CAFF Workshop on

Conservation of Migratory Arctic Birds

Songli, Norway, 10-11 September 2000

SUMMARY REPORT

CAFF Technical Report No. 8

landbouw, natuurbeheer
en visserij

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Conservation of Migratory Arctic Birds
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Summary Report

By

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The opinions expressed in this document are those of the workshop participants and do not necessarily reflect the views of CAFF.

CAFF Conservation of Arctic Flora and Fauna

WETLANDS INTERNATIONAL

landbouw, natuurbeheer en visserij

Preamble

The CAFF Workshop on Migratory Arctic Birds was organised jointly by the CAFF Secretariat and the Ministry of Agriculture, Nature Management and Fisheries of the Netherlands.

The theme of the Workshop was 'Conservation of Migratory Arctic Birds'. The goal of the workshop was to facilitate improved co-ordination and collaboration among Arctic countries sharing migratory bird species and/or populations with those countries outside the Arctic that are responsible for Arctic breeding birds during the non-breeding season. More specifically, the aim of the Workshop was to review the 15 recommendations contained in CAFF Technical Report No. 4 (Global Overview of the Conservation of Migratory Arctic Breeding Birds Outside the Arctic) and to prioritise mechanisms, processes and management actions to improve the protection of migratory birds both within and outside the Arctic. The Workshop examined the gaps in the protection of migratory Arctic birds outside the Arctic, and attempted to identify ways in which existing international treaties, agreements, programmes and other initiatives might be used to further the protection of migratory Arctic birds. The possibility of developing one or more new international instruments in particular regions or for particular groups of species was also considered. The Workshop discussed some of the priorities for research on migratory Arctic birds both within and outside the Arctic, and made a number of proposals for specific actions to be taken by the CAFF member countries to improve conservation of migratory Arctic birds throughout their ranges.

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I. INTRODUCTION

The CAFF Workshop on Migratory Arctic Birds, organised jointly by the CAFF Secretariat and the Ministry of Agriculture, Nature Management and Fisheries of the Netherlands, was held on September 10-11, 2000 at the Norwegian Directorate for Nature Management's research farm at Songli, near Trondheim, Norway. The Agenda is given in Appendix 1. The twenty participants included representatives from six CAFF member countries (Canada, Finland, Iceland, Norway, Russia and the U.S.A.) and The Netherlands, as well as experts from Wetlands International and WWF (see Appendix 2).

The Workshop opened at 9.00 a.m. on Sunday, 10 September 2000, with Alexander Golovkin of the Russian Institute for Nature Conservation taking the Chair. After welcoming participants, he reported briefly on the background to the Workshop and said a few words about its purpose. Øystein Størkersen of the Norwegian Directorate of Nature Management then made a short welcome statement on behalf of the Norwegian Government. Gerard C. Boere, of the Ministry of Agriculture, Nature Management and Fisheries, The Netherlands, spoke on behalf of the Dutch Government, and Snorri Baldursson said a few words on behalf of the CAFF Secretariat.

Derek Scott, consultant to Wetlands International and author of CAFF Technical Report No. 4, then gave a presentation summarising some of the major priorities emerging from the report. As an update of the maps given in the CAFF Technical Report No. 4, new maps are presented in the back of this report representing the current situation with respect to contracting parties to the Convention on the Conservation of Migratory Species of Wild Animals (CMS) and the Ramsar Convention on Wetlands. The rest of the morning was devoted to national reports. The CAFF member countries had been requested to present brief national reports including: (i) a summary of relevant developments since CAFF Technical Report No. 4 (published in 1998); (ii) a summary of any progress regarding implementation of the 15 Recommendations of the CAFF Technical Report No. 4 (see Appendix 3); (iii) a preliminary identification of key issues and prioritisation of activities from a national perspective; and (iv) an up-to-date listing of all those international treaties, agreements, programmes and other initiatives relevant to the protection of migratory Arctic birds to which the CAFF member country is a party. National reports were presented by participants from Canada, Finland, Iceland, Norway, the Russian Federation and the U.S.A., and a national report from Greenland was tabled. (No national report was available from Sweden). The morning session ended with a general discussion on various issues arising from the National Reports.

Gerard Boere took the Chair for the afternoon session. This began with two case studies on the conservation of migratory Arctic birds: a presentation by Ingar Øien of the Norwegian Directorate for Nature Management on the Lesser White-fronted Goose *Anser erythropus* (a globally threatened species), and a presentation by Ward Hagemeijer of Wetlands International on the Red Knot *Calidris canutus* (a long-distance migrant). Much of the rest of the afternoon was devoted to a general discussion of issues relating to the protection of migratory Arctic birds and priorities for future action by CAFF. Considerable attention was given to the importance of international instruments for the protection of migratory Arctic birds, but the discussion was wide-ranging, and also explored topics such as the identification of priority species and key sites, the economic values of migratory Arctic birds, and the role of indigenous peoples in their management and protection. The session ended with a

discussion of the need for the establishment of an Expert Group on Migratory Species within the CAFF Programme, as proposed in Recommendation (o) in Technical Report No. 4. After a lively debate, a general consensus was reached that there should be no recommendation from the Workshop on this matter.

Two 'break-out' groups assembled later that evening, one to draft the main recommendations of the Workshop based on the day's discussions, and the other to discuss priority issues for research on migratory Arctic birds. The Drafting Committee included Gerard Boere (The Netherlands), Richard Elliot (Canada), Kenton Wohl (U.S.A.), Ward Hagemeijer (Wetlands International) and Derek Scott (Wetlands International). Other participants attended the discussion on research priorities, which was led by Øystein Størkersen (Norway).

Alexander Golovkin returned to the Chair for the final morning session, which was devoted to a discussion of the Workshop outputs and specifically the recommendations of the Workshop. Richard Elliot presented the draft of the main Workshop recommendations as prepared by the Drafting Committee the previous evening, and various modifications and additions were proposed. The Drafting Committee met again briefly during the coffee break to revise the recommendations on the basis of these discussions, and to add a recommendation concerning offshore marine habitats. Øystein Størkersen then presented a summary of the discussions on priority issues for research, and, after some discussion, it was agreed that the two recommendations concerning research (one relating to globally threatened species, and one on the assessment of the impact of harvest pressures) should be included in the main recommendations of the Workshop. Richard Elliot presented the revised version of the main recommendations, and after some minor modifications had been made to the text, these recommendations were approved by the participants in the Workshop. The Chairman then made a few concluding remarks, thanked the participants for their efforts, and closed the meeting at 12.30 p.m.

II. WELCOME STATEMENTS

Alexander Golovkin, Russian Institute for Nature Conservation.

Mr. Golovkin welcomed participants to the Workshop, and gave a brief background to the present Workshop. He noted that as far as birds were concerned, CAFF had initially given priority to sea-birds and had established a Circumpolar Seabird Working Group to focus on this group. However, at the 5th Meeting of the CAFF International Working Group in Rovaniemi in 1996, it had been agreed that attention should be given to all migratory Arctic birds, and that a report should be prepared on the establishment of linkages with other international co-operation efforts for species migrating outside CAFF countries. This led to the publication in August 1998 of CAFF Technical Report No. 4 (*Global Overview of the Conservation of Migratory Arctic Breeding Birds Outside the Arctic*). The purpose of the present Workshop was to discuss what CAFF countries were doing for migratory birds, how their activities could be related to the recommendations in Technical Report No. 4, and what actions should be taken in the future.

Øystein Størkersen, Norwegian Directorate of Nature Management.

Mr. Størkersen gave a short welcome statement on behalf of the Norwegian Government. He noted the good participation from Arctic countries at the Workshop, and talked briefly about the great interest that there was in migratory birds and how migratory birds had been at the basis of many of the older conservation initiatives, such as the Ramsar Convention. He referred briefly to bird migration through north-western Norway, and regretted that no excursion had been arranged for the participants.

Gerard C. Boere, Ministry of Agriculture, Nature Management and Fisheries, The Netherlands.

Speaking on behalf of the Dutch Government, Mr. Boere thanked the Norwegian Government for their support for the Workshop, and gave a brief explanation of why The Netherlands was so active in the Arctic. He noted that with 80 wetlands of international importance, The Netherlands had a higher density of such sites than any other country. These sites supported millions of migratory Arctic birds during the migration seasons and in winter. A million geese frequented agricultural areas in the Netherlands, and about seven million waders occurred each year in the Dutch Waddensea. These migratory birds were an important part of the national heritage. The Dutch people recognised that protection did not stop at national boundaries, and recognised that there were good reasons to stimulate conservation of birds at flyway level. This was why the Dutch Government was very active in promoting the Convention on Migratory Species (the Bonn Convention), and had been the architect in developing the African-Eurasian Waterbird Agreement (AEWA), which came into force on 1 November 1999.

Mr. Boere drew attention to the bilateral programme between The Netherlands and the Russian Federation, and noted that many activities had been carried out in the Russian Arctic under this programme. He also noted that there had traditionally always been a great deal of Dutch research in Svalbard. The Netherlands was still a formal signatory to the Svalbard Treaty, and might therefore be considered to be an Arctic country. Dutch researchers were active in Greenland, and some Dutch NGOs were involved in Arctic issues. It was because of this interest in the Arctic that

The Netherlands had been granted observer status by CAFF.

Mr. Boere explained that the Dutch Government was now in favour of developing four or five flyway agreements, similar to AEWA, to cover all other regions of the globe. These need not necessarily be agreements under the Bonn Convention, although it would be nice if they were. He concluded by noting that Wetlands International had been contracted by the Dutch Government to assist in the preparation of the Workshop, and would be preparing the final output of the Workshop in co-operation with the CAFF Secretariat.

Snorri Baldursson, CAFF Secretariat.

After welcoming participants to the Workshop, Mr. Baldursson thanked the Russian Federation for co-ordinating the preparation of CAFF Technical Report No. 4 and The Netherlands for their financial support. He also thanked Norway for providing the facilities for the Workshop. He noted that CAFF had long had an interest in birds, and mentioned the establishment of the Circumpolar Seabird Working Group. He pointed out that one of the objectives of the Workshop was to formulate a process to tackle a whole range of issues relating to migratory birds from the Arctic. He drew attention to two new initiatives that had been discussed at the CAFF Working Group meeting in Trondheim. The first of these was CAFF's work to monitor Arctic biodiversity through its Circumpolar Biodiversity Monitoring Program (CBMP). The first workshop under this initiative had been held in Reykjavik in February 2000. It had been decided to adopt a pragmatic approach and establish a few expert networks (*e.g.*, Reindeer, Arctic Char, Ringed Seal). There were plans for three networks for birds: seabirds (Circumpolar Seabird Working Group); waders (Wader Monitoring Network); and geese (network not yet established). The second major new initiative of relevance to the Workshop was Arctic Climate Impact Assessment, a four-year project ending in 2004. The principal output of this project would be a report providing the best current estimates of the impact of climate change on the environment and the indigenous peoples in the Arctic. A chapter on migratory birds would be included in this report.

III. PRESENTATION BY DEREK SCOTT, AUTHOR OF CAFF TECHNICAL REPORT NO. 4

Priorities in the Conservation of Migratory Arctic Birds outside the Arctic

CAFF Technical Report No. 4 provides a review of the many international legally binding and voluntary instruments that have some relevance to the conservation of migratory Arctic birds once they leave the relative security of the CAFF member countries. Migratory birds from the Arctic, although emanating from breeding areas that occupy only a small fraction of the Earth's land surface, migrate to virtually every corner of the globe, and penetrate into virtually all of the world's major ecosystems. The CAFF report describes 34 legally binding conventions or agreements and 33 voluntary initiatives that have an important bearing on migratory birds from the Arctic, and mentions a further 95 instruments and initiatives that have some relevance.

A very clear finding of the study was that as far as legally binding international instruments are concerned, the further south a bird migrates, the less likely it is to enjoy adequate protection in its winter quarters. This is particularly the case in the tropical regions of the Americas, Africa and Asia, where there are few effective legally-binding agreements for the protection of migratory birds.

As regards protection at species level, the seabirds and waterbirds have become the subject of many global and regional initiatives, including both legally binding agreements and voluntary initiatives. However, there appear to be no international instruments, either legally binding or voluntary, that relate specifically to migratory land-birds, namely the raptors, near-passerines or passerines, although these constitute about 46% of all migratory birds breeding in the Arctic.

As far as habitats are concerned, there are many international agreements and programmes that give considerable attention to wetlands, notably the Ramsar Convention on Wetlands, and thereby benefit the 93 species of birds that are dependent on wetlands outside the breeding season. Similarly, there are many international instruments concerned with the marine environment that give some benefit to the 54 species that spend the northern winter in coastal waters or in the open ocean. However, there are very few international agreements or programmes that provide special protection to the habitat of the remaining 132 species that are dependent on dry-land habitats outside the breeding season. The problem is particularly acute for those 38 species of Arctic birds that are dependent on tropical forested habitats for their survival through the northern winter. The dire state of the world's tropical forests is well-documented, and yet international efforts to conserve these have, for the most part, been largely ineffective.

It was not possible, during the compilation of the CAFF report, to carry out an analysis of the current status and trends in the populations of the 279 Arctic birds listed in the report. Clearly, what is now required is an assessment of the status of all Arctic birds to determine which are in need of special attention. The emphasis in such an assessment should not simply be to determine which species are already at serious risk, but also to try to identify those species which, although still relatively common or even abundant, have declining populations and may become at risk in the future. This could help to identify specific regions and/or specific habitat types that support a group of declining species, and might thereby help to identify the reasons for decline and focus conservation efforts where they are most required. (The full text of this presentation is given in Appendix 4).

IV. NATIONAL REPORTS

NATIONAL REPORT OF CANADA

Kevin McCormick and Richard Elliot, Canadian Wildlife Service, Environment Canada.

1. Introduction

The CAFF workshop on the Conservation of Migratory Arctic Birds is intended to "facilitate improved co-ordination and collaboration among Arctic countries sharing migratory bird species and/or populations with those countries outside the Arctic that are responsible for Arctic breeding birds during the non-breeding season." Specifically, the workshop will review the 15 recommendations contained in CAFF Technical Report No. 4 and will prioritise mechanisms, processes and management actions to improve the protection of arctic-nesting birds. This short paper is intended to:

- provide a Canadian perspective on recent developments that are relevant to the workshop goal; and
- highlight some of the key issues that merit our collective attention.

2. Recent developments

2.1 North American Bird Conservation Initiative

The North American Bird Conservation Initiative (NABCI) is a continental conservation partnership endorsed by Canada, the United States and Mexico in 1999. It is designed to achieve regionally-based, biologically-driven, landscape-oriented partnerships delivering the full spectrum of conservation activities for all bird species, co-ordinated amongst all agency and non-government partners. It builds on the success of the *North American Waterfowl Management Plan* (NAWMP) in supporting simultaneous, collaborative, on-the-ground delivery of conservation action by increasing the effectiveness of new and existing programs and initiatives. By co-ordinating all key partners at regional levels through initiatives based on NAWMP habitat joint ventures, it will ensure that partners bring their unique combinations of expertise and resources to bear in addressing one commonly-accepted set of priorities for all bird species. It will be implemented through ecological units called Bird Conservation Regions (BCRs) based on a hierarchical continental framework of nested ecological areas. NABCI will complement Species-at-Risk initiatives (see 2.3 below) by focusing its attention on keeping common birds common.

NABCI implementation is based on four bird species groups: waterfowl, landbirds, shorebirds, and seabirds and colonial waterbirds. Conservation actions for these NABCI 'pillars' will be co-ordinated in Canada by four main programs:

- waterfowl (through the *North American Waterfowl Management Plan* - NAWMP);
- landbirds (through the existing *Partners in Flight* program - PIF);
- shorebirds (through the new *Canadian Shorebird Conservation Plan*); and
- seabirds and colonial waterbirds (through the developing *Wings Over Water* program - WOW).

Each plan sets out national priorities, objectives and direction for its group of species, to be implemented by regional action plans set co-operatively by key partners. They follow a landscape-level approach and will be linked together in a practical, complementary and co-ordinated fashion. Overall co-ordination in Canada will be provided by the multi-partner NABCI-Canada Council, chaired by the Canadian Wildlife Service. Initial partnerships are rapidly being developed in response to the significant political momentum behind this initiative.

2.2 Amendments to the Migratory Bird Convention

The most important conservation agreement between Canada and the United States - the Migratory Birds Convention (MBC) - had not been updated since originally signed in 1916. After many years of negotiation, a Protocol to amend the MBC was signed in 1999 to address major conservation and policy needs of the signatory countries. Each country is now revising their acts and regulations that implement the Convention. The major amendments were made to:

- ensure the accommodation of traditional harvesting by Aboriginal and Indigenous peoples and provide for their participation in co-operative management and sustainable use of migratory birds;
- enable non-aboriginal residents of northern Canada living a subsistence lifestyle to take migratory birds for food, where consistent with relevant treaties and land claims agreements;
- allow for an earlier opening of the fall hunting season for residents of Yukon, Nunavut and Northwest Territories;
- authorise Canada to regulate the traditional Newfoundland murre (guillemot) hunt, which was not covered by the 1916 MBC as it was signed prior to Newfoundland joining Canada;
- establish a more comprehensive international framework to co-operatively manage migratory bird populations, protect their habitats, and collect and share research and survey information.

2.3 Species at Risk Act

In 1999, a new federal Species at Risk Act (SARA) for Canada was introduced. The proposed Act is presently undergoing public consultation and debate. It is expected that the Act will be passed by Parliament by spring 2001 unless there is significant opposition to its contents. Key elements of the proposed Act include:

- a rigorous scientific and expert process, operating at arm's length from the federal government, to assess the status of wildlife species;
- protection of any extirpated, endangered or threatened species, and prohibition of the destruction of their residences;
- authority to prohibit the destruction of critical habitat for species at risk anywhere in Canada;
- emergency authority to list species under the Act that are in imminent danger;
- emergency authority to prohibit the destruction of critical habitat of a listed species in imminent danger;
- funding and other incentives for taking conservation and stewardship action;
- compensation for the effects of such action where it is deemed necessary;
- preparation and implementation of recovery strategies and action plans in consultation with all interested parties, including any other country in which the

species is found.

2.4 General Status of Wild Species in Canada

The federal, provincial and territorial governments of Canada are undertaking an assessment of the current biological status of all vertebrate species (based on trends in distribution and abundance) to be presented in a summary report by December 2000. Each species is classified using criteria based on those used by the IUCN, as *extinct/extirpated, at risk, may be at risk, sensitive,* or *secure*. Initial assessments have been completed for all of Canada's bird species, and the results will help focus conservation efforts on those species currently or potentially at risk. The present national process for identifying and conserving threatened and endangered species - and the new process proposed for species at risk - effectively identify species of critical concern. However, this is the first national initiative to reach agreement on those sensitive species that may still be relatively abundant, but which have declining populations or are exposed to increasing threats, and thus need conservation attention now to prevent them from becoming at risk.

2.5 Increased Cooperation on Migratory Bird Conservation with Greenland

Canada and Greenland share many species of migratory Arctic birds, particularly seabirds, waterfowl and raptors. Individual cooperative programs have been initiated over the past 25 years to count, monitor, research and regulate the harvest of many such species, including Thick-billed Murres (Brünnich's Guillemots), Harlequin Ducks, and Common and King Eiders. However, the benefits of taking a more co-ordinated approach to the conservation of shared migratory bird species has been recognised by both Greenland and Canada, and two meetings took place in 2000 between officials of the Greenland Department of Environment and Nature and the Canadian Wildlife Service to pursue this idea. It is envisioned that these discussions will lead to an informal and flexible agreement, rather than a formal treaty or convention. Its aim would be to encourage and facilitate cooperative action in areas of common conservation concern, and exchange expertise and information on conservation approaches, regulatory initiatives, and the status and trends of migratory bird populations.

3. Implementation of recommendations

a) Closer involvement of CAFF countries in conventions and agreements to which they are already party, and promotion of better collaboration between these instruments

- increased attention in Canada and US to implementation of the MBC, through the 1999 revisions to the Convention which focused on co-management of the harvest of migratory birds by native peoples and regulating the traditional harvest of murres (guillemots) in Newfoundland;
- the trilateral agreement in 1998 to implement the North American Bird Conservation Initiative with the United States and Mexico - two countries which themselves have a convention on migratory birds - and their non-government conservation partners (discussed above).

b) Greater participation by CAFF countries in the Bonn Convention, promotion of Agreements under this Convention, and participation by all Range States in the Agreement on the Conservation of African-Eurasian Migratory Waterbirds

- not applicable to Canada.

c) Increased adherence to the Convention on Biological Diversity

- agreement in 1995 among federal, provincial and territorial governments on the Canadian Biodiversity Strategy to implement the CBD;
- identification in 2000 of those vertebrate species requiring specific conservation attention, in line with the Canadian Biodiversity Strategy (see 2.4 above).

d) Increased support for implementation of the Asia-Pacific Migratory Waterbird Conservation Strategy: 1996-2000

- not applicable to Canada.

e) Promotion of the Ramsar Convention and designation of further sites to the List

- by 1999, Canada already had designated 36 wetland areas as Ramsar sites, in all of its provinces and territories;
- 28 of these have management plans or programs in place, and most receive additional protection through federal, provincial or territorial conservation legislation;
- these sites total over 13 million hectares in area, and represent close to 20% of the wetlands designated world-wide under the Convention;
- Canadian Ramsar sites support many migrating or over-wintering birds that breed in Arctic Canada, Alaska, Russia and Greenland, such as geese, swans, ducks, and shorebirds (waders).

f) Promotion of the Bern Convention in Eastern Europe

- not applicable to Canada.

g) Confirmation of participation in the multilateral and bilateral agreements of the former USSR by members of the Commonwealth of Independent States

- not applicable to Canada.

h) Increased collaboration between bilateral agreements for the protection of migratory birds in the Asia-Pacific region, and possible amalgamation of these into a multilateral agreement for the entire Asian/Australasian region

- not applicable to Canada.

i) Development of multilateral agreements for the conservation of migratory raptors, especially in the Americas and Western Eurasia/Africa

- no specific agreements exist in North America for raptors, which are not covered by the MBC between Canada and the United States;
- however, raptors do fall within the scope of the recent trilateral NABCI agreement with United States and Mexico, and many species are covered by a bilateral Memorandum of Understanding with the United States on *Cooperation for the Conservation of Endangered Species*.

j) Greater emphasis on the conservation of migratory species at population level

- North American Bird Conservation Initiative activities (see 2.1 above) will address priorities set at the level of species and populations, as well as for key habitats and sites.

k) Further research on migratory birds that are inadequately protected throughout large parts of their non-breeding ranges, especially species that winter in tropical forests

- research is focusing on species thought to be declining or under specific threats, such as sea-ducks, falcons and certain seabird species;
- few birds that breed in the Canadian Arctic over-winter in tropical forests, but research on key boreal species that over-winter there is ongoing.

l) Further research on seabirds wintering along the edge of the pack ice

- no specific research is underway on seabirds at ice edges.

m) Assessment of the impacts of climate change on Arctic migratory birds

- this issue has not received a lot of focused attention to date within Canada;
- however, there is clear recognition that the ecological impacts of climate change, including those on migratory birds, merit further attention and projects relating to seabirds are being developed.

n) Assessment of the pressures on Arctic migratory birds outside the Arctic

- this assessment is currently under way in Canada as part of the North American Bird Conservation Initiative (see 2.1 above), and will be reflected in resulting NABCI priority actions.

o) Establishment of an Expert Group on Migratory Species within the CAFF Program

- an Expert Seabird Group already exists (CSWG - the Circumpolar Seabird Working Group) and a network of shorebird (wader) experts is being established through the CAFF Biodiversity Monitoring Network (CBMN);
- it may be more appropriate to consider additional species-based networks which could facilitate the efforts of the CBMN.

4. Key issues and activities

Key issues and activities from a Canadian perspective are:

- increased collaboration with our neighbours to the west (Alaska) and east (Greenland) on issues of common conservation concern (see above);
- further development and implementation of NABCI;
- assessment of the impacts of climate change on Arctic migratory birds.

5. International Treaties

1) Migratory Birds Convention (MBC - between Canada and the United States).

2) Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES - multinational).

3) Convention on Wetlands of International Importance Especially as Waterfowl Habitat (RAMSAR Convention - multinational).

4) United Nations Convention on Biological Diversity (CBD - multinational).

5) Western Hemisphere Shorebird Reserve Network (WHSRN - Pan-American nations).

6. Agreements

1) Declaration on the Establishment of the Arctic Council.

7. Programs

1) North American Waterfowl Management Plan.

2) North American Bird Conservation Initiative.

Postscript

Kevin McCormick added that Canada has had a modest Latin American programme, reflecting the concern that Central American countries are key to the conservation of many migratory birds from Canada. However, this programme has been downgraded in recent years owing to budgetary limitations. Mr. McCormick concluded by noting that the Canadian Wildlife Service has a rolling summary of all its initiatives and programmes on the Internet. A summary of current activities in the Northwest Territories and Nunavet is to be found at http:// www.mb.ec.gc.ca/nature/d00s02.en.html.

In the discussion that followed, Kenton Wohl (U.S.A.) expressed concern that the NABCI was only really focused on North America. There was significant concern in the U.S.A. that this initiative did not include the Neotropics. Mr. McCormick agreed with this concern, and added that there were concerns regarding Siberia. However, the NABCI should be seen as only a starting point.

NATIONAL REPORT OF FINLAND

Juha Markkola, Environment Centre, Finnish Ministry of Environment.

1. Summary of relevant developments since CAFF Technical Report No. 4 (1998)

Finland ratified the African-Eurasian Migratory Waterbird Agreement (AEWA) on 29 October 1999.

On the basis of the EU Birds and Habitats Directives and the Nature Conservation Act, the Finnish Council of State approved in its decision of 20 August 1998 a national list of sites for the European Natura 2000 network. The national list includes 439 Special Protection Area (SPA) bird sites and 1,325 proposed Sites of Community Interest (SCI) according to the Habitats Directive. The total area of the SPAs included in the proposal is about 2.81 million hectares, and that of the proposed SCIs about 4.71 million hectares. Together these represent about 12 % of the total area of Finland. The Council of State completed its decision on 25 March 1999 by adding one new area and modifying three existing sites.

The Natura sites were selected on the basis of the biological criteria of the Directives. The national proposal was submitted to the European Commission in December 1998 at the same time as the list of sites approved by the Provincial Government of Åland. The complementary proposed list of sites in Finland was submitted to the Commission in July 1999. The decision of the Council of State was subjected to a complaint procedure (about 700 Natura-sites are targeted by complaints), on which the Supreme Administrative Court gave its judgement in June 2000. Not a single site was removed from the list, but some sites were returned for new preparation in the Ministry of the Environment concerning details of their boundaries. Also a few totally new sites will be taken into consideration.

Amongst Arctic birds, the Lesser White-fronted Goose (*Anser erythropus*) has recently been given special attention thanks to the EU LIFE Nature project targeting this species. The aim of the project has been to save the Lesser White-fronted Goose population that is close to extinction in the EU territory and highly threatened throughout Europe. The key methods in the project are revealing the poorly known breeding, migration staging and wintering areas by satellite tracking, and improving conservation in these areas. The Lesser White-fronted Goose (LWfG) conservation project and all its efforts and problems can be seen as a pilot project and an example of international conservation of a long-distance migrant. The project has been carried out by Finnish governmental organisations and NGOs (WWF), in co-operation with partners in Norway (BirdLife/NOF), Russia and a number of other countries as well as with the Lesser White-fronted Goose Task Force of Wetlands International.

The objectives, activities and results of the LIFE project were as follows:

1. To gain accurate information on migration routes and wintering areas of the LWfG; to tag LWfG with satellite transmitters and colour-rings in Siberia and the Nordic countries; and to reveal staging and wintering areas still insufficiently known in the Western Palearctic.

2. To carry out surveys and apply satellite tagging in the breeding areas (Finnish Lapland 1994-95, Taimyr Peninsula 1997-98, Yamal Peninsula 1996-98), and to monitor the

autumn and spring migration in north-western Kazakhstan (1996-1998).

These studies have resulted in improved knowledge of the migration route from Norway and Finland via north-western Russia to north-western Kazakhstan, and have also revealed the migration routes from the Yamal Peninsula to north-western and western Kazakhstan, and from the Taimyr Peninsula to northern Kazakhstan and the north-western part of the Caspian Sea. A number of staging areas and roosting lakes have also been found.

3. To estimate the world population, population patterns and trends of the LWfG, and to establish a monitoring programme that can be carried out with moderate costs.

4. To monitor the numbers of migrating LWfG on the Bothnian Bay coast (Finland), Estonia, Kazakhstan and Varangerfjord (northern Norway), and (less regularly) to assess numbers of the LWfG on the Kanin Peninsula (north-western Russia), Hungary, Greece and even China (eastern sub-population).

   As a result of these studies, the world population (in winter) can now be quite accurately estimated at 30,000 individuals.

5. To improve public awareness of the endangered status of the LWfG, especially amongst hunters, by establishing an awareness campaign (newspaper articles, printing of brochures, posters and stickers, distribution of information articles, etc.).

   As a result of these activities, a great number of publications (*e.g.*, 88 in 1997-2000), brochures, press releases and information posters have been produced.

6. To intensify protection of the LWfG in all breeding, staging and wintering areas by creating initiatives for improved protection in, for example, the Nordic countries, Kazakhstan and China.

   As a result of these activities, the Finnish staging areas were included in the EU Natura 2000 decision. A protected area has been established in the Kanin Peninsula, north-western Russia. The work of the hunting inspection organisation in north-western Kazakhstan has been supported, and negotiations with local authorities in Kazakhstan have been conducted.

7. To collect biological data relevant to the conservation biology of the LWfG. For this purpose, material for graduate studies has been provided to university students.

   As a result studies have been carried out on:
   - migration patterns (satellite telemetry);
   - genetic population structure of the world population of the LWfG using DNA techniques and blood and feather material (a dissertation will be completed in 2000);
   - habitat selection and diet in the breeding and staging grounds (two graduate studies have been completed);
   - population patterns and trends in different LWfG sub-populations (one graduate study has been completed).

2. Summary of progress regarding implementation of the 15 recommendations in CAFF Technical Report No. 4

a) Closer involvement of CAFF countries in conventions and agreements to which they are already party, and promotion of better collaboration between these instruments

- At the present time, there has not, as far as we can judge, been very much of this kind of co-operation between the Arctic countries. One factor that is obvious, at least for the EU countries, is the close and time-consuming co-ordination in this group. One possible way to improve the situation among the CAFF countries would be to use the Secretariat and/or national CAFF representatives to identify and analyse questions important for Arctic birds in relevant conventions and agreements.

b) Greater participation by CAFF countries in the Bonn Convention, promotion of Agreements under this Convention, and participation by all Range States in the Agreement on the Conservation of African-Eurasian Migratory Waterbirds

- As mentioned above, Finland adhered to the African-Eurasian Waterbird Agreement in 1999.

c) Increased adherence to the Convention on Biological Diversity

- Finland has prepared a national biodiversity strategy for the years 1997-2005, in which all relevant Ministries participated. Species protection, including the protection of Arctic bird species, is included in the strategy. The implementation of the strategy is ongoing. The first monitoring report was presented to CBD COP5 in May 2000.

d) Increased support for implementation of the Asia-Pacific Migratory Waterbird Conservation Strategy: 1996-2000

- Not applicable.

e) Promotion of the Ramsar Convention and designation of further sites to the List

- Finland has been preparing a proposal to designate 50 new Ramsar sites for quite some time. These sites are also proposed as Natura 2000 sites, and are a part of the Natura decision of Finland explained above. The legal procedure concerning the Natura decision has so far prevented the submission of these new sites to the Ramsar Convention.

f) Promotion of the Bern Convention in Eastern Europe

- The promotion of the Bern Convention in Eastern Europe is a very important activity. For practical reasons and because of resource constraints, Finland has, in its bilateral nature conservation co-operation, concentrated its efforts on the conservation of habitats, particularly forest, with Russia and the Baltic states in projects that help these countries prepare for EU membership. These activities directly contribute to the protection of birds and their habitats.

g) Confirmation of participation in the multilateral and bilateral agreements of the former USSR by members of the Commonwealth of Independent States

- Not applicable.

h) Increased collaboration between bilateral agreements for the protection of migratory birds in the Asia-Pacific region, and possible amalgamation of these into a multilateral agreement for the entire Asian/Australasian region

- Not applicable.

i) Development of multilateral agreements for the conservation of migratory raptors, especially in the Americas and Western Eurasia/Africa

- A proposal to develop an agreement for the protection of raptors in Western Eurasia and Africa is no doubt something which should be seriously considered. However, it is important to confirm that the AEWA agreement is being implemented in a credible way before other similar types of agreements are developed.

j) Greater emphasis on the conservation of migratory species at population level

- The Lesser White-fronted Goose project is an example of the conservation of migratory birds at population level. Various activities take place along the western flyway of the very small Nordic population which migrates between Norway and Greece, as well as at the major staging area of the main 'western' population in north-western Kazakhstan and in the main wintering area of the eastern population in China.

k) Further research on migratory birds that are inadequately protected throughout large parts of their non-breeding ranges, especially species that winter in tropical forests

- This type of research is no doubt very important for the conservation of several Arctic birds. If an expert group on migratory species is established under CAFF, it should give consideration to this topic. The monitoring of bird species breeding in the Arctic or sub-Arctic regions has been carried out in Finland both in the breeding areas and in bird-ringing and monitoring stations. Approximately 60 Arctic or sub-Arctic species are monitored in their breeding areas, approximately 75 along their migration routes, and approximately 50 in ringing programmes. A small minority of these species winter in the tropics. Some Finnish bird-ringing stations also participated in the 'Europe-Africa Project' with aims very similar to recommendation (k), but concerning mainly boreal or even more southerly breeding species that winter in Africa.

l) Further research on seabirds wintering along the edge of the pack ice

- Not applicable.

m) Assessment of the impacts of climate change on Arctic migratory birds

- This topic should be taken on board by the ongoing AMAP/CAFF Arctic Climate Impact Assessment (ACIA). The Finnish Academy of Science has a large-scale study

programme concerning the effects of global climate change.

n) Assessment of the pressures on Arctic migratory birds outside the Arctic

- In the Lesser White-fronted Goose project, pressures on this species and others (*e.g.*, the Red-breasted Goose *Branta ruficollis*) using the same kind of habitats have been assessed in the Nordic countries, various parts of Russia, Kazakhstan, Greece, China, etc.

o) Establishment of an Expert Group on Migratory Species within the CAFF Programme

- If an expert group on migratory species is to be established under CAFF, we would prefer this group, at least in the beginning, to focus specifically on birds. This would enable the group to concentrate on a subject for which many different things are already happening and for which a great deal of the necessary information is available, so as to focus speedily on the most important issues. Also, the size of group would be manageable.

3. Preliminary identification of key issues and prioritisation of activities from a national perspective

At least from the point of view of the Finnish conservation authorities, at this point in time and on the basis of human and other resources, the priorities must be implementation of the Natura 2000 network, implementation of the African-Eurasian Waterbird Agreement, and continuation of the national and international work on the Lesser White-fronted Goose.

4. Up-to-date listing of international treaties, agreements, programmes and other initiatives relevant to the protection of migratory Arctic birds to which the CAFF member country is a party

- Convention on the Conservation of Migratory Species of Wild Animals
- Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)
- Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention)
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
- World Heritage Convention
- Convention on Biological Diversity
- International Tropical Timber Agreement
- Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention)
- EU Birds Directive
- EU Habitats Directive
- Convention for the Prevention of Marine Pollution by Dumping of Wastes and other Matter
- International Convention for the Prevention of Pollution from Ships
- Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft
- Convention on the Protection of the Marine Environment of the Baltic Sea Area

Postscript

Mr. Markkola added that a new review of all threatened animal and plant groups in Finland had been produced in July 2000. With respect to monitoring, he noted that there was good information on divers (Gaviidae), scoters (*Melanitta* spp.), Long-tailed Duck (*Clangula hyemalis*) and other sea-ducks on migration in southern Finland which could form a good basis for monitoring. This information was gathered by hundreds of volunteers and published in big annual reports.

NATIONAL REPORT OF GREENLAND

Thor Hjarsen, Department of Environment and Nature, Greenland Homerule Government.

The Greenland Homerule Government acknowledges the important work of CAFF and welcomes this initiative to promote conservation of migratory Arctic bird species.

1. Greenland Bird Fauna in brief

In total, 235 species of birds have been recorded from Greenland territory. Of these, about 58 species are breeding and approximately 17 additional species are recorded during the summer period on a regular basis.

In total, 37 of the 58 breeding species have a wide distribution on both sides of the Atlantic Ocean. Eight of these species have their main distribution in North America and 13 species their main distribution in Europe. There are no bird species endemic to Greenland. However, there are a few endemic subspecies that migrate to winter on other continents: *Calidris alpina arctica*, *Larus glaucoides glaucoides* and *Anser albifrons flavirostris.* Three other subspecies are true endemics and occurs all year round only in Greenland: *Anas platyrhynchos conboschas, Lagopus mutus captus* and *L. m. saturatus.*

The following bird species occur annually in Greenland and may be classified as true migratory species, either because (i) Greenland is a wintering area or staging area for populations breeding elsewhere, or (ii) the species breeds in Greenland and leaves the country completely or partly during the non-breeding season (the list does not contain accidental breeders or stragglers):

Gavia immer, G. stellata, Fulmarus glacialis, Puffinus gravis, Sula bassana, Phalacrocorax carbo, Cygnus cygnus, Anser caerulescens, A. albifrons, A. brachyrhynchus, A. bernicla, Branta canadensis, B. leucopsis, Anas platyrhynchos, A. crecca, Clangula hyemalis, Somateria spectabilis, S. mollissima, Histrionicus histrionicus, Mergus serrator, Falco peregrinus, F. rusticolus, Charadrius hiaticula, Numenius phaeopus, Pluvialis dominica, P. apricaria, P. squatarola, Calidris alba, C. canutus, C. maritima, C. alpina, C. bairdii, C. fuscicollis, Arenaria interpres, Phalaropus lobatus, P. fulicarius, Stercorarius longicaudus, S. parasiticus, S. pomarinus, S. skua, Larus sabini, L. ridibundus, L. fuscus, L. argentatus, L. thayeri, L. glaucoides, L. hyperboreus, L. marinus, Rhodostethia rosea, Rissa tridactyla, Pagophila eburnea, Sterna paradisaea, Uria aalge, U. lomvia, Alca torda, Cepphus grylle, Alle alle, Fratercula arctica, Nyctea scandiaca, Eremophila alpestris, Anthus pratensis, A. rubescens, Motacilla alba, Oenanthe oenanthe, Turdus pilaris, T. iliacus, Carduelis flammea, C. hornemanni, Calcarius lapponicus and *Plectrophenax nivalis.*

2. Current Conservation and Management Problems

A number of migratory bird species are used by the human population in Greenland. Hunting and egg collection is widespread in a few, but important species. The following figures show the range in the annual harvests of the most important species (official hunting

statistics, 1993-1997): *Uria lomvia* and *U. aalge* (187,000 - 254,000), *Cepphus grylle* (10,000 – 35,000), *Alle alle* (49,000 -104,000), *Somateria mollissima* (65,000 - 83,000), *S. spectabilis* (4,000 – 5,500), *Rissa tridactyla* (52,000 - 63,000) and goose sp. (1,000 - 2,000). These hunting statistics are based on hunting reports submitted annually by each hunter to the Homerule.

Furthermore, some egg collection takes place on a few migratory species. Although eggs are collected only for private consumption and the sale of eggs is not allowed, this activity is locally affecting some breeding populations of birds, mainly *Uria lomvia, U. alge* and *Sterna paradisaea*.

Other human disturbance, in addition to hunting and egg collection, is currently a management problem in some areas. Sailing and air traffic near bird cliffs, even in protected areas, are locally reported to be a problem.

Egg collection has no significant commercial value in Greenland, and has until now only been allowed for personal consumption. This year the Greenland Parliament decided to permit commercial hunters to sell eggs collected from the nests of *Larus hyperboreus* and *L. marinus*. This decision may lead to increased human disturbance in bird colonies. Appropriate management tools are currently being considered.

Collection of the eggs of *Sterna paradisaea* for human consumption is a much-favoured activity in Greenland. This has apparently led to a serious decline in what was formerly the world's largest population of this species. On a group of islands in the Disco Bay area (Grønne Ejland), the population of *Sterna paradisaea* was previously estimated at some 20,000-25,000 birds. Today, the population has declined to only 5,000-10,000 birds.

Only one species of bird breeding in Greenland is included in the IUCN Red List: *Haliaeetus albicilla* (Lower Risk: near threatened). The Greenland population of *H. albicilla* is non-migratory, although some seasonal movements occur within the country. The population is considered to be stable, despite some minor illegal hunting that takes place in southern Greenland.

No national Red List is available for Greenland, but a recently published report (in Danish only) of a study on biodiversity in Greenland reviews population trends of some migratory bird species:

I. *Anser albifrons flavirostris*, *A. caerulescens*, and *Branta canadensis* have all increased their breeding populations in Greenland.
II. The *Branta bernicla hrota* population has decreased.
III. The West Greenland populations of *Somateria mollissima* and *S. spectabilis* have decreased. Human disturbance (hunting, fishing and sailing) in the breeding and moulting areas are the main causes of these declines.
IV. The population of *Uria lomvia* distributed from North-western Greenland (Upernavik) to central West Greenland (Disco Bay) has decreased by 80-90 % within the last 20-30 years, mainly due to human disturbance in the breeding colonies. The two colonies on the sparsely populated east coast of Greenland are stable, with some 500,000 birds.
V. Locally, populations of *Sterna paradisaea* have decreased dramatically. The total Greenland breeding population is now estimated at 80,000 birds.
VI. Populations of *Falco peregrinus* and *F. rusticolus* are stable.

VII. No waders (shorebirds) or passerines are hunted or significantly affected by human activities in Greenland.

A U.S. proposal to harvest wild *Falco peregrinus* on winter migration could affect the Greenland population of this species. Greenland suggests that there should at least be close monitoring of the birds caught to assess the proportion that are of Greenland origin.

3. Legal Protection of Migratory Bird Species

The protection of birds in Greenland is laid down in the Homerule Executive Order No. 29 of 19 September 1989. According to the regulations, the following migratory species may be hunted by the Greenland resident population (the no-hunting season is given in brackets): *Gavia immer* (01.06-15.08), *G. stellata* (01.06-15.08), *Fulmarus glacialis* (01.06-15.08), *Phalacrocorax carbo* (01.04-30.09), *Anser albifrons* (01.06-15.08), *A. brachyrhynchus* (01.05-15.08), *Branta leucopsis* (01.05-15.08), *Anas platyrhynchos* (01.06-15.08), *Clangula hyemalis* (01.06-15.08), *Somateria mollissima* (01.06-30.09), *S. spectabilis* (01.06-15.08), *Mergus serrator* (01.06-15.08), *Stercorarius parasiticus* (01.06-15.08), *S. pomarinus* (01.06-15.08), *S. longicaudus* (01.06-15.08), *Larus marinus* (01.06-15.08), *L. hyperboreus* (01.06-15.08), *L. glaucoides* (01.06-15.08), *Rissa tridactyla* (01.06-15.08), *Alle alle* (01.06-15.08), *Uria lomvia* (15.03-15.10), *U. aalge* (15.03-15.10) and *Cepphus grylle* (01.06-15.08). All other species are protected from hunting.

Locally, stricter hunting measures are enforced, *e.g.*, there is a shorter hunting season for *Uria lomvia* north of Kangaatsiaq municipality in West Greenland. In other areas, hunting measures are less strict. In Ittoqqortoormiit (East Greenland) and the Thule district, *Alle alle* and *Uria lomvia* are hunted all year round.

Human traffic near breeding areas is also regulated, *e.g.*, shooting and other noisy activities (including sea and air traffic) are prohibited within 5 km of large bird cliffs.

Egg collection from the nests of a number of species is allowed before 1 July. The eggs may only be used for personal consumption and may not be sold on markets or in shops. The collection of eggs of *Uria* spp. is prohibited.

Some specific important breeding areas are strictly protected, and human traffic is prohibited during the breeding season (01.06-31.08).

Greenland is a Contracting Party to the Ramsar Convention (Convention on Wetlands). However, the conservation measures of the Convention are not fully reflected in Greenland's legislation. Some of the designated areas are currently without any legal protection, although there are no permanent human settlements within any of the areas. To date, 11 areas covering 15,465km^2 of wetlands have been designated as Ramsar Sites in Greenland (international Ramsar Site codes 385 - 395).

4. Future Activities and Key Issues

Currently, some local populations of migratory seabirds in Greenland are harvested at unsustainable levels. The species concerned are *Uria* spp., *Somateria* spp. and *Sterna paradisaea*. Other migratory bird species have either stable or increasing populations and do not require any special management activities.

During 1999, national management plans were developed for *Somateria mollissima* and *Uria* spp. An information scheme was initiated in Upernavik in collaboration with the municipality to involve local hunters in the protection of the threatened colonies of *Uria lomvia*. This activity will continue.

The Department of Environment and Nature carried out field inspections of known breeding sites of *Sterna paradisaea* in June 2000. Observations during these inspections and information gathered from local authorities and hunters revealed that the collection of tern eggs in the Disco Bay area had reached an unsustainable level.

The national legislation will be revised during 2000. The revision will contain regulation of traffic in Ramsar areas currently without formal protection and a revision of the bird protection legislation.

Involvement of local communities in management of important bird areas will be initiated by an Agenda 21 project in the Sisimiut municipality (South-western Greenland).

Decision-making for the management of biological resources in Greenland will be improved significantly within the next one to two years as a result of a recent publication on a national GAP analysis and a forthcoming study on the occurrence of biological resources, including bird distribution in coastal areas.

Greenland continuously participates in multilateral and bilateral co-operation on conservation, management and research within the field of migratory species. A key issue will be bilateral co-operation with neighbouring countries on the management of certain bird populations. Greenland is continuously participating in the CAFF network as far as possible. In this context, the work of the Circumpolar Seabird Working Group is prioritised.

NATIONAL REPORT OF ICELAND

Aevar Petersen, Icelandic Institute of Natural History.

The principal legislation on bird hunting and bird conservation in Iceland is legislation dating from 1994 (No.60/1994). This contained numerous changes over the earlier law of 1968. Some of the major issues are as follows:

1) total protection unless a regulation is issued to the contrary, and then only on certain game or pest species and only within a certain time frame;
2) revisions of the methods allowed to kill birds, principally in line with the Bern Convention;
3) a legal framework was created, for the first time, to issue hunting licences and collect hunting statistics;
4) some species were given full protection or the hunting season was shortened;
5) a number of uncertainties or ambiguities in the earlier legislation were amended.

The Icelandic Institute of Natural History, under the Ministry for the Environment, is the primary agency dealing with birds at the management and research levels within the Icelandic administrative system. The legislation concerning the Institute sets the framework for basic research, advisory capacity including on environmental impact assessments, applied research, and the Icelandic Bird Ringing Scheme.

Iceland has about 75 regular breeding species, of which over half are totally or partially migratory. Their principal wintering areas are in North-west Europe, particularly the British Isles, while others are found in South-west Europe and North-west Africa. Some birds migrate westwards to Greenland and Canada, while others are pelagic in the North Atlantic. Some wader (shorebird) and goose species are passage migrants in Iceland, breeding in Greenland and high-Arctic Canada.

The principal bird groups in Iceland are Anatidae (swans, geese, ducks), waders and seabirds. Population sizes are generally rather large, notably in some of the geese and ducks, waders and seabirds. Migratory species for which Iceland has high responsibility include swans and geese, such as Whooper Swan *Cygnus cygnus* and Pink-footed Goose *Anser brachyrhynchus*, many species of waders, such as Whimbrel *Numenius phaeopus*, European Golden Plover *Pluvialis apricaria*, Black-tailed Godwit *Limosa limosa* and Red-necked Phalarope *Phalaropus lobatus*, and seabirds such as Great Skua *Catharacta skua*, Atlantic Puffin *Fratercula arctica*, Thick-billed Murre *Uria lomvia* and Razorbill *Alca torda*.

Around 350 species of birds are on the Iceland list.

Iceland is signatory to the following international conventions, agreements and co-operative programmes relating to migratory birds:

- Convention on Biological Diversity
- Ramsar Convention
- Bern Convention
- Paris Convention on Bird Protection
- CITES Convention
- World Heritage Convention

- Conservation of Arctic Flora and Fauna (CAFF)

- Council of Europe and associated environmental initiatives
- Nordic Council of Ministers Working Groups and associated activities
- IUCN
- Various pollution agreements, such as OSPAR

Developments since 1998

The following recent developments are worthy of mention, with some comments and notes on their principal usefulness.

- Iceland ratified the CITES convention on trade in endangered species in 2000.
- Although Iceland did not become a member until 2000, in general terms, it has upheld the working rules of CITES for many years, especially with regard to exports.
- Better control of imported biota, not only for disease purposes, but also conservation purposes.

- A new nature conservation law came into force in 1999, after several years in revision.
- The allowance for the establishment of marine protected areas has been made clearer.
- Important specific habitat types, such as wetlands, have been provided with increased protection and a clear message for environmental impact assessments.
- Allowance has been made for a general, national nature conservation plan.

- Legislation on environmental impact assessment was also revisited and came into force in 2000.
- Mostly minor amendments were made, primarily for purposes of clarification.
- The most significant change was probably the requirement that major reforestation initiatives should be subject to environmental impact assessment.

- The Breiðafjörður Marine Conservation Area, about 3,000 km^2 in size.
- The Ministry of the Environment has formally endorsed the first Conservation Plan for a protected area in Iceland.
- The site is being considered for the Ramsar list (and would be Iceland´s fourth Ramsar Site, if accepted).

- First official Red List of species needing conservation action.
- Presently in press, and includes approximately half of the regularly breeding birds.

Key issues, progress in implementation, and prioritisation

Of the 15 recommendations of CAFF Technical Report No. 4, some seven are particularly relevant to Iceland:

a) Closer involvement of CAFF countries in conventions and agreements to which they are already party, and promotion of better collaboration between these instruments

- CAFF (including the Circumpolar Seabird Working Group) receives the single largest support of any of the international conservation programmes in which Iceland participates.

b) Greater participation by CAFF countries in the Bonn Convention, promotion of Agreements under this Convention, and participation by all Range States in the Agreement on the Conservation of African-Eurasian Migratory Waterbirds

- No move is currently being made by Iceland to become a member, but this is considered to be important since the great majority of Icelandic birds use the African-Eurasian Flyway, and there is a need to forge closer linkage with conservation efforts along the flyway.

c) Increased adherence to the Convention on Biological Diversity

- This is viewed as an especially important convention, although little progress has been made in Iceland to date.

e) Promotion of the Ramsar Convention and designation of further sites to the List

- Designation of further Ramsar sites is under consideration.

j) Greater emphasis on the conservation of migratory species at population level

- Research work on birds centres around geese and ducks, and is particularly concerned with securing sustainability of hunting. Waders as a group constitute a major gap in research and conservation work, although seabirds also receive only limited attention.
- Analyses of available ringing material should be strengthened.
- A plan for monitoring populations should be developed as a priority work item within CAFF, not least in relation to climate change and Arctic Climate Impact Assessment (ACIA).

m) Assessment of the impacts of climate change on Arctic migratory birds

- No concentrated work takes place on this issue, although it is generally recognised that it merits attention.

n) Assessment of the pressures on Arctic migratory birds outside the Arctic

- Detailed analyses of the pressures affecting individual species undoubtedly help to identify further work, by putting the issues into perspective. Overviews and analyses made by international bodies, such as BirdLife International, are helpful in this respect.

Postscript

Mr. Petersen drew attention to the fact that most breeding birds in Iceland migrate to Europe and Africa (the AEWA region), although a few migrate to Greenland and Canada. He noted that there were few globally threatened species or populations of birds in Iceland. He expressed support for the idea of 'responsibility species', with special attention being given to those fairly common species for which only a few countries have high responsibility. As an example, he referred to the Razorbill *Alca torda*, 80% of the world population of which breeds in Iceland. In conclusion, Mr. Petersen said a few words on behalf of Peter Nielsen from Greenland, who had sent apologies for his absence.

NATIONAL REPORT OF NORWAY

Øystein Størkersen, Norwegian Directorate of Nature Management.

1. Relevant conventions, agreements and programmes concerning protection of migratory Arctic birds to which Norway is a party

A. Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention)

General protection of species on Appendix II (*inter alia* Arctic migratory birds) and general protection of important natural habitats.

Recommendation 28 (1991) on the use of non-toxic shot.
Recommendation 48 (1996) on the conservation of European globally threatened birds (refers to action plans by BirdLife International, Wetlands International and AEWA, *Anser erythropus* and *Crex crex*).
Recommendation 59 (1997) on the drafting of action plans for wild fauna species.
Recommendation 75 (1999) on new action plans for globally threatened birds in Europe (recommends that Parties carry out national action plans and co-ordinate with AEWA, *cf. Polysticta stelleri*).

Emerald Network: The network of important natural habitats in Europe. Final instruments (decisions by the Parties) accepted in 1998. The network is similar to the European Union's Natura 2000 system, and is an opportunity for non-member states to join in a Pan-European network of important natural habitats (so-called ASCIs). It will be an obligation for Parties with designated sites to safeguard the ecological conditions for, *inter alia*, Arctic migratory birds.

B. European Environmental Ministers 'Environment for Europe' process

The Pan-European Biological and Landscape Diversity Strategy (PEBLDS) was initiated by the European Environmental Ministers (Maastricht Declaration 1993 on Conserving Europe's Natural Heritage), and is a cross-sectoral initiative to halt and reverse the decline of both species and habitats. The strategy in particular focuses, *inter alia*, on conserving, enhancing and restoring key ecosystems, habitats and species. Of the 11 action themes agreed upon, No. 11 is concerned with threatened species. The Bern Convention has been allocated the task of implementing the aims set out in the strategy. The main issues will be: (i) production of check-lists of European species, (ii) production of Red data books and Red data lists, (iii) production of a European list of protected species, (iv) elaboration, implementation and follow-up of action plans for threatened species, and (v) public awareness.

C. Committee of Ministers of the Council of Europe

Resolutions (67) 24 and (73) 31, and Recommendation (82) 10 on birds in need of special protection in Europe.

D. Convention on Migratory Species (Bonn Convention)

Arctic bird species on Appendix I (to be fully protected) occurring in Norway are: *Anser erythropus, Polysticta stelleri* and *Haliaeetus albicilla*. Species on Appendix II (Parties should promote regional agreements) occurring in Norway are: *Gavia stellata, G. arctica arctica, G. immer immer, G. adamsii, Podiceps grisegena grisegena, P. auritus,* all Anatidae, all Accipitridae and Falconidae, *Pandion haliaetus, Crex crex, Grus grus,* all Charadriidae, Scolopacidae and Phalaropodidae, *Sterna hirundo, Sterna paradisaea*, and all Muscicapidae.

Norway has yet to ratify the African-Eurasian Migratory Waterbird Agreement (AEWA). However, Norway has tried to pursue the actions recommended in the Agreement, *e.g.*, international action plans or national work on the following species: *Anser erythropus, Branta leucopsis, Polysticta stelleri* and *Mergus albellus*.

E. Convention on Wetlands (Ramsar Convention)

Birds, and waterbirds in particular, have been the most important criteria under which sites have been selected for inclusion on the so-called Ramsar list of internationally important wetlands. Even if no specific action plans have to be formulated in relation to particular species as such, it is an obligation of each Party to safeguard the ecological conditions within Ramsar Sites as habitats for birds and other species. Management plans for species within designated sites may thus be relevant to Arctic migratory birds.

F. Convention on Biological Diversity

G. CITES

H. Convention for the Protection of the Marine Environment of the Northeast Atlantic (OSPAR Convention)

I. Important Bird Areas (IBA) Programme

J. International Waterfowl Census

2. Response to questions posed by the CAFF Secretariat

i) Summary of relevant developments since CAFF Technical Report No. 4 (1998)

- Proposal for a new Environmental Act for Svalbard.
- A new Protected Areas Plan for Svalbard (nine proposals) has been forwarded.
- A new Action Plan for Environmental Management on Jan Mayen (2000-2005) has been established.
- An International Contact Forum for Habitat Conservation in the Barents Region has been established.

- The Joint Russian – Norwegian Commission on Co-operation in the field of Environmental Protection, Biodiversity Working Group Programme: Protection of habitats, National Red List species, monitoring, education and training of specialists.

  In 1998-2000, Norway and Russia have arranged joint seabird and waterbird surveys in the Pechora Sea Region in order to fill important gaps in knowledge relating to planned oil and gas development in the region. A joint report *Status of marine birds breeding in the Barents Sea Region* is now at the printers.

- National Red List
  The most recent Norwegian Red List was issued in September 1999 (Directorate for Nature Management. 1999. Norwegian Red List 1998. *DN-rapport* 3:1-161). Table 1 lists Arctic migratory bird species in the categories endangered or vulnerable that breed in the geographical area covered by the Red List.

  Table 1. Norwegian Red list for bird species (1999) within the categories Endangered and Vulnerable, breeding within the CAFF area.

Species	Red List Category (1999)
Mainland Norway	
Anser erythropus	Endangered
Crex crex	Endangered
Larus fuscus fuscus	Endangered
Falco peregrinus	Vulnerable
Uria aalge	Vulnerable
Nyctea scandiaca	Vulnerable
Jynx torquilla	Vulnerable
Eremophila alpestris	Vulnerable
Svalbard	
Branta bernicla hrota	Vulnerable
Phalaropus fulicarius	Vulnerable
Uria aalge	Vulnerable

  Comments on the species in Table 1:

  Mainland Norway
  - *Anser erythropus*: Severe decline; only a small population remains; a major research project is underway.
  - *Crex crex*: Severe decline in Western Europe; national monitoring and awareness programme.
  - *Larus fuscus fuscus*: Severe decline due to lack of food; monitoring programme.
  - *Falco peregrinus*: Increasing; monitoring programme.
  - *Uria aalge*: Severe decline due to lack of food; monitoring programme.
  - *Nyctea scandiaca*: Severe decline; causes complex and little studied.
  - *Jynx torquilla*: Severe decline; causes complex and little studied.
  - *Eremophila alpestris*: Severe decline noted in wintering areas; causes complex and little studied.

Svalbard

- *Branta bernicla hrota*: Stable, but small population.
- *Phalaropus fulicarius*: Stable, but small population.
- *Uria aalge*: Severe decline due to lack of food.

Most of the species listed in Table 1 are covered by various research or monitoring programmes. For Snowy Owl *Nyctea scandiaca* and Shore Lark *Eremophila alpestris* in Norway, a programme should be initiated to study the causes of threat as a basis for conservation programmes.

ii) Summary of any progress regarding implementation of the 15 recommendations of CAFF Technical Report No. 4 (1998)

Comments are only given for those recommendations of particular relevance to Norway.

a) Closer involvement of CAFF countries in conventions and agreements to which they are already party, and promotion of better collaboration between these instruments

Since 1998, Norway has been a member of the Standing Committee of the Convention of Wetlands (Ramsar), and sees it as important to use this position to promote better co-operation both between other conventions as well as between parties. Co-operation between parties is also a fundamental issue within the Convention on Biological Diversity.

c) Increased adherence to the Convention on Biological Diversity

Norway has had a leading role within the Scientific Committee of the Convention, and in this capacity promoted the Convention as a pivot and co-ordinating agency in relation to the other relevant conventions.

e) Promotion of the Ramsar Convention and designation of further sites to the list

In the 1990s, Norway took a leading role in enlarging the scope of the Convention to include peatland sites, since these sites are important, *inter alia*, as breeding sites for migratory Arctic birds. The number of peatland sites on the Ramsar list has since increased greatly. Nationally, increased focus has been placed on establishing trans-boundary sites, and a programme for the designation of ten new Ramsar sites has been initiated.

j) Greater emphasis on the conservation of migratory species at population level

Norway supports the idea of developing Single Species Action Plans as a way of taking forward practical conservation. The work on *Anser erythropus* is a good example of how a Single Species Action Plan can be of vital importance for conservation strategies.

k) Further research on migratory birds that are inadequately protected throughout large parts of their non-breeding ranges, especially species that winter in tropical areas.

See paragraph *j)*.

l) Further research on seabirds wintering along the edge of the pack ice

Little research has been conducted along the pack ice in recent years. However, in order to increase knowledge of the wintering distribution of seabirds around Svalbard, studies have been carried out along the west coast of Norway in recent years.

m) Assessment of the impacts of climate change on Arctic migratory birds

The national monitoring terrestrial programme has one relevant site (Børgefjell) within the geographical working area of CAFF. This programme is particularly concerned with migratory passerines. Data from this ongoing annual monitoring programme may be of relevance in relation to the detection of climate change.

n) Assessment of the pressure on Arctic migratory birds outside the Arctic

The Action Plan for *Anser erythropus* is a good example of how international co-operation can detect pressures in different areas during migration or at wintering sites.

iii) Preliminary identification of key issues and prioritisation of activities from a national perspective

- Further work, both within the CAFF countries and within the relevant Conventions or Agreements, should increase the focus on species in particular need. A closer analysis to identify the relevant species could be performed by the CAFF countries.

- In Norway, attention could be focused on several Arctic breeding bird species. Two species, Snowy Owl *Nyctea scandiaca* and Shore Lark *Eremophila alpestris*, are of particular relevance. Both species have undergone strong declines, but understanding of the underlying factors affecting these species seems to be lacking. Both species are widespread in all parts of the Arctic and are thus suitable for an international programme. In the case of the Snowy Owl, guidelines for the management of the areas where the species occurs would be of great use. The factors behind the decline of the Shore Lark are probably manifold. However, international focus on both the breeding areas and the wintering sites could prove useful in determining the causal factors behind the decrease. Factors affecting both these species may also be of relevance to a number of other species.

- BirdLife and Important Bird Areas - IBAs
  The list of IBAs is based on the best available information on important habitats for birds, be it during the breeding season, migration season or in winter. In the European Union, this list is of significance in relation to the identification of ASCIs and subsequent inclusion into the Natura 2000 network of important sites. The promotion of IBAs in other countries should also be encouraged in a similar way.

- Norwegian coastal waters are of international importance for many species of seabirds and waterbirds. Norway runs several monitoring programmes on seabirds, the circumpolar aspects of which are being handled by the Circumpolar Seabird Working Group. Work is continuing on the national implementation plans for murres and eiders.

- The Fennoscandian Lesser White-fronted Goose *Anser erythropus* population is in a special position, as the entire remaining Fennoscandian breeding population (30-50 pairs) has its breeding sites in Finnmark County in the north of Norway.

  In close co-operation with the Finnish team (an EU/Life project), the Norwegian 'LWfG Project' has played an active role in conservation work under the International Action Plan (monitoring, satellite studies, mapping etc.) both in Norway and along the flyways. This work has revealed important stopover sites and identified illegal hunting as the major mortality factor. Even if there still are significant gaps in knowledge, the present data call for management measures on an (international co-operative) official/governmental level.

  This remnant population is confined to Norway, Finland, Sweden (and Russia) during the breeding period. However, the flyway covers several critically important countries where there is little or no tradition in conservation collaboration. Thus, there is a great need for assessment/development of conservation instruments in order to safeguard the population.

  From our point of view, this species/population could provide an excellent case study to illustrate the objectives of the workshop. The selection of a few representative species with a critical conservation status, and for which the necessary knowledge on migratory routes, threats and challenges is available, could be a powerful approach to 'illustrate' the needs and priorities related to international/regional conservation instruments.

Postscript

Mr. Størkersen drew attention to the recent focus on Bear Island, Svalbard and Jan Mayen Land. A new nature reserve had been established on Bear Island; there was a major programme in Svalbard to review all protected areas; and a new management plan had been prepared for the whole of Jan Mayen Land. He also mentioned ongoing co-operative programmes with Russia, particularly work in the Barents Sea, the results of which had recently been published in a book. He emphasised the value of international conventions as a useful tool for the conservation of migratory birds in Norway. He agreed that there was a need for an analysis of all Arctic birds to determine which required special attention and which were not at present covered by existing agreements and programmes.

NATIONAL REPORT OF THE RUSSIAN FEDERATION

Alexander N. Golovkin, Research Institute for Nature Conservation, Ministry of Natural Resources, and Alexander V. Solokha, State Centre of Game Management, Ministry of Agriculture.

As defined by CAFF Technical Report No. 4, about 270 species of migratory birds breed in the Russian Arctic. Both the Ministry of Natural Resources and the Ministry of Agriculture of Russia (after the abolition of Goskomecologia and Goskomles in June of 2000) are responsible for the protection and sustainable use of migratory birds. The national approaches to the maintenance of migratory birds are given below.

Inventory of resources and habitats

A large project to identify Russian wetlands that can be recommended for addition to the Ramsar List has recently been completed. A final report contains data on 166 natural terrestrial and aquatic sites that comprise a 'Shadow List' of wetlands of international importance. Of these 166 sites, 72 are situated within CAFF Territory. Some of the sites are already protected, since they are situated within zapovedniks, zakazniks and national parks. The remaining sites are to be protected following additional research to select the appropriate conservation status. In addition, the non-governmental Russian Bird Conservation Union (RBCU) continues a project on Important Bird Areas (IBA), which includes wetlands as well as other habitats. The first volume of the results of this research has recently been published, and contains data on 311 IBAs of international importance. The RBCU plans to extend its activities and conduct broad investigations in Eastern Siberia and the Russian Far East.

Improving legislation for the protection of migratory birds

The legal base of Russia seems to be quite well-designed for the protection of this resource. Conservation of migratory birds is directly or otherwise reflected in nine Laws and 39 Governmental Decrees and Directives. Furthermore, a number of local juridical documents have been accepted to facilitate the realization of Federal Laws at a lower level. The legislation also foresees the utilisation of migratory birds, generally in the form of hunting, with attention to the following basic principals: (a) all wild animals are national property according to the Law on Wildlife; and (b) the federal level of juridical protection applies to birds listed in the Red Data Book of Russia, to birds migrating over territories of two or more subjects of Federation, and to species covered by international conservation agreements.

In recent years, the list of bird species that may be hunted has been revised and set out in detail, along with a list, taken from an Appendix to the Red Data Book, of species that require special attention (non-threatened). Furthermore, the list of bird species that may not be hunted has been purposely defined to permit the traditional exploitation of these birds by indigenous people of northern Siberia and the Far East.

The maintenance of birds in zapovedniks and zakazniks

There are 94 zapovedniks, 29 national parks and 71 federal zakazniks in Russia. Within the Russian part of CAFF Territory, 12 zapovedniks and seven federal zakazniks cover an area of over 170,000 km^2 (zapovedniks, 123,150 km^2; federal zakazniks, 49,860 km^2). In addition, there are a number of regional zakazniks in which hunting is completely forbidden in accordance with the directives of local authorities.

Research and conservation of particular populations of birds

Various Working Specialist Groups and scientists conduct investigations on geese in Siberia, swans and ducks on the coast of the Barents Sea, geese, ducks, gulls and other waterbirds in Kamchatka and in the Bering Sea,etc. Generalised estimates of the breeding populations of waders (shorebirds) in Eastern Europe have been published in two volumes. The recently published first volume of a study on the non-passerine avifauna (excluding waders) of European North-eastern Russia contains information on the numbers, biology, distribution and migrations of 54 species. The Russian and CIS Ornithological Conference is expected to take place in Kazan in early 2001. The Goose Specialist Group intends to discuss problems in the study and conservation of Anseriformes in East Europe and North Asia during a conference to be held in Moscow in winter 2001.

Sustainable use of migratory birds

A list of migratory birds breeding in the Russian Arctic includes about 50 species that may be hunted. Some of these, *e.g.*, Bean Goose *Anser fabalis*, Greater White-fronted Goose *A. albifrons*, Greylag Goose *A. anser* and some ducks, are very popular quarry species for sport hunters. The Game Department of the Ministry of Agriculture is responsible for the sustainable use and protection of quarry species. The enforcement of strict hunting regulations and protection of game in zakazniks are amongst the priority activities of this Department. Moreover the Game Department recently re-established its database on the migrations and harvesting of Anseriformes throughout Russia, requesting information from its local divisions. To date, information is not always available at species level, and hence the data relate mainly to two general groups, 'geese' and 'ducks'. This work aims to improve hunting practices and to promote the conservation of migratory waterfowl.

The Game Department is particularly interested in receiving information from other countries in which large numbers of waterbirds are hunted during migration and in winter. We would like to co-operate with the relevant national and international institutions in the field of information exchange and monitoring of harvesting.

Postscript

Mr. Golovkin added that in recent years, more recognition had been given in Russia to the importance of multilateral and bilateral agreements in the conservation of migratory birds. Much of the research on migratory birds had been carried out in co-operation with other countries (*e.g.*, The Netherlands, Norway and the U.S.A.) and organisations such as WWF. The Russian Federation was now very interested in international agreements for the conservation of migratory

birds.

NATIONAL REPORT OF THE U.S.A.

Kenton Wohl, U.S. Fish and Wildlife Service.

The U.S. Fish and Wildlife Service (the Service) is the principal Federal agency in the United States providing Federal leadership for migratory bird conservation. As such, it is responsible for conserving, protecting and enhancing migratory birds and their habitats for the benefit of the American people. The Service has the legal mandate or trust responsibility for migratory bird population and habitat protection, international co-operation, implementing regulations and advancing the scientific foundation for bird management.

The Service also addresses their mission for migratory bird conservation through a network of more than 500 refuges and 3,000 waterfowl production areas spread across every state and several U.S. territories. The refuges protect at least 700 of the over 800 species of birds occurring in the U.S.

The foundations of the domestic migratory bird program in the U.S. are the Migratory Bird Treaty Act, the Endangered Species Act, the Fish and Wildlife Conservation Act, the Fish and Wildlife Coordination Act and the Bald and Golden Eagle Protection Act. The U.S. co-ordinates its international bird activities primarily through the four bilateral treaties (Canada, Mexico, Japan and Russia) and to a lesser degree through mechanisms like CITES, the Ramsar Convention, the Western Hemisphere Convention and the Arctic Council's Conservation of Arctic Flora and Fauna program. The primary activities of the U.S. international bird program are focused on: training, technical assistance, information exchange and joint research and management initiatives.

In the U.S. Arctic (Alaska), there are about 275 species of breeding birds or 202 in the Arctic defined by CAFF. About 81 species (40%) migrate to and winter in the Caribbean and Central America (50) and South America (31). An additional 24 species (12%) have pelagic migration and wintering distributions in the North Pacific Ocean.

Progress on Implementing Recommendations in CAFF Technical Report No. 4

a) Closer involvement of CAFF countries in conventions and agreements to which they are already party, and promotion of better collaboration between these instruments

The U.S. continued to implement its four bilateral migratory bird treaties, including enhancing the implementation of the U.S.-Japan treaty. The North American Bird Conservation Initiative is a good example of improving bird conservation partnership and integrating the bird programs of Canada, the U.S. and Mexico. The new Neotropical Migratory Bird Conservation Act will also enhance partnerships for bird conservation in the U.S., Latin America and the Caribbean.

b) Greater participation by CAFF countries in the Bonn Convention, promotion of Agreements under this Convention, and participation by all Range States in the Agreement on the Conservation of African-Eurasian Migratory Waterbirds

The U.S. is currently studying the draft CMS Albatross Agreement to determine the appropriateness of its involvement.

d) Increased support for implementation of the Asia-Pacific Migratory Waterbird Conservation Strategy: 1996-2000

The U.S. and Japan have reinvigorated their bilateral treaty activities with meetings in 1999 and 2000. In 1999, the U.S. became a member of the East Asian Anatidae Working Group and is participating as an observer in the East Asian Shorebird Working Group meeting in October 2000.

h) Increased collaboration between bilateral agreements for the protection of migratory birds in the Asia-Pacific region, and possible amalgamation of these into a multilateral agreement for the entire Asian/Australasian region

During the recent U.S.-Japan Migratory Bird Treaty meeting, it was suggested that Japanese, Russian and U.S. seabird managers and scientists meet together to discuss issues of shared seabird populations. Although no official meeting was agreed to, the two sides agreed to support a trilateral discussion of the seabird experts during the Pacific Seabird Group meeting in February 2001. The U.S. will also discuss this informal 'trilateral' meeting idea during the next U.S.-Russia Treating meeting.

k) Further research on migratory birds that are inadequately protected throughout large parts of their non-breeding ranges, especially species that winter in tropical forests

The Neotropical Migratory Bird Conservation Act of 2000 will enhance migratory bird activities in Latin America and the Caribbean.

n) Assessment of the pressures on Arctic migratory birds outside the Arctic

The U.S. has been involved in an assessment of contaminants and raptors in Latin America.

Recent Developments

In the last few years, the U.S. has focused on improving existing migratory bird conservation plans or developing new plans; *e.g.*, Partners in Flight Conservation Plan (landbirds), North American Waterfowl Management Plan, National Shorebird Conservation Plan, North American Bird Conservation Initiative, and the North American Colonial Waterbird Conservation Plan. Although completing all these plans was not an easy task, the real challenge lies in implementing these planning efforts in an integrated and co-ordinated manner and in acquiring new funds for their implementation.

In addition to these major planning activities, specific migratory bird issues in which the U.S. has recently been engaged in are: over-abundant species (Snow Goose *Anser caerulescens,* Canada Goose *Branta canadensis* and Double-crested Cormorant *Phalacrocorax auritus*) and avian mortality such as tower strikes, power line strikes and electrocutions, wind-turbine strikes, seabird by-catch in commercial fisheries and contaminants. The U.S. has also been

concerned about declining species and species for which there is little data. For example, of the 836 species occurring in the U.S., 124 are considered Species of Conservation Concern,

90 species are listed as threatened or endangered, and for 500-600 species, there is little or no data on their status.

Since most species of U.S. Arctic breeding birds migrate beyond U.S. borders via six major flyways, including the East Asia and Oceania flyways, the U.S. has recognized it cannot address breeding, migration and wintering areas in isolation. Therefore, the U.S. has focused on improving international co-operation and collaboration in the migratory bird arena. Recent examples of this are the U.S. participation and leadership in: the International Murre and Eider Conservation Strategies, Western Hemisphere and East Asia Australasian Shorebird Reserve Networks, the Circumpolar Seabird Working Group, the Food and Agriculture Organization's International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries and the reinvigoration of the U.S.-Japan Migratory Bird Treaty. In addition, the Neotropical Migratory Bird Conservation Act was passed this year which will assist in developing new migratory bird initiatives in Latin America and the Caribbean.

Key Issues

A primary issue of international migratory bird conservation from a U.S. perspective is the establishment or improved integration of management and research on a range-wide, flyway basis or corridor. It is well known that migratory birds in the U.S. are a national heritage. It is less known that most of the birds breeding in the Arctic and, to a lesser extent in the continental U.S., migrate beyond U.S. borders and are thus an international heritage for which all nations within a range or flyway share a joint and equal responsibility for the conservation of populations and their habitats.

Historically, the migratory bird program in the U.S. has emphasized waterfowl. Waterfowl breeding in the U.S. and North America migrate to wintering grounds in the southern U.S. and to a much lesser extent in northern and central Mexico. Hence, international migratory bird programs in the U.S. primarily involved Canada and Mexico. The advent of the Nongame Migratory Bird Program in the U.S. since the 1990s enhanced the realization that a large majority of the species of breeding migratory birds and most of the migratory bird populations in the U.S. migrate beyond North America. And, instead of concentrating on North America's four flyways, we now must be concerned with six flyways (Oceania and East Asia). Thus, there is a need to improve communication, co-ordination and collaboration with countries beyond the usual North American contingent. This growing focus on the total migratory bird community in the U.S. has also heightened the recognition that the most effective migratory bird conservation is that which is addressed on a range-wide or flyway basis and therefore must be achieved in a multilateral environment.

The most significant need in the Americas is to improve the co-ordination and collaboration of the North American and U.S. migratory bird conservation programs in Latin America. This can be accomplished by enhancing the involvement of the U.S. and other signatory countries and expanding their programs in the Western Hemisphere Convention.

The U.S. has recently become engaged in the East Asia flyway. However, there is also a need to become involved in the Pacific or Oceania flyway. The concept of consolidating the

myriad bilateral bird treaties, agreements and plans in the East Asia flyway should be considered. In the interim, efforts should be made in the East Asia flyway to improve the integration of activities within existing instruments.

Although terrestrial migratory birds are afforded protection in the U.S. by provisions of the Migratory Bird Treaty Act (MBTA), seabirds are afforded protection seaward to only the 12 mile territorial water limit. The trust resource agency (the Service) in the U.S. Government has no legal authority to work with industry (*e.g.*, oil and gas, and commercial fisheries) and other agencies to protect migratory waterbirds and their offshore habitats beyond 12 miles. In the U.S. Arctic (Alaska) there are about 24 species of migratory waterbirds that have a pelagic migratory and wintering distribution and are not afforded protection by the MBTA. The U.S. is currently reviewing legal mechanisms to extend the jurisdiction of the MBTA to U.S. citizens in the Exclusive Economic Zone and high seas.

CAFF has discussed the concept of a migratory bird expert group and more broadly a migratory species group to enhance co-ordination for this group of species in the Arctic. A thorough analysis of this issue needs to be completed and presented to the National Representatives for their consideration.

U.S. Involvement in International Instruments and Initiatives

The U.S. has been involved as a full participant (contributing staff support and/or funding) in the instruments or initiatives listed below that deal with migratory birds.

- Bilateral Migratory Bird Treaties with Canada, Mexico, Japan and Russia
- Convention on International Trade in Endangered Species of Wild Fauna and Flora
- Convention on Wetlands of International Importance Especially a Waterfowl Habitat
- Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere
- Food and Agricultural Organization International Plan of Action for Reducing Seabird By-catch in Longline Fisheries of the World
- U.S.-Russia Agreement on Cooperation in the Field of Environmental Protection
- Conservation of Arctic Flora and Fauna Program and Circumpolar Seabird Working Group
- Western Hemisphere and East Asian Australasian Shorebird Reserve Networks
- East Asian Anatidae and Shorebird Working Groups
- North American Waterfowl Management Plan, North American Colonial Waterbird Conservation Plan, Partners in Flight (landbird conservation plan), International Murre and Eider Strategies and Action Plans, and North American Bird Conservation Initiative.

V. GENERAL DISCUSSIONS AND CONCLUSIONS

The following summary of discussions and conclusions brings together the major points raised during the discussions following the presentation of National Reports and the presentation of the two case studies. The various points raised during the discussions are grouped under a series of major headings, and do not necessarily appear in the chronological sequence in which they were raised at the Workshop.

- **International instruments for the protection of migratory Arctic birds**

Several speakers emphasised the importance of Recommendation (a) in Technical Report No. 4, concerning closer involvement of CAFF countries in conventions and agreements to which they are already party, and promotion of better collaboration between these instruments. Peter Ward (U.S.A.) noted that the U.S. Fish and Wildlife Service was handing out an information document, *Wildlife without Borders*, describing the activities of the U.S.A. under existing agreements. He stressed the need for improved implementation of existing agreements, and added that a new initiative in the wider Caribbean would come into force when nine countries had become signatories (there are currently seven signatories, but these do not include the U.S.A.).

Gerard Boere (The Netherlands) noted that bilateral co-operation between countries was often focused on the implementation of existing conventions and agreements. As an example, he quoted GEF funding, which was dependent on the recipient states having signed the Convention on Biological Diversity. Participation in international agreements might therefore be a criterion for international financial assistance. The Netherlands steered much of its international funding through multilateral agreements.

Kevin McCormick (Canada) highlighted the value of twinning sites for the conservation of migratory birds. He mentioned as an example the twinning of the Bay of Fundy with a site in Suriname. Kenton Wohl (U.S.A.) added that the Western Hemisphere Shorebird Reserve Network (WHSRN) had used the same idea with considerable success.

In reference to Recommendation (b) in the Technical Report, concerning greater participation by CAFF countries in the Bonn Convention and Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA), Aevar Petersen (Iceland) reported that there was no political will in Iceland to join the Bonn Convention. He considered the Bern Convention (to which Iceland is a party) to be the most appropriate international convention for the protection of migratory birds in Iceland at the present time. However, he expressed the hope that Iceland would become a signatory to the Bonn Convention at some future date.

Richard Elliot (Canada) said that no immediate steps were being taken in Canada to join the Bonn Convention. He did not believe that Canada would join any new agreements until there had been a clear statement of the need, since involvement in further agreements would require a considerable amount of time and resources. He referred back to Recommendation (a) in the Technical Report, and said that Canada would prefer to make better use of the conventions to which it was already a party, and to undertake more activities under bilateral agreements. Peter Ward said that there was a similar situation with respect to the Bonn Convention in the U.S.A., although the U.S.A. was considering involvement in the CMS Albatross Agreement.

Øystein Størkersen (Norway) suggested that it might be better to focus on regional agreements rather than the Bonn Convention, which was an umbrella agreement.

As regards regional agreements, Peter Prokosch (WWF-International) pointed out that within the Circumpolar Region, there was one region, Eastern Siberia, where there were many threatened species. He suggested that it might be appropriate to make a specific recommendation concerning the East Asian Flyway and the need for a new agreement in this area. Juha Markkola (Finland) agreed with this suggestion, but added that there were also many problems in the Caspian Sea area. He felt that there was a great need for a better agreement on the protection of migratory birds in this region. Aevar Petersen added that the situation was no less difficult for migratory birds in many parts of Africa than it was in eastern Asia. Ward Hagemeijer (Wetlands International) drew attention to a new initiative for the Central Asian Flyway, which was to be the subject of a meeting being planned by Wetlands International in Kazakhstan in 2001.

Aevar Petersen noted that the pressures on migratory Arctic birds might be no less severe in areas where there were legally binding agreements than in areas where there were no such agreements. He did not feel that there was a need for a recommendation that specified particular regions in need of new agreements. As a compromise, Peter Prokosch suggested that the report coming out of one of the recommendations of the Workshop should identify those regions and sites for which improvements in international instruments were desirable.

Gerard Boere asked if the CAFF countries could jointly make recommendations to other countries to designate sites for Arctic migrants under international instruments to which they were a party (*e.g.*, additional sites under the Ramsar Convention). Snorri Baldursson (CAFF Secretariat) replied that there had been some opposition to the Arctic nations acting as a giant lobby to influence international conventions. In general, Mr. Baldursson did not feel that there would be much value in recommendations concerning international agreements, unless only two or three agreements were involved (*e.g.*, the two or three most important agreements for migratory birds).

Summing up the general feeling of the Workshop, Richard Elliot concluded that decisions with respect to existing and new international instruments should be delayed or deferred until priority species and sites had been identified.

- **Priority species and key sites**

In his presentation of the National Report from Iceland, Aevar Petersen referred to the concept of 'responsibility species', and this was picked up in the discussions. Peter Prokosch stressed the importance of 'responsibility species', and suggested that within the context of CAFF, these could be defined as those species more than 60% of the world population of which breeds in the Arctic. Mr. Prokosch thought that these should be separated from the more widespread species for which the Arctic is relatively unimportant. Attention could then be focused on those sites in countries outside the CAFF region that are of importance for these species. Snorri Baldursson commented that CAFF could carry out an assessment of 'responsibility species' as a circumpolar effort, on similar lines to the work already carried out by CAFF countries on species of common conservation concern (*e.g.*, eiders and murres). However, Gerard Boere advised caution in the use of the phrase 'responsibility species'. This terminology had been raised in discussions at international meetings in the 1980s, and had been found to be unpopular with politicians. A better term for such species would be 'species of special conservation concern', as used by BirdLife International.

Peter Prokosch suggested that there should be a specific recommendation to CAFF member states in the form of a list of Arctic species of special concern, to provide a starting point for co-operation. Snorri Baldursson supported this suggestion, and agreed that a list of species of common concern would constitute a useful basis for co-operation. Ward Hagemeijer added that there might be another recommendation concerning the listing of key sites for migratory Arctic birds. Mr. Prokosch then attempted to combine these ideas in a single recommendation that would call for (a) identification of the most important Arctic species and determination of their status and trends, and (b) identification of the key sites for these species throughout their ranges. This met with a very favourable response, and it was generally agreed that the next product required from CAFF was a report identifying priority species and sites or habitats, and that this would be the subject of one of the main recommendations of the Workshop. In a quick appraisal of all Arctic breeding birds, Mr. Prokosch estimated that no more than about 120 species were species that nested primarily in the Arctic (*i.e.*, more than about 60% of the world population).

Gerard Boere suggested that in the identification of priority species, subspecies and individual populations should be taken into account, although the IUCN Red Data Book looks only at the species level. Derek Scott (Wetlands International) strongly supported the view that the identification of priority species should be carried out at least to the subspecies level, and preferably to the level of individual populations. However, Alexander Golovkin (Russian Federation) noted that there would be problems in this approach because of uncertainties in subspecific status and delineation of populations. Problems would arise because of different approaches in different countries and administrative regions, and in some cases, it might only be possible to take the analysis to species level. Mr. Golovkin also thought that it would not be possible to consider all species of birds in the Arctic simultaneously. He suggested that it would be better to identify a series of first and second priorities. Aevar Petersen agreed that this would be the best approach, but questioned what criteria would be used to identify priorities.

Some concern was expressed that the list of key sites would become too long, and that it might be more useful to list key habitat types and areas. Derek Scott pointed out that the identification of key sites on the basis of the Ramsar 1% criterion would not be relevant to species that were dispersed outside the breeding season, and suggested that the listing of habitats and regions might be more useful for such species. Richard Elliot also raised the question of the Ramsar 1% criterion, and noted that this would not be appropriate for many land-birds (*e.g.*, forest birds) and birds in the open ocean. It would be necessary to consider other ways of identifying key sites, and this should be made apparent in the recommendations, perhaps through the inclusion of examples.

Aevar Petersen suggested that the concept of linkages between key sites within flyways should be promoted within the Ramsar Convention, since this currently tended to consider sites individually. Ward Hagemeijer responded by saying that the identification of networks of key sites was fundamental to the African-Eurasian Waterbird Agreement (AEWA). These networks could then be put forward to the Ramsar Convention. Richard Elliot concluded that it was now important to combine the tools for the protection of migratory Arctic birds (*i.e.*, the international instruments described in CAFF Technical Report No. 4) with lists of key species and key sites to identify the gaps in the tools, and thereby determine what additional instruments might be required.

- **Economic values of migratory Arctic birds**

Several speakers stressed the great, and yet often unrecognised, economic importance of bird-watching. David Cline (WWF–US) drew attention to the growing interest in bird-

watching and bird-feeding in the U.S.A., where there is now a higher participation rate and greater economic return in these activities than in hunting. He suggested that greater emphasis on these activities could help in conservation efforts for migratory birds. Peter Prokosch also commented on the rapidly growing interest in bird-watching, especially in the U.S.A. where there were now an estimated five million 'birders', and wondered how the CAFF Programme could outreach to this group. Kenton Wohl replied that the non-game constituency in the U.S.A. was not well-organised, and did not provide financial support for programmes to help the U.S. Fish and Wildlife Service, as the hunting constituency did. He said that it was necessary to do a much better job in outreach to the public. Kevin McCormick remarked that studies in Canada had demonstrated the high economic values of bird-watching, and had provided very strong political arguments for the protection of birds. He suggested that it would be appropriate for CAFF to carry out an assessment of all economic values of migratory Arctic birds.

Snorri Baldursson agreed that it would be useful to highlight the full economic value of migratory Arctic birds, and suggested that this might be summarised quite easily and quickly in an overview report by CAFF. Some countries, such as Canada and the U.S.A., already had good information on the numbers of bird-watchers and the associated economic values. The importance of good economic data to determine the full values of migratory birds was also stressed by Øystein Størkersen and David Cline. Mr. Cline gave an example from the U.S.A., where the value of recreation in some national forests was now estimated to be ten times that of the timber resources. Peter Prokosch pointed out that to assess the full economic value of migratory Arctic birds for bird-watching, account had to be taken not only of bird-watching in the Arctic, but also visits by bird-watchers to sites outside the Arctic harbouring major concentrations of Arctic birds, *e.g.*, sites in The Netherlands and South Africa. The general consensus was that the Workshop recommendations should include something on the need for an assessment of the socio-economic values of Arctic migratory birds.

Gerard Boere drew attention to the substantial harvest of migratory birds outside the CAFF countries, and in particular, the huge annual harvest of migratory waterbirds in the Inner Delta of the Niger in West Africa. He thought that efforts should be made to determine the size of these harvests so that steps could be taken to rationalise harvests throughout the flyways. Kevin McCormick felt that an assessment of the annual harvests should be included in a socio-economic analysis of the values of migratory Arctic birds, but questioned how accessible the data were for many parts of the world. Mr. Boere noted that since the days of Teppo Lampio (Co-ordinator of the IWRB Hunting Harvest Research Group), there had been no good overview of harvest statistics in Europe. Alexander Golovkin added that the harvest statistics in Russia were now less reliable than they had been, and Mr. Boere added that there was only scattered information on the huge harvests of waterbirds in Asia. Mr. McCormick commented that any review of hunting harvests should be a stand-alone work, and would be a major task. Mr. Boere noted that Wetlands International was currently trying to do something on hunting harvests. Wetlands International – Asia/Pacific (WI-AP), in particular, had collected a great deal of information in the Asia – Pacific region.

- **Marine species**

Kenton Wohl raised the issue of protection of seabirds in marine waters. He noted that there were no special measures for the protection of migratory birds in international waters. In the U.S.A., national legislation for the protection of seabirds was effective only up to the 12 nautical mile limit. Comments from around the table indicated that in Canada, Iceland and Norway, some legislation applied up to the 200 nautical mile limit (Economic Exclusion Zone), although in Canada at least, national jurisdiction outside the 12 mile limit was relatively weak. In Russia, all hunting at sea was prohibited, and there were possibilities for the establishment of marine protected areas, with additional restrictions on shipping and over-flying. Derek Scott pointed out that there were many international instruments concerned with the control of pollution in international waters, several of which contained provisions for the establishment of marine protected areas. It was generally agreed that more attention should be given to the protection of Arctic seabirds in international waters, either through better use of existing international instruments, or through the development of new initiatives.

During the final morning session, Kenton Wohl repeated his concern at the lack of protection for seabirds in offshore marine habitats, and felt there was a need to include a recommendation encouraging countries to ensure the protection of migratory birds in offshore marine habitats. After some debate, it was agreed that a short recommendation on this issue should be added.

- **Indigenous peoples**

David Cline raised the issue of the concerns of indigenous peoples. He stressed that their involvement in the process was essential. Gerard Boere noted that the indigenous people of the Arctic were not the only indigenous people involved, and drew attention to the indigenous people of Mauritania who harvest migratory birds from the Arctic. Kevin McCormick agreed that indigenous peoples throughout the flyways of migratory Arctic birds would need to be taken into account in the socio-economic aspects.

Mr. Cline commented that the only way to manage hunting harvests in Alaska was to involve the indigenous people in the co-management of their resources. Since this co-management had been introduced, there had been better reporting of the take, and the situation was now improving. Involvement of the indigenous people had proved to be the best way to tackle the problems of illegal take and over-harvest. Kevin McCormick noted that in Canada there was a movement toward a non-quota system. Local communities were given the responsibility of governing their own resources, and local people were engaged directly in management. Where this was proving to be successful, the quota system was being removed. However, this approach was still at the experimental stage.

Mr. Cline noted that in Alaska there was an increasing need to find the funding for indigenous people to participate in meetings. This was becoming an important issue in the U.S.A. Mr. McCormick said that this was not such a problem in Canada, where funds were available from settlement claims to allow participation in regular fora.

There was general agreement that the concerns for indigenous people as raised in the Workshop should be reflected in this report. However, it was not felt that there should be a recommendation relating specifically to indigenous peoples and their involvement in management, partly because many of the issues relating to indigenous people (such as the harvest of migratory birds in West

Africa) were outside the territorial limits of CAFF member states.

- **International aid**

Kevin McCormick suggested that there should be a recommendation that countries strengthen their links between conservation agencies and international development agencies, and this met with considerable approval. The preamble to such a recommendation should emphasise the global perspective of migratory birds from the Arctic. Speaking from the perspective of an NGO, Mr. Cline suggested that it would be a good idea to take an example of a long-distance migrant, such as the Red Knot, to demonstrate linkages between countries throughout the world, and to show how international aid could be mobilised. The species should be one that could arouse broad public interest and could be worked into trade and aid programmes in international contexts.

- **Climate change**

In reference to Recommendation (m) in Technical Report No. 4, concerning the assessment of the impacts of climate change on migratory Arctic birds, it was noted that this topic was already well covered by WCMC and the Arctic Climate Impact Assessment programme of AMAP/CAFF. Snorri Baldursson noted that wildlife and conservation issues would be the subject of a major chapter in the AMAP/CAFF assessment, and suggested that the Workshop could promote the inclusion of migratory birds in this assessment. It was agreed that there was no need to include anything on the impacts of climate change in the report being recommended by the Workshop. However, Mr. Baldursson expressed the hope that the participants in the Workshop would assist AMAP/CAFF in its assessment.

VI. ESTABLISHMENT OF AN EXPERT GROUP ON MIGRATORY SPECIES

Snorri Baldursson (CAFF Secretariat) opened the discussion by summarising the overall picture at CAFF. There were currently six major areas of activity: (a) the Circumpolar Biodiversity Monitoring Program with expert networks of key species groups; (b) seabird and migratory bird conservation strategies and assessments; (c) Arctic flora work including a Circumpolar Arctic Vegetation Map; (d) the Circumpolar Protected Areas Network (CPAN); (e) the Arctic Climate Impact Assessment project; and (f) an overview report on Arctic biodiversity. There was already a well-established Circumpolar Seabird Working Group (CSWG), chaired by Kenton Wohl. The need for additional species groups had been discussed on many occasions at CAFF meetings, but there had been some resistance to increasing the number of subsidiary bodies because of funding problems. Mr. Baldursson concluded by saying that he did not feel that there was a need for a specific body for migratory birds at this time.

Kenton Wohl (U.S.A.) questioned if there was a need for a seabird group and a wader group, as well as a migratory bird group, or if a new migratory bird group would supersede the others. Aevar Petersen (Iceland) questioned the purpose of an expert group on migratory birds, and asked if it would be responsible for pursuing the implementation of the recommendations of the Workshop. Richard Elliot (Canada) felt that there was not as yet a need for an expert group with the responsibilities as proposed in Technical Report No. 4. However, there might be a need for an expert group to carry out the next steps, *i.e.*, produce the reports called for in the Workshop recommendations.

Peter Prokosch (WWF-International) noted that the CSWG had been very effective, and wondered why this had been the only bird group established by CAFF to date. In response, Kenton Wohl, Chairman of the CSWG, made a few remarks on the background to the Group. He noted that the CSWG had been established as an outcome of CAFF I in 1992, and attributed much of its success to the fact that it had focused on a small group of species, most of which were shared by many Arctic countries, and many of which were already the subject of ongoing research, often by volunteers. Although there had been suggestions that the CSWG might be wound down, new issues of common concern kept coming up, and the role of the Group was undiminished.

Kevin McCormick (Canada) commented that he did not see a need for an expert group on migratory birds in its broadest sense. He also attributed the success of the CSWG to the fact that it had been very focused. However, he thought that there was a place for additional small, focused groups, *e.g.*, the proposed group on waders (shorebirds). He believed that the key for effectiveness was to keep the group small, and thought that eventually there might be several groups for birds. He concluded by saying that there might be a need for *ad hoc* groups to handle particular assignments.

Richard Elliot commented that CAFF had rejected the idea of establishing additional expert groups on many occasions. The reason was that CAFF wanted to keep the focus on a few issues. Mr. Elliot. could see a role for additional groups on a temporary *ad hoc* basis, to help in resolving special needs, *e.g.*, a group for waders. If a new Expert Group for Migratory Birds were to be established, he would hope that this would be formed at the *ad hoc* level, and would fulfil a specific need.

Snorri Baldursson noted that the CSWG had been requested by the National Representatives to look at a number of broad issues. As proposed in Recommendation (o) in Technical Report No. 4, an Expert Group on Migratory Species would assist member states in the implementation of international conventions and agreements. However, the feeling of the Workshop was that this was not the most pressing need at the present time. Instead, Mr. Baldursson thought that there might be some value in creating an *ad hoc* expert group to assist in the production of the report on priority species and sites called for in the proposed recommendations of the Workshop.

Aevar Petersen commented that the activities of the CSWG had been broadened simply because there had been no other bird group in CAFF. He was concerned that the role of an Expert Group on Migratory Species had not yet been determined. He suggested that the best solution would be to start with an *ad hoc* group that might then evolve into a permanent group. The first step was to determine the need for such a group. Kenton Wohl noted that the *ad hoc* approach was favoured in the U.S.A. He felt that the need for a special Expert Group on Migratory Birds might come out of the analysis in the proposed report on priority species and sites.

Peter Prokosch expressed concern that CAFF still had only the seabird expert group. He thought that it would be better for the profile of CAFF if it were seen to be taking more interest in other groups of birds. He noted that there was a greater international dimension with some other birds, such as geese and waders, than with seabirds. Aevar Petersen responded by noting that it was partly because there had been no international group concerned specifically with seabirds that the CSWG had been established. Other groups of Arctic birds such as the geese and waders were already well-covered by international initiatives. However, Gerard Boere (The Netherlands) thought that the international dimension of migratory Arctic birds would necessitate the formation of an expert group sooner or later.

Øystein Størkersen (Norway) noted that as his Directorate was concerned, the establishment of a CAFF Expert Group on Migratory Birds would have been an advantage. However, Valery Orlov (Russian Federation) thought that it was still too early to establish an Expert Group on Migratory Birds. He felt that first there should be an analysis of the need for such a group, and that this issue should be discussed at a meeting of CAFF national representatives. Peter Ward (U.S.A.) noted that the establishment of an Expert Group on Migratory Birds would place big demands on time and would incur additional travel costs. He suggested that a better approach might be to establish a series of phased groups, with the CSWG acting for a time, then an expert group on another group of species for a time, and so on.

With opinions still somewhat divided on the need for an Expert Group on Migratory Species, it was generally agreed that there should be no recommendation from the Workshop on this matter.

VII. PRIORITIES FOR RESEARCH ON MIGRATORY ARCTIC BIRDS

Summary of discussions by Breakout Group (Leader: Øystein Størkersen)

Even if the CAFF initiative in itself is unable to raise funds directly, it will generally be helpful if CAFF countries endorse recommendations as put forward by the Workshop.

The Action Plan for the Lesser White-fronted Goose (LWfG) is highly solution-oriented, and is a good example on how a Single Species Action Plan can be taken forward. Ingar Jostein Øien agreed to formulate points of action in relation to the LWfG. *Inter alia*, these could include better management of the LWfG and protection of lakes of importance for the LWfG in Kazakhstan and Dongting Lake in China. The points of action should also be addressed to the Goose Specialist Group.

CAFF Technical Report No. 4 lists nine globally endangered species relevant to the Arctic (see Appendix 5). The group felt it was not necessary to include this list in the present recommendations, since the list may change. Rather, it would be sufficient to refer to such lists.

The Group felt that it might be relevant to assign the task of co-ordinating unit regarding work on globally threatened species to an identified institution.

As regards the question as to how CAFF could contribute towards taking the action plans forward, CAFF was seen as an international umbrella that could promote collaboration on management and research.

The fact that a priority list of migratory Arctic breeding birds has not yet been agreed upon creates a problem, in the sense that action for some of these species is urgent. It should not be necessary to wait for recommendations on these species from the CAFF countries. Rather, the priority species warranting immediate action are already well known, and work on these species should not be delayed.

The Group felt that greater priority should be given to the identification of key sites for species in their flyways.

Migratory research efforts should respond to priority needs.

Migratory birds have a significant economic value throughout their flyways, be it as a source of food or as a part of leisure activities. This value was perceived by the Group to be much underrated. Research in this field would be useful to enable these values to be taken into account in the management of both species and areas.

The Group regarded the following four issues as topics that should be handled by the existing CAFF Circumpolar Seabird Working Group: (i) evaluation/mitigation of seabird by-catch; (ii) the effects of bottom trawling on seabirds; (iii) the benefits of marine protected areas; and (iv) the importance of pack ice to seabirds.

As regards the monitoring of climate change, the Group felt that this should be given top priority. The existing monitoring network should be maintained, and the network supplemented when and where areas or species that are not as yet satisfactorily covered are detected. Long-term monitoring is the most valuable.

CAFF Technical Report No. 4 draws attention to 18 bird species, such as raptors and grassland birds, and various natural habitats that are not covered by existing international agreements. The Group felt that it was necessary to bear these species and habitats in mind and to identify needs for research.

Socio-economic studies into the values of migratory Arctic birds, as well as public awareness programmes and better training of hunters, are all topics that underlie much of the proposed recommendations and points of action.

VIII. PRIORITY RECOMMENDATIONS AND RESEARCH PRIORITIES FROM THE WORKSHOP

Note: These are the priority recommendations and research priorities from the CAFF Workshop on the Conservation of Migratory Arctic Birds. Other conclusions and recommendations of the Workshop are summarised elsewhere in this report.

Preamble

Migratory Arctic birds are an international resource over which no single country has complete control. Instead, nations throughout the ranges of these birds, many of which are developing countries, have joint responsibility for their conservation. The substantial social, cultural and economic values of these migratory Arctic birds throughout their breeding, staging and wintering areas, are seldom fully recognised. Nevertheless, they are exposed to pressures and threats such as habitat degradation, unsustainable harvests, predation by alien species, impacts of contaminants and pollution, and climate change. Nine species are included in the list of Globally Threatened Birds (see Appendix 5).

As identified in CAFF Technical Report No. 4, there are already many international conservation instruments that could benefit the conservation of migratory Arctic birds and which nations should use to achieve this end. However, some instruments which could benefit these species lack complete implementation. In addition, some regions and habitats, such as marine areas, may lack international instruments needed to fully address the conservation needs of migratory Arctic birds.

The international community can best focus its conservation actions for migratory Arctic birds, and make effective use of these instruments, once conservation priorities for these birds are clearly defined.

The CAFF workshop participants

1. Recommend that CAFF prepares a report which:

- Identifies those migratory birds which nest primarily in the Arctic and rely on habitats elsewhere in the world at other times of the year, assesses their current population status and trends, and identifies those populations that are of special conservation concern.
- Identifies important migration, staging, and wintering areas beyond the Circumpolar region, particularly those that lack adequate protection.
- Identifies instruments to improve the effectiveness of conservation action in regard to these priority areas and species.

2. Recommend that CAFF prepares a report which:

- Assesses the full range of socio-economic values of migratory Arctic birds throughout their breeding, staging and wintering areas.

3. Recommend that CAFF countries:

- Make national and international funding and development agencies aware of the important opportunity to support the conservation of these priority Arctic migratory birds and their habitats, through the design of their development programmes that influence land-use.

4. Recommend that CAFF countries:

- Make full use of international instruments and national legislation to effectively protect and conserve Arctic migratory birds which use marine habitats.

5. Recommend that:

- With respect to the urgent situation for globally threatened migratory Arctic nesting bird species, CAFF should promote and when possible co-ordinate research and recovery plans among range states.

6. Recommend to CAFF countries that:

- More effort is needed to define and assess the impact of harvest pressures on migratory Arctic birds and in particular in relation to threatened species, to contribute to future sustainable management of the populations.

Research Priorities:

- The workshop recognised that international co-operation between nations benefits migratory birds throughout their ranges.

  In particular the workshop noted the importance of co-operation with Kazakhstan and China to assist those nations in their efforts to conserve the Lesser White-fronted Goose.

  The workshop recognised that other migratory bird species will benefit from improved collaboration in field research, education and outreach.

- The workshop recognised the importance of continued monitoring of Arctic bird populations in relation to climate change as an important basis for future conservation efforts. The workshop further recommended the identification of Arctic bird species and areas not satisfactorily covered by monitoring activity today.

- In recognition of the large impact of indiscriminate harvest in large parts of the flyways of Arctic migratory breeding bird species, the workshop calls upon all nations to educate their hunting public in species identification and awareness of conservation principles.

- The workshop calls for the identification of important habitats for Arctic migratory birds throughout their ranges and the strengthening of collaboration for their conservation.

- The workshop pointed out the lack of knowledge for a number of Arctic breeding bird species in relation to their flyways, and expressed a need for continued research.

Appendix 1

CAFF Workshop on Conservation of Migratory Arctic Birds

Agenda

Saturday 9 September

2000 Departure from Lilletorget Hotel for Songli.

2200 *Supper*

Sunday 10 September

0800 *Breakfast*

0900 Opening (Chair: Russian Federation).
Welcome statement by Øystein Størkersen on behalf of Norwegian Government.
Short statements by Gerard C. Boere (The Netherlands) and Snorri Baldursson (CAFF Secretariat).

0920 Presentation by Derek A. Scott (author of CAFF Technical Report No. 4).

0945 Session 1: Presentation of National Reports:
- Canada
- Finland
- Iceland

1030 *Coffee/tea break*

1050 Presentation of National Reports (continued):
- Norway
- Russian Federation
- U.S.A.

1145 Discussion on National Reports.

1200 *Lunch*

1330 Session 2: Case studies on the conservation of migratory species:
Lesser White-fronted Goose *Anser erythropus* – a globally threatened species. Ingar Øien (Norway).

1350 Red Knot *Calidris canutus* – a long-distance migrant. Ward Hagemeijer (Wetlands International).

1400 Session 3: General discussion on improving the effectiveness of existing international treaties, agreements and initiatives for the protection of migratory Arctic birds, and the need for new multilateral instruments. This discussion could include the following points, as well as issues raised in the National Reports.

- Greater involvement by CAFF countries.
- Better collaboration between CAFF countries.
- Promotion of treaties, agreements *etc.* outside the CAFF region.
- Improvement in linkages between treaties, agreements *etc*.
- Development of Agreements under the Bonn Convention (comparable to AEWA).
- Amalgamation of bilateral agreements into multilateral agreement (*e.g.* in Asia/Pacific/North America).
- Development of legally-binding agreements for the Asia-Pacific flyway, Central Asian flyway and American flyways.
- Multilateral agreements for special groups (*e.g.* raptors, sea-birds, forest birds).

1500 *Coffee/tea break*

1530 Session 3 (continued). Continuation of general discussion.

1630 Session 4: Promoting research on migratory Arctic birds both within and outside the Arctic (see also Recommendations (j) to (n) in Technical Report No. 4).

1800 *Dinner*

2000 Break-out groups to revise recommendations, to formulate new recommendations as appropriate, and to discuss priority issues for research on migratory Arctic birds.

Monday 11 September

0800 *Breakfast*

0900 Session 5: Discussion of Recommendations, including the establishment of an Expert Group on Migratory Species in addition to the Circumpolar Seabird Working Group.

1030 *Coffee/tea break*

1050 Continuation of discussion, and finalisation of Recommendations of Workshop.

1200 *Lunch*

Departure for Trondheim and Trondheim Airport (time to be announced).

Appendix 2

List of Participants

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Appendix 3

Summary of Recommendations in CAFF Technical Report No. 4

(a) Closer involvement of CAFF countries in conventions and agreements to which they are already party, and promotion of better collaboration between these instruments.

(b) Greater participation by CAFF countries in the Bonn Convention, promotion of Agreements under this Convention, and participation by all Range States in the Agreement on the Conservation of African-Eurasian Migratory Waterbirds.

(c) Increased adherence to the Convention on Biological Diversity.

(d) Increased support for implementation of the Asia-Pacific Migratory Waterbird Conservation Strategy: 1996-2000.

(e) Promotion of the Ramsar Convention and designation of further sites to the List.

(f) Promotion of the Bern Convention in Eastern Europe.

(g) Confirmation of participation in the multilateral and bilateral agreements of the former USSR by members of the Commonwealth of Independent States.

(h) Increased collaboration between bilateral agreements for the protection of migratory birds in the Asia-Pacific region, and possible amalgamation of these into a multilateral agreement for the entire Asian/Australasian region.

(i) Development of multilateral agreements for the conservation of migratory raptors, especially in the Americas and Western Eurasia/Africa.

(j) Greater emphasis on the conservation of migratory species at population level.

(k) Further research on migratory birds that are inadequately protected throughout large parts of their non-breeding ranges, especially species that winter in tropical forests.

(l) Further research on seabirds wintering along the edge of the pack ice.

(m) Assessment of the impacts of climate change on Arctic migratory birds.

(n) Assessment of the pressures on Arctic migratory birds outside the Arctic.

(o) Establishment of an Expert Group on Migratory Species within the CAFF Programme.

Appendix 4

Priorities in the Conservation of Migratory Arctic Birds outside the Arctic

Derek A. Scott

CAFF Technical Report No. 4, published in August 1998, is concerned with what happens to Arctic breeding birds when they migrate outside the Arctic, or more specifically outside the CAFF member countries. Much of the report is a very dry account of the many international legally binding and voluntary instruments that have some relevance to the conservation of migratory Arctic birds once they leave the relative security of the CAFF member countries. Migratory birds from the Arctic, although emanating from breeding areas that occupy only a small fraction of the earth's land surface, migrate to virtually every corner of the globe, and penetrate into virtually all of the world's major ecosystems. Thus a review of international instruments relating to the protection of migratory Arctic birds becomes, in effect, a review of all international instruments relating to the protection of migratory birds world-wide.

There are many such instruments, some global in coverage, others regional, and others quite local (*e.g.*, many of the bilateral agreements). The report describes 34 legally binding conventions or agreements and 33 voluntary initiatives that have an important bearing on migratory birds from the Arctic, and mentions a further 95 instruments and initiatives that have some relevance. Many of these make little if any reference to migratory birds, but are of direct relevance as they help to safeguard the natural environment and hence the habitats of migratory birds, *e.g.*, the many conventions and agreements concerned with marine pollution and those concerned with climate change. Of those that are particularly concerned with migratory birds, some relate to all species of birds within their region of coverage, others to particular groups of species, and yet others to a single species or even particular populations of one species. There are also many conventions, agreements and initiatives that are primarily site or habitat based, promoting the conservation of sites of outstanding ecological importance, which in many cases are also of great importance for migratory birds from the Arctic. In the discussion on the effectiveness of the relevant international instruments, it was therefore necessary to consider coverage by region, by species and by habitat type.

A very clear finding of the study, as demonstrated in Figure 4 in the report, was that as far as legally binding international instruments are concerned, the further south a bird migrates, the less likely it is to enjoy adequate protection in its winter quarters. This is particularly the case in the tropical regions of the Americas, Africa and Asia, where there are few effective legally-binding agreements for the protection of migratory birds. The situation improves again in the extreme south because of better national legislation for the protection of birds in the southern cone of South America, Southern Africa and Australia and New Zealand. As far as regional coverage is concerned, it is obvious that the greatest gaps are in the tropics.

As regards protection at species level, the seabirds and many groups of waterbirds (notably Anatidae, cranes and shorebirds) are receiving a considerable amount of attention. These are popular groups of birds, large and conspicuous, relatively easy to study, and in many cases, of economic importance as quarry species for subsistence and sport hunters. It is also the larger

waterbirds that are most likely to be at risk from human activities, *e.g.*, of the nine Arctic species listed by IUCN as globally threatened, eight are waterbirds (four Anatidae, one crane and three shorebirds). Consequently, these groups have become the subject of many global and regional initiatives, including legally binding agreements such as the African-Eurasian Waterbird Agreement, and voluntary initiatives such as the Western Hemisphere Shorebird Reserve Network. Of the 12 international species action plans listed in the report, eight relate to species of Anatidae, one to seabirds, one to cormorants, one to grebes and one to cranes. There appear to be no international instruments, either legally binding or voluntary, that relate specifically to migratory land-birds, namely the raptors, near-passerines or passerines, although these constitute about 46% of all migratory birds breeding in the Arctic. Obviously this is a major deficiency which needs to be looked at more closely.

It is apparent that many of the land-birds that breed in the Arctic do so only at the northern limit of their ranges, and are much commoner and more widespread at temperate latitudes. In many cases, it may be that the Arctic breeding populations are relatively unimportant in a global context, and not of major concern. Furthermore, many of these species undertake only short migrations to winter in temperate latitudes where they are relatively well protected. This is especially the case for many of the land-birds breeding in the Scandinavian Arctic and wintering in Western Europe. However, there is evidence of a decline in some Arctic populations of land-birds, *e.g.*, the Wryneck *Jynx torquilla* and Shorelark *Eremophila alpestris* in northern Scandinavia, and a number of species are true long-distance migrants, spending the non-breeding season in tropical regions where they or their habitats are afforded little if any protection.

As far as habitats are concerned, there are many international agreements and programmes that give considerable attention to wetlands. The Ramsar Convention, in particular, is concerned solely with wetland habitats, and has been particularly successful in promoting wetland conservation on a global scale. Some 93 of the 279 species discussed in the report are dependent on wetlands outside the breeding season, and most of these benefit greatly from the emphasis on wetlands in many international conservation efforts. Similarly, there are many international instruments concerned with the marine environment that give some benefit to the 54 species that spend the northern winter in coastal waters or in the open ocean. However, there remain 132 species that are dependent on dry-land habitats outside the breeding season (grasslands and steppe, temperate forests and woodlands and tropical forests and woodlands). There are very few international agreements or programmes that provide special protection to the habitat of these birds.

It is now recognised that natural grasslands and steppe are habitat types that are under serious threat in many parts of the world, and efforts are being made, especially by BirdLife International, to raise awareness to this problem and to promote the conservation of these habitats. However, most of the 29 Arctic birds classified as wintering in grasslands or steppe have adapted well to pastureland and arable land (*e.g.*, most of the geese and some of the plovers), and are doubtless benefiting from man's agricultural activities, especially in semi-arid regions. The two notable exceptions, Lesser White-fronted Goose *Anser erythropus* and Eskimo Curlew *Numenius borealis*, are both globally threatened species that have received a great deal of attention. The Lesser White-fronted Goose is the subject of a major conservation effort in Scandinavia.
Land-birds breeding in the North American Arctic and wintering in temperate forest and woodlands barely stray outside CAFF countries, whilst those breeding in the European Arctic

winter mainly in Europe, where the conservation of forests and woodlands has received a considerable amount of attention both through national endeavours and the European Union in its Birds and Habitats Directives. However, the temperate forests and woodlands in many parts of Asia, especially the densely populated regions of China, are under serious threat, and it seems likely that populations of land-birds from the Siberian Arctic are suffering as a consequence. Even more serious is the threat to the tropical forests and woodlands that provide wintering habitat for about 38 species of Arctic birds. Twelve of these winter mainly in tropical Africa, ten in tropical Asia, and sixteen in the Neotropics. The dire state of the world's tropical forests is well documented, and yet international efforts to conserve these have, for the most part, been largely ineffective. Almost throughout the tropical regions of the world, deforestation continues at an alarming pace, and places ever increasing pressures on those birds that are dependent on forested habitats for their survival through the northern winter.

Summing up, it is clear that the most conspicuous gap in the coverage of international instruments for the protection of migratory birds from the Arctic concerns the land-birds (including the birds of prey), and especially the long-distance migrants which migrate to tropical regions to spend the northern winter in forest and woodland habitats. This does not necessarily mean that we suddenly switch all our attention to this group of birds. It may well be that many if not most of the species concerned are doing very well, and do not need any special protection. Unfortunately, it was not possible, during the compilation of the CAFF report, to carry out any analysis of the current status and trends in the populations of the 279 Arctic birds. A great deal of information is available on the population sizes and trends for many of the sea-birds and waterbirds, *e.g.*, as summarised for waterbirds in the first two editions of *Waterfowl Population Estimates* (Rose & Scott, 1994 & 1997), but information on population sizes and trends in Arctic-breeding land-birds is much less readily available. Good information is available on population sizes and trends of bird populations in the Nordic countries, but elsewhere, any information that does exist is widely scattered in the literature. Clearly, what is now required is an assessment of the status of all Arctic birds, not just the seabirds and waterbirds, to determine which are in need of special attention. Such an assessment is currently being undertaken on a national scale in Canada, as part of a nation-wide survey of the status of all wild vertebrates. The emphasis in such an assessment should not simply be to determine which species are already at serious risk, but also to try to identify those species which, although still relatively common or even abundant, have declining populations and may become at risk in the future. It is therefore suggested that a priority for the CAFF Programme in the coming years should be to undertake such an assessment with equal emphasis being given to all bird species with important breeding populations in the Arctic. This could help to identify specific regions and/or specific habitat types that support a group of declining species, and might thereby help to identify the reasons for decline and focus conservation efforts where they are most required.

Appendix 5

Globally Threatened Species of Migratory Arctic Birds

Lesser White-fronted Goose *Anser erythropus*
Red-breasted Goose *Branta ruficollis*
Baikal Teal *Anas formosa*
Steller's Eider *Polysticta stelleri*
Steller's Sea-Eagle *Haliaeetus pelagicus*
Siberian Crane *Grus leucogeranus*
Eskimo Curlew *Numenius borealis*
Bristle-thighed Curlew *Numenius tahitiensis*
Spoon-billed Sandpiper *Eurynorhynchus pygmeus*

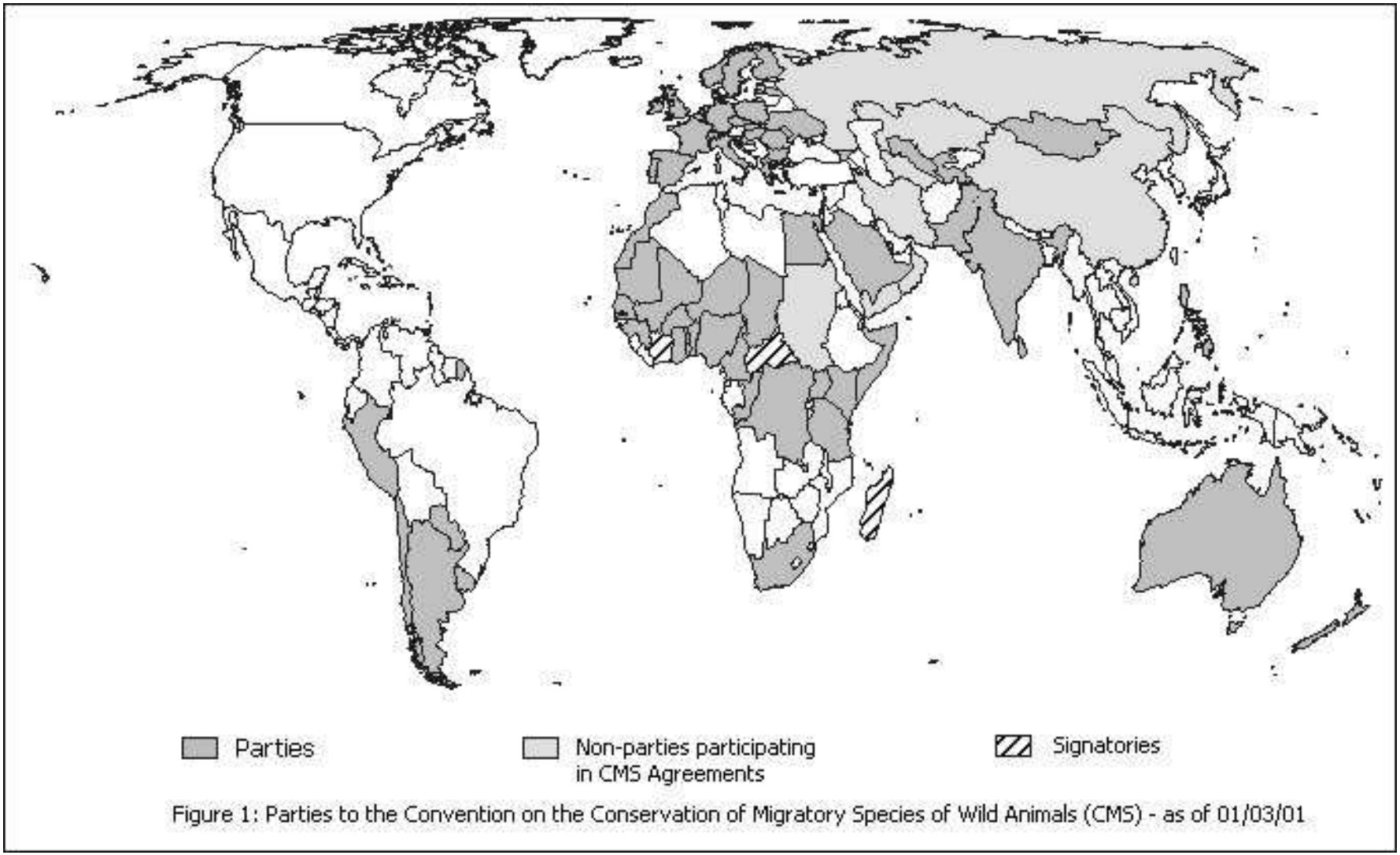

Figure 1: Parties to the Convention on the Conservation of Migratory Species of Wild Animals (CMS) - as of 01/03/01

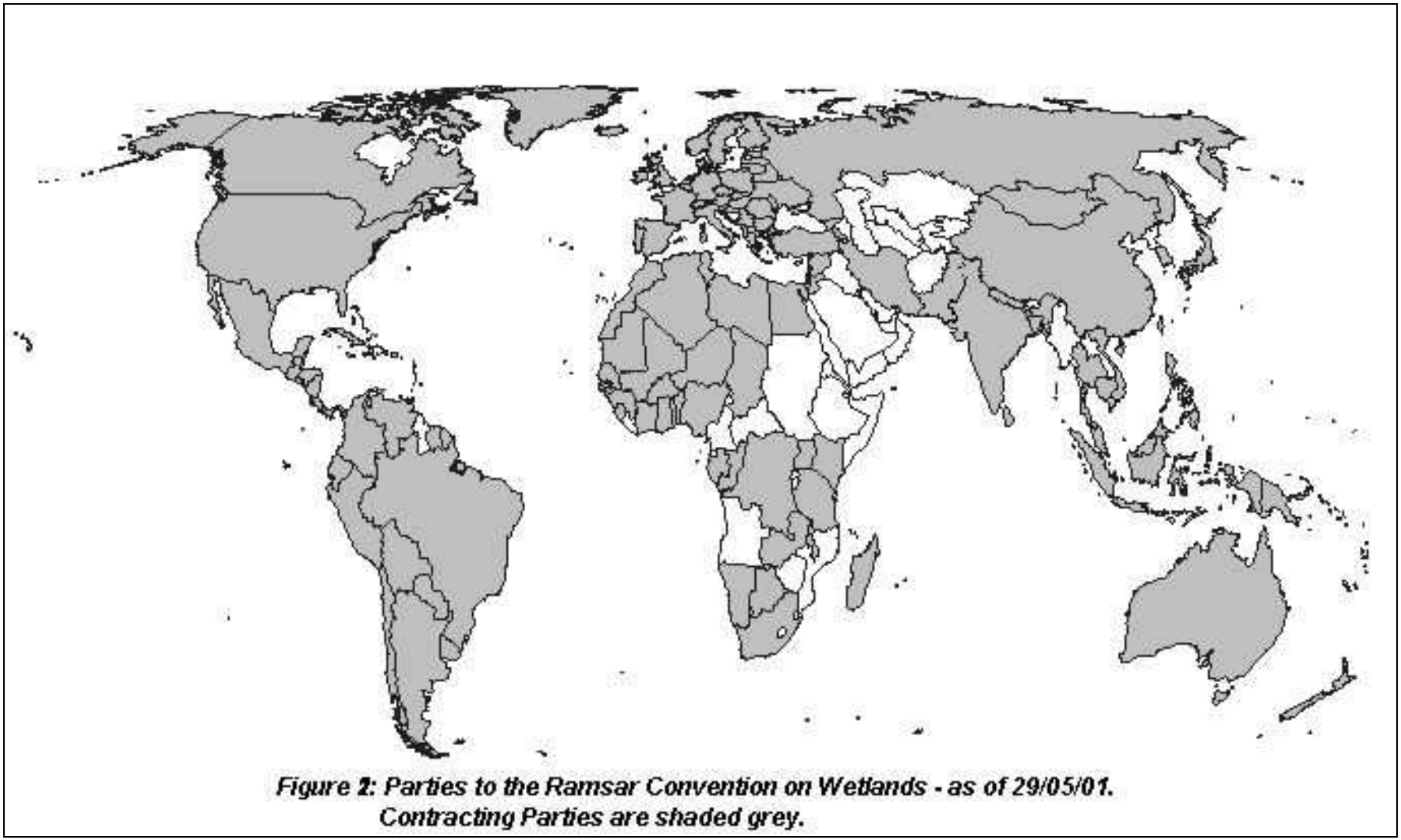

Figure 2: Parties to the Ramsar Convention on Wetlands - as of 29/05/01. Contracting Parties are shaded grey.