind of decision concerning the Boreal biogeographical region which includes the rest of the Finnish arctic area will be made soon.

During 1997-03 about 355 km² private land belonging to protection programmes was purchased to state ownership. In September 2004 there are totally about 3070 km² reserved for nature protection on state owned land. Of these approximately 2800 km² and 47 sites are in areas being over 10 km². Once established, there will be an additional 15-25 protected areas, depending on how they are integrated into existing areas.

In February 2004 Finland nominated 38 new Ramsar areas (6844 km²). The total area of all 49 sites is now 7858 km². In the arctic 6 new areas (4018 km²) were nominated in addition to 1 nominated earlier (344 km²). All areas are also included in the Natura network.

In 2003 Finland re-evaluated the IUCN management categories for protected areas larger than 10 km². Of the 54 areas, 5 are classified in category Ia, 2 in Ib, 4 in category II and 43 areas in category VI.

Protected Areas Enhancement

New legislation for habitat and ecosystem conservation and protection

Canada

(i) Canada National Parks Act, proclaimed February 2001. This Act establishes seven new national parks in legislation, (agreements for which were negotiated over the period 1989-1999), facilitates the legal process of creating future national parks, provides for greater protection of wildlife, flora and cultural resources within national parks, and includes a number of housekeeping measures to simplify and streamline park administration and management.

20 Swedish protected areas, etc. are part of the NATURA 2000 network within the European Union. This work is gradually improving and new areas are being added.

21 Acquisition of an additional 520 km² are pending. Fifteen land exchanges (approx. 2025 km²) are in progress.

(ii) Federal Species at Risk Act (2002). The Species at Risk Act aims to protect wildlife at risk from becoming extinct or lost from the wild, with the ultimate objective of helping their numbers to recover. The Act covers all wildlife species listed as being at risk nationally and their critical habitats. It contains provisions for the protection of critical habitat. Recovery strategies and action plans will identify the critical habitat of a threatened or endangered species needing protection. Once identified, critical habitat will be protected by conservation agreements, provincial or territorial legislation, or federal prohibitions.

(iii) Northwest Territories Protected Areas Strategy, approved April 1999. This federal-territorial strategy (NWT-PAS) provides a framework for identifying, establishing and protecting significant natural and cultural areas, as well as representative core areas in each of the eco-regions of the Northwest Territories. See also section on **Management and Monitoring** below.

In March 2001 Sahyoue/Edacho, two peninsulas on the west shore of Great Bear Lake received interim protection through the NWT-PAS. Vital to the traditional narratives of the Sahtu Dene, these lands were designated cultural landscapes of national historic significance in 1998. The land withdrawal, in effect for five years, will ensure that no new interests can be registered against the land and provide time for government departments, communities and other stakeholders to discuss and implement appropriate mechanisms to ensure the long-term protection of these nationally significant cultural landscapes.

(iv) Yukon Protected Areas Strategy. This strategy, approved in 1998, was designed to develop a complete network of protected areas in Yukon representing the significant ecosystems of the Territory, based on ecosystem management, conservation biology, sustainable economies and the values, history and knowledge of residents. In 2000, the strategy was reviewed and changes made to improve public representation in the process, provide clearer direction to local planning teams, ensure more transparency and enhance communications. The strategy continues to be implemented taking into account these changes. Progress towards establishing new protected areas through the strategy has been slower than originally envisioned.

Finland

(i) The Nature Conservation Act (no. 1096/96) came into effect on January 1, 1997. Some additional changes to the Act were made in 2004.

(ii) Decree on Nature Conservation (no. 160/97) came into effect on March 1, 1997.

(iii) The Forest Act (no. 1093/96) came into effect on January 1, 1997. It has also provisions for preserving biodiversity and habitats of special importance.

(iv) The Framework Directive for the Water Policy of the EU (60/2000) entered into force 22 December 2000, establishing a framework for water protection in the Member States. The Directive calls for changes in the monitoring of the status of waters and introduces new procedures for reaching the water protection objectives; for this purpose, programmes of measures must be drawn up for the river basin districts to be identified.

Greenland

(i) Nature Conservation Act for Greenland. An updated and forward-looking framework law that enables much wider protection for different kind of habitats and types of nature was endorsed in 2003. The new act will protect all larger salt lakes and all thermal springs, and establishes a protection line of 100 metres around all coastline and lakesides against new building and alteration.

(ii) The Greenlandic municipalities have started to develop 'plans for rural areas', which will regulate all initiatives in the very large area outside of urban zones. Regulations are made in relation to protection of nature and historical cultural values.

Iceland

The Nature Conservation Act, No. 44/1999, came into force July 1, 1999, replacing the partially revised Nature Conservation Act, No. 93/1996, replacing an older Act, No. 47/1971. The initial revisions focused mainly on the administrative part of the old act, but conservation measures were also strengthened. The second half of the revision of the Act focuses on, e.g., environmental conservation, conservation categories, rights of way, nature interpretation and education, duties towards nature preservation, and conservation policies. A full revision, *inter alia*, taking into account CPAN Principles and Guidelines and the EC Habitats Directive, was completed in 2000. Some amendments were made in December 2001 and the change then, e.g., entailed the discontinuation /termination of the Nature Conservation Council.

Norway

(i) The Svalbard Environmental Protection Act. This Act entered into force July 1 2002. For the first time, all environmental regulation for one area is collected in one act. This makes a better overview of regulations for the area. The Act sets framework conditions for all enterprises in the archipelago. The aim of the Act is to maintain a virtually untouched environment in Svalbard with respect to continuous areas of wilderness, landscape elements, flora, fauna and cultural heritage. Within the framework of the Act there is room for environmentally sound settlements, research and commercial activities. The Act contains main principles in international environmental agreements, like the precautionary principle, the principle to assess activity on the basis of the overall pressure on the environment and the principle that the person responsible for impacts on the environment shall pay. The Act introduces a general principle that all flora and fauna are basically protected. Only controlled and limited harvesting is allowed, so that the species' natural productivity, diversity and habitats are preserved. Area protection will continue as a central measure to protect the wilderness nature. The Act also protects Svalbard's unique cultural areas and cultural heritage connected to different eras in its history.

(ii) Nature Conservation Act. A minor change to allow water falls, etc. to be designated as natural monuments entered into force in 2001. (This Act is under revision).

Russia

Habitat and ecosystem conservation, and the establishment and management of nature-protected areas (NPA) in the Russian Federation are regulated by national laws. Until 1997 national legislation included the following basic laws: On nature environment protection (1991); On strictly natural protected areas (1995); On the Animal World (1995); and Water Code of Russian Federation (1995). Since 1997, the following acts were legislated for the purpose of the conservation of terrestrial and marine ecosystems, species, and their habitats.

Federation Level:

(i) Forest Code of the Russian Federation (2004). The Code is the legal basis for the sustainable use, protection, conservation, and reproduction of forests, increasing their ecological and resources potential.

(ii) On territories of traditional nature use of indigenous peoples of the North, Siberia and Far East of the Russian Federation (2002). The law is the legal base for the organization, conservation, and use of territories of traditional nature use of indigenous peoples of the North, Siberia and Far East of the Russian Federation for conducting traditional nature use and traditional lifestyles on these lands.

(iii) Land Code of the Russian Federation (2002). The Code regulates relations in the use and conservation of lands in Russia.

(iv) On environment protection (2002). The law determines the legislative base of State Policy in the sphere of environmental protection.

Regional Level

(i) Sakha Republic (Yakutia)

The Decree About the statement of standard regulations in national nature parks (Aan Aiylgy), resource reserve (Erkeeyi sirder), nature monuments (Aiylgy menelere) was adopted in 1997. Within the frame of this law, nature protected areas categories functional zones with different protected regimes were determined. The regime must not only guarantee the conservation of biodiversity and landscape diversity but also promote conservation of traditional nature use, habitat and way of life of indigenous peoples. Standard regulations in resource reserves of Sakha Republic (Yakutia). In 2000, some additions and changes were included by Government Decree. The protection regime in resource reserves prohibits any industrial activities, including timber industry. At the same time industrial, amateur and sport fishing, professional, amateur and sport hunting, reindeer breeding, horse breeding, livestock raising and other traditional activities were permitted.

(ii) Yamalo-Nenets Autonomous Okrug

About nature protected areas of YANAO (1997). The law regulates the organization, protection, and use of nature-protected areas in Yamalo-Nenets Autonomous Okrug and ensures the rights and interests of indigenous people at the NPA territories.

(iii) In each Arctic region and for each nature protected area an individual state permit is issued (for nature monuments it is the so-called passport) which regulates activity and establishes special protected regime for each territory.

Sweden

The Environmental Code – effective from January 1 1999. The rules contained within 15 acts have been amalgamated in the Environmental Code. The provisions of the Code are aimed at promoting sustainable development whereby present and future generations will be guaranteed a healthy and good environment. Sustainable development is based on the insight that nature is worthy of protection and that the right of humans to alter and use nature is linked to the responsibility to manage nature well.

The content is basically transferred from the old legislation but some new things have been added. Cultural reserves, for example, are now a separate protection category. Culture values are often linked to nature values. Environmental protection areas may be declared by the government, if special rules are required because the area is exposed to pollution or does not satisfy an environmental quality norm.

The most important benefits of the Environmental Code are a comprehensive approach that makes implementation more effective, the objectives, and the general rules of consideration, environmental quality norms, and environmental impact statements.

United States

The National Wildlife Refuge System Improvement Act of 1997 amends the National Wildlife Refuge System Administration Act of 1966, and in general, strengthens the wildlife conservation

mission of the Refuge System and provides for maintaining the biological diversity, integrity, and environmental health of the system.

Proposed legislation for habitat and ecosystem conservation and protection

Canada

Northwest Territories Parks Act and Northwest Territories Wildlife Act. The Government of the Northwest Territories is updating its legislation and policy to be consistent with the NWT-Protected Areas Act and to reflect comprehensive land claim agreements. The new legislation will enable protection of habitat, ecosystems, and cultural values beyond that currently provided through federal legislation. Amended territorial parks legislation will include new categories for cultural conservation areas and wilderness preserves, while the new NWT Wildlife Act will contain provisions to establish ecological reserves and special habitat/species-at-risk areas.

Territorial Species at Risk legislation will address conservation needs of listed endangered and threatened species on territorial land.

Iceland

The Icelandic Parliament, Althing, verified a new act for Umhverfisstofnun on May 15, 2002. The act comprises the merger of three agencies and two committees: Hollustuvernd ríkisins (Environmental and Food Agency of Iceland), Náttúruvernd ríkisins (Nature Conservation Agency), Veiðistjóraembættið /Wildlife Management Institute), Dýraverndarráð (Animal Welfare Committee) and Hreindýraráð (The Reindeer Committee of Iceland). This new act will come into force January 1, 2003.

Norway

The main legislation for habitat and ecosystem conservation in mainland Norway is the Nature Conservation Act. In April 2001, the Government appointed an expert group (BLUT) assigned to examine this Act as well as other relevant legislation with the aim of strengthening measures for protecting biodiversity in Norway. The review will include how legislation responds to the issues within the scope of the Convention on Biological Diversity and other relevant international instruments. The expert group will deliver their final report within 2004, and a new, broad "Biodiversity Act" may be a reality in a couple of years, or in 2005 at the earliest.

New conservation initiatives outside of formal protected areas

Canada

(i) In March 2001, 5500 sq kms of land in the Northwest Territories, known as Sahyue and Edacho (Grizzly Bear Mountain and Scented Grass Hills), were withdrawn from disposition by Order in Council under the Federal/Territorial Protected Areas Strategy. Vital to the traditional narratives of the Sahtu Dene culture, these lands were designated cultural landscapes of national historic significance in 1998. The land withdrawal, in effect for five years, will ensure that no new interests can be registered against the land and will provide time for government departments, local aboriginal communities and other stakeholders to discuss and implement appropriate mechanisms to ensure the long-term protection of these nationally significant cultural landscapes.

(ii) On April 4, 2002 the Canadian Wildlife Service applied to the Department of Indian Affairs and Northern Development for a 5-year land withdrawal of 25,000 sq km in the Deh Cho Region of the Northwest Territories. During this time no new interests in the area (Edehzhie) can be

registered and it will be considered for formal protection under the Canada Wildlife Act using the process described in the NWT Protected Areas Strategy. Edehzhie is a large representative area of northern boreal forest and wetlands and is very important in the subsistence lifestyle, and the culture of local Aboriginal communities.

(iii) Gwich'in Land Use Plan. Gwich'in protected areas are one of a number of categories of land use identified in the Gwich'in Land Use Plan. The Plan was approved by the Gwich'in Tribal Council in September 1999 and subsequently forwarded to the Government of the Northwest Territories and Government of Canada for consideration and approval.

(iv) Thelon Game Sanctuary Management Plan. The Thelon Game Sanctuary continues to be one of the richest areas for mammals on the tundra, and is of great cultural value to the Dene and Inuit. The Nunavut Land Claim Agreement called for a management plan for the Thelon, which is now in the final stages of review and approval. The Plan provides for a Management Authority consisting of government and regional representatives. Conservation goals for the Thelon are i) protection of the undisturbed natural character and important ecological values of the Sanctuary, ii) protection of the important cultural heritage of the area, and iii) utilization of the area for its intrinsic and recreational values.

(v) Kendal Island Migratory Bird Sanctuary Management Agreement. The Canadian Wildlife Service of Environment Canada is negotiating an agreement with oil and gas development interests in the Kendall Island Sanctuary. The agreement is intended to maintain the ecological integrity of the sanctuary by minimizing development impacts through management targets, cooperation and accountability.

(vi) Nah'e Dehe (South Nahanni Watershed). In March 2000, community members from Nahanni Butte, Northwest Territories, along with representatives from Parks Canada, Deh Cho First Nations, World Wildlife Fund Canada and Canadian Parks and Wilderness Society formed a consensus team to develop a plan for managing Nahanni National Park Reserve, which lies within Nah'e Dehe. The team also wishes to protect this entire 33,000 sq km area and in 2003 lands adjacent to the park were given interim protection through a land withdrawal.

Finland

Some of the areas included in the Natura 2000 network will be protected by other means than as a nature conservation area. In some areas the conservation objectives can be achieved by the Land Use and Building Act (no. 132/1999) or by the Water Act (no. 264/1961), separately or combined, or with the Nature Conservation Act (no. 1096/96).

Metsähallitus has completed landscape ecological management plans for state-owned areas in the region where forestry is practiced. These cover about 45 % of the Finnish arctic area. The aim of the landscape ecological management plans is both socially and ecologically sustainable use of unprotected areas. Thus, the plans promote protection of the formally unprotected areas. During 2004-2005 these plans will be re-evaluated, when new regional Natural Resources plans will be drawn up.

Greenland

(i) The new nature protection law protects all larger salt lakes and all thermal springs, and establishes a protection line of 100 metres around all coastline and lakesides against new building and alteration.

(ii) The Greenlandic municipalities have started to develop 'plans for rural areas', which will regulate all initiatives in the very large area outside of urban zones. Regulations are made in relation to protection of nature and historical cultural values.

Iceland

The potential to identify sites or areas of interest is introduced in the new Planning and Building Act No. 73/1997, 135/1997 and 58/1999, that is, *local conservation provisions*: Provisions in a regional, municipal, or local plan regarding the conservation of the characteristics of buildings or other remains of historical or cultural value.

A new Nature Conservation Strategy was introduced to Parliament in June 2004 and addresses, *inter alia* protected areas and their management.

Finland

There are no marine areas within the CAFF boundary in Finland

Norway

From 1973 to present 341 watercourses have been protected against hydroelectric exploitation through four protection plans. The Government now wants to add another 52 watercourses to this list to secure unique rivers and lakes with large natural values. The Parliament will handle this fifth protection plan shortly, probably autumn 2004. Whether (some of) these watercourses will need a stricter protection is an item for the group of experts dealing with the revision of legislation concerning biological diversity (BLUT).

Russia

A number of initiatives, and in particular the Global Environment Facility (GEF) initiative "An integrated ecosystem approach to biodiversity conservation and minimising fragmentation in the Russian Arctic (www.grida.no/ecora) ,” aim at conserving ecosystems, communities, and species of plants and animals, their habitats, and developing a network of protected areas.

Sweden

In forest protection, both voluntary protection and certification are used. This trend has not yet influenced the “arctic areas” of Sweden.

United States

(i) Bilateral Agreement for the Conservation of the Bering/Chukchi Sea Polar Bear Population (The US and Russian governments and Native organizations).

(ii) Bering Sea Important Bird Area Network. A recent workshop concluded with the identification and recommendation of crucial bird habitat and species of common conservation concern (Russia federal and regional agencies, USFWS and Audubon Alaska).

(iii) Subsistence Co-management Council to develop integrated policies for subsistence use, management and conservation of migratory birds in Alaska (USFWS and Alaska Native Organizations).

(iv) Northern Fur Seal Conservation Plan (Tribal Governments of St. Paul and St. George Islands, WWF-US).

Marine

New legislation for marine habitat conservation and protection

Canada

Oceans Act (1997). This Act defines Canada's maritime zones and gives the authority to establish marine protected areas (MPAs), carry out integrated management plans, and develop marine environmental quality guidelines, objectives and criteria. Under the Act, MPAs can be established for the conservation and protection of: unique habitats, endangered or threatened marine species and their habitats, commercial and non-commercial fishery resources (including marine mammals) and their habitats, marine areas of high biodiversity or biological productivity, and any other marine resource or habitat requiring special protection.

National Marine Conservation Areas Act (2002). This legislation provides for the establishment and management of National Marine Conservation Areas representative of Canada's 29 marine regions. Nine of the marine regions are in the Arctic. Under the legislation, national marine conservation areas will be established to protect and conserve areas representative of Canada's ocean environments and the Great Lakes, and to encourage public understanding, appreciation and enjoyment of this marine heritage. Such areas are intended to be models of ecologically sustainable use and the legislation includes provisions to ensure an appropriate balance between protection, sustainable use and recreational activities.

Greenland

The new Nature Conservation Act will enable wider protection of marine habitats including, amongst others, protection of foraging areas for birds and marine animals.

Norway

The Svalbard Environmental Act that entered into force July 1, 2002 is now the legal basis for designation of new MPAs or other potential marine conservation efforts within twelve nautical miles of Svalbard. (There are some exceptions related to conservation of fish and migratory sea mammals). Norway expanded its territorial boarder outside the mainland and around Svalbard and Jan Mayen from four to twelve nautical miles on January 1, 2004.

A regulation on Conservation of Coral Reefs connected to the Saltwater Fisheries Act entered into force in 1999. The aim is to protect coral reefs against destruction from fisheries and thereby contribute to responsible resource management securing the spawning and juvenile areas for many fish species

Russia

(i) On internal marine waters, territorial sea and adjacent zone of the Russian Federation (1998). This law establishes the status and legal regime of internal marine waters, territorial sea, and adjacent zone of the Russian Federation, including conservation of water biological objects.

(ii) On exclusive economic zone of the Russian Federation (1998). The law determines the status of the Exclusive Economic Zone (EEZ) of the Russian Federation, and the sovereign rights and jurisdiction of the Russian Federation in its EEZ, including protection and conservation of the marine environment from contaminants.

Sweden

There are no marine areas within CAFF boundary in Sweden.

United States

National Initiative on Marine Protected Areas: Executive Order 13158 (May 26, 2000) orders relevant federal agencies to develop a scientifically based national network of MPAs, strengthen protection, management, and conservation of existing MPAs, and to designate new MPAs. The Order also directs establishment of a National Marine Protected Areas Centre that will include training, research, and technical assistance branches.

Proposed legislation for marine habitat and ecosystem conservation and protection

Finland

There are no marine areas within CAFF boundary in Finland.

Greenland

The proposed Nature Conservation Act will enable wider protection of marine habitats including, amongst others, protection of foraging areas for marine animals.

Norway

An expert group lead by the Directorate for Nature Management was established in 2001 to assess existing tools and further needs concerning the designation of marine protected areas and other management efforts in the territorial waters and high seas around the Svalbard archipelago. This group has started its work yet. Meanwhile several of the existing protected areas (from 1973) have been expanded from four to twelve nautical miles as Norway expanded its territorial borders January 1, 2004.

The group of experts revising the Biodiversity legislation is expected to look into the need for a separate category for establishing of marine conservation areas.

An expert group has been appointed by the Government with the mandate to work out a new act on marine resources where the management of all marine living species is looked into. The expert group will present their final results spring 2005.

Sweden

There are no marine areas within CAFF boundary in Sweden.

United States

Bottom fishing restrictions in the Aleutian Islands to protect benthic habitats and species assemblages are proposed by Oceanus and supported by WWF-US).

New conservation initiatives outside of formal protected areas

Canada

(i) Canada's Oceans Strategy. The Oceans Strategy is a federal policy to improve the management of Canada's oceans for the benefit of current and future generations. Its central aim is to ensure that decisions about every activity in or around Canada's oceans are cooperative, environmentally and economically sustainable, and socially responsible. The strategy will serve as a guide for building partnerships to ensure sustainable development in the marine environment. The Oceans Strategy will provide policy direction, assist in building partnerships, and pursue a number of key activities, including: integrating science and traditional ecological knowledge to increase understanding of marine ecosystems; reducing marine pollution; developing a strategy for a national network of Marine Protected Areas; using integrated management to resolve conflicts and manage human activities in oceans areas where multiple interests are involved; and promoting international collaboration to protect globally shared

fisheries and ocean resources. (<http://www.dfo-mpo.gc.ca/oceanscanada/newenglish/htmdocs/cos/cos.htm>)

(ii) Integrated Management (IM) is a proactive approach towards sound oceans management. It is an ongoing and collaborative planning process that brings together interested parties, stakeholders and regulators to reach general agreement on the best mix of conservation, sustainable use and economic development of coastal and marine areas for the benefit of all Canadians. The *Oceans Act* calls for the Minister of Fisheries and Oceans to lead and facilitate the development and implementation of plans for the Integrated Management of all activities or measures affecting estuaries, coastal and marine waters. There are currently integrated management planning exercises occurring in the Southern Beaufort and in western Hudson Bay. (<http://www.dfo-mpo.gc.ca/CanOceans/INDEX.HTM>)

(iii) Identification of “*Key Marine Sites for Migratory Birds in Nunavut and the Northwest Territories*”, a document summarizing 34 sites (161 000 km²) in the Canadian Arctic which support more than 1% of the Canadian population of any bird species at any point in the year was published in 2004.

Finland

There are no marine areas within CAFF boundary in Finland.

Norway

In recent years, four (+) large *Lophelia* coral reefs have been discovered in Norway. The “Røst reef”, located north of the Arctic Circle off of Lofoten, is potentially the largest *Lophelia* coral reef in the world: 35 km long and 3 km wide. It lies at a depth of between 300-400m. The recently discovered “Røst reef” and two more reefs have been protected according to the regulation on Conservation of Coral Reefs connected to the Saltwater Fisheries Act that entered into force in 1999.

Russia

The Barents ecoregion project of the Russian Program Office of the World Wide Fund for Nature (WWF).

Sweden

There are no marine areas within CAFF boundary in Sweden.

United States

(i) Marine Conservation Strategy for the Pribilof Islands (Pribilof Island Tribal Governments, WWF-US).

(ii) Seabird By catch reduction experiment for Russian Longline Fishery (WWF-US).

Establishing Linkages

Joint projects or programs between Arctic nations to meet habitat requirements of migratory or other wide-ranging species

Canada

(i) Discussions between Canada and Greenland/Denmark have been initiated with a view to negotiating a twinning agreement for the Greenland National Park and Quttinirpaaq National Park of Canada consistent with the provisions of the CPAN Strategy and Action Plan.

(ii) Porcupine Caribou herd management – Cooperative management continues under the terms of the USA-Canada Agreement on the Conservation of the Porcupine Caribou Herd. The Agreement promotes international cooperation and coordination to conserve the herd and its habitat so that the risk of irreversible damage or long-term adverse effects as a result of use of caribou or their habitat is minimized. In 1999, Canada announced funding for a project to examine the impacts of climate change in the North that involves both traditional science and traditional knowledge, and a continent-wide assessment of the impacts of climate change on major migratory caribou herds in North America.

Finland

(i) “Preservation of the Arctic Fox, *Alopex lagopus*, in Sweden and Finland” an EU Life Nature project, in co-operation with the University of Stockholm, operated in protected and wilderness areas from 1998-2002. The main objectives of this project were to halt the declining population trend, enhance the chances for the species to increase in numbers, and have a 100% increase in the number of breeding adults in target areas over 4 years. Despite the conservation efforts, breeding has not been recorded in Finland since 1996. The 5-year (2003-2008) Swedish-Finnish-Norwegian EU Life Nature project “Saving the Endangered Fennoscandian arctic fox, *Alopex lagopus*” (SEFALO) has continued the conservation work.
(<http://www.zoologi.su.se/research/alopex/homesefalo.html>)

(ii) EU Life Nature project: “Conservation of the Lesser White-fronted Goose (*Anser erythropus*) in Finland” was completed in years 1996-2000. As part of the project, the migration routes and wintering quarters were located and conservation acts were completed in target areas.

(iii) Co-operation with Russian areas in Kola Peninsula concerning inventories of predatory birds has begun. Information of the inventories has been changed between experts. There is also other ongoing co-operation with protected area managers within the Arctic area of the Nordic countries and Barents region, especially concerning predators and other animals.

(iv) After the completion of the first phase of the Finnish-Russian Development Programme on Sustainable Forest Management and Conservation of Biological Diversity in Northwest Russia in 1997-2000, the programme has entered its second phase for the years 2001-2004.

The co-operation has already produced noticeable progress in the fields of sustainable forest management and nature conservation in Northwest Russia. Much knowledge, information and experience has been gained and exchanged during these years through committed joint project work. The first phase created a good and challenging base for future co-operation.

(v) A 3-year Finnish-Norwegian-Russian EU Interreg project “The existence and state of the populations of the fresh water pearl mussel in the NE parts of the North Calotte” has mapped the distribution of the species, developed mapping methods and educated divers on mapping in NE Lapland.

(vi) In February 2004 Finland nominated 38 new Ramsar areas (6844 km²). The total area of all 49 sites is now 7858 km². In the arctic 6 new areas (4018 km²) were nominated in addition to one nominated earlier (344 km²). All areas are also included in the Natura network.

(vii) In 2003 Finland re-evaluated the IUCN management categories for protected areas larger than 10 km². Of the 54 areas, 5 are classified in category Ia, 2 in Ib, 4 in category II and 43 areas in category VI.

Greenland

(i) Nordic cooperation in the Arctic, which includes Greenland is described under the Iceland heading in the section below.

(ii) A workshop is being held in Nuuk in 2004 on management and research on the common population of Canadian- Greenlandic Eider duck

Iceland

Nordic Action Plan to Protect the Natural Environment and Cultural Heritage of the Arctic – Greenland, Iceland and Svalbard. Several projects under the auspices of the Nordic Council of Ministers, approved at the meeting of Nordic environment ministers in Iceland, August 23 1999. The action plan is divided into five individual priority areas.

Area I: The Arctic as a model for the international effort for sustainable development.

- Project 1: Local Agenda 21 in the Arctic. Committee of Senior Officials for Environmental Affairs.
- Project 2: Integrating respect for the environment into the tourist sector. Committee of Senior Officials for Environmental Affairs and Business.
- Project 3: Integrating respect for the environment into the research and education sector. Sector: Committee of Senior Officials for Environmental Affairs.

Area II: Improved fundamental knowledge and better environmental monitoring in the Arctic.

- Project 4: Effects of trawling and sea-floor dredging: Sector: Committee of Senior Officials for Fisheries/Arctic research programme.
- Project 5: Arctic geese: Sector: Arctic research programme.
- Project 6: Sea birds in arctic parts of the Nordic countries: Sector: Committee of Senior Officials for Fisheries/Arctic research programme.
- Project 7: Harbour seals. Sector: Committee of Senior Officials for Fisheries/Arctic research programme.
- Project 8: Sustainable agriculture in the sub-Arctic. Sector: Nordic Environmental Strategy for Agriculture and Forestry.
- Project 9: Monitoring the natural environment and cultural heritage. Sector: Committee of Senior Officials for Environmental Affairs.

Area III: Improved Nordic co-operation on management and regulations in the Arctic.

- Project 10: New protection criteria: geological and cultural heritage. Sector: Committee of Senior Officials for Environmental Affairs.
- Project 11: Guidelines for managing marine archeological and cultural objects. Sector: Committee of Senior Officials for Environmental Affairs.
- Project 12: Representative selection of arctic cultural environments. Sector: Committee of Senior Officials for Environmental Affairs.
- Measure 1: Alien and genetically modified species. Sector: Committee of Senior Officials for Fisheries and Nordic Environmental Strategy for Agriculture and Forestry.
- Measure 2: Preventing the spread of diseases in fish. Sector: Committee of Senior Officials for Fisheries and Nordic Environmental Strategy for Agriculture and Forestry.
- Measure 3: Transferring experience gained in arctic cultural heritage management.

Area IV: Work to improve attitudes and prevent environmental crime in the Arctic.

- Project 13: Education on the arctic environment. Sector: Committee of Senior Officials for Research and Education.
- Project 14: Nature guides: Sector: Committee of Senior Officials for Environmental Affairs and for Business Affairs.

- Measure 4: Arctic information base on the Internet. Sector: Nordic Council of Ministers – Secretariat.
- Measure 5: Strategy to prevent environmental crime in the Arctic. Sector: Committee of Senior Officials for Environmental Affairs and for Justice.

Norway

(i) The Fennoscandian Lesser White-fronted Goose conservation project is run by Norwegian and Finnish organisations, and has a focus on habitats along the migration routes (including Russia).

(ii) A comprehensive program of co-operation between Norway and Russia (the Northwest Regions) in the field of habitat conservation has been going on for many years. Habitat requirements of migratory and other wide-ranging species are important elements in several of the ongoing projects.

Russia

Cooperative projects are included in the descriptions by United States, Norway and Finland.

Sweden

Lesser White-fronted Goose program, in cooperation with Finland and Norway.

United States

Bering Sea All Bird Working Group (2002). Dedicated to conservation, management, and monitoring of shared Alaska/Russian Far East bird populations (FWS, Russian Federation, Audubon).

Lena Delta/Yukon River Delta Cooperative Studies. Personnel exchanges, cooperative research, and management planning for eiders and other migratory birds.

Aleutian Canada Goose Population Recovery: Cooperative efforts between FWS-Alaska and Russia to re-establish breeding populations of the Aleutian Canada goose in Russia by translocating wild birds captured in the Aleutian Islands Unit of the Alaska Maritime National Wildlife Refuge to captive breeding and rearing facilities in the Kamchatka Region.

Joint projects or programs between Arctic nations and other global regions to meet habitat requirements of migratory or other wide-ranging species

Canada

(i) North American Commission for Environmental Cooperation (CEC). This agency facilitates communication about conservation and biodiversity issues between Canada, the U.S.A. and Mexico. In 1999, NACEC gathered about 60 experts from across North America to examine potential bilateral and trilateral priority areas for protection, with the intent to target about 10 priority areas. The conservation of North American grasslands and marine areas emerged as an issue of key concern. The marine areas program consists of projects for developing a basic marine ecosystem classification framework, a marine protected areas network, a marine “species and spaces of common concern” evaluation, and a marine protected areas practitioners exchange. (www.cec.org)

North American Marine Protected Areas Network of the CEC is designed to enhance the conservation of marine biodiversity in critical marine habitats throughout North America by creating functional linkages and information exchange among existing marine protected areas (MPAs). The work involves: (a) the establishment and coordination of a permanent network of North American MPAs linked electronically via the world wide web; and (b) the development

and implementation of cross-cutting conservation initiatives involving MPA sites with shared ecological links (e.g., critical migratory habitat) across Canada, Mexico and the United States.

The Mapping Marine and Estuarine Ecosystems of North America project will coordinate the development of comparable marine and estuarine ecosystem and habitat classification systems to be incorporated by the Parties into a North American geographic information system (GIS). This will provide the critical step needed in the identification of key biodiversity areas for conservation, restoration, or sustainable use. In turn, this will serve other strategic needs, such as the development of a representative system of marine and coastal protected areas for North America. This activity is closely coordinated with the project North American Marine Protected Areas Network.

(ii) **Baja to Bering.** The mission of the Baja California to Bering Sea Marine Conservation Initiative is to help conserve and restore the region's unique biodiversity and productivity through a linked network of Marine Protected Areas (MPAs) and migratory corridors. Based on sound marine conservation science, the Baja California to Bering Sea Marine Conservation Initiative will help strengthen existing MPAs, foster the creation of new ones, and link these with related marine conservation initiatives in Canada, Mexico and the United States. Through collaboration, this initiative will build local capacity, and develop new ways to approach marine conservation.

Norway

(i) A number of projects are undertaken through the work of the CAFF CBIRD Experts Group.

(ii) **Polar Bear.** As a result of years of planning and in compliance with the 1973 International Agreement on the Conservation of Polar Bears, Norway and Russia completed an aerial census of the shared population of polar bears in the Barents Sea in August/September 2004. This is the first scientifically qualified census of this population, and the resulting population estimate will be important for future monitoring and conservation of the population.

Sweden

Sweden has signed the African Eurasian Waterbird Agreement as a contribution to conserving and protecting these species.

United States

(i) Nushagak Bay was added to Western Hemisphere Shorebird Reserve Network in 2000.

(ii) **Central Pacific Flyway Working Group (2002).** Devoted to conservation and research of US Arctic breeding birds which migrate through the Central Pacific Flyway (FWS and governments of Oceania).

(iii) **Island Protection and Restoration Program:** Collaborative effort between various government and non-governmental organizations in Alaska, Hawaii, California, Canada, and New Zealand to prevent the introduction of invasive, non-native rodent species to pristine islands and to develop effective techniques for removal or control of invasive rodents on infested islands to restore biological diversity of marine bird and mammal species.

Management and Monitoring

Research initiatives for protected areas

Canada

Fisheries and Oceans Canada

(i) Evaluating Effectiveness of MPAs – Canada participated in this North American Commission for Environmental Cooperation project that established targets and evaluation protocols for marine protected areas.

Parks Canada

(ii) With the creation of Sirmilik National Park in 1999, a program of park research has been initiated, designed to acquire scientific information as basis for resource management decision-making and park planning.

(iii) An assessment of the ecological resources of the proposed Edehzhie protected area in the Northwest Territories was completed in 2003.

(iv) The report of the Panel on the Ecological Integrity of Canada's National Parks in 2000 has served as a catalyst for increased research in all national parks of Canada, including Arctic national parks, and a greater emphasis on science based decision-making.

Northwest Territories

(v) One of the goals of the NWT-Protected Area Strategy is to preserve the ecological diversity of the Northwest Territories by protecting core areas representative of the 42 eco-regions within the NWT. Research is being conducted and information collated to identify areas that best reflect the diversity of landscapes and habitats of these eco-regions, as defined through a national ecological classification framework. Significant natural and cultural areas under interim protection are subject to ecological assessments, which will identify important wildlife and habitats to help refine area boundaries and include these ecological values.

Nunavut

(vi) As part of the work to establish a new National Wildlife Area at Qaulluit and Akpait, research on the seabird colonies (mapping, contaminant and census work) has been conducted in 2000-2002. Research and local monitoring has also been conducted in 2001-2003 at Igaliqtuuq, near Clyde River, a candidate National Wildlife Area designed to protect a key site for bowhead whales. Land cover mapping to define habitat distribution has been completed at Dewey Soper Migratory Bird Sanctuary (MBS) and McConnell River MBS, and will be completed at East Bay and Harry Gibbons Migratory Bird Sanctuaries in 2004.

Finland

(i) In 2001-2002, the management of Pyhänturi and Pallas-Ounastunturi National Parks and some other areas was transferred from the Finnish Forest Research Institute to Metsähallitus. As a consequence, co-operation with the Finnish Forest Research Institute and other research institutes and Metsähallitus has strengthened. Metsähallitus has signed agreements on research co-operation with the Finnish Forest Research Institute, the Finnish Game and Fisheries Research Institute, the Geological Survey of Finland and The National Board of Antiquities. Metsähallitus has prepared a research strategy for the conservation areas. Its aim is to promote research, research co-operation and enhance the flow of information between research organizations and protected area managers. Metsähallitus has also named a scientific advisory board on nature conservation issues. It has participants from universities, research institutes and also from some ministries. Its aim is to develop innovative research ideas, ideas for funding research and also to advance education.

(ii) Caterpillars of a geometrid moth (*Epirrita autumnata*) caused extensive damage (5000 km²) in the mid-1960's especially in the birch forests of Utsjoki by eating the leaves of the trees. The recovery of the damaged areas has been slow or nonexistent. The lack of recovery is caused mainly by intensified grazing by reindeer in the area. A project proposal on revival and afforestation of these still damaged wilderness areas has been prepared by Metsähallitus jointly with local interest groups. The project has not yet received funding.

(iii) Research plan for Urho Kekkonen National Park is under preparation. The plan will evaluate existing research and surveys and bring out development needs in research and surveys, which are needed for management.

Greenland

(i) The permanent biological Zackenberg Research Station in Northeast Greenland National Park was opened in 1997. The operation of the station takes place within the framework of ZERO (Zackenberg Ecological Research Operations). The objective of the station is to facilitate ecosystem research in the High Arctic, which includes: basic quantitative documentation of ecosystem structures and processes, baseline studies of short-term and long-term variations in ecosystem functions, retrospective analyses of organic and inorganic material to detect past ecosystem changes, and experimental studies of ecosystem responses to Global Change.

(ii) In connection with the protection of the Ilulissat Icefjord and the World Heritage status, the municipality of Ilulissat endorsed a management plan for the protected area. This will be the first local management plan for a protected area in Greenland. A program for monitoring the impact on the area has been set up as well.

Iceland

Carrying capacity of tourism in Iceland. The University of Iceland (Department of Geography) and the Icelandic Tourist Board, in cooperation with the Nature Conservation Agency, are looking at carrying capacity in selected protected areas in Iceland. The project defines "carrying capacity" as the maximum number of tourists a destination can sustain before there will be unacceptable changes in the natural, physical, or social environments. The social environment is two groups, the tourists and the local people. The aim of the research is not to find "the right number" of tourists in the relevant area but to find the negative changes that have been caused by tourism.

The carrying capacity research has four main elements. (1) The physical carrying capacity study addresses elements such as infrastructure, planning, and the tourism supply. (2) The natural carrying capacity study addresses elements such as impact of tourists on flora and walking paths. (3) The study on the carrying capacity of local people focuses on how local people view tourists and tourism, and the effect of tourism on their lives and culture. Interviews have been taken with local people. (4) The study on the carrying capacity of tourists focuses on their views and the impacts they will have during their travel. Interviews have been taken with tourists.

Norway

There are several research projects going on in several of the protected areas, particularly in Svalbard. The Monitoring Program for Svalbard and Jan Mayen (MOSJ) has made progress and is running continuously with projects also in protected areas. See <http://miljo.npolar.no/mosj/start.htm> for further information.

Russia

Most of the nature reserves existing in the Russian Arctic carry out research programs or projects but their names and dates of beginning and finishing are not known at the present time.

Sweden

The COST Action E4 Forest Reserves Research Network (1995 – 1999) compiled country reports and a database on research in nature reserves. There was no focus on the Arctic because the main objective was to promote the research of natural forests. (ISBN 92-894-0155-9)

United States

The Alaska Maritime National Wildlife Refuge was recently designated a Land Management and Research Demonstration Area by the National Wildlife Refuge System to provide technical assistance and research opportunities on marine and coastal habitats and species.

Monitoring programs for protected areas

Canada

(i) As a result of the report of the Panel on the Ecological Integrity of Canada's National Parks in 2000, scientific monitoring activities in all national parks, including arctic national parks, has been strengthened. Monitoring programs consist of an array of subjects including weather and air quality; river flows and snow accumulation; shore erosion; fish species and catches; many aspects of wildlife ranging from individual species populations to breeding bird surveys; radio-tracking of certain species bear monitoring; visitor use impacts; and many others.

(ii) In Nunavut, continued monitoring work (banding, radio or satellite tracking, wildlife health, population census) has been conducted on migratory birds (waterfowl, seabirds) in the Queen Maud Gulf Migratory Bird Sanctuary (MBS), East Bay MBS, Dewey Soper MBS, McConnell River MBS, Prince Leopold Island MBS, as well as Bylot Island MBS (part of Sirmilik National Park).

(iii) A Trumpeter Swan survey conducted every 5 years as part of a continent-wide survey effort in Yukon Territory and the southwestern Northwest Territories. Part of the survey includes such protected areas as the Nisutlin National Wildlife Area in the Yukon Territory and Nahanni National Park Reserve in the southwestern Northwest Territories.

Finland

Inclusion of conservation areas, wilderness areas, and sites covered by protection programmes into the Natura 2000 network will bind them to systematic monitoring of habitats and threatened species. Reporting of the monitoring must be done in every six years. Framework and guidelines for monitoring are being prepared by European Union. Next reporting will be done in 2007 covering the period 2001-2006. In Finland, a general plan for monitoring of vascular plants listed in the EU Habitats Directive has been prepared by Finnish Environment Institute.

A proposal for a national biological diversity monitoring programme was made by an expert group commissioned by the Ministry of the Environment. The proposed monitoring programme is to be set up through cooperation between different organisations. It consists of present monitoring systems which are already suitable, supplemented with those which can, by added inputs, be made suitable. Totally there were 27 general monitoring projects covering different environments. (<http://www.ymparisto.fi/download.asp?contentid=8788>) The proposal on special monitoring programmes (e.g. monitoring of threatened species and special habitats) is being prepared by the same expert group.

Biological diversity monitoring in protected areas is mainly bound to broader scale national or EU-level monitoring. In many monitoring programmes, some monitoring sites are located inside protected areas.

Monitoring of visitor profiles, their satisfaction and motives on protected areas and wilderness areas by visitor surveys has been carried out. During years 1997–2000, four visitor surveys were made in protected areas and wilderness areas and in the future one or two surveys will be implemented yearly. These surveys give tools for monitoring impacts of recreation on protected areas.

Also monitoring of visitor flows are being done in protected areas with highest recreational use. In about 20 areas the monitoring is done every year.

Greenland

The Zackenberg Station carries out monitoring in the Zackenberg area. The Ministry of Environment and Nature and Ilulissat municipality carries out monitoring on the Ilulissat Icefjord World Heritage Area.

Iceland

Monitoring projects in Lake Mývatn and river Laxá.

Monitoring of waterfowl, started in 1975. The purpose is to follow trends in the breeding and moulting populations of the Lake Mývatn area. Data is collected in censuses in May (potential breeders) and August (moulting males, number of young). The following populations are monitored: Breeding, moulting and number of young: Tufted Duck *Aythya fuligula*, Scaup *Aythya marila*, Barrow's Goldeneye *Bucephala islandica*, Slavonian Grebe *Podiceps auritus*. Breeding and moulting: Long-tailed Duck *Clangula hyemalis*, Red-breasted merganser *Mergus serrator*, Whooper Swan *Cygnus cygnus*. Breeding and number of young: Harlequin Duck *Histrionicus histrionicus*, Common Scoter *Melanitta nigra*, Goosander *Mergus merganser*, Wigeon *Anas penelope*. Breeding: Teal *Anas crecca*, Pintail *Anas acuta*, Mallard *Anas platyrhynchos*.

Monitoring of fish started in 1977. The purpose is to follow trends in the fish populations in Mývatn, to give advice on commercial fisheries and throw light on ecological relationships within the lake food web.

Arctic charr (*Salvelinus alpinus*) is the main commercial stock in the lake. Gill nets with different mesh sizes are used in September to estimate size and age distribution of the charr population. Commercial catch statistics are available almost every year from 1900.

Three-spined stickleback (*Gasterosteus aculeatus*) is the most abundant fish in the lake. The sticklebacks are collected by traps at 7 different sites in the lake twice a year (June and August). Data is collected on density, size distribution and parasitism.

Monitoring of midges started in 1977. The aim is to follow year-to-year changes in all the chironomid and simuliid populations in the lake and river. The midges are collected in flytraps that catch flying insects. Such traps are located at 9 sites around the lake and river. Traps are emptied at 10 days intervals all summer and the flies are counted and identified to species.

Monitoring of Crustacea started in 1989. The purpose is to follow trends in the Cladocera populations in Mývatn. Bottom-living Cladocera are collected at 10 days intervals by funnel traps at 5 different sites in the lake throughout the summer. Catches of Cladocera are identified to species level. Planktonic Cladocera *Daphnia longispina* and Copepoda are collected on the same sites with a water sampler.

Monitoring of phytoplankton started in 1989. The purpose is to keep track of *Anabaena* blooms in Mývatn, as well as species composition in the plankton in general. Water samples are collected from the outlet at 10 days interval for measuring the amount of particulate organic matter (POM) and species composition of the phytoplankton. Secchi-depth is monitored at 10 days interval in the lake.

Monitoring of aquatic vegetation started in 1992 (older data exist) The purpose is to follow changes in the distribution of aquatic vegetation in Mývatn, especially the *Cladophora* mat on the bottom of the South basin. Aerial photographs are taken annually or every other year.

Monitoring of Weather and Runoff. The purpose is to collect data on weather variables which are likely to play an important ecological role in the Mývatn ecosystem. An automatic weather station was erected in 1996, but weather observations have been conducted locally since 1931. Cooperation with the Meteorological Institute in Reykjavík. Three water gauges monitor the water-flow in the River Laxá, operated by the National Energy Authority (Orkustofnun), Reykjavík. Lake temperature has been monitored since 1971.

Monitoring of other areas: Further information on the above mentioned project is available from Árni Einarsson, arnie@rhi.hi.is, Mývatn Research Station.

Lake Víkingavatn A shallow spring-fed lake in Kelduhverfi, the lowlands north of Lake Mývatn. Rich in nesting and moulting waterfowl, including the second largest colony of Slavonian Grebes in Iceland. Monitoring includes waterfowl censuses with special emphasis on the grebes, Stickleback trapping takes place in August. A fly-trap is in operation.

Lake Svartárvatn / River Svartá: A shallow, spring-fed lake in the highlands south of Lake Mývatn. Rich in nesting and moulting waterfowl, including Harlequin Ducks and Barrow's Goldeneyes on the effluent River Svartá. Monitoring includes waterfowl censuses, and a fly-trap is operated.

Svarfaðardalur: Marshlands along the River Svarfaðardalsá north of Akureyri. Rich in waterfowl and wading birds, including ducks, geese and Black-tailed Godwits. Monitoring involves a waterbird census every spring and a fly-trap is operated.

Russia

The "Chronicle of Nature" monitoring program is carried out in Wrangel Island, Lena Delta, Kandalakshsky, Pasvik, Taimyrsky, and Putoransky nature reserves.

Sweden

The Swedish Environmental Protection Agency started in 2001 a project to develop what to monitor and what methods to use.

United States

(i) National Wildlife Refuges System has active population and productivity monitoring programs for various species of mammals, fish, vegetation and migratory birds.

(ii) USFWS and National Marine Fisheries Service have subsistence monitoring programs for marine mammals and migratory birds.

(iii) Contaminants monitoring of subsistence foods in Western Alaska (WWF-US and Western Alaska Native villages).

(iv) Satellite monitoring of Russian fishing vessels in the Western Bering Sea (WWF-US).

(v) U.S. GLOBEC (GLOBal Ocean ECosystems Dynamics) is a multi-disciplinary research program designed by oceanographers, fishery scientists, and marine ecologists to examine the potential impact of global climate change on ocean ecosystems.

<http://globec.oce.orst.edu/groups/nep/>

(vi) Gulf Ecosystem Monitoring (GEM). Imagine a marine research program in one of the world's most productive ecosystems that had indefinite, guaranteed funding. GEM is a long-term commitment to gathering information about the physical and biological components that make up a world-renowned marine ecosystem. The gulf contains 25 species of marine mammals, 26 species of seabirds and 287 known species of fish, and the surrounding area is home to more than half of Alaska's human population. <http://www.oilspill.state.ak.us/gem/>

(v) The Alaska Marine Mammal Tissue Archival Project (AMMTAP): An Arctic Environmental Monitoring Resource. The banking of environmental specimens under cryogenic conditions for future retrospective analysis has been recognized for many years as an important part of environmental monitoring programs. Since 1987, the Alaska Marine Mammal Tissue Archival Project (AMMTAP) has been collecting tissue samples from marine mammals for archival in the National Biomonitoring Specimen Bank (NBSB) at the National Institute of Standards and Technology (NIST) in Gaithersburg, Maryland, USA. Also included in this program is the Seabird Tissue Archival Monitoring Program (STAMP).

<http://www.absc.usgs.gov/research/ammtap/intro.htm>

New training programs for management and monitoring

Canada

In response to recommendations of the Panel on the Ecological Integrity of Canada's National Parks, a national training program in managing for ecological integrity for Parks Canada staff, managers, and partners was carried out in 2000-2001.

Finland

A 10-week training program for field workers in protected areas has been conducted during years 2004-2005. The training program included education in recreational construction planning, working as foreman, customer services, conservation biology, species identification, protected area networks, game and fisheries management, and assisting in research and monitoring.

Iceland

TOPAS (Training Of Protected Area Staff) was initiated in 1999 to develop standards for the continuing training of staff in European protected areas. The TOPAS project is based on the expertise and experience of twenty partners from 9 European countries with growing external support. Education Centres and staff from protected areas across Europe are developing training courses intended to raise the standard of vocational qualifications. Certification will be carried out by CEPAR. Further information at www.topas.mtnforum.org

Norway

A number of training activities are planned or underway for some protected areas.

Other

Canada

The Oceans Program Activity Tracking (OPAT) system is a dynamic Internet tool that provides geographic information and facts on activities taking place under the Oceans Program of

Fisheries and Oceans Canada. OPAT contains a wealth of information on Marine Protected Areas, Integrated Management, and Marine Environmental Quality program activities taking place across the Country. The site includes detailed information on each activity across Canada, including: Geographic extent (MAPS), Objectives, Partners involved, Achievements, Key contacts, and more. (http://www.dfo-mpo.gc.ca/CanOceans/index_e.asp)

Finland

(i) The Nature Survey of Northern Lapland was completed in 1999. It includes a survey of northern habitats and their state. The survey covered 25 000 km², mostly within existing protected areas.

(ii) Nature surveys have been extended to other protected areas. The aim is to have detailed data on habitats of all protected areas in usable format. Depending on the funding, the work will be ready in 2007-2010.

(iii) Metsähallitus prepared *Principles for Sustainable Nature Tourism in Protected Areas* in 2003. There are nine principles and examples of their interpretation. Principles take into account ecological, cultural, social and economical viewpoints.

(iv) During summer 2004, a management effectiveness evaluation of protected areas managed by Metsähallitus was made by an international evaluation group. The report on the evaluation will be complete by the end of 2004.

(v) A general plan for management of Natura 2000 areas will be made by the Lapland Regional Environment Centre and Metsähallitus in cooperation with other regional and local authorities and stakeholders during 2004-2005.

(vi) The first evaluation of the threatened habitats in Finland was begun in 2004 and will be complete in 2007. One expert group is concentrating on alpine habitats. There is also ongoing co-operation with protected area managers within the Arctic area of the Nordic countries and Barents region.

United States

(i) U.S./Russia Protected Areas Workshop (1999). Information exchange and developing links between US and Russian protected areas managers.

(ii) International Brown Bear Working Group. Bear biologists and managers from Arctic States meet to discuss and develop research and management plans. Upcoming workshop (summer 2002) is designed to introduce Russian managers to integrated management methods.

Participation

Activities of Permanent Participants relating to CPAN mandate

Canada

(i) Aboriginal groups and organizations in northern Canada are involved in all aspects of protected area establishment and management, including the negotiation of agreements to create protected areas, as members of advisory committees and boards, and as employees of protected area organizations and agencies. A case study on cooperative management of national parks in Nunavut was presented at the Vth World Parks Congress in September 2003.

(ii) Inuit organizations and communities are involved in research and monitoring activities at the sites mentioned above, as well as in the Boundaries Committee for the establishment of the new

National Wildlife Area near Qikiqtarjuaq. One Inuit biologist is a staff member of the Canadian Wildlife Service in Iqaluit.

Greenland

Greenland consists of an indigenous society. The ICC (Inuit Circumpolar Conference) takes part in CAFF working groups.

Norway

A comprehensive study was undertaken by national authorities concerning property rights and other land and water rights in Northern Norway, and these issues are being discussed at the political level. In principle, Saami organisations are waiting for the results of the discussion around this important item before they will acclaim further designation of protected areas.

In March 2003 the Government appointed a team of people representing many different interest groups, including the indigenous peoples (Saami), to develop a report identifying new possibilities and challenges in the Arctic. The group delivered their report in December 2003, and the report forms the basis for a Government White Paper which is expected to be presented to the Parliament this year

Russia

(i) The Association of Indigenous Peoples of the North, Siberia and Far East of the Russian Federation (RAIPON) completed the project "The Conservation Value of Sacred Sites of Indigenous Peoples of the Arctic; A Case Study in the Northern Russia" in support of the Conservation of Arctic Flora and Fauna Program (CAFF), Danish Environmental Protection Agency (DEPA), Indigenous Peoples Secretariat (IPS). The report of the project was issued as CAFF Technical Report No. 11 in 2004.

(ii) The Russian Program Office of the World Wide Fund for Nature (WWF) carried out "Barents Sea Ecoregion" program. One of the tasks of this program is identification and establishment of new protected areas in the Barents Sea and southwestern part of the Kara Sea.

(iii) IUCN (for the Russian Federation and States of SNG) has elaborated "Nature heritage of the Barents-region: management in future generation interest" program.

New public education initiatives, particularly those seeking to involve local and indigenous people in the identification, establishment and management of protected areas.

Canada

(i) North American Commission on Environmental Cooperation (CEC) - Sustainable Tourism in Natural Areas Project. The six main outputs of the project for 2000-2001 are: 1) the publication of a searchable database on sustainable and ecotourism on the web; 2) the publication of a compendia of best practices found in sustainable and ecotourism in North America; 3) the realization of a market study of sustainable tourism in North America (results included here); 4) organization of a workshop on sustainable whale watching in La Paz, Mexico; 5) creating a list serve for stakeholders to exchange information and stay in touch; and 6) providing the resources to bring the ecotourism sector, an important constituency, into the marine protected areas network of the Baja to Bering initiative.

(ii) Parks Canada. Local and indigenous people are involved in the selection of new candidate park areas, in studies to determine the feasibility of new park areas and in the negotiation of park establishment agreements. As park staff, on-the-job training opportunities are provided. A variety of measures have been implemented to help indigenous people take advantage of opportunities associated with park establishment. These include providing seed capital to assist

park related ecotourism businesses, scholarship funds to assist youth to pursue higher education, and training to improve effectiveness and skills as cooperative board and committee members. Public education materials reflect Inuit perspectives and knowledge and are published in Inuktitut.

(iii) Northwest Territories. The NWT-Protected Areas Strategy is based on partnership of communities, regional and land-claim organizations, industry, environmental organizations and governments. Proposals for identifying protected areas are largely the responsibility of Aboriginal communities and regional organizations, and governments take on an increasing role only as legislation is considered.

(iv) The Canadian Wildlife Service in Nunavut is committed to co-management of its protected areas in the Arctic. The new initiative near Qikiqtarjuaq is in response to a request for protection of these sites from the community. Several traditional knowledge studies have been conducted since 2000 in the Baffin area related to endangered species, as well as other wildlife species, to help define meaningful boundaries for candidate protected areas.

(v) Arctic Borderlands Ecological Knowledge Coop is a partnership of aboriginal people and scientists that monitor ecological integrity inside and outside of protected areas in the Yukon.

Finland

Involvement of indigenous people and other local communities is secured through consultative and advisory committees for protected areas in the Northern Lapland District for Wilderness Management. Urho Kekkonen National Park has its own committee based on the establishment act.

Protected areas have been included in Regional Natural Resource Management Plans covering several municipalities. The plans balance different land uses (e.g. forestry, reindeer herding, hunting, fishing, off-road traffic, tourism) and one central goal is to safeguard indigenous Sámi culture and traditional subsistence uses. The plans were drawn up for all areas managed by Metsähallitus in 2000, and they will be updated during 2004 and 2005.

Participation and involvement of different interest groups is an essential part of the planning process and also in the management planning of protected areas. Metsähallitus begins the process of preparing a management plan for a protected area by compiling all existing information on the nature, history and current status of land use in the area and producing new information when needed. Knowledge on people's needs, expectations and opinions regarding the area is also gathered. Planning aims at integrating the goals of different users in an acceptable management plan that meets the statutory requirements for such documents. The plan consists of decisions and recommendations affecting management and use of the areas. The general public and interest groups are kept informed as the planning process proceeds through its various stages. This is done via the media, public meetings and personal contacts. The main principle is that information in relation to planning must be available to everyone.

Greenland

The government has implemented a major national campaign (Tulugaq – The Raven) during 2002-2004 on sustainable development and nature protection. Protected areas have been part of this campaign.

Norway

Further development of environmental school and training programmes has been conducted between regional Russian and Norwegian authorities in connection with the co-operative management in Pasvik Nature Reserve (Finnmark county) and Pasvik Zapovednik (Murmansk

Oblast). This issue is also to be considered within the ECORA project (Kolguev odel Area in NAO), funded by the Global Environment Facility.

Sweden

In 2002, the Swedish Environmental Protection Agency has, in response to a mission from the government, started a project that aims to involve landowners, local people, and people that use the land for different purposes (e.g., hunting, fishing or reindeer herding.) The project focuses on all Sweden. In the World Heritage Site Laponia, for example, including four national parks and two nature reserves, the management plan is developed in co-operation between the environmental authorities, the municipalities, the locals and the Sami villages.

United States

(i) Environmental Awareness Camps –a program designed to link traditional knowledge and culture with western concepts of resource management. (FWS National Wildlife Refuges and local communities).

(ii) Weekly radio/television/news media outreach (Wildlife refuges and local communities).

(iii) River Rangers Program: training and hiring local people to monitor and educate visitors to National Wildlife Refuges.

(iv) Refuge Information Technologist Program: Refuges train and employ local community liaison people to encourage public involvement and understanding of refuge regulations, plans, and activities.

(v) Living Planet Clubs: Linking villages in western Alaska with coastal communities in Chukotka (WWF-US).

(vi) Fisheries of the Future; Education and outreach program for the reform of commercial fisheries and return to sustainable practices (WWF-US).

Protected Area Agencies

Canada

Parks Canada
25 Eddy Street
Gatineau, Quebec, Canada
K1A 0M5

<http://www.pc.gc.ca>

<http://www.newparksnorth.org>

Northwest Territories
<http://www.gov.nt.ca/RWED/pas>

Environment Canada:

Canadian Wildlife Service
5204-50th Ave, Suite 301
Yellowknife, Northwest Territories, Canada

X1A 1E2

Canadian Wildlife Service,
P.O. Box 1870,
Iqaluit, Nunavut, Canada
X0A 0H0

Website: <http://www.pnr-rpn.ec.gc.ca/nature/index.en.html>

Fisheries and Oceans Canada:
Marine Ecosystems Conservation Branch
Fisheries and Oceans Canada
12th Floor
200 Kent Street
Ottawa, Ontario
Canada
K1A 0E6
Email: OceansCanada@dfo-mpo.gc.ca
Website: www.oceansconservation.com

Finland

The Finnish Ministry of the Environment:
<http://www.ymparisto.fi/default.asp?node=5295&lan=en>

Management of protected areas on state owned land:
Metsähallitus: <http://www.metsa.fi/english/?Section=236>
Natural Heritage Services, Northern Finland
Northern Lapland District for Wilderness Management

Forest Research Institute: <http://www.metla.fi>
Rovaniemi Research Station
Kolari Research Station

Management of protected areas on private land
The Lapland Regional Environment Centre:
<http://www.ymparisto.fi/default.asp?contentid=44158&lan=EN>

Greenland

The Ministry of Environment and Nature, P.O.Box 1614, 3900 Nuuk.
Information www.nanoq.gl ;
Contact: Head of section: Mette-Astrid Jessen (maje@gh.gl)

Northeast Greenland National Park and ZERO: www.zackenberg.dk

Iceland

Federal: Nature Conservation Agency
Skúlagata 21
101 Reykjavík

Regional: No regional protected area agency, but some local nature conservation committees mandate protected areas under the supervision of Nature Conservation Agency.

Norway

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Internet: www.sysselmannen.svalbard.no

Russia

Department of State Environmental Policy (Ministry of Natural Resources of the Russian Federation): tel. 007 (095) 127-84-10

Department of Natural Protected Areas (Ministry of Natural Resources of the Russian Federation): tel. 007 (095) 254-97-73

The Regional Committees of Natural Resources (Ministry of Natural Resources of the Russian Federation): Murmansk Oblast: tel. 007 (8152) 56-11-39; fax. 007 (8152) 56-1367; E-mail: geocom@aprec.ru

Nenets Autonomous Okrug: tel. 007 (81853) 4-31-00; fax. 007 (81853) 4-31-00; E-mail: Kprnap@atnet.ru

Yamalo-Nenets Autonomous Okrug: tel. 007 (34922) 4-40-68; fax. 007 (34922) 4-40-68; E-mail: kalinicheva@departament.tbd.ru

Taimyr (Dolgano-Nenets) Autonomous Okrug: tel. 007 (3919) 43-52-04; fax. 007 (3919) 22-1471; E-mail: taymgeo@norcom.ru

Chukotski Autonomous Okrug: tel. 007 (42722) 4-48-10; fax. 007 (42722) 4-48-10; E-mail: resurs@anadyr.ru

Archangels Oblast: tel. 007 (8182) 22-43-55; fax. 007 (8182) 24-23-19; E-mail: geolcom@geolcom.arkhangelsk.ru

Ministry of Nature Protection Sakha Republic (Yakutia): tel. 007 (41112) 24-12-90

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Concluding Remarks

The data in this report has been compiled from contributions from staff of protected areas organizations of the CPAN countries according to agreed upon categories. New achievements documented in the sections above are significant and demonstrate the progress being achieved by Arctic Council countries in terms of protected area establishment, new or updated habitat conservation and protected area legislation and initiatives designed to manage protected areas in a larger landscape/ecosystem context and with greater involvement of and sensitivity to the concerns and aspirations of indigenous and local communities.

Preparing progress reports of this nature are dependent on the contributions of many people from many organizations, each of whom takes a particular perspective on what data and the amount of detail is to be submitted. As such, there is some variability in the detail provided in this report. Over time, it may be useful to review and refine the data categories and to provide more detailed guidance on the type of data and the detail that is to be provided. This would bring more standardization to the reports and permit progress to be documented with more consistency.

CPAN due to its mandate and its position as part of the larger Arctic Council structure is well placed to respond to the global priorities for protected areas as expressed through the Plan of Implementation of the WSSD, the CBD Program of Work on Protected Areas and the outputs of the Vth World Parks Congress. In light of this new international agenda for protected areas CPAN should focus its energies on the marine and coastal environment, on protected areas as sites for research and monitoring as part of the climate change agenda and for biodiversity monitoring, and demonstrating how protected areas on a regional basis can contribute to the application of the ecosystem approach under the CBD and help achieve the biodiversity, sustainable use and equity goals of the Convention. In addition, in all northern countries there is growing awareness of the importance of protecting cultural and ethnographic landscapes that are important to indigenous and local communities and which can contribute to national and international protected area systems. CPAN can play a useful role in this new field of endeavor.

The challenge is finding an appropriate role for CPAN that complements national programs and initiatives and adds value to the protected area work of individual Arctic countries and their efforts to meet international protected area and biodiversity conservation targets.

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APPENDIX 1

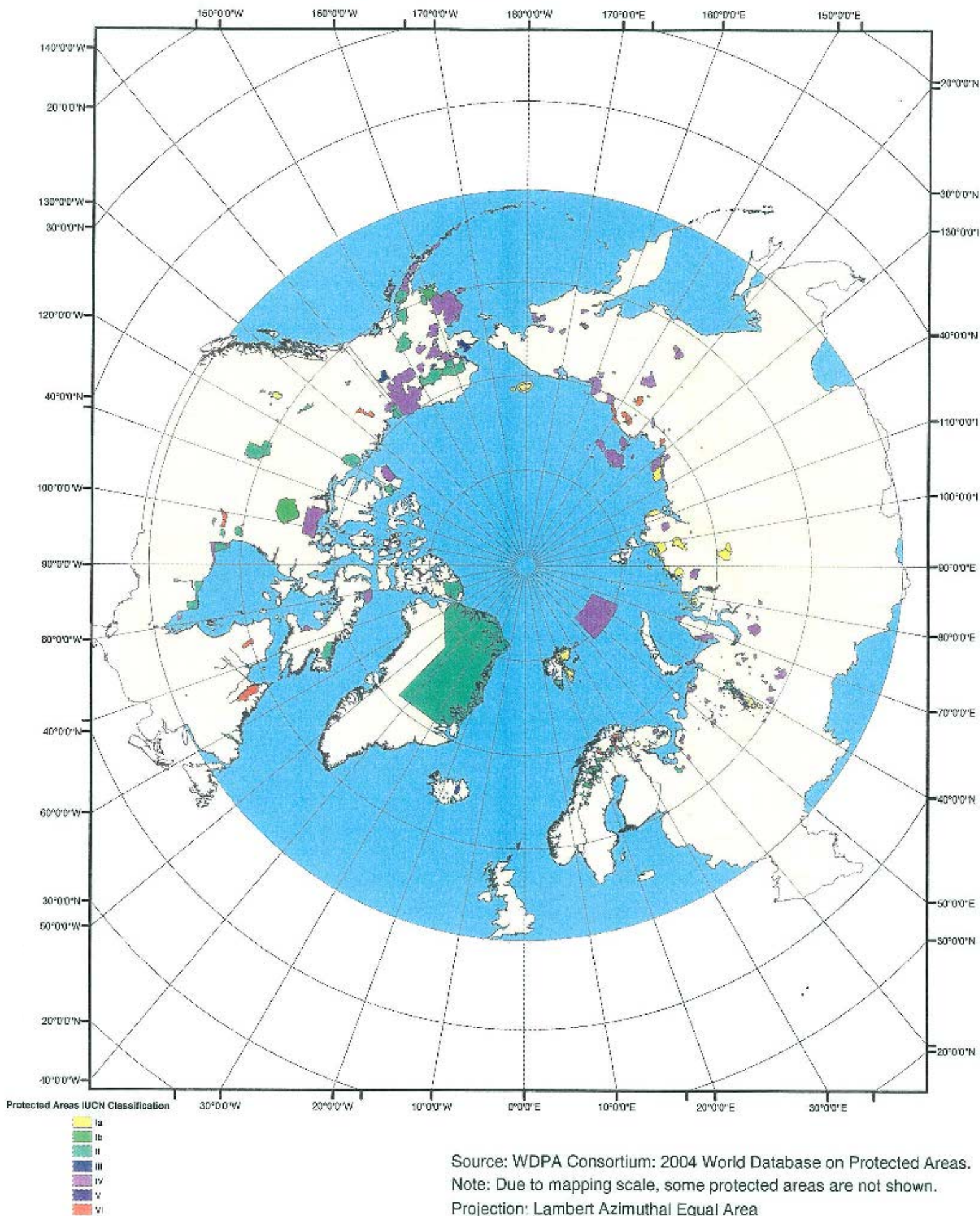
IUCN SYSTEM OF PROTECTED AREA MANAGEMENT CATEGORIES¹

The six management categories are defined by the primary management objective, as follows:

- I. Protected area managed mainly for I(a) science or I(b) wilderness protection.** Areas of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring; or large areas of unmodified or slightly modified land, and/or sea, retaining their natural character and influence, without permanent or significant habitation, which are protected and managed so as to preserve their natural condition. (Strict Nature Reserve/Wilderness Area).
- II. Protected area managed mainly for ecosystem conservation and recreation.** Natural areas of land and/or sea, designated to (a) protect the ecological integrity of one or more ecosystems for this and future generations, (b) exclude exploitation or occupation inimical to the purposes of designation of the area and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible. (National Park).
- III. Protected area managed mainly for conservation of specific features.** Areas containing one, or more, specific natural or natural/cultural feature which is of outstanding or unique value because of its inherent rarity, representative or aesthetic qualities or cultural significance. (Natural Monument).
- IV. Protected area managed mainly for conservation through management intervention.** Areas of land and/or sea subject to active intervention for management purposes so as to ensure the maintenance of habitats and/or to meet the requirements of specific species. (Habitat/Species Management Area).
- V. Protected area managed mainly for landscape/seascape conservation and recreation.** Areas of land, with coast and sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, cultural and/or ecological value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area. (Protected Landscape/ Seascape).
- VI. Protected area managed mainly for the sustainable use of natural ecosystems.** Areas containing predominantly unmodified natural systems, managed to ensure long-term protection and maintenance of biological diversity, while providing at the same time a sustainable flow of natural products and services to meet community needs. (Managed Resource Protected Area).

¹ *Guidelines for Protected Management Categories*. Part II: The Management Categories. IUCN.
<http://wcpa.iucn.org/pubs/pdfs/IUCNCategories.pdf>

Protected Areas in the Arctic, 2004



Source: WDPA Consortium: 2004 World Database on Protected Areas.

Note: Due to mapping scale, some protected areas are not shown.

Projection: Lambert Azimuthal Equal Area

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