

Conservation of Arctic Flora and Fauna

**CIRCUMPOLAR SEABIRD
GROUP**

CBIRD IX

Tromso, Norway
27-31 January 2003

Progress Report

September 2003

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II. Executive Summary

Like much of the work of CAFF, the Circumpolar Seabird Group (CBIRD) was created in recognition that Arctic countries have many seabird species in common and often share the same populations, and therefore share a joint and equal responsibility for their conservation. Arctic countries also share common population and habitat threats in marine and coastal ecosystems that seabirds depend on for their survival. The creation of CBIRD was also in recognition that conservation, management, and research activities for seabirds could most effectively be achieved by a multilateral approach of all circumpolar range states. It was in this simple context that CBIRD was approved in 1993, and has since acted as a forum to promote and facilitate the communication, coordination and collaboration of seabird activities in the Arctic. Since 1994, CBIRD has conducted nine meetings and has been instrumental in addressing and raising the visibility of priority seabird conservation issues. It has published two Conservation Action Plans (Murre and Eiders), four CAFF Technical Reports, two editions of the popular Circumpolar Seabird Bulletin, three posters, eight Progress Reports, and participated in numerous meetings and workshops.

CBIRD conducted its ninth meeting in Tromso, Norway January 27-31, 2003. The meeting was attended by about 30 seabird specialists and managers representing the eight Arctic countries and an observer from Great Britain. The CAFF Chair and Secretariat also attended. CBIRD primarily focused its attention on the following issues: Circumpolar Murre and Eider Conservation Strategies, Conservation of Migratory Birds Outside the Arctic, Seabird Bycatch in Commercial Fisheries, Harvest of Seabirds in the Arctic, and Circumpolar Seabird Monitoring Network. Major action items for the next year include: (1) complete a CAFF Technical Report summarizing the results of each country's Birds of Arctic Conservation Concern status report and prioritized recommendations, (2) each country with a seabird gillnet bycatch issue will complete an assessment of that issue, (3) several one to two page summaries of harvest issues will be written for the Circumpolar Seabird Bulletin, (4) review the status and progress of the Eider Conservation Strategy, (5) develop a Thick-billed Murre Population Model for the Atlantic Region, (6) complete a peer-reviewed publication "Seabirds and Climate Change: a Circumpolar Seesaw", (7) write a Circumpolar Seabird Monitoring Framework and a Circumpolar Murre Monitoring Plan, (8) publish the third Circumpolar Seabird Bulletin, and (9) produce an outline for a Arctic Seabird Status and Trends Report. Also at the meeting, the local organizing committee invited several Norwegian and Russian scientists who presented excellent summaries of their work on seabird related issues. An entire day was spent on the "Thick-billed Murre Population Model for the Atlantic Region" workshop to take advantage of the expertise at the meeting.

III. Status of Circumpolar Seabird Research, Management, and Conservation

Iceland

Seabird initiatives in 2002 - Aevan Petersen

Some new seabird surveys were conducted in, and data published for, previously un-surveyed areas in W and NW-Iceland. Analyses of banding returns are underway for Shag and Cormorant, and for Common Murre and Thick-billed Murre. The registering of the location (and size if known) of seabird colonies continued, and many seabird monitoring sites were visited. An overview of the seabird monitoring taking place in Iceland was published in January 2003. A Nordic project on seabird databases was initiated with a meeting in Akureyri, participated by Greenland, Faeroes, Iceland and Norway on account of Svalbard and Jan Mayen. Seabirds continue to be priority within the Icelandic Bird Ringing Scheme. The development of a National Nature Conservation Plan is near completion. In a background document the Icelandic Institute of Natural History proposed 40 sites or areas for further conservation efforts, including several principal seabird colonies such as Látrabjarg (NW. Iceland), Snæfjallaströnd area, which includes the largest Common Eider colony in the country (NW. Iceland), Drangey and Grímsey islands (N. Iceland), the Langanes colonies (NE. Iceland), Papey island (E. Iceland), and the Westmann Islands (S. Iceland). The Ministries for Fisheries and the Environment asked for a plan to be developed for studying the bycatch issue in Icelandic waters. Studies continued on organochlorines in Icelandic birds, including the Black Guillemot. Mass die-off of murrees took place in winter 2001/2002 off the north coast of Iceland in which dozens of thousands of murrees are believed to have died.

Greenland

Seabird initiatives in 2002 – Jens Nyeland

Status of new hunting regulations -The executive order on protection of birds

A new revised version of the executive order on protection of birds entered into force in December 2001. In the executive order the use of seasons by putting a complete ban on spring hunt has been strengthened. This triggered intensive discussions, and huge pressure has been forwarded by the hunters association (KNAPK) for politicians to withdraw the new regulations. The government decided to make a new revision in 2002, to try to find a regulation scheme that is better accepted by the public.

In a draft of a new revised version of the executive order for protection of birds there has been opened for spring hunt but only for sustainable use in the households. To compensate for this the rules for hunting during fall and winter has been tightened even more than before. The hope is, that there then will be the right balance to secure sustainability. However due to the political situation in Greenland just now the outcome of this revision is still uncertain.

The Greenland Ramsar Sites

A 2001 review of the 11 Greenland Ramsar sites concluded that monitoring and management plans are needed (Egevang & Boertmann 2001a). One site didn't meet the criteria of the convention –and probably never has- and was suggested to be removed from the Ramsar list. New Ramsar sites were suggested including Murre colonies and King Eider moulting areas. In addition, three Ramsar sites of Disko Island were surveyed in 2001 (Egevang & Boertmann 2001b).

New Nature Conservation Act planned for 2003

A new Nature protection act is planned to enter into force in 2003. The new act will give improved possibilities for regulation and mitigation of various activities e.g. establishing hunting free areas and periods. Within a 2-4 year time frame specific conservation measures of some of the Greenland Ramsar sites could be expected with possibilities to establish protected areas, where as well breeding, as roosting birds can be better protected than today.

Information campaign – Sustainable use of wildlife

A major information campaign (Tulugaq) in Greenland concerning sustainable use of wildlife was initiated spring 2002 and will continue for the next two years. The purpose of the campaign is to disseminate information to the public about the implications of not using wildlife in a sustainable way. Special emphasis will be put on the so-called “problem species” which among seabirds include Thick -billed Murre, Common and King Eiders and Arctic Tern (see: www.nanoq.gl/tulugaq).

Seabird by-catch

Current studies indicate that by-catch of eiders in gillnets is a big problem during late winter and spring in southwest Greenland. In Nuuk around 35% of all eiders sold at the local market originates from gillnet by-catch. To evaluate the by-catch issue on a larger national scale an interview study of local hunters was initiated. However, this was postponed due to a very skeptical attitude and an unwillingness of the hunters to answer the questions.

Oil issues

An ‘Environmental Oil Spill Sensitivity Atlas for the West Greenland Coastal Zone’ is being extended to cover the coast and offshore areas from the southern tip of Greenland north to 72° N. Like the previous Atlas (Mosbech et al 2000) the maps show index values for coastal sensitivity and symbols for the elements of the classification: hunting and fishing areas, fish, birds, marine mammals and archaeological sites. The maps also show a number of smaller sites especially selected as they are of particular significance and they are particularly vulnerable to oil spills. Each map has a description of biological resources and human use of the area.

Seabird research and monitoring in 2002

Ecosystem West Greenland research proposal (Ecogreen)

A workshop about the West Greenland marine ecosystem was held in Nuuk in December 2001, and the outcome has now been published (Jarre 2002). The workshop-report outlines the framework for the first phase of a research programme that has the overall goal ‘to establish the scientific basis for long-term ecosystem-based management in West Greenland Waters’. Funding for the programme is being pursued through European Union sources.

Progress on seabird population estimates

A great deal of work has been published in 2002 on various seabird population estimates. This includes winter population estimates on common eider, king eider, long-tailed duck, thick-billed murre and black guillemot at coastal waters and fjords in Southwest Greenland (Merkel et al. 2002). Also for Southwest Greenland an estimate of the moulting population of harlequin ducks has been produced (Boertmann & Mosbech 2002). For the common eider updates on the breeding population in large areas of Midwest and Northwest Greenland has been published (Merkel 2002). Within the same area a new monitoring programme for common eider has been launched, conducted by trained local residents (Merkel & Nielsen 2002). For thick-billed murre more colonies have been surveyed in 2002 according to a long-term monitoring programme for this species. For parts of the little auk population in Northwest Greenland the size of the breeding population has been revised by means on a new technique that includes video recordings, aerial photographs, and published breeding densities (Egevang et al. 2003). Finally, in 2002 a study was initiated on the Arctic Tern breeding population at the largest colony in Greenland at Grønne Island in Midwest Greenland (Egevang et al. 2002). Further, the first step toward an actual monitoring plan was taken.

Satellite telemetry

Satellite telemetry was conducted on common eiders in 2002 for the third year in a row. This time breeding colonies in northwest Greenland were targeted (http://www.dmu.dk/1_Om_DMU/2_afdelinger/3_am/4_expertise/5_Research/6_satell.). Previous work was done on wintering grounds in Southwest Greenland. Funding is by now obtained for satellite telemetry on king eiders in Midwest Greenland in 2003.

Winter ecology studies

In Southwest Greenland a winter ecology research programme on common eider was continued in 2002. The programme aims to achieve a more fundamental basis of the ecological constraints that eiders are faced with during winter in Southwest Greenland and focus on interactions between habitat, physical condition, and hunting mortality of common eiders wintering around Nuuk, the capital city of Greenland.

Lead contamination of seabirds

Lead contamination from the use of lead shot has been assessed of Thick-billed Murre and Common Eider (Johansen et al. 2002).

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Canada

Seabird initiatives in 2002 - Greg Robertson

Conservation planning:

In Canada, a variety of conservation initiatives and supporting documents are being launched as the North American Bird Conservation Initiative (NABCI) evolves. The

direct document that will outline seabird conservation in North America, the North American Waterbird Conservation Plan is complete (www.nawcp.org). The Canadian implementation of that plan, Wings over Water, is still in intermediate draft stages. The various Canadian regional plans are in various states of drafting. Regional planning at the BCR (Bird Conservation Region) is active at southern BCRs, especially in regions that cross Canadian/American border, but much less so in northern areas.

The CWS has also produced a draft of Key Marine Habitat Sites for Migratory Birds in Nunavut and Northwest Territories (Mallory and Fontaine) that identifies areas around 34 colonies, polynyas and important migratory staging areas for marine birds. This document will be used in land use planning, and as scientific input to marine protected areas planning and protection.

Hunting:

Murre hunters in Newfoundland and Labrador are now required to purchase a hunting permit. This has allowed us to bring murre harvest in the mainstream of harvest monitoring in north America, and annual harvest estimates will be produced. Work on refining harvest estimates, and decomposing these harvest rates into the two species and age classes continues.

Bycatch:

National working group established and progressing with CWS and DFO to address the FAO request for a NPOA on long-line fisheries. Document is being drafted and the hope is to have it complete for meeting in Feb 2003.

Working partnerships with DFO, nationally, and on both coasts continue to improve, with the long-term goal of all seabird bycatch being monitored on all three coasts.

Chronic Oil Pollution:

Numerous high-profile vessel detentions and searches were undertaken in 2002 and record setting fines were charged in February. ISTOP program, where RADARSAT technology used to image sections of ocean proved successful in detecting ships trailing oil. A number of serious incidents occurred in Nova Scotia in February. WWF Canada launched a major public awareness campaign on oiled bird issues in August. Two CWS biologist positions, one on each coast, will be staffed for two years. Wiese completed Ph.D. thesis on seabird mortality from oil pollution, and estimated in excess of 300 000 murre and dovekeys killed annually in waters of southeastern Newfoundland.

Tourism:

CWS has begun drafting guidelines for cruise ship operators when visiting seabird colonies in the Arctic. Consultation with stakeholders is ongoing.

Monitoring programs:

In July 2002, the Canadian Wildlife Service re-surveyed most known breeding locations of Ivory Gulls in the Canadian Arctic. 42 colony sites were visited, 9 of which were new discoveries. Despite this extensive coverage, only 83 nesting gulls were found. Comparisons with historical data suggest a 95% decline in the number of Ivory Gulls nesting in the Canadian Arctic in 2002. Declines have occurred in all habitat types and across the known breeding range. Several colonies, including the two largest known in Canada, are completely extirpated.

There have been several developments on seabirds in Arctic Canada. An Arctic Seabird Program has been initiated by the CWS, based in Iqaluit, Nunavut. This program will conduct new monitoring and research on seabird colonies across the territory, in collaboration with existing marine bird programs. Some 2002 projects in the Arctic have also included traditional ecological knowledge studies on gulls and seabirds, and new research and monitoring work on High Arctic Fulmars. Banding and monitoring of Thick-billed Murres on Coats Island continued in 2002. A third summer of research on Prince Leopold Island, Nunavut was conducted in 2002. This was the site of extensive research on seabirds in the late 1970s. The summer of 2002, was a very late ice year in Lancaster Sound, and this had dramatic negative effects on Thick-billed Murres, Northern Fulmars, and Black-legged Kittiwakes. This is the second consecutive year, where heavy ice conditions have resulted in very poor reproductive success for these pelagic species.

In Newfoundland and Labrador, colony monitoring continues, with surveys completed in 2002 in Witless Bay and Groswater Bay for all seabird species, and surveys for gulls and terns were completed in southern and western Newfoundland. The sole Manx Shearwater colony in North America was again surveyed in 2002.

Atlantic regions of Canada seriously attempting to revitalize at-sea monitoring program for eastern Canada, including Davis Strait and Baffin Bay. T. Lock visited UK and Europe to discuss meshing Canadian observation program with Northeast Atlantic at-sea observation program.

US - Alaska

Seabird initiatives in 2002 – David Irons

There were many seabird projects and new policies in Alaska in 2002. There are a few highlighted here and I have provided an attachment with all seabird projects and an attachment with a briefing on the Alaska Migratory Bird Co-management Council.

The Alaska Migratory Bird Co-management Council submitted recommendations for regulating the spring/summer migratory bird season in Alaska. The focus of the recommendations included: season, method and means, birds closed to harvest and a list of birds available for subsistence harvest.

As a result of our involvement in the CAFF/CBIRD project concerning “Conservation of Migratory Birds Outside the Arctic”, we have been increasing our involvement in the East Asia Flyway’s Asia Pacific Migratory Waterbird Conservation Committee and US-Japan treaty negotiations elevated the visibility of the Central Pacific Flyway in the US and spearheaded the creation of the first Central Pacific Flyway Bird Working Group in 2002, and anticipated being more involved in the International Working Group on Aquatic Birds (Loons/Grebes).

In 2002, we also created the Beringia (AK/Russia Far East) Bird Working Group and conducted a workshop in Anchorage on Beringia Important Bird Areas.

The Seabird Bycatch Program continued to receive funding in 2002 and initiated or continued several projects including a Short-tailed Albatross telemetry study, and a Pelagic Seabird Database Project. The other projects are outlined in the attachment on seabird projects

ATTACHMENT 1

BRIEFING

PREPARED BY: Office of the Executive Director for the Alaska Migratory Bird Co-management Council

FROM: Assistant Regional Director, Migratory Birds and State Programs

SUBJECT: Overview of the Office of the Executive Director for the Alaska Migratory Bird Co-management Council

PURPOSE OF BRIEFING DOCUMENT: Provide general information regarding this office

ISSUES: The 1916 Convention for the Protection of Migratory Birds in Canada and the United States required a closed season for the taking of migratory birds between March 10 and September 1 each year. In 1997 the treaty was amended providing for an exception to that closed season for certain indigenous inhabitants of Alaska.

The amended treaty provides for a regulated spring/summer subsistence harvest. The treaty also requires that Alaska’s indigenous inhabitants have a meaningful role in the development of the regulations by participating on relevant management bodies, along with federal and state representatives.

In keeping with the treaty requirements, the Alaska Migratory Bird Co-management Council (AMBCC), consisting of a federal, a state and a Native representatives as equals. The AMBCC makes recommendations for harvest regulations to be submitted

each year to the four flyway councils and to the Service Director to be incorporated into the national migratory bird regulations system.

The Office of the Executive Director for the Alaska Migratory Bird Co-management Council provides staff support to the AMBCC. The Executive Director supervises a staff of four. The Office organizes Council meetings, writes draft regulations and associated NEPA documents, conducts harvest surveys, and provides technical information to the eleven regional management bodies throughout the state. Staff also serve on technical committees and provide completed staff work to the Council as required.

The AMBCC submitted recommendations for regulating the spring/summer season in Alaska. The focus of the recommendations included: season, method and means, birds closed to harvest and a list of birds available for subsistence harvest. The Service Regulations Committee acted favorably on the recommendations. The Service is publishing a proposed rule shortly and the general public will have 30 days to comment on the proposed regulations. The intent is to have a final rule published on or about the opening of the legal season which is April 2, 2003.

MAIN DECISION OR MESSAGE: This is a newly formed office designed to focus support regarding migratory bird issues to the Alaska Migratory Bird Co-management Council.

BUREAU PERSPECTIVE: The Department and the Fish and Wildlife Service support the implementation of the amended treaty.

CONTACT: Doug Alcorn, Assistant Regional Director, Migratory Birds and State Programs, Alaska Region 907/786-3545

ATTACHMENT 2

US – Alaska 2002 Seabird Projects
Summarized by Verena A. Gill

BEAUFORT AND CHUKCHI SEAS

In September Bob Day of Alaska Biological Research Inc. (ABR) aided by John Rose, Alice Stickney, Julie Parrett, and John Shook used ornithological radar and night-vision equipment to conduct a second year of studies of bird migration and development of an anti-collision lighting system for migrating birds, especially eiders, at Northstar Island, a man-made oil-production island near Prudhoe Bay. Betty Anderson of ABR completed the 10th year of research on Spectacled and King eiders in the Kuparuk Oilfield in Northern Alaska. In addition to aerial and ground-based surveys to determine population trends and nesting success, time-lapse cameras and temperature thermistors were used to monitor incubating females and record predation events. Charles (Rick) Johnson (ABR) continued his long-term monitoring studies of Spectacled and King eiders on the North Slope of Alaska, on the Colville River Delta (11 years) and in the National Petroleum

Reserve–Alaska (3 years). Study components included aerial surveys for breeding pairs and broods, nest searches, and monitoring of nesting success. These studies were supported by ConocoPhillips, Inc. Bob Ritchie and Jim King (ABR) completed their 4th year of aerial surveys for Steller's and Spectacled eiders near Barrow, Alaska. Bob Ritchie also conducted searches for nesting Steller's and Spectacled eiders at several Long Range Radar Sites on the North Slope for the U.S. Air Force. Steve Murphy and Charles (Terry) Schick (ABR) returned for a second year of aerial and ground surveys for Spectacled and Steller's eiders at coastal and inland sites for Anadarko Petroleum, Co.

Dave Roseneau and Jim Schneeweis continued Alaska Maritime National Wildlife Refuge (AMNWR)'s annual monitoring of seabirds nesting at Cape Lisburne in July and August.

BERING SEA

The Gambell and Savoonga Native Corporation cooperated with the United States Fish and Wildlife Service (USFWS), David Irons and Oregon State University (OSU), Dan Roby, to monitor seabirds on St. Lawrence Island. Adrian Gall and Lisa Sheffield arrived in Savoonga on June 17, 2002 and joined Brandon Waghayi for the third season of fieldwork. Victor Zubakin, visiting ornithologist from the Russian Academy of Sciences, arrived from Moscow on June 20th. The St. Lawrence crew monitored population indices and productivity of Black-legged Kittiwakes (*Rissa tridactyla*), Common Murres (*Uria aalge*), and Thick-billed Murres (*U. lomvia*) on established plots 10 km west of Savoonga. It was difficult to determine precise fledging success for the cliff nesters due to raging 50-mph winds that buffeted the plots for four days during peak fledging. The crew also monitored colony attendance, breeding success, and diet composition of Least Auklets (*Aethia pusilla*) and Crested Auklets (*A. cristatella*) at the Kitnik colony 4 km east of Savoonga. Breeding adults during the laying and early incubation period were collected to determine body composition. The auklet research will contribute to the Seabird Monitoring Database and be used for Adrian Gall's MSc thesis. Gall, Sheffield, Waghayi, and Zubakin were invited by teacher Brad Billings to speak with his 10th grade life and earth science classes at Hogarth Kingeekut Memorial School. Students learned to collect morphometric data from frozen birds.

During October on St. Lawrence Island Bob Day of ABR, assisted by John Rose and Julie Parrett, used ornithological radar and night-vision equipment to study movements and collision potential of Spectacled Eiders and other seaducks at Gambell.

Mary Cody (USFWS) and Steve Rice (Alaska Department of Fish and Game – ADF&G) with assistance from Joe Meehan (ADF&G), April Alexei and Tim Dyasuk (both student interns with the Bristol Bay Native Association) monitored black-legged kittiwake, common murre, and pelagic cormorant populations and productivity at Round Island within the Walrus Islands State Game Sanctuary. Rice, with assistance from Meehan, completed his third field-season investigating raven-predation on these bird species at Round Island.

Art SOWLS (AMNWR) led biologists in various projects on Hall Island (the St. Matthew Group) during July. Work included 8-day census plots for BLKI, TBMU, COMU, NOFU and PECO. Crew members were Anne Morkhill and Martha Hatch (AMNWR), Paula White (U. Berkeley), Scott Hatch and Verena Gill (USGS), and Alexander Kitaysky (University of WA, soon to be UAF). AMNWR also continued Seabird Marine Mammal and Oceanography Coordinated Investigations (SMMOCI) by surveying Norton Sound. This project includes recording seabird distribution at sea around annual monitoring sites, with simultaneous surveys of sea temperature, salinity, and biomass of prey. This year they surveyed transects near Nome with a large crew that included Don Dragoo, Vernon Byrd, Jeff Williams, Doug Palmer, Barry Sampson, Karen Boylan, Gary Drew, John Piatt, Deb Rudis, Brenda Holladay, Kitty Mecklenburg, Mike Palmer, and Alan Springer. In addition, Byrd and Dragoo surveyed seabirds on refuge islets in Safety Sound and at Topkok Head near Bluff. Alan Springer and Piatt also collected blood samples from Bluff birds for a wide-ranging survey of stress in seabirds being conducted by Sasha Kitaysky (Univ. Washington). Ed Murphy from the University of Alaska, Fairbanks (UAF) monitored numbers and breeding performance of murre and kittiwakes at Bluff briefly in midseason.

AMNWR staff continued long-term monitoring projects on the Pribilof Islands from May until late August. The monitoring program includes collecting data annually on timing of nesting events, reproductive success, adult survival, chick growth, and food habits. Art SOWLS, Becky Howard, Jim Snowden, Tonia Bittner, and Naomi Sugimura conducted studies on St. Paul Island. Heather Moore, Will Boyd, and Julie Snorek were on St. George Island from May until August. In addition, Lisa Scharf and Dave Kuehn spent July on St. George helping conduct population counts of ledge nesting seabirds, which occur every three years.

Seabird surveys were conducted during a short visit to Bogoslof in July. Art SOWLS, Anne Morkill, Jeff Williams, Martha Hatch, and Debbie Rocque (AMNWR), Scott Hatch and Verena Gill (USGS), Alan Springer (UAF), Alexander Kitaysky (U of WA), and Judy Alderson (NPS) conducted stress hormone work with murre and kittiwakes, evaluated reproductive success of kittiwakes, and survey tufted puffin plots for a population trend index.

ALEUTIAN ISLANDS

Staff at the AMNWR continued their annual monitoring work on several Aleutian Islands. Seabird work on Kasatochi and Buldir Islands was led by Jeff Williams. Field crews on Kasatochi Island included Sarah Syria and Allison Stover, and those on Buldir included Erica Sommer, Trevor Joyce, and Nikolai Konyukhov. Dennis Wynn and Debbie Dykstra conducted seabird population and productivity work on Aiktak Island from May until September. Introduced Arctic foxes were removed from Adak Island in the central Aleutians. Also, Tanaga and Amlia islands were searched for sign of foxes that might have survived earlier eradication efforts. The fox projects were conducted this year by AMNWR employees Steve Ebbert, Greg Thomson, and Lisa Scharf, with assistance from USDA/Wildlife Services: Sherman Anderson, Rick Ellis, Gerald Masolini, Peter Masolini, Jerry Morrill, Joseph Orsini, Dave Sinnett, David Sonneborne,

Jon Spiegel, and David Tresham. Art SOWls, Steve Ebbert and Peter Donlevy hosted a group including Steve Talbot, Karen Murphy, EPA registration specialists Bill Jacobs and William Erikson, and Gregg Howald, Island Conservation and Ecology Group on a tour of Shemya, Kiska, Rat and Kavalga Islands. The trip served as a workshop to plan rodent eradication for the conservation of seabirds on these and other infested refuge islands. Ian Jones and Heather Major also participated. A previously undetected colony of roof rats was discovered on Shemya Island during this trip. A pre-fox removal bird survey was conducted at Avatanak Island. Vernon Byrd, Jeff Williams, Steve Ebbert, Catherine Berg, and several Aleut interns from Unalaska conducted seabird and terrestrial bird surveys.

GULF OF ALASKA

AMNWR staff initiated an annual monitoring project on Chowiet Island in the Semidi group. A new cabin was constructed on Chowiet to facilitate the long-term seabird monitoring program conducted on that island. This year's field crew was on the island from early May through mid September, and included Shiway Wang, Dave Oleszczuk, and Allyson Larned. Shiway began collecting prey and subcutaneous fat samples from fulmars and puffins for a possible graduate research project involving fatty acid signature analyses. Arthur Kettle, Greg Thomson, and Rachel Orben and Amy Baton conducted seabird monitoring on E. Amatuli Island in the Barrens from late July through early September. Steve Ebbert and Aren Eddingsaas, Idaho State University, collected arctic ground squirrels from Chowiet, Chirikof, Cold Bay, Kodiak, Ugashat, Unalaska, and Kavalga Islands. These specimens will be used to understand the distribution arctic ground squirrels on refuge islands, and resolve to which islands this species has been introduced during the Russian Alaska Period or later. Work began to remove over 1000 wild cattle from Chirikof Island this year for the restoration of that refuge island for seabirds. Tim Jacobson, Herd Management LLC, built corrals and fences to facilitate the live-capture and shipping of cattle by September, 2002.

Scott Hatch, Verena Gill, Naomi Bargmann (Alaska Science Center, USGS) and a sizable supporting cast (Christy Hand, Brooke Krolick, Rick Milligan, Marie-Line Gentes, Marcia Tierney, and Liz Boldt) continued seabird research and monitoring on Middleton Island in 2002. Supplemental feeding of Black-legged Kittiwakes at the tower colony continues, but the birds show declining interest in our offerings as Mother Nature is setting a better table each spring in the northern Gulf of Alaska. For 6 weeks in June-July, the crew hosted Julien Gasparini (Universite Pierre et Marie Curie, Paris), who investigated the immunocompetence of fed and unfed kittiwake chicks.

University of Alaska Fairbanks researchers Loren Buck, Dean Kildaw, and MS students Katie Murra and Book Gamble conducted a second season of seabird studies in Chiniak Bay on Kodiak Island. Their research is one component of the multi-disciplinary Gulf Apex Predator-Prey project (GAP) and is coordinated with synoptic hydroacoustic, trawl and nearshore assessments of prey availability headed by Robert Foy (UAF) and with research on marine mammals lead by Kate Wynne (UAF, MAP). GAP seabird research is focused on productivity, diets, and nestling growth of black-legged kittiwakes, tufted puffins and glaucous-winged gulls. In collaboration with David Irons and Kent Wohl

(USFWS, Migratory Bird Management) GAP initiated a program to monitor the at-sea distribution of marine birds in addition to continuing long-term population and productivity monitoring efforts of cliff nesting kittiwakes, cormorants and murrelets in Chiniak Bay. Katie Murra's MS project addresses the influence of diet and foraging areas (determined via radio telemetry) on kittiwake breeding biology. MS student Brook Gamble collected preliminary data on Glaucous-winged Gulls this summer and will refine her research interests over the winter. Cory Williams was a member of the field crew this past summer and will join the project as a new Ph.D. student in 2003 to work with tufted puffins. A preliminary summary (data analysis in progress) of the Chiniak Bay seabird story is as follows: Productivity of kittiwakes, glaucous-winged gulls, and puffins in Chiniak Bay was exceptionally high in 2001, but less so in 2002. Sandlance and, to a lesser extent, capelin dominating the diet of all three species in 2001. In 2002 capelin were more prevalent in the diets of all three species but less feeding activity was observed within the confines of the bay. These observations suggest that near-shore sandlance schools were less abundant within the bay in 2002 and that birds foraged farther from breeding colonies where they encountered more capelin.

Also on Kodiak, Shawn Stephensen (USFWS) led a trip to the western coast of the island and offshore islets to survey tern colonies. He was assisted by Denny Zwiefelhofer (Kodiak National Wildlife Refuge) and Leslie Slater (AMNWR).

In 2002 USFWS, with funding from the Species at Risk (SAR) program managed by Tony DeGange, sponsored two surveys to update counts of Kittlitz's murrelets in areas last surveyed in the early 1990s - the southern Kenai Peninsula, and outer Yakutat/Malaspina Forelands, in south coastal Alaska. The Kenai Fjords survey, lead by John Piatt and Tom VanPelt (USGS) with help from Jane Reid (Univ. British Columbia), Nadine Parker (Simon Fraser Univ.) and Jared Figurski (PISCO), covered 25% of the fjords coastline, including Kenai Fjords National Park. The Forelands survey (including ~ 80 km of exposed coast on the Gulf of Alaska) added intensive coverage of Icy Bay, which is surrounded by ice fields northwest of the Forelands. The Forelands/Icy survey was a joint effort of the Anchorage office of Migratory Bird Management (Kathy Kuletz) and Southeast Alaska Ecological Services (organized by Michelle Kissling and Steve Brockman, and crewed by Debra Rudis and Ed Grossman). They were assisted by Mason Reid of the Wrangell-St. Elias National Park, the park surrounding much of that coast. Debra Nigro also contributed murrelet expertise, with her time donated by the Yukon-Charlie National Park, where she now works. Both Kenai Fjords and Malaspina Forelands showed declines in Kittlitz's murrelets, consistent with apparent trends in Prince William Sound and Glacier Bay. On the positive side, Icy Bay harbored an unusually high density of Kittlitz's murrelets, equivalent in estimated population (~2,200 birds) to current estimates for Prince William Sound or Glacier Bay. Next summer, the USFWS and National Park Service hope to survey the coast south of Yakutat to Cross Sound (near Glacier Bay), the last large expanse of glacially-affected coast bordered by two known 'hot spots' of Kittlitz's murrelets.

PRINCE WILLIAM SOUND

Chugach National Forest (Cordova Ranger District) biologists, Paul Meyers and Nick Osterberg, conducted boat-based marine bird surveys from the north end of Montague Island from Zaikof Point to Port Chalmers. Surveys were conducted within 2 hours of high tide for all waterbirds within 200 m of shore. In addition, the team searched for all Black Oystercatcher (*Haematopus bachmani*), tern (*Sterna* sp.), gull (*Larus* sp.) and pigeon guillemot (*Cepphus columba*) nests. Unfortunately, no pigeon guillemot nests were found.

David Irons with the aid of Kelsey Sullivan, Aly McKnight and several others continued long-term monitoring of BLKI populations, productivity, diets, and survival in Prince William Sound. Kelsey Sullivan (An MS student at Rutgers University) and Aly McKnight came back for a third year to conduct studies at the Shoup Bay kittiwake colony in Prince William Sound. Kelsey is looking at the effect of adjacent productivity on the rate of movement of experienced breeders. This year the Shoup Bay colony was visited repeatedly by a wolverine, which fed on GWGU and BLKI chicks.

SOUTHEAST ALASKA

Bob Day of ABR conducted analyses and is writing the bird section for an EIS for the Vessel Management Plan at Glacier Bay National Park and Preserve. In 2003, John Piatt (USGS) and others will also initiate studies of KIMU ecology in Glacier Bay National Park; including studies funded by USGS, NPS and ADF&G on habitat use, foraging behavior and impacts of vessel disturbance. On related projects, Mike Litzow and Mayumi Arimitsu completed a second year of forage fish surveys in Glacier Bay, with capable assistance from Kyle Juk and Brad Congdon (James Cook Univ., Australia). Mayumi and Kyle then went on to assist Suzann Speckman (U. Wash.) and Chris Gabrielle (Glacier Bay NP) and Mike Shultz in a continuing study of marine predators and forage fish in Glacier Bay.

Staff from AMNWR continued seabird monitoring at St. Lazaria Island from May-September. This work was led by Leslie Slater with returning crew Vicky Vosburg and Anissa Berry-Frick. Additional field assistance came from Deborah Rocque, Kassy Holzheimer, and Laura Borg.

South of Juneau, the USFWS (Michelle Kissling, Mike Jacobson, Patti McDonnell), assisted by Gus VanVliet and Paul Suchanek, surveyed 5 mainland fjords for Kittlitz's murrelets this year. They found low numbers in Holkham Bay and Endicott Arm, but not the southern bays, which provided updates on the southern breeding range of the species.

SEABIRD BYCATCH ISSUES

The USFWS Anchorage office of Migratory Bird Management received a second year of congressional funds (\$575,000) for seabird bycatch issues in Alaska. Kathy Kuletz and Kent Wohl worked with Western Alaska Ecological Services (WAES; Ann Rappoport and Greg Balogh), National Marine Fisheries Service (NMFS; Kim Rivera) and Industry representatives (Thorn Smith and many others) to direct funds to 7 on-going and 3 new projects focused on education/outreach, mitigation devices, and assembly of data on

seabirds at risk. Summaries of the projects, agency and university investigators, and their progress to date can be obtained from Kathy Kuletz (kathy_kuletz@fws.gov). In brief, on-going projects included: 1) production of a video on seabird mitigation devices for fishers, 2) support for the North Pacific Pelagic Seabird Database, 3) satellite telemetry tracking of short-tailed albatross, 4) demographics and genetic profiling of albatross and northern fulmars taken incidentally during longline fishing (see report below), 5) development of a database for fishery observer sightings and notes, 6) improved training for fishery observers on seabird issues and identification, 7) purchase and distribution of streamer lines to fishers. New projects initiated in 2002 included: 1) field testing of a prototype weighted sink line for longline fishing, 2) field tests of bycatch reduction devices on small vessels, 3) collaboration with NMFS on their gillnet bycatch study on Kodiak Island.

Kathy Kuletz and Kim Rivera updated the seabird section of the Ecosystem Considerations chapter of the Alaska Groundfish Fisheries EIS. They continue to work with the North Pacific Fisheries Management Council on seabird issues and potential impacts from management alternatives for fisheries. Karen Brenneman and Liz Labunski pored through 8 years of fishery observer notes and sighting forms from the groundfish fisheries, to compile the ‘Observer Notes Database’. Karen and Liz, joined by Jacob LaCroix, also worked on the NMFS bycatch study on Kodiak Island. The USFWS crew assisted in seabird identification and collected data on seabird-gear interactions. To improve background information on local seabirds, they also updated colony counts for the Seabird Colony Catalog along the western and southern coasts of Kodiak Island. Earlier in the year, Karen and Liz assisted with the Kittlitz’s murrelet Status Report, and conducted winter boat-based surveys in Southeast Alaska. The latter were designed to ground-truth the aerial waterbird surveys conducted by the Juneau office.

For the first time, the USFWS joined a NMFS study of coastal gillnet bycatch (part of the Alaska Marine Mammal Observer Program [AMMOP]). Mandated by the Marine Mammal Protection Act, the gillnet studies have rotated among fishing areas of Alaska on a limited basis, due to lack of funding. Most of the coastal gillnet fisheries occur within 3 nm of shore and focus on salmon, and thus fall under state management, but NMFS is still responsible for marine mammals in this zone. NMFS monitors the incidental take of marine birds to assist in the broader goal of ecosystem management, but does not usually collect ancillary data on seabirds. It is in the interest of the USFWS, which is responsible for protection of all migratory birds, to become involved in the effort to monitor and evaluate incidental take of birds in all fisheries, including those managed by the state. In Alaska, the first NMFS gillnet bycatch study was on the drift gillnet fishery in Prince William Sound in 1990 and 1991 (Wynne et al. 1992). The next study occurred in 1999 and 2000, in Lower Cook Inlet, and results are preliminary (Fadely 2002). In 2002 NMFS began the first of a two-year study of the set-gillnet salmon fishery of Kodiak Island. Depending on available funds (which are not guaranteed), NMFS has scheduled similar studies in Southeast Alaska (2003-2004), Yakutat area (2005-2006) and Bristol Bay (2006-2007). The drift and set-gillnet fisheries of Alaska are extensive and economically important to many coastal communities, but there is a lack of hard data on incidental bycatch for most regions.

Because the fisheries and regions vary tremendously in fishing techniques, habitat, species composition, and abundance of birds at risk, it is necessary to first determine whether there is a problem, and what species are involved in incidental catch among the different fisheries. The next step is to evaluate bycatch rates relative to bird abundance, habitat, fishing gear, and environmental variables. Eventually, bycatch reduction measures can be tested and implemented, perhaps similar to efforts in other coastal states (see Melvin et al. 2001).

Implementation of the NMFS study was preceded by a year of survey on the fishery itself, to assist in study design and logistics, and outreach to the fishing community. Principal Investigator Amy Van Atten oversaw development of a comprehensive data collection and data management system. The goal of the USFWS was to assist species identification of birds, collect data on the interactions between set-gillnets and birds, and incidentally, update local bird abundance data. The 3 USFWS observers (Karen Brenneman, Liz Labunski, and Jacob LaCroix) joined 15 NMFS observers during the June - August season. Observers rotated among randomly selected set-net sites (nets are anchored to shore or attached to anchors near shore), distributed across northern and western Kodiak Island. They conducted observations from skiffs or support vessels as the gear 'soaked', and later when fishers picked salmon from their nets. Less than 10% of the fishery was observed, and the season was complicated by fishing closures in the southern districts and a strike by set-net fishers early in the season.

The data have not been analyzed yet, but the usual suspects were rounded up - murrelets, murres, guillemots, and puffins being the most common. Approximately 340,000 colonially-nesting seabirds in over 170 colonies have been documented on Kodiak Island, with about 120 of those colonies within or near the NMFS study areas (Shawn Stephensen, Beringian Seabird Catalog, USFWS, Anchorage). An annual report will be available by the end of the year, with the final report to follow the second year of the study. Bryan Manley (West, Inc., Cheyenne, WY) will conduct analyses and serve as lead writer for the report. For details on the AMMOP and the Kodiak study, go to: <http://www.fakr.noaa.gov/protectedresources/observers/mmop.htm>.

Scott Hatch and Verena Gill (USGS) completed the first full field season of a study to identify the origins of Northern Fulmars taken as bycatch in Alaskan long-line fisheries. The approach includes both satellite telemetry and the development of genetic markers for fulmars from each of the four main Alaskan colonies--Semidi Islands, Chagulak Island, Pribilof Islands, and St. Matthew/Hall islands. Five satellite transmitters were deployed (one at Chagulak in June and four at Hall Island in July), and all birds are doing fine and sending data as of mid-September. We also obtained blood samples for genetic analysis from Chagulak, Hall Island, and both St. George and St. Paul in the Pribilofs. During the year, Verena went to school in the USGS Alaska Science Center Molecular Ecology Lab to learn the basics of DNA extraction and PCR, and she is currently tutoring Scott in the same learning process. Let the record show that Scott managed to visit each of the "big four" fulmar colonies in a single season this year, a personal "grand slam" of considerable significance.

BACK AT THE OFFICE...

David Irons (USFWS) and John Piatt (USGS) continued work on the North Pacific Pelagic Seabird Database, joined during the summer by Michelle St. Peter's. Scott Hatch reports that the Pacific Seabird Monitoring Database is about ready to go public, software having now been prepared for both data entry and data retrieval on-line. Internet security issues in the Department of Interior have caused some delays but should be resolved in the near future. Kent Wohl and David Irons continue to represent the US (Alaska) at the Circumpolar Seabird Group (CBIRD) meetings. CBIRD continues to be involved in many projects and has recently completed the Circumpolar Murre Banding Database. Ann Harding completed her MSc. thesis, 'Breeding ecology of Horned Puffins in Alaska' at the University of Durham, England, and finished analyses and reports on a study of Horned Puffin attendance patterns and monitoring protocols. Greg Balogh (USFWS, Alaska) organized the first short-tailed albatross recovery team (START) meeting in Kauai in November 2002. This was in conjunction with the International Fisheries Forum and involved agencies and individuals from the USA, Japan, and Australia. Kathy Kuletz is updating the Kittlitz's murrelet Status Report began last year. She also worked with Greg Balogh to compile data and write the Kittlitz's murrelet Candidate Assessment, a step towards proposed listing under the Endangered Species Act. The assessment, which was sent out for external review this spring, was revised and will be submitted this fall following internal review.

ALASKANS IN THE HAWAIIAN ISLANDS AND FRENCH POLYNESIA

Bob Day of ABR was busy in the Hawaiian Islands this summer using ornithological radar and night-vision equipment to look at the movement and collision potential of Dark-rumped Petrels and Newell's Shearwaters at various islands. In June, on the northwestern Hawaii Islands and in the Puna District of eastern Hawaii Island, he was aided by Rich Blaha from the Oregon office. Roberta Swift (NPS) and Carolyn Stephens (NPS) helped on the Kalaupapa Peninsula of northern Molokai Island. These are the first surveys specifically for these species on this island in a century. In July Bob, in association with Reggie David of Kailua-Kona, moved over to Kauai. They also studied movements of Newell's Shearwaters at two nesting colonies.

From 14 November to 5 December, 2002 a team of biologists went on an expedition through the Tuamotu Atolls, French Polynesia aboard the M/V Bounty Bay. The project was sponsored by Societe D' Ornithologie de Polynesie and Migratory Bird Management, USFWS, Anchorage. Among the main objectives was to evaluate the status of seabirds on islands throughout the atoll and to determine mammalian pest status in order to make recommendations for their eradication and for restoration methodology. Other important objectives included determining the presence and approximate numbers of the critically endangered Tuamotu sandpipers, Polynesian ground doves, atoll fruit doves, and bristle-thighed curlews. Project personnel were; Philippe Raust (Societe D' Ornithologie de Polynesie, Tahiti), Ray Pearce (Wildlands Consultants, New Zealand), Graham Wragg (University of Oxford, UK,) Richard Lanctot (USFWS Anchorage), Verena Gill and Lee Tibbetts (Alaska Science Center, USGS), and Eric VanderWerf (USFWS Honolulu).

ALASKANS IN EUROPE

In collaboration with the Institute of Oceanology (Polish Academy of Sciences), Ann Harding and Tom Van Pelt led the ‘Little Auk Expedition 2002’ to Spitsbergen to study Little Auks (Dovekies). Their work built on results from last year’s expedition led by Nina Karnovsky (UC Irvine), and was supported by the Polish Academy of Sciences, the Atlantic Seabird Group, the Augustine Courtauld Trust, and the Gino Watkins Memorial Fund. Based at the Polish Polar Station in Hornsund, Ann and Tom spent seven weeks collecting data to test hypotheses on the relationship of adult and chick diets to zooplankton availability and distribution, the allocation of parental effort in chick provisioning and fledging, and differences in diet across the season, between sexes, and between adults and chicks. The Polish Academy of Science’s R/V Oceania spent a week in the fjord and ocean waters surrounding the study colony, characterizing the marine habitat and fauna, while Ann and Tom, assisted by Magdalena Owczarek (volunteer from the Institute of Oceanology), simultaneously collected chick diet samples. To examine male-female provisioning behavior both prior to and during the fledging period, they conducted a series of 24-hr watches on color-banded and blood-sampled pairs. Jan Lifjeld and Fridtjof Mehlum (Zoological Museum, University of Oslo) are collaborating with Ann and Tom to genetically sex banded birds, and they’re also examining EPP rates in Little Auks. To learn more about the feeding ecology of Little Auks, Tom and Ann are collaborating with Keith Hobson (Canadian Wildlife Service, Saskatoon); stable isotope analyses of adult and chick blood, chick diet samples, and reference prey samples collected on the expedition will be used to examine differences in adult and chick diet across the season

Russia

Seabird initiatives in the Russian Far East in 2002 - Yuri Artukhin

The project ‘The Conservation of Biodiversity of Kamchatka’ started in 2002. The Ministry of Natural Resources of the Government of the Russian Federation at support and financing of UNDP/GEF plans to spend more than 13 million dollars during 7 years on conservation of biological diversity of four specially protected areas of Kamchatka Oblast. The project will permit to strengthen administrative and management resources of protected areas, will help to create more rational legislative base, will allow to arrange monitoring with the purpose of conservation of biodiversity, will provide long-term co-financing for achievement of lasting results. The important places of nesting of the seabirds and concentration of the waterfowls on migrations and wintering, including Important Bird Areas of global value are located within the project areas in the southeastern part of Kamchatka Peninsula (Kronotsky State Biosphere Reserve, South-Kamchatka State Sanctuary (zakaznik), Nature Park Nalychevo).

The ‘Red Data Book of Kamchatka’ is being prepared for the issuing in the near future. The project is carried out under the aegis of the Committee of Natural Resources of Kamchatka Oblast and Koryak Autonomous District, the basic executive is Kamchatka Institute of Ecology, Russian Academy of Sciences. The list of birds that need special protection contains 57 species, including 17 species of seabirds and 2 species of eiders.

The International Arctic Expedition of Institute of Ecology and Evolution and Goose, Swan and Duck Study Group of Northern Eurasia conducted ornithological research in Chukotka.

Main aims of the Expedition in relation to seabirds are the following:

1) Inventory of distribution of poorly studied species of birds at Chukotka and northern Yakutia. Colonies of cliff nesting Alcids included though it is not a priority within expedition program.

2) Eider and other seaduck studies. Inventory of non-breeding concentration and study of ecology in breeding and post breeding periods in Chukotka, Yakutia and Kamchatka (in cooperation with Kamchatka biologists).

3) Subsistence hunting survey at coastal villages Chukotka and Northern Yakutia.

Study areas planned for terrestrial work for 2003-2005: Southern Chukotka - Koryak mountain coasts, Northern Chukotka - Koliuchin Bay and northern lagoons, New Siberian Islands.

The revision and up-dating of the “Alaska-Russian Far East Seabird Bibliography” (Anchorage, 1997) was carried out at support of U. S. Fish and Wildlife Service. About 450 new publications of the Russian authors were added to the database that contained about 600 earlier works issued up to 1995.

Some results of the recent seabird studies were published in the KIENM annual scientific report “The Biology and Conservation of the Birds of Kamchatka” (Issues 4, 2002).

Seabird initiatives European Russia and Western Siberia in 2002 - Maria Gavrilov

This summary contains those seabird projects that have been conducted in the Russian European Arctic and adjacent areas in 2001-2002 (after Alexander Golovkin death). Seabird studies in the area are mainly carried out by the following institutions: Murmansk Marine biological institute of Russian Academy of Science (MMBI, Murmansk) in co-operation with Polar institute for fishery and oceanography (PINRO, Murmansk), Kandalaksha State Nature Reserve (Kandalaksha), Solovetskiy State Museum – Reserve, Gydanskiy State Nature Reserve (office in Taz settlement, Gydan Peninsula) and some other organisations and partners.

Monitoring seabird populations

The State Nature Reserves continue their monitoring program, mainly directed to the breeding seabirds. However, in Kandalaksha Reserve, the program has to be cut down in some remote areas due to staff shortage. Areas under survey: Kandalaksha Bay, Ainovy Islands, while on Gavrilovskiy Archipelago and Seven Islands Archipelago with long-term previous data sets monitoring became non regular.

In 1999 MMBI started to monitor largest seabird colony on the Western Murman (Gorodetskiy Cape).

At sea monitoring of seabirds is continued by MMBI (ship-based) and in co-operation with PINRO – air-born. Area: Southern Barents Sea, South-eastern Barents Sea.

Eider monitoring program started by MMBI in 1999 including counts in different season at 3 sites on Murmansk coast and several sites in Kandalaksha Bay; demography, diet study.

Important Birds Areas

IBA's of the Baltic region of Russia were evaluated by the research team of Saint-Petersburg State University (team leader Alexander V. Kondratiev) and the catalogue was published in 2000 (Kondratiev A.V., ed.). The catalogue includes data on seaducks and seabirds breeding in the region (Gulf of Finland, Ladoga Lake). The project has been fulfilled with support of BirdLife International and Danish Cooperation for Environment in Eastern Europe.

Migration of seabirds

Migration of Arctic birds through the Gulf of Finland and Ladoga Lake is monitored by Saint-Petersburg State University (team leader George Noskov). Observation on migrating seabirds are routinely observed in all reserves. New data on bird migration through Gydanskiy Reserve (including eiders and other seaducks, seagulls) were published (Chuvashov, 2001).

Recent publications

Chuvashov G. 2001 Gydanskiy Reserve and Gydanskiy Peninsula, Saint-Petersburg, Kartographic Factory VSEGEI, 136 pp. (In Russian and English)

Kondratiev A.V. (Editor in chief) 2000 Important Bird Areas of the Baltic Region of Russia (Kaliningrad and Leningrad Regions). Saint-Petersburg, 136 pp. (In Russian).

Koryakin A.S., Solovieva D.V. 2002 A bibliography of eiders of the USSR and Russia (1977-2000). Saint-Petersburg, 150 pp. (In Russian and English)

Krasnov Yu.V., Goryaev Yu., Nikolaeva N., Shavykin A., Gavrilov M.V., Chernook V.I. 2002 The Atlas of marine birds of the Pechora Sea. Apatity, Kola branch of RAS, 150 pp. (In Russian).

Skov H., Vaitkus G., Flensted K.N., Grishanov G., Kalamees A., Kondratyev A., Leivo M., Luigujoe L., Mayr C., Rasmussen J.F., Raudonikis L., Scheller W., Sidlo P.O., Stipnice A., Struwe-Juhl B., Welander B., 2000, Inventory of coastal and marine Important Bird Areas in the Baltic Sea. // BirdLife International, Cambridge, 287 pp.

Finland

Seabird initiatives in 2002 – Martti Hario

Spring shoot issue

Finland is the only country in the European Union that still has a spring hunt for drake seaducks. No novelties occurred in the national legislation apart from the Åland Islands where quotas were set lower this year. Spring hunt is an increasingly big issue, but is claimed disproportional in relation to its effects as a population regulating factor. An experimental study on the effects of male removal on Eider female fecundity was completed and the results were submitted for the parties involved.

Mink campaigns

A nation-wide campaign for decimating small mammalian predators (Feral Mink, Raccoon Dog, Fox, Pine Marten) has been launched by the central organization of Finnish hunters. The campaign aims to reduce the damage caused especially by a dense mink population to waterfowl. Feral mink is a generalist carnivore that in winter mainly takes fish and small rodents, but birds are the principal prey in spring and summer.

In an experimental study in SW Archipelago (Nordström et al. 2001), mink were removed in two large archipelago areas consisting roughly 120 islands and the results were compared with areas (c. 100 islands) where mink were not removed.

The removal was made by hunters with the aid of a trained hound and an air-blasting device (a device blasting autumn leaves from grass lawns and pavements in settlements). First, the dog located the hiding place of the mink, usually under big boulders, in dense clumps of junipers or in other cavities with several exit routes. The air-blasting device flushed the animal out, and a shotgun was used to kill it. The flushing was 100%; it usually took no more than 5-10 seconds to get the animal out.

During the first year, a total of 63 mink were killed, numbers decreasing in subsequent years. The experimental areas were kept mink-free for 9 years, during which time the total mink catch amounted to 98 specimen.

During these 9 years, there was a marked increase in breeding numbers of smaller waterfowl, whereas in control areas their numbers remained close to zero. Also, numbers of smaller gulls and terns increased. In contrast, there was no effect on larger species: Mute Swan, Greylag Goose, Goosander and Common Eider.

In another study, mink predation was found to be the most marked mortality factor in Black Guillemot breeding in the Gulf of Finland (Hario 2002). Normally Guillemots were able to get 80% of their chicks fledging, whereas during a 3-year period of mink predation, the rate in the same colony dropped to a mean of 36%. All the other mortality factors remained intact (predation by Hooded Crows 15%, disappearances 13%, other causes 17%). Chick growth (mean growth rate) was not affected, indicating that the

diurnal feeding behaviour of parent birds was not affected by the presence of the nocturnal predator in close proximity to their nests. Black Guillemots in the Baltic seem to lack all ecological responses against the intrusion of a small mammalian predator.

Intensive game-keeping is the only way to rapidly respond to mink invasions. Therefore, in the Quark area, where the archipelago is proposed for an UNESCO World Heritage area and where Black Guillemots reach their highest population density within the entire Baltic, another mink campaign has been started, this time partly financed by the European Union.

Important Bird Area Programme

The work of the Finnish Important Bird Area Programme (FINIBA), a national extension to BirdLife's worldwide IBA project, was completed (Leivo et al. 2002). A total of 411 FINIBA sites were identified throughout the country, of these 31 were coastal and marine IBAs. Most marine areas are large, consisting of several hundreds of islets and skerries, mainly in the outer archipelago zone. Bulk of the Finnish alcid breeding sites are within IBAs.

References:

Hario, M. 2002: Mink predation on black guillemots at Söderskär in 1994-1999. – Suomen Riista 48: 18-26 (in Finnish with English summary).

Leivo, M., Asanti, T., Koskimies, P., Lammi, E., Lampolahti, J., Mikkola-Roos, M. and Virolainen, E. 2002: Important Bird Areas in Finland (FINIBA). – BirdLife Finland Publications no. 4, 142 pp (in Finnish with English Abstract).

Nordström, M., Högmander, J., Nummelin, J., Laine, J., Laanetu, N. & Korpimäki, E. 2002: Variable responses of waterfowl breeding populations to long-term removal of introduced American mink. – *Ecography*: 25: 385-394.

Sweden No report.

Norway

Seabird initiatives in 2002 - Hallvard Strøm, Morten Ekker and Tycho Anker-Nilssen

New Environmental Act for Svalbard

The Svalbard Environmental Protection Act entered into force July 1, 2002. For the first time, all environmental regulations for the Svalbard area have been put together in one act. This enables a better enforcement of environmental regulations and ultimately a better management, due to joint goals and objectives for all the regulations. The Act sets framework conditions for all enterprises present in the archipelago. The Act introduces a general principle that all flora and fauna are basically protected. Only controlled and limited harvesting of some species is allowed, as long as the species' natural productivity, diversity and habitats are preserved. Area protection will continue to be the most important legal instrument to protect the wilderness quality of Svalbard.

Barents Sea Management Plan

The process of developing a comprehensive management plan for the western part of the Barents Sea (from Lofoten in the south) was initiated in 2002 and will be finished by 2005. The Management Plan is based on a holistic approach including separate EIA' s on oil and gas; fisheries, mariculture and sea transport; pollution, climate change, invasive alien species and migrating species. Human impacts on the marine ecosystem will be assessed as thorough as possible. Many of the seabird populations (47 species) in the Barents Sea area are of international importance and are considered to be sensitive ecosystem components, several showing negative population trends. The management plan will be based on a common EIA (where all the basic EIA' s are compiled). Identified actions needed and lack of knowledge will be implemented and followed up by sectorial instruments and mechanisms.

Nature Protection Plan for Coastal Areas in Nordland County

The Nature Protection Plan for Coastal Areas in Nordland County was endorsed by a Royal Decree December 6, 2002. 74 nature protected areas were established, 64 of them as nature reserves, one of which includes the largest aggregation of breeding seabirds in mainland Europe (the puffin colonies at Røst). Three of the designated areas were proposed in a new National Park Plan. The ornithological values given protection through the designation of these areas are of international importance; valuable marine bird areas, among them several breeding and wintering locations for common eider, in addition to a unique flora, landscape and seascape. A similar protection plan for Troms County is underway.

Furthermore, a general extension of the Norwegian territorial border (from 4 nm to 12 nm) is now being considered. This may affect the size of protected areas and the jurisdictions in marine areas both at the Norwegian coast and in Svalbard.

The Vega archipelago Nominated as a Candidate for the World Heritage List

The Vega archipelago was nominated as a candidate for the World Heritage List by a working group under the Nordic Council of Ministers in 1996. Norwegian environmental authorities are now in the final stage of preparing the necessary material in order to enable the UNESCO secretariat to identify values connected to the Vega archipelago. The traditions related to down and egg collection (common eider) - also focused on a seminar held at Vega in June 2002 - and parts of the unique Vega archipelago are being described and assessed as a part of this documentation. Deadline for delivery to UNESCO is February 1, 2003.

A New Protected Area Plan for Svalbard

A new Protected Area Plan for Svalbard has been worked out, and six new protected areas have been proposed. These will probably be established in 2003. In Svalbard 64% of the total land area will then be protected under the new Environmental Act. One of these areas is the island of Hopen – a very important breeding area for seabirds in the Svalbard area, and one of the two most important polar bear breeding sites.

Bjørnøya (Bear Island) Protected as Nature Reserve

The isolated, unique oceanic island of Bjørnøya - and its surrounding marine area - was designated as a nature reserve August 16, 2002. This small island (177 km²) has more than 700 lakes and ponds. The seabird breeding colonies are among the largest in the northern hemisphere, and besides being a key area for seabirds, the island is an important staging area for geese.

Great Britain (official observer country)

Special Protection Areas for Seabirds-Scoters - Jim Reid

At sea front, Great Britain is looking at Special Protection Areas (SPAs) at sea under the EU Birds Directive to provide more protection to marine birds including feeding areas. This will be done on three fronts, one of which is extensions into marine environment of existing (terrestrial) seabird colony SPAs. Another focus is to look at aggregations of waterbirds outside the breeding season. The last focus is to go to 200 mi. limit and beyond, and designate hot spots for feeding or other purposes.

In the past year, we identified 6 colonies: around the Isle of May and another 5 colonies. Another specific aspect is that of a geospatial modeling approach. Results of analysis indicate that you capture about 95 per cent of the birds if go about 1 kilometre out. Therefore as beginning approach may extend out one or two kilometers out, depending on species (guillemot and other auks, northern gannet).

Second matter was failure to designate map for Black Scoter around south west Wales (20,000 birds, which above 16,000 bird threshold). As result of a complaint and threat of legal action by EU, which resulted in compliance. We did analysis, and came out with geospatial models. Models used to set up boundaries. Note gone out for consultation, and has been classified.

Good aspect in that we are able to use geospatial modeling techniques, which intellectually challenging, but also very useful.

IV. Circumpolar Seabird Work Plan

In accordance with the CAFF Work Plan, 2002-2004 and additional assignments developed during CAFF National Representatives' meetings the CBIRD primarily focused on six priority action items. Progress on those and other activities of CBIRD are reviewed below. Future recommended action items are highlighted in Chapter five.

A. Action Item 1: Conservation of Migratory Birds Outside the Arctic

Conservation of Arctic Breeding Migratory Birds Beyond Arctic Countries - K. Wohl

This report will describe the international aspects of migratory birds that regularly breed

in the eight Arctic countries and their management and conservation issues when they migrate beyond the legal jurisdictions of the countries. This Technical Report will document the status and trends and use of migratory path ways and wintering areas. I have described this project as an example of the Arctic's influence beyond the Arctic and therefore a recognition that we need to think "rangewide" conservation and management to meet our trust resource responsibilities. This is a story we will need to continue to emphasize for bird conservation to be effective.

Goal: To improve the visibility of Arctic breeding migratory birds and recognition of their conservation needs beyond the Arctic.

- Objective 1: To determine those regular breeding birds that migrate/move beyond the country's jurisdiction
- Objective 2: To determine the Birds of Arctic Conservation Concern
- Objective 3: To describe the migration corridors, staging areas, and wintering areas of regular breeders
- Objective 4: To describe the status and trends
- Objective 5: To describe the international instruments applicable to those regular breeders moving beyond the legal jurisdiction of the country
- Objective 6: To describe the international bird program of each country

I. List of Reg. Breeding Birds

To accomplish this objective each country author (s) need to compile a table of regular breeders (no peripherals) that winter outside the legal jurisdiction of the country; i.e., not necessarily outside the "Arctic". Please refer to Table 1 to review the other info needed to complete the table. This table will form the foundation of the report.

II. Birds of Arctic Conservation Concern (BACCs)

I believe we have a couple of options for determining our BACCs. First, we need to determine if we want two lists.... a country by country list of "Birds of Conservation concern" (BCC) and a list called the "BACC" which we would derive from each of the country lists using some criteria. Dave and I like the two list idea because it gives us the opportunity to recognize those species that are of a higher priority because of their concern based on a broader circumpolar viewpoint. We're wrestling with the name of the two lists so give us your ideas.

So, to determine the country list of BCCs I believe each country needs to determine their own birds of conservation concern first. Ideally, we should all use the same criteria to identify our BCCs. I believe that we should take advantage of our existing country lists to the extent we have lists, and not reinvent-the-wheel. If you will need to develop your country list then I would suggest using criteria like: breeding distribution, nonbreeding distribution, relative abundance, population trend, threats on the breeding and nonbreeding grounds, and country or area importance to the species (% of the breeding distribution or population in your country). At any rate I believe each country should

describe in adequate detail how you derived your BCC list.

If we then want to develop the next or “second tier” priority list called the Birds of Arctic Conservation Concern then I would suggest that we use the criteria below as a sieve to strain our country BCC lists through. A species qualifies as a BACC if it meets the two criteria below.

Criteria 1: A BCC bird that is on 4 (or maybe 3) or more country list (i.e., a widely distributed BCC) or is a BCC in 50% or more of its range is a BACC.

Criteria 2: A BCC bird that is currently a nationally designated “endangered/threatened” species, or is a “redbook” or an IUCN “vulnerable” or otherwise designated as an highly “imperiled” species in two or more countries is a BACC.

III. Wintering Area and Table 2

This is a description and accompany Table that targets the wintering areas of your breeding birds and serves to highlight those more southerly regions/countries that your country needs to connect with (communicate/coordinate/collaborate) to ensure your breeding birds’ conservation. With this info you will be able to indicate those wintering regions/countries that are of highest priority. It also serves to connect with the discussion concerning intl. instruments and Table 3.

IV. Intl. Instruments and Table 3

The third discussion and table highlights those intl. instruments/Treaties/Agreements that are relevant to your country’s BCCs and BACCs. I envision that we should include bilateral and multilateral MB treaties as well as informal agreements like CAFF and CBIRD, Norway-Russia Environmental agreement, AEW, BONN, BERN, Flyway agreements and working groups. As is indicated on Table 3 you should indicate the geographic scope, bird themes or focuses, and whether there is an implementing Action Plan associated with the instrument.

V. Intl. Program Summary and Table 4

The fourth discussion and table highlights your international bird program/activities/actions/projects. You should indicate the applicable geographic region or cooperating country, instrument, international partners, and whether there are reports available.

Lastly, your country reports obviously will include a discussion summarizing all the info in the tables, status and trends discussion, and a discussion or list of recommended improvements (new instruments/projects/working groups) needed to improve the conservation of the BCCs and BACCs.

Tech Rept Outline: Feb 15 (attached)

Definition of BACCs: See above

Country draft Repts: Nov 1

Draft BACC Rept: CBIRD X

B. Action Item 2: Seabird Bycatch in Commercial Fisheries in the Arctic

Some countries responded to the seabird bycatch issue in the ‘Country Status Reports’ at the beginning of this document so for more information on seabird bycatch check the ‘Country Status Reports’.

Iceland

There are not good data on seabird bycatch in Iceland, a guess would be 100,000 to 200,000 birds killed in all fisheries annually. The most common bird caught in gill nets is the Common Murre, followed by the Northern Fulmar. Aevor is concerned about possible effects on bird populations. There may be some species that not may are caught, but there is a negative impact on the population, e.g., loons. Four studies were done impact to seabirds from fisheries bycatch, two on Common Eiders and two on Black Guillemots, and all showed no population effects.

Greenland

Gillnets were banned so there is no gillnet problem.

Canada

The collapse of the fisheries solved most of the bycatch problems, but some fulmars are still being caught.

United States

There is a bycatch working group that is working with the US National Marine Fisheries Service on the problem. The current bycatch projects are listed in the ‘Country Status Reports’.

Russia

The implementation of the observational program within the framework of the project ‘Incidental mortality of seabirds in the driftnet salmon fishery by Japanese vessels in the Russian Exclusive Economic Zone’ was suspended in 2002. The control over this type of commerce was totally passed into the competence of the Kamchatka State Marine Inspection of Federal Border Service of the Russian Federation, and collecting of reliable information with the help of the employees of this organization has appeared impossible. It was calculated on the basis of patterns of birds mortality rate in 1993-2001 and fishing effort information of 2002, that approximately 75 thousand seabirds were lost in the Bering Sea in driftnets in this season.

The preliminary data on the seabirds loss (cormorants and tufted puffins) in the bottom gill net within Avachinsky Gulf, Southeastern Kamchatka were received for the first time in 2001-2002. The number of small vessels (mosquito fleet) carrying out coastal catch of

bottom-dwelling fish sharply increased in this region since 1997, therefore loss of the seabirds can influence the state of the local colonies. Possibilities of collecting of objective information about the death rate of birds caused by this kind of commerce are considered now.

The project on the study of the seabird mortality in longline fishery in the Bering Sea is in the stage of discussion with World Wildlife Fund, Bering Sea Ecosystem program.

Finland

There were observers on 1000 trips of all fisheries and only 10 birds were caught.

Sweden

We published a paper on the bycatch of Common Murres in the Baltic Sea. About 1,500 to 4,500 murres were caught per year. This is about 3% of the Common Murres in the Baltic. The cod fishery catches most of the birds.

Norway

In Norway about 40 fish species are gillnetted with the Atlantic Cod being the most common target. Bycatch of seabirds is important for some species. The so-called “auk battles” was a big issue in the 1980’s when one such incident probably killed about 200,000 Common Murres. There is little new information on the importance of this problem because the numbers of birds being bycaught are not reported. Bycatch is certainly still a problem, but as these fisheries have declined, so has probably also the bycatch. In southern Norway wintering Common Murres are still being caught in fish nets to a degree that may be effecting their populations of origin.

C. Action Item 3: Seabird Harvest in the Arctic

Some countries responded to the seabird harvest issue in the “Country Status Reports” at the beginning of this document so for more information on seabird harvest check the “Country Status Reports”.

Iceland - Aevor Petersen

Harvest data

Harvest statistics continue to be compiled in Iceland (by the wildlife management division of the Environmental and Food Agency). Hunters do not get their hunting license renewed unless an annual report on birds (and mammals) taken is submitted. As far as seabirds are concerned this relates to birds taken (at colony or at sea) but not Eiderdown collected nor eggs. Hunting licenses are 11-12 thousand (4% of the population), and the most recent information on numbers hunted is from 2001. The harvest data are published on the web (<http://www.veidistjori.is/>).

Recommendations from harvest report

In Technical Report no. 9 *Seabird Harvest Regimes in the Circumpolar Nations* (2001) Iceland recommended two projects, needed doing specifically for Iceland:

- Conduct research on population sizes and the effects of harvesting, both local and national.
- Develop specific programs to assemble information on egg collecting, especially relating to black-legged kittiwakes, razorbills, and common murre.

Neither of these projects has been fully executed. A preliminary analysis has been made related to the former, which will be published in the Circumpolar Seabird Bulletin under the title *Seabirds in Iceland: legislation and hunting statistics*. The latter is recommended for 2004, as part of a larger project at major seabird cliffs, dealing with (a) hunting (species, numbers), (b) egg-collecting (species, numbers), and (c) disturbance (from tourism, fishing offshore, hunters, egg-collectors).

Five general recommendations were included in the CAFF harvest report of 2001:

1. Improve knowledge of the level of seabird harvests nationally and for specific regions by routinely monitoring the annual harvest of seabirds and at colonies with substantial harvests
2. Develop a permit or license system to improve the information on the number of hunters and their harvests
3. Develop national or regional outreach and education programs to disseminate information on seabird harvests, improve the collecting of harvest information, and reduce unnecessary disturbance at colonies

4. Reduce the harvest of seabird populations which are declining at specific colonies or in specific regions
5. Involve local hunters and hunting organizations in developing or improving harvest regimes

The project recommended for 2004 (see above) aims at improving harvest information at selected major seabird colonies (recommendation 1) while a general license system is already firmly in place (recomm. 2). The compilers of the harvest data in Iceland hold out a webpage relating to hunting and hunting statistics (recomm. 3). They also publish annually a small booklet, so-called the Hunter's Journal, describing the hunting license system, hunting statistics, giving various practical information such as the location of protected area, what to do if hunters find bird bands, hunting seasons of different species, the legal regime, etc. Popular accounts by scientists on specific issues are also published in the journal. No outreach program has been directed at disturbance at colonies *per se* (recomm. 3), but the project suggested above for 2004 aims, *inter alia*, at establishing basic information on the types and levels of disturbance at major colonies. Reducing harvest levels of declining populations (recomm. 4) implies information is available on population size, trends and harvest levels. As mentioned above only a preliminary analysis has been made on the possible effects of hunting on Icelandic seabird populations, and more detailed analyses are needed, including at the colony level. For a number of seabirds more detailed information on population size, not to mention trends, is also needed. Hunting organizations in Iceland are involved in the collection of harvest data and follow carefully research on hunting species although, regarding the latter, seabirds have hitherto been largely ignored (recomm. 5).

Future harvest issues

The data included in the last report on seabird harvests in the Arctic in CAFF Technical Report No. 9 are 6-7 years old. For Iceland no basic changes have taken place since then in harvest issues, although with each year more harvest data are added, hopefully giving a better picture of harvest regimes. In 2003 information on effort is also requested from hunters.

Rather than revising the CAFF Technical Report No. 9 at this stage (unless other countries find this absolutely necessary) it is suggested that greater emphasis is placed on circumpolar issues (alongside pressing national issues). Several suggestions are offered here, and their findings could be published as a technical report:

- Circumpolar Seabird Group should identify, what kind of information and which parameters are needed to fully describe seabird harvesting and its effects on respective populations. – This compilation may help countries, which do not have the required infrastructure for harvesting analyses.
- Identify those circumpolar harvest issues, which first and foremost need focused attention by the Circumpolar Seabird Group. - This could be done by analysing the recommendations of the 2001 harvest report, to find out common themes, with possible additions identified by participants.

- Identify declining species and populations, for which harvest is a known or suspected vector, calling for concentrated research projects between all or several Arctic countries. – Is the Group focusing on known problem areas, where harvesting is an issue?
- CAFF countries should increase efforts 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. - This is one of the recommendations on Arctic Migratory Birds at the Songli 2000 meeting (CAFF Technical Report No. 8, p. 53).

Greenland

There is an ongoing socioeconomic study and a program to build mutual respect between the hunters and the government. They are trying to use local knowledge more. In 2001 new hunting regulations caused lots of discussion and there was much resistance to the new regulations which is leading to a new draft of the hunting regulations. About 200,000 Thick-billed Murres and 70,000 eiders are taken in the winter hunt. The number of commercial hunters has declined but the number of recreational hunters has increased.

Canada

About 8,000 to 14,000 Common Murres are taken.

US - Alaska

The Alaska data has not changed much. But the Alaska Migratory Bird Co-management Council has recently been established. Recommendations for regulations governing harvest of game birds and non-game birds in 2003 have been adopted by the Co-management Council and the U.S. Fish and Wildlife Service for action.

Russia

Maria mentioned that eiders are harvested illegally in Western Russia.

Traditional annual catch of the seabirds for needs of the native population of the Commander Islands – Aleutians, continued in 2002. 2870 eggs of glaucous-winged gulls were collected and 262 tufted puffins were harvested in the buffer zone of the Commander Reserve on Toporkov Island.

The International Arctic Expedition of Institute of Ecology and Evolution and Goose, Swan and Duck Study Group of Northern Eurasia began the project on subsistence harvest of birds in Chukotka and Northern Yakutia. Seabirds and eiders are the species most harvested in this region. The data processing is not yet completed and they may be presented on next Seabird meeting.

Sweden

In Sweden no eggs and no alcids are taken, but they hunt seaducks.

Finland

Finland is the only country in the European Union that still has a spring hunt for drake seaducks. No novelties occurred in the national legislation apart from the Åland Islands where quotas were set lower this year. Spring hunt is an increasingly big issue, but is claimed disproportional in relation to its effects as a population regulating factor. An experimental study on the effects of male removal on Eider female fecundity was completed and the results were submitted for the parties involved.

Norway

In mainland Norway there is now little harvest of seabirds. A few Thick-billed Murres, Northern Fulmars, Black Guillemots, and Glaucous Gulls are harvested at Svalbard.

D. Action Item 4: International Eider Conservation Strategy

1. Country Implementation of the International Eider Conservation Strategy

Iceland

Aevar Petersen, Icelandic Institute of Natural History

A general overview of the Icelandic Common Eider population, its status, protection, utilization, and future needs, was compiled in 1997 (Petersen 1997). At CBird 6 in Ottawa 1998 a matrix was formed, against which the Eider Conservation Strategy action items were weighted. The matrix includes the relevance of the 23 action items for Iceland, whether actions have been completed or not, and if items are in progress. The matrix also included priority rankings for each of the items. The matrix is revised below as towards end of 2002.

Implementation of the International Eider Conservation Strategy, Iceland 2002.			
Action Items	Highest in history	Current	Initiatives
4.1. Consumptive Use			
4.1.1. Develop international harvest plans	0	0	
4.1.2. Establish appropriate harvest rules	0	0	
4.1.3. Obtain reliable harvest estimates	0	0	
4.1.4. Evaluate the opportunity for guided hunts	0	0	
4.1.5. Support egg and down collection programs	3	3	A
4.2. Non-consumptive Use			
4.2.6. Evaluate risks of human activities	1	1	
4.2.7. Encourage non-consumptive uses of eiders	3	3	
4.3. Commercial Activities			
4.3.8. Identify eider populations and habitats at risk from oil pollution	1	2	B
4.3.9. Reduce eider mortality caused by commercial fisheries activities	1	1	C
4.4. Habitat Protection and Enhancement			
4.4.10. Prepare a summary of protected eider habitats	1	1	
4.4.11. Evaluate existing mechanisms for protecting eider habitat	1	1	
4.4.12. Protect additional eider habitat as needed	3	2	D, E
4.4.13. Implement other needed protective measures	3	3	
4.5. Communication and Consultation			
4.5.14. Support other eider conservation initiatives	1	3	D, E
4.5.15. Ensure coordination with other bird conservation plans	1	3	E
4.5.16. Enlist support of local residents and others interested in eiders	3	3	D, E, F
4.5.17. Solicit periodic evaluation of the Strategy by eider specialists	1	1	
4.5.18. Prepare periodic reports summarizing activities in eider conservation	2	2	E, F
4.5.19. Ensure that eider conservation projects include an educational component	1	1	
4.6. Research and Monitoring			
4.6.20. Develop comprehensive research agendas for each species	2	3	F
4.6.21. Estimate population size, productivity, survivorship, and movements	1	2	F, G, H, I
4.6.22. Study effects of contaminants in eiders	2	3	
4.6.23. Develop monitoring plans for eiders	1	3	I

1 = No current action but action required; 2 = In progress; 3 = Completed; 0 = No action required.

Various research and other activities have been carried out relevant to the Eider Conservation Strategy since CBird 8, mostly continued work from earlier years. The major ones are summarized below, giving the action item number for which these are most relevant.

Initiatives

- A. **Eider husbandry:** Eider-down, now about 3000 kilos per year, is mostly exported to Denmark, Germany, and Japan, and re-exported to elsewhere. In 2001 a comprehensive book was published on Common Eiders and Eider husbandry in Iceland (Jonsson 2001). Icelandic and American authorities have been cooperating for several years so that down could be exported to the USA. The present Endangered Species Act does not allow for the import of listed species or their products, although down was not looked upon as such a product (action item 5).
- B. **Contaminants and pollution:** Mapping of sensitive areas, including Eider colonies, continues by the Committee on Response to Pollution Incidences.

The product will be a computerized map of which a demo edition has been produced (action item 8).

- C. **Bycatch:** A research plan has been under development since 2002 for gathering information on the scale of the bycatch problem in Icelandic waters at the request of Ministries of the Environment and Fisheries (Petersen, in press) (action item 9).
- D. **Habitat Conservation:** By law Eider colonies, which are used for harvesting the down, can be declared closed to visitors, having hunting limits of a two km radius, and with a no-fishing zone of 120 m offshore. Eider feeding or moulting areas further afield enjoy no special protection (action items 12, 14 and 16).
- E. **National Nature Conservation Strategy:** A national strategy has been developed for several years now and is about to be finalized. This relates to protected areas, endangered species, common species of conservation concern, etc. The Icelandic Institute of Natural History provided a preliminary gap analysis, which includes identifying areas of special conservation concern (Einarsson *et al.* 2002). Some of these include important Common Eider colonies, such as the largest colony in Iceland (Æðey island, NW. Iceland) (action items 12, 14, 15, 16 and 18).
- F. **National Implementation Plan:** A national plan for future work on Eider research and management questions, was completed in 2000-2001, and has been published (Petersen 2001a, b). This identifies the actions needed and priority items for Eiders in Iceland. The plan has still to be accepted by the Ministry for the Environment for full implementation. Individual action items can be worked upon by research institutes or others, including the monitoring program. Input from Iceland, which included the progress report on the CAFF International Eider Strategy, was called for at the Common Eider Workshop, at the meeting of the Seaduck Specialist Group in Estonia in April 2002 (Petersen 2002) (action items 16, 18, 20 and 21).
- G. **Mating system:** Tiedemann and colleagues from Germany and Iceland studied the Common Eider mating system in Iceland. The study is based on sampling blood from incubating females, their resulting brood, and as many males as possible. From this, paternity and maternity indices are developed. A paper has been submitted (Tiedemann *et al.*, submitted) (action items 20).
- H. **Banding:** Banding activities were continued in especially three colonies, aimed at future survival analyses but also for analysis of distribution of recoveries. In 2001, the first two recoveries from outside Iceland for Iceland-banded Common Eiders were reported from Greenland despite thousands of previously banded birds. Previously, one hand-raised duckling had been recovered from the Faeroes, but this may not have been a representative event for the wild population (action item 21).
- I. **Monitoring:** In year 2001, a database of Common Eider colonies in Iceland was completed. Altogether about 650 were registered, present and old ones (some of which have vanished). Although information on size of some of

these colonies exists, for many the present situation is not registered. This information is mostly known locally but has not yet been compiled for the country as a whole, although data, which becomes available is registered. In 2002 a Nordic project on seabird colony databases, including Common Eider, was launched, as a cooperative project between Greenland, Faeroes, Iceland, Jan Mayen, and Svalbard. The colony registry provided a basis for selecting representative colonies, using different parameters for stratification, for future monitoring. About 60 were selected, covering the total Icelandic breeding area, all colony sizes and local situations, i.e. mainland colonies and island ones. Data collection and analysis is underway. The mid-winter Christmas Bird Counts, which have been carried out once a year for over 50 years (see Petersen 1983), continue to be coordinated over the whole country. Common Eiders form a significant part of the birds' censused and the results are valuable material to monitor the winter population. A general overview of monitoring activities in Iceland as related to the present monitoring networks of the Circumpolar Biodiversity Monitoring Program within CAFF, including that of seabirds (eiders included) was been published (Petersen 2003) (action item 21 and 23).

Recent Publications

- Einarsson, Ó., H. Kristinsson, K.H. Skarphéðinsson & J.G. Ottósson 2002. [Conservation of species and sites (Recommendations of the Icelandic Institute of Natural History in relation to the National Nature Conservation Strategy 2002.]. Náttúrufræðistofnun Íslands NÍ02016. 118 pp. (Icel.).
- Jonsson, J. (ed.) 2001. [Eider and Eider husbandry in Iceland] Eider-Farmers Association, Mal og Mynd, Reykjavik. 528 pp. (Icel.).
- Petersen, A. 1983. [The annual Christmas Counts in Iceland.] Bliki 2: 28–42. (Icel., Engl. summ.).
- Petersen, A. 1997. Status and Conservation of Eiders: Iceland. Report to CAFF. 9 p.
- Petersen, A. 2001a. [The Common Eider in Iceland. Status of research and international efforts for the conservation of eiders.] Náttúrufræðistofnun Íslands NÍ-01025. 29 p. (Icel.).
- Petersen, A. 2001b. [Protection of the Eider population in Iceland and future visions.] Pp. 47-53 in: Jonsson, J. (ed.) 2001. [Eider and Eider husbandry in Iceland.] Eider-Farmers Association, Mal og Mynd, Reykjavik. 528 pp. (Icel.).
- Petersen, A. 2002. Eider Conservation Strategy Implementation – Progress Report 3. Pp. 11-13 in: Abstracts of presentations to the Wetlands International Seaduck Specialist Group Meeting Workshop on Baltic/North Sea Common Eider populations. Internet [http://: www.dmu.dk/1_Om_DMU/2_afdelinger/3_kyst/4_international/5_seaduck/Abstracts.html](http://www.dmu.dk/1_Om_DMU/2_afdelinger/3_kyst/4_international/5_seaduck/Abstracts.html)
- Petersen, A. 2003. Icelandic Programs related to the Circumpolar Biodiversity Monitoring Program. Náttúrufræðistofnun Íslands. NÍ-03003. 19 p.
- Petersen, A. 2003. [Seabird bycatch in fishing gear in Iceland]. Náttúrufr. 71(1-2): 52-61. (Icel., Engl. summ.).

Tiedemann, R., K.B. Paulus, S. Thorstensen, A. Petersen & M.C. Milinkovitch. Alien eggs in duck nests: brood parasitism or a help from Grandma? Has been submitted to Proceedings of the Royal Society Series B.

Greenland

Anders Mosbech, National Environmental Research Institute.

Flemming Ravn Merkel, Greenland Institute of Natural Resources

Implementation of the International Eider Conservation Strategy, Greenland 2002.			
Action Items	Highest in history	Current	Initiatives
4.1. Consumptive Use			
4.1.1. Develop international harvest plans	2	2	A, W
4.1.2. Establish appropriate harvest rules	3	2	B
4.1.3. Obtain reliable harvest estimates	2	2	C
4.1.4. Evaluate the opportunity for guided hunts	1	2	D
4.1.5. Support egg and down collection programs	1	1	
4.2. Non-consumptive Use			
4.2.6. Evaluate risks of human activities	2	2	E
4.2.7. Encourage non-consumptive uses of eiders	1	1	F
4.3. Commercial Activities			
4.3.8. Identify eider populations and habitats at risk from oil pollution	2	2	G,H,I,V,T
4.3.9. Reduce eider mortality caused by commercial fisheries activities	2	2	J
4.4. Habitat Protection and Enhancement			
4.4.10. Prepare a summary of protected eider habitats	2	3	K
4.4.11. Evaluate existing mechanisms for protecting eider habitat	2	2	K
4.4.12. Protect additional eider habitat as needed	2	2	X
4.4.13. Implement other needed protective measures	2	2	X
4.5. Communication and Consultation			
4.5.14. Support other eider conservation initiatives	1	1	
4.5.15. Ensure coordination with other bird cons. plans	0	0	
4.5.16. Enlist support of local residents and others interested in eiders	2	2	L, M, N
4.5.17. Solicit periodic evaluation of the Strategy by eider specialists	1	1	
4.5.18. Prepare periodic reports summarizing accomplishments in eider conservation	2	2	G, O, P
4.5.19. Ensure that eider conservation projects include an educational component	2	2	M, N, Q, R, W
4.6. Research and Monitoring			
4.6.20. Develop comprehensive research agendas for each species	1	2	A, W
4.6.21. Estimate population size, productivity, survivorship, and movements	2	2	E, G, N, O, P, S, T
4.6.22. Study effects of contaminants in eiders	2	2	U,
4.6.23. Develop monitoring plans for eiders	1	2	U N

1 = No current action but action required; 2 = In progress; 3 = Completed; 0 = No action required.

Initiatives

- A. Population dynamics of the Northern Common Eider in Canada and Greenland have been studied using computer simulations (Gilliand et al., submitted). The primary goals are to evaluate the sustainability of the harvest and to identify research gaps.
- B. A new national bird protection order came into force January 2002. The new regulation has enforced major restrictions on hunting of eiders in west Greenland. However, hunters are very unsatisfied with the new order and a proposal for revision has been put forward.
- C. Surveys of the eider harvest at the local market in Nuuk, Sisimiut and Maniitsoq have been initiated. Local observers are reporting species, sex, age and cause of death (shot/drowned) for birds sold at the market. Harvest surveys in three other towns had to be postponed due to hunters bad feelings about the new bird protection order. In Nuuk harvest has previously been studied at the market in 1995/96, 1999/2000 and 2000/2001.
- D. According to a new Home Rule order (2001), guided hunts are now allowed on open season bird species.
- E. Frequency and effects of embedded shots in common and king eider ducks wintering in southwestern Greenland have been studied during the last two winters. Due to the fact that eider ducks are very popular game birds in Greenland, each year there is a take of app. 75,000 birds, this issue is of immediate importance. Preliminary information on the frequency of embedded shots on the Greenlandic side indicates that up to 30 % of adult common eider have embedded shots (Falk and Merkel draft field report 2001). Preliminary studies from the Canadian Arctic show that 16-53% of the eider ducks have embedded shots. Frequency of embedded shots will be compared to hunting intensity and body condition at various collection sites around Nuuk. Impact from human activities will depend on whether eiders are philopatric to wintering sites at a local scale. This is being studied by satellite telemetry (S).
- F. In Nuuk city arrangements from the local nature-guide and by the society of bird watchers continues.
- G. Results from a 1999 aerial winter survey are now published (Merkel et al. 2002).
- H. An ‘Environmental Oil Spill Sensitivity Atlas for the West Greenland Coastal Zone’ is being extended to cover the coast and offshore areas from the southern tip of Greenland north to 72° N. Like the previous Atlas (Mosbech et al 2000) the maps show index values for coastal sensitivity and symbols for the elements of the classification: hunting and fishing areas, fish, birds, marine mammals and archaeological sites. The maps also show a number of smaller sites especially selected as they are of particular significance and they are particularly vulnerable to oil spills. Each map has a description of biological resources and human use of the area.
- I. Analysis in progress regarding the project ‘Seabird Distribution at Sea in West Greenland’. The purpose of the project is to improve knowledge on offshore distribution, abundance, and distributing factors of seabirds in Greenland. Data on numbers and distribution of seabirds was obtained (summer 2000) on ship-based surveys conducted in co-ordination with oceanographic.

- J. A pilot study with random sampling of eiders from the local market in Nuuk (the winter 1999/2000) showed that approximately 35% of the eider harvest originated from incidental gillnets catch (mainly lump sucker fishery). The study was continued during the winter of 2000/2001, and showed a similar result. A larger study including 6 towns has been initiated. However only three towns are included this winter (see C.)
- K. A status report on the Greenlandic Ramsar areas has been published (Egevang and Boertmann 2001)
- L. Analysis in progress regarding the project “Local knowledge of Common Eider distribution and abundance in western Greenland: a quantitative analysis” Local knowledge of Common Eider distribution and abundance has been collected and is being compared with results from simultaneously conducted ground surveys to determine the quantitative value of local knowledge information. In addition, the project aims to quantify how hunter characteristics influence the possession of local knowledge.
- M. A major information campaign in Greenland concerning sustainable use of wildlife was started in the spring of 2002 and will continue for the next two years. The purpose of the campaign is to disseminate information about the implications of not using wildlife in a sustainable way.
- N. A common eider monitoring programme for mid-west Greenland has been initiated (Merkel and Nielsen 2002). In 2001 selected reference colonies were surveyed by the Greenland Institute of Natural Resources in co-operation with local residents. From 2002 the locals will conduct the annual ground surveys.
- O. Results from common eider ground surveys in northwestern Greenland (1997) have been published (Christensen and Falk 2001).
- P. Common eider ground surveys conducted in mid-west Greenland (1998-2000) has been reported (Merkel 2002)
- Q. With implementation in January 2002 of the new national bird protection legislation a broad information campaign including television spots has taking place.
- R. A new national ornithological field guide has been published (Boertmann 2002). The field guide contains informative chapters in plain language. The field guide will be available in Greenlandic, English and Danish and will be distributed for free to schools throughout the country.
- S. Continuation of the project “Satellite tracking of Common Eider Ducks between Greenland and Canada”. By implanting satellite transmitters in Common Eiders in both Greenland and Canada this project aims to provide detailed information on migration routes, timing, and affinities between breeding areas, moult and wintering areas.
- T. Results from king eider satellite telemetry in west Greenland (1999-2000) is being reported (Mosbech et al. 2001).
- U. Analysis in progress regarding the project “Lead Contamination of Greenland Seabirds from the Use of Lead Shot”. In this project human exposure to lead from the use of lead shot is being assessed by analysing breast meat from thick-billed murre and common eider (Johansen

and Riget 2002). For the common eider, the species suspected to be most exposed to lead toxicity in Greenland, the frequency of embedded shots and the number of pellets accumulated in the gizzard is studied. Furthermore, wing bones is analysed for lead as an indicator of long-term exposure to lead.

- V. Results from aerial surveys (1999) of important summer concentrations of seabirds in west Greenland have been published (Boertmann and Mosbech 2001).
- W. For Canada and Greenland a Northern Common Eider cooperative management strategy and action plan has been produced (Gilchrist and McCormick 2001)
- X. A new Nature protection act are planned to enter into force in 2003. The new act will give improved possibilities for regulation and mitigation of various activities e.g. establishing hunting free areas and periods. Within a 2-4 year time frame specific conservation measures of some of the Greenland Ramsar sites could be expected with possibilities to establish protected areas, where breeding and roosting birds can be better protected than today.

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CANADA

Grant Gilchrist, Canadian Wildlife Service
Greg Robertson, Canadian Wildlife Service

Action Items	Highest in history	Current	Initiatives
4.1. Consumptive Use			
4.1.1. Develop international harvest plans	2	2	A, G, E
4.1.2. Establish appropriate harvest rules	2	2	G
4.1.3. Obtain reliable harvest estimates	2	2	
4.1.4. Evaluate the opportunity for guided hunts	1	1	
4.1.5. Support egg and down collection programs	1	2	B
4.2. Non-consumptive Use			
4.2.6. Evaluate risks of human activities	2	2	
4.2.7. Encourage non-consumptive uses of eiders	1	1	B
4.3. Commercial Activities			
4.3.8. Identify eider populations and habitats at risk from oil pollution	2	2	
4.3.9. Reduce eider mortality caused by commercial fisheries activities	2	2	
4.4. Habitat Protection and Enhancement			
4.4.10. Prepare a summary of protected eider habitats	3	0	H
4.4.11. Evaluate existing mechanisms for protecting eider habitat	2	3	H
4.4.12. Protect additional eider habitat as needed	2	2	
4.4.13. Implement other needed protective measures	2	2	
4.5. Communication and Consultation			
4.5.14. Support other eider conservation initiatives	2	2	B
4.5.15. Ensure coordination with other bird cons.plans	2	2	
4.5.16. Enlist support of local residents and others interested in eiders	1	2	C, I, G
4.5.17. Solicit periodic evaluation of the Strategy by eider specialists	1	1	
4.5.18. Prepare periodic reports summarizing accomplishments in eider conservation	2	2	
4.5.19. Ensure that eider conservation projects include an educational component	1	1	
4.6. Research and Monitoring			
4.6.20. Develop comprehensive research agendas for each species	2	3	
4.6.21. Estimate population size, productivity, survivorship, and movements	2	2	F, I, J
4.6.22. Study effects of contaminants in eiders	2	2	
4.6.23. Develop monitoring plans for eiders	2	2	

1 = No current action but action required; 2 = In progress; 3 = Completed; 0 = No action required.

Initiatives

- A. Harvest and population dynamics of the Northern Common Eider in Canada and west Greenland have been studied using computer simulation models. This manuscript has been submitted
- B. Permits have been issued by the Canadian Wildlife Service and the Government of the Nunavut Territory to allow a regulated commercial harvest of eider down in the Belcher Islands, Nunavut. Amounts of down collected are being quantified for the first time.
- C. Surveys of eider colonies in Frobisher Bay, Baffin Island, are ongoing and will be expanded. Impacts of changing human and polar bear distribution in the region are also being examined in relation to eider duck distribution.
- D. Studies of heavy metal and PCB contaminant levels in Hudson Bay and Northern Common eider ducks is ongoing and is being expanded to include breeding populations along the eastern coasts of Baffin Island. A collaborative group within Canada has been coordinated.
- E. Frequency and effects of imbedded shot in common and king eiders in the eastern Canadian Arctic and west Greenland is ongoing (lead: Greenland).\
- F. Aerial surveys of Hudson Bay Common Eider ducks were repeated in March 2002, and are planned for March 2003. Approximately 100,000 eiders were discovered 20 km offshore in pack ice, in waters of 30-15m in depth.
- G. Detailed studies of the wintering ecology of Hudson Bay eider ducks was conducted in 2002, and will be repeated in 2003. Research includes foraging energetics, diet, body condition, habitat use, intra-specific competition, rates of predation, and identifying foraging constraints imposed by strong tidal currents and heavy sea ice. The sustainability of Inuit harvest is also being assessed.
- H. A document identifying “Key Marine Habitat Sites in the Arctic” has recently been completed by the Canadian Wildlife Service of Environment Canada, Iqaluit (2002). This document lists several marine sites important to Common and King Eider Ducks.
- I. The survival and demography of Common and King Eider ducks on Southampton Island, Nunavut is ongoing. Research examines adult survival rates, annual variation in rates of reproduction, impacts of herring gull and polar bear predation, and how energy reserves of female eiders determine the probability of hatch success. Banding of adults and ducklings is also contributing to identification of wintering grounds in maritime Canada and west Greenland. This latter information is also supplemented by data generated by a new satellite telemetry study of Northern Common Eider ducks in collaboration with Danish and Greenlandic researchers.
- J. The survival and demography of the western race Common Eiders in the western Canadian Arctic (*S. m. v-nigra*) is being examined. Research examines adult survival rates, annual variation in rates of reproduction, and how energy reserves of female eiders determines probability of hatch success. Banding of adults and ducklings is also contributing to identification of wintering grounds in Alaska and Russia. This latter information is also supplemented by data generated by an ongoing satellite telemetry study of western Common Eider ducks in collaboration with American researchers.

- K. Common Eiders will be studied in 2003 at a high Arctic colony between Devon and Ellesmere Islands. This is a site where the Canadian Wildlife Service worked in the 1980s.
- L. Studies of King Eiders are ongoing in the Queen Maude Gulf Bird Sanctuary. These include reproductive success, survival rates, and stable isotopes to determine wintering areas.

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US - Alaska

Russ Oates, U.S. Fish and Wildlife Service

Action Items	Highest in history	Current	Initiatives
4.1. Consumptive Use			
4.1.1. Develop international harvest plans	0	0	
4.1.2. Establish appropriate harvest rules	2	2	
4.1.3. Obtain reliable harvest estimates	2	2	A
4.1.4. Evaluate the opportunity for guided hunts	0	0	
4.1.5. Support egg and down collection programs	2	2	
4.2. Non-consumptive Use			
4.2.6. Evaluate risks of human activities	2	2	
4.2.7. Encourage non-consumptive uses of eiders	1	1	
4.3. Commercial Activities			
4.3.8. Identify eider populations and habitats at risk from oil pollution	1	2	B
4.3.9. Reduce eider mortality caused by commercial fisheries activities	1	1	
4.4. Habitat Protection and Enhancement			
4.4.10. Prepare a summary of protected eider habitats	2	2	
4.4.11. Evaluate existing mechanisms for protecting eider habitat	2	3	
4.4.12. Protect additional eider habitat as needed	2	2	
4.4.13. Implement other needed protective measures	1	2	
4.5. Communication and Consultation			
4.5.14. Support other eider conservation initiatives	1	2	
4.5.15. Ensure coordination with other bird cons.plans	1	2	
4.5.16. Enlist support of local residents and others interested in eiders	2	2	
4.5.17. Solicit periodic evaluation of the Strategy by eider specialists	2	2	
4.5.18. Prepare periodic reports summarizing accomplishments in eider conservation	2	2	
4.5.19. Ensure that eider conservation projects include an educational component	2	2	
4.6. Research and Monitoring			
4.6.20. Develop comprehensive research agendas for each species	2	3	D
4.6.21. Estimate population size, productivity, survivorship, and movements	1	2	C,E,F,G,H,I, J,K,L,M,N,O, P,Q,R,S,T,U
4.6.22. Study effects of contaminants in eiders	2	2	
4.6.23. Develop monitoring plans for eiders	2	2	

1 = No current action but action required; 2 = In progress; 3 = Completed; 0 = No action required.

INITIATIVES

- A. Continued Subsistence Harvest Surveys on Yukon Kuskokwim Delta - Cynthia Wentworth USFWS, Alaska Migratory Bird Co-management Council (AMBCC)
- B. Identify eider populations and habitats at risk from oil pollution (and development).
- C. Completed analysis of Beaufort Sea Offshore Survey - Julian Fischer USFWS MBM
- D. Extensive aerial survey designed to assess use of offshore areas by eiders and other seaducks during summer
- E. Continued Common Eider Breeding Bird Survey - Chris Dau USFWS MBM
- F. Spring aerial survey of breeding Common Eiders on Beaufort and Chukchi coastal barrier islands
- G. Continued Arctic Coastal Plain Breeding Bird Survey - Ed Mallek USFWS MBM. Geographically extensive multispecies aerial survey that detects Steller=s eiders
- H. Continued North Slope Eider Survey - Bill Larned USFWS MBM. Geographically extensive aerial survey timed for breeding Spectacled and King eiders
- I. Continued North Slope Coastal Lagoon Survey - Ed Mallek USFWS MBM. Aerial survey of coastal lagoons in western Beaufort Sea and northern Chukchi Sea to document important sea duck molting areas.
- J. Continued Barrier Island Lagoon Survey – Lynn Noel LGL. Aerial survey of eiders and other seaducks within barrier island lagoons, proximate to oil development sites.
- K. Continued Barrow Triangle Steller=s Eider Survey - Bob Ritchie ABR. Aerial survey of principal nesting area of Steller’s Eiders.
- L. Continued Pre-breeding Eider Survey - Bob Ritchie ABR. Aerial and road surveys of Spectacled and King Eiders at principal oil development sites on Colville and Kuparak Rivers, Alaska.
- M. Continued Spectacled Eider Nest Search and Incubation Study – Bob Ritchie ABR. Located nests and monitored incubation of Spectacled Eiders at principal oil development sites on Colville and Kuparak Rivers, Alaska.
- N. Conducted Eider Dewline Site Survey – Bob Ritchie ABR. Aerial and ground based survey for nesting Spectacled and Steller’s Eiders at five dewline sites on North Slope of Alaska
- O. Conducted Eider Migration Radar Studies – Bob Ritchie ABR. Radar migration studies completed on Northstar Development in the western Beaufort Sea, and on Saint Lawrence Island in the Bering Sea.
- P. Continued Barrow Steller=s Eider Study - Philip Martin USFWS FFWFO. Breeding biology and habitat study of Steller’s Eiders in the principal nesting area on North Slope of Alaska

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- Q. Continued Common Eider Satellite Telemetry Study - Margaret Petersen USGS BRD.
Determine winter habitat of Common Eiders that nest near Alaskan oil development sites.
- R. Completed Spectacled Eider Satellite Telemetry Study - Declan Troy TERA. Satellite telemetry program to determine rate and routes of migration in Beaufort Sea
- S. Initiated Kuparak King Eider Satellite Telemetry Study – Abby Powell UAF. Described timing and route of migrating King Eiders that nest near Kuparak oil development facilities on the North Slope of Alaska
- T. Continued Common Eider Nest Success/Disturbance Effects Study - Paul Flint USGS BRD.
Investigation of breeding biology and boat disturbance effects within barrier island lagoons of the Beaufort Sea
- U. Continued Spectacled Eider Breeding Biology Studies - Declan Troy TERA

European Russia, Siberia

Maria Gavrilov, Arctic & Antarctic Museum

Table. Implementation of the International Eider Conservation Strategy, European Russia and Western Siberia, 2000-2002

Action Items	Highest in history	Current	Initiatives
Consumptive Use	0	0	
4.1.1. Develop international harvest plans	0	0	
4.1.2. Establish appropriate harvest rules	0	0	
4.1.3. Obtain reliable harvest estimates	1	1	
4.1.4. Evaluate the opportunity for guided hunts	0	0	
4.1.5. Support egg and down collection programs	3	2	A
4.2 Non-consumptive Use			
4.2.6. Evaluate risks of human activities	2	2	
4.2.7. Encourage non-consumptive uses of eiders	2	2	
4.3. Commercial Activities			
4.3.8. Identify eider populations and habitats at risk from oil pollution	2	2	B
4.3.9. Reduce eider mortality caused by commercial fisheries activities	0	0	
4.4. Habitat Protection and Enhancement			
4.4.10 Prepare a summary of protected eider habitats	2	2	
4.4.11 Evaluate existing mechanisms for protecting eider habitat	2	1	
4.4.12 Protect additional eider habitat as needed	2	2	C
4.4.13 Implement other needed protective measures	2	1	
4.5. Communication and Consultation			
4.5.14 Support other eider conservation initiatives	2	1	
4.5.15. Ensure coordination with other bird cons. Plans	1	1	
4.5.16. Enlist support of local residents and others interested in eiders		1	
4.5.17. Solicit periodic evaluation of the Strategy by eider specialists	2	2	
4.5.18. Prepare periodic reports summarizing accomplishments in eider conservation	2	2	
4.5.19. Ensure that eider conservation projects include in educational component	2	2	
4.6. 4.6. Research and Monitoring			
4.6.20. Develop comprehensive research agendas for each species	2	2	
4.6.21. Estimate population size, productivity, survivorship, and movements	2	2	D
4.6.22. Study effects of contaminants in eiders	2	2	
4.6.23. Develop monitoring plans for eiders	2	2	E

1 = No current action but action required; 2 = In progress; 3 = Completed; 0 = No action required.

Implementation during 2000-2002

No previous update was provided for the European Russia and Western Siberia. Due to internal difficulties including long-term restructuring process in the former State Committee of Nature Conservation no national implementation plan for Russia was developed.

Here we summarize available data on activities related to implementation of Eider Conservation Strategy and Action Plan for the European Russia and Western Siberia.

A. Support egg and down collection programs

Several decades ago eider down collection was highly developed in some regions of Russia, i.e. on Novaya Zemlya archipelago. Then, traditionally, down has been collecting within the territory of Kandalaksha State Reserve in the White Sea and on the Murman coast. Approximately some dozens of kilos of raw down are collected annually during recent years. However, the system of further utilization (use) of it has been failed.

A survey of islands in the White Sea and South-Eastern Barents Seas in order to evaluate potential use of their eider population for down collection was conducted during late 1980-s — beginning of 1990-s, but no positive actions were made then.

Recently, a private initiative to re-establish down collection and further production arose. Large areas of former down collection were surveyed on Novaya Zemlya archipelago, and along southern coast of the White Sea. Interesting data on modern eider population status in these remote areas were obtained. A careful method for down collection using historical experience was implemented. The initiative is needed in support also in exchange of information and experience at international level.

B. Identify eider populations and habitats at risk from oil pollution

Recently, joint Russian-Norwegian surveys in the South-Eastern Barents Sea have been conducted with emphasis to non-breeding seaduck aggregations, primarily, eiders (Strøm et al., 2000). Series of air-born surveys, land based and ship-based counts were made in the same areas and along the southern coast of the Barents Sea. These field works provided good baseline data for identifying important marine areas for eiders in the region which is of prime importance for inshore petroleum activity. A series of seasonal distribution maps were published (Krasnov et al., 2002). An overview map was produced (Krasnov et al., submitted). There is a project to continue air-born counts to complete survey along the Kola Peninsula coast important for non-breeding eiders (applied in 2002 the project failed due to technical problems with official permissions for the work in area with restricted admittance).

C Protect additional eider habitat as needed

There is a plan in Murmansk District to protect marine important birds areas along Kola Peninsula coast which include wintering grounds for eiders, primarily Steller's and Common eiders.

Eiders are traditionally monitored and studied in some state nature reserves, first in Kandalaksha State Nature Reserve since it was established for the common eider nesting colonies protection. The reserve has long-termed data sets for the breeding density, demographic parameters, brood distribution, wintering numbers, migration dates. Recently, the monitoring program had to be cut down for some remote sites due to organization and/or financial reasons. To a lesser extent eiders are monitored in Solovetskiy Nature Reserve. In other places (Nenetskiy Reserve, Gydanskiy Reserve) irregular observations can't be attributed as monitoring, but movements and distribution are observed.

D Estimate population size, productivity, survivorship, and movements

As a part of eider monitoring program initiated by MMBI in 1999 (see E) demographic studies (clutch size and brood size) are included. The data are collected in different parts on Kola Peninsula.

E Develop monitoring plans for eiders - initiative

Eider monitoring program has been started by MMBI in 1999 including counts in different season at 3 sites on Murmansk coast and several sites in Kandalaksha Bay; demography, diet study.

Recent Publications

- Koryakin A.S., Solovieva D.V. 2002 A bibliography of eiders of the USSR and Russia (1977-2000). Saint-Petersburg, 150 pp. (In Russian and English)
- Krasnov Yu.V., Goryaev Yu., Nikolaeva N., Shavykin A.á Gavrilo M.V., Chernook V.I. 2002 The Atlas of marine birds of the Pechora Sea. Apatity, Kola branch of RAS, 150 pp. (In Russian). [eiders distribution maps included]
- Kondratyev A.V., Buzun V.A. 2001 Status of the Common Eider *Somateria mollissima* in the Russian part of the Gulf of Finland and Lake Ladoga. Submitted to Eider Conference in Estonia
- Kondratyev A.V., Lapshin N.V. 2001 New data on Common eider *Somateria mollissima* nesting IN Ladoga Lake. 2001. // Actual problems of study and conservation of birds in Eastern Europe and Northern Aisia. Proc. of XI 11 Ornithological conference, Kazan, p. 305 – 306 (In Russian)
- Kondratyev A.V., Lapshin N.V. 2001. Materials to the ornithological fauna of Ladoga Lake islands (report on results of observation carried out during June 8 - 15 òþý 2000 // Biodiversity of European North: theoretical background for the research, social-legislative respects of nature use and conservation. Abstr. Of International Conf., Petrozavodsk, 2001, p. 77-78 (In Russian)

Some data are also published in numerous publications of staff of Kandalaksha State reserve, but not specifically devoted for eiders.

Russian Far East

Diana Solovieva, Lena-Delta State Reserve

Yuri Artukhin, Kamchatka Institute of Ecology

Implementation of the International Eider Conservation Strategy, Russian Far East, 2002.			
Action Items	Highest in history	Current	Initiatives
4.1. Consumptive Use			
4.1.1. Develop international harvest plans	1	1	
4.1.2. Establish appropriate harvest rules	1	1	
4.1.3. Obtain reliable harvest estimates	1	1	A
4.1.4. Evaluate the opportunity for guided hunts	0	0	
4.1.5. Support egg and down collection programs	1	1	B
4.2. Non-consumptive Use			
4.2.6. Evaluate risks of human activities	0	0	
4.2.7. Encourage non-consumptive uses of eiders	0	0	
4.3. Commercial Activities			
4.3.8. Identify eider populations and habitats at risk from oil pollution	0	1	
4.3.9. Reduce eider mortality caused by commercial fisheries activities	0	0	
4.4. Habitat Protection and Enhancement			
4.4.10. Prepare a summary of protected eider habitats	1	1	
4.4.11. Evaluate existing mechanisms for protecting eider habitat	1	1	
4.4.12. Protect additional eider habitat as needed	2	3	
4.4.13. Implement other needed protective measures	1	1	C, D
4.5. Communication and Consultation			
4.5.14. Support other eider conservation initiatives	1	1	
4.5.15. Ensure coordination with other bird cons. plans	2	2	
4.5.16. Enlist support of local residents and others interested in eiders	1	1	
4.5.17. Solicit periodic evaluation of the Strategy by eider specialists	1	1	
4.5.18. Prepare periodic reports summarizing accomplishments in eider conservation	1	1	
4.5.19. Ensure that eider conservation projects include an educational component	1	2	
4.6. Research and Monitoring			
4.6.20. Develop comprehensive research agendas for each species	1	1	
4.6.21. Estimate population size, productivity, survivorship, and movements	2	2	A, E, F, G
4.6.22. Study effects of contaminants in eiders	1	1	F
4.6.23. Develop monitoring plans for eiders	1	1	

1 = No current action but action required; 2 = In progress; 3 = Completed; 0 = No action required.

Initiatives

- A. The International Arctic Expedition of Institute of Ecology and Evolution and Goose, Swan and Duck Study Group of Northern Eurasia began the project on subsistence hunting survey at coastal villages Chukotka and Northern Yakutia.
- B. Monitoring program for the possibilities of eider down harvesting was suggested to the local government of Chukotka.
- C. The state of preservation of eiders winter grounds located on specially protected areas of the Southeastern Kamchatka will be improved as a result of executing the UNDP/GEF project “The Conservation of Biodiversity of Kamchatka” started in 2002 .
- D. Common and Steller’ s eiders are included in the ‘Red Data Book of Kamchatka’, that is prepared for the issuing.
- E. The International Arctic Expedition and USFWS conducted aerial waterfowl surveys in Chukotka in July 2002 and plan to survey eiders along nesting areas in the Arctic.
- F. Spectacled Eider research in Chaun-Delta, West Chukotka, in 2002. The number of SPEI along Russian breeding grounds is seemingly kept stable, although no direct estimation is available. Recently more than 90 percent of world population (ca 160,000 ind.) breeds in Russia. Our pilot study in 2002 suggests that at least 200 pair nested there on Ayopechan Island with historical estimations close to this. Nesting colonies were located in the western part of the island and capturing and banding of nesting females was started in order to estimate survival and site fidelity. The study of contamination is proposed under the project. The main target of the study is to obtain the data on Spectacled Eider nesting biology and survival in Western Chukotka for the comparison with Alaska breeding grounds.
- G. Seaduck and seabird survey along the coast of Chaun Bay, Western Chukotka. We surveyed the waters along the coast of Kyttyk Peninsula from Ayopechan Island (Chaun-Delta) to Ayon Island. The number and distribution of eiders: King, Common (Pacific) and Spectacled were studied during the survey.

Recent Publications

- Gerasimov Yu. N. 2002. Materials on waterfowl spring migration along South-West Kamchatka // The biology and conservation of the birds of Kamchatka. M., 4: 64-74.
- Koryakin A. S. & D. V. Solovieva. 2002. A bibliography of eiders of the USSR and Russia (1977-2000). Transact. Kandalaksha State Nature Reserve. Iss. 10 & Transact. Lena-Delta State Nature Reserve. Iss. 1. Saint-Petersburg: 1-149.

FINLAND**Martti Hario**, Finnish Game and Fisheries Research Institute

Action Items	Highest in history	Current	Initiatives
4.1. Consumptive Use			
4.1.1. Develop international harvest plans	2	2	A
4.1.2. Establish appropriate harvest rules	2	2	A
4.1.3. Obtain reliable harvest estimates	2	2	A
4.1.4. Evaluate the opportunity for guided hunts	1	0	
4.1.5. Support egg and down collection programs	1	0	
4.2. Non-consumptive Use			
4.2.6. Evaluate risks of human activities	2	2	
4.2.7. Encourage non-consumptive uses of eiders	1	1	
4.3. Commercial Activities			
4.3.8. Identify eider populations and habitats at risk from oil pollution	2	2	
4.3.9. Reduce eider mortality caused by commercial fisheries activities	2	3	B
4.4. Habitat Protection and Enhancement			
4.4.10. Prepare a summary of protected eider habitats	3	0	
4.4.11. Evaluate existing mechanisms for protecting eider habitat	2	2	
4.4.12. Protect additional eider habitat as needed	2	2	
4.4.13. Implement other needed protective measures	2	2	
4.5. Communication and Consultation			
4.5.14. Support other eider conservation initiatives	2	2	
4.5.15. Ensure coordination with other bird cons.plans	2	2	
4.5.16. Enlist support of local residents and others interested in eiders	1	1	
4.5.17. Solicit periodic evaluation of the Strategy by eider specialists	1	1	
4.5.18. Prepare periodic reports summarizing accomplishments in eider conservation	2	2	
4.5.19. Ensure that eider conservation projects include an educational component	1	1	
4.6. Research and Monitoring			
4.6.20. Develop comprehensive research agendas for each species	2	2	
4.6.21. Estimate population size, productivity, survivorship, and movements	2	2	C
4.6.22. Study effects of contaminants in eiders	2	2	D
4.6.23. Develop monitoring plans for eiders	2	2	

1 = No current action but action required; 2 = In progress; 3 = Completed; 0 = No action required.

Initiatives

The CAFF Circumpolar Eider Conservation Strategy and Action Plan (CECS) lists 23 Action Items which all are relevant for Finland. A general overview of the Finnish implementation plan was done in 1998. The final plan is already drafted and will be completed as soon as the legal uncertainty in the spring hunting issue with the EU is resolved. This progress report compiles actions already implemented and highlights current priorities. The right-hand column (Initiatives) refers to new initiatives or previous activities continued this year. Characters in the column refer to a short description of each initiative, listed below the table.

A (= 4.1.1. Develop international harvest plans; 4.1.2. Establish appropriate harvest rules; 4.1.3. Obtain reliable harvest estimates)

In summer 2002, the European Commission announced its decision on suing Finland in European Court because Finland has not fulfilled the criteria under which a Member State may derogate from the European Union Bird Directive's Article 9 covering the spring hunting issue. Finland and the Åland Islands, both on their own hunting legislation, still allow resident hunters to bag males of certain waterfowl species during the pre-breeding and early breeding seasons. The suit has not yet arrived, and its exact timing is difficult to forecast (suing can be delayed for years but will never be officially cancelled). Suing will most probably concern the whole country (i.e. the Republic of Finland), despite the fact that the Åland Islands, being autonomous in its hunting legislation, continuously makes the largest exceedings of the bag limits set by the EU Directive.

The Commission does not seem to approve any "exceptions from the rule" in this matter. The "rule" is the Directive 79/409 EEC on "the conservation of wild birds" (so called EU -Bird Directive). The Ministry of Agriculture and Forestry in Finland claims spring hunting to be justified on the basis of the Article 7 Annex II/2 species conditions "that hunting of these species (Common Eider among others) does not jeopardize conservation efforts in their distribution area". Further, under derogation of the Article 9 conditions, Finland claims "that there is no other satisfactory solution" (than bagging in spring) and that hunting occurs "under strictly supervised conditions" (from 2002 on, personal bag quotas applied also in the Åland Islands, with fixed shooting spots, and license holders keeping records and reporting on their annual spring bags in order to get their license renewed), on a "selective" basis (basically, only males are taken, widowed females assumed to remate) and concerns "small numbers" (quotas set lower than previously). While the premise of "no alternative solution" is probably fulfilled for Eiders (due to population's early departure in fall, resulting in restricted shooting opportunities during the normal open season in September-December), the definition of "small numbers" is contradictive and probably the reason for the suit (making the case a precedent in Court).

The Common Eider is by far the most important quarry species in coastal Finland and in the Åland Islands. In coastal Finland, c. 7000 Eider males used to be bagged in spring, but currently (2002) the quotas have been reduced to 2000 males. Another 10,000-12,000 Eiders are taken in autumn during the "normal" open season, of these 25% is male. On the Åland Islands, spring hunting takes 7,500-9,000 males and there is no open season for females and yearlings. In 2000, the total Eider bag in the entire country amounted to 25,000-27,000 birds of which c. 18,000 or 70% were males.

With more than 10,000 individuals, the spring bag exceeds the upper calculative limit set by EU Ornithology Committee, i.e. a figure representing 1% of the targeted population's annual mortality losses. Calculated from the Finnish Eider population's annual mortality rates (adults 15%, ducklings 90%, and yearlings 16%) and using the current upper range of the population estimate (180,000 pairs) as a starting point, we arrive at 71,000 individuals as the annual

mortality losses, one percent of this being 710 individuals. The quotas set for 2002 exceeds 15,000, and the actual bag amounted to 10,514 Eiders in the whole country.

In April 2002, at their meeting at Roosta, Estonia, Eider biologists from thirteen countries around the globe expressed their concern about the declining wintering numbers of Eiders in the Baltic/Wadden Sea area. In the resolution of the meeting, the EU Ornithology Committee was urged to recognize that the Baltic/Wadden Sea population of the Common Eider is a Bird Directive Annex II/2 huntable species, but currently of unfavorable conservation status. This latter definition means that an EU Management Plan should be drafted and that the hunting practices ought to be reconsidered. According to Bird Directive's Article 7, hunting should comply "with the principles of wise use" and should "not jeopardize conservation efforts in species' distribution area". Possibly spring hunting is among the first issues to be reconsidered.

B (= 4.3.9. Reduce eider mortality caused by commercial fisheries activities)

An exploratory observer-based survey to reveal all bycatches on commercial fishing vessels was completed in 2002. No eiders were detected in any of the fishing gears monitored (gill nets, long lines, salmon traps) in the roughly 1000 instances when an observer was on deck. As a whole, seabirds were extremely rare as bycatch, with only c. 10 witnessed cases during the 4-year survey. A report is underway at the Fisheries Research.

C (=4.6.21. Estimate population size, productivity, survivorship and movements for each major eider population)

Since the mid-1990s, the Finnish breeding population of Common Eider is declining at a rate of 8-16% per year. This has been verified by the Archipelago Birds Censuses based on nest counts around the coasts. Decreases in nest numbers were first documented in the Gulf of Finland already from late 1980s on, but it took 10 years before the decline occurred throughout the coast, and in the core areas in the SW archipelago it only started during the mid-1990s. These timing parallels with decreasing trends found in several other monitoring sites around the Baltic/Wadden Sea area, with severest declines in recent years. Yet, none of these areas showed similar timing as the major wintering areas in Denmark, with a decline from 800,000 in 1990 to 370,000 in 2000, but with no counts in between. In their meeting at Roosta, Estonia in April 2002, eider biologists recommended that the various national monitoring schemes ought to be standardized and synchronized in order to better verify population trajectories around the NW Europe.

D (= 4.6.22. Study effects of contaminants in eiders)

Systematic sampling has been continued to determine concentrations of selected trace elements in tissues of Eiders. The first incidents of females dying in lead poisoning in Finland were established. Two basic reports were completed on the health status of incubating females based on hematologic and serum chemistry parameters.

Recent literature:

- Hario, M. 2001: Review of the hunting regime of seabirds in Finland. – In: Denlinger, L. & Wohl, K.(eds), Seabird Harvest Regimes in the Circumpolar Nations. CAFF Technical Report No. 9. CAFF International Secretariat, Akureyri, pp. 17-20.
- Franson, J. C., Hollmén, T., Hario, M., Kilpi, M. & Finley, D. L. 2002: Lead and delta-aminolevulinic acid dehydratase in blood of Common Eiders (*Somateria mollissima*) from the Finnish archipelago. - *Ornis Fennica* 79: 87-91.

CAFF, Circumpolar Seabird Group, CBIRD IX, Tromso, Norway – Progress Report

- Hario, M., Hollmén, T., Morelli, T. N. & Scribner, K. T. 2002: Effects of mate removal on the fecundity of common eider *Somateria mollissima* females. – *Wildlife Biology* 8: 161-168.
- Hario, M. & Selin, K. 2002: Cohort-specific differences in reproductive output in a declining common eider *Somateria mollissima* population. – *Danish Review of Game Biology* 16 (1): 33-45.
- Hario, M. & Rintala, J. 2002: Population trends of the Common Eider and *Larus* gulls on Finnish coasts in 1986-2001. – *Linnut-year book 2001*: 26-36 (in Finnish with English summary).
- Hario, M. & Öst, M. 2002: Does heavy investment in foraging implicate low food acquisition for female Common Eiders *Somateria mollissima*? – *Ornis Fennica* 79: 111-120.
- Hollmén, T., Franson, J. C., Kilpi, M., Docherty, D. E., Hansen, W. R. & Hario, M. 2002: Isolation and characterization of a reovirus from common eiders (*Somateria mollissima*) from Finland. – *Avian Diseases* 46: 478-484.
- Kilpi, M. & Öst, M. 2002: The effect of white-tailed sea eagle predation on breeding eider females off Tvärminne, Western Gulf of Finland. – *Suomen Riista* 48: 27-33 (in Finnish with English summary).

NORWAY

Hallvard Strøm, Norwegian Polar Institute, Tromsø

Morten Ekker, Directorate for Nature Management, Trondheim

Tycho Anker-Nilssen, Norwegian Institute for Nature Research

Action Items	Highest in history	Current	Initiatives
4.1. Consumptive Use			
4.1.1. Develop international harvest plans	0	0	
4.1.2. Establish appropriate harvest rules	3	4*	
4.1.3. Obtain reliable harvest estimates	0	0	
4.1.4. Evaluate the opportunity for guided hunts	0	0	
4.1.5. Support egg and down collection programs	2	3	A
4.2. Non-consumptive Use			
4.2.6. Evaluate risks of human activities	1	3	B
4.2.7. Encourage non-consumptive uses of eiders	1	3	A
4.3. Commercial Activities			
4.3.8. Identify eider populations and habitats at risk from oil pollution	2	3	B
4.3.9. Reduce eider mortality caused by commercial fisheries activities	1	3	B
4.4. Habitat Protection and Enhancement			
4.4.10. Prepare a summary of protected eider habitats	1	2*	
4.4.11. Evaluate existing mechanisms for protecting eider habitat	2	2	
4.4.12. Protect additional eider habitat as needed	2	3	C
4.4.13. Implement other needed protective measures	1	2*	
4.5. Communication and Consultation			
4.5.14. Support other eider conservation initiatives	2	3	A
4.5.15. Ensure coordination with other bird cons.plans	2	2	
4.5.16. Enlist support of local residents and others interested in eiders	1	2*	
4.5.17. Solicit periodic evaluation of the Strategy by eider specialists	1	2*	
4.5.18. Prepare periodic reports summarizing accomplishments in eider conservation	2	2	
4.5.19. Ensure that eider conservation projects include an educational component	1	2*	
4.6. Research and Monitoring			
4.6.20. Develop comprehensive research agendas for each species	1	2*	
4.6.21. Estimate population size, productivity, survivorship, and movements	2	3	D
4.6.22. Study effects of contaminants in eiders	1	2*	
4.6.23. Develop monitoring plans for eiders	2	2	

1 = No current action but action required; 2 = In progress; 3 = Completed; 0 = No action required.

Initiatives

This document presents the progress of implementation of the CAFF ‘International Eider Conservation Strategy and Action Plan’ in Norway for the year 2002. The previous update was given at CSWG VIII, Anchorage, US, January 2002.

The purpose of the International Eider Conservation Strategy and Action Plan, which was published in 1997, is to facilitate the implementation of initiatives to conserve, protect and restore eider populations in the Arctic. The Eider Strategy identifies six major management issues and 23 implementing action items.

Norway will complete a national implementation plan, but priority has been given to complete the national murre plan first. A joint implementation with Russia regarding the Barents Sea region is also planned for the Eider Strategy.

There are 20 of the 23 action items applicable to Norway with 10 action items presently being implemented. One of the items is regarded as completed. Each of the 23 action items within Action Plan is listed in the table on page 2. The right column (‘Initiatives’) refers to new initiatives or previous activities continued this year.

- A. The Vega archipelago was nominated as a candidate for the World Heritage List by a working group under the Nordic Council of Ministers in 1996. Norwegian environmental authorities are now in the final stage of preparing the necessary material in order to enable the UNESCO secretariat to identify values connected to the Vega archipelago. The traditions related to down and egg collection - also focused on a seminar held at Vega in June 2002 - and parts of the unique Vega archipelago are being described and assessed as a part of this documentation. Deadline for delivery to UNESCO is February 1, 2003.
- B. The process of developing a comprehensive management plan for the western part of the Barents Sea (from Lofoten in the south) was initiated in 2002 and will be finished by 2005. The Management Plan is based on a holistic approach including separate EIA' s on oil and gas, fisheries, mariculture and sea transport; pollution, climate change, invasive alien species and migrating species. Human impacts on the marine ecosystem will be assessed as thorough as possible. Many of the seabird populations (47 species) in the Barents Sea area are of international importance and are considered to be sensitive ecosystem components, several showing negative population trends. The management plan will be based on a common EIA (where all the basic EIA' s are compiled). Identified actions needed and lack of knowledge will be implemented and followed up by sectorial instruments and mechanisms.
- C. The Nature Protection Plan for Coastal Areas in Nordland County was endorsed by a Royal Decree December 6, 2002. 74 nature protected areas were established, 64 of them as nature reserves. Three of the designated areas were proposed in a new National Park Plan. The ornithological values given protection through the designation of these areas are of international importance; valuable marine bird areas, among them several breeding and wintering locations for common eider, in addition to a unique flora, landscape and seascape. A similar protection plan for Troms County is underway. Furthermore, a general extension of the Norwegian territorial border (from 4 nm to 12 nm) is now being considered. This may affect the size of protected areas and the jurisdictions in marine areas both at the Norwegian coast and in Svalbard.

A new Protected Area Plan for Svalbard has been worked out, and six new protected areas have been proposed. These will probably be established in 2003. In Svalbard 64% of the total land area will then be protected under the new Environmental Act. One of these areas is the island of Hopen – a very important breeding area for seabirds in the Svalbard area, and one of the two most important polar bear breeding sites.

The isolated, unique oceanic island of Bjørnøya - and its surrounding marine area - was designated as a nature reserve August 16, 2002. This small island (177 km²) has more than 700 lakes and ponds. The seabird breeding colonies are among the largest in the North Atlantic, and besides being a key area for seabirds, the island is an important staging area for geese.

- D. A survey of moulting common eiders and king eiders along the west coast of Spitsbergen, Svalbard, was conducted in August 2002 (Strøm 2002)

References (published in 2002):

- Bustnes, J. O., Erikstad, K. E., & Bjørn, T. H. 2002. Body condition and brood abandonment in common eiders breeding in the high Arctic. – *Waterbirds* 25: 63-66.
- Strøm, H. 2002. Survey of moulting eiders and geese in the Bellsund – Van Mijenfjorden – Van Keulenfjorden area, August 2002. In: Strøm, H. (ed.). *Studies of seabirds in the Bellsund – Van Mijenfjorden – Van Keulenfjorden area 2002*. Norwegian Polar Institute, Report series. *Preliminary report*.
- Yoccoz, N. G., Erikstad, K. E., Bustnes, J. O., Hanssen, S. A. & Tveraa, T. 2002. Cost of reproduction in common eiders (*Somateria mollissima*): an assessment of relationship between reproductive effort and future survival and reproduction based on observational and experimental studies. – *J. Appl. Stat.* 29: 57-64.

E. Action Item 5: International Murre Conservation Strategy

1. Country Implementation of the International Murre Conservation Strategy

Implementation of the International Murre Conservation Strategy, Iceland - Aevar Petersen

A general overview of the murre populations, their status, protection, utilization, and future needs, was compiled in 1997 (Gudmundsson, Petersen & Garðarsson 1997). At CAFF 6 (1997) a matrix was developed, against which the Murre Conservation Strategy action items were weighted. The matrix includes the relevance of the 31 action items for Iceland, whether actions have been completed or not, and if items are in progress. The matrix also included priority rankings for each of the items. The matrix has been revised annually to track the implementation of the Murre Conservation Strategy. Iceland can report the following changes in the implementation of the Murre Conservation Strategy since CBIRD 8 (Anchorage 2002):

CAFF, Circumpolar Seabird Group, CBIRD IX, Tromso, Norway – Progress Report

Table 1. Implementation of the International Murre Conservation Strategy, Iceland 2001 and 2002.				
Management Issue	Action Item	Status 2001	Status 2002	Initiatives
I. Consumptive Use	1. Ensure that consumptive uses of murre are sustainable.	3	3	B BC
	2. Monitor harvest levels and assess their impacts on populations.	4	4	
	3. Harmonize management and harvest regimes for shared populations.	2	2	
	4. Involve local and indigenous people in the management of consumptive uses.	0	0	
II. Non-Consumptive Use	5. Ensure that non-consumptive uses of murre are sustainable.	2	2	
	6. Implement management plans for areas of eco-tourism activity.	2	2	
	7. Implement standard guidelines to minimize the impact of disturbance at murre colonies.	2	2	
III. Commercial Activities & Industries	8. Identify, publicize and minimize impacts of commercial activities on murre breeding and foraging areas.	2	2	D E
	9. Implement programs to reduce oil pollution in areas used by murre.	3	3	
	10. Assess and reduce mortality of murre in commercial fishing gear.	2	2	
	11. Ensure that management of commercial harvests of small fish species provide for their role in murre diets.	3	3	
I. Habitat Protection & Enhancement	12. Identify important murre colonies and designate them under national and international systems of protected areas.	3	3	F G H
	13. Identify important pelagic habitats for murre, and promote the establishment of marine protected areas in important pelagic habitats for murre.	2	2	
	14. Contribute to the 'Important Bird Areas' system to highlight important areas of murre.	4	4	
	15. Explore the establishment of an international network to identify and protect key areas for murre.	3	3	
	16. Ensure that conservation action will benefit populations, by assessing causes of population declines from an ecosystem perspective.	0	2	
	17. Undertake specific restoration activities to assist depressed populations to recover.	0	0	
V. Communications & Consultation	18. Determine appropriate communication approaches and produce materials to deliver specific messages.	2	2	
	19. Emphasize communication to operators of ships at sea, the fishing industry and tour boat operators and pilots.	2	2	
	20. Produce educational materials aimed specifically at children.	3	3	
	21. Issue joint scientific reports of activities relating to murre conservation.	3	3	
VI. Research & Monitoring	22. Coordinate circumpolar murre population monitoring and store data in standardized databases.	3	3	I J K E M
	23. Conduct research on population demography at circumpolar monitoring sites.	2	2	
	24. Develop a coordinated circumpolar murre banding program.	3	3	
	25. Monitor murre feeding ecology and food availability.	3	3	
	26. Monitor murre mortality due to oil pollution, commercial fisheries, and hunting.	2	2	
	27. Conduct research to develop techniques to reduce entrapment in fishing nets.	2	2	
	28. Develop management techniques to restore habitats and populations.	0	0	
	29. Consider the effects of global warming and local eutrophication on murre populations.	2	2	
	30. Assess the need to conduct research into the genetics of murre populations.	3	3	
	31. Research for sea dist. abundance of murre.	3	3	

0 = not applicable

2 = no action to date but required

1 = no action considered required

3 = in progress and continuing

4 = completed in this year or past years

Various activities have been carried out relevant to the Murre Conservation Strategy since CBIRD 8. The major ones are summarized below, giving the action item number for which these are most relevant, as well as some important research needs.

Initiatives

- A. In 2001 a draft national implementation plan was completed, giving an overview of the status of action items, recommended actions to be taken, and priorities for research and management. The plan has not been accepted for implementation by authorities, although implementing specific items are left to the discretion of the CAFF contact institute.
- B. Hunting statistics continue to be collected from hunters giving indications if the consumptive use is sustainable and monitors the harvest levels (action items 1, 2).
- C. A paper on the Icelandic hunting statistics and a preliminary analysis on possible effects of hunting on seabird (including murre) populations was submitted to the Circumpolar Seabird Bulletin in 2000 but still awaits publication (Petersen, in press) (action item 2).
- D. Work continues by the Committee on Response to Pollution Incidences on a map for use in oil pollution emergencies and other catastrophic contamination cases. This includes *inter alia* the whereabouts of murre colonies and major feeding areas as known (action item 9).
- E. The illegal sale of seabird bycatch at fish-markets, the great majority of which is murre, has been taken to court and is pending trial. A research plan has been under development since 2002 for gathering information on the scale of the bycatch problem in Icelandic waters at the request of Ministries of the Environment and Fisheries. The Common Murre is believed to be a major species involved (Petersen, in press) (action items 10 and 26).
- F. Work is about to be finalized on a national nature conservation strategy. In a background document (Einarsson *et al.* 2002) murre colonies, among others, needing formal protection are identified and recommended for further protection action (action item 12).
- G. An ‘Important Bird Areas’ analysis has been undertaken for Iceland (Einarsson 1997, 2000).
- H. Monitoring of Thick-billed Murre colonies has indicated a serious decline and international action is needed to assess this decline and its causes (action item 16).

- I. Work continued on a national seabird colony database, which includes murre colonies. A Nordic project started in 2002 to further the harmonization of Nordic seabird databases. Further monitoring of Icelandic murre colonies is badly needed (action item 22).
- J. Small scale banding of murres continues (action item 24).
- K. Research continues into the feeding ecology of the two murre species, with the aim of identifying their role in the marine ecosystem and possible effects on fish stocks (action item 25).
- L. Censuses have been carried out during the past few years on the distribution of seabirds, including murres, in sea-areas around Iceland, especially off the SW, W and NE coasts (action item 31).

References

- Einarsson, Ó. 1997. Important Bird Areas in Iceland 1997. Náttúrufræðistofnun Íslands NÍ97-027. 10p.
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Implementation of the International Murre Conservation Strategy, Greenland - Jens Nyeland

This document presents the progress of implementation made from 2001 to 2002. Each of the 31 action items within the International Murre Conservation Strategy and Action Plan is listed below. The right column (Initiatives) refers to new initiatives or previous activities continued this year. Characters within the right column refer to a short description of each initiative - listed below the table.

Table 2. Implementation of the International Murre Conservation Strategy, Greenland 2001 and 2002.

Management Issue	Action Item	Status 2001	Status 2002	Initiatives
I. Consumptive Use	1. Ensure that consumptive uses of murre are sustainable.	3	3	A
	2. Monitor harvest levels and assess their impacts on populations.	3	3	
	3. Harmonize management and harvest regimes for shared populations.	2	2	
	4. Involve local and indigenous people in the management of consumptive uses.	3	3	
II. non-Consumptive Use	5. Ensure that non-consumptive uses of murre are sustainable.	3	3	
	6. Implement management plans for areas of eco-tourism activity.	2	2	
	7. Implement standard guidelines to minimize the impact of disturbance at murre colonies.	3	3	
III. Commercial Activities & Industries	8. Identify, publicize and minimize impacts of commercial activities on murre breeding and foraging areas.	3	3	B
	9. Implement programs to reduce oil pollution in areas used by murre.	3	3	
	10. Assess and reduce mortality of murre in commercial fishing gear.	4	4	
	11. Ensure that management of commercial harvests of small fish species provide for their role in murre diets.	1	1	
II. Habitat Protection & Enhancement	12. Identify important murre colonies and designate them under national and international systems of protected areas.	3	3	A C, D
	13. Identify important pelagic habitats for murre, and promote the establishment of marine protected areas in important pelagic habitats for murre.	3	3	
	14. Contribute to the 'Important Bird Areas' system to highlight important areas of murre.	3	3	
	15. Explore the establishment of an international network to identify and protect key areas for murre.	2	2	
	16. Ensure that conservation action will benefit populations, by assessing causes of population declines from an ecosystem perspective.	3	3	
	17. Undertake specific restoration activities to assist depressed populations to recover.	3	3	
V. Communications & Consultation	18. Determine appropriate communication approaches and produce materials to deliver specific messages.	3	3	E, J K E F, G
	19. Emphasize communication to operators of ships at sea, the fishing industry and tour boat operators and pilots.	2	2	
	20. Produce educational materials aimed specifically at children.	3	3	
	21. Issue joint scientific reports of activities relating to murre conservation.	3	3	
VI. Research & Monitoring	22. Coordinate circumpolar murre population monitoring and store data in standardized databases.	3	3	H, I C, D
	23. Conduct research on population demography at circumpolar monitoring sites.	3	3	
	24. Develop a coordinated circumpolar murre banding program.	2	2	
	25. Monitor murre feeding ecology and food availability.	3	3	
	26. Monitor murre mortality due to oil pollution, commercial fisheries, and hunting.	3	3	
	27. Conduct research to develop techniques to reduce entrapment in fishing nets.	1	1	
	28. Develop management techniques to restore habitats and populations.	2	2	
	29. Consider the effects of global warming and local eutrophication on murre populations.	2	2	
	30. Assess the need to conduct research into the genetics of murre populations.	2	2	
	31. Research for sea dist. abundance of murre.	2	2	
		3	3	

0 = not applicable

1 = no action considered required

2 = no action to date but required

3 = in progress and continuing

4 = completed in this year or past years

Initiatives

- A. A new national bird protection order came into force January 2002. The new regulation has enforced major restrictions on hunting of murre in Greenland. However, hunters are very unsatisfied with the new order and a proposal for revision has been put forward.
- B. An ‘Environmental Oil Spill Sensitivity Atlas for the West Greenland Coastal Zone’ is being extended to cover the coast and offshore areas from the southern tip of Greenland north to 72° N. Like the previous Atlas (Mosbech et al. 2000) the maps show index values for coastal sensitivity and symbols for the elements of the classification: hunting and fishing, fish, birds marine mammals and archaeological sites. The maps also show a number of smaller sites especially selected as they are of particular significance and they are particularly vulnerable to oil spills. Each map has a description of biological resources and human use of the areas.
- C. Results from a 1999 aerial winter survey have now been published (Merkel et al. 2002).
- D. Analysis in progress regarding the project ‘Seabird Distribution at Sea in West Greenland’. The purpose of the project is to improve knowledge on offshore distribution, abundance, and distributing factors of seabirds in Greenland. Data on numbers and distribution of seabirds was obtained (summer 2000) on ship-based surveys conducted in co-ordination with oceanographic surveys.
- E. A new national ornithological field guide has now been published (Boertmann 2002). The field guide contains informative chapters in plain language. The field guide will be available in Greenlandic, English and Danish and will be distributed for free to schools throughout the country.
- F. A report on the status of murre colonies in northern Upernavik, north Greenland is in preparation.
- G. A report that summarises available information on murre colonies in Greenland, and evaluates existing murre protection mechanisms has been published (Falk & Kampp 2001).
- H. According to a national monitoring plan (Falk and Kampp 1998) the two murre colonies Kippaku (13,800 birds in 1994) and Apparsuit (153,000 birds in 1994) in northern Upernavik were monitored this summer (2002).
- I. Automatic monitoring at one of the reduced murre colonies in Upernavik is presently conducted annually, using a programmed camera, to assess seasonal and annual variation – and to provide documentation applicable in information campaigns and debate.

- J. PITU (no. 5) – a semiannual GINR newsletter distributed to all households in Greenland- deals with reproduction and migration issues of murres and eiders, and inform about related monitoring- and research activities at the GINR. For instance, the methods applied in population monitoring have been explained to counter the widespread rumours of invalid surveys by “desktopbiologists”.
- K. A major information campaign in Greenland concerning sustainable use of the wildlife was started in spring 2002 and will continue for the next two years. The purpose of the campaign is to disseminate information to the public about the implications of not using wildlife in a sustainable way.

Literature

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Merkel, F. R. & Christensen, T. 1999: Conservation Strategy and Action Plan for Murres in Greenland. Greenlandic implementation status of the CAFF Eider Conservation Strategy and Action Plan. Unpublished report. Nuuk: Greenland Institute of Natural Resources & Department of Environment and Nature, Greenland Home Rule.

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Implementation of the International Murre Conservation Strategy, Canada – Greg Robertson

Table 3. Implementation of the International Murre Conservation Strategy, Canada 2002.				
Management Issue	Action Item	Status 2001	Status 2002	Initiatives
I. Consumptive Use	1. Ensure that consumptive uses of murre are sustainable.	3	3	AB AB
	2. Monitor harvest levels and assess their impacts on populations.	3	3	
	3. Harmonize management and harvest regimes for shared populations.	3	3	
	4. Involve local and indigenous people in the management of consumptive uses.	3	3	
II. Non-Consumptive Use	5. Ensure that non-consumptive uses of murre are sustainable.	3	3	
	6. Implement management plans for areas of eco-tourism activity.	3	3	
	7. Implement standard guidelines to minimize the impact of disturbance at murre colonies.	3	3	
III. Commercial Activities & Industries	8. Identify, publicize and minimize impacts of commercial activities on murre breeding and foraging areas.	3	3	C DE F
	9. Implement programs to reduce oil pollution in areas used by murre.	3	3	
	10. Assess and reduce mortality of murre in commercial fishing gear.	3	3	
	11. Ensure that management of commercial harvests of small fish species provide for their role in murre diets.	3	3	
IV. Habitat Protection & Enhancement	12. Identify important murre colonies and designate them under national and international systems of protected areas.	3	3	G H
	13. Identify important pelagic habitats for murre, and promote the establishment of marine protected areas in important pelagic habitats for murre.	3	3	
	14. Contribute to the 'Important Bird Areas' system to highlight important areas of murre.	4	3	
	15. Explore the establishment of an international network to identify and protect key areas for murre.	2	2	
	16. Ensure that conservation action will benefit populations, by assessing causes of population declines from an ecosystem perspective.	3	3	
	17. Undertake specific restoration activities to assist depressed populations to recover.	1	1	
V. Communications & Consultation	18. Determine appropriate communication approaches and produce materials to deliver specific messages.	3	3	HI
	19. Emphasize communication to operators of ships at sea, the fishing industry and tour boat operators and pilots.	3	3	
	20. Produce educational materials aimed specifically at children.	2	3	H
	21. Issue joint scientific reports of activities relating to murre conservation.	3	3	
VI. Research & Monitoring	22. Coordinate circumpolar murre population monitoring and store data in standardized databases.	3	3	J GK ABKLM GN
	23. Conduct research on population demography at circumpolar monitoring sites.	3	3	
	24. Develop a coordinated circumpolar murre banding program.	3	3	
	25. Monitor murre feeding ecology and food availability.	3	3	
	26. Monitor murre mortality due to oil pollution, commercial fisheries, and hunting.	3	3	
	27. Conduct research to develop techniques to reduce entrapment in fishing nets.	2	2	
	28. Develop management techniques to restore habitats and populations.	1	1	
	29. Consider the effects of global warming and local eutrophication on murre populations.	3	3	
	30. Assess the need to conduct research into the genetics of murre populations.	3	3	
	31. Research for sea dist. abundance of murre.	3	3	

0 = not applicable

2 = no action to date but required

1 = no action considered required

3 = in progress and continuing

4 = completed in this year or past years

- A. Francis Wiese completed Ph.D. thesis in Sep 2002. Assessed mortality of murrelets from chronic oil pollution in Newfoundland at about 300 000 murrelets and dovekies annually. Wiese also evaluated the impact of oiling and hunt on population dynamics of Thick-billed Murrelets wintering in Newfoundland. Under current conditions, oiling and harvest levels can be sustained, but the impacts on sub-populations and whether these impacts can be sustained in the long-term are not known.
- B. Now that all non-Aboriginal murre hunters in Newfoundland and Labrador are required to purchase a Migratory Game Bird Hunting Permit in Canada, a complete murre harvest survey was conducted for 2001-2002 hunting season. Initial estimate is that 186 000 murrelets taken, which is in line with previous estimates.
- C. Numerous high-profile vessel detentions and searches were undertaken in eastern Canada in 2002 and record setting fines were charged in February. ISTOP program, where RADARSAT technology used to image sections of ocean proved successful in detecting ships trailing oil. A number of serious incidents occurred in Nova Scotia in February. WWF Canada launched a major public awareness campaign on oiled bird issues in August.
- D. Training of DFO fishery observers continues and data capture protocols have been worked out. Working with other DFO departments to obtain murre bycatch data.
- E. Numerous partners (Birds Studies Canada, DFO, CWS) working on trying to develop a guide to seabird carcasses for fishery observers and beached bird surveyors.
- F. Gail Davoren and Bill Montevecchi (Memorial University of Newfoundland) presented information and input on the role of seabirds at DFO capelin stock assessment meetings.
- G. Gail Davoren and Bill Montevecchi (Memorial University of Newfoundland) continue research on foraging breeding murrelets and their spatial relationship with capelin.
- H. MUN students prepared posters and made presentations on the importance of the Witless Bay Seabird Ecological Reserve to students in local communities. Supported by the IBA program.
- I. CBIRD/CAFF murre poster complete and available (Chardine).
- J. Small Common Murre colonies in Groswater Bay, Labrador revisited in 2002, only visit since 1978. All colonies have shown increases, and two new colonies established. Common Murrelets on Gull and Great Island, Witless Bay censused for first time since 1979, both colonies have increased.
- K. Diet and sex ratios of breeding common murrelets assessed after several carcasses recovered after bycatch incident in August in Witless Bay. A paper describing these results will be published in *Waterbirds* (Wilhelm et al.)
- L. To understand the break down among sexes and ages of murrelets in the harvest, work on refining techniques and developing an operational protocol to identify

murre species and ages based on wings undertaken in 2002 by S. Gilliland and S. Wilhelm. Collections of whole birds from hunters are underway. To date, covert feather wear and relative lengths of outer secondaries to inner primaries are showing promise as simple visual cues to species and age. Genetic techniques are also being investigated.

- M. Volunteer beached bird survey initiated in Cape Breton, Nova Scotia in winter of 2001-2002.
- N. Monthly offshore surveys to production rigs conducted in collaboration with oil industry. Daily seabird observations have also been conducted on Petro-Canada platforms in last 4 years and industry has provided data to government.

Implementation of the International Murre Conservation Strategy, US-Alaska – David Irons

Table 4. Implementation of the International Murre Conservation Strategy, U.S. - Alaska 2001 and 2002.

Management Issue	Action Item	Status 2001	Status 2002	Initiatives
I. Consumptive Use	1. Ensure that consumptive uses of murre are sustainable. 2. Monitor harvest levels and assess their impacts on populations. 3. Harmonize management and harvest regimes for shared populations. 4. Involve local and indigenous people in the management of consumptive uses.	3 3 2 3	3 3 2 3	A
II. Non-Consumptive Use	5. Ensure that non-consumptive uses of murre are sustainable. 6. Implement management plans for areas of eco-tourism activity. 7. Implement standard guidelines to minimize the impact of disturbance at murre colonies.	2 3 3	2 3 3	
III. Commercial Activities & Industries	8. Identify, publicize and minimize impacts of commercial activities on murre breeding and foraging areas. 9. Implement programs to reduce oil pollution in areas used by murre. 10. Assess and reduce mortality of murre in commercial fishing gear. 11. Ensure that management of commercial harvests of small fish species provide for their role in murre diets.	3 3 3 3	3 3 3 3	B C, D
IV. Habitat Protection & Enhancement	12. Identify important murre colonies and designate them under national and international systems of protected areas. 13. Identify important pelagic habitats for murre, and promote the establishment of marine protected areas in important pelagic habitats for murre. 14. Contribute to the 'Important Bird Areas' system to highlight important areas of murre. 15. Explore the establishment of an international network to identify and protect key areas for murre. 16. Ensure that conservation action will benefit populations, by assessing causes of population declines from an ecosystem perspective. 17. Undertake specific restoration activities to assist depressed populations to recover.	3 3 3 3 3 3	3 3 3 3 3 3	E F G
V. Communications & Consultation	18. Determine appropriate communication approaches and produce materials to deliver specific messages. 19. Emphasize communication to operators of ships at sea, the fishing industry and tour boat operators and pilots. 20. Produce educational materials aimed specifically at children. 21. Issue joint scientific reports of activities relating to murre conservation.	3 3 4 2	3 3 4 2	
VI. Research & Monitoring	22. Coordinate circumpolar murre population monitoring and store data in standardized databases. 23. Conduct research on population demography at circumpolar monitoring sites. 24. Develop a coordinated circumpolar murre banding program. 25. Monitor murre feeding ecology and food availability. 26. Monitor murre mortality due to oil pollution, commercial fisheries, and hunting. 27. Conduct research to develop techniques to reduce entrapment in fishing nets. 28. Develop management techniques to restore habitats and populations. 29. Consider the effects of global warming and local eutrophication on murre populations. 30. Assess the need to conduct research into the genetics of murre populations. 31. Research for sea distribution and abundance of murre.	3 3 2 3 3 3 3 3 3 3	3 3 2 3 3 3 3 3 3 3	H I J K L

0 = not applicable

1 = no action considered required

2 = no action to date but required

3 = in progress and continuing

4 = completed in this year or past years

Initiatives:

- A. Working on implementing hunting regulations for spring migratory bird hunts, which would make it legal to take murre and many other species in spring.
- B. A CBIRD brochure on seabird disturbance has been completed and will be distributed to tour boat operators, pilots and fisherman.
- C. Continue to cooperate with National Marine Fisheries Service's Observer Program to collect and analyze seabird bycatch data. Received funding to buy seabird deterrent equipment for longline boats.
- D. Completed a study to test the efficiency of seabird bycatch deterrent methods and devices through Ed Melvin with the U. of Washington and are planning more work to expand the area that has been tested.
- E. Working with Audubon to identify important bird areas for murre and other seabirds in Alaska, the Gulf of Alaska is almost completed, but the Bering Sea still need to be done.
- F. Investigating how murre populations change with climate change and how they vary in the circumpolar north, by comparing data from all Arctic countries.
- G. Continues removing foxes from the Aleutians. Continuing rat prevention program on the Pribilof Islands. Studying the effects of rats on least auklets at Kiska Island
- H. Working with CBIRD to produce a Circumpolar Murre Monitoring Plan.
- I. Monitored one or more of parameters (i.e., populations, productivity, or diets) at 15 colonies in Alaska in 2002.
- J. Continuing the coordinated study to look at seabird populations, productivity, and prey.
- K. Working with CBIRD to write a paper on climate change and murre population changes.
- L. At sea data for murre and other seabirds are being organized into an at-sea seabird database.

References

- Dragoo, D. E., G. V. Byrd, and D. B. Irons. 2000. Breeding status and population trends of seabirds in Alaska in 1999. U. S. Fish and Wildl. Serv. Report AMNWR 2000/02.

Implementation of the International Murre Conservation Strategy, Russian Far East – Yuri Artukhin

Table 5. Implementation of the International Murre Conservation Strategy, Russian Far East 2001 and 2002.				
Management Issue	Action Item	Status 2001	Status 2002	Initiatives
I. Consumptive Use	1. Ensure that consumptive uses of murre are sustainable.	2	2	A
	2. Monitor harvest levels and assess their impacts on populations.	2	3	
	3. Harmonize management and harvest regimes for shared populations.	2	2	
	4. Involve local and indigenous people in the management of consumptive uses.	2	2	
II. Non-Consumptive Use	5. Ensure that non-consumptive uses of murre are sustainable.	2	2	
	6. Implement management plans for areas of eco-tourism activity.	2	2	
	7. Implement standard guidelines to minimize the impact of disturbance at murre colonies.	3	3	
III. Commercial Activities & Industries	8. Identify, publicize and minimize impacts of commercial activities on murre breeding and foraging areas.	2	2	
	9. Implement programs to reduce oil pollution in areas used by murre.	2	2	
	10. Assess and reduce mortality of murre in commercial fishing gear.	3	3	
	11. Ensure that management of commercial harvests of small fish species provide for their role in murre diets.	2	2	
III. Habitat Protection & Enhancement	12. Identify important murre colonies and designate them under national and international systems of protected areas.	3	3	B, C
	13. Identify important pelagic habitats for murre, and promote the establishment of marine protected areas in important pelagic habitats for murre.	3	3	
	14. Contribute to the 'Important Bird Areas' system to highlight important areas of murre.	4	4	
	15. Explore the establishment of an international network to identify and protect key areas for murre.	2	2	
	16. Ensure that conservation action will benefit populations, by assessing causes of population declines from an ecosystem perspective.	3	2	
	17. Undertake specific restoration activities to assist depressed populations to recover.	2	2	
V. Communications & Consultation	18. Determine appropriate communication approaches and produce materials to deliver specific messages.	3	3	
	19. Emphasize communication to operators of ships at sea, the fishing industry and tour boat operators and pilots.	2	2	
	20. Produce educational materials aimed specifically at children.	2	2	
	21. Issue joint scientific reports of activities relating to murre conservation.	3	3	
VI. Research & Monitoring	22. Coordinate circumpolar murre population monitoring and store data in standardized databases.	3	3	D
	23. Conduct research on population demography at circumpolar monitoring sites.	3	3	
	24. Develop a coordinated circumpolar murre banding program.	2	2	
	25. Monitor murre feeding ecology and food availability.	3	3	
	26. Monitor murre mortality due to oil pollution, commercial fisheries, and hunting.	3	2	
	27. Conduct research to develop techniques to reduce entrapment in fishing nets.	2	2	
	28. Develop management techniques to restore habitats and populations.	2	2	
	29. Consider the effects of global warming and local eutrophication on murre populations.	2	2	
	30. Assess the need to conduct research into the genetics of murre populations.	2	3	
	31. Research for sea dist. abundance of murre.	3	2	

0 = not applicable

1 = no action considered required

2 = no action to date but required

3 = in progress and continuing

4 = completed in this year or past years

Initiatives

- A. The International Arctic Expedition of Institute of Ecology and Evolution and Goose, Swan and Duck Study Group of Northern Eurasia began the project on subsistence harvest of birds including murre in Chukotka and Northern Yakutia.
- B. The state of preservation of murre colonies located on specially protected areas of the Southeastern Kamchatka will be improved as a result of executing the UNDP/GEF project ‘The Conservation of Biodiversity of Kamchatka’ started in 2002.
- C. The status of protection of populations of murre on the Commander Islands and possibilities of carrying out of their monitoring increase due to the decision of UNESCO to give the Commander Reserve the status of the biosphere reserve adopted in November, 2002 (nomination was prepared by the Biodiversity Conservation Center).
- D. The Institute of Biological Problems of the North (Magadan) continues long-term monitoring of murre in the northern part of the Sea of Okhotsk within the framework of the project of the Ministry of Natural Resources ‘Monitoring of the ecological state of Tauskaya Bay’.
- E. Laboratory of population genetics of the Institute of Biological Problems of the North carries out researches of genetic variability of Alcids and Procellariiformes. The available material is investigated on more than 30 biochemical markers of the genes revealed by the method of polyacrylamide gel electrophoresis. The purpose of the study is the estimation of a level allozyme variability of different species, and evolutionary relationships at genetic markers' level in these taxones between species as well.

***Implementation of the International Murre Conservation Strategy (IMCS)
Finland - Martti Hario***

The IMCS lists 31 action items to implement six objectives for Murre. Finland needs to address four of the objectives, the issues of consumptive use and non-consumptive use being out-of-date. Alcid populations are not directly exploited by man in any parts of the Baltic.

Table 6. Implementation of the International Murre Conservation Strategy, Finland 2002.

Management Issue	Action Item	Highest	Status 2002	Initiatives
I. Consumptive Use	1. Ensure that consumptive uses of murre are sustainable. 2. Monitor harvest levels and assess their impacts on populations. 3. Harmonize management and harvest regimes for shared populations. 4. Involve local and indigenous people in the management of consumptive uses.	0	0	
		0	0	
		0	0	
		0	0	
II. Non-Consumptive Use	5. Ensure that non-consumptive uses of murre are sustainable. 6. Implement management plans for areas of eco-tourism activity. 7. Implement standard guidelines to minimize the impact of disturbance at murre colonies.	0	0	
		4	4	
		0	0	
III. Commercial Activities & Industries	8. Identify, publicize and minimize impacts of commercial activities on murre breeding and foraging areas. 9. Implement programs to reduce oil pollution in areas used by murre. 10. Assess and reduce mortality of murre in commercial fishing gear. 11. Ensure that management of commercial harvests of small fish species provide for their role in murre diets.	2	2	A
		3	3	
		3	4	
		2	2	
I. Habitat Protection & Enhancement	12. Identify important murre colonies and designate them under national and international systems of protected areas. 13. Identify important pelagic habitats for murre, and promote the establishment of marine protected areas in important pelagic habitats for murre. 14. Contribute to the 'Important Bird Areas' system to highlight important areas of murre. 15. Explore the establishment of an international network to identify and protect key areas for murre. 16. Ensure that conservation action will benefit populations, by assessing causes of population declines from an ecosystem perspective. 17. Undertake specific restoration activities to assist depressed populations to recover.	3	3	
		2	2	
		4	4	
		4	4	
		3	3	
		2	2	
		2	2	
V. Communications & Consultation	18. Determine appropriate communication approaches and produce materials to deliver specific messages. 19. Emphasize communication to operators of ships at sea, the fishing industry and tour boat operators and pilots. 20. Produce educational materials aimed specifically at children. 21. Issue joint scientific reports of activities relating to murre conservation.	1	1	
		2	2	
		0	0	
		3	3	
VI. Research & Monitoring	22. Coordinate circumpolar murre population monitoring and store data in standardized databases. 23. Conduct research on population demography at circumpolar monitoring sites. 24. Develop a coordinated circumpolar murre banding program. 25. Monitor murre feeding ecology and food availability. 26. Monitor murre mortality due to oil pollution, commercial fisheries, and hunting. 27. Conduct research to develop techniques to reduce entrapment in fishing nets. 28. Develop management techniques to restore habitats and populations. 29. Consider the effects of global warming and local eutrophication on murre populations. 30. Assess the need to conduct research into the genetics of murre populations. 31. Research for sea dist. abundance of murre.	3	3	B A
		3	3	
		3	3	
		3	3	
		3	4	
		2	2	
		2	2	
		4	4	
		4	4	
		3	2	
		3	2	

0 = not applicable
 1 = no action considered required in this year or past years
 2 = no action to date but required
 3 = in progress and continuing
 4 = completed

Of the 31 Action Items of IMCS, the following actions were taken in 2002

Action items 10 and 26:

A. An exploratory observer-based survey on all bycatches on commercial fishing vessels was completed. No murre were detected as bycatch on any of the fishing gears monitored (gillnets, longlines, salmon traps) in the roughly 1000 instances where an observer was on deck during the 4-year survey. As a whole, birds were extremely rare as bycatch, with only c. 10 witnessed cases during the entire survey. A report is underway at the Fisheries Research Division.

Action Item 22:

B. Identification of important murre breeding sites was continued. No new sites were located. Both permanent breeding sites belong to IBAs, but one of them is not officially protected nor belongs to any of the national conservation programmes.

There seems to be no true recovery from the 1992 die-off among adult Common Murres in the Gulf of Finland. In 2002, only 19 active nests were found. The numbers have been gradually declining since 1992 when nearly half of the population died in the presumed Paralytic Shellfish Poisoning incident. Another mortality incident occurred in 2000, this one affecting mainly Razorbills (only 2 Common Murres found dead then).

The mortality factor of highest priority in the Gulf of Finland seems the gradual eutrophication of the sea, causing blooms of toxic algae. As the breeding success of our small satellite colonies is often fairly modest, the health of such populations depends much on adult survival.

Recent literature:

Hario, M. 2000: The Archipelago Birds Census in 1999: recent trends of Common Eider, alcids and sea terns in Finland. – Linnut Yearbook 1999: 40-50 (in Finnish with English summary).

Hokkanen, T. 2001: Second incident of Razorbill mass deaths from presumed Paralytic Shellfish Poisoning in Finland. – Linnut 36 (2): 10-15.

Implementation of the International Murre Conservation Strategy, Sweden - Henrik Österblom

General

The implementation of the international Murre conservation strategy in Sweden is not a result of any government agency working with these issues, but a result of research funded by the WWF. Due to this fact, Swedish implementation does not yet have national support for this strategy. Despite this, some progress has been made related to Murre conservation.

Conservation issues in the Baltic Sea has attracted great attention in Sweden recently, mainly as a result of poor fishery management. The Baltic cod has been grossly over-harvested, and this has drawn the attention to other conservation issues in the region as well, such as bycatch issues and ecosystem effects from fisheries. A Swedish Marine environment commission for the Baltic Sea has been appointed with the aim to develop a plan of action for the region.

Table 7. Implementation of the International Murre Conservation Strategy, Sweden 2000 and 2002.

Management Issue	Action Item	Status 2000	Status 2002	Initiatives
I. Consumptive Use	1. Ensure that consumptive uses of murre are sustainable. 2. Monitor harvest levels and assess their impacts on populations. 3. Harmonize management and harvest regimes for shared populations. 4. Involve local and indigenous people in the management of consumptive uses.	0 0 0 0	0 0 0 0	
II. Non-Consumptive Use	5. Ensure that non-consumptive uses of murre are sustainable. 6. Implement management plans for areas of eco-tourism activity. 7. Implement standard guidelines to minimize the impact of disturbance at murre colonies.	2 2 2	2 2 2	
III. Commercial Activities & Industries	8. Identify, publicize and minimize impacts of commercial activities on murre breeding and foraging areas. 9. Implement programs to reduce oil pollution in areas used by murre. 10. Assess and reduce mortality of murre in commercial fishing gear. 11. Ensure that management of commercial harvests of small fish species provide for their role in murre diets.	3 2 3 2	3 2 3 2	
IV. Habitat Protection & Enhancement	12. Identify important murre colonies and designate them under national and international systems of protected areas. 13. Identify important pelagic habitats for murre, and promote the establishment of marine protected areas in important pelagic habitats for murre. 14. Contribute to the ‘Important Bird Areas’ system to highlight important areas of murre. 15. Explore the establishment of an international network to identify and protect key areas for murre. 16. Ensure that conservation action will benefit populations, by assessing causes of population declines from an ecosystem perspective. 17. Undertake specific restoration activities to assist depressed populations to recover.	3 2 3 2 2 1	3 3 3 2 3 1	A B
V. Communications & Consultation	18. Determine appropriate communication approaches and produce materials to deliver specific messages. 19. Emphasize communication to operators of ships at sea, the fishing industry and tour boat operators and pilots. 20. Produce educational materials aimed specifically at children. 21. Issue joint scientific reports of activities relating to murre conservation.	3 2 2 2	3 3 2 2	C D
VI. Research & Monitoring	22. Coordinate circumpolar murre population monitoring and store data in standardized databases. 23. Conduct research on population demography at circumpolar monitoring sites. 24. Develop a coordinated circumpolar murre banding program. 25. Monitor murre feeding ecology and food availability. 26. Monitor murre mortality due to oil pollution, commercial fisheries, and hunting. 27. Conduct research to develop techniques to reduce entrapment in fishing nets. 28. Develop management techniques to restore habitats and populations. 29. Consider the effects of global warming and local eutrophication on murre populations. 30. Assess the need to conduct research into the genetics of murre populations. 31. Research for sea dist. abundance of murre.	3 3 3 3 2 2 2 3 2 3	3 3 3 3 2 2 2 3 3 3	E

0 = not applicable

2 = no action to date but required

1 = no action considered required
years

3 = in progress and continuing

4 = completed in this or in past years

Initiatives

Data on guillemot distribution at sea has been rendered as a by-product in a project aiming at researching long-tailed duck distribution at sea in an area heavily affected by oil discharges.

The Common Murre population in the Baltic Sea appear to be stable. However, in recent years we have observed a decrease in adult survival and decreasing fledging body mass in Murre chicks, coupled with an increased chick-feeding frequency. These issues are related to bycatch in the cod fishery and ecosystem-effects from fisheries. As the cod-stock has been depleted, sprat population has increased dramatically. However, salinity changes in the Baltic Sea have altered the zooplankton community, resulting in starvation in the sprat population as well as a decrease sprat condition. The deteriorated condition of sprat is the most likely explanation for the decrease in fledging body mass (Olsson et al. 2000, Österblom et al. 2001, Österblom et al 2002, Österblom & Olsson 2002).

A web page is under development, focusing marine birds and oil pollution, ecosystem effect from fisheries, bycatches and important marine habitat.

Presentation of bycatch issues to fishermen and discussions with the National Board of Fisheries is ongoing in order to initiate a program researching bycatch-reducing techniques. A workshop on bycatch is scheduled in early March.

Blood samples has been sent to France in order to contribute to a research project investigating relationships between Murre populations.

Olsson O, Nilsson T & Fransson T (2000) Long-term study of mortality in the common guillemot in the Baltic Sea. Swedish Environmental Protection Agency Report 5057.

Österblom H, Bignert A, Fransson T & Olsson O (2001) A decrease in fledging body mass in common guillemot *Uria aalge* chicks in the Baltic Sea. Marine Ecology Progress Series 224: 305-309.

Österblom H, Fransson T, Olsson O (2002) Bycatches of common guillemot (*Uria aalge*) in the Baltic Sea gillnet fishery. Biological Conservation 105: 309-319.

Österblom H, Olsson O (2002) Changes in feeding behaviour and reproductive success in the Common Guillemot *Uria aalge* on the island of Stora Karlsö. Ornis Svecica 12: 53-62.

Implementation of the International Murre Conservation Strategy, Norway - Hallvard Strøm, Morten Ekker, Tycho Anker-Nilssen

This document presents the progress of implementation of the CAFF “International Murre Conservation Strategy and Action Plan” in Norway for the year 2002. The previous update was given at CSWG VIII in Anchorage, US, January 2002.

General

The purpose of the International Murre Conservation Strategy and Action Plan, which was published in 1996, is to facilitate the implementation of initiatives to conserve, protect and restore murre populations in the Arctic. The Plan identifies six major management issues and 31 action items.

Norway will complete a national implementation plan, and a draft in Norwegian has been produced. The draft will be finished during spring 2003, and translated to English.

Because the State Committee of Natural Resources in Russia decided not to complete a national implementation plan for Russia, a Russian-Norwegian initiative has been taken to try to jointly implement the strategy in the Barents Sea Region (Northern Norway/North-west Russia) This process started in 2000, but due to the death of Alexander Golovkin in August 2001, who was the Russian coordinator, there has been no further progress.

Thirty of the 31 action items are applicable to Norway with #16# action items presently being implemented, and four items regarded as completed. Each of the 31 action items within the Action Plan are listed in the table on the next page. The right column ('Initiatives') refers to new initiatives or previous activities continued in 2001. Characters within the right column refer to a short description of each initiative listed on the following page.

Table 8. Implementation of the International Murre Conservation Strategy, Norway 2001 and 2002.

Management Issue	Action Item	Status 2001	Status 2002	Initiatives
I. Consumptive Use	1. Ensure that consumptive uses of murre are sustainable. 2. Monitor harvest levels and assess their impacts on populations. 3. Harmonize management and harvest regimes for shared populations. 4. Involve local and indigenous people in the management of consumptive uses.	2 2 1 0	3 3 2 0	A
II. Non-Consumptive Use	5. Ensure that non-consumptive uses of murre are sustainable. 6. Implement management plans for areas of eco-tourism activity. 7. Implement standard guidelines to minimize the impact of disturbance at murre colonies.	2 2 2	3 2 2	A B
III. Commercial Activities & Industries	8. Identify, publicize and minimize impacts of commercial activities on murre breeding and foraging areas. 9. Implement programs to reduce oil pollution in areas used by murre. 10. Assess and reduce mortality of murre in commercial fishing gear. 11. Ensure that management of commercial harvests of small fish species provide for their role in murre diets.	2 2 1 1	3 3 3 3	C C C C
IV. Habitat Protection & Enhancement	12. Identify important murre colonies and designate them under national and international systems of protected areas. 13. Identify important pelagic habitats for murre, and promote the establishment of marine protected areas in important pelagic habitats for murre. 14. Contribute to the ‘Important Bird Areas’ system to highlight important areas of murre. 15. Explore the establishment of an international network to identify and protect key areas for murre. 16. Ensure that conservation action will benefit populations, by assessing causes of population declines from an ecosystem perspective. 17. Undertake specific restoration activities to assist depressed populations to recover.	2 2 3 1 2 1	3 2 4 2 3 2	D
V. Communications & Consultation	18. Determine appropriate communication approaches and produce materials to deliver specific messages. 19. Emphasize communication to operators of ships at sea, the fishing industry and tour boat operators and pilots. 20. Produce educational materials aimed specifically at children. 21. Issue joint scientific reports of activities relating to murre conservation.	2 2 1 3	2 2 2 3	
VI. Research & Monitoring	22. Coordinate circumpolar murre population monitoring and store data in standardized databases. 23. Conduct research on population demography at circumpolar monitoring sites. 24. Develop a coordinated circumpolar murre banding program. 25. Monitor murre feeding ecology and food availability. 26. Monitor murre mortality due to oil pollution, commercial fisheries, and hunting. 27. Conduct research to develop techniques to reduce entrapment in fishing nets. 28. Develop management techniques to restore habitats and populations. 29. Consider the effects of global warming and local eutrophication on murre populations. 30. Assess the need to conduct research into the genetics of murre populations. 31. Research for sea dist. abundance of murre.	2 2 2 2 1 1 2 2 2 2	3 3 3 3 2 2 2 3 2 3	

0 – not applicable

1 – no action considered required

2 – no action to date but required

3 – in progress and continuing

4 – completed this year or in past years

- A. The Svalbard Environmental Protection Act entered into force July 1, 2002. For the first time, all environmental regulations for the Svalbard area have been put together in one act. This enables a better enforcement of environmental regulations and ultimately a better management, due to joint goals and objectives for all the regulations. The Act sets framework conditions for all enterprises present in the archipelago. The Act introduces a general principle that all flora and fauna are basically protected. Only controlled and limited harvesting of some species is allowed, as long as the species' natural productivity, diversity and habitats are preserved. Area protection will continue to be the most important legal instrument to protect the wilderness quality of Svalbard.
- B. The isolated, unique oceanic island of Bjørnøya - and its surrounding marine area - was designated as a nature reserve August 16, 2002. This small island (177 km²) has more than 700 lakes and ponds. The seabird breeding colonies are among the largest in the northern hemisphere, and besides being a key area for seabirds, the island is an important staging area for geese. A management plan will be sent out for public hearing in 2003.
- C. The process of developing a comprehensive management plan for the western part of the Barents Sea (from Lofoten in the south) was initiated in 2002 and will be finished by 2005. The Management Plan is based on a holistic approach including separate EIA' s on oil and gas; fisheries, mariculture and sea transport; pollution, climate change, invasive alien species and migrating species. Human impacts on the marine ecosystem will be assessed as thorough as possible. Many of the seabird populations (47 species) in the Barents Sea area are of international importance and are considered to be sensitive ecosystem components, several showing negative population trends. The management plan will be based on a common EIA (where all the basic EIA' s are compiled). Identified actions needed and lack of knowledge will be implemented and followed up by sectorial instruments and mechanisms.
- D. A new Protected Area Plan for Svalbard has been worked out, and six new protected areas have been proposed. These will probably be established in 2003. In Svalbard 64% of the total land area will then be protected under the new Environmental Act. One of these areas is the island of Hopen – a very important breeding area for seabirds in the Svalbard area, and one of the two most important polar bear breeding sites. Furthermore, a general extension of the Norwegian territorial border (from 4 nm to 12 nm) is now being considered. This may affect the size of protected areas and the jurisdictions in marine areas both at the Norwegian coast and in Svalbard.

A survey (total count) of one of the largest Thick-billed murre colonies on the west coast of Spitsbergen (Midterhukenfjellet, Bellsund, Svalbard) was carried out in June-July 2002. The survey indicated a 15% increase in the TBM population in that colony since the last survey in 1992 (Strøm et al. 2002).

References:

Strøm, H, Opheim, J. & Høitomt, G. 2002. Seabird censuses and monitoring at Midterhukun, Bellsund, June-July 2002. In: Strøm, H. (ed.). Studies of seabirds in the

Bellsund – Van Mijenfjorden – Van Keulenfjorden area 2002. Norwegian Polar Institute, Report series. *Preliminary report*.

2. Status of Thick-Billed Murre Population Model for the Atlantic Region – Greg Robertson.

The model will include impacts of oil and hunting. Looking at the result of the murre model for Newfoundland, it appears that hunting and oil has removed most of growth potential of the population. It could be a problem if growth decreases, or climatic impacts. Note very extensive oil spills, particularly from ships or in relation of bilge water. Less science, and mostly enforcement and policy issues as illegal activity.

3. Status of Murre Climate Change Paper – David Irons

Perhaps include as example in ACIA Scientific Report if of interest to lead authors.
Seabird population trends and Climate change: a Circumpolar seesaw
Results: change in murre, sea surface temperature and climate change.
Pacific Decadal Oscillation, positive and negative phases. Also North Atlantic Oscillation
Increase in sea surface temp decreases murre population. Note distinctly different pattern with thick-billed and common murre colonies.

Why is change occurring? Murre sensitivity to SST may be related to food. Different SST and different prey. High latitude eat arctic cod. Low latitude eat Atlantic cod, capelin and sand eel. Long term changes may be driven by climatic changes. There may be a best range of SST for murre in given areas. Other global or local factors may affect population.

4. Status of circumpolar murre monitoring plan – David Irons

Discussed parameters for monitoring plan, include contaminants, oiling, harvesting, other factors. Circumpolar arctic, but also include UK due to excellent job they do with the monitoring. Historical, current and future data. Comments provided.

5. Murre monitoring in Sweden - Mattias Lif

Mattias presented a brief report on the status of murre monitoring in Sweden.

6. Circumpolar murre colony poster/web – Greg Robertson and Murre Colony Catalog Database, Circumpolar Colony Map, Data Tables, on CAFF Website – Hallvard Strøm

The following points were discussed.

How to organize map, and contacts. One contact person, national reps, or others.

Level of information in relation to maps, and how much information to make accessible on the map, or available only on contact with designated person and national contacts.

Aevar- Suggested that it is better to have more information on the map. Have as much as possible.

Hallvard- Discussion with Olga with respect to capacity. Not a problem. Discuss issues of size for technical reports and maps. Also use of portals if interactive site, or if overall size of “web page” is very large. Magdalena and Olga will be contacts on this matter.

Tycho- Raise idea of bibliography, and common information or spreadsheet concerning different circumpolar species and national information. Refer to metadata base, which will be second phase of the project.

Hallvard- Mentions that just establish metadata base for institute, which is a lot of work and useful. For now though, focus only on webpage. End of discussion of web.

7. Murre Poster for the Atlantic Region – Vidar Bakken

Vidar presented his draft murre poster, Aevar had some suggested edits.

8. Murre Poster for the Pacific Region – Vidar Bakken, David Irons

Vidar is willing to help put together a similar murre poster for the Pacific, Irons needs to get the information to him.

9. Murre Banding Plan - Aevar Petersen

Aevar Petersen described the status of the Murre Banding Plan. The following tasks are still outstanding: AP and Vidar Bakken will cooperate to include the gaps in banding as shown by the Murre Recovery Database analyses. All countries will send the most recent estimates for their murre populations and reference. AP and VB will cooperate to include recovery totals for different countries and approach banding offices for data on ringing totals.

10. Murre Ringing Database

We discussed producing a North Atlantic Murre Migration Atlas. We created a working group composed of Vidar Bakken, Aevor Petersen, Grant Gilchrist and Hallvard Strøm to work on this issue.

F. Action Item 6: Circumpolar Seabird Monitoring Network

Aevor provided information in the status of Circumpolar Biodiversity Monitoring Program. A Workshop in Iceland in February 2000 kicked off the effort. In April 2002 another meeting was held in Iceland to coordinate among networks and to discuss possibilities for funding. Funding continues to be a major hurdle in establishing a program.

A draft framework for the Circumpolar Seabird Monitoring Network was discussed. Parameters to be included were: populations, productivity, diets, survival, genetics, and contaminants.

Tycho suggested deleting 10 year sites, due to the problem of large inter-annual variation in the proportion of adults that actually commence breeding.

Include: National lists of breeders, endangered species, Christmas bird counts, Harvest (CPUE), at sea surveys, banding.

Objectives: detect change resulting from climate change (most important), fisheries, oil pollution, harvest, disturbance.

Use seabirds as indicators of the health of the marine ecosystem. Must decide on basic species for indicators and add specific problem species.

G. Action Item 7: Circumpolar Seabird Bulletin

A third Circumpolar Seabird Bulletin is planned for 2003. The purpose of the Circumpolar Seabird Bulletin is to enhance information flow among the Arctic nations.

H. Action Item 8: Circumpolar Seabird Status and Trends Report

Presentation by Aevor on seabird status reports, and possible project of book. Overview of population of seabirds and population trends. Portion for monitoring will be dealt with under next discussion, under subsequent meeting.

- Discussion of look and style of book. General support for it, particularly for general focus, perhaps images.
- Discuss degree of detail, and actual audience for it, but desire to have readable attractive document.

- Note discussion on different reports and relationship between BACC and CBMP.
- For trends, discuss general examples and approaches for trends for global, climatic and human impacts.
- Interesting comment by Wetlands International that any CAFF publication could be added to a future Wetlands International, as currently no focus for seabirds or arctic.
- General support canvassed for each country, and all support, and potentially involved.

I. Action Item 9: Circumpolar Seaduck Status and Trends Report

Seaduck issues for species other than eiders. Discussion of breadth and overlap with other reports and groups. Discuss creating discussion or scoping paper, and the breadth of species addressed.

K. Action Item 10: Next Circumpolar Seabird Group Meeting

It was proposed that the next Circumpolar Seabird Group Meeting be in St. Petersburg, Russia in February 2004.

V. Summary of Circumpolar Seabird Group Work Plan Recommendations: 2002-04

A. Action Item 1: Conservation of Migratory Birds Outside the Arctic.

§Ongoing Using CAFF Technical Reports No. 4 and No. 8 on the subject, each country will develop a report containing a prioritized list of birds that primarily nest in the Arctic and primarily winter outside the Arctic. This list will be called the Birds of Arctic Conservation Concern (BACC). Each country's report will also contain an assessment of the status and trends, description of migration corridors staging areas, and wintering location, needed improvements to, and gaps in, international mechanisms to enhance the conservation status of BACCs.

§Ongoing CBIRD will complete a CAFF Technical Report summarizing the results of each country's BACC status report and prioritized recommendations.

Lead: US – Wohl, Schedule:

§Technical Report Draft Outline and Table Formats	Feb. 15
§Definition of a BACC and draft criteria	Feb. 15
§Country Reports	Nov. 1
§Draft BACC Technical Report	CBIRD X
§Comments of Draft Due	CBIRD + 30 days
§Final BACC Technical Report	CBIRD X + 75 days

§Technical Report to Secretariat for Publication CBIRD X + 90 days

B. *Action Item 2: Seabird Bycatch in Commercial Fisheries in the Arctic*

§Ongoing All countries will continue to report on seabird bycatch initiatives including implementation of the Food and Agriculture Organization/Committee on Fisheries International Plan of Action to Reduce Seabird Bycatch in Longline Fisheries of the World and related national implementation plans.

§Ongoing All countries will create a matrix on longline issues only by April 1, 2003.

§Ongoing Each country with a seabird gillnet bycatch issue will complete an assessment of that. The report will document gillnet fisheries, seabird species and numbers taken in each gillnet fishery, spatial and temporal extent of bycatch, impacts on seabird populations, information gaps, legal issues, mitigation methods, regulations, studies, and action items. Lead: All Countries, Schedule:

§Gillnet Bycatch Technical Report Outline and Table	Apr. 15
§Draft Country Reports	Nov. 1
§Draft Technical Report on Gillnet Bycatch	CBIRD X
§Comments on Draft	CBIRD X + 30
Final Technical Report to Authors	CBIRD X + 90
Final Technical Report to Secretariat for Publication	CBIRD X + 120

C. *Action Item 3: Seabird Harvest in the Arctic*

§New CAFF Technical Report No. 9, Seabird Harvest Regimes in Circumpolar Nations, revision was discussed and it was decided that there was no need to update the Technical Report at this time.

§Ongoing Countries will continue to report on seabird harvest and implementation of applicable recommendations in CAFF Technical Report No. 5.

§Ongoing Russia will improve seabird harvest monitoring and information specifically in the Chukotka region. Lead: Russia – Artukhin, Schedule: CBIRD X

§New Several one to two page summaries of harvest issues will be written for the Circumpolar Seabird Bulletin. Lead US Wohl. Schedule Mar. 15, 2003.

D. *Action Item 4: Circumpolar Eider Conservation Strategy*

§Ongoing Countries will continue implementing applicable action items in the CAFF report ‘Circumpolar Eider Conservation Strategy and Action Plan Countries’ and related national action plans, and report progress at CBIRD meetings. Lead: All Countries, Schedule: Ongoing.

§New Complete a proposal to create a Common Eider Colony Map of the circumpolar region for all four eider species and having only one density category. Lead: Canada – Gilchrist/Robertson, Schedule: CBIRD X.

§New Review the status and progress of the Eider Conservation Strategy. Lead: Canada – Gilchrist/Robertson, Schedule: Draft Technical Report June 1, Final Sept. 15,

2003

E. Action Item 5: Circumpolar Murre Conservation Strategy

- \$Ongoing** Countries will continue implementing applicable action items in the CAFF report ‘International Murre Conservation Strategy and Action Plan’ and related national implementation plans, and report progress at CBIRD meetings. Lead: All Countries, Schedule: Ongoing.
- \$Ongoing** Develop a Thick-billed Murre population model for the Atlantic Region. Lead: Canada – Robertson, Schedule: Draft, CBIRD X.
- \$Ongoing** Complete a peer-reviewed publication ‘Effects of Climate change on Murre Populations in the Arctic. Lead: US – Irons, Schedule: CBIRD X.
- \$Ongoing** Put the Murre Colony Catalog Database country colony maps, circumpolar colony map, data tables, and country contracts on the CAFF Website in 2002. Lead: Norway - Strøm and CAFF Secretariat, Schedule: Test Version June 1, 2003.
- \$Ongoing** Publish and distribute a murre poster for the Atlantic region. Lead: Norway – Bakken, Schedule: June 1, 2003.
- \$New** Complete a murre poster for the Pacific region. Lead: US - Irons and Norway – Bakken, Schedule: CBIRD X.
- \$Ongoing** Publish a CAFF Technical Report ‘North Atlantic Murre Banding Plan’, and implement the plan. Lead: Iceland – Petersen, Schedule: May 1, 2003.
- \$Ongoing** North Atlantic Murre Ringing/Banding Plan and Database will be completed and recommended to implement. Lead: Iceland –Petersen, Schedule: CBIRD X.

F. Action Item 6: Circumpolar Seabird Monitoring Network

- \$Ongoing** Participate in the CAFF Biodiversity Monitoring Network project as the Coordinator of the CSMN. Lead: US – Irons, Schedule: Ongoing.
- \$Ongoing** Complete a circumpolar murre monitoring plan. US – Irons, Schedule: CBIRD X.
- \$New** Complete a CSMN Framework. Lead: US – Irons, Schedule: CBIRD X.

G. Action Item 7: Circumpolar Seabird Bulletin (CSB)

- \$Ongoing** Publish the third CSB. Lead: US – Wohl, Schedule: Draft Feb. 15, Country Reports, March 15, Publication May 1, 2007.

H. Action Item 8: Circumpolar Seabird Status and Trends Report

- \$New** Matrix of birds and importance. . Lead: Iceland – Petersen, Schedule: CBIRD X.
- \$New** Outline, purpose, structure, level of detail and species to include. Lead: Iceland – Petersen, Schedule: CBIRD X.

I. Action Item 9. Circumpolar Seaduck Status and Trends Report

- **New** Status Report of what is known and what has been done by other seaduck groups.
Lead. US – Oates Schedule: CBIRD X.

J. Action Item 10. Next Circumpolar Seabird Group Meeting

\$Ongoing It was proposed that the next Circumpolar Seabird Group Meeting be in St Petersburg, Russia in late January or early February 2003. Lead: US – Irons, Schedule: February 2003.

VI. Appendices

A. Meeting Agenda

CBIRD IX *Meeting Agenda* FINAL 1-23-03

Conservation of Arctic Flora and Fauna

CIRCUMPOLAR SEABIRD GROUP

Tromsø, Norway

January 27 - 31, 2003

CBIRD IX

Tentative Agenda

January

26: Arrival in Tromsø
(Hotel Clarion)

January

27: Monday Facilitator

0830 -

0845 Welcome Strøm

0845 -

0900 Introductions/Adoption of Agenda Irons

0900 -

0915 Comments from CAFF Secretariat Muir

0915 -

0945 CAFF Activities/02-04 CBIRD Workplan Wohl/Muir

0945 -

1000 Coffee Break All

New Initiatives for CBIRD Workplan Irons

1000- 1100 Seabird Status Reports Petersen

Seaduck issues for species other than eiders Oates

Other new initiatives All

1100 -

1200 NEW Hot Issues in Country Status Reports All

1200 -

1330 Lunch at the Polar Environmental Centre (POMI) All

Action Item 1: Conservation of Migratory Wohl

Birds Outside the Arctic

1330 -

1430 Review list of Birds of Arctic Conservation

	Concern (BACC)	Wohl
1430 –		
1500	Status of BACC Country Reports	Wohl
1500 –		
1515	Coffee Break	All
	Action Item 2: Seabird Bycatch in Commercial Fisheries in the Arctic	Wohl
1515 -		
1645	Gillnet Bycatch Assessment (10 min./ country)	All
1645 –		
1730	Gillnet Bycatch Next Step	Wohl
1900	Dinner	
January		
28:	Tuesday	
	Action Item 3: Seabird Harvest in the Arctic	Nyeland
0830 -		
0920	Discussion of CAFF Technical Report No. 9, Seabird Harvest Regimes in Circumpolar Nations Country Reports	Nyeland All
0920 -		
0930	New Seabird Harvest Information in the Chukotka Region	Artukhin
0930 -		
0945	Coffee Break	All
	Action Item 4: Circumpolar Eider Conservation Strategy	Gilchrist
0945 -		
0950	Introduction	Gilchrist
0950 -		
1015	Highlights of New Activities	All
1015 -		
1100	Evaluation of Eider Conservation Strategy	Gilchrist/ Oates/Others

1100 - 1200	Circumpolar Eider Breeding Area Map	Gilchrist/ Oates
1200 - 1330	Lunch at POMI Action Item 6: Circumpolar Seabird Monitoring Network	All Petersen
1330 - 1400	Status of Circumpolar Biodiversity Monitoring Program and report of April meeting.	Petersen
1400 - 1500	Draft Framework Discussion	Irons/Petersen
1500 - 1530	Funding Discussion	Petersen/ Irons
1530 - 1545	Coffee Break	All
1545 - 1600	Circumpolar Seabird Monitoring Network Terms of Reference	Irons
	Selected Topics	Irons
1600 - 1630	Special Protection Areas for Seabirds-Scoters	Reid
1630 - 1645	AK Migratory Bird Co-Management Council	Oates
1645 - 1700	Ivory Gull Status	Gilchrist
1700 - 1800	Population Trends of Long-tailed Duck (All Countries report)	Oates
1800 -1845	Ron Ydenberg: Changes in migratory tactics of western sandpipers on the recovering predator landscape	
1900	Dinner	All

January
29:

Wednesday

	Action Item 5: Circumpolar Murre Conservation Strategy	Anker-Nilssen
0830 –		
0840	Introduction	Anker-Nilssen
0840 –		
0900	Highlights of New Activities	All
0900 –		
0910	Status of Thick-billed Murre Population Model for the Atlantic Region.	Robertson
0910 -		
0945	Status of Murre/Climate Change Paper	Irons Anker-Nilssen
0945 -		
1000	Coffee Break	All
1000 -		
1020	Status of Circumpolar Murre Monitoring Plan	Irons Anker-Nilssen
1020 -		
1030	Murre Monitoring in Sweden	Olof Olsson
1030 –		
1040	Circumpolar Murre Colony Poster/Web	Robertson
1040 –		
1100	Murre Colony Catalog Database, Circumpolar Colony Map, Data Tables, on CAFF Website	Strøm
1100 -		
1110	Murre Poster for the Atlantic Region	Bakken
1110 -		
1120	Murre poster for the Pacific Region	Bakken/Irons
1120 –		
1130	CAFF Technical Report “North Atlantic Murre Banding Plan”	Petersen
1130 –		
1140	North Atlantic Murre Ringing/Banding Plan and Database	Petersen
1140 –	Lunch at POMI	

1300	Action Item: 7 Circumpolar Seabird Bulletin	Wohl
1300 – 1315	Status of Circumpolar Seabird Bulletin Selected Topics	Wohl Strøm
1300 - 1315	Barents Sea Management Plan	Ekker
1315 – 1330	Russian-Norwegian Environm. Co-operation	Huberth Hansen
1330 - 1345	Joint Russian-Norwegian Seabird Projects 2003	Strøm
1345 - 1400	US-Russia Migratory Bird Working Group	Wohl
1400 - 1415	Climate change - puffins	Anker-Nilssen
1415 - 1445	Murre Monitoring Continued	All
1445 - 1500	OTHER ISSUES	All
1500 - 1530	Coffee Break CBIRD Work Plan Recommendations	All Irons
1530 – 1615	Follow-up, CBIRD Workplan New Initiatives	Irons
1615 – 1700	Review and Summarize CBIRD Work Plan	Irons
1700 – 1715	Next Meeting	Irons
1900	Dinner	All

January
30:

Thursday

0900 – 1100	Bus excursion to “Sommarøy”. Stop at “Hella”	All
1100 – 1200	Group no. I: Boat excursion	

	Group no. II: Lunch	
1200 –		
1300	Group no. II: Boat excursion	
	Group no. I: Lunch	
1300 -		
1330	Prepare for Lectures	
1330 –		
1400	Rob Barrett, Tromsø University Museum (Titles will come later)	
1400 –		
1430	Jan Ove Bustnes, Norwegian Institute for Nature Reserve	
1430 –		
1500	Geir W. Gabrielsen, Norwegian Polar Institute	
1500 –		
1530	Alexander Koryakin, Kandalaksha State Nature Reserve	
1530 –		
1600	Juri Krasnov, Murmansk Marine Biological Institute	
1600 –		
1630	Coffee Break	
1630 –		
1700	Maria Gavriilo, Arctic and Antarctic Museum, St. Petersburg	
1700 –		
1730	Kirill Galaktionov, Zoologisk Museum, St. Petersburg	
1730 –		
1800	Tatjana Savinova, Akvaplan-Niva, Tromsø	
1900	Official dinner at “Sommarøy”	All
January		
31:	Friday	
0830 –		
1730	Atlantic Murre Population Model Building Work Session	Robertson

B. CAFF/Circumpolar Seabird Group Work Plan, 2002-2004

Conservation of Arctic Flora and Fauna
Work Plan 2002 - 2004

Fauna

- 1.1 Complete a CAFF Technical Report on Birds of Arctic Conservation Concern, including identifying their migration routes and wintering areas and applicable conservation instruments. *Lead: US in cooperation with UNEP/WCMC and Wetlands International.*
- 1.2 Report on seabird gillnet bycatch initiatives, and complete a review on this issue. *Lead: US and Canada.*
- 1.3 Update CAFF Technical Report No. 5, Seabird Harvest Regimes in Circumpolar Nations, for CAFF X. *Lead: US.*
- 1.4 Continue implementing applicable action items in the ‘Circumpolar Eider Conservation Strategy and Action Plan’ and ‘International Murre Conservation Strategy and Action Plan’. *Lead: Canada and US.*
- 1.5 Continue to develop a framework for a circumpolar seabird monitoring network. *Lead: US and Iceland.*

C. List of Participants, CBIRD IX, Tromsø, Norway - January 2003

PARTICIPANT LIST

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Circumpolar Seabird Group (CBIRD IX)
Tromsø, 27-31 January 2003**

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