

# Traditional Alaska Eskimo Whaling and the Bowhead Quota

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*Traditions surrounding the hunting of bowhead whales have deep roots in Eskimo culture, reinforcing family ties and village cohesion. How do cultural needs for whaling become integrated with the international management of threatened whale stocks? The International Whaling Commission has sought to clarify the subsistence and cultural needs for Alaska Eskimo bowhead whaling. Over a period of more than a decade, anthropological research has identified and quantified those needs.*

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Inupiat and Yup'ik Eskimos of Alaska have harvested bowhead whales for over 2000 years as the large mammals migrate through nearshore leads that develop in the Bering, Chukchi and Beaufort seas each spring and as the whales return south in the fall. The bowhead harvest represents not only a major food resource but also a cultural focal point in Eskimo communities, and it is important in confirming social ties within and between communities.

The Eskimo pattern of hunting these marine mammals is to intercept them at the edge of the open leads as they migrate north, and a successful capture requires several boat crews in an organized, cooperative hunt. Since the whales are one of the first mammals to migrate north in the spring, they represent the beginning of the annual subsistence cycle. The harvest is celebrated at feasts and ceremonies. The meat and other products from the whale are systematically distributed to the partici-

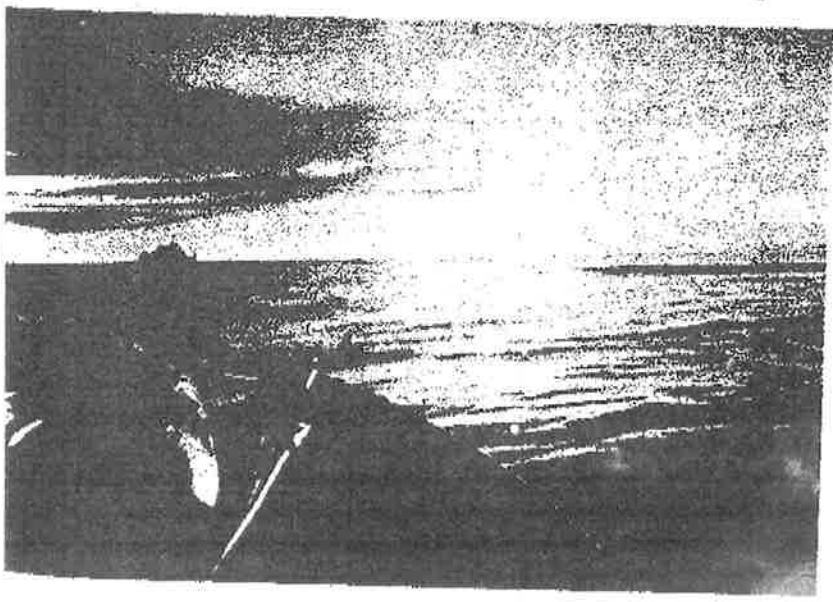
pating whaling captains, who in turn share their portion with their crew members, who then share with relatives and friends. The status of the successful whaling captain is very high in these communities, and crew members are proud to be associated with a successful boat. Crew members are generally relatives and close friends, and a long training period for a crew is standard procedure. Whaling equipment, including skin-covered boats, darting guns and harpoons, as well as traditional knowledge and skills, are transferred from generation to generation. The traditions of bowhead whaling have evolved over centuries, and they continue to be the basis of Inupiat and Yup'ik Eskimo social and cultural systems in Alaskan bowhead whaling communities today.

## Why Social Science and Whaling?

In 1931 the Convention for the Regulation of Whaling instituted an international ban on commercial hunting of bowhead whales, but no limit was placed on the Alaska Eskimo subsistence harvest. Since its formation in 1947 the International Whaling Commission (IWC) has regulated the commercial hunting of whales. However, an exemption for subsistence hunting enabled Alaska Eskimos to continue their subsistence harvest of western Arctic bowhead stock free of IWC regulation until 1977.

Due to the excessive commercial harvests of the late 19th and early 20th centuries, the IWC in the mid-1970s determined that all bowhead stocks, including the western Arctic population upon which the Alaska Eskimos depend, should be considered seriously depleted. Beginning in 1972 the

*Hunter preparing to strike a bowhead.*



IWC requested that the U.S. provide data regarding the status of the western Arctic bowhead population and the Alaska Eskimo hunts of this whale. As a result, in 1973 the U.S., through the National Marine Fisheries Service (NMFS) of the Department of Commerce, began to gather biological information on the bowhead and to monitor the Alaska Eskimo subsistence hunt.

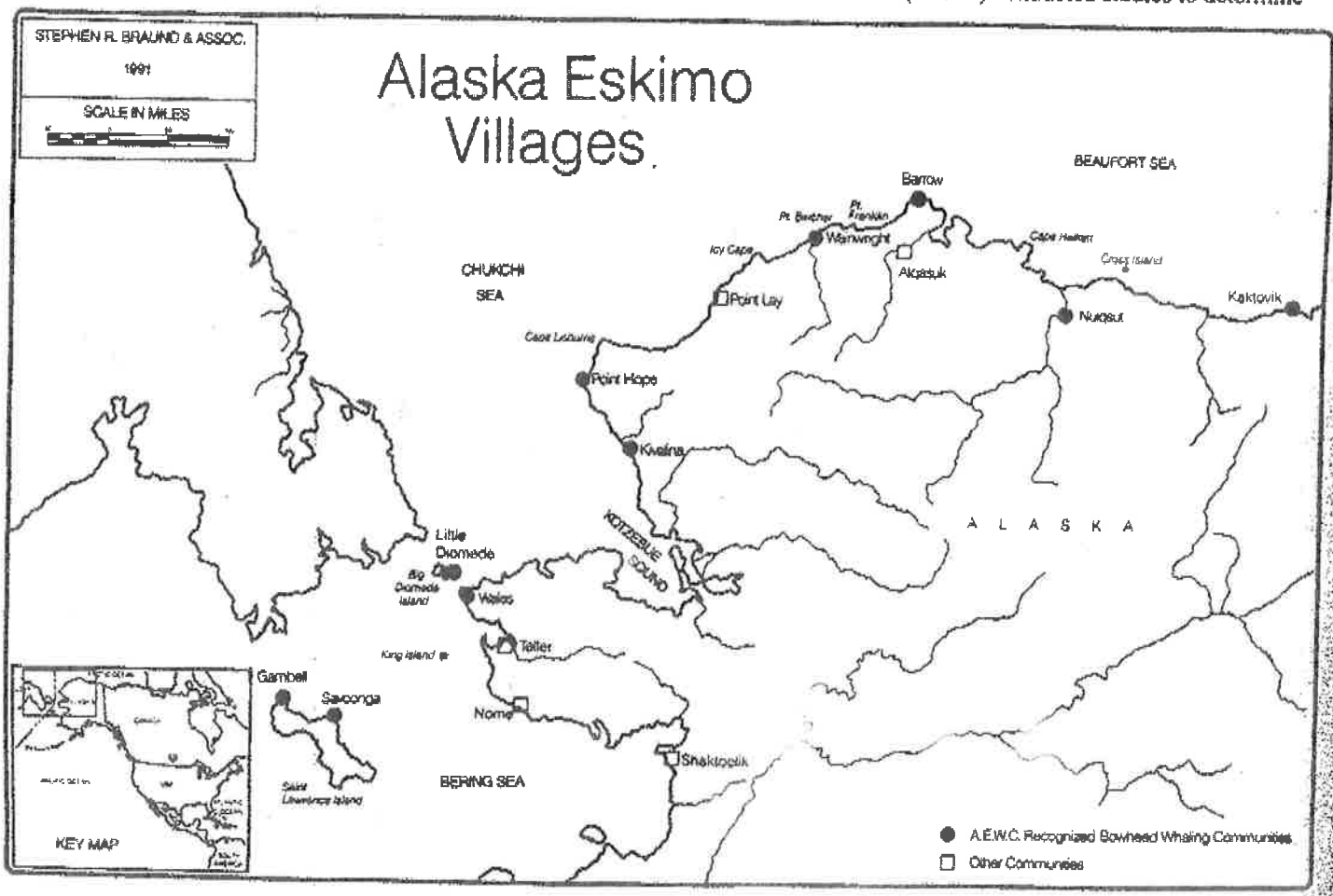
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Increasing concern among conservation groups and some IWC members over the effect of the unregulated Alaska Eskimo subsistence hunt on the endangered bowhead population was due to:

- The depleted bowhead stocks;
- The lack of data on the size and health of the bowhead population;
- Reported increases in the number of bowheads landed and the number struck but lost; and
- Reported increases in the number of Eskimo whaling crews in three major Alaskan whaling

communities during the early to mid-1970s. At that time the bowhead population was estimated to be so low that in June 1977 the IWC banned the subsistence harvest of bowhead whales for the 1978 season. At that point, whaling captains from nine Alaskan whaling communities (Gambell, Savoonga, Wales, Kivalina, Point Hope, Wainwright, Barrow, Nuiqsut and Kaktovik) met in Barrow and formed the Alaska Eskimo Whaling Commission (AEWC). The AEWC attended IWC committee meetings, initiated a bowhead census and worked with the U.S. delegation to the IWC to build a case for rescinding the moratorium on subsistence whaling. In a December 1977 special meeting the IWC removed the ban due to cultural and subsistence dependence on the bowhead by the Alaska Eskimos, and it implemented a 1978 quota of 12 whales landed or 18 struck, whichever occurred first. In addition the IWC asked the U.S. for further research on the biology of the bowhead, as well as on the cultural and subsistence needs of the Alaska Eskimos to hunt this species.

Foremost on everyone's mind was an answer to the question, "How many bowheads were there?" In the mid-1970s, little, if any, population data existed for the Bering Sea stock of bowhead whales. Beginning in 1976 the National Marine Fisheries Service (NMFS) conducted studies to determine



Villagers in Barrow pulling a whale out of the water and onto the ice using a large block and tackle. It takes a community effort to accomplish this arduous task.



that population. Because of the difficulty of counting the passing bowheads in changing ice conditions, some years' data were not considered suitable for deriving a population estimate. In 1978 favorable viewing conditions enabled an estimate of 2200 animals. In 1981 the North Slope Borough took over responsibility for the bowhead census and added acoustic techniques. The 1988 bowhead census, which is the most recent, yielded a "best estimate" of approximately 7500. The North Slope Borough is conducting a major field census in 1992.

## Identifying Cultural and Subsistence Needs

In addition to the question of how many bowheads there were, questions related to "cultural and subsistence" dependence or need by Alaska Eskimos for these animals also required an answer. Because of its trust relationship with Native Americans, the U.S. Department of Interior (USDOI) initiated research on this topic. An Inter-agency Advisory Committee on Bowhead Whaling was formed to oversee the research. The research had two directions: defining the cultural and subsistence importance of bowhead whales to Alaska Eskimos, and quantifying the cultural and subsistence need for bowhead whales.

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Thus the U.S. government had a dual research agenda related to bowhead whales and the Alaska Eskimos subsistence harvest of them. One was biological: what was the status of the bowhead stock? The other was social: did the Alaska Eskimos in the 1970s still have a cultural need for

these marine mammals and, if so, how many were required to satisfy that need? The ultimate decision on whether the Alaska Eskimos continued to receive a quota (based on cultural need) and how large that quota would be (based on both the quantification of cultural need and the number of bowheads available) rested with the IWC.

In 1980 the U.S. submitted a report compiled by the USDOI entitled *Interim Report on Aboriginal Subsistence Whaling of the Bowhead Whale by Alaska Eskimos*. Based on the information then available, the report examined the cultural and nutritional importance of the bowhead to the Eskimos, assessed historical bowhead harvests by community, and recommended a method of estimating Eskimo need for bowheads based on cultural requirements and historic catch. The IWC responded to this report by requesting a more thorough investigation of these issues. The information in the 1980 report on the cultural importance of the bowhead to the Eskimos was primarily based on historic data, not current information. Consequently the USDOI Bureau of Indian Affairs (BIA) sponsored a household survey conducted by Alaska Consultants, Inc. and Stephen R. Braund and Associates in 1982-83 in the nine Alaskan whaling villages identified at that time. This study set out to examine the present importance of bowhead whaling in these communities and determine whether the substitution of other subsistence and store-bought meats for bowhead whales was feasible.

## Quantifying Needs

Respondents from 370 households in the nine whaling villages were surveyed with a formal questionnaire. This sample represented 37% of the total 1980 Eskimo households in the nine villages. Whaling captains resided in 73 of the surveyed households and represented 60% of the AEW-registered whaling captains. The 1984 report from this study, *Subsistence Study of Alaska Eskimo Whaling Villages*, indicated a high level of interest and participation in bowhead whaling, as well as other strong indicators of cultural importance. Culturally important activities are the sharing of bowhead whales, participation in feasts and ceremonies featuring bowhead whales, and whaling as a means of reinforcing kinship ties. Particularly important are the status conferred by being captain and the intergenerational ties between fathers and sons, mothers and daughters that are strengthened through the transfer of knowledge and participation in community events. This study also found that neither store-bought meat nor any one species

or combination of wildlife resources was a practical substitute for the bowhead whale.

The 1984 study documented the importance of bowhead whaling to the Alaska Eskimo culture and the subsistence economy. The next step was to determine the number of bowhead whales necessary to fulfill this cultural need. Consequently the BIA asked Stephen R. Braund and Associates to prepare a position paper for providing a quantifiable determination of cultural and subsistence need for bowhead whales in Alaska Eskimo populations in the nine recognized whaling communities; the resulting paper was titled *Report on Nutritional, Subsistence, and Cultural Needs Relating to the Catch of Bowhead Whales by Alaskan Natives*. The factors considered most important in quantifying need were the Eskimo population, the number of whaling crews and the efficiency of their hunts. Because effective whaling requires numerous crews, a relatively large Eskimo population is necessary for cooperative hunting. Prior to contact with commercial whalers, the Eskimo populations in the whaling villages were large enough to support effective subsistence whaling. However, these populations dropped severely between 1885 and the early 20th century due to disease and famine, and they are only now recovering from this dramatic decline. Because of this trend the report concluded that the quantification of subsistence should be based on present Eskimo population levels, which represent the re-establishment of once-larger populations. The IWC accepted the report's per capita method of quantifying the cultural and subsistence need for bowhead whales. The report determined that the nine communities needed a minimum of 26 bowhead whales. Based on this assessment the U.S. and the AEWIC adopted the position of requesting an allowance of 35 strikes.

were compiled and reviewed to ensure that the best base period was used (1910 to 1969, a period free of both the commercial whaling influence and the effect of increased Eskimo whaling crews in the 1970s), to be sure that selective use of data did not occur, and to review the data for accuracy. The resulting 1988 paper, presented at the IWC meeting that year, was titled *Quantification of Subsistence and Cultural Need for Bowhead Whales by Alaska Eskimos*. This paper determined that the cultural need for the nine AEWIC whaling communities was 41 landed whales. Based on this report the IWC granted the nine whaling communities 41 landed whales or 44 strikes, with a carry-forward provision for up to three unused strikes. This 1988 quota was for three years (1989-1991). At the 1991 IWC meeting the quota of 41 landed bowhead whales for cultural and subsistence need remained in effect for the 1992-1994 seasons, with minor adjustments to the strike and carry-forward provisions.

### *The Omission of Little Diomed Island*

Recent social research related to the bowhead quota issue has centered on Little Diomed Island. Little Diomed, a small island in the Bering Sea, is very isolated from the rest of Alaska. The community is only accessible by boat during the ice-free summer months and by planes landing on the ocean ice between January and March, weather permitting. Because of isolation, lack of data and lack of communication, the community of Little Diomed was not included in quota requests to the IWC, the 1980, 1983 or 1988 analyses of subsistence and cultural need presented to the IWC, or the 1982-83 household survey. Those reports dealt only with the nine whaling communities identified at that time. In the 1988 report, whaling data for seven traditional whaling sites or communities (no longer occupied in 1988) were consolidated within the nine AEWIC whaling communities based on the current community's continued use of that site or on a demographic pattern in which the population of the now-abandoned site had resettled to one of the current whaling communities. However, Little Diomed had maintained a discrete population, so historical data for Little Diomed were not combined with those of any of the nine AEWIC communities. Some historical whaling data for Little Diomed had been collected, but these data represented only partial information; Little Diomed's whaling history had not been studied in depth and little was known about it. Also, Little Diomed was not a member of the AEWIC and

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In response to this paper, IWC member nations raised a number of questions about the methodology of data collection. The BIA again engaged Stephen R. Braund and Associates to refine the 1983 report to address those questions. Significant additional research attempted to fill data gaps related to historical bowhead whaling activities in Alaska Eskimo communities. All relevant data





*Butchering a bowhead whale, Wainwright, Alaska. The crew shares are in the foreground. Note the whale's baleen.*

was not an IWC-recognized whaling community. The combination of these factors left this community outside the formal processes that had been applied to Alaska Eskimo subsistence whaling.

However, the community has been attempting to obtain a bowhead quota ever since they learned that a quota was necessary to hunt bowhead whales. In 1986 the Diomedes City Council passed a resolution requesting a whaling quota and stating that their isolation had caused them to be excluded from the existing whaling quota, that they relied primarily on marine mammals for their food and livelihood, and that they have hunted whales since time beyond their memory. In 1988 Little Diomedes was granted membership in the AEWC.

However, for Little Diomedes Island to receive a bowhead quota, the community must be recognized as a bowhead whaling village by the IWC. This process includes an AEWC request for a quota on behalf of Little Diomedes Island. Before the AEWC will make this request, they must prove to the IWC that Little Diomedes, like the other nine IWC-recognized Alaskan whaling communities, "needs" a bowhead whale hunt. Once this need is established, the AEWC will request that the IWC allocate an additional quota to fulfill that need. Hence, a study and report on Little Diomedes's subsistence and cultural need for bowhead whales is required. Towards this end, the AEWC received a grant from the BIA and contracted with Stephen R. Braund and Associates, which has initiated research for this report.

The research team gathered information on Little Diomedes Island bowhead harvests, the Eskimo population, their bowhead hunting history and the cultural significance of bowhead whaling. As with the 1988 study, the team relied on repository, library and archival sources as well as field data collection. The data indicated a rich whaling history

and numerous parallels to whaling practiced by the other Alaska Eskimo whaling communities. These parallels include the cooperative nature of the hunt (organized around the skin boat crews based on kinship ties and the village), the communal, formalized patterns of sharing ensuring participation of the whole village in securing and processing the whale, and participation in feasts and ceremonies in which the bowhead whale was eaten. Hence, the taking of a whale and distribution of the meat and maktak\* integrated the community and reinforced mutual interdependence and cooperation.

Also similar to the other whaling communities, Little Diomedes's fluctuations in whaling activities correlate with human population declines and increases. The Little Diomedes population reached a low point in 1969 (also a time of little or no whaling activity), but it has increased steadily since that time. During periods of low human population, it is difficult to cooperatively hunt, tow, land and butcher bowhead whales. Combined with poor economic conditions, a lack of whaling equipment and many poor ice years, Little Diomedes had a period of relatively unsuccessful whaling beginning in the 1940s. The population of Little Diomedes Island has been increasing since 1960. This increase has been accompanied with a cultural resurgence in the 1970s and 1980s, similar to other areas of Alaska. The Diomedes population is now above the historic threshold for successful bowhead whaling. However, this renewed interest and high population level have occurred at a time when regulations prevent Little Diomedes Island residents from whaling. In the nine IWC-recognized Alaska Eskimo whaling communities, the IWC has accepted the method of quantifying need based on present population levels, which represent the re-establishment of once-larger populations.

In 1991 Little Diomedes had eight active boat crews, whaling equipment, five walrus-skin boats, two aluminum boats and a wooden boat. Residents were making and acquiring whaling equipment in anticipation of a bowhead quota.

The study team applied the IWC-accepted method of quantifying cultural and subsistence need for bowhead whales by Alaska Eskimos to the Little Diomedes landed bowhead whale and human population data. This involves matching the number of bowheads landed each year with the community population for the same year. Then, dividing the sum of the total bowheads landed by the sum of the total population (for years landed data are available) yielded the mean number of bowhead landed per capita. Multiplying this mean number of bow-

\* Maktak is bowhead whale skin with a layer of attached blubber and is the most esteemed food in these communities.

head by the 1990 population of the community resulted in the present subsistence and cultural need for Little Diomedede to be one landed bowhead whale. The Little Diomedede Island estimate of need for an additional (tenth) Alaskan whaling community represents an addition to the 41 landed whales fulfilling the need of the nine IWC-recognized whaling communities.

This study, performed in support of Little Diomedede residents' bowhead quota request, was submitted to the AEWG in May 1991. The AEWG submitted the report to the BIA, and the U.S. distributed it as a draft report at the 43rd IWC annual meeting in 1991 at Reykjavik, Iceland. In June 1992 at the 44th IWC annual meeting in Glasgow, Scotland, the U.S. officially presented the final version of this report at the Aboriginal/Subsistence Subcommittee. The U.S. proposed that the IWC recognize Little Diomedede's need but not amend the subsistence bowhead quota at this time. Thus, the IWC has recognized Little Diomedede Eskimos' cultural and subsistence need for bowhead whales but has not yet granted a formal quota in support of this need.

## Conclusion

Social science research has played an important role in both documenting the human need for a resource and quantifying that need. The IWC addresses both the biological status of whale stocks and the social and cultural needs of the people

who use these stocks. Although biological considerations are fundamental to any sustained harvest of whales, the social science approach to documenting and quantifying subsistence and cultural needs has played an important role in this global forum. The IWC has granted a bowhead quota to the Alaska Eskimos, acknowledging the validity of cultural needs in global resource allocation issues.

## Publications

Readers may obtain further information about the research discussed in this article from the following publications:

*Subsistence Study of Alaska Eskimo Whaling Villages*, by Alaska Consultants, Inc. and Stephen R. Braund and Associates; Prepared for Bureau of Indian Affairs, U.S. Department of the Interior, 1984.

*Subsistence and Cultural Need for Bowhead Whales by the Village of Little Diomedede, Alaska*, by Stephen R. Braund and Associates; International Whaling Commission Report IWC/44/AS2, prepared for the Alaska Eskimo Whaling Commission, Barrow, Alaska, 1991.

*Quantification of Subsistence and Cultural Need for Bowhead Whales by Alaska Eskimos*, by S.R. Braund, S.W. Stoker and J.A. Kruse; International Whaling Commission Report TC/40/AS2, prepared for the Bureau of Indian Affairs, U.S. Department of the Interior, 1988.