Guidelines for Improved Cooperation between Arctic Researchers and Northern Communities

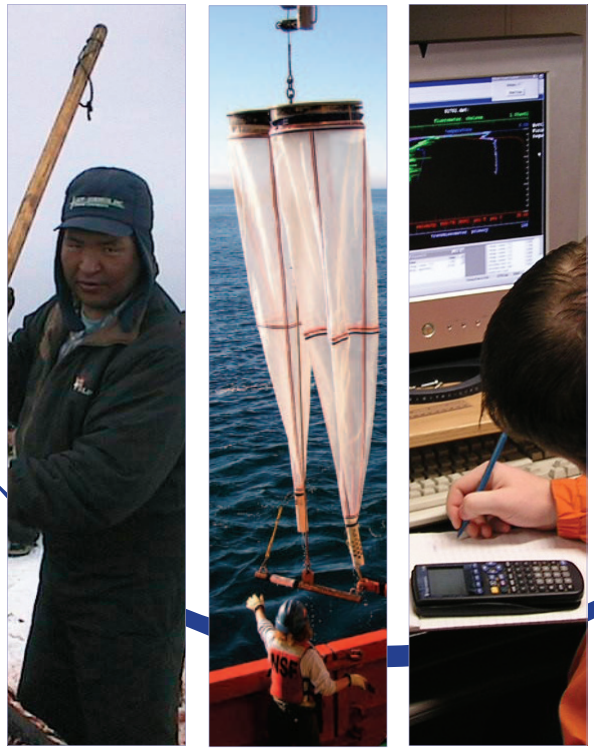

Photo Credits

Cover and Overview Page
Left: B. Adams in Barrow during whaling season. Photo by David A. Koester.
Center: Net cast off icebreaker. Photo by James H. Swift.
Right: Scientist working at computer. Photo by Jim Rogers.

Feedback Page
Harry Brower Family in Barrow. Photo by David A. Koester.

Overview

These *Guidelines for Improved Cooperation between Arctic Researchers and Northern Communities* have been drafted by the Arctic Sciences Section of the Office of Polar Programs at the National Science Foundation and the Barrow Arctic Science Consortium with the input of the Alaska Eskimo Whaling Commission, North Slope Borough Department of Wildlife Management and the Alaska Native Science Commission. The purpose is to provide information and suggestions to improve the way researchers work with communities in the Arctic in the planning and conduct of field research campaigns. Fieldwork can interrupt subsistence hunting or disturb species protected by the Marine Mammal Protection Act or Endangered Species Act. Maps in figures 1 and 2 illustrate the location and time of year some of the primary subsistence species are present. These Guidelines help researchers attain the objectives of the *Principles for Conduct of Research in the Arctic* (Appendix 1, adopted by the Interagency Arctic Research Policy Committee and the Polar Research Board in 1984) and involve local communities, or wildlife managers where appropriate, in research planning to reduce impacts to subsistence harvests and protected species.

Subsistence harvests occur in numerous locations and vary by season. The Endangered Species Act and the Marine Mammal Protection Act protect a number of species in the Arctic (Appendix 2). Maps and information provided in these guidelines are designed to help researchers determine the potential of their fieldwork to impact subsistence harvests and protected species and contact the appropriate federal agency if consultation is necessary.

The National Science Foundation encourages researchers working in the Arctic to use the information and maps provided in these guidelines to evaluate the potential impact of their research on arctic residents and protected species and cooperate as outlined in these guidelines to ameliorate the impact of their research. In keeping with the *Principles for Conduct of Research in the Arctic*, communication between researchers and communities near the planned field sites should begin during proposal development and continue through field plan preparation, fieldwork, post-field work, publication and include sharing research results with arctic communities. The National Science Foundation hopes that the research community will seize the opportunity to work with arctic residents, include them as part of their field teams, perform outreach and education, and build lasting relationships with local communities and governments that pave the way for researchers who follow.

Feedback

We need your feedback to ensure that the *Guidelines for Improved Cooperation between Arctic Researchers and Northern Communities* are useful and accurate. Please send us your comments or suggestions for improving the draft document. You may email feedback directly to Renée Crain at the National Science Foundation (rcrain@nsf.gov) or submit your comments using this form. Feel free to include additional remarks on a separate piece of paper. Feedback can also be submitted electronically using the form available online at http://www.arcus.org/guidelines.

1. How do you expect to use the Guidelines for Improved Cooperation between Arctic Researchers and Northern Communities?

2. Is there additional information not now included that would be useful to you or others using these Guidelines?

3. Are there additional maps or graphics that would improve the usefulness of the Guidelines?

4. Do you have any other suggestions for improving the usefulness of the Guidelines?

5. Other comments?

Name and Contact Information (Optional)
First Name:
Last Name:
Organization:
Address:
Email:

If you do not include your name or any contact information, your submission of feedback will be completely anonymous.

Please submit this form directly to:
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National Science Foundation
Office of Polar Programs
Arctic Sciences Section
and
Barrow Arctic Science Consortium (BASC)

Collaborators in this draft effort include:
the Alaska Eskimo Whaling Commission, the Barrow Whaling Captains Association, the Alaska North Slope Borough Department of Wildlife Management, and the Alaska Native Science Commission.

DRAFT 23 August 2004

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Guidelines for Improved Cooperation between Arctic Researchers and Northern Communities

1. Purpose

Field research in the Arctic is often conducted near settlements, in areas used for subsistence harvests by local residents or in habitat used by threatened or endangered species. Hence, field research in the Arctic has the potential to disrupt subsistence activities of arctic residents or disturb federally protected species. These guidelines are intended to help researchers plan fieldwork in a manner that reduces potential disruptions to subsistence activities or protected species and to assist researchers in making contacts in arctic communities and fulfilling the *Principles for Conduct of Research in the Arctic* (Appendix 1). The National Science Foundation encourages researchers working in the Arctic to use the information and maps provided in these guidelines to evaluate the potential impact of their research on arctic residents and protected species and work toward compromise and community involvement.

2. Introduction

For over 120 years, and intensely for the last 50 years, there has been a rich history of scientific research conducted in the Alaskan arctic. Current research projects and major interagency initiatives are addressing changing conditions of climate, weather, sea ice, beach erosion and productivity of the arctic seas. Results and records from this research are of interest both to scientists and to arctic residents.

The National Science Foundation, which funds approximately one-third of all U.S.-sponsored research in the Arctic, has a continuing commitment to research in the Arctic and to working with arctic residents to shape research so that it is not in conflict with the subsistence lifestyle of many arctic residents and that whenever possible addresses questions relevant to their lives. The National Science Foundation encourages the exchange of information between arctic residents and researchers and hopes to facilitate more active participation of arctic residents in science. The 13 principles of the *Principles for Conduct of Research in the Arctic* clearly identify the responsibility that all arctic researchers have toward northern peoples, their cultures, and the environment. Researchers working outside the U.S. arctic should consider the local impacts of their work and make the appropriate contacts as well. The National Science Foundation evaluates the merit of proposals using two criteria: intellectual merit and broader impacts of the work. NSF encourages researchers to develop their cooperation efforts into broader impacts activities for the benefit of both the research and northern communities.

One important aspect of life for many arctic residents is subsistence harvests of plants and animals. These subsistence harvests are a cornerstone of life in the Arctic for food and medicine and as a focus of societies. Subsistence on whales, seals, walrus, caribou, birds, eggs, fish and native plants is important not only for cultural reasons, but as a healthful food source for northern people. Researchers should be aware that some research or associated logistics activities could interfere with subsistence harvests.

In addition, several species found in the Arctic are protected under the Endangered Species Act (ESA) and Marine Mammal Protection Act (MMPA). Certain activities, such as transportation by icebreaking ships, small boats, helicopters, low-flying aircraft might have the potential to disturb these species, some of which are harvested by special permission, such as the bowhead whale (*Baleanus mysticetus*). Activities on the tundra might have the potential to disturb birds such as Steller's eiders (*Polysticta stelleri*) and spectacled eiders (*Somateria fischeri*). Other federally listed species found in Alaska and the surrounding seas, are listed in Appendix 2. Figures 1 and 2 indicate times and locations where some primary subsistence species are likely to occur so that researchers can assess the potential for their research activities to be collocated. Consultation with the appropriate federal management agency may be necessary if research and related activities have a likelihood of disturbing protected species.

Though this document has grown out of a cooperative effort between coastal researchers and marine mammal hunters on Alaska's North Slope, the methods outlined here for communicating field research plans with local and regional organizations are broadly applicable to researchers throughout the eight nations of the Arctic. Researchers are encouraged to work with the Barrow Arctic Science Consortium (BASC) on the North Slope and the Alaska Native Science Commission (ANSC) throughout the rest of Alaska to help make contacts within arctic communities. Their services are free to NSF-sponsored researchers and are available at cost to other researchers.

The steps for cooperation are laid out in Section 3, including suggested contacts, what to include in communications, how to communicate effectively and a timeline for the process. Section 4 outlines some of the main concerns for arctic residents regarding their subsistence resources. Section 5 contains maps and information about where and when researchers may impact subsistence activities. Section 6 is a checklist of steps suggested for tracking the cooperation process. Section 7 contains contact information for some organizations that may be useful in the cooperation process.

3. Cooperation Process

Communication early in the process of planning field research is essential to establishing effective cooperation. There is no simple formula that will apply for all projects in the Arctic. The approach here is to give guidance on effective communication and provide contact points that should prove to be effective starting places in the process. These guidelines seek to ensure that sufficient time is allowed to communicate research plans and address local concerns adequately.

Village life, to the Western eye, can look both modern and traditional; the foundation of that life is traditional. Though arctic residents may use email and formal meeting protocols, traditional social relations govern the way people make decisions and interact in both informal social situations and formal organizational situations. Emails, faxes, letters and phone messages without face-to-face communication may lead to miscommunication and misunderstandings. For researchers, this means that attending meetings in person and one-on-one interactions with group

representatives are important for successful, two-way communications.

Representatives of research teams should plan to visit the communities involved to discuss research plans well in advance of the field season if potential for conflict with subsistence activities is identified. Working out compromises may take time and seem complicated, but open communication and maintaining mutual respect and understanding are the most effective tools to facilitate a resolution. The Arctic Sciences Section can often provide funding for these in-person meetings. Researchers should contact their program officers for more information.

3.1 Points of Contact

The Arctic Sciences Section maintains cooperative agreements with BASC and ANSC to facilitate communication between researchers and arctic residents and they provide the most effective way to ensure that all the appropriate organizations are working together on the cooperation process. The Arctic Sciences Section liaison and the arctic logistics support contractor, VECO Polar Resources (VPR) can provide information or assistance with the cooperation process as well. A list of contact names and addresses is given in Section 7.

Barrow Arctic Science Consortium (BASC) in Barrow, Alaska

For projects on the North Slope of Alaska, Seward Peninsula Coast, Chukchi and Beaufort Seas, St. Lawrence Island, Chukotka, Russia

BASC can assist with cooperation involving work on the North Slope of Alaska and Chukotka, Russia and the coastal regions of the Chukchi and Beaufort seas, particularly including the 10 whaling villages that are part of the Alaska Eskimo Whaling Commission (see Figure 1). BASC is tasked to assist with logistics needs for NSF-funded researchers, including assisting researchers obtain permits for research on the North Slope of Alaska and in Chukotka, Russia. BASC assistance includes suggesting contacts, arranging meetings, distributing information to concerned parties and providing room and board in villages for visiting researchers.

Alaska Native Science Commission (ANSC) in Anchorage, Alaska

For projects in Alaska Regions Excluding the North Slope and Seward Peninsula

The Alaska Native Science Commission can suggest appropriate contacts and help set up meetings between researchers and communities throughout Alaska south of the North Slope. ANSC assistance includes suggesting contacts, assistance with arranging meetings, and distributing information to concerned parties.

Regional Contacts

Researchers working in the Arctic should contact the villages near where they will be working and alert the local and borough government as well as the regional Native Corporation. This may already occur when requesting permission and permits to work on privately held land. BASC or the ANSC can provide guidance for contacting local governments and regional corporations in Alaska and Russia. In some cases, BASC can assist with the communication process on the North Slope because of their location in Barrow. Information about Alaskan communities and contact information for the local governments is available on the State of Alaska Web page at http://www.state.ak.us/. Information about regional Native corporations is available at http://www.kstrom.net/isk/maps/ak/alaska.html.

Subsistence Harvest Concerns
BASC and the ANSC are able to advise researchers of the appropriate local and community organizations and governmental offices that should be informed about research plans and are able to provide input about potential conflicts with subsistence hunting.

Protected Species
Researchers should consider the location and timing of fieldwork with respect to the migratory pathways and breeding locations of those species listed in Appendix 2. Research activities that result in an "incidental take" of protected species require an ESA or MMPA incidental take permit from the appropriate agency.

Researcher Contact Information
The online Directory of Arctic Researchers can be useful in providing the contact information for many researchers. It is hosted by the Arctic Research Consortium of the U.S. (ARCUS) and can be found on their web site http://www.arcus.org.

3.2 Suggested Timeline for Communication
Communication should begin when researchers are developing proposals for funding or, when feasible, at least nine months prior to fieldwork on the project. An initial phone call to gather information from local representatives, BASC, ANSC, or others about potential impacts of proposed research can eliminate many problems. Early notification of all involved parties will improve the cooperation process. Communication should intensify once funding has been awarded to a project and planning for the field season begins. Staying within this timeline allows researchers to take into account input from community representatives when making field research plans. When planning the timeline for project communication, researchers should keep in mind that many of the people they want to meet, communicate with or present to may be out of town for extended periods for subsistence activities. Summer is a particularly busy harvest season. The communication process should include returning to the communities to share research results to wide audiences.

3.3 Checklist for Communication
The checklist in Section 6 provides step-by-step guidance for the cooperation process. Initially, researchers should compare their field plans with the locations and dates of subsistence use areas shown in Figures 1 and 2. This will guide plans to work with local communities, native co-management organizations and state and federal management agencies.

3.4 Method of Contact
A formal letter, fax or email with accompanying informational documents such as maps or tables sent to each of the interest groups can initiate contact and provide the necessary background information for a later meeting or telephone conversation. It is customary to send a letter or call the city and borough mayor in an area before visiting a rural town or village. Researchers should take advantage of travel to and from the field site to pay personal visits to officials, schools and other organizations. There is no substitute for face-to-face contact.

3.5 Information to Include in Communications

Communication should highlight the benefits of the research for communities and gather input, suggestions, and information that may alter or improve the planned research. The relevance of the research to the local community or broader public should be made clear in a brief cover letter accompanying any technical papers. Research projects should be explained in terms understandable to non-scientists and emphasize the practical details of fieldwork and sampling more than the scientific details. Clear, easy to understand diagrams, annotated nautical charts and maps are also useful. It is important to provide detail on travel overland and activities such personnel transfers via helicopter or boat because of the potential of these activities to disrupt subsistence activities. Often there are many potential benefits of proposed research to local residents, but the style and emphases of scientific writing make these difficult and time-consuming for non-scientists to decipher.

In response to research plans, subsistence hunters or community representatives should provide clear descriptions of potential conflicts that are foreseen with respect to proposed research. Whenever possible, they should provide alternatives or deviations from the proposed activity that enable researchers to fulfill research objectives but that alleviate potential conflicts with wildlife or subsistence activities. Maps and diagrams are also useful in illustrating sensitive areas.

It may be helpful to keep a record of the names and addresses of individuals who are cooperating on the research plan, what concerns, if any, have been raised, when they were raised, and how they are being resolved. Circulating this record among all the cooperating individuals will make it easier to ensure the proper people have been included. The checklist in Section 6 can facilitate this process.

3.6 How Communities can Obtain Information about Research Projects

People seeking more information about proposed or ongoing research projects can contact the representatives listed in Section 6 at the National Science Foundation, the Barrow Arctic Science Consortium, or the Alaska Native Science Commission. These groups are very sensitive to concerns raised by local residents and will assist communities in getting more information. Group representatives may find it more effective to communicate directly with researchers or science team leaders.

4. Understanding Concerns of the Subsistence Community and Scientists

These are some of the issues that cause concern among the subsistence community, which includes hunters, fishers, gatherers, herders and people who use the resources provided by these activities. Members of the subsistence community throughout Alaska have identified concerns with respect to potential harmful effects of research on wildlife and subsistence harvest. Researchers should take these into consideration when planning research projects.

Disturbance Effects: There is considerable traditional knowledge and scientific literature on the effects of man-made noise on marine mammals. Bowhead whales react differently to noise stimulus depending on factors such as the type of noise source, the trajectory and speed of the noise source and the intensity of the sound (Burns et al. 1993). Deflections of

migrating bowheads have been documented as far as 30 miles from the noise source. There is some evidence that when bowhead whales deflect from the original migration path or corridor, the remainder of the herd follows the new path rather than resuming the traditional track. Deviations in migration path could interrupt whaling for the remainder of the season.

Potential Contamination: Using drugs or biomarkers on species harvested for subsistence should be considered carefully because of the potential to cause real or perceived contamination of important food sources. The use of drugs on wildlife should be avoided when there is any chance that the animal may be consumed while drugs are still present in its system. For animals, such as caribou, that are hunted year-round, alternative capture methods should be used. North Slope researchers capture caribou by using net-guns or by restraining the animals when they are swimming across a water body. For other animals, such as moose or muskoxen, drugs should be used at least two months in advance of a hunting season. When drugs are used on an animal, the animal must be clearly marked so it will be apparent to a hunter that it has been drugged. In all cases, capture work must be done as humanely as possible.

Field work should be carried out with low-impact on the landscape. In particular, camp waste should be packed out and properly disposed of. Research materials, such as lath, fencing, structures and other equipment should be removed at the completion of the project.

Perceived Effects: Poor harvest of subsistence species may be attribute to anthropogenic sources, especially industrial activities. It is difficult to verify or disprove this relationship, so it is preferable to plan research activities to reduce potential negative impact on subsistence hunting. A widespread cultural perspective among Native hunters—in keeping with personal modesty about their skills as hunters—is that a successful harvest is attributed to the willingness of the animal to be taken. It is important to Native hunters to avoid corrupting this cycle in order to continue to have successful hunts and to maintain this spiritual relationship. Many Native elders in particular consider experimentation on animals offensive and an insult to the integrity of the animal. There are cultural and spiritual ramifications for these activities that should be considered. In some regions, fish with tags or radio-collared caribou are considered damaged and not fit for consumption.

Respect: Advance and sincere consultation shows respect for the local communities. Many research projects can benefit from traditional ecological knowledge that many residents are willing to share. Similarly, residents are interested to know more about what researchers are discovering about their local environment. A willingness to openly share results and involve local community members and students in research projects is genuinely appreciated both by NSF and local communities.

5. Locations and Times Sensitive to Research Activities

This section describes the time of year and locations in which several of the major subsistence species are hunted. There are maps accompanying this and the next section to visually represent the time and location of most subsistence hunts. These maps are generalizations and should be

used to determine a relative level of risk to subsistence activities and sensitive species given that impact will vary depending on local conditions. Subsistence activities often take place during animal migrations. The timing and location of some subsistence activities are predictable to approximate dates and locations, but for some animals hunting is opportunistic. Projects with flexibility in the timing and location of fieldwork can take advantage of patterns and arrange to work around the subsistence harvest. It is important for scientists to know where and when subsistence activities take place and where villages and animal concentrations are located to minimize disturbances to wildlife and subsistence harvest efforts. We have provided the Inupiat names with the scientific names for the subsistence species described in further detail below.

5.1 Whales

Bowhead Whales (*Balaena mystecetus,* Agviq)

There are 10 villages with subsistence bowhead whale hunts: Kaktovik, Nuiqsit, Barrow, Point Lay, Wainright, Wales, Kivalina, Gambell, Savoonga, and Little Diomede. The spring bowhead whaling season starts at St. Lawrence Island and moves north as bowheads migrate from their wintering grounds in the Bering Sea beginning in March (Figure 1). Whales are typically taken at St. Lawrence Island in April into May. Bowhead whales arrive at Barrow by 15 April but usually none are landed until the last week of April. By May, the migration is spread from St. Lawrence Island to Barrow and whales can be harvested by any of the whaling villages. The latest spring harvest at Barrow in the last 20 years was 15 June. Whales continue to pass Barrow in June, but by then the quota is usually either filled or the landfast ice has failed and whaling is unsafe.

The fall whaling season starts in Kaktovik and moves progressively to the west (Figure 2). Not all villages are able to harvest bowhead whales in the fall because of the westward migration away from the coast near Barrow. Kaktovik and Nuiqsut generally hunt 1–30 September. In recent years, Barrow has hunted a little later, 15 September–15 October. In part, Barrow's hunts depend on temperature. Colder fall temperatures reduce the potential loss of food from degradation. If it is cold in late August, there could possibly be hunting that early. The earliest catch at Barrow in the last 20 years was 31 August. Occasionally there is a fall hunt in Gambell in December and January. Wainwright and Point Hope have attempted fall hunting with little success.

The Alaska Eskimo Whaling Commission (AEWC) has developed hunting perimeters for villages, which include whale, seal and other marine mammal harvests (see draft map, next page). Hunting seasons depend greatly on ice conditions and weather, so close communication with the AEWC is recommended during field work to minimize impact to migration patterns and subsistence harvests.

Bowhead Whaling Villages

Canada: Aklavik, Tuktoyuktuk

Alaska: Gamble, Savoonga, Kivalina, Kaktovik, Nuiqsut, Barrow, Wainwright, Point Lay, Point Hope, Wales

Chukotka: Lorino, Lavrentiya, Uelen, Seriniki, Novoechaplino

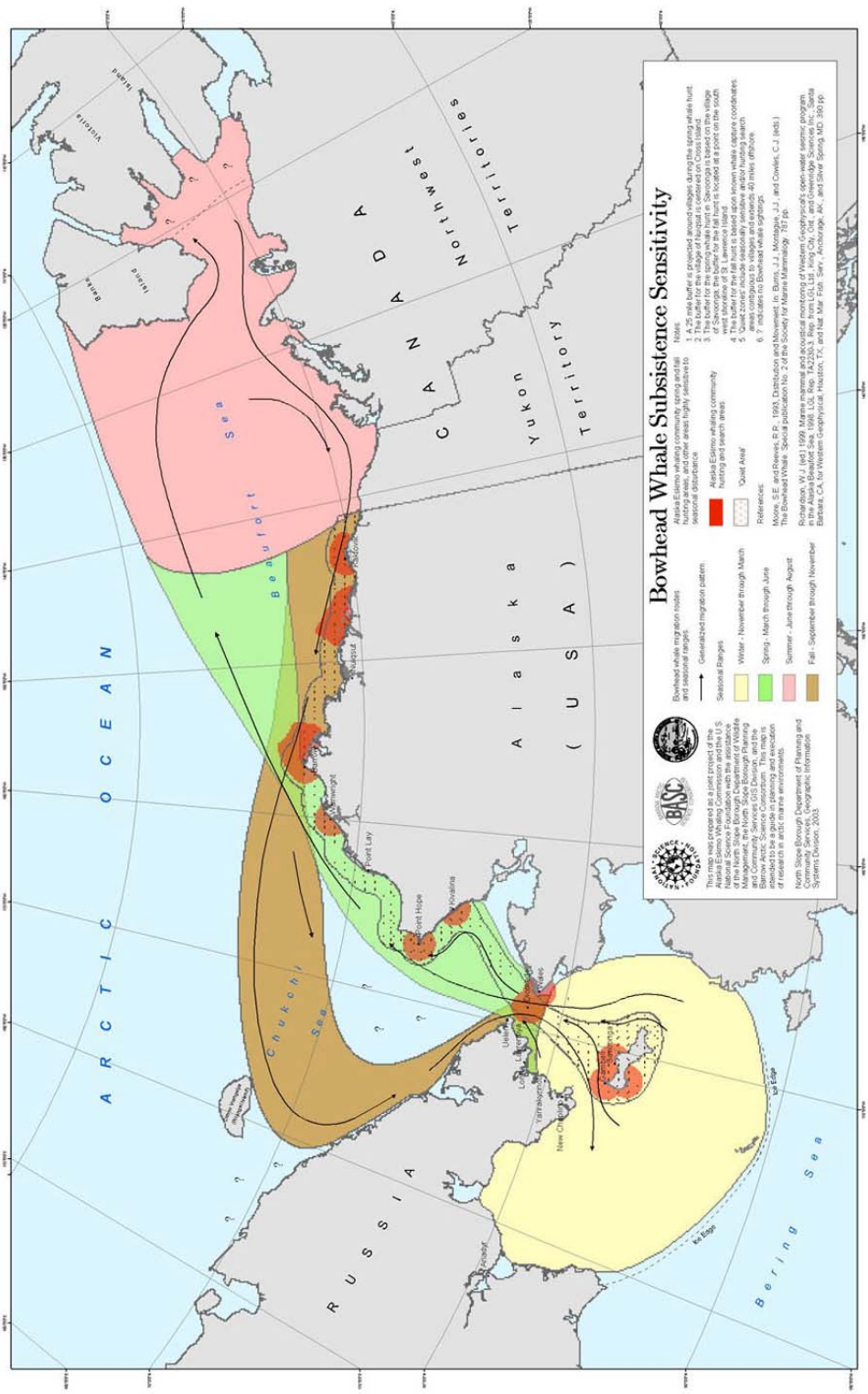


Figure 1: This map was prepared as a joint project of the Alaska Eskimo Whaling Commission and the U.S. National Science Foundation with the assistance of the North Slope Borough Department of Wildlife Management, the North Slope Borough Planning Department GIS Division, and the Barrow Arctic Science Consortium. The map is intended to serve as a guide for research planning and execution.

5.2 Seals

Bearded Seal (*Erignathus barbatus*, Ugruk)

Bearded seals are hunted from boats or on the ice year-round, with a noticeable break in the season in late June–early July, when the shore-fast ice is breaking up and unstable for travel. Summer hunting can take place at camps over 70 miles from a village though the majority of harvests take place within 20-30 miles of the villages.

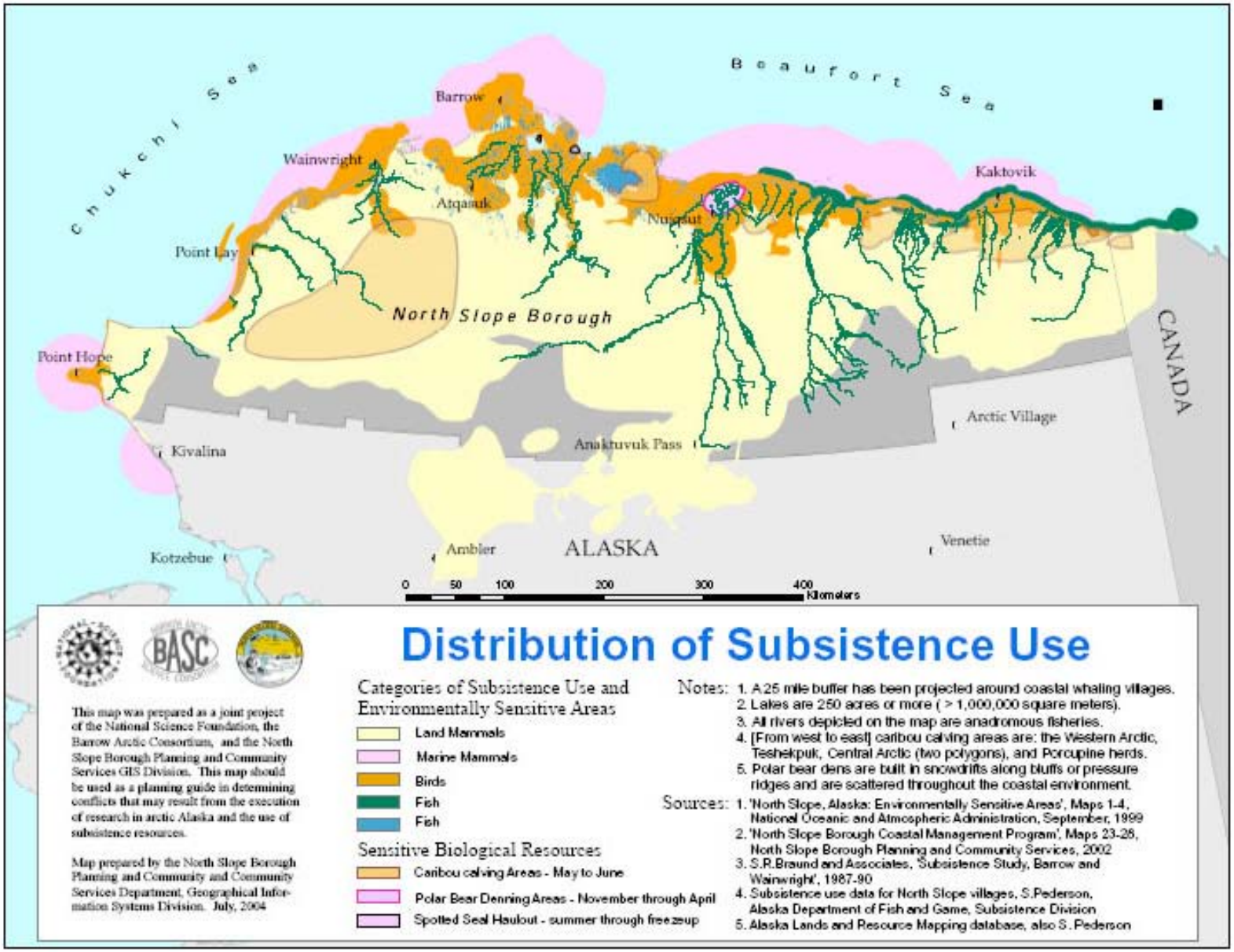
5.3 Pacific Walrus (*Odobenus rosmarus divergens*, Aiviq)

Depending on the location it take place over several months in late summer. Near Barrow, the season is roughly 15 July–20 August. In the Chukchi coastal villages, walrus hunting is usually conducted in summer pack ice.

5.4 Caribou (*Rangifer tarandus*, Tuttu)

Hunting for caribou is year round, following the migration of various herds in Alaska. Figure 1 shows the range of caribou on the North Slope.

Figure 2 (next page) shows primary subsistence hunting areas for particular species and indicates times of the year when hunting is most common. Villages of the North Slope, the Dalton Highway, Toolik Field Station, Deadhorse/Prudho Bay and other landmarks are indicated. Subsistence hunting is concentrated within 25 miles of villages. In summer many people inhabit fish camps on rivers and lakes that are widely dispersed from villages. Bird hunting may also take place in widely distributed locations. The Barrow Area Information Database (BAID) Internet Map Server (IMS) is an online source for many summer camp locations.


Chukchi Sea
Beaufort Sea
Barrow
Wainwright
Atqasuk
Nuiqsut
Kaktovik
Point Lay
North Slope Borough
Point Hope
CANADA
Arctic Village
Kivalina
Anaktuvuk Pass
Ambler
ALASKA
Venetie
Kotzebue
0 50 100 200 300 400
Kilometers
BASC
This map was prepared as a joint project of the National Science Foundation, the Barrow Arctic Consortium, and the North Slope Borough Planning and Community Services GIS Division. This map should be used as a planning guide in determining conflicts that may result from the execution of research in arctic Alaska and the use of subsistence resources.
Map prepared by the North Slope Borough Planning and Community and Community Services Department, Geographical Information Systems Division. July, 2004
Distribution of Subsistence Use
Categories of Subsistence Use and Environmentally Sensitive Areas
Land Mammals
Marine Mammals
Birds
Fish
Fish
Sensitive Biological Resources
Caribou calving Areas - May to June
Polar Bear Denning Areas - November through April
Spotted Seal Haulout - summer through freezeup
Notes:
1. A 25 mile buffer has been projected around coastal whaling villages.
2. Lakes are 250 acres or more (> 1,000,000 square meters).
3. All rivers depicted on the map are anadromous fisheries.
4. [From west to east] caribou calving areas are: the Western Arctic, Teshekpuk, Central Arctic (two polygons), and Porcupine herds.
5. Polar bear dens are built in snowdrifts along bluffs or pressure ridges and are scattered throughout the coastal environment.
Sources:
1. 'North Slope, Alaska: Environmentally Sensitive Areas', Maps 1-4, National Oceanic and Atmospheric Administration, September, 1999
2. 'North Slope Borough Coastal Management Program', Maps 23-28, North Slope Borough Planning and Community Services, 2002
3. S.R.Braund and Associates, 'Subsistence Study, Barrow and Wainwright', 1987-90
4. Subsistence use data for North Slope villages, S.Pederson, Alaska Department of Fish and Game, Subsistence Division
5. Alaska Lands and Resource Mapping database, also S. Pederson

6. Checklist for Cooperation

This checklist is intended to help project principle investigators (PIs) and chief scientists follow the guidelines laid out in this document. The Barrow Arctic Science Consortium (BASC) and the Alaska Native Science Commission (ANSC) will provide assistance free of charge if you are funded through the National Science Foundation. Non-NSF funded researchers will be charged cost for services.

Proposal Development Phase

- ❑ Refer to maps in Figures 1 and 2 to determine if field research locations and timing is likely to interfere with subsistence activities or sensitive species. Determine which village(s) should be notified of research plans.
  Note: The maps in Figures 1and 2 indicate general patterns. Actual events are contingent on local weather and other considerations.
- ❑ Prepare to contact community representatives or to work with BASC or ANSC in making contacts.
  1. Prepare a 1-page summary of the science explained in lay terms
  2. Prepare a brief description of field plans including information for assessing potential conflict such as: field locations and dates, field crew size, planned flights or boat trips, use of motorized vehicles, use of sonic equipment, use of chemicals or radioactive materials, animal studies utilizing capture, tagging etc.
- ❑ Contact relevant local groups and agencies via phone, email, or letter.
  1. Determine the appropriate borough and local government contacts nearest where you will be working and in villages you will be traveling through as well as other appropriate groups to contact (e.g. the Alaska Eskimo Whaling Commission if working near whaling villages or bowhead whale migration routes).
  2. Provide science and field plan descriptions with a summary of anticipated conflicts with subsistence activities or protected species.
  3. It may be appropriate to contact relevant state or federal management organizations (see Section 7).
- ❑ When possible, obtain letters of support from the cooperating organizations to include with your proposal and describe any plans to alleviate potential conflicts with subsistence hunting or sensitive species if appropriate.

Funded Projects

- ❑ Obtain permits as required by state and federal law.
- ❑ Notify the applicable community contacts, local government organizations, BASC or the ANSC, state and federal agencies the project will take place.
- ❑ In keeping with the *Principles for Conduct of Research in the Arctic*, consider ways to include local students, elders or other local experts in the research project.
- ❑ When possible, especially if warranted by potential conflict with subsistence hunting or sensitive species, arrange to present your field plans and the scientific basis of the project to interested groups. Funding may be available through the Arctic Research Support and Logistics program at NSF.
- ❑ Work with BASC, ANSC, NSF or other agencies as needed to minimize conflict between field research plans and subsistence harvests.
- ❑ When possible, obtain letters of support or written confirmation that conflicts have been addressed including, for example, an established communication protocol between field teams and community representatives.

Project Phase

- ❑ Visit the communities you travel through to give updates and exchange information about local conditions.
- ❑ Maintain regular communication when activities and locations of work may impact migration patterns or subsistence hunting activities. This may be via phone, VHF, email or other method, so long as it is worked out in advance.
- ❑ When leaving the field, visit communities and schools as possible to share progress. Even a phone call is appreciated as a means of keeping in contact.
- ❑ Provide copies of your findings to the communities you worked with through publications, reports, posters or other means.

7. Contact Information for Relevant Organizations

This list contains contact information for people who can assist in the cooperation process. Other people or organizations may be appropriate to contact for a specific project.

Primary Contacts for Information and Guidance about the Cooperation Process

National Science Foundation
Renee Crain
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Alaska Native Science Commission (ANSC)
Patricia Cochran
Executive Director
429 L Street
Anchorage, Alaska 99501
Phone: 907-258-ANSC (2672)
Fax: 907-258-2652
Email: pcochran@aknsc.org

Alaska Native Co-Management Organizations

Alaska Eskimo Whaling Commission
Maggie Ahmaogak
Executive Director
PO Box 570
Barrow, AK 99723
Phone: 907-852-2392
Fax: 907-852-2303
Email: aewcdir@barrow.com

Alaska Beluga Whale Commission
PO Box 293
Kotzebue, AK 99752

Eskimo Walrus Commission
PO Box 948
Nome, AK 99762
Phone: 907-443-4728
Email: ewc@kawerak.org

Alaska Native Harbor Seal Commission
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Toll Free: 1-888-424-5882
Fax: 907-345-0566

Nanuq Commission
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Toll-free: 1-888-424-5882
Fax: 907-345-0566

Sea Otter Commission
505 W. Northern Lights Blvd.
Anchorage, AK 99515
Phone: 907-274-9799
Toll-free: 1-800-474-4362

Federal Organizations

National Marine Fisheries Service
National Oceanic and Atmospheric Administration
222 West 7th Avenue, Box 43
Anchorage, AK 99513-7577
Phone: 907-271-5006

National Marine Fisheries Service
National Oceanic and Atmospheric Administration
Protected Resources Division
P.O. Box 21668
Juneau, AK 99802-1668
Phone: 907-586-7235

U.S. Fish and Wildlife Service
Regional Office
Ecological Services Office (Endangered Species)
1011 E. Tudor Road
Anchorage, Alaska 99503-6199
Phone: 907-786-3520
Fax: 907-786-3625

U.S. Fish and Wildlife Service (North Slope)
Ecological Services, Fairbanks
1412 Airport Way
Fairbanks, AK 99701
Phone: 907-456-0427
Fax: 907-456-0346

Alaska State Management Organizations

Alaska Department of Fish and Game (ADF&G)

Fairbanks
ADF&G/Division of Subsistence
1300 College Rd Fairbanks, AK 99701-1599
Phone: 907-459-7320
Fax: 479-5699

Barrow
Geoff Carroll
ADF&G/Wildlife Conservation
P.O. Box 1284
Barrow, AK 99723-1284
Phone: 907-852-3464
Fax: 907-852-3465
Email: geoff_carroll@fishgame.state.ak.us

Kotzebue
ADF&G/Division of Subsistence
Alaska Department of Fish & Game
Nordlum Office Bldg.
240 5th Ave. Kotzebue, AK 99752-0689
PO BOX 689 Kotzebue, AK 99752-0689
Phone: 907-442-3420
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Appendix 1: Principles for the Conduct of Research in the Arctic

All Federal agencies, including the Arctic Sciences Section of the National Science Foundation have adopted the *Principles for Conduct of Research in the Arctic*, which emphasize cooperation and respect for people living in the arctic when conducting research in the field. These principles are on the NSF web site at http://www.nsf.gov/od/opp/arctic/conduct.htm.

Researchers have an obligation to work with communities in which they conduct their research as is outlined in the Principles for the Conduct of Research in the Arctic. The guidelines for communication in this document are one step in building relationships between researchers from all fields of study and the communities where they conduct their research.

Introduction

All researchers working in the North have an ethical responsibility toward the people of the North, their cultures, and the environment. The following principles have been formulated to provide guidance for researchers in the physical, biological, behavioral, health, economic, political, and social sciences and in the humanities. These principles are to be observed when carrying out or sponsoring research in Arctic and northern regions or when applying the results of this research.

This statement addresses the need to promote mutual respect and communication between scientists and northern residents. Cooperation is needed at all stages of research planning and implementation in projects that directly affect northern people. Cooperation will contribute to a better understanding of the potential benefits of Arctic research for northern residents and will contribute to the development of northern science through traditional knowledge and experience. These "Principles for the Conduct of Research in the Arctic" were prepared by the Interagency Social Science Task Force in response to a recommendation by the Polar Research Board of the National Academy of Sciences and at the direction of the Interagency Arctic Research Policy Committee. This statement is not intended to replace other existing Federal, State, or professional guidelines, but rather to emphasize their relevance for the whole scientific community. Examples of similar guidelines used by professional organizations and agencies in the United States and in other countries are listed in the publications.

Implementation

All scientific investigations in the Arctic should be assessed in terms of potential human impact and interest. Social science research, particularly studies of human subjects, requires special consideration, as do studies of resources of economic, and social value to Native people. In all instances, it is the responsibility of the principal investigator on each project to implement the following recommendations:

1. The researcher should inform appropriate community authorities of planned research on lands, waters, or territories used by or occupied by them. Research directly involving northern people should not proceed without their clear and informed consent. When informing the community and/or obtaining informed consent, the researchers should identify:
    a. all sponsors and sources of financial support;
    b. the person in charge and all investigators involved in the research, as well as any anticipated need for consultants, guides, or interpreters;
    c. the purposes, goals, and time-frame of the research;
    d. data-gathering techniques (tape and video recordings, photographs, physiological measurements etc.) and the uses to which they will be put;
    e. foreseeable positive and negative implications and impacts of the research.
2. The duty of researchers to inform communities continues after informed consent has been obtained. Ongoing projects should be explained in terms understandable to the local community.
3. Researchers should consult with and, where applicable, include communities in project planning and implementation. Reasonable opportunities should be provided for the communities to express interests and to participate in the research.
4. Research results should be explained in non-technical terms and, where feasible, should be communicated by means of study materials that can be used by local teachers or in displays that can be shown at local community centers or museums.
5. Copies of research reports, data descriptions, and other relevant materials should be provided to the local community. Special efforts must be made to communicate results that are responsive to local concerns.

6. Subject to the requirements for anonymity, publications should always refer to the informed consent of participants and give credit to those contributing to the research project.
7. The researcher must respect local cultural traditions, languages, and values. The researcher should, where practicable, incorporate the following elements into the research design:
    a. use of local and traditional knowledge and experience;
    b. use of the languages of the local people;
    c. translation of research results, particularly those of local concern, into the languages of the people affected by the research;
8. When possible, research projects should anticipate and provide meaningful experience and training for young people.
9. In cases where individuals or groups provide information of a confidential nature, their anonymity must be guaranteed in both the original use of data and in its deposition for future use.
10. Research on humans should only be undertaken in a manner that respects their privacy and dignity:
    a. Research subjects must remain anonymous unless they have agreed to be identified. If anonymity cannot be guaranteed, the subjects must be informed of the possible consequences of becoming involved in the research.
    b. In cases where individuals or groups provide information of a confidential or personal nature, this confidentiality must be guaranteed in both the original use of data and its deposition for future use.
    c. The rights of children must be respected. All research involving children must be fully justified in terms of goals and objectives and never undertaken without the consent of the children and their parents or legal guardians.
    d. Participation of subjects, including the use of photography in research, should always be based on informed consent.
    e. The use and deposition of human tissue samples should always be based on the informed consent of the subjects or next of kin.
11. The researcher is accountable for all project decisions that affect the community, including decisions made by subordinates.
12. All relevant federal, state and local regulations and policies pertaining to cultural, environmental, and health protection must be strictly observed.
13. Sacred sites, cultural materials, and cultural property cannot be disturbed or removed without community and/or individual consent and in accordance with federal and state laws and regulations.

In implementing these principles, researchers may find additional guidance in the publications listed below. In addition, a number of Alaska Native and municipal organizations can be contacted for general information, obtaining informed consent, and matters relating to research proposals and coordination with Native and local interests. A separate list is available from NSF's Office of Polar Programs.

Publications

Arctic Social Science: An Agenda for- Action. National Academy of Sciences, Washington, D.C., 1989.

Draft Principles for an Arctic Policy. Inuit Circumpolar Conference, Kotzebue, 1986.

Ethics. Social Sciences and Humanities Research Council of Canada, Ottawa, 1977.

Nordic Statement of Principles and Priorities in Arctic Research. Center for Arctic Cultural Research, Umea, Sweden, 1989.

Policy on Research Ethics. Alaska Department of Fish and Game, Juneau, 1984.

Principles of Professional Responsibility. Council of the American Anthropological Association, Washington, D.C., 1971, rev. 1989.

The Ethical Principles for the Conduct of Research in the North. The Canadian Universities for Northern Studies, Ottawa, 1982.

The National Arctic Health Science Policy. American Public Health Association, Washington, D.C., 1984.

Protocol for Centers for Disease Control/lndian Health Service Serum Bank. Prepared by Arctic Investigations Program (CDC) and Alaska Area Native Health Service, 1990. (Available through Alaska Area Native Health Service, 255 Gambell Street, Anchorage, AK 99501.)

Indian Health Manual. Indian Health Service, U.S. Public Health Service, Rockville, Maryland, 1987.

Human Experimentation. Code of Ethics of the World Medical Association (Declaration of Helsinki). Published in British Medical Journal, 2:177, 1964.

Protection of Human Subjects. Code of Federal Regulations 45 CFR 46, 1974, rev. 1983.

Appendix 2: Federally Protected Species in Alaska

Endangered Species Act: http://endangered.fws.gov/esa.html
Marine Mammal Protection Act: http://www.eh.doe.gov/oepa/laws/mmpa.html

Threatened Species in Alaska

Aleutian Canada goose[1, 2] (*Branta canadensis leucopareia*)
American peregrine falcon[2] (*Falco peregrinus anatum*)
Arctic peregrine falcon[2] (*Falco peregrinus tundrius*)
Northern goshawk (*Accipiter gentilis laingi*) Southeast Alaska population
Spectacled eider[1] (*Somateria fischeri*)
Steller's eider[1] (*Polysticta stelleri*)
Olive-sided flycatcher[4] (*Contopus cooperi*)
Gray-cheeked thrush (*Catharus minimus*)
Townsend's warbler (*Dendroica townsendi*)
Blackpoll warbler (*Dendroica striata*)
Eskimo curlew (*Numenius borealis*)
Short-tailed albatross (*Diomedea albatrus*)
Chinook salmon[1] (*Oncorhynchus tshawytscha*) Fall Stock from Snake River
Steller sea lion[1, 3] (*Eumetopias jubatus*)
Harbor seal (*Phoca vitulina*)
Beluga whale (*Delphinapterus leucas*) Cook Inlet population
Bowhead whale[3] (*Balaena mysticetus*)
Humpback whale (*Megaptera novaeangliae*)
Right whale (*Eubalaena glacialis*)
Blue whale (*Balaenoptera musculus*)
Brown bear (*Ursus arctos horribilis*) Kenai Peninsula population

[1] Federally listed as threatened
[2] Downlisted from Alaska Endangered Species List
[3] Federally listed as endangered
[4] Category 2 Candidate Species under federal ESA

Endangered Species in Alaska

Eskimo Curlew, (*Numenius borealis*)
Short-tailed Albatross, (*Diomedea albatrus*)
Humpback Whale, (*Megaptera novaeangliae*)
Right Whale, (*Eubalaena glacialis*)
Blue Whale, (*Balaenoptera musculus*)

Bibliography and Relevant Websites

Bowhead Whales

Burns, J.J., Montague, J.J. and Cowles, C.J. 1993. *The Bowhead Whale*. Society for Marine Mammalogy Special Publication Number 2. Allen Press, Inc.: Lawrence, Kansas.

Braham, H.W., M.A. Fraker, and B.D. Krogman. 1980. Spring Migration of the Western Arctic Population of Bowhead Whales. Marine Fisheries Review. Sept.-Oct.: 36-46.

Brueggeman, J.J. 1988. Early Spring Distribution of Bowhead Whales in the Bering Sea. Journal of Wildlife Management 46(4): 1036-1044.

George, J.C., L.M. Philo, K. Hazard, D. Withrow, G.M. Carroll, R. Suydam. 1994. Frequency of Killer Whale (*Orcinus orca*) Attacks and Ship Collisions Based on Scarring on Bowhead Whales (*Balaena mysticetus*) of the Bering-Chukchi-Beaufort Seas Stock. Arctic 47(3): 247-255.

George, J.C., R.S. Suydam, L.M. Philo, T.F. Albert, J.E. Zeh, and G.M. Carroll. 1995. Report of the Spring 1993 Census of Bowhead Whales, *Balaena mysticetus*, off Point Barrow, Alaska, with Observations on the 1993 Subsistence Hunt of Bowhead Whales by Alaska Eskimos. Report of the International Whaling Commission 45.

Ljungblad, D.K., S.E. Moore, and J.T. Clarke. 1986. Assessment of Bowhead Whale (*Balaena mysticetus*) Feeding Patterns in the Alaskan Beaufort and Northeastern Chukchi Seas via Aerial Sruveys, Fall 1979–84. Report of the International Whaling Commission 36: 264-272.

Miller, R.V., D.J. Rugh, J.H. Johnson. 1986. The Distribution of Bowhead Whales *Balaena mysticetus*, in the Chukchi Sea. Marine Mammal Science 2(3):214-222.

Richardson, W.J., C.R. Greene Jr., C.I. Malme, and D.H. Thomson. 1995. *Marine Mammals and Noise.* Academic Press, Inc.: San Francisco, California.

Richardson, W.J., K.J. Finley, G.W. Miller, R.A. Davis, and W.R. Koski. 1995. Feeding, Social and Migration Behavior of Bowhead Whales, *Balaena mysticetus*, in Baffin Bay vs. the Beaufort Sea—Regions with Different Amounts of Human Activity. Marine Mammal Science 11(1): 1-45.

Web Sites:

Alaska Native Regional Corporations. http://www.kstrom.net/isk/maps/ak/alaska.html

Alaska State Government. http://www.state.ak.us/

Code of Research Ethics and Guidelines for Cultural Respect. Alaska Native Science Commission (ANSC). http://www.nativescience.org

Principles for the Conduct of Research in the Arctic. Prepared by the Social Science Task Force of the U.S. Interagency Arctic Research Policy Committee (IARPC). Approved by IARPC, June 28, 1990. Washington D.C. 2pp. http://www.nsf.gov/od/opp/arctic/conduct.htm

Shelden, K.E.W. and D. Rugh. 1997. The Bowhead Whale, *Balaena mysticetus*: Its Historic and Current Status. National Marine Mammal Laboratory online publication. http://nmml.afsc.noaa.gov/CetaceanAssessment/bowhead/bmsos.htm