

CAFF INTERNATIONAL WORKING GROUP

PROCEEDINGS

**THIRD ANNUAL MEETING
REYKJAVIK, ICELAND**

SEPTEMBER 26-28, 1994

PREFACE

Since the Conservation of Arctic Flora and Fauna (CAFF) International Working Group met in Fairbanks, Alaska in 1993 and later reported to the Second Arctic Environmental Protection Strategy (AEPS) Ministerial Conference in Nuuk, Greenland, CAFF has continued to make progress in meeting its mandate. I am pleased to provide the following report of CAFF's Third Meeting of the International Working Group, held in Reykjavik, Iceland, which describes that progress in detail.

*CAFF is especially proud of its achievements in the fields of habitat and species conservation and in integrating indigenous peoples and their knowledge into Arctic conservation efforts. For instance, CAFF has now produced its first Habitat Conservation report titled *The State of Protected Areas in the Circumpolar Arctic*. CAFF has drafted its first species conservation management plan - the *Circumpolar Murre Conservation Strategy and Action Plan* currently under review within the CAFF community and by international conservation organizations. CAFF now has a circumpolar inventory of threatened plants and animal species and many will be targeted for special conservation action. And, within CAFF, a pilot Beluga Whale mapping project by indigenous peoples has been approved.*

These are but a few examples of the type of accomplishments that can be made when the idea of circumpolar cooperation is translated into concrete practice.

Nevertheless, while achievements of CAFF to date are encouraging, much remains to be done and the new 1994-95 CAFF Work Plan indicates the directions in which we are moving and the steps we will take to move us forward during the next year and towards the Third AEPS Ministerial Conference.

As outgoing Chair of CAFF, I would like to say that it has been a stimulating and rewarding experience to be the Chair of such an innovative program as CAFF for the past year and I am deeply appreciative of the strong support provided to me by everyone involved in CAFF and by its Secretariat. I wish my successor, Dr. Amirkhan Amirkhanov of Russia, every success as he takes on the challenge of chairing CAFF in the upcoming year.

*Aevar Petersen
Chair of CAFF, 1993-94
Museum of Natural History
Iceland*

November, 1994.

SECTION I: EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The Program for the Conservation of Arctic Flora and Fauna (CAFF), held its Third Annual meeting in Reykjavik, Iceland, from September 26-28, 1994. It was preceded by a half-day of informal specialist workshops and followed by field trips to conservation sites and scenic attractions in Iceland.

The meeting was chaired by Thórir Ibsen of Iceland's Ministry of the Environment and was well attended by delegates from all CAFF countries, by representatives of other AEPS Programs, AEPS Observer countries and indigenous peoples organizations and by representatives of several international Conventions, government and non-government organizations.

The meeting was officially opened by the Minister of the Environment for Iceland, Dr. Ossur Skarphedinsson, who referred to CAFF's broad mandate to conserve the unique wildlife of the Arctic and its responsibility for the biological aspects of the AEPS. He also reminded participants that CAFF is expected to alert politicians and the public to all possible negative environmental effects of human activity on the Arctic ecosystem and to propose solutions. Dr. Skarphedinsson also informed the group of several CAFF-related conservation initiatives in Iceland, many of which are directly attributable to the stimulus provided by CAFF. Dr. Aevor Petersen, Chair of CAFF for 1993-94, then spoke of several challenges facing CAFF including the fact that its mandate is much broader than that of other AEPS programs which makes it necessary to carefully structure its workload. He also highlighted the need for CAFF to deliver products to the next AEPS Ministerial meeting, to consider its relationship with other AEPS programs and to foster linkages with the Biodiversity Convention and the Nordic Council of Ministers, among others.

COUNTRY OVERVIEWS

Following the opening statements, Douglas Pollock (Canada), Esko Jaakkola (Finland), Peter Nielsen (Greenland), Aevor Petersen (Iceland), Pal Prestrud (Norway), Valery Orlov (Russia), Anders Bjrvall (Sweden) and David Allen (USA) presented the Country Overviews. Common themes were: resources are limited and CAFF must focus on a discrete and limited number of work items; meeting Ministerial expectations and delivering quality products of relevance to Ministers should guide CAFF activities; CAFF should follow-up its role as implementing mechanism for the Biodiversity Convention in the Arctic. At the national level, CAFF countries are making progress in securing protected areas, in implementing global and regional Conventions and in getting important conservation legislation and regulations in place.

The meeting then turned to reports on the 1993-94 CAFF Work Plan items and to special reports on

issues of common interest.

REPORTS ON 1993-94 CAFF WORK PLAN ITEMS

Flora Conservation

Two Work Plan items were reported on. Dr. George Argus (Canada) summarized the work to list rare, vulnerable and endangered flora and informed the group that there are now close to 1,400 plants listed at the circumpolar level with 98 listed by more than one country. He indicated that more work is needed to list bryophytes and lichens and on mapping distribution. It was agreed that a report on rare, vulnerable and endangered flora of the Arctic will be prepared for the AEPS Ministerial Conference. Dr. Steve Talbot (USA) then presented a synopsis of the Arctic Vegetation Mapping Workshop held in St. Petersburg, Russia in 1994 and reemphasized the practical uses for a new circumpolar vegetation map in fields such as education, study of Arctic biota, and land use and protected area planning. It was agreed to continue work on compiling the flora data base, to map the distribution of rare endemic vascular plants and to support the preparation of the circumpolar vegetation map.

Fauna Conservation

Several fauna conservation Work Plan items were reported on. Kevin McCormick (Canada) explained that the number in the CAFF circumpolar data base of rare, vulnerable and endangered fauna has reached 238 and that of that number, 41 species or sub-species have been listed by two or more countries (21 bird, 19 marine mammal and 1 fish). He went on to explain that there are still difficulties because of the different systems in place to classify levels of endangerment. It was agreed that an overview of endangered fauna issues would be presented to the AEPS ministers. Dr. Marina Mirutenko (Russia) reported on progress in preparing the report on wildlife habitat mapping at the circumpolar level and noted that data is lacking from several countries. She went on to explain how this project can be used as a basis for developing complex geozoological maps. Dr. John Chardine (Canada) and Kent Wohl (USA) provided overviews of CAFF's seabird work items being carried out through the CAFF Circumpolar Seabird Working Group. Mr. Wohl advised that the group had met in the USA in early 1994 and had developed an Action Plan which includes items on seabird monitoring, preparation of guidelines for seabird colonies, fisheries practices and seabird management concerns. Dr. Chardine explained that a draft of the Circumpolar Murre Conservation Strategy and Action Plan had been prepared and is ready for formal review. He also reported that all countries are receptive to a circumpolar seabird data base and that the details of its development are being worked out. CAFF endorsed the activities and action plan of the Seabird Group and requested that the Murre Strategy and a report on seabird issues be presented to the Ministers in 1996.

Habitat Conservation

Two Work Plan Items were reported on. Jan-Petter Huberth-Hansen (Norway) presented a summary of CAFF's *Habitat Conservation Report No. 1 - The State of Protected Areas in the Circumpolar Arctic*. Some key points in the Report are as follows. There is no universally accepted definition of Arctic and each country has chosen its own description, usually based on an ecosystem/ecozone basis. There are 280 Protected Areas in the Arctic that fall within Categories 1-V of the pre-1994 IUCN

designation scheme. In those countries with indigenous populations, special measures have been put in place to safeguard traditional lifestyles and practices. Countries have the necessary legislation to designate and manage protected areas. Countries share common threats to their protected areas. There are serious gaps in the existing protected area systems. Mr. Huberth-Hansen concluded by noting that this Habitat Report is important but that it is only a first step towards a CAFF Habitat Conservation Strategy. Dr. Pischetelov (Russia) then presented a report proposing principles and a process to apply in developing a Circumpolar Network of Protected Areas. It was agreed to establish an Ad Hoc Working Group, led by Russia in cooperation with Norway, to draft the CAFF Plan for a Protected Area Network.

Information Systems

Emily Binnian (USA) reported on the prototype data base for Alaska of which the land characteristics physiographic information portion is complete. Ms. Binnian also provided several examples of potential uses of the data base for CAFF which include tracking migration patterns and vegetation mapping.

Integration of Indigenous Peoples and Their Knowledge

Fred McFarland (Canada) gave a summary of progress on the Indigenous Peoples Pilot Mapping Project and reviewed the Project Proposal prepared by the Inuit Circumpolar conference (ICC). The project has a field work and a seminar component and funding for both is being sought. A report on the project will be prepared for the Ministerial meeting in 1996. Taylor Brelsford (USA) then provided a synopsis of the work to compile ethical principles for Arctic research and reported that, to date, most of the information has come from the USA and Canada. It was agreed that the project continue and include material from Greenland, Scandinavia and Russia. The goal is to develop a common set of principles for adoption by the Ministers.

Threats to the Arctic Ecosystem

Esko Jaakkola (Finland) presented a paper proposing a framework for Arctic threats and risk analysis and explained that much of the material was drawn from work being done within the Biodiversity Convention on this topic. Mr. Jaakkola suggested that further CAFF work on this be part of a CAFF regional approach to the Biodiversity Convention. There was general agreement.

CAFF Framework Document

Rasmus Hansson (Norway) tabled the draft CAFF Framework Document prepared by Norway and the CAFF Secretariat and briefly summarized its key points. He explained that the document was divided into three main parts - CAFF Principles and Planning, CAFF Program Management, and CAFF Cooperation. A discussion paper on developing a resource/financial strategy for CAFF formed an Appendix. The document was well received and, as a next step, will be reviewed by the CAFF National Contacts.

ITEMS OF GENERAL CONSERVATION INTEREST

Peter Nielsen (Greenland) gave an overview of the status of vegetation work in Greenland and pointed to the gaps in current information. He stated that there is a need to map vegetation from a grazing and vulnerability perspective and that this would help determine if the severe decline in caribou numbers is due to lack of vegetation, over-hunting or both. The new Greenland Nature Research Institute will carry out a baseline study on the status of vegetation and productivity.

Mr. Nielsen also delivered a report on subsistence and conservation in Greenland. He pointed out that Greenland is a hunting and fishing-based society and that emphasis is on sustainable yield of natural resources. Applying a concept of "conservation diversity" and using mechanisms which are flexible, locally implemented and based on local conditions is sometimes preferable to relying exclusively on more rigid systems. Mr. Nielsen summarized some of the different sorts of conservation measures used in Greenland including a system of caribou reserves and shiftable protected sites.

On behalf of the Indigenous Peoples' observer groups, Leif Halonen of the Saami Council gave highlights of the Indigenous Knowledge Seminar held the week of September 19, 1994. He noted that indigenous peoples inhabit the most biologically productive areas of the Arctic and it is those areas that governments target for protected status. He also stated that aboriginal peoples have lived in harmony with nature in those areas for centuries and have used the resources sustainably. During the Indigenous Knowledge Seminar, one workshop addressed CAFF specifically and made several recommendations for CAFF activities, including a study of co-management models.

Michael Ljöfroth (Sweden) presented a report on habitat conservation outside protected areas using Sweden as a model. He emphasized that the basis for protection, within and outside protected areas, is knowledge which can be gained through extensive natural resource inventory-taking of the sort Sweden is carrying out. Measures to conserve habitat in that country include regulations prohibiting infrastructure building and exploitation in sensitive areas, a system of subsidies to farmers and promoting public awareness and acceptance which is often catalyzed by non-government organizations. At the close of Mr. Ljöfroth's presentation, the participants acknowledged the importance of developing an overall habitat conservation strategy that would incorporate measures outside protected areas and that, as a first step towards this goal, CAFF has chosen to concentrate its efforts on protected areas.

REPORTS OF THE CAFF CHAIR AND SECRETARIAT

Dr. Petersen reported on his functions as Chair of CAFF during the previous year and advised that as his major task, he worked closely with the Secretariat to produce an operational framework and to represent CAFF at a wide variety of meetings including those of other AEPS programs. As outgoing Chair, he thanked Jeanne Pagnan, Secretariat, for her work and cooperation during the year. Ms. Pagnan then delivered the Report of the Secretariat in which she explained that she had concentrated on three major tasks - 1993-94 CAFF Work Plan implementation, setting up the Secretariat's administrative structure and building linkages with other organizations. She thanked Øvar Petersen and the CAFF community for their cooperation and assistance.

PRESENTATIONS BY AEPS PROGRAMS AND CAFF OBSERVER GROUPS

Helgi Jensson reported on the activities and organization of the Arctic Monitoring and Assessment Program (AMAP) which is focused on preparing the AMAP Assessment and Status Reports on levels and effects of anthropogenic pollutants in the Arctic. Dr. Petersen then summarized the first meeting of the AEPS Sustainable Development Task Force and outlined its action plan which includes preparing reports and case studies on various topics such as the 1973 Polar Bear Agreement and trade policies, opportunities and barriers for sea mammal products.

On behalf of the Nordic Council of Ministers, Magnus Johansson, Chair of the Environment Committee explained the Nordic Program for the Environment and in particular, the work of its Nature Conservation and Outdoor Recreation group. The latter has projects similar to those of CAFF. He stated that the Nordic Council's Committee of Senior Officials would welcome closer cooperation with CAFF and recommended a yearly meeting between the two groups to discuss programs and cooperative projects. He also pointed to linkages between CAFF and the Nordic Monitoring and Data Working Group. Jan-Petter Huberth-Hansen spoke on behalf of the Barents Euro-Arctic council and referred to its Environmental Action Program which calls for work on flora and fauna conservation. CAFF participated at the Barents council meetings and has helped draft the Environmental Action Program documents.

Gerard Boere represented the Netherlands, an observer country to the AEPS, and the Bonn Convention. He provided information of the Netherlands' Arctic research work and of the upcoming meeting of shorebird specialists where cooperation with CAFF will be an agenda item. Peter Boye spoke for Germany, another of the AEPS observer countries, and also gave details of that country's Arctic research and of its interest in sharing its experience with CAFF. He also expressed Germany's interest in having CAFF operate in a regional Arctic implementation role for the Biodiversity Convention and in CAFF's maximizing its use of other existing international instruments such as the Bonn Convention. The Ramsar Convention was represented by Tim Jones who pointed out that Ramsar could help CAFF since it has well-established structures and a firm funding base and that the implementing agencies for both CAFF and Ramsar are virtually the same in all countries. He emphasized Ramsar's "Wise Use" approach and the inappropriateness of relying on classic strict protection or "museumization" of natural resources.

The World Conservation Monitoring Centre (WCMC) and the Global Resources Information Database (GRID) were represented by Seppo Kaitala and Lars Kullerud respectively. Both spoke of their individual roles in supporting Arctic conservation by collecting and analyzing conservation data, of the work already done with CAFF and of their interest in pursuing further cooperation.

Peter Prokosch spoke on behalf of the World Wide Fund for Nature (WWF) and Melanie Heath spoke for BirdLife International. Dr. Prokosch noted how the investment Canada has made in the Secretariat has paid off payoff and advised that the next step for CAFF is to move from the technical level to conservation action. He offered WWF's cooperation. Ms. Heath explained BirdLife's program and structure and offered the assistance of that organization in CAFF's work on seabirds.

E. Hurwich and R. Childers spoke on behalf of their organizations, CCU and the US Arctic Network and each recommended various ways to improve the work of CAFF and the AEPS, including developing a legally-binding agreement and common data bases.

As the final item on the agenda, the meeting turned to drafting the 1994-95 CAFF Work Plan.

1994-95 CAFF WORK PLAN

During the meeting, several small working groups were formed to deal with specific specialist items in more depth, including habitat conservation and endangered species and to draft wording for Work Plan Items. A Work Plan Drafting Group then prepared a preliminary 1994-95 Work Plan document which was presented to the meeting. It categorized CAFF's proposed activities under five general headings - Habitat conservation, Species Conservation, Regional Implementation of the Biodiversity Convention, Integration of Indigenous Peoples and Their Knowledge and CAFF Program Management. The document was discussed and amended at the meeting and received final review and approval by the National Contacts. A copy is attached.

FUTURE CAFF MEETING SCHEDULE AND POSITIONS

Dr. Amirkhanov, Russia's National Contact for CAFF, assumed the position of Chair of CAFF and Esko Jaakkola, that of Vice-Chair. Dr. Aivar Petersen also agreed to continue as a second Vice-Chair. The current International Secretariat will continue and remain in Canada and will be funded by all CAFF countries using a cost-sharing formula. CAFF's future meeting schedule will be: 1995-Russia, 1996-Finland, 1997-Greenland.

At the close of the meeting, Thorir Ibsen, Chair of the Meeting, Aivar Petersen, outgoing Chair of CAFF, and Jeanne Pagnan, CAFF International Secretariat, were thanked for their excellent work and the meeting was officially adjourned at 7:45 p.m., September 28, 1994.

1994-95 CAFF WORK PLAN

INTRODUCTION

In 1994-95, CAFF will focus its efforts on responding to two main challenges. The first is to meet the program requirements as laid out by the AEPS Ministers at Rovaniemi in 1991 and at Nuuk in 1993. The second is to continue developing a management framework and structure through which to effectively achieve its goals.

The directions given to the CAFF countries at Rovaniemi and Nuuk are both broad and specific. At Rovaniemi, the eight Arctic countries were asked to "cooperate for the conservation of Arctic flora and fauna, their diversity and their habitats". During the period 1992 and 1993, the countries responded by establishing the CAFF International Working Group and developing and implementing two Work Plans. At Nuuk, the Ministers endorsed the work of CAFF and gave it further guidance by emphasizing certain areas as in need of concerted effort. They were: habitat conservation; species conservation within an ecosystem approach; fulfilling its mandate as a "concrete example of cooperation to implement the conservation measures called for in the Convention on Biological Diversity"; and, continuing to integrate indigenous peoples and their knowledge into the work of CAFF.

At the 1994 meeting, the CAFF countries determined that an overall priority for CAFF would be to continue and to complete work started in CAFF in 1992 and 1993. In many cases this will involve preparing to deliver the products of these activities to the Ministers at their 1996 AEPS meeting. New work has been added very sparingly and with due regard to resource limitations.

To achieve its specific program requirements in as efficient a manner as possible, CAFF's planned *program activities* have been grouped under four main headings:

- Habitat Conservation
- Species Conservation
- Regional Implementation of the Biodiversity Convention
- Integration of Indigenous Peoples and their Knowledge

The fifth area of activity for CAFF is the issue of its *program management framework and structure* which will continue to be addressed in 1994-95 with a view to presenting CAFF's final deliberations to the AEPS Ministers in 1996.

The activities that CAFF will undertake in 1994-95 to meet its program and management needs are outlined below.

1. HABITAT CONSERVATION

Goal

To conserve and protect Arctic habitat by developing and implementing a multiple-step CAFF habitat conservation strategy and, as a core and principle step in the process, to prepare a plan for developing a Protected Area Network for both terrestrial and marine ecosystems in the circumpolar Arctic.

Rationale

The Arctic is a unique and fragile ecosystem to which the animal and plant life has adapted. In a global environmental context, the Arctic is unique because its natural ecosystems are relatively undisturbed. However, the habitats of Arctic plants and animals are increasingly exposed to modern technology and to the exploitation of the Arctic's vast mineral and hydrocarbon resources. The Arctic is also home to significant and, in some areas, growing populations of indigenous peoples who rely on the sustainable use of living resources.

The Protected Area Network will be a core and principle step in CAFF's overall habitat conservation strategy. The Network and strategy will be designed to assure the continuing viability of the Arctic ecosystems and to provide a common framework for use by the Arctic countries to ensure a necessary level of habitat protection. They will incorporate the requirements for sustainable development and the needs of indigenous peoples. The strategy, which will be further developed following completion of the Protected Area Network, will also address conservation measures outside protected areas to conserve and protect the diversity of Arctic flora and fauna.

Action Plan

The CAFF *Habitat Conservation Report No. 1, The State of Protected Areas in the Circumpolar Arctic*, was the first step towards developing the Protected Area Network initially called for in the Rovaniemi Declaration and Arctic Environmental Protection Strategy. Anticipating completion of the CAFF Report, the Ministers in the Nuuk Declaration requested that the CAFF Working Group continue its efforts by preparing a plan for the development of a Network of Protected Areas that will provide a common process for use by Arctic countries instrumental in ensuring the necessary protection of Arctic ecosystems. In response to this direction, CAFF has formed a Protected Area Experts Group to prepare the plan. The Experts Group will operate under the AEPS guidelines for participation by member countries, indigenous peoples' organizations, observer countries and governmental and non-governmental organizations. The following initial work will be undertaken:

1.1. Protected Area Network Plan

1.1.1 Complete the questionnaire on the "Prospective Network of Protected Areas" by January 4, 1995

Lead: Russia (Responses to be submitted to CAFF Secretariat)

1.1.2 Circulate a comprehensive project description to CAFF countries, including a detailed time schedule, for comment by January 9, 1995

Lead: Norway (Responses to be submitted to CAFF Secretariat)

1.1.3 Review relevant scientific and traditional knowledge criteria by February 1, 1995

Lead: Russia, Norway

1.1.4 Establish, by January 17, 1995, and lead a CAFF Protected Area Experts Group.

Lead: Russia, in cooperation with Norway and coordination by CAFF Secretariat

1.1.5 Prepare a document outlining a Protected Area Network Plan. The Plan will be based on work of 1.1.1 - 1.1.3 and will include:

- a. an evaluation of national mechanisms for establishing protected areas in order to determine the most effective methods,
- b. a directory of areas proposed for protection by governments and NGOs with particular attention given to transboundary areas,
- c. an analysis of gaps in existing and proposed protected areas using agreedupon guidelines, and
- d. a strategy for filling those gaps which would take into consideration some basic criteria such as representativeness, biodiversity, productivity, uniqueness, and importance for indigenous peoples.

Lead: Russia, in cooperation with Norway and coordination by CAFF Secretariat

1.2 Wildlife Habitat Mapping

At Reykjavik, Russia presented its preliminary report on the state of wildlife habitat mapping in those countries that had provided input to Russia. The CAFF countries agreed that the report should be finalized in accordance with the 1993-94 CAFF Work Plan requirements and that they would provide the needed input. They also agreed that at the 1995 CAFF meeting, the necessity and feasibility of additional work on wildlife habitat mapping will be considered.

Finalize the Report on the State of Wildlife Habitat Mapping (Item 4f of the 1993-94 CAFF Work Plan).

Lead: Russia

1.3 Circumpolar Arctic Vegetation Map

It was agreed that the work initiated in 1994 at the workshop in St. Petersburg, Russia, to produce a new circumpolar vegetation map is important to the future development of the overall strategy for conserving Arctic ecosystems.

Encourage participants of the St. Petersburg workshop to continue their efforts to complete the new circumpolar vegetation map project and to publish a summary of the workshop proceedings.

Action: All

2. SPECIES CONSERVATION

Goal

To ensure the continued viability of plant and animal species of the circumpolar Arctic.

Rationale

"The Arctic environment consists of ecosystems with unique features and resources which are especially slow to recover from the impact of human activities, and as such, require special protective measures". (Nuuk Declaration, 1993)

Maintaining the biological diversity of species and populations is fundamental to the health of arctic ecosystems and to the continued welfare of indigenous peoples. Accordingly, CAFF, in 1992, initiated action to conserve, protect and, as appropriate, restore the ecosystems of the Arctic. Developing an inventory of the rare endemic vascular plants and of the rare, vulnerable and endangered fauna species and populations which are officially recognized by the countries of the circumpolar Arctic is an important first step towards elaborating action plans to ensure their continued existence or to facilitate their recovery to acceptable levels. Similarly, this exercise helps in the early recognition of species at risk which allows for preventative action before they become officially listed. The distribution of rare endemic vascular plants and rare, vulnerable and endangered fauna species and populations will be a key consideration in the development of the Circumpolar Network of Protected Areas.

Action Plan

The following tasks will be undertaken in 1994-95

2.1 Rare Endemic Vascular Plants

2.1.1 Prepare a list of rare endemic vascular plants and map their distribution within the circumpolar Arctic. (Countries to provide geographical coordinates for the taxa within their jurisdiction.)

Lead: United States

2.1.2 *Use the list of rare endemic vascular plants to form the core of the circumpolar Arctic list of plant species of conservation concern.*

Lead: *United States*

2.1.3 *Correlate information on endemic taxa with existing Protected Areas, as a contribution to the work to establish a circumpolar network of protected areas.*

Lead: *United States*

2.2 Pan Arctic Flora Initiative

Encourage all Arctic countries to participate in and to support the Pan Arctic Flora initiative to compile an annotated checklist of circumpolar Arctic flora and to create the data base of the flora.

Action: *All*

2.3 Rare, Vulnerable and Endangered Fauna

2.3.1 *Complete CAFF List I for bird and mammal species.* It is further recommended that each country review its list according to the following protocol.*

- a) *In addition to the genus and species, the population, or management unit, which is at risk should also be identified. This recognizes that different populations within the same species may be subject to different degrees of endangerment.*
- b) *Countries should include all populations that have a seasonal region of distribution or presence in the Arctic.*
- c) *Each country will determine the IUCN equivalency for each species and/or population on its own national or regional Lists.*

*(*It is noted that taxa not covered in this list should be considered for attention at the 1995 CAFF meeting)*

Lead: *Canada*

2.3.2 *Complete CAFF List II for fauna species and populations of special concern which are not also on CAFF List I. It is recommended that Canada revisit the background to CAFF List II and specify the rationale and criteria for including species on that list.*

Lead: *Canada*

2.4 Circumpolar Seabird Working Group

2.4.1 *Complete the International Murre Conservation Strategy and Action Plan for endorsement at*

the next Ministerial Meeting.

Lead: Canada

2.4.2 Pursue the development of a Circumpolar Seabird Colony Data Base that will bring together seabird colony information from all CAFF countries.

Lead: Canada

2.4.3 Continue to implement the Circumpolar Seabird Working Group Action Plan particularly with respect to the identification of current and emerging seabird conservation, management and research problems.

Lead: United States

3. REGIONAL IMPLEMENTATION OF THE CONVENTION ON BIOLOGICAL DIVERSITY IN THE ARCTIC

Goal

Contribute to the conservation of biological diversity in the Arctic by regionally implementing the conservation and sustainable use measures called for in the Convention on Biological Diversity.

Rationale

Preserving the natural biological diversity of the Arctic ecosystems is important to mankind and a prerequisite for the sustainable use of living resources by peoples of the Arctic.

Even though Arctic ecosystems are comparatively simple in a global context, they are unique in terms of their biological diversity and because anthropogenic impacts are still at a relatively low level compared to other parts of the Earth. However, the characteristics of the Arctic ecosystems and their biodiversity also make them more vulnerable to human impacts and susceptible to threats. For example, several Arctic animal and plant populations occur in large numbers over wide ranges and diverse habitats and different populations of the same species are often adapted to relatively different environments. In addition, Arctic species have special adaptations due to the harsh environment. These features make many of them unique in terms of genetic variation.

At their meeting in Nuuk, Greenland in 1993, Ministers of the eight Arctic countries endorsed the idea that CAFF take action to implement the Convention on Biological Diversity in the Arctic and acknowledged CAFF as a "concrete example of cooperation to implement the conservation measures called for in the Convention".

Action Plan

3.1 Convention on Biological Diversity

Establish a small CAFF Task Force, chaired by Finland, to assess and propose to the meeting of the CAFF Working Group in 1995, how CAFF can assist and facilitate the eight Arctic countries in their collective commitments under the Convention on Biological Diversity to ensure the conservation and sustainable use of Arctic plants and animals.

Lead: Finland; Members Canada and Greenland

4. INTEGRATION OF INDIGENOUS PEOPLES AND THEIR KNOWLEDGE

Goal

To fully integrate indigenous peoples and their knowledge into the functions, processes, and implementation of CAFF.

Rationale

The AEPS, the Ministers, and CAFF have recognized the need for close collaboration with the indigenous peoples of the Arctic in the implementation of the objectives of the AEPS.

The work items selected for the 1994-95 CAFF Work Plan include the completion of items from previous CAFF Work Plans. In addition, specific recommendations of the Seminar on Integration of Indigenous Peoples' Knowledge, held in Reykjavik in September, 1994, were considered. They included exploring co-management systems, compiling a directory of indigenous knowledge databases, examining the impact of recreational use of Arctic living resources and preparing a statement of ethical principles for Arctic research. Some of these have been included in the 1994-95 CAFF Work Plan.

Completion of the selected work items will enhance the participation of indigenous peoples and the application of their knowledge to the work of CAFF. As these items are addressed, future work plans can incorporate additional steps, such as other recommendations of the Seminar.

Action Plan

4.1 Indigenous Knowledge Mapping Project

Seek funding to conduct the field research and to hold the seminar in order to prepare recommendations to the 1995 CAFF meeting and the 1996 AEPS Ministerial meeting.

Lead: United States, Canada

4.2 Ethical Principles for Arctic Research

Complete the compilation of existing ethical principles for Arctic research and prepare a report for the March 1995 meeting of the Senior Arctic Affairs Officials, for further consideration on an AEPS-wide level.

Lead: United States

4.3 Indigenous Knowledge Database Assessment

Complete the compilation and assessment of circumpolar indigenous knowledge databases and present a report to the 1995 CAFF meeting.

Lead: Canada

4.4 Review of Co-Management Systems

Prepare a report describing the structure, strengths and weaknesses of systems for co-management of natural resources in the United States, Canada and elsewhere in the Arctic region and present the report to the 1995 CAFF meeting.

Lead: United States and Canada

5. CAFF PROGRAM MANAGEMENT

Goal

To facilitate and enhance delivery of the CAFF Program.

Action Plan

As part of the 1994-95 CAFF Work Plan, CAFF will carry out two program management activities. The first is to finalize its Framework Document and the second is to begin preparing the CAFF presentation to the 1996 AEPS Ministerial meeting. The details of these tasks are:

5.1 CAFF Framework Document

5.1.1. Conclude the CAFF Framework Document, presented in draft form to the 1994 CAFF Reykjavik Meeting. The Framework Document will incorporate:

- CAFF Principles and Planning*
- CAFF Program Management Structure and Delivery*
- CAFF Cooperation*

Lead: Norway, with the CAFF Secretariat. Initial comments on the Framework Document to be

sent to the Secretariat by January 6, 1995

5.1.2 Prepare a progress report for presentation to the Senior Arctic Affairs Officials at their March, 1995 meeting.

Assigned to CAFF Secretariat

5.2 Preparations for the AEPS Ministerial Meeting

5.2.1 Develop a comprehensive outline for the CAFF presentation and recommendations to the 1996 AEPS Ministerial Meeting which will include, inter alia:

- Habitat Conservation*
- Protected Area Network*
- Seabird Issues*
- Murre Conservation Strategy*
- Endangered Species Issues*
- The CAFF Framework*
- CAFF and Biodiversity Convention Implementation*
- Indigenous Peoples Pilot Mapping Project*

Assigned to CAFF Secretariat.

5.3 Future Meetings of the CAFF International Working Group

1995 - Russia

1996 - Finland

1997 - Greenland

SECTION II: PLENARY

REPORT OF THE PLENARY SESSION

The third meeting of the CAFF International Working Group was held from September 26-28, 1994 in Reykjavik, Iceland. It was preceded by a half-day of informal specialist workshops. The meeting itself was structured into sessions which included: opening addresses, country overviews, reports on the 1993-94 CAFF Work Plan, reports on special items, presentations by observers, reports on CAFF program management and a session to draft the 1994-95 CAFF Work Plan. A synopsis of each is presented below.

OPENING ADDRESSES

The Opening Addresses were given by Iceland's Minister of the Environment, Dr. Ossur Skarphedinsson and by the 1993-94 Chair of CAFF, Dr. Aevan Petersen.

Dr. Ossur Skarphedinsson, Minister of Environment for Iceland

In his address, Dr. Skarphedinsson highlighted the importance of CAFF's main function to conserve the unique wildlife of the Arctic, on which, he emphasized, Iceland's economy and very survival depends. He pointed out that of the four Working Groups of the Arctic Environmental Protection Strategy (AEPS), CAFF is the only one dealing with the biological aspects of conservation in the Arctic and that the mandate of CAFF is much broader than that of the other AEPS Working Groups. He stated that another important function for CAFF is to indicate all the negative environmental effects of human activities on the Arctic ecosystem and to propose solutions to these. Yet another CAFF function is to determine how contaminants are distributed through the food chain and to establish the real effects of polluting agents on different components of the Arctic ecosystem.

CAFF is also needed to monitor species endangered by a lack of living space caused by indirect actions of man which are increasingly threatening more species with extinction. He suggested that a future project for CAFF would be on damage to traditional habitat of spawning marine fish stocks and juveniles and that this has not yet come under close scientific scrutiny.

The Minister pointed out that as an international forum, CAFF brings together people with different backgrounds, molded in different environments and reflecting a diversity of experiences. This creates a setting where information and new ideas are shared between individuals and nations that may be tackling similar problems and this greatly improves the chances of diagnosing and solving the problems of the Arctic.

Dr. Skarphedinsson went on to say that the CAFF program has already been a stimulus for Iceland to initiate research into areas that have not received much attention in the past and he signalled out CAFF's work on seabirds, on endangered species and on habitat conservation as particularly valuable to Iceland. He suggested that the Murre Conservation Plan should become a model for the conservation of other species as well. Similar plans are being devised in Iceland for White-fronted goose and Brant goose which, although not yet in the CAFF program, are well within its framework. Iceland's work on a Red Data List of rare, vulnerable and endangered species (to be published next year) has also been directly instigated by its participation in CAFF.

Iceland recently decided to establish a new National Marine Park in an area known for its unique birdlife, several famous seabird colonies and rare plants. In the very near future, Iceland hopes to establish a sanctuary for Brant goose. The Ministry recently purchased the largest seabird colony in the North Atlantic for inclusion in the park. Iceland is also moving to protect important nesting areas for part of the population of White-tailed eagles, two species of seals and several species of small whales.

As a final point Dr. Skarphedinsson noted that the Biodiversity Convention has an important bearing upon the future work of CAFF. Indeed within the Arctic region, CAFF should be looked on as the implementing tool for the Convention and in designing the projects ahead, this must be taken into account.

The Minister closed by wishing the CAFF meeting every success.

Dr. Aevor Petersen, Icelandic Museum of Natural History

The Chairperson of CAFF for 1993-94 Aevor Petersen spoke on the challenges facing CAFF. Since CAFF's mandate is much broader than that of any of the other AEPS groups, one challenge is to define CAFF's role in the AEPS and to put a framework to CAFF's work. Dr. Petersen expressed the view that a general feeling is that CAFF's program is a little ambitious and some time should be taken to think it over. At the same time, CAFF has not tackled important areas which could fall within the group's mandate. CAFF also faces organizational and operational considerations vital to the survival of its program including how to carry out the Work Plan, the role of National Contacts and the continuance, functioning and funding of the CAFF Secretariat. Another challenge and the primary aim for CAFF is to deliver some of the work items over the past two and a half years at the next Ministerial meeting in March 1996.

Dr. Petersen commented that CAFF's relationship with the other AEPS groups, other international groups and NGOs present here also needs to be considered and that CAFF has to find its niche among them. CAFF has much to offer on the biological aspects of their work. For example the Ministerial Meeting in Nuuk last year called for CAFF and AMAP to do a common assessment, and a question which needs to be looked at in detail is how this common assessment should be carried out. CAFF will be called upon to give the biological background for conservation of the Arctic by the AEPS and this too is a challenge.

On another note, CAFF has been very much in a data gathering phase and there is an eagerness that it

is now coming to the implementation phase and how to go about this is an important consideration.

In closing, Dr. Petersen echoed the Minister's view that CAFF be looked on as the Arctic implementation mechanism of several of the international conventions such as Biodiversity. He also stressed the need for stronger links to the Nordic Council which does some work which is also within CAFF's mandate.

COUNTRY OVERVIEWS

CANADA

Speaking for Canada, Douglas Pollock noted that since the last CAFF meeting, Canada's new federal government has expressed keen interest in the Arctic and has recently created the post of Arctic Ambassador. He went on to point out that in Canada an intensive program review is underway at the federal level and that most departments will have their resources reduced by up to thirty percent over the next five years. How these reductions will affect Canada's Arctic programs is uncertain. He cautioned that under the circumstances, CAFF may have to examine its workload and it is essential to complement each other's work and avoid duplication. On a positive note, Mr. Pollock advised the participants that Canada has established the interim CAFF Secretariat and had been fortunate to come up with the initial year's funding.

Mr. Pollock then reviewed Canada's conservation initiatives. Amendments have been made to the Canada Wildlife Act which, for the first time, allows designation of marine protected areas. Over the past year, consultations have been held among federal departments, provincial and territorial governments, indigenous organizations, conservation individuals and non-government organizations on a biodiversity strategy for Canada. A draft strategy has been circulated among groups and individuals. Once completed, it will be presented to Canadian Wildlife, Environment and Forestry Ministers for adoption. It will then be the responsibility of each province and territory to implement the strategy in accordance with its priorities and fiscal capabilities.

Canada has done reasonably well regarding protected areas. A number of new initiatives are in different stages of negotiation and several new National Parks and National Wildlife Areas are being established in the Arctic.

Mr. Pollock informed the meeting that protecting the Porcupine Caribou calving grounds remains a high priority for Canada. He also pointed out that circumpolar eider populations are being heavily hunted and their habitat seems to be decreasing. However, more studies are needed. On another issue he noted that while the Canadian Arctic is large, there is little data-gathering or research capability, especially in flora. Another, and growing, concern is the increase in tourism activity and its impact on wildlife and habitat. Canada will try to ensure that all tourist development will be environmentally sustainable and socially equitable.

Mr. Pollock remarked that NGO groups are very instrumental in achieving the goals of conservation of

Arctic flora and fauna, both as co-sponsors of some programs and in mobilizing public support for them. Mr. Pollock ended the Canadian Overview by advising that Canada has also been extensively involved in consultations with indigenous peoples concerning renegotiation of the Migratory Bird Convention with the United States.

FINLAND

Speaking for Finland, Esko Jaakkola referred to Finland's efforts under the Biodiversity Convention. Finland's 'Country Study' is underway and should be published early next year. Finland is beginning development of the national biodiversity strategy required by the Convention, and is likely to do it on a sectoral basis, as other countries have. The Forestry Administration has now prepared its fourth environmental strategy which includes a section on biodiversity and is now translating this strategy into new forestry legislation where special attention is focused on old growth forests. The Old Forest Protection plan will soon be in place.

Mr. Jaakkola informed the group that the World Wildlife Fund leads ongoing projects on Arctic fox, Lesser white-fronted goose, Peregrine falcon and the White-tailed eagle.

On the international front, Finland is considering joining the European Union, and the practical application of the EC Habitat and Bird Directives will be a new commitment. If Finland, Sweden and/or Norway join the European Community, it will be their responsibility to bring Arctic considerations to the Union. Negotiations are underway for the inclusion of Arctic species which are not now in the European Union directives. The provisions of Natura 2000 on specially protected areas under the Habitat Directive, will be another challenge. Finland and the other Nordic members will have responsibility for bringing the Arctic perspective to Natura 2000 and there is already a Nordic Working Group looking at this issue. Mr Jaakkola mentioned a potential conflict due to a copper ore find at its Ramsar site in Finnish Lapland. It will be a test case for Finland's new Environmental Impact Assessment legislation. Finland is also Chair of the Barents Euro-Arctic Council for the coming year and will chair the Environmental Task Force in 1995-96. The Task Force implements the Environmental Action Programme which includes sections on flora and fauna.

Mr. Jaakkola observed that, at the moment, CAFF is spread rather wide and thin and that the Reykjavik meeting is critical since Ministers, in their next meeting, expect something worthwhile. He cautioned that it is necessary to balance what must be done for the conservation of Arctic flora and fauna and still respond to Minister's expectations. Another challenge for CAFF is the question of limited finances and conclusions concerning CAFF financing need to be made and the workplan will need to be adjusted accordingly.

GREENLAND

Speaking for Greenland, Peter Nielsen noted that Greenland is a society dependent on hunting and fishing and that forty-seven species of birds and mammals are hunted although fewer than ten are permanent residents of Greenland. Measures to ensure sustainability cannot then, be based solely on local knowledge but require cooperation with other countries. Mr. Nielsen spoke of Greenland's

strong cultural and environmental ties with northern Canada and close cultural connections with the Nordic countries, especially Denmark. He pointed out that cooperation with the Nordic countries has been especially easy because the Nordic Council and the Nordic Council of Ministers have been active for many years, communications are well established and money has been allocated so that work can proceed from year to year with reasonably fixed budgets. Much of the Nordic Council's activity is beneficial to Greenland, for example new guidelines for Arctic ecotourism, a new Nordic Environmental Protection Strategy, lists of endangered species, status reports for breeding birds and discussions of habitat protection measures.

Mr. Nielsen went on to note that the work done for CAFF has been more limited. CAFF is new and communications are not yet as well established. Decisions have not, up until now, been followed up with reasonable yearly budgets. Thus, there are very limited resources for CAFF work and it is still not known if or when they will come. Greenland will still have to be selective.

Greenland's priorities are that CAFF work must be of relevance to Greenland's way of life and contribute to an understanding of sustainability. There needs to be a proper balance between exploitation of resources and measures for their conservation. A second priority for Greenland is to concentrate its efforts on the fora with the greatest chance for useful output.

In closing Mr. Nielsen expressed the view that Greenland is not interested in having CAFF deal with all Arctic conservation issues, but it should concentrate on those issues not adequately dealt with elsewhere. He cited the work on seabirds, the murre conservation strategy and the protection of Arctic habitat as examples.

NORWAY

Speaking for Norway, Pål Prestrud, pointed out that a healthy ecosystem is a prerequisite for sustainable living in the Arctic and that CAFF's mission is to make an efficient contribution to protecting these ecosystems for the benefit of those who live there and also for the outside world. He pointed out that the health and viability of the ecosystem must be protected if harvest from the biological production of the Arctic is to continue. The Arctic region still has large areas with fairly intact ecosystems and that is the most significant value of the Arctic in a global environmental context. CAFF's main objective should be to ensure that these systems are not destroyed. One of the main challenges for CAFF is to demonstrate to the world that Arctic ecosystems are being protected and properly managed which will help overcome trade barriers and obstacles to sustainable development for Arctic peoples.

Mr. Prestrud went on to say that the Report on the Status of Protected Areas in the Circumpolar Arctic is an example of a concrete result produced by CAFF, but that CAFF has not produced many more. He expressed the view that current CAFF work is far less focused and action-oriented than it ought to be. Consequently, Norway will work to reduce the number of CAFF work items and to select a few items that are clearly relevant to politicians and to the public. He then referred to the Framework Document tabled by Norway and the CAFF Secretariat. It contains a draft set of principles for identification and priority-setting for all CAFF work items. He cautioned that CAFF, like other AEPS programs, has limited resources and limited access to Ministers' attention, and that CAFF should

concentrate on a small number of activities that will form the basis for concrete recommendations on Arctic environmental protection for Ministers to endorse at their next meeting.

Mr. Prestrud went on to discuss CAFF and the Biodiversity Convention and he proposed an Expert Task Force on how the eight Arctic countries can cooperate to implement the Biodiversity Convention in the Arctic, which could be an umbrella for the whole CAFF process.

Norway considers CAFF an important process and a promising instrument and is prepared to continue its participation and contributions. However, this is done to get results. A unique aspect of CAFF is that it can produce results not achievable through other instruments because it involves all eight Arctic nations.

On the national front, Mr. Prestrud advised that Norway has increased its activity on Arctic environmental protection. The Euro-Arctic Barents Region was initiated and an Action Plan for the Environment was adopted this spring. Norway is developing a strategy for environmental protection in the North and a White Paper on environmental protection in the Arctic archipelago of Svalberg which will be presented to Parliament this year. The aim is to produce new and advanced environmental standards, particularly in the area of habitat protection to ensure that environmental values of the area are taken care of. A report on new National Parks introduces thirteen new protected areas in northern Norway, including the marine environment and suggests expansion of six existing protected areas. An inventory for the protection of marine areas along the Norwegian coast has recently been conducted and similar work on an inventory of protection values of the marine areas in the Barents Sea and Svalberg continues. Following up the Biodiversity Convention, Norway is developing an Action Plan for biodiversity protection.

RUSSIA

Speaking for the Russian Federation, Valery Orlov observed that northern Arctic regions comprise a large portion of Russian territory and opportunities for further social and economic development depend on the quality of that environment. The Russian Arctic is also home to twenty-six indigenous peoples whose way of life and culture are Arctic-based.

At present, intensive human impact on Arctic ecosystems occurs only in certain areas. To avoid more there is a need for a radical change of principles, objectives and ways of economic development aimed toward harmonizing the relationships between society and nature. This harmonization can occur by protecting the integrity of the ecosystem as well as by choosing courses of economic development which take into account ecological requirements and needs of indigenous peoples. Coordination of international efforts for the solution of Arctic ecological problems is very important and the CAFF program is crucial for realizing the decisions taken in Rovaniemi and Nuuk.

The Russian federal government has approved membership in the Convention on Biological Diversity and is awaiting its ratification. Russia has joined CITES and thirty-five wetlands have been approved as sites under Ramsar. The government has also approved new rules for the sale of fur, especially for those species in Russia's Red Book.

Despite economic difficulties, Russia has implemented measures aimed at protecting Arctic flora and

fauna and will adopt the model of sustainable development proposed by the UN Conference on Environment and Development. Recently, the government approved a program for the a Network of Protected Areas. Also, a program to revive minority peoples of the north has begun and there is a proposal to establish areas where they can preserve their traditional land and nature use. Programs are being implemented to conserve and restore the Siberian crane and the polar bear. New legislation is being prepared to conserve and protect flora and fauna and a program to conserve biodiversity and promote sustainable use will be financed by the World Bank.

To achieve the goals of CAFF, Russia will use conventions, multilateral and bilateral agreements and it has instituted a national interdisciplinary CAFF Working Group by Ministerial Decree. Its role is to coordinate CAFF work and to address current and prospective problems of CAFF at the national level. It is headed up by the Deputy Minister and has subsections for the various CAFF work items.

SWEDEN

Speaking for Sweden, Anders Björvall, began by describing some conservation measures in Sweden. Sweden plans to establish a World Heritage Area which will incorporate four older National Parks and two very large nature reserves. The area will contain Arctic and sub-Arctic habitats and a very high level of biodiversity. Six hundred thousand hectares of what are called pre-mountain forests have been recently protected as nature reserves after foresters and conservationists came to an agreement.

Sweden has just published a strategy for sustainable development which often proposes measures detailed enough to constitute action plans. Action is proposed on reindeer herding which will be a growing conflict over the next years. Follow-up to the UNCED meeting in Rio is being worked on but is not yet complete. A report will be published shortly and will be followed-up with a strategy for biodiversity conservation, but it is not known when that phase will begin.

The Swedish system to provide compensation for reindeer that are killed by carnivores has been under intense scrutiny and Parliament recently decided to change this system to one which is premised on the notion that carnivores are important for reindeer management. The Swedish Environmental Protection Agency has a formal commitment from the government together with the Saami Council to cooperate in developing the system of compensation for carnivore problems. This requires field work and surveys to get information on the number of carnivores. These species and populations are transboundary and there is a Scandinavian working group looking at how such surveys can be done cooperatively within the Nordic countries.

A severe problem in Sweden's Arctic is overgrazing by reindeer. Estimates are that there are now more than twice as many reindeer as are allowed and this results in tremendous overgrazing over large areas. New regulations from the Agriculture and Forestry Ministries mean that reindeer owners will now have to adapt the number of animals to ecological conditions and to run their activities on a sustainable basis. The World Wide Fund for Nature has investigated the possibility of some Lap villages using horses for some activities instead of reindeer and motorized vehicles which have become enormously common over the past decade.

On the CAFF program, Mr. Björvall stated that the number of projects CAFF undertakes must be

limited and that how to do this should be discussed.

THE UNITED STATES OF AMERICA

Speaking for the USA, David Allen noted that while CAFF is now better known among the professional community in the USA, the importance of conservation issues in the Arctic and how they affect people is less known, not only in the USA but globally. It is extremely important that CAFF determine how to better communicate an effective message on the importance of the Arctic environment in maintaining a healthy global environment. Only by increased public recognition of this fact can a significant increase in political and financial support needed to implement the CAFF program be expected, particularly in a period of declining budgets.

Mr. Allen went on to state that CAFF efforts must be focused and have readily recognizable benefits for the Arctic environment. CAFF must set its priorities from among the many initiatives underway and should concentrate on obtaining a few important concrete results.

Mr. Allen updated the meeting on five issues currently important to the USA and of interest to CAFF.

- 1) The potential for new oil and gas discoveries and increased shipping traffic from the opening of the Northern Sea Route point to an increased need for better understanding of the Bering Sea ecosystem. A study is underway to synthesize present understanding of the Bering Sea ecosystem and to identify gaps in the knowledge base. This is important because pressures on this system are increasing and there are already declines in the number of sea mammals and seabirds. The Bering Sea also has great value as a fishery, both nationally and globally.
- 2) The US Congress has directed that a review of the effectiveness of the 1973 International Polar Bear Agreement be undertaken in consultation with the other Contracting Parties. Also the USA and Russia are currently having discussions on a bilateral agreement to manage the stocks of polar bears they share in the Chuckchi and Bering Seas. A unique aspect of the negotiation will be the parallel, coordinated negotiation between Alaskan natives and the natives of the Chukotka region of Russia.
- 3) Recently the USA and Canada have sought to amend the Migratory Bird Convention to legally better provide for subsistence harvest needs.
- 4) The Arctic Peregrine Falcon, federally protected since 1970 is now being recommended for removal from protected status. However, the Steller's eider and Spectacled eider are in decline, with the latter being listed a year ago and the former now recommended for listing as "threatened".
- 5) The USA and Russia are proposing simultaneous oil and gas leases in the Chuckchi Sea off Alaska. There will be intense debate over national economic and social benefits versus the potential environmental impact on marine resources and threats to the subsistence life-style of the indigenous communities.

ICELAND

Speaking for Iceland, Dr. Óvar Petersen began by describing recent conservation initiatives in Iceland. Several small, limited areas have been proposed as Reserved Areas. Most are wetlands and some are important for Brant and White-fronted goose. Also there is a move to create a fourth National Park and to extend another.

Dr. Petersen mentioned that a number of new research initiatives are underway and that many are a direct result of involvement in CAFF. For example, preparations are being made to monitor murrens and there is a move to establish an Icelandic seabird colony registry. He went on to say that Iceland has also started a bird distribution atlas of the breeding birds of the country which have not been systematically studied until now.

New legislation on bird hunting, bird conservation and terrestrial mammals recently came into force in Iceland. It represents a shift in thinking because the new legislation states that all bird and terrestrial mammal species except mice, rats and mink are protected unless a special regulation is made to lift their protected status. It also requires hunters to have a license, something new for Iceland. Hunters are now expected to keep statistics so information on numbers of hunted birds and mammals will be available.

On the international scene, Iceland has also recently signed the Berne and the Biodiversity Conventions and work on a National Report on Biodiversity is underway.

Upon completion of the National Overviews, Mr. Thórir Ibsen, the chair of the meeting summarized a few of the key points. He noted that the countries had stressed the need to focus the work of CAFF on readily recognizable benefits and on areas of relevance to Ministers, to the public and to those who live off Arctic resources. Another common theme was that CAFF's work must complement national programs and activities and not duplicate the work of others.

REPORTS ON THE 1993-1994 CAFF WORK PLAN

FLORA CONSERVATION

Rare, Vulnerable and Endangered Species: Item 3b: Presenter - Dr. George Argus: Canada

Dr. Argus informed the meeting that lists of rare, vulnerable and endangered Arctic flora were received from all countries and had been integrated. This listing process allowed for identification of species requiring conservation attention because of a small range or due to specific threats to them. Once the species are mapped, integrated lists will permit recognition of "hot spots" needing conservation. He described that the flora listed are firstly taxa endemic to the Arctic. These are important since their extinction would result in an irreplaceable loss of genetic material. Others that are listed are peripheral to the Arctic since their main ranges are usually in boreal, taiga or steppe regions. However, they are important because of their adaptations. The list contains 878 vascular plants, 398 bryophytes and 113 lichens. Those listed by more than one country included 67 vascular plants, 30 bryophytes and 1 lichen. The discrepancy is, no doubt because all eight countries included vascular plants, whereas only

five listed bryophytes and only three lichens.

Dr. Argus emphasized that listed taxa also need to be mapped so that conservation "hot spots" can be identified. He stated that the mapping should be based on the taxon's total range, especially for those plants with ranges outside the Arctic proper. He went on to recommend that ranges need to be superimposed on each other to recognize "hot spots". They should also be superimposed on maps of protected areas to focus attention on areas requiring specific conservation action and finally, specific threats to plants should be clearly identified so that steps can be taken to mitigate them and to see if the threats also occur in other countries.

Circumpolar Vegetation Map: Item 7b: Presenter - Dr. Steve Talbot: USA

Dr. Talbot began by describing the Arctic vegetation mapping workshop, held in St. Petersburg in March 1994. Its objectives were to review the status of existing maps of Arctic tundra regions, to formulate a mapping strategy and to develop a framework for the vegetation legend. It was also decided to produce a few products quickly to stimulate interest and funding for the project.

Dr. Talbot explained that the circumpolar vegetation map would provide a common legend and language for the vegetation and ecosystems of the Arctic region and would be useful for education, study of Arctic biota and biodiversity, land use planning by native peoples, planning for parks and protected areas, predictions of future climate and vegetation changes and international ecoregion planning. It would also serve as a unifying framework for maps of smaller regions. He explained that two types of vegetation maps are needed, one that displays the circumpolar distribution of biomass and a second which depicts vegetation types based on plant physiology and floristic composition.

The legend for the vegetation-type map will likely employ a combined floristic / physiognomic / ecological approach similar to the Russian one. The final legend for the map will depend on close communication with the Circumpolar Classification Working Group and the Pan-Arctic flora project.

CIRCUMPOLAR DATA BASE AND INFORMATION SYSTEMS:

Prototype Data-Base for Alaska: Item 7a: Presenter - Emily Binnian: USA

Ms. Binnian explained that a circumpolar data-set would consist of seasonal land-cover regions, descriptive and quantitative processes and that its development would be an upcoming program in the next four to five years. One product to be developed is a single-day look at the globe. An application that has been completed for Alaska is a look at caribou migration patterns from northeastern Canada to northwest Alaska. Derivative products which can be put together include the onset of greenness, its total duration, the peak period of greenness and a number of other characteristics. Completed in the land-characteristics database for Alaska is physiographic information, elevation, and slope aspect which can be used for other modelling purposes. Other information includes major ecosystems and forest cover types.

FAUNA CONSERVATION

**Lists of Rare, Vulnerable and Endangered Fauna: Item 4a:
Identification of Species Listed by More than One Country: Item 4b:
Presenter - K. McCormick: Canada**

As these two items were closely related to one another they were presented together. Mr. McCormick advised that the database of rare, vulnerable and endangered fauna that was developed for the 1993 CAFF meeting in Fairbanks now consists of 238 records. Classification systems used to categorize rare, vulnerable and endangered species continue to differ among countries. Mr. McCormick questioned whether CAFF should standardize a classification system to be used for CAFF purposes.

From the database, CAFF list I was compiled and consists of species listed by more than one country. The number now totals 41 (21 birds, 19 marine mammal, and 1 fish species). These species, he added, are candidates for specific conservation action by CAFF. Mr. McCormick described the system Canada, as lead country, had devised to rank the degree of threat at the circumpolar level. Values were determined by combining category of endangerment assigned by the countries with number of countries listing the species. The resulting top ten species ranked as having the highest degree of threat at the circumpolar level are: Right Whale, Bowhead Whale, Humpback Whale, Blue Whale, Fin Whale, Peregrine Falcon, Lesser White-Fronted Goose, White Tailed Eagle, Gyrfalcon and the Wolverine.

Discussion then moved to the Secretariat's recommendation that a progress report and list of recommendations on endangered species issues be prepared for the Senior Arctic Affairs Officials and for the AEPS Ministers. There was broad agreement that such a report should be produced using IUCN criteria.

Wildlife Habitat Mapping: Item 4h: Presenter - M. Mirutenko: Russia

Ms. Mirutenko explained that the information presented in this report was chiefly from Canada and Norway, and detailed the information needed to complete the report. She then outlined a long-term mapping strategy and explained that those environmental factors were chosen whose mapping was necessary, and that would allow for special mapping of animal habitat. The maps would include anthropogenic factors. The uses of these maps would be for studies of the state of animal habitat, for estimating biodiversity and for optimizing the use of wildlife while still protecting it, and for organizing protected areas. Ms. Mirutenko proposed to start collecting, systematizing and analysing the data necessary to create the maps as early as 1994-95. After that it may be possible to create maps of the animal habitat of each country but financing the work remains a problem. Ms. Mirutenko stated that some of the mapping work is being carried out under the Biodiversity Convention and that biozoogeographical maps for various species are being compiled. She suggested that for CAFF it would be possible to make maps for Siberian cranes and polar bears and perhaps for one or two other species.

Circumpolar Seabird Working Group: Item 4i: Presenter - K. Wohl: USA

Mr. Wohl informed the meeting that the Working Group's first meeting was held in January 1994 and

was attended by seven of the eight Arctic nations and by the CAFF Secretariat. At that meeting, the Murre Strategy and seabird registry were discussed and several new tasks were identified. Some highlights from the meeting were: of the seabird species occurring in the Arctic, sixteen have circumpolar distribution and over forty have at least bilateral distribution; seabirds are also important socio-economically; there is acceptance that seabird conservation must be done cooperatively since seabird species are shared by several countries. It was also stipulated that the CAFF Circumpolar Seabird Working Group will be a circumpolar forum for conservation, management and research and the Group is committed to developing concrete products.

The Seabird Group is currently developing a Murre Conservation Strategy, the Seabird Colony Registry, and the Circumpolar Seabird Bulletin. Among the new tasks the Group will work on are a directory of seabird experts, disturbance guidelines at seabird colonies, a report on the incidental take of seabirds, a review of seabird management concerns, identification of seabird indicator species, developing a seabird monitoring network, compilation of seabird harvest and hunting regimes and a circumpolar banding project. The Group will hold its next meeting in Norway in 1995.

The CAFF Secretariat proposed that CAFF approve the Circumpolar Seabird Working Group Charter, endorse the work and Action Plan of the group, and that a report from the Norway meeting be prepared and widely distributed. These were accepted.

Circumpolar Seabird Colony Database: Item 4h: Presenter - J. Chardine: Canada

Mr. Chardine noted that since the inception of CAFF, it was recognized that development of computer based information systems to facilitate international scientific cooperation was an important task. One database envisioned was the seabird colony database where colony information for each nation would be brought together in a single location and be a single source. He pointed out that, presently, questions about circumpolar seabird populations can only be answered by reference to each nation's database, conventional catalogues or written summaries because all countries do not have computerized data on seabird colony locations. A circumpolar database will allow exploration of seabird population data at a circumpolar level visually or numerically.

To date, experts from signatory countries have evaluated applicability of the Canadian seabird colony registry to house their own colony databases. Most prefer to remain with the systems they have but it is recommended that those starting new databases consider the Canadian model for use. Information on national databases has been gathered and reviewed and it was determined that whereas several CAFF members currently have up to date colony databases some do not. Development of a circumpolar database will depend on and is limited by the development of national ones. Some concrete decisions have been made on the database (i.e. which data fields and species to include, what the cut-points will be for colony size and other criteria). Dr. Chardine mentioned that it was recognized early on that BirdLife International was planning a similar project and the potential for cooperation looks very good.

The CAFF Secretariat explained that certain seabird issues and the range of marine issues they encompass would be of interest to the Senior Arctic Affairs Officials and the Ministerial level and proposed that a report and recommendations be prepared for the AEPS Ministerial meeting. This was

adopted. Iceland noted that seabird issues touch on a wide range of marine subjects and other areas and WWF proposed seabird work be linked with the habitat protection work. Greenland declared that the Seabird Group has been a model of how to get the right information and hoped the Group could take up other species. The Secretariat recommended that CAFF incorporate costs for the circumpolar database in its financial planning.

Murre Conservation Strategy: Item 4g: Presenter - J. Chardine: Canada

Dr. Chardine presented the draft Circumpolar Murre Conservation Strategy and Action Plan. He stated that human activities have caused decreased survival and breeding success in murre populations. Oil pollution, entrapment in fishing gear, hunting, and competition with fishing are examples. As a result of their migratory and dispersal patterns, murre populations are usually shared by two or more countries so effective conservation requires coordinated international efforts such as CAFF allows. Dr. Chardine reported that, in producing the final draft of the Strategy, the goal was to produce a document that could be signed by all CAFF members and that would include specific action items. Thus the document is not only a Strategy but an Action Plan which includes tactics and actions on conservation issues important to murre. He recommended that Canada continue to lead on the strategy until it is completed. Many agencies have to comment on it and the Circumpolar Seabird Group. Canada, as lead country, and the CAFF Secretariat will handle the review process.

In the ensuing discussion, the Netherlands suggested that the strategy could fit under article 4.4 of the Bonn Convention and WWF proposed discussions with countries which were not signatories to CAFF but that shared murre populations in order to enlist their support. Canada said this could be done since the other key countries were already official observers to CAFF. The USA recommended reporting back to AEPS Ministers on a regular basis on implementation and Canada agreed that a report every two years was envisaged.

INTEGRATION OF INDIGENOUS PEOPLES AND THEIR KNOWLEDGE

Indigenous People's Pilot Mapping Project on Beluga Whale: Item 2a: Presenter - F. McFarland: Canada

Mr. McFarland described the steps taken on this item since it was initiated in the fall of 1993. The project has two components. The first is a field program to collect indigenous ecological knowledge on the Beluga population in the Chuckchi-Bering Strait area. The second is a seminar after the field work is completed. It will bring together people in the field study with other groups in the north who are using indigenous knowledge to study the Beluga. Here recommendations on the mapping methodology will be framed for CAFF and for AEPS Ministers. The seminar will focus on methodology, the local content of indigenous knowledge and its application to regional resource questions as well as how and where to apply the methodology in CAFF and in the AEPS. Funding for the project is being sought outside of CAFF countries. After Mr. McFarland's presentation the ICC (Inuit Circumpolar Conference) representative advised that some support from the Arctic countries would likely be sought for the seminar, namely a host country to assist in organization and to pay some of the travel costs.

Ethical Principles for Arctic Research: Item 2b: Presenter - T. Brelsford: USA

Mr. Brelsford informed the meeting that this project is a preliminary effort to compile and assess common elements of Arctic research standards, ethics and statements for responsible Arctic research. Although the original mandate was to collect such standards and propose a set of harmonized principles for consideration by CAFF at this CAFF meeting, it was decided that harmonization was premature at this stage. In response to a request to CAFF countries by the USA, nine statements were received from universities, governments and indigenous peoples' organizations, chiefly from Canada and the USA.

Common themes in the statements were the notion of informed consent based on full information regarding the purposes, methods and funding of research projects; local participation in project design and implementation including the training and employment of local assistants; respect for cultural traditions, language and local knowledge as a component in scientific research; respect for the dignity, privacy and confidentiality of participants; acknowledgement of the community's participation and contribution in the final report and a return of all final reports to participating communities. Key differences were also found. A proposal for a model of participatory research in which researchers and communities work closely in selecting research topics and methodology and cooperate in data collection and analysis was novel. Another new approach calls for a negotiated research agreement between the researcher and community which would provide clear and binding provisions on the roles and responsibilities of all parties.

It was recommended that compilation of statements continue with special attention to Greenland, Scandinavia and Russia. It was further advised that efforts be made to conclude with a common set of principles for Arctic research which can be adopted by the AEPS, since these topics extend beyond the CAFF program to other AEPS programs. These recommendations were accepted.

HABITAT CONSERVATION

Status of Protected Areas in the Circumpolar Arctic: Item 1a: Presenter - J.-P. Huberth-Hansen: Norway

Jan-Petter Huberth-Hansen gave a summary of the CAFF Habitat Conservation Report No. 1 *The Status of Protected Areas in the Circumpolar Arctic* and the process used to produce it. He reviewed the mandate assigned for this report at the 1993 CAFF meeting. It was to:

- 1) Identify and map all Arctic protected areas
- 2) Look at the management regimes of these areas
- 3) Identify gaps in the system of protected areas and look at actions underway or planned to fill the gaps
- 4) Describe some examples of conservation measures outside protected areas

The report presented to this meeting was the final one, and contained text, maps and other figures. Most of the Report deals with Protected Areas in CAFF countries but it also introduces the topics of threats to Arctic habitats and of habitat conservation outside protected areas. The Report contains a

complete directory of Arctic protected areas on a country by country basis and a submission by NGOs on their recommendations for habitat protection in the Arctic. Mr. Huberth-Hansen then presented the main findings of the Report. They are:

- There is no globally accepted definition of the term 'Arctic' and each country has applied its own description.
- Technologies from other regions have been transferred to the Arctic and increasingly it is becoming a resource pool for commodities such as oil and minerals.
- All Arctic countries have realized that they must provide some type of protection to important tracts of land and marine areas.
- One of the main reasons to protect an area is because of its importance as flora and fauna habitat.
- The Arctic countries have adopted various habitat classification systems for their own use. There is no one system that applies to the whole region.
- In total, there are roughly 280 Protected Areas covering about 2,000,000 sq. km. or 14 percent of the Arctic area. However, the great North and East Greenland National Park covers 1,000,000 sq. km. or half of this area.
- Within the Arctic, most Protected Areas can be classified using the IUCN system but in the report the focus is on areas which fall into the first five IUCN designations.
- The criteria and selection methods used to designate Protected Areas differ among Arctic countries.
- In the Arctic there are thirty-seven wetlands designated under the Ramsar Convention, six Biosphere Reserves under UNESCO's Man and the Biosphere Program, and two World Heritage Sites designated under the World Heritage Convention.
- All CAFF countries have the necessary legislative tools for designating and managing Protected Areas in the Arctic.
- Within and among countries, regulations and restrictions in Protected Areas vary from complete prohibition of all types of human interference without special permission to more or less free access to Protected Areas.
- The type of management regime also varies by country and management category, but in general, there is some type of hierarchical model in place.
- All countries with indigenous populations have made agreements to allow them to maintain their traditional activities including subsistence activities within Protected Areas. In some

cases, special rights are also granted to local residents other than indigenous people.

-All countries except the USA have identified gaps in their Protected Area system. Important gaps in protecting the Arctic as a whole are marine areas, coasts, fjords and forests.

-Some kind of plan for new Protected Areas or an extension of existing areas is found in all countries but the level of concrete proposals varies.

-Even if all proposals for Protected Areas in the Arctic were realized, there would still be significant gaps.

-Creation of real marine reserves seems to be one, if not the greatest, challenge for CAFF work on habitat items.

Norway concluded that the report, while important, is only a first step in completing a CAFF strategy on habitat protection in the Arctic. Mr. Huberth-Hanssen argued that since the report now exists, there is no excuse not to speed up the work on habitat conservation.

**Report on a Plan for the Development of a Network of Protected Areas: Item 1b:
Presenter - V. Pischetelov: Russia**

Mr. Pischetelov proposed creating specially Protected Areas based on the following selection criteria. Protected Areas should be developed to preempt irreversible environmental change caused by human interference. Priority should be given to measures which protect areas and these should be chosen from areas representative of the Arctic's physiographic zones. Ecological balance could be provided in each region by forming a network of interrelated Protected Areas of different types and protection levels. Account has to be taken of the interests of indigenous peoples in setting up these areas. Allocation of large land and marine areas for protection should comprise no less than ten percent of the Arctic and should include important parts of unique Arctic habitat such as permafrost, drifting ice, surface glaciers and marine areas according to principles of maritime law. Measures should also be taken to reduce the amount of pollution in the Arctic from air, and from water flowing from the south. Protected Areas could be used to restore natural areas already damaged. Areas should be reserved for the creation of Protected Areas in the future. Lastly, the cluster principle of Protected Areas should be employed.

Mr. Pischetelov recommended that the steps in creating a CAFF network should be as follows. Each country will determine its prospective protected territories in accordance with its national interests and data available. These should be submitted to the CAFF Secretariat which will forward them to Russia for analysis. A result of this might also be a CAFF report for April 1995. The second stage would see CAFF countries coordinate the program for creating these areas for approval by the Ministerial Meeting. A third stage would be to collect information about national Protected Areas by national scientific bodies. Fourth, to assist in collecting and analyzing this information, a CAFF report on the prospects of development for areas in the Arctic should be prepared. Fifth, for the next regular CAFF meeting a set of recommendations should be made on priorities for creating national Protected Areas to ensure maximum efficiency. Sixth, a coordinated approach should be taken by CAFF countries to

the physiographic zoning of the Arctic.

Both Russia and Norway were warmly congratulated for their work and the CAFF Secretariat's recommendation to present a report on Habitat Conservation to the Ministers was accepted.

THREATS TO THE ARCTIC ECOSYSTEM:

Item 6: Presenter - E. Jaakkola: Finland

Mr. Jaakkola delivered a working paper to the meeting and explained that it develops a framework for dealing with threats to Arctic flora and fauna and their habitat. The paper also makes linkages to work done within the Biodiversity Convention. Mr. Jaakkola defined a threat as any activity, process or event, natural or human induced, that is causing or is likely to cause an adverse impact on any component of Arctic flora, fauna or habitat and on its sustainable use. He noted that it is important to separate the agents causing threats from their consequences. He also pointed out that often behind a threat there is a potential beneficiary which must be dealt with, and this may require tradeoffs. In the paper a threefold categorization of causes is described, namely direct, indirect (which can be seen as external socio-economic factors), and natural hazards. He explained that the paper's threat analysis approach needs to be further developed to better reflect adverse and particular effects relating to the Arctic and that the quantification of these threats remains problematic.

Mr. Jaakkola suggested that if CAFF accepts the framework outlined in the paper, it should refine it to better reflect Arctic conditions. CAFF should also integrate this threat approach into other items. Perhaps the place to do this is in the consideration of an Arctic regional approach to the Biodiversity Convention where it could be more closely applied to Arctic conditions.

CAFF FRAMEWORK DOCUMENT:

Item 8c: Presenter - R. Hansson: Norway

The draft CAFF Framework Document, developed collaboratively by Norway and the CAFF Secretariat was introduced by Mr. Hansson, who noted that the document resulted from the fact that from the outset it was unclear which work items would serve CAFF's mandate best. CAFF had pursued a large number of activities and not all of them were equally well coordinated or designed for a common purpose. The Framework Document is meant to provide guidance for CAFF's program structure and organization and to assist in a systematic evaluation of potential CAFF activities. However, it had not yet been discussed by the National Contacts.

The paper contains four main items; principles for and planning of CAFF activities; CAFF program management; cooperation with other environmental conservation activities; and lastly an appendix on resourcing CAFF.

The Principles and Planning section proposes a set of criteria that should apply to all CAFF activities. These are: CAFF should apply an ecosystem approach, that is, its activities should aim at protecting or restoring the function, structure and species composition of Arctic ecosystems; CAFF activities should

be linked to clearly identified ecosystem units; CAFF activities should involve international cooperation; there should be cooperation and linkages with other conservation initiatives, both with AEPS programs and other relevant Arctic conservation activities; results of CAFF activities should be obtainable within a realistic resource base available; CAFF activities should not duplicate work being carried out in other fora; CAFF activities should be politically and culturally acceptable; the activities should also have a high probability of achieving their stated scientific and management goals. The Section also proposes a simple tool to prioritize CAFF activities. It consists of a matrix containing a number of keywords of ecological and other significance (e.g. threats, cooperators, allies, existing data etc.) which can be given a value for each country so that the total sum would measure the overall importance of an activity, therefore making it possible to rank them. While it would not be a decisive tool, this procedure would give guidance to the differing views of the countries on various CAFF items. Mr. Hansson also emphasized that CAFF should make an effort to focus on Ministerial meetings since it is the Ministers who can endorse CAFF recommendations and transform them into concrete environmental programs and actions.

The Framework Document's Section on Program Management offers some options for an overall program management structure for CAFF. It recommends that the National Contact system be kept in place, and assumes that CAFF will continue to operate its Secretariat and maintain its International Working Group. It also recommends that CAFF keep the Lead Country concept for work items but also that it develop a mechanism to allow less resourced countries to cooperate with a Lead Country in the design and implementation of Work Plan items. The section also recommends that Ad Hoc and Specialist Working Groups be institutionalized as part of the CAFF system.

The Section on International Cooperation discusses CAFF's relationship with the other AEPS programs, with International Conventions and other international environmental organizations. It acknowledges that there is a large potential to enhance CAFF by cooperating with several of these. This would also give CAFF the opportunity to present Arctic environmental concerns to relevant interests and jurisdictions outside the Arctic, and would give CAFF access to well-designed and well-functioning instruments and to the considerable amount of expertise and influence developed through these agreements. The section also discusses other types of regional cooperation but its focus is largely Nordic due to lack of information on other parts of the Arctic. The paper suggests that cooperation with the Euro-Arctic Barents Region, the Nordic Council and other regional initiatives should be via the National Contacts and CAFF Secretariat. With respect to cooperation with other scientific programs, the Document concludes that there are a host of possible scientific programs that are relevant to CAFF but that cooperation should be kept on a project or work item level.

The document ends with an Appendix which outlines an approach for a Resource Strategy for CAFF. In summary it states that funding for CAFF to date has been on an ad hoc basis with each country contributing what it has been able. There has been no short or long term strategy to provide resources for the program as a whole. There is increasing evidence that this may be having a detrimental effect on implementation of CAFF Work Plans and in the ability of countries to participate fully in the program. It recommends that CAFF develop a strategy to alleviate these resource problems and to do so, it undertake two preliminary tasks. The first is to identify costs (financial and personnel) needed to support CAFF and the second is to identify various options to meet these costs.

The document was received very favourably but several countries pointed out that given its breadth and complexity and the fact that it had yet to be extensively reviewed, definitive decisions on it could not be reached at this meeting.

PRESENTATIONS BY OTHER AEPS GROUPS

Jeanne Pagnan provided a brief overview of the three other AEPS Working Groups (AMAP, EPPR, PAME) the Sustainable Development Task Force and of the documentation they had provided. She then introduced the verbal presentations from AMAP and the Sustainable Development Task Force.

Arctic Monitoring and Assessment Program: Presenter - H. Jenssen: AMAP

Mr. Jenssen began by describing organizational similarities between CAFF and AMAP, including a Secretariat, Ad Hoc working groups, and an AMAP Working Group which includes observer countries, indigenous peoples' organizations and NGOs. The main objective being pursued in AMAP is to monitor the levels, trends and effects of pollution, including its effects on humans. Other objectives are to assess the state and changes in the Arctic environment from pollution and climate, to present status reports to Ministers and decision-makers, to document major sources and processes of pollution. He noted that these areas are also important to CAFF's work. In AMAP, preparation of status reports and the design and periodic review of the monitoring program have been important from the beginning. Harmonization of existing programs, a directory of existing programs and databases, the provision of data to those who wish to use it and establishing monitoring requirements have also been important.

The main work now in preparation are an AMAP assessment report which will be a scientific report prepared by experts and a report on the Status of the Arctic and the Environment for presentation to Ministers and to the public. In summary, work on persistent organic pollutants, heavy metals, radionuclides, acidification and human health is well underway.

At the close of his presentation, Mr. Jenssen was asked if it was useful for AMAP to attend the CAFF meeting. Mr. Jenssen replied that it was very useful for AMAP to know exactly what CAFF was dealing with and that he could see that AMAP could use some of the products which CAFF was now producing or aiming to do in its own status and assessment reports. It was pointed out by Ms. Pagnan that CAFF and AMAP were collaborating with Sweden and Norway on a workshop on common parameters for biological monitoring to be tentatively held in March 1995 under the sponsorship of the Nordic Council of Ministers.

Sustainable Development Task Force: Presenter - A. Petersen: CAFF Chair, 1993-1994

Dr. Petersen explained that the Task Force resulted from a decision at the Nuuk Ministerial meeting where Ministers reaffirmed their commitment to sustainable development including the sustainable use of renewable resources by indigenous people. Hence, a Task Force was established by the Senior Arctic Affairs Officials to explore and propose additional steps governments should take. The inaugural meeting of the Task Force took place in Canada, August 1994.

Dr. Petersen went on to summarize the implementation items decided on. There was consideration of a revised ICC study of Agenda 21; a retrospective analysis of the decline in the seal skin market; an historical study of the Prudhoe Bay oil fields using the concept of sustainable development; a case study of the 1973 Polar Bear Agreement and an Arctic ecosystem framework for sustainable resource use and management; a paper on means of enhancing education, communication and information sharing about sustainable development and utilization in the Arctic; the economic valuation of subsistence hunting, trapping and fishing; an investigation of opportunities and problems connected with Arctic ecotourism; a paper on trade policies, opportunities and barriers related to sea mammal products; a paper on the limitations of infrastructure to trade and sustainable development such as sea routes, air transportation and satellite communication; and investigating the use of Ministerial letters of intervention to the EEC against planned restrictions to the fur trade. Dr. Petersen concluded by stating that many of these projects touch on CAFF's work and CAFF should cooperate on several of these themes in the future.

ITEMS OF GENERAL CONSERVATION INTEREST

Greenland's Vegetation Project: Presenter- P. Nielsen

Mr. Nielsen pointed out that very little knowledge exists in Greenland on its vegetation. Little has been done by residents of Greenland themselves and most of those who have worked on the topic have come from abroad. There is a need to develop a knowledge base in Greenland itself. Vegetation in the southern farming district has been mapped, from a grazing and vulnerability, not species by species, perspective, using traditional methods. Mr. Nielsen pointed out that current knowledge of vegetation for conservation purposes is inadequate and that systems such as GIS have been unable to provide the type of information Greenland needs or which is suitable for its purposes. A base-line study of the status and productivity of vegetation communities is needed in addition to grazing effects. He cited two practical applications of where and why vegetation studies. First, since 1970 the number of caribou in West Greenland has declined to ten percent of their former number but it is unclear whether this results from a lack of vegetation, overhunting or both. Second, muskoxen have been moved into some areas to give hunters new opportunities but the vegetation's response is not known.

Greenland intends to carry out a base-line study on the vegetation status to use for yearly variation studies. These will be based on remote sensing and study snow cover, vegetation periods, NDVI and weather variations. Knowledge will thus be built up in Greenland. The Natural Research Institute that will conduct the studies is just now being set up and vegetation work will be its highest priority.

Report on the Indigenous People's Seminar: Presenter - L. Halonen: Saami Council

Mr. Halonen began by noting that the regions inhabited by Indigenous Arctic peoples are the areas which are the most biologically productive since indigenous peoples depend on the living resources of the Arctic. These same areas are the ones often chosen by governments for special protection. In protection schemes it is often overlooked that indigenous peoples have been living in these areas for thousands of years and that their activities have been carried out in such a way that the areas have remained biologically productive, continuing to sustain the lives and culture of indigenous peoples.

The same cannot be said of most modern activities.

Participants at the seminar on the integration of indigenous knowledge discussed a range of issues concerning the role and interests of indigenous peoples in the AEPS. One workshop addressed CAFF specifically and made several recommendations for activities of the CAFF Working Group. These were:

- co-management as a model for the effective participation of indigenous peoples in resource management needs to be explored.

- a directory of existing databases of indigenous knowledge is required.

- a case study of the impact of sport fishing on the habitat of salmon stocks and their use by indigenous people should be done for the salmon fishery on the Kola peninsula.

- indigenous people require fora to address their needs in relation to hunting rights, territorial rights and participation in the management of land and living resources.

Two additional recommendations emerged from the seminar. A statement of procedures for Arctic research, including ethical principles, should be formulated as part of the AEPS. Second, indigenous hunting, fishing, gathering, and reindeer herding rights should be secured in parks and protected areas since this is an important way to protect indigenous knowledge about these areas. Mr. Halonen explained that these recommendations will be presented to the Senior Arctic Affairs Officials meeting in March 1995 and to the next Ministerial Meeting in 1996.

Subsistence Within a Conservation Framework: Presenter - P. Nielsen: Greenland

Mr. Nielsen cautioned that his thoughts were based on Greenland which was different from other Arctic countries since it has had HomeRule government for fifteen years. He went on to explain that subsistence has been the normal way of life in Greenland since the island was first populated long ago and hunting and fishing still account for 95 percent of income in the society. In some cases, this has resulted in overharvesting and the customary approach has been that when a resource runs short, harvesting shifts to another species. Thus a conservation measure that is useful one year may be of no effect the next. The term 'subsistence' is not used in Greenland and no distinction is made between harvesting for personal use or for commercial sale. Rather the concept of 'sustainable yield' is used and conflicts are between subsistence needs, on the one hand, and sustainability of resources on the other.

Greenland uses a variety of conservation measures but not all are equally useful, especially those invented elsewhere in the world. Mr. Nielsen stated that conservation efforts should be guided by a single question: what is the most useful conservation tool for a specific problem. The Arctic environment is always changing and so are exploitation schemes.

The direct and indirect conservation tools available from abroad fall into three categories. The first are trade barriers, which, in many cases cause a plentiful resource to go unexploited while attention shifts to another. The second category is protected areas. In Greenland, the main threat is overharvesting

and protected areas are not always the best solution since in Greenland they are largely in unpopulated areas. He described Greenland's flexible, species-driven system for Caribou and Arctic Charr whereby twenty percent of the ice-free lands are set aside as caribou reserves and a system to protect Arctic charr is being implemented over large areas. Mr. Nielsen pointed out that the advantage of the system is that if species change their habits or there is a change in exploitation patterns, areas too can be shifted. As long as such areas can compensate for one or a few threats this is a functional way to promote conservation. The third category is sustainability. To achieve sustainability, ethics, knowledge and especially money from other activities to support it are necessary. In the struggle for sustainability, conservation diversity is a useful approach. It is simple, locally implemented and based on local conditions. Mr. Nielsen concluded by saying that it is better for Greenland to use its limited manpower resources on this approach than on more rigid international systems.

Habitat Protection Outside Protected Areas: Presenter - Michael Lofroth: Sweden

Mr. Lofroth observed that most Arctic nations have legislative tools which can be used outside protected areas, but they are not sufficient to do the job. He emphasized that the first basis for protection is to know where important sites are and this requires inventories. But inventories on a species level are often impossible because there are too many species. On the other hand, vegetation data derived from satellites are too general and say little about those habitat's conditions.

Sweden has tried to find ways to identify habitat types representing as much variety as possible. Conserving a certain amount of all habitat types also means that one conserves most of the species and genotypes connected with them. As a result Sweden has made thematic habitat inventories such as wetlands, meadows and forests to identify important sites and to designate some for protection.

Mr. Lofroth went on to detail the conservation measures undertaken by Sweden, e.g. Sweden prohibits infrastructure in mountainous areas or sites of national importance, prohibits hydro power development on certain rivers, compensates farmers to maintain traditional land uses on meadowlands, to avoid forestry on small valuable habitats and to limit wetland drainage. Mr. Björvall noted that, as a result of national and international pressure, large forestry companies have adopted conservation policies. He also described Sweden's calcification program to offset acidification of rivers and lakes, which is in collaboration with fishing interests.

Sweden feels that it has reached some of the goals for protecting biodiversity in the Arctic through these regulations, but broad public acceptance of them would not have been possible without great public support catalyzed by very strong NGOs. He stressed that conservation outside of protected areas is not possible without a real understanding of biodiversity values throughout society. He concluded by affirming that information and education are cornerstones to conservation work.

In the ensuing discussion on habitat conservation outside protected areas, the USA noted that the Swedish report clarified earlier discussion by underlining that focus on protected areas alone was not sufficient to develop a comprehensive Arctic habitat conservation strategy needed by CAFF. Within such a strategy the relationship between conservation within protected areas and outside them should be examined. Norway agreed that a Protected Area Network was only part of habitat conservation

and that conservation outside these areas might be even more important. The USA continued that there was a need to quickly identify strategies outside of those applying to strict protection of areas and that CAFF members could help each other with this. The Ramsar delegate stated that conservation outside protected areas was an area where the linkages between CAFF and other international fora can be brought to the forefront and strengthened. Ramsar would be very interested in sharing its experiences in the area with CAFF and in strengthening international linkages.

REPORT OF THE CAFF CHAIRPERSON: AEVAR PETERSEN

Dr. Petersen noted that upon assuming the Chair of CAFF after the Nuuk Ministerial meeting, one of the first tasks was to organize an operational framework, which involved working closely with the new CAFF Secretariat in Ottawa. Also, as part of his function both he and Ms. Pagnan, representing CAFF, attended a wide variety of meetings at many different venues, among them AMAP, a 'mini-CAFF' meeting attended by four of the CAFF countries, the Circumpolar Seabird Working Group meeting, a meeting in Washington with State Department and World Bank officials on including CAFF in the Bank's programs, another AMAP meeting, the Senior Arctic Affairs Officials meeting, a trip to Ottawa to visit the Secretariat 'in situ'; the meeting of the CAFF Sustainable Development Task Force in Yellowknife and the Indigenous Peoples Seminar just prior to this meeting. As outgoing Chair, he thanked Jeanne Pagnan very much for the work and cooperation over the year, alluding to the extensive phone calls and correspondence needed due to the geographic distance between the two offices. Lastly, Dr. Petersen presented each delegate with a memento of the meeting, a drawing of the Icelandic falcon by an Icelandic wildlife artist specially commissioned for the occasion.

REPORT OF THE CAFF INTERNATIONAL SECRETARIAT: JEANNE PAGNAN

Ms. Pagnan stated that upon assuming her new role in the Secretariat, her primary task was to mobilize implementation of the 1993-94 Work Plan. Her second task was to get an administrative structure set up in Ottawa, an interesting challenge given the communication linkages needed back and forth between Ottawa and Reykjavik. Her third major focus, which had been established as a Secretariat priority, was to build up linkages with other organizations. Priority was placed on strengthening the linkages between CAFF and the other AEPS programs and linkages between CAFF and regional organizations such as the Nordic and Barents Councils. Ms. Pagnan thanked everyone for the opportunity to start up the Secretariat and to help move the CAFF program forward. She gave a special thanks to the CAFF Chair, Aevær Petersen.

PRESENTATIONS

Nordic Council of Ministers: Magnús Jóhannesson, Chair, Environment Committee of the Nordic Council of Ministers

Mr. Jóhannesson explained the Nordic Program for the Environment and stressed its long term aims for environmental cooperation, its interdisciplinary approach, its international approach to policy, and its integration of environmental issues with other sectors of society. Presently a strategy for nature protection is in preparation.

The Environment Committee has five major working groups with clear mandates to deal with different environmental issues. The working group on Nature Conservation and Outdoor Recreation deals with flora and fauna issues, and has considerable linkages with CAFF's work. The working group on Monitoring and Data deals with harmonization of monitoring methods both among Nordic countries and internationally and also might have common ground with CAFF's work.

The group on Nature Conservation and Outdoor Recreation is to develop joint Nordic initiatives to follow up the Biodiversity Convention. It will also draft a proposal for protecting flora and fauna, develop guidelines for endangered species, and coordinate Nordic participation within the Bonn, Berne, Ramsar and CITES conventions. The group is responsible for disseminating information both on results and on planned and ongoing research in conservation within the Nordic countries and between them and international organizations. The group supports twenty-five projects in six main areas; plans to conserve and reestablish biodiversity; preparing Nordic plans for nature conservation; monitoring programs on Nordic flora and fauna; gathering information and keys for species of Nordic interest; examining the ecological risk of the release of genetically modified organisms and; threatened habitat types.

Mr. Jönhansson described some specific projects of interest to CAFF and pointed out that at the last meeting of the Nature and Outdoor Recreation Group, the group discussed the relationship with CAFF and agreed that efforts should be made to see that duplication does not occur. They decided that the group and CAFF should regularly share information on each others projects and be informed of the agendas of each others' meetings. The group also thought that common projects could be formulated between the two.

Mr. Jönhansson advised that the Nordic Council's Committee of Senior Officials would welcome closer cooperation with CAFF and suggested that a yearly meeting between the two groups to discuss programs and projects should be considered where both groups could look to complementing each others work. Mr. Jönhansson closed with the hope that cooperation between the two bodies will develop.

Barents Council of Ministers: J.-P. Huberth-Hansson

Mr. Huberth-Hansson, on behalf of the Barents Council explained the Environmental Action Programme of the Barents Euro-Arctic Council adopted in June 1994. Initiatives of interest to CAFF are protecting natural habitats and conserving flora and fauna in order to maintain the biodiversity of the region and the natural quality of pristine areas. These will be done in collaboration with existing conservation Conventions and Agreements such as CAFF, and the Biodiversity, Berne, Bonn and Ramsar Conventions. The Action Programme calls for a Task Force to organize a separate program for effective protection of natural habitats, and to conserve flora and fauna on an ecosystem basis in the Barents region. It also calls for cooperation with local and regional authorities. The Task Force, chaired by Norway, includes representation from the permanent states in the Barents Council, from the Barents Regional Council and Indigenous Peoples.

Netherlands: Gerard Boere

Mr. Boere gave a presentation on behalf of both the Netherlands, an AEPS observer country, and the Secretariat of the Bonn Convention. He stated that recently, a policy document on Dutch involvement in the AEPS was adopted in line with the Netherlands' role as a permanent observer to the AEPS. He went on to explain that Dutch northern research activities are concentrated in the Russian Arctic where there are several cooperative projects. Mr. Boere also referred to a Dutch policy paper on the rights of indigenous peoples which applies to Dutch research in the Arctic.

Speaking for the Bonn Convention Secretariat Mr. Boere pointed to the importance of the African-Eurasian Waterbird Agreement for the conservation of millions of migratory Arctic birds. The Agreement is expected to be ready for final signature and ratification in 1995. He called on CAFF countries to actively participate in concluding the Agreement and to become parties to it, which does not require formal membership in the Bonn convention. He concluded by notifying participants that a meeting of the International Wader Study Group is being held in Germany next month and that an agenda item is to discuss cooperation with CAFF. Information will be forwarded to CAFF participants.

Germany: Peter Boye

Dr. Boye spoke on behalf of Germany, also an observer country to the AEPS. He noted that the importance of research and conservation issues has become increasingly recognized by Germany and that Germany is engaged in substantial Arctic research activities. For instance, Germany is involved in the Taimyr peninsula which now serves as a good example of a local Protected Area Network which integrates indigenous interests. Germany would be happy to share its experience in conducting Arctic research with CAFF. Dr. Boye emphasized that Germany takes the Biodiversity Convention very seriously since it brings together issues of sustainable resource use with issues of conservation. He encouraged CAFF to operate in a regional Arctic implementation role for the Convention.

Germany would like to see CAFF use more of the opportunities offered by other existing international conservation instruments. As an example, he pointed to the Bonn Convention and the CAFF Seabird Strategy, and argued there was no reason to confine the Strategy to the Arctic. It could include the overwintering and breeding areas outside the Arctic as well. The Murre Conservation Strategy would fit perfectly within the Bonn Convention. He also urged that the lists of endangered species in the Arctic should use the IUCN Red Data Book's criteria. Germany also suggested CAFF should look at the protocol on environmental protection being developed for the Antarctic treaty, since polar ecosystems in south and north are somewhat comparable.

United Kingdom: Elizabeth Leighton

Ms. Leighton informed the meeting that Ministry officials in the United Kingdom had asked her to convey their strong support for CAFF and their apologies that they could not be in attendance. The Ministry was now undertaking a review of the United Kingdom's polar policy and in particular, its participation in the AEPS, with a view to finding ways to provide meaningful input into the AEPS process. Upon her return, she would be advising the Ministry on areas where they could contribute both in terms of research and data and also support in other international fora. She concluded by

inviting CAFF countries to suggest areas where the United Kingdom could contribute to CAFF for her report.

Ramsar Convention: Tim Jones

Mr. Jones briefed the meeting on the Ramsar Convention noting that it now has eighty-three members including all CAFF countries. He informed the group that there are now over 700 wetlands internationally designated under Ramsar. Mr. Jones clarified some misconceptions about the nature of Ramsar and proceeded to highlight areas where Ramsar could be useful for CAFF. He explained that there may have been a misconception that Ramsar concerned itself only with waterfowl, its main focus in its early years. However, over the past decade, he noted, there had been a dramatic shift toward application of the full range of values for wetlands. Ramsar is not just about the strict protection of wetlands areas but about their Wise Use, which is an application of the concept of sustainable development fully compatible with the integration of subsistence activities of indigenous peoples in wetlands utilization. Extensive guidelines on Wise Use have been developed for incorporation into national planning strategies and these will be sent to anyone interested.

Mr. Jones pointed out where Ramsar could help CAFF. The Convention has well-established structures and a firm funding base and the implementing agencies for Ramsar and for CAFF are virtually the same in all countries. This provides an excellent basis for cooperation and he suggested CAFF people contact their Ramsar people to discuss this. There are also over forty Ramsar sites in the Arctic designated by the CAFF countries. He explained that the Ramsar Convention is directly suitable to designate areas where maintenance of traditional land uses is an important goal. He also noted that some CAFF parties have seemed slow or reluctant to explore Ramsar's Wise Use provisions, yet the conservation of Arctic wetlands demands the Wise Use approach and reliance on classic strict protection or 'museumization' is inappropriate. Ramsar, he pointed out, is there to be used, by governments and NGOs alike. It is up to CAFF to choose which provisions are most valuable to its work and then to harness them, and the Ramsar Bureau is ready to discuss these with the CAFF Secretariat, CAFF National Contacts or any of the participants.

World Conservation Monitoring Centre: Seppo Kaitala

Dr. Kaitala, speaking for the World Conservation Monitoring Centre (WCMC), observed that the centre supports conservation initiatives by collecting and analyzing global conservation data. He informed the group that WCMC has four main sections: Animal Trade, Plant and Species, Protected Areas and Habitat. Published directories and information are available through on-line facilities. Of special interest to CAFF, the Habitat section has developed a biodiversity map library based on ArcInfo and is collecting biodiversity data from all over the world. Also of interest to CAFF, the WCMC has an Arctic joint project which is to develop an Environmental Database for the Russian Federation. This project collects field data for comparison with satellite data and is digitizing existing maps.

Global Resources Information Database (GRID), Arendal: Lars Kullerud

GRID Arendal is part of the environmental database and information system of UNEP. There are fifteen centres throughout the world, with the one in Norway being responsible for the Arctic.

According to Mr. Kullerud, however, any of GRID's northern stations would be of aid to the AEPS in data collection, harmonization and information dissemination. GRID Arendal has been actively supporting CAFF. For example, it did a GIS database for the CAFF Protected Areas Report and could be important for the Network of Protected Areas project. GRID also hosts the AMAP project-directory database and the GIS system for the Northern Searoute project. It has worked with Norway and the USA in backing Canada's proposals for an Arctic ecosystem mapping system presented to the Sustainable Development Task Force. With Norwegian funding GRID is doing a project similar to WCMC's on the Russian Arctic. The two are fully integrated to prevent overlap and the data is interchangeable. He described an initiative known as the National Arctic Environment Directory which was developed in conjunction with the Arctic centre in Lapland, Finland, the Norwegian Institute of Polar Affairs, the International Arctic Science Committee, US Geological Survey and the Russian Ministry of Environment and Natural Resources. The Directory is a fora to ensure that all institutions have catalogues of Arctic environmental data, that common standards and measurements are pursued and that these directories are also available on-line.

World Wide Fund for Nature: Peter Prokosch

Dr. Prokosch expressed high expectations for CAFF to become a leading Working Group in the AEPS and noted that the investment of Canada in a CAFF Secretariat is paying off. He offered WWF's encouragement and its presence in the Arctic to make people aware of the important work CAFF is doing. He observed that, at this meeting, an important focus on central issues of Arctic conservation has been made which will allow the delivery of clear political goals to Ministers. He noted that national delegations have stated that CAFF must step from a technical working group dealing with scientific and specialized flora and fauna issues to real conservation action. Dr. Prokosch said that WWF is particularly pleased to see that CAFF will cover marine ecosystems in its habitat protection network. The Protected Area Network will fill not only AEPS goals but will also meet the aims of a global commitment to nature and to the Biodiversity Convention.

BirdLife International: Melanie Heath

Ms. Heath summarized the organization's objectives and programs as follows. BirdLife International's mission is the preservation of all bird species on earth and their habitat, and through this, to work for global biodiversity and sustainable natural resource use. It aims to prevent the extinction of any bird species, to reduce the number of globally threatened species, to maintain and enhance conservation and to conserve important sites and their habitats. BirdLife is a federation of conservation organizations, is non-confrontational and works together with governments. A Council directs its activities and is composed of representatives and partners from organized conservation organizations worldwide. These partnerships cover all continents but are not yet complete.

Site conservation is promoted through the Important Bird Areas Program and a network of 2400 sites has been identified throughout the European region. A set of criteria has been used to identify these so they are objective, internationally uniform and allow for comparison. By the end of the century it is planned to expand this inventory beyond Europe to cover the world. Species conservation is promoted through lists of globally threatened species, with the newest to be published in the next few months. Habitat protection is another important focus and Birdlife is producing action plans for each important

habitat, with tundra and northwest Atlantic seas habitats of particular relevance to the Arctic. Ms. Heath told the group that BirdLife welcomes the opportunity to make its information on species, sites, and habitat available to CAFF and to work together with CAFF. Areas discussed at this CAFF meeting where BirdLife can help with expert input are the priorities on the species front, the integration of globally threatened species information and on European threat status information which can assist with CAFF's formal species listing. When CAFF begins work on the wider environmental issues of protected area networks, then integration of information on the European habitat, action plans for the tundra and northwest Atlantic seas and seabird work can be undertaken.

Ms. Heath gave special thanks to the Circumpolar Seabird Working Group. Further collaboration with the Group was anticipated on the Seabird Database and further cooperation with CAFF was welcomed.

U.S. Arctic Network: R. Childers

Mr. Childers first thanked the CAFF Chair for his leadership and graciousness and also thanked the Secretariat for its hard work, noting that it had really brought a new effectiveness to CAFF's work. The U.S. Arctic Network was particularly pleased that the meeting had highlighted the marine environment. He saw two tasks as essential to the AEPS; firstly an assessment of base-line biological data and monitoring in order to detect changes in the marine environment, and, secondly, the identification of key marine habitats. Mr. Childers proposed that CAFF establish a marine ecological expert's group, which together with ICC, the Circumpolar Seabird Group, AMAP and NGOs could develop a marine assessment and monitoring program for consideration at the next Ministerial meeting.

Circumpolar Conservation Union: Evelyn Hurwich

Ms. Hurwich pointed out that the CCU is a newly formed organization dedicated to the ecological and cultural integrity of the Arctic for present and future generations. She pointed out that, currently, there is no binding legal agreement or comprehensive management regime among the Arctic nations to guide the development of Arctic resources in a manner that protects the environment and ensures equitable and sustainable resource use. The CCU believes that such a regime will eventually be necessary to fulfil the aims of CAFF. As far as improving conservation laws, regulations and practices in the Arctic, however, moving towards such a regime will require political and financial resources which are insufficient today. Ms. Hurwich recommended that CAFF work more closely with UNEP's Regional Seas Program, noting the Arctic is the only semi-enclosed sea in the world not protected.

1994-1995 CAFF WORK PLAN

A Work Plan Drafting Group developed a draft work plan which was then discussed extensively by the meeting participants. The 1994-95 CAFF Work Plan will focus on two main areas: meeting the program requirements laid out by AEPS Ministers at their last two meetings; and, continuing to develop the CAFF management framework and structure. It was decided that the 1994-95 Work Plan will largely continue / complete tasks begun under the previous two plans, and focus on delivering

those items to the AEPS Ministerial meeting in 1996. New work was added very sparingly.

The various work items in the 1994-95 CAFF Work Plan are grouped under five major headings: Habitat Conservation, Species Conservation, Arctic Regional Implementation of the Biodiversity Convention, Integration of Indigenous Peoples and their Knowledge and CAFF Structure and Program Management. The conservation of Arctic habitat will be pursued by developing a multi-step CAFF habitat conservation strategy which will first focus on a CAFF Protected Area Network for terrestrial and marine ecosystems. Species conservation items will concentrate on continuing to develop inventories of rare and threatened species of Arctic flora and fauna as a first step in planning for their preservation and recovery, and on the work of the Circumpolar Seabird Working Group. On the Biodiversity Convention, it was agreed to establish a small CAFF Task Force to prepare proposals on what measures CAFF will take to facilitate implementation of the conservation and sustainable use measures of the Biodiversity Convention in the Arctic region. Several initiatives on the integration of indigenous peoples and their knowledge will be undertaken. They include the completion of a pilot mapping project for the Beluga Whale, completion of the compilation of ethical principles for Arctic research, work on Indigenous Peoples' Databases and a survey of co-management schemes. Finally, to facilitate the efficient delivery of the CAFF program, the CAFF Framework Document will be finalized and the preparation of the CAFF presentation to the 1996 AEPS Ministerial meeting will commence.

CAFF MANAGEMENT AND ORGANIZATION: Aevor Petersen

Dr. Petersen noted that all eight CAFF members had agreed to pool resources to fund the current CAFF Secretariat which would continue to be hosted by the Canadian Wildlife Service. He went on to say that a substantial portion of 1995's funding requirements had already been secured. On the issue of future CAFF meetings and structure, he announced that the next CAFF Working Group meeting will be hosted by Russia in September 1995 and that Russia will now assume the duties of CAFF Chair, with Finland in the position of first Vice-Chair and Iceland continuing in a role of second Vice-Chair. He informed the meeting that the location of the 1996 and 1997 CAFF meetings were Finland (1996) and Greenland (1997).

Prior to the adjournment of the meeting, Norway expressed gratitude to the CAFF Secretariat for a fine job in organizing the meeting and in advancing CAFF. The USA, followed by several other participants, then thanked the host country, the Chair and the Secretariat for a successful meeting.

The meeting was adjourned at 7:45 p.m.

SECTION III: PRESENTATIONS

OPENING ADDRESSES

Address by Dr. Ossur Skarphedinsson, Minister of the Environment for Iceland

Mr. Chairman, ladies and gentlemen, it is a pleasure to welcome you to this meeting on behalf of the Icelandic government. As you have already experienced personally, Iceland is a country of contrasts. This morning, we already have had a rain storm, sun and we will probably have snow by the afternoon.

Well, the main task of CAFF is conservation of the unique wildlife of the Arctic. Iceland is a nation whose economy and, in fact, its very survival hinges on the robust health of the marine environment. In its short life, CAFF has not as yet put strong emphasis on marine flora and fauna. Nevertheless, I noticed with pleasure that CAFF is doing quite a lot of very good work on one aspect of marine fauna - seabirds. In Iceland, for example, seabirds have not been integrated into the marine management scene until very recently and I am sure that ideas and experiences that will be derived from the work of CAFF will, in future, influence our policy in this field. I am also convinced that other work that is being generated within the framework of CAFF, for example, studies on threats to habitats and on bycatches will increasingly be integrated into Iceland's fishery policy in the years to come, as well as in the policies of other countries. In fact, faced with the serious declines in some stocks of the most important species, despite favourable conditions in the sea, I feel that in the future we must focus on other factors that have not as yet come under scientific scrutiny such as damage to traditional habitat of spawning stock and juveniles, and this I hope will be among the future work, the future projects, of CAFF.

Every minister has a pet project and I am quite proud of the fact that conservation is my pet project. The strong emphasis on conservation by the Ministry of Environment has, in the last eighteen months, initiated several important conservation projects that are either in the planning stage or already underway. For example, the government has recently decided to establish a new National Park just across the bay on the Snaefellsnes Peninsula and the area in question is, among other things, known for its unique birdlife, several famous colonies of seabirds as well as rare plants. The creation of the new Park will, especially in the case of the plants, ensure the conservation of habitat vital to their future existence and well-being.

As a lapsed fish biologist myself, I take particular interest in the protection of sensitive and vulnerable marine areas and when parliament sits next week this interest will be reflected in a special bill concerning the conservation of the Breidafjordur Bay, a large bay with about two thousand five hundred small islands and islets and extensive littoral areas. The Bay is also famous for its unique colonies of seabirds. It provides important nesting areas for a part of the very small population of White-tailed eagles and it harbours populations of two species of seals. Several species of small whales

regularly cruise the area and a few species of very rare plants have found a secure haven on the islands of Bridafjordur. This Bay, then, is an ideal candidate for the first Marine Park in Iceland and it will be the first Marine Park in this country! And in relation to this, and with reference to CAFF's emphasis on seabirds, it is also of interest to mention that the Ministry recently managed to purchase the best part of Latrabjarg, the biggest seabird colony in the North Atlantic on the northwest border of the proposed marine park. Regardless of the bill, the whole of Latrabjarg will be officially announced as a conservation site in the coming months.

CAFF deals primarily with three main issues: conservation of habitat, of flora and of fauna. Of the four Working Groups of the Arctic Environmental Protection Strategy, it is the only one that deals directly with conservation issues - the biological aspects of conservation in the Arctic. The other three focus on pollution to a large extent, which in my view poses the greatest threat to the Arctic.

I have noticed that during the two years since Ottawa, the CAFF program has generated quite a lot of good, important material but I ask you ladies and gentlemen, do we really need CAFF? Well, let's look at the Great Auk. As I told you at the reception last night, the Great Auk was like me. It was a heavy bird with a lot of meat but small wings. It was, therefore, easily captured and it was mercilessly hunted to extinction by poor and hungry people, a typical case of very brutal exploitation of Mother Nature. And it is sometimes stated that we do indeed need a body like CAFF to avoid the repetition of the sad story of the Great Auk. Well, I don't agree. I don't think we need CAFF for such a task. In our times, in our part of the world, the story of the Great Auk will never be repeated again. We have other ethics. We have national environmental bodies. We have public pressure. We have the media and sometimes, but very rarely, we are even blessed with enlightened governments. We hardly need CAFF to prevent the killing of a whole species by direct action of men. Not anymore.

But I think we need CAFF for another and perhaps more complex task. The fact is that indirect actions of men are increasingly putting more and more species under the threatening shadow of extinction. We happily build roads, dams, oil platforms, - you name it - and along the way, we mostly unwittingly limit all kinds of habitat and suddenly several species may be endangered by lack of living space. I think we need CAFF as an international body to monitor this and to inform us, governments, as well as the public, of imminent danger. We also pour highly toxic chemicals, such as PCB's, into the oceans that in future could threaten the very basis of survival of whole peoples around the Arctic. It is not enough to monitor the state of this pollution, it is vital to investigate and to understand the routes by which contaminants are distributed through the chain of life in our fragile ecosystem and it is equally vital to establish the effects of the polluting agents on different components of the ecosystems and, I say, for this we need CAFF. These are fields that CAFF must investigate in the future even more than we do today. And I remind you that the mandate of CAFF is already much broader than of the other Working Groups of the AEPS. It is, in fact, called upon to draw attention to all possible negative effects on the Arctic ecosystem and to seek and propose solutions to these. In my mind, CAFF is an ideal body for such work.

In my experience as a politician, the best way to solve a difficult problem is usually to throw together people from different walks of life and the result is often a brain-storm where new ideas flow like a waterfall in an Icelandic stream and where existing bits of knowledge are welded together to create an often brilliant solution to old problems.

As an international forum, CAFF throws together people with different backgrounds, molded in different environments, and reflecting a diversity of experiences. This creates an environment where information and new ideas flow quite easily between individuals and also between different nations that may be tackling quite similar problems. I feel convinced that this would greatly improve the possibilities to diagnose and cure the problems and diseases that are encountered by the Arctic.

I may say that the CAFF program has already been a stimulus for Iceland. It has made our research and our work in some fields more clear, more coordinated than before. And the CAFF process, in fact, has also initiated research in areas which have not received much attention in the past, such as the monitoring of murre populations and the seabird colony registry which is a standardized and computerized database of seabird colonies. I have already expressed my satisfaction with the strong emphasis CAFF has put on seabirds. Waterbirds, especially seabirds, form the principal element of Icelandic bird fauna, and for centuries these species were quite important for the survival of the local people. Today, some species in some areas have quite an important economic significance, especially the eider due to its high-priced down. The Ministry here in Iceland already supports a project which aims at collecting more detailed information on this economically important species.

CAFF has initiated work on lists of rare, vulnerable and endangered species and in future it will try to identify those which will be targeted for special conservation efforts. Already, Icelandic scientists have over the years amassed a valuable base of knowledge on Icelandic species on the list such as the various higher plants, the White-tailed eagle, the gyrfalcon and the Arctic fox. However, we need to address in greater detail the question of how we are going to monitor these populations in future and if these populations prove to be declining, how are we going to reverse that trend? By providing an ever-increasing fountain of experience, CAFF will be a useful reference for our scientists in such work.

It is worthwhile mentioning that the Ministry has invested considerably in research on the state of another Arctic species - the ptarmigan, a bone of contention between a conservationist Ministry and a large number of hunters. We have launched a specific project to assess population changes and the effects of hunting on this very popular game species. I also take a special interest in the horned grebe, formerly a numerous bird in Iceland, that in recent years has drastically declined in numbers mainly due to loss of habitat caused by the drainage of wetlands and possibly by increased predatory pressure by the mink. We have initiated a small pilot research project jointly financed by the Ministry and a private party, and I may add that I have noticed with interest the initiative by CAFF to develop and to promote the special Murre Conservation Strategy. In my view, this is a very constructive development and I am of the belief that such a plan could and should become a model for other species as well. I am aware that in other fora, similar plans have been devised for White-fronted goose and Brant goose. In Iceland, we are also working on conservation projects concerning these two bird species which, although not in the CAFF program yet, fall extremely well within its framework and, in the very near future, we hope to establish a special sanctuary for the Brant goose in Alftanes just across the small bay, (literally in the backyard of the Presidential Residence) and I may add that the personal interest of Madame President has been both an encouragement and a valuable help to the project.

Special lists of species that might serve as environmental indicators will also be compiled and issued by CAFF as well as of species that are of special economic and ecological value to the north. This work obviously is of great importance for us in Iceland and following this example, we plan to finish and publish a Red Data List on the status of rare, vulnerable and endangered species no later than next year.

Such a list has not been published before in Iceland and I have no doubt that in future it will serve as an important tool both for us in governments regarding policy-making and also for individual decisions that concern conservation. Some of this work has actually been directly instigated by our participation in CAFF.

In my mind, one of the greatest achievements in later years regarding the protection and preservation of nature is definitely the Biodiversity Convention. Iceland has supported it to the hilt and we will do everything we can to promote and further the implementation of the Convention. I believe that it has an important bearing upon the future work of CAFF as well. Indeed, within the Arctic region, CAFF should be looked upon as the implementing tool of the Convention and in designing the projects ahead, this must be taken into consideration. The Convention puts quite a lot of responsibility on the member states and as a nation that relies on the marine ecosystem, Iceland understandably puts a strong emphasis on research and proper maintenance of the resources of the sea. Under the auspices of the Ministry of the Environment, Iceland has launched a large research program, "BioIce", that focuses solely on the marine benthic communities. It has already not only led to the discovery of several previously unknown species but has also greatly enhanced our understanding and knowledge of the diversity of benthic life. This forms a large part of our response to the challenges put forward by the Convention and helps us to fulfil our obligations.

Ladies and gentlemen, we have just concluded a very fruitful and enjoyable seminar on indigenous knowledge where, among other things, we tried to find a way to merge the old traditional knowledge of the indigenous people with the science that we learn at the universities. The Arctic is the home of the indigenous people and in the course of history, they have not been treated in a right and just manner. We cannot make right what history has made wrong but we must acknowledge that it is the birthright of the indigenous people to have a say and to be a strong and growing influence in all matters that concern the Arctic. They harvest the earth and the sea and anything that affects the Arctic environment will most directly and most drastically affect them first. I am quite proud of the fact that at the Ministerial Conference in Nuuk last year, the Icelandic government fully supported their request for a strong representation in the proposed Arctic Council. We still do but I haven't heard much of the Council since. But I urge you, my friends, listen to their advice in their scientific endeavours. Nobody knows the Arctic as they do.

Ladies and gentlemen, I wish you a fruitful meeting. I bid you a good day. Thank you.

Dr. Aevor Petersen, Icelandic Museum of Natural History and Chair of CAFF, 1993-94

I would like to talk a little bit about some of the challenges that are facing CAFF. The mandate of CAFF, as the Minister mentioned, is very broad, much more so than any of the other AEPS groups. One of the challenges or tasks that we are facing is putting a framework on CAFF's work. We need to define CAFF's role in a little bit more detail than has hitherto been done. CAFF has been in place for only two and a half years and has started to tackle various programs in all three of the main fields that are identified in the CAFF mandate - habitat, flora and fauna conservation.

There is a general feeling that the CAFF program is perhaps already a little ambitious and that we should take some time to think it over a little bit. At the same time, perhaps there are important areas that have not been tackled much by CAFF but could fall very much within the mandate of the group. For example, if we talk about the marine context, the Minister mentioned benthic communities. That is something that has not been handled at all and CAFF has to face the fact that this is a task that it will be dealing with in the future. Waders and geese, for example, as migratory species, are also very important elements of the Arctic environment that have not been dealt with very much so far. Of the three fields, probably habitat conservation is the one that has been dealt with in the most detail and with the most structure. We now have the habitat report which has been a CAFF work item since the inaugural meeting in Ottawa two and a half years ago. There is work underway on a network of protected areas and we are starting to look at habitat conservation outside protected areas.

There are also organizational and operational considerations that we have to deal with. We need to find out a little bit more about how we are going to carry out the Work Plan, the role of the National Contacts, and the continuing functioning and funding of the Secretariat is of the utmost importance for the survival of the program. For the time being, we should be looking ahead to the next Ministerial Meeting which is aimed for March 1996, which leaves only one and a half years to deal with some of these issues.

CAFF's relationship with the other AEPS groups is also something that needs to be considered as well as the international groups and NGOs, many of which are represented here.

Perhaps CAFF has not been able to develop a full framework earlier because the whole of the AEPS process is also only now being developed and, in fact, one of the groups, PAME, the Protection of the Arctic Marine Environment, was only inaugurated last May and rather recently, we have seen the development of a special task force on sustainable development. CAFF has to find its niche among those friends. But the main thing is these AEPS groups; they have to work together and I think CAFF has a lot to offer on the biological side of their work. AMAP, in particular, which is the oldest of the Working Groups of the AEPS, aims for a status report in 1996 but there was a call by the Ministerial Meeting in Nuuk last year for a common assessment by the groups and undoubtedly this is a question that we have to look at in detail - how should this common assessment be carried out? CAFF will be called upon to give the biological background, the scientific biological background to the conservation of the Arctic and that is a task that we have to set ourselves.

In the past two and a half years, as I have said several times, CAFF has been very much in a data gathering phase and I sense a sort of eagerness that we are coming to the implementation phase. But that raises the question how it should be done and one of the tasks for this meeting is deciding whether

we should try to work in more detail with working groups - sub-groups as it were. We now have one in place - the Circumpolar Seabird Working Group but we could perhaps look at Ad Hoc groups that are given a specific task.

But the primary aim for CAFF, as I see it now, is that it should be ready to deliver some of the work items that it has been working on within the past two and a half years to the Ministerial meeting in 1996 and I think that is very important for CAFF and its future.

I would like to see CAFF looked on as the Arctic implementation mechanism of some of the international Conventions and the Minister has already mentioned the Biological Diversity Convention in this context and I think that is probably the more important one in relation to CAFF. I also feel that perhaps a little bit higher level of commitment will be needed for success. So, focusing CAFF work more in line with the work that is being carried out within the Biological Diversity Convention would be a good idea and I also feel that within the Nordic countries, the work by the Nordic Council is quite similar to work that is being carried out within CAFF or falls well within the CAFF mandate and there should be more of a link there.

So, I have probably not touched upon all subjects but those I've mentioned are something to consider during the next three days. I will stop here and I hope that we have a very fruitful meeting.

Thank you very much.

COUNTRY OVERVIEWS

CANADA - Douglas Pollock

Thank you Mr. Chairman.

Ladies and gentlemen, on behalf of the Canadian delegation, I want to say how pleased we are to be here in Iceland. For most of us, it is a first-time event. I would also like to commend the host country for the facilities and I am sure that they will all contribute to a positive atmosphere for our meeting.

Since CAFF met in Fairbanks, Canada has a new federal government which has expressed a keen interest in the Arctic. Recently our government announced the creation of an Arctic Ambassador, a position which is expected to be filled over the next two or three months. In addition, we have also made a commitment to be proactive in the creation of an Arctic Council in which all eight circumpolar states and their indigenous peoples will be well represented.

In Canada, at this time, we are under an intensive program review and it is expected that most departments will be reduced by thirty percent of their resources over the next five years. At this time, though, it is not clear what effect this will have on our Arctic programs. I'm not sure what the magnitude of reduction in the Arctic programs will be. However, that will not become evident until the end of this current calendar year. Because of that, I know that from a Canadian standpoint, it is essential that we complement each others work, and not duplicate our efforts. I think that our Chairman indicated that we may have to take a harder look at the number of work items that we are getting involved in. I know that from a Canadian standpoint, it was very difficult for us gather all the data and produce the reports and be involved in all the work items.

One of the more positive features that has come up in Canada in the recent past is that we have passed amendments to our Canada Wildlife Act which now includes the capability to designate marine areas and this is a first for our Wildlife Act.

What I would like to do is just mention a few things on how we are coping and dealing with the global biodiversity process. What we have been doing is consulting with our partners from other federal departments as well as the provincial and territorial governments, indigenous organizations, as well as conservationist non-government organizations, and individuals. This has been going on now for over a year. It is starting to show progress. About four months ago, we had a draft biodiversity strategy which was sent to over 3000 groups and individuals across Canada for review and comment. Those comments are now in and we are hoping to pull all this together which will then show a cross-section of views of Canadian society which will then be presented to Canadian Wildlife Ministers as well as Environment Ministers and our Forestry Ministers for approval. Once adopted at this tricouncil meeting, it will then be the responsibility of each province and territory to implement the strategy depending on their own unique priorities and fiscal capabilities.

I mentioned earlier that CAFF 's 1993-94 Work Plan was in our view a very optimistic list of products. We attempted to respond to them; it was an interesting challenge and I thought we made some

progress in carrying out the work. Unfortunately, we missed some deadlines in producing our reports. What it did, however, was to highlight where we had to improve and it also highlighted where and what species work was being done on and the need for increased international cooperation. It was obvious to us that we have to reexamine the implementation mechanism in Canada. Another positive feature is that we did establish an interim CAFF secretariat and were fortunate to come up with the funding for the first year's operations.

Canada from the protected areas standpoint, has done reasonably well. We have a number of new initiatives in different stages of negotiation, consultation and for designation at a later date. There are new National Parks proposed at Blue Nose Lake, Wager Bay and North Baffin Island which was established through the Nunavut Land Claim final agreement. In addition, we are also in the process of establishing four new National Wildlife Areas, one in our Western Arctic at the Nislin River delta which will be designated in the next three or four months and two in the Eastern Arctic, at Coburg Island and at Isabella Bay. Isabella Bay is a unique one in that it will protect Bowhead whales. It will also be the first marine protected area in Arctic Canada and also will include the creation of the first Biosphere Reserve in Arctic Canada. So there are some firsts there. There also will be another wildlife area designated on Coates Island, probably next year or early 1996.

In the fauna area, the protection of the Porcupine Caribou calving grounds in Alaska continues to be a high priority for Canada. I know that the circumpolar Eider populations are in trouble - two are listed on the USA's endangered list and the other two populations are declining. Some of the problems are that they are heavily hunted and habitat degradation seems to be increasing. However, little data is known. More studies are required and I assume that during the course of this meeting we will hear more on this particular item.

A few other concerns and issues on flora. Canada's Arctic is very large but we have little capability in data gathering and research. As development increases, the need for data on our plants increases significantly. Unfortunately, the number of Canadian experts working in this area is minimal and is something to improve on and hopefully next year we will be able to report some progress.

The increase in tourism activity and its impact on wildlife and habitat is a growing concern. We have to ensure that all development is environmentally sustainable and socially equitable.

I note the presence of many NGO groups here today and we feel that they are very instrumental to success in achieving the goals of conservation of Arctic flora and fauna. We have many partnerships with our NGO's in Canada. We recognized early on the importance of their support for two reasons: one as co-sponsors of some of our programs and another is that they are a force in mobilizing public support for many of our programs. One element of that type of partnership is that presently the Canadian Wildlife Service in cooperation with the Baffin Island Board of Education and the Nunavut Wildlife Management Board are finalizing the production of a book on the birds of Nunavut which will form part of the school curriculum.

Canada is involved in an extensive consultation process with our indigenous peoples concerning the renegotiation of the Migratory Bird Convention with the United States. That has been one of the main programs that we have been pushing hard on in Canada in the last year. Rosemarie Kuptana, who is the head of the Inuit Tapirisat of Canada, received the National Aboriginal Award of Recognition from the Inuit people of Canada as a diplomat and statesperson. She has also been selected to be on the negotiating team which will amend the 1916 Migratory Birds Convention Act with the USA. In

addition, in the last year Ethel Blondin-Andrew, who is an aboriginal from the Northwest Territories, was elected as a federal member of parliament and was appointed as Minister of State for Youth and Training.

I have left some printed material on the table outside. There is a map of the Canadian Arctic which indicates existing, new, and proposed parks and protected areas in Canada. I know there are a number of copies dealing with the Northern Perspectives which also relate to the north's parks and protected areas which were produced by the Canadian Arctic Resources Committee. As well, there are a few copies of a booklet - CWS's activities in the Northwest Territories. There is another booklet on new parks of the North also, another booklet, Inuit Economy, Sustaining a Way of Life. We would be pleased to take your name and send it to you.

Again, we are pleased to be here. We look forward to a very productive meeting and we would like to thank our host country for the reception last night. It was a good ice-breaker and gave us an opportunity to meet and talk with each other.

Thank you Mr. Chair.

FINLAND - Esko Jaakkola

Thank you Mr. Chairman.

Ladies and gentlemen, I think I also want to start by thanking our host country, Iceland, for the kind invitation to have this CAFF meeting here in Reykjavik and for the arrangements they have made for this meeting. Coming from a small country which has a rather small administration, we all know that it is quite a burden to arrange an international meeting. I would also like to thank our Chairman, □var Petersen, and our coordinator, Jeanne Pagnan. They have done quite a lot of work for us to have a successful meeting here and I also would like to thank the Lead Countries for various items in the work program. Our contribution has been a rather modest one but some countries have really done a great deal of work for this meeting and have produced a considerable number of papers and it is, of course, our duty to utilize those papers as well as we can.

I would like to touch upon a few things which have a bearing on conservation of Arctic flora and fauna. The first one, also mentioned by my Canadian colleague, is the Convention on Biological Diversity which is, of course, one of the most important items on the international agenda at the present time. We know that the first Conference of the Parties under that convention is approaching soon. In Finland, we have started a so-called "Country Study", the basic survey of the state of biodiversity, some time ago. This country study is not yet finished but it will be published, I think, early next year. Another important item in the Convention on Biological Diversity is the so-called National Strategy for the Conservation and Sustainable Use of Biodiversity which is required by the Convention.

We have just now started thinking about which way we should proceed with this work. I know that some other Nordic countries are a bit more advanced but we are now starting this work and we will do it on a sectoral basis like it has been done in some other countries.

If I have to take one single item out of the discussion we have had in Finland relating to the Convention, I think it would be the biodiversity of forests. Forestry is very important for Finland as

you may know, however, our forestry has been criticized to some extent, at home and abroad, for ignoring biodiversity, but now I think there are quite a few changes happening in this respect. The forestry sector, as such, was perhaps the most interested sector when the new Convention was negotiated and now that it is to be implemented, they have very quickly reacted to the new situation. The forestry industry and the forestry administration are very interested in seeing what will come out of this Convention and the forestry administration in Finland has already prepared its fourth environmental strategy which includes one section on biodiversity. At the moment, they are translating this strategy into new forestry legislation which is very important because then you can guarantee that the good ideas presented in the strategy come into practice at some point. The environmental strategy of the forestry sector was framed by the Ministry of Agriculture and Forestry. I represent the Ministry of Environment and we have also taken our part in the forestry-related discussion. We have prepared a strategy to especially take care of biodiversity of all kinds of forests including the northern-most forests of Finland. This strategy gives a very good overview of what is already protected in the way of biodiversity and of what needs to be done in the future. And, on a more practical level, we have been continuing work on the single most important item at the present time in the conservation of nature and this is the protection of old forests. The whole country is going to be surveyed for old patches and we are now doing the surveys in the northern part. The practical decisions for establishing areas for the southern part of Finland have already been made and we expect that this Old Forest Protection plan will be put in place very soon and it will cost about 10 million US dollars. So, it is quite an expensive item.

On the species side, I would just inform you of some of the work which has been going on for some years on the Arctic fox, Lesser White-fronted goose, Peregrine Falcon and White-tailed eagle. These are all projects led by the Finnish World Wildlife Fund and they will certainly continue as they have to date. On the species side, there is a new element in our thinking now because Finland is considering joining the European Union and there will be a referendum very soon - next month. This new element concerns the practical application of the EC directives - the so called habitat directive and bird directive. Those who are EC member countries know this legislation very well but the point I would like to make here is that if it so happens that Finland, Norway and Sweden join the European Community, I think it is our responsibility to bring - lets call it "Arctic" elements - to the European Union. We have already done that in the individual negotiations which our three countries had with representatives of the European Union. Some Arctic species were already introduced to the lists of the habitat and bird directives; species like Wolverine, Arctic fox, Lesser White-fronted goose and Gyrfalcon. They are typical examples of those species which do not live in the area of the European Union at the moment.

Another very important thing which will also be very burdensome is the so-called specially protected areas called Natura 2000 and that is one of the main issues of the habitat directive. It is also our duty to bring the Arctic perspective to the Natura 2000 program and I know that there is already a Nordic working group which is thinking about the habitat types which should be included in that Natura 2000 program. One area mentioned in the CAFF Habitat Report we have just received is the Koitolana peatland area in Finnish Lapland. That is sort of a problem. It is the only Ramsar Area above the Arctic Circle and now there has been quite a promising find of copper ore very near this area and we will certainly follow very carefully what happens with that copper find. It is a very unfortunate thing from the point of view of nature conservation, of course, that valuable ore is found so near that area but, on the other hand, the good point is that we have just introduced, after about ten years work,

environmental impact assessment legislation and this area is going to be one of the examples where we can apply this new legislation.

On related items, of course, the closest areas are very important to us and I am thinking of the Barents Sea area. I just want to inform you that Finland took the chair for the Barents Euro-Arctic Council in September for next year and Finland will also be the chair of the Environmental Task Force in 1995-96. This Task Force implements the Environmental Action Programme which also includes issues to protect flora and fauna of the region.

Very briefly, like the previous speakers, I would also like to say something about CAFF itself. I remember some years ago that the UN Environment Program, UNEP, was criticized for being spread wide and thin and this is also something we should keep in mind when we think about our own work program. I think that at the moment we are spread wide and rather thin. This meeting will be a rather critical one for our future because the Ministers, in their next meeting, expect something worthwhile from us. We should really clarify our situation in this meeting so that we can produce something for the Ministers. We have to balance, somehow, what needs to be done for the conservation of Arctic flora and fauna and at the same time, respond to the expectations of the Ministers and I think that is a very critical thing for this meeting. We will discuss the framework for CAFF. We have to come to some sort of conclusion concerning financial arrangements and then we have to adjust the work program to meet these ends.

Thank you.

GREENLAND - Peter Nielsen

Mr. Chairman, dear colleagues, ladies and gentlemen, coming from the Greenland HomeRule, a society based completely on hunting and fishing, I have the following comments.

It is always a pleasure to visit Iceland. Coming from Greenland, one of the other islands in the North Atlantic, we feel ourselves members of a brotherhood of Atlantic islanders. Very often we turn to Iceland for consultation because Iceland is, in many ways, the respected older brother. Part of the basis for this brotherhood are similarities in our dependence on the same renewable resources. Another similarity is that these resources are very low just now. In our struggle to find reasonable alternatives, we often join efforts or pick up inspiration from each other. While resources are low, the need for appropriate measures to secure sustainability is growing. But, fortunately, our knowledge and understanding of these resources has been growing too. We are now better prepared to act in a proper way and to try and solve these problems in the right context.

In Greenland, we hunt forty-seven different species of birds and mammals. Of these, less than ten species spend the whole year in Greenland. The remainder breed in Greenland during the summer or spend the winter in the ice-free area along the western coast of Greenland. The rest of the year, these birds and mammals spend somewhere else.

Proper measures to ensure sustainability can, therefore not be based only on local knowledge. We have to cooperate with other countries to the east, south and west of Greenland. Only in this way can

we get the information needed for analysis of the situation.

Greenland has very old cultural connections to the northern part of Canada and shares a lot of species and problems with that region. Later on, strong cultural connections were established with the Nordic countries, especially Denmark. This connection can be evaluated in many ways but today it is a fact, it is useful and it is used. Due to Greenland's geographic position in the northwestern part of the Atlantic, we have to cooperate with other countries, especially to the east and west of us. Time has shown that for us, cooperation with the Nordic countries is very easy. Some of the reasons for this are obvious. The Nordic Council and the Nordic Council of Ministers have been active for many years. Communications are well established and the politicians have allocated money for the work so that the work can continue year after year on reasonable fixed budgets. The work done in this context is very beneficial to Greenland. For example, together we produce guidelines for Arctic ecotourism and a new Nordic Environmental Protection Strategy, Lists of Endangered Species, Status Reports of Breeding Birds and carry on discussions of different habitat protection measures.

Compared to this, we must admit that the work we have done in CAFF is very limited. Mostly for the same reasons. CAFF is a newcomer. Communication lines are not well established and the decisions the politicians have made, at least until now, have not been followed up with reasonable yearly budgets. The result has been that we have had very limited resources for CAFF work and we still do not know when or if they will come. But to be realistic, I think we have to admit that they will not be unlimited. In the future then, we still have to be selective in what we are doing. Our priorities for this selection of items will, generally speaking, follow two lines:

First, the work has to be of relevance to our way of living and the work has to be beneficial to the understanding of sustainability. In other words, there has to be a proper balance between the possibilities of exploitation and conservation measures.

Second, our resources will, for every different issue be concentrated on the fora where we have the greatest chance to get useful output. In other words, it is of no interest to us that CAFF should deal with all conservation issues in the Arctic. From our perspective, CAFF has to concentrate on those Arctic issues that are not dealt with anywhere else, for example, seabirds, the murre conservation strategy and protection of Arctic habitat.

Thank you.

ICELAND - Aevor Petersen

Thank you very much Mr. Chairman. I'll make a few points on what has been happening in Iceland, especially since the Fairbanks meeting. It is not a complete overview by any means.

Starting with Protected Areas, the Ministry for the Environment makes regulations concerning protected areas on the recommendations of the Nature Conservation Council. There are several rather limited, small areas that are being, or have been, submitted recently as reserves. Most of these are wetland areas and some of them are important for Arctic species such as the Brant and the White-fronted goose. One area mentioned by our Minister earlier this morning, the seabird cliff of Latyrabjarg which is about sixteen kilometres long, is one of the largest in the world with millions of

seabirds. Part of that has been established as a reserve. Then there are some moves on some larger areas, one of them also mentioned by the Minister, the Breidafjordur Bay up on the west coast, which is the largest wetland area in Iceland actually, and is listed on the Nature Conservation Registry, an area about 3000 - 4000 square kilometres. And there are some developments now for a co-Nordic program looking at pollutants in relation to the biotic situation in that area, looking at the distribution of pollutants in different levels of the ecosystem. There is also a move for a fourth national park on the tip of the Snafellsnes Peninsula. This is one of the interests of the Ministry and the committee to negotiate the formation of a national park there has just been established. Lastly, on the protected area situation, there has been some move on extending the national park of Thingvellir, our first national park and one that many of us will be visiting on Thursday. It is proposed to extend that area considerably and what people have in mind there is very much the protection of groundwater as well as fauna and flora.

A number of new research initiatives have been started in the past few years and some of them are a direct result of our involvement in CAFF. The murre conservation strategy has been mentioned several times here and we have already started tackling the monitoring of murre in Iceland and there is also a development for a seabird colony registry that we have started. Ptarmigan is an important game species, in fact, the most important of terrestrial birds and is very popular with hunters so there is considerable discussion in Icelandic society about the Ptarmigan situation which is cyclical. The population is cyclical so we have low population, high population and now a research program has been initiated to look more carefully at Ptarmigan life history. The Minister mentioned the Horned grebe or, as the British say, the Slavonian grebe which is a species whose numbers have declined quite a bit in the past few years. Steps are now being taken to look more closely at this situation and what we can do to remedy it. The White-tailed sea eagle has also been under the microscope with conservationists in this country for a number of years and more recently, efforts have been stepped up to look more closely at the eagles. There are certain conflicts between conservationists and eider duck farmers in this country. Export of the highly priced down makes the eider duck valuable economically and there is a certain conflict between the eagles as predators of eiders and eider duck farmers. This is a situation that is being looked at now. And lastly on research programs that I would like to mention, Iceland has started a bird distribution atlas of the breeding birds of this country, something that has not been carried out systematically until now.

In the past two or three years some new ideas have been developed on vegetation mapping and Iceland is certainly taking an interest in the international program on circumpolar vegetation mapping that has been taking place within the CAFF program. This is coupled with efforts on a GIS project in this country and a lot of effort has been spent in the past two years on this and there are now some suggestions and recommendations that are sitting on the Minister's desk at the moment.

Also, as the Minister mentioned, there are moves towards the development of a Red Data List for Iceland and hopefully, next year we will see such a list for this country. There have been various, but uncoordinated efforts to produce lists of rare, vulnerable and endangered species for Iceland at different fora, including the co-Nordic fora but a National Red Data List has not been produced.

If we move to new legislation, as of the first of July, we saw new legislation on bird hunting, conservation of birds and terrestrial mammals come into force. When we are talking about terrestrial mammals, that actually includes the polar bear which is only a straggler in this country but up until the

first of July, there was an old law concerning this species dating back from 1849 saying that anybody, anywhere could shoot polar bears on sight. So this situation has changed quite a bit but one could say that this an effort on the part of Iceland to recognize the conservation efforts on polar bears by other countries. This new legislation has changed on two major points: first of all, it starts by saying that all bird species and all terrestrial mammal species except mice, rats and mink (which are looked upon as pest species), are protected unless a special regulation is made that lifts the protected status and that is only done by special regulation. If people want to hunt birds, fox etc. for their meat or because they are pest species, a special regulation has to be put in force. One of the new ideas in the law is that anybody who wants to hunt now needs to have a hunting license. This is something that is new for Iceland. Formerly, anybody who had a gun license could hunt. Now this situation has changed and at the same time, hunters are expected to come up with statistics on what they have been hunting so there will be information on the numbers of birds and mammals that are being killed. The regulations will also apply to items like the export-import situation, taxidermy and so on.

Iceland is not a member of CITES but in many respects, Iceland has been acting in the CITES spirit on many fronts. If we move to the environmental impact assessment law that took force on the first of May this year, people are perhaps still feeling their way on how to proceed with EIA but I think everybody will be looking forward to a very nice change in the situation of assessment of developments that will have environmental impact. To conclude, I will mention the Berne Convention that Iceland signed and took force last autumn, so after quite a number of years of discussion and negotiation, Iceland has signed the Berne Convention and Iceland also signed the Rio Convention and at the moment, moves are being made to work on a national report on biological diversity. So, we have started the work on that.

I think I will finish now, Mr. Chairman.

NORWAY - Pal Prestrud

Thank you Mr. Chairman.

Dear colleagues, I would first like to thank our hosts, the Icelandic government for hosting this meeting. The external conditions seem to be perfect for a meeting like this and if we should not succeed, Mr. Chairman, you are probably not to be blamed for that.

Let me remind you that the CAFF process was initiated by representatives of indigenous groups in Canada. They pointed to the fact that the overall objective of the Arctic Environmental Protection Strategy is the protection of plant and animal species and habitats. A healthy ecosystem is a prerequisite for sustainable living in the Arctic as well as the ultimate objective of conservation interests. The mission of CAFF is to make an efficient contribution to the protection of these ecosystems for the benefit of the people who live there and for the outside world. If we want to be able to harvest from the biological production of the Arctic, the health and viability of the ecosystems must be protected. By documenting to the world that Arctic ecosystems are being properly managed and protected, current trade barriers and obstacles to sustainable development for Arctic peoples can

be overcome. This is probably one of our main challenges.

For a long time, the Arctic has to some extent protected itself due to its inaccessibility. Thus, despite the obvious environmental problems that are already a fact in some places in the Arctic, the general situation is that this region still has large areas of relatively intact ecosystems. This is, in my mind, the most significant value of the Arctic in a global environmental context. CAFF's main objective should be to ensure that these systems are not destroyed or disturbed.

Norway has, in cooperation with the CAFF Secretariat and the other CAFF nations, produced a Report on the Status of Protected Areas in the Circumpolar Arctic that will be presented at this meeting. However, CAFF has, in my mind, not produced many concrete results for the benefit of the Arctic environment. During this meeting, a considerable number of CAFF activities are going to be reported to us but few of them will present conclusions or results that will have direct results on management decisions or advice to our politicians. In our view, the current CAFF work is far less focused and far less action oriented than it ought to be. One reason that AMAP has such a strong position in the AEPS is that it is focused on a few tasks and everybody knows, or at least they think they know, what AMAP is supposed to do. This is not the case with CAFF today. As a consequence of this, Norway is going to work for a reduction in CAFF work items at this meeting and for selecting a few work items that are clearly relevant to politicians and the public.

I would like to refer to the Framework Document that has now been tabled by Norway and the CAFF Secretariat, regrettably at a very late stage. Among the proposals in the document is a set of principles for identifying and setting priority for all CAFF work items that we might employ in our further work. The overall message is: CAFF, like all other AEPS programs, has limited resources and limited access to the attention of the Ministers. We should concentrate on a small number of activities that will produce the basis for concrete recommendations on Arctic environmental protection that the Ministers will endorse at the next Ministerial meeting. Some of the candidates are: Habitat conservation, a network of Protected Areas, cooperation within the Biodiversity Convention (an idea is that the Convention could be an overall or umbrella for the whole CAFF process), indigenous traditional knowledge and monitoring of animal populations.

Let me remind you again that the Nuuk Declaration mentions the follow-up of the Biodiversity Convention as an important issue for CAFF. Norway considers proposing an Expert Group or a Task Force on how the eight Arctic countries can cooperate to implement the Biodiversity Convention in the Arctic.

This sobering process may be painful to some of us whose activities will come up with a lower priority but it is necessary. A possible way for CAFF not to lose touch with the good work that has been initiated on the current work items may be to adopt and encourage a number of relevant specialist groups that report to CAFF but that are not included as CAFF's priority work items.

Since we met in Fairbanks, Norway has increased her activity on issues concerning environmental protection in the Arctic. Last year, the parliament decided to establish a Polar Environmental Centre in Tromsø in northern Norway that will consist of about 250 employees. The Euro-Arctic Barents Region was initiated last year and an Action Plan for the Environment was adopted this spring. According to the different Ministerial Declarations in this regard, a cornerstone in that cooperation is environmental cooperation. In addition, this area is the source of the most important environmental

threats to the entire Arctic. In the Barents Region, more than 100 nuclear reactors are now stored improperly after the decommissioning of submarines. In addition, radioactive waste has been dumped at sea. We also have a nuclear power station in this area that is not run properly. So, we are facing serious challenges in this region that can only be met by extensive international cooperation. As part of the bilateral Norwegian-Russian Environmental Agreement, an environmental commission has been set up with a number of expert groups. It has continued its work and it has expanded its operation. We now have quite extensive bilateral cooperation with Russia in the Arctic.

At the national level, Norway is developing a strategy for environmental protection in the north. It involves many different ministries. The principles, as well as immediate and long term objectives in this strategy, will be reflected in the Norwegian activities that are now being planned in the Arctic. A report, or White Paper, on environmental protection in the northern Norwegian Arctic archipelago of Svalbard will be presented to the parliament this year. Our ambition is to produce new and advanced environmental standards in this area, particularly in the field of habitat protection in order to ensure that the environmental values of this area are taken care of. A report on new national parks in Norway was approved by the parliament last year. It introduces thirteen new protected areas in northern Norway, some of them including the marine environment and it also suggests the expansion of six existing protected areas. An inventory for the protection of marine areas along the Norwegian coast has recently been conducted. The work on marine areas or marine protection is being continued as an inventory of protection values of marine areas in the Barents Sea and in the Svalbard area. The ultimate objective of this inventory is the introduction of measures to protect the marine environment in these High Arctic areas.

Finally, I will mention the Norwegian follow-up to the Biodiversity Convention - the development of an Action Plan for protection of biodiversity in Norway. Sector plans have been developed by all ministries. The Ministry of Environment is currently working on a national master plan based on these sector plans. Again, environmental protection in the north is a very important issue in this work.

To conclude, Norway considers CAFF as an important process and as a promising instrument for protection of Arctic species and Arctic ecosystems. We are thus prepared to continue our participation in and contribution to the program. However, we participate in order to obtain results. CAFF may produce results that may not be achieved through other instruments because CAFF involves all eight Arctic nations. Without the active participation of all the nations, the justification for resources for CAFF will be weakened. I therefore hope that this meeting will confirm the continued and active participation of all eight Arctic nations in CAFF.

Thank you very much.

RUSSIA - Valery Orlov

Translator: Richard Oslund

The regions of the northern Arctic occupy a large percentage of the territory of Russia and opportunities for further social and economic development of this region will, to a great extent, depend upon the quality of the environment and changes in the ecological situation. This is because of the fact

that, on the one hand, due to extreme climatic conditions, the natural complexes of the Arctic are especially vulnerable and they have weak stability to outside impacts. On the other hand, they have a low capacity for self-restoration and self-purification.

The Russian northern Arctic region is also home to more than twenty-six indigenous nations, whose way of life and culture depend on the Arctic ecosystem. They are related to traditional forms of land use. At present, the intensive anthropogenic impact upon the ecosystems of the north are still confined to certain areas in Russia. But the basic objectives have been aspirations to obtain economic results by ways of economic development which do not take into account the specific ecosystems of the north. Secondly, changes to the ecological situation are also due to the solutions to some urgent problems which do not prevent ecological damage.

Therefore, it becomes more and more evident that there is a necessity for a radical change in the principles, objectives and ways of economic development aimed at the harmonization of the relationships between society and nature, first of all by conservation of the integrity of the ecosystem and its protection and secondly, the selection of directions and ways of economic development in the region which take into account the ecological specifics and the main interests of the indigenous populations. That is, the need to implement the principles of sustainable development stemming from what has been proposed to conserve Arctic biodiversity and to protect its flora and fauna. At the present time, it is very important to coordinate international efforts for the solution of these ecological problems. Therefore, the program for the Conservation of Arctic Flora and Fauna is viewed as a crucial one for the realization of the decisions taken in Rovaniemi and Nuuk.

Despite economic difficulties, Russia at present is implementing a number of measures aimed at the protection of Arctic flora and fauna. The basis of our work is the decree by the President of the Russian Federation entitled the State Strategy of the Russian Federation on the Protection of the Environment and the Provision of Sustainable Development, signed on February 4, 1994. Here the necessity for the rapid transition of Russia to the model of sustainable development from the UN Conference on the Environment and Development was stipulated. The basic tenets of the State Strategy for the Protection of the Environment that relate to Arctic sustainable development are the necessity to solve the ecological problems of the regions of the extreme north and to provide a special regime for nature utilization. Recently, the government of the Russian Federation has approved the program for the prospective development of a network of specially protected natural areas, that is, sanctuaries, natural parks and reserves of federal importance. We have already set up a federal natural reserve on the Franz Joseph archipelago with an area of 4.2 million hectares and the Beringia national ethnic park with an area of 3 million hectares has also been established.

At the level of federal programs, a program for the revival of smaller nationalities of the north has been formed and there is a proposal to establish some territories of traditional land and nature use for the minority nationalities of the north. The government of the Russian Federation has approved the Convention on Biological Diversity which is now submitted to the State Dumas for ratification. In September this year there was a decision of the Russian Federation taken concerning the Convention on Trade in Endangered Species of Flora and Fauna, and the lists of Ramsar wetlands has been approved. We now have some thirty-five such wetlands and some of these are in the Taimyr peninsula. The government has also approved rules on the sale of animal furs, especially those entered in the Russian Red Book.

Various programs are being implemented to protect elements of flora and fauna. Among them we should mention first of all the program for the conservation and restoration of Siberian crane, that is, white crane, as well as polar bear. Here I should also note that in the near future, we expect an enhancement of the legal basis for these measures because, on behalf of the government of the Russian Federation, new legislation is being prepared for the conservation and protection of plants and animals.

The scientific and biological investigations of Russia are implemented within the framework of the two general state-run programs, the ecological safety of Russia and biological diversity, financed from the state budget. Besides that, we are planning the implementation of a project to control natural resources and to conserve biological diversity that is financed by the World Bank.

I also should note that for the realization of the aims of CAFF, we are going to use all the means at our disposal, including mechanisms of international conventions as well as bilateral and multilateral agreements. At the same time, it is quite understandable and evident to us that the CAFF program represents its own direction in nature protection, in other words, it occupies its own ecological niche. Therefore, by the order of the Minister of the Environment, Mr. Danilov Danilen, a national interdisciplinary Working Group has been set up for the CAFF program attached to the Ministry of Nature. It incorporates representatives of the Ministry as well as institutes of the Russian Science Academy and representatives of the Russian Ministry on Affairs of Nationalities and Regional Policies. The Working Group has been set up to coordinate the work on the protection of Arctic Fauna and Flora and to consider the current and prospective problems of CAFF at the national level. This Working Group is headed by the Deputy Minister, Mr. Amirkhanov, and inside that Working Group there are sub-sections and the leaders of various CAFF items have been determined. The names of those persons responsible for each item will be sent through the CAFF Secretariat to the countries participating in CAFF in the near future. The experience of the work of that group shows the efficiency of such an organization for solving the problems of CAFF at the national level. A small allocation from the state budget finances the work of CAFF in Russia but the utilization of these means is not yet implemented in a targeted way, so this task is also one of the primary jobs for this group.

The basic directions for the work in CAFF seem to us to be suitable and scientifically substantiated and self-sustaining.

By way of conclusion, I wish success to our meeting and the detailed information for the subjects for which Russia is responsible will be submitted by the members of our delegation according to the agenda. Allow me also to thank our hosts and the governments of Norway, the USA and Canada for the financial support of our delegation. Thank you for your time. And on behalf of the Chairman of our National Working Group, Mr. Amirkhanov, I would like to express our regret that he personally could not attend our meeting because urgent affairs have detained him in Moscow.

Thank you for your time.

SWEDEN - Anders Björvall

Thank you Mr. Chairman. We would like to start as all the other speakers did by expressing our pleasure in being here. All three of us in the Swedish delegation have come to Iceland for the first time.

We took the opportunity to arrive a few days earlier to see some parts of the country and we have really appreciated everything that we have seen. We have been well taken care of. I hope this friendly atmosphere will remain throughout the meeting here.

Sweden has a very small area defined as our Arctic area but still, there are lots of Arctic related national and international activities going on in this area and we will mention some of them in this presentation. There are plans in Sweden to establish a World Heritage Area in the north, a very large area covering four of our old national parks, established as early as 1909. Included in this World Heritage Area are two of the more recent very large nature reserves in this zone. This World Heritage Area will contain all habitats that we have here, Arctic and sub-Arctic habitats, and it will contain very high biodiversity.

Recently large areas of what we call pre-mountain forests have been protected as nature reserves. These are the forests that have been, for a long time, next to mountain areas and they were also, for a long time, inaccessible to modern forestry. Eventually, the foresters came up towards these areas and this created a conflict between foresters and conservationists. But, we have come to an agreement and have recently protected almost 600,000 hectares of these pre-mountain forests. Here we have many of the most valuable forest areas in Sweden.

Sweden has recently published a strategy for sustainable development. We received one of the first copies of this book shortly before coming here and if the Secretariat wants a copy, we can leave it behind. It describes the environmental situation in the country, including the environmental situation in the Arctic areas. It follows up on international commitments and proposes measures within different areas, some of them detailed enough to be called action plans. Others look more like recommendations. But there are, for instance, proposed action for reindeer herding which will become an increasing conflict within the country. It has already become one and we think that conflict will grow over the next years.

Also in Sweden, the follow up from the UNCED meeting on biodiversity in Rio two years ago has been worked on. That report is not finished but is in print and will be available very soon. It will be followed later by a strategy for conservation of biodiversity but we don't know when that work will start. Another issue very clearly related to our Arctic areas is our system for compensating for reindeer that have been killed by carnivores. For a long period, the reindeer owners, the Laps, have been compensated for reindeer that have been found dead and also, where someone could verify that the reindeer was killed by a carnivore. This has been intensively criticized and parliament recently took a decision to change the whole system according to a principle based on the presence and abundance of carnivores. So, instead of seeing the carnivores as only enemies of the reindeer management industry, we hope that we will be able to establish the true value in having carnivores within the reindeer management areas. The Environmental Protection Agency where I work, has a formal commitment from the government, together with our Saami Council to cooperate and establish a form for this future system for compensating for carnivore problems. We have started those negotiations and will continue with a series of meetings hoping to finish the work by the end of this year. It will be a very intensive period. This requires some sort of field work, some sort of survey to get some information on the abundance of carnivores and we are suddenly forced to work not only in Sweden, since we are working with species and populations that are transboundary, that move across the boundaries to Norway and to Finland. There is a working group in Scandinavia that very recently published ideas about how surveys of this kind can be done simultaneously or in cooperation among the three Nordic

countries and I have a copy of that which I can give to the Secretariat. It is in all languages spoken here, I think, including one Saami dialect.

This brings us to further issues of international research cooperation and we would like to mention the Swedish-Russian project when an academic federal vessel travelled along the northeast passage over a period of about three months and made research stops at twenty different localities along the Siberian coast and at all those stops, the Swedish and Russian biologists could cooperate in research projects of all possible kinds related to both fauna and flora. Hopefully, the results of this research project will be simultaneously published.

We also have to mention a problem which is quite severe in our Arctic area and that is the problem of overgrazing by reindeer. This goes at least all the way back to 1986 and the Chernobyl accident that greatly influenced large parts of our reindeer grazing areas in the north. Reindeer were found to have high levels of radioactive cesium and lots of reindeer were found to be unsuitable for human consumption. This created a resistance among people to buying reindeer meat in general and of course, our Laps, our Saami, found it was of no value to slaughter the reindeer as they have usually done, so the number of reindeer has grown enormously since then. There are many estimates that indicate that we have at least twice as many reindeer as we are allowed to have in the country and this has resulted in tremendous overgrazing over large areas. Agriculture and forestry have, over the last year, made rules to integrate environmental considerations into all their activities and this is also true for reindeer husbandry so the reindeer owners will now have to adapt the number of animals to the ecological conditions, to run their activities on a sustainable basis which they haven't done for a number of years now.

There are a couple of more details to mention here, one which relates to Russian cooperation is a research station (WWF has been deeply involved in it) and it will be opened next summer in the Lena delta in northern Siberia. It is a joint Russia-Sweden effort. WWF has also been engaged very much in the overgrazing problem and they have started attempts, on a limited scale so far, to investigate the possibility of some of the Lap villages using horses for some of their activities instead of reindeer and to use horses instead of motorized vehicles that have become enormously common over the last decade or so. WWF also has started a small-scale project over five different Lap villages in an area which is, in practice, south of the Arctic area but if the results are promising, they will be able to apply to the Arctic Lap villages. The idea is to work together with the Laps to see how their activities of all possible kinds can be managed on a more sustainable basis in the long-run, not only referring to the number of reindeer but also to their increased use of all kinds of motorized vehicles.

I will end once again by stressing that Sweden has a very small Arctic area and in spite of that, international cooperation with our neighbours and lots of activities within the country really go to the Arctic area and lots of research money from different sources in Sweden is spent in Arctic or sub-Arctic projects. We fully agree with what Norway said earlier in the morning and also was indicated by other countries, that the future activities of CAFF must be limited. We must limit the number of projects and in doing so, we feel it is important not only to limit work in general but also to have a careful discussion of how to make those limitations. We certainly agree that marine issues are extremely important, but still, we would like to mention that when, for instance, people in Sweden have heard about the Murre Conservation Strategy, we have heard them criticizing the idea since Sweden doesn't have any marine areas in the Arctic so why should we engage in those sorts of activities? I

really don't agree with them, we really don't agree with them but we have to mention it as a detail in the discussion we will have to have here in the next two and a half days.

Thank you very much.

UNITED STATES OF AMERICA - David Allen

Thank you Mr. Chairman. I too would like to express my appreciation on behalf of the USA delegation for the generous invitation to Iceland. For many of us, this is our first visit. Most of us are from Alaska so it is interesting for us to compare and contrast the similarities between our two areas on almost opposite sides of the Arctic. I have brought a very energetic and enthusiastic delegation with me and we are all looking forward to a very productive and useful session.

The CAFF program has captured the attention of an increasing number of research professionals in the United States (U.S.), and particularly in Alaska. Hosting the second CAFF working group meeting in Alaska last year provided a major boost in the program's recognition. It also enabled us to quickly establish an interagency network within Alaska to exchange information and ideas for coordination of activities important to CAFF.

While the CAFF program has become better known among some professional circles within the U.S., the importance of conservation issues in the Arctic and how they can directly affect people around the globe is generally not known. It is extremely important that CAFF determine how it can play a role in communicating an effective message about the importance of the Arctic environment in maintaining a healthy global environment. Only by increased recognition of the importance of the Arctic environment through easily understood issues can we expect to see a significant increase in the political and financial support needed for implementation of the CAFF program. This is particularly critical during this period of declining public funds.

To achieve the best result, the efforts we devote to CAFF in the future must be focused and must have readily recognizable benefits for the conservation of the Arctic environment. In the few days we have together, I recommend we begin the process of setting priorities among the many excellent initiatives underway and direct our limited resources at the accomplishment of a few but important concrete results.

As for Arctic flora, fauna and habitat issues currently important to the U.S., there are five issues I will briefly describe that should be of general interest to CAFF members. They are the following:

- (1) concerns over the Bering Sea ecosystem;
- (2) actions pertaining to the 1973 International Agreement for the Conservation of Polar Bears;
- (3) changes in the Migratory Bird Convention with Canada;
- (4) recent actions involving Federally protected threatened and endangered species; and
- (5) a proposed joint oil and gas lease sale in the Chukchi Sea off Alaska in the Chikolka Peninsula of Russia.

1. Bering Sea Ecosystem

United States and international concern has focused on the Bering Sea due to the productivity of its fishery resource, which currently contributes ten percent of the world's fish and shellfish landings and over fifty percent of U.S. groundfish landings. Declines in populations of marine mammals and seabirds, utilization of the Bering Sea resources by indigenous populations for subsistence and cultural purposes, and potential for new oil and gas discoveries along with increased shipping traffic, point to the need for a better understanding of the Bering Sea ecosystem.

A study is underway by the Polar Research Board of the National Research Council on the health and dynamics of the Bering Sea ecosystem. The objectives of the study are to synthesize and to describe our present understanding of the ecosystem, to identify gaps in our understanding and recommend research to fill those gaps and to assess the resource management alternatives. The results of this eighteen month study are expected to be published by the end of this year.

2. International Agreement for the Conservation of Polar Bears

The U.S. Congress, in recent amendments to the Marine Mammal Protection Act, directed representatives of the U.S., in consultation with the Contracting Parties, to initiate by next April a review of the effectiveness of the International Agreement and to establish a process by which future reviews shall be conducted. In December of 1993, we began to develop a Polar Bear Habitat Conservation Strategy to further the goals of Article II of the 1973 Agreement. The strategy will be designed to identify and protect important or essential polar bear habitat in U.S. territory. Upon its completion, the U.S. will contact the other Contracting Parties of the 1973 Agreement to pursue the development of a circumpolar habitat conservation strategy for polar bears.

Lastly, the U.S. and the Russian Federation are currently having technical discussions for a bilateral agreement to manage the stocks of polar bears we commonly share in the Chukchi and Bering Seas. This stock is presently harvested only in the U.S. by Native Alaskan subsistence hunters. Interest within the Russian Federation to allow a limited harvest by native peoples in the Chukotka region led to these discussions. More recently, concerns shared by both the U.S. and Russia over reports of illegal harvest of polar bears in Russia has placed increased urgency on establishment of this agreement. Just this month in Nome, Alaska, representatives of both countries agreed to seek the necessary authority to begin formal negotiations for a management agreement. A unique aspect of this negotiation will be a parallel and coordinated negotiation for an agreement between the Alaska Natives and native peoples of the Chukotka region of the Russian Federation, thus recognizing the importance of this resource to native peoples and the significant role they play in the overall management and conservation of polar bears.

3. Migratory Bird Treaty Protocol

The Migratory Bird Convention of 1916 between the U.S. and Great Britain (for Canada) is restrictive with regard to subsistence use of migratory birds. Similar treaties with Japan and Russia are less restrictive. With limited exception, the Convention with Great Britain prohibits the harvest of migratory birds during the spring and summer months of each year. While the Convention does allow subsistence harvest for a few limited species and their eggs at any time of the year, the authors of the Convention were clearly not aware at the time of the full extent of the need. In more recent years, the

U.S. and Canada have sought to amend the Convention to legally provide more fully for the subsistence harvest needs in Alaska and Canada during the spring. In addition, Canada has sought to amend the Treaty to bring it into conformity with aboriginal and treaty rights in Canada and to allow for a limited murre hunt for certain residents in the eastern provinces of Canada. Formal negotiations to amend the Convention are to begin later this year.

4. Endangered and Threatened Species

Recently, there have been some noteworthy actions regarding Federally protected threatened and endangered species in the U.S. Arctic region. First the good news. The Arctic Peregrine Falcon, Federally protected as endangered since 1970, and as threatened since 1984, is being recommended for removal from protected status. The population has recovered and is increasing in numbers due to the apparent elimination of the pesticide, DDT, within its North American range. Once the species is removed from Federal protection, it will continue to be monitored for five years to ensure that its population remains healthy. On a not so positive note, the Steller's Eider was proposed for threatened status in July this year. A final decision on this action will be taken in about one year. Also, the Spectacled Eider was listed as threatened a year ago due to precipitous declines in its population.

5. Joint Proposed Oil and Gas Lease Sale in the Chukchi Sea

It was recently announced that the U.S. and the Russian Federation are proposing simultaneous oil and gas lease sales in the Chukchi Sea off of Alaska and the Chukotka Peninsula along their common maritime boundary. The U.S. is currently evaluating the interest of the energy industry in the proposed sale scheduled for late 1997. The U.S. and Russia are interested in determining if combining resources in this remote area will benefit both Russia and the U.S., by exchanging available scientific data and coordinating the necessary environmental protection measures. As one might expect, there is considerable concern within the U.S. regarding this proposed sale. There will undoubtedly be intense debate over the national economic and social benefits of the proposed sale versus the potential impact on marine resources in the Arctic as well as the threats to the subsistence life styles of indigenous communities.

In summary, the CAFF program is off to a good start in the U.S. with broad, though somewhat limited participation among resource professionals in Alaska. It has served as an important catalyst for spawning new networks of cooperation and information exchange on CAFF issues of mutual interest and concern. Still facing us is the challenge of getting the word out on the importance of the Arctic ecosystem to the overall health of the global environment. What makes this challenge so difficult is that we must overcome both the lack of public knowledge about the Arctic and the intense competition for limited public funds. It is, however, a challenge vital to securing important political and financial support necessary for advancing the goals of CAFF and the AEPS. We must walk before we can run. It is important that we begin to set priorities in CAFF for achieving concrete results.

Thank you Mr. Chairman.

ITEMS OF GENERAL CONSERVATION INTEREST

GREENLAND'S VEGETATION PROJECT - Greenland - Presenter: P. Nielsen

I have been asked by the CAFF International Secretariat to give a short presentation on the Greenlandic vegetation project, a project which, in fact, has not yet begun, but we have a great need for completing such a project. It is also a good example of the daily life problems we are facing.

Very little traditional knowledge exists on vegetation in Greenland. Only the berries of two or three species are gathered and only a handful of species have been used for eating, providing essential vitamin supplements. Scientists, in this case botanists, have been working on vegetation in Greenland for many years, or to be more precise, for many summers. Their work has been printed in piles of reports and scientific papers and, of course, we can obtain copies of these, but the problem is that we do not have a specialist who fully understands what is written. Since all the scientists have come, and still come, from abroad, we have to contact them if we need information and, as you all know, budgets are being cut all over and so if we want information now, we have to pay for it. We have to pay for the knowledge of our own nature.

Very little has been done on vegetation from the side of the Greenland HomeRule Government. We have, together with specialists from Iceland, mapped vegetation in the southern part of Greenland in the sheep farming district, but from a grazing quality point of view, not species by species. It was done more or less from a vulnerability point of view. This was done in a traditional way, walking around in the area, and is, therefore, difficult to do again because of the cost of the project. Besides that, we have had some pilot projects on vegetation mapping using satellite data, NOAA, LandSat etc. The result is that we must now conclude that today, we have no knowledge on vegetation that suits our purpose. For our purpose we need a base-line study of the status of the vegetation, its productivity, the status of the different vegetation communities and their use for grazing. First of all, we have to know something about the grazing of the vegetation compared to grazing and productivity and problems associated with this. For example, sheep farming in southern Greenland has used the right stocking grades but do we have overgrazing? We have overgrazing, in fact!

Reindeer herding - we have reindeer herding in three areas but the people who do the herding have only had twenty years experience, before that they were seal hunters, and their understanding of grazing regimes is completely new to them. Unfortunately, the last Saami people went back in 1977.

Caribou - since 1970, the population has declined in West Greenland - right now we have only ten percent left compared to then. Is this due to vegetation or is it due to overhunting? or both? Muskoxen were transferred to West Greenland thirty years ago (and ninety-five percent of the population in Greenland live in West Greenland). What are these animals really doing except coming up with breeding success which could give the impression that they like it and have adapted well? Now, we are transferring muskoxen to several places all along the West coast to give hunters new

opportunities but we know virtually nothing about the response of the vegetation. Added to this, we have geese, ptarmigan, hare and other vegetation-dependent animals.

What we intend to do is to conduct a study that will give us a status report on the vegetation and a description of its yearly variation. It is hoped the project will be based on the interpretation of remote sensing, studying, for example, snow cover, vegetation period, NDVI and the weather variations. Using old tape records, we hope that we can describe yearly variation fifteen years back. But the most important thing is that we will have to do it ourselves or at least participate ourselves so that knowledge is built up in Greenland. As documentation for the status report, we want to keep the tapes so that we can be sure that we use them for comparison in the future. As I said before, the project is not up and running. We have, as of the first of July this year, established a new Natural Research Institute but unfortunately, we still have some problems. Next week, we will have the funding. After that we will try to staff the Institute and get going. In the new Research Institute, the vegetation mapping program will have the highest priority.

REPORT ON THE INDIGENOUS PEOPLES SEMINAR

Presenter - L. Halonen - Saami Council

Thank you Mr. Chairman.

As you know, the regions inhabited by Arctic indigenous peoples are those Arctic areas that are most biologically productive. The reasons for this are obvious. The indigenous peoples depend upon the living resources of the Arctic, the sea mammals, fish, birds, land mammals and plants and berries. We choose to live in those areas that provide the greatest abundance and variety of fauna and flora to sustain our lives and communities. The basis for all of this life, both for ourselves and the animals, is the vegetation that sustains the entire food chain. Therefore, it should also be obvious why those same productive areas are frequently listed by governments for special protection. What is often overlooked is that indigenous peoples have been living in these so-called critical areas for thousands of years and these areas are still biologically productive and still sustain the lives and culture for our people. The same cannot be said for most modern activities.

As you know, last week the seminar on the integration of indigenous knowledge was held here in this same room. This seminar brought together representatives of the three indigenous observer organizations, the governments of the AEPS process and other interested participants. We would like to thank the government of Iceland for their hospitality and hard work in hosting this seminar and also the government of Denmark for generously contributing to the participation of the delegation of indigenous people from the Russian Federation.

During the seminar, we discussed a broad range of issues concerning the role and interests for indigenous peoples in the AEPS. One workshop during the seminar addressed CAFF specifically and introduced several recommendations for activities of the CAFF Working Group. I will now read the section of the recommendation addressing CAFF issues which begins with an excerpt from the Rovaniemi process in 1991.

"The eight Arctic countries should seek to create a distinct forum for scientists, indigenous peoples and conservation managers engaged in Arctic flora, fauna and related activities to exchange information on issues such as shared species and habitats and to collaborate, as appropriate, for more effective research, sustainable utilization and conservation."

The challenge to CAFF is, therefore, to create appropriate mechanisms, common language and concepts, and expanded information bases in order to address conservation and resource use issues. The following recommendations are put forward:

- co-management as a model for the effective participation of indigenous people in resource management needs to be explored. If co-management of renewable resources is to be effective, formal agreements between indigenous peoples and governments will be required.
- a directory of existing data-bases of indigenous knowledge is required. The work initiated under the CAFF program should be continued.
- the impact of recreational use of resources of the Arctic is not well understood. A case study

involving the impact of sport fishing on the habitat of salmon stock and their use by indigenous people is proposed for the salmon fishery on the Kola Peninsula.

- indigenous peoples require fora for addressing their needs in relation to hunting rights, territorial rights and participation in the management of land and living resources.

In addition to these specific recommendations listed under CAFF, there are two additional items that were listed elsewhere in the report but are relevant to the agenda of this meeting. First, under the general recommendation for AEPS, a statement of procedures including ethical principles for the conduct of Arctic research should be formulated as a part of AEPS. Second, under the recommendation for sustainable development and utilization, "it is recommended that

indigenous hunting, fishing and gathering and reindeer herding be secured in parks and protected areas because this is an important way to protect indigenous knowledge about these areas".

These recommendations will be presented to the Senior Arctic Affairs Officials at their next meeting in Iqualuit, Canada in March 1995 and to the next Ministerial meeting, also in Canada, in March 1996. We hope that these recommendations can be taken into account while developing work plans and carrying out activities of the AEPS Working Group prior to the formal presentation at the Senior Arctic Affairs Officials and Ministerial meetings.

Thank you, Mr. Chairman.

SUBSISTENCE WITHIN A CONSERVATION FRAMEWORK

Greenland - Presenter - P. Nielsen

Thank you Mr. Chairman. Again, I have been asked to you give you some information on something called subsistence within a conservation framework. These thoughts can only be based on experience from Greenland and you have to remember that, in many ways, Greenland is different from the rest of the eight Arctic countries, no from the rest of the seven Arctic countries. Greenland has its own HomeRule and has had it for fifteen years. Of course, the HomeRule system smooths many things but it also gives us a completely different set of problems, where there are very few people struggling for their own existence.

In general, subsistence has been the overall general way of life in Greenland since the island was populated a thousand years ago. Starting as a hunting society which later took up coastal and deep sea fishing, hunting and fishing still account for about 95% of the income generated within the society. This exploitation has, in some cases, been along the lines of overharvesting. Every time a resource runs short, the harvesting shifts immediately to another. A useful conservation measure one year can be without any effect the next year. To put this into an economic perspective, calculations show that if the society were to generate all its own income internally, then the income from renewable resources should be five times higher than it is today. This is the situation that we are facing now.

Here I have to say that we do not use the word "subsistence" in Greenland. The scheme for management of renewable resources only talks about hunting and fishing. And we have no distinction between subsistence and people who sell their products to other people or sell them to a factory. Everything they own might go to their own subsistence, so we don't use the word. Instead, we use the words "sustainable yield" and the conflicts we have are indeed centred on the one side, on subsistence needs and on the other, on sustainability. In this context, we are facing and using different conservation measures but not all of them seem to be useful, - (especially those invented elsewhere in the world, which have their shortcomings).

In the struggle to secure biodiversity, it could perhaps be useful to invent a new term - conservation diversity. In other words, to concentrate efforts on one single question: what is the most useful conservation tool for this specific problem? You have to keep in mind that the Arctic environment is always changing and so are exploitation schemes.

The direct and indirect conservation tools which have been available to us from abroad can be divided into three categories (in fact, some of these have been forced upon us). The first one is trade barriers. In many cases, the result of these trade barriers is that a plentiful resource is unexploited and the pressure then shifts to another species. The Washington Convention (CITES) falls into the most acceptable part of this category but we face a lot of problems.

The second is conservation of protected areas. Looked at on a map, this kind of conservation looks very impressive and in some parts of the world it is the only way of conserving the last small pieces of nature. But if there is to be a proper balance between threats and conservation, in Greenland, (and here you have to remember that in Greenland the only threat is overharvesting), then we have experienced that this is not always the best way to do it. We have several protected areas in Greenland. We have three national parks, a big, a medium and a small. We call them something different but they are

established at the same level in the legal system. They are all placed more or less in unpopulated areas so the problem is not that big. But nevertheless, we often have applications for different types of exploitation which far exceed the traditional use of hunting rights. The general feeling is, and has been, that ever since Adam and Eve were thrown out of paradise, the grass is always greener on the other side of the fence. We also have a Biosphere Reserve, but unfortunately, it cannot be developed in conjunction with the local people because it is unpopulated. We have Ramsar areas but the waterfowl are already protected by hunting regulations during the breeding season and the areas are used for nothing else so the utilization (implementation of Ramsar guidelines) of the areas are not high priority. The system is rigid and perhaps an unnecessary way of going about things. Right now, whether or not we should have World Heritage areas is under discussion but the discussions have not been finalized. We have our own form of Protected Areas that give us flexibility. For example, twenty percent of the ice-free lands are caribou reserves. We are implementing a system where Arctic char are protected over large areas. The advantage of these types of areas is that they can be shifted nearly day to day and they fulfil our needs. If the animals change their habits or if there is a sudden change in their exploitation, then we can shift the areas. As long as these areas compensate for one or a few threats, this is a very easy and functional way to do it.

The third group of conservation tools is defined by one word, sustainability. This is indeed a new word which we have to live with in the future. It is beautiful but difficult. If sustainability is accepted in the broadest sense of the word, no other conservation measures should be necessary. Then it should be possible to walk hand in hand with a seal at the ice flow edge. But to get from here to there, the following ingredients are necessary: ethics, knowledge, education and especially money from other activities.

To sum up, in a struggle towards sustainability, a kind of conservation diversity seems quite useful. It is simple, it is locally implemented and it is based on the local conditions. To us it seems fairer to use our limited manpower resources on this than to use them on more rigid international systems.

Thank you.

HABITAT CONSERVATION OUTSIDE PROTECTED AREAS

Sweden - Presenter - Michael L. Froth

Thank you Mr. Chairman. I have been asked to talk about habitat conservation outside protected areas with examples from Sweden.

Most Arctic nations have legislative tools which can be used to conserve habitats outside protected areas. The conservation methods vary from country to country and, in the following, I will give you some examples of how this habitat conservation is carried out in Sweden. In the following, a broad definition of the word "habitat" is used, including species habitats, plant communities, animal communities, geomorphological features and nature types (biotopes).

A basis for habitat conservation outside protected areas usually demands a well developed habitat knowledge, where the important sites need to be pointed out based on various inventories. When the target is the conservation of biological diversity, inventories on the species level are in many cases, impossible to carry out, because there are too many species. In Sweden alone, more than 50,000 species exist.

Vegetation types generated from satellite interpretation, on the other hand, we have found too generalized; they say very little about the qualities inside the habitats. In Sweden, we have tried to find a way of identifying components (habitat types) of biodiversity representing as much of the variety as possible. We think that if we conserve a certain amount of all existing habitat types, we also conserve most of the species and genotypes connected to them, as well as ecosystems. Therefore, Sweden now is becoming covered with thematical inventories such as wetland inventories, meadow inventories and different forest inventories. These inventories results identify tens of thousands of smaller or larger sites worthy of nature conservation (and, if needed, management). Besides this, a limited set of sites are pointed out as "Areas of National Importance". The knowledge we reach in this way is directly used, for example, in local planning so that buildings, infrastructure etc. are usually avoided in these areas.

The Nature Resource Act regulates the use of natural resources. According to this act, areas of national importance and "unbroken" alpine areas should be kept untouched by buildings and infrastructural exploitation. Moreover, the remaining untouched great river systems should not be exploited for water power production. A great number of meadow sites, pointed out in the inventories are being preserved today through a subsidy system to the farmers for keeping traditional land use such as grazing and mowing. Thousands of valuable wetlands, identified in the inventories, are being preserved from drainage according to a "drainage permission law", in which the landowners need permission for drainage from the county administrations. As a rule, permission is denied in these valuable sites.

Inventories of valuable forest sites have just started with a combination of aerial photographic interpretation and field work. Special attention is paid to forests of importance for red listed species and to wet forests (swamps etc.). According to the Forest Act, landowners should avoid forestry on small valuable habitats, if this does not seriously affect land use. On the other hand, if this should affect land use, we have about twenty million Swedish crowns per year for making agreements with landowners, not to practice forestry in these areas. Still, this of course is not enough, but as a result of

national and international pressure on the larger forest companies, the companies themselves have formed nature conservation policies. Today, they claim that their land should be "ecologically planned", which means that they, at least they say, will not practice forestry in the valuable habitats and use more "gentle" methods in the other areas.

Many lake and river systems suffer from acidification due to deposition of airborne pollutants. For that reason, Sweden puts about 150 million Swedish crowns a year into a limiting program, in collaboration with fishing interests. This is a purely artificial method for saving fresh water habitats while waiting for a reduction in the spread of airborne pollutants. On the other hand, this activity is a threat to naturally acid habitats such as many mire types (peatlands). This means that the limiting program has to be carried out with careful planning.

The broad acceptance throughout Sweden of all these regulations and conservation systems would not have been possible without great support from the public, catalyzed by very strong NGO's. This shows that conservation of biodiversity outside protected areas is not possible without a true understanding of biodiversity values throughout the society. Information and education from low to high levels on the need of conserving biodiversity must therefore be a cornerstone in nature conservation work.

Thank you.

OBSERVER PRESENTATIONS

Nordic Council of Ministers

Presenter - Magnus Johannesson, Chair, Environment Committee of the Nordic Council of Ministers

Thank you Mr. Chairman, ladies and gentlemen, it is with great honour that I respond to the request of the CAFF Secretariat to the Nordic Committee of Senior Officials for Environmental Affairs to give you a brief overview of our work concerned with the conservation of flora and fauna in the Nordic countries presently carried out under the auspices of the Committee. Before I turn to that matter, I will explain to you, in a few words, the status and role of the Nordic Committee of Senior Officials for Environmental Affairs.

The Nordic Council of Ministers since 1989, has had a special program for environmental cooperation between the Nordic countries, the so-called Nordic Programme for the Environment. This program defines long term aims for environmental cooperation and is based on the principles of interdisciplinarity, long-term perspectives and an international approach to environmental policy as set out in the World Commission for Environment and Development. The program emphasizes, in particular, the integration of environmental issues with other sectors of society. These principles also form the basis for today's Nordic cooperation. In more concrete terms, the Environment Ministers have adopted detailed action plans concerning pollution of the seas, air pollution, cleaner technology, waste management and recycling and long-term integrated monitoring of the environment. At present, a strategy for nature protection is under preparation. In these action plans, short term objectives of political importance and relevance are stressed.

The Nordic Committee of Senior Officials for Environmental Affairs, which consists of representatives appointed by the Environment Ministers from all the Nordic countries, is responsible for the preparation of Ministerial meetings in the Nordic Council which usually take place about three times a year, and the follow-up to decisions by the Ministers. The Committee itself meets about five times a year.

To assist it in carrying out its functions, the Environment Committee has established five major working groups with clearly defined mandates to deal specifically with different environmental issues. This arrangement was introduced in the beginning of 1993 so we are only just beginning to see the effectiveness and the results of this arrangement.

Matters concerning conservation of flora and fauna are mainly dealt with by the working group on Nature Conservation and Outdoor Recreation, a long name, and we often use the acronym GNCOR for the group. The work of this group is, therefore, the work within the Nordic Council which, to a considerable extent, covers areas that may have interlinkages with the work of CAFF. Apart from the work of GNCOR, the work of another Working Group on Monitoring and Data, which primarily deals with harmonization of monitoring methods to improve the comparability of environmental data both in

Nordic countries as well as in an international context, might also cover some common ground with CAFF. The importance of the work of the Monitoring and Data group is hard to overemphasize since nothing in the decision-making process for conservation measures is so fundamentally important as to have reliable and consistent information on the current status of the environment.

In the mandate of the Committee of Senior Officials and the Working Group for Nature Conservation and Outdoor Recreation, there are a number of tasks that I would like to draw to your attention. First of all, the group is entrusted to work out a proposal for the committee on joint Nordic initiatives for the follow-up to the Biodiversity Convention. Secondly, the group shall work out a proposal for the Committee on guidelines for the protection of flora and fauna. Thirdly, the group shall develop and promote monitoring activities for endangered species in cooperation with the working group on monitoring and data. Fourthly, the group shall coordinate Nordic participation within international Conventions on nature conservation and here we are basically referring to Conventions like Bonn, Berne, Ramsar and CITES and lastly, the group is responsible for the dissemination of information both on results and on planned and ongoing research activities in nature conservation within the Nordic countries and between the Nordic countries and international organizations.

To respond to its mandate, the working group has initiated and presently supports twenty-five projects within its field of competence. The aims of the current work program can be categorized into six main areas of activity. First, work to develop Nordic plans and programs to preserve, and where necessary, to re-establish biodiversity. Secondly, preparation for developing a Nordic program for nature conservation. Thirdly, efforts to promote monitoring activities of Nordic flora and fauna and participation in the most important Nordic monitoring programs. Fourthly, gathering information and compiling keys for species and identifications that are of Nordic interest. Fifthly, coordinating Nordic networks and policy formulations on ecological risk, evaluation of various activities related to the release of genetically modified organisms and lastly, efforts to supplement the list of threatened habitat types that are on the European Union's Habitat Directive List I in order to adapt this list to Nordic circumstances in accordance with the EEA agreement.

To give you a more specific description of the work promoted by the working group within the areas of conservation of flora and fauna, I would like to mention here six projects that are expected to be finalized before the end of this year. I would, however, stress that this list is not at all exhaustive but should rather be seen as indicative of the work presently being pursued in this field by the Nordic Council of Ministers. First, I would mention Nordic nature conservation. Here we are working at identifying problems and possible actions. This report will include descriptions of the aims and means for the management of natural resources. It will also pursue aims and means for preserving and, where necessary, re-establishing biodiversity and aims and means for preserving cultural landscape values and securing the basic requirements for open-air recreation and activities. This is really a first step in developing an action plan for nature conservation. The second project that is expected to be finalized within this year is classification of types of vegetation in the Nordic countries. The project aims to develop a simple and clear, and you could say user-friendly, identification key for all vegetation types in the Nordic countries. The report should enhance a better flow of information among the Nordic countries and provide a better foundation for the environmental monitoring and assessment of future changes in the vegetation. Thirdly, I would mention the list of endangered species. The aim is to draw up a Red List of endangered and threatened animals and plants in the Nordic countries. And the fourth project is marine sanctuaries in the North. The aim of the project is to register, on the basis of common

guidelines and a set criteria, those marine areas in the Nordic countries that require special protection because of their exceptionally valuable marine biota. The fifth project is the monitoring of diving ducks that overwinter in the Baltic Sea. This project aims at mapping the types and numbers of diving ducks that overwinter and the results may be used to formulate specific protection measures within the most critical dwelling areas. And the last project I would like to mention here is monitoring and identification of invertebrates. This project aims at coordinating the use of invertebrates for monitoring and environmental assessment within the Nordic countries.

Mr. Chairman, ladies and gentlemen, in our world of today, where the need for more environmental research and monitoring is growing at an incredible pace at the same time as funding resources are steadily getting harder to find, it is evident that one of the priority tasks of international cooperation in environmental protection must be to ensure coordination of environmental research and monitoring to the largest extent possible thus avoiding unnecessary duplication of efforts. This concern ranks highly in the work of the Nordic Council of Environment Ministers and its subsidiary bodies. Therefore, at the last meeting of the Working Group on Nature Conservation and Outdoor Recreation which was held last month, the relationship with CAFF was discussed. There was a broad consensus that efforts should be made to ensure that the Working Group and CAFF should not duplicate each other's work. The Working Group felt, that as a first step in this direction, CAFF and the Working Group should regularly share information on each others work and projects and be informed of the agendas of each others meetings. Furthermore, the Working Group was of the opinion that common projects could be formulated if they were relevant to the working programs of both parties.

Although the relationship between CAFF and the Nature Conservation Group has not been discussed in the Committee of Senior Officials as yet, I know that I can say with some assurance that the Committee would welcome closer cooperation between the Working Group and CAFF in matters of common interest. Even a step further, formalizing cooperation such as a joint meeting between representatives of CAFF and the Working Group once a year to discuss programs or projects of common interest is an idea, in my opinion, which we should consider. Whatever the formal relationship for data sharing and cooperation or possible joint efforts in programs or projects of common interest we could think of between CAFF and the Nordic Council, my view is that CAFF and GNCOR should not only avoid duplication of efforts in their work but should also look for complimenting each others work in areas of mutual interest. With that in mind, I look forward to seeing the cooperation between the two bodies develop in the future.

Barents Council of Ministers - Presenter - J.P. Huberth-Hansson

Thank you Mr. Chairman. I want to give you a short overview of the Barents Euro-Arctic Council's Environmental Action Programme as adopted in Bodo, June 15th, this year. This program has its roots in several Ministerial Declarations. The most important is from the meeting of the Ministers of the Nordic Countries and the Russian Federation on September 3, 1992, and the Declaration on Cooperation in the Barents Euro-Arctic Region on January 11, 1993.

The meeting where the Action Programme was adopted was held in Bodo and it was attended by Ministers and representatives of the Governments of Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden and the Commission of the European Communities. The meeting was also

attended by observers from the Netherlands, the United States, the Saami Parliament, the Regional Barents Council and the AMAP and CAFF Secretariats. Also, UNEP and UNESCO took part in the meeting.

The meeting concluded by adopting an Environmental Action Programme and I will give you the main highlights. There are five items in the Action Programme and one of them is of especially great interest for our CAFF work.

The first and most important point in this Programme is the prevention of radioactive pollution and preparedness against nuclear accidents. That means safe management and storage of nuclear wastes, among other things. Second, environmental management and the regional harmonizing of environmental standards and guidelines that you can read as EIA. The third point has to do with the reduction of pollution from industrial activities especially on the Kola peninsula. The two points there are to modernize metallurgical industries and to try to get cleaner production in the Barents Region. I want to draw your attention to number four which has the heading, protection of natural habitats and the conservation of flora and fauna. The main goal is to maintain the biodiversity of the Region and the natural quality of pristine areas. It says that this work has to be done in cooperation with existing Agreements and Conventions to conserve flora and fauna and protect their habitats, such as CAFF, the Convention on Biodiversity, the Berne, Bonn and Ramsar Conventions, and the participants will coordinate policies and resources to ensure lasting protection of the wilderness areas of the region and appropriate protection of the flora and fauna in those regions which are subject to development and industrial pressure. The agreement requests a Task Force to organize a separate program for the effective protection of natural habitats and the protection of flora and fauna on an ecosystem basis in the European Arctic Barents region and it outlines some points which are too detailed to go into. The fifth and last point is cooperation between local and regional authorities. The Barents Council felt it was important to involve the local and regional authorities in the execution of the Action Programme.

It should also be mentioned, to avoid confusion, that the Barents Regional Council with a Secretariat in Kirkenes has created an environmental committee to coordinate environmental cooperation among local and regional authorities. The Task Force was requested to take into account existing multilateral initiatives conducted through the Regional Barents Secretariat.

The Task Force which was set up will consist of nine members, that is six members from the permanent states in the Barents Council and in addition to that, there will be members from the Regional Barents Council and among them there will be at least one from the indigenous people. This Task Force will have its first meeting in October and will be chaired by Norway through its first period.

Thank you.

Netherlands - Bonn Convention - Presenter - Gerard Boere

Thank you Mr. Chairman for the opportunity of giving a short presentation on behalf of the Netherlands and the Secretariat of the Bonn Convention. First of all, the Netherlands would like to thank the Arctic countries for their support in extending their mandate to include us as observers at this important meeting of CAFF.

At various meetings of the AEPS bodies, the Netherlands representatives have explained the background of the interest by the Netherlands in the Rovaniemi process and the Arctic region in general.

Two months ago a policy document on the Dutch involvement in the AEPS was adopted by the Interministerial Co-ordination Committee on International Environmental and Nature Conservation Affairs (CIM). The policy document describes the responsibilities of the ministries involved and also from a financial point of view, towards IASC, AMAP, CAFF, the Ministerial Conference etc. Of course, all this is within the respected limits of our participation as an observer and with the aim to have a practical and pragmatic input.

As far as the work of CAFF is concerned, our activities are mainly concentrated in the Russian/Siberian Arctic. This is in close cooperation with the Russian Ministry of Environmental Protection and Natural Resources and various institutes of the Russian Academy of Sciences. A preliminary list of projects has been circulated at the previous CAFF meeting and will be updated in 1995. This program of co-operation will be continued over 1995 and 1996. To illustrate the present activities, the following information may be of interest to CAFF:

- in 1994 over 40 Dutch scientists participated in joint projects in the Russian/Siberian Arctic region.

- the building of the two facilities for the Willem Barentz station is making good progress and the facilities at Pyassina delta have become operational this year.
- in August a Statement of Co-operation was signed with the All-Russian Institute for Nature Conservation: this co-operation includes projects in the Arctic

- the Russian ministry will be supported in establishing a number of new reserves in the Arctic west of Taimyr.

- in 1996 an international symposium will be organized in Moscow to present the results of six years of joint Russian-Dutch projects in the Arctic. We will be pleased to invite CAFF countries to participate in the symposium.

This all means that the Dutch involvement in Russian Arctic projects will be at the same level in the coming two years or even slightly increased besides possible projects in other parts of the Arctic region.

In relation to the position and rights of indigenous peoples of the Russian/Siberian North, I would like to underline that we follow the guidelines and policy of the Dutch Ministry for Development Aid. These guidelines are mainly based on the experience with indigenous peoples in Africa, South Asia and South America. However, the guidelines will be applied to our work in the Arctic region.

With your permission, Mr. Chairman, a short report, also on behalf of the Secretariat of the Bonn Convention, on the progress with the African/Eurasian Waterbird Agreement under the Bonn Convention. The Secretariat of the Bonn Convention apologizes for being absent at this CAFF meeting due to the first Conference of the Parties to ASCOBANS, to be held this week in Stockholm. I refer also to the information document about the Bonn Convention and the progress with the

Eurasian/African Waterbird Agreement, as provided by the Secretariat of the Bonn Convention and in your CAFF meeting manual.

This major international flyway agreement is of great importance for the conservation and sustainable use of millions of Arctic birds. The Netherlands government, over the years, has taken an active role in the development of the AEWA. The concluding of the agreement has taken an important step forward after the success of the consultative meeting of Range States in Nairobi last June. Almost 80 countries were present and the development of the agreement received unanimous support. The amended text is available to CAFF members.

The second and formal negotiating meeting will be held from June 12-17, 1995 in the Netherlands. Judging from the extremely positive outcome of the Nairobi meeting, I am convinced that a Final Act can be signed (although you never know in international political circles), and that the agreement will be ready for signature and ratification by Range States by the end of 1995. The Netherlands will provide the interim Secretariat for this agreement for a period of three years.

Both the Netherlands government and the Secretariat of the Bonn Convention consider the concluding of the AEWA to be of great significance for the future conservation and sustainable use of millions of Arctic birds covering almost three-quarters of the circumpolar Arctic region. It is, therefore, a major contribution to the work and goals of CAFF.

I would like to call on all Arctic countries to actively participate in the conclusion of the agreement and to become a party thereafter. In this respect I stress the provisions of the Bonn Convention for countries to become a party to the technical agreements under the Bonn Convention, without being a formal party to the Convention itself. For a number of Arctic countries, which may have good reasons not to become a formal party to the Bonn Convention, this provision opens the door to active participation in the AEWA.

Finally Mr. Chairman, a few words in my capacity as Chairman of the International Wader Study Group. My remarks are made in the light of CAFF's policy not to duplicate work which is already being done by other organizations. The Wader Study Group is the worldwide organization of specialists on Arctic waders (shorebirds for the Americans). The WSG has 600 members in over 70 countries. It publishes an information bulletin and a series of reports, *International Wader Studies*, of high scientific quality. The WSG acts as IWRB's Research Group on Waders.

Within three weeks the WSG will meet for its Annual Meeting and Scientific Symposium in Germany. I will report on the activities of CAFF and discuss the possibilities for WSG to provide CAFF with its extensive expertise in the field of Arctic waders. At present a circumpolar monitoring project for waders is under discussion which could be an important contribution to CAFF's work.

An information package about the WSG will be distributed to CAFF members for information and further discussion.

Thank you for your attention.

Germany - Presenter - Peter Boye

Mr. Chairman, ladies and gentlemen.

Germany's status as observer of CAFF is based on a long tradition of German commitment to the Arctic. This was mainly of economic character in the past, but in the meantime, research and conservation issues have become more and more important. From the conservationist's point of view, the connections between central Europe and the Arctic are demonstrated the best by migrating species like birds and whales. These animals show us that we share one nature for which we are all responsible.

Now I would like to give two examples of current German activities in Arctic research and conservation.

The Alfred-Wegener Institute does a lot of research in polar regions including marine and terrestrial projects in the Arctic. Their research vessel "Polarstern" is well-known and has served as a platform for researchers from many countries. Through their work in the Antarctic region, the Institute has gained a lot of experience in how to practice research in an ecologically extremely vulnerable area. We would like to provide this experience to CAFF.

The Federal Agency for Nature Conservation took an active part in the international program on the Taimyr peninsula. The new conservation partnership of Taimyr Reserves and the German Wadden Sea of Schleswig-Holstein strengthens the cooperation between Germany and the Russian Federation even more and we are happy to hear at this Conference, that the nature reserves on Taimyr now serve as an example of a network of protected habitats and for the integration of indigenous people to a nature conservation concept.

During this conference, the Biodiversity Convention was mentioned several times. Germany takes this Convention as a very important one because it brings together the two challenging issues, sustainable use of resources and conservation of biodiversity. We appreciate the notice that CAFF tends to operate as a regional Arctic implementation of the Biodiversity Convention and promote nature conservation with respect to the indigenous peoples use of natural resources.

However, we would like to see CAFF more often using the opportunities offered by already existing international nature conservation activities. One of these is, of course, the Bonn Convention including the Regional Agreements under its umbrella as Gerard Boere just pointed out. For example, there is no reason in our mind why the Conservation Strategy for Murres should be restricted to Arctic countries. It could perfectly fit under the Bonn Convention and cover the whole distribution area of the Common Murre including overwintering ranges and breeding colonies outside the Arctic. It seems worthwhile to mention that there is also a murre colony in Germany, on the island of Helgoland.

Another item using the work already done by someone else is the preparation of a list of rare, vulnerable and endangered species in the Arctic. From our point of view, the categories of this list should be comparable to those of the IUCN Red Data book, or - even better - they should follow the same criteria for classification as the IUCN. These criteria are revised just now. Another important point is that CAFF should examine the possibility of adapting the "Protocol on Environmental Protection" being developed for the Antarctic environment and agreed by the Antarctic Treaty Nations

three years ago in Madrid. Annexes of this protocol also include regulations on the "Conservation of Antarctic Flora and Fauna" of both terrestrial and marine ecosystems. This could be relevant or at least give some important input in developing conservation strategies for the Arctic environment as many polar ecosystems in the northern and southern hemispheres are somewhat comparable.

Nevertheless, these suggestions should not detract from our general opinion that CAFF is on a good road by focusing its activities to correlate with its working capacities and implementation possibilities. We support the idea of a Network of Protected Areas in the Arctic, and consideration of indigenous peoples' rights, and without leaving unprotected habitats and species to unlimited exploitation.

Thank you.

United Kingdom - Presenter - Elizabeth Leighton

Thank you very much. In my position with WWF UK, I have been in consultation with the United Kingdom Ministry Officials regarding the AEPS process and they have asked me to make a comment on their behalf at this meeting. They strongly support the work of CAFF and are regrettably unable to be here but they are now undertaking a review of the UK polar policy and, in particular, the UK participation in the AEPS. The UK is seeking ways of being able to provide meaningful input to the process so upon my return to the UK, I will be making a report outlining recommendations on where they can contribute in terms of research, in terms of data and in terms of policy support in other international fora. The seabird work, for example, is one area where the UK could make a contribution. So I would appreciate that if any of the CAFF countries here have any specific areas of work where the UK could contribute, they could highlight those to me so I can take those back and hopefully, the UK will be a participant in the process. Thank you.

Ramsar - Presenter - Tim Jones

Thank you very much Mr. Chairman. Good morning everybody. Since this is the first CAFF meeting which the Ramsar Convention has attended, the last two days have shaped very much what I am going to say so.

The Ramsar Convention on Wetlands was adopted in 1971 and came into force in 1975 and now has 83 member countries from all regions of the world, including all of the CAFF and AEPS countries. The Convention's definition of wetlands is extremely broad and covers lakes and rivers, marshes, peatlands, estuaries and even shallow coastal waters, including wetlands that are either seasonal or temporary in nature as, of course, most of the wetlands of the Arctic region are.

When a country joins the Convention, it accepts four main obligations. The first of these, and perhaps the best known, is to designate at least one wetland in its territory for the Ramsar List of Wetlands of International Importance, according to a set of criteria which have been established under the Convention and special conservation measures are to be taken to ensure the maintenance of these sites. Currently, there are more than 700 Ramsar sites throughout the world. The second key obligation is for governments to formulate and implement their national planning to make wise, or

sustainable use, of all wetlands whether or not they are included in the list of Ramsar sites. The third obligation is to establish wetland reserves and the fourth and final obligation is to engage in international cooperation and consultation with regard to shared wetland systems and shared wetland species, and that includes all wetland species, not only waterfowl.

The Convention is operated by a small team of technical and administrative staff who form the Ramsar Secretariat, or Bureau, an independent body that shares quarters with the IUCN in Gland, Switzerland.

Following this very brief introduction on the obligations under the convention, I want to turn now to two areas relating to discussions this week. The first is to clear up a few misconceptions about Ramsar and the second is to highlight the areas where I believe Ramsar can be of particular use to the CAFF countries in pursuing their conservation goals in the Arctic region.

Of the misconceptions, the first is rather a minor one but may be important for people's understanding of the Convention. That is that the word Ramsar itself is not an acronym but simply the name of the city in Iran where the treaty was adopted in 1971. So that makes it the same as Bonn or Berne. The second misconception and one which is far more significant and substantive is that Ramsar is concerned only with waterfowl. It is certainly true that twenty-five years ago when the treaty was first established, that waterfowl conservation was the main focus. However, the last decade has seen a dramatic shift in emphasis towards taking account of the full range of ecological, hydrological, economic and social values of wetlands. For example, a current development is establishing criteria for identifying wetlands of international importance for fish and for traditional fisheries. Another misconception is that Ramsar is only about strict protection of designated Ramsar sites. This is far from the truth. The Ramsar concept of "Wise Use", defined as the sustainable utilization of wetlands in a way which yields the greatest benefit to present and future generations while maintaining the ecological functioning of the wetlands is fully compatible with the integration of the subsistence activities of the indigenous peoples of which we have heard much this week.

Under the Ramsar Convention, governments must also develop strategies to ensure the Wise Use of all wetlands and not only those included in the list. Extensive guidelines on Wise Use and detailed case studies on applications of the concept have been prepared and I will be glad to mail relevant materials to anyone who may be interested.

Amongst the tools that can help to deliver Wise Use in practice are environmental impact assessments, national wetland policies and the active involvement of local indigenous and non-indigenous peoples in decisions affecting wetlands.

Someone asked me last night what Ramsar had gained from this meeting so far. However, I prefer to ask how Ramsar can help achieving some of CAFF's goals. First, Ramsar already has well-established structures and a relatively firm funding base. All of the CAFF countries are Ramsar Contracting Parties and the implementing agencies for both frameworks are the same for nearly all of the countries. This clearly provides an excellent basis for cooperation. Nevertheless, I have seen that many of the individual people involved from those agencies are different so I would strongly urge that the CAFF representatives in national governments contact their Ramsar counterparts and discuss the opportunities for collaboration.

Ramsar can contribute towards the development of the Protected Areas network in the Arctic and so far, some forty Ramsar sites in all of the eight CAFF countries have been designated. Ramsar designation, although not an end in itself, can help focus international attention on the importance of particular areas. Such attention may help to attract international financial assistance where needed or it may serve to guide political decisions at a national or regional level. International designations can also help demonstrate a government's commitment to an international program such as CAFF and the AEPS.

As mentioned earlier, the Ramsar Convention is directly suitable for designating areas within which maintenance of traditional land uses is an important goal. Ramsar therefore seems highly appropriate for meeting the expectations and requirements of indigenous peoples for acceptable forms of protected areas in the Arctic. Nevertheless, some contracting parties have been slow or reluctant to fully explore Ramsar's provisions for Wise Use. It seems to me that conservation of Arctic wetlands systems demands a wise use approach and that reliance solely on classical strict protection or what we might call "museumisation" might be inappropriate.

In summary, Ramsar like other global treaties, is there to be used by governments and by NGO's alike. Conventions achieve nothing by the mere fact of their existence. It is up to all of you to choose which provisions of the various frameworks can be most valuable to CAFF and then to harness them. I have tried to summarize the potential which exists under Ramsar. The Ramsar Bureau is ready to discuss any or all of these issues with the Secretariat, the National Contacts or indeed any of the participants of this meeting. I have placed copies of material on the tables and should you want to be on the mailing list, please sign the sheets outside. Finally, I would like to conclude by thanking Iceland, as the Chair of CAFF, for inviting us to this extremely interesting meeting and for the warm hospitality and excellent facilities afforded to us.

Thank you very much.

World Conservation Monitoring Centre (WCMC) - Presenter - Seppo Kaitala

Mr. Chairman, ladies and gentlemen.

The World Conservation Monitoring Centre, (WCMC), is a joint venture between three partners in the world conservation strategy; The World Conservation Union (IUCN), the World Wide Fund for Nature (WWF) and the United Nations Environment Program (UNEP). WCMC has developed a global overview database of the world's biological diversity that includes threatened plant and animal species, habitats of conservation concern, critical sites, protected areas of the world, and the utilization and trade in wildlife species and products.

WCMC has been involved in the compilation of global environmental data over the past ten years. This includes:

1. The Antarctic Digital Database, published in 1993 on CD-ROM in collaboration with the Scott Polar Research Institute and the British Antarctic Survey.

2. A Protected Areas database completed as a digital database containing maps and statistical data for the world's protected area system. (Data has been published in the four-volume *Directory of National Parks and Protected Areas of the World*).
3. The Biodiversity Map Library which presents the digital coverage of protected areas, ecosystems and species distributions in Arc/Info GIS format.
4. A Plant Database that maintains nomenclatural, distribution and conservation status information on 80,000 species of plants world-wide.
5. The Animals Database, published as the Red List of Threatened Animals in collaboration with IUCN and the Species Survival Commission. All the data are held on computer, including nomenclature, common names, distribution and conservation status.
6. The Trade Database which tracks the international trade in CITES-listed organisms through a database containing two million records.

This is by no means a complete account of the Centre's data holdings. As part of its information service, WCMC has developed a World Wide Web Server on Internet. This can be accessed at **URL: <http://www.wcmc.org.uk>** to obtain more detailed information on these databases and about on-going projects.

In relation to the CAFF program the World Conservation Monitoring Centre, the Faculty of Geography of Moscow State University (MSU) and the Scott Polar Research Institute are undertaking a collaborative environmental project for the Russian Arctic. This will be closely correlated with a complementary initiative at GRID-Arendal. An environmental database will be compiled in the form of a geographic information system (GIS) facility established at WCMC and MSU, describing the biodiversity resources and the threats to their conservation. Some topographical features such as coasts, rivers, relief etc. have been compiled in digital form for the Arctic region together with some environmental features such as wetlands, permafrost areas and important bird areas and protected areas.

Ladies and gentlemen, Mr. Chairman, thank you for your kind attention.

Global Resources Information Database (GRID)-Arendal - Presenter - Lars Kullerud

Thank you Mr. Chairman.

GRID Arendal is part of UNEP, the United Nations Environment Program. It is the environmental data base and information system for the United Nations Environment Program. UNEP has about 15 of these GRID centres situated throughout the world. One is situated in Arendal, Norway and is funded by the Norwegian government as a contribution to UNEP and is the GRID office responsible for the Arctic. We work together with other institutions to try and ease the transmission of environmental data outside UNEP and into UNEP. GRID Arendal has several activities within the

Arctic and also has cooperates with other GRID centres relevant to Arctic work. It is a sub-node of the North American GRID centre in Alaska. There is a plan to establish a GRID centre in Moscow and there is a GRID centre in Japan which also does work on Arctic issues. All these centres can be used by AEPS programs to assist in data collection, data harmonization and information dissemination.

Especially relevant to the CAFF group, I would mention that UNEP GRID Arendal did a GIS data base for Protected Areas in the CAFF Arctic Habitat report which you have already seen and we will be very happy to provide input in the future even if that particular report is the final version. I think this will be very important in making the Network of Protected Areas an efficient and good project.

GRID Arendal hosts the AMAP project-directory data base and does GIS systems for the Northern Searoute programs. We have been working together with the Norwegian Directorate for Nature Management and US EPA to back the Canadian proposals for an Arctic ecosystem mapping project which was presented to the Senior Arctic Affairs Officials. We also are running a project similar to the one WCMC is doing in the Russian Arctic, funded by the Norwegian government. This program and the program run by WCMC are fully integrated so there is no overlap and we ensure that the data is fully interchangeable among those two projects.

In addition to this, we have one project which is very relevant to participants here but that does not really belong to the CAFF framework. It is called the national Arctic Environment Data Directory. That is a program run by GRID plus the Arctic Centre in Lapland, Finland, the Norwegian Polar Institute, the International Arctic Science Committee, the USGS and the Russian Ministry of Environment and Natural Resources. It is an attempt to make a forum for all institutions that have catalogues and environmental data throughout the Arctic. There are many of them now and we are trying, through this network, to make one access point to all these directories. It is also a forum where these directories can be discussed and common standards to reduce the "clutter" from a user's point of view can be agreed on. I think this data directory activity is most useful for people in their day to day work and this week, it was established on Internet where one can go and search the current member directories which, of course, includes the AMAP and all the GRID international data bases and many others, including many from the Arctic centre in Rovaniemi.

I have one particular concern that I want to address to everyone here and that is related to environmental data. It is more common now that data is made subject to money. It is very costly to gather information but as it is done, one should try to make it as easy, transferable and accessible to all who need it within the Arctic community. Otherwise, this obstacle adds costs for everyone so I think this is a particular concern that should be in the back of everyone's mind, contract people for example, doing work within AMAP, CAFF or other programs.

Being a guest in Iceland and being a geochemist, this is a very beautiful country, I can see the geochemistry happening around me! I really like this country!

Thank you very much.

World Wide Fund for Nature (World Wildlife Fund) (WWF) - Presenter - Peter Prokosch

Thank you Mr. Chairman, ladies and gentlemen.

CAFF cares for Arctic life and focuses on an Arctic habitat strategy with a protected area network as its centrepiece. This was the main message of the last three days of this impressive meeting. On behalf of WWF International, I would like to thank you for inviting us to take part in your encouraging work for Arctic nature. In particular, we would like to thank the Icelandic hosts and the CAFF Secretariat for their excellent organization and preparation of this meeting. Certainly, the investment of Canada in the new CAFF Secretariat is starting to pay off now. CAFF is on the way to becoming a leading Working Group in the process of the Arctic Environmental Protection Strategy. We have high expectations for this group and would like to offer our own engagement and our circumpolar presence in the Arctic countries to make people aware of the important work you are doing. As an example, WWF cooperated with the Norwegian Directorate for Nature Management and GRID on the production of the poster on habitat conservation which promotes the pan-Arctic view. Another example which received great circumpolar interest is our *Arctic Bulletin* but I am not going to go into more details of our own activity.

We would be extremely happy if Canada was able to ensure a longer term functioning of the Secretariat as the soul of CAFF. At this meeting, we are witnessing the important step CAFF has made toward focusing on central issues of Arctic conservation in order to deliver clear political goals to the Ministers which they can understand and implement to achieve concrete benefits for nature. Almost all the national delegations expressed their feelings that CAFF now had to make the step from a Working Group dealing with scientific, specialized issues on plant and animal species to real conservation action. Nevertheless, it was useful to start CAFF with different working groups providing us with basic information, such as the U.S. Seabird Group initiative which is a model of how circumpolar cooperation of specialists can be set in place by CAFF. In our view, the Habitat Conservation Report No. 1 on *The State of Protected Areas in the Circumpolar Arctic* is the most concrete result so far of the whole AEPS. With great justification, Norway has received congratulations from all sides to which of course, WWF would like to add its own. Now, if this report, along with the Russian study on a protected area network forms the basis to produce a CAFF network, a real breakthrough is visible on the horizon. As far as our own recommendations on the Protected Area Network plan for the 1996 Ministerial, we feel the work is at least falling into place.

The WorldWide Fund for Nature is particularly glad to notice CAFF covering marine ecosystems within its habitat protection work. The Barents and Bering Seas park proposals were already mentioned as examples to deal with the protected areas sub-working groups terms of reference. The NGO proposal to put attention on the geographical area of the Arctic ring of life, the highly productive marine shelf region, is coming to life. For putting marine habitats on the agenda, Russia earns the most credit. They not only suggested marine habitats to deal with the protected area network plan, but recently the largest marine protected area has been established with the Franz Joseph Lands reserve. Further steps contributing to the framework of the Barents Sea International park have been announced. Also the plans for setting up new reserves around the Siberian Sea and the Lena Delta are very promising. The same holds for the Icelandic plans to protect marine areas.

The Protected Area Network will not only fulfil the goals of the AEPS, it will also meet the aims of the global commitment to nature, the Biodiversity Convention. CAFF, acting as a facilitator, stimulates the

Arctic countries, NGO's and indigenous peoples, to work together on new initiatives to protect their Arctic treasures. This function should not be overlooked in the future and special time should be spent to look at each country's unique Arctic conservation achievements at coming CAFF meetings. In this sense, we are looking forward to the next CAFF meeting in Moscow and wish the Secretariat and the work of the Arctic countries all success.

Thank you Mr. Chairman.

BirdLife International - Presenter - Melanie Heath

Thank you Mr. Chairman. First, I would like to thank CAFF for inviting BirdLife International to participate in this meeting and for the opportunity to give this overview today. As this is the first CAFF meeting that BirdLife has attended, I would like to give a brief overview of BirdLife and then go on and give examples of BirdLife's work in Europe (which, of course, includes Greenland, Iceland, Finnslandia and Russia east to the Urals), to indicate the type of projects we are undertaking.

BirdLife International was launched in 1993 and built on the achievements of the International Council for Bird Preservation which was formed in 1922.

BirdLife's mission is to conserve all bird species on earth and their habitats and through this, to work for the world's biodiversity and the sustainability of human uses of natural resources. BirdLife aims to prevent the extinction of any bird species, to reduce the number of globally threatened species, to maintain and enhance conservation status and to conserve important sites and their habitats. The network is at the centre of BirdLife's activities, collating data, undertaking field action, and developing and advocating policies.

BirdLife International comprises the following groups; the Secretariat comprises the main office which is based in the United Kingdom, four regional offices, in Washington, Brussels, Kito and Bogour. The Council directs the activities of BirdLife and this is composed of representatives and partners from organized conservation organizations world-wide. BirdLife is a federation of conservation organizations. It is non-confrontational, working together with governments. It incorporates some of the world's most significant national environmental bodies with large public membership giving BirdLife grassroots support. We believe this partnership offers something additional to national conservation initiatives alone. The partnership covers all continents but is not yet complete.

The hallmark of BirdLife is its sound scientific research allowing identification of priorities for action, collating the most up-to-date information on bird populations and distribution, analyzing this data and disseminating it through publications. Two such publications are *Threatened Birds of the Americas* and *Putting Biodiversity on the Map*. We are launching our conservation series and three of the titles are on seabirds and islands.

BirdLife promotes conservation through the advocacy of appropriate policy. We indicate priorities to governments and other conservation groups and aid agencies, thus influencing and collaborating in Conventions such as the Biodiversity, CITES, Ramsar and Bonn agreements, legislation and policies.

The data we collect is used to identify priorities for field action and these activities range from basic bird surveys through to most disciplinary projects incorporating both ornithological development and integrated land use approaches. Three main components of BirdLife's work are species, sites and habitats. I would like to speak about these three types of work in Europe to illustrate some of our activities.

For sites, site conservation is implemented through the BirdLife Important Bird Areas program. In 1989, we published jointly with IWRB the IBA inventory. This inventory is a network of 2400 sites identified throughout the European region which aims to safeguard significant proportions of Europe's bird populations and their habitats. The strength of the IBA program is that it is a practical tool. Its network generated, data is provided from all countries throughout the regions and we now have 29 national coordinators working on the program. A set of criteria is used to identify these sites which are objective and internationally agreed and allow for the comparison of information between sites. BirdLife intends to expand its program and the idea is that by the end of the century, the IBA will be complete for the world.

As regards species, BirdLife produces lists of globally threatened species, the latest is to be published next month. Additionally, within Europe, we have just finished a pan-European review of the conservation status of all species, identifying species of European conservation concern. The project displays the importance of widespread cooperation. Over 400 ornithologists throughout Europe have contributed to this project, allowing analysis of the data and the map shown here is a way of presenting that information on the populations and their sizes and trends throughout Europe. Identifying species of European concern was the first stage. We are not advocating a species-by-species approach, rather the conservation of the wider environment is important as well as the important bird areas.

We are producing habitat action plans for each of these habitats, two of which affect the Arctic region, the tundra and the northwest Atlantic seas. Again, this process is through collaboration of the network and we have conducted workshops of experts from both governmental and non-governmental organizations which aims to establish wide-scale conservation measures for species in need of conservation action.

Lastly, BirdLife policy is to make the data as widely available as possible. We are currently developing plans for a world bird data-base containing information on sites, species and habitats for Europe. As was discussed yesterday, BirdLife is planning to compile a global inventory of major seabird sites allowing objective ranking of conservation significance of these sites and allowing us to target policies and activities towards their conservation.

To sum up, BirdLife is a global federation of conservation organizations which includes partners, associates and representatives working within the Arctic region. Our work is based on sound scientific data. There are clear similarities in the structure of BirdLife's activities and some of the programs described over the last few days in CAFF, especially regarding the sites, species and habitats approaches. BirdLife welcomes the opportunity to make this information available and to collaborate with CAFF. The areas discussed in the last two days where BirdLife may provide expert input to help guide priorities are on the species front, on the integration of globally threatened species information on birds and on the European threat status information to guide CAFF's formal listing of species. Secondly, advice on the important bird areas to be included in the circumpolar Network of Protected

Areas and on habitats when CAFF starts work on the wider environmental issues which it was agreed were important; integration of information on the European habitat action plans on tundra and northwest Atlantic seas and lastly, but very importantly, the seabird work. Indeed, I would like to take this opportunity to thank the Circumpolar Seabird Working Group for their information and we welcome further discussion and collaboration with the Group regarding the development of the Circumpolar Seabird Catalogue Data Base.

As illustrated, I think there are several common areas of work shared with CAFF and BirdLife International and we look forward to working collaboratively with CAFF in the future.

Thank you.

BirdLife International-Supplemental Information

Mission: What is the overall purpose of BirdLife?

BirdLife International seeks to conserve all bird species on earth and their habitats and, through this, to work for the world's biological diversity and the sustainability of human use of natural resources.

Vision: Where is BirdLife Heading?

BirdLife is the leading authority on the status of the world's birds, their habitats and the issues and problems affecting them. Birdlife aims to conserve the world's birds by empowering a global partnership of national conservation organizations who share a priority based program of conservation action.

The Partnership shares skills, achievements and information and strives to grow in size, ability, authority and influence.

Rationale: Why birds?

Birds represent an irreplaceable asset to people because they:

- are sensitive indicators of both biological richness and environmental health;
- fulfil important ecological functions in the natural environment;
- have significance as a direct or indirect economic resource;
- contribute greatly to our understanding of functions and processes in nature and are of value for many scientific disciplines;
- have inspired and delighted the peoples of many cultures for centuries, and;
- are important for recreational pursuits and promoting conservation awareness the world over.

Strategic Aims: What is BirdLife doing for birds?

To fulfil its mission, BirdLife has the following aims;

- to prevent the extinction of any bird species.
- to reduce the number of bird species that are globally threatened.
- to maintain and, where possible, enhance the conservation status of all bird species.
- to conserve sites and habitats important for birds.

Strategic Means: How does BirdLife achieve its aims?

BirdLife believes it can most effectively achieve its aims by;

- identifying and setting bird conservation priorities through the collection, analysis, dissemination and use of information.
- promoting conservation action for birds through the advocacy of appropriate policies and recommendations.

-developing and implementing countrywide conservation programs of direct and indirect action to conserve birds, including species and habitat management, sustainable land use, education, training, awareness-building and legislation.

-mobilizing the necessary expertise and resources to fulfil the Birdlife mission through the development and maintenance of a cohesive network of organizations that are Birdlife International.

Structure: How is BirdLife constituted?

Birdlife is a global alliance of like-minded conservation organizations. It is owned by a partnership of bird oriented conservation NGOs (BirdLife Partners) who welcome collaboration with a wide range of national and international bodies and individuals with an interest in bird conservation.

In addition to Partners, BirdLife has Representatives, Associate Organizations, a Secretariat with regional offices and a flexible system of Working Groups, each with specific roles and responsibilities. It is governed by an elected Council.

Strategic Principles: On what values and basis does BirdLife operate?

The following are key guiding principles for all activities of BirdLife International.

-By promoting the conservation of birds, BirdLife contributes to the underlying global objectives of conserving the world's biological diversity through sustainable living.

-The BirdLife Partnership seeks to achieve broad ownership of, and participation in, programs by:

-linking together in a process of program and policy planning and agreeing on chosen priorities;

-using the expertise and resources of Partners in all activities as fully as possible;

-dividing program tasks and responsibilities among members of the Network according to their wishes, expertise and capabilities.

-By sharing skills, experience and information, the BirdLife Partnership seeks to develop the capacity of individual Partners to act on priorities in their own territory.

-BirdLife provides governments and institutions with access to data on bird conservation issues and priorities.

-BirdLife is governed democratically.

-BirdLife is a grassroots organization that achieves its aims and objectives by working through local communities.

-BirdLife seeks collaboration with organizations that have complementary and/or potentially overlapping niches by attempting to:

-define and maintain respective niches;

-maximize efficiency by sharing information reciprocally and avoiding duplication of effort;

-avoid investment in related subjects, where wider common interests dictate that such work would be better done elsewhere or shared;

-ensure that initiatives involving birds are developed and implemented jointly.

-BirdLife seeks to promote and assist the international leadership role of the IUCN - the World Conservation Union, so as to influence societies throughout the world to conserve the diversity and abundance of nature and to use natural resources in a sustainable way.

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U.S. Arctic Network - Presenter - R. Childers

The Network would first like to thank Iceland for hosting this meeting and especially our Chair, Ólafur Petersen for both his leadership and graciousness. It has really been quite wonderful and gratefully appreciated. We also want to thank the Secretariat for its hard work. It has really brought a new effectiveness to CAFF's work and I look forward to its continuation and, finally, thanks to Iceland's Minister for highlighting the importance of the marine habitat in his opening speech. We note the good beginning that has been made by Russia, Canada and others in identifying protected areas in their Arctic marine zone. We are especially pleased with the determination expressed by the delegations to bring a clearer focus to CAFF's work and the recognition that the marine environment should be addressed at this time. A lot of good work was reported here this week and several things came to mind.

The workshop on traditional knowledge has finally given a start to efforts made in the AEPS to involve indigenous peoples. Norway's efforts to bring together information on protected areas that proved to be a daunting task is one that we all appreciate. I think the Seabird Working Group did an excellent job in bringing real products ahead and in overcoming the differences between different countries and different ways of doing things.

A persistent difficulty with CAFF's work and with any international resource work is trying to overcome differing nomenclatures and establishing common data bases and research protocols, and we would like to note the very good efforts of the flora experts group and the seabird working group in this regard. Nevertheless, there is still much to be done to integrate the different data sets and information from our different countries and we hope that remains a major focus of the work that continues.

Finally, to the marine program. As CAFF enters its marine work, we think it is important that we reach out and bring greater marine science expertise to these meetings and to our delegations. The US Arctic Network have a number of recommendations we would like to pass on to you as a way of beginning to sketch out what might be undertaken in a marine program. We believe there are two tasks that are central to the purposes of the Arctic Environmental Protection Strategy. The first is an assessment of baseline biological data and monitoring needed to detect significant changes in the marine environment. And the second is the identification of key marine habitats in the development of a system of marine protected areas and, in particular, we believe that CAFF should undertake the establishment of a marine ecological experts group to develop, with ICC, the Circumpolar Seabird Working Group, AMAP, NGO's and others, an ecological assessment and monitoring plan with recommendations to the parties for consideration at the next ministerial meeting. Secondly, a map of the circumpolar system of leads and polynyas should be made using existing sea ice remote sensing databases and to prepare a draft declaration recognizing the importance of this system for the Ministers consideration. Third, to map other areas of high species diversity and species of high abundance including spawning and rearing habitats important to the larger Arctic marine ecosystem. Fourth, to develop a plan and recommendations for identifying additional key marine habitats not yet identified and this is something that has been discussed in the protected areas working group and may well evolve out of that. Six, to propose through the protected area working group, a system of marine protected areas and recommendations for conserving key marine areas not yet protected.

Again we want to thank the Secretariat and Iceland for the opportunity to be here and we have been very impressed with the work that has been undertaken this week and the difficult decisions that are ahead for the delegations here.

Thank You.

Circumpolar Conservation Union - Presenter - Evelyn Hurwich

The CCU would like to express its appreciation for the opportunity to be present here as an observer, as well as at the earlier indigenous peoples seminar and also for the generosity of the host country, Iceland.

The CCU is a newly formed international organization that is dedicated to the ecological and cultural integrity of the Arctic for present and future generations. There are some brochures on the table for those of you who have not seen them. We attempt to do this by linking environmental interests, indigenous peoples interests and sustainable development interests with women's and other networks around the world who are interested in building an international Arctic constituency.

At present there is no comprehensive management regime or legally binding Arctic-specific agreement among the Arctic nations to guide the development of Arctic resources in a manner that protects the environment and ensures equitable and sustainable use of resources. CCU believes that such a management or legal regime will ultimately be needed to fulfil the goals of CAFF, particularly the third goal, to improve conservation laws, regulations and practices for the Arctic. To move towards such a regime will require political will and financial resources that are insufficient today. This will require tremendous educational effort both for the general world public and governmental decision makers about the vital importance of the Arctic region to the whole earth, to global ecological processes and its interrelatedness with development practices even many thousands of miles away. Until the level of awareness of Arctic issues of environmental protection and indigenous rights are more elevated, we think we can make little progress towards the ecosystem as a whole conservation management regime so much needed. An ecosystem approach cannot be applied in a meaningful way if we are eliminating significant elements of that ecosystem from collective consideration such as the Arctic Ocean and its living marine resources, boreal forests and the rights of indigenous peoples to secure a land base and resources. Among others, these are inextricable components of circumpolar conservation efforts. Therefore, we recommend that greater attempts be made towards public education on these important matters and we believe the inclusion of observers in the AEPS is a useful factor in that respect.

In addition, we recommend working more closely with UNEP to bring their expertise on regional seas programs into the AEPS. The Arctic Ocean is the only semi-enclosed sea in the world not to be protected.

In closing, and after two weeks of meetings in this room, we would like to bring attention to the most fundamental factor in all of our work which is the human relationship to the earth. This relationship transcends the professional dimension and is a personal experience for each of us and it is at this level that citizens of the world can understand and care about the Arctic. I urge us not to lose sight of this in our efforts and in our lives.

Thank you for the opportunity to share these thoughts.

SECTION IV

1993-1994 CAFF WORK PLAN

AND

SYNOPSIS OF SELECTED LEAD COUNTRY REPORTS

CAFF WORK PLAN: 1993-94

The Arctic countries agree on the following work plan to further cooperation and collaboration in the Conservation of Arctic Flora and Fauna (CAFF) program. This work plan builds on the action items contained in the Ottawa 1992-1993 work plan, and includes new work items proposed in Fairbanks. Certain projects are planned to be completed for presentation to the Arctic Environmental Protection Strategy (AEPS) Ministerial Meeting in Nuuk, Greenland, while others are more long-term in nature. Lead countries are designated for each work item. The work plan assumes that such items will contain contributions from all Arctic countries.

Iceland, as the next host country, will assume the chair and full responsibility for the next CAFF meeting and furtherance of the work plan. The United States, as chair of the 1993 CAFF meeting, will prepare a meeting report for submission to the AEPS Ministerial Meeting in September 1993.

The following action items were agreed to by the CAFF member countries at the Fairbanks meeting. This work plan also includes recommendations to be considered for further action by CAFF. More detailed descriptions of the action items and recommendations are contained in the working session reports.

1. HABITAT CONSERVATION

The mandate for CAFF is to promote the conservation and protection of flora, fauna, and their habitats throughout the Arctic. To address the issues of habitat conservation, CAFF has concentrated on protected areas as an initial step. In the future, CAFF will also concentrate on habitat conservation outside of protected areas and threats to Arctic ecosystems in general. Strategies for species conservation and sustainable use are also being developed that do not rely exclusively on protected areas.

- a) *Complete the habitat protection report according to the timetable and guidelines in the habitat protection working session report.*

Norway has the lead for this item.

- b) *Prepare a brief working paper, "Plan for Developing a Network of Arctic Protected Areas". The outline for the paper is provided in the working session report.*

Russia has the lead for this item.

2. INDIGENOUS PEOPLES AND THEIR KNOWLEDGE

CAFF recognizes the need for close collaboration with the indigenous peoples of the North in the implementation of its objectives. In keeping with this goal, and pursuant to the work item on indigenous knowledge in the 1992-1993 CAFF work plan, the following activities will be undertaken:

- a) *Develop, as a pilot project, a circumpolar indigenous people's ecological and environmental knowledge mapping program. The project proposal will be submitted to CAFF governments and other potential funding sources to seek support for the implementation phase.*

The U.S. and Canada have the lead for this item, in consultation with the indigenous people's organizations.

- b) *Prepare and submit to CAFF a summary report and assessment of circumpolar indigenous knowledge data bases either held by indigenous peoples' organizations or containing information based on indigenous knowledge. This assessment, to be completed for the 1995 CAFF meeting, would examine among other issues: the methodologies used, subject matters addressed and the current state of use.*

Canada has the lead on this item, working in consultation with indigenous peoples' organizations.

- c) *Compile and compose draft ethical principles for the conduct of Arctic research, with particular attention to relevant documents being produced by indigenous peoples' organizations. The draft principles will be submitted for consideration at the 1994 CAFF meeting.*

The U.S. has the lead for this item, and will consult with CAFF member countries and indigenous organizations in its work.

- d) *Prepare a brief status report on measures taken to involve indigenous peoples and their organizations in the 1992-1993 work plan.*

Each Arctic country will provide a report to their AEPS Head of Delegation.

In addition to contributing to the general work of CAFF and the action item on traditional knowledge, representatives of indigenous peoples are encouraged to also contribute to work plan items on habitat protection, flora and fauna conservation, and seabirds.

3. FLORA CONSERVATION

Conservation of Arctic vegetation has been a cornerstone of the CAFF program since its inception. However, less effort has been concentrated on this vital resource by Arctic countries in the past. Consequently, the flora community will continue to focus its efforts in 1993-1994 on gathering and compiling basic data on Arctic vegetation and in integrating the work of CAFF with other Arctic flora initiatives.

- a) *The flora specialists have agreed to evaluate the proposed geographic region of concentration as delineated on the map by Yurtsev et. al. (1978) attached to the flora working session report, for each national region of the Arctic.*

The U.S. and Russia have the lead for this item.

- b) *Re-examine the vascular plant list of rare, vulnerable and endangered plants developed for the 1992-1993 work plan in light of the geographic area of focus proposed by Yurtsev and the criteria for listing rare plants that are contained in the working session report. All countries are encouraged to include lists for bryophytes, liverworts, lichens, and marine macro-algae, as well as vascular plants. To the extent possible, mapping coordinates for specimens or sight observations for each taxon should be included.*
- c) *Complete compilation of literature and maps regarding vegetation mapping.*

Canada has the lead for items b and c.

- d) *Establish contacts with representatives of the following ongoing international initiatives:*

Vegetation mapping: Circumpolar Arctic Tundra Vegetation Classification and Mapping Project - Institute of Arctic and Alpine Research (INSTAAR), Boulder, Colorado

Pan-Arctic Flora: Utilize the data base and checklist of all Arctic plants and experts in matters of nomenclature, taxonomy and floristics (University of Alaska Museum, Fairbanks, Alaska and Komarov Botanical Institute, St. Petersburg, Russia).

International Tundra Experiment (ITEX): A source for information on plants suitable for monitoring under both AMAP and CAFF in the interests of habitat protection (Danish Polar Centre).

The U.S. has the lead for this item.

4. FAUNA CONSERVATION

The conservation of Arctic fauna is a priority for CAFF. In 1992-1993, CAFF concentrated on gathering information on species identified as rare, vulnerable and endangered, and on investigating the feasibility of developing collaborative conservation management plans for particular groups of species. In 1993-1994, CAFF will continue its work on rare, vulnerable and endangered species and expand its scope to look at other species.

- a) *Review and update the CAFF list of rare, vulnerable and endangered fauna species, prepared as an action item for the 1992-1993 work plan.*
- b) *Identify particular species on the CAFF list of rare, vulnerable and endangered species to be targeted for special conservation actions. This list may be used for countries to begin consideration of how coordinated conservation actions by the affected countries can be developed under the CAFF program.*
An initial list is identified in the fauna working session report.
- c) *Share information on details and progress of recovery programs developed for endangered species such as the peregrine falcon.*
- d) *Develop a list of species of common conservation concern which are not currently listed as rare, vulnerable or endangered in two or more CAFF countries, but are of economic or ecological*

significance and could benefit from additional international conservation efforts. An initial list is identified in the fauna working session report.

Canada has the lead for items a through d.

- e) Develop a list of indicator species that will be a valuable tool for development planning and for environmental impact assessments within the Arctic countries. The list could also facilitate: 1) coordination of monitoring and research activities throughout the Arctic; 2) calibration of reporting procedures and data compatibility between countries; and 3) focusing Arctic research and monitoring on issues or species of broad international concern.*

The U.S. has the lead for this item.

- f) Collate and summarize information provided by each CAFF country relative to the state of wildlife habitat mapping.*

Russia has the lead for this item.

CAFF continued its emphasis on seabirds as priority species of common concern which would benefit from coordinated effort in research, exchange of information and development of conservation strategies. The following actions were agreed to, building on and complementing actions taken under the 1992-1993 work plan.

- g) Complete a murre conservation strategy document for approval at the 1994 CAFF meeting*
- h) Establish a working group to evaluate and develop recommendations to improve the compatibility between existing national catalog data bases for the Arctic, and to evaluate the need for a circumpolar catalog data base.*

Canada has the lead for items g and h.

- i) Establish a Circumpolar Seabird Group to promote, facilitate and coordinate research, management and conservation activities of mutual concern in the Arctic.*
- j) Establish a Circumpolar Seabird Bulletin to enhance communication and exchange of information between scientists and managers interested in Arctic seabird resources.*

The U.S. has the lead for items i and j.

5. CAFF RELATIONSHIPS WITHIN AEPS

A working paper was developed at the 1993 CAFF Working Group meeting that stressed the importance of linkages between CAFF and AMAP to foster coordination within AEPS. Recommended actions contained in the working paper include the following points:

- develop an integrated model of AEPS goals and needs to which CAFF, AMAP, EPPR and PAME

programs can be directed;

- ensure that CAFF and AMAP representatives attend and participate in each others meetings;
- establish ad hoc specialist groups when needed to coordinate specific joint CAFF-AMAP initiatives such as species lists for monitoring and compatible data base structures; and
- ensure that timetables are appropriately coordinated and that the development of assessments are integrated as both CAFF and AMAP develop.

Finalize the working paper for presentation to the AMAP Task Force and work with AMAP to prepare a joint paper for approval by CAFF and AMAP and submission to the AEPS Ministers.

The U.S. has the lead on this item.

6. INVESTIGATION OF THREATS TO FLORA, FAUNA, AND HABITATS

Develop discussion papers on threats to Arctic flora, fauna, and their habitats for consideration by CAFF at the next CAFF Working Group meeting.

Finland has the lead for this item

The papers should build on the work already done by countries in identifying and describing their concerns regarding threats to Arctic flora, fauna and their habitats as reported on for the 1992-1993 work plan. The papers would consist of further elucidation of the major threats as identified by Arctic countries, an outline of the various approaches being taken by the countries and recommendations for consideration by CAFF. CAFF may then decide to submit these recommendations to AEPS for consideration.

7. CIRCUMPOLAR DATA BASE AND INFORMATION SYSTEM

The CAFF members recognize the importance of developing a computer-based information system to facilitate and support international scientific cooperation and exchange of biological information important to the conservation of Arctic ecosystems. This information system should, as far as possible, build on and be in a format compatible with data bases already being developed by CAFF, AMAP and other Arctic organizations. As an initial step, the following actions will be taken:

- a) Develop for Alaska a prototype for a circumpolar data base.*
- b) Support international activity to produce a standardized vegetation map of the circumpolar regions of the Arctic*
- c) Establish a computer-based information system working group representing all Arctic countries*

The U.S. has the lead for items a, b, and c.

CAFF ORGANIZATIONAL AND OPERATING FRAMEWORK

The CAFF members have agreed to an administrative structure consisting of a Chair, Vice-chair, and a provisional Secretariat. The Chair will assume responsibility for the completion of the work plan action items in consultation with the lead countries. The Chair will work with the CAFF Secretariat to coordinate all CAFF activities up to and including the hosting of CAFF meetings and the preparation of reports and proceedings. Future action will include the establishment of a framework to guide CAFF in the fulfilment of its objectives and the identification of priorities.

a) Establish the Chair and Vice-chair organizational structure.

Iceland will assume the role of CAFF Chair for 1993-1994 and host for the 1994 CAFF meeting. Russia will assume the role of Vice-chair and host for the 1995 meeting.

b) Establish an interim Secretariat in Canada for a one-year trial period.

Canada will provide the initial funding for this trial period.

c) In order to provide the information and assessment called for in AEPS, the CAFF process should, at an early stage, evaluate and identify the priorities of its work, and develop a framework for the CAFF program that will enable those priorities to be adequately addressed. The necessary subprograms and guidelines for such items as data collection, storage and reporting should be included in the framework.

Norway will draft a discussion paper on this subject

RECOMMENDATIONS FOR FUTURE ACTIONS BY CAFF

The plenary sessions and the working sessions at Fairbanks generated a number of recommendations that members felt should be considered for future action by CAFF. The following summary list is included in the current work plan to highlight the more significant recommendations to be considered as new initiatives in the future. This list is not intended to represent CAFF priorities, nor does the list include every recommendation made during the Fairbanks meeting.

- Establish linkages to the U.N. Convention on Biological Diversity and other appropriate international fora with Arctic components.
- Assess management strategies in circumpolar protected areas with the aim of identifying successful management practices and procedures.
- Develop strategies for conservation of Arctic flora, fauna and habitats that do not rely strictly on establishing and maintaining protected areas.
- Include the Arctic marine environment in the identification of habitats important to maintaining diversity and conservation of Arctic flora and fauna.
- Explore and develop innovative management agreements/mechanisms for the conservation and sustainable use of Arctic flora and fauna involving indigenous peoples and appropriate governments.

- Develop appropriate means or mechanisms to ensure the effective participation of indigenous peoples in the development and implementation of CAFF and AEPS alternatives.
- Encourage participation of indigenous peoples' groups to gather and contribute information on traditional uses and values of Arctic flora and fauna and to nominate species for special concern, where appropriate.
- Examine current international agreements relating to Arctic flora and fauna to see where they can be strengthened and, if necessary, to make recommendations for their improvement.
- Develop strategies for funding CAFF initiatives.

SYNOPSIS OF SELECTED LEAD COUNTRY REPORTS

WORKING PAPER ON PLAN TO DEVELOP A CIRCUMPOLAR NETWORK OF PROTECTED AREAS (Item 1b)

LEAD: Russia

SYNOPSIS

Factors to Consider when Developing a Network

- marine component exceeds terrestrial component in area and is subject to a different legal regime including the right of countries to freely utilize the resources in their economic zones as they see fit;
- countries could restrict type of activities allowed in sensitive areas of their economic zones as means of protection
- environmental features to which Arctic species are adapted must be preserved
- because the biological cycle is slow to eliminate pollutants, at least 10% of the region should be protected to compensate
- the range of many Arctic species is vast; using a cluster principle with appropriate ecological corridors might be most advisable way to protect key habitat needed during various phases of life cycles

- ensuring the survival and development of indigenous peoples must be an integral element
- river estuaries are important habitat; rivers are transporting pollutants from the south; to fully protect the habitat, pollution flowing in must be reduced to ecologically acceptable levels

Rationale for a Network

- the Arctic is on the threshold of large-scale mineral resource development and pressures on the ecosystem and habitats of living creatures (including humans) is expected to increase
- specially protected areas (SPA's) can help minimize and prevent the adverse impacts
- the purposes of a network are to preserve:
 - natural, including biological, diversity
 - equilibrium of natural systems
 - healthy human environment
 - favourable resource potential for economic exploitation
 - traditional natural resource utilization
- establishing specially protected areas is a cost-effective way to protect the environment
- it is necessary to keep a step ahead of industrial development; this can be done by setting aside a reserve network of areas for later designation as conservation sites, preserves, national parks, etc.

A Circumpolar Network/Recommended Steps

Network should precede economic development and serve to:

- maintain ecological balance
- conserve renewable resources
- protect habitats of living organisms
- be a source of scientific information
- provide for cognitive and recreational needs

Recommended steps are:

- a) develop sets of maps depicting

- i. physical/geographical features including key habitat
 - ii. features of land and sea areas marked for economic development
- (this would provide solid theoretical basis for decisions)

b) divide region into areas and prioritize need for SPA's by function they would perform (e.g. need for buffer zones in prospective tourism and recreation areas; need for parks in regions of mineral exploitation)

c) prepare maps of natural land and water areas to be protected

Principles for Organizing an SSPA (System of Specially Protected Areas)

- circumpolar system to consist of national subsystems
- each national system (subsystem) should meet three basic criteria (preserve original ecological balance at as large a level as possible; allocate areas large enough to protect all or most of the habitat of animals needing considerable space; preserve zonal representativeness)

Features of the Network

- will represent full range of ecosystems and successional states
- can adequately regenerate natural system
- will be spatially discontinuous and multifunctional
- will reflect regional characteristics, including socio-economic conditions
- will have a legal and organizational basis to reserve areas for indigenous peoples and to exclude those areas from [non-native?] economic development without having to create new official SPA's
- should set aside lands and waters for future conservation areas

Marine Protected Areas

- mineral exploitation and pollution are two threats to marine biota; establishing protected areas can counter them
- creating marine protected areas needs a different approach because of the unique legal regime and international agreements
- one way to have protection is to have countries contiguous to a sensitive area collaborate (e.g. Russia/America, Russia/Norway, Canada/Greenland)

- in such areas, could reach agreements on research and resource use, taking into account national and local population interests

Protecting Arctic Islands

- federal multipurpose reserves are recommended in light of current socio-economic conditions
- example of Successful Solution to Arctic Environmental Problems (Taimyr Peninsula)
 - a Large Arctic Nature Reserve on the Taimyr Peninsula was created on May 11, 1993
 - it consists of different interconnected areas and is based on the macrocluster principle (many large areas linked), an extension of the microcluster principle
 - using the cluster principle, it was possible to protect 13% of the total west-east extent of the Russian Arctic which could not have been achieved if the Reserve consisted of a single block

Protected Areas and Indigenous Peoples

- protected areas can be used to ensure survival of northern peoples who need large areas for their lifestyle and to practice traditional forms of natural resource utilization
- the Biosphere Reserve model could work since MAB's are intended to promote economic development while preserving the cultural and physical environment;
- within MAB's, special areas for traditional use and resource exploitation could be set up where peoples of the north could carry on their traditional activities; resource-conserving technologies could be developed for the industrial exploitation of the region

In concluding the paper, Russia reaffirms its responsibility for this portion of the CAFF Work Plan and states that it will follow the recommendations of the Reykjavik meeting on the next steps.

PROPOSAL FOR A PILOT PROJECT ON TRADITIONAL ECOLOGICAL KNOWLEDGE OF BELUGA WHALES (Item 2A):

LEAD: Canada/USA

(Background: The proposal divides the project into two phases: field work and seminar. Results will

be presented to CAFF, the Senior Arctic Affairs Officials and to the AEPS Ministerial Meeting. The project will take approximately 1.3 years and cost an estimated \$452,595 CD (\$331,000 US). Results will be published).

SYNOPSIS:

Problem

- Traditional Ecological Knowledge (TEK) is a valuable source of natural history data but must now compete with other sources of information and demands on the time of the hunter and gatherer
- belugas are an important species to indigenous peoples in study region
- information will be gathered in the context of the "deeper paradigm in which TEK is held." (Aspects of paradigm include taxonomy of belugas and their environment, relationship of belugas to their surroundings, spiritual and cultural dimensions of human interaction with belugas)
- the project will "establish a framework for future research and incorporation of TEK, fulfilling its role as a pilot project in the AEPS process".
- there has been no concerted effort to document TEK around the circumpolar north or how it will contribute to circumpolar conservation and resource management
- the scientific record for belugas in the Chukchi and northern Bering Sea is good but has many gaps which TEK would likely fill

Objectives and Significance

Field Research Phase:

- will document TEK particularly with reference to mapped information and the local context for TEK
- will show TEK as
 - a) coherent world view with internal associations and external relationships that may not have direct parallels in western science;
 - b) embodying a holistic view of ecology;
- research will not be encyclopedic in scope but will maintain a strategic focus - will not require extensive oversight because it is not full-scale research project

Seminar:

- will evaluate the field work and discuss TEK, TEK research and the role of TEK in management, conservation, impact assessment and research particularly as these relate to the AEPS;
- will improve understanding, management and conservation of beluga whales across the circumpolar region
- will provide lasting benefit by leading the way for similar work on other species and issues in the Arctic

Overall

- will direct the future of TEK work within the AEPS
- will directly aid work of CAFF, PAME and task force on Sustainable Development and Utilization, EPPR and AMAP
- will make quarterly reports to other indigenous observer groups and to AEPS Working Groups and task force through Indigenous Secretariat

Relation to Current Knowledge

- satellite-tag data show some surprising results and there is "a great deal of more specific information that may challenge our current understanding"
- study will contribute to scientific understanding and allow for detailed comparison between the results of scientific inquiry and the compilation of observations by indigenous hunters

Relation to Other Work of the Principle Investigator and to Work Elsewhere

- this work is related to other work of the principle investigator (e.g. work on the Indigenous People's Seminar, Reykjavik)
- there is TEK research on Belugas for northern Quebec, West Greenland, eastern Canadian Arctic and Inuvialuit Region of western Canada
- scientific research has been done in same areas and in the study area (Chukchi and northern Bering Sea region)
- this work will complement existing work

- "the information gathered "may help address some of the assumptions made in calculating Potential Biological Removal (PBR) for these stocks, which will likely become a controversial issue if reductions in subsistence harvests are proposed"

Methodologies:

Research Phase: village workshops focusing on mapping and related data on specifics of belugas including migration, behaviour, interactions with humans, mortality etc.) A final report will be prepared and presented to each village for review and comments.

Seminar Phase: five-days with representatives from other beluga whale TEK studies, AEPS Working Groups and indigenous observer groups; presentation of papers

Documentation:

- the field research phase will produce maps and a narrative report for broad use
- final report "will be extensive, rigorous, and detailed...will be published in a peer-reviewed journal or other place befitting major research project..."
- the seminar will produce a report to the AEPS.
- rigorous controls will be placed on use and distribution of data

REPORT ON COMPILATION AND SUMMARY OF STANDARDS FOR ARCTIC RESEARCH (Item 2c)

LEAD: USA

SYNOPSIS:

- at Fairbanks, the USA agreed to compile and compose draft ethical principles for the conduct of Arctic research but that task proved premature and it was decided to compile and assess common features of existing statements instead.
- Canada and the USA provided most of the material so paper has North American focus.
- work to develop ethical principles for Arctic research began in earnest in the 1980's and the ACUNS (Association of Canadian Universities for Northern Studies) produced a set of principles and general provisions in 1982. They cover:
 - need to protect privacy and dignity of host communities and research subjects

- guidelines for obtaining informed consent (including restricting undue pressure)
- need to report results to community and right of community to suspend research

- for the most part, subsequent work in this field retains, strengthens and builds on, ACUNS basic provisions

- one notable exception is the IARPC (US Interagency Arctic Research Policy Council)

- in the late 1980's IARPC dropped statement prohibiting undue pressure to obtain consent and deleted provision for communities to be offered the opportunity to review and comment on preliminary results before finalization.

- the IARPC added requirement for community involvement in the design and implementation of research projects

- the need for community involvement has been developed during the 1990's

- in a 1993 report prepared for the Dene Nation, a "participatory research model" is emphasized. This means that all aspects of the project from initial planning to final product would be a joint activity between researchers and community)

- another shift has been the move to more legally binding agreements negotiated between researcher and community away from earlier "moral suasion" approach

- responding to these shifts could add considerably to funding and front-end community/researcher planning requirements but could end up being beneficial for researcher and community

REPORT ON FLORA AT RISK IN THE CIRCUMPOLAR ARCTIC - 1994 CAFF LISTS (Item 3b))

LEAD: Canada

(Background: For the 1993 CAFF meeting in Fairbanks, a master list of rare, vulnerable and endangered flora of the Arctic was developed. From that list, a second list was compiled - flora identified as at risk in more than one CAFF country. Both the master list and the list of flora at risk in more than one CAFF are updated for 1994)

SYNOPSIS

Integrated Circumpolar Lists

- lists of vascular plants were received from all CAFF countries; bryophytes from five countries; lichens from four countries and information entered into a data base

- integrated lists were developed for vascular plants, bryophytes and lichens

- 878 vascular plants, 398 bryophytes and 113 lichens are now listed

- the taxa on each national list were entered into a computer database to produce the integrated lists of vascular plants, bryophytes, and lichens. The fields included in the databases are:

Taxon name
Taxon authority
Infra taxon name
Infra taxon authority
Synonyms
Family (vascular plants only)
Conservation status
Country

- some of the problems interpreting the integrated lists include:

Nomenclatural inconsistencies

Definition of rarity (some based it on total range, others on national, subnational zones or regions; in compiling the integrated lists, these differences were not taken into consideration, but need to be addressed in the future

Differences in designating conservation status although terms generally were used as defined by the IUCN

- the listed species include (1) arctic endemics and other species of very restricted distribution, (2) arctic species that are rare in one or more parts of their range but common elsewhere in the Arctic, and (3) peripheral species that enter the Arctic usually from boreal or subarctic regions. The

conservation of these various elements may need different strategies but all are important components of the circumpolar arctic flora and all require consideration.

Plants at Risk in More than One Country

- the following integrated country lists reveal taxa that are at risk in more than one country

- the unexpectedly large number of taxa listed independently by two or more countries illustrates the urgent need for further refinements of the listing process and the study of factors that are placing these taxa at risk

- all taxa need to be mapped so that different distribution patterns can be recognized and immediate attention given to high risk groups such as the endemics. Detailed mapping would also allow the recognition of centres of concentration of taxa at risk and permit the correlation of these centres with areas already enjoying conservation.

Vascular plants at risk in more than one country

Aconitum delphinifolium (Canada, Russia)
Allium schoenoprasum var. *sibiricum* (Canada, Finland)
Alnus incana (Canada, Russia)
Amerorchis (Canada, Greenland)
Andromeda polifolia (Greenland, Iceland)
Anemone multiceps (Canada, Russia)
Arabidopsis salsuginea (*Theilingiella salsuginea*) (Canada, Russia)
Arenaria humifusa (Russia, Sweden)
Artemisia arctica ssp. *arctica* (Canada, Russia)
Asplenium trichomanes-ramosum (*A. viride*) (Canada, Russia)
Atriplex gmelinii (Canada, Russia)
Botrychium boreale (Norway, Russia)
Botrychium simplex (Greenland, Iceland)
Calla palustris (Canada, Russia)
Caltha natans (Canada, Russia)
Carex bicolor (Russia, Sweden)
Carex diandra (Canada, Russia)
Carex disperma (Canada, Greenland, Russia)
Carex heleonastes (Iceland, Russia)
Carex limosa (Canada, Russia)
Carex mackenziei (Greenland, Russia)
Carex media (Canada, Russia)
Carex paleacea (Canada, Russia)
Carex petricosa (Canada, Russia)
Carex rostrata (Greenland, Russia)
Carex trisperma (Canada, Greenland)
Catabrosa aquatica (Greenland, Russia)
Chamorchis alpina (Finland, Russia)
Chrysosplenium tetandrum (Greenland, Sweden)
Crepis paludosa (Iceland, Russia)
Cystopteris montana (Greenland, Russia)
Eleocharis palustris (Greenland, Russia)
Eleocharis uniglumis (Greenland, Russia)
Equisetum hyemale (Greenland, Russia)
Erigeron hyperboreus (Canada, Russia)
Erigeron muirii (Canada, United States)
Galium boreale (Canada, Greenland)
Gentiana nivalis (Canada, Russia)
Gentianella amarella ssp. *acuta* (Canada, Greenland)
Gentianella tenella (Finland, Norway)
Isoetes lacustris (Greenland, Iceland, Russia)
Juncus gerardii (Greenland, Iceland)
Ligusticum scothium (Canada, Russia)
Limosella aquatica (Canada, Russia)

Lysmachia thyrsoflora (Canada, Russia)
Myriophyllum verticillatum (Canada, Russia)
Oxalis acetosella (Iceland, Russia)
Paris quadrifolia (Iceland, Russia)
Phegopteris connectilis (Canada, Russia)
Polygonum alpinum (P. alaskanum) (Canada, Russia)
Polypodium virginianum (Canada, Greenland)
Polystichum lonchitis (Canada, Russia)
Potentilla multifida (Canada, Sweden)
Primula egaliksensis (Greenland, Iceland, Russia)
Puccinellia capillaris (Norway, Russia)
Ranunculus sulphureus (Finland, Sweden)
Rumex krausei (Russia, United States)
Sagina caespitosa (Iceland, Norway, Sweden)
Salix arbuscula (Finland, Russia)
Salix bebbiana (Canada, Russia)
Sparganium angustifolium (Canada, Russia)
Spergularia canadensis (Canada, Greenland)
Subularia aquatica (Canada, Russia)
Trisetum subalpestre (Finland, Sweden)
Utricularia ocheoleuca (Canada, Russia)
Viburnum edule (Canada, Russia)
Viola selkirkii (Canada, Greenland)
Zostera marina (Canada, Greenland)

Bryophytes at risk in the more than one country

Arctoa andersonii (Russia, Sweden)
Arnellia fennica (Finland, Sweden)
Bryoerythrophyllum alpigenum (Russia, Sweden)
Bryoerythrophyllum ferruginascens (Finland, Russia, Sweden)
Bryum cryophilum (Finland, Iceland)
Bryum rutilans (Finland, Sweden)
Campylopus schimperi (Russia, Sweden)
Cirriphyllum cirrosum (Finland, Iceland)
Cladopodiella francisci (Russia, Iceland)
Cryptocolea imbricata (Russia, Sweden)
Desmatodon systylius (Finland, Sweden)
Encalypta brevipes (Iceland, Russia)
Grimmia caespiticia (Russia, Sweden)
Grimmia elongata (Iceland, Russia)
Grimmia plagiopodia (Iceland, Sweden)
Grimmia sessitana (Iceland, Sweden)
Haplomitrium hookeri (Iceland, Russia)
Hydrohypnum mollis (Finland, Russia)

Lophozia pellucida (Russia, Sweden)
Marchantia aquatica (Iceland, Russia)
Moerckia blyttii (Iceland, Russia)
Orthotrichum pellucidum (Finland, Russia, Sweden)
Oxystegus tenuirostris (Iceland, Russia)
Pohlia atropurpurea (Russia, Sweden)
Psilopilum cavifolium (Finland, Iceland, Sweden)
Riccia cavernosa (Iceland, Russia)
Seligeria oelandica (Russia, Sweden)
Tayloria splachnoides (Russia, Sweden)
Tetraplodon pallidus (Iceland, Russia)
Trematodon laetevirens (Finland, Sweden)

Lichens at risk in more than one country

Pilophorus robustus (Finland, Sweden)

**REPORT ON FAUNA AT RISK IN THE CIRCUMPOLAR ARCTIC - 1994 CAFF LISTS
(ITEMS 4a,4b)**

LEAD: Canada

(Background: As part of the 1992-93 CAFF Work Plan, Canada compiled a circumpolar list of rare, vulnerable and endangered fauna based on input from most of the CAFF countries, and provided a description of the systems to classify levels of risk in place in each country. At Fairbanks, Canada agreed to re-visit the lists and descriptions of classification systems and to provide CAFF with an update)

SYNOPSIS

CAFF Overall Lists of Rare, Endangered and Threatened Fauna - by Country - 1994

- the computerized Fauna Data Base developed as part of the 1992-93 CAFF Work Plan now contains 238 records.

- the data base contains the following fields:

Country

Phylum
Subphylum
Class
Order
Genus
Species
Subspecies
Population
Common English Name
Common Name in Other Language
National Status
Global IUCN Status
Year of Designation
Memo Field

- Each country has its own classification system to describe level of endangerment, as follows:

Canada: a five-level system applied to indigenous species, subspecies or geographically separate populations which are classified by descending level of risk as:

Extinct: formerly indigenous to Canada that no longer exists anywhere

Extirpated: no longer exists in the wild in Canada but occurs elsewhere

Endangered: threatened with imminent extinction or extirpation throughout all or a significant portion of its Canadian range

Threatened: likely to become endangered if factors affecting its vulnerability are not reversed

Vulnerable: particularly at risk because of low or declining numbers, small range or other reasons, but not "threatened"

Finland: a four-level system consisting of species which are classified by descending level of risk as:

Disappeared: actively reproducing populations have disappeared from Finland

Endangered: actively reproducing populations in danger of disappearing from Finland unless causes of decline are eradicated

Vulnerable: long-term existence of actively reproducing populations in Finland is uncertain

In-Need of Monitoring: declining, rare and poorly known and not placed in another class

Iceland: an eight-level system (adaptation of updated IUCN system with addition of "x")

Extinct (EX): no longer known to exist in the wild

Endangered (E): in danger of extinction if causal factors continue

Vulnerable (V): likely to move into "endangered" if causal factors continue
Rare (R): small world populations not at present endangered or vulnerable but at risk
Indeterminate (I): listable but insufficient information to assign category
Insufficient Known (K): suspected of being listable
In Need of Monitoring (NM): large but rapidly declining populations
'A': not presently threatened by commercial harvesting activities but would be if such activities started

Norway: four classes in the data-base

Endangered (E): in danger of extinction if causal factors continue
Vulnerable (V): likely to move to "endangered" if causal factors continue
Rare (R): small world populations not at present endangered or vulnerable but at risk
'NC': not classified?

Russia: six-level updated IUCN system but retaining some categories from the 1988 classification system

Extinct (EX): no longer known to exist in the wild
Endangered (E): in danger of extinction if causal factors continue
Vulnerable (V): likely to move to endangered if causal factors continue
Rare (R): small world populations not at present endangered or vulnerable but at risk
'T': insufficiently known
'OE': out-endangered

Sweden: four-level system in descending level of risk

Vanished: vanished as reproducing populations from Sweden
Endangered: subject to great risk of disappearance if threats not removed
Vulnerable: long-term survival not secure for variety of reasons
Rare: at risk due to small populations, geographic distribution or other reasons

USA: two systems (one under authority of USA Endangered Species Act, other from US Fish and Wildlife Service)

USA Endangered Species Act

Endangered: Danger of extinction throughout all or a significant portion of its range
Threatened: likely to become endangered within foreseeable future

US Fish and Wildlife Service

Category 1: eligible for listing and for which significant information available
Category 2: potential for listing but conclusive biological data not currently available
Category 3a: there is pervasive evidence that the species is extinct
Category 3b: under common taxonomic understanding, name does not meet definition

of "distinct taxon" contained in Endangered Species Act
Category 3c: species has proven to be more common than previously thought or no threats to the species has been identified

- there remain several unresolved issues re: the list, including: lack of fish species on list; whether to include invertebrates, neotropical migrants, and species without seasonable centre of distribution in the Arctic on the list; lack of standard classification system for CAFF
- the lists of rare, vulnerable and endangered fauna species, by Country, is appended as Appendix I to this Report

1994 CAFF List I - Rare, Vulnerable and Endangered Fauna Listed by More Than One Country

- forty-one species are listed by more than one country.
- species have been ranked according to a numerical weighting scale based on number of countries listing the species and level of risk assigned by the countries
- after applying the rating scale to the complete list of forty-one species, the ten with the highest numerical rating, in descending order, are:

Peregrine Falcon
Right Whale
Lesser White-fronted Goose
Bowhead Whale
Wolverine
Humpback Whale
Blue Whale
White-tailed Eagle
Fin Whale
Gyr Falcon

(Note: not all species occur in all countries but each has a significant regional geographic range within the Arctic)

- the CAFF List I of Rare, Vulnerable and Endangered Fauna Listed by More than One Country is appended as Appendix II to this report

REPORT ON ENDANGERED SPECIES RECOVERY PROGRAMS IN CAFF COUNTRIES (Item 4c)

LEAD: Canada

SYNOPSIS:

Canada, Iceland, Russia and the USA provided new input. Information on the others came from the CAFF 1992-1993 Report of the Working Group which provides detailed information on conservation initiatives in CAFF countries. Results are:

Canada: Has a Committee on the Status of Endangered Species in Canada (COSEWIC) that assigns risk levels, and a Recovery of Nationally Endangered Wildlife (RENEW) committee which coordinates recovery efforts for terrestrial vertebrates. The Federal Department of Environment and World Wildlife Fund (WWF-Canada) contribute to an Endangered Species Recovery Fund which provides some financial support. Recovery and research work has been done on: Peregrine falcon (anatum and tundrius), Harlequin Duck, (eastern population), Eskimo Curlew; Peary Caribou, Wolverine (eastern population), Beluga (Eastern Arctic, South East Baffin), Northern Bottlenose Whale, Narwhal, Great Gray Owl, Humpback Whale, Fin Whale, Harbour Porpoise, Grizzly Bear.

Finland: Arctic Fox, Snowy Owl, Peregrine Falcon and Gyrfalcon were declared in need of special protection. A rescue plan was prepared for the Arctic Fox. World Wildlife Fund has established a monitoring system for Lesser White-fronted Goose (*Anser erythropus*) and Peregrine Falcon. Higher penalties and more effective conservation measures were put in place for the Snowy Owl.

Iceland: The White-tailed Eagle has been monitored for over 30 years and recovery efforts appeared to be successful but after an initial increase, the population has stabilized at a low level. Horned Grebe has shown a marked decline and a monitoring scheme has been initiated.

Norway: Sweden, Finland and Russia have initiated cooperation to protect habitat for the Brown Bear and Wolf which have seen dramatic declines. Recovery efforts have seen the Barnacle Goose population rise dramatically from its low in 1945. Since habitat protection, the Polar Bear populations have approximately doubled.

Russia: A recovery plan for the Siberian Crane has been approved and is underway. It is also the subject of an agreement of more than ten countries drawn up under the framework of the Bonn Convention.

Sweden: Regulations are in place to promote recolonization by large predators. A hunting license requirement was imposed for the Brown Bear in 1981 and the population is slowly growing and recolonizing. Hunting of wolverine is suspended. Wolves are frightened off to avoid cross-mating and to keep their genetic integrity.

USA: A recovery team is in place to stem the 14% per annum decline in Spectacled Eiders and revitalize the population. The Aleutian Canada Goose, and the American and Arctic Peregrine Falcons have been the subject of recovery plans. All have seen population increases and their level of risk either has, or will be, upgraded.

PROPOSED CAFF LIST OF INDICATOR SPECIES (Item 4e)

LEAD: USA

(Background: AMAP has produced a list of indicator species to monitor contaminant levels. At the 1993 Fairbanks meeting, the USA offered to produce a CAFF list of indicator species that will be shared with AMAP)

CAFF List:

The list identifies species of mammals, birds and fish as High, Intermediate or Low Priority. Species on the AMAP list are marked with "*".

Priority	Mammals	Birds	Fish
High	Ringed Seal*	T-Billed Murre*	Arctic Charr
	Polar Bear*	Common Eider*	Arctic Cod
	Walrus*	Glaucous Gull*	Whitefish
	Beluga Whale*	Gyrfalcon*	
	Caribou/Reindeer*		
	Arctic Fox		
Inter.	Barren-ground	Northern Fulmar*	
	Grizzly/Brown	Little Auk/Dovekie*	
	Collared Lemming	Black-legged	
	Brown Lemming	Kittiwake	
	Arctic Hare	Brant Goose	
		Snowy Owl*	
	Rock Ptarmigan*		
Low	Wolverine	Red-throated Loon	
	Muskox	Least Auklet	
	Tundra Vole	Common Murre	
		Ruddy Turnstone	
		Sanderling	
		Dunlin	
		Lapland Longspur	
		Snow Bunting	

WORKING PAPER ON WILDLIFE HABITAT MAPPING (Item 4f)

LEAD: Russia

SYNOPSIS

Introduction

- the term 'habitat' has different meanings depending on the discipline
- a circumpolar habitat map can be used as the basis for inventorying, assessing, investigating and conserving fauna
- proposed scale 1:2.5m. and 1:4m.
- habitat mapping is being done because of necessity (using only geographic distribution gives insufficient information on animal behaviour and animal/habitat interrelationships)
- habitat mapping differs from landscape mapping which can fail to give sufficient detail on animal use
- vegetation maps should form the basis of habitat maps
- vegetation maps should be correlated with habitat types
- anthropogenic influences should be mapped (or at least annotated)
- habitat characteristics should be mapped using geobotanical and geomorphological maps as the base
- habitats should be mapped and classified with provinces, regions, subzones and zones
- habitat type maps should depict habitat conditions (species distribution and abundance would then be added)

Recommended process for reflecting fauna distribution

- a) list the fauna occurring within each habitat type
- b) prepare latiles of faunal frequency, population density and seasonal distributions
- c) rechart other parameters (e.g. physio-geographical regions, administrative boundaries)

d) create the legend by territory type beginning with those territories that have been subject to most human transformation

-this material can be used for a variety of purposes (e.g. visual comparison, cluster analysis)

-the maps should also be able to reflect climatic conditions at any stage as well as hydrologic data

-another series of maps should also be developed on land-use patterns to show anthropogenic influences and to permit an analysis of their effects

-a layer scheme is proposed to develop the legends of the wildlife habitat groups. The proposed order is hierarchical and would allow all the data to be reflected compactly and in correct hierarchical order and permit analysis

Components of Layer Scheme:

- types of animal habitats
- relief
- hydrographical/hydrological regime
- climatic data
- anthropogenic changes/influences

Uses of the Maps

There are two main uses for such maps:

a) to depict environmental characteristics of animal habitat

b) to serve as a basis to collect, interpret and analyze faunal information in relation to distribution

-maps could be used as the basis for habitat modification

-maps could be the basis to compile complex ecosystem maps

-maps are useful for biodiversity conservation because they could serve as the basis for developing faunal population maps

-maps are useful for endangered species programs and to show which areas are in need of special conservation measures

-maps could be used for environmental impact assessments

- this type of map can serve to shift thinking of conservationists to an ecosystem approach

where main environmental characteristics are reflected cartogeographically

The remainder of the paper describes animal mapping in Russia and the layering principles, and gives an overview of the information received from some CAFF countries

REPORT OF THE CAFF CIRCUMPOLAR SEABIRD WORKING GROUP (Items 4g,4h,4i,4j)

LEAD: USA/Canada

SYNOPSIS:

As per the decision of the Fairbanks CAFF meeting in 1993, the Circumpolar Seabird Working Group was formed and met in early 1994 in the USA. Canada, Finland, Greenland, Iceland, Norway, Russia and the USA were represented. The group confirmed its goal as: to promote, facilitate and to coordinate seabird research, management and conservation activities among the circumpolar countries by improving the communication between scientists and managers concerned with northern seabirds. Key points from the five agenda items are as follows:

1. Overview of Seabird Resources

Representatives gave overviews of the seabird situation in their countries. Some of the highlights were:

- population trends for many species were given. Some examples are: except for a few populations, murre are declining in five countries; population data and trends are needed for the Little auk (dovekie); eiders are on the decline. For many species and in several countries, little is known about population levels and trends
- countries highlighted some concerns for seabirds. They include: decline in food supply (forage fish stocks), harvest pressures; oil spills; human disturbance and development; fisheries practices (e.g. gillnet mortality); increasing interest in developing socio-economic uses for seabirds
- some countries have adequate monitoring schemes but many do not

2. Circumpolar Seabird Working Group Charter

The Charter sets out the Goal and Objectives of the CSWG and describes its operations. The

Objectives are: to identify current and emerging seabird conservation, management and research problems affecting the Arctic and corresponding information needs; to facilitate information publication and exchange; to facilitate using standard objectives, methods and data analyses for similar studies of seabirds in the Arctic; to facilitate developing cooperative research and management projects and plans for circumpolar seabird problems of mutual concern; to develop an integrated package of cooperative seabird activities or initiatives for the CAFF annual work plan;

3. Draft International Murre Conservation Strategy (Ref. Item 4g)

Introduction

Murres are seabirds that inhabit coastal and offshore regions of all circumpolar countries. A number of anthropogenic influences directly or indirectly cause decreased survival or breeding success of murre populations, and by virtue of their biology and ecology, murre individuals and populations are particularly vulnerable. As a result of their migratory or dispersal patterns, populations of murres are usually shared by one or more circumpolar countries. Thus, effective conservation of murre populations requires a coordinated international effort, such as is allowed within the CAFF framework.

These facts were recognized at the inaugural meeting of CAFF in Ottawa, Canada, April 1992, at which time participants agreed to incorporate into CAFF workplans the production of an International Murre Conservation Strategy.

Methods

Work began in 1992 toward formulation of a draft conservation strategy with Canada playing a coordinating role. In September 1992 Canada circulated a draft annotated outline of the Strategy. Comments on the draft were received and incorporated into a revised annotated outline. Discussions at the CAFF meeting in Fairbanks, Alaska in May 1993 and at the Circumpolar Seabird Working Group meeting in Sacramento, California in January 1994, and submissions from some signatory countries, have provided further input.

Results

Based on input received from all phases of the process reviewed above, Canada has produced a draft strategy document to be tabled for discussion at the 1994 CAFF meeting in Reykjavik, Iceland.

Executive Summary of Draft Murre Conservation Strategy and Action Plan

There are two species of Murre: the Common Murre or Common Guillemot, which frequents more southern areas, and the Thick-billed Murre or Brunnich's Guillemot, which is a more Arctic bird. Although the objectives of murre conservation may vary from country to country, effective conservation requires a coordinated international effort.

The goal of this strategy and action plan is to facilitate circumpolar implementation of initiatives to conserve, protect and restore murre populations in the Arctic. To achieve this goal, the draft recommends that signatory nations undertake a variety of actions, the most salient of which are as follows:

- Consumptive uses of murrens will be managed so that they are sustainable
- Sustainable, environmentally sound, non-consumptive use will be promoted and regulated
- Management plans will be developed and implemented for specific areas of tourism activity or potential
- Murre habitats will be given legislative protection nationally and special designation internationally
- The "Important Bird Areas" system developed by BirdLife International will be used to highlight areas of concern for murre populations
- Programs aimed at reducing oil pollution in marine areas used by murrens will be mounted
- Mechanisms will be sought to reduce negative impacts of interaction between murrens and fisheries
- Communications and consultation initiatives will be undertaken to gain the support of special interest groups, managers of other resources and the general public
- A coordinated research and monitoring program will be undertaken and joint reports on the status of populations and on other research results will be issued periodically
- Highest priority will be given to those actions that directly address currently unacceptable levels of murre mortality, including requisite consultation and enforcement
- Managers with jurisdiction for murre conservation will use their best efforts to influence other jurisdiction as required to effectively implement the actions listed herein

4. Circumpolar Seabird Colony Database (Ref: Item 4h)

- the purpose of the data base is to bring together seabird colony information from all CAFF countries
- it will enhance conservation efforts by giving a circumpolar perspective to seabird populations as opposed to the national perspective typically in place now

- the CAFF Circumpolar Seabird Working Group (CSWG) has endorsed the concept of the circumpolar data base although the format for the data base still needs to be worked out
- compatibility of data held in national data bases will be important and some core data fields have been proposed
- several options for implementing the circumpolar data base are being looked at, including a proposal of BirdLife International (BI).

5. Circumpolar Seabird Bulletin (Ref: Item 4j)

- the purpose of the bulletin is to improve communication and exchange of seabird information between scientists and managers interested in northern seabirds
- it contains short descriptions of ongoing seabird investigations in the Arctic, proposed investigations, seabird management issues and conservation activities
- the first issue is available for the Reykjavik CAFF meeting
- about 500 copies will be distributed

6. New Seabird Initiatives

New CAFF CSWG initiatives and Lead Countries are:

- develop list of indicator seabird species to be presented to AMAP (Canada)
- draft a plan to develop a circumpolar seabird colony monitoring network (Canada)
- prepare a report summarizing the management and regulation of seabird hunting and other takings (Greenland, USA)
- develop a circumpolar murre banding plan and database (Norway, Iceland, Canada)
- develop a directory of seabird experts of the circumpolar region (USA)
- develop a list of seabird species of concern for use by persons working on CAFF rare and endangered fauna items
- draft report on existing authorities and guidelines on human disturbances to seabirds (USA, Canada)

The next meeting of the CSWG will be hosted by Norway in about March, 1995

WORKING PAPER ON PROPOSALS FOR CAFF/AMAP LINKAGES (Item 5)

LEAD: USA

(Background: In late 1992, CAFF proposed the need to work out some sort of cooperative agreement with AMAP and Canada drafted a discussion paper on the topic. It was delivered to the Fairbanks meeting in 1993 and has been re-drafted, but not finalized, by a special working group under the lead of the USA.)

RECOMMENDATIONS

- close linkages are essential
- both programs need to produce information for future assessments of effects of contaminants on biological systems
- CAFF and AMAP should take each others work and priorities into account
- both programs need to consider data needs for assessment of effects of contaminants and other perturbations as the programs develop
- both CAFF and AMAP should take other government commitments into account (e.g. various Conventions and Declarations) and, where relevant, use data and models from MAB
- both programs should include, where practical, species and ecosystem components being studied by the other
- national programs should be encouraged to adopt CAFF and AMAP protocols on data
- both should integrate indigenous knowledge
- both should make full use of existing international Arctic environment-related programs
- both programs should also agree on the compatibility and interchangeability of data, and their contribution to circumpolar and global monitoring and research"

- a comprehensive integrated statement of AEPS goals should be developed that would assist both programs in setting program monitoring needs to ensure that the AEPS goals are reached
- CAFF and AMAP should attend each others meetings
- the CAFF and AMAP Secretariats should develop coordinated species lists, compatible database structures and other programs when possible and appropriate and coordinate timetables and development of assessments

APPENDIX

AGENDA OF THE REYKJAVIK MEETING

AND

LIST OF PARTICIPANTS

AGENDA

THIRD MEETING OF THE INTERNATIONAL WORKING GROUP FOR THE CONSERVATION OF ARCTIC FLORA AND FAUNA (CAFF)

SEPTEMBER 26-28, 1994

SCANDIC HOTEL LOFTLEIDIR
REYKJAVIK, ICELAND

AGENDA

Sunday, September 25

14:00 - 16:30 p.m. Facilities Will be Available for Informal Discussions
Among Specialists

17:30 - 19:00 p.m. Dinner Meeting - CAFF National Contacts

19:30 - 22:00 p.m. Registration and Open House Reception

Day 1 - Monday, September 26

08:00 - 09:00 a.m. Registration (con't); coffee

09:15 - 09:45 a.m. Opening Addresses

09:45 - 10:30 a.m. Country Overviews

- Canada
- Finland
- Greenland
- Norway

10:30 - 11:00 a.m. Coffee

11:00 - 11:45 a.m. Country Overviews (con't)

- Russia
- Sweden
- USA
- Iceland (Host)

11:45 - 12:00 p.m. Synopsis of Overviews (Chair)

12:00 - 13:30 p.m. Lunch

CAFF 1993-94 Work
Plan Item

13:30 - 14:15 p.m. Rare, Vulnerable and Endangered Plants-Status Report (Canada) (3)

Circumpolar Vegetation Mapping-Status Report (USA) (3)

Recommendations, Discussion, Future Actions

14:15 - 15:00 p.m. Alaska Prototype Circumpolar Data Base-Status Report (USA) (7)

Greenland's Vegetation Project (Greenland)

15:00 - 15:30 p.m. Coffee

15:30 - 17:00 p.m. Rare, Vulnerable and Endangered Fauna-Status Report (Canada) (4)

Species of Concern - Status Report (Canada) (4)

Wildlife Habitat Mapping - Status Report (Russia) (4)

Recommendations, Discussion, Future Actions

17:00 - 17:15 p.m. Synopsis of Decisions Reached (Chair)

Day 2 - Tuesday, September 27

08:00 - 08:30 a.m. Coffee

08:30 - 09:15 a.m. Indigenous Peoples Pilot Mapping Project-Status Report (Canada/USA) (2)

Ethical Principles for Arctic Research-Status Report (USA) (2)

Recommendations, Discussion, Future Actions

09:15 - 09:45 a.m. Report on Indigenous Peoples' Knowledge Seminar (Indigenous

Peoples Organizations)

CAFF 1993-94 Work
Plan Item

- 09:45 - 10:15 a.m. Subsistence Within a Conservation Framework (Greenland)
- 10:15 - 10:30 a.m. Coffee
- 10:30 - 12:15 a.m. Habitat Protected Area Report- Status Report (Norway) (1)
- Development of a Protected Area Network-Status Report (Russia) (1)
- Habitat Conservation Outside Protected Areas (Sweden)
- Recommendations, Discussion, Future Actions*
- 12:15 - 12:30 p.m. Synopsis of Decisions Reached (Chair)
- 12:30 - 13:30 p.m. Lunch
- 13:30 - 14:00 p.m. Threats to the Arctic Ecosystem-Status Report (Finland) (6)
- Recommendations, Discussion, Future Actions*
- 14:00 - 14:45 p.m. Report of CAFF Seabird Working Group (USA) (4)
- Murre Conservation Strategy (Canada) (4)
- Recommendations, Discussion, Future Actions*
- 14:45 - 15:15 p.m. Presentations by Arctic Environmental Protection Strategy Programs
(AMAP, PAME, EPPR)
- 15:15 - 15:30 p.m. Coffee
- 15:30 - 16:30 p.m. CAFF Framework (Norway, CAFF Chair, Secretariat) (8)
- Recommendations, Discussion, Future Actions*
- 16:30 - 17:00 p.m. New Initiatives for CAFF
- 17:00 - 17:15 p.m. Synopsis of Decisions Reached (Chair)
- 19:00 p.m. CAFF Reception and Dinner

Day 3 - Wednesday, September 28

08:00 - 08:30 a.m. Coffee

CAFF 1993-94 Work
Plan Item

08:30 - 09:00 a.m. Reports of CAFF Chair, Vice-Chair, Secretariat (8)

09:00 - 10:30 a.m. Presentations by Observers

Recommendations, Discussion, Future Actions

10:30 - 11:00 a.m. Coffee

11:00 - 12:15 A.M. Report/Recommendations-CAFF Linkages with Other Conservation Organizations (Secretariat)

CAFF within the AEPS - Future Directions, Ministerial Preparations (Chair)

Recommendations, Discussion, Future Actions

12:15 - 12:30 p.m. Synopsis of Decisions Reached (Chair)

12:30 - 14:00 p.m. Lunch

14:00 - 15:15 p.m. CAFF Management and Organization (Chair, Vice-Chair, Secretariat)

- Future and Funding of the CAFF Secretariat and Program
- Function of Chair/Vice-Chair
- Locations/hosts for 1996, 1997 CAFF Meetings
- Establishment of CAFF Specialist Working Groups

e.g. Rare, Vulnerable, Endangered Species?
Protected Area Network?
Threats?
Species Conservation?
Vegetation?
AEPS Input?

15:15 - 15:30 p.m. Coffee

15:30 - 16:00 p.m. CAFF Management and Organization (Chair, Vice-Chair, Secretariat) (Con't)

16:00 - 17:00 p.m. 1994-95 CAFF Work Plan

17:00 - 17:30 p.m. Closing Addresses/Adjournment

Thursday, September 29

08:30 a.m. Excursion to Gullfoss, Geysir and Thingvellir National Park as Guests of the Government of Iceland

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Third Annual Meeting
Reykjavik, Iceland
25-28 September, 1994**

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